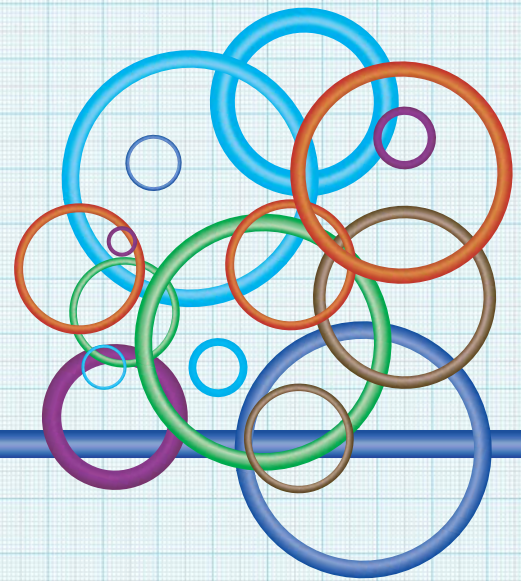




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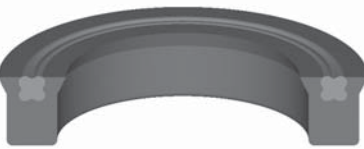




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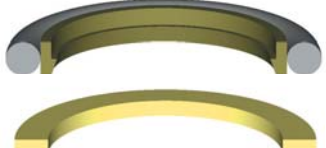
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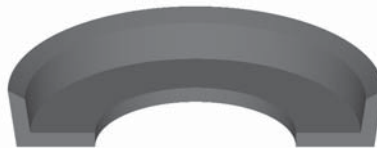
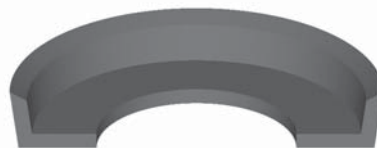
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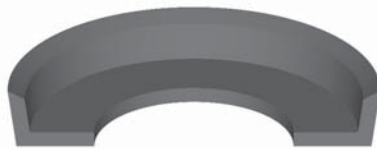
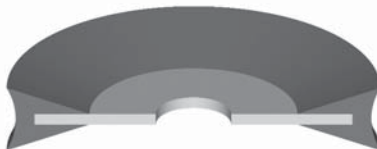







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	<b>MKR</b>		<b>Style MKR Buffer Seals</b>	Filled PTFE Buffer Rubber Energizer	<b>238 - 239</b>
	<b>MNBR</b>		<b>Style MNBR Buffer Seals</b>	Nylon / PTFE Buffer Rubber Energizer	<b>239</b>
	<b>MSBR</b>		<b>Style MSBR Buffer Seals</b>	Nylon Buffer Rubber Energizer	<b>240</b>
	<b>MYBR</b>		<b>Style MYBR Buffer Seals</b>	Filled PTFE Buffer Rubber Energizer	<b>240</b>

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	MVS		Style MVS Vee Packing	Rubber & Urethane Rings Nylon Adaptors	241 - 242
PISTON SEAL ASSEMBLIES	MPS		Style MPS Two Piece Piston Seals	PTFE Piston Seal Rubber Energizer	243 - 244
	MPSU		Style MPSU Two Piece Piston Seals	Glass / PTFE Filled Polyester Piston Seal Rubber Expander	245
	MBNP		Style MBNP Piston Seal Anti-Extrusion Rings	Nylon Back-Up Ring	246
	MCPS		Style MCPS Four Piece Piston Seals	PTFE Cap Nylon Back-Up Rubber Expander	246 - 247
	CTC		Caterpillar® Specific Piston Seals	See Charts On Page	247
	MPSA		Style MPSA Five Piece Piston Seals	Fabric Reinforced Piston Seal Polyacetal Anti-Extrusion Ring	248 - 249
	MPSB		Style MPSB Three Piece Piston Seals	Fabric Reinforced Piston Seal Polyacetal Anti-Extrusion Ring	249




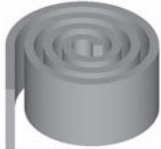







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## METRIC SEALS

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<b>PISTON SEAL ASSEMBLIES</b>	<b>MPSA-58</b>		<b>Style MPSA-58 Three Piece Piston Seals</b>	Fabric Reinforced Piston Seal Polyacetal Anti- Extrusion Ring	<b>250</b>
	<b>MPSA-59</b>		<b>Style MPSA-59 Three Piece Piston Seals</b>	Fabric Reinforced Piston Seal Polyacetal Anti- Extrusion Ring	<b>250</b>
	<b>MPSA-65</b>		<b>Style MPSA-65 Two Piece Piston Seals</b>	Nitrile Piston Seal Acetal Bearings	<b>251</b>
	<b>MNCF</b>		<b>Style MNCF Five Piece Piston Seals</b>	Rubber / Fabric Piston Seal PTFE Back-Up Rings Nylon Bearings	<b>251</b>
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<b>WEAR RINGS</b>	<b>MWR</b>		<b>Style MWR Wear Rings</b>	Nylon	<b>253 - 254</b>
	<b>MWRB</b>		<b>Style MWRB Wear Rings</b>	Phenolic	<b>254 - 256</b>
	<b>MWRT</b>		<b>Style MWRT Wear Rings</b>	Filled PTFE	<b>256 - 257</b>










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	<b>MGB</b>		<b>Style MGB Flexible Guide Bearings</b>	Bronze Filled PTFE	<b>258</b>
	<b>MDU</b>		<b>Style MDU Rod Bushings</b>	Bronze Lining PTFE Lead Overlay Steel Backing	<b>259 - 260</b>
	<b>MRB</b>		<b>Style MRB Rod Bushings</b>	Nylon	<b>260</b>
	<b>MWRA-L</b>		<b>Style MWRA-L L-Shaped Rod Wear Rings</b>	Acetal	<b>260</b>
	<b>MBB</b>		<b>Style MBB Piston Bushings</b>	Bronze	<b>261</b>
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	<b>MSWE</b>		<b>Style MSWE Snap-In Wipers</b>	Urethane	<b>262</b>
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	<b>MSWS</b>		<b>Style MSWS Snap-In Wipers</b>	Urethane	<b>264</b>
	<b>MSWN</b>		<b>Style MSWN Snap-In Wipers</b>	Nitrile	<b>264</b>
	<b>CSWM</b>		<b>Style CSWN Snap-In Wipers</b>	Nylon	<b>265</b>
	<b>MDK</b>		<b>Style MDK Snap-In Wipers</b>	Nitrile	<b>265</b>
	<b>MWSCK</b>		<b>Style MWSCK Snap-In Wipers</b>	Nitrile	<b>266</b>
	<b>MCKBI</b>		<b>Style MCKBI Metal Clad Wipers</b>	Urethane Lip Steel Case	<b>266</b>
	<b>MCW</b>		<b>Style MCW Metal Clad Wipers</b>	Urethane Lip Steel Case	<b>267</b>
	<b>MCWE</b>		<b>Style MCWE Metal Clad Wipers</b>	Urethane Lip Steel Case	<b>267</b>







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	<b>MCWS</b>		<b>Style MCWS Metal Clad Wipers</b>	Urethane Lip Steel Case SS Spring	<b>268</b>
	<b>MCKB</b>		<b>Style MCKB Metal Clad Wipers</b>	Nitrile Lip Steel Case	<b>269</b>
	<b>MCWN</b>		<b>Style MCWN Metal Clad Wipers</b>	Nitrile Lip Steel Case	<b>269 - 270</b>
<b>PIN SEALS</b>	<b>MDS</b>		<b>Style MDS Lip Pin Dust Seals</b>	Nitrile Lip Steel Case	<b>271</b>
	<b>MCWA</b>		<b>Style MCWA Metal Clad Wipers</b>	Urethane Lip Steel Case	<b>271</b>
<b>OIL SEALS</b>	<b>MOS</b>		<b>Style MOS Oil Seals</b>	Rubber Lip Steel Case	<b>272 - 274</b>
<b>O-RINGS</b>	<b>MOR</b>		<b>Style MOR O-Rings</b>	70A or 90A Durometer Nitrile or 75A Durometer Fluorocarbon	<b>277 - 287</b>
<b>BACK-UP RINGS</b>	<b>MBT</b>		<b>Style MBT Back-Up Rings</b>	PTFE	<b>290 - 291</b>

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RETAINER RINGS	MSL		Spiral Internal Retainer Rings	Steel	292
	M300		Internal Retainer Rings (Tru-Arc Type)	Steel	292
	M310		External Retainer Rings (Tru-Arc Type)	Steel	292
	MSR		Style MSR U-Seal Retainer Rings	Acetal	293
MISC.	MHH		Self Aligning Bearings	Carbon Chromium Steel	294

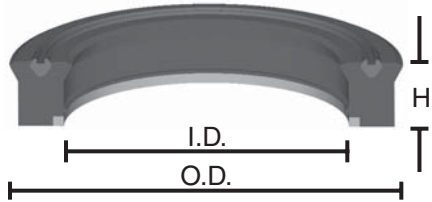


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# STYLE RTUB SUPER-DUTY ROD U-SEALS

Featuring high pressure and high shock load capability, this seal utilizes the same twin lip design found in the RTU style. With the main body of the seal molded from high performance polyurethane, this seal incorporates a dynamically designed nitrile energizer and a tough polyacetal anti-extrusion ring. It is capable of pressures up to 10,000 PSI.



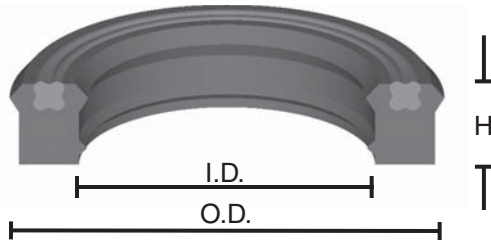
SEAL INFORMATION					
MATERIAL	94 A URETHANE SEAL RUBBER ENERGIZER POLYACETAL ANTI-EXTRUSION RING				
MAXIMUM OPERATING PRESSURES					
MAXIMUM SPEED FT./SECOND	TEMPERATURE RANGE -50° to +175° F		TEMPERATURE RANGE -50° to +230° F		
3 1.5	5,500 PSI 10,000 PSI		5,000 PSI 7,500 PSI		
MAXIMUM EXTRUSION GAP					
PRESSURE	2,400 PSI	3,750 PSI	6,000 PSI	7,500 PSI	10,000 PSI
MAX. RADIAL GAP	.040"	.032"	.024"	.016"	.010"
PART NUMBER	(Prefix)(CS) - (I.D.) - (Height)				

Part Number	I.D.	O.D.	H.	
3/16" C/S				
RTUB18-1.50-25	1-1/2	1-7/8	1/4	
RTUB18-1.50-31	1-1/2	1-7/8	5/16	
RTUB18-1.75-25	1-3/4	2-1/8	1/4	
RTUB18-1.75-37	1-3/4	2-1/8	3/8	
RTUB18-2.00-37	2	2-3/8	3/8	
RTUB18-3.75-37	3-3/4	4-1/8	3/8	
1/4" C/S				
RTUB25-1.50-37	1-1/2	2	3/8	
RTUB25-1.75-37	1-3/4	2-1/4	3/8	
RTUB25-2.00-37	2	2-1/2	3/8	
RTUB25-2.25-37	2-1/4	2-3/4	3/8	
RTUB25-2.37-37	2-3/8	2-7/8	3/8	
RTUB25-2.50-37	2-1/2	3	3/8	
RTUB25-2.75-37	2-3/4	3-1/4	3/8	
RTUB25-3.00-37	3	3-1/2	3/8	
RTUB25-3.25-37	3-1/4	3-3/4	3/8	
RTUB25-3.50-37	3-1/2	4	3/8	
RTUB25-4.00-37	4	4-1/2	3/8	
RTUB25-4.00-56	4	4-1/2	9/16	

Part Number	I.D.	O.D.	H.	
1/4" C/S				
RTUB25-4.50-37	4-1/2	5	3/8	
RTUB25-4.50-56	4-1/2	5	9/16	
RTUB25-5.00-56	5	5-1/2	9/16	
RTUB25-5.50-56	5-1/2	6	9/16	
RTUB25-6.00-56	6	6-1/2	9/16	
5/16" C/S				
RTUB31-3.00-50	3	3-5/8	1/2	
RTUB31-3.50-50	3-1/2	4-1/8	1/2	
RTUB31-4.00-56	4	4-5/8	9/16	
RTUB31-4.50-62	4-1/2	5-1/8	5/8	
RTUB31-5.00-62	5	5-5/8	5/8	
3/8" C/S				
RTUB37-3.00-62	3	3-3/4	5/8	
RTUB37-4.00-62	4	4-3/4	5/8	
RTUB37-4.50-62	4-1/2	5-1/4	5/8	
RTUB37-5.00-62	5	5-3/4	5/8	
RTUB37-6.00-62	6	6-3/4	5/8	

## STYLE RTUL LOADED ROD U-SEAL

Molded from high performance polyurethane, Style RTUL Rod U-Seals feature an expander for good low pressure sealing. The twin lip feature reduces friction and promotes stability.



### SEAL INFORMATION

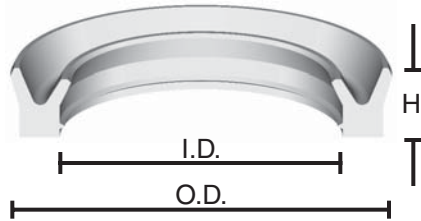
MATERIAL	95 A URETHANE
TEMPERATURE RANGE	-65° TO +250°F
PRESSURE RANGE	0 TO 5,000 PS
PART NUMBER	(Prefix)(CS) - (Inside Dia) - (Height)

Part Number	I.D.	O.D.	H.	
<b>7/32" C/S</b>				
RTUL21-1.25-31BHT	1-1/4	1-11/16	5/16	
RTUL21-1.25-39BHT	1-1/4	1-11/16	0.390	
RTUL21-1.37-31BHT	1-3/8	1-13/16	5/16	
RTUL21-1.37-39BHT	1-3/8	1-13/16	0.390	
RTUL21-1.37-39BHT	1-3/8	1-13/16	0.390	
RTUL21-1.50-37BHT	1-1/2	1-15/16	3/8	
RTUL21-1.62-37BHT	1-5/8	2-1/16	3/8	

Part Number	I.D.	O.D.	H.	
<b>7/32" C/S</b>				
RTUL21-1.62-39BHT	1-5/8	2-1/16	0.390	
RTUL21-1.75-37BHT	1-3/4	2-3/16	3/8	
RTUL21-1.75-39BHT	1-3/4	2-3/16	0.390	
<b>1/4" C/S</b>				
RTUL25-1.75-37BHT	1-3/4	2-1/4	3/8	
RTUL25-2.00-37BHT	2	2-1/2	3/8	
RTUL25-2.25-37BHT	2-1/4	2-3/4	3/8	

# STYLE RTU ASYMMETRIC TWIN LIP ROD U-SEALS

The twin lip design helps solve difficult rod sealing problems by providing lower friction, increased stability, and high dynamic lip force, while preventing air penetration from outside the cylinder.



## SEAL INFORMATION

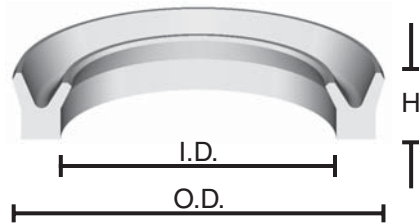
MATERIAL	94 A URETHANE
TEMPERATURE RANGE	-65° TO +220°F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix)(CS) - (Inside Dia) - (Height)

Part Number	I.D.	O.D.	H.	
<b>1/8" C/S</b>				
RTU12-0.62-25	5/8	7/8	1/4	
RTU12-0.75-25	3/4	1	1/4	
RTU12-0.87-25	7/8	1-1/8	1/4	
RTU12-1.00-18	1	1-1/4	3/16	
RTU12-1.00-25	1	1-1/4	1/4	
RTU12-1.12-19	1-1/8	1-3/8	.19	
RTU12-1.25-19	1-1/4	1-1/2	.19	
RTU12-1.25-25	1-1/4	1-1/2	1/4	
RTU12-1.37-19	1-3/8	1-5/8	.197	
RTU12-1.50-25	1-1/2	1-3/4	1/4	
RTU12-2.00-25	2	2-1/4	1/4	
<b>3/16" C/S</b>				
RTU18-1.00-31	1	1-3/8	5/16	
RTU18-1.12-31	1-1/8	1-1/2	5/16	
RTU18-1.25-23	1-1/4	1-5/8	15/64	
RTU18-1.25-31	1-1/4	1-5/8	5/16	
RTU18-1.25-37HT	1-1/4	1-5/8	3/8	
RTU18-1.37-31	1-3/8	1-3/4	5/16	
RTU18-1.50-25	1-1/2	1-7/8	1/4	
RTU18-1.50-31	1-1/2	1-7/8	5/16	
RTU18-1.50-37	1-1/2	1-7/8	3/8	
RTU18-1.62-31	1-5/8	2	5/16	
RTU18-1.75-25	1-3/4	2-1/8	1/4	
RTU18-1.75-31	1-3/4	2-1/8	5/16	
RTU18-2.00-31	2	2-3/8	5/16	
RTU18-2.00-37	2	2-3/8	3/8	
RTU18-2.50-31	2-1/2	2-7/8	5/16	
RTU18-3.00-37	3	3-3/8	3/8	
RTU18-3.12-62	3-1/8	3-1/2	5/8	
RTU18-3.25-56	3-1/4	3-5/8	9/16	
RTU18-3.50-37	3-1/2	3-7/8	3/8	
RTU18-4.00-37	4	4-3/8	3/8	

Part Number	I.D.	O.D.	H.	
<b>1/4" C/S</b>				
RTU25-1.00-25	1	1-1/2	1/4	
RTU25-1.00-37	1	1-1/2	3/8	
RTU25-1.25-37	1-1/4	1-3/4	3/8	
RTU25-1.37-37HT	1-3/8	1-7/8	3/8	
RTU25-1.50-37	1-1/2	2	3/8	
RTU25-1.75-37	1-3/4	2-1/4	3/8	
RTU25-2.00-31	2	2-1/2	5/16	
RTU25-2.00-37	2	2-1/2	3/8	
RTU25-2.25-37	2-1/4	2-3/4	3/8	
RTU25-2.50-28	2-1/2	3	9/32	
RTU25-2.50-37	2-1/2	3	3/8	
RTU25-2.75-31	2-3/4	3-1/4	5/16	
RTU25-2.75-37	2-3/4	3-1/4	3/8	
RTU25-3.00-37	3	3-1/2	3/8	
RTU25-3.00-75	3	3-1/2	25/32	
RTU25-3.25-37	3-1/4	3-3/4	3/8	
RTU25-3.50-31	3-1/2	4	5/16	
RTU25-3.50-37	3-1/2	4	3/8	
RTU25-4.00-37	4	4-1/2	3/8	
RTU25-4.00-75	4	4-1/2	25/32	
RTU25-4.50-37	4-1/2	5	3/8	
RTU25-5.00-37	5	5-1/2	3/8	
RTU25-5.00-75	5	5-1/2	25/32	
RTU25-5.50-37	5-1/2	6	3/8	
RTU25-6.00-75	6	6-1/2	25/32	
RTU25-7.00-75	7	7-1/2	25/32	
RTU25-8.12-75	8-1/8	8-5/8	25/32	
RTU25-9.37-75	9-3/8	9-7/8	25/32	
<b>5/16" C/S</b>				
RTU31-4.50-50	4-1/2	5-1/8	1/2	

# STYLE RU URETHANE ROD U-SEALS

Style RU seals are molded from high quality urethane and designed specifically for rod applications.



## SEAL INFORMATION

MATERIAL	90 A URETHANE
TEMPERATURE RANGE	-65° TO +220°F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix)(CS) - (Inside Dia) - (Height)

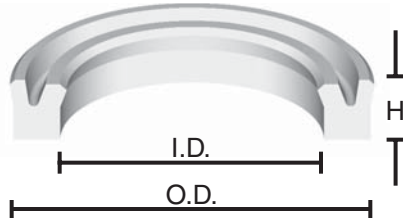
Part Number	I.D.	O.D.	H.	
<b>3/16" C/S</b>				
RU18-2.00-31P	2	2-5/8	5/16	
RU18-2.66-30	2.66	3.03	.30	
<b>1/4" C/S</b>				
RU25-1.50-37	1-1/2	2	3/8	
RU25-1.75-37	1-3/4	2-1/4	3/8	
RU25-1.75-50	1-3/4	2-1/4	1/2	
RU25-2.00-37	2	2-1/2	3/8	
RU25-2.50-37	2-1/2	3	3/8	
RU25-3.00-37	3	3-1/2	3/8	

Part Number	I.D.	O.D.	H.	
<b>5/16" C/S</b>				
RU31-2.62-62	2-5/8	3-1/4	5/8	
RU31-3.37-50	3-3/8	4	1/2	
RU31-3.75-62	3-3/4	4-3/8	5/8	
RU31-4.62-62	4-5/8	5-1/4	5/8	
RU31-5.75-62	5-3/4	6-3/8	5/8	
RU31-6.75-62	6-3/4	7-3/8	5/8	
<b>7/16" C/S</b>				
RU43-4.75-75	4-3/4	5-5/8	3/4	



# STYLE DRU HEAVY DUTY ROD U-SEALS

These seals are specifically designed to seal on their inside diameter and engineered to attain maximum life and reliability in dynamic rod sealing.



## SEAL INFORMATION

MATERIAL	92 A URETHANE
TEMPERATURE RANGE	-40° TO +230° F
PRESSURE RANGE	0 TO 6,000 PSI
PART NUMBER	(Prefix)(CS) - (Inside Dia) - (Height)

Part Number	I.D.	O.D.	H.	
<b>1/8" C/S</b>				
DRU12-0.62-18	5/8	7/8	3/16	
DRU12-0.75-12	3/4	1	1/8	
DRU12-0.75-25	3/4	1	1/4	
DRU12-0.87-12	7/8	1-1/8	1/8	
DRU12-1.00-12	1	1-1/4	1/8	
DRU12-1.00-18	1	1-1/4	3/16	
<b>3/16" C/S</b>				
DRU18-0.87-18	7/8	1-1/4	3/16	
DRU18-0.87-25	7/8	1-1/4	1/4	
DRU18-1.12-37	1-1/8	1-1/2	3/8	
DRU18-1.75-25	1-3/4	2-1/8	1/4	
DRU18-1.87-31	1-7/8	2-1/4	5/16	
DRU18-2.00-25	2	2-3/8	1/4	
DRU18-2.25-31	2-1/4	2-5/8	5/16	
DRU18-2.50-31	2-1/2	2-7/8	5/16	
<b>1/4" C/S</b>				
DRU25-0.93-37	15/16	1-7/16	3/8	
DRU25-1.00-25	1	1-1/2	1/4	
DRU25-1.12-25	1-1/8	1-5/8	1/4	
DRU25-1.25-25	1-1/4	1-3/4	1/4	
DRU25-1.25-31	1-1/4	1-3/4	5/16	
DRU25-1.50-31	1-1/2	2	5/16	
DRU25-1.62-31	1-5/8	2-1/8	5/16	
DRU25-1.87-37	1-7/8	2-3/8	3/8	
DRU25-2.00-25	2	2-1/2	1/4	
DRU25-2.00-31	2	2-1/2	5/16	
DRU25-2.12-37	2-1/8	2-5/8	3/8	
DRU25-2.37-37	2-3/8	2-7/8	3/8	
DRU25-2.50-25	2-1/2	3	1/4	

Part Number	I.D.	O.D.	H.	
<b>1/4" C/S</b>				
DRU25-2.50-31	2-1/2	3	5/16	
DRU25-2.62-37	2-5/8	3-1/8	3/8	
DRU25-3.37-37	3-3/8	3-7/8	3/8	
DRU25-3.75-59	3-3/4	4-1/4	19/32	
DRU25-4.00-25	4	4-1/2	1/4	
DRU25-4.00-56	4	4-1/2	9/16	
DRU25-4.50-56	4-1/2	5	9/16	
DRU25-5.00-56	5	5-1/2	9/16	
DRU25-5.25-59	5-1/4	5-3/4	19/32	
DRU25-6.75-59	6-3/4	7-1/4	19/32	
<b>5/16" C/S</b>				
DRU31-1.37-37	1-3/8	2	3/8	
DRU31-2.00-37	2	2-5/8	3/8	
DRU31-2.25-37	2-1/4	2-7/8	3/8	
DRU31-2.25-50	2-1/4	2-7/8	1/2	
DRU31-2.37-37	2-3/8	3	3/8	
DRU31-2.37-50	2-3/8	3	1/2	
DRU31-2.75-37	2-3/4	3-3/8	3/8	
DRU31-3.00-37	3	3-5/8	3/8	
DRU31-3.37-50	3-3/8	4	1/2	
DRU31-3.75-50	3-3/4	4-3/8	1/2	
DRU31-4.00-50	4	4-5/8	1/2	
DRU31-4.50-37	4-1/2	5-1/8	3/8	
<b>3/8" C/S</b>				
DRU37-2.00-37	2	2-3/4	3/8	
DRU37-2.00-50	2	2-3/4	1/2	
DRU37-3.00-37	3	3-3/4	3/8	
DRU37-3.00-62	3	3-3/4	5/8	
DRU37-3.50-37	3-1/2	4-1/4	3/8	

# STYLE DRU HEAVY DUTY ROD U-SEALS

Part Number	I.D.	O.D.	H.	
<b>3/8" C/S</b>				
DRU37-3.50-50	3-1/2	4-1/4	1/2	
DRU37-3.62-37	3-5/8	4-3/8	3/8	
DRU37-4.00-37	4	4-3/4	3/8	
DRU37-4.00-50	4	4-3/4	1/2	
DRU37-4.25-62	4-1/4	5	5/8	
DRU37-4.37-50	4-3/8	5-1/8	1/2	
DRU37-4.50-50	4-1/2	5-1/4	1/2	
DRU37-4.75-37	4-3/4	5-1/2	3/8	
DRU37-4.87-50	4-7/8	5-5/8	1/2	
DRU37-5.25-62	5-1/4	6	5/8	
DRU37-5.75-62	5-3/4	6-1/2	5/8	
DRU37-6.00-62	6	6-3/4	5/8	
DRU37-6.50-50	6-1/2	7-1/4	1/2	
DRU37-6.50-62	6-1/2	7-1/4	5/8	
DRU37-7.00-62	7	7-3/4	5/8	

Part Number	I.D.	O.D.	H.	
<b>7/16" C/S</b>				
DRU43-4.50-48	4-1/2	5-3/8	7/16	
<b>1/2" C/S</b>				
DRU50-10.00-62	10	11	5/8	
DRU50-10.00-75	10	11	3/4	
DRU50-12.00-75	12	13	3/4	
DRU50-5.00-75	5	6	3/4	
DRU50-7.00-69	7	8	11/16	
DRU50-7.00-75	7	8	3/4	
DRU50-9.00-62	9	10	5/8	
DRU50-9.00-75	9	10	3/4	
DRU50-9.50-75	9-1/2	10-1/2	3/4	
<b>3/4" C/S</b>				
DRU75-8.00-62	8	9-1/2	5/8	

## DON'T DAMAGE THAT U-SEAL TRY OUR ROD U-SEAL INSTALLATION TOOLS

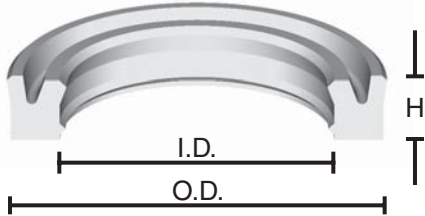
These handy tools aid U-seal installation, eliminating the risk of damaging the seal lip.

Part Number	Seal ID Range	
IT 100	3/4" to 1-1/4"	
IT 150	1-3/8" to 1-7/8"	
IT 200	2" to 3"	
IT 100-NN	3/4" to 1-1/4"	
IT 150-NN	1-3/8" to 1-7/8"	
IT 200-NN	2" to 3"	



# STYLE DRTU HEAVY DUTY ROD U-SEALS

These seals are specifically designed with a second lip on their inside diameter and engineered to attain maximum life and reliability in dynamic rod sealing. This feature results in reduced leakage, less friction, increased stability and prevents air and contaminants from entering the cylinder.



## SEAL INFORMATION

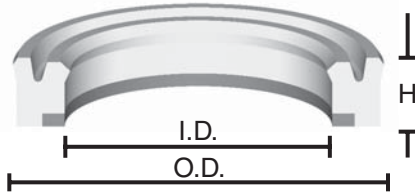
MATERIAL	92 A URETHANE
TEMPERATURE RANGE	-40° TO +230° F
PRESSURE RANGE	0 TO 6,000 PSI
PART NUMBER	(Prefix)(CS) - (Inside Dia) - (Height)

Part Number	I.D.	O.D.	H.	
<b>1/8" C/S</b>				
DRTU12-0.75-25	3/4	1	1/4	
DRTU12-1.00-25	1	1-1/4	1/4	
<b>3/16" C/S</b>				
DRTU18-0.75-25	3/4	1-1/8	1/4	
DRTU18-0.75-31	3/4	1-1/8	5/16	
DRTU18-1.00-31	1	1-3/8	5/16	
DRTU18-1.12-25	1-1/8	1-1/2	1/4	
DRTU18-1.12-31	1-1/8	1-1/2	5/16	
DRTU18-1.25-31	1-1/4	1-5/8	5/16	
DRTU18-1.25-37	1-1/4	1-5/8	3/8	
DRTU18-1.37-31	1-3/8	1-3/4	5/16	
DRTU18-1.50-25	1-1/2	1-7/8	1/4	
DRTU18-1.50-31	1-1/2	1-7/8	5/16	
DRTU18-1.50-37	1-1/2	1-7/8	3/8	
DRTU18-1.62-37	1-5/8	2	3/8	
DRTU18-1.75-31	1-3/4	2-1/8	5/16	
DRTU18-1.75-37	1-3/4	2-1/8	3/8	
DRTU18-1.87-37	1-7/8	2-1/4	3/8	
DRTU18-2.00-31	2	2-3/8	5/16	
DRTU18-2.00-37	2	2-3/8	3/8	
DRTU18-2.25-37	2-1/4	2-5/8	3/8	
DRTU18-2.50-37	2-1/2	2-7/8	3/8	
<b>1/4" C/S</b>				
DRTU25-1.00-37	1	1-1/2	3/8	
DRTU25-1.25-37	1-1/4	1-3/4	3/8	
DRTU25-1.37-37	1-3/8	1-7/8	3/8	
DRTU25-1.50-37	1-1/2	2	3/8	
DRTU25-1.75-31	1-3/4	2-1/4	5/16	
DRTU25-1.75-37	1-3/4	2-1/4	3/8	
DRTU25-2.00-37	2	2-1/2	3/8	

Part Number	I.D.	O.D.	H.	
<b>1/4" C/S</b>				
DRTU25-2.25-37	2-1/4	2-3/4	3/8	
DRTU25-2.37-37	2-3/8	2-7/8	3/8	
DRTU25-2.50-37	2-1/2	3	3/8	
DRTU25-2.75-37	2-3/4	3-1/4	3/8	
DRTU25-3.00-37	3	3-1/2	3/8	
DRTU25-3.25-31	3-1/4	3-3/4	5/16	
DRTU25-3.25-37	3-1/4	3-3/4	3/8	
DRTU25-3.50-37	3-1/2	4	3/8	
DRTU25-3.75-37	3-3/4	4-1/4	3/8	
DRTU25-4.00-37	4	4-1/2	3/8	
DRTU25-4.50-56	4-1/2	5	9/16	
DRTU25-4.75-56	4-3/4	5-1/4	9/16	
DRTU25-5.50-56	5-1/2	6	9/16	
<b>5/16" C/S</b>				
DRTU31-1.75-37	1-3/4	2-3/8	3/8	
DRTU31-1.75-50	1-3/4	2-3/8	1/2	
DRTU31-2.00-50	2	2-5/8	1/2	
DRTU31-2.50-50	2-1/2	3-1/8	1/2	
DRTU31-2.75-50	2-3/4	3-3/8	1/2	
DRTU31-3.00-50	3	3-5/8	1/2	
DRTU31-4.00-37	4	4-5/8	3/8	
<b>3/8" C/S</b>				
DRTU37-2.75-62	2-3/4	3-1/2	5/8	
DRTU37-3.00-50	3	3-3/4	1/2	
DRTU37-3.50-62	3-1/2	4-1/4	5/8	
DRTU37-4.00-62	4	4-3/4	5/8	
DRTU37-4.25-50	4-1/4	5	1/2	
DRTU37-4.50-62	4-1/2	5-1/4	5/8	
DRTU37-4.75-62	4-3/4	5-1/2	5/8	
DRTU37-5.00-62	5	5-3/4	5/8	

## STYLE DRUB HEAVY DUTY ROD U-SEALS

These seals are specifically designed to seal on their inside diameter and engineered to attain maximum life and reliability in dynamic rod sealing. They employ a hard plastic I.D. back-up ring to reduce the possibility of extrusion.



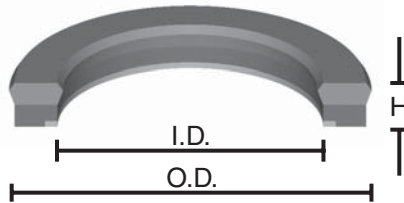
Part Number	I.D.	O.D.	H.
DRUB25-2.37-37	2-3/8	2-7/8	3/8
DRUB25-2.50-37	2-1/2	3	3/8
DRUB37-5.75-62	5-3/4	6-1/2	5/8

### SEAL INFORMATION

MATERIAL	92 A URETHANE
TEMPERATURE RANGE	-40° TO +230° F
PRESSURE RANGE	0 TO 6,000 PSI
PART NUMBER	(Prefix)(CS) - (Inside Dia) - (Height)

## STYLE UFN-EI ROD U-SEALS W/BACK-UP RINGS

Incorporating a rubber seal lip, a rubberized fabric heel and an acetal back-up ring. This seal provides excellent sealability and high extrusion resistance.



### SEAL INFORMATION

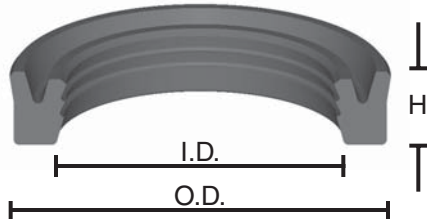
MATERIAL	RUBBER, FABRIC, ACETAL
TEMPERATURE RANGE	-22° TO +212° F
PRESSURE RANGE	0 TO 5,800 PSI
PART NUMBER	(Prefix)(CS) - (Inside Dia) - (Height)

Part Number	I.D.	O.D.	H.
<b>1/8" C/S</b>			
UFN12-1.00-18EI	1	1-1/4	3/16
UFN12-1.12-18EI	1-1/8	1-3/8	3/16
<b>5/32" C/S</b>			
UFN15-2.00-25EI	2	2-5/16	1/4
<b>0.17" C/S</b>			
UFN17-0.75-28EI	3/4	1.09	9/32
<b>3/16" C/S</b>			
UFN18-0.62-28EI	5/8	1	9/32
UFN18-0.75-31EI	3/4	1-1/8	5/16
UFN18-1.00-25EI	1	1-3/8	1/4
UFN18-1.25-25EI	1-1/4	1-5/8	1/4
UFN18-1.25-28EI	1-1/4	1-5/8	9/32
UFN18-1.37-28EI	1-3/8	1-3/4	9/32
UFN18-1.50-25EI	1-1/2	1-7/8	1/4
UFN18-1.50-28EI	1-1/2	1-7/8	9/32
UFN18-1.75-28EI	1-3/4	2-1/8	9/32
UFN18-1.75-30EI	1-3/4	2-1/8	0.300
UFN18-2.12-31EI	2-1/8	2-1/2	5/16
<b>7/32" C/S</b>			
UFN22-1.12-34EI	1-1/8	1-9/16	0.340
<b>1/4" C/S</b>			
UFN25-0.87-25EI	7/8	1-3/8	1/4
UFN25-1.00-25EI	1	1-1/2	1/4

Part Number	I.D.	O.D.	H.
<b>1/4" C/S</b>			
UFN25-1.00-37EI	1	1-1/2	3/8
UFN25-1.12-37EI	1-1/8	1-5/8	3/8
UFN25-1.25-37EI	1-1/4	1-3/4	3/8
UFN25-1.50-37EI	1-1/2	2	3/8
UFN25-1.50-46EI	1-1/2	2	0.460
UFN25-1.75-37EI	1-3/4	2-1/4	3/8
UFN25-2.00-31EI	2	2-1/2	5/16
UFN25-2.00-37EI	2	2-1/2	3/8
UFN25-2.25-37EI	2-1/4	2-3/4	3/8
UFN25-2.50-31EI	2-1/2	3	5/16
UFN25-3.50-37EI	3-1/2	4	3/8
UFN26-1.98-36EI	1.98	2-1/2	0.360
<b>5/16" C/S</b>			
UFN31-1.25-43EI	1-1/4	1-7/8	7/16
UFN31-1.50-43EI	1-1/2	2-1/8	7/16
UFN31-1.75-43EI	1-3/4	2-3/8	7/16
UFN31-2.00-43EI	2	2-5/8	7/16
UFN34-1.50-43EI	1-1/2	1.032	7/16
<b>3/8" C/S</b>			
UFN37-2.50-56EI	2-1/2	3-1/4	9/16
UFN37-2.75-56EI	2-3/4	3-1/2	9/16
UFN37-3.00-56EI	3	3-3/4	9/16
UFN37-3.50-56EI	3-1/2	4-1/4	9/16

## STYLE HMU POLYURETHANE U-SEALS

The HMU style multi-lip rod u-seal combines the pressure-compensating, uni-directional characteristics of a u-seal with the multi-lip sealing effectiveness of compression-type stacked-packings. Made from premium materials, the HMU utilizes several sealing lip edges for dry rod performance while minimizing friction. The multi-lip design maintains a critical sealing edge even though increasing pressure moves the line of contact down towards the heel.



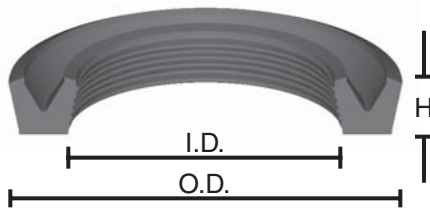
### SEAL INFORMATION

MATERIAL	92 A URETHANE
TEMPERATURE RANGE	-65° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix)(CS) - (Inside Dia) - (Height)

Part Number	I.D.	O.D.	H.
<b>1/8" C/S</b>			
HMU12-0.50-21U	1/2	3/4	7/32
HMU12-0.62-21U	5/8	7/8	7/32
<b>5/32" C/S</b>			
HMU15-1.00-21U	1	1-5/16	7/32
HMU15-1.37-24U	1-3/8	1-11/16	0.24
<b>3/16" C/S</b>			
HMU18-1.75-27U	1-3/4	2-1/8	0.27
HMU18-2.00-27U	2	2-3/8	0.27

Part Number	I.D.	O.D.	H.
<b>7/32" C/S</b>			
HMU21-2.50-30U	2-1/2	2.93	0.30
HMU21-3.00-30U	3	3-7/16	0.30
<b>1/4" C/S</b>			
HMU25-3.50-33U	3-1/2	4	0.33
HMU25-4.00-33U	4	4-1/2	0.33
HMU25-4.50-33U	4-1/2	5	0.33
<b>9/32" C/S</b>			
HMU28-5.00-35U	5	5-9/16	0.355
<b>5/16" C/S</b>			
HMU31-5.50-38U	5-1/2	6.12	0.38

## STYLE HMU HOMOGENOUS U-SEALS



N=BUNA-N  
V=FLUOROCARBON

### SEAL INFORMATION

MATERIAL	80 A BUNA-N RUBBER 90 A FLUOROCARBON
TEMPERATURE RANGE	BUNA-N: -40° TO +250° F FC: -20° TO +400° F
PRESSURE RANGE	BUNA-N: 0 TO 1,000 PSI FC: 0-2,000 PSI
PART NUMBER	(Prefix)(CS) - (Inside Dia) - (Height)

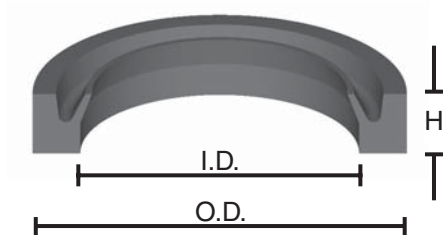
Part Number	I.D.	O.D.	H.
<b>1/8" C/S</b>			
HMU12-0.62-15N	5/8	7/8	5/32
HMU12-0.62-15V	5/8	7/8	5/32
<b>5/32" C/S</b>			
HMU15-1.00-18N	1	1-5/16	3/16
HMU15-1.00-18V	1	1-5/16	3/16
HMU15-1.37-18N	1-3/8	1-11/16	3/16
HMU15-1.37-18V	1-3/8	1-11/16	3/16

Part Number	I.D.	O.D.	H.
<b>3/16" C/S</b>			
HMU18-1.75-21N	1-3/4	2-1/8	7/32
HMU18-1.75-21V	1-3/4	2-1/8	7/32
HMU18-2.00-21N	2	2-3/8	7/32
HMU18-2.00-21V	2	2-3/8	7/32
<b>7/32" C/S</b>			
HMU21-2.50-24N	2-1/2	2.93	.24
HMU21-2.50-24V	2-1/2	2.93	.24
HMU21-3.00-24N	3	3-7/16	.24
HMU21-3.00-24V	3	3-7/16	.24



## STYLE UKR ROD U-SEALS

UKR u-seals are designed to act as a positive sealing, low friction replacement for conventional rubber u-seals. Molded from polyurethane, UKR u-seals provide long life and high resistance against extrusion. Low friction allows these seals to run smoothly in lubricated or non-lubricated cylinder. Available for rod sealing, the flexible dynamic lip provides very low breakaway friction and steady motion.



### SEAL INFORMATION

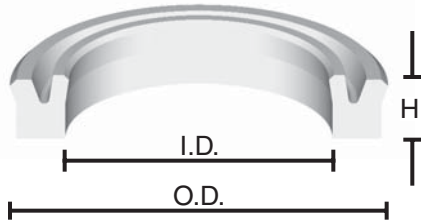
MATERIAL	90 A URETHANE
TEMPERATURE RANGE	-65° TO +220° F
PRESSURE RANGE	0 TO 150 PSI
PART NUMBER	(Prefix)(CS) - (Inside Dia)

Part Number	I.D.	O.D.	H.	
<b>3/32" C/S</b>				
UKR09-0.50	1/2	11/16	3/32	
<b>1/8" C/S</b>				
UKR12-0.37	3/8	5/8	1/8	
UKR12-0.50	1/2	3/4	1/8	
UKR12-0.62	5/8	7/8	1/8	
UKR12-0.75	3/4	1	1/8	
UKR12-0.87	7/8	1-1/8	1/8	
UKR12-1.00	1	1-1/4	1/8	
UKR12-1.12	1-1/8	1-3/8	1/8	

Part Number	I.D.	O.D.	H.	
<b>5/32" C/S</b>				
UKR15-1.00	1	1-5/16	5/32	
UKR15-1.25	1-1/4	1-9/16	5/32	
UKR15-1.37	1-3/8	1-11/16	5/32	
<b>3/16" C/S</b>				
UKR18-1.50	1-1/2	1-7/8	3/16	
UKR18-1.75	1-3/4	2-1/8	3/16	
UKR18-2.00	2	2-3/8	3/16	
UKR18-2.25	2-1/4	2-5/8	3/16	

# STYLE DPU HEAVY DUTY PISTON U-SEALS

Specifically designed as piston seals, these u-seals are engineered to seal on their outside diameter. They offer extended service life and maximum reliability in piston sealing.



## SEAL INFORMATION

MATERIAL	92 A URETHANE
TEMPERATURE RANGE	-40° TO +230° F
PRESSURE RANGE	0 TO 6,000 PSI
PART NUMBER	(Prefix)(CS) - (Inside Dia) - (Height)

Part Number	I.D.	O.D.	H.	
<b>1/8" C/S</b>				
DPU12-0.75-12	3/4	1	1/8	
DPU12-1.00-25	1	1-1/4	1/4	
<b>3/16" C/S</b>				
DPU18-1.25-31	1-1/4	1-5/8	5/16	
DPU18-1.37-31	1-3/8	1-3/4	5/16	
DPU18-1.75-31	1-3/4	2-1/8	5/16	
DPU18-1.75-37	1-3/4	2-1/8	3/8	
DPU18-2.00-37	2	2-3/8	3/8	
DPU18-2.12-18	2-1/8	2-1/2	3/16	
DPU18-2.12-31	2-1/8	2-1/2	5/16	
DPU18-2.12-37	2-1/8	2-1/2	3/8	
DPU18-3.12-37	3-1/8	3-1/2	3/8	
<b>7/32" C/S</b>				
DPU21-0.25-37	1/4	11/16	3/8	
<b>1/4" C/S</b>				
DPU25-0.75-37	3/4	1-1/4	3/8	
DPU25-1.00-35	1	1-1/2	.357	
DPU25-1.00-37	1	1-1/2	3/8	
DPU25-1.12-31	1-1/8	1-5/8	5/16	
DPU25-1.25-37	1-1/4	1-3/4	3/8	
DPU25-1.50-31	1-1/2	2	5/16	
DPU25-1.50-37	1-1/2	2	3/8	
DPU25-1.75-37	1-3/4	2-1/4	3/8	
DPU25-2.00-37	2	2-1/2	3/8	
DPU25-2.06-25	2-1/16	2-9/16	1/4	
DPU25-2.06-34	2-1/16	2-9/16	11/32	
DPU25-2.25-31	2-1/4	2-3/4	5/16	
DPU25-2.25-37	2-1/4	2-3/4	3/8	
DPU25-2.50-37	2-1/2	3	3/8	

Part Number	I.D.	O.D.	H.	
<b>1/4" C/S</b>				
DPU25-2.75-37	2-3/4	3-1/4	3/8	
DPU25-3.00-37	3	3-1/2	3/8	
DPU25-3.12-37	3-1/8	3-5/8	3/8	
DPU25-3.25-37	3-1/4	3-3/4	3/8	
DPU25-3.50-37	3-1/2	4	3/8	
DPU25-3.62-37	3-5/8	4-1/8	3/8	
DPU25-3.75-37	3-3/4	4-1/4	3/8	
DPU25-4.00-37	4	4-1/2	3/8	
DPU25-4.00-56	4	4-1/2	9/16	
DPU25-4.50-37	4-1/2	5	3/8	
DPU25-4.50-43	4-1/2	5	7/16	
DPU25-4.50-56	4-1/2	5	9/16	
DPU25-5.00-37	5	5-1/2	3/8	
DPU25-5.00-56	5	5-1/2	9/16	
DPU25-5.50-25	5-1/2	6	1/4	
DPU25-5.50-37	5-1/2	6	3/8	
DPU25-5.50-50	5-1/2	6	1/2	
DPU25-5.50-56	5-1/2	6	9/16	
<b>5/16" C/S</b>				
DPU31-1.12-50	1-1/8	1-3/4	1/2	
DPU31-1.25-47	1-1/4	1-7/8	15/32	
DPU31-1.37-37	1-3/8	2	3/8	
DPU31-1.37-43	1-3/8	2	7/16	
DPU31-1.37-44	1-3/8	2	.440	
DPU31-1.37-50	1-3/8	2	1/2	
DPU31-1.62-50	1-5/8	2-1/4	1/2	
DPU31-1.87-37	1-7/8	2-1/2	3/8	
DPU31-2.37-37	2-3/8	3	3/8	
DPU31-2.37-50	2-3/8	3	1/2	

# STYLE DPU HEAVY DUTY PISTON U-SEALS

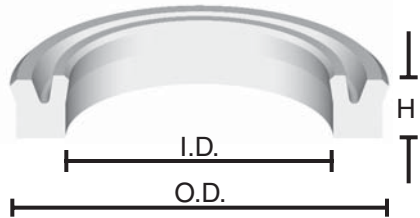
PISTON U-SEALS

Part Number	I.D.	O.D.	H.	
<b>5/16" C/S</b>				
DPU31-2.87-50	2-7/8	3-1/2	1/2	
DPU31-3.37-37	3-3/8	4	3/8	
DPU31-3.37-50	3-3/8	4	1/2	
DPU31-3.62-37	3-5/8	4-1/4	3/8	
DPU31-3.62-50	3-5/8	4-1/4	1/2	
DPU31-3.87-50	3-7/8	4-1/2	1/2	
DPU31-5.37-50	5-3/8	6	1/2	
<b>.32" C/S</b>				
DPU32-1.62-39	1.62	2.26	.39	
<b>3/8" C/S</b>				
DPU37-1.75-62	1-3/4	2-1/2	5/8	
DPU37-2.25-62	2-1/4	3	5/8	
DPU37-2.50-62	2-1/2	3-1/4	5/8	
DPU37-2.75-37	2-3/4	3-1/2	3/8	
DPU37-2.75-62	2-3/4	3-1/2	5/8	
DPU37-3.00-37	3	3-3/4	3/8	
DPU37-3.00-47-AN	3	3-3/4	15/32	
DPU37-3.00-50	3	3-3/4	1/2	
DPU37-3.25-37	3-1/4	4	3/8	
DPU37-3.25-50	3-1/4	4	1/2	
DPU37-3.25-62	3-1/4	4	5/8	
DPU37-3.50-37	3-1/2	4-1/4	3/8	
DPU37-3.75-37	3-3/4	4-1/2	3/8	
DPU37-3.75-50	3-3/4	4-1/2	1/2	
DPU37-3.75-62	3-3/4	4-1/2	5/8	
DPU37-4.25-37	4-1/4	5	3/8	
DPU37-4.25-50	4-1/4	5	1/2	
DPU37-4.25-62	4-1/4	5	5/8	
DPU37-4.37-50	4-3/8	5-1/8	1/2	
DPU37-4.50-37	4-1/2	5-1/4	3/8	
DPU37-4.50-50	4-1/2	5-1/4	1/2	
DPU37-4.50-62	4-1/2	5-1/4	5/8	
DPU37-4.75-50	4-3/4	5-1/2	1/2	
DPU37-4.75-62	4-3/4	5-1/2	5/8	
DPU37-5.00-50	5	5-3/4	1/2	
DPU37-5.25-37	5-1/4	6	3/8	
DPU37-5.25-50	5-1/4	6	1/2	
DPU37-5.25-62	5-1/4	6	5/8	

Part Number	I.D.	O.D.	H.	
<b>3/8" C/S</b>				
DPU37-5.50-37	5-1/2	6-1/4	3/8	
DPU37-5.75-37	5-3/4	6-1/2	3/8	
DPU37-5.75-62	5-3/4	6-1/2	5/8	
DPU37-6.00-50	6	6-3/4	1/2	
DPU37-6.25-37	6-1/4	7	3/8	
DPU37-6.25-50	6-1/4	7	1/2	
DPU37-6.25-62	6-1/4	7	5/8	
DPU37-6.50-62	6-1/2	7-1/4	5/8	
DPU37-6.75-50	6-3/4	7-1/2	1/2	
DPU37-7.25-37	7-1/4	8	3/8	
DPU37-7.25-50	7-1/4	8	1/2	
DPU37-7.25-62	7-1/4	8	5/8	
<b>.380" C/S</b>				
DPU38-2.00-48	2	2.765	.486	
DPU38-2.50-48	2-1/2	3.260	.486	
<b>1/2" C/S</b>				
DPU50-10.00-62	10	11	5/8	
DPU50-10.00-75	10	11	3/4	
DPU50-11.00-62	11	12	5/8	
DPU50-11.00-75	11	12	3/4	
DPU50-4.12-59	4-1/8	5-1/8	.590	
DPU50-5.00-50	5	6	1/2	
DPU50-5.25-62	5-1/4	6-1/4	5/8	
DPU50-5.50-62	5-1/2	6-1/2	5/8	
DPU50-6.00-75	6	7	3/4	
DPU50-6.50-62	6-1/2	7-1/2	5/8	
DPU50-6.50-75	6-1/2	7-1/2	3/4	
DPU50-7.00-50	7	8	1/2	
DPU50-7.00-75	7	8	3/4	
DPU50-7.50-62	7-1/2	8-1/2	5/8	
DPU50-7.50-75	7-1/2	8-1/2	3/4	
DPU50-8.00-75	8	9	3/4	
DPU50-9.00-62	9	10	5/8	
DPU50-9.00-75	9	10	3/4	
<b>5/8" C/S</b>				
DPU62-3.50-56	3-1/2	4-3/4	9/16	
DPU62-9.25-75	9-1/4	10-1/2	3/4	

# STYLE PU URETHANE PISTON U-SEALS

Style PU seals are molded from high quality urethane and designed specifically for piston applications.



## SEAL INFORMATION

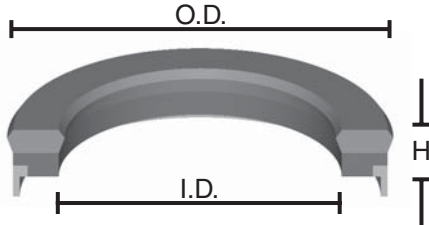
MATERIAL	90 A URETHANE
TEMPERATURE RANGE	-65° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix)(CS) - (Inside Dia) - (Height)

Part Number	I.D.	O.D.	H.	
<b>1/8" C/S</b>				
PU12-1.25-25	1-1/4	1-1/2	1/4	
<b>3/16" C/S</b>				
PU18-0.75-31	3/4	1-1/8	5/16	
PU18-1.62-31	1-5/8	2	5/16	
PU18-2.12-25	2-1/8	2-1/2	1/4	
PU18-2.12-37	2-1/8	2-1/2	3/8	
PU18-2.62-37	2-5/8	3	3/8	
<b>1/4" C/S</b>				
PU25-2.00-25	2	2-1/2	1/4	
PU25-3.00-25	3	3-1/2	1/4	
PU25-3.00-37	3	3-1/2	3/8	
PU25-3.50-37	3-1/2	4	3/8	
PU25-4.50-37	4-1/2	5	3/8	

Part Number	I.D.	O.D.	H.	
<b>.29" C/S</b>				
PU29-1.61-38	1.61	2.19	0.380	
<b>5/16" C/S</b>				
PU31-2.37-50	2-3/8	3	1/2	
<b>3/8" C/S</b>				
PU37-5.25-50	5-1/4	6	1/2	
<b>1/2" C/S</b>				
PU50-2.00-50	2	3	1/2	
PU50-2.25-50	2-1/4	3-1/4	1/2	
PU50-3.00-50	3	4	1/2	

## STYLE UFN PISTON SEALS

Constructed of a rubber seal lip with a rubberized fabric heel, these seals feature a poly-acetal bearing ring or a poly-acetal anti-extrusion ring. These seals offer excellent sealing ability and high pressure capability. Commonly are used with the SR retention rings.



**UFN-PWO**



**UFN-UEO**



**UFN-UWO**

SEAL INFORMATION	
MATERIAL	RUBBER, FABRIC, ACETAL
TEMPERATURE RANGE	-22° TO +212° F
PRESSURE RANGE	0 TO 5,800 PSI
PART NUMBER	(Prefix)(CS) - (Inside Dia) - (Height)

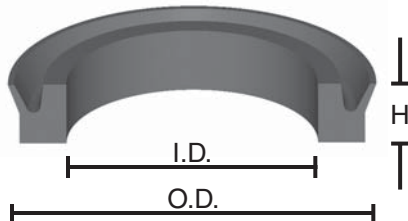
Part Number	I.D.	O.D.	H.	
<b>UFN-PWO</b>				
UFN25-2.00-31PWO	2	2-1/2	5/16	
UFN31-1.12-43PWO	1-1/8	1-3/4	7/16	
UFN31-1.37-37PWO	1-3/8	2	3/8	
UFN31-1.37-43PWO	1-3/8	2	7/16	
UFN31-1.87-43PWO	1-7/8	2-1/2	7/16	
<b>UFN-UEO</b>				
UFN31-1.75-43UEO	1-3/4	2-3/8	7/16	
UFN37-2.25-50UEO	2-1/4	3	1/2	
UFN37-2.75-56UEO	2-3/4	3-1/2	9/16	
UFN37-2.87-56UEO	2-7/8	3-5/8	9/16	
UFN37-3.50-56UEO	3-1/2	4-1/4	9/16	
UFN50-4.00-75UEO	4	5	3/4	
<b>UFN-UWO</b>				
UFN25-0.62-46UWO	5/8	1-1/8	0.460	
UFN25-1.00-37UWO	1	1-1/2	3/8	
UFN25-1.25-37UWO	1-1/4	1-3/4	3/8	

Part Number	I.D.	O.D.	H.	
<b>UFN-UWO</b>				
UFN27-0.87-46UWO	7/8	1.41	0.460	
UFN31-1.00-43UWO	1	1-5/8	7/16	
UFN31-1.16-46UWO	1.16	1.78	0.460	
UFN31-1.37-37UWO	1-3/8	2	3/8	
UFN31-1.50-46UWO	1-1/2	2-1/8	0.460	
UFN31-1.62-43UWO	1-5/8	2-1/4	7/16	
UFN31-1.75-43UWO	1-3/4	2-3/8	7/16	
UFN31-1.87-37UWO	1-7/8	2-1/2	3/8	
UFN31-2.00-43UWO	2	2-5/8	7/16	
UFN31-2.12-46UWO	2-1/8	2-3/4	0.460	
UFN37-2.00-43UWO	2	2-3/4	7/16	
UFN37-2.00-56UWO	2	2-3/4	9/16	
UFN37-2.25-50UWO	2-1/4	3	1/2	
UFN37-2.75-56UWO	2-3/4	3-1/2	9/16	
UFN37-3.25-56UWO	3-1/4	4	9/16	
UFN37-3.75-56UWO	3-3/4	4-1/2	9/16	



## STYLE UKP PISTON U-SEALS

UKP u-seals are designed to act as a positive sealing, low friction replacement for conventional rubber u-seals. Molded from polyurethane, UKP u-seals provide long life and high resistance against extrusion. Low friction allows these seals to run smoothly in lubricated or non-lubricated cylinder. Available for bore sealing, the flexible dynamic lip provides very low breakaway friction and steady motion.



### SEAL INFORMATION

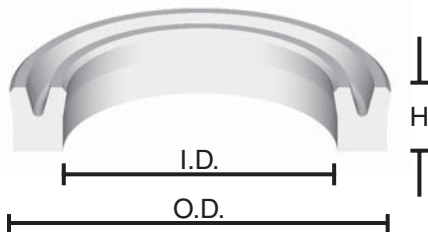
MATERIAL	90 A URETHANE
TEMPERATURE RANGE	-65° TO +220° F
PRESSURE RANGE	0 TO 150 PSI
PART NUMBER	(Prefix)(CS) - (Outside diameter)

Part Number	I.D.	O.D.	H.	
<b>3/32" C/S</b>				
UKP09-0.37	3/16	3/8	3/32	
UKP09-0.68	1/2	11/16	3/32	
<b>1/8" C/S</b>				
UKP12-1.00	3/4	1	1/8	
UKP12-1.12	7/8	1-1/8	1/8	
UKP12-1.50	1-1/4	1-1/2	1/8	
UKP12-2.00	1-3/4	2	1/8	
UKP12-2.25	2	2-1/4	1/8	
UKP12-2.75	2-1/2	2-3/4	1/8	
<b>5/32" C/S</b>				
UKP15-1.50	1-3/16	1-1/2	5/32	
UKP15-1.56	1-1/4	1-9/16	5/32	
<b>3/16" C/S</b>				
UKP18-2.00	1-5/8	2	3/16	
UKP18-2.50	2-1/8	2-1/2	3/16	
UKP18-4.00	3-5/8	4	3/16	
<b>7/32" C/S</b>				
UKP21-3.00	2-9/16	3	7/32	
UKP21-3.25	2-13/16	3-1/4	7/32	

Part Number	I.D.	O.D.	H.	
<b>1/4" C/S</b>				
UKP25-3.00	2-1/2	3	1/4	
UKP25-3.25	2-3/4	3-1/4	1/4	
UKP25-3.50	3	3-1/2	1/4	
UKP25-4.00	3-1/2	4	1/4	
UKP25-5.00	4-1/2	5	1/4	
UKP25-6.00	5-1/2	6	1/4	
UKP25-7.00	6-1/2	7	1/4	
UKP25-8.00	7-1/2	8	1/4	
UKP25-10.00	9-1/2	10	1/4	
<b>5/16" C/S</b>				
UKP31-6.00	5-3/8	6	5/16	
UKP31-8.00	7-3/8	8	5/16	
<b>3/8" C/S</b>				
UKP37-10.00	9-1/4	10	3/8	

# STYLE DSU HEAVY DUTY SYMMETRICAL U-SEALS

Used interchangeably for piston or rod sealing, these u-seals employ the same tough urethane material found in our Heavy Duty Rod and Piston U-Seals.



## SEAL INFORMATION

MATERIAL	92 A URETHANE
TEMPERATURE RANGE	-40° TO +230° F
PRESSURE RANGE	0 TO 4,000 PSI
PART NUMBER	(Prefix)(CS) - (Inside Dia) - (Height)

Part Number	I.D.	O.D.	H.	
<b>1/8" C/S</b>				
DSU12-0.18-12	3/16	7/16	1/8	
DSU12-0.18-25	3/16	7/16	1/4	
DSU12-0.25-18	1/4	1/2	3/16	
DSU12-0.31-25	5/16	9/16	1/4	
DSU12-0.37-12	3/8	5/8	1/8	
DSU12-0.37-25	3/8	5/8	1/4	
DSU12-0.50-12	1/2	3/4	1/8	
DSU12-0.56-12	9/16	13/16	1/8	
DSU12-0.62-12	5/8	7/8	1/8	
DSU12-0.62-25	5/8	7/8	1/4	
DSU12-0.75-12	3/4	1	1/8	
DSU12-0.75-18	3/4	1	3/16	
DSU12-0.75-25	3/4	1	1/4	
DSU12-0.87-12	7/8	1-1/8	1/8	
DSU12-0.87-17	7/8	1-1/8	11/64	
DSU12-0.87-25	7/8	1-1/8	1/4	
DSU12-1.00-12	1	1-1/4	1/8	
DSU12-1.00-15	1	1-1/4	5/32	
DSU12-1.00-18	1	1-1/4	3/16	
DSU12-1.00-25	1	1-1/4	1/4	
DSU12-1.12-12	1-1/8	1-3/8	1/8	
DSU12-1.12-25	1-1/8	1-3/8	1/4	
DSU12-1.25-12	1-1/4	1-1/2	1/8	
DSU12-1.25-15	1-1/4	1-1/2	5/32	
DSU12-1.25-18	1-1/4	1-1/2	3/16	
DSU12-1.25-25	1-1/4	1-1/2	1/4	
DSU12-1.31-25	1-5/16	1-9/16	1/4	
DSU12-1.37-25	1-3/8	1-5/8	1/4	
DSU12-1.50-25	1-1/2	1-3/4	1/4	
<b>3/16" C/S</b>				
DSU18-0.25-25	1/4	5/8	1/4	
DSU18-0.25-31	1/4	5/8	5/16	

Part Number	I.D.	O.D.	H.	
<b>3/16" C/S</b>				
DSU18-0.37-31	3/8	3/4	5/16	
DSU18-0.50-18	1/2	7/8	3/16	
DSU18-0.50-31	1/2	7/8	5/16	
DSU18-0.56-18	9/16	15/16	3/16	
DSU18-0.62-18	5/8	1	3/16	
DSU18-0.62-25	5/8	1	1/4	
DSU18-0.62-31	5/8	1	5/16	
DSU18-0.75-18	3/4	1-1/8	3/16	
DSU18-0.75-25	3/4	1-1/8	1/4	
DSU18-0.87-25	7/8	1-1/4	1/4	
DSU18-1.00-18	1	1-3/8	3/16	
DSU18-1.00-25	1	1-3/8	1/4	
DSU18-1.00-31	1	1-3/8	5/16	
DSU18-1.12-18	1-1/8	1-1/2	3/16	
DSU18-1.12-25	1-1/8	1-1/2	1/4	
DSU18-1.12-31	1-1/8	1-1/2	5/16	
DSU18-1.25-25	1-1/4	1-5/8	1/4	
DSU18-1.25-31	1-1/4	1-5/8	5/16	
DSU18-1.37-25	1-3/8	1-3/4	1/4	
DSU18-1.37-31	1-3/8	1-3/4	5/16	
DSU18-1.43-25	1-7/16	1-13/16	1/4	
DSU18-1.50-18	1-1/2	1-7/8	3/16	
DSU18-1.50-25	1-1/2	1-7/8	1/4	
DSU18-1.50-31	1-1/2	1-7/8	5/16	
DSU18-1.50-37	1-1/2	1-7/8	3/8	
DSU18-1.62-25	1-5/8	2	1/4	
DSU18-1.62-31	1-5/8	2	5/16	
DSU18-1.62-37	1-5/8	2	3/8	
DSU18-1.75-25	1-3/4	2-1/8	1/4	
DSU18-1.75-37	1-3/4	2-1/8	3/8	
DSU18-1.87-37	1-7/8	2-1/4	3/8	

# STYLE DSU HEAVY DUTY SYMMETRICAL U-SEALS

Part Number	I.D.	O.D.	H.	
<b>3/16" C/S</b>				
DSU18-2.00-25	2	2-3/8	1/4	
DSU18-2.00-31	2	2-3/8	5/16	
DSU18-2.00-37	2	2-3/8	3/8	
DSU18-2.12-25	2-1/8	2-1/2	1/4	
DSU18-2.12-31	2-1/8	2-1/2	5/16	
DSU18-2.12-37	2-1/8	2-1/2	3/8	
DSU18-2.25-31	2-1/4	2-5/8	5/16	
DSU18-2.25-37	2-1/4	2-5/8	3/8	
DSU18-2.37-37	2-3/8	2-3/4	3/8	
DSU18-2.50-25	2-1/2	2-7/8	1/4	
DSU18-2.50-37	2-1/2	2-7/8	3/8	
DSU18-2.62-25	2-5/8	3	1/4	
DSU18-2.62-37	2-5/8	3	3/8	
DSU18-2.87-25	2-7/8	3-1/4	1/4	
DSU18-2.87-37	2-7/8	3-1/4	3/8	
DSU18-3.00-37	3	3-3/8	3/8	
DSU18-3.12-37	3-1/8	3-1/2	3/8	
DSU18-3.25-37	3-1/4	3-5/8	3/8	
DSU18-3.37-37	3-3/8	3-3/4	3/8	
DSU18-3.50-37	3-1/2	3-7/8	3/8	
DSU18-3.62-25	3-5/8	4	1/4	
DSU18-3.62-37	3-5/8	4	3/8	
DSU18-3.75-37	3-3/4	4-1/8	3/8	
DSU18-4.00-37	4	4-3/8	3/8	
DSU18-4.37-37	4-3/8	4-3/4	3/8	
<b>1/4" C/S</b>				
DSU25-0.50-25	1/2	1	1/4	
DSU25-0.50-37	1/2	1	3/8	
DSU25-0.62-25	5/8	1-1/8	1/4	
DSU25-0.62-37	5/8	1-1/8	3/8	
DSU25-0.68-37	11/16	1-3/16	3/8	
DSU25-0.75-25	3/4	1-1/4	1/4	
DSU25-0.75-37	3/4	1-1/4	3/8	
DSU25-0.87-25	7/8	1-3/8	1/4	
DSU25-0.87-37	7/8	1-3/8	3/8	
DSU25-0.93-25	15/16	1-7/16	1/4	
DSU25-1.00-25	1	1-1/2	1/4	
DSU25-1.00-31	1	1-1/2	5/16	
DSU25-1.00-37	1	1-1/2	3/8	
DSU25-1.12-31	1-1/8	1-5/8	5/16	
DSU25-1.12-37	1-1/8	1-5/8	3/8	
DSU25-1.18-25	1-3/16	1-11/16	1/4	

Part Number	I.D.	O.D.	H.	
<b>1/4" C/S</b>				
DSU25-1.25-25	1-1/4	1-3/4	1/4	
DSU25-1.25-31	1-1/4	1-3/4	5/16	
DSU25-1.25-37	1-1/4	1-3/4	3/8	
DSU25-1.37-25	1-3/8	1-7/8	1/4	
DSU25-1.37-37	1-3/8	1-7/8	3/8	
DSU25-1.50-25	1-1/2	2	1/4	
DSU25-1.50-31	1-1/2	2	5/16	
DSU25-1.50-37	1-1/2	2	3/8	
DSU25-1.75-25	1-3/4	2-1/4	1/4	
DSU25-1.75-31	1-3/4	2-1/4	5/16	
DSU25-1.75-37	1-3/4	2-1/4	3/8	
DSU25-2.00-25	2	2-1/2	1/4	
DSU25-2.00-37	2	2-1/2	3/8	
DSU25-2.12-37	2-1/8	2-5/8	3/8	
DSU25-2.25-31	2-1/4	2-3/4	5/16	
DSU25-2.25-37	2-1/4	2-3/4	3/8	
DSU25-2.37-37	2-3/8	2-7/8	3/8	
DSU25-2.50-25	2-1/2	3	1/4	
DSU25-2.50-31	2-1/2	3	5/16	
DSU25-2.50-37	2-1/2	3	3/8	
DSU25-2.62-37	2-5/8	3-1/8	3/8	
DSU25-2.75-37	2-3/4	3-1/4	3/8	
DSU25-2.87-37	2-7/8	3-3/8	3/8	
DSU25-3.00-25	3	3-1/2	1/4	
DSU25-3.00-37	3	3-1/2	3/8	
DSU25-3.25-37	3-1/4	3-3/4	3/8	
DSU25-3.37-37	3-3/8	3-7/8	3/8	
DSU25-3.50-25	3-1/2	4	1/4	
DSU25-3.50-37	3-1/2	4	3/8	
DSU25-3.62-37	3-5/8	4-1/8	3/8	
DSU25-3.75-37	3-3/4	4-1/4	3/8	
DSU25-4.00-56	4	4-1/2	9/16	
DSU25-4.12-56	4-1/8	4-5/8	9/16	
DSU25-4.25-37	4-1/4	4-3/4	3/8	
DSU25-4.50-37	4-1/2	5	3/8	
DSU25-4.50-50	4-1/2	5	1/2	
DSU25-4.50-56	4-1/2	5	9/16	
DSU25-4.75-37	4-3/4	5-1/4	3/8	
DSU25-4.75-56	4-3/4	5-1/4	9/16	
DSU25-5.25-56	5-1/4	5-3/4	9/16	
DSU25-5.37-37	5-3/8	5-7/8	3/8	
DSU25-5.62-37	5-5/8	6-1/8	3/8	

# STYLE DSU HEAVY DUTY SYMMETRICAL U-SEALS

U-SEALS

Part Number	I.D.	O.D.	H.	
<b>1/4" C/S</b>				
DSU25-6.00-37	6	6-1/2	3/8	
DSU25-6.00-56	6	6-1/2	9/16	
DSU25-6.25-50	6-1/4	6-3/4	1/2	
DSU25-6.50-37	6-1/2	7	3/8	
DSU25-6.50-50	6-1/2	7	1/2	
DSU25-7.00-56	7	7-1/2	9/16	
DSU25-8.50-37	8-1/2	9	3/8	
<b>5/16" C/S</b>				
DSU31-1.25-37	1-1/4	1-7/8	3/8	
DSU31-1.25-50	1-1/4	1-7/8	1/2	
DSU31-1.37-31	1-3/8	2	5/16	
DSU31-1.37-37	1-3/8	2	3/8	
DSU31-1.50-37	1-1/2	2-1/8	3/8	
DSU31-1.62-37	1-5/8	2-1/4	3/8	
DSU31-1.75-37	1-3/4	2-3/8	3/8	
DSU31-1.75-50	1-3/4	2-3/8	1/2	
DSU31-1.87-37	1-7/8	2-1/2	3/8	
DSU31-1.87-50	1-7/8	2-1/2	1/2	
DSU31-2.00-25	2	2-5/8	1/4	
DSU31-2.00-31	2	2-5/8	5/16	
DSU31-2.00-37	2	2-5/8	3/8	
DSU31-2.12-37	2-1/8	2-3/4	3/8	
DSU31-2.25-25	2-1/4	2-7/8	1/4	
DSU31-2.25-37	2-1/4	2-7/8	3/8	
DSU31-2.25-50	2-1/4	2-7/8	1/2	
DSU31-2.37-37	2-3/8	3	3/8	
DSU31-2.37-50	2-3/8	3	1/2	
DSU31-2.50-37	2-1/2	3-1/8	3/8	
DSU31-2.50-50	2-1/2	3-1/8	1/2	
DSU31-2.62-37	2-5/8	3-1/4	3/8	
DSU31-2.62-50	2-5/8	3-1/4	1/2	
DSU31-2.87-37	2-7/8	3-1/2	3/8	
DSU31-2.87-50	2-7/8	3-1/2	1/2	
DSU31-3.00-37	3	3-5/8	3/8	
DSU31-3.00-50	3	3-5/8	1/2	
DSU31-3.12-37	3-1/8	3-3/4	3/8	
DSU31-3.12-50	3-1/8	3-3/4	1/2	
DSU31-3.50-37	3-1/2	4-1/8	3/8	
DSU31-3.50-50	3-1/2	4-1/8	1/2	
DSU31-3.62-37	3-5/8	4-1/4	3/8	
DSU31-3.87-37	3-7/8	4-1/2	3/8	

Part Number	I.D.	O.D.	H.	
<b>5/16" C/S</b>				
DSU31-3.87-50	3-7/8	4-1/2	1/2	
DSU31-4.00-37	4	4-5/8	3/8	
DSU31-4.12-50	4-1/8	4-3/4	1/2	
DSU31-4.12-56	4-1/8	4-3/4	9/16	
DSU31-4.37-37	4-3/8	5	3/8	
DSU31-4.37-50	4-3/8	5	1/2	
DSU31-4.37-56	4-3/8	5	9/16	
DSU31-4.50-37	4-1/2	5-1/8	3/8	
DSU31-4.50-62	4-1/2	5-1/8	5/8	
DSU31-4.75-37	4-3/4	5-3/8	3/8	
DSU31-4.75-50	4-3/4	5-3/8	1/2	
DSU31-4.87-37	4-7/8	5-1/2	3/8	
DSU31-4.87-50	4-7/8	5-1/2	1/2	
DSU31-5.12-37	5-1/8	5-3/4	3/8	
DSU31-5.12-50	5-1/8	5-3/4	1/2	
DSU31-5.25-37	5-1/4	5-7/8	3/8	
DSU31-5.37-37	5-3/8	6	3/8	
DSU31-5.37-50	5-3/8	6	1/2	
DSU31-5.37-62	5-3/8	6	5/8	
DSU31-5.50-37	5-1/2	6-1/8	3/8	
DSU31-5.62-50	5-5/8	6-1/4	1/2	
DSU31-5.87-37	5-7/8	6-1/2	3/8	
<b>3/8" C/S</b>				
DSU37-1.25-37	1-1/4	2	3/8	
DSU37-1.25-43	1-1/4	2	7/16	
DSU37-1.25-50	1-1/4	2	1/2	
DSU37-1.50-37	1-1/2	2-1/4	3/8	
DSU37-1.50-50	1-1/2	2-1/4	1/2	
DSU37-1.62-37	1-5/8	2-3/8	3/8	
DSU37-1.62-50	1-5/8	2-3/8	1/2	
DSU37-1.75-37	1-3/4	2-1/2	3/8	
DSU37-1.75-62	1-3/4	2-1/2	5/8	
DSU37-2.00-37	2	2-3/4	3/8	
DSU37-2.00-50	2	2-3/4	1/2	
DSU37-2.25-37	2-1/4	3	3/8	
DSU37-2.25-50	2-1/4	3	1/2	
DSU37-2.25-62	2-1/4	3	5/8	
DSU37-2.50-37	2-1/2	3-1/4	3/8	
DSU37-2.50-50	2-1/2	3-1/4	1/2	
DSU37-2.50-62	2-1/2	3-1/4	5/8	
DSU37-2.62-37	2-5/8	3-3/8	3/8	

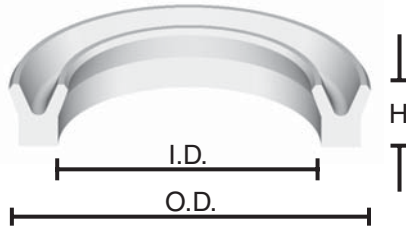
# STYLE DSU HEAVY DUTY SYMMETRICAL U-SEALS

Part Number	I.D.	O.D.	H.	
<b>3/8" C/S</b>				
DSU37-2.62-62	2-5/8	3-3/8	5/8	
DSU37-2.75-37	2-3/4	3-1/2	3/8	
DSU37-2.75-50	2-3/4	3-1/2	1/2	
DSU37-2.75-62	2-3/4	3-1/2	5/8	
DSU37-3.00-37	3	3-3/4	3/8	
DSU37-3.00-50	3	3-3/4	1/2	
DSU37-3.00-62	3	3-3/4	5/8	
DSU37-3.25-37	3-1/4	4	3/8	
DSU37-3.25-50	3-1/4	4	1/2	
DSU37-3.25-62	3-1/4	4	5/8	
DSU37-3.50-37	3-1/2	4-1/4	3/8	
DSU37-3.50-50	3-1/2	4-1/4	1/2	
DSU37-3.50-62	3-1/2	4-1/4	5/8	
DSU37-3.75-37	3-3/4	4-1/2	3/8	
DSU37-3.75-50	3-3/4	4-1/2	1/2	
DSU37-3.75-62	3-3/4	4-1/2	5/8	
DSU37-4.00-37	4	4-3/4	3/8	
DSU37-4.00-50	4	4-3/4	1/2	
DSU37-4.00-62	4	4-3/4	5/8	
DSU37-4.12-62	4-1/8	4-7/8	5/8	
DSU37-4.25-37	4-1/4	5	3/8	
DSU37-4.25-50	4-1/4	5	1/2	
DSU37-4.25-62	4-1/4	5	5/8	
DSU37-4.50-50	4-1/2	5-1/4	1/2	
DSU37-4.50-62	4-1/2	5-1/4	5/8	
DSU37-4.62-50	4-5/8	5-3/8	1/2	
DSU37-4.75-50	4-3/4	5-1/2	1/2	
DSU37-4.75-62	4-3/4	5-1/2	5/8	
DSU37-4.87-50	4-7/8	5-5/8	1/2	
DSU37-5.25-37	5-1/4	6	3/8	
DSU37-5.25-50	5-1/4	6	1/2	
DSU37-5.25-62	5-1/4	6	5/8	
DSU37-5.37-50	5-3/8	6-1/8	1/2	
DSU37-5.50-37	5-1/2	6-1/4	3/8	
DSU37-5.50-50	5-1/2	6-1/4	1/2	
DSU37-5.62-62	5-5/8	6-3/8	5/8	
DSU37-5.75-50	5-3/4	6-1/2	1/2	
DSU37-5.75-62	5-3/4	6-1/2	5/8	
DSU37-6.25-50	6-1/4	7	1/2	
DSU37-6.25-62	6-1/4	7	5/8	

Part Number	I.D.	O.D.	H.	
<b>3/8" C/S</b>				
DSU37-6.50-50	6-1/2	7-1/4	1/2	
DSU37-6.50-62	6-1/2	7-1/4	5/8	
DSU37-6.75-50	6-3/4	7-1/2	1/2	
DSU37-7.00-50	7	7-3/4	1/2	
DSU37-7.00-62	7	7-3/4	5/8	
DSU37-7.25-50	7-1/4	8	1/2	
DSU37-7.75-50	7-3/4	8-1/2	1/2	
DSU37-8.25-50	8-1/4	9	1/2	
DSU37-8.50-62	8-1/2	9-1/4	5/8	
<b>1/2" C/S</b>				
DSU50-1.87-62	1-7/8	2-7/8	5/8	
DSU50-2.50-68	2-1/2	3-1/2	11/16	
DSU50-3.00-62	3	4	5/8	
DSU50-3.50-50	3-1/2	4-1/2	1/2	
DSU50-3.50-62	3-1/2	4-1/2	5/8	
DSU50-6.00-62	6	7	5/8	
DSU50-6.00-75	6	7	3/4	
DSU50-6.50-50	6-1/2	7-1/2	1/2	
DSU50-6.50-75	6-1/2	7-1/2	3/4	
DSU50-7.00-62	7	8	5/8	
DSU50-7.00-75	7	8	3/4	
DSU50-7.50-75	7-1/2	8-1/2	3/4	
DSU50-7.75-75	7-3/4	8-3/4	3/4	
DSU50-8.00-62	8	9	5/8	
DSU50-8.00-75	8	9	3/4	
DSU50-9.00-62	9	10	5/8	
DSU50-9.00-75	9	10	3/4	
DSU50-10.00-62	10	11	5/8	
DSU50-10.00-75	10	11	3/4	
DSU50-11.00-75	11	12	3/4	
DSU50-12.00-75	12	13	3/4	
DSU50-15.00-75	15	16	3/4	
DSU50-17.00-75	17	18	3/4	
<b>5/8" C/S</b>				
DSU62-3.75-62	3-3/4	5	5/8	
<b>3/4" C/S</b>				
DSU75-12.50-100	12-1/2	14	1	

# STYLE HU SYMMETRICAL URETHANE U-SEALS

Style HU seals feature a reverse bevel lip design and are molded from high quality urethane. The balanced symmetrical design makes them ideal for rod or piston applications.



## SEAL INFORMATION

MATERIAL	90 A URETHANE
TEMPERATURE RANGE	-50° TO +200° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix)(CS) - (Inside Dia) - (Height)

Part Number	I.D.	O.D.	H.	
<b>1/8" C/S</b>				
HU12-0.62-12	5/8	7/8	1/8	
HU12-0.62-18	5/8	7/8	3/16	
HU12-0.75-25	3/4	1	1/4	
HU12-0.87-25	7/8	1-1/8	1/4	
HU12-1.00-25	1	1-1/4	1/4	
HU12-1.12-12	1-1/8	1-3/8	1/8	
HU12-1.25-25	1-1/4	1-1/2	1/4	
HU12-1.50-25	1-1/2	1-3/4	1/4	
HU12-2.00-12	2	2-1/4	1/8	
<b>5/32" C/S</b>				
HU15-1.00-21	1	1-5/16	7/32	
HU15-1.37-21	1-3/8	1-11/16	7/32	
<b>3/16" C/S</b>				
HU18-0.87-25	7/8	1-1/4	1/4	
HU18-1.00-25	1	1-3/8	1/4	
HU18-1.12-18	1-1/8	1-1/2	3/16	
HU18-1.12-25	1-1/8	1-1/2	1/4	
HU18-1.25-18	1-1/4	1-5/8	3/16	
HU18-1.25-25	1-1/4	1-5/8	1/4	
HU18-1.25-31	1-1/4	1-5/8	5/16	
HU18-1.25-37	1-1/4	1-5/8	3/8	
HU18-1.37-18	1-3/8	1-3/4	3/16	
HU18-1.50-25	1-1/2	1-7/8	1/4	
HU18-1.50-31	1-1/2	1-7/8	5/16	
HU18-1.62-18	1-5/8	2	3/16	
HU18-1.62-31	1-5/8	2	5/16	
HU18-1.75-18	1-3/4	2-1/8	3/16	
HU18-1.75-25	1-3/4	2-1/8	1/4	
HU18-1.75-37	1-3/4	2-1/8	3/8	
HU18-2.00-18	2	2-3/8	3/16	
HU18-2.00-25	2	2-3/8	1/4	
HU18-2.00-31	2	2-3/8	5/16	
HU18-2.00-37	2	2-3/8	3/8	
HU18-2.12-18	2-1/8	2-1/2	3/16	
HU18-2.12-37	2-1/8	2-1/2	3/8	
HU18-2.50-25	2-1/2	2-7/8	1/4	
HU18-2.50-37	2-1/2	2-7/8	3/8	

Part Number	I.D.	O.D.	H.	
<b>3/16" C/S</b>				
HU18-2.62-37	2-5/8	3	3/8	
HU18-3.00-18	3	3-3/8	3/16	
HU18-3.12-37	3-1/8	3-1/2	3/8	
HU18-3.62-37	3-5/8	4	3/8	
HU18-3.87-18	3-7/8	4-1/4	3/16	
<b>7/32" C/S</b>				
HU21-2.50-28	2-1/2	2-15/16	9/32	
HU21-3.00-28	3	3-7/16	9/32	
<b>1/4" C/S</b>				
HU25-0.75-37	3/4	1-1/4	3/8	
HU25-0.93-56	15/16	1-7/16	9/16	
HU25-1.00-25	1	1-1/2	1/4	
HU25-1.00-31	1	1-1/2	5/16	
HU25-1.00-37	1	1-1/2	3/8	
HU25-1.12-25	1-1/8	1-5/8	1/4	
HU25-1.25-25	1-1/4	1-3/4	1/4	
HU25-1.25-37	1-1/4	1-3/4	3/8	
HU25-1.37-37	1-3/8	1-7/8	3/8	
HU25-1.50-31	1-1/2	2	5/16	
HU25-1.50-37	1-1/2	2	3/8	
HU25-1.75-25	1-3/4	2-1/4	1/4	
HU25-1.75-37	1-3/4	2-1/4	3/8	
HU25-2.00-25	2	2-1/2	1/4	
HU25-2.00-31	2	2-1/2	5/16	
HU25-2.00-37	2	2-1/2	3/8	
HU25-2.00-50	2	2-1/2	1/2	
HU25-2.25-25	2-1/4	2-3/4	1/4	
HU25-2.25-37	2-1/4	2-3/4	3/8	
HU25-2.50-25	2-1/2	3	1/4	
HU25-2.50-37	2-1/2	3	3/8	
HU25-2.62-37	2-5/8	3-1/8	3/8	
HU25-2.75-25	2-3/4	3-1/4	1/4	
HU25-2.75-37	2-3/4	3-1/4	3/8	
HU25-3.00-25	3	3-1/2	1/4	
HU25-3.00-37	3	3-1/2	3/8	
HU25-3.25-31	3-1/4	3-3/4	5/16	
HU25-3.25-37	3-1/4	3-3/4	3/8	

# STYLE HU SYMMETRICAL URETHANE U-SEALS

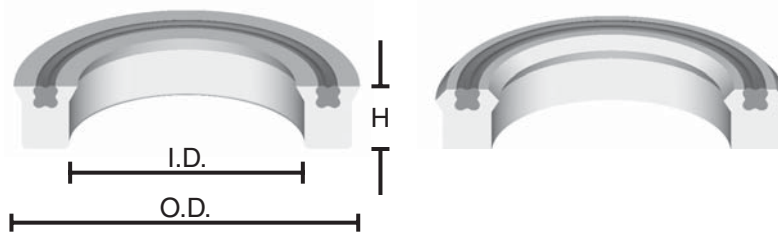
Part Number	I.D.	O.D.	H.	
<b>1/4" C/S</b>				
HU25-3.37-37	3-3/8	3-7/8	3/8	
HU25-3.50-31	3-1/2	4	5/16	
HU25-3.50-37	3-1/2	4	3/8	
HU25-3.50-50	3-1/2	4	1/2	
HU25-3.75-37	3-3/4	4-1/4	3/8	
HU25-4.00-25	4	4-1/2	1/4	
HU25-4.00-31	4	4-1/2	5/16	
HU25-4.00-37	4	4-1/2	3/8	
HU25-4.00-50	4	4-1/2	1/2	
HU25-4.00-56	4	4-1/2	9/16	
HU25-4.25-25	4-1/4	4-3/4	1/4	
HU25-4.50-25	4-1/2	5	1/4	
HU25-4.50-31	4-1/2	5	5/16	
HU25-4.50-37	4-1/2	5	3/8	
HU25-4.50-50	4-1/2	5	1/2	
HU25-4.50-56	4-1/2	5	9/16	
HU25-4.75-25	4-3/4	5-1/4	1/4	
HU25-4.87-37	4-7/8	5-3/8	3/8	
HU25-5.00-25	5	5-1/2	1/4	
HU25-5.00-37	5	5-1/2	3/8	
HU25-5.00-56	5	5-1/2	9/16	
HU25-5.50-25	5-1/2	6	1/4	
HU25-5.50-37	5-1/2	6	3/8	
HU25-5.50-56	5-1/2	6	9/16	
HU25-5.75-25	5-3/4	6-1/4	1/4	
HU25-6.00-56	6	6-1/2	9/16	
HU25-6.50-25	6-1/2	7	1/4	
<b>9/32" C/S</b>				
HU28-5.00-34	5	5-9/16	11/32	
<b>5/16" C/S</b>				
HU31-1.25-37	1-1/4	1-7/8	3/8	
HU31-1.37-31	1-3/8	2	5/16	
HU31-1.75-31	1-3/4	2-3/8	5/16	
HU31-2.00-50	2	2-5/8	1/2	
HU31-2.25-50	2-1/4	2-7/8	1/2	
HU31-2.37-31	2-3/8	3	5/16	
HU31-2.50-50	2-1/2	3-1/8	1/2	
HU31-3.87-50	3-7/8	4-1/2	1/2	
HU31-5.25-62	5-1/4	5-7/8	5/8	
HU31-5.37-37	5-3/8	6	3/8	
HU31-5.37-50	5-3/8	6	1/2	
HU31-5.37-62	5-3/8	6	5/8	
HU31-5.50-37	5-1/2	6-1/8	3/8	
HU31-6.50-62	6-1/2	7-1/8	5/8	
<b>3/8" C/S</b>				
HU37-2.25-50	2-1/4	3	1/2	
HU37-2.50-37	2-1/2	3-1/4	3/8	
HU37-2.62-62	2-5/8	3-3/8	5/8	
HU37-2.75-50	2-3/4	3-1/2	1/2	

Part Number	I.D.	O.D.	H.	
<b>3/8" C/S</b>				
HU37-2.75-62	2-3/4	3-1/2	5/8	
HU37-3.00-62	3	3-3/4	5/8	
HU37-3.12-62	3-1/8	3-7/8	5/8	
HU37-3.25-37	3-1/4	4	3/8	
HU37-3.25-50	3-1/4	4	1/2	
HU37-3.37-87	3-3/8	4-1/8	7/8	
HU37-3.75-50	3-3/4	4-1/2	1/2	
HU37-3.75-62	3-3/4	4-1/2	5/8	
HU37-4.25-37	4-1/4	5	3/8	
HU37-4.25-50	4-1/4	5	1/2	
HU37-4.25-62	4-1/4	5	5/8	
HU37-4.37-50	4-3/8	5-1/8	1/2	
HU37-4.50-37	4-1/2	5-1/4	3/8	
HU37-4.50-50	4-1/2	5-1/4	1/2	
HU37-4.75-50	4-3/4	5-1/2	1/2	
HU37-5.00-37	5	5-3/4	3/8	
HU37-5.00-50	5	5-3/4	1/2	
HU37-5.25-37	5-1/4	6	3/8	
HU37-5.25-50	5-1/4	6	1/2	
HU37-5.25-62	5-1/4	6	5/8	
HU37-5.50-62	5-1/2	6-1/4	5/8	
HU37-5.75-37	5-3/4	6-1/2	3/8	
HU37-6.00-50	6	6-3/4	1/2	
HU37-6.00-62	6	6-3/4	5/8	
HU37-6.25-37	6-1/4	7	3/8	
HU37-6.25-50	6-1/4	7	1/2	
HU37-6.25-62	6-1/4	7	5/8	
HU37-6.50-37	6-1/2	7-1/4	3/8	
HU37-6.50-62	6-1/2	7-1/4	5/8	
HU37-7.25-37	7-1/4	8	3/8	
HU37-7.25-62	7-1/4	8	5/8	
<b>7/16" C/S</b>				
HU43-3.87-1	3-7/8	4-3/4	1	
<b>1/2" C/S</b>				
HU50-1.87-50	1-7/8	2-7/8	1/2	
HU50-3.00-50	3	4	1/2	
HU50-4.00-50	4	5	1/2	
HU50-4.00-62	4	5	5/8	
HU50-5.00-50	5	6	1/2	
HU50-5.00-75	5	6	3/4	
HU50-5.12-75	5-1/8	6-1/8	3/4	
HU50-6.00-50	6	7	1/2	
HU50-7.00-50	7	8	1/2	



# STYLE UPU PREMIUM U-SEALS

Style UPU Premium U-Seals are molded from ultra tough urethane for severe service conditions. They feature higher tensile strength and modulus for extrusion resistance. These seals are used in high energy services such as rock drills and shock absorbing devices where high internal heat is generated.

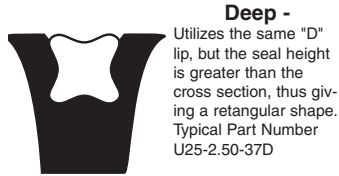


## SEAL INFORMATION

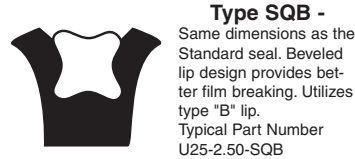
MATERIAL	95 A URETHANE
TEMPERATURE RANGE	-65° TO +265° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix)(CS) - (Inside Dia) - (Height)



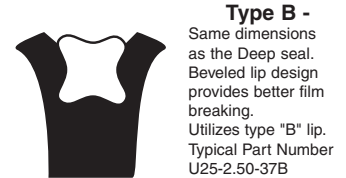
**Standard -**  
Height and cross section are equal, thus giving a square seal. Utilizes type "D" lip  
Typical Part Number U25-2.50



**Deep -**  
Utilizes the same "D" lip, but the seal height is greater than the cross section, thus giving a rectangular shape.  
Typical Part Number U25-2.50-37D



**Type SQB -**  
Same dimensions as the Standard seal. Beveled lip design provides better film breaking. Utilizes type "B" lip.  
Typical Part Number U25-2.50-SQB



**Type B -**  
Same dimensions as the Deep seal. Beveled lip design provides better film breaking. Utilizes type "B" lip.  
Typical Part Number U25-2.50-37B

Part Number	I.D.	O.D.	H.	
<b>1/8" C/S</b>				
UPU12-0.25	1/4	1/2	1/8	
UPU12-0.37	3/8	5/8	1/8	
UPU12-0.50	1/2	3/4	1/8	
UPU12-0.50-25B	1/2	3/4	1/4	
UPU12-0.62	5/8	7/8	1/8	
UPU12-0.62-25B	5/8	7/8	1/4	
UPU12-0.75	3/4	1	1/8	
UPU12-0.75-25B	3/4	1	1/4	
UPU12-0.87	7/8	1-1/8	1/8	
UPU12-1.00-25B	1	1-1/4	1/4	
UPU12-1.25	1-1/4	1-1/2	1/8	
UPU12-1.37-25D	1-3/8	1-5/8	1/4	
UPU12-1.50	1-1/2	1-3/4	1/8	
UPU12-2.00	2	2-1/4	1/8	
<b>5/32" C/S</b>				
UPU15-1.00	1	1-5/16	5/32	
UPU15-1.37	1-3/8	1-11/16	5/32	
<b>3/16" C/S</b>				
UPU18-1.00	1	1-3/8	3/16	
UPU18-1.00-31B	1	1-3/8	5/16	
UPU18-1.12	1-1/8	1-1/2	3/16	
UPU18-1.12-31B	1-1/8	1-1/2	5/16	
UPU18-1.25	1-1/4	1-5/8	1/8	

Part Number	I.D.	O.D.	H.	
<b>3/16" C/S</b>				
UPU18-1.25-31B	1-1/4	1-5/8	5/16	
UPU18-1.37	1-3/8	1-3/4	3/16	
UPU18-1.37-25B	1-3/8	1-3/4	1/4	
UPU18-1.37-31B	1-3/8	1-3/4	5/16	
UPU18-1.50	1-1/2	1-7/8	3/16	
UPU18-1.50-37B	1-1/2	1-7/8	3/8	
UPU18-1.62	1-5/8	2	3/16	
UPU18-1.62-37B	1-5/8	2	3/8	
UPU18-1.75	1-3/4	2-1/8	3/16	
UPU18-1.75-37B	1-3/4	2-1/8	3/8	
UPU18-2.00	2	2-3/8	3/16	
UPU18-2.00-37B	2	2-3/8	3/8	
UPU18-2.12	2-1/8	2-1/2	3/16	
UPU18-2.12-37B	2-1/8	2-1/2	3/8	
UPU18-2.50	2-1/2	2-7/8	3/16	
UPU18-2.50-37B	2-1/2	2-7/8	3/8	
UPU18-2.62-37B	2-5/8	3	3/8	
UPU18-2.87	2-7/8	3-1/4	3/16	
UPU18-3.00-37B	3	3-3/8	3/8	
UPU18-3.50-37B	3-1/2	3-7/8	3/8	
<b>1/4" C/S</b>				
UPU25-0.62	5/8	1-1/8	1/4	
UPU25-0.75-37B	3/4	1-1/4	3/8	
UPU25-0.87-37B	7/8	1-3/8	3/8	

## STYLE UPU PREMIUM U-SEALS

Part Number	I.D.	O.D.	H.	
<b>1/4" C/S</b>				
UPU25-1.00	1	1-1/2	1/4	
UPU25-1.25	1-1/4	1-3/4	1/4	
UPU25-1.25-37B	1-1/4	1-3/4	3/8	
UPU25-1.50	1-1/2	2	1/4	
UPU25-1.50-37B	1-1/2	2	3/8	
UPU25-1.75	1-3/4	2-1/4	1/4	
UPU25-1.75-37B	1-3/4	2-1/4	3/8	
UPU25-2.00	2	2-1/2	1/4	
UPU25-2.00-37B	2	2-1/2	3/8	
UPU25-2.00-37D	2	2-1/2	3/8	
UPU25-2.25-37B	2-1/4	2-3/4	3/8	
UPU25-2.50	2-1/2	3	1/4	
UPU25-2.50-37B	2-1/2	3	3/8	
UPU25-2.75	2-3/4	3-1/4	1/4	
UPU25-2.75-37B	2-3/4	3-1/4	3/8	
UPU25-3.00	3	3-1/2	1/4	
UPU25-3.00-37B	3	3-1/2	3/8	
UPU25-3.25	3-1/4	3-3/4	1/4	
UPU25-3.50	3-1/2	4	1/4	
UPU25-3.50-37B	3-1/2	4	3/8	
UPU25-4.00	4	4-1/2	1/4	
UPU25-4.00-56B	4	4-1/2	9/16	
UPU25-4.50	4-1/2	5	1/4	
UPU25-5.00-37B	5	5-1/2	3/8	
UPU25-5.50	5-1/2	6	1/4	
<b>5/16</b>				
UPU31-1.00	1	1-5/8	5/16	
UPU31-1.25	1-1/4	1-7/8	5/16	
UPU31-1.37	1-3/8	2	5/16	
UPU31-1.37-50B	1-3/8	2	1/2	
UPU31-1.75-50B	1-3/4	2-3/8	1/2	

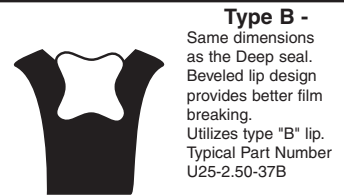
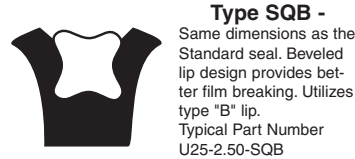
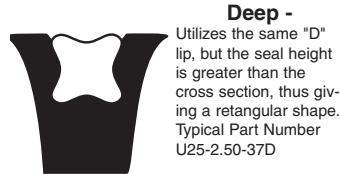
Part Number	I.D.	O.D.	H.	
<b>5/16</b>				
UPU31-2.00-50B	2	2-5/8	1/2	
UPU31-2.25	2-1/4	2-7/8	5/16	
UPU31-2.37	2-3/8	3	5/16	
UPU31-2.37-50B	2-3/8	3	1/2	
UPU31-2.50	2-1/2	3-1/8	5/16	
UPU31-3.00	3	3-5/8	5/16	
UPU31-4.37	4-3/8	5	5/16	
UPU31-5.37	5-3/8	6	5/16	
<b>3/8" C/S</b>				
UPU37-3.00-62B	3	3-3/4	5/8	
UPU37-3.25	3-1/4	4	3/8	
UPU37-3.50-62B	3-1/2	4-1/4	5/8	
UPU37-4.25	4-1/4	5	3/8	
UPU37-4.50-62B	4-1/2	5-1/4	5/8	
UPU37-4.75-62B	4-3/4	5-1/2	5/8	
UPU37-5.00-62B	5	5-3/4	5/8	
UPU37-5.25	5-1/4	6	3/8	
UPU37-5.25-62D	5-1/4	6	5/8	
UPU37-6.25	6-1/4	7	3/8	
<b>1/2" C/S</b>				
UPU50-5.00	5	6	1/2	
UPU50-7.00	7	8	1/2	

# STYLE 800 POLYURETHANE U-SEALS

Style 800 U-seals are molded from tough, abrasion-resistant polyurethane. The four lobed expander ring energizes the sealing lips, even at zero pressure, to help prevent "weeping" when the system is idle.



SEAL INFORMATION	
MATERIAL	95 A URETHANE
TEMPERATURE RANGE	-65° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix)(CS) - (Inside Dia) - (Height)



Part Number	I.D.	O.D.	H.	
<b>1/8" C/S</b>				
U12-0.12	1/8	3/8	1/8	
U12-0.14	9/64	25/64	1/8	
U12-0.18	3/16	7/16	1/8	
U12-0.18-25B	3/16	7/16	1/4	
U12-0.25-25B	1/4	1/2	1/4	
U12-0.25-SQB	1/4	1/2	1/8	
U12-0.28-25B	9/32	17/32	1/4	
U12-0.31-25B	5/16	9/16	1/4	
U12-0.31-SQB	5/16	9/16	1/8	
U12-0.37	3/8	5/8	1/8	
U12-0.37-SQB	3/8	5/8	1/8	
U12-0.43	7/16	11/16	1/8	
U12-0.43-25B	7/16	11/16	1/4	
U12-0.43-SQB	7/16	11/16	1/8	
U12-0.50-25B	1/2	3/4	1/4	
U12-0.50-SQB	1/2	3/4	1/8	
U12-0.56	9/16	13/16	1/8	
U12-0.56-25B	9/16	13/16	1/4	
U12-0.56-SQB	9/16	13/16	1/8	
U12-0.62-25B	5/8	7/8	1/4	
U12-0.62-25D	5/8	7/8	1/4	
U12-0.62-SQB	5/8	7/8	1/8	
U12-0.68	11/16	15/16	1/8	
U12-0.68-25B	11/16	15/16	1/4	
U12-0.75-18B	3/4	1	3/16	
U12-0.75-25B	3/4	1	1/4	
U12-0.75-25D	3/4	1	1/4	

Part Number	I.D.	O.D.	H.	
<b>1/8" C/S</b>				
U12-0.75-SQB	3/4	1	1/8	
U12-0.81	13/16	1-1/16	1/8	
U12-0.81-SQB	13/16	1-1/16	1/8	
U12-0.87-25B	7/8	1-1/8	1/4	
U12-0.87-25D	7/8	1-1/8	1/4	
U12-0.87-SQB	7/8	1-1/8	1/8	
U12-0.93	15/16	1-3/16	1/8	
U12-0.93-25B	15/16	1-3/16	1/4	
U12-1.00	1	1-1/4	1/8	
U12-1.00-18B	1	1-1/4	3/16	
U12-1.00-25B	1	1-1/4	1/4	
U12-1.00-25D	1	1-1/4	1/4	
U12-1.00-SQB	1	1-1/4	1/8	
U12-1.06-25B	1-1/16	1-5/16	1/4	
U12-1.06-SQB	1-1/16	1-5/16	1/8	
U12-1.12-25B	1-1/8	1-3/8	1/4	
U12-1.12-25D	1-1/8	1-3/8	1/4	
U12-1.12-SQB	1-1/8	1-3/8	1/8	
U12-1.18	1-3/16	1-7/16	1/8	
U12-1.18-18B	1-3/16	1-7/16	3/16	
U12-1.18-25B	1-3/16	1-7/16	1/4	
U12-1.25-18B	1-1/4	1-1/2	3/16	
U12-1.25-25B	1-1/4	1-1/2	1/4	
U12-1.25-25D	1-1/4	1-1/2	1/4	
U12-1.25-SQB	1-1/4	1-1/2	1/8	
U12-1.31	1-5/16	1-9/16	1/8	
U12-1.31-18B	1-5/16	1-9/16	3/16	

# STYLE 800 POLYURETHANE U-SEALS

U-SEALS

Part Number	I.D.	O.D.	H.	
<b>1/8" C/S" C/S</b>				
U12-1.37-18D	1-3/8	1-5/8	3/16	
U12-1.37-25B	1-3/8	1-5/8	1/4	
U12-1.37-SQB	1-3/8	1-5/8	1/8	
U12-1.43-25B	1-7/16	1-11/16	1/4	
U12-1.43-SQB	1-7/16	1-11/16	1/8	
U12-1.50-18B	1-1/2	1-3/4	3/16	
U12-1.50-25B	1-1/2	1-3/4	1/4	
U12-1.50-SQB	1-1/2	1-3/4	1/8	
U12-1.56	1-9/16	1-13/16	1/8	
U12-1.62	1-5/8	1-7/8	1/8	
U12-1.62-SQB	1-5/8	1-7/8	1/8	
U12-1.68	1-11/16	1-15/16	1/8	
U12-1.75-25B	1-3/4	2	1/4	
U12-1.75-25D	1-3/4	2	1/4	
U12-1.75-SQB	1-3/4	2	1/8	
U12-1.87	1-7/8	2-1/8	1/8	
U12-2.00	2	2-1/4	1/8	
U12-2.00-25D	2	2-1/4	1/4	
U12-2.12	2-1/8	2-3/8	1/8	
U12-2.12-25D	2-1/8	2-3/8	1/4	
U12-2.25	2-1/4	2-1/2	1/8	
U12-2.25-37D	2-1/4	2-1/2	3/8	
U12-2.37	2-3/8	2-5/8	1/8	
U12-2.37-18B	2-3/8	2-5/8	3/16	
U12-2.50	2-1/2	2-3/4	1/8	
U12-2.50-25B	2-1/2	2-3/4	1/4	
U12-2.75	2-3/4	3	1/8	
U12-2.75-25B	2-3/4	3	1/4	
U12-2.87	2-7/8	3-1/8	1/8	
U12-3.00	3	3-1/4	1/8	
U12-3.12	3-1/8	3-3/8	1/8	
U12-3.25	3-1/4	3-1/2	1/8	
U12-3.50	3-1/2	3-3/4	1/8	
U12-3.62-18B	3-5/8	3-7/8	3/16	
U12-3.75	3-3/4	4	1/8	
U12-4.00	4	4-1/4	1/8	
U12-4.25	4-1/4	4-1/2	1/8	
U12-4.37	4-3/8	4-5/8	1/8	
U12-4.50	4-1/2	4-3/4	1/8	
U12-4.75	4-3/4	5	1/8	
<b>5/32" C/S</b>				
U15-1.00	1	1-5/16	5/32	
U15-1.00-23B	1	1-5/16	.234	
U15-1.00-SQB	1	1-5/16	5/32	
U15-1.12	1-1/8	1-7/16	5/32	
U15-1.18	1-3/16	1-1/2	5/32	
U15-1.25	1-1/4	1-9/16	5/32	

Part Number	I.D.	O.D.	H.	
<b>5/32" C/S</b>				
U15-1.37	1-3/8	1-11/16	5/32	
U15-1.50-31B	1-1/2	1-13/16	5/16	
<b>3/16" C/S</b>				
U18-0.18-SQB	3/16	9/16	3/16	
U18-0.25-SQB	1/4	5/8	3/16	
U18-0.31-SQB	5/16	11/16	3/16	
U18-0.37	3/8	3/4	3/16	
U18-0.37-31B	3/8	3/4	5/16	
U18-0.43	7/16	13/16	3/16	
U18-0.50	1/2	7/8	3/16	
U18-0.50-31B	1/2	7/8	5/16	
U18-0.56	9/16	15/16	3/16	
U18-0.62-31B	5/8	1	5/16	
U18-0.62-31D	5/8	1	5/16	
U18-0.62-SQB	5/8	1	3/16	
U18-0.68	11/16	1-1/16	3/16	
U18-0.75-31B	3/4	1-1/8	5/16	
U18-0.75-SQB	3/4	1-1/8	3/16	
U18-0.81	13/16	1-3/16	3/16	
U18-0.81-31B	13/16	1-3/16	5/16	
U18-0.87-31B	7/8	1-1/4	5/16	
U18-0.87-SQB	7/8	1-1/4	3/16	
U18-0.93	15/16	1-5/16	3/16	
U18-1.00-25B	1	1-3/8	1/4	
U18-1.00-31B	1	1-3/8	5/16	
U18-1.00-31D	1	1-3/8	5/16	
U18-1.00-37B	1	1-3/8	3/8	
U18-1.00-SQB	1	1-3/8	3/16	
U18-1.06	1-1/16	1-7/16	3/16	
U18-1.06-31B	1-1/16	1-7/16	5/16	
U18-1.12-25B	1-1/8	1-1/2	1/4	
U18-1.12-31B	1-1/8	1-1/2	5/16	
U18-1.12-31D	1-1/8	1-1/2	5/16	
U18-1.12-37B	1-1/8	1-1/2	3/8	
U18-1.12-SQB	1-1/8	1-1/2	3/16	
U18-1.18	1-3/16	1-9/16	3/16	
U18-1.18-25B	1-3/16	1-9/16	1/4	
U18-1.18-31B	1-3/16	1-9/16	5/16	
U18-1.25-25B	1-1/4	1-5/8	1/4	
U18-1.25-26B	1-1/4	1-5/8	.266	
U18-1.25-31B	1-1/4	1-5/8	5/16	
U18-1.25-37B	1-1/4	1-5/8	3/8	
U18-1.25-SQB	1-1/4	1-5/8	3/16	
U18-1.31	1-5/16	1-11/16	3/16	
U18-1.31-31B	1-5/16	1-11/16	5/16	
U18-1.37-25B	1-3/8	1-3/4	1/4	
U18-1.37-31B	1-3/8	1-3/4	5/16	

# STYLE 800 POLYURETHANE U-SEALS

U-SEALS

Part Number	I.D.	O.D.	H.	
<b>3/16" C/S</b>				
U18-1.37-37B	1-3/8	1-3/4	3/8	
U18-1.37-SQB	1-3/8	1-3/4	3/16	
U18-1.43	1-7/16	1-13/16	3/16	
U18-1.50-25B	1-1/2	1-7/8	1/4	
U18-1.50-26B	1-1/2	1-7/8	.266	
U18-1.50-29F	1-1/2	1-7/8	19/64	
U18-1.50-31B	1-1/2	1-7/8	5/16	
U18-1.50-37B	1-1/2	1-7/8	3/8	
U18-1.50-37D	1-1/2	1-7/8	3/8	
U18-1.50-SQB	1-1/2	1-7/8	3/16	
U18-1.56-37B	1-9/16	1-15/16	3/8	
U18-1.62	1-5/8	2	3/16	
U18-1.62-25B	1-5/8	2	1/4	
U18-1.62-31B	1-5/8	2	5/16	
U18-1.62-37B	1-5/8	2	3/8	
U18-1.62-37D	1-5/8	2	3/8	
U18-1.62-SQB	1-5/8	2	3/16	
U18-1.68	1-11/16	2-1/16	3/16	
U18-1.75	1-3/4	2-1/8	3/16	
U18-1.75-25B	1-3/4	2-1/8	1/4	
U18-1.75-26B	1-3/4	2-1/8	.266	
U18-1.75-31B	1-3/4	2-1/8	5/16	
U18-1.75-37B	1-3/4	2-1/8	3/8	
U18-1.75-37D	1-3/4	2-1/8	3/8	
U18-1.75-SQB	1-3/4	2-1/8	3/16	
U18-1.87-25D	1-7/8	2-1/4	1/4	
U18-1.87-26B	1-7/8	2-1/4	.266	
U18-1.87-37B	1-7/8	2-1/4	3/8	
U18-1.87-37D	1-7/8	2-1/4	3/8	
U18-1.87-SQB	1-7/8	2-1/4	3/16	
U18-2.00-27D	2	2-3/8	.270	
U18-2.00-31B	2	2-3/8	5/16	
U18-2.00-37B	2	2-3/8	3/8	
U18-2.00-37D	2	2-3/8	3/8	
U18-2.00-SQB	2	2-3/8	3/16	
U18-2.06	2-1/16	2-7/16	3/16	
U18-2.12-25B	2-1/8	2-1/2	1/4	
U18-2.12-26B	2-1/8	2-1/2	.266	
U18-2.12-31B	2-1/8	2-1/2	5/16	
U18-2.12-37B	2-1/8	2-1/2	3/8	
U18-2.12-SQB	2-1/8	2-1/2	3/16	
U18-2.18-37B	2-3/16	2-9/16	3/8	
U18-2.25-31B	2-1/4	2-5/8	5/16	
U18-2.25-37B	2-1/4	2-5/8	3/8	
U18-2.25-SQB	2-1/4	2-5/8	3/16	
U18-2.37	2-3/8	2-3/4	3/16	
U18-2.37-25B	2-3/8	2-3/4	1/4	

Part Number	I.D.	O.D.	H.	
<b>3/16" C/S</b>				
U18-2.37-37B	2-3/8	2-3/4	3/8	
U18-2.37-50B	2-3/8	2-3/4	1/2	
U18-2.37-SQB	2-3/8	2-3/4	3/16	
U18-2.50-25B	2-1/2	2-7/8	1/4	
U18-2.50-31B	2-1/2	2-7/8	5/16	
U18-2.50-37B	2-1/2	2-7/8	3/8	
U18-2.50-SQB	2-1/2	2-7/8	3/16	
U18-2.62-25B	2-5/8	3	1/4	
U18-2.62-37B	2-5/8	3	3/8	
U18-2.62-37D	2-5/8	3	3/8	
U18-2.62-SQB	2-5/8	3	3/16	
U18-2.75	2-3/4	3-1/8	3/16	
U18-2.75-37B	2-3/4	3-1/8	3/8	
U18-2.75-SQB	2-3/4	3-1/8	3/16	
U18-2.87	2-7/8	3-1/4	3/16	
U18-2.87-25B	2-7/8	3-1/4	1/4	
U18-2.87-37B	2-7/8	3-1/4	3/8	
U18-3.00	3	3-3/8	3/16	
U18-3.00-37B	3	3-3/8	3/8	
U18-3.00-SQB	3	3-3/8	3/16	
U18-3.12-37B	3-1/8	3-1/2	3/8	
U18-3.12-37D	3-1/8	3-1/2	3/8	
U18-3.12-SQB	3-1/8	3-1/2	3/16	
U18-3.25	3-1/4	3-5/8	3/16	
U18-3.25-37B	3-1/4	3-5/8	3/8	
U18-3.37-37B	3-3/8	3-3/4	3/8	
U18-3.37-SQB	3-3/8	3-3/4	3/16	
U18-3.50	3-1/2	3-7/8	3/16	
U18-3.50-37B	3-1/2	3-7/8	3/8	
U18-3.50-SQB	3-1/2	3-7/8	3/16	
U18-3.62-37B	3-5/8	4	3/8	
U18-3.62-SQB	3-5/8	4	3/16	
U18-3.75	3-3/4	4-1/8	3/16	
U18-3.75-37B	3-3/4	4-1/8	3/8	
U18-3.87	3-7/8	4-1/4	3/16	
U18-3.87-37B	3-7/8	4-1/4	3/8	
U18-4.00	4	4-3/8	3/16	
U18-4.00-37B	4	4-3/8	3/8	
U18-4.00-SQB	4	4-3/8	3/16	
U18-4.12	4-1/8	4-1/2	3/16	
U18-4.12-37B	4-1/8	4-1/2	3/8	
U18-4.12-37D	4-1/8	4-1/2	3/8	
U18-4.25	4-1/4	4-5/8	3/16	
U18-4.25-37B	4-1/4	4-5/8	3/8	
U18-4.37	4-3/8	4-3/4	3/16	
U18-4.37-37B	4-3/8	4-3/4	3/8	
U18-4.50	4-1/2	4-7/8	3/16	

# STYLE 800 POLYURETHANE U-SEALS

U-SEALS

Part Number	I.D.	O.D.	H.	
<b>3/16" C/S</b>				
U18-4.50-37B	4-1/2	4-7/8	3/8	
U18-4.62	4-5/8	5	3/16	
U18-4.62-37D	4-5/8	5	3/8	
U18-4.75	4-3/4	5-1/8	3/16	
U18-4.87	4-7/8	5-1/4	3/16	
U18-5.00	5	5-3/8	3/16	
U18-5.00-31D	5	5-3/8	5/16	
U18-5.00-37D	5	5-3/8	3/8	
U18-6.00	6	6-3/8	3/16	
<b>7/32" C/S</b>				
U21-2.81	2-13/16	3-1/4	7/32	
U21-3.00	3	3-7/16	7/32	
<b>1/4" C/S</b>				
U25-0.25	1/4	3/4	1/4	
U25-0.31	5/16	13/16	1/4	
U25-0.37	3/8	7/8	1/4	
U25-0.43	7/16	15/16	1/4	
U25-0.50	1/2	1	1/4	
U25-0.50-37B	1/2	1	3/8	
U25-0.56	9/16	1-1/16	1/4	
U25-0.62	5/8	1-1/8	1/4	
U25-0.62-37B	5/8	1-1/8	3/8	
U25-0.68	11/16	1-3/16	1/4	
U25-0.75	3/4	1-1/4	1/4	
U25-0.75-37B	3/4	1-1/4	3/8	
U25-0.75-SQB	3/4	1-1/4	1/4	
U25-0.81	13/16	1-5/16	1/4	
U25-0.81-37B	13/16	1-5/16	3/8	
U25-0.87-37B	7/8	1-3/8	3/8	
U25-0.87-37D	7/8	1-3/8	3/8	
U25-0.87-SQB	7/8	1-3/8	1/4	
U25-0.93	15/16	1-7/16	1/4	
U25-1.00-37B	1	1-1/2	3/8	
U25-1.00-37D	1	1-1/2	3/8	
U25-1.00-SQB	1	1-1/2	1/4	
U25-1.06	1-1/16	1-9/16	1/4	
U25-1.12	1-1/8	1-5/8	1/4	
U25-1.12-37B	1-1/8	1-5/8	3/8	
U25-1.12-SQB	1-1/8	1-5/8	1/4	
U25-1.18	1-3/16	1-11/16	1/4	
U25-1.25-37B	1-1/4	1-3/4	3/8	
U25-1.25-37D	1-1/4	1-3/4	3/8	
U25-1.25-SQB	1-1/4	1-3/4	1/4	
U25-1.31	1-5/16	1-13/16	1/4	
U25-1.31-37B	1-5/16	1-13/16	3/8	
U25-1.37	1-3/8	1-7/8	1/4	

Part Number	I.D.	O.D.	H.	
<b>1/4" C/S</b>				
U25-1.37-37B	1-3/8	1-7/8	3/8	
U25-1.37-SQB	1-3/8	1-7/8	1/4	
U25-1.43	1-7/16	1-15/16	1/4	
U25-1.50-31B	1-1/2	2	5/16	
U25-1.50-37B	1-1/2	2	3/8	
U25-1.50-37D	1-1/2	2	3/8	
U25-1.50-50B	1-1/2	2	1/2	
U25-1.50-SQB	1-1/2	2	1/4	
U25-1.62	1-5/8	2-1/8	1/4	
U25-1.62-37B	1-5/8	2-1/8	3/8	
U25-1.75	1-3/4	2-1/4	1/4	
U25-1.75-31B	1-3/4	2-1/4	5/16	
U25-1.75-37B	1-3/4	2-1/4	3/8	
U25-1.75-SQB	1-3/4	2-1/4	1/4	
U25-1.87	1-7/8	2-3/8	1/4	
U25-1.87-37B	1-7/8	2-3/8	3/8	
U25-2.00	2	2-1/2	1/4	
U25-2.00-31B	2	2-1/2	5/16	
U25-2.00-37B	2	2-1/2	3/8	
U25-2.00-37D	2	2-1/2	3/8	
U25-2.00-SQB	2	2-1/2	1/4	
U25-2.12	2-1/8	2-5/8	1/4	
U25-2.12-37B	2-1/8	2-5/8	3/8	
U25-2.18-37B	2-3/16	2-11/16	3/8	
U25-2.25	2-1/4	2-3/4	1/4	
U25-2.25-37B	2-1/4	2-3/4	3/8	
U25-2.25-37D	2-1/4	2-3/4	3/8	
U25-2.37	2-3/8	2-7/8	1/4	
U25-2.37-37B	2-3/8	2-7/8	3/8	
U25-2.50	2-1/2	3	1/4	
U25-2.50-31B	2-1/2	3	5/16	
U25-2.50-37B	2-1/2	3	3/8	
U25-2.50-37D	2-1/2	3	3/8	
U25-2.50-50B	2-1/2	3	1/2	
U25-2.50-SQB	2-1/2	3	1/4	
U25-2.62	2-5/8	3-1/8	1/4	
U25-2.62-37B	2-5/8	3-1/8	3/8	
U25-2.75-37B	2-3/4	3-1/4	3/8	
U25-2.75-37D	2-3/4	3-1/4	3/8	
U25-2.75-50B	2-3/4	3-1/4	1/2	
U25-2.75-SQB	2-3/4	3-1/4	1/4	
U25-2.87	2-7/8	3-3/8	1/4	
U25-2.87-37B	2-7/8	3-3/8	3/8	
U25-3.00	3	3-1/2	1/4	
U25-3.00-37B	3	3-1/2	3/8	
U25-3.00-37D	3	3-1/2	3/8	
U25-3.00-SQB	3	3-1/2	1/4	

# STYLE 800 POLYURETHANE U-SEALS

U-SEALS

Part Number	I.D.	O.D.	H.	
<b>1/4" C/S</b>				
U25-3.12	3-1/8	3-5/8	1/4	
U25-3.12-37B	3-1/8	3-5/8	3/8	
U25-3.25	3-1/4	3-3/4	1/4	
U25-3.25-37B	3-1/4	3-3/4	3/8	
U25-3.25-37D	3-1/4	3-3/4	3/8	
U25-3.25-50B	3-1/4	3-3/4	1/2	
U25-3.37	3-3/8	3-7/8	1/4	
U25-3.37-SQB	3-3/8	3-7/8	1/4	
U25-3.50	3-1/2	4	1/4	
U25-3.50-37B	3-1/2	4	3/8	
U25-3.50-37D	3-1/2	4	3/8	
U25-3.50-50D	3-1/2	4	1/2	
U25-3.50-SQB	3-1/2	4	1/4	
U25-3.62	3-5/8	4-1/8	1/4	
U25-3.69-50B	3.690	4.190	1/2	
U25-3.75-37B	3-3/4	4-1/4	3/8	
U25-3.75-50B	3-3/4	4-1/4	1/2	
U25-3.75-56B	3-3/4	4-1/4	9/16	
U25-3.75-SQB	3-3/4	4-1/4	1/4	
U25-3.87	3-7/8	4-3/8	1/4	
U25-4.00-37B	4	4-1/2	3/8	
U25-4.00-37D	4	4-1/2	3/8	
U25-4.00-50B	4	4-1/2	1/2	
U25-4.00-50D	4	4-1/2	1/2	
U25-4.00-56B	4	4-1/2	9/16	
U25-4.00-56D	4	4-1/2	9/16	
U25-4.00-56F	4	4-1/2	9/16	
U25-4.00-SQB	4	4-1/2	1/4	
U25-4.12	4-1/8	4-5/8	1/4	
U25-4.12-37B	4-1/8	4-5/8	3/8	
U25-4.25	4-1/4	4-3/4	1/4	
U25-4.25-37B	4-1/4	4-3/4	3/8	
U25-4.25-56B	4-1/4	4-3/4	9/16	
U25-4.37-56B	4-3/8	4-7/8	9/16	
U25-4.37-SQB	4-3/8	4-7/8	1/4	
U25-4.50	4-1/2	5	1/4	
U25-4.50-31B	4-1/2	5	5/16	
U25-4.50-37B	4-1/2	5	3/8	
U25-4.50-37D	4-1/2	5	3/8	
U25-4.50-50B	4-1/2	5	1/2	
U25-4.50-50D	4-1/2	5	1/2	
U25-4.50-56B	4-1/2	5	9/16	
U25-4.50-56D	4-1/2	5	9/16	
U25-4.50-62B	4-1/2	5	5/8	
U25-4.62-56B	4-5/8	5-1/8	9/16	
U25-4.62-SQB	4-5/8	5-1/8	1/4	
U25-4.75	4-3/4	5-1/4	1/4	

Part Number	I.D.	O.D.	H.	
<b>1/4" C/S</b>				
U25-4.75-37B	4-3/4	5-1/4	3/8	
U25-4.75-56B	4-3/4	5-1/4	9/16	
U25-4.87	4-7/8	5-3/8	1/4	
U25-5.00	5	5-1/2	1/4	
U25-5.00-37B	5	5-1/2	3/8	
U25-5.00-50B	5	5-1/2	1/2	
U25-5.00-50D	5	5-1/2	1/2	
U25-5.00-56B	5	5-1/2	9/16	
U25-5.00-56D	5	5-1/2	9/16	
U25-5.12	5-1/8	5-5/8	1/4	
U25-5.25	5-1/4	5-3/4	1/4	
U25-5.25-37B	5-1/4	5-3/4	3/8	
U25-5.25-56B	5-1/4	5-3/4	9/16	
U25-5.37	5-3/8	5-7/8	1/4	
U25-5.50	5-1/2	6	1/4	
U25-5.50-37B	5-1/2	6	3/8	
U25-5.50-50D	5-1/2	6	1/2	
U25-5.50-56B	5-1/2	6	9/16	
U25-5.50-56D	5-1/2	6	9/16	
U25-5.50-62D	5-1/2	6	5/8	
U25-5.62	5-5/8	6-1/8	1/4	
U25-5.75	5-3/4	6-1/4	1/4	
U25-5.75-37B	5-3/4	6-1/4	3/8	
U25-5.75-56B	5-3/4	6-1/4	9/16	
U25-6.00	6	6-1/2	1/4	
U25-6.00-37B	6	6-1/2	3/8	
U25-6.00-56B	6	6-1/2	9/16	
U25-6.00-56D	6	6-1/2	9/16	
U25-6.25	6-1/4	6-3/4	1/4	
U25-6.25-37B	6-1/4	6-3/4	3/8	
U25-6.50-37D	6-1/2	7	3/8	
U25-6.50-56B	6-1/2	7	9/16	
U25-6.50-SQB	6-1/2	7	1/4	
U25-6.75	6-3/4	7-1/4	1/4	
U25-6.75-37B	6-3/4	7-1/4	3/8	
U25-6.75-56B	6-3/4	7-1/4	9/16	
U25-6.75-56D	6-3/4	7-1/4	9/16	
U25-7.00	7	7-1/2	1/4	
U25-7.00-37B	7	7-1/2	3/8	
U25-7.00-56B	7	7-1/2	9/16	
U25-7.25	7-1/4	7-3/4	1/4	
U25-7.50-56B	7-1/2	8	9/16	
U25-7.50-SQB	7-1/2	8	1/4	
U25-7.75	7-3/4	8-1/4	1/4	
U25-8.00	8	8-1/2	1/4	
U25-8.00-56B	8	8-1/2	9/16	
U25-8.12-56B	8-1/8	8-5/8	9/16	



# STYLE 800 POLYURETHANE U-SEALS

Part Number	I.D.	O.D.	H.	
<b>1/4" C/S</b>				
U25-8.25-56B	8-1/4	8-3/4	9/16	
U25-8.50	8-1/2	9	1/4	
U25-8.50-56B	8-1/2	9	9/16	
U25-9.00	9	9-1/2	1/4	
U25-9.50	9-1/2	10	1/4	
U25-9.50-56B	9-1/2	10	9/16	
U25-9.75	9-3/4	10-1/4	1/4	
U25-10.00	10	10-1/2	1/4	
U25-10.00-56B	10	10-1/2	9/16	
U25-10.25	10-1/4	10-3/4	1/4	
U25-13.50-53B	13-1/2	14	17/32	
<b>.275" C/S</b>				
U27-1.97-50B	1.970	2.520	1/2	
U27-2.97-50B	2.970	3.520	1/2	
U27-3.97-50B	3.970	4.520	1/2	
U27-4.97-50B	4.970	5.520	1/2	
<b>9/32" C/S</b>				
U28-1.00	1	1-9/16	9/32	
U28-2.20-50B	2.200	2.770	1/2	
U28-3.18-50B	3-3/16	3-3/4	1/2	
U28-3.20-50B	3.200	3.770	1/2	
U28-5.43	5-7/16	6	9/32	
U28-5.43-56B	5-7/16	6	9/16	
<b>5/16" C/S</b>				
U31-0.25	1/4	7/8	5/16	
U31-0.37	3/8	1	5/16	
U31-0.43	7/16	1-1/16	5/16	
U31-0.50	1/2	1-1/8	5/16	
U31-0.62	5/8	1-1/4	5/16	
U31-0.75	3/4	1-3/8	5/16	
U31-0.75-50B	3/4	1-3/8	1/2	
U31-0.87	7/8	1-1/2	5/16	
U31-1.00	1	1-5/8	5/16	
U31-1.00-37B	1	1-5/8	3/8	
U31-1.00-50B	1	1-5/8	1/2	
U31-1.12-37B	1-1/8	1-3/4	3/8	
U31-1.12-SQB	1-1/8	1-3/4	5/16	
U31-1.18	1-3/16	1-13/16	5/16	
U31-1.25	1-1/4	1-7/8	5/16	
U31-1.25-37B	1-1/4	1-7/8	3/8	
U31-1.25-50B	1-1/4	1-7/8	1/2	
U31-1.25-50D	1-1/4	1-7/8	1/2	
U31-1.25-SQB	1-1/4	1-7/8	5/16	
U31-1.37-37B	1-3/8	2	3/8	
U31-1.37-50B	1-3/8	2	1/2	
U31-1.37-50D	1-3/8	2	1/2	

Part Number	I.D.	O.D.	H.	
<b>5/16" C/S</b>				
U31-1.37-SQB	1-3/8	2	5/16	
U31-1.50	1-1/2	2-1/8	5/16	
U31-1.50-37B	1-1/2	2-1/8	3/8	
U31-1.50-43B	1-1/2	2-1/8	7/16	
U31-1.50-50B	1-1/2	2-1/8	1/2	
U31-1.50-50D	1-1/2	2-1/8	1/2	
U31-1.62	1-5/8	2-1/4	5/16	
U31-1.62-37B	1-5/8	2-1/4	3/8	
U31-1.62-50B	1-5/8	2-1/4	1/2	
U31-1.68	1-11/16	2-5/16	5/16	
U31-1.75	1-3/4	2-3/8	5/16	
U31-1.75-37B	1-3/4	2-3/8	3/8	
U31-1.75-50B	1-3/4	2-3/8	1/2	
U31-1.75-50D	1-3/4	2-3/8	1/2	
U31-1.87	1-7/8	2-1/2	5/16	
U31-1.87-37B	1-7/8	2-1/2	3/8	
U31-1.87-50B	1-7/8	2-1/2	1/2	
U31-1.87-50D	1-7/8	2-1/2	1/2	
U31-1.93	1-15/16	2-9/16	5/16	
U31-2.00	2	2-5/8	5/16	
U31-2.00-37B	2	2-5/8	3/8	
U31-2.00-50B	2	2-5/8	1/2	
U31-2.12-50B	2-1/8	2-3/4	1/2	
U31-2.12-SQB	2-1/8	2-3/4	5/16	
U31-2.25	2-1/4	2-7/8	5/16	
U31-2.25-50B	2-1/4	2-7/8	1/2	
U31-2.37	2-3/8	3	5/16	
U31-2.37-50B	2-3/8	3	1/2	
U31-2.37-50D	2-3/8	3	1/2	
U31-2.50	2-1/2	3-1/8	5/16	
U31-2.50-50B	2-1/2	3-1/8	1/2	
U31-2.50-50D	2-1/2	3-1/8	1/2	
U31-2.56	2-9/16	3-3/16	5/16	
U31-2.62	2-5/8	3-1/4	5/16	
U31-2.62-50B	2-5/8	3-1/4	1/2	
U31-2.75	2-3/4	3-3/8	5/16	
U31-2.75-50B	2-3/4	3-3/8	1/2	
U31-2.87	2-7/8	3-1/2	5/16	
U31-2.87-50B	2-7/8	3-1/2	1/2	
U31-3.00	3	3-5/8	5/16	
U31-3.00-37B	3	3-5/8	3/8	
U31-3.00-50B	3	3-5/8	1/2	
U31-3.12-SQB	3-1/8	3-3/4	5/16	
U31-3.25	3-1/4	3-7/8	5/16	
U31-3.25-50B	3-1/4	3-7/8	1/2	
U31-3.37	3-3/8	4	5/16	
U31-3.37-50B	3-3/8	4	1/2	

# STYLE 800 POLYURETHANE U-SEALS

Part Number	I.D.	O.D.	H.	
<b>5/16" C/S</b>				
U31-3.37-62B	3-3/8	4	5/8	
U31-3.50	3-1/2	4-1/8	5/16	
U31-3.50-50B	3-1/2	4-1/8	1/2	
U31-3.50-50D	3-1/2	4-1/8	1/2	
U31-3.62	3-5/8	4-1/4	5/16	
U31-3.62-50B	3-5/8	4-1/4	1/2	
U31-3.75	3-3/4	4-3/8	5/16	
U31-3.75-37B	3-3/4	4-3/8	3/8	
U31-3.75-50B	3-3/4	4-3/8	1/2	
U31-3.75-62B	3-3/4	4-3/8	5/8	
U31-3.87	3-7/8	4-1/2	5/16	
U31-3.87-50B	3-7/8	4-1/2	1/2	
U31-4.00	4	4-5/8	5/16	
U31-4.00-56B	4	4-5/8	9/16	
U31-4.00-56F	4	4-5/8	9/16	
U31-4.12	4-1/8	4-3/4	5/16	
U31-4.12-56B	4-1/8	4-3/4	9/16	
U31-4.25	4-1/4	4-7/8	5/16	
U31-4.25-56B	4-1/4	4-7/8	9/16	
U31-4.37	4-3/8	5	5/16	
U31-4.37-50B	4-3/8	5	1/2	
U31-4.37-56B	4-3/8	5	9/16	
U31-4.50	4-1/2	5-1/8	5/16	
U31-4.50-50B	4-1/2	5-1/8	1/2	
U31-4.50-62B	4-1/2	5-1/8	5/8	
U31-4.62-62B	4-5/8	5-1/4	5/8	
U31-4.75	4-3/4	5-3/8	5/16	
U31-4.75-62B	4-3/4	5-3/8	5/8	
U31-4.87	4-7/8	5-1/2	5/16	
U31-5.00	5	5-5/8	5/16	
U31-5.00-62B	5	5-5/8	5/8	
U31-5.00-62D	5	5-5/8	5/8	
U31-5.12	5-1/8	5-3/4	5/16	
U31-5.25	5-1/4	5-7/8	5/16	
U31-5.25-62B	5-1/4	5-7/8	5/8	
U31-5.37-62B	5-3/8	6	5/8	
U31-5.37-SQB	5-3/8	6	5/16	
U31-5.50-62B	5-1/2	6-1/8	5/8	
U31-5.50-SQB	5-1/2	6-1/8	5/16	
U31-5.62	5-5/8	6-1/4	5/16	
U31-5.75-62B	5-3/4	6-3/8	5/8	
U31-5.87	5-7/8	6-1/2	5/16	
U31-6.00	6	6-5/8	5/16	
U31-6.00-62B	6	6-5/8	5/8	
U31-6.12	6-1/8	6-3/4	5/16	
U31-6.25	6-1/4	6-7/8	5/16	
U31-6.37	6-3/8	7	5/16	

Part Number	I.D.	O.D.	H.	
<b>5/16" C/S</b>				
U31-6.37-62D	6-3/8	7	5/8	
U31-6.37N	6-3/8	7	5/16	
U31-6.50	6-1/2	7-1/8	5/16	
U31-6.50-62B	6-1/2	7-1/8	5/8	
U31-6.62	6-5/8	7-1/4	5/16	
U31-7.00-62B	7	7-5/8	5/8	
U31-7.37	7-3/8	8	5/16	
U31-7.37N	7-3/8	8	5/16	
U31-8.00-62B	8	8-5/8	5/8	
U31-9.37-62B	9-3/8	10	5/8	
<b>11/32" C/S</b>				
U34-9.31	9-5/16	10	11/32	
<b>3/8" C/S</b>				
U37-0.50	1/2	1-1/4	3/8	
U37-0.75	3/4	1-1/2	3/8	
U37-0.81	13/16	1-9/16	3/8	
U37-0.87	7/8	1-5/8	3/8	
U37-0.93	15/16	1-11/16	3/8	
U37-1.00	1	1-3/4	3/8	
U37-1.00-62D	1	1-3/4	5/8	
U37-1.12	1-1/8	1-7/8	3/8	
U37-1.25	1-1/4	2	3/8	
U37-1.25-62D	1-1/4	2	5/8	
U37-1.37	1-3/8	2-1/8	3/8	
U37-1.50	1-1/2	2-1/4	3/8	
U37-1.50-50B	1-1/2	2-1/4	1/2	
U37-1.50-62B	1-1/2	2-1/4	5/8	
U37-1.56	1-9/16	2-5/16	3/8	
U37-1.62-62B	1-5/8	2-3/8	5/8	
U37-1.62-SQB	1-5/8	2-3/8	3/8	
U37-1.75	1-3/4	2-1/2	3/8	
U37-1.75-62B	1-3/4	2-1/2	5/8	
U37-1.87	1-7/8	2-5/8	3/8	
U37-2.00-50B	2	2-3/4	1/2	
U37-2.00-62B	2	2-3/4	5/8	
U37-2.00-SQB	2	2-3/4	3/8	
U37-2.06	2-1/16	2-13/16	3/8	
U37-2.12	2-1/8	2-7/8	3/8	
U37-2.25	2-1/4	3	3/8	
U37-2.25-50B	2-1/4	3	1/2	
U37-2.25-62B	2-1/4	3	5/8	
U37-2.25-62D	2-1/4	3	5/8	
U37-2.25-SQB	2-1/4	3	3/8	
U37-2.37	2-3/8	3-1/8	3/8	
U37-2.50-50B	2-1/2	3-1/4	1/2	
U37-2.50-62B	2-1/2	3-1/4	5/8	

# STYLE 800 POLYURETHANE U-SEALS

U-SEALS

Part Number	I.D.	O.D.	H.	
<b>3/8" C/S</b>				
U37-2.50-62D	2-1/2	3-1/4	5/8	
U37-2.50-62DF	2-1/2	3-1/4	5/8	
U37-2.50-SQB	2-1/2	3-1/4	3/8	
U37-2.62	2-5/8	3-3/8	3/8	
U37-2.62-62B	2-5/8	3-3/8	5/8	
U37-2.75	2-3/4	3-1/2	3/8	
U37-2.75-50D	2-3/4	3-1/2	1/2	
U37-2.75-62B	2-3/4	3-1/2	5/8	
U37-2.75-62D	2-3/4	3-1/2	5/8	
U37-2.81	2-13/16	3-9/16	3/8	
U37-2.93	2-15/16	3-11/16	3/8	
U37-3.00	3	3-3/4	3/8	
U37-3.00-50B	3	3-3/4	1/2	
U37-3.00-62B	3	3-3/4	5/8	
U37-3.00-SQB	3	3-3/4	3/8	
U37-3.12-SQB	3-1/8	3-7/8	3/8	
U37-3.25	3-1/4	4	3/8	
U37-3.25-50B	3-1/4	4	1/2	
U37-3.25-62B	3-1/4	4	5/8	
U37-3.37	3-3/8	4-1/8	3/8	
U37-3.37-62B	3-3/8	4-1/8	5/8	
U37-3.50	3-1/2	4-1/4	3/8	
U37-3.50-50D	3-1/2	4-1/4	1/2	
U37-3.50-62B	3-1/2	4-1/4	5/8	
U37-3.62	3-5/8	4-3/8	3/8	
U37-3.62-50B	3-5/8	4-3/8	1/2	
U37-3.62-62B	3-5/8	4-3/8	5/8	
U37-3.75	3-3/4	4-1/2	3/8	
U37-3.75-50D	3-3/4	4-1/2	1/2	
U37-3.75-62B	3-3/4	4-1/2	5/8	
U37-3.75-SQB	3-3/4	4-1/2	3/8	
U37-3.87	3-7/8	4-5/8	3/8	
U37-4.00	4	4-3/4	3/8	
U37-4.00-50D	4	4-3/4	1/2	
U37-4.00-62B	4	4-3/4	5/8	
U37-4.00-62D	4	4-3/4	5/8	
U37-4.12	4-1/8	4-7/8	3/8	
U37-4.25	4-1/4	5	3/8	
U37-4.25-50D	4-1/4	5	1/2	
U37-4.25-62B	4-1/4	5	5/8	
U37-4.25-62D	4-1/4	5	5/8	
U37-4.25-SQB	4-1/4	5	3/8	
U37-4.37	4-3/8	5-1/8	3/8	
U37-4.37-62B	4-3/8	5-1/8	5/8	
U37-4.50	4-1/2	5-1/4	3/8	
U37-4.50-62B	4-1/2	5-1/4	5/8	
U37-4.50-SQB	4-1/2	5-1/4	3/8	

Part Number	I.D.	O.D.	H.	
<b>3/8" C/S</b>				
U37-4.62	4-5/8	5-3/8	3/8	
U37-4.62-62B	4-5/8	5-3/8	5/8	
U37-4.75-50B	4-3/4	5-1/2	1/2	
U37-4.75-62B	4-3/4	5-1/2	5/8	
U37-4.75-SQB	4-3/4	5-1/2	3/8	
U37-4.87	4-7/8	5-5/8	3/8	
U37-4.87-62B	4-7/8	5-5/8	5/8	
U37-5.00-62B	5	5-3/4	5/8	
U37-5.00-SQB	5	5-3/4	3/8	
U37-5.25	5-1/4	6	3/8	
U37-5.25-50B	5-1/4	6	1/2	
U37-5.25-50D	5-1/4	6	1/2	
U37-5.25-62B	5-1/4	6	5/8	
U37-5.25-62D	5-1/4	6	5/8	
U37-5.25-SQB	5-1/4	6	3/8	
U37-5.37	5-3/8	6-1/8	3/8	
U37-5.37-62B	5-3/8	6-1/8	5/8	
U37-5.50-62B	5-1/2	6-1/4	5/8	
U37-5.50-SQB	5-1/2	6-1/4	3/8	
U37-5.75	5-3/4	6-1/2	3/8	
U37-5.75-62B	5-3/4	6-1/2	5/8	
U37-5.87	5-7/8	6-5/8	3/8	
U37-5.87-62B	5-7/8	6-5/8	5/8	
U37-6.00-62B	6	6-3/4	5/8	
U37-6.00-SQB	6	6-3/4	3/8	
U37-6.25	6-1/4	7	3/8	
U37-6.25-50D	6-1/4	7	1/2	
U37-6.25-62B	6-1/4	7	5/8	
U37-6.37	6-3/8	7-1/8	3/8	
U37-6.50	6-1/2	7-1/4	3/8	
U37-6.50-50B	6-1/2	7-1/4	1/2	
U37-6.50-62B	6-1/2	7-1/4	5/8	
U37-6.75-62B	6-3/4	7-1/2	5/8	
U37-6.87-62B	6-7/8	7-5/8	5/8	
U37-7.00	7	7-3/4	3/8	
U37-7.00-50B	7	7-3/4	1/2	
U37-7.00-62B	7	7-3/4	5/8	
U37-7.25	7-1/4	8	3/8	
U37-7.25-50D	7-1/4	8	1/2	
U37-7.25-62B	7-1/4	8	5/8	
U37-7.25-SQB	7-1/4	8	3/8	
U37-7.50-50B	7-1/2	8-1/4	1/2	
U37-7.62	7-5/8	8-3/8	3/8	
U37-7.75	7-3/4	8-1/2	3/8	
U37-7.75-62B	7-3/4	8-1/2	5/8	
U37-8.00-50D	8	8-3/4	1/2	
U37-8.00-62B	8	8-3/4	5/8	

# STYLE 800 POLYURETHANE U-SEALS

Part Number	I.D.	O.D.	H.	
<b>3/8" C/S</b>				
U37-8.25	8-1/4	9	3/8	
U37-8.25-62B	8-1/4	9	5/8	
U37-8.75-62D	8-3/4	9-1/2	5/8	
U37-9.00	9	9-3/4	3/8	
U37-9.00-62B	9	9-3/4	5/8	
U37-9.25	9-1/4	10	3/8	
U37-9.25-50D	9-1/4	10	1/2	
U37-9.25-62B	9-1/4	10	5/8	
U37-9.50	9-1/2	10-1/4	3/8	
U37-9.50-62B	9-1/2	10-1/4	5/8	
U37-9.75-62B	9-3/4	10-1/2	5/8	
U37-10.00-62B	10	10-3/4	5/8	
U37-10.50-62B	10-1/2	11-1/4	5/8	
U37-11.00-62B	11	11-3/4	5/8	
U37-11.25	11-1/4	12	3/8	
U37-11.25-62B	11-1/4	12	5/8	
U37-11.50-62B	11-1/2	12-1/4	5/8	
U37-12.00-62B	12	12-3/4	5/8	
U37-12.25	12-1/4	13	3/8	
U37-13.25	13-1/4	14	3/8	
U37-13.75	13-3/4	14-1/2	3/8	
U37-14.25-62B	14-1/4	15	5/8	
U37-19.50	19-1/2	20-1/4	3/8	
<b>7/16" C/S</b>				
U43-1.50	1-1/2	2-3/8	7/16	
U43-2.50	2-1/2	3-3/8	7/16	
U43-3.12	3-1/8	4	7/16	
U43-3.87-75B	3-7/8	4-3/4	3/4	
U43-4.50	4-1/2	5-3/8	7/16	
U43-4.75	4-3/4	5-5/8	7/16	
U43-4.75-75B	4-3/4	5-5/8	3/4	
U43-5.12	5-1/8	6	7/16	
U43-5.25	5-1/4	6-1/8	7/16	
U43-13.125-SQB	13-1/8	14	7/16	
<b>1/2" C/S</b>				
U50-1.00	1	2	1/2	
U50-1.25	1-1/4	2-1/4	1/2	
U50-1.50	1-1/2	2-1/2	1/2	
U50-1.75	1-3/4	2-3/4	1/2	
U50-1.87-62B	1-7/8	2-7/8	5/8	
U50-2.00-75B	2	3	3/4	
U50-2.00-SQB	2	3	1/2	
U50-2.25	2-1/4	3-1/4	1/2	
U50-2.37-SQB	2-3/8	3-3/8	1/2	
U50-2.50	2-1/2	3-1/2	1/2	
U50-2.50-75B	2-1/2	3-1/2	3/4	

Part Number	I.D.	O.D.	H.	
<b>1/2" C/S</b>				
U50-2.75	2-3/4	3-3/4	1/2	
U50-3.00	3	4	1/2	
U50-3.00-62B	3	4	5/8	
U50-3.00-75B	3	4	3/4	
U50-3.00-75D	3	4	3/4	
U50-3.25	3-1/4	4-1/4	1/2	
U50-3.50	3-1/2	4-1/2	1/2	
U50-3.50-75B	3-1/2	4-1/2	3/4	
U50-3.50-75D	3-1/2	4-1/2	3/4	
U50-3.62	3-5/8	4-5/8	1/2	
U50-3.75	3-3/4	4-3/4	1/2	
U50-4.00	4	5	1/2	
U50-4.00-67D	4	5	.67	
U50-4.00-75B	4	5	3/4	
U50-4.25	4-1/4	5-1/4	1/2	
U50-4.25-75B	4-1/4	5-1/4	3/4	
U50-4.50	4-1/2	5-1/2	1/2	
U50-4.50-75B	4-1/2	5-1/2	3/4	
U50-4.50-75D	4-1/2	5-1/2	3/4	
U50-4.75	4-3/4	5-3/4	1/2	
U50-4.75-69B	4-3/4	5-3/4	11/16	
U50-5.00	5	6	1/2	
U50-5.00-75B	5	6	3/4	
U50-5.00-75D	5	6	3/4	
U50-5.00-SQB	5	6	1/2	
U50-5.25	5-1/4	6-1/4	1/2	
U50-5.37-75B	5-3/8	6-3/8	3/4	
U50-5.50	5-1/2	6-1/2	1/2	
U50-5.50-75B	5-1/2	6-1/2	3/4	
U50-5.50-75D	5-1/2	6-1/2	3/4	
U50-5.75	5-3/4	6-3/4	1/2	
U50-5.75-75B	5-3/4	6-3/4	3/4	
U50-6.00-75B	6	7	3/4	
U50-6.00-75D	6	7	3/4	
U50-6.00-SQB	6	7	1/2	
U50-6.25	6-1/4	7-1/4	1/2	
U50-6.50	6-1/2	7-1/2	1/2	
U50-6.50-75B	6-1/2	7-1/2	3/4	
U50-6.75-75B	6-3/4	7-3/4	3/4	
U50-7.00	7	8	1/2	
U50-7.00-75B	7	8	3/4	
U50-7.25	7-1/4	8-1/4	1/2	
U50-7.50	7-1/2	8-1/2	1/2	
U50-7.50-75D	7-1/2	8-1/2	3/4	
U50-7.75	7-3/4	8-3/4	1/2	
U50-8.00	8	9	1/2	
U50-8.00-75B	8	9	3/4	

# STYLE 800 POLYURETHANE U-SEALS

U-SEALS

Part Number	I.D.	O.D.	H.	
<b>1/2" C/S</b>				
U50-8.00-75D	8	9	3/4	
U50-8.50	8-1/2	9-1/2	1/2	
U50-8.50-75B	8-1/2	9-1/2	3/4	
U50-8.75	8-3/4	9-3/4	1/2	
U50-9.00	9	10	1/2	
U50-9.00-75B	9	10	3/4	
U50-9.00N	9	10	1/2	
U50-9.25-75B	9-1/4	10-1/4	3/4	
U50-9.50	9-1/2	10-1/2	1/2	
U50-10.00-75B	10	11	3/4	
U50-10.50	10-1/2	11-1/2	1/2	
U50-10.62-75B	10-5/8	11-5/8	3/4	
U50-11.00	11	12	1/2	
U50-11.00-75B	11	12	3/4	
U50-11.50-75D	11-1/2	12-1/2	3/4	
U50-12.00-75B	12	13	3/4	
U50-12.50-75D	12-1/2	13-1/2	3/4	
U50-13.00	13	14	1/2	
U50-13.00-75B	13	14	3/4	
U50-13.50-75D	13-1/2	14-1/2	3/4	
U50-14.00-75B	14	15	3/4	
U50-15.00	15	16	1/2	
U50-15.00-75B	15	16	3/4	
U50-15.50-75D	15-1/2	16-1/2	3/4	
U50-17.00-75B	17	18	3/4	
U50-21.00	21	22	1/2	
U50-23.50	23-1/2	24-1/2	1/2	
U50-26.50	26-1/2	27-1/2	1/2	
U50-27.00	27	28	1/2	
U50-28.50	28-1/2	29-1/2	1/2	
U50-31.00	31	32	1/2	
U50-32.00	32	33	1/2	
U50-36.00	36	37	1/2	
U50-36.75	36-3/4	37-3/4	1/2	
U50-40.00	40	41	1/2	
U50-41.00	41	42	1/2	
<b>5/8" C/S</b>				
U62-1.25	1-1/4	2-1/2	5/8	
U62-1.75	1-3/4	3	5/8	
U62-2.75	2-3/4	4	5/8	
U62-3.00	3	4-1/4	5/8	
U62-3.25	3-1/4	4-1/2	5/8	
U62-3.50	3-1/2	4-3/4	5/8	
U62-3.75	3-3/4	5	5/8	
U62-4.00	4	5-1/4	5/8	
U62-4.25	4-1/4	5-1/2	5/8	
U62-4.75	4-3/4	6	5/8	
U62-4.75-75D	4-3/4	6	3/4	

Part Number	I.D.	O.D.	H.	
<b>5/8" C/S</b>				
U62-5.00	5	6-1/4	5/8	
U62-5.25	5-1/4	6-1/2	5/8	
U62-5.50	5-1/2	6-3/4	5/8	
U62-5.75	5-3/4	7	5/8	
U62-6.00	6	7-1/4	5/8	
U62-6.25	6-1/4	7-1/2	5/8	
U62-7.00-100B	7	8-1/4	1	
U62-7.25	7-1/4	8-1/2	5/8	
U62-8.00	8	9-1/4	5/8	
U62-8.50	8-1/2	9-3/4	5/8	
U62-9.00	9	10-1/4	5/8	
U62-9.50	9-1/2	10-3/4	5/8	
U62-9.75	9-3/4	11	5/8	
U62-10.00-100B	10	11-1/4	1	
U62-11.50-100B	11-1/2	12-3/4	1	
U62-12.00	12	13-1/4	5/8	
U62-14.00-100D	14	15-1/4	1	
U62-14.75-100B	14-3/4	16	1	
U62-18.00-100B	18	19-1/4	1	
U62-24.00	24	25-1/4	5/8	
<b>3/4" C/S</b>				
U75-3.50-SQB	3-1/2	5	3/4	
U75-4.50	4-1/2	6	3/4	
U75-6.50	6-1/2	8	3/4	
U75-7.00	7	8-1/2	3/4	
U75-8.00	8	9-1/2	3/4	
U75-9.00	9	10-1/2	3/4	
U75-9.50	9-1/2	11	3/4	
U75-10.00	10	11-1/2	3/4	
U75-10.50	10-1/2	12	3/4	
U75-11.00	11	12-1/2	3/4	
U75-12.50	12-1/2	14	3/4	
U75-14.00	14	15-1/2	3/4	
U75-14.50	14-1/2	16	3/4	
U75-16.00	16	17-1/2	3/4	
U75-16.50	16-1/2	18	3/4	
U75-18.00	18	19-1/2	3/4	
U75-20.50	20-1/2	22	3/4	
<b>1" C/S</b>				
U100-10.00	10	12	1	
U100-12.00-150D	12	14	1-1/2	
U100-14.00-150D	14	16	1-1/2	
U100-15.00	15	17	1	
U100-16.00	16	18	1	
U100-18.00	18	20	1	
U100-19.00	19	21	1	
U100-20.00	20	22	1	

# STYLE 800 HIGH-TEMPERATURE POLYURETHANE U-SEALS

Style 800 U-seals are molded from tough, abrasion-resistant polyurethane. The four lobed expander ring energizes the sealing lips, even at zero pressure, to help prevent "weeping" when the system is idle.



SEAL INFORMATION	
MATERIAL	95 A URETHANE
TEMPERATURE RANGE	-65° TO +250° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix)(CS) - (Inside Dia) - (Height)



**Standard -**  
Height and cross section are equal, thus giving a square seal. Utilizes type "D" lip  
Typical Part Number U25-2.50



**Deep -**  
Utilizes the same "D" lip, but the seal height is greater than the cross section, thus giving a rectangular shape.  
Typical Part Number U25-2.50-37D



**Type SQB -**  
Same dimensions as the Standard seal. Beveled lip design provides better film breaking. Utilizes type "B" lip.  
Typical Part Number U25-2.50-SQB



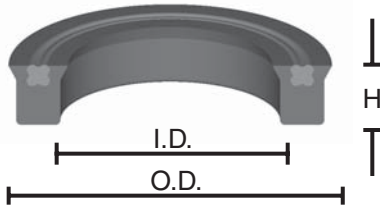
**Type B -**  
Same dimensions as the Deep seal. Beveled lip design provides better film breaking. Utilizes type "B" lip.  
Typical Part Number U25-2.50-37B

Part Number	I.D.	O.D.	H.	
<b>1/8" C/S</b>				
U12-1.00-25BHT	1	1-1/4	1/4	
U12-1.00-SQBHT	1	1-1/4	1/8	
U12-1.12-25BHT	1-1/8	1-3/8	1/4	
U12-1.25-25BHT	1-1/4	1-1/2	1/4	
U12-1.25-SQBHT	1-1/4	1-1/2	1/8	
<b>3/16" C/S</b>				
U18-1.00-31BHT	1	1-3/8	5/16	
U18-1.12-31BHT	1-1/8	1-1/2	5/16	
U18-1.12-SQBHT	1-1/8	1-1/2	3/16	
U18-1.25-31BHT	1-1/4	1-5/8	5/16	
U18-1.25-SQBHT	1-1/4	1-5/8	3/16	
U18-1.31-31BHT	1-5/16	1-11/16	5/16	
U18-1.50-37BHT	1-1/2	1-7/8	3/8	
U18-1.75-37BHT	1-3/4	2-1/8	3/8	
<b>1/4" C/S</b>				
U25-1.25-37BHT	1-1/4	1-3/4	3/8	
U25-1.25-SQBHT	1-1/4	1-3/4	1/4	

Part Number	I.D.	O.D.	H.	
<b>1/4" C/S</b>				
U25-1.50-37BHT	1-1/2	2	3/8	
U25-1.75-37BHT	1-3/4	2-1/4	3/8	
U25-2.00-37BHT	2	2-1/2	3/8	
U25-2.00-SQBHT	2	2-1/2	1/4	
U25-2.25-37BHT	2-1/4	2-3/4	3/8	
U25-2.25-SQBHT	2-1/4	2-3/4	1/4	
U25-2.50-37BHT	2-1/2	3	3/8	
U25-2.50-SQBHT	2-1/2	3	1/4	
U25-2.62-37BHT	2-5/8	3-1/8	3/8	
U25-3.00-37BHT	3	3-1/2	3/8	
U25-3.00-SQBHT	3	3-1/2	1/4	
U25-3.25-37BHT	3-1/4	3-3/4	3/8	
U25-3.50-37BHT	3-1/2	4	3/8	
U25-4.00-37BHT	4	4-1/2	3/8	
<b>5/16" C/S</b>				
U31-1.50HT	1-1/2	2-1/8	5/16	

## STYLE 800 FLUOROCARBON U-SEALS

Utilizing the same profiles as the Style 800 Polyurethane U-Seal line, these u-seals are molded from a fluorocarbon compound. While being compatible with a broader range of fluids, these fluorocarbon seals will also operate continuously at temperatures from -20° to +400° F.



### SEAL INFORMATION

MATERIAL	95 A FLUOROCARBON
TEMPERATURE RANGE	-20° TO +400° F
PRESSURE RANGE	0 TO 2,000 PSI
PART NUMBER	(Prefix)(CS) - (Inside Dia) - (Height)

Part Number	I.D.	O.D.	H.	
<b>1/8" C/S</b>				
U12-0.25V	1/4	1/2	1/8	
U12-0.31V	5/16	9/16	1/8	
U12-0.37V	3/8	5/8	1/8	
U12-0.50-25BV	1/2	3/4	1/4	
U12-0.50V	1/2	3/4	1/8	
U12-0.62-25BV	5/8	7/8	1/4	
U12-0.62V	5/8	7/8	1/8	
U12-0.75-25BV	3/4	1	1/4	
U12-0.75V	3/4	1	1/8	
U12-0.87V	7/8	1-1/8	1/8	
U12-1.00-25BV	1	1-1/4	1/4	
U12-1.00V	1	1-1/4	1/8	
U12-1.25V	1-1/4	1-1/2	1/8	
U12-1.37-25DV	1-3/8	1-5/8	1/4	
U12-1.37V	1-3/8	1-5/8	1/8	
U12-1.50-25BV	1 1/2	1-3/4	1/4	
U12-1.50V	1-1/2	1-3/4	1/8	
U12-1.75V	1-3/4	2	1/8	
U12-2.00V	2	2-1/4	1/8	
<b>5/32" C/S</b>				
U15-1.00V	1	1-5/16	5/32	
U15-1.18V	1-3/16	1-1/2	5/32	
U15-1.37V	1-3/8	1-11/16	5/32	
<b>3/16" C/S</b>				
U18-0.37V	3/8	3/4	3/16	
U18-0.50-31BV	1/2	7/8	5/16	
U18-0.62V	5/8	1	3/16	
U18-0.75-31BV	3/4	1-1/8	5/16	
U18-1.00-31BV	1	1-3/8	5/16	
U18-1.00V	1	1-3/8	3/16	
U18-1.12-31BV	1-1/8	1-1/2	5/16	
U18-1.12V	1-1/8	1-1/2	3/16	
U18-1.25-31BV	1-1/4	1-5/8	5/16	
U18-1.25V	1-1/4	1-5/8	3/16	
U18-1.37-25BV	1-3/8	1-3/4	1/4	
U18-1.37-31BV	1-3/8	1-3/4	5/16	
U18-1.37V	1-3/8	1-3/4	3/16	

Part Number	I.D.	O.D.	H.	
<b>3/16" C/S</b>				
U18-1.50-37BV	1-1/2	1-7/8	3/8	
U18-1.50V	1-1/2	1-7/8	3/16	
U18-1.62-37BV	1-5/8	2	3/8	
U18-1.62V	1-5/8	2	3/16	
U18-1.75-37BV	1-3/4	2-1/8	3/8	
U18-1.75V	1-3/4	2-1/8	3/16	
U18-1.87-37BV	1-7/8	2-1/4	3/8	
U18-2.00-37BV	2	2-3/8	3/8	
U18-2.00V	2	2-3/8	3/16	
U18-2.12-37BV	2-1/8	2-1/2	3/8	
U18-2.12V	2-1/8	2-1/2	3/16	
U18-2.25V	2-1/4	2-5/8	3/16	
U18-2.50-37BV	2-1/2	2-7/8	3/8	
U18-2.50V	2-1/2	2-7/8	3/16	
U18-2.62-37BV	2-5/8	3	3/8	
U18-2.62V	2-5/8	3	3/16	
U18-2.75V	2-3/4	3-1/8	3/16	
U18-2.87V	2-7/8	3-1/4	3/16	
U18-3.00-37BV	3	3-3/8	3/8	
U18-3.00V	3	3-3/8	3/16	
U18-3.25-37BV	3-1/4	3-5/8	3/8	
U18-3.50-37BV	3-1/2	3-7/8	3/8	
U18-3.62V	3-5/8	4	3/16	
<b>7/32" C/S</b>				
U21-2.81V	2-13/16	3-1/4	7/32	
<b>1/4" C/S</b>				
U25-0.62V	5/8	1-1/8	1/4	
U25-0.75-37BV	3/4	1-1/4	3/8	
U25-0.87-37BV	7/8	1-3/8	3/8	
U25-1.00-37BV	1	1-1/2	3/8	
U25-1.00V	1	1-1/2	1/4	
U25-1.12-37BV	1-1/8	1-5/8	3/8	
U25-1.25-37BV	1-1/4	1-3/4	3/8	
U25-1.25V	1-1/4	1-3/4	1/4	
U25-1.37-37BV	1-3/8	1-7/8	3/8	
U25-1.50-37BV	1-1/2	2	3/8	
U25-1.50V	1-1/2	2	1/4	



# STYLE 800 FLUOROCARBON U-SEALS

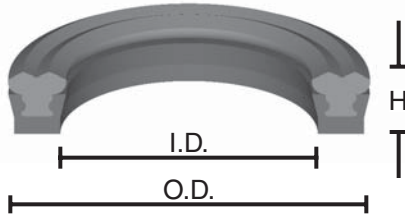
U-SEALS

Part Number	I.D.	O.D.	H.	
<b>1/4" C/S</b>				
U25-1.75-37BV	1-3/4	2-1/4	3/8	
U25-1.75V	1-3/4	2-1/4	1/4	
U25-2.00-37BV	2	2-1/2	3/8	
U25-2.00-37DV	2	2-1/2	3/8	
U25-2.00V	2	2-1/2	1/4	
U25-2.12-37BV	2-1/8	2-5/8	3/8	
U25-2.25-37BV	2-1/4	2-3/4	3/8	
U25-2.25V	2-1/4	2-3/4	1/4	
U25-2.50-37BV	2-1/2	3	3/8	
U25-2.50V	2-1/2	3	1/4	
U25-2.62-37BV	2-5/8	3-1/8	3/8	
U25-2.75-37BV	2-3/4	3-1/4	3/8	
U25-2.75V	2-3/4	3-1/4	1/4	
U25-3.00-37BV	3	3-1/2	3/8	
U25-3.00V	3	3-1/2	1/4	
U25-3.25-37BV	3-1/4	3-3/4	3/8	
U25-3.25V	3-1/4	3-3/4	1/4	
U25-3.50-37BV	3-1/2	4	3/8	
U25-3.50V	3-1/2	4	1/4	
U25-3.75-37BV	3-3/4	4-1/4	3/8	
U25-3.75V	3-3/4	4-1/4	1/4	
U25-4.00-37BV	4	4-1/2	3/8	
U25-4.00-56BV	4	4-1/2	9/16	
U25-4.00V	4	4-1/2	1/4	
U25-4.25-56BV	4-1/4	4-3/4	9/16	
U25-4.25V	4-1/4	4-3/4	1/4	
U25-4.50V	4-1/2	5	1/4	
U25-4.75-56BV	4-3/4	5-1/4	9/16	
U25-5.00-37BV	5	5-1/2	3/8	
U25-5.00-56BV	5	5-1/2	9/16	
U25-5.00V	5	5-1/2	1/4	
U25-5.50V	5-1/2	6	1/4	
<b>9/32" C/S</b>				
U28-5.43V	5-7/16	6	9/32	
<b>5/16" C/S</b>				
U31-1.00V	1	1-5/8	5/16	
U31-1.25V	1-1/4	1-7/8	5/16	
U31-1.37-50BV	1-3/8	2	1/2	
U31-1.37V	1-3/8	2	5/16	
U31-1.50V	1-1/2	2-1/8	5/16	
U31-1.75-50BV	1-3/4	2-3/8	1/2	
U31-1.75V	1-3/4	2-3/8	5/16	
U31-2.00-50BV	2	2-5/8	1/2	
U31-2.00V	2	2-5/8	5/16	
U31-2.25V	2-1/4	2-7/8	5/16	
U31-2.37-50BV	2-3/8	3	1/2	
U31-2.37V	2-3/8	3	5/16	
U31-2.50V	2-1/2	3-1/8	5/16	
U31-2.62-50BV	2-5/8	3-1/4	1/2	
U31-2.75-50BV	2-3/4	3-3/8	1/2	

Part Number	I.D.	O.D.	H.	
<b>5/16" C/S</b>				
U31-2.75V	2-3/4	3-3/8	5/16	
U31-3.00V	3	3-5/8	5/16	
U31-3.25V	3-1/4	3-7/8	5/16	
U31-3.50V	3-1/2	4-1/8	5/16	
U31-4.00V	4	4-5/8	5/16	
U31-4.37-50BV	4-3/8	5	1/2	
U31-4.37-50DV	4-3/8	5	1/2	
U31-4.37V	4-3/8	5	5/16	
U31-5.37V	5-3/8	6	5/16	
U31-6.37V	6-3/8	7	5/16	
U31-7.37V	7-3/8	8	5/16	
<b>3/8" C/S</b>				
U37-1.75-62BV	1-3/4	2-1/2	5/8	
U37-2.75-62BV	2-3/4	3-1/2	5/8	
U37-3.00-62BV	3	3-3/4	5/8	
U37-3.25-62BV	3-1/4	4	5/8	
U37-3.25V	3-1/4	4	3/8	
U37-3.50-62BV	3-1/2	4-1/4	5/8	
U37-3.75-62BV	3-3/4	4-1/2	5/8	
U37-4.00-62BV	4	4-3/4	5/8	
U37-4.25-62DV	4-1/4	5	5/8	
U37-4.25V	4-1/4	5	3/8	
U37-4.50-62BV	4-1/2	5-1/4	5/8	
U37-4.62-62BV	4-5/8	5-3/8	5/8	
U37-4.75-62BV	4-3/4	5-1/2	5/8	
U37-5.00-62BV	5	5-3/4	5/8	
U37-5.00V	5	5-3/4	3/8	
U37-5.25-62DV	5-1/4	6	5/8	
U37-5.25V	5-1/4	6	3/8	
U37-5.50-62BV	5-1/2	6-1/4	5/8	
U37-5.50V	5-1/2	6-1/4	3/8	
U37-6.00-62BV	6	6-3/4	5/8	
U37-6.00V	6	6-3/4	3/8	
U37-6.25-50DV	6-1/4	7	1/2	
U37-6.25-62BV	6-1/4	7	5/8	
U37-6.25V	6-1/4	7	3/8	
U37-6.50V	6-1/2	7 1/4	3/8	
U37-7.25-62DV	7-1/4	8	5/8	
U37-7.25V	7-1/4	8	3/8	
U37-9.25V	9-1/4	10	3/8	
<b>1/2" C/S</b>				
U50-3.50V	3-1/2	4-1/2	1/2	
U50-4.00V	4	5	1/2	
U50-5.00V	5	6	1/2	
U50-6.00-75DV	6	7	3/4	
U50-6.00V	6	7	1/2	
U50-7.00V	7	8	1/2	
U50-8.00V	8	9	1/2	
U50-9.00V	9	10	1/2	

## Z-SEALS

The Z-Seal™ is a squeeze type seal, combining the excellent sealability and low compression set of a resilient rubber lip with the greater anti-extrusion characteristics of a hard thermoplastic base. Under low pressure conditions, the sealing lip provides its own compressive seal force. As pressure increases, hydrostatic pressure is mechanically transmitted through the elastomeric seal element into the anti-extrusion base. The applied force then deflects radially in a controlled manner, closing the extrusion gap behind the sealing lip. Under this condition, maximum sealing effectiveness is achieved.



### SEAL INFORMATION

MATERIAL	95 A URETHANE 70 A NITRILE RUBBER
TEMPERATURE RANGE	-35° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix)(CS) - (Inside Dia) - (Height)

Part Number	I.D.	O.D.	H.	
<b>1/8" C/S</b>				
U12-0.50-25DZ	1/2	3/4	1/4	
U12-0.87-25Z	7/8	1-1/8	1/4	
U12-1.00-25DZ	1	1-1/4	1/4	
U12-1.12-25DZ	1-1/8	1-3/8	1/4	
U12-1.25-25DZ	1-1/4	1-1/2	1/4	
<b>5/32" C/S</b>				
U15-1.50-31DZ	1-1/2	1-13/16	5/16	
<b>3/16" C/S</b>				
U18-1.00-31Z	1	1-3/8	5/16	
U18-1.12-31DZ	1-1/8	1-1/2	5/16	
U18-1.12-31Z	1-1/8	1-1/2	5/16	
U18-1.25-31DZ	1-1/4	1-5/8	5/16	
U18-1.25-31Z	1-1/4	1-5/8	5/16	
U18-1.25-37DZLF	1-1/4	1-5/8	3/8	
U18-1.25-37Z	1-1/4	1-5/8	3/8	
U18-1.37-31DZ	1-3/8	1-3/4	5/16	
U18-1.50-37DZ	1-1/2	1-7/8	3/8	
U18-1.50-37DZLF	1-1/2	1-7/8	3/8	
U18-1.50-37Z	1-1/2	1-7/8	3/8	
U18-1.62-37Z	1-5/8	2	3/8	
U18-1.75-25Z	1-3/4	2-1/8	1/4	
U18-1.75-37DZ	1-3/4	2-1/8	3/8	
U18-1.75-37Z	1-3/4	2-1/8	3/8	
U18-1.87-37Z	1-7/8	2-1/4	3/8	
U18-2.00-25Z	2	2-3/8	1/4	
U18-2.00-37Z	2	2-3/8	3/8	
U18-2.25-37DZ	2-1/4	3	3/8	

Part Number	I.D.	O.D.	H.	
<b>3/16" C/S</b>				
U18-2.50-37Z	2-1/2	2-7/8	3/8	
U18-2.62-37Z	2-5/8	3	3/8	
U18-3.00-37Z	3	3-3/8	3/8	
U18-3.50-37Z	3-1/2	3-7/8	3/8	
U18-4.00-37ZF	4	4-3/8	3/8	
<b>1/4" C/S</b>				
U25-0.37-37DZ	3/8	7/8	3/8	
U25-1.00-37Z	1	1-1/2	3/8	
U25-1.00-56DZ	1	1-1/2	9/16	
U25-1.25-37Z	1-1/4	1-3/4	3/8	
U25-1.50-37DZR	1-1/2	2	3/8	
U25-1.50-37Z	1-1/2	2	3/8	
U25-1.75-31ZF	1-3/4	2-1/4	5/16	
U25-1.75-37DZ	1-3/4	2-1/4	3/8	
U25-1.75-37DZF	1-3/4	2-1/4	3/8	
U25-1.75-37Z	1-3/4	2-1/4	3/8	
U25-1.75-37ZF	1-3/4	2-1/4	3/8	
U25-1.87-37Z	1-7/8	2-3/8	3/8	
U25-2.00-37DZ	2	2-1/2	3/8	
U25-2.00-37DZF	2	2-1/2	3/8	
U25-2.00-37DZR	2	2-1/2	3/8	
U25-2.00-37Z	2	2-1/2	3/8	
U25-2.25-37Z	2-1/4	2-3/4	3/8	
U25-2.37-37Z	2-3/8	2-7/8	3/8	
U25-2.50-37DZ	2-1/2	3	3/8	
U25-2.50-37DZF	2-1/2	3	3/8	
U25-2.50-37DZR	2-1/2	3	3/8	

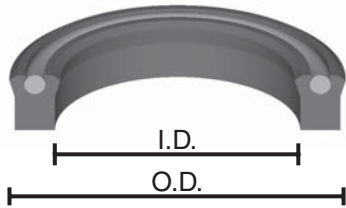
# Z-SEALS

Part Number	I.D.	O.D.	H.	
<b>1/4" C/S</b>				
U25-2.50-37Z	2-1/2	3	3/8	
U25-2.50-37ZF	2-1/2	3	3/8	
U25-2.62-37DZ	2-5/8	3-1/8	3/8	
U25-2.62-37Z	2-5/8	3-1/8	3/8	
U25-2.75-37DZ	2-3/4	3-1/4	3/8	
U25-2.75-37DZR	2-3/4	3-1/4	3/8	
U25-2.75-37Z	2-3/4	3-1/4	3/8	
U25-3.00-37DZ	3	3-1/2	3/8	
U25-3.00-37DZF	3	3-1/2	3/8	
U25-3.00-37Z	3	3-1/2	3/8	
U25-3.25-37Z	3-1/4	3-3/4	3/8	
U25-3.50-37DZ	3-1/2	4	3/8	
U25-3.50-37DZF	3-1/2	4	3/8	
U25-3.50-37Z	3-1/2	4	3/8	
U25-3.75-37Z	3-3/4	4-1/4	3/8	
U25-3.75-56DZ	3-3/4	4-1/4	9/16	
U25-4.00-37DZLF	4	4-3/4	3/8	
U25-4.00-37Z	4	4-1/2	3/8	
U25-4.50-37DZR	4-1/2	5	3/8	
U25-4.50-37Z	4-1/2	5	3/8	
U25-4.50-56DZ	4-1/2	5	9/16	
U25-4.62-56Z	4-5/8	5-1/8	9/16	
U25-5.00-56Z	5	5-1/2	9/16	
U25-5.25-56DZ	5-1/4	5-3/4	9/16	
U25-6.00-56ZF	6	6-1/2	9/16	
U25-6.75-56DZ	6-3/4	7-1/4	9/16	
U25-7.00-56Z	7	7-1/2	9/16	
<b>5/16" C/S</b>				
U31-1.37-50Z	1-3/8	2	1/2	
U31-1.87-50Z	1-7/8	2-1/2	1/2	
U31-2.50-50DZL	2-1/2	3-1/8	1/2	
U31-3.00-50DZLF	3	3-5/8	1/2	
U31-4.50-62DZLF	4-1/2	5-1/8	5/8	
U31-4.50-62Z	4-1/2	5-1/8	5/8	

Part Number	I.D.	O.D.	H.	
<b>3/8" C/S</b>				
U37-1.75-62Z	1-3/4	2-1/2	5/8	
U37-2.50-62DZ	2-1/2	3-1/4	5/8	
U37-2.50-62Z	2-1/2	3-1/4	5/8	
U37-2.75-62Z	2-3/4	3-1/2	5/8	
U37-3.00-62Z	3	3-3/4	5/8	
U37-3.25-62Z	3-1/4	4	5/8	
U37-3.62-62Z	3-5/8	4-3/8	5/8	
U37-3.75-62DZLF	3-3/4	4-1/2	5/8	
U37-3.75-62Z	3-3/4	4-1/2	5/8	
U37-4.00-62Z	4	4-3/4	5/8	
U37-4.25-62Z	4-1/4	5	5/8	
U37-4.37-50Z	4-3/8	5-1/8	1/2	
U37-4.50-62DZ	4-1/2	5-1/4	5/8	
U37-4.50-62DZR	4-1/2	5-1/4	5/8	
U37-4.75-62Z	4-3/4	5-1/2	5/8	
U37-5.25-62DZR	5-1/4	6	5/8	
U37-5.25-62Z	5-1/4	6	5/8	
U37-5.75-62Z	5-3/4	6-1/2	5/8	
U37-6.00-56Z	6	6-3/4	9/16	
U37-6.25-62Z	6-1/4	7	5/8	

# STYLE 850 POLYURETHANE U-SEALS

Style 850 u-seals offer excellent resistance to extrusion and abrasion. The round cross-section expander offers energized sealing from zero to 5,000 psi.



**BFM = 58D Durometer Fluorotrel**  
-65° to +275° F

**BHN = 85A Durometer Hydrogenated Nitrile**  
-50° to +320° F

**BPM = 58D Durometer Polymyte**  
-65° to +275° F  
-65° to +180° F in water based fluids

## SEAL INFORMATION

MATERIAL	95 A URETHANE
TEMPERATURE RANGE	-65° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix)(CS) - (Inside Dia) - (Height)



**Standard -**  
Height and cross section are equal, thus giving a square seal. Utilizes type "D" lip  
Typical Part Number P25-02.500



**Deep -**  
Utilizes the same "D" lip, but the seal height is greater than the cross section, thus giving a retangular shape.  
Typical Part Number P25-02.500-37D



**Type B -**  
Same dimensions as the Deep seal. Beveled lip design provides better film breaking.  
Utilizes type "B" lip.  
Typical Part Number U25-02.500-37B

Part Number	I.D.	O.D.	H.	
<b>1/8" C/S</b>				
P125-00.062	1/16	5/16	1/8	
P125-00.125-250B	1/8	3/8	1/4	
P125-00.187-250B	3/16	7/16	1/4	
P125-00.250	1/4	1/2	1/8	
P125-00.250-250B	1/4	1/2	1/4	
P125-00.312-250B	5/16	9/16	1/4	
P125-00.375	3/8	5/8	1/8	
P125-00.375-187B	3/8	5/8	3/16	
P125-00.375-250B	3/8	5/8	1/4	
P125-00.500	1/2	3/4	1/8	
P125-00.500-125B	1/2	3/4	1/8	
P125-00.500-250B	1/2	3/4	1/4	
P125-00.500-250D	1/2	3/4	1/4	
P125-00.562-SQB	9/16	11/16	1/8	
P125-00.625	5/8	7/8	1/8	
P125-00.625-187B	5/8	7/8	3/16	
P125-00.625-250B	5/8	7/8	1/4	
P125-00.625-250D	5/8	7/8	1/4	
P125-00.687	11/16	15/16	1/8	
P125-00.750	3/4	1	1/8	
P125-00.750-125B	3/4	1	1/8	
P125-00.750-250B	3/4	1	1/4	
P125-00.750-250D	3/4	1	1/4	
P125-00.812	13/16	1-1/16	1/8	
P125-00.812-250B	13/16	1-1/16	1/4	
P125-00.875	7/8	1-1/8	1/8	
P125-00.875-250B	7/8	1-1/8	1/4	
P125-00.937	15/16	1-3/16	1/8	
P125-01.000	1	1-1/4	1/8	

Part Number	I.D.	O.D.	H.	
<b>1/8" C/S</b>				
P125-01.000-187B	1	1-1/4	3/16	
P125-01.000-250B	1	1-1/4	1/4	
P125-01.000-250D	1	1-1/4	1/4	
P125-01.062-250B	1-1/16	1-5/16	1/4	
P125-01.125	1-1/8	1-3/8	1/8	
P125-01.125-187B	1-1/8	1-3/8	3/16	
P125-01.125-250B	1-1/8	1-3/8	1/4	
P125-01.187	1-3/16	1-7/16	1/8	
P125-01.187-250B	1-3/16	1-7/16	1/4	
P125-01.187-250B	1-3/16	1-7/16	1/4	
P125-01.250	1-1/4	1-1/2	1/8	
P125-01.250-187B	1-1/4	1-1/2	3/16	
P125-01.250-250B	1-1/4	1-1/2	1/4	
P125-01.375	1-3/8	1-5/8	1/8	
P125-01.375-250B	1-3/8	1-5/8	1/4	
P125-01.500	1-1/2	1-3/4	1/8	
P125-01.500-250B	1-1/2	1-3/4	1/4	
P125-01.500-250D	1-1/2	1-3/4	1/4	
P125-01.625	1-5/8	1-7/8	1/8	
P125-01.750	1-3/4	2	1/8	
P125-01.750-250D	1-3/4	2	1/4	
P125-01.875	1-7/8	2-1/8	1/8	
P125-02.000	2	2-1/4	1/8	
P125-02.000-250B	2	2-1/4	1/4	
P125-02.000-250D	2	2-1/4	1/4	
P125-02.500-250B	2-1/2	2-3/4	1/4	
P125-02.500-250D	2-1/2	2-3/4	1/4	
P125-03.000	3	3-1/4	1/8	
P125-04.750	4-3/4	5	1/8	

# STYLE 850 POLYURETHANE U-SEALS

U-SEALS

Part Number	I.D.	O.D.	H.	
<b>5/32" C/S</b>				
P156-01.000	1	1-5/16	5/32	
P156-01.187	1-3/16	1-1/2	5/32	
P156-01.375	1-3/8	1-11/16	5/32	
<b>3/16" C/S</b>				
P187-00.375	3/8	3/4	3/16	
P187-00.500	1/2	7/8	3/16	
P187-00.500-312B	1/2	7/8	5/16	
P187-00.562	9/16	15/16	3/16	
P187-00.625-312B	5/8	1	5/16	
P187-00.625-312D	5/8	1	5/16	
P187-00.750	3/4	1-1/8	3/16	
P187-00.750-312B	3/4	1-1/8	5/16	
P187-00.750-312D	3/4	1-1/8	5/16	
P187-00.875	7/8	1-1/4	3/16	
P187-00.875-312B	7/8	1-1/4	5/16	
P187-00.875-375D	7/8	1-1/4	3/8	
P187-00.937	15/16	1-5/16	3/16	
P187-00.937-312B	15/16	1-5/16	5/16	
P187-01.000	1	1-3/8	3/16	
P187-01.000-287B	1	1-3/8	9/32	
P187-01.000-312B	1	1-3/8	5/16	
P187-01.000-312D	1	1-3/8	5/16	
P187-01.125	1-1/8	1-1/2	3/16	
P187-01.125-187B	1-1/8	1-1/2	3/16	
P187-01.125-312B	1-1/8	1-1/2	5/16	
P187-01.187	1-3/16	1-9/16	3/16	
P187-01.250	1-1/4	1-5/8	3/16	
P187-01.250-250B	1-1/4	1-5/8	1/4	
P187-01.250-312B	1-1/4	1-5/8	5/16	
P187-01.250-312D	1-1/4	1-5/8	5/16	
P187-01.250-375B	1-1/4	1-5/8	3/8	
P187-01.312	1-5/16	1-11/16	3/16	
P187-01.312-312B	1-5/16	1-11/16	5/16	
P187-01.375	1-3/8	1-3/4	3-1/6	
P187-01.375-312B	1-3/8	1-3/4	5/16	
P187-01.375-312D	1-3/8	1-3/4	5/16	
P187-01.500	1-1/2	1-7/8	3/16	
P187-01.500-187B	1-1/2	1-7/8	3/16	
P187-01.500-375B	1-1/2	1-7/8	3/8	
P187-01.500-375BP	1-1/2	1-7/8	3/8	
P187-01.625	1-5/8	2	3/16	
P187-01.625-250D	1-5/8	2	1/4	
P187-01.625-312B	1-5/8	2	5/16	
P187-01.625-375B	1-5/8	2	3/8	
P187-01.625-375D	1-5/8	2	3/8	
P187-01.750	1-3/4	2-1/8	3/16	
P187-01.750-230B	1-3/4	2-1/8	.230	
P187-01.750-250D	1-3/4	2-1/8	1/4	
P187-01.750-312B	1-3/4	2-1/8	5/16	
P187-01.750-375B	1-3/4	2-1/8	3/8	

Part Number	I.D.	O.D.	H.	
<b>3/16" C/S</b>				
P187-01.750-375BC	1-3/4	2-1/8	3/8	
P187-01.875-375B	1-7/8	2-1/4	3/8	
P187-01.875-375D	1-7/8	2-1/4	3/8	
P187-02.000	2	2-3/8	3/16	
P187-02.000-230B	2	2-3/8	.230	
P187-02.000-275B	2	2-3/8	17/64	
P187-02.000-312B	2	2-3/8	5/16	
P187-02.000-375B	2	2-3/8	3/8	
P187-02.125	2-1/8	2-1/2	3/16	
P187-02.125-187B	2-1/8	2-1/2	3/16	
P187-02.125-375B	2-1/8	2-1/2	3/8	
P187-02.125-375D	2-1/8	2-1/2	3/8	
P187-02.250-375B	2-1/4	2-5/8	3/8	
P187-02.250-375D	2-1/4	2-5/8	3/8	
P187-02.375	2-3/8	2-3/4	3/16	
P187-02.375-375B	2-3/8	2-3/4	3/8	
P187-02.500-250B	2-1/2	2-7/8	1/4	
P187-02.500-375B	2-1/2	2-7/8	3/8	
P187-02.500-375D	2-1/2	2-7/8	3/8	
P187-02.625	2-5/8	3	3/16	
P187-02.625-375B	2-5/8	3	3/8	
P187-02.625-375D	2-5/8	3	3/8	
P187-02.750	2-3/4	3-1/8	3/16	
P187-02.750-187B	2-3/4	3-1/8	3/16	
P187-02.750-375B	2-3/4	3-1/8	3/8	
P187-02.750-375D	2-3/4	3-1/8	3/8	
P187-02.875	2-7/8	3-1/4	3/16	
P187-03.000	3	3-3/8	3/16	
P187-03.000-375B	3	3-3/8	3/8	
P187-03.000-375D	3	3-3/8	3/8	
P187-03.125	3-1/8	3-1/2	3/16	
P187-03.125-187B	3-1/8	3-1/2	3/16	
P187-03.125-375B	3-1/8	3-1/2	3/8	
P187-03.250	3-1/4	3-5/8	3/16	
P187-03.375	3-3/8	3-3/4	3/16	
P187-03.375-187B	3-3/8	3-3/4	3/16	
P187-03.375-375B	3-3/8	3-3/4	3/8	
P187-03.375-375D	3-3/8	3-3/4	3/8	
P187-03.500	3-1/2	3-7/8	3/16	
P187-03.500-375B	3-1/2	3-7/8	3/8	
P187-03.500-375D	3-1/2	3-7/8	3/8	
P187-03.625	3-5/8	4	3/16	
P187-03.625-375B	3-5/8	4	3/8	
P187-03.625-375D	3-5/8	4	3/8	
P187-03.750	3-3/4	4-1/8	3/16	
P187-03.750-375B	3-3/4	4-1/8	3/8	
P187-04.000-375B	4	4-3/8	3/8	
P187-04.000-375D	4	4-3/8	3/8	
P187-04.125	4-1/8	4-1/2	3/16	
P187-04.250-375B	4-1/4	4-5/8	3/8	

# STYLE 850 POLYURETHANE U-SEALS

U-SEALS

Part Number	I.D.	O.D.	H.	
<b>3/16" C/S</b>				
P187-04.250-375D	4-1/4	4-5/8	3/8	
P187-04.375-375D	4-3/8	4-3/4	3/8	
P187-05.500-375B	5-1/2	5-7/8	3/8	
<b>1/4" C/S</b>				
P250-00.500	1/2	1	1/4	
P250-00.500-375B	1/2	1	3/8	
P250-00.500-375D	1/2	1	3/8	
P250-00.625	5/8	1-1/8	1/4	
P250-00.625-375B	5/8	1-1/8	3/8	
P250-00.625-375D	5/8	1-1/8	3/8	
P250-00.687	11/16	1-3/16	1/4	
P250-00.750	3/4	1-1/4	1/4	
P250-00.750-375B	3/4	1-1/4	3/8	
P250-00.750-375D	3/4	1-1/4	3/8	
P250-00.875-375B	7/8	1-3/8	3/8	
P250-00.937	15/16	1-7/16	1/4	
P250-01.000	1	1-1/2	1/4	
P250-01.000-375B	1	1-1/2	3/8	
P250-01.093	1-3/32	1-19/32	1/4	
P250-01.125	1-1/8	1-5/8	1/4	
P250-01.125-375B	1-1/8	1-5/8	3/8	
P250-01.187	1-3/16	1-11/16	1/4	
P250-01.250	1-1/4	1-3/4	1/4	
P250-01.250-375B	1-1/4	1-3/4	3/8	
P250-01.375	1-3/8	1-7/8	1/4	
P250-01.375-375B	1-3/8	1-7/8	3/8	
P250-01.500	1-1/2	2	1/4	
P250-01.500-250B	1 1-2	2	1/4	
P250-01.500-375B	1-1/2	2	3/8	
P250-01.500-375D	1-1/2	2	3/8	
P250-01.625	1-5/8	2-1/8	1/4	
P250-01.625-375B	1-5/8	2-1/8	3/8	
P250-01.750	1-3/4	2-1/4	1/4	
P250-01.750-375B	1-3/4	2-1/4	3/8	
P250-01.875	1-7/8	2-3/8	1/4	
P250-01.875-375B	1-7/8	2-3/8	3/8	
P250-02.000	2	2-1/2	1/4	
P250-02.000-250B	2	2-1/2	1/4	
P250-02.000-375B	2	2-1/2	3/8	
P250-02.000-375D	2	2-1/2	3/8	
P250-02.125-375B	2-1/8	2-5/8	3/8	
P250-02.250	2-1/4	2-3/4	1/4	
P250-02.250-375B	2-1/4	2-3/4	3/8	
P250-02.250-375D	2-1/4	2-3/4	3/8	
P250-02.375	2-3/8	2-7/8	1/4	
P250-02.375-375B	2-3/8	2-7/8	3/8	
P250-02.500	2-1/2	3	1/4	
P250-02.500-375B	2-1/2	3	3/8	
P250-02.500-375D	2-1/2	3	3/8	
P250-02.625-375B	2-5/8	3-1/8	3/8	

Part Number	I.D.	O.D.	H.	
<b>1/4" C/S</b>				
P250-02.625-375B	2-5/8	3-1/8	3/8	
P250-02.625-375D	2-5/8	3-1/8	3/8	
P250-02.750	2-3/4	3-1/4	1/4	
P250-02.750-375B	2-3/4	3-1/4	3/8	
P250-02.750-375BPM	2-3/4	3-1/4	3/8	
P250-02.750-375D	2-3/4	3-1/4	3/8	
P250-02.875-375B	2-7/8	3-3/8	3/8	
P250-03.000	3	3-1/2	1/4	
P250-03.000-375B	3	3-1/2	3/8	
P250-03.000-375D	3	3-1/2	3/8	
P250-03.250	3-1/4	3-3/4	1/4	
P250-03.250-375B	3-1/4	3-3/4	3/8	
P250-03.250-375D	3-1/4	3-3/4	3/8	
P250-03.500	3-1/2	4	1/4	
P250-03.500-312BHN	3-1/2	4	5/16	
P250-03.500-375B	3-1/2	4	3/8	
P250-03.500-375BPM	3-1/2	4	3/8	
P250-03.500-375D	3-1/2	4	3/8	
P250-03.625	3-5/8	4-1/8	1/4	
P250-03.625-375B	3-5/8	4-1/8	3/8	
P250-03.750	3-3/4	4-1/4	1/4	
P250-03.750-375B	3-3/4	4-1/4	3/8	
P250-03.750-375BPM	3-3/4	4-1/4	3/8	
P250-03.750-375D	3-3/4	4-1/4	3/8	
P250-03.875-375D	3-7/8	4-3/8	3/8	
P250-04.000	4	4-1/2	1/4	
P250-04.000-312BHN	4	4-1/2	5/16	
P250-04.000-375B	4	4-1/2	3/8	
P250-04.000-375D	4	4-1/2	3/8	
P250-04.000-562B	4	4-1/2	9/16	
P250-04.000-562D	4	4-1/2	9/16	
P250-04.125-562B	4-1/8	4-5/8	9/16	
P250-04.250	4-1/4	4-3/4	1/4	
P250-04.250-375B	4-1/4	4-3/4	3/8	
P250-04.250-375BPM	4-1/4	4-3/4	3/8	
P250-04.250-562B	4-1/4	4-3/4	9/16	
P250-04.250-562D	4-1/4	4-3/4	9/16	
P250-04.375	4-3/8	4-7/8	1/4	
P250-04.375-562D	4-3/8	4-7/8	9/16	
P250-04.500	4-1/2	5	1/4	
P250-04.500-312BHN	4-1/2	5	5/16	
P250-04.500-375B	4-1/2	5	3/8	
P250-04.500-375D	4-1/2	5	3/8	
P250-04.500-562B	4-1/2	5	9/16	
P250-04.500-562D	4-1/2	5	9/16	
P250-04.750	4-3/4	5-1/4	1/4	
P250-04.750-375B	4-3/4	5-1/4	3/8	
P250-04.750-562B	4-3/4	5-1/4	9/16	
P250-04.750-562D	4-3/4	5-1/4	9/16	
P250-05.000	5	5-1/2	1/4	

# STYLE 850 POLYURETHANE U-SEALS

Part Number	I.D.	O.D.	H.	
<b>1/4" C/S</b>				
P250-05.000-375B	5	5-1/2	3/8	
P250-05.000-375D	5	5-1/2	3/8	
P250-05.000-562B	5	5-1/2	9/16	
P250-05.000-562D	5	5-1/2	9/16	
P250-05.250	5-1/4	5-3/4	1/4	
P250-05.250-375BPM	5-1/4	5-3/4	3/8	
P250-05.250-562D	5-1/4	5-3/4	9/16	
P250-05.500	5-1/2	6	1/4	
P250-05.500-375B	5-1/2	6	3/8	
P250-05.500-375D	5-1/2	6	3/8	
P250-05.500-562B	5-1/2	6	9/16	
P250-05.500-562D	5-1/2	6	9/16	
P250-05.750-375BPM	5-3/4	6-1/4	3/8	
P250-05.750-562B	5-3/4	6-1/4	9/16	
P250-05.750-562D	5-3/4	6-1/4	9/16	
P250-06.000	6	6-1/2	1/4	
P250-06.000-375B	6	6-1/2	3/8	
P250-06.000-562B	6	6-1/2	9/16	
P250-06.000-562D	6	6-1/2	9/16	
P250-06.250-562B	6-1/4	6-3/4	9/16	
P250-06.500	6-1/2	7	1/4	
P250-06.500-375B	6-1/2	7	3/8	
P250-06.500-375D	6-1/2	7	3/8	
P250-06.500-562B	6-1/2	7	9/16	
P250-06.500-562D	6-1/2	7	9/16	
P250-06.750-562B	6-3/4	7-1/4	9/16	
P250-06.750-562D	6-3/4	7-1/4	9/16	
P250-07.000-375B	7	7-1/2	3/8	
P250-07.000-562B	7	7-1/2	9/16	
P250-07.250-562B	7-1/4	7-3/4	9/16	
P250-07.500	7-1/2	8	1/4	
P250-07.500-562B	7-1/2	8	9/16	
P250-07.500-562D	7-1/2	8	9/16	
P250-08.000-562B	8	8-1/2	9/16	
P250-08.250-562B	8-1/4	8-3/4	9/16	
P250-08.500-562B	8-1/2	9	9/16	
P250-08.750	8-3/4	9-1/4	1/4	
P250-09.750-562B	9-3/4	10-1/4	9/16	
P250-10.000-562B	10	10-1/2	9/16	
<b>.281" C/S</b>				
P281-05.000-343BHN	5	5-9/16	11/32	
<b>5/16" C/S</b>				
P312-00.375	3/8	1	5/16	
P312-00.750	3/4	1-3/8	5/16	
P312-00.875	7/8	1-1/2	5/16	
P312-01.000-500B	1	1-5/8	1/2	
P312-01.000-500D	1	1-5/8	1/2	
P312-01.187	1-3/16	1-13/16	5/16	
P312-01.250-500B	1-1/4	1-7/8	1/2	
P312-01.250-500D	1-1/4	1-7/8	1/2	

Part Number	I.D.	O.D.	H.	
<b>5/16" C/S</b>				
P312-01.312	1-5/16	1-15/16	5/16	
P312-01.375	1-3/8	2	5/16	
P312-01.375-500B	1-3/8	2	1/2	
P312-01.375-500D	1-3/8	2	1/2	
P312-01.500	1-1/2	2-1/8	5/16	
P312-01.500-500B	1-1/2	2-1/8	1/2	
P312-01.500-500D	1-1/2	2-1/8	1/2	
P312-01.625	1-5/8	2-1/4	5/16	
P312-01.750	1-3/4	2-3/8	5/16	
P312-01.750-500B	1-3/4	2-3/8	1/2	
P312-01.750-500BFM	1-3/4	2-3/8	1/2	
P312-01.750-500D	1-3/4	2-3/8	1/2	
P312-01.875	1-7/8	2-1/2	5/16	
P312-01.875-500B	1-7/8	2-1/2	1/2	
P312-02.000	2	2-5/8	5/16	
P312-02.000-500B	2	2-5/8	1/2	
P312-02.000-500D	2	2-5/8	1/2	
P312-02.250	2-1/4	2-7/8	5/16	
P312-02.250-500B	2-1/4	2-7/8	1/2	
P312-02.375	2-3/8	3	5/16	
P312-02.375-500B	2-3/8	3	1/2	
P312-02.375-500D	2-3/8	3	1/2	
P312-02.500	2-1/2	3-1/8	5/16	
P312-02.500-500B	2-1/2	3-1/8	1/2	
P312-02.625-500B	2-5/8	3-1/4	1/2	
P312-02.625-500D	2-5/8	3-1/4	1/2	
P312-02.750	2-3/4	3-3/8	5/16	
P312-02.750-500B	2-3/4	3-3/8	1/2	
P312-03.000-500B	3	3-5/8	1/2	
P312-03.125	3-1/8	3-3/4	5/16	
P312-03.250-500B	3-1/4	3-7/8	1/2	
P312-03.375	3-3/8	4	5/16	
P312-03.375-500B	3-3/8	4	1/2	
P312-03.375-500D	3-3/8	4	1/2	
P312-03.500-500B	3-1/2	4-1/8	1/2	
P312-03.500-500D	3-1/2	4-1/8	1/2	
P312-03.625-500B	3-5/8	4-1/4	1/2	
P312-03.750	3-3/4	4-3/8	5/16	
P312-03.750-375B	3-3/4	4-3/8	3/8	
P312-03.750-625B	3-3/4	4-3/8	5/8	
P312-03.875-500D	3-7/8	4-1/2	1/2	
P312-04.000	4	4-5/8	5/16	
P312-04.000-562B	4	4-5/8	9/16	
P312-04.000-562BPM	4	4-5/8	9/16	
P312-04.000-562D	4	4-5/8	9/16	
P312-04.250-562B	4-1/4	4-7/8	9/16	
P312-04.250-562D	4-1/4	4-7/8	9/16	
P312-04.375	4-3/8	5	5/16	
P312-04.375-500D	4-3/8	5	1/2	
P312-04.375-562D	4-3/8	5	9/16	



# STYLE 850 POLYURETHANE U-SEALS

Part Number	I.D.	O.D.	H.	
<b>5/16" C/S</b>				
P312-04.750	4-3/4	5-3/8	5/16	
P312-04.750-625B	4-3/4	5-3/8	5/8	
P312-04.875	4-7/8	5-1/2	5/16	
P312-05.000	5	5-5/8	5/16	
P312-05.250	5-1/4	5-7/8	5/16	
P312-05.375-625D	5-3/8	6	5/8	
P312-05.500	5-1/2	6-1/8	5/16	
P312-05.500-375BHN	5-1/2	6-1/8	3/8	
P312-05.875	5-7/8	6-1/2	5/16	
P312-06.000	6	6-5/8	5/16	
P312-06.125	6-1/8	6-3/4	5/16	
P312-06.250	6-1/4	6-7/8	5/16	
P312-06.375-625D	6-3/8	7	5/8	
P312-06.500	6-1/2	7-1/8	5/16	
P312-07.000	7	7-5/8	5/16	
P312-07.250	7-1/4	7-7/8	5/16	
P312-07.375	7-3/8	8	5/16	
P312-07.500	7-1/2	8-1/8	5/16	
P312-07.875-625B	7-7/8	8-1/2	5/8	
P312-08.000	8	8-5/8	5/16	
<b>3/8" C/S</b>				
P375-00.500	1/2	1-1/4	3/8	
P375-00.750	3/4	1-1/2	3/8	
P375-00.875	7/8	1-5/8	3/8	
P375-01.250	1-1/4	2	3/8	
P375-01.250-625B	1-1/4	2	5/8	
P375-01.250-625D	1-1/4	2	5/8	
P375-01.312	1-5/16	2-1/16	3/8	
P375-01.375	1-3/8	2-1/8	3/8	
P375-01.375-625B	1-3/8	2-1/8	5/8	
P375-01.500	1-1/2	2-1/4	3/8	
P375-01.500-625B	1-1/2	2-1/4	5/8	
P375-01.625	1-5/8	2-3/8	3/8	
P375-01.750	1-3/4	2-1/2	3/8	
P375-01.750-625B	1-3/4	2-1/2	5/8	
P375-02.000	2	2-3/4	3/8	
P375-02.000-625B	2	2-3/4	5/8	
P375-02.000-625D	2	2-3/4	5/8	
P375-02.250-625B	2-1/4	3	5/8	
P375-02.250-625D	2-1/4	3	5/8	
P375-02.375-625B	2-3/8	3-1/8	5/8	
P375-02.500	2-1/2	3-1/4	3/8	
P375-02.500-625B	2-1/2	3-1/4	5/8	
P375-02.500-625D	2-1/2	3-1/4	5/8	
P375-02.625-625B	2-5/8	3-3/8	5/8	
P375-02.750	2-3/4	3-1/2	3/8	
P375-02.750-625B	2-3/4	3-1/2	5/8	
P375-03.000	3	3-3/4	3/8	
P375-03.000-625B	3	3-3/4	5/8	
P375-03.000-625D	3	3-3/4	5/8	

Part Number	I.D.	O.D.	H.	
<b>3/8" C/S</b>				
P375-03.250	3-1/4	4	3/8	
P375-03.250-625B	3-1/4	4	5/8	
P375-03.250-625D	3-1/4	4	5/8	
P375-03.375-625B	3-3/8	4-1/8	5/8	
P375-03.500	3-1/2	4-1/4	3/8	
P375-03.500-625B	3-1/2	4-1/4	5/8	
P375-03.500-625D	3-1/2	4-1/4	5/8	
P375-03.625-625B	3-5/8	4-3/8	5/8	
P375-03.750	3-3/4	4-1/2	3/8	
P375-03.750-625B	3-3/4	4-1/2	5/8	
P375-04.000	4	4-3/4	3/8	
P375-04.000-625B	4	4-3/4	5/8	
P375-04.250	4-1/4	5	3/8	
P375-04.250-375B	4-1/4	5	3/8	
P375-04.250-625B	4-1/4	5	5/8	
P375-04.250-625D	4-1/4	5	5/8	
P375-04.500	4-1/2	5-1/4	3/8	
P375-04.500-625B	4-1/2	5-1/4	5/8	
P375-04.625	4-5/8	5-3/8	3/8	
P375-04.750	4-3/4	5-1/2	3/8	
P375-04.750-625B	4-3/4	5-1/2	5/8	
P375-04.750-625D	4-3/4	5-1/2	5/8	
P375-05.000	5	5-3/4	3/8	
P375-05.000-625B	5	5-3/4	5/8	
P375-05.250	5-1/4	6	3/8	
P375-05.250-500B	5-1/4	6	1/2	
P375-05.250-500D	5-1/4	6	1/2	
P375-05.250-625B	5-1/4	6	5/8	
P375-05.250-625D	5-1/4	6	5/8	
P375-05.375	5-3/8	6-1/8	3/8	
P375-05.500	5-1/2	6-1/4	3/8	
P375-05.500-625B	5-1/2	6-1/4	5/8	
P375-05.750	5-3/4	6-1/2	3/8	
P375-05.750-625B	5-3/4	6-1/2	5/8	
P375-05.750-625D	5-3/4	6-1/2	5/8	
P375-05.875	5-7/8	6-5/8	3/8	
P375-06.000	6	6-3/4	3/8	
P375-06.000-625B	6	6-3/4	5/8	
P375-06.250	6-1/4	7	3/8	
P375-06.250-500D	6-1/4	7	1/2	
P375-06.250-625B	6-1/4	7	5/8	
P375-06.250-625D	6-1/4	7	5/8	
P375-06.500	6-1/2	7-1/4	3/8	
P375-06.500-625B	6-1/2	7-1/4	5/8	
P375-06.750-625B	6-3/4	7-1/2	5/8	
P375-07.000-625B	7	7-3/4	5/8	
P375-07.000-625D	7	7-3/4	5/8	
P375-07.250-625B	7-1/4	8	5/8	
P375-07.250-625D	7-1/4	8	5/8	
P375-07.500	7-1/2	8-1/4	3/8	

## STYLE 850 POLYURETHANE U-SEALS

Part Number	I.D.	O.D.	H.	
<b>3/8" C/S</b>				
P375-07.500-625B	7-1/2	8-1/4	5/8	
P375-07.500-625D	7-1/2	8-1/4	5/8	
P375-07.625	7-5/8	8-3/8	3/8	
P375-08.000	8	8-3/4	3/8	
P375-08.000-500D	8	8-3/4	1/2	
P375-08.250-625B	8-1/4	9	5/8	
P375-08.750	8-3/4	9-1/2	3/8	
P375-08.750-625D	8-3/4	9-1/2	5/8	
P375-09.000	9	9-3/4	3/8	
P375-09.000-625B	9	9-3/4	5/8	
P375-09.000-625D	9	9-3/4	5/8	
P375-09.250-625BPM	9-1/4	10	5/8	
P375-09.500	9-1/2	10-1/4	3/8	
P375-09.750	9-3/4	10-1/2	3/8	
P375-10.000	10	10-3/4	3/8	
P375-10.500-625B	10-1/2	11-1/4	5/8	
P375-11.250	11-1/4	12	3/8	
P375-12.000	12	12-3/4	3/8	
P375-12.250	12-1/4	13	3/8	
<b>1/2" C/S</b>				
P500-01.000	1	2	1/2	
P500-01.500	1-1/2	2-1/2	1/2	
P500-01.750-750B	1-3/4	2-3/4	3/4	
P500-02.000-750B	2	3	3/4	
P500-02.375	2-3/8	3-3/8	1/2	
P500-02.500	2-1/2	3-1/2	1/2	
P500-02.500-750B	2-1/2	3-1/2	3/4	
P500-02.750	2-3/4	3-3/4	1/2	
P500-03.000	3	4	1/2	
P500-03.000-750B	3	4	3/4	
P500-03.250-750B	3-1/4	4-1/4	3/4	
P500-03.500-625	3-1/2	4-1/2	5/8	
P500-03.750	3-3/4	4-3/4	1/2	

Part Number	I.D.	O.D.	H.	
<b>1/2" C/S</b>				
P500-03.750-690B	3-3/4	4-3/4	11/16	
P500-04.000	4	5	1/2	
P500-04.000-750B	4	5	3/4	
P500-04.250	4-1/4	5-1/4	1/2	
P500-04.500	4-1/2	5-1/2	1/2	
P500-04.500-750B	4-1/2	5-1/2	3/4	
P500-05.000	5	6	1/2	
P500-05.000-750B	5	6	3/4	
P500-05.250-750B	5-1/4	6-1/4	3/4	
P500-05.500	5-1/2	6-1/2	1/2	
P500-05.750	5-3/4	6-3/4	1/2	
P500-06.000	6	7	1/2	
P500-06.000-750B	6	7	3/4	
P500-07.000	7	8	1/2	
P500-07.000-750B	7	8	3/4	
P500-07.000-750D	7	8	3/4	
P500-07.500	7-1/2	8-1/2	1/2	
P500-08.000	8	9	1/2	
P500-08.000-750B	8	9	3/4	
P500-08.000-750D	8	9	3/4	
P500-08.500	8-1/2	9-1/2	1/2	
P500-09.000	9	10	1/2	
P500-09.000-750B	9	10	3/4	
P500-09.250-750B	9-1/4	10-1/4	3/4	
P500-10.000-750B	10	11	3/4	
P500-11.000-750B	11	12	3/4	
P500-11.500-750B	11-1/2	12-1/2	3/4	
P500-13.500-750B	13-1/2	14-1/2	3/4	
<b>5/8" C/S</b>				
P625-01.750	1-3/4	3	5/8	
P625-02.750	2-3/4	4	5/8	
P625-03.250	3-1/4	4-1/2	5/8	
P625-04.750	4-3/4	6	5/8	

## DON'T DAMAGE THAT U-SEAL TRY OUR ROD U-SEAL INSTALLATION TOOLS

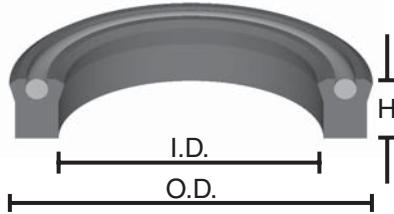
These handy tools aid U-seal installation, eliminating the risk of damaging the seal lip.

Part Number	Seal ID Range	
IT 100	3/4" to 1-1/4"	
IT 150	1-3/8" to 1-7/8"	
IT 200	2" to 3"	
IT 100-NN	3/4" to 1-1/4"	
IT 150-NN	1-3/8" to 1-7/8"	
IT 200-NN	2" to 3"	



## STYLE 850 FLUOROCARBON U-SEALS

Utilizing the same profiles as the Style 850 Polyurethane U-Seals, these u-seals are molded from a fluorocarbon compound. While being compatible with a broader range of fluids, these fluorocarbon seals will also operate continuously at temperatures from -20° to +400° F. **NOTE:** If you are not sure of fluid/seal compatibility, please refer to the fluid compatibility chart in our Engineering Handbook or contact our Engineering Department.



**Standard -**  
Height and cross section are equal, thus giving a square seal. Utilizes type "D" lip. Typical Part Number P250-02.500



**Deep -**  
Utilizes the same "D" lip, but the seal height is greater than the cross section, thus giving a retangular shape. Typical Part Number P250-02.500-375D



**Type B -**  
Same dimensions as the Deep seal. Beveled lip design provides better film breaking. Utilizes type "B" lip. Typical Part Number P250-02.500-375B

### SEAL INFORMATION

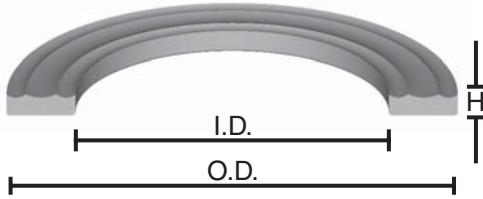
MATERIAL	90 A FLUOROCARBON
TEMPERATURE RANGE	-20° TO +400° F
PRESSURE RANGE	0 TO 2,000 PSI
PART NUMBER	(Prefix)(CS) - (Inside Dia) - (Height)

Part Number	I.D.	O.D.	H.	
<b>1/8" C/S</b>				
P125-00.500V	1/2	3/4	1/8	
P125-00.625-SQBV	5/8	7/8	1/8	
<b>5/32" C/S</b>				
P156-01.000-SQBV	1	1-5/16	5/32	
P156-01.375-SQBV	1-3/8	1-11/16	5/32	
<b>3/16" C/S</b>				
P187-01.750-SQBV	1-3/4	2-1/8	3/16	
P187-02.000-SQBV	2	2-3/8	3/16	
<b>7/32" C/S</b>				
P218-02.500-SQBV	2-1/2	2-15/16	7/32	
P218-03.000-SQBV	3	3-7/16	7/32	
<b>1/4" C/S</b>				
P250-00.750V	3/4	1-1/4	1/4	
P250-03.500-312BV	3-1/2	4	5/16	
P250-03.500-SQBV	3-1/2	4	1/4	

Part Number	I.D.	O.D.	H.	
<b>1/4" C/S</b>				
P250-04.000-312BV	4	4-1/2	5/16	
P250-04.000-SQBV	4	4-1/2	1/4	
P250-04.500-312BV	4-1/2	5	5/16	
P250-04.500-SQBV	4-1/2	5	1/4	
<b>9/32" C/S</b>				
P281-05.000-343BV	5	5-9/16	11/32	
P281-05.000-SQBV	5	5-9/16	9/32	
<b>5/16" C/S</b>				
P312-05.500-375BV	5-1/2	6-1/8	3/8	
P312-05.500-SQBV	5-1/2	6-1/8	5/16	

## STYLE 855 PRC RINGS

Used as a companion to our "B" lip configured, Style 850 U-Seal. Style 855 PRC rings convert a uni-directional u-seal into a bi-directional seal. **NOTE:** Height dimension is the increase in groove width required.



### SEAL INFORMATION

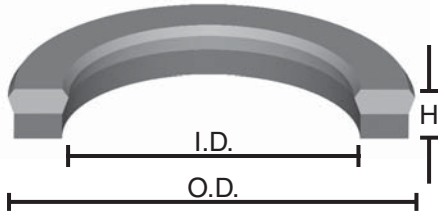
MATERIAL	95 A URETHANE
TEMPERATURE RANGE	-65° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix)(CS) - (Inside Dia)

Part Number	I.D.	O.D.	H.	
<b>1/8" C/S</b>				
PRC125-00.750	3/4	1	.065	
PRC125-01.000	1	1-1/4	.065	
PRC125-01.250	1-1/4	1-1/2	.065	
PRC125-01.750	1-3/4	2	.065	
<b>3/16" C/S</b>				
PRC187-01.000	1	1-3/8	.109	
PRC187-01.125	1-1/8	1-1/2	.109	
PRC187-01.375	1-3/8	1-3/4	.109	
PRC187-01.500	1-1/2	1-7/8	.109	
PRC187-01.625	1-5/8	2	.109	
PRC187-01.750	1-3/4	2-1/8	.109	
PRC187-02.375	2-3/8	2-3/4	.109	
PRC187-02.625	2-5/8	3	.109	
PRC187-03.000	3	3-3/8	.109	
PRC187-03.125	3-1/8	3-1/2	.109	
PRC187-03.375	3-3/8	3-3/4	.109	
PRC187-03.625	3-5/8	4	.109	
PRC187-04.000	4	4-3/8	.109	
<b>1/4" C/S</b>				
PRC250-01.000	1	1-1/2	.137	
PRC250-01.500	1-1/2	2	.137	
PRC250-01.750	1-3/4	2-1/4	.137	
PRC250-02.000	2	2-1/2	.137	
PRC250-02.250	2-1/4	2-3/4	.137	
PRC250-02.500	2-1/2	3	.137	
PRC250-02.750	2-3/4	3-1/4	.137	
PRC250-03.000	3	3-1/2	.137	
PRC250-03.250	3-1/4	3-3/4	.137	
PRC250-03.500	3-1/2	4	.137	
PRC250-03.750	3-3/4	4-1/4	.137	
PRC250-04.000	4	4-1/2	.137	
PRC250-04.250	4-1/4	4-3/4	.137	
PRC250-04.500	4-1/2	5	.137	

Part Number	I.D.	O.D.	H.	
<b>1/4" C/S</b>				
PRC250-05.000	5	5-1/2	.137	
PRC250-05.500	5-1/2	6	.137	
PRC250-06.000	6	6-1/2	.137	
PRC250-06.500	6-1/2	7	.137	
PRC250-07.000	7	7-1/2	.137	
<b>5/16" C/S</b>				
PRC312-02.375	2-3/8	3	.160	
PRC312-03.375	3-3/8	4	.160	
PRC312-04.375	4-3/8	5	.160	
PRC312-06.375	6-3/8	7	.160	
<b>3/8" C/S</b>				
PRC375-02.000	2	2-3/4	.207	
PRC375-02.250	2-1/4	3	.207	
PRC375-02.500	2-1/2	3-1/4	.207	
PRC375-02.750	2-3/4	3-1/2	.207	
PRC375-03.250	3-1/4	4	.207	
PRC375-03.500	3-1/2	4-1/4	.207	
PRC375-03.750	3-3/4	4-1/2	.207	
PRC375-04.250	4-1/4	5	.207	
PRC375-05.250	5-1/4	6	.207	
PRC375-05.500	5-1/2	6-1/4	.207	
PRC375-05.750	5-3/4	6-1/2	.207	
PRC375-06.250	6-1/4	7	.207	
PRC375-07.250	7-1/4	8	.207	
PRC375-08.250	8-1/4	9	.207	
<b>1/2" C/S</b>				
PRC500-04.000	4	5	.275	
PRC500-05.000	5	6	.275	
PRC500-06.000	6	7	.275	
PRC500-07.000	7	8	.275	
PRC500-08.000	8	9	.275	
PRC500-09.000	9	10	.275	

# STYLE UFN-P SYMMETRICAL PLAIN U-SEALS

Incorporating a rubber seal lip and a rubberized fabric heel, this seal provides excellent sealability and high strength.



## SEAL INFORMATION

MATERIAL	RUBBER & FABRIC
TEMPERATURE RANGE	-22° TO +212° F
PRESSURE RANGE	0 TO 2,900 PSI
PART NUMBER	(Prefix)(CS) - (Inside Dia) - (Height)

Part Number	I.D.	O.D.	H.	
<b>1/8" C/S</b>				
UFN12-0.50-18P	1/2	3/4	3/16	
UFN12-0.62-18P	5/8	7/8	3/16	
UFN12-0.75-18P	3/4	1	3/16	
UFN12-0.87-15P	7/8	1-1/8	5/32	
UFN12-1.00-18P	1	1-1/4	3/16	
UFN12-1.12-18P	1-1/8	1-3/8	3/16	
UFN12-1.25-18P	1-1/4	1-1/2	3/16	
UFN12-1.25-25P	1-1/4	1-1/2	1/4	
UFN12-1.50-18P	1-1/2	1-3/4	3/16	
<b>5/32" C/S</b>				
UFN15-0.25-25P	1/4	9/16	1/4	
UFN15-0.31-25P	5/16	5/8	1/4	
<b>0.16" C/S</b>				
UFN16-0.18-25P	3/16	1/2	1/4	
<b>0.17" C/S</b>				
UFN17-0.75-28P	3/4	1.09	9/32	
<b>3/16" C/S</b>				
UFN18-0.50-28P	1/2	7/8	9/32	
UFN18-0.62-28P	5/8	1	9/32	
UFN18-0.75-31P	3/4	1-1/8	5/16	
UFN18-0.87-37P	7/8	1-1/4	3/8	
UFN18-1.00-25P	1	1-3/8	1/4	
UFN18-1.12-21P	1-1/8	1-1/2	7/32	
UFN18-1.25-25P	1-1/4	1-5/8	1/4	
UFN18-1.25-28P	1-1/4	1-5/8	9/32	
UFN18-1.25-50P	1-1/4	1-5/8	1/2	
UFN18-1.37-28P	1-3/8	1-3/4	9/32	
UFN18-1.50-17P	1-1/2	1-7/8	0.170	

Part Number	I.D.	O.D.	H.	
<b>3/16" C/S</b>				
UFN18-1.50-25P	1-1/2	1-7/8	1/4	
UFN18-1.62-27P	1-5/8	2	0.270	
UFN18-1.75-17P	1-3/4	2-1/8	0.170	
UFN18-1.75-28P	1-3/4	2-1/8	9/32	
UFN18-1.75-37P	1-3/4	2-1/8	3/8	
UFN18-2.00-17P	2	2-3/8	0.170	
UFN18-2.25-17P	2-1/4	2-5/8	0.170	
UFN18-2.25-25P	2-1/4	2-5/8	1/4	
UFN18-2.50-31P	2-1/2	3-7/8	5/16	
UFN18-3.00-31P	3	3-3/8	5/16	
<b>0.22" C/S</b>				
UFN22-0.56-28P	9/16	1	9/32	
UFN22-0.68-37P	11/16	1-1/8	3/8	
<b>1/4" C/S</b>				
UFN25-0.62-37P	5/8	1-1/8	3/8	
UFN25-0.75-31P	3/4	1-1/4	5/16	
UFN25-0.75-37P	3/4	1-1/4	3/8	
UFN25-0.87-25P	7/8	1-3/8	1/4	
UFN25-0.87-37P	7/8	1-3/8	3/8	
UFN25-1.00-25P	1	1-1/2	1/4	
UFN25-1.00-37P	1	1-1/2	3/8	
UFN25-1.12-37P	1-1/8	1-5/8	3/8	
UFN25-1.25-28P	1-1/4	1-3/4	9/32	
UFN25-1.25-37P	1-1/4	1-3/4	3/8	
UFN25-1.50-28P	1-1/2	2	9/32	
UFN25-1.50-37P	1-1/2	2	3/8	
UFN25-1.50-46P	1-1/2	2	0.460	
UFN25-1.75-37P	1-3/4	2-1/4	3/8	

# STYLE UFN-P SYMMETRICAL PLAIN U-SEALS

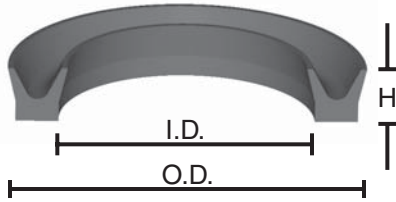
U-SEALS

Part Number	I.D.	O.D.	H.	
<b>1/4" C/S</b>				
UFN25-2.00-31P	2	2-1/2	5/16	
UFN25-2.00-34P	2	2-1/2	11/32	
UFN25-2.00-37P	2	2-1/2	3/8	
UFN25-2.25-37P	2-1/4	2-3/4	3/8	
UFN25-2.37-28P	2-3/8	2-7/8	9/32	
UFN25-2.50-31P	2-1/2	3	5/16	
UFN25-2.75-37P	2-3/4	3-1/4	3/8	
UFN25-3.00-37P	3	3-1/2	3/8	
UFN25-3.37-43P	3-3/8	3-7/8	7/16	
UFN25-3.50-37P	3-1/2	4	3/8	
UFN25-4.00-37P	4	4-1/2	3/8	
<b>5/16" C/S</b>				
UFN31-0.87-37P	7/8	1-1/2	3/8	
UFN31-1.00-43P	1	1-5/8	7/16	
UFN31-1.12-43P	1-1/8	1-3/4	7/16	
UFN31-1.25-31P	1-1/4	1-7/8	5/16	
UFN31-1.25-43P	1-1/4	1-7/8	7/16	
UFN31-1.37-37P	1-3/8	2	3/8	
UFN31-1.37-43P	1-3/8	2	7/16	
UFN31-1.50-31P	1-1/2	2-1/8	5/16	
UFN31-1.50-43P	1-1/2	2-1/8	7/16	
UFN31-1.50-46P	1-1/2	2-1/8	0.460	
UFN31-1.62-31P	1-5/8	2-1/4	5/16	
UFN31-1.62-43P	1-5/8	2-1/4	7/16	
UFN31-1.75-43P	1-3/4	2-3/8	7/16	
UFN31-1.87-31P	1-7/8	2-1/2	5/16	
UFN31-1.87-37P	1-7/8	2-1/2	3/8	
UFN31-1.87-43P	1-7/8	2-1/2	7/16	
UFN31-2.00-31P	2	2-5/8	5/16	
UFN31-2.00-43P	2	2-5/8	7/16	
UFN31-2.12-37P	2-1/8	2-3/4	3/8	
UFN31-2.25-43P	2-1/4	2-7/8	7/16	
UFN31-2.37-46P	2-3/8	3	0.460	
UFN31-2.75-43P	2-3/4	3-3/8	7/16	
UFN31-2.87-47P	2-7/8	3-1/2	0.470	
UFN31-3.00-37P	3	3-5/8	3/8	

Part Number	I.D.	O.D.	H.	
<b>0.34" C/S</b>				
UFN34-1.50-43P	1-1/2	2-3/16	7/16	
<b>3/8" C/S</b>				
UFN37-1.50-47P	1-1/2	2-1/4	0.470	
UFN37-1.75-50P	1-3/4	2-1/2	1/2	
UFN37-2.00-43P	2	2-3/4	7/16	
UFN37-2.00-56P	2	2-3/4	9/16	
UFN37-2.00-62P	2	2-3/4	9/16	
UFN37-2.12-56P	2-1/8	2-7/8	9/16	
UFN37-2.25-37P	2-1/4	3	3/8	
UFN37-2.25-50P	2-1/4	3	1/2	
UFN37-2.25-56P	2-1/4	3	9/16	
UFN37-2.50-37P	2-1/2	3-1/4	3/8	
UFN37-2.50-56P	2-1/2	3-1/4	9/16	
UFN37-2.75-37P	2-3/4	3-1/2	3/8	
UFN37-2.75-50P	2-3/4	3-1/2	1/2	
UFN37-2.75-56P	2-3/4	3-1/2	9/16	
UFN37-3.00-37P	3	3-3/4	3/8	
UFN37-3.00-50P	3	3-3/4	1/2	
UFN37-3.00-56P	3	3-3/4	9/16	
UFN37-3.25-37P	3-1/4	4	3/8	
UFN37-3.25-50P	3-1/4	4	1/2	
UFN37-3.25-56P	3-1/4	4	9/16	
UFN37-3.50-56P	3-1/2	4-1/4	9/16	
UFN37-4.50-46P	4-1/2	5-1/4	0.460	
<b>1/2" C/S</b>				
UFN50-3.00-62P	3	4	5/8	
UFN50-3.50-56P	3-1/2	4-1/2	9/16	
UFN50-3.50-75P	3-1/2	4-1/2	3/4	
UFN50-4.00-75P	4	5	3/4	
UFN50-4.50-75P	4-1/2	5-1/2	3/4	
UFN50-5.50-75P	5-1/2	6-1/2	3/4	
UFN50-6.00-75P	6	7	3/4	
<b>0.59" C/S</b>				
UFN59-1.81-100P	1.81	3	1	

# STYLE 870 HOMOGENEOUS U-SEALS

Style 870 u-seals are precision molded from Buna-N synthetic rubber. Style 870 u-seal numbers conform in size to Army-Navy specification AN6226.



## SEAL INFORMATION

MATERIAL	70 A BUNA-N RUBBER
TEMPERATURE RANGE	-40° TO +240° F
PRESSURE RANGE	0 TO 500 PSI
PART NUMBER	(Prefix) - (A-N Dash Number)

Part Number	I.D.	O.D.	H.	
870-006	1/8	1/4	1/16	
870-01	1/8	1/2	3/16	
870-02	3/16	9/16	3/16	
870-03	1/4	5/8	3/16	
870-04	5/16	11/16	3/16	
870-05	3/8	3/4	3/16	
870-06	7/16	13/16	3/16	
870-07	1/2	7/8	3/16	
870-08	1/4	3/4	1/4	
870-09	5/16	13/16	1/4	
870-10	3/8	7/8	1/4	
870-11	7/16	15/16	1/4	
870-12	1/2	1	1/4	
870-13	9/16	1-1/16	1/4	
870-134	2-1/2	3	1/4	
870-14	5/8	1-1/8	1/4	
870-14V	5/8	1-1/8	1/4	
870-15	11/16	1-3/16	1/4	
870-16	3/4	1-1/4	1/4	
870-17	13/16	1-5/16	1/4	
870-18	7/8	1-3/8	1/4	
870-19	15/16	1-7/16	1/4	
870-20	1	1-1/2	1/4	
870-21	1-1/16	1-9/16	1/4	
870-22	1-1/8	1-5/8	1/4	
870-23	1-3/16	1-11/16	1/4	
870-24	1-1/4	1-3/4	1/4	
870-25	1-1/4	1-7/8	5/16	
870-26	1-3/8	2	5/16	
870-27	1-1/2	2-1/8	5/16	
870-28	1-5/8	2-1/4	5/16	
870-29	1-3/4	2-3/8	5/16	
870-30	1-7/8	2-1/2	5/16	
870-31	2	2-5/8	5/16	
870-32	2-1/8	2-3/4	5/16	
870-33	2-1/4	2-7/8	5/16	
870-34	2-3/8	3	5/16	
870-35	2-1/2	3-1/8	5/16	
870-36	2-1/2	3-1/4	3/8	
870-37	2-5/8	3-3/8	3/8	

Part Number	I.D.	O.D.	H.	
870-38	2-3/4	3-1/2	3/8	
870-39	2-7/8	3-5/8	3/8	
870-40	3	3-3/4	3/8	
870-41	1/8	3/8	1/8	
870-42	3/16	7/16	1/8	
870-43	1/4	1/2	1/8	
870-44	5/16	9/16	1/8	
870-45	3/8	5/8	1/8	
870-46	7/16	11/16	1/8	
870-47	1/2	3/4	1/8	
870-48	5/8	1	3/16	
870-49	3/4	1-1/8	3/16	
870-50	7/8	1-1/4	3/16	
870-51	1	1-3/8	3/16	
870-52	1-1/8	1-1/2	3/16	
870-53	1-1/4	1-5/8	3/16	
870-60	3-1/4	4	3/8	
870-65	4-1/4	5	3/8	
870-80	7	8	1/2	
870-90	11	12	1/2	
870-95	13	14	1/2	

## SPECIAL SIZES

870-1-3/4X2-1/8	1-3/4	2-1/8	3/16	
870-2.62X3.12	2-5/8	3-1/8	1/4	
870-2X2-3/8	2	2-3/8	3/16	
870-3.12X3.62	3-1/8	3-5/8	1/4	
870-3.62X4.12	3-5/8	4-1/8	1/4	
870-4.12X4.62	4-1/8	4-5/8	1/4	
870-5.12X6	5-1/8	6	7/16	
870-5.2X6	5-1/4	6	3/8	
870-5.2X6X.50	5-1/4	6	1/2	
870-6.12X7	6-1/8	7	7/16	
870-6.2X7X.50	6-1/4	7	1/2	
870-6X7X.5	6	7	1/2	
870-9X10	9	10	1/2	

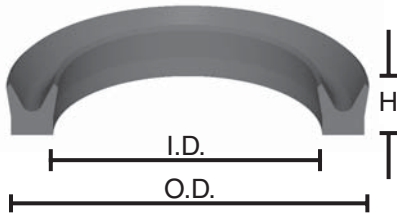
### 870 TRI-KIT

Refer to the Assortment Kits and Tools section for additional information on this product.



# STYLE HRU HOMOGENEOUS U-SEALS

Style HRU u-seals are precision molded from 80 Durometer Buna-N rubber. Sizes include those found in Army-Navy spec. AN6226 and narrow cross-section sizes found in J.I.C. cylinders and the popularly termed "Huva Cup".



## SEAL INFORMATION

MATERIAL	80 BUNA-N RUBBER 90 A FLUOROCARBON
TEMPERATURE RANGE	BUNA-N: -40° TO +250° F FC: -20° TO +400° F
PRESSURE RANGE	BUNA-N: 0 TO 1,250 PSI FC: 0 TO 2,000 PSI
PART NUMBER	(Prefix)(CS) - (Inside Dia) - (Height)

Part Number	I.D.	O.D.	H.	
<b>3/32" C/S</b>				
HRU09-0.12-09	1/8	5/16	3/32	
HRU09-0.18-09	3/16	3/8	3/32	
HRU09-0.25-09	1/4	7/16	3/32	
HRU09-0.25-09V	1/4	7/16	3/32	
HRU09-0.31-09	5/16	1/2	3/32	
HRU09-0.43-09	7/16	5/8	3/32	
HRU09-0.43-09EP	7/16	5/8	3/32	
HRU09-0.50-09	1/2	11/16	3/32	
HRU09-0.56-09	9/16	3/4	3/32	
HRU09-0.62-09	5/8	13/16	3/32	
HRU09-0.68-09	11/16	7/8	3/32	
<b>1/8" C/S</b>				
HRU12-0.18-12	3/16	7/16	1/8	
HRU12-0.25-12	1/4	1/2	1/8	
HRU12-0.37-12	3/8	5/8	1/8	
HRU12-0.43-12	7/16	11/16	1/8	
HRU12-0.50-12	1/2	3/4	1/8	
HRU12-0.50-12V	1/2	3/4	1/8	
HRU12-0.56-12	9/16	13/16	1/8	
HRU12-0.62-12	5/8	7/8	1/8	
HRU12-0.62-12V	5/8	7/8	1/8	
HRU12-0.62-12VL	5/8	7/8	1/8	
HRU12-0.68-12	11/16	15/16	1/8	
HRU12-0.75-12	3/4	1	1/8	
HRU12-0.75-12V	3/4	1	1/8	
HRU12-0.81-12	13/16	1-1/16	1/8	
HRU12-0.87-12	7/8	1-1/8	1/8	
HRU12-0.87-12V	7/8	1-1/8	1/8	
HRU12-1.00-12	1	1-1/4	1/8	
HRU12-1.00-12V	1	1-1/4	1/8	
HRU12-1.00-12VL	1	1-1/4	1/8	
HRU12-1.12-12	1-1/8	1-3/8	1/8	
HRU12-1.25-12	1-1/4	1-1/2	1/8	

Part Number	I.D.	O.D.	H.	
<b>1/8" C/S</b>				
HRU12-1.37-12	1-3/8	1-5/8	1/8	
HRU12-1.50-12	1-1/2	1-3/4	1/8	
HRU12-1.62-12V-70D	1-5/8	1-7/8	1/8	
HRU12-1.75-12	1-3/4	2	1/8	
HRU12-2.00-12	2	2-1/4	1/8	
<b>5/32" C/S</b>				
HRU15-0.50-15	1/2	13/16	5/32	
HRU15-0.68-15	11/16	1	5/32	
HRU15-0.75-15	3/4	1-1/16	5/32	
HRU15-0.93-15	15/16	1-1/4	5/32	
HRU15-1.00-15	1	1-5/16	5/32	
HRU15-1.00-15V	1	1-5/16	5/32	
HRU15-1.06-15	1-1/16	1-3/8	5/32	
HRU15-1.18-15	1-3/16	1-1/2	5/32	
HRU15-1.18-15V	1-3/16	1-1/2	5/32	
HRU15-1.25-15	1-1/4	1-9/16	5/32	
HRU15-1.31-15	1-5/16	1-5/8	5/32	
HRU15-1.37-15	1-3/8	1-11/16	5/32	
HRU15-1.37-15V	1-3/8	1-11/16	5/32	
HRU15-1.43-15	1-7/16	1-3/4	5/32	
HRU15-1.50-15	1-1/2	1-13/16	5/32	
<b>3/16" C/S</b>				
HRU18-0.62-18	5/8	1	3/16	
HRU18-0.75-18	3/4	1-1/8	3/16	
HRU18-1.00-18	1	1-3/8	3/16	
HRU18-1.25-18	1-1/4	1-5/8	3/16	
HRU18-1.37-18	1-3/8	1-3/4	3/16	
HRU18-1.37-18EP	1-3/8	1-3/4	3/16	
HRU18-1.37-18V	1-3/8	1-3/4	3/16	
HRU18-1.50-18	1-1/2	1-7/8	3/16	
HRU18-1.62-18	1-5/8	2	3/16	
HRU18-1.62-18V	1-5/8	2	3/16	
HRU18-1.62-18VL	1-5/8	2	3/16	

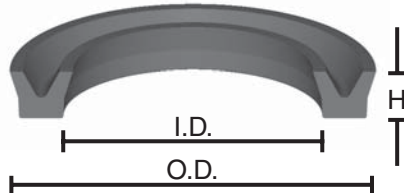
# STYLE HRU HOMOGENEOUS U-SEALS

Part Number	I.D.	O.D.	H.	
<b>3/16" C/S</b>				
HRU18-1.75-18	1-3/4	2-1/8	3/16	
HRU18-1.75-18V	1-3/4	2-1/8	3/16	
HRU18-1.87-18	1-7/8	2-1/4	3/16	
HRU18-2.00-18	2	2-3/8	3/16	
HRU18-2.00-18V	2	2-3/8	3/16	
HRU18-2.12-18	2-1/8	2-1/2	3/16	
HRU18-2.12-18V	2-1/8	2-1/2	3/16	
HRU18-2.37-18	2-3/8	2-3/4	3/16	
HRU18-2.50-18	2-1/2	2-7/8	3/16	
HRU18-2.62-18	2-5/8	3	3/16	
HRU18-2.87-18	2-7/8	3-1/4	3/16	
HRU18-3.00-18	3	3-3/8	3/18	
HRU18-3.25-18	3-1/4	3-5/8	3/16	
HRU18-3.37-18	3-3/8	3-3/4	3/16	
<b>7/32" C/S</b>				
HRU21-2.50-21	2-1/2	2-15/16	7/32	
HRU21-2.50-21EP	2-1/2	2-15/16	7/32	
HRU21-2.50-21V	2-1/2	2-15/16	7/32	
HRU21-2.56-21	2-9/16	3	7/32	
HRU21-2.56-21V	2-9/16	3	7/32	
HRU21-2.75-21	2-3/4	3-3/16	7/32	
HRU21-2.81-21	2-13/16	3-1/4	7/32	
HRU21-2.81-21V	2-13/16	3-1/4	7/32	
HRU21-3.00-21	3	3-7/16	7/32	
HRU21-3.00-21V	3	3-7/16	7/32	
HRU21-3.06-21	3-1/16	3-1/2	7/32	
HRU21-3.31-21	3-5/16	3-3/4	7/32	
<b>1/4" C/S</b>				
HRU25-1.37-25	1-3/8	1-7/8	1/4	
HRU25-1.75-25	1-3/4	2-1/4	1/4	
HRU25-2.00-25	2	2-1/2	1/4	
HRU25-2.50-25	2-1/2	3	1/4	
HRU25-2.75-25	2-3/4	3-1/4	1/4	
HRU25-3.50-25	3-1/2	4	1/4	
HRU25-3.50-25V	3-1/2	4	1/4	
HRU25-3.75-25	3-3/4	4-1/4	1/4	
HRU25-4.00-25	4	4-1/2	1/4	
HRU25-4.00-25-90D	4	4-1/2	1/4	
HRU25-4.00-25V	4	4-1/2	1/4	
HRU25-4.50-25	4-1/2	5	1/4	

Part Number	I.D.	O.D.	H.	
<b>1/4" C/S</b>				
HRU25-4.50-25V	4-1/2	5	1/4	
HRU25-4.75-25	4-3/4	5-1/4	1/4	
HRU25-5.50-25	5-1/2	6	1/4	
HRU25-5.50-37	5-1/2	6	3/8	
<b>9/32" C/S</b>				
HRU28-4.43-28	4-7/16	5	9/32	
HRU28-4.43-28V	4-7/16	5	9/32	
HRU28-4.56-28	4-9/16	5-1/8	9/32	
HRU28-5.00-28	5	5-9/16	9/32	
HRU28-5.00-28V	5	5-9/16	9/32	
HRU28-5.43-28	5-7/16	6	9/32	
HRU28-5.43-28V	5-7/16	6	9/32	
HRU28-6.43-28	6-7/16	7	9/32	
HRU28-6.43-28V	6-7/16	7	9/32	
<b>5/16" C/S</b>				
HRU31-2.87-31	2-7/8	3-1/2	5/16	
HRU31-4.37-31	4-3/8	5	5/16	
HRU31-5.37-31	5-3/8	6	5/16	
HRU31-5.37-31V	5-3/8	6	5/16	
HRU31-5.50-31	5-1/2	6-1/8	5/16	
HRU31-5.50-31V	5-1/2	6-1/8	5/16	
HRU31-6.37-31	6-3/8	7	5/16	
HRU31-6.37-31V	6-3/8	7	5/16	
HRU31-7.37-31	7-3/8	8	5/16	
HRU31-7.37-31V	7-3/8	8	5/16	
<b>11/32" C/S</b>				
HRU34-9.31-34	9-5/16	10	11/32	
HRU34-9.31-34V	9-5/16	10	11/32	
<b>3/8" C/S</b>				
HRU37-2.50-37	2-1/2	3-1/4	3/8	
HRU37-2.75-37	2-3/4	3-1/2	3/8	
HRU37-9.25-37	9-1/4	10	3/8	
HRU37-11.25-37	11-1/4	12	3/8	
<b>12/32" C/S</b>				
HRU40-13.18-40	13-3/16	14	13/32	
<b>1/2" C/S</b>				
HRU50-9.00-50	9	10	1/2	
HRU50-11.00-50	11	12	1/2	
HRU50-11.00-50V	11	12	1/2	

# STYLE HSU HOMOGENEOUS U-SEALS

Style HSU u-seals are precision molded from 90 Dureometer Buna-N rubber or 90 A Fluorocarbon (suffix "V") - 90 Duro Rubber for abrasion resistance and Fluorocarbon for heat resistance. These seals are commonly found in industrial cylinders, as piston, rod and cushion seals.



## SEAL INFORMATION

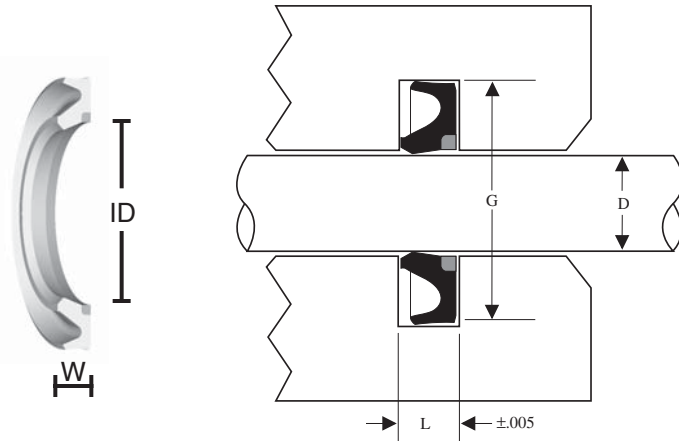
MATERIAL	90 A BUNA-N RUBBER 90 A FLUOROCARBON
TEMPERATURE RANGE	BUNA-N: -40° TO +250° F FC: -20° TO +400° F
PRESSURE RANGE	0 TO 2,000 PSI
PART NUMBER	(Prefix)(CS)-(Inside Dia)-(Height)-(90 Duro)

Part Number	I.D.	O.D.	H.	
<b>1/8" C/S</b>				
HSU12-0.75-12-90D	3/4	1	1/8	
HSU12-0.75-12-90DV	3/4	1	1/8	
<b>5/32" C/S</b>				
HSU15-1.18-15-90D	1-3/16	1-1/2	5/32	
HSU15-1.18-15-90DV	1-3/16	1-1/2	5/32	
HSU15-1.25-15-90D	1-1/4	1 9/16	5/32	
HSU15-1.25-15-90DV	1-1/4	1 9/16	5/32	
<b>3/16" C/S</b>				
HSU18-1.62-18-90D	1-5/8	2	3/16	
HSU18-1.62-18-90DV	1-5/8	2	3/16	
HSU18-2.12-18-90D	2-1/8	2-1/2	3/16	
HSU18-2.12-18-90DV	2-1/8	2-1/2	3/16	
<b>7/32" C/S</b>				
HSU21-2.81-21-90D	2-13/16	3-1/4	7/32	
HSU21-2.81-21-90DV	2-13/16	3-1/4	7/32	
<b>1/4" C/S</b>				
HSU25-3.50-25-90D	3-1/2	4	1/4	
HSU25-3.50-25-90DV	3-1/2	4	1/4	
HSU25-4.50-25-90D	4-1/2	5	1/4	
HSU25-4.50-25-90DV	4-1/2	5	1/4	
<b>.280" C/S</b>				
HSU28-4.43-28-90D	4-7/16	5	9/32	
HSU28-4.43-28-90DV	4-7/16	5	9/32	
HSU28-5.43-28-90D	5-7/16	6	9/32	
HSU28-5.43-28-90DV	5-7/16	6	9/32	
HSU28-6.43-28-90D	6-7/16	7	9/32	
HSU28-6.43-28-90DV	6-7/16	7	9/32	

Part Number	I.D.	O.D.	H.	
<b>5/16" C/S</b>				
HSU31-5.37-31-90D	5-3/8	6	5/16	
HSU31-5.37-31-90DV	5-3/8	6	5/16	
HSU31-6.37-31-90D	6-3/8	7	5/16	
HSU31-6.37-31-90DV	6-3/8	7	5/16	
HSU31-7.37-31-90D	7-3/8	8	5/16	
HSU31-7.37-31-90DV	7-3/8	8	5/16	
<b>11/32" C/S</b>				
HSU34-9.31-34-90D	9-5/16	10	11/32	
HSU34-9.31-34-90DV	9-5/16	10	11/32	
<b>3/8" C/S</b>				
HSU37-11.25-37-90D	11-1/4	12	3/8	
HSU37-11.25-37-90DV	11-1/4	12	3/8	
<b>13/32" C/S</b>				
HSU40-13.18-40-90D	13-3/16	14	13/32	
HSU40-13.18-40-90DV	13-3/16	14	13/32	
<b>1/2" C/S</b>				
HSU50-11.00-50-90D	11	12	1/2	
HSU50-11.00-50-90DV	11	12	1/2	
HSU50-13.00-50-90D	13	14	1/2	
HSU50-13.00-50-90DV	13	14	1/2	

## STYLE DYR ROD BUFFER SEALS

U-cup style buffer ring offers an asymmetric sealing lip profile, chamfered sealing edges, and pressure relieving capabilities to prevent inner pressure entrapment when employed in a tandem sealing system. This rod buffer seal is designed to absorb impact pressure fluctuations under high-load conditions thus increasing the life of the primary seal.



### SEAL INFORMATION

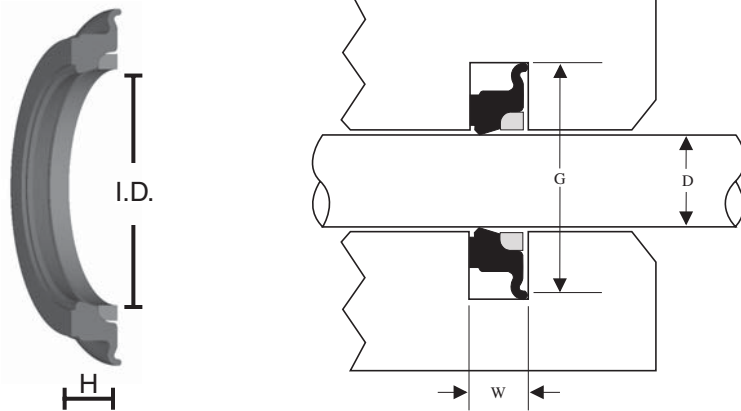
MATERIAL	URETHANE U-STYLE POLYACETAL BACK-UP
TEMPERATURE RANGE	-40° TO +230° F
PRESSURE RANGE	0 TO 8,000 PSI
PART NUMBER	(Prefix)(CS) - (Inside Dia) (O-Ring CS)

Part Number	D Nominal Rod Dia. Seal ID	G Groove Diameter	W Seal Width	L Groove Width	Diametrical Clearance Gap		
					1000 PSI	3000 PSI	5000 PSI
DYR28-1.25-12	1-1/4	1.819 ±0.004	1/8	0.140 ±0.005	0.012	0.008	0.005
DYR28-1.50-12	1-1/2	2.067 ±0.004	1/8	0.140 ±0.005	0.012	0.008	0.005
DYR28-1.75-12	1-3/4	2.319 ±0.004	1/8	0.140 ±0.005	0.012	0.008	0.005
DYR28-2.00-12	2	2.567 ±0.004	1/8	0.140 ±0.005	0.012	0.008	0.005
DYR31-2.75-22BU	2-3/4	3.402 ±0.004	3/16	0.234 ±0.005	0.030	0.022	0.018
DYR31-3.00-22BU	3	3.649 ±0.004	3/16	0.234 ±0.005	0.030	0.022	0.018
DYR31-4.00-22BU	4	4.669 ±0.004	3/16	0.234 ±0.005	0.030	0.022	0.018
DYR32-1.75-20BU	1-3/4	2.395 ±0.005	0.22	0.220 ±0.005	0.030	0.022	0.018
DYR34-2.25-22BU	2-1/4	2.929 ±0.004	3/16	0.234 ±0.005	0.030	0.022	0.018
DYR34-2.50-22BU	2-1/2	3.177 ±0.004	3/16	0.234 ±0.005	0.030	0.022	0.018
DYR34-3.00-22BU	3	3.649 ±0.004	3/16	0.234 ±0.005	0.030	0.022	0.018
DYR34-3.50-22BU	3-1/2	4.169 ±0.004	3/16	0.234 ±0.005	0.030	0.022	0.018

Part Number	Nominal Rod Dia. Seal ID	G Groove Diameter	W Seal Width	L Groove Width	Diametrical Clearance Gap		
					1000 PSI	3000 PSI	5000 PSI
DYR-25003	2-1/2	3.116 +0.005/-0	0.235	0.247 +0.010/-0	0.030	0.022	0.018
DYR-27503	2-3/4	3.366 +0.005/-0	0.235	0.247 +0.010/-0	0.030	0.022	0.018
DYR-30003	3	3.616 +0.005/-0	0.235	0.247 +0.010/-0	0.030	0.022	0.018
DYR-35003	3-1/2	4.116 +0.005/-0	0.235	0.247 +0.010/-0	0.030	0.022	0.018
DYR-40003	4	4.616 +0.005/-0	0.235	0.247 +0.010/-0	0.030	0.022	0.018
DYR-45003	4-1/2	5.116 +0.005/-0	0.235	0.247 +0.010/-0	0.030	0.022	0.018
DYR-47503	4-3/4	5.366 +0.005/-0	0.235	0.247 +0.010/-0	0.030	0.022	0.018
DYR-50003	5	5.616 +0.005/-0	0.235	0.247 +0.010/-0	0.030	0.022	0.018
DYR-55003	5-1/2	6.116 +0.005/-0	0.235	0.247 +0.010/-0	0.030	0.022	0.018
DYR-60003	6	6.616 +0.005/-0	0.235	0.247 +0.010/-0	0.030	0.022	0.018
DYR-65003	6-1/2	7.116 +0.005/-0	0.235	0.247 +0.010/-0	0.030	0.022	0.018
DYR-70003	7	7.616 +0.005/-0	0.235	0.247 +0.010/-0	0.030	0.022	0.018
DYR-75003	7-1/2	8.116 +0.005/-0	0.235	0.247 +0.010/-0	0.030	0.022	0.018
DYR-80003	8	8.616 +0.005/-0	0.235	0.247 +0.010/-0	0.030	0.022	0.018

# STYLE DYM ROD BUFFER SEALS

Buffer seals have an asymmetric sealing profile that offers improved performance in small diameter applications and pressure relieving capabilities to prevent pressure entrapment in tandem sealing systems. DYM Style Rod Buffer Seals can also be used to retrofit DYM and KR applications when properly sized.



## SEAL INFORMATION

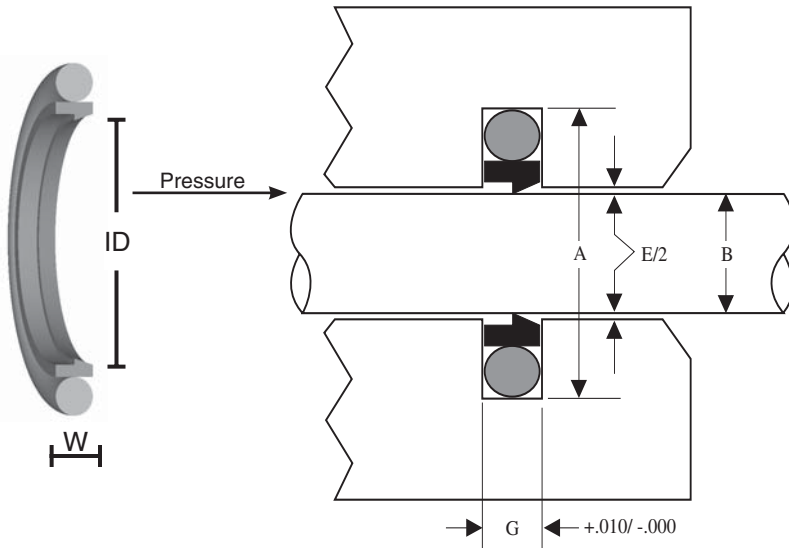
MATERIAL	URETHANE SEAL NYLON BACK-UP
TEMPERATURE RANGE	-40° TO +230° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (Inside Dia) (O-Ring CS)

BUFFER SEALS

Part Number	D Nominal Rod Dia. Seal ID	G Groove Diameter	H Seal Width	W Groove Width	Diametrical Clearance Gap		
					1000 PSI	3000 PSI	5000 PSI
DYM-10002	1	1.424 +0.004/-0	0.155 ±0.005	0.166 +0.010/-0	0.030	0.022	0.018
DYM-12502	1-1/4	1.674 +0.004/-0	0.155 ±0.005	0.166 +0.010/-0	0.030	0.022	0.018
DYM-15002	1-1/2	1.924 +0.004/-0	0.155 ±0.005	0.166 +0.010/-0	0.030	0.022	0.018
DYM-17502	1-3/4	2.174 +0.004/-0	0.155 ±0.005	0.166 +0.010/-0	0.030	0.022	0.018
DYM-17503	1-3/4	2.366 +0.005/-0	0.235 ±0.005	0.247 +0.010/-0	0.030	0.022	0.018
DYM-20002	2	2.424 +0.004/-0	0.155 ±0.005	0.166 +0.010/-0	0.030	0.022	0.018
DYM-20003	2	2.616 +0.005/-0	0.235 ±0.005	0.247 +0.010/-0	0.030	0.022	0.018
DYM-22502	2-1/4	2.674 +0.004/-0	0.155 ±0.005	0.166 +0.010/-0	0.030	0.022	0.018
DYM-25002	2-1/2	2.924 +0.004/-0	0.155 ±0.005	0.166 +0.010/-0	0.030	0.022	0.018
DYM-25003	2-1/2	3.116 +0.005/-0	0.235 ±0.005	0.247 +0.010/-0	0.030	0.022	0.018
DYM-27502	2-3/4	3.174 +0.005/-0	0.155 ±0.005	0.166 +0.010/-0	0.030	0.022	0.018
DYM-27503	2-3/4	3.366 +0.005/-0	0.235 ±0.005	0.247 +0.010/-0	0.030	0.022	0.018
DYM-30002	3	3.424 +0.004/-0	0.155 ±0.005	0.166 +0.010/-0	0.030	0.022	0.018
DYM-30003	3	3.616 +0.005/-0	0.235 ±0.005	0.247 +0.010/-0	0.030	0.022	0.018

## STYLE KR ROD BUFFER SEALS

Molded in PTFE with a rubber energizer, this seal absorbs the shock of pressure spikes protecting the rod seal.



### SEAL INFORMATION

MATERIAL	BRONZE FILLED PTFE SEAL RUBBER ENERGIZER
TEMPERATURE RANGE	-40° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (Inside Dia) (O-Ring CS)

Part Number	B Nominal Rod Dia. Seal ID	A Groove Diameter	W Seal Width	G Groove Width	E - Maximum Diametrical Clearance		
					1000 PSI	3000 PSI	5000 PSI
KR-05001	1/2	0.798 +0.003/-0	.122±.005	0.126 +0.010/-0	0.012	0.006	0.004
KR-10001	1	1.298 +0.004/-0	.122±.005	0.126 +0.010/-0	0.012	0.006	0.004
KR-10002	1	1.433 +0.004/-0	.155±.005	0.165 +0.008/-0	0.016	0.008	0.006
KR-11201	1-1/8	1.423 +0.003/-0	.122±.005	0.126 +0.010/-0	0.012	0.006	0.004
KR-12501	1-1/4	1.548 +0.003/-0	.122±.005	0.126 +0.010/-0	0.012	0.006	0.004
KR-12502	1-1/4	1.674 +0.004/-0	.155±.005	0.166 +0.010/-0	0.016	0.008	0.006
KR-13702	1-3/8	1.799 +0.004/-0	.155±.005	0.166 +0.010/-0	0.016	0.008	0.006
KR-15001	1-1/2	1.798 +0.003/-0	.122±.005	0.126 +0.010/-0	0.012	0.006	0.004
KR-15002	1-1/2	1.924 +0.004/-0	.155±.005	0.166 +0.010/-0	0.016	0.008	0.006
KR-15003	1-1/2	2.116 +0.004/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008
KR-17501	1-3/4	2.048 +0.003/-0	.122±.005	0.126 +0.010/-0	0.012	0.006	0.004
KR-17502	1-3/4	2.174 +0.004/-0	.155±.005	0.166 +0.010/-0	0.016	0.008	0.006
KR-17503	1-3/4	2.366 +0.005/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008
KR-18702	1-7/8	2.299 +0.004/-0	.155±.005	0.166 +0.010/-0	0.016	0.008	0.006
KR-20002	2	2.424 +0.004/-0	.155±.005	0.166 +0.010/-0	0.016	0.008	0.006
KR-20003	2	2.616 +0.005/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008
KR-21202	2-1/8	2.549 +0.004/-0	.155±.005	0.166 +0.010/-0	0.016	0.008	0.006
KR-22502	2-1/4	2.674 +0.004/-0	.155±.005	0.166 +0.010/-0	0.016	0.008	0.006
KR-25002	2-1/2	2.924 +0.004/-0	.155±.005	0.166 +0.010/-0	0.016	0.008	0.006
KR-25003	2-1/2	3.116 +0.005/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008

## STYLE KR ROD BUFFER SEALS

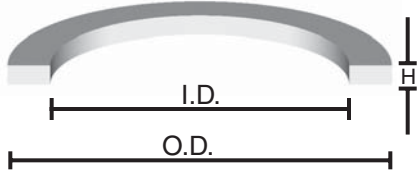
**BUFFER SEALS**

Part Number	B Nominal Rod Dia. Seal ID	A Groove Diameter	W Seal Width	G Groove Width	E - Maximum Diametrical Clearance		
					1000 PSI	3000 PSI	5000 PSI
KR-26203	2-5/8	3.241 +0.005/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008
KR-27503	2-3/4	3.366 +0.005/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008
KR-30002	3	3.424 +0.004/-0	.155±.005	0.166 +0.010/-0	0.016	0.008	0.006
KR-30003	3	3.616 +0.005/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008
KR-32503	3-1/4	3.866 +0.005/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008
KR-35003	3-1/2	4.116 +0.005/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008
KR-37503	3-3/4	4.366 +0.005/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008
KR-40002	4	4.424 +0.004/-0	.155±.005	0.166 +0.010/-0	0.016	0.008	0.006
KR-40003	4	4.616 +0.005/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008
KR-40004	4	4.830 +0.006/-0	.305±.005	0.320 +0.010/-0	0.024	0.012	0.009
KR-45003	4-1/2	5.116 +0.005/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008
KR-45004	4-1/2	5.330 +0.006/-0	.305±.005	0.320 +0.010/-0	0.024	0.012	0.009
KR-47503	4-3/4	5.366 +0.005/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008
KR-50003	5	5.616 +0.005/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008
KR-50004	5	5.830 +0.006/-0	.305±.005	0.320 +0.010/-0	0.024	0.012	0.009
KR-55004	5-1/2	6.330 +0.006/-0	.305±.005	0.320 +0.010/-0	0.024	0.012	0.009
KR-57504	5-3/4	6.580 +0.006/-0	.305±.005	0.320 +0.010/-0	0.024	0.012	0.009
KR-60003	6	6.616 +0.005/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008
KR-60004	6	6.830 +0.006/-0	.305±.005	0.320 +0.010/-0	0.024	0.012	0.009
KR-65003	6-1/2	7.116 +0.005/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008
KR-67504	6-3/4	7.580 +0.006/-0	.305±.005	0.320 +0.010/-0	0.024	0.012	0.009
KR-70003	7	7.616 +0.005/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008
KR-70004	7	7.830 +0.006/-0	.305±.005	0.320 +0.010/-0	0.024	0.012	0.009
KR-75003	7-1/2	8.116 +0.006/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008
KR-82504	8-1/4	9.080 +0.006/-0	.305±.005	0.320 +0.010/-0	0.024	0.012	0.009
KR-90004	9	9.830 +0.006/-0	.305±.005	0.320 +0.010/-0	0.024	0.012	0.009



## STYLE RBS ROD BUFFER SEALS

The RBS style rod buffer seals are a rectangular urethane buffer ring designed to absorb pressure fluctuations thereby protecting the primary rod seal. Some sizes include a radial and axial slot, which faces the pressure, to relieve back pressure between the primary and buffer seal. This simple design is commonly found on older construction equipment.



### SEAL INFORMATION

MATERIAL	92 A URETHANE
TEMPERATURE RANGE	-65° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI

Part Number	ID	OD	H.	
RBS-1.2X1.6	1.250	1.620	0.118	
RBS-1.50X2.00SL	1.500	2.000	0.118	
RBS-1.75X2.25SL	1.750	2.250	0.118	
RBS-2.00X2.50SL	2.000	2.500	0.118	
RBS-2.25X2.87SL	2.250	2.870	0.190	
RBS-2.50X3.12SL	2.500	3.120	0.190	
RBS-3.00X3.62SL	3.000	3.620	0.190	
RBS-4.0X4.4X.19	4.000	4.380	0.190	
RBS-4.5X5.2X.17	4.500	5.220	0.170	
RBS-6X6.7X.17	6.000	6.720	0.170	
RBS-7.5X8.2X.17	7.500	8.220	0.170	

## CATERPILLAR® SPECIFIC BUFFER SEALS - 1 PIECE

See Caterpillar® heading in kit catalog for more Caterpillar® replacement parts.



### SEAL INFORMATION

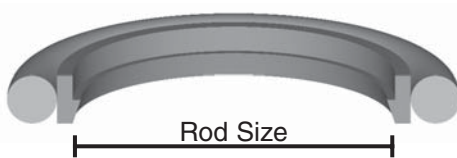
MATERIAL	92 A URETHANE
TEMPERATURE RANGE	-65° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI

Part Number	Rod Size	
CTC-5P4673	7/8	
CTC-6J9733	1-1/2	
CTC-9J3497	1-1/4	
CTC-6J9178	1-3/4	
CTC-4T6778	1-7/8	
CTC-6J6917	2	
CTC-5J3620	2-1/2	
CTC-5J3616	2-1/4	
CTC-4T6127	2-1/8	
CTC-6J6553	2-3/4	
CTC-6J6916	2-3/8	
CTC-1U4020	2-5/8	

Part Number	Rod Size	
CTC-6J6915	3	
CTC-6J6736	3-1/2	
CTC-6J7167	3-1/4	
CTC-8J6070	3-3/4	
CTC-8J4627	4	
CTC-7J8943	4-1/4	
CTC-7J9257	4-3/4	
CTC-3G5055	4-3/8	
CTC-8J4509	5	
CTC-6J8631	6-1/2	
CTC-9J2495	7	

## CATERPILLAR® SPECIFIC BUFFER SEALS - 2 PIECE

See Caterpillar® heading in kit catalog for more Caterpillar® replacement parts.



### SEAL INFORMATION

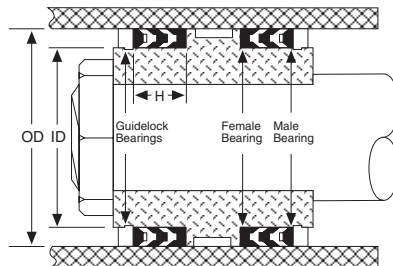
MATERIAL	BRONZE FILLED PTFE SEAL RUBBER ENERGIZER
TEMPERATURE RANGE	-40° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI

Part Number	Rod Size	
CTC-8C9122	1-1/2	
CTC-8C9123	1-3/4	
CTC-8C9124	2	
CTC-8C3839	2-1/2	
CTC-8C9125	2-1/4	
CTC-8C3841	2-3/4	
CTC-8C9138	2-3/8	

Part Number	Rod Size	
CTC-8C9126	3	
CTC-8C9127	3-1/2	
CTC-8C9121	3-1/4	
CTC-8C9128	3-3/4	
CTC-8C9129	4	
CTC-8C9130	7	

# HYDROLOCK VEE PACKING SETS

These vee sets utilize hytrel & nylon vees to cover pressure from 0 to 6,000 psi and provide excellent extrusion resistance. Male & female bearings are molded from glass filled nylon. **NOTE:** These vee sets do not contain guidelock bearings. They are sold separately as shown on the next page.



Standard Hydrolock Set  
w/ 1/4" female bearing



1740 = 3 VEES  
1741 = 4 VEES  
1742 = 5 VEES

## SEAL INFORMATION

MATERIAL	HYTREL & NYLON
TEMPERATURE RANGE	-40° TO +220° F
PRESSURE RANGE	0 TO 6,000 PSI
PART NUMBER	(Prefix)-(# of vees)-(OD)- (Bearing Height)

Part Number	I.D.	O.D.	H.
HDLV-1740-350	3	3-1/2	3/4
HDLV-1740-400	3-1/2	4	3/4
HDLV-1740-500	4-1/2	5	3/4
HDLV-1740-600	5-1/2	6	3/4
HDLV-1740-627	5-3/4	6.265	3/4
HDLB-1741-175	1-1/4	1-3/4	53-64
HDLV-1741-275-100FB	2-1/4	2-3/4	1-5/8
HDLV-1741-300-050FB	2-1/2	3	1-1/8
HDLV-1741-350-050FB	3	3-1/2	1-1/8
HDLV-1741-400-050FB	3-1/2	4	1-1/8
HDLV-1741-425-100FB	3-3/4	4-1/4	1-5/8
HDLV-1741-450-050FB	4	4-1/2	1-1/8
HDLV-1741-500	4-1/2	5	3/4
HDLV-1741-500-050FB	4-1/2	5	1-1/8
HDLV-1741-500-075FB	4-1/2	5	1-3/8
HDLV-1741-600-050FB	5-1/2	6	1-1/8
HDLV-1741-725	6-3/4	7-1/4	7/8
HDLV-1741-1200-050FB	11-1/2	12	1-1/8
HDLV-1742-200	1-1/2	2	1
HDLV-1742-225	1-3/4	2-1/4	1
HDLV-1742-250	2	2-1/2	1
HDLV-1742-250-100FB	2	2-1/2	1-3/4
HDLV-1742-275	2-1/4	2-3/4	1
HDLV-1742-275-100FB	2-1/4	2-3/4	1-3/4
HDLV-1742-300	2-1/2	3	1
HDLV-1742-300-100FB	2-1/2	3	1-3/4
HDLV-1742-312-100FB	2-1/2	3-1/8	1-11/16
HDLV-1742-325	2-3/4	3-1/4	1
HDLV-1742-325-100FB	2-3/4	3-1/4	1-3/4
HDLV-1742-350	3	3-1/2	1
HDLV-1742-350-100FB	3	3-1/2	1-3/4
HDLV-1742-375	3-1/4	3-3/4	1
HDLV-1742-375-050FB	3-1/4	3-3/4	1-1/4
HDLV-1742-400	3-1/2	4	1
HDLV-1742-400-100FB	3-1/2	4	1-3/4

Part Number	I.D.	O.D.	H.
HDLV-1742-450	4	4-1/2	1
HDLV-1742-450-100FB	4	4-1/2	1-3/4
HDLV-1742-500	4-1/2	5	1
HDLV-1742-500-100FB	4-1/2	5	1-3/4
HDLV-1742-550	5	5-1/2	1
HDLV-1742-550-050FB	5	5-1/2	1-1/4
HDLV-1742-600	5-1/2	6	1
HDLV-1742-600-100FB	5-1/2	6	1-3/4
HDLV-1742-650	6	6-1/2	1
HDLV-1742-650-050FB	6	6-1/2	1-1/4
HDLV-1742-650-100FB	6	6-1/2	1-3/4
HDLV-1742-700	6-1/2	7	1
HDLV-1742-700-100FB	6-1/2	7	1-3/4
HDLV-1742-750	7	7-1/2	1
HDLV-1742-750-100FB	7	7-1/2	1-3/4
HDLV-1742-800	7-1/2	8	1
HDLV-1742-800-100FB	7-1/2	8	1-3/4
HDLV-1742-850	8	8-1/2	1
HDLV-1742-850-100FB	8	8-1/2	1-3/4
HDLV-1742-900	8-1/2	9	1
HDLV-1742-900-100FB	8-1/2	9	1-3/4
HDLV-275-200-175	2	2-3/4	1-3/4
HDLV-300-250-082	2-1/2	3	.820
HDLV-300-250-087	2-1/2	3	7/8
HDLV-350-300-082	3	3-1/2	.820
HDLV-375-300-175	3	3-3/4	1-3/4
HDLV-425-350-087	3-1/2	4-1/4	7/8
HDLV-425-350-175	3-1/2	4-1/4	1-3/4
HDLV-450-400-082	4	4-1/2	.820
HDLV-503-402-152	4.02	5.03	1.527
HDLV-550-500-082	5	5-1/2	.820
HDLV-603-503-150	5.03	6.03	1-1/2
HDLV-703-603-150	6.03	7.03	1-1/2
HDLV-800-080	7-1/2	8	0.800

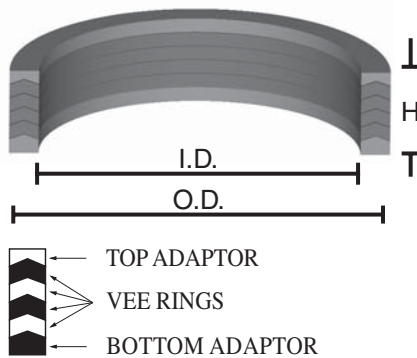
# GUIDELOCK PISTON BEARINGS

Molded from glass filled nylon, these step-cut bearings also act as retainers for Hydrolock vee sets. The following bore sizes are available.

Part Number	Bore Size	Part Number	Bore Size
HDLG-200	2	HDLG-550	5-1/2
HDLG-225	2-1/4	HDLG-600	6
HDLG-250	2-1/2	HDLG-627	6.265
HDLG-300	3	HDLG-650	6-1/2
HDLG-350	3-1/2	HDLG-700	7
HDLG-400	4	HDLG-750	7-1/2
HDLG-450	4-1/2	HDLG-800	8
HDLG-500	5	HDLG-900	9

## VEE PACKING SETS

Our vee sets are the finest quality available in the industry. While all sets incorporate fabric reinforced rubber pressure rings, one or two urethane rings are included to improve low pressure sealing, when it is feasible. Most sets use nylon adaptors. Properly installed the pressure limits are as follows:



3,000 PSI = 4 VEEES  
 5,000 PSI = 5 VEEES  
 10,000 PSI = 6 VEEES

**Construction Code**  
**Example: 1-0-4-1**

1 - 1 Top Adaptor  
 0 - 0 Urethane Vee Rings  
 4 - 4 Fabric Vee Rings  
 1 - 1 Bottom Adaptor

### SEAL INFORMATION

MATERIAL	FABRIC REINFORCED RUBBER URETHANE RING/NYLON ADAP- TORS
TEMPERATURE RANGE	-35° TO +220° F
PRESSURE RANGE	0 TO 10,000 PSI
PART NUMBER	(Prefix) (ID) (CS) X (Height)

Part Number	Construction T-U-F-B	I.D.	O.D.	H.	Part Number	Construction T-U-F-B	I.D.	O.D.	H.
VS03703X075	1-0-4-1	3/8	3/4	3/4	VS08705X103	1-0-4-1	7/8	1-1/2	1-1/32
VS03704X050	1-0-1-1	3/8	7/8	1/2	VS10003X095	1-2-3-1	1	1-3/8	61/64
VS05003X062	1-0-3-1	1/2	7/8	5/8	VS10003X100	1-0-6-1	1	1-3/8	1
VS05004X075	1-0-3-1	1/2	1	3/4	VS10004X075	1-0-3-1	1	1-1/2	3/4
VS05004X087	1-0-4-1	1/2	1	7/8	VS10004X100	1-0-5-1	1	1-1/2	1
VS06203X082	1-0-4-1	5/8	1	13/16	VS10004X112	1-0-6-1	1	1-1/2	1-1/8
VS06204X100	1-0-5-1	5/8	1-1/8	1	VS10005X103	1-0-4-1	1	1-5/8	1-1/32
VS06205X125	1-0-5-1	5/8	1-1/4	1-1/4	VS10006X100	1-0-3-1	1	1-3/4	1
VS07503X075	1-0-3-1	3/4	1-1/8	3/4	VS11204X087	1-0-4-1	1-1/8	1-5/8	7/8
VS07503X082	1-0-6-1	3/4	1-1/8	13/16	VS11205X103	1-0-4-1	1-1/8	1-3/4	1-1/32
VS07504X100	1-0-5-1	3/4	1-1/4	1	VS11803X125	1-0-6-1	1-3/16	1-9/16	1-1/4
VS07505X103	1-0-4-1	3/4	1-3/8	1-1/32	VS11804X087	1-0-4-1	1-3/16	1-11/16	7/8
VS07506X112	1-0-3-1	3/4	1-1/2	1-1/8	VS12504X075	1-0-3-1	1-1/4	1-3/4	3/4
VS08104X087	1-0-4-1	13/16	1-5/16	7/8	VS12504X082	1-2-2-1	1-1/4	1-3/4	.820
VS08703X075	1-0-3-1	7/8	1-1/4	3/4	VS12504X100	1-0-5-1	1-1/4	1-3/4	1
VS08704X075	1-0-3-1	7/8	1-3/8	3/4	VS12504X112	1-0-6-1	1-1/4	1-3/4	1-1/8
VS08704X100	1-0-4-1	7/8	1-3/8	1	VS12505X103	1-0-4-1	1-1/4	1-7/8	1-1/32

## VEE PACKING SETS

Part Number	Construction T-U-F-B	I.D.	O.D.	H.	
VS12506X100	1-1-2-1	1-1/4	2	1	
VS12508X100	1-0-2-1	1-1/4	2-1/4	1	
VS12508X150	1-0-4-1	1-1/4	2-1/4	1-1/2	
VS13703X106	1-0-6-1	1-3/8	1-3/4	1-1/16	
VS13704X075	1-0-3-1	1-3/8	1-7/8	3/4	
VS13704X100	1-2-3-1	1-3/8	1-7/8	1	
VS13705X103	1-0-4-1	1-3/8	2	1-1/32	
VS13706X125	1-0-4-1	1-3/8	2-1/8	1-1/4	
VS15003X082	1-2-3-1	1-1/2	1-7/8	.820	
VS15004X082	1-0-4-1	1-1/2	2	.820	
VS15004X087	1-1-3-1	1-1/2	2	7/8	
VS15004X100	1-2-3-1	1-1/2	2	1	
VS15004X112	1-2-4-1	1-1/2	2	1-1/8	
VS15004X125	1-0-7-1	1-1/2	2	1-1/4	
VS15005X103	1-2-2-1	1-1/2	2-1/8	1.031	
VS15005X118	1-0-5-1	1-1/2	2-1/8	1-3/16	
VS15006X100	1-0-3-1	1-1/2	2-1/4	1	
VS15007X175	1-0-5-1	1-1/2	2-3/8	1-3/4	
VS15008X125	1-1-2-1	1-1/2	2-1/2	1-1/4	
VS15008X150	1-2-2-1	1-1/2	2-1/2	1-1/2	
VS16204X075	1-3-0-1	1-5/8	2-1/8	3/4	
VS16204X100	1-0-5-1	1-5/8	2-1/8	1	
VS16204X112	1-0-6-1	1-5/8	2-1/8	1-1/8	
VS16205X087	1-0-3-1	1-5/8	2-1/4	7/8	
VS16205X103	1-0-4-1	1-5/8	2-1/4	1-1/32	
VS17503X087	1-2-3-1	1-3/4	2-1/8	7/8	
VS17504X082	1-1-3-1	1-3/4	2-1/4	.820	
VS17504X087	1-1-3-1	1-3/4	2-1/4	7/8	
VS17504X100	1-0-5-1	1-3/4	2-1/4	1	
VS17504X112	1-2-4-1	1-3/4	2-1/4	1-1/8	
VS17505X089	1-1-2-1	1-3/4	2-3/8	0.894	
VS17505X103	1-2-2-1	1-3/4	2-3/8	1-1/32	
VS17505X112	1-0-5-1	1-3/4	2-3/8	1-1/8	
VS17506X100	1-0-3-1	1-3/4	2-1/2	1	
VS17506X111H	1-4H-1	1-3/4	2-1/2	1.11	
VS17506X156	1-0-6-1	1-3/4	2-1/2	1-9/16	
VS18704X112	1-0-6-1	1-7/8	2-3/8	1-1/8	
VS18705X103	1-0-4-1	1-7/8	2-1/2	1-1/32	
VS18706X112	1-0-4-1	1-7/8	2-5/8	1-1/8	
VS19304X118	1-0-6-1	1-15/16	2-7/16	1-3/16	
VS20003X075	1-2-2-1	2	2-3/8	3/4	
VS20004X082	1-0-4-1	2	2-1/2	.820	
VS20004X087	1-2-2-1	2	2-1/2	7/8	
VS20004X100	1-2-3-1	2	2-1/2	1	
VS20004X112	1-2-4-1	2	2-1/2	1-1/8	

Part Number	Construction T-U-F-B	I.D.	O.D.	H.	
VS20005X087	1-0-3-1	2	2-5/8	7/8	
VS20005X103	1-0-4-1	2	2-5/8	1-1/32	
VS20006X100	1-1-2-1	2	2-3/4	1	
VS20006X118	1-2-2-1	2	2-3/4	1-3/16	
VS20006X137	1-2-3-1	2	2-3/4	1-3/8	
VS20008X150	1-0-4-1	2	3	1-1/2	
VS21204X087F	1-0-4-1	2-1/8	2-5/8	7/8	
VS21205X103	1-0-4-1	2-1/8	2-3/4	1-1/32	
VS21206X118	1-0-4-1	2-1/8	2-7/8	1-3/16	
VS21206X137	1-0-5-1	2-1/8	2-7/8	1-3/8	
VS21806X156	1-0-6-1	2-3/16	2-15/16	1-9/16	
VS21806X3V	0-0-3-0	2-3/16	2-15/16	3 Vees	
VS22504X082	1-1-3-1	2-1/4	2-3/4	.820	
VS22504X100	1-2-3-1	2-1/4	2-3/4	1	
VS22505X103	1-0-4-1	2-1/4	2-7/8	1-1/32	
VS22505X118	1-0-5-1	2-1/4	2-7/8	1-3/16	
VS22506X100	1-0-3-1	2-1/4	3	1	
VS22506X111H	1-4H-1	2-1/4	3	1.13	
VS22508X150	1-0-4-1	2-1/4	3-1/4	1-1/2	
VS23704X100	1-0-5-1	2-3/8	2-7/8	1	
VS23705X103	1-0-4-1	2-3/8	3	1-1/32	
VS23705X118	1-0-5-1	2-3/8	3	1-3/16	
VS23706X125	1-0-4-1	2-3/8	3-1/8	1-1/4	
VS25004X075	1-1-2-1	2-1/2	3	3/4	
VS25004X082	1-0-4-1	2-1/2	3	.820	
VS25004X087	1-1-3-1	2-1/2	3	7/8	
VS25004X100	1-2-3-1	2-1/2	3	1	
VS25004X112	1-2-4-1	2-1/2	3	1-1/8	
VS25005X087	1-0-3-1	2-1/2	3-1/8	7/8	
VS25005X118	1-2-3-1	2-1/2	3-1/8	1-3/16	
VS25005X118U	1-1-3-1	2-1/2	3-1/8	1-3/16	
VS25006X100	1-1-2-1	2-1/2	3-1/4	1	
VS25006X102	1-1-2-1	2-1/2	3-1/4	1.02	
VS25006X137	1-2-3-1	2-1/2	3-1/4	1-3/8	
VS25008X125	1-0-3-1	2-1/2	3-1/2	1-1/4	
VS26204X087	1-2-2-1	2-5/8	3-1/8	7/8	
VS26204X137	1-0-7-1	2-5/8	3-1/8	1-3/8	
VS26205X100	1-0-4-1	2-5/8	3-1/4	1.11	
VS26206X118	1-0-3-1	2-5/8	3-3/8	1-3/16	
VS27504X087	1-0-4-1	2-3/4	3-1/4	7/8	
VS27504X100	1-1-4-1	2-3/4	3-1/4	1	
VS27505X103	1-2-2-1	2-3/4	3-3/8	1-1/32	
VS27506X100	1-0-3-1	2-3/4	3-1/2	1	
VS27506X111H	1-4H-1	2-3/4	3-1/2	1.15	
VS27506X118	1-2-2-1	2-3/4	3-1/2	1-3/16	

# VEE PACKING SETS

Part Number	Construction T-U-F-B	I.D.	O.D.	H.	
VS27506X150	1-3-3-1	2-3/4	3-1/2	1-1/2	
VS27508X200	1-0-6-1	2-3/4	3-3/4	2	
VS27706X100	1-0-3-1	2.775	3.525	1	
VS27706X125	1-1-3-1	2.775	3.525	1-1/4	
VS28704X100	1-0-4-1	2-7/8	3-3/8	1	
VS30004X062	1-0-2-1	3	3-1/2	5/8	
VS30004X087	1-0-4-1	3	3-1/2	7/8	
VS30004X087U	1-1-3-1	3	3-1/2	7/8	
VS30004X100	1-2-3-1	3	3-1/2	1	
VS30004X112	1-2-4-1	3	3-1/2	1-1/8	
VS30005X089	1-1-2-1	3	3-5/8	0.894	
VS30005X103	1-0-4-1	3	3-5/8	1-1/32	
VS30006X100	1-1-2-1	3	3-3/4	1	
VS30006X118	1-2-2-1	3	3-3/4	1-3/16	
VS30006X137	1-2-3-1	3	3-3/4	1-3/8	
VS30006X137U	1-1-3-1	3	3-3/4	1-3/8	
VS30008X150	1-2-2-1	3	4	1-1/2	
VS32504X082	1-0-4-1	3-1/4	3-3/4	.820	
VS32504X100	1-0-5-1	3-1/4	3-3/4	1	
VS32504X125	1-2-3-1	3-1/4	3-3/4	1-1/4	
VS32505X100	1-0-4-1	3-1/4	3-7/8	1	
VS32506X118	1-0-4-1	3-1/4	4	1-3/16	
VS32506X137	1-0-5-1	3-1/4	4	1-3/8	
VS32506X156	1-0-6-1	3-1/4	4	1-9/16	
VS32508X150	1-2-2-1	3-1/4	4-1/4	1-1/2	
VS32706X118	1-0-4-1	3.275	4.025	1.187	
VS33704X100	1-0-5-1	3-3/8	3-7/8	1	
VS33704X112	1-0-6-1	3-3/8	3-7/8	1-1/8	
VS33705X087	1-0-3-1	3-3/8	4	7/8	
VS33705X103	1-0-4-1	3-3/8	4	1-1/32	
VS33706X100	1-0-3-1	3-3/8	4-1/8	1	
VS33706X118	1-0-4-1	3-3/8	4-1/8	1-3/16	
VS35004X075	1-1-2-1	3-1/2	4	3/4	
VS35004X082	1-0-4-1	3-1/2	4	.820	
VS35004X100	1-2-3-1	3-1/2	4	1	
VS35004X150	1-3-6-1	3-1/2	4	1-1/2	
VS35006X100	1-0-3-1	3-1/2	4-1/4	1	
VS35006X118	1-2-2-1	3-1/2	4-1/4	1-3/16	
VS35006X150	1-0-5-1	3-1/2	4-1/4	1-1/2	
VS35008X125	1-0-3-1	3-1/2	4-1/2	1-1/4	
VS35012X225	1-0-4-1	3-1/2	5	2-1/4	
VS37504X082	1-0-4-1	3-3/4	4-1/4	.820	
VS37504X100	1-2-3-1	3-3/4	4-1/4	1	
VS37505X087	1-0-3-1	3-3/4	4-3/8	7/8	
VS37505X106	1-2-2-1	3-3/4	4-3/8	1-1/16	

Part Number	Construction T-U-F-B	I.D.	O.D.	H.	
VS37506X118	1-2-2-1	3-3/4	4-1/2	1-3/16	
VS37506X137	1-2-3-1	3-3/4	4-1/2	1-3/8	
VS38704X075	0-0-4-1	3-7/8	4-3/8	3/4	
VS40004X100	1-2-3-1	4	4-1/2	1	
VS40004X112	1-2-4-1	4	4-1/2	1-1/8	
VS40006X118	1-2-2-1	4	4-3/4	1-3/16	
VS40007X112	1-0-3-1	4	4-7/8	1-1/8	
VS40007X131	1-0-4-1	4	4-7/8	1-5/16	
VS40007X175	1-0-6-1	4	4-7/8	1-3/4	
VS40008X131	1-1-2-1	4	5	1-5/16	
VS40008X137	0-3-2-0	4	5	1-3/8	
VS40008X156	1-2-2-1	4	5	1-9/16	
VS40606X100	1-0-3-1	4-1/16	4-13/16	1	
VS42504X100	1-0-5-1	4-1/4	4-3/4	1	
VS42504X125	1-3-4-1	4-1/4	4-3/4	1-1/4	
VS42506X100	1-0-3-1	4-1/4	5	1	
VS42506X150	1-0-5-1	4-1/4	5	1-1/2	
VS42506X162	1-0-6-1	4-1/4	5	1-5/8	
VS42507X150	1-0-5-1	4-1/4	5-1/8	1-1/2	
VS42508X162	1-0-4-1	4-1/4	5-1/4	1-5/8	
VS43704X100	1-0-5-1	4-3/8	4-7/8	1	
VS45004X100	1-0-5-1	4-1/2	5	1	
VS45005X137	1-0-6-1	4-1/2	5-1/8	1-3/8	
VS45006X100	1-1-2-1	4-1/2	5-1/4	1	
VS45006X150	1-0-6-1	4-1/2	5-1/4	1-1/2	
VS45007X137	1-0-4-1	4-1/2	5-3/8	1-3/8	
VS45008X125	1-0-3-1	4-1/2	5-1/2	1-1/4	
VS46205X112	1-0-4-1	4-5/8	5-1/4	1	
VS47504X087	1-0-4-1	4-3/4	5-1/4	7/8	
VS47504X100	1-0-5-1	4-3/4	5-1/4	1	
VS47506X118	1-2-2-1	4-3/4	5-1/2	1-3/16	
VS47506X137	1-0-5-1	4-3/4	5-1/2	1-3/8	
VS47506XXX	0-0-7-0	4-3/4	5-1/2	1-3/4	
VS47507X150	1-0-5-1	4-3/4	5-5/8	1-1/2	
VS50004X087	1-2-2-1	5	5-1/2	7/8	
VS50004X100	1-2-3-1	5	5-1/2	1	
VS50004X112	1-2-4-1	5	5-1/2	1-1/8	
VS50005X103	1-0-4-1	5	5-5/8	1-1/32	
VS50006X150	1-0-6-1	5	5-3/4	1-1/2	
VS50007X131	1-0-4-1	5	5-7/8	1-5/16	
VS50008X125	1-1-2-1	5	6	1-1/4	
VS50008X175	1-2-3-1	5	6	1-3/4	
VS51204X100	1-0-5-1	5-1/8	5-5/8	1	
VS51204X112	1-0-6-1	5-1/8	5-5/8	1-1/8	
VS52504X125	1-2-3-1	5-1/4	5-3/4	1-1/4	

## VEE PACKING SETS

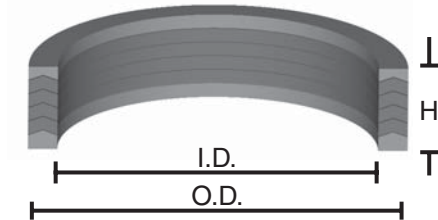
Part Number	Construction T-U-F-B	I.D.	O.D.	H.	
VS52506X118	1-0-4-1	5-1/4	6	1-3/16	
VS52508X122	1-0-3-1	5-1/4	6-1/4	1.22	
VS53707X150	1-0-5-1	5-3/8	6-1/4	1-1/2	
VS55004X075	1-0-3-1	5-1/2	6	3/4	
VS55004X100	1-0-5-1	5-1/2	6	1	
VS55006X175	1-0-7-1	5-1/2	6-1/4	1-3/4	
VS55008X125	1-0-3-1	5-1/2	6-1/2	1-1/4	
VS55008X175	1-0-5-1	5-1/2	6-1/2	1-3/4	
VS57504X100	1-0-5-1	5-3/4	6-1/4	1	
VS57504X112	1-0-6-1	5-3/4	6-1/4	1-1/8	
VS57506X100	1-0-3-1	5-3/4	6-1/2	1	
VS57506X137	1-0-5-1	5-3/4	6-1/2	1-3/8	
VS57508X175	1-0-5-1	5-3/4	6-3/4	1-3/4	
VS60004X100	1-2-3-1	6	6-1/2	1	
VS60004X112	1-2-4-1	6	6-1/2	1-1/8	
VS60006X100	1-1-2-1	6	6-3/4	1	
VS60008X150	1-0-4-1	6	7	1-1/2	
VS60010X175	1-0-4-1	6	7-1/4	1-3/4	
VS62505X125	1-2-3-1	6-1/4	6-7/8	1-1/4	
VS62506X118	1-0-4-1	6-1/4	7	1-3/16	
VS65004X100	1-1-4-1	6-1/2	7	1	
VS65006X137	1-0-5-1	6-1/2	7-1/4	1-3/8	
VS65008X150	1-0-4-1	6-1/2	7-1/2	1-1/2	
VS67504X100	1-0-5-1	6-3/4	7-1/4	1	
VS67505X125	1-2-3-1	6-3/4	7-3/8	1-1/4	
VS67506X118	1-0-4-1	6-3/4	7-1/2	1-3/16	
VS70004X100	1-2-3-1	7	7-1/2	1	
VS70004X112	1-2-4-1	7	7-1/2	1-1/8	
VS70008X125	1-0-3-1	7	8	1-1/4	
VS70008X200	1-3-3-1	7	8	2	

Part Number	Construction T-U-F-B	I.D.	O.D.	H.	
VS72504X087	1-2-3-1	7-1/4	7-3/4	7/8	
VS75004X100	1-2-3-1	7-1/2	8	1	
VS75005X125	1-2-3-1	7-1/2	8-1/8	1-1/4	
VS75006X109	1-3-2-0	7-1/2	8-1/4	1-3/32	
VS80004X075	1-1-2-1	8	8-1/2	3/4	
VS80004X100	1-2-3-1	8	8-1/2	1	
VS80006X118	1-0-4-1	8	8-3/4	1-3/16	
VS80008X200	1-0-6-1	8	9	2	
VS81204X112	1-1-5-1	8-1/8	8-5/8	1-1/8	
VS82504X112	1-0-6-1	8-1/4	8-3/4	1-1/8	
VS85004X100	1-2-3-1	8-1/2	9	1	
VS87505X125	1-0-6-1	8-3/4	9-3/8	1-1/4	
VS90004X125	1-0-7-1	9	9-1/2	1-1/4	
VS90008X187	1-0-5-1	9	10	1-7/8	
VS95004X100	1-0-5-1	9-1/2	10	1	
VS95006X118	1-0-4-1	9-1/2	10-1/4	1-3/16	
VS95008X187	1-0-5-1	9-1/2	10-1/2	1-7/8	
VS100008X187	1-0-5-1	10	11	1-7/8	
VS105004X100	1-0-5-1	10-1/2	11	1	
VS105008X187	1-0-5-1	10-1/2	11-1/2	1-7/8	
VS10604X100	1-0-5-1	1-1/16	1-9/16	1	
VS110008X187	1-0-5-1	11	12	1-7/8	
VS120008X187	1-0-5-1	12	13	1-7/8	
VS130008X187	1-0-5-1	13	14	1-7/8	
VS140008X187	1-0-5-1	14	15	1-7/8	
VS150008X187	1-0-5-1	15	16	1-7/8	

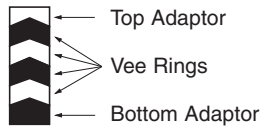


# FLUOROCARBON VEE PACKING SETS

Not different in application from standard vee sets, these sets are made entirely of cotton duck and fluorocarbon. Excellent heat resistance.



3,000 PSI = 4 VEEES  
5,000 PSI = 5 VEEES



## SEAL INFORMATION

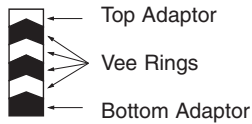
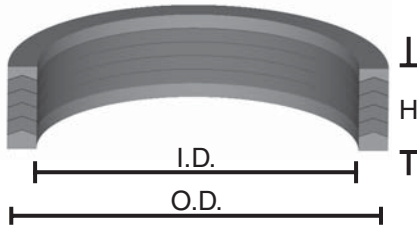
MATERIAL	FLUOROCARBON / DUCK
TEMPERATURE RANGE	-20° TO +350° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) (ID) (CS) X (Height)

Part Number	I.D.	O.D.	H.	
VS10004X100V	1	1-1/2	1	
VS13705X100V	1-3/8	2	1	
VS15005X100V	1-1/2	2-1/8	1	
VS16204X100V	1-5/8	2-1/8	1	
VS17504X100V	1-3/4	2-1/4	1	
VS17505X100V	1-3/4	2-3/8	1	
VS17506X100V	1-3/4	2-1/2	1	
VS18705X100V	1-7/8	2-1/2	1	
VS20004X100V	2	2-1/2	1	
VS20005X100V	2	2-5/8	1	
VS20006X100V	2	2-3/4	1	
VS21205X100V	2-1/8	2-3/4	1	
VS21206X100V	2-1/8	2-7/8	1	
VS22504X100V	2-1/4	2-3/4	1	
VS22505X100V	2-1/4	2-7/8	1	
VS22506X100V	2-1/4	3	1	
VS25004X100V	2-1/2	3	1	
VS25005X100V	2-1/2	3-1/8	1	
VS25006X100V	2-1/2	3-1/4	1	
VS27504X100V	2-3/4	3-1/4	1	
VS27506X100V	2-3/4	3-1/2	1	
VS30004X100V	3	3-1/2	1	
VS30005X100V	3	3-5/8	1	
VS30006X100V	3	3-3/4	1	
VS30008X101V	3	4	1-1/64	
VS32506X100V	3-1/4	4	1	
VS35004X100V	3-1/2	4	1	
VS35006X100V	3-1/2	4-1/4	1	
VS35006X150V	3-1/2	1/4	1-1/2	
VS35008X112V	3-1/2	4-1/2	1-1/8	
VS37506X100V	3-3/4	4-1/2	1	

Part Number	I.D.	O.D.	H.	
VS40004X100V	4	4-1/2	1	
VS40006X100V	4	4-3/4	1	
VS40007X106V	4	4-7/8	1-1/16	
VS40008X094V	4	5	0.94	
VS42507X106V	4-1/4	5-1/8	1-1/16	
VS42508X112V	4-1/4	5-1/4	1-1/8	
VS45006X100V	4-1/2	5-1/4	1	
VS45007X099V	4-1/2	5-3/8	0.9	
VS45008X112V	4-1/2	5-1/2	1-1/8	
VS47504X100V	4-3/4	5-1/4	1	
VS47508X112V	4-3/4	5-3/4	1-1/8	
VS50004X100V	5	5-1/2	1	
VS50006X100V	5	5-3/4	1	
VS50007X109V	5	5-7/8	1.09	
VS50008X112V	5	6	1-1/8	
VS52512X200V	5-1/4	6-3/4	2	
VS53708X137V	5-3/8	6-3/8	1-3/8	
VS55004X100V	5-1/2	6	1	
VS55006X100V	5-1/2	6-1/4	1	
VS55008X100V	5-1/2	6-1/2	1	
VS57506X100V	5-3/4	6-1/2	1	
VS60004X100V	6	6-1/2	1	
VS60008X101V	6	7	1-1/64	
VS65008X137V	6-1/2	7-1/2	1-3/8	
VS70004X100V	7	7-1/2	1	
VS70006X100V	7	7-3/4	1	
VS70008X106V	7	8	1-1/16	
VS75004X100V	7-1/2	8	1	
VS75008X137V	7-1/2	8-1/2	1-3/8	
VS80004X100V	8	8-1/2	1	

## SPECIAL VEE PACKING SETS

Most of the following vee sets, by virtue of their size and/or construction, are for single application usage in specially designed cylinders and pumps. **NOTE:** Packing sets with a "W" suffix include a wiper. Please be sure of the vee set material construction before ordering one of these sets. If you have any questions, please ask one of our product specialists for clarification.



### Construction Code

Example: 1-2F-1

1 - 1 Top Adaptor  
2F - 2 Fabric Vee Rings  
1 - 1 Bottom Adaptor

### SEAL INFORMATION

MATERIAL	F = FABRIC & RUBBER, U = URETHANE, N = NYLON, T = PTFE, R = RUBBER
TEMPERATURE RANGE	-35° TO +220° F
PRESSURE RANGE	0 TO 10,000
PART NUMBER	(Prefix) (ID) (CS) X (Height)

Part Number	Const. T-V-B	I.D.	O.D.	H.	
VS07504X068	1-2F-1	3/4	1-1/4	11/16	
VS08104X071	0-4F-1	13/16	1-5/16	.710	
VS10004X062	0-2R-2F-1	1	1-1/2	5/8	
VS12504X087	1-3R-2T-1	1-1/4	1-3/4	7/8	
VS15005X106	1-3R-2T-1	1-1/2	2-1/8	1-1/16	
VS17503X043	0-4F-0	1-3/4	2-1/8	7-16	
VS17504X068	1-2R-2T-0	1-3/4	2-1/4	11/16	
VS17505X100S	1-3R-2T-0	1-3/4	2-3/8	1	
VS20004X062	1-1U-1F-1	2	2-1/2	5/8	
VS20004X087W	0-2U-2F-0	2	2-1/2	7/8	
VS20008X125	1-3F-1	2	3	1-1/4	
VS21206X100	1-3R-2T-0	2-1/8	2-3/4	1	
VS22004X100	1-3F-2U-1	2.200	2.700	1	
VS25003X043	0-4F-0	2-1/2	2-7/8	7/16	
VS26205X075	1-2U-2T-0	2-5/8	3-1/4	3/4	
VS27006X106	1-2F-1U-1	2.700	3.450	1-1/16	
VS27504X075	1-2N-1R-1	2-3/4	3-1/4	3/4	
VS27506X112	1-3R-2T-0	2-3/4	3-1/2	1-1/8	
VS29504.4X100W	1-2F-2U-1	2.950	3-1/2	1	
VS29504X100	1-3F-2U-1	2.950	3.450	1	
VS29704.4X112W	0-3F-2U-1	2.970	3.520	1-1/8	
VS30004X087W	0-4F-0	3	3-1/2	7/8	
VS31203X087W	0-2F-2U-0	3-1/8	3-1/2	7/8	
VS31206X100	1-2R-2T-0	3-1/8	3-7/8	1	
VS32503X043	0-4F-0	3-1/4	3-5/8	7/16	
VS32504X125W	1-3F-2U-1	3-1/4	3-3/4	1-1/4	
VS34506.4X150	1-3F-2U-1	3.450	4-1/4	1-1/2	
VS35012X150	1-3F-1	3-1/2	5	1-1/2	
VS35804.2X100W	1-3F-2U-1	3.580	4.110	1	
VS37505X118W	1-2F-2U-1	3-3/4	4-3/8	1-3/16	

Part Number	Const. T-V-B	I.D.	O.D.	H.	
VS37506X106	1-2R-2T-0	3-3/4	4-1/2	1-1/16	
VS39504.4X125W	1-2F-2U-1	3.950	4-1/2	1-1/4	
VS39704.4X100W	0-3F-2U-1	3.970	4.520	1	
VS40004X087W	0-2R-2U-0	4	4-1/2	7/8	
VS40004X100W	1-3F-2U-1	4	4-1/2	1	
VS42504X125W	1-3F-2U-1	4-1/4	4-3/4	1-1/4	
VS42506X081	0-2N-1R-1	4-1/4	5	.815	
VS44704.4X093	0-2F-3U-0	4.475	5.025	15/16	
VS45004X087	1-4F-1	4-1/2	5	7/8	
VS45004X087A	1-2F-2U-1	4-1/2	5	7/8	
VS45007X118	1-2R-2T-0	4-1/2	5-3/8	1-3/16	
VS47505X125W	1-2F-2U-1	4-3/4	5-3/8	1-1/4	
VS47506X087	0-2N-1N-1	4-3/4	5-1/2	7/8	
VS49504.4x125W	1-2F-2U-1	4.950	5-1/2	1-1/4	
VS49704.4X112W	0-3F-2U-1	4.970	5.520	1-1/8	
VS50004X100W	1-3F-2U-1	5	5-1/2	1	
VS50004X112W	1-3F-2U-1	5	5-1/2	1	
VS52506X087	0-2N-1R-1	5-1/4	6	7/8	
VS54404X112W	1-3F-2U-1	5.445	5.945	1-1/8	
VS54704.4X093	0-2F-3U-0	5.475	6.025	15/16	
VS57006X106	1-2F-1U-1	5.700	6.450	1-1/16	
VS57505X087	1-2R-2T-0	5-3/4	6-3/8	7/8	
VS57505X125W	1-2F-2U-1	5-3/4	6-3/8	1-1/4	
VS58704X100W	1-4F-1	5-7/8	6-3/8	1	
VS59504.4X125W	1-2F-2U-1	5.950	6-1/2	1-1/4	
VS59704.4X112W	0-3F-2U-1	5.970	6.520	1-1/8	
VS60004X087W	0-2F-2U-0	6	6-1/2	7/8	
VS60004X100W	1-3F-2U-1	6	6-1/2	1	
VS60004X112W	1-3F-2U-1	6	6-1/2	1	
VS62505X125W	1-3F-2U-1	6-1/4	6-7/8	1-1/4	

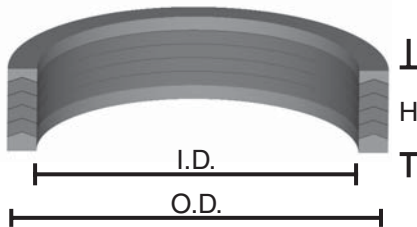
## SPECIAL VEE PACKING SETS

Part Number	Const. T-V-B	I.D.	O.D.	H.
VS62508.5X175	0-4F-0	6-1/4	7-5/16	1-3/4
VS64404X112W	1-3F-2U-1	6.445	6.945	1-1/8
VS64704.4X093	0-2F-3U-0	6.475	7.025	15/16
VS67505X125W	1-2F-2U-1	6-3/4	7-3/8	1-1/4
VS69504.4X125W	1-2F-2U-1	6.950	7-1/2	1-1/4
VS69704.4X112W	0-3F-2U-1	6.970	7.520	1-1/8
VS70004X100W	1-3F-2U-1	7	7-1/2	1
VS70004X112W	1-3F-2U-1	7	7-1/2	1
VS74404X112W	1-3F-2U-1	7.445	7.945	1-1/8
VS75005X125W	1-3F-2U-1	7-1/2	8-1/8	1-1/4
VS79005.1X125W	1-2F-2U-1	7.905	8.543	1-1/4
VS79504.4X125W	1-2F-2U-1	7.950	8-1/2	1-1/4
VS79704.4X112W	0-3F-2U-1	7.970	8.520	1-1/8

Part Number	Const. T-V-B	I.D.	O.D.	H.
VS80004X100W	1-3F-2U	8	8-1/2	1
VS80004X112W	1-3F-2U-1	8	8-1/2	1
VS82506X118W	1-3F-1U-1	8-1/4	9	1-3/16
VS84404X112W	1-3F-2U-1	8.445	8.945	1-1/8
VS86204X125	1-4F-0	8-5/8	9-5/16	1-1/4
VS87505X125W	1-3F-2U-1	8-3/4	9-3/8	1-1/4
VS89504.4X125W	1-2F-2U-1	8.950	9-1/2	1-1/4
VS90006X118W	1-4F-1	9	9-3/4	1-3/16
VS91204.5X112W	0-2F-2U-1	9-1/8	9-11/16	1-1/8
VS91205X125W	1-3F-2U-1	9-1/8	9-3/4	1-1/4
VS93705X121W	1-4F-1	9-3/8	10	1-7/32
VS97506X100W	0-3F-1U-1	9-3/4	10-1/2	1
VS112506X125	1-2N-2U-1	11-1/4	12	1-3/4

## CASCADE VEE SETS

Employed mainly in cylinders made by Cascade Corp, these vee sets are often over-sized or are different from standard vee sets. They are often used with Follower bearings



3,000 PSI = 4 VEEES  
5,000 PSI = 5 VEEES  
10,000 PSI = 6 VEEES



### SEAL INFORMATION

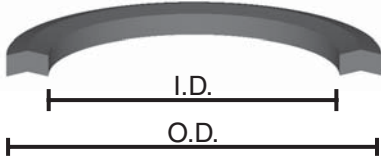
MATERIAL	FABRIC REINFORCED RUBBER & URETHANE RINGS/NYLON ADAPTORS
TEMPERATURE RANGE	-35° TO +220° F
PRESSURE RANGE	0 TO 10,000
PART NUMBER	(Prefix) (ID) (CS) X (Height)

Part Number	I.D.	O.D.	H.
CAS-C7501	.875	1.375	.750
CAS-7500	1.000	1.500	.781
CAS-C1809	1.250	1.750	.671
CAS-C7502	1.500	2.000	.781
CAS-C7606	1.750	2.265	.635
CAS-7505	1.750	2.265	.781
CAS-C7609	2.000	2.515	.625
CAS-C1861	2.000	2.760	1.218
CAS-1468	2.250	3.020	1.030
CAS-7542A	2.450	3.020	.671
CAS-7633	2.500	3.000	1.094
CAS-7547	2.750	3.270	.850
CAS-C1469	2.750	3.520	1.030
CAS-C7608	3.000	3.520	.671

Part Number	I.D.	O.D.	H.
CAS-7565	3.000	3.520	.890
CAS-7514A	3.200	3.770	.781
CAS-7576	3.200	3.770	.828
CAS-1470	3.250	4.020	1.000
CAS-C7538	3.500	4.020	.625
CAS-C7636	3.500	4.270	1.030
CAS-C7561	3.500	4.270	1.400
CAS-1471A	3.750	4.520	1.000
CAS-C827	3.750	4.520	1.218
CAS-C7554	4.000	4.770	.813
CAS-7525	4.250	5.030	1.200
CAS-7562	4.250	5.030	1.344
CAS-7651	6.000	6.530	.875

# INDIVIDUAL VEE RINGS & ADAPTORS

The individual vee rings and adaptors listed here are the same high quality product found in our assembled vee packing sets. Stocking individual vee rings allows you to assemble sets to your specific requirements.



## RING TYPES

- T = Top adaptor - Nylon or Neofab  
 B = Bottom adaptor - Nylon or Neofab  
 F = Neofab vee ring  
 U = Urethane vee ring  
 R = Rubber vee ring. (For More Rubber Vee Rings see our Style 835 Rings)

## SEAL INFORMATION

MATERIAL	NYLON, NEO-FAB, URETHANE
TEMPERATURE RANGE	-35° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) (ID) (CS) (Type of Ring)

## VEE RING STACK HEIGHTS WITH TOP & BOTTOM ADAPTORS

# OF	VEE RING CROSS SECTIONS								
	3/16	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4
1	.430	.500	.562	.625	.690	.750	.812	.875	1.00
2	.540	.625	.719	.812	.908	1.000	1.093	1.187	1.375
3	.650	.750	.875	1.000	1.125	1.250	1.375	1.500	1.750
4	.760	.875	1.031	1.187	1.344	1.500	1.656	1.812	2.125
5	.870	1.000	1.187	1.375	1.562	1.750	1.937	2.125	2.500

Part Number	I.D.	O.D.
VR03104F	5/16	13/16
VR05003B	1/2	7/8
VR05003F	1/2	7/8
VR05003T	1/2	7/8
VR06204B	5/8	1-1/8
VR06204F	5/8	1-1/8
VR06204R	5/8	1-1/8
VR06204T	5/8	1-1/8
VR07504B	3/4	1-1/4
VR07504F	3/4	1-1/4
VR07504T	3/4	1-1/4
VR07505F	3/4	1-3/8
VR08703B	7/8	1-1/4
VR08703F	7/8	1-1/4
VR08703T	7/8	1-1/4
VR08704F	7/8	1-3/8
VR08705B	7/8	1-1/2
VR08705F	7/8	1-1/2
VR08705T	7/8	1-1/2
VR10004B	1	1-1/2
VR10004F	1	1-1/2
VR10004T	1	1-1/2

Part Number	I.D.	O.D.
VR10005B	1	1-5/8
VR10005F	1	1-5/8
VR10005T	1	1-5/8
VR10006F	1	1-3/4
VR11204B	1-1/8	1-5/8
VR11204F	1-1/8	1-5/8
VR11204T	1-1/8	1-5/8
VR12504B	1-1/4	1-3/4
VR12504F	1-1/4	1-3/4
VR12504T	1-1/4	1-3/4
VR12504U	1-1/4	1-3/4
VR12505F	1-1/4	1-7/8
VR12505T	1-1/4	1-7/8
VR12506B	1-1/4	2
VR12506F	1-1/4	2
VR12506T	1-1/4	2
VR12506U	1-1/4	2
VR13703B	1-3/8	1-3/4
VR13704B	1-3/8	1-7/8
VR13704F	1-3/8	1-7/8
VR13704R	1-3/8	1-7/8
VR13704T	1-3/8	1-7/8

# INDIVIDUAL VEE RINGS & ADAPTORS

VEE PACKING

Part Number	I.D.	O.D.	
VR13704U	1-3/8	1-7/8	
VR13705B	1-3/8	2	
VR13705F	1-3/8	2	
VR13705T	1-3/8	2	
VR13706B	1-3/8	2-1/8	
VR13706F	1-3/8	2-1/8	
VR15004B	1-1/2	2	
VR15004F	1-1/2	2	
VR15004R	1-1/2	2	
VR15004T	1-1/2	2	
VR15004U	1-1/2	2	
VR15005B	1-1/2	2-1/8	
VR15005F	1-1/2	2-1/8	
VR15005T	1-1/2	2-1/8	
VR15006B	1-1/2	2-1/4	
VR15006F	1-1/2	2-1/4	
VR15006R	1-1/2	2-1/4	
VR15006T	1-1/2	2-1/4	
VR15008B	1-1/2	2-1/2	
VR15008F	1-1/2	2-1/2	
VR15008T	1-1/2	2-1/2	
VR15008U	1-1/2	2-1/2	
VR16204B	1-5/8	2-1/8	
VR16204F	1-5/8	2-1/8	
VR16204T	1-5/8	2-1/8	
VR16204U	1-5/8	2-1/8	
VR16205B	1-5/8	2-1/4	
VR16205F	1-5/8	2-1/4	
VR16205T	1-5/8	2-1/4	
VR17504B	1-3/4	2-1/4	
VR17504F	1-3/4	2-1/4	
VR17504T	1-3/4	2-1/4	
VR17504U	1-3/4	2-1/4	
VR17505B	1-3/4	2-3/8	
VR17505F	1-3/4	2-3/8	
VR17505T	1-3/4	2-3/8	
VR17505U	1-3/4	2-3/8	
VR17506B	1-3/4	2-1/2	
VR17506F	1-3/4	2-1/2	
VR17506T	1-3/4	2-1/2	
VR17508B	1-3/4	2-3/4	
VR17508F	1-3/4	2-3/4	
VR17508T	1-3/4	2-3/4	
VR18704B	1-7/8	2-3/8	
VR18704F	1-7/8	2-3/8	

Part Number	I.D.	O.D.	
VR18704R	1-7/8	2-3/8	
VR18704T	1-7/8	2-3/8	
VR18705B	1-7/8	2-1/2	
VR18705F	1-7/8	2-1/2	
VR18705T	1-7/8	2-1/2	
VR20004B	2	2-1/2	
VR20004F	2	2-1/2	
VR20004R	2	2-1/2	
VR20004T	2	2-1/2	
VR20004U	2	2-1/2	
VR20005B	2	2-5/8	
VR20005F	2	2-5/8	
VR20005T	2	2-5/8	
VR20006B	2	2-3/4	
VR20006F	2	2-3/4	
VR20006T	2	2-3/4	
VR20006U	2	2-3/4	
VR22504B	2-1/4	2-3/4	
VR22504F	2-1/4	2-3/4	
VR22504T	2-1/4	2-3/4	
VR22504U	2-1/4	2-3/4	
VR22505B	2-1/4	2-7/8	
VR22506B	2-1/4	3	
VR22506F	2-1/4	3	
VR22506R	2-1/4	3	
VR22506T	2-1/4	3	
VR25003B	2-1/2	2-7/8	
VR25003F	2-1/2	2-7/8	
VR25003T	2-1/2	2-7/8	
VR25004B	2-1/2	3	
VR25004F	2-1/2	3	
VR25004R	2-1/2	3	
VR25004T	2-1/2	3	
VR25004U	2-1/2	3	
VR25005B	2-1/2	3-1/8	
VR25005F	2-1/2	3-1/8	
VR25005T	2-1/2	3-1/8	
VR25005U	2-1/2	3-1/8	
VR25006B	2-1/2	3-1/4	
VR25006F	2-1/2	3-1/4	
VR25006T	2-1/2	3-1/4	
VR25006U	2-1/2	3-1/4	
VR25008B	2-1/2	3-1/2	
VR25008F	2-1/2	3-1/2	
VR25008T	2-1/2	3-1/2	

# INDIVIDUAL VEE RINGS & ADAPTORS

Part Number	I.D.	O.D.	
VR26204B	2-5/8	3-1/8	
VR26204F	2-5/8	3-1/8	
VR26204T	2-5/8	3-1/8	
VR26205U	2-5/8	3-1/4	
VR27504B	2-3/4	3-1/4	
VR27504F	2-3/4	3-1/4	
VR27504T	2-3/4	3-1/4	
VR27504U	2-3/4	3-1/4	
VR27505B	2-3/4	3-3/8	
VR27505F	2-3/4	3-3/8	
VR27505T	2-3/4	3-3/8	
VR27506B	2-3/4	3-1/2	
VR27506F	2-3/4	3-1/2	
VR27506T	2-3/4	3-1/2	
VR27506U	2-3/4	3-1/2	
VR27508B	2-3/4	3-3/4	
VR27508F	2-3/4	3-3/4	
VR27508T	2-3/4	3-3/4	
VR30004B	3	3-1/2	
VR30004F	3	3-1/2	
VR30004R	3	3-1/2	
VR30004T	3	3-1/2	
VR30004U	3	3-1/2	
VR30006B	3	3-3/4	
VR30006F	3	3-3/4	
VR30006T	3	3-3/4	
VR30006U	3	3-3/4	
VR32503B	3-1/4	3-5/8	
VR32503F	3-1/4	3-5/8	
VR32503T	3-1/4	3-5/8	
VR32504B	3-1/4	3-3/4	
VR32504F	3-1/4	3-3/4	
VR32504T	3-1/4	3-3/4	
VR32506B	3-1/4	4	
VR32506F	3-1/4	4	
VR32506T	3-1/4	4	
VR34504B	3.45	4	
VR34504F	3.45	4	
VR34504T	3.45	4	
VR35004B	3-1/2	4	
VR35004F	3-1/2	4	
VR35004R	3-1/2	4	
VR35004T	3-1/2	4	
VR35004U	3-1/2	4	
VR35005B	3-1/2	4-1/8	

Part Number	I.D.	O.D.	
VR35005F	3-1/2	4-1/8	
VR35005T	3-1/2	4-1/8	
VR35006B	3-1/2	4-1/4	
VR35006F	3-1/2	4-1/4	
VR35006T	3-1/2	4-1/4	
VR35006U	3-1/2	4-1/4	
VR35008B	3-1/2	4-1/2	
VR35008F	3-1/2	4-1/2	
VR35008T	3-1/2	4-1/2	
VR37504B	3-3/4	4-1/4	
VR37504F	3-3/4	4-1/4	
VR37504T	3-3/4	4-1/4	
VR37505B	3-3/4	4-3/8	
VR37505F	3-3/4	4-3/8	
VR37505T	3-3/4	4-3/8	
VR37506B	3-3/4	4-1/2	
VR37506F	3-3/4	4-1/2	
VR37506T	3-3/4	4-1/2	
VR37506U	3-3/4	4-1/2	
VR38707T	3-7/8	4-3/4	
VR40004B	4	4-1/2	
VR40004B-25	4	4-1/2	
VR40004F	4	4-1/2	
VR40004R	4	4-1/2	
VR40004T	4	4-1/2	
VR40004U	4	4-1/2	
VR40006B	4	4-3/4	
VR40006F	4	4-3/4	
VR40006R	4	4-3/4	
VR40006T	4	4-3/4	
VR40006U	4	4-3/4	
VR40007B	4	4-7/8	
VR40007F	4	4-7/8	
VR40007T	4	4-7/8	
VR40008B	4	5	
VR40008F	4	5	
VR40008T	4	5	
VR40008U	4	5	
VR42504B	4-1/4	4-3/4	
VR42504F	4-1/4	4-3/4	
VR42504T	4-1/4	4-3/4	
VR42506B	4-1/4	5	
VR42506F	4-1/4	5	
VR42506T	4-1/4	5	
VR42506U	4-1/4	5	

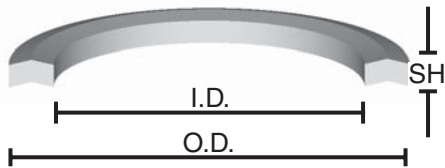
# INDIVIDUAL VEE RINGS & ADAPTORS

Part Number	I.D.	O.D.	
VR42507T	4-1/4	5-1/8	
VR42508B	4-1/4	5-1/4	
VR42508F	4-1/4	5-1/4	
VR42508T	4-1/4	5-1/4	
VR45004B	4-1/2	5	
VR45004F	4-1/2	5	
VR45004T	4-1/2	5	
VR45006F	4-1/2	5-1/4	
VR47506B	4-3/4	5-1/2	
VR47506F	4-3/4	5-1/2	
VR47506T	4-3/4	5-1/2	
VR50004B	5	5-1/2	
VR50004F	5	5-1/2	
VR50004R	5	5-1/2	
VR50004T	5	5-1/2	
VR50004U	5	5-1/2	
VR50008B	5	6	
VR50008F	5	6	
VR50008T	5	6	
VR50008U	5	6	
VR52504B	5-1/4	5-3/4	
VR52504F	5-1/4	5-3/4	
VR52504T	5-1/4	5-3/4	
VR52504U	5-1/4	5-3/4	
VR52506B	5-1/4	6	
VR52506F	5-1/4	6	
VR52506T	5-1/4	6	
VR52508B	5-1/4	6-1/4	
VR52508F	5-1/4	6-1/4	
VR52508T	5-1/4	6-1/4	
VR55004B	5-1/2	6	
VR55004F	5-1/2	6	
VR55004T	5-1/2	6	
VR55004U	5-1/2	6	
VR55006F	5-1/2	6-1/4	
VR55006T	5-1/2	6-1/4	
VR55008B	5-1/2	6-1/2	
VR55008F	5-1/2	6-1/2	
VR55008R	5-1/2	6-1/2	
VR55008T	5-1/2	6-1/2	

Part Number	I.D.	O.D.	
VR57505T	5-3/4	6-3/8	
VR57506F	5-3/4	6-1/2	
VR57508F	5-3/4	6-3/4	
VR60004B	6	6-1/2	
VR60004F	6	6-1/2	
VR60004T	6	6-1/2	
VR60004U	6	6-1/2	
VR60008B	6	7	
VR60008F	6	7	
VR60008T	6	7	
VR62506B	6-1/4	7	
VR62506F	6-1/4	7	
VR62506T	6-1/4	7	
VR65008B	6-1/2	7-1/2	
VR65008F	6-1/2	7-1/2	
VR65008T	6-1/2	7-1/2	
VR67506B	6-3/4	7-1/2	
VR67506F	6-3/4	7-1/2	
VR67506T	6-3/4	7-1/2	
VR70004B	7	7-1/2	
VR70004F	7	7-1/2	
VR70004T	7	7-1/2	
VR70004U	7	7-1/2	
VR70008B	7	8	
VR70008F	7	8	
VR70008T	7	8	
VR75006B	7-1/2	8-1/4	
VR75006F	7-1/2	8-1/4	
VR75006T	7-1/2	8-1/4	
VR75006U	7-1/2	8-1/4	
VR75008F	7-1/2	8-1/2	
VR79209.9F	7.925	9.170	
VR79209.9R	7.925	9.170	
VR80004B	8	8-1/2	
VR80004F	8	8-1/2	
VR80004T	8	8-1/2	
VR80008F	8	9	
VR80008T	8	9	
VR110008F	11	12	



## PTFE VEE RINGS



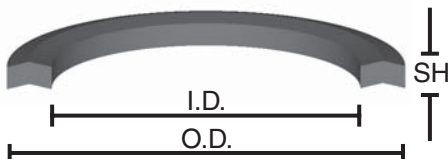
## SEAL INFORMATION

MATERIAL	PTFE
TEMPERATURE RANGE	-100° TO +400° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (Size)

Part Number	ID	OD	S.H.
935-05	3/8	3/4	.083
935-16	3/4	1-1/4	.083
935-20	1	1-1/2	.083
935-24	1-1/4	1-3/4	.083
935-26	1-3/8	2	.140
935-27	1-1/2	2-1/8	.140
935-29	1-3/4	2-3/8	.140
935-2X2-3/4	2	2-3/4	.140
935-31	2	2-5/8	.140
935-32	2-1/8	2-3/4	.140
8935-33	2-1/4	2-7/8	.140
935-35	2-1/2	3-1/8	.140

Part Number	ID	OD	S.H.
935-38	2-3/4	3-1/2	.156
935-41	3-1/8	3-7/8	.156
935-42	3-1/4	4	.156
935-44	3-1/2	4-1/4	.156
935-46	3-3/4	4-1/2	.156
935-48	3-7/8	4-3/4	5/32
935-50	4-1/4	5-1/8	.197
935-51	4-1/2	5-3/8	.197
935-128	1-3/4	2-1/4	.083
935-134	2-5/8	3-1/8	.083
935-135	2-5/8	3-1/4	.140
935-156	5-3/4	6-3/8	.140

## HOMOGENEOUS RUBBER VEE RINGS



## SEAL INFORMATION

MATERIAL	70 DURO BUNA-N
TEMPERATURE RANGE	-40° TO +220° F
PRESSURE RANGE	0 TO 1,250 PSI
PART NUMBER	(Prefix) - (Size)

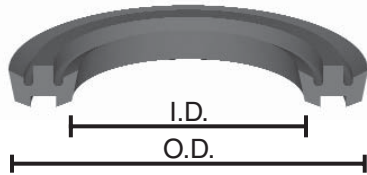
Part Number	ID	OD	S.H.
835-05	3/8	3/4	.083
835-07	1/2	7/8	.083
835-12	1/2	1	.083
835-14	5/8	1-1/8	.083
835-16	3/4	1-1/4	.083
835-20	1	1-1/2	.083
835-22	1-1/8	1-5/8	.083
835-24	1-1/4	1-3/4	.083
835-25	1-1/4	1-7/8	.140
835-26	1-3/8	2	.140
835-27	1-1/2	2-1/8	.140
835-28	1-5/8	2-1/4	.140
835-29	1-3/4	2-3/8	.140
835-2X2-3/4	2	2-3/4	.140
835-31	2	2-5/8	.140
835-32	2-1/8	2-3/4	.140
835-33	2-1/4	2-7/8	.140
835-35	2-1/2	3-1/8	.140

Part Number	ID	OD	S.H.
835-37	2-5/8	3-3/8	.156
835-38	2-3/4	3-1/2	.156
835-40	3	3-3/4	.156
835-41	3-1/8	3-7/8	.156
835-42	3-1/4	4	.156
835-44	3-1/2	4-1/4	.156
835-46	3-3/4	4-1/2	.156
835-48	3-7/8	4-3/4	.156
835-49	4	4-7/8	.197
835-50	4-1/4	5-1/8	.197
835-51	4-1/2	5-3/8	.197
835-55	5-1/2	6-3/8	.197
835-57	5-3/4	6-3/4	.197
835-128	1-3/4	2-1/4	.140
835-133	2-7/16	3-3/16	.140
835-134	2-5/8	3-1/8	.140
835-156	5-3/4	6-3/8	.140

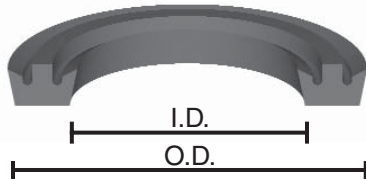
## WV PACKING

Similar to Vee Packing, WV Packing is stacked in a pedestal fashion. Stacked rings do not require axial force to obtain proper lip interference. Also, stacked WV's have the advantage of redundancy - if one ring fails, the next ring will back it up.

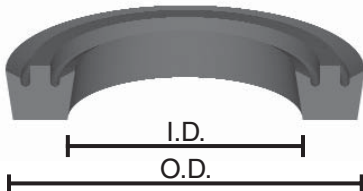
WV Packing is available as a Center Ring, Style 850 (Neo-Fab) and Style 851 (Buna-N); Flat Back, Style 852 (Neo Fab) and Style 853 (Buna-n); and Deep Base, Style 855 (Buna-N). Flat backs and center rings are usually used in sets, whereas deep base rings are used as single elements.



CENTER RING  
STYLE 850 & 851



FLAT BACK  
STYLE 852 & 853



DEEP BASE  
STYLE 855

A: Nominal Ring Stack Height  
B: Gland Depth  $\pm 0.002$ "

### SEAL INFORMATION

MATERIAL	FABRIC REINFORCED RUBBER AND BUNA-N
TEMPERATURE RANGE	-40° TO +250° F
PRESSURE RANGE	SEE CHART BELOW
PART NUMBER	(Prefix) - (ID) - (OD)

If your design is of medium to high pressure it is recommended that you utilize fabric reinforced rings. The following is a guide to pressure rating of multiple rings, including flat bottom rings.

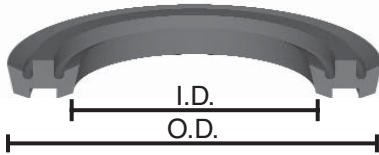
PRESSURE RATING OF MULTIPLE RINGS	
PRESSURE P.S.I.	NUMBER OF RINGS
250 - 500	3
500 - 2,000	4
2,000 - 5,000	5
5,000 - 8,000	6

A homogeneous ring may be also used for sealing at low pressure. Do not include the homogeneous ring in calculating pressure rating. Due to the different material, it is difficult to rate this type of ring. If you wish to use all homogeneous rings, tests should be conducted to verify design stability.

### NUMBER OF RINGS

Cross Section	2		3		4		5		6		7	
	A	B	A	B	A	B	A	B	A	B	A	B
1/4"	.266	.280	.375	.392	.484	.504	.594	.616	.704	.728	.814	.840
5/16"	.332	.346	.469	.486	.605	.625	.742	.764	.879	.903	1.020	1.042
3/8"	.398	.412	.562	.579	.726	.746	.890	.912	1.054	1.078	1.218	1.244
7/16"	.468	.482	.656	.673	.848	.868	1.039	1.061	1.230	1.254	1.421	1.447
1/2"	.531	.545	.750	.767	.969	.989	1.187	1.209	1.405	1.429	1.623	1.649
5/8"	.667	.695	.943	.978	1.220	1.260	1.496	1.541	1.772	1.821	2.048	2.101
3/4"	.800	.828	1.132	1.167	1.464	1.504	1.795	1.840	2.126	2.175	2.475	2.528

## STYLE 850 & 851 WV PACKING



### STYLE 850 - NEO FAB

Part Number	I.D.	O.D.	
850-0.62X1.00	5/8	1	
850-0.62X1.12	5/8	1-1/8	
850-0.75X1.25	3/4	1-1/4	
850-1.00X1.50	1	1-1/2	
850-1.12X1.75	1-1/8	1-3/4	
850-1.25X1.75	1-1/4	1-3/4	
850-1.25X2.00	1-1/4	2	
850-1.50X2.00	1-1/2	2	
850-1.75X2.25	1-3/4	2-1/4	
850-1.87X2.37	1-7/8	2-3/8	
850-2.00X2.50	2	2-1/2	

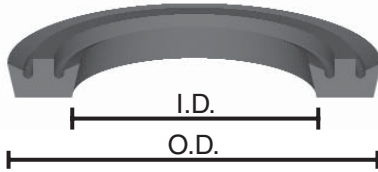
Part Number	I.D.	O.D.	
850-2.00X3.00	2	3	
850-2.25X2.75	2-1/4	2-3/4	
850-2.45X3.002	2.450	3.002	
850-2.50X3.00	2-1/2	3	
850-2.75X3.50	2-3/4	3-1/2	
850-3.43X4.00	3-7/16	4	
850-3.50X4.50	3-1/2	4-1/2	
850-3.68X4.25	3-11/16	4-1/4	
850-3.95X4.50	3.95	4-1/2	
850-4.25X5.00	4-1/4	5	

### STYLE 851 - BUNA-N

Part Number	I.D.	O.D.	
851-0.62X1.12	5/8	1-1/8	
851-0.75X1.25	3/4	1-1/4	
851-0.87X1.37	7/8	1-3/8	
851-1.00X1.50	1	1-1/2	
851-1.05X1.63	1-1/16	1-5/8	
851-1.12X1.75	1-1/8	1-3/4	
851-1.12X1.87	1-1/8	1-7/8	
851-1.25X1.75	1-1/4	1-3/4	
851-1.25X1.87	1-1/4	1-7/8	
851-1.37X1.87	1-3/8	1-7/8	
851-1.37X2.12	1-3/8	2-1/8	
851-1.50X2.00	1-1/2	2	
851-1.50X2.12	1-1/2	2-1/8	
851-1.75X2.25	1-3/4	2-1/4	
851-1.87X2.37	1-7/8	2-3/8	
851-2.00X2.50	2	2-1/2	
851-2.12X2.75	2-1/8	2-3/4	

Part Number	I.D.	O.D.	
851-2.25X2.75	2-1/4	2-3/4	
851-2.37X3.00	2-3/8	3	
851-2.50X3.00	2-1/2	3	
851-2.75X3.50	2-3/4	3-1/2	
851-2.95X3.45	2.950	3.450	
851-3.00X3.62	3	3-5/8	
851-3.00X3.75	3	3-3/4	
851-3.00X4.00	3	4	
851-3.18X3.81	3-3/16	3-13/16	
851-3.43X4.00	3-7/16	4	
851-3.45X4.00	3.450	4	
851-3.68X4.25	3-11/16	4-1/4	
851-3.95X4.50	3.950	4-1/2	
851-4.43X5.00	4-7/16	5	
851-4.50X5.00	4-1/2	5	
851-4.93X5.68	4-15/16	5-11/16	

## STYLE 852 & 853 WV PACKING



### STYLE 852 - NEO FAB

Part Number	I.D.	O.D.	
852-0.62X1.00	5/8	1	
852-0.62X1.12	5/8	1-1/8	
852-0.75X1.25	3/4	1-1/4	
852-1.00X1.50	1	1-1/2	
852-1.12X1.75	1-1/8	1-3/4	
852-1.25X1.75	1-1/4	1-3/4	
852-1.25X2.00	1-1/4	2	
852-1.37X2.12	1-3/8	2-1/8	
852-1.50X2.00	1-1/2	2	
852-1.50X2.12	1-1/2	2-1/8	
852-1.75X2.25	1-3/4	2-1/4	
852-1.87X2.37	1-7/8	2-3/8	
852-2.00X2.50	2	2-1/2	

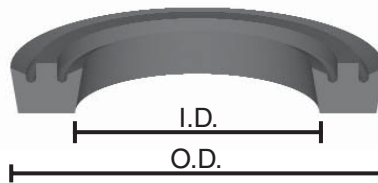
Part Number	I.D.	O.D.	
852-2.45X3.002	2.450	3.002	
852-2.50X3.00	2-1/2	3	
852-2.75X3.50	2-3/4	3-1/2	
852-2.95X3.45	2.950	3.450	
852-3.00X4.00	3	4	
852-3.43X4.00	3-7/16	4	
852-3.45X4.00	3.450	4	
852-3.50X4.50	3-1/2	4-1/2	
852-3.68X4.25	3-11/16	4-1/4	
852-3.95X4.50	3.950	4-1/2	
852-4.25X5.00	4-1/4	5	
852-4.43X5.00	4-7/16	5	
852-4.50X5.00	4-1/2	5	

### STYLE 853 - BUNA-N

Part Number	I.D.	O.D.	
853-0.62X1.12	5/8	1-1/8	
853-0.87X1.37	7/8	1-3/8	
853-1.00X1.50	1	1-1/2	
853-1.25X1.87	1-1/4	1-7/8	

Part Number	I.D.	O.D.	
853-1.50X2.12	1-1/2	2-1/8	
853-2.00X2.50	2	2-1/2	
853-2.12X2.75	2-1/8	2-3/4	
853-3.00X3.62	3	3-5/8	

## STYLE 855 WV PACKING



### STYLE 855 - BUNA-N

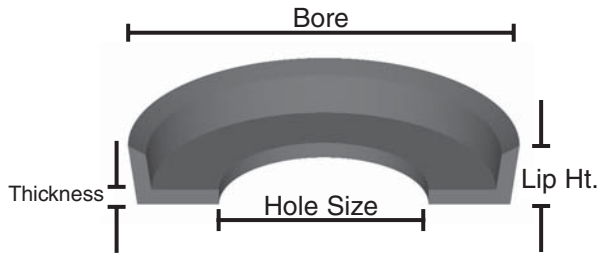
Part Number	I.D.	O.D.	
855-0.75X1.25	3/4	1-1/4	
855-1.00X1.50	1	1-1/2	
855-1.25X1.87	1-1/4	1-7/8	
855-1.37X2.00	1-3/8	2	
855-1.50X2.12	1-1/2	2-1/8	
855-2.00X3.00	2	3	
855-2.37X3.00	2-3/8	3	

Part Number	I.D.	O.D.	
855-2.37X3.00-C	2-3/8	3	
855-2.37X3.025	2-3/8	3.025	
855-2.75X3.50	2-3/4	3-1/2	
855-3.00X3.75	3	3-3/4	
855-3.25X4.00	3-1/4	4	
855-4.25X5.00	4-1/4	5	

C = Carboxylated Nitrile

# STYLE 6000 RUBBER PISTON CUPS

**NOTE:** The 6000 piston cups are center punched if there is no hole size indicated.



## SEAL INFORMATION

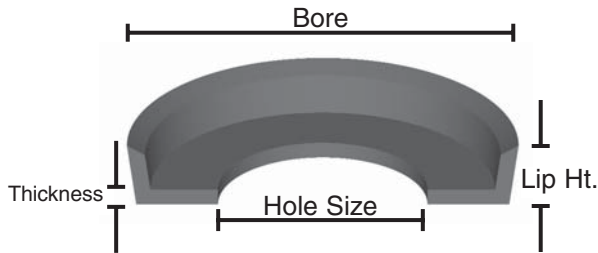
MATERIAL	BUNA-N RUBBER
TEMPERATURE RANGE	-40° TO +220° F
PRESSURE RANGE	0 TO 150 PSI
PART NUMBER	(Piston Cup Type)(Bore) - (Hole Size)

Part Number	Bore	Lip Ht.	Thick-ness	Hole Size	
6062	5/8	0.305	0.115	blank	
6075	3/4	5/16	3/32	blank	
6100	1	7/16	3/32	blank	
6100-037	1	7/16	3/32	3/8	
6125	1-1/4	1/2	1/8	blank	
6137	1-3/8	1/2	1/8	blank	
6150	1-1/2	1/2	1/8	blank	
6150-062	1-1/2	1/2	1/8	5/8	
6162	1-5/8	1/2	1/8	blank	
6175	1-3/4	1/2	1/8	blank	
6187	1-7/8	1/2	1/8	blank	
6200	2	1/2	1/8	blank	
6225	2-1/4	1/2	1/8	blank	
6237-050	2-3/8	1/2	1/8	1/2	
6237-100	2-3/8	1/2	1/8	1	
6250	2-1/2	1/2	1/8	blank	
6250-062	2-1/2	1/2	1/8	5/8	
6262	2-5/8	1/2	1/8	blank	
6275	2-3/4	1/2	1/8	blank	
6275-068	2-3/4	1/2	1/8	11/16	
6287	2-7/8	1/2	1/8	blank	
6300	3	5/8	5/32	blank	
6312	3-1/8	5/8	5/32	blank	
6325	3-1/4	5/8	5/32	blank	
6350	3-1/2	5/8	5/32	blank	

Part Number	Bore	Lip Ht.	Thick-ness	Hole Size	
6375	3-3/4	5/8	5/32	blank	
6400	4	5/8	5/32	blank	
6400-275-90D	4	5/8	5/32	2-3/4	
6425	4-1/4	5/8	5/32	blank	
6450	4-1/2	5/8	5/32	blank	
6475	4-3/4	5/8	5/32	blank	
6500	5	3/4	3/16	blank	
6500-075	5	3/4	3/16	3/4	
6550	5-1/2	3/4	3/16	blank	
6575	5-3/4	3/4	3/16	blank	
6600	6	3/4	3/16	blank	
6600-100	6	3/4	3/16	1	
6600-400-90D	6	3/4	3/16	4	
6610	6	1	3/16	blank	
6625	6-1/4	3/4	3/16	blank	
6650	6-1/2	3/4	3/16	blank	
6700	7	3/4	3/16	blank	
6750	7-1/2	7/8	3/16	blank	
6800	8	1	3/16	blank	
6800-525A-90D	8	3/4	3/16	5-1/4	
6900	9	1	3/16	blank	
61000	10	1	3/16	blank	
61200	12	1	3/16	blank	
61400	14	1	3/16	blank	

# STYLE 8000 URETHANE PISTON CUPS

**NOTE:** The 8000 piston cups are center punched



## SEAL INFORMATION

MATERIAL	90 A URETHANE
TEMPERATURE RANGE	-65° TO +220° F
PRESSURE RANGE	0 TO 1,200 PSI
PART NUMBER	(Piston Cup Type)(Bore) - (Hole Size)

Part Number	Bore	Lip Ht.	Thick-ness	Hole Size
8050-000	1/2	1/4	3/32	blank
8100-000	1	1/2	1/8	blank
8150-000	1-1/2	1/2	1/8	blank
8175-000	1-3/4	1/2	1/8	blank
8275-000	2-3/4	5/8	3/16	blank
8300-000	3	5/8	3/16	blank
8325-000	3-1/4	5/8	3/16	blank
8337-000	3-3/8	5/8	3/16	blank

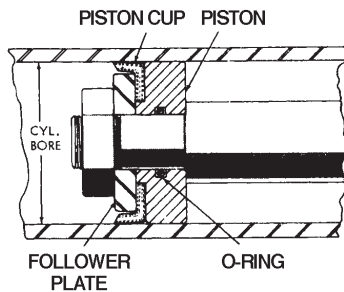
Part Number	Bore	Lip Ht.	Thick-ness	Hole Size
8350-000	3-1/2	5/8	3/16	blank
8400-000	4	5/8	3/16	blank
8450-000	4-1/2	5/8	3/16	blank
8500-000	5	5/8	3/16	blank
8550-000	5-1/2	3/4	3/16	blank
8600-000	6	3/4	3/16	blank
8650-000	6-1/2	3/4	3/16	blank

To obtain best results from any style of piston cup, it is recommended that the piston properly support the heel of the cup. Recommended diametral clearance between the piston and cylinder wall are as follows:

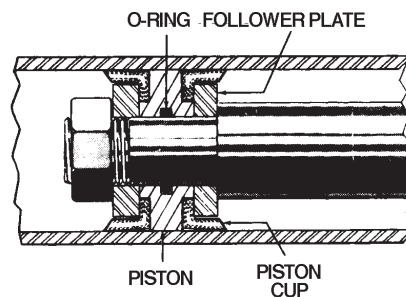
1" to 2-1/4"	.005"
2-1/2" to 4-3/4"	.008"
5" to 10"	.010"

The following piston designs meet standard industry practices:

### SINGLE ACTING PISTON



### DOUBLE ACTING PISTON



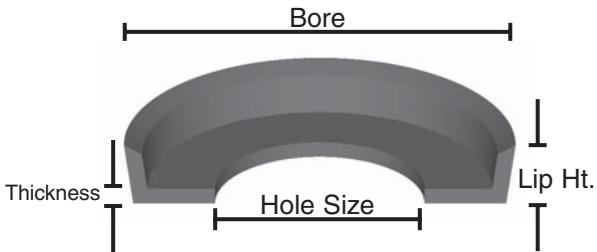
The height of the machined shoulder most frequently used to control squeeze on the heel of the cup is as follows:

Cups 1/8" thick	.116/.119"
Cups 5/32" thick	.146/.149"
Cups 3/16" thick	.178/.181"

The follower plate should be approximately .110" smaller than the I.D. of the cup. To reduce any tendency of the cup to extrude under pressure a phonograph finish may be machined on the surface of the follower plate.

# STYLE 9000 NEO-FAB PISTON CUPS

Piston cups are constructed of rubberized fabric. Cups with no hole are center punched.



## SEAL INFORMATION

MATERIAL	COTTON FABRIC & RUBBER
TEMPERATURE RANGE	-35° TO +220° F
PRESSURE RANGE	0 TO 2,500 PSI
PART NUMBER	(Piston Cup Type)(Bore) - (Hole Size)

Part Number	Bore	Lip Ht.	Thick-ness	Hole Size	
9062-000F	5/8	5/16	3/32	blank	
9075-000F	3/4	7/16	3/32	blank	
9087-000F	7/8	7/16	3/32	blank	
9100-000F	1	7/16	3/32	blank	
9100-025F	1	7/16	3/32	1/4	
9100-037F	1	7/16	3/32	3/8	
9100-050F	1	7/16	3/32	1/2	
9112-000F	1-1/8	7/16	3/32	blank	
9125-000F	1-1/4	7/16	3/32	blank	
9125-037F	1-1/4	7/16	3/32	3/8	
9137-000F	1-3/8	7/16	3/32	blank	
9137-062F	1-3/8	7/16	3/32	5/8	
9150-000F	1-1/2	1/2	1/8	blank	
9150-037F	1-1/2	1/2	1/8	3/8	
9150-062F	1-1/2	1/2	1/8	5/8	
9162-000F	1-5/8	1/2	1/8	blank	
9175-000F	1-3/4	1/2	1/8	blank	
9175-062F	1-3/4	1/2	1/8	5/8	
9175-069F	1-3/4	1/2	1/8	11/16	
9187-000F	1-7/8	1/2	1/8	blank	
9187-062F	1-7/8	1/2	1/8	5/8	
9200-000F	2	1/2	1/8	blank	
9200-037F	2	1/2	1/8	3/8	
9200-050F	2	1/2	1/8	1/2	
9200-062F	2	1/2	1/8	5/8	
9200-100F	2	1/2	1/8	1	
9212-000F	2-1/8	1/2	1/8	blank	
9225-000F	2-1/4	1/2	1/8	blank	
9225-075F	2-1/4	1/2	1/8	3/4	
9225-100F	2-1/4	1/2	1/8	1	

Part Number	Bore	Lip Ht.	Thick-ness	Hole Size	
9237-000F	2-3/8	1/2	1/8	blank	
9237-050F	2-3/8	1/2	1/8	1/2	
9237-100F	2-3/8	1/2	1/8	1	
9250-000F	2-1/2	1/2	1/8	blank	
9250-037F	2-1/2	1/2	1/8	3/8	
9250-062F	2-1/2	1/2	1/8	5/8	
9250-075F	2-1/2	1/2	1/8	3/4	
9250-100F	2-1/2	1/2	1/8	1	
9250-125F	2-1/2	1/2	1/8	1-1/4	
9250-137F	2-1/2	1/2	1/8	1-3/8	
9262-000F	2-5/8	1/2	1/8	blank	
9275-000F	2-3/4	1/2	1/8	blank	
9275-075F	2-3/4	1/2	1/8	3/4	
9275-100F	2-3/4	1/2	1/8	1	
9275-150F	2-3/4	1/2	1/8	1-1/2	
9287-000F	2-7/8	1/2	1/8	blank	
9300-000F	3	5/8	5/32	blank	
9300-050F	3	5/8	5/32	1/2	
9300-100F	3	5/8	5/32	1	
9300-125F	3	5/8	5/32	1-1/4	
9300-137F	3	5/8	5/32	1-3/8	
9300-150F	3	5/8	5/32	1-1/2	
9300-162F	3	5/8	5/32	1-5/8	
9300-175F	3	5/8	5/32	1-3/4	
9300-187F	3	5/8	5/32	1-7/8	
9312-100F	3-1/8	5/8	5/32	1	
9325-000F	3-1/4	5/8	5/32	blank	
9325-037F	3-1/4	5/8	5/32	3/8	
9325-050F	3-1/4	5/8	5/32	1/2	
9325-100F	3-1/4	5/8	5/32	1	



# STYLE 9000 NEO-FAB PISTON CUPS

Part Number	Bore	Lip Ht.	Thick-ness	Hole Size	
9337-037F	3-3/8	5/8	5/32	3/8	
9350-000F	3-1/2	5/8	5/32	blank	
9350-025F	3-1/2	5/8	5/32	1/4	
9350-050F	3-1/2	5/8	5/32	1/2	
9350-100F	3-1/2	5/8	5/32	1	
9350-125F	3-1/2	5/8	5/32	1-1/4	
9350-150F	3-1/2	5/8	5/32	1-1/2	
9350-187F	3-1/2	5/8	5/32	1-7/8	
9350-200F	3-1/2	5/8	5/32	2	
9350-237F	3-1/2	5/8	5/32	2-3/8	
9362-000F	3-5/8	5/8	5/32	blank	
9375-000F	3-3/4	5/8	5/32	blank	
9375-050F	3-3/4	5/8	5/32	1/2	
9375-075F	3-3/4	5/8	5/32	3/4	
9387-000F	3-7/8	5/8	5/32	blank	
9400-000F	4	5/8	5/32	blank	
9400-050F	4	5/8	5/32	1/2	
9400-150F	4	5/8	5/32	1-1/2	
9400-162F	4	5/8	5/32	1-5/8	
9400-175F	4	5/8	5/32	1-3/4	
9400-187F	4	5/8	5/32	1-7/8	
9400-200F	4	5/8	5/32	2	
9400-225F	4	5/8	5/32	2-1/4	
9400-250F	4	5/8	5/32	2-1/2	
9425-000F	4-1/4	5/8	5/32	blank	
9425-137F	4-1/4	5/8	5/32	1-3/8	
9450-000F	4-1/2	5/8	5/32	blank	
9450-075F	4-1/2	5/8	5/32	3/4	
9450-187F	4-1/2	5/8	5/32	1-7/8	
9450-225F	4-1/2	5/8	5/32	2-1/4	
9450-250F	4-1/2	5/8	5/32	2-1/2	
9475-000F	4-3/4	5/8	5/32	blank	
9475-050F	4-3/4	5/8	5/32	1/2	
9500-000F	5	3/4	3/16	blank	
9500-100F	5	3/4	3/16	1	

Part Number	Bore	Lip Ht.	Thick-ness	Hole Size	
9500-125F	5	3/4	3/16	1-1/4	
9500-250F	5	3/4	3/16	2-1/2	
9525-050F	5-1/4	3/4	3/16	1/2	
9550-000F	5-1/2	3/4	3/16	blank	
9550-125F	5-1/2	3/4	3/16	1-1/4	
9550-200F	5-1/2	3/4	3/16	2	
9575-000F	5-3/4	3/4	3/16	blank	
9600-000F	6	3/4	3/16	blank	
9600-050F	6	3/4	3/16	1/2	
9600-200F	6	3/4	3/16	2	
9600-250F	6	3/4	3/16	2-1/2	
9600-350F	6	3/4	3/16	3-1/2	
9625-375F	6-1/4	3/4	3/16	3-3/4	
9650-000F	6-1/2	3/4	3/16	blank	
9675-000F	6-3/4	3/4	3/16	blank	
9700-000F	7	3/4	3/16	blank	
9700-125F	7	3/4	3/16	1-1/4	
9700-200F	7	3/4	3/16	2	
9700-400F	7	3/4	3/16	4	
9725-162F	7-1/4	3/4	3/16	1-5/8	
9800-000F	8	1	3/16	blank	
9800-100F	8	1	3/16	1	
9800-125F	8	1	3/16	1-1/4	
9850-075F	8-1/2	1	3/16	3/4	
9900-000F	9	1	3/16	blank	
91000-100F	10	1	3/16	1	
91200-000F	12	1	3/16	blank	

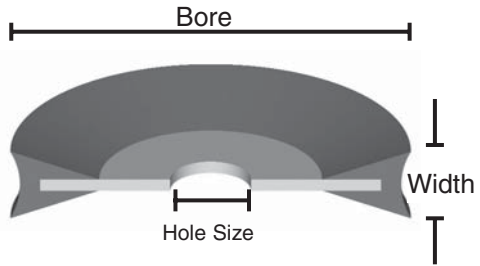
### NOTE:

These piston cups are specially sized for use in EDBRO Cylinders.

9200-062ED	2	7/8	7/32	5/8	
9262-087ED	2-5/8	7/8	7/32	7/8	
9325-100ED	3-1/4	7/8	7/32	1	
9387-112ED	3-7/8	7/8	7/32	1-1/8	
9475-125ED	4-3/4	7/8	7/32	1-1/4	
9575-150ED	5-3/4	7/8	7/32	1-1/2	

## ONE PIECE DOUBLE ACTING PISTON CUPS

This complete piston cup with a simple, one-piece construction serves the same purpose as a multi-assembly unit and is more economical with easy maintenance, dependability and long life. The unique piston cup consists of homogeneous rubber bonded to a zinc coated steel plate. The center hole may be enlarged to accommodate larger piston rods. Recommended for pneumatic and low-pressure hydraulic applications.



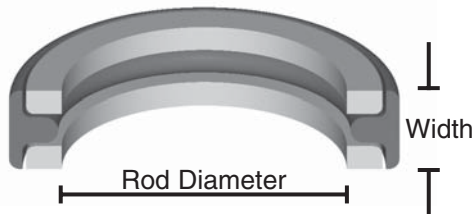
### SEAL INFORMATION

MATERIAL	RUBBER LIP, ZINC COATED STEEL PLATE
TEMPERATURE RANGE	-40° TO +220° F
PRESSURE RANGE	0 TO 800 PSI
PART NUMBER	(Prefix) - (Bore Size)

Part Number	Bore	Hole Size	Width	
DAPC-100	1	1/4	3/8	
DAPC-125	1-1/4	1/4	1/2	
DAPC-137	1-3/8	1/4	1/2	
DAPC-150	1-1/2	1/4	1/2	
DAPC-175	1-3/4	1/4	1/2	
DAPC-200	2	3/8	9/16	
DAPC-225	2-1/4	3/8	9/16	
DAPC-250	2-1/2	3/8	9/16	
DAPC-300	3	1/2	9/16	
DAPC-325	3-1/4	1/2	9/16	
DAPC-350	3-1/2	1/2	3/4	
DAPC-400	4	1/2	3/4	
DAPC-500	5	3/4	15/16	
DAPC-600	6	3/4	15/16	
DAPC-800	8	3/4	1	

# ROD T-SEALS

T-Seals combine a resilient sealing ring with a hard, split back-up ring on each side of the sealing element. The assembly installs in a standard o-ring groove. T-Seals are non-spiraling and extrusion resistant to 5,000 psi with improved tolerances.



## SEAL INFORMATION

MATERIAL	BUNA-N RUBBER SEAL- HARD PLASTIC BACK-UPS
TEMPERATURE RANGE	-35° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (Size)

Part Number	Rod Diameter	O-Ring Groove Dash Number	
TR-001	3/16	-106	
TR-004	3/8	-204	
TR-006	1/2	-206	
TR-008	5/8	-208	
TR-009	11/16	-209	
TR-010	3/4	-210	
TR-012	7/8	-212	
TR-014	1	-214	
TR-015	1-1/16	-215	
TR-016	1-1/8	-216	
TR-017	1-3/16	-217	
TR-018	1-1/4	-218	
TR-020	1-3/8	-220	
TR-022	1-1/2	-222	
TR-023	1-1/2	-325	
TR-024	1-5/8	-326	
TR-025	1-3/4	-327	
TR-026	1-7/8	-328	
TR-027	2	-329	
TR-028	2-1/8	-330	
TR-029	2-1/4	-331	
TR-030	2-3/8	-332	
TR-031	2-1/2	-333	
TR-032	2-5/8	-334	
TR-033	2-3/4	-335	

Part Number	Rod Diameter	O-Ring Groove Dash Number	
TR-034	2-7/8	-336	
TR-035	3	-337	
TR-036	3-1/8	-338	
TR-037	3-1/4	-339	
TR-038	3-3/8	-340	
TR-039	3-1/2	-341	
TR-040	3-5/8	-342	
TR-041	3-3/4	-343	
TR-042	3-7/8	-344	
TR-043	4	-345	
TR-045	4-1/4	-347	
TR-046	4-3/8	-348	
TR-047	4-1/2	-349	
TR-048	5	-429	
TR-049	5-1/4	-431	
TR-050	5-1/2	-433	
TR-052	6	-437	
TR-058	7-1/2	-443	
TR-059	8	-445	
TR-060	9	-447	

Intermediate and Wide Base T-Seals are designed to fit MIL-5514F o-ring glands only and interchange with 1 o-ring / 1 back-up ring and 1 o-ring / 2 back-up ring grooves, respectively.

TR-027WB	2	.405	
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## PISTON T-SEALS

T-Seals combine a resilient sealing ring with a hard, split back-up ring on each side of the sealing element. The assembly installs in a standard o-ring groove. T-Seals are non-spiraling and extrusion resistant to 5,000 psi with improved tolerances.



### SEAL INFORMATION

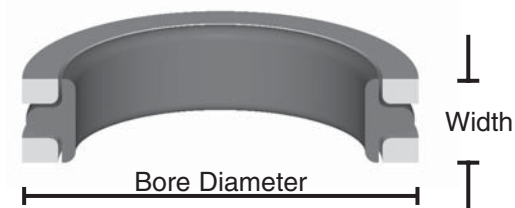
MATERIAL	BUNA-N RUBBER SEAL- HARD PLASTIC BACK-UPS
TEMPERATURE RANGE	-35° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (Size)

Part Number	Bore Diameter	O-Ring Groove Dash Number	
TP-009	7/8	-208	
TP-011	1	-210	
TP-012	1-1/16	-211	
TP-013	1-1/8	-212	
TP-014	1-3/16	-213	
TP-015	1-1/4	-214	
TP-016	1-5/16	-215	
TP-017	1-3/8	-216	
TP-018	1-7/16	-217	
TP-019	1-1/2	-218	
TP-021	1-5/8	-220	
TP-022	1-3/4	-222	
TP-023	1-7/8	-325	
TP-024	2	-326	
TP-025	2-1/8	-327	
TP-026	2-1/4	-328	
TP-027	2-3/8	-329	
TP-028	2-1/2	-330	
TP-029	2-5/8	-331	
TP-030	2-3/4	-332	
TP-031	2-7/8	-333	
TP-032	3	-334	
TP-033	3-1/8	-335	
TP-034	3-1/4	-336	
TP-035	3-1/2	-338	
TP-036	3-5/8	-339	
TP-037	3-3/4	-340	
TP-038	3-7/8	-341	

Part Number	Bore Diameter	O-Ring Groove Dash Number	
TP-039	4	-342	
TP-040	4-1/8	-343	
TP-041	4-1/4	-344	
TP-042	4-3/8	-345	
TP-043	4-1/2	-346	
TP-045	4-3/4	-348	
TP-046	4-7/8	-349	
TP-047	5	-350	
TP-048	5-1/8	-426	
TP-049	5-1/4	-427	
TP-051	5-1/2	-429	
TP-053	5-3/4	-431	
TP-054	5-7/8	-432	
TP-055	6	-433	
TP-057	6-1/4	-435	
TP-058	6-1/2	-437	
TP-060	7	-439	
TP-062	7-1/2	-441	
TP-064	8	-443	
TP-065	8-1/4	-444	
TP-066	8-1/2	-445	
TP-067	9	-446	
TP-068	9-1/2	-447	
TP-069	10	-448	
TP-070	10-1/2	-449	
TP-071	11	-450	
TP-072	11-1/2	-451	
TP-073	12	-452	

# INTERMEDIATE & WIDE BASE PISTON SEALS

Intermediate and Wide Base T-Seals are designed to fit MIL-5514F o-ring glands only and interchange with 1 o-ring / 1 back-up ring and 1 o-ring / 2 back-up ring grooves, respectively.



## SEAL INFORMATION

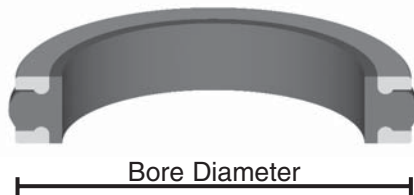
MATERIAL	BUNA-N RUBBER SEAL- HARD PLASTIC BACK-UPS
TEMPERATURE RANGE	-35° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (Size) - (IB or WB)

Part Number	Bore Diameter	Seal Base Width	O-Ring Groove Dash #	
TP-218-WB	1-1/2	.270	.304	
TP-221	1-11/16	.170	.185	
TP-222-IB	1-3/4	.215	.235	
TP-326-IB	2	.312	.334	
TP-328-IB	2-1/4	.312	.334	
TP-328-WB	2-1/4	.405	.424	
TP-330-IB	2-1/2	.312	.334	
TP-330-WB	2-1/2	.405	.424	
TP-333-WB	2-7/8	.405	.424	
TP-334-IB	3	.312	.334	
TP-334-WB	3	.405	.424	
TP-338-IB	3-1/2	.312	.334	
TP-338-WB	3-1/2	.405	.424	
TP-342-WB	4	.405	.424	
TP-346-IB	4-1/2	.312	.334	
TP-346-WB	4-1/2	.405	.424	

Part Number	Bore Diameter	Seal Base Width	O-Ring Groove Dash #	
TP-347-IB	4-5/8	.312	.334	
TP-350-WB	5	.405	.424	
TP-425-IB	5	.450	.475	
TP-425-WB	5	.550	.579	
TP-427-WB	5-1/4	.550	.579	
TP-429-IB	5-1/2	.450	.475	
TP-433-IB	6	.450	.475	
TP-433-WB	6	.550	.579	
TP-435-IB	6-1/4	.450	.475	
TP-439-IB	7	.450	.495	
TP-439-WB	7	.550	.579	
TP-443-WB	8	.550	.579	
TP-444-IB	8-1/4	.450	.475	
TP-446-IB	9	.450	.475	
TP-448-IB	10	.450	.475	
TP-450-IB	11	.450	.475	

## STYLE TP-L PISTON T-SEALS

The Style TP-L seal is a zero drift piston seal for bi-directional pressure applications. The locking anti-extrusion rings provide for an easier installation. It is designed to retrofit O-Ring and standard T-seal grooves. The 70 shore A NBR is designed specifically for performance in compression type dynamic seals. Other features include a net molded dynamic sealing surface and backup chamfers.



### SEAL INFORMATION

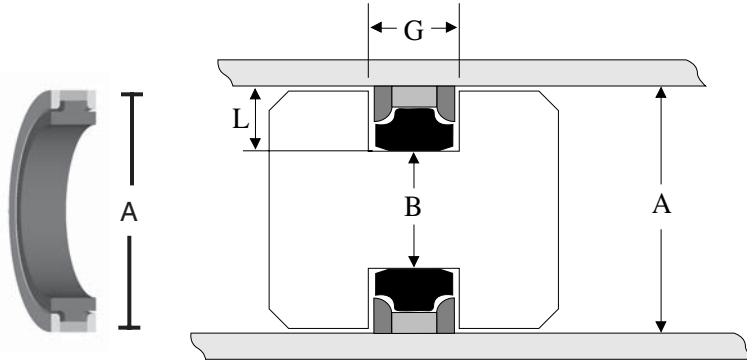
MATERIAL	BUNA-N RUBBER SEAL- HARD PLASTIC BACK-UPS
TEMPERATURE RANGE	-35° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (Size)

Part Number	Bore Diameter	O-Ring Groove Dash Number	
TP-009-L	7/8	-208	
TP-011-L	1	-210	
TP-013-L	1-1/8	-212	
TP-015-L	1-1/4	-214	
TP-017-L	1-3/8	-216	
TP-019-L	1-1/2	-218	
TP-021-L	1-5/8	-220	
TP-022-L	1-3/4	-222	
TP-023-L	1-7/8	-325	
TP-024-L	2	-326	
TP-025-L	2-1/8	-327	
TP-026-L	2-1/4	-328	
TP-027-L	2-3/8	-329	
TP-028-L	2-1/2	-330	
TP-029-L	2-5/8	-331	
TP-030-L	2-3/4	-332	

Part Number	Bore Diameter	O-Ring Groove Dash Number	
TP-031-L	2-7/8	-333	
TP-032-L	3	-334	
TP-033-L	3-1/8	-335	
TP-034-L	3-1/4	-336	
TP-035-L	3-1/2	-338	
TP-037-L	3-3/4	-340	
TP-039-L	4	-342	
TP-041-L	4-1/4	-344	
TP-043-L	4-1/2	-346	
TP-045-L	4-3/4	-348	
TP-047-L	5	-350	
TP-049-L	5-1/4	-427	
TP-051-L	5-1/2	-429	
TP-053-L	5-3/4	-431	
TP-055-L	6	-433	
TP-058-L	6-1/2	-437	

## CAPPED PISTON T-SEALS

A heavy duty double-acting assembly, the capped piston T-seal exhibits excellent sealability, extrusion resistance and wearability. T-seals with "BR" suffix utilize a Bronze Filled PTFE cap instead of the standard Glass Filled PTFE cap.

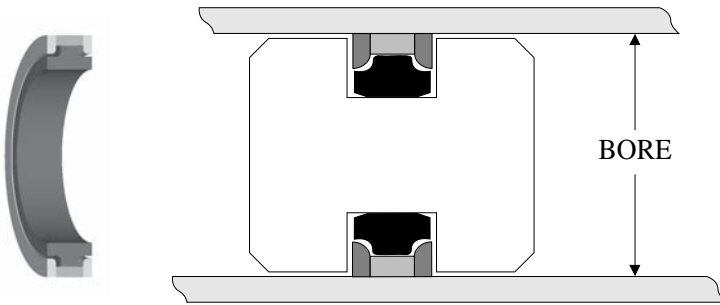


### SEAL INFORMATION

MATERIAL	PTFE CAP NYLON BACK-UP RUBBER ENERGIZER
TEMPERATURE RANGE	-40° TO +220° F
PRESSURE RANGE	0 TO 6,000 PSI
PART NUMBER	(Prefix) - (Bore Size)

Part Number	A Bore Dia.	B Groove Dia.	G Groove Width	L Groove Depth	
CPS-1750BR	1.750	1.375	.424	.187	
CPS-2000	2.000	1.625	.424	.187	
CPS-2500	2.500	2.125	.424	.187	
CPS-2750BR	2.750	2.375	.424	.187	
CPS-3000	3.000	2.520	.579	.240	
CPS-3000BR	3.000	2.520	.579	.240	
CPS-3250	3.250	2.770	.579	.240	
CPS-3500	3.500	3.020	.579	.240	
CPS-3500BR	3.500	3.020	.579	.240	
CPS-3750	3.750	3.270	.579	.240	
CPS-4000	4.000	3.520	.579	.240	
CPS-4000BR	4.000	3.520	.579	.240	
CPS-4250	4.250	3.770	.579	.240	
CPS-4500	4.500	4.020	.579	.240	
CPS-4500BR	4.500	4.020	.579	.240	
CPS-5000	5.000	4.270	.750	.365	
CPS-5000BR	5.000	4.270	.750	.365	
CPS-5250	5.250	4.520	.750	.365	
CPS-5500	5.500	4.770	.750	.365	
CPS-5500BR	5.500	4.770	.750	.365	
CPS-5504BR	5.500	5.020	.579	.240	
CPS-6000	6.000	5.270	.750	.365	
CPS-6015	6.015	5.285	.750	.365	
CPS-6250	6.250	5.520	.750	.365	
CPS-6250BR	6.250	5.520	.750	.365	
CPS-6500	6.500	5.770	.750	.365	
CPS-6504BR	6.500	6.020	.579	.240	
CPS-7000	7.000	6.270	.750	.365	
CPS-7000BR	7.000	6.270	.750	.365	
CPS-7250BR	7.250	6.520	.750	.365	
CPS-7500	7.500	6.770	.750	.365	
CPS-8000	8.000	7.270	.750	.365	

## REPLACEMENT CAPPED PISTON T-SEALS FOR CATERPILLAR EQUIPMENT\*



### SEAL INFORMATION

MATERIAL	BUNA-N RUBBER SEAL- HARD PLASTIC BACK-UPS
TEMPERATURE RANGE	-40° TO +220° F
PRESSURE RANGE	0 TO 6,000 PSI

Part Number	Bore Diameter	
CTC-3G4762	8-1/2	
CTC-3G4765	10-1/2	
CTC-8J3747	4-1/2	
CTC-8J3749	7	
CTC-8J4390	8-1/4	
CTC-8J4510	7-1/4	
CTC-8J5644	7-3/4	
CTC-8J8703	6-1/2	

Part Number	Bore Diameter	
CTC-8J8767	5-1/2	
CTC-9J1242	6	
CTC-9J2987	11-1/2	
CTC-9J3406	10	
CTC-9J5558	6-1/4	
CTC-9J5567	7-1/2	
CTC-9J7868	5	

### INSTALLATION OF PTFE PISTON SEALS

Installing PTFE piston seals is not always an easy task. The use of installation tools is recommended but often not convenient when working with a wide variety of sizes and applications. Finger installations are practical with rings of smaller cross-sections. Using fingers or a rounded plastic stick, knead the ring over the piston into the groove. With rings of larger cross-sections it may be necessary to heat the ring. Warming the ring in water or oil at 130° F or 140° F for about 5 minutes will soften the material for easier installation. Always avoid inconsistent stretching or overstretching of the PTFE seal.

To prevent the PTFE ring from snapping into the wrong groove, cover wear ring grooves with plastic tape.

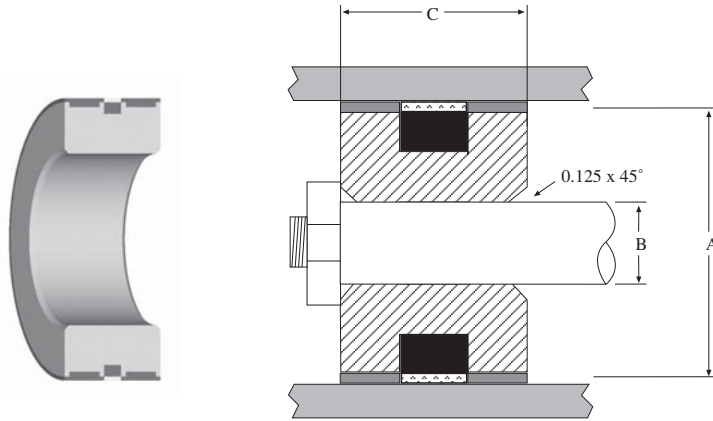
After seal installation, assembly of the cylinder may be difficult if the piston seal is loose on the piston or the cylinder has an inadequate leading edge chamfer. In such cases, compress the piston seal with belting or a suitable hose clamp. If the piston seal must pass threads or any other sharp edges during the cylinder assembly, cover the edges with plastic tape or wrap.

**NOTE:** Caterpillar® part numbers are used as a reference only. We do not imply that these parts are original equipment parts.



## STYLE PA UNITIZED PISTONS

The PA Unitized Pistons are designed to handle a broad range of application parameters. The piston body is machined to exact dimensions and is constructed using four components: High strength steel body, non-metallic bearing, rubber loading ring and filled PTFE seal ring. The non-metallic bearing is molded to the piston using a special proprietary process.



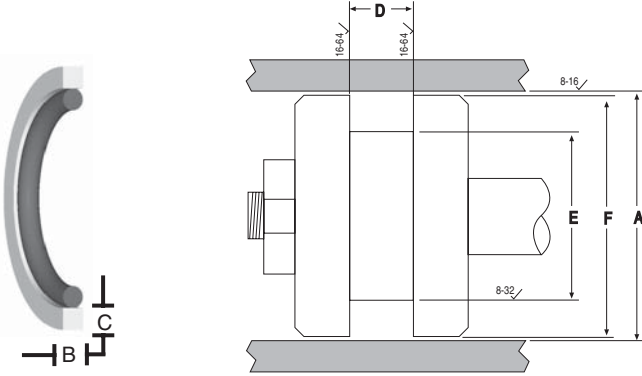
### PISTON INFORMATION

TEMPERATURE RANGE	-40° TO +275° F
MAX PRESSURE	5,000 PSI
MAX VELOCITY	3 ft / second

Part Number	A Bore Diameter Tol. +0.002/-0	B Hole Diameter Tol. +0.002/-0	C Piston Width Tol. +0.002/-0	
PA-2.00X0.75X1.00	2.00	.75	1.00	
PA-2.25X1.00X1.00	2.25	1.00	1.00	
PA-2.50X1.00X1.00	2.50	1.00	1.00	
PA-3.00X1.00X1.00	3.00	1.00	1.00	
PA-3.50X1.00X1.50	3.50	1.00	1.50	
PA-4.00X1.25X1.50	4.00	1.25	1.50	

# STYLE PS1400 GLASS FILLED PTFE PISTON SEALS

The PS1400 seals offer low friction and high strength in a compact double-acting piston seal design. The PTFE seal ring, combined with rubber energizer, assures positive contact with the dynamic surface. The PS1400 is designed to fit ANSI/B93.32-1973 groove standards. Piston diameter "F" dimensions are given for pistons without wear rings.



## SEAL INFORMATION

MATERIAL	15% GLASS FILLED PTFE SEAL RUBBER ENERGIZER
TEMPERATURE RANGE	-40° TO +220° F
PRESSURE RANGE	O TO 5,000 PSI
PART NUMBER	(Piston Seal) (Type of Seal)-(Size)

Part Number	A Bore Diameter Tol. +0.002-0.000	B & C Seal Height & Cross Section	D Groove Width Tol. ±0.002	E Groove Dia. Tol. ±0.002	F Piston Dia. Tol. ±0.001
PS1400-16	1.000	0.070 ±0.005	0.083	0.740	0.997
PS1400-18	1.125	0.070 ±0.005	0.083	0.865	1.122
PS1400-20	1.250	0.070 ±0.005	0.083	0.990	1.247
PS1400-22	1.375	0.070 ±0.005	0.083	1.115	1.372
PS1400-24	1.500	0.070 ±0.005	0.083	1.240	1.497
PS1400-26	1.625	0.109 ±0.010	0.122	1.233	1.622
PS1400-28	1.750	0.109 ±0.010	0.122	1.358	1.747
PS1400-30	1.875	0.109 ±0.010	0.122	1.483	1.872
PS1400-32	2.000	0.115 ±0.010	0.129	1.608	1.996
PS1400-34	2.125	0.115 ±0.010	0.129	1.733	2.121
PS1400-36	2.250	0.115 ±0.010	0.129	1.858	2.246
PS1400-38	2.375	0.115 ±0.010	0.129	1.983	2.371
PS1400-40	2.500	0.115 ±0.010	0.129	2.108	2.496
PS1400-44	2.750	0.115 ±0.010	0.129	2.358	2.746
PS1400-48	3.000	0.115 ±0.010	0.129	2.608	2.996
PS1400-50	3.125	0.115 ±0.010	0.129	2.733	3.121
PS1400-52	3.250	0.115 ±0.010	0.129	2.858	3.246
PS1400-54	3.375	0.115 ±0.010	0.129	2.983	3.371
PS1400-56	3.500	0.115 ±0.010	0.129	3.108	3.496
PS1400-58	3.625	0.115 ±0.010	0.129	3.233	3.621
PS1400-60	3.750	0.115 ±0.010	0.129	3.358	3.746
PS1400-64	4.000	0.115 ±0.010	0.129	3.608	3.996
PS1400-68	4.250	0.115 ±0.010	0.129	3.858	4.246
PS1400-70.4	4.400	0.115 ±0.010	0.129	4.008	4.396
PS1400-72	4.500	0.115 ±0.010	0.129	4.108	4.496
PS1400-76	4.750	0.115 ±0.010	0.129	4.358	4.746
PS1400-78	4.875	0.115 ±0.010	0.129	4.483	4.871
PS1400-80	5.000	0.115 ±0.010	0.129	4.608	4.996
PS1400-84	5.250	0.115 ±0.010	0.129	4.858	5.246
PS1400-88	5.500	0.115 ±0.010	0.129	5.108	5.496

## STYLE PS1400 GLASS FILLED PTFE PISTON SEALS

Part Number	A Bore Diameter Tol. +0.002-0.000	B & C Seal Height & Cross Section	D Groove Width Tol. $\pm 0.002$	E Groove Dia. Tol. $\pm 0.002$	F Piston Dia. Tol. $\pm 0.001$
PS1400-92	5.750	0.143 $\pm 0.010$	0.159	5.232	5.746
PS1400-94	5.875	0.143 $\pm 0.010$	0.159	5.357	5.871
PS1400-96	6.000	0.143 $\pm 0.010$	0.159	5.482	5.996
PS1400-98	6.125	0.143 $\pm 0.010$	0.159	5.607	6.121
PS1400-100	6.250	0.143 $\pm 0.010$	0.159	5.732	6.246
PS1400-104	6.500	0.143 $\pm 0.010$	0.159	5.982	6.496
PS1400-112	7.000	0.143 $\pm 0.010$	0.159	6.482	6.996
PS1400-116	7.250	0.143 $\pm 0.010$	0.159	6.732	7.246
PS1400-120	7.500	0.143 $\pm 0.010$	0.159	6.982	7.496
PS1400-128	8.000	0.143 $\pm 0.010$	0.159	7.482	7.996
PS1400-130	8.125	0.143 $\pm 0.010$	0.159	7.607	8.121
PS1400-132	8.250	0.143 $\pm 0.010$	0.159	7.732	8.246
PS1400-136	8.500	0.143 $\pm 0.010$	0.159	7.982	8.496
PS1400-144	9.000	0.143 $\pm 0.010$	0.159	8.482	8.996
PS1400-152	9.500	0.143 $\pm 0.010$	0.159	8.982	9.496
PS1400-160	10.000	0.143 $\pm 0.010$	0.159	9.482	9.996
PS1400-168	10.500	0.143 $\pm 0.010$	0.159	9.982	10.496
PS1400-176	11.000	0.143 $\pm 0.010$	0.159	10.482	10.996
PS1400-184	11.500	0.143 $\pm 0.010$	0.159	10.982	11.496
PS1400-192	12.000	0.143 $\pm 0.010$	0.159	11.482	11.996
PS1400-200	12.500	0.143 $\pm 0.010$	0.159	11.982	12.496
PS1400-208	13.000	0.143 $\pm 0.010$	0.159	12.482	12.996
PS1400-224	14.000	0.143 $\pm 0.010$	0.159	13.482	13.996

### INSTALLATION OF PTFE PISTON SEALS

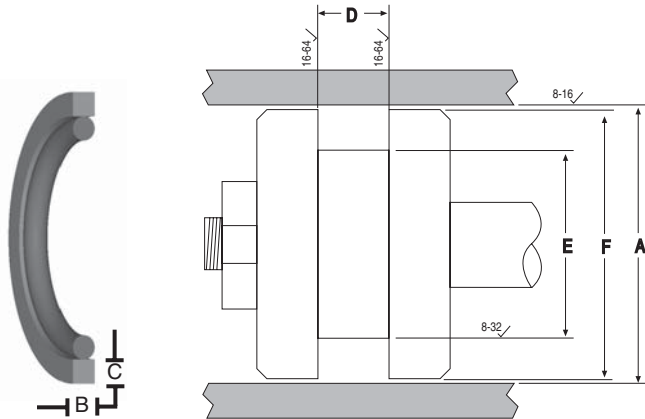
Installing PTFE piston seals is not always an easy task. The use of installation tools is recommended but often not convenient when working with a wide variety of sizes and applications. Finger installations are practical with rings of smaller cross-sections. Using fingers or a rounded plastic stick, knead the ring over the piston into the groove. With rings of larger cross-sections it may be necessary to heat the ring. Warming the ring in water or oil at 130° F or 140° F for about 5 minutes will soften the material for easier installation. Always avoid inconsistent stretching or overstretching of the PTFE seal.

To prevent the PTFE ring from snapping into the wrong groove, cover wear ring grooves with plastic tape.

After seal installation, assembly of the cylinder may be difficult if the piston seal is loose on the piston or the cylinder has an inadequate leading edge chamfer. In such cases, compress the piston seal with belting or a suitable hose clamp. If the piston seal must pass threads or any other sharp edges during the cylinder assembly, cover the edges with plastic tape or wrap.

## STYLE PS1500 POLYURETHANE PISTON SEALS

Totally interchangeable with Style PS1400 PTFE piston seals, Style PS1500 piston seals are molded from tough 60 shore D durometer polyurethane. During the molding process, a .002" thick band of molybdenum is molded into the outside diameter of the seal ring for reduced friction. PS1500 piston seals are easily stretched over the piston and recover rapidly with the elimination of the "cold flow" characteristics found in PTFE seals. Piston diameter "F" dimensions are given for pistons without wear rings.



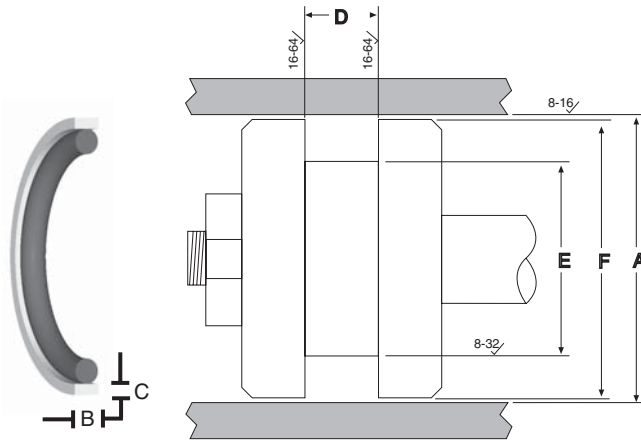
### SEAL INFORMATION

MATERIAL	POLYURETHANE SEAL RUBBER ENERGIZER
TEMPERATURE RANGE	-40° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Piston Seal) (Type of Seal) - (Size)

Part Number	A Bore Diameter Tol. +0.002 -0.000	B & C Seal Height & Cross Section	D Groove Width Tol. ±0.002	E Groove Dia. Tol. ±0.002	F Piston Dia. Tol. ±0.001	
PS1500-24	1.500	0.07 ±0.005	0.083	1.240	1.497	
PS1500-28	1.750	0.109 ±0.005	0.122	1.358	1.747	
PS1500-32	2.000	0.115 ±0.006	0.129	1.608	1.996	
PS1500-36	2.250	0.115 ±0.006	0.129	1.858	2.246	
PS1500-38	2.375	0.115 ±0.006	0.129	1.983	2.371	
PS1500-40	2.500	0.115 ±0.006	0.129	2.108	2.496	
PS1500-44	2.750	0.115 ±0.006	0.129	2.358	2.746	
PS1500-48	3.000	0.115 ±0.006	0.129	2.608	2.996	
PS1500-52	3.250	0.115 ±0.006	0.129	2.858	3.246	
PS1500-56	3.500	0.115 ±0.006	0.129	3.108	3.496	
PS1500-60	3.750	0.115 ±0.006	0.129	3.358	3.746	
PS1500-64	4.000	0.115 ±0.006	0.129	3.608	3.996	
PS1500-68	4.250	0.115 ±0.006	0.129	3.858	4.246	
PS1500-72	4.500	0.115 ±0.006	0.129	4.108	4.496	
PS1500-76	4.750	0.115 ±0.006	0.129	4.358	4.746	
PS1500-80	5.000	0.115 ±0.006	0.129	4.608	4.996	
PS1500-84	5.250	0.115 ±0.006	0.129	4.858	5.246	
PS1500-88	5.500	0.115 ±0.006	0.129	5.108	5.496	
PS1500-92	5.750	0.143 ±0.007	0.159	5.232	5.746	
PS1500-96	6.000	0.143 ±0.007	0.159	5.482	5.996	
PS1500-104	6.500	0.143 ±0.007	0.159	5.982	6.496	
PS1500-112	7.000	0.143 ±0.007	0.159	6.482	6.996	
PS1500-136	8.500	0.143 ±0.007	0.159	7.982	8.494	

# STYLE PS1600 GLASS FILLED PTFE PISTON SEALS

**NOTE:** Piston diameter "F" dimensions are given for pistons without wear rings.



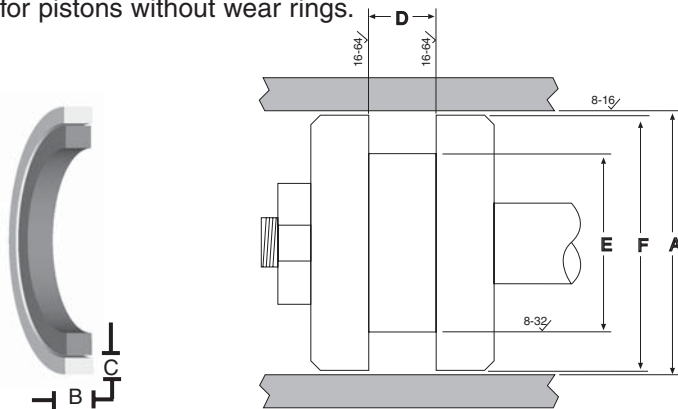
## SEAL INFORMATION

MATERIAL	15% GLASS FILLED PTFE SEAL RUBBER ENERGIZER
TEMPERATURE RANGE	-40° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Piston Seal) (Type of Seal)-(Size)

Part Number	A Bore Dia. Tol. +0.002 -0.000	B Seal Height Tol. ±0.005	C Cross Section Tol. ±0.005	D Groove Width Tol. ±0.003	E Groove Dia. Tol. ±0.003	F Piston Dia.	
PS1600-16	1.000	0.088	0.055	0.094	0.787	0.999+0/-0.003	
PS1600-18	1.125	0.088	0.055	0.094	0.912	1.124+0/-0.003	
PS1600-20	1.250	0.088	0.055	0.094	1.037	1.249+0/-0.003	
PS1600-22	1.375	0.088	0.055	0.094	1.162	1.374+0/-0.003	
PS1600-24	1.500	0.088	0.055	0.094	1.287	1.499+0/-0.003	
PS1600-26	1.625	0.088	0.055	0.094	1.412	1.624+0/-0.003	
PS1600-28	1.750	0.088	0.055	0.094	1.537	1.749+0/-0.003	
PS1600-30	1.875	0.120	0.060	0.126	1.598	1.874+0/-0.003	
PS1600-32	2.000	0.120	0.060	0.126	1.723	1.999+0/-0.003	
PS1600-36	2.250	0.120	0.060	0.126	1.973	2.249+0/-0.003	
PS1600-38	2.375	0.120	0.060	0.126	2.098	2.374+0/-0.003	
PS1600-40	2.500	0.120	0.060	0.126	2.223	2.499+0/-0.003	
PS1600-44	2.750	0.150	0.090	0.157	2.348	2.749+0/-0.004	
PS1600-48	3.000	0.150	0.090	0.157	2.603	2.999+0/-0.004	
PS1600-52	3.250	0.150	0.090	0.157	2.853	3.249+0/-0.004	
PS1600-56	3.500	0.150	0.090	0.157	3.103	3.499+0/-0.004	
PS1600-60	3.750	0.150	0.090	0.157	3.353	3.749+0/-0.004	
PS1600-64	4.000	0.150	0.090	0.157	3.603	3.999+0/-0.004	
PS1600-68	4.250	0.150	0.090	0.157	3.853	4.249+0/-0.004	
PS1600-72	4.500	0.150	0.090	0.157	4.103	4.499+0/-0.004	
PS1600-76	4.750	0.150	0.090	0.157	4.353	4.749+0/-0.004	
PS1600-80	5.000	0.150	0.090	0.157	4.603	4.999+0/-0.004	
PS1600-84	5.250	0.150	0.090	0.157	4.853	5.249+0/-0.004	
PS1600-88	5.500	0.150	0.090	0.157	5.103	5.499+0/-0.004	
PS1600-92	5.750	0.150	0.090	0.157	5.353	5.749+0/-0.004	
PS1600-96	6.000	0.287	0.120	0.293	5.305	5.999+0/-0.005	
PS1600-112	7.000	0.287	0.120	0.293	6.305	6.999+0/-0.005	

# STYLE PS1800 GLASS FILLED PTFE PISTON SEALS

The PS1800 provides low friction, high strength piston sealing. The PS1800 also provides double-acting piston sealing in a compact design that meets the requirements of ANSI/B93-32-1973. **NOTE:** Piston diameter "F" dimensions are given for pistons without wear rings.



## SEAL INFORMATION

MATERIAL	15% GLASS FILLED PTFE SEAL RUBBER ENERGIZER
TEMPERATURE RANGE	-40° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Piston Seal) (Type of Seal) - (Size)

Part Number	A Bore Dia. Tol. +0.002 -0.000	B Seal Height	C Cross Section	D Groove Width Tol. ±0.002	E Groove Dia. Tol. ±0.002	F Piston Dia.	
PS1800-16	1.000	0.116-0.121	0.067-0.073	0.129	0.690	0.999+0/-0.005	
PS1800-20	1.250	0.116-0.121	0.067-0.073	0.129	0.940	1.249+0/-0.005	
PS1800-24	1.500	0.116-0.121	0.067-0.073	0.129	1.190	1.499+0/-0.005	
PS1800-28	1.750	0.116-0.121	0.067-0.073	0.129	1.440	1.749+0/-0.005	
PS1800-32	2.000	0.116-0.121	0.067-0.073	0.129	1.690	1.999+0/-0.005	
PS1800-36	2.250	0.116-0.121	0.067-0.073	0.129	1.940	2.249+0/-0.005	
PS1800-40	2.500	0.116-0.121	0.067-0.073	0.129	2.190	2.499+0/-0.005	
PS1800-44	2.750	0.116-0.121	0.067-0.073	0.129	2.440	2.749+0/-0.005	
PS1800-44A	2.750	0.269-0.274	0.087-0.093	0.284	2.190	2.749+0/-0.005	
PS1800-48	3.000	0.269-0.274	0.087-0.093	0.284	2.440	2.999+0/-0.006	
PS1800-52	3.250	0.269-0.274	0.087-0.093	0.284	2.690	3.249+0/-0.006	
PS1800-56	3.500	0.269-0.274	0.087-0.093	0.284	2.940	3.499+0/-0.006	
PS1800-60	3.750	0.269-0.274	0.087-0.093	0.284	3.190	3.749+0/-0.006	
PS1800-64	4.000	0.269-0.274	0.087-0.093	0.284	3.440	3.999+0/-0.006	
PS1800-68	4.250	0.269-0.274	0.087-0.093	0.284	3.690	4.249+0/-0.006	
PS1800-72	4.500	0.269-0.274	0.087-0.093	0.284	3.940	4.499+0/-0.006	
PS1800-74	4.625	0.269-0.274	0.087-0.093	0.284	4.078	4.624+0/-0.007	
PS1800-76	4.750	0.269-0.274	0.087-0.093	0.284	4.190	4.749+0/-0.006	
PS1800-80	5.000	0.269-0.274	0.087-0.093	0.284	4.440	4.999+0/-0.006	
PS1800-84	5.250	0.362-0.367	0.137-0.147	0.379	4.488	5.249+0/-0.007	
PS1800-88	5.500	0.362-0.367	0.137-0.147	0.379	4.738	5.499+0/-0.007	
PS1800-90	5.625	0.362-0.367	0.137-0.147	0.379	4.863	5.624+0/-0.007	
PS1800-92	5.750	0.362-0.367	0.137-0.147	0.379	4.988	5.749+0/-0.007	
PS1800-96	6.000	0.362-0.367	0.137-0.147	0.379	5.238	5.999+0/-0.007	
PS1800-100	6.250	0.362-0.367	0.137-0.147	0.379	5.488	6.249+0/-0.007	
PS1800-104	6.500	0.362-0.367	0.137-0.147	0.379	5.738	6.499+0/-0.007	
PS1800-112	7.000	0.362-0.367	0.137-0.147	0.379	6.238	6.999+0/-0.007	
PS1800-116	7.250	0.362-0.367	0.137-0.147	0.379	6.488	7.249+0/-0.007	
PS1800-120	7.500	0.362-0.367	0.137-0.147	0.379	6.738	7.499+0/-0.007	

## STYLE PS1800 GLASS FILLED PTFE PISTON SEALS

Part Number	A Bore Dia. Tol. +0.002 -0.000	B Seal Height	C Cross Section	D Groove Width Tol. ±0.002	E Groove Dia. Tol. ±0.002	F Piston Dia.
PS1800-128	8.000	0.362-0.367	0.137-0.147	0.379	7.238	7.999+0/-0.007
PS1800-132	8.250	0.362-0.367	0.137-0.147	0.379	7.488	8.249+0/-0.007
PS1800-136	8.500	0.362-0.367	0.137-0.147	0.379	7.738	8.499+0/-0.007
PS1800-144	9.000	0.362-0.367	0.195-0.210	0.379	8.122	8.999+0/-0.008
PS1800-152	9.500	0.362-0.367	0.195-0.210	0.379	8.622	9.499+0/-0.008
PS1800-160	10.000	0.362-0.367	0.195-0.210	0.379	9.122	9.999+0/-0.008
PS1800-168	10.500	0.362-0.367	0.195-0.210	0.379	9.622	10.499+0/-0.008
PS1800-176	11.000	0.362-0.367	0.195-0.210	0.379	10.122	10.999+0/-0.008
PS1800-192	12.000	0.362-0.367	0.195-0.210	0.379	11.122	11.999+0/-0.008
PS1800-208	13.000	0.362-0.367	0.195-0.210	0.379	12.122	12.999+0/-0.008
PS1800-224	14.000	0.362-0.367	0.195-0.210	0.379	13.122	13.999+0/-0.008

### INSTALLATION OF PTFE PISTON SEALS

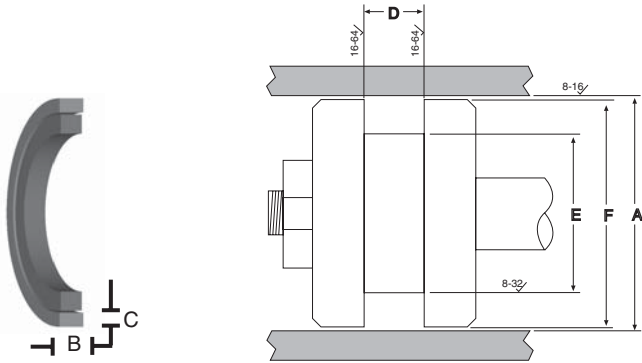
Installing PTFE piston seals is not always an easy task. The use of installation tools is recommended but often not convenient when working with a wide variety of sizes and applications. Finger installations are practical with rings of smaller cross-sections. Using fingers or a rounded plastic stick, knead the ring over the piston into the groove. With rings of larger cross-sections it may be necessary to heat the ring. Warming the ring in water or oil at 130° F or 140° F for about 5 minutes will soften the material for easier installation. Always avoid inconsistent stretching or overstretching of the PTFE seal.

To prevent the PTFE ring from snapping into the wrong groove, cover wear ring grooves with plastic tape.

After seal installation, assembly of the cylinder may be difficult if the piston seal is loose on the piston or the cylinder has an inadequate leading edge chamfer. In such cases, compress the piston seal with belting or a suitable hose clamp. If the piston seal must pass threads or any other sharp edges during the cylinder assembly, cover the edges with plastic tape or wrap.

# STYLE PS1850 BRONZE FILLED PISTON SEALS

the PS1850 piston seal can be used interchangeably with the PS1800 style piston seal. This seal provides improved heat resistance for demanding applications. **NOTE:** Piston diameter "F" dimensions are given for pistons without wear rings.



## SEAL INFORMATION

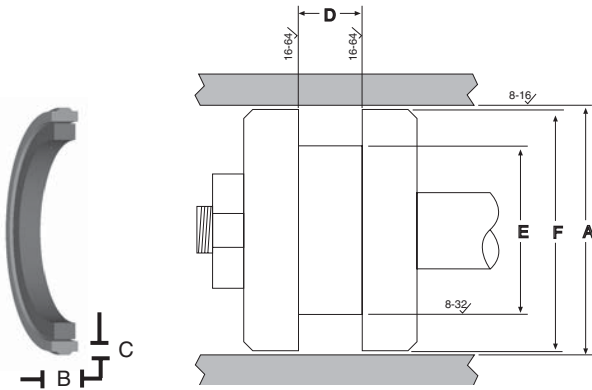
MATERIAL	BRONZE FILLED PTFE SEALS RUBBER ENERGIZER
TEMPERATURE RANGE	-40° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Piston Seal) (Type of Seal) - (Size)

Part Number	A - Bore Diameter Tol. +0.002 -0.000	B Seal Height	C Seal Cross Section	D - Groove Width Tol. ±.002	E - Groove Diameter Tol. ±.004	F Piston Diameter	
PS1850-16	1.000	0.116-0.121	0.067-0.073	0.129	0.690	0.999+0/-0.005	
PS1850-20	1.250	0.116-0.121	0.067-0.073	0.129	0.940	1.249+0/-0.005	
PS1850-24	1.500	0.116-0.121	0.067-0.073	0.129	1.190	1.499+0/-0.005	
PS1850-28	1.750	0.116-0.121	0.067-0.073	0.129	1.440	1.749+0/-0.005	
PS1850-32	2.000	0.116-0.121	0.067-0.073	0.129	1.690	1.999+0/-0.005	
PS1850-36	2.250	0.116-0.121	0.067-0.073	0.129	1.940	2.249+0/-0.005	
PS1850-40	2.500	0.116-0.121	0.067-0.073	0.129	2.190	2.499+0/-0.005	
PS1850-44	2.750	0.116-0.121	0.067-0.073	0.129	2.440	2.749+0/-0.005	
PS1850-48	3.000	0.269-0.274	0.087-0.093	0.284	2.440	2.999+0/-0.006	
PS1850-52	3.250	0.269-0.274	0.087-0.093	0.284	2.690	3.249+0/-0.006	
PS1850-56	3.500	0.269-0.274	0.087-0.093	0.284	2.940	3.499+0/-0.006	
PS1850-60	3.750	0.269-0.274	0.087-0.093	0.284	3.190	3.749+0/-0.006	
PS1850-64	4.000	0.269-0.274	0.087-0.093	0.284	3.440	3.999+0/-0.006	
PS1850-68	4.250	0.269-0.274	0.087-0.093	0.284	3.690	4.249+0/-0.006	
PS1850-72	4.500	0.269-0.274	0.087-0.093	0.284	3.940	4.499+0/-0.006	
PS1850-76	4.750	0.269-0.274	0.087-0.093	0.284	4.190	4.749+0/-0.006	
PS1850-80	5.000	0.269-0.274	0.087-0.093	0.284	4.440	4.999+0/-0.006	
PS1850-84	5.250	0.362-0.367	0.137-0.147	0.379	4.488	5.249+0/-0.007	
PS1850-88	5.500	0.362-0.367	0.137-0.147	0.379	4.738	5.499+0/-0.007	
PS1850-92	5.750	0.362-0.367	0.137-0.147	0.379	4.988	5.749+0/-0.007	
PS1850-96	6.000	0.362-0.367	0.137-0.147	0.379	5.238	5.999+0/-0.007	
PS1850-104	6.500	0.362-0.367	0.137-0.147	0.379	5.738	6.499+0/-0.007	
PS1850-112	7.000	0.362-0.367	0.137-0.147	0.379	6.238	6.999+0/-0.007	
PS1850-116	7.250	0.362-0.367	0.137-0.147	0.379	6.488	7.249+0/-0.007	
PS1850-120	7.500	0.362-0.367	0.137-0.147	0.379	6.738	7.499+0/-0.007	
PS1850-124	7.750	0.362-0.367	0.137-0.147	0.379	6.988	7.499+0/-0.007	
PS1850-128	8.000	0.362-0.367	0.137-0.147	0.379	7.238	7.999+0/-0.007	
PS1850-132	8.250	0.362-0.367	0.137-0.147	0.379	7.488	8.249+0/-0.007	
PS1850-136	8.500	0.362-0.367	0.137-0.147	0.379	7.738	8.499+0/-0.007	
PS1850-144	9.000	0.362-0.367	0.195-0.210	0.379	8.122	8.999+0/-0.008	
PS1850-152	9.500	0.362-0.367	0.195-0.210	0.379	8.622	9.499+0/-0.008	
PS1850-160	10.000	0.362-0.367	0.195-0.210	0.379	9.122	9.999+0/-0.008	
PS1850-176	11.000	0.362-0.367	0.195-0.210	0.379	10.122	10.999+0/-0.008	
PS1850-192	12.000	0.362-0.367	0.195-0.210	0.379	11.122	11.999+0/-0.008	
PS1850-208	13.000	0.362-0.367	0.195-0.210	0.379	12.122	12.999+0/-0.008	
PS1850-224	14.000	0.362-0.367	0.195-0.210	0.379	13.122	13.999+0/-0.008	



# STYLE PS2700 POLYURETHANE PISTON SEALS

This seal, molded from high grade polyester with 5% glass fiber and 5% PTFE, may retrofit the PS1800 seals, considering all dimensions are comparable. This seal material, with a high degree of "memory", stretches over the piston and snaps in the groove for immediate assembly. These seals also feature low friction and high abrasion and extrusion resistance which helps to eliminate assembly damage. Piston diameter "F" dimensions are given for pistons without wear rings.



## SEAL INFORMATION

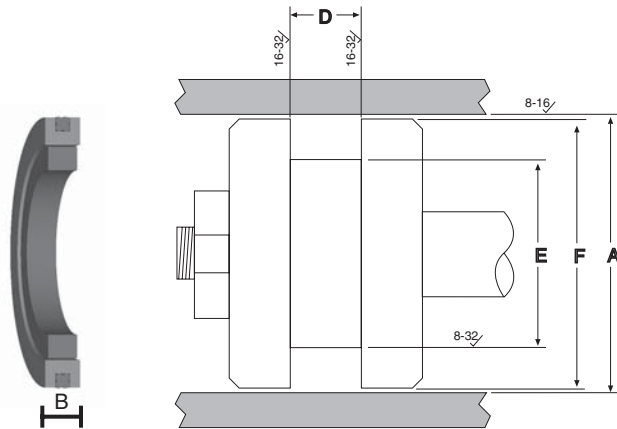
MATERIAL	GLASS/PTFE FILLED POLYESTER SEAL, RUBBER ENERGIZER
TEMPERATURE RANGE	-40° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Piston Seal) (Type of Seal) - (Size)

Part Number	A - Bore Diameter Tol. +0.002 -0.000	B Seal Height	C Seal Cross Section	D - Groove Width Tol. ±.002	E - Groove Diameter Tol. ±.002	F Piston Diameter	
PS2700-16	1.000	0.116-0.121	0.067-0.073	0.129	0.691	0.999+0/-0.009	
PS2700-20	1.250	0.116-0.121	0.067-0.073	0.129	0.941	1.249+0/-0.009	
PS2700-24	1.500	0.116-0.121	0.067-0.073	0.129	1.191	1.499+0/-0.009	
PS2700-28	1.750	0.116-0.121	0.067-0.073	0.129	1.441	1.749+0/-0.009	
PS2700-32	2.000	0.116-0.121	0.067-0.073	0.129	1.691	1.999+0/-0.009	
PS2700-36	2.250	0.116-0.121	0.067-0.073	0.129	1.941	2.249+0/-0.009	
PS2700-40	2.500	0.116-0.121	0.067-0.073	0.129	2.191	2.499+0/-0.009	
PS2700-44	2.750	0.116-0.121	0.067-0.073	0.129	2.441	2.749+0/-0.009	
PS2700-48	3.000	0.269-0.274	0.087-0.093	0.284	2.462	2.999+0/-0.014	
PS2700-52	3.250	0.269-0.274	0.087-0.093	0.284	2.712	3.249+0/-0.014	
PS2700-56	3.500	0.269-0.274	0.087-0.093	0.284	2.962	3.499+0/-0.014	
PS2700-60	3.750	0.269-0.274	0.087-0.093	0.284	3.212	3.749+0/-0.014	
PS2700-64	4.000	0.269-0.274	0.087-0.093	0.284	3.462	3.999+0/-0.014	
PS2700-68	4.250	0.269-0.274	0.087-0.093	0.284	3.712	4.249+0/-0.014	
PS2700-72	4.500	0.269-0.274	0.087-0.093	0.284	3.962	4.499+0/-0.014	
PS2700-76	4.750	0.269-0.274	0.087-0.093	0.284	4.212	4.749+0/-0.014	
PS2700-80	5.000	0.269-0.274	0.087-0.093	0.284	4.462	4.999+0/-0.014	
PS2700-84	5.250	0.362-0.367	0.137-0.147	0.379	4.504	5.249+0/-0.014	
PS2700-88	5.500	0.362-0.367	0.137-0.147	0.379	4.754	5.499+0/-0.014	
PS2700-96	6.000	0.362-0.367	0.137-0.147	0.379	5.254	5.999+0/-0.014	
PS2700-100	6.250	0.362-0.367	0.137-0.147	0.379	5.504	6.249+0/-0.014	
PS2700-104	6.500	0.362-0.367	0.137-0.147	0.379	5.754	6.499+0/-0.014	
PS2700-112	7.000	0.362-0.367	0.137-0.147	0.379	6.250	6.999+0/-0.014	
PS2700-116	7.250	0.362-0.367	0.137-0.147	0.379	6.504	7.249+0/-0.014	
PS2700-128	8.000	0.362-0.367	0.137-0.147	0.379	7.254	7.999+0/-0.014	
PS2700-136	8.500	0.362-0.367	0.137-0.147	0.379	7.754	8.499+0/-0.014	
PS2700-144	9.000	0.362-0.367	0.195-0.210	0.379	8.137	8.999+0/-0.014	
PS2700-160	10.000	0.362-0.367	0.195-0.210	0.379	9.137	9.999+0/-0.014	

## STYLE PSQ BRONZE FILLED PISTON SEALS

These piston seals provide bi-directional, low friction sealing with increased stability and superior leakage control. The square cut energizer provides low pressure sealing and eliminates backside leakage. This seal also effectively seals between different fluids on each side of the piston seal, making gas/liquid sealing combinations possible.

**NOTE:** Piston diameter "F" dimensions are given for pistons without wear rings.

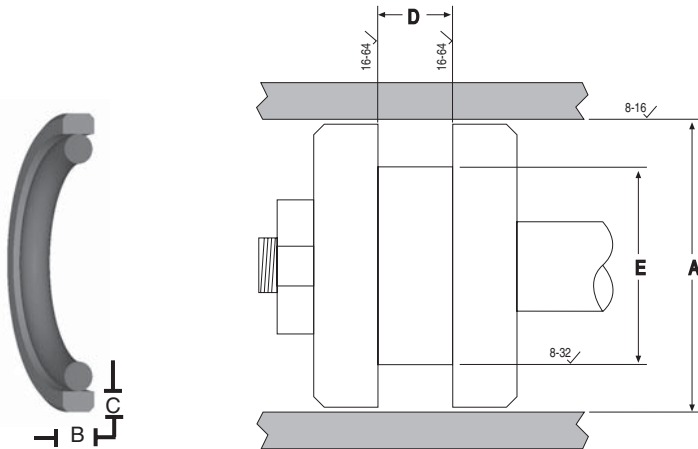


SEAL INFORMATION	
MATERIAL	40% BRONZE FILLED PTFE SEAL RUBBER ENERGIZER AND QUATTRO RING
TEMPERATURE RANGE	-40° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Piston Seal) - (Size)

Part Number	A Bore Diameter	B Seal Height	D Groove Width	E Groove Diameter	F Piston Diameter	
PSQ-24	1.500 +0.004/-0	0.271	0.288/0.293	.884	1.499	
PSQ-32	2.000 +0.004/-0	0.271	0.288/0.293	1.384	1.999	
PSQ-36	2.225 +0.004/-0	0.271	0.288/0.293	1.630	2.249	
PSQ-40	2.500 +0.004/-0	0.271	0.288/0.293	1.884	2.499	
PSQ-48	3.000 +0.004/-0	0.271	0.288/0.293	2.384	2.999	
PSQ-52	3.250 +0.004/-0	0.271	0.288/0.293	2.634	3.249	
PSQ-56	3.500 +0.004/-0	0.271	0.288/0.293	2.884	3.499	
PSQ-64	4.000 +0.004/-0	0.271	0.288/0.293	3.384	3.999	
PSQ-72	4.500 +0.004/-0	0.271	0.288/0.293	3.884	4.499	
PSQ-80	5.000 +0.004/-0	0.271	0.288/0.293	4.384	4.999	
PSQ-88	5.500 +0.005/-0	0.352	0.375/0.380	4.660	5.499	
PSQ-96	6.000 +0.005/-0	0.352	0.375/0.380	5.160	5.999	
PSQ-104	6.500 +0.005/-0	0.352	0.375/0.380	5.660	6.499	
PSQ-112	7.000 +0.005/-0	0.352	0.375/0.380	6.170	6.999	
PSQ-128	8.000 +0.005/-0	0.352	0.375/0.380	7.170	7.999	

# STYLE PS2470 BRONZE FILLED PTFE PISTON SEALS

Molded from a PTFE base material with 40% bronze and machined to exacting tolerances. This seal produces low friction and high strength. Corners are chamfered for cold flow resistance.



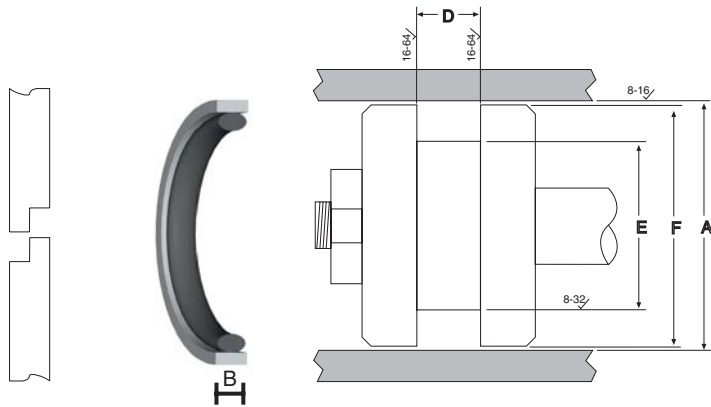
## SEAL INFORMATION

MATERIAL	40% BRONZE FILLE PTFE RUBBER ENERGIZER
TEMPERATURE RANGE	-40° TO +220° F
PRESSURE RANGE	0 TO 5,000
PART NUMBER	(Piston Seal) (Type of Seal)-(Size)

Part Number	A Bore Diameter	B Seal Height	C Seal Cross Section	D Groove Width	E Groove Diameter	
PS2472-32	2.000	0.150	0.100	0.168 ±0.002	1.576 ±0.002	
PS2472-40	2.500	0.150	0.100	0.168 ±0.002	2.076 ±0.002	
PS2472-44	2.750	0.150	0.100	0.168 ±0.002	2.326 ±0.002	
PS2472-48	3.000	0.150	0.100	0.168 ±0.002	2.576 ±0.002	
PS2473-52	3.250	0.225	0.140	0.249 ±0.002	2.634 ±0.003	
PS2473-56	3.500	0.225	0.140	0.249 ±0.002	2.884 ±0.003	
PS2473-64	4.000	0.225	0.140	0.249 ±0.002	3.384 ±0.003	
PS2473-68	4.250	0.225	0.145	0.249 ±0.002	3.634 ±0.003	
PS2473-72	4.500	0.225	0.140	0.249 ±0.002	3.884 ±0.003	
PS2473-80	5.000	0.225	0.140	0.249 ±0.002	4.384 ±0.003	
PS2474-88	5.500	0.290	0.195	0.322 ±0.002	4.670 ±0.004	
PS2473-96	6.000	0.225	0.140	0.249 ±0.002	5.384 ±0.004	
PS2474-96	6.000	0.290	0.195	0.322 ±0.002	5.170 ±0.004	
PS2474-104	6.500	0.290	0.195	0.322 ±0.002	5.670 ±0.004	
PS2474-112	7.000	0.290	0.195	0.322 ±0.002	6.170 ±0.004	
PS2474-120	7.500	0.290	0.195	0.322 ±0.002	6.670 ±0.004	
PS2474-128	8.000	0.290	0.195	0.322 ±0.002	7.170 ±0.004	
PS2474-152	9.500	0.290	0.195	0.322 ±0.002	8.670 ±0.004	
PS2474-160	10.000	0.290	0.195	0.322 ±0.002	9.170 ±0.004	

# STYLE PS914 NYLON STEP CUT PISTON SEALS

**NOTE:** Piston diameter "F" dimensions are given for pistons without wear rings.



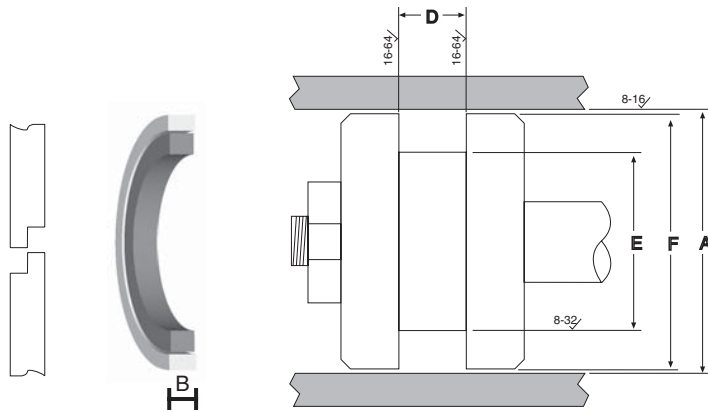
## SEAL INFORMATION

MATERIAL	GLASS FILLED NYLON SEAL RUBBER ENERGIZER
TEMPERATURE RANGE	-40° TO +220°
PRESSURE RANGE	0 TO 6,000 PSI
PART NUMBER	(Piston Seal) (Type of Seal)-(Size)-(Groove Width)

Part Number	A - Bore Diameter Tol. +0.005/-0	B Seal Height	D - Groove Width Tol +0.005/-0	E - Groove Diameter Tol. +.0/-0.005	F Piston Diameter	
PS914-2000-282	2.000	0.274	0.282	1.462	1.999+0/-0.005	
PS914-2250-282	2.250	0.274	0.282	1.712	2.249+0/-0.005	
PS914-2500-282	2.500	0.274	0.282	1.962	2.499+0/-0.005	
PS914-2500-312	2.500	0.306	0.312	1.908	2.499+0/-0.005	
PS914-2750-282	2.750	0.274	0.282	2.212	2.749+0/-0.005	
PS914-3000-282	3.000	0.274	0.282	2.442	2.999+0/-0.006	
PS914-3000-312	3.000	0.306	0.312	2.408	2.999+0/-0.006	
PS914-3500-282	3.500	0.274	0.282	2.942	3.499+0/-0.006	
PS914-3500-312	3.500	0.306	0.312	2.908	3.499+0/-0.006	
PS914-4000-282	4.000	0.274	0.282	3.442	3.999+0/-0.006	
PS914-4000-312	4.000	0.306	0.312	3.408	3.999+0/-0.006	
PS914-4250-282	4.250	0.274	0.282	3.692	4.249+0/-0.006	
PS914-4265-282	4.265	0.274	0.282	3.707	4.264+0/-0.006	
PS914-4500-282	4.500	0.274	0.282	3.942	4.499+0/-0.006	
PS914-4500-312	4.500	0.306	0.312	3.908	4.499+0/-0.006	
PS914-4750-282	4.750	0.274	0.282	4.192	4.749+0/-0.006	
PS914-5000-282	5.000	0.274	0.282	4.442	4.999+0/-0.006	
PS914-5000-375	5.000	0.370	0.377	4.240	4.999+0/-0.006	
PS914-5250-375	5.250	0.370	0.377	4.490	5.249+0/-0.006	
PS914-5500-375	5.500	0.370	0.377	4.740	5.499+0/-0.007	
PS914-6000-375	6.000	0.370	0.377	5.240	5.999+0/-0.007	
PS914-6500-375	6.500	0.370	0.377	5.740	6.499+0/-0.007	
PS914-7000-375	7.000	0.370	0.377	6.240	6.999+0/-0.007	
PS914-7500-375	7.500	0.370	0.377	6.740	7.499+0/-0.007	
PS914-8000-375	8.000	0.370	0.377	7.240	7.999+0/-0.007	
PS914-8500-375	8.500	0.370	0.377	7.740	8.499+0/-0.007	
PS914-9000-375	9.000	0.370	0.377	8.124	8.999+0/-0.007	
PS914-9500-375	9.500	0.370	0.377	8.624	9.499+0/-0.008	
PS914-10000-375	10.000	0.370	0.377	9.124	9.999+0/-0.008	

# STYLE PS2000 NYLON STEP CUT PISTON SEALS

Some PS2000 piston seals utilize a round instead of a square energizer. Also, piston diameter "F" dimensions are given for pistons without wear rings. Many sizes shown are completely interchangeable with style PS914 piston seals.



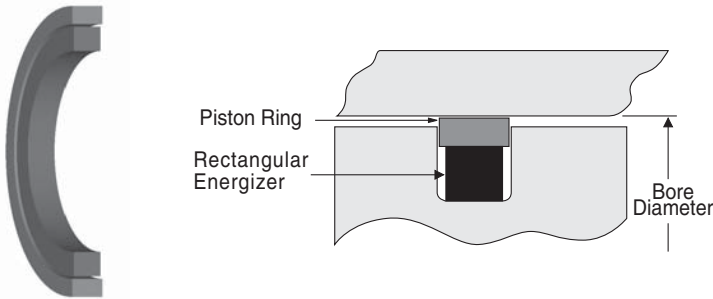
## SEAL INFORMATION

MATERIAL	GLASS FILLED NYLON SEAL RUBBER ENERGIZER
TEMPERATURE RANGE	-40° TO +220°
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Piston Seal) (Type of Seal)-(Size)- (Groove Width)

Part Number	A - Bore Diameter Tol. +.005/-0	B Seal Height	D - Groove Width Tol. +.005/-0	E - Groove Diameter Tol. +.0/-0.005	F Piston Diameter	
PS2027-28	1.750	0.274	0.282	1.155	1.749 +.0/-0.005	
PS2027-32	2.000	0.274	0.282	1.462	1.999 +.0/-0.005	
PS2027-36	2.250	0.274	0.282	1.712	2.249 +.0/-0.005	
PS2027-40	2.500	0.274	0.282	1.962	2.499 +.0/-0.005	
PS2031-48	3.000	0.274	0.282	2.462	3.039 +.0/-0.006	
PS2027-48	3.040	0.274	0.282	2.462	3.039 +.0/-0.006	
PS2027-52	3.250	0.274	0.282	2.712	3.249 +.0/-0.006	
PS2031-56	3.500	0.305	0.312	2.908	3.499 +.0/-0.006	
PS2037-56	3.500	0.368	0.375	2.740	3.499 +.0/-0.006	
PS2027-56	3.500	0.274	0.282	2.962	3.539 +.0/-0.006	
PS2031-64	4.000	0.305	0.312	3.408	3.999 +.0/-0.006	
PS2027-64	4.000	0.274	0.282	3.462	4.039 +.0/-0.006	
PS2031-72	4.500	0.305	0.312	3.908	4.499 +.0/-0.006	
PS2027-72	4.500	0.274	0.282	3.962	4.539 +.0/-0.006	
PS2031-80	5.000	0.305	0.312	4.408	4.999 +.0/-0.006	
PS2037-80	5.000	0.368	0.375	4.240	4.999 +.0/-0.006	
PS2031-88	5.500	0.305	0.312	4.908	5.499 +.0/-0.007	
PS2037-88	5.500	0.368	0.375	4.740	5.499 +.0/-0.006	
PS2037-96	6.000	0.368	0.375	5.240	6.039 +.0/-0.007	
PS2037-100	6.250	0.368	0.375	5.490	6.249 +.0/-0.007	
PS2037-104	6.500	0.368	0.375	5.740	6.499 +.0/-0.007	
PS2037-112	7.000	0.368	0.375	6.240	6.999 +.0/-0.007	

## CATERPILLAR® 2 PIECE PISTON SEALS

**NOTE:** Caterpillar® part numbers are used as a reference only. We do not imply that these parts are original equipment parts.

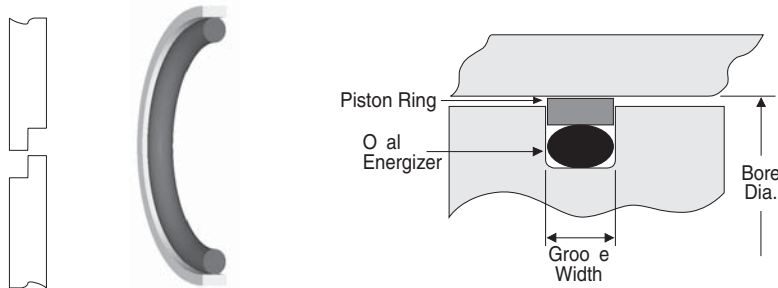


Part Number	Bore Diameter
CTC-5J7004A	2
CTC-8J6213A	2-1/2
CTC-5J7010A	2-3/4
CTC-6J1972A	3
CTC-6J0793A	3-1/4
CTC-5J7013A	3-1/2
CTC-5J8011A	3-3/4
CTC-5J5402A	4

Part Number	Bore Diameter
CTC-5J7854A	4-1/4
CTC-5J4986A	4-1/2
CTC-5J4987A	4-3/4
CTC-5J5020A	5
CTC-5J7234A	5-1/4
CTC-5J4988A	5-1/2
CTC-5J4989A	6
CTC-5J4990A	6-1/4

Part Number	Bore Diameter
CTC-5J4991A	6-1/2
CTC-5J4997A	7
CTC-5J4993A	7-1/4
CTC-5J5559A	8-1/4
CTC-6J9385A	8-1/2
CTC-5J7019A	9-1/4

## CATERPILLAR® 2 PIECE STEP-CUT PISTON SEALS

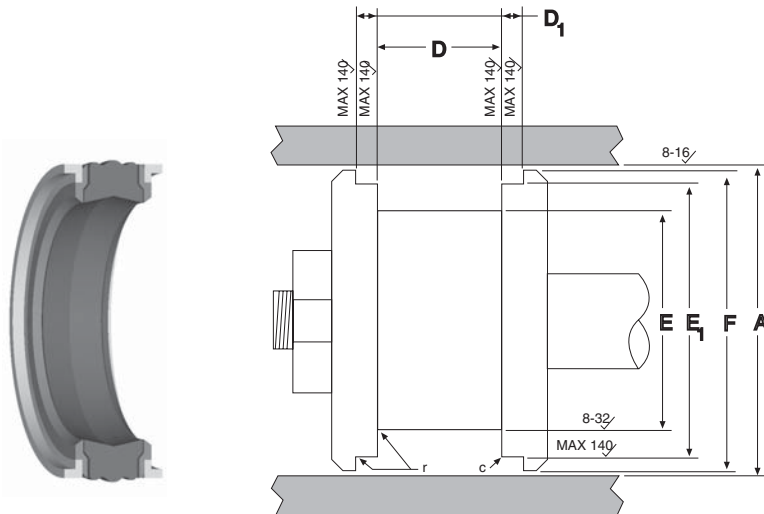


Part Number	Bore Diameter	Groove Width
CTC-9X7337	3	0.192
CTC-4T8054	3-1/2	0.192
CTC-9X7274	3-3/4	0.192
CTC-8C9160	4	0.252
CTC-8C9164	4-1/4	0.252
CTC-4T5172	4-1/2	0.500
CTC-9X7269	4-1/2	0.252
CTC-9X7264	5	0.379
CTC-8T1787	5	0.630
CTC-8T0763	5-1/4	0.379
CTC-4T5173	5-1/2	0.629
CTC-6E0465	5-1/2	0.379

Part Number	Bore Diameter	Groove Width
CTC-4T4144	6	0.629
CTC-4T8695	6-1/2	0.629
CTC-8T1789	7	0.629
CTC-8T1790	7-1/4	0.629
CTC-8T1792	7-3/4	0.629
CTC-8T1793	8-1/4	0.629
CTC-9T0119	8-1/2	0.629
CTC-8T1794	10	0.690
CTC-8T1795	10-1/4	.0690
CTC-8T1796	10-1/2	0.690
CTC-8T1797	11-1/2	0.690

## STYLE PSA PISTON SEALS

Designed to fit on one or two piece pistons, this piston seal employs a nitrile seal for high sealability, nylon split back-ups for extrusion resistance, and two split bearing rings. No further support bearings required.

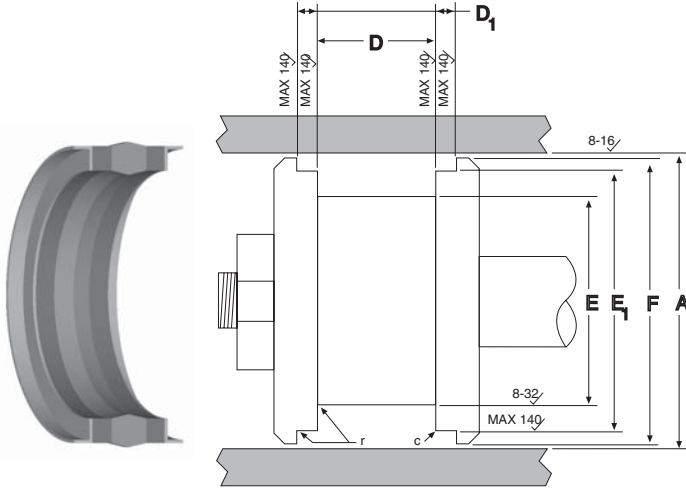


SEAL INFORMATION	
MATERIAL	90A NITRILE SEAL NYLON BACK-UP NYLON BEARING
TEMPERATURE RANGE	-22° TO +212° F
PRESSURE RANGE	0 TO 6,000 PSI
MAXIMUM SPEED	1.5 Ft/Sec.
PART NUMBER	(Prefix) - (Size)

Part Number	A Bore Diameter	D Seal Groove Width Tol. +0.035/+0.025	D1 Bearing Groove Width Tol. +0/-0.005	E Seal Groove Diameter	E1 Bearing Groove Diameter	F Piston Diameter	
PSA-1750	1.750+0.006/-0	0.750	0.250	1.125±0.003	1.569+0/-0.002	1.698±0.003	
PSA-2000	2.000+0.007/-0	0.750	0.250	1.375±0.003	1.820+0/-0.002	1.948±0.004	
PSA-2250	2.250+0.007/-0	0.750	0.250	1.625±0.003	2.069+0/-0.003	2.197±0.004	
PSA-2375	2.375+0.007/-0	0.750	0.250	1.750±0.003	2.194+0/-0.003	2.322±0.004	
PSA-2500	2.500+0.007/-0	0.750	0.250	1.875±0.003	2.318+0/-0.003	2.446±0.004	
PSA-2750	2.750+0.007/-0	0.943	0.250	2.000±0.004	2.522+0/-0.003	2.685±0.004	
PSA-3000	3.000+0.007/-0	0.943	0.250	2.250±0.004	2.771+0/-0.003	2.935±0.004	
PSA-3250	3.250+0.009/-0	0.943	0.250	2.500±0.004	3.021+0/-0.003	3.184±0.004	
PSA-3250A	3.250+0.009/-0	0.772	0.245	2.625±0.004	3.021+0/-0.003	3.184±0.004	
PSA-3500	3.500+0.009/-0	0.943	0.250	2.750±0.004	3.270+0/-0.003	3.434±0.004	
PSA-3500A	3.500+0.009/-0	0.772	0.295	2.850±0.004	3.272+0/-0.003	3.460±0.004	
PSA-3750	3.750+0.009/-0	0.943	0.250	3.000±0.004	3.520+0/-0.003	3.683±0.004	
PSA-4000	4.000+0.009/-0	0.943	0.250	3.250±0.004	3.770+0/-0.003	3.933±0.004	
PSA-4000A	4.000+0.009/-0	1.375	0.425	3.250±0.004	3.770+0/-0.003	3.933±0.004	
PSA-4000B	4.000+0.009/-0	0.772	0.245	3.375±0.004	3.772+0/-0.003	3.960±0.004	
PSA-4500	4.500+0.009/-0	1.250	0.350	3.500±0.004	4.229+0/-0.003	4.422±0.005	
PSA-4500A	4.500+0.009/-0	1.750	0.550	3.500±0.004	4.229+0/-0.003	4.422±0.005	
PSA-5000	5.000+0.010/-0	1.250	0.400	4.000±0.004	4.709+0/-0.004	4.902±0.005	
PSA-5000A	5.000+0.010/-0	0.960	0.290	4.250±0.004	4.772+0/-0.004	4.960±0.005	
PSA-6000	6.000+0.010/-0	1.250	0.375	5.000±0.004	5.709+0/-0.004	5.902±0.005	
PSA-6000A	6.000+0.010/-0	1.750	0.500	5.000±0.004	5.675+0/-0.004	5.900±0.005	

## STYLE PSA-58 PISTON SEALS

Style PSA-58 piston seals combine a heavy duty, fabric reinforced seal with two polyacetal "L" bearings. This construction allows the seal to withstand pressures up to 5,000 PSI. "L" bearings also react to pressure to prevent extrusion and support the piston. For 2-piece pistons.



### SEAL INFORMATION

MATERIAL	FABRIC REINFORCED NITRILE SEAL POLYACETAL ANTI-EXTRUSION RING
TEMPERATURE RANGE	-22° TO +212° F
PRESSURE RANGE	0 TO 5,000 PSI
MAXIMUM SPEED	1.5 Ft/Sec.
PART NUMBER	(Prefix) (Type of Seal) - (Size)

Part Number	A Bore Diameter	D Seal Groove Width Tol. +0.035/+0.025	D1 Bearing Groove Width Tol. +0/+0.005	E Seal Groove Diameter	E1 Bearing Groove Diameter	F Piston Diameter	
PSA-58-1000	1.000	0.596	0.182	0.625	0.865	0.865	
PSA-58-1250	1.250	0.750	0.250	0.750	1.115	1.218	
PSA-58-1375	1.375	0.750	0.250	0.875	1.241	1.343	
PSA-58-1500	1.500	0.750	0.250	1.000	1.371	1.468	
PSA-58-1625	1.625	0.937	0.250	1.000	1.428	1.562	
PSA-58-1750	1.750	0.937	0.250	1.125	1.555	1.687	
PSA-58-1875	1.875	0.937	0.250	1.250	1.679	1.812	
PSA-58-2000	2.000	0.937	0.250	1.375	1.805	1.937	
PSA-58-2000B	2.000	0.750	0.250	1.375	1.802	1.937	
PSA-58-2250	2.250	0.937	0.250	1.625	2.055	2.187	
PSA-58-2375	2.375	0.937	0.250	1.750	2.180	2.312	
PSA-58-2500	2.500	0.937	0.250	1.875	2.305	2.437	
PSA-58-2500A	2.500	0.750	0.254	1.875	2.321	2.437	
PSA-58-2625	2.625	0.937	0.250	2.000	2.428	2.562	
PSA-58-2750	2.750	1.187	0.250	2.000	2.485	2.687	
PSA-58-3000	3.000	1.187	0.250	2.250	2.735	2.937	
PSA-58-3000A	3.000	0.937	0.250	2.250	2.774	2.937	
PSA-58-3000B	3.000	0.843	0.250	2.250	2.732	2.937	
PSA-58-3250	3.250	1.187	0.250	2.500	2.985	3.187	
PSA-58-3500	3.500	1.187	0.250	2.750	3.235	3.437	
PSA-58-3500A	3.500	0.937	0.250	2.750	3.273	3.437	
PSA-58-3750	3.750	1.187	0.250	3.000	3.485	3.687	
PSA-58-4000	4.000	1.187	0.250	3.250	3.735	3.937	
PSA-58-4000A	4.000	0.937	0.250	3.250	3.772	3.937	
PSA-58-4250	4.250	1.187	0.250	3.500	3.982	4.187	

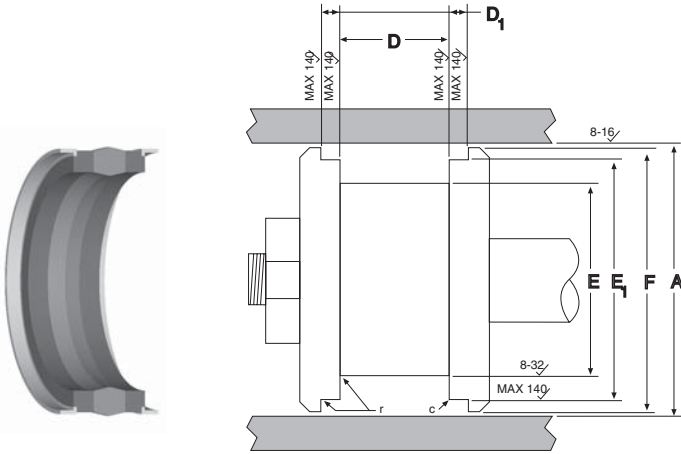


## STYLE PSA-58 PISTON SEALS

Part Number	A Bore Diameter	D Seal Groove Width Tol. +0.035/+0.025	D1 Bearing Groove Width Tol. +0/+0.005	E Seal Groove Diameter	E1 Bearing Groove Diameter	F Piston Diameter	
PSA-58-4500	4.500	1.500	0.375	3.500	4.234	4.437	
PSA-58-4750	4.750	1.500	0.375	3.750	4.485	4.687	
PSA-58-4750A	4.750	1.250	0.254	3.750	4.483	4.700	
PSA-58-5000	5.000	1.500	0.375	4.000	4.735	4.937	
PSA-58-5250	5.250	1.500	0.375	4.250	4.982	5.187	
PSA-58-5500	5.500	1.500	0.375	4.500	5.236	5.437	
PSA-58-5750	5.750	1.500	0.375	4.750	5.484	5.687	
PSA-58-6000	6.000	1.500	0.375	5.000	5.736	5.937	
PSA-58-6000A	6.000	1.250	0.254	5.000	5.728	5.954	
PSA-58-6500	6.500	1.500	0.375	5.500	6.236	6.437	
PSA-58-7000	7.000	1.500	0.375	6.000	6.736	6.937	
PSA-58-8000	8.000	1.250	0.375	7.000	7.740	7.937	
PSA-58-9000	9.000	1.875	0.375	7.750	8.740	8.937	
PSA-58-10000	10.00	1.250	0.375	9.000	9.740	9.937	

## STYLE PSA-59 PISTON SEALS

This style is designed for 2 piece piston. The seal is a molded Nitrile rubber element with bonded rubberized fabric reinforcement and two anti-extrusion polyacetal bearings.



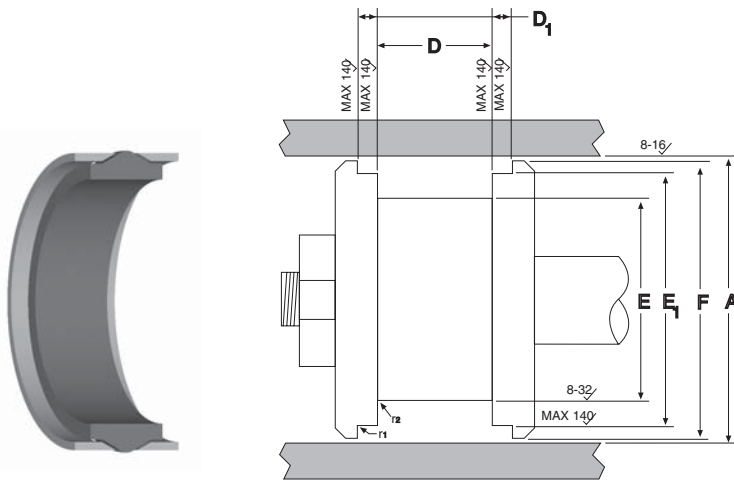
### SEAL INFORMATION

MATERIAL	FABRIC REINFORCED NITRILE SEAL POLYACETAL ANTI-EXTRUSION RING
TEMPERATURE RANGE	-22° TO +212° F
PRESSURE RANGE	0 TO 5,000 PSI
MAXIMUM SPEED	1.5 Ft/Sec.
PART NUMBER	(Prefix) (Type of Seal) - (Size)

Part Number	A Bore Diameter	D Seal Groove Width Tol. +0.035/+0.025	D1 Bearing Groove Width Tol. +0/-0.005	E Seal Groove Diameter	E1 Bearing Groove Diameter	F Piston Diameter	
PSA-59-1000A	1.000+0.006/-0	0.468	0.250	0.625±0.003	0.883+0/-0.002	0.964±0.003	
PSA-59-1250	1.250+0.006/-0	0.625	0.250	0.750±0.003	1.111+0/-0.002	1.208±0.003	
PSA-59-1500	1.500+0.006/-0	0.625	0.250	1.000±0.003	1.360+0/-0.002	1.458±0.003	
PSA-59-1625	1.625+0.006/-0	0.625	0.250	1.125±0.003	1.485+0/-0.002	1.583±0.003	
PSA-59-1750	1.750+0.006/-0	0.750	0.250	1.125±0.003	1.570+0/-0.002	1.698±0.003	
PSA-59-2125	2.125+0.007/-0	0.750	0.250	1.500±0.003	1.944+0/-0.003	2.074±0.004	
PSA-59-2250	2.250+0.007/-0	0.750	0.250	1.625±0.003	2.069+0/-0.003	2.197±0.004	
PSA-59-2375	2.375+0.007/-0	0.750	0.250	1.750±0.003	2.194+0/-0.003	2.322±0.004	
PSA-59-2500A	2.500+0.007/-0	0.750	0.250	1.875±0.003	2.321+0/-0.003	2.437±0.004	
PSA-59-2625	2.625+0.007/-0	0.750	0.250	2.000±0.004	2.443+0/-0.003	2.571±0.004	
PSA-59-2750	2.750+0.007/-0	0.750	0.250	2.000±0.004	2.522+0/-0.003	2.685±0.004	
PSA-59-2750A	2.750+0.007/-0	0.937	0.250	2.000±0.004	2.522+0/-0.003	2.685±0.004	
PSA-59-3000	3.000+0.007/-0	0.937	0.250	2.250±0.004	2.772+0/-0.003	2.935±0.004	
PSA-59-3000A	3.000+0.007/-0	1.125	0.250	2.250±0.004	2.772+0/-0.003	2.935±0.004	
PSA-59-3250	3.250+0.009/-0	0.937	0.250	2.500±0.004	3.021+0/-0.003	3.184±0.004	
PSA-59-3500	3.500+0.009/-0	0.937	0.250	2.750±0.004	3.271+0/-0.003	3.434±0.004	
PSA-59-4000	4.000+0.009/-0	0.937	0.250	3.250±0.004	3.770+0/-0.003	3.933±0.004	
PSA-59-4250	4.250+0.009/-0	0.937	0.250	3.500±0.004	4.019+0/-0.003	4.182±0.005	
PSA-59-4500	4.500+0.009/-0	1.250	0.250	3.500±0.004	4.229+0/-0.003	4.422±0.005	
PSA-59-5000	5.000+0.010/-0	1.250	0.250	4.000±0.004	4.728+0/-0.004	4.921±0.005	
PSA-59-5250	5.250+0.010/-0	1.250	0.250	4.250±0.004	4.977+0/-0.004	5.170±0.005	
PSA-59-5500	5.500+0.010/-0	1.250	0.250	4.500±0.004	5.227+0/-0.004	5.420±0.005	
PSA-59-6000	6.000+0.010/-0	1.250	0.250	5.000±0.005	5.726+0/-0.004	5.919±0.005	
PSA-59-6500	6.500+0.010/-0	1.250	0.250	5.500±0.005	6.226+0/-0.004	6.419±0.005	
PSA-59-7000	7.000+0.010/-0	1.250	0.250	6.000±0.005	6.724+0/-0.004	6.917±0.005	
PSA-59-8000	8.000+0.011/-0	1.250	0.250	7.000±0.005	7.723+0/-0.005	7.915±0.006	

## STYLE PSA-65 PISTON SEALS

Compact and easy to install, the Style PSA-65 piston seal is a simple and economical design for pressures up to 3,000 PSI. The assembly consists of a nitrile rubber seal and two polyacetal bearings to support the piston. For 1-piece pistons.



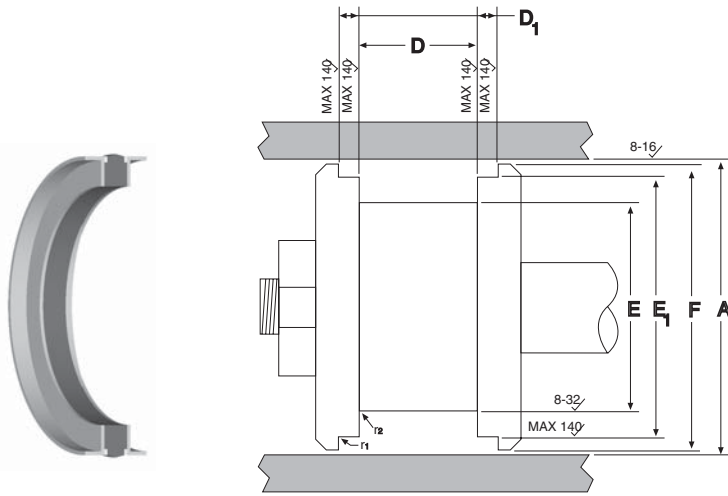
### SEAL INFORMATION

MATERIAL	NITRILE SEAL POLYACETAL ANTI-EXTRUSION RING
TEMPERATURE RANGE	-22° TO +212° F
PRESSURE RANGE	0 TO 3,000 PSI
MAXIMUM SPEED	1.5 Ft/Sec.
PART NUMBER	(Prefix) (Type of Seal) - (Size)

Part Number	A Bore Diameter	D Seal Groove Width Tol. +0.015/+0.005	D1 Bearing Groove Width Tol. +0/-0.005	E Seal Groove Diameter	E1 Bearing Groove Diameter	F Piston Diameter	
PSA-65-1000	1.000 +0.004/-0	0.343	0.125	0.687 +0/-0.002	0.829 +0/-0.002	0.937 +0/-0.006	
PSA-65-1250	1.250 +0.004/-0	0.343	0.125	0.943 +0/-0.002	1.079 +0/-0.002	1.187 +0/-0.006	
PSA-65-1500	1.500 +0.004/-0	0.437	0.150	1.125 +0/-0.002	1.324 +0/-0.002	1.437 +0/-0.006	
PSA-65-1750	1.750 +0.004/-0	0.437	0.150	1.375 +0/-0.002	1.574 +0/-0.002	1.687 +0/-0.006	
PSA-65-2000	2.000 +0.005/-0	0.437	0.150	1.625 +0/-0.002	1.824 +0/-0.002	1.937 +0/-0.006	
PSA-65-2250	2.250 +0.005/-0	0.437	0.150	1.875 +0/-0.002	2.075 +0/-0.003	2.187 +0/-0.006	
PSA-65-2375	2.375 +0.005/-0	0.437	0.150	2.000 +0/-0.002	2.195 +0/-0.003	2.312 +0/-0.007	
PSA-65-2500	2.500 +0.005/-0	0.437	0.150	2.125 +0/-0.003	2.325 +0/-0.003	2.437 +0/-0.007	
PSA-65-2500A	2.500 +0.005/-0	0.625	0.255	2.000 +0/-0.003	2.325 +0/-0.003	2.437 +0/-0.007	
PSA-65-2750	2.750 +0.005/-0	0.437	0.150	2.375 +0/-0.003	2.575 +0/-0.002	2.687 +0/-0.007	
PSA-65-3000	3.000 +0.005/-0	0.437	0.150	2.625 +0/-0.003	2.825 +0/-0.003	2.937 +0/-0.007	
PSA-65-3500	3.500 +0.006/-0	0.562	0.210	3.000 +0/-0.003	3.270 +0/-0.003	3.437 +0/-0.009	
PSA-65-4000	4.000 +0.006/-0	0.562	0.210	3.500 +0/-0.003	3.770 +0/-0.003	3.937 +0/-0.009	
PSA-65-4500	4.500 +0.006/-0	0.562	0.210	4.000 +0/-0.003	4.270 +0/-0.003	4.437 +0/-0.009	
PSA-65-5000	5.000 +0.006/-0	0.687	0.344	4.375 +0/-0.003	4.689 +0/-0.003	4.937 +0/-0.010	
PSA-65-5500	5.500 +0.006/-0	0.687	0.344	4.875 +0/-0.004	5.188 +0/-0.004	5.437 +0/-0.010	
PSA-65-6000	6.000 +0.006/-0	1.000	0.500	5.250 +0/-0.004	5.712 +0/-0.004	5.937 +0/-0.010	
PSA-65-7000	7.000 +0.006/-0	1.000	0.500	6.250 +0/-0.004	6.712 +0/-0.004	6.937 +0/-0.010	

## STYLE PSF PISTON SEALS

Designed to fit on one or two piece pistons, this seal employs a nitrile seal element, PTFE split back-up rings and polyacetal split bearing rings.



### SEAL INFORMATION

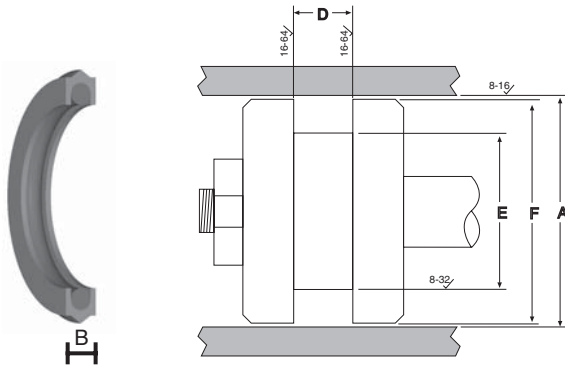
MATERIAL	NITRILE SEAL POLYACETAL ANTI-EXTRUSION RING
TEMPERATURE RANGE	-22° TO +212° F
PRESSURE RANGE	0 TO 3,000 PSI
PART NUMBER	(Prefix) - (O-Ring Size)

Part Number	A Bore Diameter	D Seal Groove Width Tol +0.015/+0.005	D1 Bearing Groove Width Tol. +0/-0.005	E Seal Groove Diameter	E1 Bearing Groove Diameter	F Piston Diameter	
PSF-1062	1.062 +0.004/-0	0.312	0.062	0.750 +0/-0.002	0.900 +0/-0.002	1.000 +0/-0.006	
PSF-2000	2.000 +0.005/-0	0.496	0.245	1.625 +0/-0.002	1.888 +0/-0.002	1.960 +0/-0.006	
PSF-2500	2.500 +0.005/-0	0.650	0.245	2.000 +0/-0.003	2.320 +0/-0.003	2.460 +0/-0.007	
PSF-2750	2.750 +0.005/-0	0.650	0.250	2.250 +0/-0.003	2.570 +0/-0.003	2.710 +0/-0.007	
PSF-3000	3.000 +0.005/-0	0.775	0.245	2.375 +0/-0.003	2.772 +0/-0.003	2.960 +0/-0.007	
PSF-4000	4.000 +0.006/-0	0.562	0.210	3.500 +0/-0.003	3.770 +0/-0.003	3.937 +0/-0.009	

## STYLE PSC PISTON SEALS

The Style PSC is a double acting piston seal designed to replace o-rings, quad-rings, and T-seals with the same groove dimensions (O-ring dash number). Style 575 urethane back-up rings may be added to either or both sides of the "PSC" to accommodate wider groove widths. The PSC is made of 95A Durometer polyurethane, giving it high extrusion and abrasion resistance. The crowned sealing surface produces a positive seal from vacuum to high pressure.

We also offers a wide base (WB) Style PSC piston seal. These wide base seals have the same characteristics of the standard PCS seals but offer a wider base, eliminating the need to use back-up rings to accommodate wider grooves. **NOTE:** Piston diameter "F" dimensions are given for piston without wear rings.



### SEAL INFORMATION

MATERIAL	95A POLYURETHANE SEAL 70A NITRILE ENERGIZER
TEMPERATURE RANGE	-65° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (O-Ring Size) - (Wide Base)

Part Number	A Bore Diameter	B Seal Height	D Groove Width	E Groove Diameter	F Piston Diameter	
PSC-203	0.561	0.150	0.185	0.315	0.559	
PSC-205	0.686	0.150	0.185	0.440	0.684	
PSC-207	0.811	0.150	0.185	0.565	0.809	
PSC-211	1.062	0.150	0.185	0.816	1.060	
PSC-212	1.125	0.150	0.185	0.879	1.123	
PSC-213	1.187	0.150	0.185	0.941	1.185	
PSC-214	1.250	0.150	0.185	1.004	1.248	
PSC-216	1.375	0.150	0.185	1.129	1.373	
PSC-218	1.500	0.150	0.185	1.254	1.498	
PSC-218-WB	1.500	0.265	0.304	1.254	1.498	
PSC-222	1.750	0.150	0.185	1.504	1.748	
PSC-222-WB	1.750	0.265	0.304	1.504	1.748	
PSC-325	1.875	0.255	0.280	1.500	1.873	
PSC-326	2.000	0.255	0.280	1.625	1.998	
PSC-326-WB	2.000	0.370	0.424	1.625	1.998	
PSC-328	2.250	0.255	0.280	1.875	2.248	
PSC-329	2.375	0.255	0.280	2.000	2.373	
PSC-330	2.500	0.255	0.280	2.125	2.498	
PSC-330-WB	2.500	0.370	0.424	2.125	2.498	
PSC-332	2.750	0.255	0.280	2.374	2.747	
PSC-332-WB	2.749	0.370	0.424	2.374	2.747	
PSC-334	3.000	0.255	0.280	2.624	2.997	
PSC-334-WB	3.000	0.370	0.424	2.624	2.997	
PSC-336	3.250	0.255	0.280	2.874	3.247	
PSC-337	3.375	0.255	0.280	3.000	3.373	
PSC-338	3.500	0.255	0.280	3.125	3.498	
PSC-338-WB	3.500	0.370	0.424	3.125	3.498	
PSC-339	3.625	0.255	0.280	3.250	3.623	
PSC-340	3.750	0.255	0.280	3.375	3.748	
PSC-341	3.875	0.255	0.280	3.500	3.873	
PSC-342	4.000	0.255	0.280	3.625	3.998	
PSC-342-WB	4.000	0.370	0.424	3.625	3.998	
PSC-344	4.250	0.255	0.280	3.875	4.248	
PSC-346	4.500	0.255	0.280	4.125	4.498	
PSC-347	4.625	0.255	0.280	4.250	4.623	

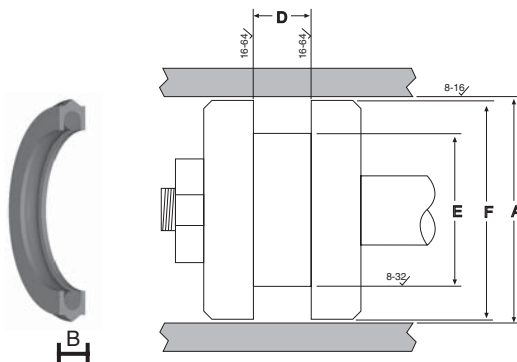
## STYLE PSC PISTON SEALS

Part Number	A Bore Diameter	B Seal Height	D Groove Width	E Groove Diameter	F Piston Diameter
PSC-350	5.000	0.255	0.280	4.626	4.999
PSC-429	5.500	0.320	0.365	5.021	4.499
PSC-433	6.000	0.320	0.365	5.521	5.999
PSC-433-WB	6.000	0.500	0.579	5.521	5.999
PSC-437	6.500	0.320	0.365	6.020	6.498
PSC-439	7.000	0.320	0.365	6.520	6.998
PSC-441	7.500	0.320	0.365	7.020	7.498
PSC-442	7.750	0.320	0.365	7.270	7.748
PSC-443	8.000	0.320	0.365	7.520	7.998
PSC-444	8.250	0.320	0.365	7.770	8.248
PSC-445	8.500	0.320	0.365	8.020	8.498
PSC-446	9.000	0.320	0.365	8.520	8.998
PSC-447	9.500	0.320	0.365	9.020	9.498
PSC-448	10.000	0.320	0.365	9.520	9.998
PSC-449	10.500	0.320	0.365	10.020	10.498
PSC-450	11.000	0.320	0.365	10.520	10.998
PSC-451	11.500	0.320	0.365	11.020	11.498
PSC-452	12.000	0.320	0.365	11.520	11.998
PSC-453	12.500	0.320	0.365	12.020	12.998
PSC-454	13.000	0.320	0.365	12.520	12.998
PSC-456	14.000	0.320	0.365	13.520	13.998

## STYLE PSC PISTON SEALS - FLUOROTREL COMPOUND

These Style PSC are molded from Fluorotrel which is a tough, wear-resistant material able to run at temperatures up to 275° F. Fluorotrel is also resistant to fluids that are incompatible with polyurethane such as water, glycol, water in oil, mineral oil and petroleum. Consult our Engineering Department for other fluids compatible with Fluorotrel.

**NOTE:** Piston diameter "F" dimensions are given for pistons without wear rings.



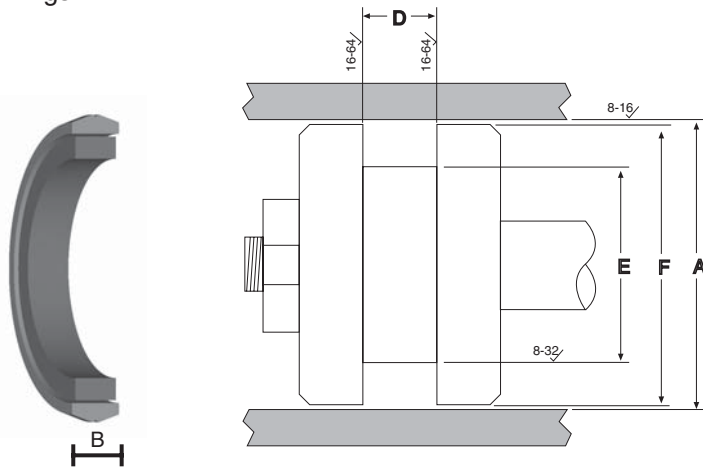
### SEAL INFORMATION

MATERIAL	55D FLUOROTREL SEAL 70A NITRILE ENERGIZER
TEMPERATURE RANGE	-65° TO +275° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (O-Ring Size) - (Fluorotrel)

Part Number	A Bore Diameter	B Seal Height	D Groove Width	E Groove Diameter	F Piston Diameter
PSC-218F	1.500	0.150	0.185	1.254	1.498
PSC-222F	1.750	0.150	0.185	1.504	1.748
PSC-326F	2.000	0.255	0.280	1.625	1.998
PSC-328F	2.250	0.255	0.280	1.875	2.248
PSC-330F	2.500	0.255	0.280	2.125	2.498
PSC-332F	2.749	0.255	0.280	2.374	2.747
PSC-334F	3.000	0.255	0.280	2.624	2.997
PSC-338F	3.500	0.255	0.280	3.125	3.498
PSC-340F	3.750	0.255	0.280	3.375	3.748
PSC-342F	4.000	0.255	0.280	3.625	3.998
PSC-350F	5.000	0.255	0.280	4.625	4.999
PSC-433F	6.000	0.320	0.365	5.520	5.999

# STYLE PSM URETHANE PISTON SEALS

Molded from 93 Shore A polyurethane with a 70 Shore A energizer, this seal utilizes the same groove dimensions as a standard o-ring to T-seal. One or two Style 575 back-up rings may be used for wider grooves. Extrusion resistant by design, this seal also is resistant to rolling and twisting. Installation is an easy two step snap-in procedure with no need to re-size before insertion into the bore. **NOTE:** Piston diameter "F" dimensions are given for pistons without wear rings.

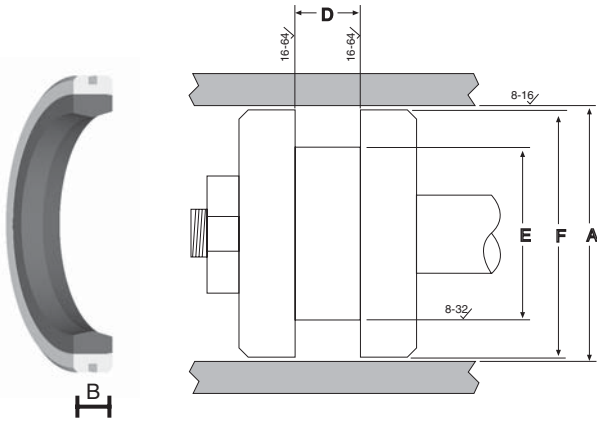


SEAL INFORMATION	
MATERIAL	93A URETHANE SEAL 70A NITRILE ENERGIZER
TEMPERATURE RANGE	-65° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (Size)

Part Number	A Bore Diameter Tol. +0.002 -0.000	B Seal Height	D Groove Width Tol. ±.002	E Groove Diameter Tol. ±.002	F Piston Diameter	
PSM-218-WB	1.500	0.265	0.275	1.258	1.499 +0/-0.005	
PSM-222	1.750	0.165	0.185	1.500	1.749 +0/-0.005	
PSM-326	2.000	0.265	0.280	1.625	1.999 +0/-0.005	
PSM-326-WB	2.000	0.375	0.394	1.625	1.999 +0/-0.005	
PSM-328	2.250	0.265	0.280	1.875	2.249 +0/-0.005	
PSM-329	2.375	0.265	0.280	2.000	2.374 +0/-0.005	
PSM-330	2.500	0.265	0.280	2.125	2.499 +0/-0.005	
PSM-330-WB	2.500	0.395	0.410	2.125	2.499 +0/-0.005	
PSM-332	2.750	0.265	0.280	2.375	2.749 +0/-0.005	
PSM-48A	3.000	0.235	0.250	2.380	2.999 +0/-0.005	
PSM-334	3.000	0.265	0.280	2.625	2.999 +0/-0.005	
PSM-334-WB	3.000	0.395	0.410	2.625	2.999 +0/-0.005	
PSM-336	3.250	0.265	0.280	2.875	3.249 +0/-0.005	
PSM-338	3.500	0.265	0.280	3.125	3.499 +0/-0.005	
PSM-338-WB	3.500	0.395	0.410	3.125	3.499 +0/-0.005	
PSM-340	3.750	0.265	0.280	3.375	3.749 +0/-0.005	
PSM-342	4.000	0.265	0.280	3.625	3.999 +0/-0.005	
PSM-342-WB	4.000	0.395	0.410	3.625	3.999 +0/-0.005	
PSM-344	4.250	0.265	0.280	3.875	4.249 +0/-0.005	
PSM-346	4.500	0.265	0.280	4.125	4.499 +0/-0.005	
PSM-347	4.625	0.265	0.280	4.250	4.624 +0/-0.005	
PSM-350	5.000	0.265	0.280	4.625	4.999 +0/-0.005	
PSM-425-WB	5.000	0.518	0.538	4.528	4.999 +0/-0.005	
PSM-429	5.500	0.350	0.365	5.020	5.499 +0/-0.005	
PSM-433	6.000	0.350	0.365	5.520	5.999 +0/-0.005	
PSM-433-WB	6.000	0.518	0.538	5.520	5.999 +0/-0.005	
PSM-437	6.500	0.350	0.365	6.020	6.499 +0/-0.005	
PSM-439	7.000	0.350	0.365	6.520	6.999 +0/-0.005	
PSM-441	7.500	0.350	0.365	7.020	7.499 +0/-0.005	
PSM-443	8.000	0.350	0.365	7.520	7.999 +0/-0.005	
PSM-445	8.500	0.350	0.365	8.020	8.499 +0/-0.005	
PSM-446	9.000	0.350	0.365	8.520	8.999 +0/-0.005	

## STYLE PSU PISTON SEALS

Our Style PSU piston seal, or uniring, is a laminated one piece double acting seal made of cast polyurethane. The tough outer layer is highly resistant to abrasion and is impregnated with molybdenum disulfide to reduce friction. The softer inner layer acts as a static seal and also energizes the OD to make full contact with the bore. This seal may be used to replace an existing Uniring or other seals of the same dimensions - O-rings, O-rings with back-ups, T-seals, U-seals, etc. **NOTE:** Piston diameter "F" dimensions are given for pistons without wear rings.



### SEAL INFORMATION

MATERIAL	60D & 57A URETHANE COMPOSITE
TEMPERATURE RANGE	-65° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (OD) X (ID) X (Groove Width)

Part Number	A Bore Diameter	B Seal Height	D Groove Width Tol. +0.015/-0	E Groove Diameter	F Piston Diameter Tol. +0/-0.004
PSU-1.50X1.00X.375	1.500 +0.006/-0	0.375	0.394	1.000 +0.006/-0	1.499
PSU-1.50X1.12X.250	1.500 +0.004/-0	0.250	0.263	1.125 +0.004/-0	1.499
PSU-1.50X1.25X.187	1.500 +0.003/-0	0.187	0.196	1.250 +0.003/-0	1.499
PSU-1.75X1.25X.375	1.750 +0.006/-0	0.375	0.394	1.250 +0.006/-0	1.749
PSU-1.75X1.37X.250	1.750 +0.004/-0	0.250	0.263	1.375 +0.004/-0	1.749
PSU-1.75X1.37X.500	1.750 +0.004/-0	0.500	0.526	1.375 +0.004/-0	1.749
PSU-2.00X1.50X.375	2.000 +0.006/-0	0.375	0.394	1.500 +0.006/-0	1.999
PSU-2.00X1.62X.312	2.000 +0.004/-0	0.312	0.328	1.625 +0.004/-0	1.999
PSU-2.00X1.62X.375	2.000 +0.004/-0	0.375	0.394	1.625 +0.004/-0	1.999
PSU-2.25X1.87X.312	2.250 +0.004/-0	0.312	0.328	1.875 +0.004/-0	2.249
PSU-2.50X2.00X.375	2.500 +0.004/-0	0.375	0.394	2.000 +0.004/-0	2.499
PSU-2.50X2.12X.312	2.500 +0.004/-0	0.312	0.328	2.125 +0.004/-0	2.499
PSU-2.50X2.12X.375	2.500 +0.004/-0	0.375	0.394	2.125 +0.004/-0	2.499
PSU-3.00X2.50X.375	3.000 +0.006/-0	0.375	0.394	2.500 +0.006/-0	2.999
PSU-3.00X2.50X.500	3.000 +0.006/-0	0.500	0.550	2.500 +0.006/-0	2.999
PSU-3.00X2.62X.312	3.000 +0.004/-0	0.312	0.328	2.625 +0.004/-0	2.999
PSU-3.00X2.62X.375	3.000 +0.004/-0	0.375	0.394	2.625 +0.004/-0	2.999
PSU-3.25X2.75X.550	3.250 +0.004/-0	0.550	0.577	2.750 +0.004/-0	3.249
PSU-3.25X2.87X.312	3.250 +0.004/-0	0.312	0.328	2.875 +0.004/-0	3.249
PSU-3.50X3.00X.375	3.500 +0.006/-0	0.375	0.394	3.000 +0.006/-0	3.499
PSU-3.50X3.12X.312	3.500 +0.004/-0	0.312	0.328	3.125 +0.004/-0	3.499
PSU-3.50X3.12X.375	3.500 +0.004/-0	0.375	0.394	3.125 +0.004/-0	3.499
PSU-3.75X3.37X.312	3.750 +0.004/-0	0.312	0.328	3.375 +0.004/-0	3.749
PSU-4.00X3.50X.375	4.000 +0.006/-0	0.375	0.394	3.500 +0.006/-0	3.999
PSU-4.00X3.62X.375	4.000 +0.004/-0	0.375	0.394	3.625 +0.004/-0	3.999

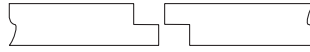
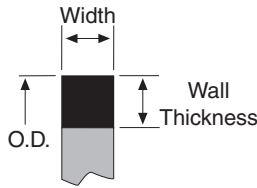


## STYLE PSU PISTON SEALS

Part Number	A Bore Diameter	B Seal Height	D Groove Width Tol. +0.015/-0	E Groove Diameter	F Piston Diameter Tol. +0/-0.004	
PSU-4.50X4.00X.375	4.500 +0.006/-0	0.375	0.394	4.000 +0.006/-0	4.499	
PSU-4.50X4.00X.562	4.500 +0.004/-0	0.562	0.591	4.000 +0.004/-0	4.499	
PSU-5.00X4.37X.500	5.000 +0.006/-0	0.500	0.526	4.375 +0.006/-0	4.999	
PSU-5.00X4.50X.375	5.000 +0.006/-0	0.375	0.394	4.500 +0.006/-0	4.999	
PSU-5.00X4.50X.500	5.000 +0.006/-0	0.500	0.526	4.500 +0.006/-0	4.999	
PSU-5.00X4.50X.562	5.000 +0.006/-0	0.562	0.591	4.500 +0.006/-0	4.999	
PSU-5.25X4.75X.562	5.250 +0.006/-0	0.562	0.591	4.750 +0.006/-0	5.249	
PSU-5.50X5.00X.375	5.500 +0.006/-0	0.375	0.394	5.000 +0.006/-0	5.499	
PSU-6.00X5.50X.375	6.000 +0.006/-0	0.375	0.394	5.500 +0.006/-0	5.999	
PSU-6.00X5.50X.562	6.000 +0.006/-0	0.562	0.591	5.500 +0.006/-0	5.999	
PSU-6.50X6.00X.562	6.500 +0.006/-0	0.562	0.591	6.000 +0.006/-0	6.499	

**NOTE:** Larger sizes are available. Please contact a Sales Representative for more information.

# STYLE SPR CAST IRON PISTON RINGS



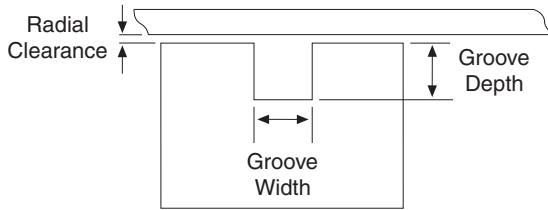
BC = Butt Cut  
H = Hook Joint

## SEAL INFORMATION

MATERIAL	CAST IRON
PART NUMBER	(Prefix) - (OD)

### END CLEARANCE

End clearance on piston rings depends on ring design, material and application. The following end clearances are provided as a standard for hydraulic cylinder applications.



DIAMETER	BUTT & ANGLE CUT END CLEARANCE	OVERLAPPING JOINT & STEP CUT END CLEARANCE
.500-4.561	.003/.010	.005/.015
4.562-19.970	.005/.015	.010/.020
19.971-30.500	.010/.025	.015/.030

When using cast iron piston rings, it is crucial to use the correct groove design for proper performance of the cylinder. Please use the following guidelines when cutting a cast iron piston ring groove.

**GROOVE WIDTH:** To permit the ring to slide freely into the groove, the groove must be at least 0.001" wider than the maximum piston ring width with a tolerance of +0.003"/-0.000".

**GROOVE DEPTH:** Grooves must be at least 0.015" deeper than the maximum radial wall thickness of the piston ring with a tolerance of +0.003"/-0.000". This is to avoid any possibility of the ring bottoming in the groove when the ring is compressed to its working diameter.

**RADIAL CLEARANCE:** The radial clearance between the cylinder bore and piston should be less than 1/3 of the radial wall thickness of the piston ring to ensure sealing effectiveness.

Part Number	OD	Width	Wall Thickness	Part Number	OD	Width	Wall Thickness
SPR-1000	1.000	.123/.124	.045/.055	SPR-2125	2.125	.186/.187	.060/.075
SPR-1001	1.000	.093/.094	.045/.055	SPR-2126	2.125	.123/.124	.060/.070
SPR-1375-H	1.375	.097/.096	.050/.060	SPR-2250	2.250	.186/.187	.070/.085
SPR-1500	1.500	.124	.055/.060	SPR-2251	2.250	.123/.124	.077/.085
SPR-1501	1.500	.092/.093	.060/.075	SPR-2254	2.250	.248/.249	.085/.070
SPR-1530	1.530	.123/.124	.050/.060	SPR-2376	2.375	.185/.186	.076/.091
SPR-1750	1.750	.123/.124	.060/.075	SPR-2500	2.500	.123/.124	.082/.097
SPR-1751	1.750	.092/.093	.060/.075	SPR-2501	2.500	.186/.187	.082/.097
SPR-1875	1.875	.123/.124	.060/.075	SPR-2502	2.500	.248/.249	.103/.118
SPR-2000	2.000	.123/.124	.060/.075	SPR-2503	2.500	.123/.124	.103/.118
SPR-2001	2.000	.186/.187	.065/.075	SPR-2530	2.530	.123/.124	.087/.107
SPR-2002	2.000	.248/.249	.060/.075	SPR-2625	2.625	.185/.186	.087/.102
SPR-2003	2.000	.092/.093	.082/.097	SPR-2750	2.750	.186/.187	.091/.106
SPR-2006	2.000	.123/.124	.077/.087	SPR-2752	2.750	.155/.156	.100/.125
SPR-2030	2.030	.123/.124	.065/.090	SPR-2754	2.750	.186/.187	.103/.118

# STYLE SPR CAST IRON PISTON RINGS

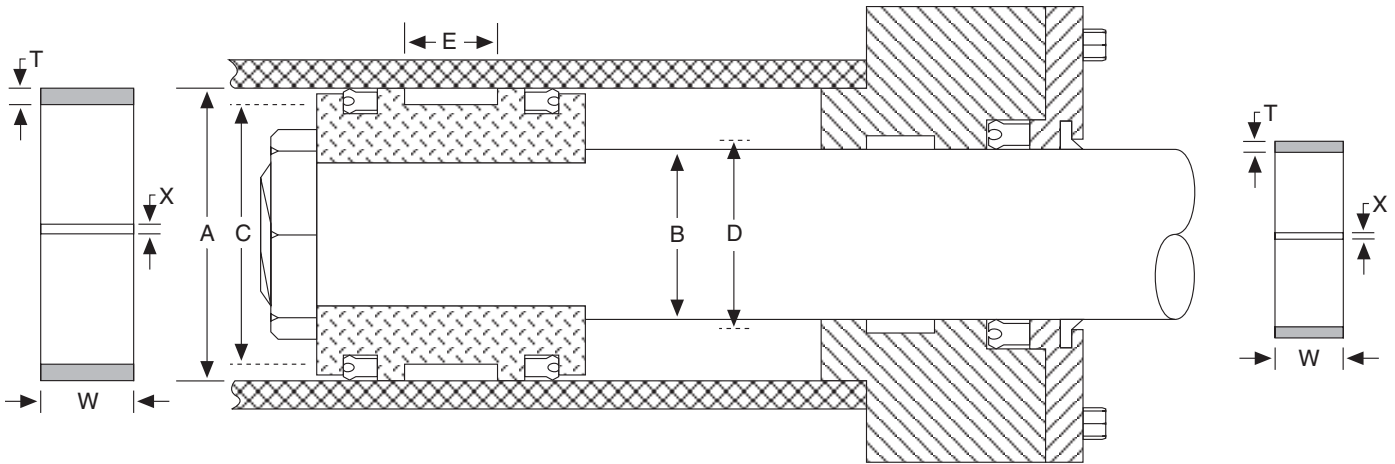
Part Number	OD	Width	Wall Thickness		Part Number	OD	Width	Wall Thickness	
SPR-2755	2.755	.118/.119	.109/.124		SPR-4520-BC	4.520	.184/.186	.150/.180	
SPR-2875	2.875	.186/.187	.100/.105		SPR-4540	4.540	.184/.187	.155/.170	
SPR-3000	3.000	.186/.187	.100/.125		SPR-4751	4.750	.248/.249	.152/.167	
SPR-3001	3.000	.248/.249	.103/.118		SPR-4876-BC	4.875	.372/.373	.109/.124	
SPR-3003	3.000	.310/.311	.095/.110		SPR-5000	5.000	.248/.249	.140/.150	
SPR-3120	3.125	.185/.186	.100/.115		SPR-5001	5.000	.186/.187	.160/.175	
SPR-3250	3.250	.186/.187	.103/.118		SPR-5002	5.000	.248/.249	.165/.180	
SPR-3251	3.250	.123/.124	.103/.118		SPR-5003	5.000	.372/.373	.155/.165	
SPR-3252	3.250	.248/.249	.103/.118		SPR-5004	5.000	.310/.311	.165/.180	
SPR-3253	3.250	.154/.155	.121/.134		SPR-5005	5.000	.123/.124	.165/.175	
SPR-3260	3.260	.248/.249	.115/.130		SPR-5030	5.030	.248/.249	.165/.185	
SPR-3280	3.280	.185/.186	.109/.130		SPR-5120	5.125	.248/.249	.166/.172	
SPR-3375	3.375	.185/.186	.106/.121		SPR-5121	5.125	.248/.249	.145/.160	
SPR-3497	3.497	.186/.187	.109/.124		SPR-5251	5.250	.248/.249	.166/.181	
SPR-3500	3.500	.123/.124	.109/.124		SPR-5260	5.260	.248/.249	.180/.195	
SPR-3502	3.500	.248/.249	.109/.124		SPR-5496	5.496	.248/.249	.140/.160	
SPR-3503	3.500	.372/.374	.109/.124		SPR-5500	5.500	.310/.311	.175/.190	
SPR-3505	3.500	.186/.187	.109/.124		SPR-5501	5.500	.186/.187	.168/.187	
SPR-3520-BC	3.520	.185	.130/.140		SPR-5502	5.500	.248/.249	.175/.190	
SPR-3625	3.625	.248/.249	.155/.160		SPR-5503	5.500	.372/.373	.165/.177	
SPR-3626	3.625	.248/.249	.170/.185		SPR-5520-BC	5.520	.184/.186	.180/.210	
SPR-3750	3.750	.186/.187	.115/.130		SPR-5540	5.540	.184/.186	.180/.210	
SPR-3751	3.750	.248/.249	.109/.124		SPR-5750	5.750	.185/.186	.184/.199	
SPR-3752	3.750	.185/.186	.190/.175		SPR-5751	5.750	.248/.249	.184/.199	
SPR-3875	3.875	.249/.250	.132/.137		SPR-5752	5.750	.310/.311	.175/.195	
SPR-3990	3.990	.248/.249	.127/.142		SPR-6000	6.000	.248/.249	.140/.160	
SPR-4000	4.000	.248/.249	.127/.142		SPR-6001	6.000	.122/.124	.191/.206	
SPR-4002	4.000	.186/.187	.127/.142		SPR-6002	6.000	.248/.249	.191/.206	
SPR-4003	4.000	.310/.311	.135/.145		SPR-6004	6.000	.310/.311	.191/.206	
SPR-4007	4.000	.186/.185	.199/.184		SPR-6005	6.000	.371/.373	.191/.206	
SPR-4020	4.020	.310/.311	.127/.142		SPR-6006	6.000	.184/.185	.195/.205	
SPR-4030	4.030	.248/.249	.127/.142		SPR-6030	6.030	.247/.249	.191/.206	
SPR-4250	4.250	.248/.249	.135/.150		SPR-6040	6.040	.185/.186	.190/.205	
SPR-4251	4.250	.249/.248	.181/.166		SPR-6120	6.125	.248/.249	.190/.205	
SPR-4252-BC	4.250	.248/.249	.167/.177		SPR-6250	6.250	.185/.186	.202/.217	
SPR-4260	4.260	.248/.249	.152/.167		SPR-6251	6.250	.310/.311	.205/.220	
SPR-4496	4.496	.248/.249	.140/.160		SPR-6252	6.250	.248/.249	.202/.217	
SPR-4500	4.500	.310/.311	.145/.160		SPR-6260	6.260	.248/.249	.191/.206	
SPR-4501	4.500	.185/.186	.145/.160		SPR-6496	6.496	.248/.249	.140/.160	
SPR-4502	4.500	.248/.249	.145/.160		SPR-6500	6.500	.310/.311	.210/.225	
SPR-4503	4.500	.372/.373	.145/.160		SPR-6501	6.501	.185/.186	.211/.226	
SPR-4504	4.500	.249/.248	.199/.184		SPR-6502	6.500	.248/.249	.210/.225	

## STYLE SPR CAST IRON PISTON RINGS

Part Number	OD	Width	Wall Thickness	
SPR-6503	6.500	.186/.187	.211/.226	
SPR-6505	6.500	.497/.499	.210/.225	
SPR-6520-BC	6.520	.185	.225	
SPR-6540	6.540	.248/.249	.230/.240	
SPR-6750	6.750	.248/.249	.175/.190	
SPR-6751	6.750	.305/.311	.219/.234	
SPR-6752	6.750	.248/.249	.219/.234	
SPR-7000	7.000	.248/.249	.140/.160	
SPR-7002	7.000	.248/.249	.228/.243	
SPR-7003	7.000	.371/.373	.228/.243	
SPR-7004	7.000	.240	.237/.252	
SPR-7005	7.000	.311/.312	.228/.243	
SPR-7006	7.000	.497/.498	.228/.243	
SPR-7030	7.030	.309/.311	.233/.263	
SPR-7125	7.125	.247/.249	.237/.252	
SPR-7250	7.250	.248/.249	.160/.175	
SPR-7255	7.250	.310/.311	.230/.240	
SPR-7260	7.260	.248/.249	.253/.268	
SPR-7375	7.375	.371/.373	.191/.206	
SPR-7496	7.496	.248/.249	.140/.160	
SPR-7500	7.500	.310/.311	.210/.225	
SPR-7501	7.500	.247/.249	.245/.260	
SPR-7505	7.500	.311/.312	.244/.259	
SPR-7520-BC	7.520	.184/.186	.249/.279	
SPR-7750	7.750	.310/.311	.252/.267	
SPR-8000	8.000	.310/.311	.210/.225	
SPR-8001	8.000	.434/.435	.255/.270	
SPR-8005	8.000	.310/.311	.260/.275	
SPR-8006	8.000	.373/.374	.260/.275	
SPR-8030	8.030	.309/.311	.265/.295	
SPR-8125	8.125	.434/.435	.255/.270	
SPR-8250	8.250	.373/.374	.268/.283	

Part Number	OD	Width	Wall Thickness	
SPR-8370	8.375	.247/.249	.268/.283	
SPR-8420	8.420	.248/.249	.291/.306	
SPR-8496	8.496	.248/.249	.140/.160	
SPR-8500	8.500	.310/.311	.210/.225	
SPR-8502	8.500	.373/.374	.270/.285	
SPR-8503	8.500	.310/.311	.294/.309	
SPR-8520-BC	8.520	.185/.186	.280/.310	
SPR-8751	8.750	.374/.376	.300/.305	
SPR-9000	9.000	.373/.374	.294/.309	
SPR-9001	9.000	.310/.311	.294/.309	
SPR-9004	9.000	.433/.435	.244/.259	
SPR-9005	9.000	.496/.498	.175/.190	
SPR-9025	9.025	.247/.248	.313/.328	
SPR-9170	9.170	.310/.311	.298/.308	
SPR-9250	9.250	.248/.249	.160/.175	
SPR-9251	9.250	.309/.311	.300/.315	
SPR-9500	9.500	.310/.311	.305/.320	
SPR-9501	9.500	.248/.249	.317/.318	
SPR-9502	9.500	.371/.373	.305/.320	
SPR-9746	9.746	.248/.249	.140/.160	
SPR-9885	9.885	.248/.249	.325/.340	
SPR-10000	10.000	.310/.311	.320/.330	
SPR-10001	10.000	.371/.373	.317/.332	
SPR-10030	10.030	.310/.311	.335/.345	
SPR-10501	10.500	.371/.373	.317/.332	
SPR-10502	10.500	.623/.624	.235/.248	
SPR-10503	10-1/2	.248/.249	.365/.380	
SPR-11000	11.000	.472/.474	.302/.317	
SPR-11001	11.000	.496/.498	.175/.190	
SPR-12001	12.000	.434/.435	.358/.373	
SPR-12030	12.030	.371/.373	.386/.401	

# NYLON WEAR RING TECHNICAL INFORMATION



- A - Cylinder Bore
- B - Rod Diameter
- C - Minimum Bore "A" minus .253/.256
- D - Maximum Rod Diameter "B" plus .253/.256
- E - Groove Width
- T - Thickness of Wear Ring
- W - Width of Wear Ring
- X - Minimum Ring Gap

## Groove Dimensions For Standard Wear Ring Widths

1/2" Width			5/8" Width			3/4" Width			1" Width		
E	T	X	E	T	X	E	T	X	E	T	X
.510"	.122"	1/16"	.635"	.122"	1/16"	.760"	.122"	1/16"	1.010"	.122"	1/16"
.515"	.125"		.640"	.125"		.765"	.125"		1.015"	.125"	

## Cut Down Factors For Standard Wear Rings

In many cases an oversized nylon wear ring can be cut down to fit a smaller groove without a loss of concentricity. Use the following guide when cutting down wear rings.

Wear Ring O.D.	Maximum amount to be Cut Down
4" OD	3/8" of circumference
4-1/2" - 6-1/2" OD	1/2"
7" - 9" OD	1"
9-1/2" - 14" OD	1-1/2"

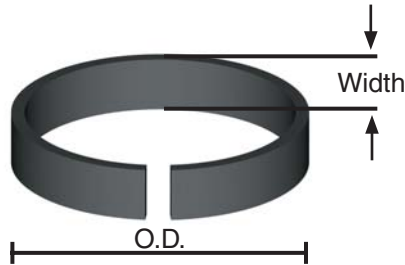
## Flexible Guide Bearing Cut To Fit Formula

Use the following formula when cutting flexible guide bearing to fit a specific application.

For Piston Bearings	For Rod Bearings
Bearing Length = (Bore - C.S.) x 3.14 - Gap	Bearing Length = (Rod + C.S.) x 3.14 - Gap

# STYLE 606 NYLON WEAR RINGS 1/16" THICK

NOTE: "SC" suffix designates a Scarf Cut wear ring.



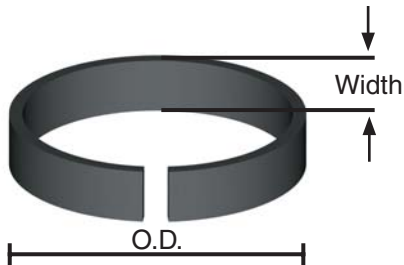
## SEAL INFORMATION

TEMPERATURE RANGE	-40° TO +250° F
TENSILE STRENGTH	27,000 PSI
COMPRESSIVE STRENGTH	35,000 PSI
PART NUMBER	(Prefix) - (OD) - (Width)

Part Number	O.D.	Width	
606-087-050	7/8	1/2	
606-112-050	1-1/8	1/2	
606-125-050-SC	1-1/4	1/2	
606-125-075-SC	1 1/4	3/4	
606-137-050	1-3/8	1/2	
606-150-031-SC	1-1/2	5/16	
606-150-037-SC	1-1/2	3/8	
606-162-082	1-5/8	13/16	
606-162-098-SC	1-5/8	.980	
606-162-125	1-5/8	1-1/4	
606-187-098-SC	1-7/8	.980	
606-200-025-SC	2	1/4	
606-200-031-SC	2	5/16	
606-200-072-SC	2	.720	
606-200-098-SC	2	.980	
606-212-098-SC	2-1/8	63/64	
606-212-125	2-1/8	1-1/4	
606-225-036	2-1/4	.360	
606-225-072-SC	2-1/4	.720	
606-225-098-SC	2-1/4	.980	
606-225-100	2-1/4	1	
606-237-098-SC	2-3/8	.980	
606-237-100	2-3/8	1	
606-237-118	2-3/8	1-3/16	
606-250-031-SC	2-1/2	5/16	
606-250-050	2-1/2	1/2	
606-250-126-SC	2-1/2	1.260	

Part Number	O.D.	Width	
606-262-098-SC	2-5/8	.980	
606-262-124-SC	2-5/8	1.240	
606-262-168	2-5/8	1-11/16	
606-275-050	2-3/4	1/2	
606-275-098-SC	2-3/4	.980	
606-275-100	2-3/4	1	
606-287-100-SC	2-7/8	1	
606-287-126-SC	2-7/8	1.260	
606-287-157-SC	2-7/8	1-9/16	
606-287-179	2-7/8	1.790	
606-287-181	2-7/8	1-13/16	
606-312-098-SC	3-1/8	.980	
606-312-124	3-1/8	1.240	
606-312-156	3-1/8	1-9/16	
606-312-165-SC	3-1/8	1.650	
606-325-031-SC	3-1/4	5/16	
606-325-050	3-1/4	1/2	
606-337-174	3-3/8	1.740	
606-337-187	3-3/8	1-7/8	
606-362-105	3-5/8	1.050	
606-362-188-SC	3-5/8	1-7/8	
606-387-157	3-7/8	1.570	
606-400-031-SC	4	5/16	
606-500-043-SC	5	7/16	
606-600-043-SC	6	7/16	
606-800-050-SC	8	1/2	

## STYLE 608 NYLON WEAR RINGS .078" THICK

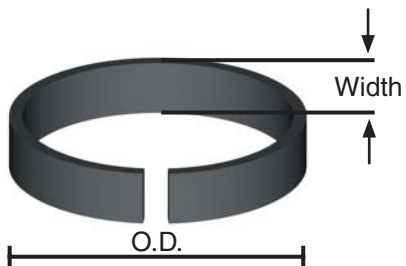


SEAL INFORMATION	
TEMPERATURE RANGE	-40° TO +250° F
TENSILE STRENGTH	27,000 PSI
COMPRESSIVE STRENGTH	35,000 PSI
PART NUMBER	(Prefix) - (OD) - (Width)

Part Number	O.D.	Width	
608-125-050	1-1/4	1/2	
608-152-075	1.520	3/4	

Part Number	O.D.	Width	
608-154-075	1.540	.078	
608-166-062	1.66	.625	

## STYLE 609 NYLON WEAR RINGS 3/32" THICK

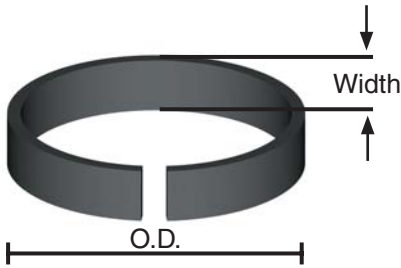


SEAL INFORMATION	
TEMPERATURE RANGE	-40° TO +250° F
TENSILE STRENGTH	27,000 PSI
COMPRESSIVE STRENGTH	35,000 PSI
PART NUMBER	(Prefix) - (OD) - (Width)

Part Number	O.D.	Width	
609-125-018	1-1/4	3/16	
609-150-018	1-1/2	3/16	
609-150-037	1-1/2	3/8	
609-200-019	2	3/16	
609-200-037	2	3/8	
609-250-037	2-1/2	3/8	
609-255-150	2.55	1-1/2	
609-285-100	2.85	1	
609-300-022	3	7/32	

Part Number	O.D.	Width	
609-325-037	3-1/4	3/8	
609-331-062	3-5/16	5/8	
609-350-050	3-1/2	1/2	
609-362-022	3-5/8	7/32	
609-393-022	3-15/16	7/32	
609-400-037	4	3/8	
609-500-050	5	1/2	
609-600-050	6	1/2	

## STYLE 610 NYLON WEAR RINGS .100" THICK



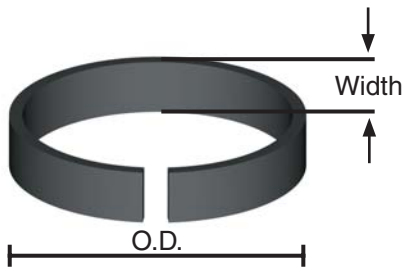
SEAL INFORMATION	
TEMPERATURE RANGE	-40° TO +250° F
TENSILE STRENGTH	27,000 PSI
COMPRESSIVE STRENGTH	35,000 PSI
PART NUMBER	(Prefix) - (OD) - (Width)

Part Number	O.D.	Width
610-270-228	2.70	2.28
610-295-196	2.95	1.96
610-300-099-SC	3.00	.99
610-320-117-SC	3.20	1.17
610-325-112	3.25	1-1/8
610-345-162-SC	3.45	1-5/8
610-345-196	3.45	1.96
610-345-274-SC	3.45	2.74
610-370-176	3.70	1.76
610-370-188-SC	3.70	1.88

Part Number	O.D.	Width
610-370-236-SC	3.70	2.36
610-395-243	3.95	2-7/16
610-420-156-SC	4.20	1-9/16
610-420-255	4.20	2.55
610-445-237	4.45	2-3/8
610-495-196-SC	4.95	1.96
610-520-250	5.20	2-1/2
610-595-196-SC	5.95	1.96
610-595-361	5.95	3.61
610-720-314	7.20	3.14

## STYLE 612 NYLON WEAR RINGS 1/8" THICK

Style 612 wear rings are made of glass reinforced nylon. With physical properties equivalent to bronze they are highly recommended because of their wear rate and non-scoring properties and their ability to ingest metal chips. **NOTE:** "SC" suffix designates a Scarf Cut wear ring, "ST" a Step Cut wear ring and "SL" Slots on the O.D.



SEAL INFORMATION	
TEMPERATURE RANGE	-40° TO +250° F
TENSILE STRENGTH	27,000 PSI
COMPRESSIVE STRENGTH	35,000 PSI
PART NUMBER	(Prefix) - (OD) - (Width)

Part Number	O.D.
<b>0.16" WIDE</b>	
612-200-016	2
612-250-016P	2-1/2
612-300-016P	3
612-350-016P	3-1/2
612-375-016P	3-3/4
612-400-016P	4

Part Number	O.D.
<b>3/16" WIDE</b>	
612-250-018	2-1/2
<b>1/4" WIDE</b>	
612-150-025	1-1/2
612-175-025	1-3/4
612-200-025	2
612-250-025	2-1/2

Part Number	O.D.
<b>1/4" WIDE</b>	
612-225-025	2-1/4
612-300-025	3
612-306-025	3-1/16
612-350-025	3-1/2
612-325-025	3-1/4
612-387-025	3-7/8



# STYLE 612 NYLON WEAR RINGS 1/8" THICK

WEAR RINGS

Part Number	O.D.	
<b>1/4" WIDE</b>		
612-425-025	4-1/4	
612-1000-025	10	
<b>0.26" WIDE</b>		
612-218-026	2-3/16	
<b>5/16" WIDE</b>		
612-250-031	2-1/2	
612-225-031	2-1/4	
612-275-031	2-3/4	
612-275-031P	2-3/4	
612-300-031	3	
612-325-031	3-1/4	
612-400-031	4	
<b>3/8" WIDE</b>		
612-100-037	1	
612-150-037	1-1/2	
612-125-037	1-1/4	
612-112-037	1-1/8	
612-162-037	1-5/8	
612-175-037	1-3/4	
612-200-037	2	
612-212-037	2-1/8	
612-250-037	2-1/2	
612-225-037	2-1/4	
612-275-037	2-3/4	
612P-300-037P	3	
612-300-037-SC	3	
612-350-037	3-1/2	
612-325-037	3-1/4	
612-375-037	3-3/4	
612-400-037	4	
612-450-037	4-1/2	
612-425-037	4-1/4	
612-500-037	5	
612-550-037	5-1/2	
612-600-037	6	
612-650-037	6-1/2	
<b>0.42" WIDE</b>		
612-412-042	4-1/8	
<b>7/16" WIDE</b>		
612-350-043	3-1/2	
<b>1/2" WIDE</b>		
612-150-050	1-1/2	
612-125-050	1-1/4	
612-137-050	1-3/8	
612-162-050	1-5/8	
612-175-050	1-3/4	

Part Number	O.D.	
<b>1/2" WIDE</b>		
612-187-050	1-7/8	
612R-200-050P	2	
612-200-050	2	
612-200-050-ST	2	
612-212-050	2-1/8	
612-250-050	2-1/2	
612-250-050-ST	2-1/2	
612-225-050	2-1/4	
612-225-050-SC	2-1/4	
612-237-050	2-3/8	
612-262-050	2-5/8	
612-275-050	2-3/4	
612-287-050	2-7/8	
612-300-050-ST	3	
612-300-050P	3	
612-300-050P-SC	3	
612-300-050	3	
612-312-050	3-1/8	
612-325-050	3-1/4	
612-350-050	3-1/2	
612-362-050	3-5/8	
612-375-050	3-3/4	
612-375-050-ST	3-3/4	
612-375-050P-SC	3-3/4	
612-400-050	4	
612-425-050	4-1/4	
612-426-050	4.26	
612-450-050	4-1/2	
612-450-050P	4-1/2	
612-475-050	4-3/4	
612-500-050	5	
612-525-050	5-1/4	
612-525-050P	5-1/4	
612-550-050P	5-1/2	
612-550-050-ST	5-1/2	
612-550-050	5-1/2	
612-575-050	5-3/4	
612-600-050P-SC	6	
612-600-050	6	
612-625-050	6-1/4	
612-650-050	6-1/2	
612-700-050	7	
612-725-050	7-1/4	
612-750-050	7-1/2	
612-775-050	7-3/4	
612-800-050	8	
612-850-050	8-1/2	

Part Number	O.D.	
<b>1/2" WIDE</b>		
612-862-050	8-5/8	
612-900-050	9	
612-950-050	9-1/2	
612-975-050	9-3/4	
612-987-050	9-7/8	
612-1000-050	10	
612-1050-050	10-1/2	
612-1100-050	11	
612-1200-050	12	
612-1400-050	14	
612-1600-050	16	
612-1800-050	18	
612-2000-050	20	
<b>5/8" WIDE</b>		
612-150-062	1-1/2	
612-200-062	2	
612-225-062	2-1/4	
612-250-062	2-1/2	
612-262-062	2-5/8	
612-275-062	2-3/4	
612-275-062-SC	2-3/4	
612-300-062	3	
612-325-062	3-1/4	
612-350-062-ST	3-1/2	
612-350-062	3-1/2	
612-362-062	3-5/8	
612-375-062	3-3/4	
612-400-062	4	
612-400-062-ST	4	
612-425-062	4-1/4	
612-440-062	4.4	
612-450-062	4-1/2	
612-500-062	5	
612-525-062	5-1/4	
612-550-062	5-1/2	
612-575-062	5-3/4	
612-600-062	6	
612-600-062-SC	6	
612-625-062	6-1/4	
612-650-062	6-1/2	
612-700-062	7	
612-700-062-SC	7	
612-725-062	7-1/4	
612-750-062	7-1/2	
612-800-062	8	
612-850-062	8-1/2	
612-900-062	9	

# STYLE 612 NYLON WEAR RINGS 1/8" THICK

Part Number	O.D.	
<b>5/8" WIDE</b>		
612-950-062	9-1/2	
612-1000-062	10	
<b>11/16" WIDE</b>		
612-700-068	7	
<b>0.74" WIDE</b>		
612-250-074-SC	2-1/2	
<b>3/4" WIDE</b>		
612-175-075	1-3/4	
612-187-075	1-7/8	
612-200-075	2	
612-212-075	2-1/8	
612-225-075	2-1/4	
612-225-075-SC	2-1/4	
612-237-075	2-3/8	
612-250-075	2-1/2	
612-262-075	2-5/8	
612-275-075	2-3/4	
612-287-075	2-7/8	
612-300-075	3	
612-325-075	3-1/4	
612-337-075	3-3/8	
612-350-075	3-1/2	
612-350-075P	3-1/2	
612-362-075	3-5/8	
612-375-075	3-3/4	
612-400-075	4	
612-425-075	4-1/4	
612-450-075	4-1/2	
612-450-075-SC	4-1/2	
612-450-075P	4-1/2	
612-475-075	4-3/4	
612-487-075	4-7/8	
612-500-075	5	
612-525-075	5-1/4	
612-550-075	5-1/2	
612-575-075	5-3/4	
612-600-075	6	
612-625-075	6-1/4	
612-650-075	6-1/2	
612-675-075	6-3/4	
612-700-075	7	
612-725-075	7-1/4	
612-750-075	7-1/2	
612-800-075	8	
612-825-075	8-1/4	
612-850-075	8-1/2	

Part Number	O.D.	
<b>3/4" WIDE</b>		
612-900-075	9	
612-900-075-SC	9	
612-950-075	9-1/2	
612-975-075	9-3/4	
612-1000-075	10	
612-1025-075	10-1/4	
612-1150-075	11-1/2	
612-1250-075	12-1/2	
612-1350-075	13-1/2	
<b>7/8" WIDE</b>		
612-100-087-SC	1	
612-225-087-SC	2-1/4	
612-250-087	2-1/2	
612-287-087	2-7/8	
612-350-087	3-1/2	
612-400-087	4	
612-425-087P	4-1/4	
612-450-087	4-1/2	
612-600-087	6	
612-800-087	8	
<b>15/16" WIDE</b>		
612-275-093-SC	2-3/4	
612-450-093-SC	4-1/2	
<b>0.99" WIDE</b>		
612-300-099-SC	3	
612-400-099-SC	4	
612-425-099-SC	4-1/4	
612-450-099-SC	4-1/2	
612-475-099-SC	4-3/4	
<b>1" WIDE</b>		
612-150-100	1-1/2	
612-175-100	1-3/4	
612-200-100	2	
612-200-100P-SC	2	
612-250-100P	2-1/4	
612-225-100	2-1/4	
612-225-100-SC	2-1/4	
612-250-100	2-1/2	
612-250-100-ST	2-1/2	
612-262-100	2-5/8	
612-275-100	2-3/4	
612-275-100-ST	2-3/4	
612-275-100P-SC	2-3/4	
612-287-100	2-7/8	
612-300-100	3	
612-300-100-ST	3	

Part Number	O.D.	
<b>1" WIDE</b>		
612-312-100	2-1/8	
612-325-100-SC	3-1/4	
612-325-100	3-1/4	
612-350-100	3-1/2	
612-350-100-ST	3-1/2	
612-350-100-SL	3-1/2	
612-362-100	3-5/8	
612-375-100	3-3/4	
612-375-100P-SC	3-3/4	
612-387-100	3-7/8	
612-387-100-SC	3-7/8	
612-400-100	4	
612-400-100-SL	4	
612-400-100P-SC	4	
612-412-100	4-1/8	
612-425-100	4-1/4	
612-425-100P	4-1/4	
612-450-100	4-1/2	
612-475-100	4-3/4	
612-500-100	5	
612-525-100	5-1/4	
612-550-100	5-1/2	
612-575-100	5-3/4	
612-600-100	6	
612-625-100	6-1/4	
612-650-100	6-1/2	
612-675-100	6-3/4	
612-700-100	7	
612-725-100	7-1/4	
612-750-100	7-1/2	
612-775-100	7-3/4	
612-787-100	7-7/8	
612-800-100	8	
612-825-100	8-1/4	
612-850-100	8-1/2	
612-862-100	8-5/8	
612-875-100	8-3/4	
612-900-100	9	
612-912-100	9-1/8	
612-925-100	9-1/4	
612-950-100	9-1/2	
612-1000-100	10	
612-1025-100	10-1/4	
612-1050-100	10-1/2	
612-1100-100	11	
612-1200-100P	12	
612-1225-100	12-1/4	

# STYLE 612 NYLON WEAR RINGS 1/8" THICK

Part Number	O.D.	
<b>1" WIDE</b>		
612-1400-100	14	
612-1600-100	16	
612-1650-100	16-1/2	
<b>1.02" WIDE</b>		
612-525-102-SC	5-1/4	
<b>1-1/16" WIDE</b>		
612-600-107	6	
<b>1.11" WIDE</b>		
612-325-111	3-1/4	
612-500-111-SC	5	
<b>1-1/8" WIDE</b>		
612-350-112-SC	3-1/2	
612-500-112	5	
<b>1.24" WIDE</b>		
612-300-124-SC	3	
612-375-124-SC	3-3/4	
612-425-124-SC	4-1/4	
612-475-124-SC	4-3/4	
612-500-124	5	
612-600-124-SC	6	
<b>1-1/4" WIDE</b>		
612-225-125P	2-1/4	
612-325-125	3-1/4	
612-375-125	3-3/4	
612-400-125	4	
612-425-125-SC	4-1/4	
612-425-125	4-1/4	
612-475-125-SC	4-3/4	
612-525-125	5-1/4	
612-525-125-SC	5-1/4	
612-550-125	5-1/2	
612-600-125	6	
612-676-125P-SC	6.756	
612-650-125	6-1/2	
612-825-125	8-1/4	
612-825-125-SC	8-1/4	
612-1000-125	10	
612-1025-125-SC	10-1/4	
612-1050-125	10-1/2	
612-1100-125	11	
612-1125-125	11-1/4	
612-1200-125	12	
612-1225-125	12-1/4	
612-1400-125	14	
<b>1-5/16" WIDE</b>		
612-600-131-SC	6	

Part Number	O.D.	
<b>1-3/8" WIDE</b>		
612-550-137	5-1/2	
612-650-137	6-1/2	
612-725-138	7-1/4	
<b>1.46" WIDE</b>		
612-800-146-ST	8	
<b>1.49" WIDE</b>		
612-375-149	3-3/4	
612-425-149-SC	4-1/4	
612-450-149-SC	4-1/2	
612-525-149	5-1/4	
612-625-149-SC	6-1/4	
612-650-149-SC	6-1/2	
612-750-149-SC	7-1/2	
<b>1-1/2" WIDE</b>		
612-200-150	2	
612-275-150	2-3/4	
612-275-150P	2-3/4	
612-325-150-ST	3-1/4	
612-325-150P	3-1/4	
612-350-150	3-1/2	
612-400-150	4	
612-425-150P	4-1/4	
612-450-150	4-1/2	
612-475-150	4-3/4	
612-575-150	5-3/4	
612-600-150	6	
612-600-150-ST	6	
612-625-150	6-1/4	
612-650-150-ST	6-1/2	
612-675-150P	6-3/4	
612-700-150	7	
612-825-150	8-1/4	
612-850-150-ST	8-1/2	
612-900-150	9	
612-925-150-SC	9-1/4	
612-962-150P-SC	9-5/8	
612-1000-150	10	
612-1050-150-ST	10-1/2	
612-1200-150	12	
612-1300-150	13	
612-1400-150	14	
612-1600-150	16	
<b>1.55" WIDE</b>		
612-325-155	3-1/4	
612-500-155-SC	5	

Part Number	O.D.	
<b>1-9/16" WIDE</b>		
612-475-156	4-3/4	
612-512-156	5-1/8	
612-512-156-SC	5-1/8	
<b>1.61" WIDE</b>		
612-550-161	5-1/2	
612-575-161-SC	5-3/4	
<b>1-5/8" WIDE</b>		
612-325-162-SC	3-1/4	
612-1100-162	11	
<b>1.74" WIDE</b>		
612-550-175-SC	5-1/2	
612-600-174-SC	6	
612-625-174-SC	6-1/4	
612-650-174	6-1/2	
612-700-174	7	
612-825-174-SC	8-1/4	
<b>1-3/4" WIDE</b>		
612-500-175	5	
612-575-175	5-3/4	
612-1000-175	10	
<b>1.86" WIDE</b>		
612-450-186	4-1/2	
<b>1-7/8" WIDE</b>		
612-1100-187	11	
<b>1.88" WIDE</b>		
612-425-188	4-1/4	
<b>1.99" WIDE</b>		
612-375-199	3-3/4	
612-475-199	4-3/4	
612-550-199	5-1/2	
612-575-199	5-3/4	
612-650-199-SC	6-1/2	
612-700-199-SC	7	
612-725-199-SC	7-1/4	
612-775-199	7-3/4	
<b>2" WIDE</b>		
612-275-200P-SC	2-3/4	
612-325-200	3-1/4	
612-325-200P-SC	3-1/4	
612-475-200	4-3/4	
612-525-200P-SC	5-1/4	
612-600-200	6	
612-625-200	6-1/4	
612-625-200P-SC	6-1/4	

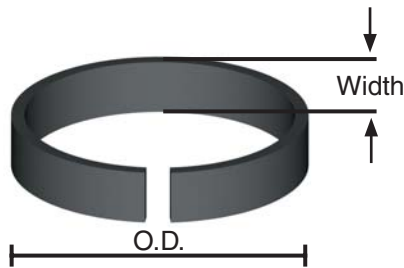
## STYLE 612 NYLON WEAR RINGS 1/8" THICK

Part Number	O.D.	
<b>2" WIDE</b>		
612-650-200	6-1/2	
612-700-200	7	
612-725-200	7-1/4	
612-725-200P-SC	7-1/4	
612-750-200	7-1/2	
612-800-200	8	
612-850-200	8-1/2	
612-900-200	9	
612-1200-200	12	
<b>2-1/8" WIDE</b>		
612-325-212-SC	3-1/4	
612-825-212-SC	8-1/4	
<b>2.24" WIDE</b>		
612-550-224-SC	5-1/2	
612-825-224-SC	8-1/4	
<b>2-1/4" WIDE</b>		
612-925-225	9-1/4	
<b>2.36" WIDE</b>		
612-450-236	4-1/2	
612-575-236	5-3/4	
612-700-236-SC	7	
612-750-236	7-1/2	
612-850-236	8-1/2	
<b>2-3/8" WIDE</b>		
612-850-237	8-1/2	

Part Number	O.D.	
<b>2.49" WIDE</b>		
612-426-249-SC	4.26	
612-750-249-SC	7-1/2	
612-825-249	8-1/4	
<b>2-1/2" WIDE</b>		
612-750-249-SC	7-1/2	
<b>2.74" WIDE</b>		
612-625-274-SC	6-1/4	
612-650-274-SC	6-1/2	
612-825-274	8-1/4	
612-1050-274	10-1/2	
<b>2.86" WIDE</b>		
612-600-286	6	
612-650-286	6-1/2	
<b>2-15/16" WIDE</b>		
612-900-293-SC	9	
<b>2.95" WIDE</b>		
612-750-295	7-1/2	
<b>3" WIDE</b>		
612-700-300	7	
612-850-300	8-1/2	
<b>3-1/8" WIDE</b>		
612-700-312	7	
<b>3.24" WIDE</b>		
612-1000-324-SC	10	

Part Number	O.D.	
<b>3.48" WIDE</b>		
612-650-348-SC	6-1/2	
<b>3-1/2" WIDE</b>		
612-475-350	4-3/4	
612-775-350	7-3/4	
<b>3.61" WIDE</b>		
612-525-361-SC	5-1/4	
<b>3.74" WIDE</b>		
612-1050-374-SC	10-1/2	
<b>3-3/4" WIDE</b>		
612-1050-375	10-1/2	
<b>3-7/8" WIDE</b>		
612-1150-387	11-1/2	
<b>3.99" WIDE</b>		
612-1250-399-SC	12-1/2	
612-1275-399-SC	12-3/4	
612-1375-399-SC	13-3/4	
612-1425-399-SC	14-1/4	
<b>4" WIDE</b>		
612-1050-400	10-1/2	
<b>4.11" WIDE</b>		
612-825-411-SC	8-1/4	
<b>5" WIDE</b>		
612-800-500	8	
<b>7.1" WIDE</b>		
612-725-710	7-1/4	

## STYLE 616 NYLON WEAR RINGS 3/16" THICK



### SEAL INFORMATION

TEMPERATURE RANGE	-40° TO +250° F
TENSILE STRENGTH	27,000 PSI
COMPRESSIVE STRENGTH	35,000 PSI
PART NUMBER	(Prefix) - (OD) - (Width)

Part Number	O.D.	
<b>1/2" WIDE</b>		
616-3003-050	3	
616-3503-050	3-1/2	

Part Number	O.D.	
616-4003-050	4	
616-4503-050	4-1/2	
616-5503-050-SC	5-1/2	

Part Number	O.D.	
616-8003-050	8	
616-9875-050	9-7/8	

# STYLE 616 NYLON WEAR RINGS 3/16" THICK

WEAR RINGS

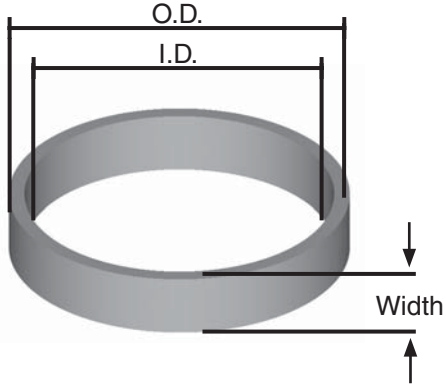
Part Number	O.D.	
<b>5/8" WIDE</b>		
616-2203-062	2.200	
616-2623-062	2-5/8	
<b>5/8" WIDE</b>		
616-2873-062	2-7/8	
616-3063-062	3-1/16	
616-3253-062	3-1/4	
616-6003-062	6	
<b>3/4" WIDE</b>		
616-3003-075	3	
616-3503-075	3-1/2	
616-4253-075	4-1/4	
616-5123-075	5-1/8	
616-6123-075	6-1/8	
616-6503-075	6-1/2	
<b>7/8" WIDE</b>		
616-3003-087	3	
616-4003-087	4	
616-5003-087	5	
616-5503-087	5-1/2	
616-6003-087	6	
616-7123-087	7-1/8	
<b>61/64" WIDE</b>		
616-6123-095	6-1/8	
<b>1" WIDE</b>		
616-3123-100	3-1/8	
616-3503-100	3-1/2	
616-3753-100	3-3/4	
616-4003-100	4	
616-4123-100	4-1/8	
616-4503-100	4-1/2	
616-5003-100	5	
616-5503-100	5-1/2	
616-5753-100	5-3/4	
616-6003-100	6	
616-6753-100	6-3/4	

Part Number	O.D.	
<b>1" WIDE</b>		
616-7123-100	7-1/8	
616-7253-100	7-1/4	
616-8503-100	8-1/2	
616-14003-100	14	
<b>1-1/4" WIDE</b>		
616-3123-125	3-1/8	
616-3373-125	3-3/8	
616-3623-125	3-5/8	
616-3873-125	3-7/8	
616-5503-125-SC	5-1/2	
616-6003-125	6	
616-7003-125	7	
616-10003-125	10	
<b>1-1/2" WIDE</b>		
616-4373-150	4-3/8	
616-5003-150	5	
616-5503-150	5-1/2	
616-6503-150	6-1/2	
616-8003-150	8	
616-10003-150	10	
<b>1.61" WIDE</b>		
616-7373-161	7-3/8	
<b>1.74" WIDE</b>		
616-5503-174	5-1/2	
<b>1-3/4" WIDE</b>		
616-3873-175	3-7/8	
616-4373-175	4-3/8	
<b>1.93" WIDE</b>		
616-9503-193	9-1/2	
<b>1.99" WIDE</b>		
616-8253-199	8-1/4	
<b>2-1/4" WIDE</b>		
616-4875-225	4-7/8	

Part Number	O.D.	
<b>2.36" WIDE</b>		
616-13875-236-SC	13.882	
<b>2-1/2" WIDE</b>		
616-12003-250	12	
<b>2.61" WIDE</b>		
616-11375-261-SC	11.382	
<b>2.62" WIDE</b>		
616-3873-262	3-7/8	
<b>2.74" WIDE</b>		
616-6003-274	6	
616-8253-274	8-1/4	
<b>2.89" WIDE</b>		
616-12873-289	12-7/8	
<b>3-1/16" WIDE</b>		
616-7253-306	7-1/4	
<b>4" WIDE</b>		
616-12253-400	12-1/4	
<b>4.49" WIDE</b>		
616-7753-449	7-3/4	
<b>7.69" WIDE</b>		
616-15125-769-SC	15.127	
616-16125-769-SC	16.118	
<b>7.85" WIDE</b>		
616-13125-785-SC	13.118	
<b>9.99" WIDE</b>		
616-13875-999-SC	13.882	
<b>10.97" WIDE</b>		
616-11375-1097-SC	11.382	
<b>12.18" WIDE</b>		
616-12875-1218-SC	12-7/8	

# STYLE 614 NYLON ROD BEARINGS

Style 614 rod bearings are available in nylon material. These products are used extensively in hydraulic cylinders due to their low rate of wear and non-scoring properties. Excellent for those heavy duty applications that require a sturdy bearing. Most of these bearings are solid, although some may be split.



## SEAL INFORMATION

TEMPERATURE RANGE	-40° TO +250° F
TENSILE STRENGTH	27,000 PSI
COMPRESSIVE STRENGTH	35,000 PSI
PART NUMBER	(Prefix) - (ID) - (Width)

Part Number	ID	OD	Width
614-1253-100	1-1/4	1-1/2	1
614-1254-084	1-1/4	1-3/4	27/32
614-1254-100	1-1/4	1-3/4	1
614-1255-150	1-1/4	1-7/8	1-1/2
614-1502-100	1-1/2	1-5/8	.975
614-1503-100	1-1/2	1-3/4	1
614-1504-058	1-1/2	2	.580
614-1504-075	1-1/2	2	3/4
614-1505-150	1-1/2	2-1/8	1-1/2
614-1752-100	1-3/4	1-7/8	.975
614-1753-100	1-3/4	2	1
614-1754-040	1-3/4	2-1/4	7/16
614-1754-058	1-3/4	2-1/4	.580
614-1754-075	1-3/4	2-1/4	3/4
614-1754-087	1-3/4	2-1/4	7/8
614-2002-100	2	2-1/8	.975
614-2003-099	2	2-1/4	1
614-2004-050	2	2-1/2	1/2
614-2004-058	2	2-1/2	.580
614-2004-070	2	2-1/2	.700
614-2004-075	2	2-1/2	3/4
614-2004-100	2	2-1/2	1
614-2252-150	2-1/4	2-3/8	1.475
614-2253-125	2-1/4	2-1/2	1-1/4
614-2253-155	2-1/4	2-1/2	1-35/64
614-2253-225	2-1/4	2-1/2	2-1/4
614-2254-058	2-1/4	2-3/4	.580
614-2254-075	2-1/4	2-3/4	3/4
614-2502-150	2-1/2	2-5/8	1.475
614-2503-125	2-1/2	2-3/4	1-1/4
614-2503-155	2-1/2	2-3/4	1-35/64
614-2504-025	2-1/2	3	1/4
614-2504-040	2-1/2	3	13/32

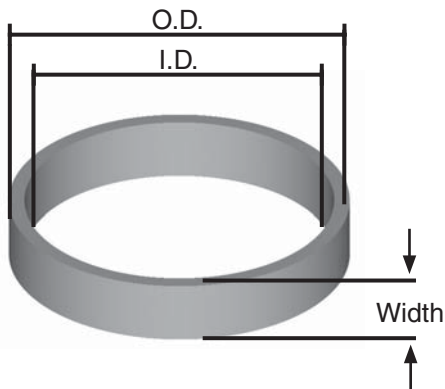
Part Number	ID	OD	Width
614-2504-058	2-1/2	3	.580
614-2504-075	2-1/2	3	3/4
614-2504-100	2-1/2	3	1
614-2753-155	2-3/4	3	1-35/64
614-2754-100	2-3/4	3-1/4	1
614-2755-100	2-3/4	3-3/8	1
614-3002-150	3	3-1/8	1.475
614-3004-046	3	3-1/2	15/32
614-3004-050	3	3-1/2	1/2
614-3004-075	3	3-1/2	3/4
614-3004-100	3	3-1/2	1
614-3004-150	3	3-1/2	1-1/2
614-3123-075	3-1/8	3-1/2	3/4
614-3123-084	3-1/8	3-1/2	.845
614-3253-037	3-1/4	3-5/8	3/8
614-3253-155	3-1/4	3-1/2	1-35/64
614-3504-025	3-1/2	4	1/4
614-3504-046	3-1/2	4	15/32
614-3754-075	3-3/4	4-1/4	3/4
614-3754-100	3-3/4	4-1/4	1
614-3755-087	3-3/4	4-3/8	7/8
614-3755-100	3-3/4	4-3/8	1
614-4004-025	4	4-1/2	1/4
614-4004-037	4	4-1/2	3/8
614-4004-075	4	4-1/2	3/4
614-4004-084	4	4-1/2	.845
614-4004-093	4	4-1/2	15/16
614-4004-100	4	4-1/2	1
614-4004-150	4	4-1/2	1-1/2
614-4005-100	4	4-5/8	1
614-4504-025	4-1/2	5	1/4
614-4754-100	4-3/4	5-1/4	1
614-4754-200	4-3/4	5-1/4	2

## STYLE 614 NYLON ROD BEARINGS

Part Number	ID	OD	Width
614-4755-100	4-3/4	5-3/8	1
614-5004-075	5	5-1/2	3/4
614-5004-084	5	5-1/2	.845
614-5004-093	5	5-1/2	15/16
614-5004-100	5	5-1/2	1
614-5754-100	5-3/4	6-1/4	1
614-5755-100	5-3/4	6-3/8	1
614-6004-037	6	6-1/2	3/8
614-6004-075	6	6-1/2	3/4

Part Number	ID	OD	Width
614-6004-084	6	6-1/2	.845
614-6004-093	6	6-1/2	15/16
614-6004-100	6	6-1/2	1
614-7004-075	7	7-1/2	3/4
614-8004-075	8	8-1/2	3/4
614-8256-075	8-1/4	9	3/4
614-9006-075	9	9-3/4	3/4
614-9375-100	9-3/8	10	1

## STYLE 615 PHENOLIC BEARINGS



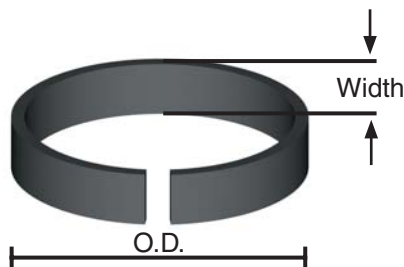
### SEAL INFORMATION

TEMPERATURE RANGE	-40° TO +250° F
TENSILE STRENGTH	10,600 PSI
COMPRESSIVE STRENGTH	34,000 PSI
PART NUMBER	(Prefix)-(OD) (CS)-(Width)

Part Number	ID	OD	Width
615-1254-075	1-1/4	1-3/4	3/4
615-2253-100	2-1/4	2-1/2	1
615-2504-150	2-1/2	3	1-1/2

Part Number	ID	OD	Width
615-2753-138	2-3/4	3	1.385
615-3753-175	3-3/4	4	1.74

## STYLE 625 NYLON WEAR RING 1/4" THICK



### SEAL INFORMATION

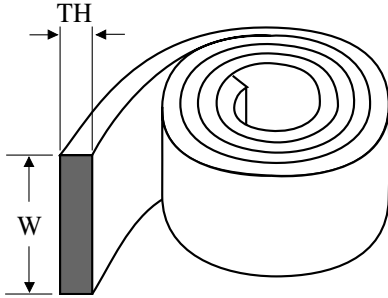
TEMPERATURE RANGE	-40° TO +250° F
TENSILE STRENGTH	27,000 PSI
COMPRESSIVE STRENGTH	35,000 PSI
PART NUMBER	(Prefix)-(OD) (CS)-(Width)

Part Number	OD	Width
625-650-349	6-1/2	3.49
625-650-350	6-1/2	3-1/2

Part Number	OD	Width
625-825-350	8-1/4	3-1/2

## FLEXIBLE GUIDE BEARINGS - FILLED PTFE

Flexible Guide Bearings are strips of filled PTFE. The material can be cut to any length to fit any rod or bore size without losing its concentricity. The filler material is shown below. **NOTE:** Glass filled material has a thickness tolerance of  $\pm .010$ ". Bronze filled tolerance is  $\pm .0025$ ".



### SEAL INFORMATION

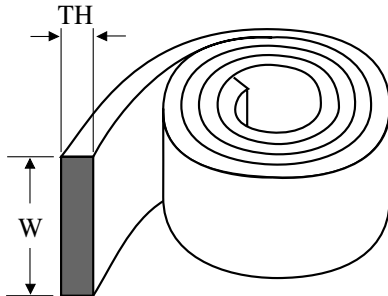
MATERIAL	GLASS FILLED 40% BRONZE FILLED PTFE
TEMPERATURE RANGE	-50° TO +400° F
TENSILE STRENGTH	2,100 PSI
COMPRESSIVE STRENGTH	1,500 PSI
PART NUMBER	(Prefix) - (Width)

Part Number	W Width	TH Thickness	Filler
606T-025	1/4	1/16	Bronze
606T-037	3/8	1/16	Bronze
606T-050	1/2	1/16	Bronze
606T-062	5/8	1/16	Bronze
606T-075	3/4	1/16	Bronze
606T-100	1	1/16	Bronze
609T-075	3/4	3/32	Bronze
609T-100	1	3/32	Bronze
609T-125	1-1/4	3/32	Bronze
612T-037B	3/8	1/8	Bronze

Part Number	W Width	TH Thickness	Filler
612T-050	1/2	1/8	Glass
612T-050B	1/2	1/8	Bronze
612T-062	5/8	1/8	Glass
612T-062B	5/8	1/8	Bronze
612T-075	3/4	1/8	Glass
612T-075B	3/4	1/8	Bronze
612T-100	1	1/8	Glass
612T-100B	1	1/8	Bronze
612T-112	1-1/8	1/8	Glass
612T-150	1-1/2	1/8	Glass

## FLEXIBLE GUIDE BEARINGS - POLYESTER RESIN

Manufactured using woven fabric-reinforced polyester resin, this material produces a dimensionally accurate rectangular strip which can be cut to any length. Low coefficient of friction and high compressive strength makes it an ideal bearing material. A common radial thickness of 1/8" allows the stacking of various widths. Size reference is marked every 6" on the strip. Available by the foot or in flat boxed rolls of 32 feet. Cutting is made easy by using Anvil type pruning shears. Wall tolerance  $\pm .002$ ", radial wall thickness = 0.124 to 0.121"



### SEAL INFORMATION

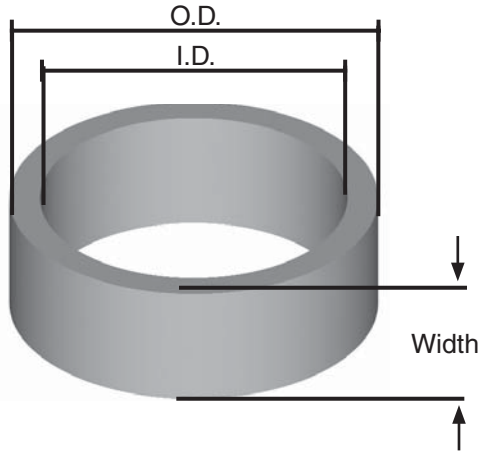
TEMPERATURE RANGE	-40° TO +250° F
TENSILE STRENGTH	8,500 PSI
COMPRESSIVE STRENGTH	16,500 PSI
PART NUMBER	(Prefix) - (Width)

Part Number	W Width	TH Thickness
612F-037	3/8	1/8
612F-050	1/2	1/8
612F-062	5/8	1/8

Part Number	W Width	TH Thickness
612F-075	3/4	1/8
612F-100	1	1/8



## STYLE 660 BRONZE ROD BEARINGS

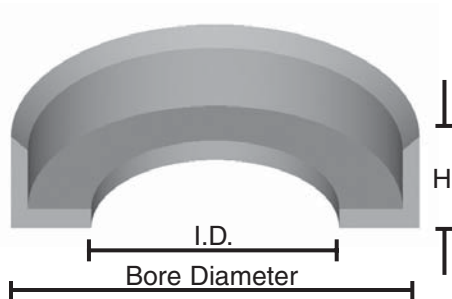


SEAL INFORMATION	
TEMPERATURE RANGE	-40° TO +250° F
TENSILE STRENGTH	35,000 PSI
YIELD STRENGTH	18,000 PSI
PART NUMBER	(Prefix) - (ID) (CS) - (Width)

Part Number	ID	OD	Width
660-1754-100	1-3/4	2-1/4	1
660-1008-125	1	1-1/2	1-1/4
660-1004-125	1	1-1/4	1-1/4

## FOLLOWER BEARINGS

These parts are used as companion pieces for Cascade Vee Sets, used primarily as bearings. The bore sizes shown are nominal and are used in oversized bores of = .015" to = .030".



SEAL INFORMATION	
MATERIAL	60D POLYESTER
TEMPERATURE RANGE	-65° TO +220° F
PART NUMBER	(Prefix) - (Bore Diameter)

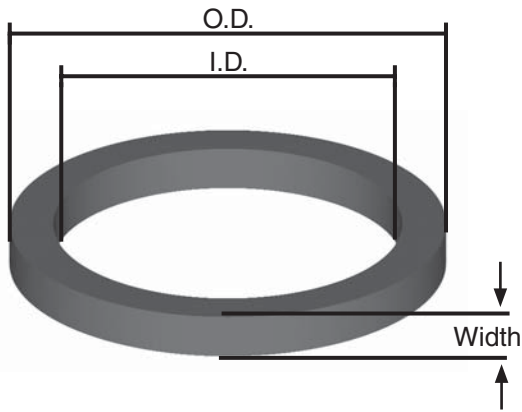
Part Number	Bore Diameter
FB-175	1-3/4
FB-200	2
FB-225	2-1/4
FB-250	2-1/2

Part Number	Bore Diameter
FB-300	3
FB-325	3-1/4
FB-350	3-1/2
FB-400	4

Part Number	Bore Diameter
FB-425	4-1/4
FB-475	4-3/4
FB-550	5-1/2
FB-650	6-1/2

# MODULAR BACK-UPS

These back-up rings, made from urethane or nylon, are commonly used as spacers for u-seals.



## SEAL INFORMATION

MATERIAL	URETHANE, NYLON OR HARD HYTREL
TEMPERATURE RANGE	-40° TO +250° F
PART NUMBER	(Prefix) (CS) - (ID) - (Width)

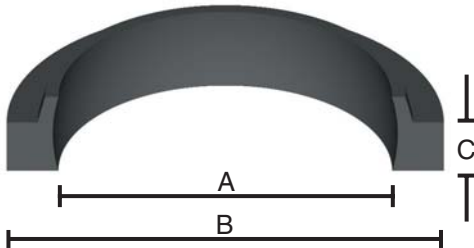
N = Nylon  
S = Split  
P = Hard Hytrel

Part Number	I.D.	O.D.	Width
MB12-0.75-12-S	3/4	1	1/8
MB18-2.00-18	2	2-3/8	3/16
MB25-1.25-25	1-1/4	1-3/4	1/4
MB25-1.37-25	1-3/8	1-7/8	1/4
MB25-1.50-25	1-1/2	2	1/4
MB25-1.75-25	1-3/4	2-1/4	1/4
MB25-2.00-25	2	2-1/2	1/4
MB25-2.25-25	2-1/4	2-3/4	1/4
MB25-2.50-25	2-1/2	3	1/4
MB25-3.00-25	3	3-1/2	1/4
MB25-3.25-25	3-1/4	3-3/4	1/4
MB25-3.50-25	3-1/2	4	1/4
MB25-4.00-25	4	4-1/2	1/4
MB25-4.00-43	4	4-1/2	7/16
MB25-4.50-25	4-1/2	5	1/4
MB25-5.00-25	5	5-1/2	1/4
MB25-6.00-25	6	6-1/2	1/4
MB31-1.75-31	1-3/4	2-3/8	5/16
MB31-1.87-31	1-7/8	2-1/2	5/16
MB31-2.00-31	2	2-5/8	5/16
MB31-2.12-31	2-1/8	2-3/4	5/16
MB31-2.12-37	2-1/8	2-3/4	3/8
MB31-2.25-31	2-1/4	2-7/8	5/16
MB31-2.37-31	2-3/8	3	5/16
MB31-2.50-176	2-1/2	3-1/8	1.76
MB31-2.50-31	2-1/2	3-1/8	5/16
MB31-4.50-31	4-1/2	5-1/8	5/16
MB37-1.75-50	1-3/4	2-1/2	1/2
MB37-1.75-50N	1-3/4	2-1/2	1/2
MB37-1.75-56	1-3/4	2-1/2	9/16
MB37-2.00-25P	2	2-3/4	1/4

Part Number	I.D.	O.D.	Width
MB37-2.00-37	2	2-3/4	3/8
MB37-2.50-25P	2-1/2	3-1/4	1/4
MB37-2.62-50	2-5/8	3-3/8	1/2
MB37-2.62-50N	2-5/8	3-3/8	1/2
MB37-2.62-57	2-5/8	3-3/8	.575
MB37-2.75-25	2-3/4	3-1/2	1/4
MB37-2.75-25P	2-3/4	3-1/2	1/4
MB37-3.00-37	3	3-3/4	3/8
MB37-3.12-37	3-1/8	3-7/8	3/8
MB37-3.50-25	3-1/2	4-1/4	1/4
MB37-3.50-37	3-1/2	4-1/4	3/8
MB37-3.50-44P	3-1/2	4-1/4	7/16
MB37-3.62-50N	3-5/8	4-3/8	1/2
MB37-3.62-56	3-5/8	4-3/8	9/16
MB37-4.00-37	4	4-3/4	3/8
MB37-4.25-37	4-1/4	5	3/8
MB37-4.50-50	4-1/2	5-1/4	1/2
MB37-4.50-50N	4-1/2	5-1/4	1/2
MB37-4.75-37	4-3/4	5-1/2	3/8
MB37-4.75-37N	4-3/4	5-1/2	3/8
MB37-5.00-37	5	5-3/4	3/8
MB37-5.25-12	5-1/4	6	1/8
MB37-5.50-37	5-1/2	6-1/4	3/8
MB37-5.50-43NS	5-1/2	6-1/4	7/16
MB37-6.00-43NS	6	6-3/4	7/16
MB37-6.00-56	6	6-3/4	9/16
MB37-7.00-37	7	7-3/4	3/8
MB43-3.87-25	3-7/8	4-3/4	1/4
MB43-4.50-62	4-1/2	5-3/8	5/8
MB43-4.75-31	4-3/4	5-5/8	5/16
MB50-3.00-50	3	4	1/2

# STYLE ST URETHANE WIPER RINGS

Style ST wiper rings are precision molded from 90A durometer urethane. Flexible enough to easily snap into a groove yet tough enough to handle difficult rod wiping applications. "V" tagged wipers are constructed of fluorocarbon.



## SEAL INFORMATION

MATERIAL	URETHANE / FLUOROCARBON
TEMPERATURE RANGE	URETHANE: -65° TO +220° F FLUOROCARBON: -20° TO +400° F
PART NUMBER	(Prefix) - (Size) - (Alternative Mat.)

Part Number	A Rod Dia.	B OD Wiper	C - Base Thickness	
ST-25	1/4	1/2	1/8	
ST-37	3/8	5/8	1/8	
ST-43	7/16	11/16	1/8	
ST-50	1/2	3/4	1/8	
ST-56	9/16	13/16	1/8	
ST-62	5/8	7/8	1/8	
ST-62V	5/8	7/8	1/8	
ST-75	3/4	1-1/8	3/16	
ST-81	13/16	1-3/16	3/16	
ST-93	15/16	1-5/16	3/16	
ST-100	1	1-3/8	3/16	
ST-100V	1	1-3/8	3/16	
ST-110	1.10	1.49	3/16	
ST-112	1-1/8	1-1/2	3/16	
ST-112V	1-1/8	1-1/2	3/16	
ST-118	1-3/16	1-9/16	3/16	
ST-125	1-1/4	1-5/8	3/16	
ST-125V	1-1/4	1-5/8	3/16	
ST-131	1-5/16	1-11/16	3/16	
ST-137	1-3/8	1-3/4	3/16	
ST-137V	1-3/8	1-3/4	3/16	
ST-143	1-7/16	1-13/16	3/16	
ST-150	1-1/2	1-7/8	3/16	
ST-150V	1-1/2	1-7/8	3/16	
ST-156	1-9/16	1-15/16	3/16	
ST-162	1-5/8	2	3/16	
ST-175	1-3/4	2-1/8	3/16	
ST-175V	1-3/4	2-1/8	3/16	
ST-187	1-7/8	2-1/4	3/16	
ST-193	1-15/16	2-5/16	3/16	
ST-200	2	2-1/2	1/4	
ST-200V	2	2-1/2	1/4	

Part Number	A Rod Dia.	B OD Wiper	C - Base Thickness	
ST-212	2-1/8	2-5/8	1/4	
ST-212A	2-1/8	2-1/2	3/16	
ST-225	2-1/4	2-3/4	1/4	
ST-237	2-3/8	2-7/8	1/4	
ST-250	2-1/2	3	1/4	
ST-250V	2-1/2	3	1/4	
ST-262	2-5/8	3-1/8	1/4	
ST-275	2-3/4	3-1/4	1/4	
ST-287	2-7/8	3-3/8	1/4	
ST-300	3	3-1/2	1/4	
ST-300V	3	3-1/2	1/4	
ST-312	3-1/8	3-5/8	1/4	
ST-325	3-1/4	3-3/4	1/4	
ST-325V	3-1/4	3-3/4	1/4	
ST-337	3-3/8	3-7/8	1/4	
ST-350	3-1/2	4	1/4	
ST-350V	3-1/2	4	1/4	
ST-362	3-5/8	4-1/8	1/4	
ST-375	3-3/4	4-1/4	1/4	
ST-387	3-7/8	4-3/8	1/4	
ST-400	4	4-1/2	1/4	
ST-412	4-1/8	4-5/8	1/4	
ST-425	4-1/4	4-3/4	1/4	
ST-437	4-3/8	4-7/8	1/4	
ST-450	4-1/2	5-1/4	3/8	
ST-451	4-1/2	5	1/4	
ST-475	4-3/4	5-1/2	3/8	
ST-487	4-7/8	5-5/8	3/8	
ST-500	5	5-3/4	3/8	
ST-500V	5	5-3/4	3/8	
ST-501	5	5-1/2	1/4	
ST-525	5-1/4	6	3/8	

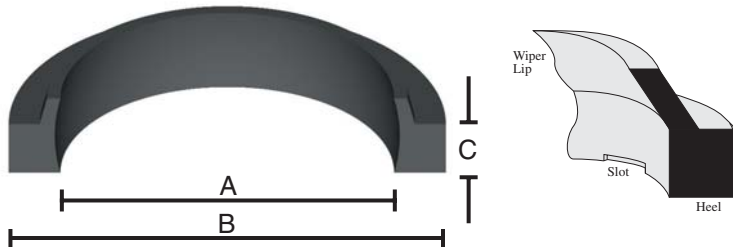
## STYLE ST URETHANE WIPER RINGS

Part Number	A Rod Dia.	B OD Wiper	C - Base Thickness
ST-550	5-1/2	6-1/4	3/8
ST-575	5-3/4	6-1/2	3/8
ST-600	6	6-3/4	3/8
ST-625	6-1/4	7	3/8
ST-650	6-1/2	7-1/4	3/8
ST-650-A	6-1/2	7-1/2	3/8
ST-660	6-1/2	7-1/2	1/2
ST-675	6-3/4	7-1/2	3/8
ST-700	7	7-3/4	3/8
ST-701	7	8	1/2
ST-702	7	8	.400
ST-750	7-1/2	8-1/4	3/8
ST-750-A	7-1/2	8-1/2	3/8
ST-775	7-3/4	8-1/2	3/8
ST-800	8	8-3/4	3/8

Part Number	A Rod Dia.	B OD Wiper	C - Base Thickness
ST-801	8	8-1/2	1/4
ST-825	8-1/4	9	3/8
ST-850	8-1/2	9-1/4	3/8
ST-851	8-1/2	9	1/4
ST-875	8-3/4	9-1/2	3/8
ST-900	9	9-3/4	3/8
ST-950	9-1/2	10-1/4	3/8
ST-975	9-3/4	10-1/2	3/8
ST-1000	10	11	1/2
ST-1000A	10	10-1/2	1/4
ST-1100	11	12	1/2
ST-1200	12	13	1/2
ST-1201	12	13-1/4	1/2
ST-1250	12-1/2	13-1/2	1/2

## STYLE ST URETHANE WIPER RINGS WITH SLOTTED HEEL

A wide range of ST wipers are now offered in the slotted heel design. The slots in the heel allow excess hydraulic fluid to bypass the wiper, preventing wiper blowout.



### SEAL INFORMATION

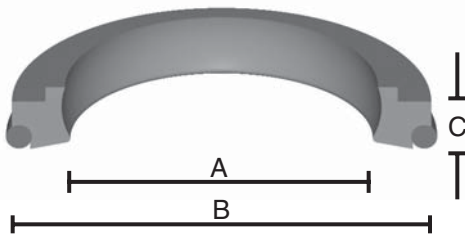
MATERIAL	90 A URETHANE
TEMPERATURE RANGE	-65° TO +220° F
PART NUMBER	(Prefix) - (Size) - (Slotted Heel)

Part Number	A Rod Dia.	B OD Wiper	C - Base Thickness
ST-50-SH	1/2	3/4	1/8
ST-62-SH	5/8	7/8	1/8
ST-75-SH	3/4	1-1/8	3/16
ST-87-SH	7/8	1-1/4	3/16
ST-100-SH	1	1-3/8	3/16
ST-112-SH	1-1/8	1-1/2	3/16
ST-125-SH	1-1/4	1-5/8	3/16
ST-137-SH	1-3/8	1-3/4	3/16
ST-150-SH	1-1/2	1-7/8	3/16
ST-175-SH	1-3/4	2-1/8	3/16
ST-200-SH	2	2-1/2	1/4
ST-212-SH	2-1/8	2-5/8	1/4
ST-225-SH	2-1/4	2-3/4	1/4
ST-250-SH	2-1/2	3	1/4
ST-262-SH	2-5/8	3-1/8	1/4

Part Number	A Rod Dia.	B OD Wiper	C - Base Thickness
ST-275-SH	2-3/4	3-1/4	1/4
ST-300-SH	3	3-1/2	1/4
ST-312-SH	3-1/8	3-5/8	1/4
ST-325-SH	3-1/4	3-3/4	1/4
ST-350-SH	3-1/2	4	1/4
ST-400-SH	4	4-1/2	1/4
ST-425-SH	4-1/4	4-3/4	1/4
ST-450-SH	4-1/2	5-1/4	3/8
ST-475-SH	4-3/4	5-1/2	3/8
ST-500-SH	5	5-3/4	3/8
ST-525-SH	5-1/4	6	3/8
ST-600-SH	6	6-3/4	3/8
ST-700-SH	7	7-3/4	3/8
ST-725-SH	7-1/4	8	3/8
ST-900-SH	9	9-3/4	3/8

## STYLE STXE ENERGIZED WIPER RINGS

STXE wipers are designed to retrofit the standard ST wiper groove while providing superior performance. The o-ring energizer limits dirt intrusion around the O.D. of the wiper. The energizer also makes this wiper more effective in applications with severe side deflections.



### SEAL INFORMATION

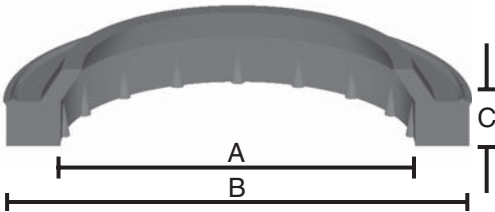
MATERIAL	URETHANE WIPER RUBBER ENERGIZER
TEMPERATURE RANGE	-40° TO +220° F
PART NUMBER	(Prefix) - (Size)

Part Number	A Rod Dia.	B OD Wiper	C - Base Thickness	
STXE-150	1-1/2	1-7/8	3/16	
STXE-175	1-3/4	2-1/8	3/16	
STXE-200	2	2-1/2	1/4	
STXE-250	2-1/2	3	1/4	
STXE-300	3	3-1/2	1/4	

Part Number	A Rod Dia.	B OD Wiper	C - Base Thickness	
STXE-350	3-1/2	4	1/4	
STXE-375	3-3/4	4-1/4	1/4	
STXE-400	4	4-1/2	1/4	
STXE-450	4-1/2	5-1/4	3/8	

## STYLE ST-XL URETHANE WIPER RINGS

Style ST-XL wipers are molded from premium urethane and are direct replacements for Style "ST" or "D" wipers. The outside diameter of the ring has a crush lip providing extra interference in the groove. A bead on the shoulder stops contaminants from entering through the groove. The inside diameter is ribbed to prevent pressure traps between the wiper and rod seal.



### SEAL INFORMATION

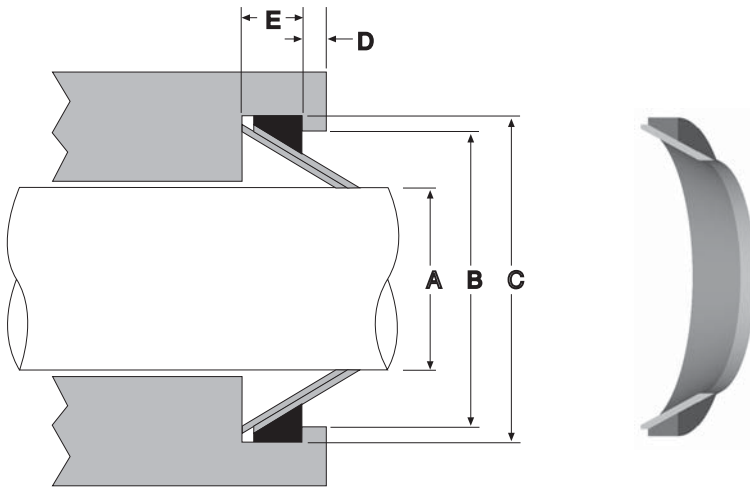
MATERIAL	94 A URETHANE
TEMPERATURE RANGE	-40° TO +230° F
PART NUMBER	(Prefix) - (Size) - (Extra Lip)

Part Number	A Rod Dia.	B OD Wiper	C - Base Thickness	
ST-75-XL	3/4	1-1/8	3/16	
ST-100-XL	1	1-3/8	3/16	
ST-150-XL	1-1/2	1-7/8	3/16	
ST-125-XL	1-1/4	1-5/8	3/16	
ST-112-XL	1-1/8	1-1/2	3/16	
ST-175-XL	1-3/4	2-1/8	3/16	
ST-137-XL	1-3/8	1-3/4	3/16	
ST-162-XL	1-5/8	2	3/16	
ST-200-XL	2	2-1/2	1/4	
ST-250-XL	2-1/2	3	1/4	

Part Number	A Rod Dia.	B OD Wiper	C - Base Thickness	
ST-225-XL	2-1/4	2-3/4	1/4	
ST-300-XL	3	3-1/2	1/4	
ST-350-XL	3-1/2	4	1/4	
ST-325-XL	3-1/4	3-3/4	1/4	
ST-400-XL	4	4-1/2	1/4	
ST-450-XL	4-1/2	5-1/4	3/8	
ST-500-XL	5	5-3/4	3/8	
ST-550-XL	5-1/2	6-1/4	3/8	
ST-525-XL	5-1/4	6	3/8	
ST-600-XL	6	6-3/4	3/8	

## STYLE SG - "SEAL GUARD" METALLIC ROD WIPERS

Each Seal Guard Wiper consists of two flexible bronze rings which are held in place by a nitrile cushion ring. The cushion ring absorbs side loads and energizes the wiper to maintain close contact with the rod. While particularly suited for hostile environments, seal guard wipers shave off sand, grift, slag, flux, paint, moisture, chips and slivers. Seal Guard Wipers are long lasting, self adjusting, and offer low friction. Seal Guard Wipers can be installed in standard "ST" or "D" Style grooves by increasing the "B" gland dimensions to the "B" diameter shown.



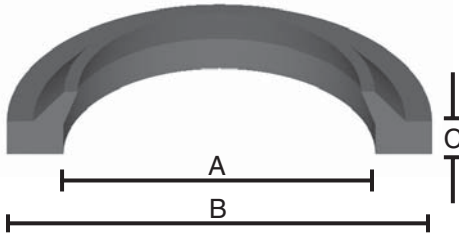
### SEAL INFORMATION

MATERIAL	660 BRONZE 70A NITRILE
TEMPERATURE RANGE	-40° TO +240° F
PART NUMBER	(Prefix) - (Size)

Part Number	A - Rod Diameter	B - Throat Diameter	C - Groove Diameter	D	E - Groove Width	
SG-0.500	0.500	0.714	0.750	.018	.125	
SG-0.750	0.750	1.082	1.125	.022	.188	
SG-0.875	0.875	1.207	1.250	.022	.188	
SG-1.000	1.000	1.332	1.375	.022	.188	
SG-1.125	1.125	1.457	1.500	.022	.188	
SG-1.250	1.250	1.582	1.625	.022	.188	
SG-1.375	1.375	1.707	1.750	.022	.188	
SG-1.500	1.500	1.832	1.875	.022	.188	
SG-1.750	1.750	2.082	2.125	.022	.188	
SG-2.000	2.000	2.440	2.500	.030	.250	
SG-2.250	2.250	2.690	2.750	.030	.250	
SG-2.500	2.500	2.940	3.000	.030	.250	
SG-3.000	3.000	3.440	3.500	.030	.250	
SG-3.500	3.500	3.940	4.000	.030	.250	

# STYLE AN URETHANE WIPER RINGS

Suffix "SH" designates slotted heel design, "V" designates fluorocarbon material, and "B" designates carboxylated nitrile material.



## SEAL INFORMATION

MATERIAL	90 A URETHANE
TEMPERATURE RANGE	-65° TO +220° F
PART NUMBER	(Prefix) - (Size)

Part Number	A - Rod Diameter	B - Groove I.D.	C - Base Thickness	
AN-01	1/2	.760	.104	
AN-01-SH	1/2	.760	.104	
AN-02	9/16	.823	.104	
AN-03	5/8	.885	.104	
AN-03-SH	5/8	.885	.104	
AN-04	11/16	.948	.104	
AN-05	3/4	1.010	.104	
AN-05-N	3/4	1.010	.104	
AN-05-SH	3/4	1.010	.104	
AN-05V	3/4	1.010	.104	
AN-06	13/16	1.084	.104	
AN-06-SH	13/16	1.084	.104	
AN-07	7/8	1.147	.104	
AN-07A	7/8	1.118	.104	
AN-07A-T	7/8	1.118	.104	
AN-07-SH	7/8	1.147	.104	
AN-08	15/16	1.209	.104	
AN-09	1	1.272	.104	
AN-09N	1	1.272	.104	
AN-09-SH	1	1.272	.104	
AN-09V	1	1.272	.104	
AN-10	1-1/16	1.334	.104	
AN-11	1-1/8	1.397	.104	
AN-11B-N	1-1/8	1.397	.104	
AN-11-SH	1-1/8	1.397	.104	
AN-12	1-3/16	1.459	.104	
AN-13	1-1/4	1.522	.104	
AN-13B	1-1/4	1.490	.104	
AN-13-SH	1-1/4	1.522	.104	
AN-13V	1-1/4	1.522	.104	
AN-14	1-5/16	1.614	.104	
AN-15	1-3/8	1.677	.104	
AN-15-SH	1-3/8	1.677	.104	

Part Number	A - Rod Diameter	B - Groove I.D.	C - Base Thickness	
AN-15V	1-3/8	1.677	.104	
AN-16	1-7/16	1.739	.104	
AN-17	1-1/2	1.802	.104	
AN-17A	1-1/2	1.738	.104	
AN-17-SH	1-1/2	1.802	.104	
AN-17V	1-1/2	1.802	.104	
AN-18	1-5/8	1.927	.104	
AN-18-SH	1-5/8	1.927	.104	
AN-19	1-3/4	2.052	.104	
AN-19-SH	1-3/4	2.052	.104	
AN-20	1-7/8	2.177	.104	
AN-21	2	2.302	.104	
AN-21-SH	2	2.302	.104	
AN-21V	2	2.302	.104	
AN-22	2-1/8	2.427	.104	
AN-22-SH	2-1/8	2.427	.104	
AN-23	2-1/4	2.552	.104	
AN-23B	2-1/4	2.552	.104	
AN-23-SH	2-1/4	2.552	.104	
AN-24	2-3/8	2.677	.104	
AN-25	2-1/2	2.802	.104	
AN-25-SH	2-1/2	2.802	.104	
AN-25V	2.498	2.802	.104	
AN-26	2-5/8	2.989	.119	
AN-27	2-3/4	3.114	.119	
AN-27-SH	2-3/4	3.114	.119	
AN-28	2-7/8	3.239	.119	
AN-29	3	3.364	.119	
AN-29-SH	3	3.364	.119	
AN-30	3-1/8	3.489	.119	
AN-31	3-1/4	3.614	.119	
AN-31-SH	3-1/4	3.614	.119	
AN-32	3-3/8	3.729	.119	

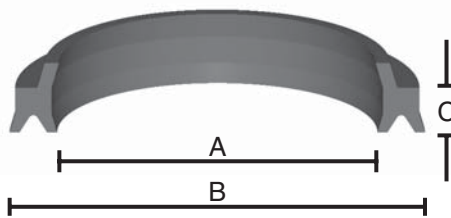
## STYLE AN URETHANE WIPER RINGS

Part Number	A - Rod Diameter	B - Groove I.D.	C - Base Thickness
AN-33	3-1/2	3.864	.119
AN-33-SH	3-1/2	3.864	.119
AN-34	3-5/8	3.989	.119
AN-35	3-3/4	4.114	.119
AN-36	3-7/8	4.239	.119
AN-37	4	4.427	.135
AN-37-SH	4	4.427	.135
AN-37V	4	4.427	.135
AN-38	4-1/8	4.552	.135
AN-39	4-1/4	4.677	.135
AN-40	4-3/8	4.802	.135
AN-41	4-1/2	4.927	.135
AN-41-SH	4-1/2	4.927	.135
AN-42	4-5/8	5.052	.135
AN-43	4-3/4	5.177	.135
AN-44	4-7/8	5.302	.135
AN-45	5	5.427	.135
AN-45-SH	5	5.427	.135
AN-46	5-1/8	5.552	.135
AN-47	5-1/4	5.677	.135
AN-48	5-3/8	5.802	.135

Part Number	A - Rod Diameter	B - Groove I.D.	C - Base Thickness
AN-49	5-1/2	5.927	.135
AN-50	5-5/8	6.114	.151
AN-51	5-3/4	6.239	.151
AN-52	5-7/8	6.364	.151
AN-53	6	6.489	.151
AN-54	6-1/4	6.739	.151
AN-55	6-1/2	6.989	.151
AN-56	6-3/4	7.239	.151
AN-57	7	7.484	.151
AN-58	7-1/4	7.739	.151
AN-59	7-1/2	7.989	.151
AN-60	7-3/4	8.247	.151
AN-61	8	8.484	.151
AN-62	8-1/2	8.989	.151
AN-63	9	9.497	.151
AN-64	9-1/2	9.989	.151
AN-65	10	10.497	.151
AN-66	10-1/2	10.997	.151
AN-67	11	11.497	.151
AN-E9-1/4	9-1/4	9.739	.135

## STYLE HW URETHANE WIPER RINGS

Suffix "V" designates fluorocarbon material, "N" designates nitrile material, and "HT" designates high temperature urethane.



### SEAL INFORMATION

MATERIAL	90 A URETHANE
TEMPERATURE RANGE	-65° TO +220° F N: -40° TO +225° F V: -20° TO +350° F HT: -65° TO +250° F
PART NUMBER	(Prefix) - (Size)

Part Number	A - Rod Diameter	B - Groove I.D.	C - Base Thickness
HW-0500	1/2	13/16	.194
HW-0500N	1/2	13/16	.194
HW-0500V	1/2	13/16	.194
HW-0625	5/8	15/16	.194
HW-0625-1	5/8	1	.203
HW-0625-1N	5/8	1	.203
HW-0625-2N	5/8	15/16	.194

Part Number	A - Rod Diameter	B - Groove I.D.	C - Base Thickness
HW-0625N	5/8	15/16	.194
HW-0625V	5/8	15/16	.194
HW-0750	3/4	1-1/16	.194
HW-0750N	3/4	1-1/16	.194
HW-0750V	3/4	1-1/16	.194
HW-0875	7/8	1-1/4	.212
HW-0875N	7/8	1-1/4	.212

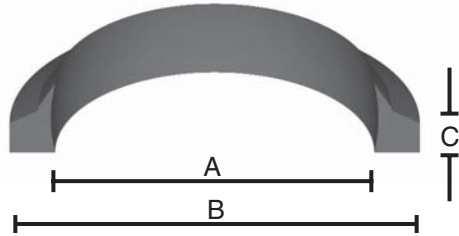


## STYLE HW URETHANE WIPER RINGS

WIPER RINGS

Part Number	A - Rod Diameter	B - Groove I.D.	C - Base Thickness		Part Number	A - Rod Diameter	B - Groove I.D.	C - Base Thickness	
HW-1000	1	1-3/8	.212		HW-2625	2-5/8	3-1/8	.275	
HW-1000N	1	1-3/8	.212		HW-2750	2-3/4	3-1/4	.275	
HW-1000U	1	1-3/8	.212		HW-3000	3	3-1/2	.275	
HW-1000V	1	1-3/8	.212		HW-3000N	3	3-1/2	.275	
HW-1125	1-1/8	1-1/2	.212		HW-3000V	3	3-1/2	.275	
HW-1250	1-1/4	1-5/8	.212		HW-3250	3-1/4	3-3/4	.275	
HW-1250N	1-1/4	1-5/8	.212		HW-3500	3-1/2	4	.275	
HW-1375	1-3/8	1-3/4	.212		HW-3500N	3-1/2	4	.275	
HW-1375HT	1-3/8	1-3/4	.206		HW-3500V	3-1/2	4	.275	
HW-1375N	1-3/8	1-3/4	.212		HW-3750	3-3/4	4-1/4	.275	
HW-1375V	1-3/8	1-3/4	.212		HW-4000	4	4-1/2	.275	
HW-1500	1-1/2	1-7/8	.212		HW-4000N	4	4-1/2	.275	
HW-1500N	1-1/2	1-7/8	.212		HW-4000V	4	4-1/2	.275	
HW-1625	1-5/8	2	.212		HW-4250	4-1/4	4-3/4	.275	
HW-1750	1-3/4	2-1/8	.212		HW-4430	4-7/16	4-15/16	.275	
HW-1750N	1-3/4	2-1/8	.212		HW-4500	4-1/2	5	.275	
HW-1750V	1-3/4	2-1/8	.212		HW-4500N	4-1/2	5	.275	
HW-1751	1-3/4	2-1/8	.168		HW-4500V	4-1/2	5	.275	
HW-1875	1-7/8	2-1/4	.212		HW-4750	4-3/4	5-1/4	.275	
HW-1875N	1-7/8	2-1/4	.212		HW-5000	5	5-1/2	.275	
HW-2000	2	2-3/8	.212		HW-5000N	5	5-1/2	.275	
HW-2000N	2	2-3/8	.212		HW-5000V	5	5-1/2	.275	
HW-2000V	2	2-3/8	.212		HW-5500	5-1/2	6	.275	
HW-2125	2-1/8	2-1/2	.212		HW-5500N	5-1/2	6	.275	
HW-2250	2-1/4	2-3/4	.275		HW-5500V	5-1/2	6	.275	
HW-2375N	2-3/8	2-7/8	.275		HW-6000N	6	6-1/2	.275	
HW-2500	2-1/2	3	.275		HW-6000V	6	6-1/2	.275	
HW-2500N	2-1/2	3	.275		HW-7000	7	7-1/2	.275	
HW-2500V	2-1/2	3	.275		HW-8000	8	8-1/2	.275	

## STYLE BT URETHANE WIPER RINGS



### SEAL INFORMATION

MATERIAL	90 A URETHANE
TEMPERATURE RANGE	-65° TO +220° F
PART NUMBER	(Prefix) (Size)

Part Number	A - Rod Diameter	B - Groove I.D.	C - Base Thickness
BT01050	5/8	7/8	5/32
BT01260	3/4	1-1/8	3/16
BT01460	7/8	1-1/4	3/16
BT10060	1	1-3/8	3/16
BT10260	1-1/8	1-1/2	3/16
BT10460	1-1/4	1-5/8	3/16
BT10660	1-3/8	1-3/4	3/16
BT10860	1-1/2	1-7/8	3/16
BT11260	1-3/4	2-1/8	3/16
BT11580	1-15/16	2-7/16	1/4
BT20060	2	2-3/8	3/16
BT20460	2-1/4	2-5/8	3/16
BT20791	2-7/16	3	.284
BT20860	2-1/2	2-7/8	3/16
BT20880	2-1/2	3	1/4
BT21080	2-5/8	3-1/8	1/4
BT21260	2-3/4	3-1/8	3/16
BT21280	2-3/4	3-1/4	1/4

Part Number	A - Rod Diameter	B - Groove I.D.	C - Base Thickness
BT30060	3	3-3/8	3/16
BT30080	3	3-1/2	1/4
BT30090	2.950	3-1/2	.275
BT30391	3.165	3.734	.284
BT30480	3-1/4	3-3/4	1/4
BT30860	3-1/2	3-7/8	3/16
BT30880	3-1/2	4	1/4
BT30890	3.450	4	.275
BT31080	3-5/8	4-1/8	1/4
BT31280	3-3/4	4-1/4	1/4
BT40080	4	4-1/2	1/4
BT40480	4-1/4	4-3/4	1/4
BT40880	4-1/2	5	1/4
BT41280	4-3/4	5-1/4	1/4
BT41591	4-15/16	5-31/64	.284
BT50080	5	5-1/2	1/4
BT50880	5-1/2	6	1/4
BT60080	6	6-1/2	1/4

## BUNA-N WIPER CORD



STYLE KW WIPER

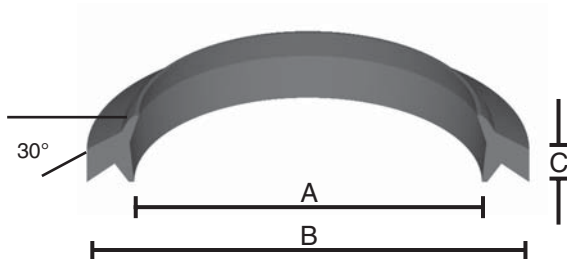


STYLE ST WIPER

Part Number	Description
7580C 3/16"	KW Style 3/16" Cross Section
7580C 1/4"	KW Style 1/4" Cross Section
7581C 3/16"	ST Style 3/16" Cross Section

# STYLE KW URETHANE WIPER RINGS

Suffix "N" designates nitrile material.



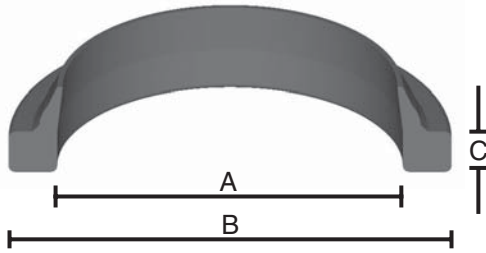
## SEAL INFORMATION

MATERIAL	90 A URETHANE
TEMPERATURE RANGE	-65° TO +220° F
PART NUMBER	(Prefix) (Size)

WIPER RINGS

Part Number	A - Rod Diameter	B - Groove I.D.	C - Base Thickness		Part Number	A - Rod Diameter	B - Groove I.D.	C - Base Thickness	
KW-0500	1/2	3/4	.156		KW-3125N	3-1/8	3-5/8	.250	
KW-0625	5/8	7/8	.156		KW-3250	3-1/4	3-3/4	.250	
KW-0750	3/4	1-1/8	.190		KW-3375	3-3/8	3-7/8	.250	
KW-0875	7/8	1-1/4	.190		KW-3450N	3.450	4	.243	
KW-1000	1	1-3/8	.190		KW-3500	3-1/2	4	.250	
KW-1125	1-1/8	1-1/2	.190		KW-3500-2	3-1/2	3-7/8	.190	
KW-1250	1-1/4	1-5/8	.190		KW-3750	3-3/4	4-1/4	.250	
KW-1250N	1-1/4	1-5/8	.190		KW-3950N	3.95	4.45	.250	
KW-1375	1-3/8	1-3/4	.190		KW-4000	4	4-1/2	.250	
KW-1500	1-1/2	1-7/8	.190		KW-4060	4-1/16	4-9/16	.250	
KW-1625	1-5/8	2	.190		KW-4500	4-1/2	5	.250	
KW-1750	1-3/4	2-1/8	.190		KW-4500N	4-1/2	5	.250	
KW-2000	2	2-3/8	.190		KW-4750N	4-3/4	5-1/4	.255	
KW-2125	2-1/8	2-1/2	.190		KW-4875	4-7/8	5-3/8	.250	
KW-2210	2-7/32	2-23/32	.250		KW-5000	5	5-1/2	.250	
KW-2250	2-1/4	2-3/4	.250		KW-5250N	5-1/4	5-3/4	.250	
KW-2250-1	2-1/4	2-5/8	.187		KW-5375	5-3/8	5-7/8	.250	
KW-2450N	2.450	3	.281		KW-6000	6	6-1/2	.250	
KW-2500	2-1/2	3	.250		KW-7000	7	7-1/2	.250	
KW-2500N	2-1/2	3	.250		KW-8000	8	8-1/2	.255	
KW-2625	2-5/8	3-1/8	.250		KW-8000N	8	8-1/2	.255	
KW-2750	2-3/4	3-1/4	.250		KW-8125	8-1/8	8.63	.255	
KW-3000	3	3-1/2	.250		KW-9125	9-1/8	9.63	.255	
KW-3000N	3	3-1/2	.250		KW-9375	9-3/8	9.89	.255	

## STYLE SWNC WIPER RINGS



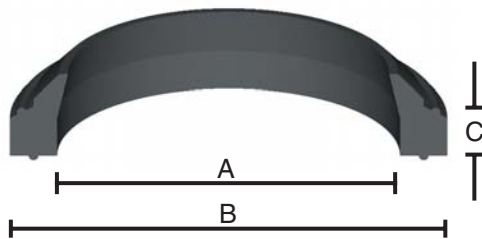
### SEAL INFORMATION

MATERIAL	BUNA-N
TEMPERATURE RANGE	-22° TO +212° F
PART NUMBER	(Prefix) (Size)

Part Number	A Rod Dia.	B O.D. Wiper	C Height
SWNC-62	5/8	1.020	1/8
SWNC-75	3/4	1.150	1/8
SWNC-87	7/8	1.275	1/8
SWNC-100	1	1-3/8	1/8
SWNC-100A	1	1.400	1/8
SWNC-112	1-1/8	1-5/8	1/8
SWNC-125	1-1/4	1-3/4	1/8
SWNC-137	1-3/8	1-7/8	1/8
SWNC-150	1-1/2	2	1/8
SWNC-162	1-5/8	2-1/8	1/8
SWNC-175	1-3/4	2-1/4	1/8
SWNC-187	1-7/8	2-3/8	1/8
SWNC-200	2	2-1/2	1/8

Part Number	A Rod Dia.	B O.D. Wiper	C Height
SWNC-225	2-1/4	2-3/4	1/8
SWNC-237	2-3/8	2-7/8	1/8
SWNC-250	2-1/2	3	1/8
SWNC-275	2-3/4	3-1/4	1/8
SWNC-300	3	3-1/2	1/8
SWNC-325	3-1/4	4	3/16
SWNC-337	3-3/8	4-1/8	3/16
SWNC-350	3-1/2	4-1/4	3/16
SWNC-400	4	4-3/4	3/16
SWNC-425	4-1/4	5	3/16
SWNC-450	4-1/2	5-1/4	3/16
SWNC-500	5	5-3/4	3/16

## STYLE SWSN WIPERS



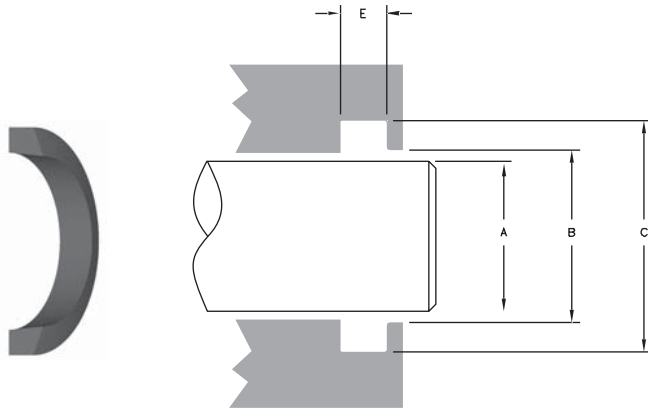
### SEAL INFORMATION

MATERIAL	BUNA-N
TEMPERATURE RANGE	-22° TO +212° F
PART NUMBER	(Prefix) (Size)

Part Number	A Rod Dia.	B O.D. Wiper	C Height
SWSN-100	1	1-1/2	0.208
SWSN-112	1-1/8	1-5/8	0.208
SWSN-125	1-1/4	1-3/4	0.208
SWSN-137	1-3/8	1-7/8	0.208
SWSN-150	1-1/2	2	0.208
SWSN-175	1-3/4	2-1/4	0.208
SWSN-175A	1-3/4	2-1/8	0.208
SWSN-187	1-7/8	2-3/8	0.208
SWSN-200	2	2-1/2	0.208
SWSN-212	2-1/8	2-5/8	0.208

Part Number	A Rod Dia.	B O.D. Wiper	C Height
SWSN-225	2-1/4	2-3/4	0.208
SWSN-250	2-1/2	3	0.208
SWSN-275	2-3/4	3-1/4	0.208
SWSN-300	3	3-1/2	0.208
SWSN-325	3-1/4	3-3/4	0.208
SWSN-337	3-3/8	3-7/8	0.208
SWSN-350	3-1/2	4	0.208
SWSN-362	3-5/8	4-1/8	0.208
SWSN-400	4	4-1/2	0.208

# STYLE SWNB WIPER RINGS

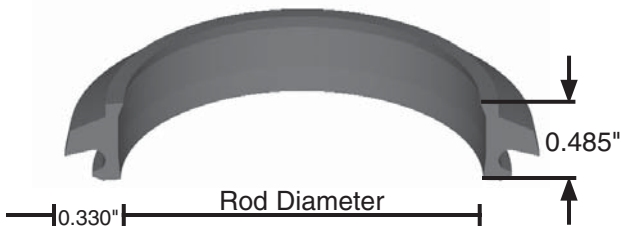


SEAL INFORMATION	
MATERIAL	BUNA-N
TEMPERATURE RANGE	-22° TO +212° F
PART NUMBER	(Prefix) (Size)

Part Number	A - Rod Diameter	B - Throat Diameter +.005/-0	C-Groove Diameter +0/- .005	E-Groove Width ±0.010
SWNB-62	5/8	0.700	0.820	0.140
SWNB-75	3/4	0.820	0.950	0.140
SWNB-87	7/8	1.080	1.080	0.150
SWNB-100	1	1.240	1.240	0.160
SWNB-112	1-1/8	1.375	1.375	0.160
SWNB-125	1-1/4	1.490	1.490	0.170
SWNB-137	1-3/8	1.625	1.625	0.170
SWNB-150	1-1/2	1.770	1.770	0.180
SWNB-162	1-5/8	1.880	1.880	0.180
SWNB-175	1-3/4	2.030	2.030	0.190
SWNB-187	1-7/8	2.160	2.160	0.190
SWNB-200	2	2.300	2.300	0.200

Part Number	A - Rod Diameter	B - Throat Diameter +.005/-0	C-Groove Diameter +0/- .005	E-Groove Width ±0.010
SWNB-212	2-1/8	2.230	2.430	0.210
SWNB-225	2-1/4	2.630	2.570	0.210
SWNB-237	2-3/8	2.490	2.700	0.220
SWNB-250	2-1/2	2.610	2.840	0.220
SWNB-262	2-5/8	2.740	2.970	0.230
SWNB-275	2-3/4	2.870	3.110	0.230
SWNB-287	2-7/8	3.000	3.240	0.240
SWNB-300	3	3.130	3.380	0.240
SWNB-312	3-1/8	3.260	3.500	0.250
SWNB-350	3-1/2	3.640	3.920	0.270
SWNB-362	3-5/8	3.770	4.050	0.270
SWNB-375	3-3/4	3.900	4.190	0.280

# CASCADE WIPERS

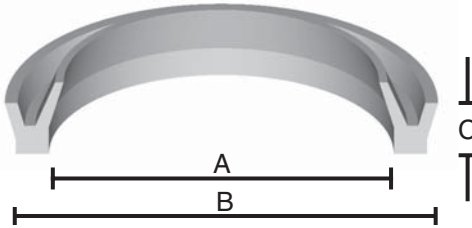


SEAL INFORMATION	
MATERIAL	URETHANE
TEMPERATURE RANGE	-65° TO +220° F
PART NUMBER	(Prefix) (Size)

Part Number	Rod. Diameter Inches
CAS-605609	2.700
CAS-605648	2.825
CAS-605611	3.200

Part Number	Rod. Diameter Inches
CAS-605613	3.700
CAS-605620	5.450

## STYLE CSW SNAP-IN WIPER RINGS



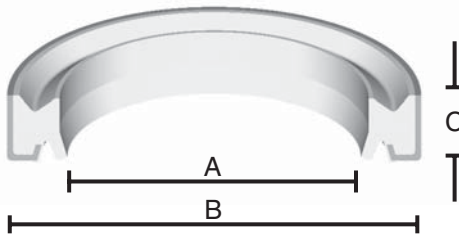
### SEAL INFORMATION

MATERIAL	NYLON
TEMPERATURE RANGE	-40° TO +212° F
PART NUMBER	(Prefix) - (Size)

Part Number	A Rod Dia.	B O.D. Wiper	C Height
CSW-62	5/8	1	0.230
CSW-75	3/4	1-1/4	0.230
CSW-87	7/8	1-3/8	0.230
CSW-100	1	1-1/2	0.230
CSW-112	1-1/8	1-5/8	0.230
CSW-125	1-1/4	1-3/4	0.230
CSW-137	1-3/8	1-7/8	0.230
CSW-150	1-1/2	2	0.230
CSW-162	1-5/8	2-1/8	0.237
CSW-175	1-3/4	2-1/4	0.237

Part Number	A Rod Dia.	B O.D. Wiper	C Height
CSW-200	2	2-1/2	0.237
CSW-225	2-1/4	2-3/4	0.237
CSW-250	2-1/2	3	0.237
CSW-275	2-3/4	3-1/4	0.237
CSW-300	3	3-1/2	0.237
CSW-325	3-1/4	3-3/4	0.237
CSW-350	3-1/2	4	0.237
CSW-375	3-3/4	4-1/4	0.237
CSW-400	4	4-1/2	0.237

## STYLE MCHD METAL METAL CLAD WIPERS



### SEAL INFORMATION

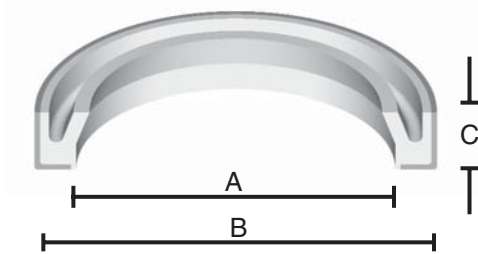
MATERIAL	92 A URETHANE
TEMPERATURE RANGE	-65° TO +220° F
PART NUMBER	(Prefix) - (Size)

Part Number	A Rod Dia.	B O.D. Wiper	C Height
MCHD-1506-D	1-1/2	2-1/4	.433
MCHD-1755-D	1-3/4	2-7/16	.433
MCHD-2006-D	2	2-11/16	.433
MCHD-2253-D	2-1/4	3	.433
MCHD-2502-D	2-1/2	3-1/4	.415
MCHD-2755-D	2-3/4	3-3/4	.555
MCHD-3008-D	3	4	.555
MCHD-3250-D	3-1/4	4-1/4	.555

Part Number	A Rod Dia.	B O.D. Wiper	C Height
MCHD-3508-D	3-1/2	4-1/2	.555
MCHD-3751-D	3-3/4	4-3/4	.555
MCHD-4000-D	4	5	.555
MCHD-5002-D	5	6	.555
MCHD-6753-D	6-3/4	7-3/4	.555
MCHD-7002-D	7	8	.555

# STYLE MCU HEAVY DUTY METAL CLAD WIPER RINGS

Utilizing a sturdy metal case, these wipers are molded from the same high performance urethane used in our Heavy Duty U-seals. Built for severe service, these wipers are capable of surviving hostile environments.



## SEAL INFORMATION

MATERIAL	92 A URETHANE
TEMPERATURE RANGE	-65° TO +220° F
PART NUMBER	(Prefix) - (Size)

Part Number	A Rod Dia.	B O.D. Wiper	C Height	
MCU-0625-D	5/8	1-1/8	5/16	
MCU-0750-D	3/4	1-1/4	5/16	
MCU-0875-D	7/8	1-3/8	5/16	
MCU-1000-D	1	1-1/2	5/16	
MCU-1120-D	1-1/8	1-5/8	5/16	
MCU-1250-D	1-1/4	1-3/4	5/16	
MCU-1254-D	1-1/4	1-3/4	1/4	
MCU-1375-D	1-3/8	1-7/8	5/16	
MCU-1500-D	1-1/2	2	5/16	
MCU-1501-D	1-1/2	1-7/8	1/4	
MCU-1502-D	1-1/2	2	1/4	
MCU-1506-D	1-1/2	2-1/4	3/8	
MCU-1624-D	1-5/8	2-1/8	1/4	
MCU-1625-D	1-5/8	2-1/8	5/16	
MCU-1750-D	1-3/4	2-1/4	5/16	
MCU-1751-D	1-3/4	2-1/4	1/4	
MCU-1755-D	1-3/4	2-7/16	3/8	
MCU-1875-D	1-7/8	2-3/8	5/16	
MCU-1876-D	1-7/8	2-9/16	3/8	
MCU-2000-D	2	2-1/2	5/16	
MCU-2002-D	2	2-1/2	1/4	
MCU-2004-D	2	2-5/8	1/4	
MCU-2006-D	2	2-11/16	3/8	
MCU-2124-D	2-1/8	2-5/8	5/16	
MCU-2125-D	2-1/8	2-7/8	3/8	
MCU-2188-D	2-3/16	2-11/16	3/8	
MCU-2250-D	2-1/4	2-3/4	5/16	
MCU-2251-D	2-1/4	2-3/4	1/4	
MCU-2253-D	2-1/4	3	3/8	
MCU-2375-D	2-3/8	2-7/8	5/16	

Part Number	A Rod Dia.	B O.D. Wiper	C Height	
MCU-2376-D	2-3/8	3-1/8	3/8	
MCU-2500-D	2-1/2	3	5/16	
MCU-2501-D	2-1/2	3-1/4	1/4	
MCU-2502-D	2-1/2	3-1/4	3/8	
MCU-2503-D	2-1/2	3	3/16	
MCU-2624-D	2-5/8	3-1/8	5/16	
MCU-2625-D	2-5/8	3-1/8	1/4	
MCU-2750-D	2-3/4	3-1/4	5/16	
MCU-2754-D	2-3/4	3-1/2	1/4	
MCU-2755-D	2-3/4	3-3/4	1/2	
MCU-2758-D	2-3/4	3-1/2	1/2	
MCU-3000-D	3	3-1/2	5/16	
MCU-3002-D	3	3-3/4	1/4	
MCU-3008-D	3	4	1/2	
MCU-3125-D	3-1/8	3-3/4	3/8	
MCU-3250-D	3-1/4	4-1/4	1/2	
MCU-3254-D	3-1/4	3-3/4	5/16	
MCU-3256-D	3-1/4	3-7/8	5/16	
MCU-3375-D	3-3/8	4	5/16	
MCU-3500-D	3-1/2	4	5/16	
MCU-3504-D	3-1/2	4-1/4	1/4	
MCU-3506-D	3-1/2	4-1/8	5/16	
MCU-3508-D	3-1/2	4-1/2	1/2	
MCU-3750-D	3-3/4	4-1/4	5/16	
MCU-3751-D	3-3/4	4-3/4	1/2	
MCU-3754-D	3-3/4	4-3/8	5/16	
MCU-3755-D	3-3/4	4-1/2	5/16	
MCU-4000-D	4	5	1/2	
MCU-4002-D	4	4-3/4	5/16	
MCU-4005-D	4	4-5/8	5/16	

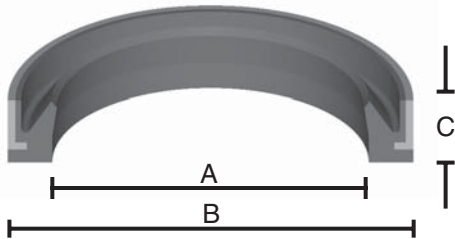
## STYLE MCU HEAVY DUTY METAL CLAD WIPER RINGS

Part Number	A Rod Dia.	B O.D. Wiper	C Height	
MCU-4250-D	4-1/4	5-1/4	1/2	
MCU-4252-D	4-1/4	4-3/4	5/16	
MCU-4375-D	4-3/8	5	5/16	
MCU-4505-D	4-1/2	5-1/8	5/16	
MCU-4508-D	4-1/2	5-1/2	1/2	
MCU-4750-D	4-3/4	5-3/4	1/2	
MCU-4751-D	4-3/4	5-3/8	5/16	
MCU-5000-D	5	5-3/4	5/16	
MCU-5002-D	5	6	1/2	
MCU-5250-D	5-1/4	6	5/16	
MCU-5251-D	5-1/4	5-3/4	5/16	
MCU-5750-D	5-3/4	6-3/8	3/8	
MCU-5751-D	5-3/4	6-3/4	1/2	
MCU-6001-D	6	6-5/8	3/8	

Part Number	A Rod Dia.	B O.D. Wiper	C Height	
MCU-6002-D	6	7	1/2	
MCU-6250-D	6-1/4	6-3/4	5/16	
MCU-6500-D	6-1/2	7-1/2	5/8	
MCU-6503-D	6-1/2	7-1/4	5/16	
MCU-6751-D	6-3/4	7-1/4	5/16	
MCU-6753-D	6-3/4	7-3/4	1/2	
MCU-7002-D	7	8	1/2	
MCU-8000-D	8	8-3/4	3/8	
MCU-8120-D	8-1/8	8-5/8	5/16	
MCU-9750-D	9-3/4	10-1/4	5/16	
MCU-11000-D	11	12	0.550	
MCU-12500-D	12-1/2	13-1/2	0.550	
MCU-13500-D	13-1/2	14-1/2	0.550	

## NON-METALLIC CANNED WIPERS

This unique wiper utilizes a tough 90A durometer urethane lip in a molded through non-metallic casing. The thermo-plastic case provides a rigid base and is entirely rust-proof. Replaces metal clad wipers of the same dimensions.



### SEAL INFORMATION

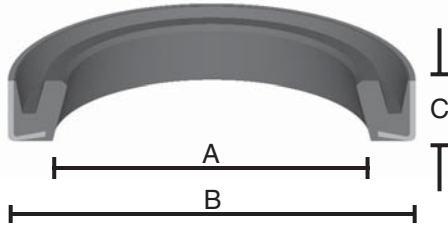
MATERIAL	90 A URETHANE
TEMPERATURE RANGE	-65° TO +220° F
PART NUMBER	(Prefix) - (Size)

Part Number	A Rod Dia.	B O.D. Wiper	C Height	
PCU-1000	1	1-1/2	5/16	
PCU-1250	1-1/4	1-3/4	5/16	
PCU-1375	1-3/8	1-7/8	5/16	
PCU-1500	1-1/2	2	5/16	
PCU-1750	1-3/4	2-1/4	5/16	
PCU-2000	2	2-1/2	5/16	

Part Number	A Rod Dia.	B O.D. Wiper	C Height	
PCU-2250	2-1/4	2-3/4	5/16	
PCU-2500	2-1/2	3	5/16	
PCU-2750	2-3/4	3-1/4	5/16	
PCU-3000	3	3-1/2	5/16	
PCU-3250	3-1/4	3-3/4	5/16	
PCU-3500	3-1/2	4	5/16	



# STYLE MCN METAL CLAD WIPERS - RUBBER LIP



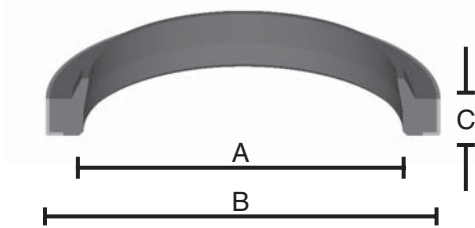
### SEAL INFORMATION

MATERIAL	RUBBER
TEMPERATURE RANGE	-40° TO +240° F
PART NUMBER	(Prefix) - (Size)

Part Number	A Rod Dia.	B O.D. Wiper	C Height	
MCN-0500	1/2	11/16	3/32	
MCN-0501	1/2	3/4	1/8	
MCN-0625	5/8	15/16	3/16	
MCN-0626	5/8	7/8	1/8	
MCN-0750	3/4	1-1/4	1/4	
MCN-0751	3/4	1	1/8	
MCN-0873	7/8	1-1/8	1/8	
MCN-0875	7/8	1-1/4	3/16	
MCN-1001	1	1-1/4	1/8	
MCN-1003	1	1-3/8	3/16	
MCN-1004	1	1-7/16	1/4	
MCN-1005	1	1-1/2	3/16	
MCN-1006	1	1-5/16	1/8	
MCN-1060	1-1/16	1-1/2	3/16	
MCN-1125	1-1/8	1-1/2	3/16	
MCN-1126	1-1/8	1-3/8	1/8	
MCN-1127	1-1/8	1-9/16	1/4	
MCN-1129	1-1/8	1-5/8	1/4	
MCN-1251	1-1/4	1-1/2	1/8	
MCN-1253	1-1/4	1-11/16	3/16	
MCN-1254	1-1/4	1-3/4	1/4	
MCN-1255	1-1/4	1-7/8	1/4	
MCN-1256	1-1/4	1-5/8	1/4	
MCN-1375	1-3/8	1-3/4	3/16	
MCN-1376	1-3/8	1-7/8	1/4	
MCN-1377	1-3/8	1-5/8	1/8	
MCN-1502	1-1/2	1-7/8	1/4	
MCN-1503	1-1/2	1-7/8	3/16	
MCN-1504	1-1/2	2	1/4	
MCN-1625	1-5/8	2-1/8	1/4	

Part Number	A Rod Dia.	B O.D. Wiper	C Height	
MCN-1626	1-5/8	2-5/8	1/4	
MCN-1753	1-3/4	2-1/8	3/16	
MCN-1754	1-3/4	2-1/4	1/4	
MCN-1755	1-3/4	2-3/8	1/4	
MCN-1756	1-3/4	2-5/8	1/4	
MCN-1877	1-7/8	2-1/4	3/16	
MCN-1879	1-7/8	2-1/2	1/4	
MCN-2001	2	2-3/8	3/16	
MCN-2002	2	2-5/8	1/4	
MCN-2003	2	2-1/2	1/4	
MCN-2006	2	2-3/4	1/4	
MCN-2007	2	2-7/8	15/32	
MCN-2125	2-1/8	2-1/2	3/16	
MCN-2251	2-1/4	2-5/8	1/4	
MCN-2253	2-1/4	2-3/4	1/4	
MCN-2255	2-1/4	2-7/8	1/4	
MCN-2371	2-3/8	3	1/4	
MCN-2501	2-1/2	3	1/4	
MCN-2504	2-1/2	3-1/8	1/4	
MCN-2660	2.66	3-1/4	3/8	
MCN-2750	2-3/4	3-1/4	1/4	
MCN-2751	2-3/4	3-1/8	3/16	
MCN-2756	2-3/4	3-3/4	3/8	
MCN-3001	3	3-1/2	1/4	
MCN-3003	3	3-3/4	1/4	
MCN-3504	3-1/2	4	1/4	

## STYLE CWN METAL CLAD WIPERS



### SEAL INFORMATION

MATERIAL	BUNA-N
TEMPERATURE RANGE	-22° TO +212° F
PART NUMBER	(Prefix) - (Size)

Part Number	A Rod Dia.	B O.D. Wiper	C Height	
CWN-100	1	1-3/8	3/16	
CWN-112	1-1/8	1-1/2	3/16	
CWN-125	1-1/4	1-5/8	3/16	
CWN-150	1-1/2	1-7/8	3/16	
CWN-175	1-3/4	2-1/8	3/16	

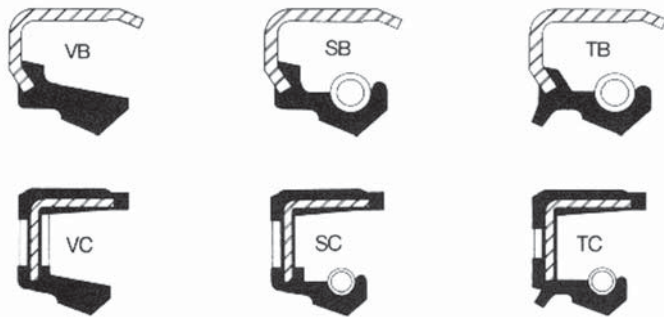
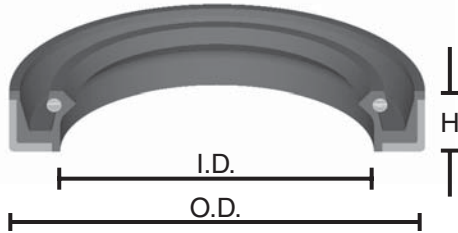
Part Number	A Rod Dia.	B O.D. Wiper	C Height	
CWN-200	2	2-3/8	3/16	
CWN-225	2-1/4	2-5/8	3/16	
CWN-250	2-1/2	2-7/8	3/16	
CWN-275	2-3/4	3-1/8	3/16	
CWN-300	3	3-3/8	3/16	

**If you don't see the size you need,  
give us a call...**

**We are adding new sizes everyday!**

# OIL SEALS

We offers several sizes of standard sized metal clad oil seals. These seals are for rotating shafts and are specifically designed to prevent oil or grease leakage at maximum pressures of 10 PSI and temperature of 240° F. Additional style and sizes are available upon request.



## SEAL INFORMATION

MATERIAL	RUBBER
TEMPERATURE RANGE	-40° TO +240° F
PRESSURE RANGE	10 PSI MAXIMUM
PART NUMER	(Prefix) - (Size) - (Style)

Part Number	ID	OD	H
OS-0.31X0.75X0.25VTF	5/16	3/4	1/4
OS-0.37X0.68X0.15VM	3/8	11/16	5/32
OS-0.37X0.75X0.25SB	3/8	3/4	1/4
OS-0.37X1.00X0.25SM	3/8	1	1/4
OS-0.43X0.62X0.12VC	7/16	5/8	1/8
OS-0.43X0.83X0.18VM	7/16	.836	3/16
OS-0.43X0.87X0.25SM	7/16	7/8	1/4
OS-0.43X0.87X0.25TB	7/16	7/8	1/4
OS-0.43X1.00X0.25TC	7/16	1	1/4
OS-0.43X1.00X0.25VM	7/16	1	1/4
OS-0.43X1.00X0.37SB	7/16	1	3/8
OS-0.50X0.68X0.09VC	1/2	11/16	3/32
OS-0.50X0.75X0.12VM	1/2	3/4	1/8
OS-0.50X0.75X0.16TB	1/2	3/4	.167
OS-0.50X0.87X0.12VC	1/2	7/8	1/8
OS-0.50X0.87X0.12VM	1/2	7/8	1/8
OS-0.50X0.87X0.25SC	1/2	7/8	1/4
OS-0.50X0.87X0.25TB	1/2	7/8	1/4
OS-0.50X0.87X0.25TEC	1/2	7/8	1/4
OS-0.50X0.87X0.31TBY	1/2	7/8	5/16
OS-0.50X1.00X0.25TB	1/2	1	1/4
OS-0.50X1.00X0.25TC	1/2	1	1/4

Part Number	ID	OD	H
OS-0.50X1.00X0.25TC	1/2	1	1/4
OS-0.50X1.00X0.25TCN	1/2	1	1/4
OS-0.50X1.12X0.25SB	1/2	1-1/8	1/4
OS-0.50X1.12X0.25SC	1/2	1-1/8	1/4
OS-0.50X1.12X0.25TB	1/2	1-1/8	1/4
OS-0.50X1.25X0.25TC	1/2	1-1/4	1/4
OS-0.56X0.87X0.18TC	9/16	7/8	3/16
OS-0.56X1.00X0.25SB	9/16	1	1/4
OS-0.56X1.00X0.25TC	9/16	1	1/4
OS-0.56X1.12X0.25TB	9/16	1-1/8	1/4
OS-0.56X1.25X0.25TB	9/16	1-1/4	1/4
OS-0.62X0.81X0.09VC	5/8	13/16	3/32
OS-0.62X0.81X0.09VM	5/8	13/16	3/32
OS-0.62X0.87X0.12SM	5/8	7/8	1/8
OS-0.62X1.00X0.12VMY	5/8	1	1/8
OS-0.62X1.00X0.25SM	5/8	1	1/4
OS-0.62X1.00X0.25TB	5/8	1	1/4
OS-0.62X1.00X0.25TC	5/8	1	1/4
OS-0.62X1.00X0.25TC	5/8	1	1/4
OS-0.62X1.12X0.25TB	5/8	1-1/8	1/4
OS-0.62X1.12X0.25TC	5/8	1-1/8	1/4
OS-0.62X1.12X0.25VTB	5/8	1-1/8	1/4

## OIL SEALS

Part Number	ID	OD	H		Part Number	ID	OD	H	
OS-0.62X1.12X0.37TBY	5/8	1-1/8	3/8		OS-0.87X1.18X0.16VZ	7/8	1-3/16	.164	
OS-0.62X1.12X0.37TC	5/8	1-1/8	3/8		OS-0.87X1.25X0.18SB	7/8	1-1/4	3/16	
OS-0.62X1.25X0.25TC	5/8	1-1/4	1/4		OS-0.87X1.25X0.18TB	7/8	1-1/4	3/16	
OS-0.62X1.37X0.25TB	5/8	1-3/8	1/4		OS-0.87X1.25X0.25SC	7/8	1-1/4	.1/4	
OS-0.62X1.37X0.25VTB	5/8	1-3/8	1/4		OS-0.87X1.37X0.25SB	7/8	1-3/8	.1/4	
OS-0.62X1.50X0.25SB-H	5/8	1-1/2	1/4		OS-0.87X1.37X0.25TB	7/8	1-3/8	.1/4	
OS-0.65X1.12X0.25SC	21/32	1-1/8	1/4		OS-0.87X1.37X0.25TBY	7/8	1-3/8	1/4	
OS-0.68X1.00X0.18VM	11/16	1	3/16		OS-0.87X1.37X0.25TC	7/8	1-3/8	.1/4	
OS-0.68X1.06X0.18SM	11/16	1-1/16	3/16		OS-0.87X1.37X0.31SB	7/8	1-3/8	5/16	
OS-0.68X1.12X0.25SB	11/16	1-1/8	1/4		OS-0.87X1.37X0.31TA	7/8	1-3/8	5/16	
OS-0.68X1.12X0.25TC	11/16	1-1/8	1/4		OS-0.87X1.50X0.25TB-H	7/8	1-1/2	1/4	
OS-0.68X1.25X0.25TZ	11/16	1-1/4	1/4		OS-0.87X1.50X0.25VTB	7/8	1-1/2	1/4	
OS-0.68X1.25X0.31SB	11/16	1-1/4	5/16		OS-0.87X1.62X0.25TB	7/8	1-5/8	1/4	
OS-0.68X1.37X0.31TC	11/16	1-3/8	5/16		OS-0.87X1.82X0.37TB	7/8	1-53/64	3/8	
OS-0.75X1.00X0.12VC	3/4	1	1/8		OS-0.93X1.37X0.25TB	15/16	1-3/8	1/4	
OS-0.75X1.00X0.15TC	3/4	1	5/32		OS-0.93X1.50X0.25SB-H	15/16	1-1/2	.1/4	
OS-0.75X1.06X0.18TB	3/4	1-1/6	3/16		OS-0.93X1.50X0.25TB	31/32	1-1/2	1/4	
OS-0.75X1.12X0.15VC	3/4	1-1/8	5/32		OS-0.96X1.62X0.25SB-H	31/32	1-5/8	1/4	
OS-0.75X1.12X0.15VM	3/4	1-1/8	5/32		OS-1.00X1.25X0.12VB	1	1-1/4	1/8	
OS-0.75X1.12X0.18SZ	3/4	1-1/8	3/16		OS-1.00X1.25X0.25TC	1	1-1/4	.1/4	
OS-0.75X1.12X0.18TB	3/4	1-1/8	3/16		OS-1.00X1.31X0.12VL	1	1-5/16	.1/8	
OS-0.75X1.12X0.25TC	3/4	1-1/8	1/4		OS-1.00X1.37X0.25PSB	1	1-3/8	.1/4	
OS-0.75X1.18X0.25SB	3/4	1-3/16	1/4		OS-1.00X1.37X0.25TBY	1	1-3/8	.1/4	
OS-0.75X1.25X0.25SB	3/4	1-1/4	1/4		OS-1.00X1.43X0.25SC	1	1-7/16	.1/4	
OS-0.75X1.25X0.25SC	3/4	1-1/4	.1/4		OS-1.00X1.50X0.18VB	1	1-1/2	3/16	
OS-0.75X1.25X0.25TB	3/4	1-1/4	.1/4		OS-1.00X1.50X0.25SB-H	1	1-1/2	1/4	
OS-0.75X1.25X0.25TC-G	3/4	1-1/4	.1/4		OS-1.00X1.50X0.25TB	1	1-1/2	.1/4	
OS-0.75X1.25X0.31TC	3/4	1-1/4	5/16		OS-1.00X1.50X0.25TB-H	1	1-1/2	.1/4	
OS-0.75X1.25X0.31TZ	3/4	1-1/4	5/16		OS-1.00X1.50X0.25TBY	1	1-1/2	.1/4	
OS-0.75X1.25X0.31VTC	3/4	1-1/4	5/16		OS-1.00X1.50X0.25TC	1	1-1/2	.1/4	
OS-0.75X1.31X0.25TB	3/4	1-5/16	.1/4		OS-1.00X1.50X0.31TC	1	1-1/2	5/16	
OS-0.75X1.37X0.25PTC	3/4	1-3/8	1/4		OS-1.00X1.56X0.25VB-H	1	1-9/16	1/4	
OS-0.75X1.37X0.25TB	3/4	1-3/8	.1/4		OS-1.00X1.57X0.25TB	1	1.575	.1/4	
OS-0.75X1.50X0.25TB-H	3/4	1-1/2	.1/4		OS-1.00X1.62X0.25SB	1	1-5/8	.1/4	
OS-0.75X1.75X0.25SB	3/4	1-3/4	1/4		OS-1.00X1.62X0.25TB	1	1-5/8	.1/4	
OS-0.75X1.75X0.31TZ	.3/4	1-3/4	5/16		OS-1.00X1.62X0.25TC	1	1-5/8	1/4	
OS-0.78X1.12X0.18SB	.787	1-1/8	3/16		OS-1.00X1.62X0.25VB	1	1-5/8	1/4	
OS-0.78X1.37X0.31SB	25/32	1-3/8	5/16		OS1.00X1.62X0.37SSTZN	1	1-5/8	3/8	
OS-0.78X1.75X0.31TZ	25/32	1-3/4	5/16		OS-1.00X1.75X0.25SB	1	1-3/4	1/4	
OS-0.81X1.06X0.12VC	13/16	1-1/16	1/8		OS-1.00X1.75X0.25TB	1	1-3/4	.1/4	
OS-0.81X1.25X0.18SM	13/16	1-1/4	3/16		OS-1.00X1.75X0.25VSB	1	1-3/4	1/4	
OS-0.81X1.37X0.25TB	13/16	1-3/8	1/4		OS-1.00X1.78X0.46VHY	1	1-25/32	5/16	
OS-0.81X1.37X0.37SB-H	13/16	1-3/8	3/8		OS-1.00X1.87X0.25SB	1	1-7/8	1/4	
OS-0.81X1.62X0.25TB	13/16	1-5/8	1/4		OS-1.00X1.87X0.25TB	1	1-7/8	.1/4	
OS-0.87X1.12X0.12VM	7/8	1-1/8	1/8		OS-1.00X1.98X0.31TB	1	1.982	5/16	

## OIL SEALS

Part Number	ID	OD	H		Part Number	ID	OD	H	
OS-1.00X2.06X0.37SC	1	2-1/16	3/8		OS-1.25X2.00X0.25VTB	1-1/4	2	1/4	
OS-1.00X2.43X0.37TC	1	2-7/16	3/8		OS-1.25X2.00X0.31TC	1-1/4	2	5/16	
OS-1.06X1.50X0.25SB-H	1-1/16	1-1/2	.1/4		OS-1.25X2.00X0.43SB	1-1/4	2	7/16	
OS-1.06X1.62X0.25SB	1-1/16	1-5/8	1/4		OS-1.25X2.062X0.25TB	1-1/4	2-1/16	1/4	
OS-1.06X1.68X0.25SB	1-1/16	1-11/16	1/4		OS-1.25X2.12X0.25SB	1-1/4	2-1/8	1/4	
OS-1.06X1.87X0.25SB	1-1/16	1-7/8	1/4		OS-1.25X2.12X0.25TB	1-1/4	2-1/8	1/4	
OS-1.12X1.37X0.12VM	1-1/8	1-3/8	1/8		OS-1.25X2.25X0.25VB	1-1/4	2-1/4	1/4	
OS-1.12X1.50X0.18VB	1-1/8	1-1/2	3/16		OS-1.25X2.47X0.31SC	1-1/4	2.47	5/16	
OS-1.12X1.50X0.18VTC	1-1/8	1-1/2	3/16		OS-1.28X2.00X0.37TB	1-9/32	2	3/8	
OS-1.12X1.50X0.25VZY	1-1/8	1-1/2	1/4		OS-1.31X2.12X0.31TB	1-5/16	2-1/8	5/16	
OS-1.12X1.56X0.25PSL	1-1/8	1-9/16	1/4		OS-1.37X1.75X0.18SM	1-3/8	1-3/4	3/16	
OS-1.12X1.56X0.25SB	1-1/8	1-9/16	1/4		OS-1.37X1.75X0.18VB	1-3/8	1-3/4	3/16	
OS-1.12X1.62X0.25SB	1-1/8	1-5/8	1/4		OS-1.37X1.75X0.21TB	1-3/8	1-3/4	.219	
OS-1.12X1.62X0.25SC	1-1/8	1-5/8	1/4		OS-1.37X1.82X0.31SB	1-3/8	1-53/64	5/16	
OS-1.12X1.62X0.25TB	1-1/8	1-5/8	.1/4		OS-1.37X1.87X0.25SB	1-3/8	1-7/8	1/4	
OS-1.12X1.75X0.25SB	1-1/8	1-3/4	1/4		OS-1.37X1.93X0.25TB	1-3/8	1-15/16	.1/4	
OS-1.12X1.75X0.25TB	1-1/8	1-3/4	1/4		OS-1.37X1.93X0.25VB	1-3/8	1-15/16	1/4	
OS-1.12X1.78X0.46TB	1-1/8	1-25/32	.469		OS-1.37X1.98X0.43TM	1-3/8	1.979	7/16	
OS-1.12X1.82X0.25TB	1-1/8	1-53/64	1/4		OS-1.37X2.00X0.31VTB	1-3/8	2	5/16	
OS-1.12X1.82X0.25TC	1-1/8	1-53/64	1/4		OS-1.37X2.00X0.37TA	1-3/8	2	3/8	
OS-1.12X1.87X0.25TB	1-1/8	1-7/8	.1/4		OS-1.37X2.12X0.31TB	1-3/8	2-1/8	5/16	
OS-1.12X2.00X0.25SB	1-1/8	2	1/4		OS-1.37X2.12X0.31TC	1-3/8	2-1/8	5/16	
OS-1.12X2.00X0.37TB	1-1/8	2	3/8		OS-1.37X2.12X0.43SA	1-3/8	2-1/8	7/16	
OS-1.12X2.12X0.31SB	1-1/8	2-1/8	5/16		OS-1.37X2.25X0.31TB	1-3/8	2-1/4	5/16	
OS-1.15X1.68X0.31TC	1-5/32	1-11/16	5/16		OS-1.37X2.37X0.31TB	1-3/8	2-3/8	5/16	
OS-1.18X1.68X0.25SB	1-3/16	1-11/16	1/4		OS-1.37X2.44X0.31TB	1-3/8	2.441	5/16	
OS-1.18X1.87X0.25SB	1-3/16	1-7/8	1/4		OS-1.43X1.87X0.18VB	1-7/16	1-7/8	3/16	
OS-1.18X2.00X0.25TB	1-3/16	2	1/4		OS-1.43X2.12X0.37SC	1-7/16	2-1/8	3/8	
OS-1.25X1.50X0.12VB	1-1/4	1-1/2	1/8		OS-1.43X2.37X0.31TB	1-7/16	2-3/8	5/16	
OS-1.25X1.50X0.12VC	1-1/4	1-1/2	1/8		OS-1.50X1.87X0.25SB	1-1/2	1-7/8	.1/4	
OS-1.25X1.62X0.18SB	1-1/4	1-5/8	3/16		OS-1.50X1.87X0.25TB	1-1/2	1-7/8	.1/4	
OS-1.25X1.62X0.18SM	1-1/4	1-5/8	3/16		OS-1.50X1.87X0.25VB	1-1/2	1-7/8	.1/4	
OS-1.25X1.62X0.25TC	1-1/4	1-5/8	.1/4		OS-1.50X1.98X0.18VB	1-1/2	1.983	3/16	
OS-1.25X1.68X0.18VB	1-1/4	1-11/16	3/16		OS-1.50X1.98X0.25TB	1-1/2	1.983	1/4	
OS-1.25X1.68X0.25SB	1-1/4	1-11/16	1/4		OS-1.50X1.99X0.25KB	1-1/2	1.989	1/4	
OS-1.25X1.68X0.25SC	1-1/4	1-11/16	1/4		OS-1.50X2.00X0.25VB	1-1/2	2	.1/4	
OS-1.25X1.68X0.25TC	1-1/4	1-11/16	1/4		OS-1.50X2.00X0.31TB	1-1/2	2	5/16	
OS-1.25X1.68X0.25TF	1-1/4	1-11/16	1/4		OS-1.50X2.12X0.31TB	1-1/2	2-1/8	5/16	
OS-1.25X1.68X0.31TB	1-1/4	1-11/16	.313		OS-1.50X2.25X0.25VH	1-1/2	2-1/4	.1/4	
OS-1.25X1.75X0.25TB	1-1/4	1-3/4	1/4		OS-1.50X2.25X0.31SB	1-1/2	2-1/4	5/16	
OS-1.25X1.75X0.25TBY	1-1/4	1-3/4	1/4		OS-1.50X2.25X0.31TB	1-1/2	2-1/4	5/16	
OS-1.25X1.87X0.25TB	1-1/4	1-7/8	.1/4		OS-1.50X2.25X0.31VTB-H	1-1/2	2-1/4	5/16	
OS-1.25X1.98X0.25TB	1-1/4	1.983	1/4		OS-1.50X2.37X0.25VH	1-1/2	2-3/8	.1/4	
OS-1.25X1.98X0.25VH	1-1/4	1.983	1/4		OS-1.50X2.37X0.31TB	1-1/2	2-3/8	5/16	
OS-1.25X2.00X0.25TB	1-1/4	2	.1/4		OS-1.50X2.37X0.31TB-H	1-1/2	2-3/8	5/16	

## OIL SEALS

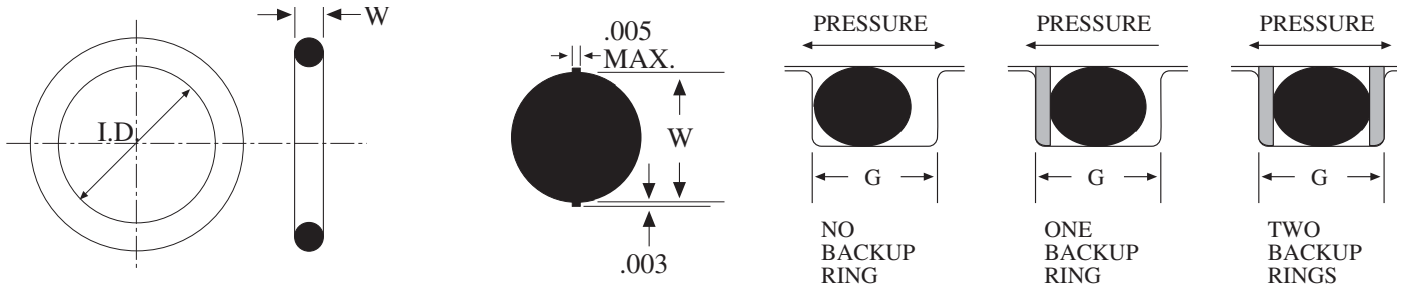
Part Number	ID	OD	H		Part Number	ID	OD	H	
OS-1.50X2.50X0.31SB	1-1/2	2-1/2	5/16		OS-2.00X3.00X0.37SA	2	3	3/8	
OS-1.50X2.50X0.31TB	1-1/2	2-1/2	5/16		OS-2.12X2.75X0.50TB	2-1/8	2-3/4	1/2	
OS-1.50X2.75X0.31SB	1-1/2	2-3/4	5/16		OS-2.12X2.87X0.25VB	2-1/8	2-7/8	1/4	
OS-1.56X2.12X0.31SB	1-9/16	2-1/8	5/16		OS-2.12X3.00X0.37TA	2-1/8	3	3/8	
OS-1.56X2.37X0.31TB	1-9/16	2-3/8	5/16		OS-2.12X3.06X0.50TA	2-1/8	3-1/16	1/2	
OS-1.625X2.00X0.25SB	1-5/8	2	1/4		OS-2.18X3.00X0.37TB	2-3/16	3	3/8	
OS-1.62X2.12X0.25SB	1-5/8	2-1/8	1/4		OS-2.25X2.87X0.25VH	2-1/4	2-7/8	1/4	
OS-1.62X2.37X0.31TB	1-5/8	2-3/8	5/16		OS-2.25X3.00X0.25TA	2-1/4	3	1/4	
OS-1.62X2.37X0.37TC	1-5/8	2-3/8	3/8		OS-2.25X3.00X0.37SB	2-1/4	3	3/8	
OS-1.62X2.43X0.31TB	1-5/8	2-7/16	5/16		OS-2.25X3.00X0.37TB	2-1/4	3	3/8	
OS-1.62X2.50X0.31TB	1-5/8	2-1/2	5/16		OS-2.25X3.00X0.43TA	2-1/4	3	7/16	
OS-1.71X2.56X0.50TB	1-23/32	2-9/16	1/2		OS-2.25X3.18X0.43PTB	2-1/4	3-3/16	7/16	
OS-1.75X2.12X0.18SB	1-3/4	2-1/8	3/16		OS-2.25X3.25X0.25VH	2-1/4	3-1/4	1/4	
OS-1.75X2.25X0.18VB	1-3/4	2-1/4	3/16		OS-2.25X3.25X0.37TB	2-1/4	3-1/4	3/8	
OS-1.75X2.25X0.31SB	1-3/4	2-1/4	5/16		OS-2.37X3.00X0.25VH	2-3/8	3	1/4	
OS-1.75X2.37X0.31TB	1-3/4	2-3/8	5/16		OS-2.37X3.12X0.37SB	2-3/8	3-1/8	3/8	
OS-1.75X2.43X0.31TB	1-3/4	2-7/16	5/16		OS-2.37X3.50X0.37SA	2-3/8	3-1/2	3/8	
OS-1.75X2.43X0.31TC	1-3/4	2-7/16	5/16		OS-2.50X3.00X0.25VB	2-1/2	3	1/4	
OS-1.75X2.50X0.31TB	1-3/4	2-1/2	5/16		OS-2.50X3.00X0.28WS	2-1/2	3	9/32	
OS-1.75X2.50X0.31VTB	1-3/4	2-1/2	5/16		OS-2.50X3.06X0.25SM	2-1/2	3-1/16	1/4	
OS-1.75X2.56X0.31SB	1-3/4	2-9/16	5/16		OS-2.50X3.18X0.37TB	2-1/2	3-3/16	3/8	
OS-1.75X2.56X0.31TB	1-3/4	2-9/16	5/16		OS-2.50X3.25X0.37TB	2-1/2	3-1/4	3/8	
OS-1.75X2.62X0.31TB	1-3/4	2-5/8	5/16		OS-2.50X3.25X0.43TA	2-1/2	3-1/4	7/16	
OS-1.75X2.68X0.31SL-H	1-3/4	2.686	5/16		OS-2.50X3.50X0.25VH	2-1/2	3-1/2	1/4	
OS-1.75X2.75X0.31TB	1-3/4	2-3/4	5/16		OS-2.50X3.50X0.37TB	2-1/2	3-1/2	3/8	
OS-1.75X2.87X0.31SB	1-3/4	2-7/8	5/16		OS-2.50X3.50X0.43TA	2-1/2	3-1/2	7/16	
OS-1.75X3.00X0.37TB	1-3/4	3	3/8		OS-2.62X3.37X0.37TA	2-5/8	3-3/8	3/8	
OS-1.87X2.50X0.25VHY	1-7/8	2-1/2	1/4		OS-2.62X3.50X0.37TB	2-5/8	3-1/2	3/8	
OS-1.87X2.50X0.31SB	1-7/8	2-1/2	5/16		OS-2.75X3.50X0.37TB	2-3/4	3-1/2	3/8	
OS-1.87X2.62X0.31TB	1-7/8	2-5/8	5/16		OS-2.81X3.87X0.43SA	2-13/16	3-7/8	7/16	
OS-1.87X2.62X0.31TB-H	1-7/8	2-5/8	5/16		OS-2.93X4.00X0.43TA	2-15/16	4	7/16	
OS-1.93X2.68X0.31TC	1-15/16	2-11/16	5/13		OS-3.00X3.75X0.37TB	3	3-3/4	3/8	
OS-1.93X2.68X0.31TL-H	1-15/16	2-11/16	5/16		OS-3.00X3.75X0.43TA	3	3-3/4	7/16	
OS-2.00X2.50X0.25TC	2	2-1/2	1/4		OS-3.00X4.00X0.37TB	3	4	3/8	
OS-2.00X2.50X0.25VB	2	2-1/2	1/4		OS-3.00X4.00X0.43TA	3	4	7/16	
OS-2.00X2.62X0.25VHY	2	2-5/8	1/4		OS-3.25X4.00X0.37PTB	3-1/4	4	3/8	
OS-2.00X2.62X0.31TB	2	2-5/8	5/16		OS-3.25X4.25X0.37TB	3-1/4	4-1/4	3/8	
OS-2.00X2.68X0.37SB	2	2-11/16	3/8		OS-3.25X4.25X0.43TA	3-1/4	4-1/4	7/16	
OS-2.00X2.71X0.37TB	2	2-23/32	3/8		OS-3.25X4.50X0.43TA	3-1/4	4-1/2	7/16	
OS-2.00X2.75X0.18VM	2	2-3/4	3/16		OS-3.37X4.12X0.37TB	3-3/8	4-1/8	3/8	
OS-2.00X2.75X0.31TB	2	2-3/4	5/16		OS-3.37X4.37X0.43TA	3-3/8	4-3/8	7/16	
OS-2.00X2.75X0.31TC	2	2-3/4	5/16		OS-3.50X4.37X0.37TB	3-1/2	4-3/8	3/8	
OS-2.00X2.87X0.31TA	2	2-7/8	5/16		OS-3.50X4.50X0.43SA	3-1/2	4-1/2	7/16	
OS-2.00X3.00X0.25SB	2	3	1/4		OS-3.50X4.75X0.25VH	3-1/2	4-3/4	1/4	
OS-2.00X3.00X0.31TB	2	3	5/16		OS-3.68X4.50X0.43TA	3-11/16	4-1/2	7/16	

# OIL SEALS

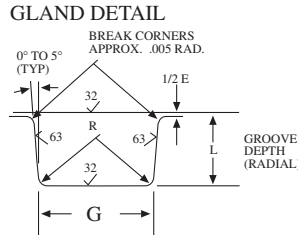
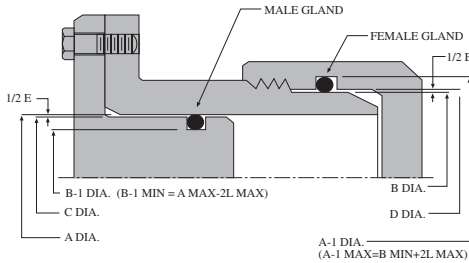
Part Number	ID	OD	H	
OS-3.75X4.75X0.43STA	3-3/4	4-3/4	7/16	
OS-3.87X5.25X0.43TA	3-7/8	5-1/4	7/16	
OS-4.00X5.00X0.43TA	4	5	7/16	
OS-4.00X5.37X0.50TA	4	5-3/8	1/2	
OS-5.00X6.00X0.50TA	5	6	1/2	

Part Number	ID	OD	H	
OS-5.00X6.25X0.50SA	5	6-1/4	1/2	
OS-5.50X6.50X0.50SA	5-1/2	6-1/2	1/2	
OS-5.62X6.62X0.50SA-H	5-5/8	6-5/8	1/2	

# O-RING GLAND DIMENSIONS



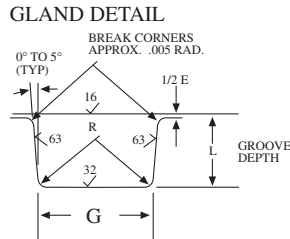
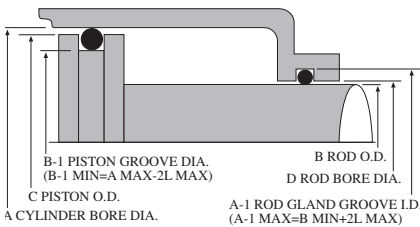
## O-Ring Gland Design For Static Seals



- A - Bore Dia. (male gland)
- A-1 - Groove Dia. (female gland)
- B - Tube OD (female gland)
- B-1 - Groove Dia. (male gland)
- C - Plug Dia. (male gland)
- D - Throat Dia. (female gland)
- E - Diametrical Clearance

W O-RING CROSS SECTION	L GROOVE DEPTH		SQUEEZE				E DIAMETRICAL CLEARANCE MAX.	G GROOVE WIDTH ± .005			R GROOVE RADIUS	ECCEN- TRICITY MAX.
			RADIAL		AXIAL			NO BACKUP RIN	ONE BACKUP RING	TWO BACKUP RINGS		
			INCHES	%	INCHES	%						
.070	.050-.052	.050-.054	.015-.023	22-23	.013-.023	19-32	.004	.095	.140	.207	.005-.015	.002
.103	.081-.083	.074-.080	.017-.025	17-24	.020-.032	20-30	.005	.142	.173	.240	.005-.015	.002
.139	.111-.113	.101-.107	.022-.032	16-23	.028-.042	20-30	.006	.189	.210	.277	.010-.025	.003
.210	.170-.173	.152-.162	.032-.045	15-21	.043-.063	21-30	.006	.283	.313	.413	.020-.035	.004
.275	.226-.229	.201-.211	.040-.055	15-20	.058-.080	21-29	.007	.377	.410	.540	.020-.035	.00

## O-Ring Gland Design For Reciprocating Seals



- A - Bore Dia. of Cylinder
- B - OD of Rod
- C - OD of Piston
- D - Bore Dia. for Rod

W O-RING CROSS SECTION	L GROOVE DEPTH		SQUEEZE		E DIAMETRICAL CLEARANCE MAX.	G GROOVE WIDTH ± .005			R GROOVE RADIUS	ECCEN- TRICITY MAX.
			INCHES	%		NO BACKUP RIN	ONE BACKUP RING	TWO BACKUP RINGS		
.070	.055-.057	.010-.018	15-25	.004	.095	.140	.207	.005-.015	.002	
.103	.088-.090	.010-.018	10-17	.005	.142	.173	.240	.005-.015	.002	
.139	.121-.123	.012-.022	9-16	.006	.189	.210	.277	.010-.025	.003	
.210	.185-.188	.017-.030	8-14	.006	.283	.313	.413	.020-.035	.004	
.275	.237-.240	.029-.044	11-16	.007	.377	.410	.540	.020-.035	.005	



# O-RING SIZE CHART AND INSTALLATION DATA

AS-568A SERIES	NOMINAL SIZE			ACTUAL DIMENSIONS		AS-568A SERIES	NOMINAL SIZE			ACTUAL DIMENSIONS	
	I.D.	O.D.	Width	I.D. Tol.	W. Tol.		I.D.	O.D.	Width	I.D. Tol.	W. Tol.
-001	1/32	3/32	1/32	.029±.004	.040±.003	-048	4 3/4	4 7/8	1/16	4.739±.030	.070±.003
-001 1/2	1/16	1/8	1/32	.070±.004	.040±.003	-049	5	5 1/8	1/16	4.989±.037	.070±.003
-002	3/64	9/64	3/64	.042±.004	.050±.003	-050	5 1/4	5 3/8	1/16	5.239±.037	.070±.003
-003	1/16	3/16	1/16	.056±.004	.060±.003	-102	1/16	1/4	3/32	.049±.005	.103±.003
-004	5/64	13/64	1/16	.070±.005	.070±.003	-103	3/32	9/32	3/32	.081±.005	.103±.003
-005	3/32	7/32	1/16	.101±.005	.070±.003	-104	1/8	5/16	3/32	.112±.005	.103±.003
-006	1/8	1/4	1/16	.114±.005	.070±.003	-105	5/32	11/32	3/32	.143±.005	.103±.003
-007	5/32	9/32	1/16	.145±.005	.070±.003	-106	3/16	3/8	3/32	.174±.005	.103±.003
-008	3/16	5/16	1/16	.176±.005	.070±.003	-107	7/32	13/32	3/32	.206±.005	.103±.003
-009	7/32	11/32	1/16	.208±.005	.070±.003	-108	1/4	7/16	3/32	.237±.005	.103±.003
-010	1/4	3/8	1/16	.239±.005	.070±.003	-109	5/16	1/2	3/32	.299±.005	.103±.003
-011	5/16	7/16	1/16	.301±.005	.070±.003	-110	3/8	9/16	3/32	.362±.005	.103±.003
-012	3/8	1/2	1/16	.364±.005	.070±.003	-111	7/16	5/8	3/32	.424±.005	.103±.003
-013	7/16	9/16	1/16	.426±.005	.070±.003	-112	1/2	11/16	3/32	.487±.005	.103±.003
-014	1/2	5/8	1/16	.489±.005	.070±.003	-113	9/16	3/4	3/32	.549±.005	.103±.003
-015	9/16	11/16	1/16	.551±.007	.070±.003	-114	5/8	13/16	3/32	.612±.009	.103±.003
-016	5/8	3/4	1/16	.614±.009	.070±.003	-115	11/16	7/8	3/32	.674±.009	.103±.003
-017	11/16	13/16	1/16	.676±.009	.070±.003	-116	3/4	15/16	3/32	.737±.009	.103±.003
-018	3/4	7/8	1/16	.739±.009	.070±.003	-117	13/16	1	3/32	.799±.010	.103±.003
-019	13/16	15/16	1/16	.801±.009	.070±.003	-118	7/8	1 1/16	3/32	.862±.010	.103±.003
-020	7/8	1	1/16	.864±.009	.070±.003	-119	15/16	1 1/8	3/32	.924±.010	.103±.003
-021	15/16	1 1/16	1/16	.926±.009	.070±.003	-120	1	1 3/16	3/32	.987±.010	.103±.003
-022	1	1 1/8	1/16	.989±.010	.070±.003	-121	1 1/16	1 1/4	3/32	1.049±.010	.103±.003
-023	1 1/16	1 3/16	1/16	1.051±.010	.070±.003	-122	1 1/8	1 5/16	3/32	1.112±.010	.103±.003
-024	1 1/8	1 1/4	1/16	1.114±.010	.070±.003	-123	1 3/16	1 3/8	3/32	1.174±.012	.103±.003
-025	1 3/16	1 5/16	1/16	1.176±.011	.070±.003	-124	1 1/4	1 7/16	3/32	1.237±.012	.103±.003
-026	1 1/4	1 3/8	1/16	1.239±.011	.070±.003	-125	1 5/16	1 1/2	3/32	1.299±.012	.103±.003
-027	1 5/16	1 7/16	1/16	1.301±.011	.070±.003	-126	1 3/8	1 9/16	3/32	1.362±.012	.103±.003
-028	1 3/8	1 1/2	1/16	1.364±.013	.070±.003	-127	1 7/16	1 5/8	3/32	1.424±.012	.103±.003
-029	1 1/2	1 5/8	1/16	1.489±.013	.070±.003	-128	1 1/2	1 11/16	3/32	1.487±.012	.103±.003
-030	1 5/8	1 3/4	1/16	1.614±.013	.070±.003	-129	1 9/16	1 3/4	3/32	1.549±.015	.103±.003
-031	1 3/4	1 7/8	1/16	1.739±.015	.070±.003	-130	1 5/8	1 13/16	3/32	1.612±.015	.103±.003
-032	1 7/8	2	1/16	1.864±.015	.070±.003	-131	1 11/16	1 7/8	3/32	1.674±.015	.103±.003
-033	2	2 1/8	1/16	1.989±.018	.070±.003	-132	1 3/4	1 15/16	3/32	1.737±.015	.103±.003
-034	2 1/8	2 1/4	1/16	2.114±.018	.070±.003	-133	1 13/16	2	3/32	1.799±.015	.103±.003
-035	2 1/4	2 3/8	1/16	2.239±.018	.070±.003	-134	1 7/8	2 1/16	3/32	1.862±.015	.103±.003
-036	2 3/8	2 1/2	1/16	2.364±.018	.070±.003	-135	1 15/16	2 1/8	3/32	1.925±.017	.103±.003
-037	2 1/2	2 5/8	1/16	2.489±.018	.070±.003	-136	2	2 3/16	3/32	1.987±.017	.103±.003
-038	2 5/8	2 3/4	1/16	2.614±.020	.070±.003	-137	2 1/16	2 1/4	3/32	2.050±.017	.103±.003
-039	2 3/4	2 7/8	1/16	2.739±.020	.070±.003	-138	2 1/8	2 5/16	3/32	2.112±.017	.103±.003
-040	2 7/8	3	1/16	2.864±.020	.070±.003	-139	2 3/16	2 3/8	3/32	2.175±.017	.103±.003
-041	3	3 1/8	1/16	2.989±.024	.070±.003	-140	2 1/4	2 7/16	3/32	2.237±.017	.103±.003
-042	3 1/4	3 3/8	1/16	3.239±.024	.070±.003	-141	2 5/16	2 1/2	3/32	2.300±.020	.103±.003
-043	3 1/2	3 5/8	1/16	3.489±.024	.070±.003	-142	2 3/8	2 9/16	3/32	2.362±.020	.103±.003
-044	3 3/4	3 7/8	1/16	3.739±.027	.070±.003	-143	2 7/16	2 5/8	3/32	2.425±.020	.103±.003
-045	4	4 1/8	1/16	3.989±.027	.070±.003	-144	2 1/2	2 11/16	3/32	2.487±.020	.103±.003
-046	4 1/4	4 3/8	1/16	4.239±.030	.070±.003	-145	2 9/16	2 3/4	3/32	2.550±.020	.103±.003
-047	4 1/2	4 5/8	1/16	4.489±.030	.070±.003	-146	2 5/8	2 13/16	3/32	2.612±.020	.103±.003

# O-RING SIZE CHART AND INSTALLATION DATA

AS-568A SERIES	NOMINAL SIZE			ACTUAL DIMENSIONS		AS-568A SERIES	NOMINAL SIZE			ACTUAL DIMENSIONS	
	I.D.	O.D.	Width	I.D. Tol.	W. Tol.		I.D.	O.D.	Width	I.D. Tol.	W. Tol.
-147	2 11/16	2 7/8	3/32	2.675±.022	.103±.003	-217	1 3/16	1 7/16	1/8	1.171±.012	.139±.004
-148	2 3/4	2 15/16	3/32	2.737±.022	.103±.003	-218	1 1/4	1 1/2	1/8	1.234±.012	.139±.004
-149	2 13/16	3	3/32	2.800±.022	.103±.003	-219	1 5/16	1 9/16	1/8	1.296±.012	.139±.004
-150	2 7/8	3 1/16	3/32	2.862±.022	.103±.003	-220	1 3/8	1 5/8	1/8	1.359±.012	.139±.004
-151	3	3 3/16	3/32	2.987±.024	.103±.003	-221	1 7/16	1 11/16	1/8	1.421±.012	.139±.004
-152	3 1/4	3 7/16	3/32	3.237±.024	.103±.003	-222	1 1/2	1 3/4	1/8	1.484±.015	.139±.004
-153	3 1/2	3 11/16	3/32	3.487±.024	.103±.003	-223	1 5/8	1 7/8	1/8	1.609±.015	.139±.004
-154	3 3/4	3 15/16	3/32	3.737±.028	.103±.003	-224	1 3/4	2	1/8	1.734±.015	.139±.004
-155	4	4 3/16	3/32	3.987±.028	.103±.003	-225	1 7/8	2 1/8	1/8	1.859±.018	.139±.004
-156	4 1/4	4 7/16	3/32	4.237±.030	.103±.003	-226	2	2 1/4	1/8	1.984±.018	.139±.004
-157	4 1/2	4 11/16	3/32	4.487±.030	.103±.003	-227	2 1/8	2 3/8	1/8	2.109±.018	.139±.004
-158	4 3/4	4 15/16	3/32	4.737±.030	.103±.003	-228	2 1/4	2 1/2	1/8	2.234±.020	.139±.004
-159	5	5 3/16	3/32	4.987±.035	.103±.003	-229	2 3/8	2 5/8	1/8	2.359±.020	.139±.004
-160	5 1/4	5 7/16	3/32	5.237±.035	.103±.003	-230	2 1/2	2 3/4	1/8	2.484±.020	.139±.004
-161	5 1/2	5 11/16	3/32	5.487±.035	.103±.003	-231	2 5/8	2 7/8	1/8	2.609±.020	.139±.004
-162	5 3/4	5 15/16	3/32	5.767±.035	.103±.003	-232	2 3/4	3	1/8	2.734±.024	.139±.004
-163	6	6 3/16	3/32	5.987±.035	.103±.003	-233	2 7/8	3 1/8	1/8	2.859±.024	.139±.004
-164	6 1/4	6 7/16	3/32	6.237±.040	.103±.003	-234	3	3 1/4	1/8	2.984±.024	.139±.004
-165	6 1/2	6 11/16	3/32	6.487±.040	.103±.003	-235	3 1/8	3 3/8	1/8	3.109±.024	.139±.004
-166	6 3/4	6 15/16	3/32	6.737±.040	.103±.003	-236	3 1/4	3 1/2	1/8	3.234±.024	.139±.004
-167	7	7 3/16	3/32	6.987±.040	.103±.003	-237	3 3/8	3 5/8	1/8	3.359±.024	.139±.004
-168	7 1/4	7 7/16	3/32	7.237±.045	.103±.003	-238	3 1/2	3 3/4	1/8	3.484±.024	.139±.004
-169	7 1/2	7 11/16	3/32	7.487±.045	.103±.003	-239	3 5/8	3 7/8	1/8	3.609±.028	.139±.004
-170	7 3/4	7 15/16	3/32	7.737±.045	.103±.003	-240	3 3/4	4	1/8	3.734±.028	.139±.004
-171	8	8 3/16	3/32	7.987±.045	.103±.003	-241	3 7/8	4 1/8	1/8	3.859±.028	.139±.004
-172	8 1/4	8 7/16	3/32	8.237±.050	.103±.003	-242	4	4 1/4	1/8	3.984±.028	.139±.004
-173	8 1/2	8 11/16	3/32	8.487±.050	.103±.003	-243	4 1/8	4 3/8	1/8	4.109±.028	.139±.004
-174	8 3/4	8 15/16	3/32	8.737±.050	.103±.003	-244	4 1/4	4 1/2	1/8	4.234±.030	.139±.004
-175	9	9 3/16	3/32	8.987±.050	.103±.003	-245	4 3/8	4 5/8	1/8	4.359±.030	.139±.004
-176	9 1/4	9 7/16	3/32	9.237±.055	.103±.003	-246	4 1/2	4 3/4	1/8	4.484±.030	.139±.004
-177	9 1/2	9 11/16	3/32	9.487±.055	.103±.003	-247	4 5/8	4 7/8	1/8	4.609±.030	.139±.004
-178	9 3/4	9 15/16	3/32	9.737±.055	.103±.003	-248	4 3/4	5	1/8	4.734±.030	.139±.004
-201	3 16	7/16	1/8	.171±.005	.139±.004	-249	4 7/8	5 1/8	1/8	4.859±.035	.139±.004
-202	1/4	1/2	1/8	.234±.005	.139±.004	-250	5	5 1/4	1/8	4.984±.035	.139±.004
-203	5/16	9/16	1/8	.296±.005	.139±.004	-251	5 1/8	5 3/8	1/8	5.109±.035	.139±.004
-204	3/8	5/8	1/8	.359±.005	.139±.004	-252	5 1/4	5 1/2	1/8	5.234±.035	.139±.004
-205	7/16	11/16	1/8	.421±.005	.139±.004	-253	5 3/8	5 5/8	1/8	5.359±.035	.139±.004
-206	1/2	3/4	1/8	.484±.005	.139±.004	-254	5 1/2	5 3/4	1/8	5.484±.035	.139±.004
-207	9/16	13/16	1/8	.546±.007	.139±.004	-255	5 5/8	5 7/8	1/8	5.609±.035	.139±.004
-208	5/8	7/8	1/8	.609±.009	.139±.004	-256	5 3/4	6	1/8	5.734±.035	.139±.004
-209	11/16	15/16	1/8	.671±.009	.139±.004	-257	5 7/8	6 1/8	1/8	5.859±.035	.139±.004
-210	3/4	1	1/8	.734±.010	.139±.004	-258	6	6 1/4	1/8	5.984±.035	.139±.004
-211	13/16	1 1/16	1/8	.796±.010	.139±.004	-259	6 1/4	6 1/2	1/8	6.234±.040	.139±.004
-212	7/8	1 1/8	1/8	.859±.010	.139±.004	-260	6 1/2	6 3/4	1/8	6.484±.040	.139±.004
-213	15/16	1 3/16	1/8	.921±.010	.139±.004	-261	6 3/4	7	1/8	6.734±.040	.139±.004
-214	1	1 1/4	1/8	.984±.010	.139±.004	-262	7	7 1/4	1/8	6.984±.040	.139±.004
-215	1 1/16	1 5/16	1/8	1.046±.010	.139±.004	-263	7 1/4	7 1/2	1/8	7.234±.045	.139±.004
-216	1 1/8	1 3/8	1/8	1.109±.012	.139±.004	-264	7 1/2	7 3/4	1/8	7.484±.045	.139±.004

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AS-568A SERIES	NOMINAL SIZE			ACTUAL DIMENSIONS		AS-568A SERIES	NOMINAL SIZE			ACTUAL DIMENSIONS	
	I.D.	O.D.	Width	I.D. Tol.	W. Tol.		I.D.	O.D.	Width	I.D. Tol.	W. Tol.
-265	7 3/4	8	1/8	7.734±.045	.139±.004	-337	3	3-3/8	3/16	2.975±.024	.210±.005
-266	8	8 1/4	1/8	7.984±.045	.139±.004	-338	3-1/8	3-1/2	3/16	3.100±.024	.210±.005
-267	8 1/4	8 1/2	1/8	8.234±.050	.139±.004	-339	3-1/4	3-5/8	3/16	3.225±.024	.210±.005
-268	8 1/2	8 3/4	1/8	8.484±.050	.139±.004	-340	3-3/8	3-3/4	3/16	3.350±.024	.210±.005
-269	8 3/4	9	1/8	8.734±.050	.139±.004	-341	3-1/2	3-7/8	3/16	3.475±.024	.210±.005
-270	9	9 1/4	1/8	8.984±.050	.139±.004	-342	3 5/8	4	3/16	3.600±.028	.210±.005
-271	9 1/4	9 1/2	1/8	9.234±.055	.139±.004	-343	3 3/4	4 1/8	3/16	3.725±.028	.210±.005
-272	9 1/2	9 3/4	1/8	9.484±.055	.139±.004	-344	3 7/8	4 1/4	3/16	3.850±.028	.210±.005
-273	9 3/4	10	1/8	9.734±.055	.139±.004	-345	4	4 3/8	3/16	3.975±.028	.210±.005
-274	10	10 1/4	1/8	9.984±.055	.139±.004	-346	4 1/8	4 1/2	3/16	4.100±.028	.210±.005
-275	10 1/2	10 3/4	1/8	10.484±.055	.139±.004	-347	4 1/4	4 5/8	3/16	4.225±.030	.210±.005
-276	11	11 1/4	1/8	10.984±.065	.139±.004	-348	4 3/8	4 3/4	3/16	4.350±.030	.210±.005
-277	11 1/2	11 3/4	1/8	11.484±.065	.139±.004	-349	4 1/2	4 7/8	3/16	4.475±.030	.210±.005
-278	12	12 1/4	1/8	11.984±.065	.139±.004	-350	4 5/8	5	3/16	4.600±.030	.210±.005
-279	13	13 1/4	1/8	12.984±.065	.139±.004	-351	4 3/4	5 1/8	3/16	4.725±.030	.210±.005
-280	14	14 1/4	1/8	13.984±.065	.139±.004	-352	4 7/8	5 1/4	3/16	4.850±.030	.210±.005
-281	15	15 1/4	1/8	14.984±.065	.139±.004	-353	5	5 3/8	3/16	4.975±.037	.210±.005
-282	16	16 1/4	1/8	15.955±.075	.139±.004	-354	5 1/8	5 1/2	3/16	5.100±.037	.210±.005
-283	17	17 1/4	1/8	16.955±.080	.139±.004	-355	5 1/4	5 5/8	3/16	5.225±.037	.210±.005
-284	18	18 1/4	1/8	17.955±.085	.139±.004	-356	5 3/8	5 3/4	3/16	5.350±.037	.210±.005
-309	7/16	13/16	3/16	.412±.005	.210±.005	-357	5 1/2	5 7/8	3/16	5.475±.037	.210±.005
-310	1/2	7/8	3/16	.475±.005	.210±.005	-358	5 5/8	6	3/16	5.600±.037	.210±.005
-311	9/16	15/16	3/16	.537±.007	.210±.005	-359	5 3/4	6 1/8	3/16	5.725±.037	.210±.005
-312	5/8	1	3/16	.600±.009	.210±.005	-360	5 7/8	6 1/4	3/16	5.850±.037	.210±.005
-313	11/16	11/16	3/16	.662±.009	.210±.005	-361	6	6 3/8	3/16	5.975±.037	.210±.005
-314	3/4	1 1/8	3/16	.725±.010	.210±.005	-362	6 1/4	6 5/8	3/16	6.225±.040	.210±.005
-315	13/16	1 3/16	3/16	.787±.010	.210±.005	-363	6 1/2	6 7/8	3/16	6.475±.040	.210±.005
-316	7/8	1 1/4	3/16	.850±.010	.210±.005	-364	6 3/4	7 1/8	3/16	6.725±.040	.210±.005
-317	15/16	1 5/16	3/16	.912±.010	.210±.005	-365	7	7 3/8	3/16	6.975±.040	.210±.005
-318	1	1 3/8	3/16	.975±.010	.210±.005	-366	7 1/4	7 5/8	3/16	7.225±.045	.210±.005
-319	1 1/16	1 7/16	3/16	1.037±.010	.210±.005	-367	7 1/2	7 7/8	3/16	7.475±.045	.210±.005
-320	1 1/8	1 1/2	3/16	1.100±.012	.210±.005	-368	7 3/4	8 1/8	3/16	7.725±.045	.210±.005
-321	1 3/16	1 9/16	3/16	1.162±.012	.210±.005	-369	8	8 3/8	3/16	7.975±.045	.210±.005
-322	1 1/4	1 5/8	3/16	1.225±.012	.210±.005	-370	8 1/4	8 5/8	3/16	8.225±.050	.210±.005
-323	1 5/16	1 11/16	3/16	1.287±.012	.210±.005	-371	8 1/2	8 7/8	3/16	8.475±.050	.210±.005
-324	1 3/8	1 3/4	3/16	1.350±.012	.210±.005	-372	8 3/4	9 1/8	3/16	8.725±.050	.210±.005
-325	1 1/2	1 7/8	3/16	1.475±.015	.210±.005	-373	9	9 3/8	3/16	8.975±.050	.210±.005
-326	1 5/8	2	3/16	1.600±.015	.210±.005	-374	9 1/4	9 5/8	3/16	9.225±.055	.210±.005
-327	1 3/4	2 1/8	3/16	1.725±.015	.210±.005	-375	9 1/2	9 7/8	3/16	9.475±.055	.210±.005
-328	1 7/8	2 1/4	3/16	1.850±.015	.210±.005	-376	9 3/4	10 1/8	3/16	9.725±.055	.210±.005
-329	2	2 3/8	3/16	1.975±.018	.210±.005	-377	10	10 3/8	3/16	9.975±.055	.210±.005
-330	2 1/8	2 1/2	3/16	2.100±.018	.210±.005	-378	10 1/2	10 7/8	3/16	10.475±.060	.210±.005
-331	2 1/4	2 5/8	3/16	2.225±.018	.210±.005	-379	11	11 3/8	3/16	10.975±.060	.210±.005
-332	2 3/8	2 3/4	3/16	2.350±.018	.210±.005	-380	11 1/2	11 7/8	3/16	11.475±.065	.210±.005
-333	2 1/2	2 7/8	3/16	2.475±.020	.210±.005	-381	12	12 3/8	3/16	11.975±.065	.210±.005
-334	2 5/8	3	3/16	2.600±.020	.210±.005	-382	13	13 3/8	3/16	12.975±.065	.210±.005
-335	2 3/4	3 1/8	3/16	2.725±.020	.210±.005	-383	14	14 3/8	3/16	13.975±.070	.210±.005
-336	2 7/8	3 1/4	3/16	2.850±.020	.210±.005	-384	15	15 3/8	3/16	14.975±.070	.210±.005

# O-RING SIZE CHART AND INSTALLATION DATA

AS-568A SERIES	NOMINAL SIZE			ACTUAL DIMENSIONS		AS-568A SERIES	NOMINAL SIZE			ACTUAL DIMENSIONS	
	I.D.	O.D.	Width	I.D. Tol.	W. Tol.		I.D.	O.D.	Width	I.D. Tol.	W. Tol.
-385	16	16 3/8	3/16	15.955±.075	.210±.005	-432	5 3/8	5 7/8	1/4	5.350±.037	.275±.006
-386	17	17 3/8	3/16	16.955±.080	.210±.005	-433	5 1/2	6	1/4	5.475±.037	.275±.006
-387	18	18 3/8	3/16	17.955±.085	.210±.005	-434	5 5/8	6 1/8	1/4	5.600±.037	.275±.006
-388	19	19 3/8	3/16	18.955±.090	.210±.005	-435	5 3/4	6 1/4	1/4	5.725±.037	.275±.006
-389	20	20 3/8	3/16	19.995±.095	.210±.005	-436	5 7/8	6 3/8	1/4	5.850±.037	.275±.006
-390	21	21 3/8	3/16	20.955±.095	.210±.005	-437	6	6 1/2	1/4	5.975±.037	.275±.006
-391	22	22 3/8	3/16	21.955±.100	.210±.005	-438	6 1/4	6 3/4	1/4	6.225±.040	.275±.006
-392	23	23 3/8	3/16	22.940±.105	.210±.005	-439	6 1/2	7	1/4	6.475±.040	.275±.006
-393	24	24 3/8	3/16	23.940±.110	.210±.005	-440	6 3/4	7 1/4	1/4	6.725±.040	.275±.006
-394	25	25 3/8	3/16	24.940±.115	.210±.005	-441	7	7 1/2	1/4	6.975±.040	.275±.006
-395	26	26 3/8	3/16	25.940±.120	.210±.005	-442	7 1/4	7 3/4	1/4	7.225±.045	.275±.006
-425	4 1/2	5	1/4	4.475±.033	.275±.006	-443	7 1/2	8	1/4	7.475±.045	.275±.006
-400*	1-3/8	1-7/8	1/4	1.225±.120	.275±.006	-444	7 3/4	8 1/4	1/4	7.725±.045	.275±.006
-401*	1-1/2	2	1/4	1.475±.014	.275±.006	-445	8	8 1/2	1/4	7.975±.045	.275±.006
-402*	1-5/8	2-1/8	1/4	1.600±.015	.275±.006	-446	8 1/2	9	1/4	8.475±.055	.275±.006
-403*	1-3/4	2-1/4	1/4	1.725±.016	.275±.006	-447	9	9 1/2	1/4	8.975±.055	.275±.006
-404*	1-7/8	2-3/8	1/4	1.850±.016	.275±.006	-448	9 1/2	10	1/4	9.475±.055	.275±.006
-405*	2	2-1/2	1/4	1.975±.017	.275±.006	-449	10	10 1/2	1/4	9.975±.055	.275±.006
-406*	2-1/8	2-5/8	1/4	2.100±.018	.275±.006	-450	10 1/2	11	1/4	10.475±.060	.275±.006
-407*	2-1/4	2-3/4	1/4	2.225±.018	.275±.006	-451	11	11 1/2	1/4	10.975±.060	.275±.006
-408*	2-3/8	2-7/8	1/4	2.350±.020	.275±.006	-452	11 1/2	12	1/4	11.475±.060	.275±.006
-409*	2-1/2	3	1/4	2.475±.020	.275±.006	-453	12	12 1/2	1/4	11.975±.060	.275±.006
-410*	2-5/8	3-1/8	1/4	2.600±.020	.275±.006	-454	12 1/2	13	1/4	12.475±.060	.275±.006
-411*	2-3/4	3-1/4	1/4	2.725±.022	.275±.006	-455	13	13 1/2	1/4	12.975±.060	.275±.006
-412*	2-7/8	3-3/8	1/4	2.850±.022	.275±.006	-456	13 1/2	14	1/4	13.475±.070	.275±.006
-413*	3	3-1/2	1/4	2.975±.024	.275±.006	-457	14	14 1/2	1/4	13.975±.070	.275±.006
-414*	3-1/8	3-5/8	1/4	3.100±.024	.275±.006	-458	14 1/2	15	1/4	14.475±.070	.275±.006
-415*	3-1/4	3-3/4	1/4	3.225±.024	.275±.006	-459	15	15 1/2	1/4	14.975±.070	.275±.006
-416*	3-3/8	3-7/8	1/4	3.350±.026	.275±.006	-460	15 1/2	16	1/4	15.475±.070	.275±.006
-417*	3-1/2	4	1/4	3.475±.026	.275±.006	-461	16	16 1/2	1/4	15.955±.075	.275±.006
-418*	3-5/8	4-1/8	1/4	3.600±.026	.275±.006	-462	16 1/2	17	1/4	16.455±.075	.275±.006
-419*	3-3/4	4-1/4	1/4	3.725±.028	.275±.006	-463	17	17 1/2	1/4	16.955±.080	.275±.006
-420*	3-7/8	4-3/8	1/4	3.850±.028	.275±.006	-464	17 1/2	18	1/4	17.455±.085	.275±.006
-421*	4	4-1/2	1/4	3.975±.028	.275±.006	-465	18	18 1/2	1/4	17.955±.085	.275±.006
-422*	4-1/8	4-5/8	1/4	4.100±.030	.275±.006	-466	18 1/2	19	1/4	18.455±.085	.275±.006
-423*	4-1/4	4-3/4	1/4	4.225±.030	.275±.006	-467	19	19 1/2	1/4	18.955±.090	.275±.006
-424*	4-3/8	4-7/8	1/4	4.350±.030	.275±.006	-468	19 1/2	20	1/4	19.455±.090	.275±.006
-425	4 1/2	5	1/4	4.475±.033	.275±.006	-469	20	20 1/2	1/4	19.955±.090	.275±.006
-426	4 5/8	5 1/8	1/4	4.600±.033	.275±.006	-470	21	21 1/2	1/4	20.955±.090	.275±.006
-427	4 3/4	5 1/4	1/4	4.725±.033	.275±.006	-471	22	22 1/2	1/4	21.955±.100	.275±.006
-428	4 7/8	5 3/8	1/4	4.850±.033	.275±.006	-472	23	23 1/2	1/4	22.940±.105	.275±.006
-429	5	5 1/2	1/4	4.975±.037	.275±.006	-473	24	24 1/2	1/4	23.940±.110	.275±.006
-430	5 1/8	5 5/8	1/4	5.100±.037	.275±.006	-474	25	25 1/2	1/4	24.940±.115	.275±.006
-431	5 1/4	5 3/4	1/4	5.225±.037	.275±.006	-475	26	26 1/2	1/4	25.940±.120	.275±.006

\* NON-ANSI STANDARD

# STYLE 568, 70 DURO BUNA-N O-RINGS

Reduced prices are available for large quantity purchases of 70 & 90 Durometer O-Rings.



## SEAL INFORMATION

MATERIAL	BUNA-N RUBBER
TEMPERATURE RANGE	-40° TO +240° F
PRESSURE RANGE	VARIES ACCORDING TO DIAMETRAL CLEARANCE
PART NUMBER	(Prefix) - (Dash No.)

O-RINGS

Part Number	Min. Pkg. Qty.	Part Number	Min. Pkg. Qty.	Part Number	Min. Pkg. Qty.	Part Number	Min. Pkg. Qty.
568-001	50	568-040	10	568-131	20	568-171	2
568-001-1/2	50	568-041	10	568-132	20	568-172	2
568-002	50	568-042	10	568-133	20	568-173	2
568-003	50	568-043	10	568-134	20	568-174	2
568-004	50	568-044	10	568-135	20	568-175	2
568-005	50	568-045	10	568-136	20	568-176	2
568-006	50	568-046	4	568-137	20	568-177	2
568-007	50	568-047	4	568-138	20	568-178	2
568-008	50	568-048	4	568-139	20	568-201	50
568-009	50	568-049	4	568-140	20	568-202	50
568-010	50	568-050	4	568-141	20	568-203	50
568-011	50	568-102	50	568-142	20	568-204	50
568-012	50	568-103	50	568-143	20	568-205	50
568-013	50	568-104	50	568-144	20	568-206	50
568-014	50	568-105	50	568-145	20	568-207	50
568-015	50	568-106	50	568-146	20	568-208	20
568-016	50	568-107	50	568-147	20	568-209	20
568-017	50	568-108	50	568-148	10	568-210	20
568-018	50	568-109	50	568-149	10	568-211	20
568-019	50	568-110	50	568-150	10	568-212	20
568-020	50	568-111	50	568-151	10	568-213	20
568-021	50	568-112	50	568-152	10	568-214	20
568-022	50	568-113	50	568-153	10	568-215	20
568-023	50	568-114	50	568-154	10	568-216	20
568-024	50	568-115	50	568-155	10	568-217	20
568-025	50	568-116	50	568-156	10	568-218	20
568-026	50	568-117	50	568-157	4	568-219	20
568-027	50	568-118	50	568-158	4	568-220	20
568-028	20	568-119	50	568-159	4	568-221	20
568-029	20	568-120	50	568-160	4	568-222	20
568-030	20	568-121	50	568-161	4	568-223	20
568-031	20	568-122	20	568-162	4	568-224	20
568-032	20	568-123	20	568-163	2	568-225	20
568-033	20	568-124	20	568-164	2	568-226	20
568-034	20	568-125	20	568-165	2	568-227	20
568-035	20	568-126	20	568-166	2	568-228	20
568-036	20	568-127	20	568-167	2	568-229	20
568-037	20	568-128	20	568-168	2	568-230	10
568-038	10	568-129	20	568-169	2	568-231	10
568-039	10	568-130	20	568-170	2	568-232	10

# STYLE 568, 70 DURO BUNA-N O-RINGS

O-RINGS

Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.	
568-233	10		568-283	1		568-357	4		568-436	4	
568-234	10		568-284	1		568-358	4		568-437	2	
568-235	10		568-309	20		568-359	4		568-438	2	
568-236	10		568-310	20		568-360	4		568-439	2	
568-237	10		568-311	20		568-361	4		568-440	2	
568-238	10		568-312	20		568-362	4		568-441	2	
568-239	10		568-313	20		568-363	4		568-442	2	
568-240	10		568-314	20		568-364	4		568-443	2	
568-241	10		568-315	20		568-365	2		568-444	2	
568-242	10		568-316	20		568-366	2		568-445	2	
568-243	10		568-317	20		568-367	2		568-446	2	
568-244	10		568-318	20		568-368	2		568-447	2	
568-245	4		568-319	10		568-369	2		568-448	2	
568-246	4		568-320	10		568-370	2		568-449	2	
568-247	4		568-321	10		568-371	2		568-450	1	
568-248	4		568-322	10		568-372	2		568-451	1	
568-249	4		568-323	10		568-373	2		568-452	1	
568-250	4		568-324	10		568-374	2		568-453	1	
568-251	4		568-325	10		568-375	2		568-454	1	
568-252	4		568-326	10		568-376	2		568-455	1	
568-253	4		568-327	10		568-377	2		568-456	1	
568-254	4		568-328	10		568-378	1		568-457	1	
568-255	4		568-329	10		568-379	1		568-458	1	
568-256	4		568-330	10		568-380	1		568-459	1	
568-257	2		568-331	10		568-381	1		568-460	1	
568-258	2		568-332	10		568-382	1		568-461	1	
568-259	2		568-333	10		568-383	1		568-462	1	
568-260	2		568-334	10		568-384	1		568-463	1	
568-261	2		568-335	10		568-385	1		568-464	1	
568-262	2		568-336	10		568-386	1		568-465	1	
568-263	2		568-337	10		568-387	1		568-466	1	
568-264	2		568-338	10		568-388	1		568-467	1	
568-265	2		568-339	10		568-389	1		568-468	1	
568-266	2		568-340	10		568-390	1		568-469	1	
568-267	2		568-341	4		568-391	1		568-470	1	
568-268	2		568-342	4		568-392	1		568-471	1	
568-269	2		568-343	4		568-393	1		568-472	1	
568-270	2		568-344	4		568-394	1		568-473	1	
568-271	2		568-345	4		568-395	1		568-474	1	
568-272	2		568-346	4		568-425	4		568-475	1	
568-273	2		568-347	4		568-426	4				
568-274	2		568-348	4		568-427	4				
568-275	2		568-349	4		568-428	4				
568-276	1		568-350	4		568-429	4				
568-277	1		568-351	4		568-430	4				
568-278	1		568-352	4		568-431	4				
568-279	1		568-353	4		568-432	4				
568-280	1		568-354	4		568-433	4				
568-281	1		568-355	4		568-434	4				
568-282	1		568-356	4		568-435	4				

## NON-STANDARD 1/4" CROSS SECTION STYLE 568, 70 DURO BUNA-N O-RINGS



### SEAL INFORMATION

MATERIAL	BUNA-N RUBBER
TEMPERATURE RANGE	-40° TO +240° F
PRESSURE RANGE	VARIES ACCORDING TO DIAMETRAL CLEARANCE
PART NUMBER	(Prefix) - (Dash No.)

Part Number	Min. Pkg. Qty.	ID	OD	CS
568-400	2	1-3/8	1-7/8	1/4
568-401	3	1-1/2	2	1/4
568-402	3	1-5/8	2-1/8	1/4
568-403	3	1-3/4	2-1/4	1/4
568-404	3	1-7/8	2-3/8	1/4
568-405	3	2	2-1/2	1/4
568-406	3	2-1/8	2-5/8	1/4
568-407	3	2-1/4	2-3/4	1/4
568-408	3	2-3/8	2-7/8	1/4
568-409	3	2-1/2	3	1/4
568-410	2	2-5/8	3-1/8	1/4
568-411	2	2-3/4	3-1/4	1/4
568-412	2	2-7/8	3-3/8	1/4

Part Number	Min. Pkg. Qty.	ID	OD	CS
568-413	2	3	3-1/2	1/4
568-414	2	3-1/8	3-5/8	1/4
568-415	2	3-1/4	3-3/4	1/4
568-416	2	3-3/8	3-7/8	1/4
568-417	2	3-1/2	4	1/4
568-418	2	3-5/8	4-1/8	1/4
568-419	2	3-3/4	4-1/4	1/4
568-420	2	3-7/8	4-3/8	1/4
568-421	2	4	4-1/2	1/4
568-422	2	4-1/8	4-5/8	1/4
568-423	2	4-1/4	4-3/4	1/4
568-424	2	4-3/8	4-7/8	1/4

## STYLE 568C AND 580C, 70 DURO BUNA-N O-RING CORD



### SEAL INFORMATION

MATERIAL	BUNA-N RUBBER
TEMPERATURE RANGE	-40° TO +240° F
PRESSURE RANGE	VARIES ACCORDING TO DIAMETRAL CLEARANCE
PART NUMBER	(Prefix) - (Cord) - (Nominal)

Part Number	Nominal C/S	Actual C/S
568C-062	1/16 ROUND	.070
568C-093	3/32 ROUND	.103
568C-125	1/8 ROUND	.139
568C-187	3/16 ROUND	.210
568C-250	1/4 ROUND	.275
568C-313	5/16 ROUND	.313
568C-375	3/8 ROUND	.375

Part Number	Nominal C/S	Actual C/S
568C-437	7/16 ROUND	.437
568C-500	1/2 ROUND	.500
580C-093	3/32 SQUARE	.103
580C-125	1/8 SQUARE	.139
580C-187	3/16 SQUARE	.210
580C-250	1/4 SQUARE	.275

# STYLE 568, 90 DURO BUNA-N O-RINGS

Reduced prices are available for large quantity purchases of 70 & 90 Durometer O-Rings.



## SEAL INFORMATION

MATERIAL	BUNA-N RUBBER
TEMPERATURE RANGE	-40° TO +240° F
PRESSURE RANGE	VARIABLE ACCORDING TO DIAMETRAL CLEARANCE
PART NUMBER	(Prefix) - (Dash No.) - (90 Duro.)

Part Number	Min. Pkg. Qty.	Part Number	Min. Pkg. Qty.	Part Number	Min. Pkg. Qty.	Part Number	Min. Pkg. Qty.
568-001-90D	38	568-036-90D	11	568-122-90D	21	568-157-90D	8
568-002-90D	38	568-037-90D	10	568-123-90D	21	568-158-90D	8
568-003-90D	38	568-038-90D	9	568-124-90D	20	568-159-90D	8
568-004-90D	38	568-039-90D	9	568-125-90D	20	568-160-90D	8
568-005-90D	38	568-040-90D	8	568-126-90D	20	568-161-90D	8
568-006-90D	38	568-041-90D	7	568-127-90D	20	568-162-90D	4
568-007-90D	38	568-042-90D	3	568-128-90D	19	568-163-90D	4
568-008-90D	38	568-043-90D	7	568-129-90D	18	568-164-90D	2
568-009-90D	38	568-044-90D	7	568-130-90D	18	568-165-90D	2
568-010-90D	34	568-045-90D	6	568-131-90D	20	568-166-90D	2
568-011-90D	34	568-046-90D	6	568-132-90D	15	568-167-90D	2
568-012-90D	34	568-047-90D	6	568-133-90D	18	568-169-90D	2
568-013-90D	34	568-048-90D	6	568-134-90D	15	568-171-90D	2
568-014-90D	34	568-049-90D	6	568-135-90D	18	568-173-90D	2
568-015-90D	29	568-050-90D	6	568-136-90D	18	568-175-90D	2
568-016-90D	29	568-102-90D	29	568-137-90D	15	568-176-90D	2
568-017-90D	25	568-103-90D	27	568-138-90D	11	568-177-90D	2
568-018-90D	25	568-104-90D	29	568-139-90D	13	568-178-90D	2
568-019-90D	25	568-105-90D	29	568-140-90D	13	568-201-90D	30
568-020-90D	25	568-106-90D	29	568-141-90D	10	568-202-90D	30
568-021-90D	25	568-107-90D	27	568-142-90D	12	568-203-90D	30
568-022-90D	20	568-108-90D	29	568-143-90D	12	568-204-90D	29
568-023-90D	20	568-109-90D	29	568-144-90D	12	568-205-90D	29
568-024-90D	20	568-110-90D	27	568-145-90D	12	568-206-90D	29
568-025-90D	20	568-111-90D	29	568-146-90D	10	568-207-90D	29
568-026-90D	20	568-112-90D	29	568-147-90D	10	568-208-90D	29
568-027-90D	20	568-113-90D	29	568-148-90D	10	568-209-90D	25
568-028-90D	20	568-114-90D	29	568-149-90D	10	568-210-90D	25
568-029-90D	20	568-115-90D	27	568-150-90D	10	568-211-90D	25
568-030-90D	18	568-116-90D	29	568-151-90D	9	568-212-90D	25
568-031-90D	29	568-117-90D	25	568-152-90D	8	568-213-90D	23
568-032-90D	20	568-118-90D	25	568-153-90D	8	568-214-90D	23
568-033-90D	12	568-119-90D	25	568-154-90D	8	568-215-90D	20
568-034-90D	12	568-120-90D	25	568-155-90D	7	568-216-90D	23
568-035-90D	12	568-121-90D	25	568-156-90D	2	568-217-90D	19



# STYLE 568, 90 DURO BUNA-N O-RINGS

O-RINGS

Part Number	Min. Pkg. Qty.	Part Number	Min. Pkg. Qty.	Part Number	Min. Pkg. Qty.	Part Number	Min. Pkg. Qty.
568-218-90D	19	568-268-90D	3	568-344-90D	4	568-394-90D	1
568-219-90D	19	568-269-90D	3	568-345-90D	4	568-425-90D	2
568-220-90D	19	568-270-90D	2	568-346-90D	4	568-426-90D	3
568-221-90D	20	568-271-90D	2	568-347-90D	4	568-427-90D	3
568-222-90D	19	568-272-90D	2	568-348-90D	4	568-428-90D	3
568-223-90D	17	568-273-90D	1	568-349-90D	4	568-429-90D	3
568-224-90D	17	568-274-90D	2	568-350-90D	3	568-430-90D	3
568-225-90D	17	568-275-90D	2	568-351-90D	4	568-431-90D	3
568-226-90D	15	568-276-90D	1	568-352-90D	4	568-432-90D	3
568-227-90D	15	568-277-90D	1	568-353-90D	4	568-433-90D	3
568-228-90D	15	568-278-90D	1	568-354-90D	3	568-434-90D	2
568-229-90D	15	568-279-90D	1	568-355-90D	3	568-435-90D	2
568-230-90D	15	568-280-90D	1	568-356-90D	3	568-436-90D	2
568-231-90D	12	568-281-90D	1	568-357-90D	3	568-437-90D	1
568-232-90D	12	568-282-90D	1	568-358-90D	3	568-438-90D	1
568-233-90D	14	568-283-90D	1	568-359-90D	6	568-439-90D	1
568-234-90D	10	568-284-90D	1	568-360-90D	3	568-440-90D	1
568-235-90D	8	568-310-90D	25	568-361-90D	3	568-441-90D	1
568-236-90D	9	568-311-90D	25	568-362-90D	3	568-442-90D	1
568-237-90D	9	568-312-90D	25	568-363-90D	3	568-443-90D	1
568-238-90D	8	568-313-90D	25	568-364-90D	3	568-444-90D	1
568-239-90D	8	568-315-90D	25	568-365-90D	2	568-445-90D	1
568-240-90D	7	568-316-90D	25	568-366-90D	2	568-446-90D	1
568-241-90D	7	568-317-90D	25	568-367-90D	2	568-447-90D	1
568-242-90D	7	568-318-90D	18	568-368-90D	2	568-448-90D	1
568-243-90D	7	568-319-90D	18	568-369-90D	2	568-449-90D	1
568-244-90D	7	568-320-90D	12	568-370-90D	2	568-450-90D	1
568-245-90D	5	568-321-90D	12	568-371-90D	2	568-451-90D	1
568-246-90D	5	568-322-90D	12	568-372-90D	2	568-452-90D	1
568-247-90D	4	568-323-90D	12	568-373-90D	2	568-453-90D	1
568-248-90D	4	568-324-90D	12	568-374-90D	2	568-454-90D	1
568-249-90D	4	568-325-90D	8	568-375-90D	2	568-456-90D	1
568-250-90D	4	568-326-90D	6	568-376-90D	2	568-457-90D	1
568-251-90D	4	568-327-90D	12	568-377-90D	2	568-458-90D	1
568-252-90D	4	568-328-90D	12	568-378-90D	2	568-459-90D	1
568-253-90D	4	568-329-90D	10	568-379-90D	1	568-460-90D	1
568-254-90D	3	568-330-90D	12	568-380-90D	1	568-461-90D	1
568-255-90D	4	568-331-90D	12	568-381-90D	1	568-462-90D	1
568-256-90D	4	568-332-90D	10	568-382-90D	1	568-463-90D	1
568-257-90D	4	568-333-90D	12	568-383-90D	1	568-464-90D	1
568-258-90D	4	568-334-90D	10	568-384-90D	1	568-466-90D	1
568-259-90D	4	568-335-90D	9	568-385-90D	1	568-467-90D	1
568-260-90D	4	568-336-90D	4	568-386-90D	1	568-468-90D	1
568-261-90D	4	568-337-90D	6	568-387-90D	1	568-469-90D	1
568-262-90D	3	568-338-90D	6	568-388-90D	1	568-471-90D	1
568-263-90D	3	568-339-90D	6	568-389-90D	1	568-472-90D	1
568-264-90D	3	568-340-90D	6	568-390-90D	1	568-473-90D	1
568-265-90D	3	568-341-90D	6	568-391-90D	1	568-474-90D	1
568-266-90D	3	568-342-90D	6	568-392-90D	1	568-475-90D	1
568-267-90D	3	568-343-90D	5	568-393-90D	1		

## STYLE 568, 90 DURO BUNA-N O-RING BOSS GASKETS FOR STRAIGHT THREAD FITTINGS

ACO-568 UNIVERSAL SERIES DASH NO.	TUBE SIZE (O.D.) INCHES	ACTUAL SIZE	
		I.D.	W,
-901	3/32	.185 ±.005	.056 ±.003
-902	1/8	.239 ±.005	.064 ±.003
-903	3/16	.301 ±.005	.064 ±.003
-904	1/4	.351 ±.005	.072 ±.003
-905	5/16	.414 ±.005	.072 ±.003
-906	3/8	.468 ±.005	.078 ±.003
-907	7/16	.530 ±.005	.082 ±.003
-908	1/2	.644 ±.009	.087 ±.003
-909	9/16	.706 ±.009	.097 ±.003
-910	5/8	.755 ±.009	.097 ±.003
-911	11/16	.863 ±.009	.116 ±.004
-912	3/4	.924 ±.009	.116 ±.004
-913	13/16	.986 ±.010	.116 ±.004
-914	7/8	1.047 ±.010	.116 ±.004
-916	1	1.171 ±.010	.116 ±.004
-918	1-1/8	1.355 ±.012	.116 ±.004
-920	1-1/4	1.475 ±.012	.118 ±.004
-924	1-1/2	1.720 ±.014	.118 ±.004
-928	1-3/4	2.090 ±.018	.118 ±.004
-932	2	2.337 ±.018	.118 ±.004

SEAL INFORMATION	
MATERIAL	90 DUROMETER BUNA-N RUBBER
TEMPERATURE RANGE	-40° TO +240° F
PART NUMBER	(Prefix) - (Dash No.)

Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.	
568-901	29		568-911	20	
568-902	29		568-912	19	
568-903	29		568-913	19	
568-904	29		568-914	12	
568-905	25		568-916	12	
568-906	25		568-918	10	
568-907	25		568-920	10	
568-908	25		568-924	10	
568-909	25		568-928	9	
568-910	20		568-932	8	

## STYLE 568, 70 DURO BUNA-N BOSS O-RING

Part Number	Min. Pkg. Qty.	
568-901-70D	29	
568-902-70D	29	
568-903-70D	29	
568-904-70D	29	
568-905-70D	25	
568-906-70D	25	
568-907-70D	25	

Part Number	Min. Pkg. Qty.	
568-908-70D	25	
568-909-70D	25	
568-910-70D	20	
568-911-70D	20	
568-912-70D	19	
568-913-70D	19	
568-914-70D	12	

Part Number	Min. Pkg. Qty.	
568-916-70D	12	
568-918-70D	10	
568-920-70D	10	
568-924-70D	10	
568-928-70D	9	
568-932-70D	8	

# STYLE 568, 75 DURO FLUOROCARBON O-RINGS

O-RINGS



## SEAL INFORMATION

MATERIAL	BROWN FLUOROCARBON
TEMPERATURE RANGE	-20° TO +400° F
PRESSURE RANGE	VARIABLE ACCORDING TO DIAMETRAL CLEARANCE
PART NUMBER	(Prefix) - (Dash No.)

Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.	
568-001V	56		568-039V	3		568-129V	5		568-167V	1	
568-002V	50		568-040V	3		568-130V	5		568-168V	1	
568-003V	14		568-041V	3		568-131V	3		568-169V	1	
568-004V	14		568-042V	3		568-132V	4		568-170V	1	
568-005V	9		568-043V	3		568-133V	4		568-171V	1	
568-006V	40		568-044V	3		568-134V	3		568-172V	1	
568-007V	40		568-045V	2		568-135V	3		568-173V	1	
568-008V	40		568-046V	2		568-136V	3		568-174V	1	
568-009V	30		568-047V	2		568-137V	4		568-175V	1	
568-010V	30		568-048V	2		568-138V	3		568-176V	1	
568-011V	30		568-049V	2		568-139V	2		568-177V	1	
568-012V	20		568-050V	1		568-140V	2		568-178V	1	
568-013V	20		568-102V	50		568-141V	3		568-201V	15	
568-014V	20		568-104V	15		568-142V	3		568-202V	15	
568-015V	20		568-105V	27		568-143V	2		568-203V	10	
568-016V	20		568-106V	15		568-144V	3		568-204V	10	
568-017V	15		568-107V	15		568-145V	2		568-205V	8	
568-018V	15		568-108V	15		568-146V	2		568-206V	8	
568-019V	15		568-109V	15		568-147V	3		568-207V	10	
568-020V	15		568-110V	15		568-148V	3		568-208V	7	
568-021V	15		568-111V	15		568-149V	2		568-209V	6	
568-022V	15		568-112V	15		568-150V	2		568-210V	5	
568-023V	15		568-113V	15		568-151V	2		568-211V	5	
568-024V	15		568-114V	15		568-152V	2		568-212V	5	
568-025V	8		568-115V	10		568-153V	5		568-213V	5	
568-026V	10		568-116V	10		568-154V	2		568-214V	5	
568-027V	10		568-117V	10		568-155V	2		568-215V	4	
568-028V	10		568-118V	10		568-156V	2		568-216V	5	
568-029V	10		568-119V	10		568-157V	1		568-217V	3	
568-030V	5		568-120V	10		568-158V	2		568-218V	3	
568-031V	5		568-121V	10		568-159V	1		568-219V	3	
568-032V	5		568-122V	10		568-160V	1		568-220V	3	
568-033V	5		568-123V	10		568-161V	1		568-221V	3	
568-034V	3		568-124V	10		568-162V	1		568-222V	3	
568-035V	3		568-125V	5		568-163V	1		568-223V	3	
568-036V	3		568-126V	5		568-164V	1		568-224V	3	
568-037V	3		568-127V	5		568-165V	1		568-225V	3	
568-038V	3		568-128V	5		568-166V	1		568-226V	3	

# STYLE 568, 75 DURO FLUOROCARBON O-RINGS

Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.	
568-227V	2		568-277V	1		568-352V	1		568-434V	1	
568-228V	3		568-278V	1		568-353V	1		568-435V	1	
568-229V	2		568-279V	1		568-354V	1		568-436V	1	
568-230V	2		568-280V	1		568-355V	1		568-437V	1	
568-231V	2		568-281V	1		568-356V	1		568-438V	1	
568-232V	2		568-282V	1		568-357V	1		568-439V	1	
568-233V	2		568-284V	1		568-358V	1		568-440V	1	
568-234V	2		568-309V	3		568-359V	1		568-441V	1	
568-235V	2		568-310V	3		568-360V	1		568-442V	1	
568-236V	2		568-311V	3		568-361V	1		568-443V	1	
568-237V	2		568-312V	3		568-362V	1		568-444V	1	
568-238V	2		568-313V	3		568-363V	1		568-445V	1	
568-239V	2		568-314V	3		568-364V	1		568-446V	1	
568-240V	2		568-315V	3		568-365V	1		568-447V	1	
568-241V	1		568-316V	3		568-366V	1		568-448V	1	
568-242V	1		568-317V	3		568-367V	1		568-449V	1	
568-243V	1		568-318V	2		568-368V	1		568-450V	1	
568-244V	1		568-319V	2		568-369V	1		568-451V	1	
568-245V	1		568-320V	2		568-370V	1		568-452V	1	
568-246V	1		568-321V	2		568-371V	1		568-453V	1	
568-247V	1		568-322V	2		568-372V	1		568-454V	1	
568-248V	1		568-323V	2		568-373V	1		568-455V	1	
568-249V	1		568-324V	2		568-374V	1		568-456V	1	
568-250V	1		568-325V	2		568-375V	1		568-457V	1	
568-251V	1		568-326V	1		568-376V	1		568-458V	1	
568-252V	1		568-327V	1		568-377V	1		568-459V	1	
568-253V	1		568-328V	1		568-378V	1		568-460V	1	
568-254V	1		568-329V	1		568-379V	1		568-461V	1	
568-255V	1		568-330V	1		568-380V	1		568-462V	1	
568-256V	1		568-331V	1		568-381V	1		568-463V	1	
568-257V	1		568-332V	1		568-382V	1		568-464V	1	
568-258V	1		568-333V	1		568-383V	1		568-465V	1	
568-259V	1		568-334V	1		568-384V	1		568-466V	1	
568-260V	1		568-335V	1		568-385V	1		568-467V	1	
568-261V	1		568-336V	1		568-386V	1		568-468V	1	
568-262V	1		568-337V	1		568-388V	1		568-469V	1	
568-263V	1		568-338V	1		568-389V	1		568-470V	1	
568-264V	1		568-339V	1		568-390V	1		568-471V	1	
568-265V	1		568-340V	1		568-391V	1		568-472V	1	
568-266V	1		568-341V	1		568-392V	1		568-473V	1	
568-267V	1		568-342V	1		568-394V	1		568-474V	1	
568-268V	1		568-343V	1		568-425V	1		568-475V	1	
568-269V	1		568-344V	1		568-426V	1				
568-270V	1		568-345V	1		568-427V	1				
568-271V	1		568-346V	1		568-428V	1				
568-272V	1		568-347V	1		568-429V	1				
568-273V	1		568-348V	1		568-430V	1				
568-274V	1		568-349V	1		568-431V	1				
568-275V	1		568-350V	1		568-432V	1				
568-276V	1		568-351V	1		568-433V	1				

# STYLE 568, 75 DURO FLUOROCARBON O-RINGS



## SEAL INFORMATION

MATERIAL	BLACK FLUOROCARBON
TEMPERATURE RANGE	-20° TO +400° F
PRESSURE RANGE	VARIABLES ACCORDING TO DIAMETRAL CLEARANCE
PART NUMBER	(Prefix) - (Dash No.) - (Black)

Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.	
568-007V-BLACK	40		568-136V-BLACK	3		568-238V-BLACK	2	
568-008V-BLACK	40		568-140V-BLACK	2		568-240V-BLACK	1	
568-009V-BLACK	30		568-145V-BLACK	2		568-241V-BLACK	1	
568-010V-BLACK	30		568-146V-BLACK	2		568-245V-BLACK	1	
568-011V-BLACK	30		568-151V-BLACK	2		568-246V-BLACK	1	
568-012V-BLACK	20		568-161V-BLACK	2		568-248V-BLACK	1	
568-014V-BLACK	20		568-162V-BLACK	2		568-250V-BLACK	1	
568-015V-BLACK	20		568-163V-BLACK	2		568-252V-BLACK	1	
568-016V-BLACK	20		568-169V-BLACK	1		568-256V-BLACK	1	
568-018V-BLACK	15		568-206V-BLACK	5		568-262V-BLACK	1	
568-032V-BLACK	10		568-208V-BLACK	5		568-271V-BLACK	1	
568-038V-BLACK	10		568-210V-BLACK	5		568-326V-BLACK	1	
568-105V-BLACK	10		568-211V-BLACK	5		568-331V-BLACK	1	
568-109V-BLACK	10		568-212V-BLACK	5		568-333V-BLACK	1	
568-110V-BLACK	15		568-213V-BLACK	5		568-334V-BLACK	1	
568-111V-BLACK	15		568-214V-BLACK	5		568-335V-BLACK	1	
568-112V-BLACK	15		568-215V-BLACK	5		568-336V-BLACK	1	
568-113V-BLACK	15		568-216V-BLACK	5		568-341V-BLACK	1	
568-114V-BLACK	15		568-218V-BLACK	5		568-344V-BLACK	1	
568-115V-BLACK	15		568-220V-BLACK	3		568-345V-BLACK	1	
568-116V-BLACK	10		568-222V-BLACK	3		568-347V-BLACK	1	
568-117V-BLACK	10		568-228V-BLACK	3		568-360V-BLACK	1	
568-119V-BLACK	10		568-231V-BLACK	2		568-364V-BLACK	1	
568-125V-BLACK	5		568-233V-BLACK	2		568-368V-BLACK	1	
568-129V-BLACK	5		568-236V-BLACK	2		568-445V-BLACK	1	
568-130V-BLACK	5		568-237V-BLACK	2		568-448V-BLACK	1	

## STYLE 568, 75 DURO FLUOROCARBON O-RING CORD

**NOTE:** Cord is BLACK fluorocarbon.  
See O-Ring Kit section for Splicing Information.

Part Number	Nominal C/S	
568C-062V	1/16" ROUND	
568C-093V	3/32" ROUND	
568C-125V	1/8" ROUND	
568C-187V	3/16" ROUND	
568C-250V	1/4" ROUND	

SEAL INFORMATION	
MATERIAL	FLUOROCARBON
TEMPERATURE RANGE	-20° TO +400° F
PRESSURE RANGE	VARIES ACCORDING TO DIAMETRAL CLEARANCE
PART NUMBER	(Prefix) (Cord) - (Nom. Size) (Fluorocarbon)

## STYLE 568, 75 DURO FLUOROCARBON BOSS O-RINGS

Part Number	Min. Pkg. Qty.	
568-906-75DV	14	
568-910-75DV	8	
568-912-75DV	5	
568-914-75DV	4	
568-916-75DV	4	
568-920-75DV	3	

SEAL INFORMATION	
MATERIAL	FLUOROCARBON
TEMPERATURE RANGE	-20° TO +400° F
PRESSURE RANGE	VARIES ACCORDING TO DIAMETRAL CLEARANCE
PART NUMBER	(Prefix) - (Dash No.) - (75 Duro Fluorocarbon)

# STYLE 568, 90 DURO FLUOROCARBON O-RINGS



SEAL INFORMATION	
MATERIAL	FLUOROCARBON
TEMPERATURE RANGE	-20° TO +400° F
PRESSURE RANGE	VARIABLES ACCORDING TO DIAMETRAL CLEARANCE
PART NUMBER	(Prefix) - (Dash No.) - (90 Duro Fluorocarbon)

Part Number	Min. Pkg. Qty.
568-011-90DV	15
568-012-90DV	15
568-014-90DV	10
568-015-90DV	15
568-016-90DV	15
568-017-90DV	15
568-018-90DV	15
568-019-90DV	15
568-020-90DV	15
568-021-90DV	15
568-022-90DV	15
568-113-90DV	15
568-118-90DV	5

Part Number	Min. Pkg. Qty.
568-121-90DV	1
568-123-90DV-BLACK	1
568-128-90DV-BLACK	1
568-138-90DV-BLACK	1
568-140-90DV-BLACK	1
568-214-90DV	3
568-215-90DV-BLACK	1
568-216-90DV	3
568-218-90DV	2
568-223-90DV	2
568-224-90DV	2
568-226-90DV	2
568-227-90DV	2

Part Number	Min. Pkg. Qty.
568-233-90DV	3
568-239-90DV	2
568-240-90DV	1
568-246-90DV	1
568-254-90DV	1
568-260-90DV	1
568-264-90DV	1
568-272-90DV	1
568-277-90DV	1
568-324-90DV-BLACK	1
568-363-90DV	1
568-364-90DV	1

# STYLE 568, 90 DURO FLUOROCARBON BOSS O-RINGS



SEAL INFORMATION	
MATERIAL	FLUOROCARBON
TEMPERATURE RANGE	-20° TO +400° F
PRESSURE RANGE	VARIABLES ACCORDING TO DIAMETRAL CLEARANCE
PART NUMBER	(Prefix) - (Dash No.) (90 Duro Fluorocarbon)

Part Number	Min. Pkg. Qty.
568-901V	10
568-902V	10
568-903V	10
568-904V	10
568-905V	10

Part Number	Min. Pkg. Qty.
568-906V	10
568-907V	10
568-908V	10
568-909V	10
568-910V	10

Part Number	Min. Pkg. Qty.
568-911V	5
568-912V	5
568-913V	5
568-914V	3
568-916V	3

Part Number	Min. Pkg. Qty.
568-918V	3
568-920V	3
568-924V	2
568-928V	2
568-932V	2

## STYLE 568, 70A DURO ETHYLENE PROPYLENE O-RINGS

NOTE: This compound is NOT D.O.T. certified for brake system use.



### SEAL INFORMATION

MATERIAL	ETHYLENE PROPYLENE
TEMPERATURE RANGE	-65° TO +300° F
PRESSURE RANGE	VARIES ACCORDING TO DIAMETRAL CLEARANCE
PART NUMBER	(Prefix) - (Dash No.) - (Ethylene Propylene)

Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.	
568-008EP	14		568-111EP	10		568-211EP	8		568-238EP	1	
568-010EP	12		568-112EP	8		568-212EP	5		568-248EP	3	
568-011EP	12		568-113EP	8		568-213EP	6		568-324EP	5	
568-012EP	12		568-114EP	8		568-214EP	6		568-325EP	5	
568-013EP	8		568-115EP	8		568-215EP	6		568-326EP	5	
568-014EP	6		568-116EP	8		568-216EP	6		568-327EP	5	
568-015EP	10		568-120EP	25		568-218EP	5		568-429EP	1	
568-018EP	6		568-125EP	5		568-219EP	5		568-443EP	1	
568-025EP	14		568-139EP	3		568-220EP	5		568-454EP	1	
568-026EP	12		568-143EP	15		568-221EP	5				
568-043EP	2		568-209EP	7		568-222EP	5				
568-110EP	10		568-210EP	8		568-223EP	6				

## STYLE 568, 90A DURO ETHYLENE PROPYLENE O-RINGS

Part Number	Min. Pkg. Qty.	
568-126-90DEP	5	
568-144-90DEP	3	
568-264-90DEP	1	
568-280-90DEP	1	
568-281-90DEP	1	

### SEAL INFORMATION

MATERIAL	ETHYLENE PROPYLENE
TEMPERATURE RANGE	-65° TO +300° F
PRESSURE RANGE	VARIES ACCORDING TO DIAMETRAL CLEARANCE
PART NUMBER	(Prefix) - (Dash No.) (90 Duro Ethylene Propylene)



# STYLE 568, 70A DURO SILICONE O-RINGS



## SEAL INFORMATION

MATERIAL	SILICONE
TEMPERATURE RANGE	-70° TO +400° F
PRESSURE RANGE	VARIABLE ACCORDING TO DIAMETRAL CLEARANCE
PART NUMBER	(Prefix) - (Dash No.) (Silicone)

Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.	
568-007S	32		568-113S	14		568-215S	6		568-243S	2	
568-008S	50		568-115S	13		568-216S	6		568-246S	2	
568-009S	25		568-116S	12		568-218S	6		568-248S	2	
568-010S	20		568-117S	11		568-219S	6		568-259S	1	
568-011S	20		568-118S	10		568-220S	5		568-262S	1	
568-012S	20		568-120S	8		568-222S	8		568-265S	1	
568-013S	20		568-122S	7		568-223S	5		568-312S	7	
568-014S	12		568-125S	6		568-224S	5		568-320S	5	
568-015S	20		568-128S	5		568-225S	4		568-325S	4	
568-016S	12		568-140S	4		568-226S	4		568-326S	4	
568-018S	12		568-142S	3		568-227S	4		568-327S	4	
568-025S	11		568-144S	3		568-228S	4		568-328S	3	
568-026S	13		568-146S	3		568-229S	4		568-329S	3	
568-028S	11		568-154S	3		568-231S	3		568-330S	3	
568-042S	10		568-165S	1		568-232S	3		568-334S	3	
568-045S	4		568-210S	10		568-233S	3		568-336S	3	
568-108S	12		568-211S	9		568-237S	3		568-367S	1	
568-110S	12		568-212S	8		568-238S	3		568-445S	1	
568-111S	12		568-213S	7		568-239S	2		568-446S	1	
568-112S	12		568-214S	7		568-240S	2				

# STYLE 568, 55 - 58 SHORE D PTFE O-RING



## SEAL INFORMATION

MATERIAL	55 - 58 SHORE D PTFE
TEMPERATURE RANGE	-65° TO +500° F
PRESSURE RANGE	VARIES ACCORDING TO DIAMETRAL CLEARANCE
PART NUMBER	(Prefix) - (Dash No.) (PTFE)

Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.	
568-006T	7		568-112T	4		568-214T	3		568-253T	1	
568-009T	6		568-114T	4		568-215T	3		568-254T	1	
568-010T	1		568-115T	4		568-217T	2		568-258T	1	
568-011T	5		568-116T	4		568-218T	1		568-259T	1	
568-012T	5		568-117T	4		568-219T	2		568-263T	1	
568-013T	6		568-121T	4		568-220T	2		568-268T	1	
568-014T	5		568-122T	4		568-221T	2		568-273T	1	
568-015T	5		568-125T	3		568-223T	2		568-279T	1	
568-016T	4		568-126T	3		568-224T	2		568-325T	1	
568-018T	4		568-128T	3		568-225T	2		568-326T	1	
568-020T	4		568-130T	1		568-226T	2		568-327T	1	
568-021T	3		568-132T	2		568-227T	1		568-328T	1	
568-022T	3		568-133T	2		568-228T	1		568-330T	1	
568-023T	3		568-134T	2		568-229T	1		568-331T	1	
568-024T	3		568-137T	2		568-231T	1		568-332T	1	
568-025T	3		568-138T	2		568-232T	1		568-333T	1	
568-026T	3		568-142T	2		568-234T	1		568-335T	1	
568-028T	2		568-144T	2		568-235T	1		568-336T	1	
568-029T	2		568-145T	1		568-236T	1		568-340T	1	
568-030T	2		568-146T	1		568-238T	1		568-341T	1	
568-032T	2		568-158T	1		568-240T	1		568-342T	1	
568-033T	2		568-208T	3		568-241T	1		568-345T	1	
568-034T	1		568-210T	3		568-242T	1		568-347T	1	
568-109T	5		568-211T	2		568-246T	1		568-349T	1	
568-110T	5		568-212T	2		568-248T	1		568-382T	1	
568-111T	5		568-213T	3		568-250T	1		568-441T	1	

# STYLE 568, 90 DURO URETHANE O-RINGS



## SEAL INFORMATION

MATERIAL	URETHANE
TEMPERATURE RANGE	-65° TO +220° F
PRESSURE RANGE	VARIES ACCORDING TO DIAMETRAL CLEARANCE
PART NUMBER	(Prefix) - (Dash No.) (Urethane)

Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.	
568-006U	4		568-119U	2		568-227U	2	
568-008U	3		568-120U	2		568-228U	2	
568-009U	3		568-121U	2		568-230U	2	
568-010U	3		568-121U-70D	2		568-232U	2	
568-011U	3		568-122U	2		568-233U	1	
568-012U	3		568-123U	2		568-234U	1	
568-013U	3		568-124U	2		568-235U	1	
568-014U	3		568-128U	2		568-236U	1	
568-014U-70D	3		568-129U	2		568-238U	1	
568-015U	1		568-131U	2		568-240U	1	
568-016U	3		568-133U	2		568-242U	1	
568-016U-70D	3		568-134U	1		568-244U	1	
568-017U	3		568-136U-70D	2		568-247U	1	
568-018U	3		568-140U	2		568-248U	1	
568-020U	3		568-145U	1		568-252U	1	
568-022U	3		568-148U	1		568-256U	1	
568-023U	3		568-151U-70D	1		568-260U	1	
568-024U	2		568-206U	3		568-267U	1	
568-027U	2		568-210U	3		568-326U	1	
568-031U	2		568-211U	2		568-327U	1	
568-110U	2		568-213U	2		568-328U	1	
568-111U	2		568-216U	2		568-329U	1	
568-112U	3		568-218U	2		568-330U	1	
568-113U	2		568-219U	2		568-331U	1	
568-113U-70D	1		568-220U	2		568-332U	1	
568-114U	2		568-221U	2		568-335U	1	
568-114U-70D	2		568-222U	2		568-336U	1	
568-115U	2		568-223U	2		568-337U	1	
568-116U	2		568-224U	2		568-341U	1	
568-117U	2		568-225U	1				
568-118U	2		568-226U	2				

# STYLE 580, SQUARE BUNA-N O-RINGS



## SEAL INFORMATION

MATERIAL	BUNA-N RUBBER
TEMPERATURE RANGE	-40° TO +240° F
PRESSURE RANGE	VARIABLE ACCORDING TO DIAMETRAL CLEARANCE
PART NUMBER	(Prefix) - (Dash No.)

Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.	
580-008	10		580-120	27		580-153	9		580-234	14	
580-014	38		580-121	25		580-154	9		580-235	13	
580-015	50		580-122	25		580-155	7		580-236	12	
580-016	38		580-123	12		580-156	6		580-237	12	
580-017	30		580-124	12		580-157	5		580-238	12	
580-019	30		580-125	12		580-158	5		580-239	10	
580-021	25		580-125-90D	5		580-159	4		580-240	10	
580-022	29		580-126	27		580-160	4		580-241	10	
580-025	25		580-127	12		580-161	4		580-242	10	
580-026	24		580-128	12		580-162	4		580-243	9	
580-028	25		580-129	12		580-163	3		580-244	9	
580-029	25		580-129-90D	5		580-164	3		580-245	8	
580-032	15		580-130	12		580-170	3		580-246	7	
580-033	15		580-131	12		580-206	15		580-247	6	
580-034	15		580-132	11		580-209	15		580-248	5	
580-035	15		580-133	11		580-211	15		580-249	5	
580-036	13		580-134	11		580-213	15		580-250	5	
580-037	13		580-135	11		580-214	15		580-251	5	
580-038	13		580-136	11		580-215	15		580-252	5	
580-039	12		580-137	11		580-216	15		580-253	4	
580-040	12		580-138	11		580-217	15		580-254	4	
580-041	9		580-139	11		580-218	15		580-255	4	
580-042	9		580-140	11		580-220	15		580-256	4	
580-043	9		580-141	11		580-221	15		580-257	4	
580-044	9		580-142	11		580-222	15		580-258	4	
580-045	8		580-143	11		580-223	15		580-259	4	
580-046	7		580-144	11		580-224	15		580-260	3	
580-047	7		580-145	11		580-225	15		580-261	3	
580-110	23		580-146	11		580-226	15		580-262	3	
580-113	13		580-147	10		580-227	15		580-263	3	
580-115	14		580-148	10		580-229	15		580-264	3	
580-116	35		580-149	10		580-230	15		580-265	3	
580-117	30		580-150	10		580-231	15		580-266	3	
580-118	30		580-151	10		580-232	15		580-267	3	
580-119	13		580-152	10		580-233	15		580-268	3	

## STYLE 580, SQUARE BUNA-N O-RINGS

Part Number	Min. Pkg. Qty.	Part Number	Min. Pkg. Qty.	Part Number	Min. Pkg. Qty.	Part Number	Min. Pkg. Qty.
580-269	3	580-337	10	580-357	4	580-441	2
580-270	3	580-338	10	580-358	4	580-442	2
580-271	3	580-339	10	580-366	4	580-443	2
580-272	3	580-340	10	580-414	2	580-444	2
580-273	3	580-341	9	580-423	2	580-445	2
580-274	3	580-342	9	580-425	3	580-446	2
580-278	1	580-343	8	580-426	3	580-447	2
580-322	5	580-344	7	580-427	3	580-448	2
580-324	8	580-345	7	580-428	3	580-449	2
580-325	15	580-346	7	580-429	3	580-450	1
580-326	15	580-347	7	580-430	3	580-451	1
580-328	15	580-348	7	580-431	3		
580-329	13	580-349	6	580-433	3		
580-330	13	580-350	6	580-434	3		
580-331	13	580-351	6	580-435	3		
580-332	13	580-352	6	580-436	3		
580-333	13	580-353	5	580-437	3		
580-334	13	580-354	4	580-438	3		
580-335	12	580-355	4	580-439	3		
580-336	11	580-356	4	580-440	3		

## STYLE QR, BUNA-N QUAD<sup>®</sup> RINGS

The four-lobed design of these seals provides twice the sealing surface of ordinary o-rings. They can be used in a variety of static and dynamic sealing applications including rotary, reciprocating or oscillating motion.

**NOTE:** Last three digits of part number corresponds to standard o-ring dash numbers (568-218 = QR-4218)

V = Fluorocarbon



### SEAL INFORMATION

MATERIAL	BUNA-N RUBBER
TEMPERATURE RANGE	-40° TO +240° F
PRESSURE RANGE	VARIABLE ACCORDING TO DIAMETRAL CLEARANCE
PART NUMBER	(Prefix) - (Dash No.)

Part Number	Min. Pkg. Qty.	Part Number	Min. Pkg. Qty.	Part Number	Min. Pkg. Qty.	Part Number	Min. Pkg. Qty.
QR-4004	6	QR-4014	6	QR-4024	4	QR-4034	3
QR-4005	6	QR-4015	6	QR-4025	3	QR-4035	3
QR-4006	6	QR-4016	5	QR-4026	3	QR-4036	3
QR-4007	6	QR-4017	5	QR-4027	3	QR-4037	2
QR-4008	6	QR-4018	5	QR-4028	3	QR-4038	2
QR-4009	6	QR-4019	5	QR-4029	3	QR-4039	2
QR-4010	6	QR-4020	5	QR-4030	3	QR-4040	2
QR-4011	6	QR-4021	5	QR-4031	3	QR-4041	2
QR-4012	6	QR-4022	4	QR-4032	2	QR-4042	2
QR-4013	6	QR-4023	4	QR-4033	3	QR-4043	2

# STYLE QR, BUNA-N QUAD<sup>®</sup> RINGS

Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.	
QR-4044	2		QR-4152	2		QR-4241	2		QR-4333	3	
QR-4045	2		QR-4153	2		QR-4242	2		QR-4334	3	
QR-4046	2		QR-4154	2		QR-4243	2		QR-4335	2	
QR-4047	2		QR-4156	2		QR-4244	2		QR-4336	2	
QR-4048	2		QR-4157	2		QR-4245	2		QR-4337	2	
QR-4050	2		QR-4158	2		QR-4246	2		QR-4338	2	
QR-4108	5		QR-4159	2		QR-4247	2		QR-4339	2	
QR-4109	5		QR-4160	2		QR-4248	2		QR-4340	2	
QR-4110	5		QR-4161	2		QR-4249	2		QR-4341	2	
QR-4111	5		QR-4162	1		QR-4250	2		QR-4342	2	
QR-4112	5		QR-4164	1		QR-4251	2		QR-4343	2	
QR-4113	5		QR-4202	5		QR-4252	1		QR-4344	1	
QR-4113V	1		QR-4204	5		QR-4253	1		QR-4345	1	
QR-4114	5		QR-4205	5		QR-4254	1		QR-4346	1	
QR-4115	5		QR-4206	5		QR-4255	1		QR-4347	1	
QR-4116	5		QR-4207	5		QR-4256	1		QR-4348	1	
QR-4117	5		QR-4208	5		QR-4257	1		QR-4349	1	
QR-4118	5		QR-4209	5		QR-4258	1		QR-4350	1	
QR-4119	5		QR-4210	5		QR-4259	1		QR-4351	1	
QR-4120	5		QR-4211	5		QR-4260	1		QR-4352	1	
QR-4121	5		QR-4212	5		QR-4261	1		QR-4353	1	
QR-4122	5		QR-4213	5		QR-4262	1		QR-4354	1	
QR-4123	5		QR-4214	5		QR-4263	1		QR-4355	1	
QR-4124	5		QR-4215	5		QR-4265	1		QR-4356	1	
QR-4125	4		QR-4216	4		QR-4266	1		QR-4357	1	
QR-4126	4		QR-4217	4		QR-4268	1		QR-4358	1	
QR-4127	4		QR-4218	4		QR-4270	1		QR-4359	1	
QR-4128	4		QR-4219	4		QR-4271	1		QR-4361	1	
QR-4129	4		QR-4220	4		QR-4272	1		QR-4362	1	
QR-4130	4		QR-4221	4		QR-4275	1		QR-4363	1	
QR-4131	4		QR-4222	4		QR-4276	1		QR-4365	1	
QR-4132	4		QR-4223	3		QR-4277	1		QR-4366	1	
QR-4133	4		QR-4224	3		QR-4278	1		QR-4367	1	
QR-4134	4		QR-4225	3		QR-4314	3		QR-4368	1	
QR-4135	3		QR-4226	3		QR-4316	3		QR-4369	1	
QR-4136	3		QR-4226V	1		QR-4318	3		QR-4370	1	
QR-4137	3		QR-4227	3		QR-4319	3		QR-4371	1	
QR-4138	3		QR-4228	3		QR-4320	3		QR-4372	1	
QR-4139	3		QR-4229	3		QR-4321	3		QR-4374	1	
QR-4140	3		QR-4230	3		QR-4322	3		QR-4375	1	
QR-4141	3		QR-4231	3		QR-4323	3		QR-4376	1	
QR-4142	3		QR-4232	3		QR-4324	3		QR-4387	1	
QR-4143	2		QR-4233	3		QR-4325	3		QR-4425	1	
QR-4144	2		QR-4234	3		QR-4326	3		QR-4426	1	
QR-4145	2		QR-4235	3		QR-4327	3		QR-4427	1	
QR-4146	2		QR-4236	3		QR-4328	3		QR-4428	1	
QR-4147	2		QR-4237	3		QR-4329	3		QR-4429	1	
QR-4148	2		QR-4238	2		QR-4330	3		QR-4430	1	
QR-4149	2		QR-4239	2		QR-4331	3		QR-4431	1	
QR-4151	2		QR-4240	2		QR-4332	3		QR-4432	1	

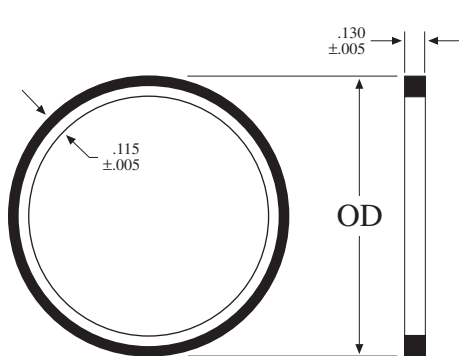
## STYLE QR, BUNA-N QUAD<sup>®</sup> RINGS

Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.	
QR-4433	1		QR-4441	1		QR-4448	1		QR-4458	1	
QR-4434	1		QR-4442	1		QR-4449	1		QR-4461	1	
QR-4435	1		QR-4443	1		QR-4450	1		QR-4464	1	
QR-4436	1		QR-4443V	1		QR-4451	1		QR-4468	1	
QR-4437	1		QR-4444	1		QR-4452	1		QR-4470	1	
QR-4438	1		QR-4445	1		QR-4453	1		QR-4475	1	
QR-4439	1		QR-4446	1		QR-4454	1				
QR-4440	1		QR-4447	1		QR-4455	1				

## SPLIT FLANGE SEALS

### FOR 4-BOLT SPLIT FLANGE CONNECTORS

Flange seals are a one piece dual durometer urethane static seal. The black outer part is a tough, extrusion resistant 95 Durometer and the yellow inner layer is 57 Durometer that has low compression set and excellent sealing properties. These seals are a direct replacement for o-rings and do not require modification to any split flange groove.



### SEAL INFORMATION

MATERIAL	URETHANE
TEMPERATURE RANGE	-65° TO +220° F
PRESSURE RANGE	0 TO 6,000 PSI
PART NUMBER	(Prefix) - (Dash No.)

Part Number	Flange Size	Replaces O-Ring No.	Outside Diam.	
SFS-8	1/2	-210	1.005	
SFS-12	3/4	-214	1.255	
SFS-16	1	-219	1.565	
SFS-20	1-1/4	-222	1.755	
SFS-24	1-1/2	-225	2.125	
SFS-32	2	-228	2.500	
SFS-40	2-1/2	-232	3.005	
SFS-48	3	-237	3.625	

## O-RING KITS

### O-RING KIT

Part Number: 568 Kit-A

PART NUMBER	QTY	PART NUMBER	QTY
006-012	20	210-222	10
110-116	13	325-327	7

This kit contains a total of 382 O-Rings in 30 different sizes, providing an extremely low cost per size value.



### O-RING METRIC KIT

Part Number: Metric O Kit-J-A

I.D X C.S. (mm)	QTY	I.D X C.S. (mm)	QTY
3 X 2.0	16	20 X 3.0	12
4 X 2.0	16	22 X 3.0	12
5 X 2.0	16	24 X 3.0	12
6 X 2.0	16	25 X 3.0	12
7 X 2.0	16	27 X 3.0	12
8 X 2.0	16	28 X 3.0	12
10 X 2.0	16	30 X 3.0	12
10 X 2.5	16	32 X 3.0	12
11 X 2.5	13	33 X 3.0	12
12 X 2.5	13	35 X 3.0	12
14 X 2.5	13	36 X 3.0	12
16 X 2.5	13	38 X 3.0	12
17 X 2.5	13	38 X 4.0	9
19 X 2.5	13	41 X 4.0	9
19 X 3.0	12	44 X 4.0	9

The Metric O-Kit J-A contains a total of 389 O-Rings in 30 different sizes, another extremely low cost per size value.



## O-RING KITS

### O-RING MINI KIT

Part Number: 568 Mini Kit

PART NUMBER	QTY	PART NUMBER	QTY
006	20	110	10
007	20	111	10
008	20	112	10
009	15	113	10
010	15	114	10
011	15	115	10
012	10	116	10
014	10	210	10
016	10	211	10



This popular mini kit contains a total of 225 O-Rings in 18 different sizes.

### O-RING METRIC MINI KIT

Part Number: Metric Mini Kit-J

I.D X C.S. (mm)	QTY	I.D X C.S. (mm)	QTY
3 X 2.0	20	10 X 2.5	10
4 X 2.0	20	11 X 2.5	10
5 X 2.0	20	12 X 2.5	10
6 X 2.0	15	14 X 2.5	10
7 X 2.0	15	16 X 2.5	10
8 X 2.0	15	17 X 2.5	10
10 X 2.0	10	19 X 2.5	10
12 X 2.0	10	19 X 3.0	10
14 X 2.0	10	20 X 3.0	10



The Metric version of the Mini O-ring kit also contains a total of 225 O-Rings in 18 different sizes.

Note: Quantities Limited. Mini kits will not be re-ordered when stock is depleted.

## O-RING KITS

### U.S. INDUSTRIAL O-RING KIT

Part Number: 568 Kit

PART NUMBER	QTY	PART NUMBER	QTY
005-011	25	111-116	10
012	15	117-121	7
013-018	10	210-211	10
110	15	212-219	7

This kit contains a total of 436 70 Durometer O-Rings in 36 different sizes, providing an extremely low cost per size value.



### O-RING WAREHOUSE KIT

Part Number: 568 WH Kit



PART NUMBER	QTY	PART NUMBER	QTY
001-016	20	217-229	5
017-024	10	230-232	3
025-031	7	233-237	2
032-043	5	325-328	5
044-046	2	329-330	4
110-116	15	331-338	2
117-124	10	901-914	5
125-142	5	916, 918	5
143-146	3	920, 924	5
147-151	2	928, 932	5
210-216	10		

Our O-ring Warehouse kit is ideally suited for the repair shop that needs a large on-hand selection of O-rings to insure quick repair of all machine types. 1,110 O-Rings in 150 different sizes are included in this kit. Each size is individually packaged in heavy duty ziploc bags to protect against environmental exposure and contamination. All packages are then stored in a sturdy styrene cabinet with pull-out drawers for easy access to parts. Included card shows size, dimensions, and drawer location for each ring.

### QUAD WAREHOUSE KIT

Part Number: Quad-Ring WH Kit

PART NUMBER	QTY	PART NUMBER	QTY
QR-4004-012	10	QR-4125-135	3
QR-4013-030	5	QR-4136-154	2
QR-4031-038	3	QR-4204-216	5
QR-4039-048	2	QR-4217-229	3
QR-4108-116	10	QR-4230-338	2
QR-4117-124	5		



Similar to the O-Ring Warehouse kit, the Quad Seal Warehouse kit contains a total of 583 four-lobed seals in 145 different sizes. This kit is ideal for the small distributor who wishes to have a comprehensive on-hand inventory of Quad seals for counter sales.

## O-RING KITS

### 90 DUROMETER O-RING KIT

Part Number: 568 90D Kit

PART NUMBER	QTY	PART NUMBER	QTY
005-011-90D	25	111-116-90D	10
012-90D	15	117-121-90D	7
013-018-90D	10	210-211-90D	10
110-90D	15	212-219-90D	7

This kit contains a total of 436 90 Durometer O-Rings in 36 different sizes, providing an extremely low cost per size value.



Our 90 Durometer O-ring Warehouse kit is ideally suited for the repair shop that needs a large on-hand selection of O-Rings to insure quick repair of all machine types. 1,110 O-Rings in 150 different sizes are included in this kit.



### 90 DUROMETER O-RING WAREHOUSE KIT

Part Number: 568 WH Kit-90D

PART NUMBER	QTY	PART NUMBER	QTY
001-016-90D	20	217-229-90D	5
017-024-90D	10	230-232-90D	3
025-031-90D	7	233-237-90D	2
032-043-90D	5	325-328-90D	5
044-046-90D	2	329-330-90D	4
110-116-90D	15	331-338-90D	2
117-124-90D	10	901-914-90D	5
125-142-90D	5	916, 918-90D	5
143-146-90D	3	920, 924-90D	5
147-151-90D	2	928, 932-90D	5
210-216-90D	10		

### 900 BOSS O-RING KIT

Part Number: 900 Boss Kit

PART NUMBER	QTY
904	35
905-906	30
907-910	20
911-914	15
916	15



This 250 piece assortment contains the most popular size 90 Durometer Boss O-rings, individually boxed, which will supply your shop, service truck, or parts counter with the sizes you need!

## O-RING KITS

### MAX O-RING KIT

**Part Number:**  
**MAX 1381 Kit**

**Part Number:**  
**MAX 1381 Kit-90D**

These sturdy kits, packaged in a heavy duty box, contains 1415 O-Rings in the most popular sizes. Every service truck should have one of these. Five internal boxes contain 1/16" C/S, 3/32" C/S, 1/8" C/S, Boss and Flange fitting o-rings. Contents and quantities are listed below.

#### Flange Seals

FLANGE NUMBER	QTY	FLANGE NUMBER	QTY
8	10	20	5
12	10	24	5
16	10	32	5

#### Boss O-Rings

BOSS NUMBER	QTY	BOSS NUMBER	QTY
903	15	907	25
904	25	910	25
906	15	912	15
906	25	916	10

#### 1/16" C/S O-Rings

O-RING NUMBER	QTY	O-RING NUMBER	QTY
006 - 118	25	028	15
019 - 021	20	029	10
022 - 026	15	030	10



#### 3/32" C/S O-Rings

O-RING NUMBER	QTY	O-RING NUMBER	QTY
109 - 118	25	129	10
119 - 120	20	131	10
121 - 127	15	133	10
128	10	135	5

#### 1/8" C/S O-Rings

O-RING NUMBER	QTY	O-RING NUMBER	QTY
210 - 214	20	228	10
215 - 222	15	232	10
223 - 224	10	236	10
226	10		

### FLUOROCARBON O-RING KIT

**Part Number: 568 FC Kit**

PART NUMBER	QTY	PART NUMBER	QTY
005-011V	25	111-116V	10
012V	15	117-121V	7
013-018V	10	210-211V	10
110V	15	212-219V	7

This kit contains a total of 436 75 Durometer Fluorocarbon O-Rings in 36 different sizes, providing an extremely low cost per size value.

## O-RING KITS

### 900 BOSS FLUOROCARBON O-RING KIT

Part Number: 900 Boss FC

PART NUMBER	QTY
904V	35
905-906V	30
907-910V	20
911-914V	15
916V	15

This 250 piece assortment contains the most popular size 90 Durometer Boss O-rings, individually boxed, which will supply your shop, service truck, or parts counter with the sizes you need!



O-RINGS

### PTFE O-RING KIT

Part Number: 568 PTFE Kit

PART NUMBER	QTY
005-012T	15
013-018T	10
110-116T	10
117-121T	5
210-219T	5

This kit contains a total of 325 PTFE O-Rings ( 55 - 58 Shore D) in 36 different sizes. PTFE O-Rings can withstand temperatures up to 500° F and are impervious to a wide range of chemicals.



### QUAD RING KIT

Part Number: Quad-Ring Kit

PART NUMBER	QTY	PART NUMBER	QTY
4005-4012	10	4110-4116	6
4013-4016	6	4117-4121	4
4017-4018	5	4210-4219	5

This kit contains a total of 226 Quad Seals in 36 different sizes, providing an extremely low cost per size value.





## O-RING KITS



### O-RING FACE KIT

Part Number: 568 Face Kit

PART NUMBER	QTY	PART NUMBER	QTY
011-90D	25	018-90D	20
012-90D	25	021-90D	15
014-90D	25	025-90D	10
016-90D	25	029-90D	10

This kit contains a total of 155 90 Durometer O-Rings in 8 different sizes, providing an extremely low cost per size value.

### O-RING FLANGE KIT

Part Number: 568 Flange Kit

PART NUMBER	QTY	PART NUMBER	QTY
210-90D	10	225-90D	10
214-90D	10	228-90D	10
219-90D	10	232-90D	10
222-90D	10		

This kit contains a total of 70, 90 Durometer O-Rings, in 7 different sizes, providing an extremely low cost per size value.



### SPLIT FLANGE SEAL KIT

Part Number: SFS Kit



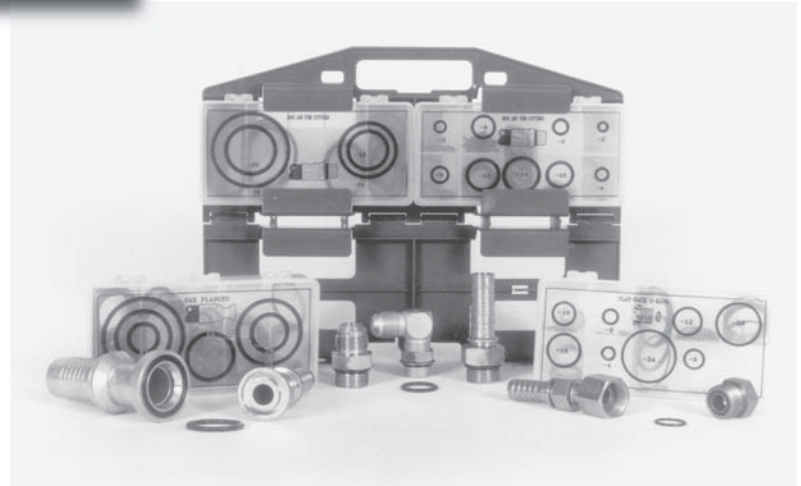
PART NUMBER	QTY	PART NUMBER	QTY
SFS-8	5	SFS-24	5
SFS-12	5	SFS-32	5
SFS-16	5	SFS-40	5
SFS-20	5		

## O-RING KITS

### HOSE END & ADAPTER KIT

**Part Number: O-R Fitting Kit**

This handy kit contains 27 sizes and 216 pieces of 90A Durometer O-rings for boss, split flange and flat face hose end fittings and adapters. Each box has a graphic label identifying the type of application and dash number for the seal. A chart on the back of the box lists popular OEM part number matches for each O-ring. Due to popular demand, these kits are now available individually.



### SAE FLANGE SEALS

**Part Number: SAE Flange Seals**

Box Part Number	Part Number	QTY
-8	568-210-90D	8
-12	568-214-90D	8
-16	568-219-90D	8
-20	568-222-90D	8
-24	568-225-90D	8
-32	568-228-90D	8

### FLAT FACE SEALS

**Part Number: Flat Face O-Rings**

Box Part Number	Part Number	QTY
-6	568-012-90D	8
-8	568-014-90D	8
-10	568-016-90D	8
-12	568-018-90D	8
-16	568-021-90D	8
-20	568-025-90D	8
-24	568-029-90D	8

### BOSS & TUBE SEALS

**Part Number: Boss & Tube Fittings-1**

**Part Number: Boss & Tube Fittings-2**

Box Part Number	Part Number	QTY	Box Part Number	Part Number	QTY
-2	568-902	8	-12	568-912	8
-3	568-903	8	-14	568-914	8
-4	568-904	8	-16	568-916	8
-5	568-905	8	-20	568-920	8
-6	568-906	8	-24	568-924	8
-8	568-908	8	-32	568-932	8
-10	568-910	8			

## O-RING KITS

### O-RING SPLICE KIT INCH SIZES

**Part Number: 568 Splice Kit**

**Kit Contains:**

1. Stock of 70 Durometer Buna O-ring Cord
2. Razor Blade
3. Splicing tool
4. Tube of Adhesive

**Replacement Parts**

**Parts:**

#568 Splice Tool  
#568 Adhesive  
70 Duro. Cord



### O-RING SPLICE KIT INCH & METRIC SIZES

**Part Number: Met/Inch Splice Kit**

This kit can produce O-Rings of any standard inch size cross-section plus a wide variety of metric sizes. Each kit contains quick drying adhesive, cutting and splicing jig, razor blade and 14 lengths of 70 Durometer Buna-N cord as follows:

**Inch cross-sections: (inch)**

1/16" (.070), 3/32" (.103), 1/8" (.139),  
3/16" (.210), 1/4" (.275)

**Metric cross-sections: (mm)**

1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 5.0, 5.7, 8.4



These kits can produce O-Rings of any circumference. The 568 kit contains the most popular inch cross sectional sized O-ring cord. The Metric and Inch Kit has both standard inch size cross sectional cord plus a wide variety of metric sized cord. Both kits contain quick drying adhesive, a cutting and splicing jig, a razor blade and 70 Durometer Buna-N cord.

### FLUOROCARBON O-RING SPLICE KIT INCH SIZES

**Part Number: 568 FC Splice Kit**

**Kit Contains:**

1. Stock of 75 Durometer Fluorocarbon Cord
2. Razor Blade
3. Splicing tool
4. Tube of Adhesive

**Replacement Parts**

**Parts:**

#568 Splice Tool  
#568 Adhesive  
75 Duro. Fluorocarbon Cord





## STYLE 573 HYTREL BACK-UP RINGS

Molded of 55D Durometer Hytrel, these back-up rings provide excellent extrusion resistance and tolerance to fluids such as phosphate esters, hydraulic oil and water. Stretched for installation, they return quickly to their original size for easy installation.

**NOTE:** Sizes (Dash No.) corresponds to standard o-ring numbers.



### SEAL INFORMATION

MATERIAL	55D HYTREL
TEMPERATURE RANGE	-65° TO +275° F
PRESSURE RANGE	VARIABLE ACCORDING TO DIAMETRAL CLEARANCE
PART NUMBER	(Prefix) - (Dash No.)

Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.	
573-014	10		573-044	2		573-136	8		573-209	10	
573-015	10		573-045	2		573-137	8		573-210	9	
573-016	10		573-047	2		573-138	8		573-211	9	
573-017	10		573-048	2		573-139	8		573-212	9	
573-018	10		573-049	2		573-140	7		573-213	9	
573-019	10		573-050	2		573-141	7		573-214	9	
573-020	10		573-111	9		573-142	7		573-215	9	
573-021	10		573-112	9		573-143	7		573-216	9	
573-022	10		573-113	9		573-144	6		573-217	9	
573-023	10		573-114	9		573-145	6		573-218	9	
573-024	10		573-115	9		573-146	6		573-219	9	
573-025	10		573-116	9		573-147	6		573-220	10	
573-026	10		573-117	9		573-148	6		573-221	10	
573-027	10		573-118	9		573-149	6		573-222	10	
573-028	10		573-119	9		573-150	6		573-223	8	
573-029	10		573-120	8		573-151	6		573-224	8	
573-030	10		573-122	8		573-152	5		573-225	10	
573-031	10		573-123	8		573-153	5		573-226	10	
573-032	10		573-124	8		573-154	3		573-227	10	
573-033	10		573-125	8		573-155	3		573-228	10	
573-034	10		573-126	8		573-158	3		573-229	10	
573-035	10		573-127	8		573-159	3		573-230	7	
573-036	10		573-128	8		573-160	3		573-231	7	
573-037	10		573-129	8		573-161	3		573-232	7	
573-038	10		573-130	8		573-162	3		573-233	7	
573-039	10		573-131	8		573-163	3		573-234	6	
573-040	10		573-132	8		573-205	10		573-235	6	
573-041	10		573-133	8		573-206	10		573-236	6	
573-042	10		573-134	8		573-207	10		573-237	5	
573-043	10		573-135	8		573-208	10		573-238	5	

## STYLE 573 HYTREL BACK-UP RINGS

BACK-UP RINGS

Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.	
573-239	5		573-270	1		573-336	7		573-369	2	
573-240	5		573-271	1		573-337	7		573-370	2	
573-241	5		573-272	1		573-338	7		573-371	2	
573-242	5		573-273	1		573-339	6		573-372	2	
573-243	5		573-309	10		573-340	6		573-375	2	
573-244	4		573-310	10		573-341	6		573-425	3	
573-245	4		573-311	10		573-342	5		573-426	3	
573-246	3		573-312	9		573-343	5		573-427	3	
573-247	3		573-313	9		573-344	4		573-428	3	
573-248	3		573-314	8		573-345	4		573-429	3	
573-249	3		573-315	8		573-346	4		573-430	3	
573-250	3		573-316	8		573-347	4		573-431	3	
573-251	3		573-317	8		573-348	4		573-432	2	
573-252	3		573-318	8		573-350	3		573-433	2	
573-253	3		573-319	8		573-351	3		573-434	2	
573-254	3		573-320	8		573-352	3		573-435	2	
573-255	2		573-321	8		573-353	3		573-436	2	
573-256	2		573-322	8		573-354	3		573-437	2	
573-257	2		573-323	8		573-355	3		573-438	2	
573-258	2		573-324	8		573-356	3		573-439	2	
573-259	2		573-325	8		573-357	2		573-440	2	
573-260	2		573-326	8		573-358	2		573-441	2	
573-261	2		573-327	8		573-359	2		573-442	2	
573-262	2		573-328	8		573-360	2		573-443	2	
573-263	2		573-329	8		573-361	2		573-444	1	
573-264	2		573-330	8		573-362	2		573-445	1	
573-265	2		573-331	8		573-363	2		573-446	1	
573-266	2		573-332	8		573-364	2		573-447	1	
573-267	2		573-333	8		573-366	2		573-448	1	
573-268	2		573-334	7		573-367	2		573-450	1	
573-269	2		573-335	7		573-368	2		573-455	1	

# STYLE 574 BUNA-N BACK-UP RINGS

Molded of 90A Durometer Buna-N Rubber, these "Parback®" Style Dished Cross Section back-up rings provide excellent extrusion resistance. Stretched for installation, they return quickly to their original size for easy installation.

**NOTE:** Sizes (Dash No.) corresponds to standard o-ring numbers.



## SEAL INFORMATION

MATERIAL	90A BUNA-N RUBBER
TEMPERATURE RANGE	-40° TO +240° F
PRESSURE RANGE	VARIABLE ACCORDING TO DIAMETRAL CLEARANCE
PART NUMBER	(Prefix) - (Dash No.)

Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.	
574-004	20		574-039	8		574-125	16		574-160	3	
574-005	50		574-040	7		574-126	14		574-161	3	
574-006	25		574-041	6		574-127	14		574-162	3	
574-007	25		574-042	6		574-128	15		574-163	2	
574-008	20		574-043	6		574-129	14		574-164	2	
574-009	25		574-044	4		574-130	14		574-165	2	
574-010	25		574-045	4		574-131	13		574-166	2	
574-011	25		574-046	4		574-132	13		574-167	2	
574-012	23		574-047	4		574-133	13		574-168	2	
574-013	22		574-048	3		574-134	13		574-169	2	
574-014	22		574-049	3		574-135	12		574-170	2	
574-015	21		574-050	3		574-136	11		574-171	2	
574-016	21		574-102	25		574-137	11		574-172	2	
574-017	21		574-103	25		574-138	10		574-173	2	
574-018	20		574-104	25		574-139	10		574-174	2	
574-019	20		574-105	25		574-140	10		574-175	2	
574-020	19		574-106	25		574-141	10		574-176	2	
574-021	19		574-107	25		574-142	10		574-177	2	
574-022	19		574-108	25		574-143	9		574-178	2	
574-023	18		574-109	23		574-144	9		574-202	20	
574-024	17		574-110	23		574-145	9		574-205	25	
574-025	17		574-111	23		574-146	9		574-206	25	
574-026	16		574-112	23		574-147	8		574-207	23	
574-027	15		574-113	22		574-148	8		574-208	22	
574-028	15		574-114	22		574-149	8		574-209	22	
574-029	14		574-115	22		574-150	8		574-210	22	
574-030	13		574-116	21		574-151	7		574-211	21	
574-031	13		574-117	20		574-152	5		574-212	21	
574-032	12		574-118	19		574-153	5		574-213	20	
574-033	11		574-119	19		574-154	4		574-214	20	
574-034	10		574-120	19		574-155	4		574-215	20	
574-035	10		574-121	18		574-156	3		574-216	18	
574-036	9		574-122	17		574-157	3		574-217	18	
574-037	9		574-123	17		574-158	3		574-218	18	
574-038	8		574-124	17		574-159	3		574-219	17	

## STYLE 574 BUNA-N BACK-UP RINGS

BACK-UP RINGS

Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.	
574-220	16		574-267	2		574-338	6		574-427	3	
574-221	15		574-268	2		574-339	6		574-428	3	
574-222	14		574-269	2		574-340	6		574-429	3	
574-223	14		574-270	2		574-341	5		574-430	3	
574-224	13		574-271	2		574-342	5		574-431	2	
574-225	11		574-272	2		574-343	4		574-432	2	
574-226	11		574-273	1		574-344	4		574-433	2	
574-227	10		574-274	1		574-345	4		574-434	2	
574-228	10		574-275	1		574-346	4		574-435	2	
574-229	9		574-276	1		574-347	4		574-436	2	
574-230	9		574-277	1		574-348	4		574-437	2	
574-231	8		574-278	1		574-349	4		574-438	2	
574-232	7		574-279	1		574-350	3		574-439	2	
574-233	7		574-280	1		574-351	3		574-440	2	
574-234	6		574-281	1		574-352	3		574-441	2	
574-235	6		574-282	1		574-353	3		574-442	2	
574-236	6		574-283	1		574-354	3		574-443	2	
574-237	6		574-284	1		574-355	3		574-444	2	
574-238	6		574-309	21		574-356	3		574-445	2	
574-239	5		574-310	20		574-357	3		574-446	2	
574-240	5		574-311	19		574-358	3		574-447	2	
574-241	5		574-312	19		574-359	3		574-448	1	
574-242	5		574-313	18		574-360	2		574-449	1	
574-243	5		574-314	18		574-361	2		574-450	1	
574-244	5		574-315	18		574-362	2		574-451	1	
574-245	4		574-316	18		574-363	2		574-452	1	
574-246	4		574-317	17		574-364	2		574-453	1	
574-247	4		574-318	15		574-365	2		574-454	1	
574-248	4		574-319	15		574-366	2		574-455	1	
574-249	4		574-320	14		574-367	2		574-456	1	
574-250	3		574-321	13		574-368	2		574-457	1	
574-251	3		574-322	13		574-369	2		574-458	1	
574-252	3		574-323	12		574-370	2		574-459	1	
574-253	3		574-324	12		574-371	2		574-460	1	
574-254	3		574-325	11		574-372	2		574-462	1	
574-255	3		574-326	10		574-373	2		574-463	1	
574-256	3		574-327	10		574-374	1		574-464	1	
574-257	3		574-328	9		574-375	1		574-465	1	
574-258	3		574-329	8		574-377	1		574-466	1	
574-259	2		574-330	8		574-378	1		574-467	1	
574-260	2		574-331	7		574-379	1		574-468	1	
574-261	2		574-332	7		574-380	1		574-469	1	
574-262	2		574-333	7		574-381	1		574-470	1	
574-263	2		574-334	7		574-382	1		574-471	1	
574-264	2		574-335	6		574-383	1		574-472	1	
574-265	2		574-336	6		574-425	3		574-473	1	
574-266	2		574-337	6		574-426	3				

## STYLE 575 URETHANE BACK-UP RINGS

Molded of 95A Durometer Urethane these back-up rings provide excellent extrusion resistance. Stretched for installation, they return quickly to their original size for easy installation.

**NOTE:** Sizes (Dash No.) corresponds to standard o-ring numbers.



### SEAL INFORMATION

MATERIAL	95A DUROMETER URETHANE
TEMPERATURE RANGE	-65° TO +220° F
PRESSURE RANGE	VARIABLE ACCORDING TO DIAMETRAL CLEARANCE
PART NUMBER	(Prefix) - (Dash No.)

Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.	
575-004	10		575-039	10		575-125	8		575-160	3	
575-005	10		575-040	10		575-126	8		575-160	3	
575-006	10		575-041	10		575-127	8		575-161	3	
575-007	10		575-042	10		575-128	8		575-162	3	
575-008	10		575-043	10		575-129	8		575-163	3	
575-009	10		575-044	2		575-130	8		575-164	3	
575-010	10		575-045	2		575-131	8		575-165	3	
575-011	10		575-046	2		575-132	8		575-166	3	
575-012	10		575-047	2		575-133	8		575-167	3	
575-013	10		575-048	2		575-134	8		575-168	3	
575-014	10		575-049	2		575-135	8		575-172	3	
575-015	10		575-050	2		575-136	8		575-173	3	
575-016	10		575-102	9		575-137	8		575-174	3	
575-017	10		575-103	9		575-138	8		575-175	3	
575-018	10		575-104	9		575-139	8		575-205	10	
575-019	10		575-105	9		575-140	7		575-206	10	
575-020	10		575-106	9		575-141	7		575-207	10	
575-021	10		575-107	9		575-142	7		575-208	10	
575-022	10		575-108	9		575-143	7		575-209	10	
575-023	10		575-109	9		575-144	6		575-210	9	
575-024	10		575-110	9		575-145	6		575-211	9	
575-025	10		575-111	9		575-146	6		575-212	9	
575-026	10		575-112	9		575-147	6		575-213	9	
575-027	10		575-113	9		575-148	6		575-214	9	
575-028	10		575-114	9		575-149	6		575-215	9	
575-029	10		575-115	9		575-150	6		575-216	9	
575-030	10		575-116	9		575-151	6		575-217	9	
575-031	10		575-117	9		575-152	5		575-218	9	
575-032	10		575-118	9		575-153	5		575-219	9	
575-033	10		575-119	9		575-154	3		575-220	10	
575-034	10		575-120	8		575-155	3		575-221	10	
575-035	10		575-121	8		575-156	3		575-222	10	
575-036	10		575-122	8		575-157	3		575-223	8	
575-037	10		575-123	8		575-158	3		575-224	8	
575-038	10		575-124	8		575-159	3		575-225	10	

## STYLE 575 URETHANE BACK-UP RINGS

BACK-UP RINGS

Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.	
575-226	10		575-266	2		575-336	7		575-376	2	
575-227	10		575-267	2		575-337	7		575-377	2	
575-228	10		575-268	2		575-338	7		575-379	1	
575-229	10		575-269	2		575-339	6		575-421	3	
575-230	7		575-270	1		575-340	6		575-425	3	
575-231	7		575-271	1		575-341	6		575-426	3	
575-232	7		575-272	1		575-342	5		575-427	3	
575-233	7		575-273	1		575-343	5		575-428	3	
575-234	6		575-274	1		575-344	4		575-429	3	
575-235	6		575-275	1		575-345	4		575-430	3	
575-236	6		575-276	1		575-346	4		575-431	3	
575-237	5		575-278	1		575-347	4		575-432	2	
575-238	5		575-279	1		575-348	4		575-433	2	
575-239	5		575-309	10		575-349	3		575-434	2	
575-240	5		575-310	10		575-350	3		575-435	2	
575-241	5		575-311	10		575-351	3		575-436	2	
575-242	5		575-312	9		575-352	3		575-437	2	
575-243	5		575-313	9		575-353	3		575-438	2	
575-244	4		575-314	8		575-354	3		575-439	2	
575-245	4		575-315	8		575-355	3		575-440	2	
575-246	3		575-316	8		575-356	3		575-441	2	
575-247	3		575-317	8		575-357	2		575-442	2	
575-248	3		575-318	8		575-358	2		575-443	2	
575-249	3		575-319	8		575-359	2		575-444	1	
575-250	3		575-320	8		575-360	2		575-445	1	
575-251	3		575-321	8		575-361	2		575-446	1	
575-252	3		575-322	8		575-362	2		575-447	1	
575-253	3		575-323	8		575-363	2		575-448	1	
575-254	3		575-324	8		575-364	2		575-448	1	
575-255	2		575-325	8		575-365	2		575-449	1	
575-256	2		575-326	8		575-366	2		575-450	1	
575-257	2		575-327	8		575-367	2		575-451	1	
575-258	2		575-328	8		575-368	2		575-452	1	
575-259	2		575-329	8		575-369	2		575-453	1	
575-260	2		575-330	8		575-370	2		575-454	1	
575-261	2		575-331	8		575-371	2		575-455	1	
575-262	2		575-332	8		575-372	2		575-456	1	
575-263	2		575-333	8		575-373	2				
575-264	2		575-334	7		575-374	2				
575-265	2		575-335	7		575-375	2				

# STYLE 575 PTFE BACK-UP RINGS

Letter suffix: T = Solid, ST = Split, TS = Spiral Cut, TW = .085 Wide



## SEAL INFORMATION

MATERIAL	PTFE
TEMPERATURE RANGE	-40° TO +500° F
PRESSURE RANGE	VARIES ACCORDING TO DIAMETRAL CLEARANCE
PART NUMBER	(Prefix) - (Dash No.) (Config.)

BACK-UP RINGS

Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.	
575-004ST	6		575-031T	2		575-119ST	10		575-210ST	4	
575-005ST	6		575-032T	2		575-119T	3		575-210T	4	
575-006ST	6		575-033ST	2		575-120ST	3		575-211ST	6	
575-007ST	6		575-033T	2		575-120T	3		575-212ST	4	
575-008ST	6		575-034T	2		575-121ST	3		575-212T	2	
575-009ST	6		575-035ST	2		575-122ST	3		575-212TS	1	
575-010ST	12		575-036ST	2		575-122T	3		575-212TW	1	
575-010T	6		575-036T	2		575-123ST	6		575-213ST	4	
575-011ST	6		575-037T	2		575-124ST	6		575-214ST	4	
575-011T	1		575-038ST	1		575-125ST	6		575-214T	6	
575-012ST	10		575-038T	2		575-126ST	3		575-215ST	4	
575-013ST	6		575-039T	2		575-127ST	3		575-216ST	4	
575-014ST	6		575-040T	2		575-128ST	3		575-217ST	4	
575-015ST	6		575-041T	2		575-129ST	3		575-218ST	5	
575-016ST	10		575-042T	2		575-130ST	3		575-218T	5	
575-017ST	5		575-044T	2		575-131ST	3		575-218TS	5	
575-018ST	5		575-045T	2		575-132ST	3		575-219ST	3	
575-019ST	5		575-110ST	6		575-133ST	3		575-219T	1	
575-020ST	5		575-111ST	5		575-134ST	3		575-220ST	3	
575-020T	5		575-112ST	5		575-134TS	1		575-220T	2	
575-021ST	5		575-112T	5		575-135ST	3		575-220TS	1	
575-022ST	5		575-112TS	5		575-136ST	3		575-221ST	3	
575-022T	5		575-113ST	5		575-137ST	3		575-221T	3	
575-023ST	5		575-114ST	4		575-138ST	2		575-222ST	3	
575-023TS	5		575-114T	5		575-139T	2		575-223T	2	
575-024ST	5		575-115ST	4		575-139TS	1		575-223TS	1	
575-025ST	5		575-115TS	5		575-140T	2		575-224ST	3	
575-026ST	4		575-116ST	8		575-140TS	1		575-224T	3	
575-026T	4		575-116T	4		575-141T	2		575-225ST	3	
575-027ST	4		575-116TS	5		575-144ST	2		575-226ST	5	
575-028ST	4		575-117ST	4		575-146T	2		575-226TS	2	
575-029ST	3		575-117T	4		575-148T	2		575-227ST	3	
575-029T	3		575-118ST	4		575-149T	2		575-228ST	2	
575-030ST	3		575-118T	4		575-152T	2		575-229ST	2	
575-031ST	2		575-118TS	4		575-159T	1		575-230ST	2	

## STYLE 575 PTFE BACK-UP RINGS

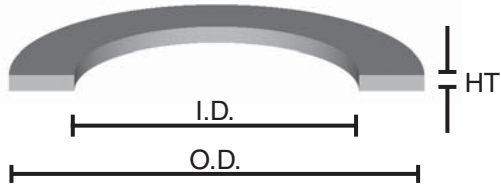
Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.		Part Number	Min. Pkg. Qty.	
575-230T	2		575-252T	1		575-335T	1		575-425ST	1	
575-231T	2		575-253T	1		575-336ST	1		575-425TS	1	
575-232ST	2		575-254T	1		575-338ST	1		575-426ST	1	
575-232T	2		575-255T	1		575-338T	1		575-427ST	1	
575-232TS	2		575-256T	1		575-340ST	1		575-430ST	1	
575-232TW	1		575-258T	1		575-340TS	1		575-430T	1	
575-233T	2		575-260T	1		575-341ST	1		575-431ST	1	
575-234T	2		575-260TS	1		575-342ST	1		575-431T	1	
575-235ST	2		575-261T	1		575-344ST	1		575-432ST	1	
575-235T	2		575-262TS	1		575-345ST	2		575-433ST	1	
575-236T	2		575-263ST	1		575-346ST	1		575-434ST	1	
575-237T	2		575-274T	1		575-349T	1		575-436ST	1	
575-238T	2		575-320T	2		575-349TS	1		575-437T	1	
575-239ST	2		575-325ST	2		575-350ST	1		575-438T	1	
575-239T	2		575-325T	2		575-354ST	1		575-439T	1	
575-240T	2		575-326ST	2		575-356ST	1		575-440ST	1	
575-240TS	2		575-326T	1		575-359ST	1		575-443T	1	
575-241ST	2		575-327ST	2		575-359T	1		575-445TS	1	
575-242T	2		575-328ST	2		575-360T	1		575-446T	1	
575-243ST	2		575-328T	2		575-362ST	1		575-447T	1	
575-244T	1		575-329ST	1		575-363T	1		575-448T	1	
575-244T	1		575-330ST	2		575-364T	1		575-450T	1	
575-245T	2		575-330T	2		575-365T	1		575-451T	1	
575-247T	2		575-332T	1		575-367ST	1		575-452T	1	
575-248T	2		575-333ST	2		575-372T	1		575-454T	1	
575-249ST	1		575-333T	2		575-375T	1				
575-249T	1		575-334ST	2		575-379T	1				
575-250T	1		575-334TS	1		575-413ST	1				

## STYLE 575 PTFE BACK-UP RINGS - SPECIAL SIZES

Part Number	I.D.	O.D.	HT.	
575-1-3/16X1-1/2T	1-3/16	1-1/2	0.062	
575-2.4X2.6X.06ST	2.457	2.687	0.060	
575-2.7X2.9X.06ST	2.707	2.937	0.060	
575-5.5X6.12T	5-1/2	6-1/8	0.062	
575-6.12X7ST	6-1/8	7	1/8	
575-7X8T	7	8	1/8	
575-7.75X8.75X.125T	7-3/4	8-3/4	1/8	
575-9X10T	9	10	1/8	
575-13X14T	13	14	0.140	



# STYLE 576 SPLIT NYLON BACK-UP RINGS



### SEAL INFORMATION

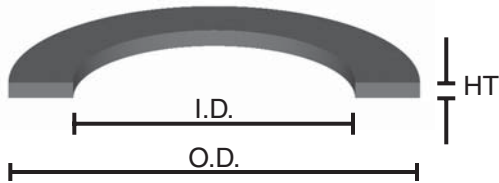
MATERIAL	NYLON
TEMPERATURE RANGE	-40° TO +250° F
PRESSURE RANGE	VARIABLE ACCORDING TO DIAMETRAL CLEARANCE
PART NUMBER	(Prefix) - (Dash No.)

Part Number	ID	OD	HT	
576-314	3/4	1-1/8	.070	
576-216	1-1/8	1-3/8	.060	
576-320	1-1/8	1-1/2	.070	
576-324	1-3/8	1-3/4	.070	
576-325	1-1/2	1-7/8	.070	
576-326	1-5/8	2	.070	
576-327	1-3/4	2-1/8	.070	
576-328	1-7/8	2-1/4	.070	
576-329	2	2-3/8	.070	
576-330	2-1/8	2-1/2	.070	
576-331	2-1/4	2-5/8	.070	
576-407	2-1/4	2-3/4	.070	
576-2.37X.125	2-3/8	2-5/8	.070	
576-332	2-3/8	2-3/4	.060	
576-408	2-3/8	2-7/8	.070	
576-2.50X.125	2-1/2	2-3/4	.070	
576-333	2-1/2	2-7/8	.070	
576-409	2-1/2	3	.070	
576-334	2-5/8	3	.070	
576-2.62X3.00X.085	2-5/8	3	.085	
576-2.62X3.12X.06	2-5/8	3-1/8	.060	
576-411	2-3/4	3-1/4	.070	

Part Number	ID	OD	HT	
576-412	2-7/8	3-3/8	.070	
576-413	3	3-1/2	.070	
576-338	3-1/8	3-1/2	.070	
576-3.18X3.75	3-3/16	3-3/4	.070	
576-415	3-1/4	3-3/4	.070	
576-3.4X4.0X1/8	3.405	4	.125	
576-417	3-1/2	4	.070	
576-418-1/2	3-11/16	4-3/16	.070	
576-419	3-3/4	4-1/4	.070	
576-421	4	4-1/2	.070	
576-4X5	4	5	.125	
576-423-1	4-1/4	4-3/4	.070	
576-425	4-1/2	5	.070	
576-4.5X5.2	4-1/2	5-1/4	.130	
576-427	4-3/4	5-1/4	.070	
576-429	5	5-1/2	.075	
576-433	5-1/2	6	.120	
576-5.5X6.25	5-1/2	6-1/4	.187	
576-5.75X.185	5-3/4	6-1/8	.185	
576-6.00X6.75X.125	6	6-3/4	.125	
576-6X7	6	7	.125	
576-9.00X9.75X.125	9	9-3/4	.125	

## STYLE 590 HIGH PERFORMANCE BACK-UP RINGS

Style 590 Back-up Rings feature exceptional strength and abrasion resistance along with a 53 Shore D hardness rating which makes them suitable for high pressure service where extrusion is a problem. Primarily used as a u-seal back-up, these rings can be used with o-rings. They also retrofit urethane and teflon back-up rings, with greater performance characteristics. "S" suffix designates a split ring.



### SEAL INFORMATION

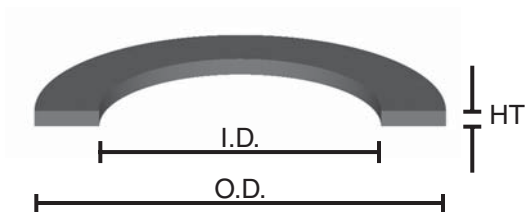
MATERIAL	HIGH PERFORMANCE URETHANE
TEMPERATURE RANGE	-40° TO +275° F
PRESSURE RANGE	VARIES ACCORDING TO DIAMETRAL CLEARANCE
PART NUMBER	(Prefix) - (Dash No.)

Part Number	I.D.	O.D.	HT.	
590-15	1/2	3/4	1/16	
590-17	5/8	7/8	1/16	
590-19S	3/4	1	1/16	
590-32	1	1-5/16	1/16	
590-34S	1-3/16	1-1/2	1/16	
590-36	1-3/8	1-11/16	1/16	
590-45	1-5/8	2	1/16	
590-45S	1-5/8	2	1/16	
590-46	1-3/4	2-1/8	1/16	
590-48	2	2-3/8	1/16	
590-227	2-1/8	2-3/8	1/16	
590-49	2-1/8	2-1/2	1/16	
590-49S	2-1/8	2-1/2	1/16	
590-228	2-1/4	2-1/2	1/16	
590-54	2-1/2	2-15/16	1/16	
590-57	2-13/16	3-1/4	1/16	
590-57S	2-13/16	3-1/4	1/16	
590-58	3	3-7/16	1/16	
590-338	3-1/8	3-1/2	1/16	
590-237	3-3/8	3-5/8	1/16	
590-341	3-1/2	3-7/8	1/16	
590-66	3-1/2	4	1/16	
590-66S	3-1/2	4	1/16	
590-239	3-5/8	3-7/8	1/16	
590-345	4	4-3/8	1/16	
590-68	4	4-1/2	1/16	

Part Number	I.D.	O.D.	HT.	
590-346	4-1/8	4-1/2	1/16	
590-347	4-1/4	4-5/8	1/16	
590-73S	4-7/16	5	1/16	
590-349	4-1/2	4-7/8	1/16	
590-70	4-1/2	5	1/16	
590-70S	4-1/2	5	1/16	
590-352	4-7/8	5-1/4	1/16	
590-75	5	5-9/16	1/16	
590-354	5-1/8	5-1/2	1/16	
590-79	5-3/8	6	1/16	
590-79S	5-3/8	6	1/16	
590-5.43X6S	5-7/16	6	1/16	
590-5.5X6.12	5-1/2	6-1/8	1/16	
590-358	5-5/8	6	1/16	
590-83	6-3/8	7	1/16	
590-83S	6-3/8	7	1/16	
590-6.43X7S	6-7/16	7	1/16	
590-84	7-3/8	8	1/16	
590-84S	7-3/8	8	1/16	
590-85S	9-5/16	10	1/16	
590-11X12S	11	12	1/16	
590-86S	11-1/4	12	1/16	
590-87S	13	14	1/16	
590-13.18X14S	13-3/16	14	1/16	

## STYLE 595 PTFE BACK-UP RINGS FOR U-SEALS

Used primarily as an anti-extrusion device for u-seals, these back-up rings combine high performance with very low friction. "ST" suffix designates a split ring.



### SEAL INFORMATION

MATERIAL	PTFE
TEMPERATURE RANGE	-40° TO +500° F
PRESSURE RANGE	VARIABLE ACCORDING TO DIAMETRAL CLEARANCE
PART NUMBER	(Prefix) - (Dash No.) (Config.)

Part Number	ID	OD	HT	
595-15T	1/2	3/4	1/16	
595-17T	5/8	7/8	1/16	
595-19ST	3/4	1	1/16	
595-32T	1	1-5/16	1/16	
595-34ST	1-3/16	1-1/2	1/16	
595-36T	1-3/8	1-11/16	1/16	
595-45ST	1-5/8	2	1/16	
595-46T	1-3/4	2-1/8	1/16	
595-48T	2	2-3/8	1/16	
595-49ST	2-1/8	2-1/2	1/16	
595-54T	2-1/2	2-15/16	1/16	
595-57ST	2-13/16	3-1/4	1/16	
595-58T	3	3-7/16	1/16	
595-66ST	3-1/2	4	1/16	
595-66T	3-1/2	4	1/16	
595-3.62X4X.09	3-5/8	4	0.090	
595-68T	4	4-1/2	1/16	

Part Number	ID	OD	HT	
595-73ST	4-7/16	5	1/16	
595-70ST	4-1/2	5	1/16	
595-70T	4-1/2	5	1/16	
595-75T	5	5-9/16	1/16	
595-5.12X6ST	5-1/8	6	1/8	
595-5.2X6T	5-1/4	6	1/8	
595-79ST	5-3/8	6	1/16	
595-5.43X6ST	5-7/16	6	1/16	
595-83ST	6-3/8	7	1/16	
595-6.43X7ST	6-7/16	7	1/16	
595-84ST	7-3/8	8	1/16	
595-85ST	9-5/16	10	1/16	
595-11X12ST	11	12	1/16	
595-86ST	11-1/4	12	1/16	
595-87ST	13	14	1-16	
595-13.18X14ST	13-3/16	14	1/16	

## BACK-UP RING KITS

### 574 BACK-UP RING KIT

Part Number: 574 Kit

PART NUMBER	QTY	PART NUMBER	QTY
574-005	10	574-114	10
574-006	10	574-115	10
574-007	10	574-116	10
574-008	10	574-117	5
574-009	10	574-118	5
574-010	10	574-119	5
574-011	10	574-120	5
574-012	10	574-121	5
574-013	10	574-210	7
574-014	10	574-211	7
574-015	10	574-212	7
574-016	10	574-213	7
574-017	10	574-214	5
574-018	10	574-215	5
574-110	10	574-216	5
574-111	10	574-217	5
574-112	10	574-218	5
574-113	10	574-219	5

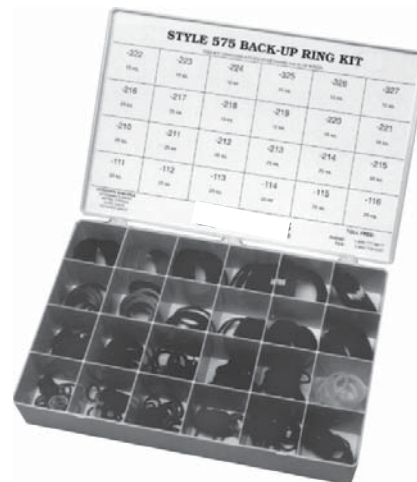


This 293 piece kit contains 36 of the most popular size "Parback®" Style Dished Cross Section back-up rings. Molded of 90A Durometer Buna-N Rubber, they stretch for installation and return quickly to their original size. SIZES CORRESPOND TO O-RING NUMBERS. Your shop and service truck should not be without this handy kit.

### 575 BACK-UP RING KIT

Part Number: 575 Kit

PART NUMBER	QTY	PART NUMBER	QTY
575-111	25	575-216	25
575-112	25	575-217	15
575-113	25	575-218	15
575-114	25	575-219	15
575-115	25	575-220	15
575-116	25	575-221	15
575-210	25	575-222	15
575-211	25	575-223	15
575-212	25	575-224	15
575-213	25	575-325	10
575-214	25	575-326	10
575-215	25	575-327	10



This 475 piece kit contains 24 of the most popular size Urethane Back-up Rings. This assortment is essential for parts counters, shop use, and service trucks.

## BACK-UP RING KITS

### PTFE BACK-UP RING KIT

Part Number: 575 PTFE Kit S

PART NUMBER	QTY	PART NUMBER	QTY
575-005ST	15	575-114ST	10
575-006ST	15	575-115ST	10
575-007ST	15	575-116ST	10
575-008ST	15	575-117ST	5
575-009ST	15	575-118ST	5
575-010ST	15	575-119ST	5
575-011ST	15	575-120ST	5
575-012ST	15	575-121ST	5
575-013ST	10	575-210ST	5
575-014ST	10	575-211ST	5
575-015ST	10	575-212ST	5
575-016ST	10	575-213ST	5
575-017ST	10	575-214ST	5
575-018ST	10	575-215ST	5
575-110ST	10	575-216ST	5
575-111ST	10	575-217ST	5
575-112ST	10	575-218ST	5
575-113ST	10	575-219ST	5



This 325 piece kit contains 36 of the most popular size PTFE Back-up Rings. These rings are compatible with all hydraulic fluids, since they are virtually chemically inert, and can be used in applications involving elevated operating temperatures. These rings are scarf cut to facilitate installation.

**Is there an assortment that you  
use that we don't offer?**

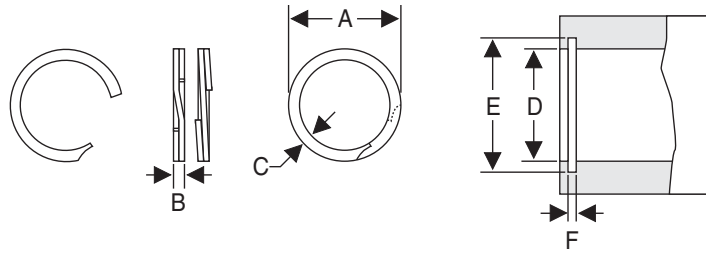
**Let us know what you need and  
we will give you a quote!**

# RETAINER RINGS

## SPIRAL INTERNAL RETAINER RINGS

### SPIRAL RETAINER CROSS REFERENCE

Catalog Prefix	Ramsey Spirolox Prefix
VH-	UR-
WH-	RR-
WHM-	RRN-
WHT-	RRT-



Part Number	A Free OD	B Thickness	C Radial Wall	D Housing Dia.	E Groove Dia.	F Groove Width	
WHM-50	.538	.035	.045	.500	.530	.039	
WH-62	.658	.025	.045	.625	.651	.030	
WHM-62	.675	.035	.055	.625	.665	.039	
WHT-68	.730	.035	.055	.688	.724	.039	
WHM-68	.743	.035	.065	.688	.732	.039	
WHM-75	.807	.035	.065	.750	.796	.039	
WH-78	.821	.031	.065	.781	.812	.036	
WH-87	.922	.031	.065	.875	.912	.036	
WHM-87	.943	.042	.085	.875	.931	.046	
WH-100	1.054	.037	.075	1.000	1.043	.042	
WHM-100	1.080	.042	.085	1.000	1.066	.046	
WH-112	1.180	.037	.075	1.125	1.167	.042	
WHM-112	1.205	.050	.103	1.125	1.197	.056	
WH-125	1.312	.043	.085	1.250	1.298	.048	
WHM-125	1.339	.050	.103	1.250	1.330	.056	
WH-128	1.342	.043	.085	1.281	1.329	.048	
WHT-131	1.395	.050	.093	1.312	1.385	.056	
VH-137	1.433	.025	.088	1.375	1.419	.031	
WH-137	1.442	.043	.095	1.375	1.427	.048	
WHM-137	1.475	.050	.118	1.375	1.461	.056	
VH-150	1.559	.025	.088	1.500	1.544	.031	
WH-150	1.567	.043	.095	1.500	1.552	.048	
WHT-150	1.591	.050	.108	1.500	1.580	.056	
WHM-150	1.605	.050	.118	1.500	1.594	.056	
WH-156	1.634	.049	.108	1.562	1.617	.056	
WHM-156	1.675	.062	.128	1.562	1.658	.068	
VH-162	1.701	.031	.118	1.625	1.682	.039	
WH-162	1.701	.049	.108	1.625	1.684	.056	
WHT-162	1.727	.062	.113	1.625	1.715	.068	
WH-175	1.834	.049	.118	1.750	1.813	.056	
WHT-175	1.858	.062	.118	1.750	1.845	.068	
WHM-175	1.876	.062	.128	1.750	1.858	.068	
VH-187	1.953	.031	.118	1.875	1.932	.039	
WH-187	1.960	.049	.118	1.875	1.942	.056	
WHT-187	1.989	.062	.128	1.875	1.975	.068	
VH-200	2.079	.031	.118	2.000	2.057	.039	
WH-200	2.091	.049	.128	2.000	2.071	.056	
WHT-200	2.125	.062	.138	2.000	2.110	.068	
WH-204	2.138	.049	.128	2.047	2.118	.056	
WHM-200	2.142	.062	.158	2.000	2.122	.068	

# SPIRAL INTERNAL RETAINER RINGS

Part Number	A Free OD	B Thickness	C Radial Wall	D Housing Dia.	E Groove Dia.	F Groove Width	
VH-206	2.162	.031	.158	2.062	2.18	.039	
WHT-206	2.190	.078	.141	2.062	2.175	.086	
WHM-206	2.201	.078	.168	2.062	2.186	.086	
WHM-218	2.334	.078	.168	2.188	2.318	.086	
VH-225	2.352	.031	.158	2.250	2.326	.039	
WHT-225	2.386	.078	.141	2.250	2.370	.086	
WHM-225	2.399	.078	.168	2.250	2.382	.086	
WH-231	2.413	.049	.138	2.312	2.390	.056	
VH-231	2.415	.031	.158	2.312	2.388	.039	
WH-237	2.476	.049	.138	2.375	2.453	.056	
VH-243	2.541	.031	.158	2.437	2.513	.039	
WHT-244	2.588	.078	.188	2.440	2.570	.086	
VH-250	2.605	.031	.158	2.5	2.576	.039	
WH-250	2.606	.049	.148	2.500	2.582	.056	
WHT-250	2.653	.078	.188	2.500	2.635	.086	
WHM-250	2.667	.078	.200	2.500	2.648	.086	
WHT-253	2.687	.078	.188	2.530	2.668	.086	
WHT-256	2.720	.093	.188	2.562	2.834	.103	
WHM-256	2.733	.093	.225	2.562	2.714	.103	
VH-281	2.920	.031	.158	2.812	2.888	.039	
VH-281SS	2.920	.031	.158	2.812	2.888	.039	
WHT-275	2.921	.093	.188	2.750	2.900	.103	
WH-283	2.954	.049	.168	2.834	2.928	.056	
WH-287	2.995	.049	.168	2.875	2.969	.056	
WHT-283	3.009	.093	.188	2.834	2.987	.103	
WHM-283	3.027	.093	.225	2.834	3.006	.103	
VH-300	3.110	.031	.158	3.000	3.076	.039	
WH-300	3.122	.061	.168	3.000	3.096	.068	
WHT-300	3.188	.093	.188	3.000	3.165	.103	
WHM-300	3.204	.093	.225	3.000	3.182	.103	
WHT-312	3.318	.111	.250	3.125	3.295	.120	
WH-325	3.379	.061	.178	3.250	3.350	.068	
WHT-325	3.450	.111	.250	3.250	3.426	.120	
WH-350	3.636	.061	.188	3.500	3.606	.068	
WHLA-368	3.684	.060	.168	3.500	3.665	.068	
WH-356	3.703	.061	.198	3.562	3.672	.068	
WHT-350	3.716	.111	.250	3.500	3.690	.120	
WHL-371	3.725	.086	.187	3.500	3.705	.091	
WHM-350	3.736	.111	.281	3.500	3.710	.120	
WHL-378-HDC	3.780	.077	.132	3.625	3.755	.086	
WHL-392	3.929	.093	.187	3.750	3.909	.103	
WH-400	4.157	.061	.218	4.000	4.124	.068	
WH-406	4.222	.061	.218	4.063	4.187	.068	
WHT-400	4.248	.111	.250	4.000	4.220	.120	
WHL-424	4.249	.090	.187	4.125	4.220	.098	
WHM-400	4.270	.111	.312	4.000	4.240	.120	
VH-412	4.279	.046	.225	4.125	4.235	.052	

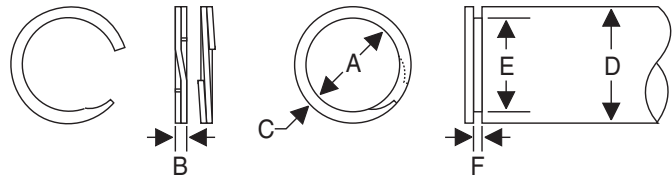
## SPIRAL INTERNAL RETAINER RINGS

Part Number	A Free OD	B Thickness	C Radial Wall	D Housing Dia.	E Groove Dia.	F Groove Width	
WHM-425	4.520	.111	.312	4.250	4.490	.120	
WHM-433	4.600	.111	.312	4.330	4.570	.120	
WH-450	4.674	.061	.238	4.500	4.636	.068	
WHL-472	4.721	.093	.187	4.500	4.700	.098	
WHL-473	4.732	.111	.250	4.500	4.712	.120	
WHT-450	4.768	.111	.312	4.500	4.735	.120	
WHM-450	4.770	.111	.312	4.500	4.740	.120	
VH-462	4.784	.046	.225	4.625	4.735	.052	
WHL-495	4.958	.093	.187	4.750	4.938	.103	
WHT-475	5.028	.111	.312	4.750	4.995	.120	
WH-500	5.185	.072	.250	5.000	5.144	.079	
WHL-525	5.252	.090	.187	5.125	5.223	.098	
WHT-500	5.295	.111	.312	5.000	5.260	.120	
WH-525	5.436	.072	.250	5.250	5.393	.079	
WH-550	5.693	.072	.250	5.550	5.647	.079	
VH-550	5.694	.061	.225	5.500	5.638	.067	
WH-551	5.703	.072	.250	5.511	5.658	.079	
WHL-573	5.739	.111	.250	5.500	5.720	.120	
WHL-574	5.740	.093	.187	5.500	5.720	.098	
WHT-550	5.810	.127	.375	5.500	5.770	.139	
WH-570	5.909	.072	.250	5.708	5.861	.079	
VH-575	5.953	.061	.225	5.750	5.894	.067	
WHL-595	5.956	.122	.187	5.750	5.936	.131	
WH-600	6.202	.072	.250	6.000	6.153	.079	
WHM-600	6.314	.127	.350	6.000	6.270	.139	
WHT-600	6.314	.127	.375	6.000	6.270	.139	
WH-612	6.349	.086	.312	6.125	6.297	.094	
WHL-672	6.726	.111	.250	6.500	6.706	.120	
WHL-683	6.830	.105	.204	6.500	6.800	.115	
WHT-650	6.837	.165	.312	6.500	6.790	.174	
WHT-662	6.973	.165	.312	6.625	6.925	.174	
VH-675	6.988	.061	.265	6.750	6.919	.067	
WH-700	7.239	.086	.312	7.000	7.182	.094	
WHL-724	7.249	.122	.245	6.875	7.229	.131	
WHT-700	7.366	.165	.312	7.000	7.315	.174	
WH-712	7.376	.086	.312	7.125	7.317	.094	
WHL-770	7.700	.111	.250	7.500	7.680	.120	
WH-750	7.754	.086	.312	7.500	7.692	.094	
WHL-849	8.493	.122	.245	8.125	8.473	.131	
WHL-871	8.710	.111	.250	8.500	8.690	.120	
WHL-876	8.760	.111	.250	8.520	8.740	.120	
WH-850	8.780	.086	.375	8.500	8.712	.094	
WHL-992	9.927	.108	.250	9.625	9.907	.115	
WHL-1013	10.120	.108	.250	10.00	10.100	.115	
WHT-975	10.260	.189	.375	9.750	10.189	.209	
WHT-1050	11.072	.189	.375	10.500	10.970	.209	



# SPIRAL EXTERNAL RETAINER RINGS

SPIRAL RETAINER CROSS REFERENCE	
Catalog Prefix	Ramsey Spirolox Prefix
VS-	US-
WS-	RS-
WST-	RSN-
WSM-	RST-

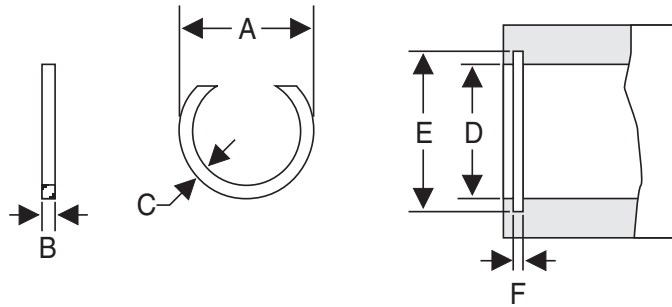


Part Number	A Free OD	B Thickness	C Radial Wall	D Shaft Dia.	E Groove Dia.	F Groove Width	
WSM-50	.464	.035	.050	.500	.468	.039	
WSM-62	.583	.035	.055	.625	.588	.039	
WSM-75	.698	.042	.065	.750	.704	.046	
WSM-87	.814	.042	.075	.875	.821	.046	
WST-93	.886	.042	.075	.938	.894	.046	
WSM-100	.932	.042	.085	1.000	.940	.046	
WST-106	1.005	.050	.088	1.062	1.015	.056	
WSM-112	1.047	.050	.103	1.125	1.059	.056	
WSM-125	1.163	.050	.103	1.250	1.176	.056	
WS-131	1.251	.043	.095	1.312	1.264	.048	
WSM-137	1.277	.050	.118	1.375	1.291	.056	
WS-137	1.308	.043	.095	1.375	1.323	.048	
WS-143	1.370	.043	.095	1.437	1.385	.048	
WSM-150	1.390	.050	.118	1.500	1.406	.056	
WST-162	1.537	.062	.118	1.625	1.550	.068	
VS-162	1.550	.031	.118	1.625	1.568	.039	
WST-168	1.598	.062	.118	1.687	1.610	.068	
WSM-175	1.633	.062	.128	1.750	1.650	.068	
WST-175	1.657	.062	.118	1.750	1.670	.068	
WS-175	1.673	.049	.118	1.750	1.691	.056	
WST-187	1.774	.062	.123	1.875	1.790	.068	
VS-187	1.798	.031	.118	1.875	1.818	.039	
WSM-200	1.867	.062	.158	2.000	1.886	.068	
WS-196	1.882	.049	.128	1.969	1.871	.056	
WS-206	1.971	.049	.128	2.062	1.992	.056	
WS-225	2.153	.049	.138	2.250	2.176	.056	
WS-231	2.211	.049	.138	2.312	2.340	.056	
WS-236	2.261	.049	.138	2.362	2.284	.056	
WST-250	2.366	.078	.188	2.500	2.385	.086	
WS-250	2.394	.049	.148	2.500	2.418	.056	
WST-262	2.485	.078	.188	2.625	2.505	.086	
WS-268	2.572	.049	.158	2.688	2.5796	.056	
WST-275	2.604	.093	.188	2.750	2.625	.103	
WS-275	2.635	.049	.158	2.750	2.660	.056	
WS-293	2.817	.049	.168	2.937	2.843	.056	

## SPIRAL EXTERNAL RETAINER RINGS

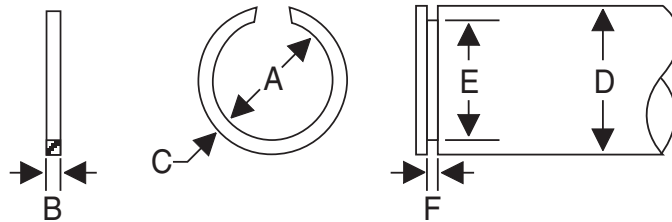
Part Number	A Free OD	B Thickness	C Radial Wall	D Shaft Dia.	E Groove Dia.	F Groove Width	
WST-300	2.838	.093	.188	3.000	2.860	.103	
WS-312	3.000	.061	.178	3.125	3.027	.068	
WSM-325	3.054	.093	.225	3.250	3.076	.103	
WS-325	3.121	.061	.178	3.250	3.150	.068	
WS-334	3.210	.061	.188	3.343	3.239	.068	
WST-343	3.254	.093	.188	3.437	3.280	.103	
WST-350	3.315	.111	.250	3.500	3.340	.120	
WS-362	3.483	.061	.198	3.625	3.515	.068	
WST-375	3.550	.111	.250	3.750	3.577	.120	
WST-400	3.787	.111	.250	4.000	3.756	.120	
VS-400	3.867	.039	.188	4.000	3.908	.044	
VS-412	3.973	.046	.225	4.125	4.015	.052	
WST-425	4.032	.111	.250	4.250	4.065	.120	
WST-450	4.280	.111	.250	4.500	4.310	.120	
WS-450	4.326	.061	.238	4.500	4.364	.068	
WST-500	4.755	.111	.250	5.000	4.790	.120	
WS-525	5.064	.072	.250	5.25	5.107	.079	
VS-525	5.067	.061	.225	5.250	5.119	.067	
WS-537	5.187	.072	.250	5.375	5.228	.079	
WS-550	5.308	.072	.250	5.500	5.353	.079	
VS-625	6.033	.061	.265	6.250	6.094	.067	
WST-675	6.182	.165	.312	6.750	6.465	.174	

## EATON NAN SERIES INTERNAL RETAINER RINGS



Part Number	A Free OD	B Thickness	C Radial Wall	D Housing Dia.	E Groove Dia.	F Groove Width	
NAN-50	.530	.035	.040	.500	.524	.039	
NAN-62	.670	.035	.048	.625	.657	.039	
NAN-75	.799	.035	.048	.750	.786	.039	
NAN-87	.934	.042	.062	.875	.919	.046	
NAN-100	1.070	.042	.078	1.000	1.052	.046	
NAN-112	1.202	.050	.093	1.125	1.181	.056	
NAN-125	1.337	.050	.109	1.250	1.314	.056	
NAN-137	1.472	.050	.109	1.375	1.447	.056	
NAN-150	1.607	.050	.125	1.500	1.576	.056	
NAN-156	1.668	.062	.125	1.562	1.642	.068	

## EATON XAN SERIES EXTERNAL RETAINER RINGS



Part Number	A Free ID	B Thickness	C Radial Wall	D Shaft Dia,	E Groove Dia.	F Groove Width	
XAN-50	.464	.035	.048	.500	.474	.039	
XAN-62	.586	.035	.062	.625	.597	.039	
XAN-75	.703	.042	.062	.750	.716	.046	
XAN-87	.820	.042	.078	.875	.835	.046	
XAN-100	.941	.042	.093	1.000	.956	.046	
XAN-112	1.060	.050	.093	1.125	1.075	.056	
XAN-125	1.179	.050	.093	1.250	1.194	.056	
XAN-137	1.291	.050	.109	1.375	1.390	.056	
XAN-150	1.408	.050	.109	1.500	1.430	.056	
XAN-275	2.594	.093	.187	2.750	2.624	.103	
XAN-325	3.070	.093	.250	3.250	3.100	.103	
XAN-375	3.541	.109	.250	3.750	3.576	.120	

## INTERNAL RETAINER RINGS (TRU-ARC TYPE)



Part Number	Housing Diameter	Ring OD	Ring Thickness		Part Number	Housing Diameter	Ring OD	Ring Thickness	
300-025	.250	.280	.015		300-256	2.562	2.844	.093	
300-045	.453	.498	.025		300-262	2.625	2.910	.093	
300-050	.500	.548	.035		300-275	2.750	2.970	.093	
300-062	.625	.694	.035		300-281	2.812	3.121	.093	
300-075	.750	.831	.035		300-287	2.875	3.191	.093	
300-087	.875	.986	.042		300-300	3.000	3.325	.093	
300-090	.901	1.000	.042		300-306	3.062	3.418	.109	
300-093	.938	1.040	.042		300-312	3.125	3.488	.109	
300-100	1.000	1.111	.042		300-315	3.149	3.523	.109	
300-102	1.023	1.136	.042		300-325	3.250	3.623	.109	
300-106	1.062	1.18	.050		300-350	3.500	3.890	.109	
300-112	1.125	1.249	.050		300-354	3.543	3.936	.109	
300-118	1.187	1.300	.050		300-362	3.625	4.015	.109	
300-125	1.250	1.388	.050		300-375	3.750	4.140	.109	
300-137	1.375	1.526	.050		300-387	3.875	4.291	.109	
300-143	1.438	1.596	.050		300-393	3.938	4.358	.109	
300-150	1.500	1.660	.050		300-400	4.000	4.424	.109	
300-156	1.562	1.734	.062		300-412	4.125	4.558	.109	
300-162	1.625	1.804	.062		300-425	4.250	4.691	.109	
300-165	1.755	1.835	.062		300-433	4.331	4.756	.109	
300-168	1.688	1.874	.062		300-450	4.500	4.924	.109	
300-175	1.750	1.942	.062		300-462	4.625	5.076	.109	
300-187	1.989	2.072	.062		300-475	4.750	5.204	.109	
300-193	2.056	2.141	.062		300-500	5.000	5.485	.109	
300-200	2.000	2.210	.062		300-525	5.250	5.770	.125	
300-206	2.062	2.280	.078		300-537	5.375	5.910	.125	
300-212	2.125	2.350	.078		300-550	5.500	6.066	.125	
300-225	2.250	2.490	.078		300-600	6.000	6.620	.125	
300-237	2.375	2.596	.078		300-625	6.250	6.895	.156	
300-244	2.440	2.702	.078		300-650	6.500	7.170	.156	
300-250	2.500	2.775	.078		300-700	7.000	7.720	.156	

## EXTERNAL RETAINER RINGS (TRU-ARC TYPE)



RETAINER RINGS

Part Number	Shaft Diameter	Ring ID	Ring Thickness		Part Number	Shaft Diameter	Ring ID	Ring Thickness	
310-025	.250	.225	.025		310-175HD	1.750	1.608	.109	
310-037	.338	.375	.025		310-200	2.000	1.850	.062	
310-050	.500	.461	.035		310-212	2.125	1.964	.078	
310-062	.625	.579	.035		310-225	2.250	2.081	.078	
310-068	.688	.635	.042		310-250	2.500	2.313	.078	
310-075	.750	.693	.042		310-262	2.625	2.428	.078	
310-081	.812	.751	.042		310-275	2.750	2.543	.093	
310-087	.875	.810	.042		310-287	2.875	2.659	.093	
310-093	.938	.867	.042		310-300	3.000	2.775	.093	
310-100	1.000	.925	.042		310-325	3.250	2.920	.093	
310-112	1.125	1.041	.050		310-350	3.500	3.237	.109	
310-118	1.188	1.098	.050		310-400	4.000	3.700	.109	
310-125	1.250	1.156	.050		310-425	4.250	3.989	.109	
310-137	1.375	1.268	.050		310-437	4.375	4.106	.109	
310-150	1.500	1.387	.050		310-450	4.500	4.223	.109	
310-162	1.625	1.503	.062		310-500	5.000	4.692	.109	
310-175	1.750	1.618	.062		310-575	5.750	5.396	.125	

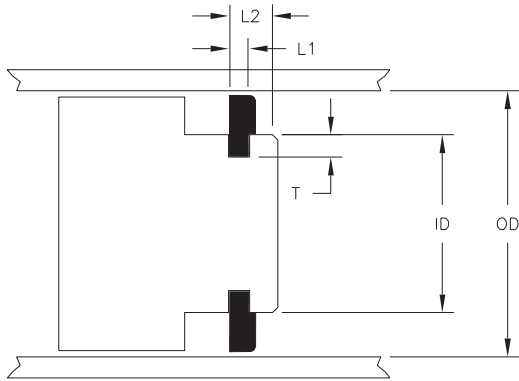
## STYLE RSR RETAINER RINGS



Part Number	ID	C/S		Part Number	ID	C/S	
RSR-031	0.280	0.035		RSR-202	1.920	0.128	
RSR-050	0.510	0.041		RSR-203	2.030	0.125	
RSR-052	0.517	0.053		RSR-204	1.980	0.070	
RSR-092	0.920	0.080		RSR-225	2.280	0.125	
RSR-105	1.050	0.075		RSR-225A	2.186	0.092	
RSR-138	1.380	0.140		RSR-225B	2.050	0.100	
RSR-150	1.500	0.062		RSR-250	2.466	0.147	
RSR-150A	1.610	0.062		RSR-256X125	2.520	0.125	
RSR-151	1.462	0.059		RSR-260	2.450	0.075	
RSR-152	1.450	0.093		RSR-275	2.686	0.092	
RSR-175	1.688	0.062		RSR-3.50X.18X.25	3.140	0.180	
RSR-175X090	1.720	0.090		RSR-300	2.930	0.128	
RSR-200	2.125	0.074		RSR-301	2.966	0.147	
RSR-201	1.932	0.092		RSR-422	3.920	0.156	

## STYLE SR U-SEAL RETAINER RINGS

These rings are split for ease of installation and are retained in a groove. Their use is primarily to retain a single acting piston seals. Commonly are used with UFN style piston seals.



### SEAL INFORMATION

MATERIAL	ACETAL
TEMPERATURE RANGE	-22° TO +212° F

Part Number	OD	ID	T	L1	L2	
SR-1.12X0.62	1.125	.625	.187	.098	.082	
SR-1.41X0.87	1.412	.875	.195	.130	.082	
SR-1.50X1.00	1.500	1.000	.250	.130	.082	
SR-1.62X1.00	1.625	1.000	.250	.130	.082	
SR-1.75X1.25	1.750	1.250	.250	.130	.082	
SR-1.78X1.16	1.787	1.160	.250	.130	.082	
SR-2.00X1.37	2.000	1.375	.250	.130	.082	
SR-2.12X1.50	2.125	1.500	.250	.130	.082	
SR-2.25X1.62	2.250	1.625	.250	.130	.082	
SR-2.37X1.75	2.375	1.750	.250	.130	.082	
SR-2.50X1.87	2.500	1.875	.250	.130	.082	
SR-2.62X2.00	2.625	2.000	.250	.130	.082	
SR-2.75X2.00	2.750	2.000	.250	.130	.082	
SR-2.75X2.12	2.750	2.125	.250	.130	.082	
SR-3.00X2.25	3.000	2.250	.250	.130	.082	
SR-3.25X2.50	3.250	2.500	.250	.130	.082	
SR-3.25X2.62	3.250	2.625	.250	.130	.082	
SR-3.37X2.75	3.375	2.750	.250	.130	.082	
SR-3.50X2.75	3.500	2.750	.250	.130	.082	
SR-3.62X3.00	3.625	3.000	.250	.130	.082	
SR-4.00X3.25	4.000	3.250	.250	.130	.082	
SR-4.12X3.37	4.125	3.375	.250	.130	.082	
SR-4.12X3.50	4.125	3.500	.250	.130	.082	
SR-4.50X3.75	4.500	3.750	.250	.130	.082	
SR-5.00X4.00	5.000	4.000	.281	.145	.082	

# RETAINER RING KITS

Each kit has an assortment of retainer rings (Tru-arc, Eaton, or spiral wound style) packed in a reusable plastic box. All rings are made in the USA from carbon spring steel.

Each kit contains: 18 sizes - 9 internal, 9 external • 216 rings per box • 12 rings per size

## TRU-ARC

Part Number: 300-310 Kit

PART NUMBER	QTY.	PART NUMBER	QTY.
300-050	12	310-050	12
300-062	12	310-062	12
300-075	12	310-075	12
300-087	12	310-087	12
300-100	12	310-100	12
300-112	12	310-112	12
300-125	12	310-125	12
300-137	12	310-137	12
300-150	12	310-150	12



## SPIRAL WOUND

Part Number: SRR Kit

PART NUMBER	QTY.	PART NUMBER	QTY.
WHM-050	12	WSM-050	12
WHM-062	12	WSM-062	12
WHM-075	12	WSM-075	12
WHM-087	12	WSM-087	12
WHM-100	12	WSM-100	12
WHM-112	12	WSM-112	12
WHM-125	12	WSM-125	12
WHM-137	12	WSM-137	12
WHM-150	12	WSM-150	12



## EATON

Part Number: ERR Kit

PART NUMBER	QTY.	PART NUMBER	QTY.
NAN-050	12	XAN-050	12
NAN-062	12	XAN-062	12
NAN-075	12	XAN-075	12
NAN-087	12	XAN-087	12
NAN-100	12	XAN-100	12
NAN-112	12	XAN-112	12
NAN-125	12	XAN-125	12
NAN-137	12	XAN-137	12
NAN-150	12	XAN-150	12

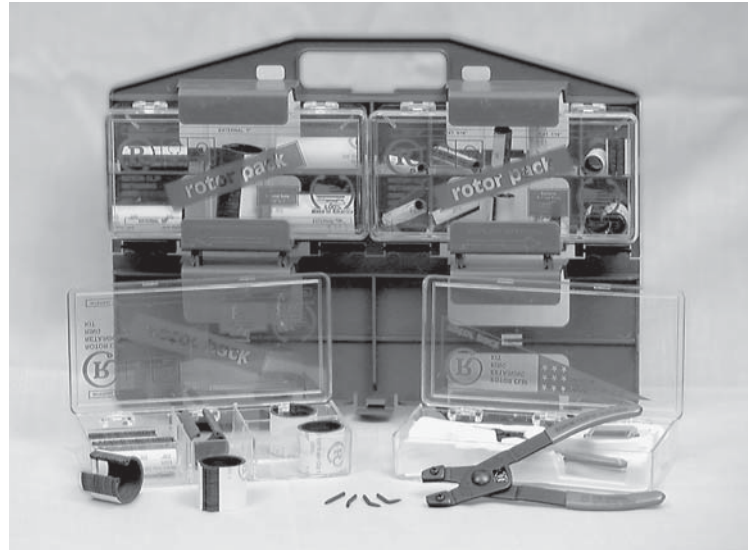


## RETAINER RING KITS

### ROTOR PACK KIT

**Part Number: RPK 4 Kit**

Packaged in four plastic cases with a handy carrying case, our rotor pack kit contains approximately 50 each of 20 common internal/external retaining ring sizes. The internal rings fit housings or bores from 3/8" internal diameter to 1-1/8". External rings accommodate shaft sizes from 1/4" internal diameter to 1-1/8". Two retainer ring installation pliers are also included.



These assortments contain the most popular size retainer rings, boxed in a handy storage and display case, which will supply your shop, service truck, or parts counter with the sizes you need!

### INTERNAL RETAINER RINGS

**Part Number: 300 Kit**

PART NUMBER	BORE SIZE	QTY.	PART NUMBER	BORE SIZE	QTY.
300-075	0.750	10	300-200	2.000	10
300-087	0.875	10	300-225	2.250	5
300-100	1.000	10	300-250	2.500	5
300-112	1.125	10	300-275	2.750	5
300-125	1.250	10	300-300	3.000	5
300-137	1.375	10	300-350	3.500	5
300-150	1.500	10	300-400	4.000	5
300-162	1.625	10	300-450	4.500	2
300-175	1.750	10	300-500	5.000	2

### EXTERNAL RETAINER RINGS

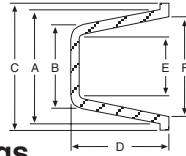
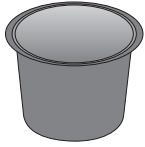
**Part Number: 310 Kit**

PART NUMBER	SHAFT SIZE	QTY.	PART NUMBER	SHAFT SIZE	QTY.
310-100	1.000	5	310-200	2.000	5
310-125	1.250	5	310-225	2.250	5
310-137	1.375	5	310-250	2.500	5
310-150	1.500	5	310-275	2.750	3
310-175	1.750	5	310-300	3.000	3





# PLASTIC CAP PLUGS

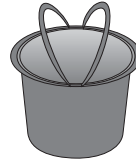


**Tapered Caps & Plugs For Misc. Applications**

Part Number	A	B	C	D	E	F
CAP-00	.180	.115	5/16	13/32	.051	.118
CAP-0	.240	.175	3/8	3/8	.109	.175
CAP-1	.302	.240	15/32	3/8	.175	.240
CAP-1-X	.335	.265	15/32	3/8	.240	.275
CAP-2	.365	.300	17/32	3/8	.234	.301
CAP-3	.428	.360	19/32	3/8	.299	.365
CAP-3-X	.460	.390	5/8	3/8	.325	.396
CAP-4-X	.512	.447	5/8	3/8	.385	.448
CAP-5	.547	.490	23/32	1/2	.409	.485
CAP-5-X	.568	.500	3/4	7/16	.435	.503
CAP-6	.620	.531	3/4	1/2	.468	.555
CAP-7	.675	.590	7/8	17/32	.520	.605
CAP-7-X	.695	.610	27/32	1/5	.549	.634
CAP-8	.728	.641	7/8	1/2	.575	.665
CAP-8-X	.754	.675	7/8	5/8	.615	.690
CAP-9-X	.925	.725	1	3/4	.662	.760
CAP-10	.848	.750	1-1/32	5/8	.686	.785
CAP-11	.910	.802	1-3/32	3/4	.740	.846
CAP-11-X	.931	.820	1-1/8	5/8	.754	.868
CAP-13	1.091	.966	1-1/4	3/4	.902	1.025
CAP-13-X	1.145	1.002	1-5/16	3/4	.938	1.079
CAP-14-X	1.285	1.180	1-7/16	3/4	1.105	1.215
CAP-15	1.350	1.225	1-1/2	3/4	1.160	1.295
CAP-18	1.680	1.560	1-7/8	3/4	1.497	1.620
CAP-21	2.078	1.902	2-1/4	1	1.839	2.015
CAP-38	1.045	.980	1-1/4	1/2	.916	.984
CAP-220	2.132	1.980	2-1/4	1	1.915	2.068
CAP-230	2.330	2.156	2-5/8	1	2.094	2.264
CAP-240	2.465	2.300	2-5/8	1	2.235	2.400
CAP-250	2.605	2.395	2-5/8	1	2.331	2.541

**Tapered Caps & Plugs For NPT Style Ports**

Part Number	NPT Port Size	OD Size Tapered	HT	Min Std Pkg
CAP-2-X	1/8	.330/.396	3/8	50
CAP-4	1/4	.419/.485	3/8	50
CAP-6-X	3/8	.550/.631	7/16	50
CAP-9	1/2	.690/.788	9/16	50
CAP-12	3/4	.870/.475	5/8	120
CAP-12-X	3/4	.915/1.040	11/16	25
CAP-14	1	1.094/1.215	3/4	25
CAP-15	1	1.225/1.355	3/4	3
CAP-15-X	1	1.235/1.350	3/4	25
CAP-17	1-1/4	1.450/1.600	3/4	60
CAP-17-S	1-1/4	1.513/1.600	1/2	25
CAP-19	1-1/2	1.735/1.870	3/4	25
CAP-20-S	1-1/2	1.781/1.805	3/8	25
CAP-24-S	2	2.230/2.260	1/2	20



This style cap plug is equipped with a handy fold-down pull ring.

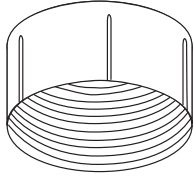
**Tapered Caps & Plugs With Pull Ring**

Part Number	NPT Port Size	OD Size Tapered	HT	Min Std Pkg
CAP-PR-9	1/8	.337/.375	1/4	50
CAP-PR-12	1/4	.436/.475	1/4	50
CAP-PR-17	3/8	.552/.615	3/8	50
CAP-PR-22	1/2	.668/.767	1/2	40
CAP-PR-27X	3/4	.878/.977	1/2	40
CAP-PR-32	1	1.113/1.212	1/2	25
CAP-PR-39	1-1/4	1.505/1.580	1/2	25
CAP-PR-43	1-1/2	1.780/1.860	1/2	20
CAP-PR-50	2	2.226/2.258	1/2	20

## CAP PLUG APPLICATION CHART

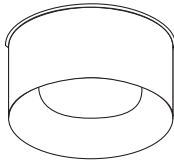
CAP-	NPT		INCH THREAD		METRIC THREAD	
	CAPS	PLUGS	CAPS	PLUGS	CAPS	PLUGS
00				10/32	M2,M2.5	M5
0				1/4	M3,M3.5	M6
1				5/16	M5	M8x1
1-X					M6	
2			15/64	3/8	M7	M10x1.25
2-X		1/8				
3				7/16	M8x1	M12
3-X			3/8			M12x1.25
4	1/8	1/4		1/2	M10x1.25	M14
4-X			7/16			M14x1.5
5			1/2	9/16		
5-X					M12x1.25	M16
6	1/4			5/8		
6-X		3/8	9/16			M18
7			5/8		M14x1.5	M18x1.5
7-X						
8				3/4		M20
8-X	3/8				M16x1.5	M20x1.5
9		1/2				M22
9-X			3/4			M22x1.5
10				7/8	M18x1.5	M24
11	1/2					M24x2
11-X			7/8		M20x1.5	
12		3/4				
12-X				1-1/16	M22x1.5	M27x2
13	3/4				M24x2	
13-X			1-1/16			M30x2
14		1			M27x2	M33
17		1-1/4			M36x3	
17-S				1-5/8		
18	1-1/4		1-5/8	1-3/4	M39x3	
19		1-1/2		1-7/8		
20	1-1/2		1-7/8			
20-S						
21						
220						
230			2-1/4			
24-S		2				
240	2					
250			2-1/2			

# PLASTIC CAP PLUGS



**Female Threaded Cap Plugs  
for J.I.C. Fittings**

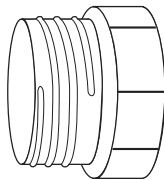
Part Number	Std Thread Size	O.D. Size Tube	Dash Size	Min Std Pkg
CAP-G-2	7/16-20	1/4	#4	20
CAP-G-8	9/16-18	3/8	#6	20
CAP-G-14	3/4-16	1/2	#8	20
CAP-G-18	7/8-14	5/8	#10	20
CAP-G-20	7/8-18	5/8	#10	20
CAP-G-22	1-1/16-12	3/4	#12	20
CAP-G-25	1-3/16-12	7/8	#14	20
CAP-G-27	1-5/16-12	1	#16	20



**O-Ring Face Fitting Caps**

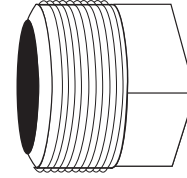
These low density polyethylene caps are designed to fit female o-ring face seals.

Part Number	Thread Size	Min Std Pkg
CAP-OR-4	9/16-18	35
CAP-OR-6	11/16-16	25
CAP-OR-8	13/16-16	25
CAP-OR-10	1-14	25
CAP-OR-12	1-3/16-12	25
CAP-OR-16	1-7/16-12	15
CAP-OR-20	1-11/16-12	10



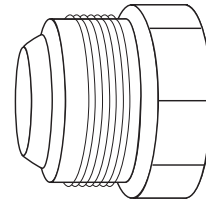
**Flat Face Fitting Caps**

Part Number	Tube Size OD	Thread Size	Min Std Pkg
CAP-PDF-40	1/4	9/16-18.	25
CAP-PDF-60	3/8	11/16-16	25
CAP-PDF-80	1/2	13/16-16.	25
CAP-PDF-100	5/8	1-14	20
CAP-PDF-120	3/4	1-3/16-12	20
CAP-PDF-160	1	1-7/16-12	10



**Male Threaded Pipe Plugs (Sq. Top)**

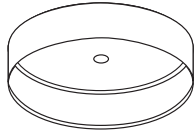
Part Number	NPT Port Size	Thread Size	Min Std Pkg
CAP-P-18	1/8	0.364	25
CAP-P-28	1/4	0.477	25
CAP-P-38	3/8	0.612	25
CAP-P-48	1/2	0.758	25
CAP-P-68-H	3/4	0.968	25
CAP-P-88-H	1	1.214	20
CAP-TP-13	1-1/4	1.557	5
CAP-TP-15	1-1/2	1.796	5



**Male Threaded Cap Plugs  
for Flared J.I.C. Fittings**

Part Number	Std Thread Size	OD Size Tube	Dash Size	Min Std Pkg
CAP-PD-40	7/16-20	1/4	#4	25
CAP-PD-50	1/2-20	5/16	#5	25
CAP-PD-60	9/16-18	3/8	#6	25
CAP-PD-80	3/4-16	1/2	#8	25
CAP-PD-100	7/8-14	5/8	#10	25
CAP-PD-120	1-1/16-12	3/4	#12	25
CAP-PD-140	1-3/16-12	7/8	#14	20
CAP-PD-160	1-5/16-12	1	#16	20
CAP-PD-200	1-5/8-12	1-1/4	#20	15
CAP-PD-220	1-3/4-12	1-3/8	#22	10
CAP-PD-240	1-7/8-12	1-1/2	#24	10

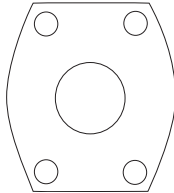
## PLASTIC CAP PLUGS



### Split Flange Face Plugs

These low density polyethylene plugs protect the faces of split flange connectors

Part Number	Flange Size	Cap Size	Min Std Pkg
CAP-SF-10	5/8	1.35	50
CAP-SF-12	3/4	1.50	50
CAP-SF-16	1	1.75	35
CAP-SF-20	1-1/4	2.00	35
CAP-SF-24	1-1/2	2.38	25
CAP-SF-32	2	2.81	15
CAP-SF-40	2-1/2	3.31	15
CAP-SF-8	1/2	1.19	50



### Bolted Split Flange Protectors

3,000 PSI Flanges  
SAE Code 61

Part Number	Port Size	Min Std Pkg
CAP-8218	1/2	10
CAP-8219	3/4	10
CAP-8220	1	10
CAP-8221	1-1/4	10
CAP-8222	1-1/2	10
CAP-8223	2	10
CAP-8224	2-1/2	10

5,000 PSI Flanges  
SAE Code 62

CAP-XP-075	3/4	10
CAP-XP-100	1	10
CAP-XP-125	1-1/4	10
CAP-XP-150	1-1/2	10
CAP-XP-200	2	10

## GREASE FITTING CAP

Low density polyethane cap plug for use with standard grease fittings.

Part Number	Description
CAP-GF-10	Cap Plug

## CAP PLUG KIT

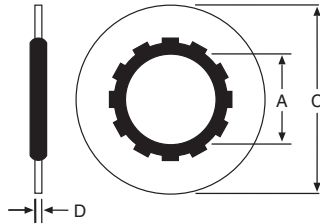
Part Number: Cap Plug Kit



This sturdy kit, packaged in an unbreakable box, contains 553 cap plugs in the most popular sizes.

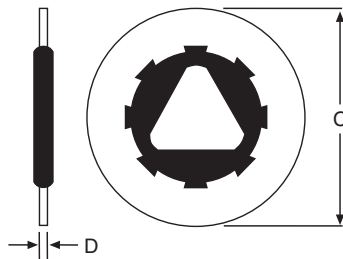
Cap Plug Number	QTY	Cap Plug Number	QTY
CAP-2-X	50	CAP-G-2	20
CAP-4	50	CAP-G-8	20
CAP-6-X	50	CAP-G-14	20
CAP-9	40	CAP-G-18	20
CAP-12-X	25	CAP-G-22	10
CAP-14	20	CAP-G-25	12
CAP-PD-60	25	CAP-G-27	16
CAP-PD-80	25	CAP-P-28	25
CAP-PD-100	15	CAP-P-38	25
CAP-PD-120	10	CAP-P-48	25
CAP-PD-140	5	CAP-P-68-H	25
CAP-PD-160	10	CAP-P-88-H	10

## STYLE 110 FACE-SEALS



Part Number	Max Screw Size	A Rubber I.D.	B Steel I.D.	C Steel O.D.	D Steel Thick.
DY-110X8	.164	.156	.255	.385	.041
DY-110X10	.177	.180	.317	.443	.050
DY-110X3/16	.190	.220	.281	.425	.054
DY-110X7/32	.216	.246	.307	.455	.054
DY-110X1/4	.250	.240	.381	.505	.054
DY-110X5/16	.312	.301	.488	.603	.054
DY-110X3/8	.375	.368	.546	.666	.054
DY-110X7/16	.437	.427	.618	.760	.054
DY-110X1/2	.500	.490	.696	.880	.054
DY-110X9/16	.562	.552	.759	1.067	.054
DY-110X5/8	.625	.615	.818	1.193	.054

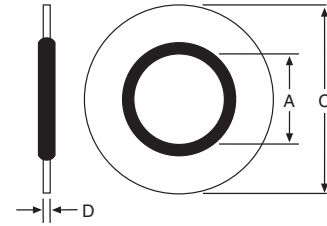
## THREAD SEAL



Thread seals provide a positive seal directly against the threads of a bolt. Self-centering and easily installed.

Part Number	C	D	Thread Size
TS7500X10	.469	.051	-10
TS7500X1/4	.562	.051	1/4
TS7500X5/16	.687	.064	5/16
TS7500X3/8	.750	.064	3/8
TS7500X7/16	.906	.078	7/16
TS7500X1/2	1.000	.078	1/2
TS7500X7/8	1.562	.109	7/8

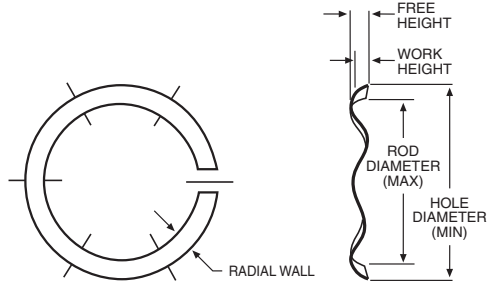
## STYLE SB FACE-SEALS



Part Number	A	C	D
DY-SB-001	.115	.250	.048
DY-SB-002	.157	.286	.048
DY-SB-003	.205	.330	.051
DY-SB-004	.270	.520	.051
DY-SB-005	.270	.525	.048
DY-SB-006	.322	.525	.048
DY-SB-007	.340	.560	.051
DY-SB-020A	.408	.625	.083
DY-SB-008	.443	.723	.083
DY-SB-009	.460	.750	.083
DY-SB-225	.531	.866	.059
DY-SB-021B	.541	.810	.083
DY-SB-010	.585	.875	.083
DY-SB-022BB	.625	.875	.083
DY-SB-011	.650	1.000	.083
DY-SB-023C	.680	.937	.083
DY-SB-012	.715	1.000	.097
DY-SB-024CC	.775	1.060	.097
DY-SB-025D	.848	1.125	.097
DY-SB-026E	.925	1.250	.097
DY-SB-013	.955	1.310	.097
DY-SB-027F	1.065	1.375	.097
DY-SB-240	1.083	1.417	.07
DY-SB-028	1.095	1.520	.097
DY-SB-014	1.150	1.440	.092
DY-SB-029G	1.213	1.500	.097
DY-SB-015	1.280	1.630	.128
DY-SB-031	1.329	1.685	.092
DY-SB-030H	1.334	1.685	.133
DY-SB-016	1.410	1.750	.133
DY-SB-032J	1.690	2.062	.133
DY-SB-033K	1.907	2.307	.103
DY-SB-019	2.030	2.500	.128
DY-SB-034	2.161	2.750	.133
DY-SB-035	2.285	2.770	.133
DY-SB-036	2.385	2.875	.133
DY-SB-038	2.625	3.130	.133
DY-SB-039	2.995	3.550	.133

## WAVE SPRINGS

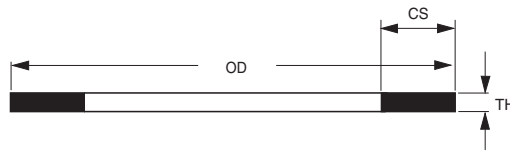
Wave Springs offer a convenient method of exerting a pre-load on vee packing where little or no adjustment is available. Because of a low fatigue factor, the spring should provide a proper pre-load through the life of the packing.



Part Number	Hole Diameter (Min)	Rod Diameter (Max)	Free Height	Work Height	Radial Wall
SSR-0125	1.250	.960	.150	.078	.133
SSR-0150	1.500	1.170	.170	.078	.143
SSR-0175	1.750	1.440	.140	.078	.143
SSR-0187	1.875	1.560	.150	.078	.143
SSR-0200	2.000	1.680	.140	.093	.150
SSR-0225	2.250	1.930	.170	.093	.150
SSR-0237	2.375	1.990	.160	.093	.178
SSR-0250	2.500	2.120	.170	.093	.178
SSR-0262	2.625	2.240	.190	.093	.178
SSR-0275	2.750	2.340	.170	.109	.188
SSR-0300	3.000	2.590	.190	.109	.188
SSR-0312	3.120	2.710	.210	.109	.188
SSR-0325	3.250	2.750	.200	.109	.233
SSR-0350	3.500	3.000	.230	.109	.233
SSR-0362	3.625	3.120	.240	.109	.233
SSR-0375	3.750	3.250	.260	.109	.233
SSR-0425	4.250	3.740	.210	.109	.233
SSR-0462	4.625	4.125	.230	.109	.233
SSR-0512	5.125	4.610	.340	.125	.233

## CARBON STEEL SHIMS

These carbon steel shims are commonly used with vee packing sets to fill the empty space in a gland.



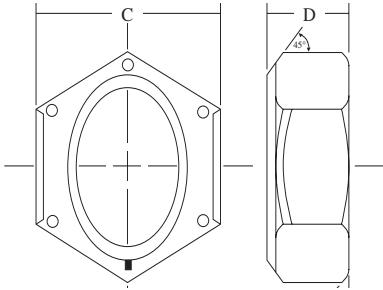
Part Number	OD	Thickness	Cross Section
SSRS-0150	1.500	.024	.150
SSRS-0175	1.750	.024	.150
SSRS-0200	2.000	.024	.150

Part Number	OD	Thickness	Cross Section
SSRS-0237	2.375	.024	.178
SSRS-0312	3.125	.030	.188
SSRS-0375	3.750	.030	.233

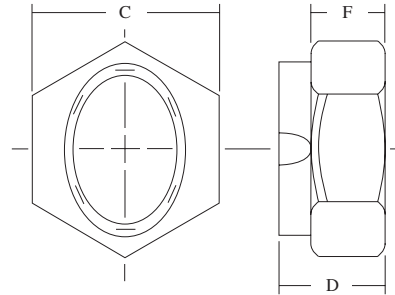
## GRADE C LOCKNUTS

These fine-threaded Grade C locknuts are formed from medium carbon, heat-treated steel and are designed to be used with a Grade 8 bolt. Smaller size locknuts employ an automation style collar while the larger ones use a full collar design. Both locknut types are stocked with cadmium and wax plating.

### Automation Style



### Full Collar Style



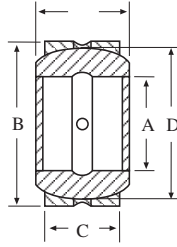
### Automation Style

Part Number	Size	Thread Pitch	C Width Across Flats		D Overall Thickness		
			Max	Min	Max	Min	
LN-1/2-13	1/2	13	0.7500	0.736	0.510	0.490	
LN-1-14	1	14	1.5020	1.450	0.887	0.831	
LN-3/4-16	3/4	16	1.1250	1.088	0.665	0.617	
LN-5/8-18	5/8	18	0.9375	0.922	0.645	0.621	

### Full Collar Style

Part Number	Size	Thread Pitch	C Width Across Flats		D Overall Thickness		F Hex Height		
			Max	Min	Max	Min	Max	Min	
LN-1-1/2-12	1-1/2	12	2.250	2.175	1.317	1.246	0.885	0.843	
LN-1-1/4-12	1-1/4	12	1.876	1.812	1.094	1.030	0.719	0.698	
LN-1-1/8-12	1-1/8	12	1.687	1.631	0.999	0.939	0.657	0.636	
LN-1-3/4-12	1-3/4	12	2.625	2.538	1.540	1.460	1.012	0.989	
LN-1-3/8-12	1-3/8	12	2.062	1.994	1.206	1.138	0.795	0.771	
LN-2-12	2	12	3.000	2.900	1.763	1.675	1.158	1.134	

# SELF ALIGNING BEARINGS



Part Number	A	B	W	C	D	
HH008ES	1/2	.875	.437	.375	.709	
HH010ES	5/8	1.062	.547	.469	0.899	
HH012ES	3/4	1.250	.656	.562	1.083	
HH014ES	7/8	1.438	.765	.656	1.260	
HH100ES	1	1.625	.875	.750	1.417	
HH104ES	1-1/4	2.000	1.093	.937	1.772	
HH106ES	1-3/8	2.187	1.187	1.031	1.929	
HH108ES	1-1/2	2.438	1/312	1/125	2.165	
HH108ES2RS	1-1/2	2.438	1.312	1.125	2.165	
HH112ES	1-3/4	2.812	1.531	1.312	2.520	
HH112ES2RS	1-3/4	2.812	1.531	1.312	2.520	
HH200ES	2	3.187	1.750	1.500	2.874	
HH200ES2RS	2	3.187	1.750	1.500	2.874	
HH204ES	2-1/4	3.562	1.969	1.687	3.228	
HH204ES2RS	2-1/4	3.562	1.969	1.687	3.228	
HH208ES	2-1/2	3.937	2.187	1.875	3.583	
HH208ES2RS	2-1/2	3.937	2.187	1.875	3.583	
HH212ES	2-3/4	4.375	2.406	2.062	3.937	
HH212ES2RS	2-3/4	4.375	2.406	2.062	3.937	
HH300ES	3	4.750	2.625	2.250	4.331	
HH300ES2RS	3	4.750	2.625	2.250	4.331	
HH304ES	3-1/4	5.125	2.844	2.437	4.685	
HH308ES	3-1/2	5.500	3.062	2.625	5.039	
HH308ES2RS	3-1/2	5.500	3.062	2.625	5.039	
HH312ES	3-3/4	5.875	3.281	2.812	5.394	
HH400ES	4	6.250	3.500	3.000	5.748	
HH400ES2RS	4	6.250	3.500	3.000	5.748	
HH408ES	4-1/2	7.000	3.937	3.375	6.457	
HH500ES	5	7.750	4.375	3.750	7.205	
HH600ES	6	8.750	4.750	4.125	8.150	

## SET SCREWS

These set screws are used on many cylinder headnuts. Use nylon plugs to insure no damage to the headnut threads. All set screws employ allen wrench heads.

Part Number	Thread Size	Length	
SS-1/4-20X1/2	1/4-20	1/2	
SS-1/4-20X3/8	1/4-20	3/8	
SS-1/4-28X1/4	1/4-28	1/4	
SS-1/4-28X3/8	1/4-28	3/8	
SS-5/16-18X1/4	5/16-18	1/4	
SS-5/16-18X3/8	5/16-18	3/8	
SS-5/16-18X3/4	5/16-18	3/4	
SS-5/16-24X5/16	5/16-24	5/16	
SS-5/16-24X3/8	5/16-24	3/8	
SS-3/8-16X3/8	3/8-16	3/8	
SS-3/8-16X5/8	3/8-16	5/8	
SS-3/8-16X7/8	3/8-16	7/8	
SS-1/2-13X1/2	1/2-13	1/2	
SS-1/2-13X5/8	1/2-13	5/8	
SS-#10-24X1/4	#10-24	1/4	

## NYLON PLUGS

These nylon plugs are used with headnut set screws to insure that there is no damage to the headnut threads.

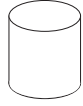
Part Number	Diameter	Length	
NYPLUG-125-125	1/8	1/8	
NYPLUG-125-156	1/8	5/32	
NYPLUG-125-875	1/8	7/8	
NYPLUG-187-109	3/16	7/64	
NYPLUG-187-187	3/16	3/16	
NYPLUG-187-250	3/16	1/4	
NYPLUG-250-125	1/4	1/8	
NYPLUG-250-187	1/4	3/16	
NYPLUG-250-250	1/4	1/4	
NYPLUG-312-125	5/16	1/8	
NYPLUG-312-250	5/16	1/4	
NYPLUG-375-250	3/8	1/4	
NYPLUG-500-875-125H	1/2	7/8	

## MANUAL BLEEDER VALVES

Part Number	Thread Size	
WH705	1/8 NPT	

## NYLON PLUG KIT

Part Number: Nylon Plug Kit

 220 Pieces 11 Sizes	Nyplug-125-125 1/8" x 1/8" 20 pcs.	Nyplug-187-109 3/16" x 7/64" 20 pcs.	Nyplug-250-125 1/4" x 1/8" 20 pcs.	
	Nyplug-125-156 1/8" x 5/32" 20 pcs.	Nyplug-187-187 3/16" x 3/16" 20 pcs.	Nyplug-250-187 1/4" x 3/16" 20 pcs.	Nyplug-312-125 5/16" x 1/8" 20 pcs.
	Nyplug-125-875 1/8" x 7/8" 20 pcs.	Nyplug-187-250 3/16" x 1/4" 20 pcs.	Nyplug-250-250 1/4" x 1/4" 20 pcs.	Nyplug-375-250 3/8" x 1/4" 20 pcs.

## WIND-IN LOCK WIRES

Part Number	Thickness	Length	
LW-5.40X.09-H	3/32 sq.	5.40	
LW-093-1262	3/32 sq.	12-5/8	
MARION-35240	1/8 sq.	10-1/4	
MARION-35250	1/8 sq.	13-3/8	
MARION-35260	1/8 sq.	16-3/8	
MARION-35270	1/8 sq.	19-1/4	
MARION-1031	3/16 sq.	21.00	
1/8 RD WIRE	1/8 round	11	

## FILTER VENT PLUGS



These plugs are used to allow air to pass in and out of the non-pressurized end of a single acting cylinder.

Part Number	NPT Port Size	
FV-.125	1/8	
FV-.250	1/4	
FV-.375	3/8	
FV-.500	1/2	
FV-.750	3/4	
FV-1.000	1	



## LOCTITE

Threadlocker 242 locks fasteners 1/4" and larger yet allows easy disassembly with hand tools. Permanently locks fasteners under 1/4". Prevents rust and corrosion. Tube size: 0.5 ml.

Part Number	Application	
LOCTITE-24205	Removable Threadlocker 0.5 ml bottle	
LOCTITE-24221	Removable Threadlocker 10 ml bottle	
LOCTITE-24231	Removable Threadlocker 50 ml bottle	
LOCTITE-27105	High Strength Threadlocker 0.5 ml bottle	
LOCTITE-27141	High Strength Threadlocker 250 ml bottle	
LOCTITE-29021	Penetrating Threadlocker 10 ml bottle	
LOCTITE-29031	Penetrating Threadlocker 50 ml bottle	
LOCTITE-54531	Hyd/Pneum Thread Sealant 50 ml tube	
LOCTITE-76764	Anti Seize Lubricant 16 oz brush can	
LOCTITE-80725	Plastic Pipe Sealant 2 oz tube	
LOCTITE-82325	Super Lube 3 oz tube	

## SEAL LUBE™

### O-Ring Lubricant



### Part Number: Seal Lube

Seal-Lube™ lubricant is a thick, clear, high viscosity silicone oil recommended for use with most seal compounds (except silicone) and a wide variety of hydraulic fluids. Insoluble in water, alcohol, petroleum oil and glycol, Seal-Lube™ can prolong seal life when applied prior to seal installation. Chemically inert and non-toxic, Seal-Lube™ retains its viscosity over a wide temperature range. The handy squeeze bottle dispenses just enough where you want it. 2 ounce bottle.

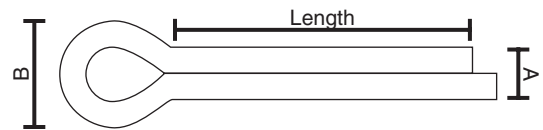
## TEFLON TAPE

### Part Number: Teflon Tape



1/2" Wide by 520" Roll

## COTTER PINS

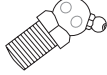


Part Number	Length	A	B	
CP-1X3/32	1	.082	3/16	
CP-1-1/4X1/8	1-1/4	.115	1/4	
CP-1-1/2X5/32	1-1/2	.150	5/16	
CP-1-3/4X3/16	1-3/4	3/16	.390	
CP-2X3/16	2	.176	3/8	
CP-2X1/4	2	.225	1/2	
CP-2-1/2X5/32	2-1/2	5/32	.357	
CP-2-1/2X1/8	2-1/2	.115	1/4	
CP-2-1/2X3/16	2-1/2	.176	3/8	
CP-2-1/2X1/4	2-1/2	.225	1/2	
CP-3X5/32	3	.150	5/16	
CP-3X1/4	3	1/4	.520	
CP-3-1/2X1/4	3-1/2	.225	1/2	
CP-4X1/4	4	.225	1/2	
CP-5X1/4	5	.225	1/2	
CP-6X5/16	6	.280	5/8	

## GREASE FITTING KIT

Part Number: Grease Fitting Kit




 32 Pieces	1/8" NPT Straight 6 pcs.	1/4" - 28 Straight 6 pcs.
	3/16" Drive Straight 4 pcs.	1/8"- NPT 45 1/8"-NPT 90 3 pcs. each
	1/4"- 28 45 1/4"- 28 90 3 pcs. each	5/16" Drive Straight 4 pcs.

Part Number	Description
GF-125NPTS	1/8" NPT STRAIGHT
GF-125NPT45	1/8" NPT 45°
GF-125NPT90	1/8" NPT 90°
GF-187DS	3/16" DRIVE STRAIGHT
GF-250-28S	1/4"-28 STRAIGHT
GF-250-28-45	1/4"-28 45°
GF-250-28-90	1/4"-28 90°
GF-312DS	5/16" DRIVE STRAIGHT

## WOODRUFF KEY KIT

Part Number: Woodruff Keys Kit




 65 Pieces	1/8" X 1/2" No. 3 16 pcs.	1/8" X 5/8" No. 5 15 pcs.
	3/32" X 5/8" No. 6 15 pcs.	3/16" X 3/4" No. 9 10 pcs.
	1/4" X 7/8" No. A 5 pcs.	1/4" X 1" No. 15 4 pcs.

## COTTER PIN KIT

Part Number: Cotter Pin Kit



 555 Pieces	1/16" X 1" 150 pcs.	3/32" X 1" 150 pcs.
	3/32" X 1-1/2" 100 pcs.	1/8" X 1-1/4" 75 pcs.
	1/8" X 2" 50 pcs.	5/32" X 2-1/2" 30 pcs.

# METRIC / INCH CONVERSION TABLE

## FRACTIONS, DECIMALS AND MILLIMETERS

Inches			Inches			Inches			Inches		
Fractions	Decimals	M M	Fractions	Decimals	M M	Fractions	Decimals	M M	Fractions	Decimals	M M
—	.0004	.01	25/32	.781	19.844	—	2.165	55.0	3-11/16	3.6875	93.663
—	.004	.10	—	.7874	20.0	2-3/16	2.1875	55.563	—	3.7008	94.0
—	.01	.25	51/64	.797	20.241	—	2.2047	56.0	3-23/32	—	94.456
1/64	.0156	.397	13/16	.8125	20.638	2-7/32	2.219	56.356	—	3.7401	95.0
—	.0197	.50	—	.8268	21.0	—	2.244	57.0	3-3/4	—	95.250
—	.0295	.75	53/64	.828	21.034	2-1/4	2.250	57.150	—	3.7795	96.0
1/32	.03125	.794	27/32	.844	21.431	2-9/32	2.281	57.944	3-25/32	3.781	96.044
—	.0394	1.0	55/64	.859	21.828	—	2.2835	58.0	3-13/16	—	96.838
3/64	.0469	1.191	—	.8661	22.0	2-5/16	2.312	58.738	—	3.8189	97.0
—	.059	1.5	7/8	.875	22.225	—	2.3228	59.0	3-27/32	—	97.631
1/16	.062	1.588	57/64	.8906	22.622	2-11/32	2.344	59.531	—	3.8583	98.0
5/64	.0781	1.984	—	.9055	23.0	—	2.3622	60.0	3-7/8	—	98.425
—	.0787	2.0	29/32	.9062	23.019	2-3/8	2.375	60.325	—	3.8976	99.0
3/32	.094	2.381	59/64	.922	23.416	—	2.4016	61.0	3-29/32	3.9062	99.219
—	.0984	2.5	15/16	.9375	23.813	2-13/32	2.406	61.119	—	3.9370	100.0
7/64	.109	2.778	—	.9449	24.0	2-7/16	2.438	61.913	3-15/16	—	100.013
—	.1181	3.0	61/64	.953	24.209	—	2.4409	62.0	3-31/32	3.969	100.806
1/8	.125	3.175	31/32	.969	24.606	2-15/32	2.469	62.706	—	3.9764	101.0
—	.1378	3.5	—	.9843	25.0	—	2.4803	63.0	4	—	101.600
9/64	.141	3.572	63/64	.9844	25.003	2-1/2	2.500	63.500	4-1/16	4.062	103.188
5/32	.156	3.969	1	1.000	25.400	—	2.5197	64.0	4-1/8	4.125	104.775
—	.1575	4.0	—	1.0236	26.0	2-17/32	2.531	64.294	—	4.1338	105.0
11/64	.172	4.366	1-1/32	1.0312	26.194	—	2.559	65.0	4-3/16	4.1875	106.363
—	.177	4.5	1-1/16	1.062	26.988	2-9/16	2.562	65.088	4-1/4	4.250	107.950
3/16	.1875	4.763	—	1.063	27.0	2-19/32	2.594	65.881	4-5/16	4.312	109.538
—	.1969	5.0	1-3/32	1.094	27.781	—	2.5984	66.0	—	4.3307	110.0
13/64	.203	5.159	—	1.1024	28.0	2-5/8	2.625	66.675	4-3/8	4.375	111.125
—	.2165	5.5	1-1/8	1.125	28.575	—	2.638	67.0	4-7/16	4.438	112.713
7/32	.219	5.556	—	1.1417	29.0	2-21/32	2.656	67.469	4-1/2	4.500	114.300
15/64	.234	5.953	1-5/32	1.156	29.369	—	2.6772	68.0	—	4.5275	115.0
—	.2362	6.0	—	1.1811	30.0	2-11/16	2.6875	68.263	4-9/16	4.562	115.888
1/4	.250	6.350	1-3/16	1.1875	30.163	—	2.7165	69.0	4-5/8	4.625	117.475
—	.2559	6.5	1-7/32	1.219	30.956	2-23/32	2.719	69.056	4-11/16	4.6875	119.063
17/64	.2656	6.747	—	1.2205	31.0	2-3/4	2.750	69.850	—	4.7244	120.0
—	.2756	7.0	1-1/4	1.250	31.750	—	2.7559	70.0	4-3/4	4.750	120.650
9/32	.281	7.144	—	1.2598	32.0	2-25/32	2.781	70.6439	4-13/16	4.8125	122.238
—	.2953	7.5	1-9/32	1.281	32.544	—	2.7953	71.0	4-7/8	4.875	123.825
19/64	.297	7.541	—	1.2992	33.0	2-13/16	2.8125	71.4376	—	4.9212	125.0
5/16	.312	7.938	1-5/16	1.312	33.338	—	2.8346	72.0	4-15/16	4.9375	125.413
—	.315	8.0	—	1.3386	34.0	2-27/32	2.844	72.2314	5	5.000	127.000
21/64	.328	8.334	1-11/32	1.344	34.131	—	2.8740	73.0	—	5.1181	130.0
—	.335	8.5	1-3/8	1.375	34.925	2-7/8	2.875	73.025	5-1/4	5.250	133.350
11/32	.344	8.731	—	1.3779	35.0	2-29/32	2.9062	73.819	5-1/2	5.500	139.700
—	.3543	9.0	1-13/32	1.406	35.719	—	2.9134	74.0	—	5.5118	140.0
23/64	.359	9.128	—	1.4173	36.0	2-15/16	2.9375	74.613	5-3/4	5.750	146.050
—	.374	9.5	1-7/16	1.438	36.513	—	2.9527	75.0	—	5.9055	150.0
3/8	.375	9.525	—	1.4567	37.0	2-31/32	2.969	75.406	6	6.000	152.400
25/64	.391	9.922	1-15/32	1.469	37.306	—	2.9921	76.0	6-1/4	6.250	158.750
—	.3937	10.0	—	1.4961	38.0	3	3.000	76.200	—	6.2992	160.0
13/32	.406	10.319	1-1/2	1.500	38.100	3-1/32	3.0312	76.994	6-1/2	6.500	165.100
—	.413	10.5	1-17/32	1.531	38.894	—	3.0315	77.0	—	6.6929	170.0
27/64	.422	10.716	—	1.5354	39.0	3-1/16	3.062	77.788	6-3/4	6.750	171.450
—	.4331	11.0	1-9/16	1.562	39.688	—	3.0709	78.0	7	7.000	177.800
7/16	.438	11.113	—	1.5748	40.0	3-3/32	3.094	78.581	—	7.0866	180.0
29/64	.453	11.509	1-19/32	1.594	40.481	—	3.1102	79.0	—	7.4803	190.0
15/32	.469	11.906	—	1.6142	41.0	3-1/8	3.125	79.581	7-1/2	7.500	190.500
—	.4724	12.0	1-5/8	1.625	41.275	—	3.1496	80.0	—	7.8740	200.0
31/64	.484	12.303	—	1.6535	42.0	3-5/32	3.156	80.169	8	8.000	203.200
—	.492	12.5	1-21/32	1.6562	42.069	3-3/16	3.1875	80.963	—	8.2677	210.0
1/2	.500	12.700	1-11/16	1.6875	42.863	—	3.1890	81.0	8-1/2	8.500	215.900
—	.5118	13.0	—	1.6929	43.0	3-7/32	3.219	81.756	—	8.6614	220.0
33/64	.5156	13.097	1-23/32	1.719	43.656	—	3.2283	82.0	9	9.000	228.600
17/32	.531	13.494	—	1.7323	44.0	3-1/4	3.250	82.550	—	9.0551	230.0
35/64	.547	13.891	1-3/4	1.750	44.450	—	3.2677	83.0	—	9.4488	240.0
—	.5512	14.0	—	1.7717	45.0	3-9/32	3.281	83.344	9-1/2	9.500	241.300
9/16	.563	14.288	1-25/32	1.781	45.244	—	3.3071	84.0	—	9.8425	250.0
—	.571	14.5	—	1.8110	46.0	3-5/16	3.312	84.1377	10	10.000	254.001
37/64	.578	14.684	1-13/16	1.8125	46.038	3-11/32	3.344	84.9314	—	10.2362	260.0
—	.5906	15.0	1-27/32	1.844	46.831	—	3.3464	85.0	—	10.6299	270.0
19/32	.594	15.081	—	1.8504	47.0	3-3/8	3.375	85.725	11	11.000	279.401
39/64	.609	15.478	1-7/8	1.875	47.625	—	3.3858	86.0	—	11.0236	280.0
5/8	.625	15.875	—	1.8898	48.0	3-13/32	3.406	86.519	—	11.4173	290.0
—	.6299	16.0	1-29/32	1.9062	48.419	—	3.4252	87.0	—	11.8110	300.0
41/64	.6406	16.272	—	1.9291	49.0	3-7/16	3.438	87.313	12	12.000	304.801
—	.6496	16.5	1-15/16	1.9375	49.213	—	3.4648	88.0	13	13.000	330.201
21/32	.658	16.669	—	1.9685	50.0	3-15/32	3.469	88.108	—	13.7795	350.0
—	.6693	17.0	1-31/32	1.969	50.006	3-1/2	3.500	88.900	14	14.000	355.601
43/64	.672	17.066	2	2.000	50.800	—	3.5039	89.0	15	15.000	381.001
11/16	.6875	17.463	—	2.0079	51.0	3-17/32	3.531	89.694	—	15.7480	400.0
45/64	.703	17.859	2-1/32	2.03125	51.594	—	3.5433	90.0	16	16.000	406.401
—	.7087	18.0	—	2.0472	52.0	3-9/16	3.562	90.4877	17	17.000	431.801
23/32	.719	18.256	2-1/6	2.062	52.388	—	3.5827	91.0	—	17.7165	450.0
—	.7283	18.5	—	2.0866	53.0	3-19/32	3.594	91.281	18	18.000	457.201
47/64	.734	18.653	2-3/32	2.094	53.181	—	3.622	92.0	19	19.000	482.601
—	.7480	19.0	2-1/8	2.125	53.975	3-5/8	3.625	92.075	—	19.6850	500.0
3/4	.750	19.050	—	2.126	54.0	3-21/32	3.656	92.869	20	20.000	508.001
49/64	.7656	19.447	2-5/32	2.156	54.769	—	3.6614	93.0	—	—	—

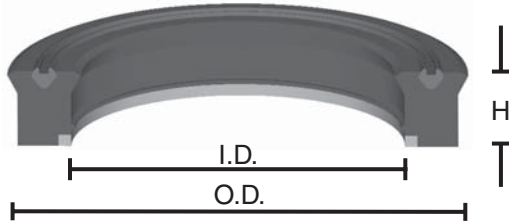


# Metric Section

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## STYLE MRTUB ROD U-SEALS W/BACK-UP RING

Molded of high performance urethane, this seal employs three improves: an energizer ring for low pressure sealing; an additional lip for stability, lube retention, and contaminant blocker; and a hard plastic I.D. back-up ring for extrusion resistance. **NOTE:** E = European Urethane.



### SEAL INFORMATION

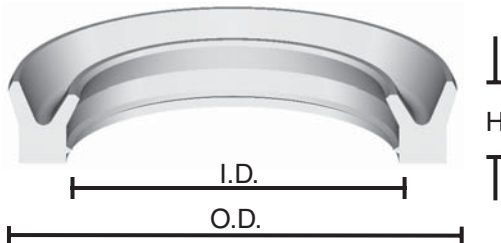
MATERIAL	URETHANE SEAL POLYACETAL BACK-UP
TEMPERATURE RANGE	-40° TO +230° F
PRESSURE RANGE	0 TO 6,000 PSI
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number		Part Number		Part Number		Part Number	
MRTUB-35X50X9.5		MRTUB-56X71X11.4		MRTUB-80X95X13		MRTUB-110X130X14.6	
MRTUB-36X46X7.3		MRTUB-60X73X13		MRTUB-85X100X13		MRTUB-120X135X14.6	
MRTUB-40X50X7.3		MRTUB-60X75X11.4		MRTUB-90X105X11.4		MRTUB-120X140X13	
MRTUB-45X55X7.3		MRTUB-63X78X11.4		MRTUB-90X105X13		MRTUB-140X160X13	
MRTUB-45X60X11.4		MRTUB-63X83X11.8		MRTUB-95X110X13			
MRTUB-50X60X7.3		MRTUB-70X85X11.4		MRTUB-100X115X13			
MRTUB-50X65X11.4		MRTUB-75X88X13		MRTUB-100X120X14.6			
MRTUB-55X70X11.4		MRTUB-80X95X11.4		MRTUB-110X130X13			

## STYLE MRTU ROD U-SEALS

Molded in a tough urethane this seal employs an additional lip near the heel. The Twin Lip design provides stability, friction-reducing lube retention, and a contaminant blocker.

**NOTE:** E = European Urethane.



### SEAL INFORMATION

MATERIAL	URETHANE
TEMPERATURE RANGE	-65° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

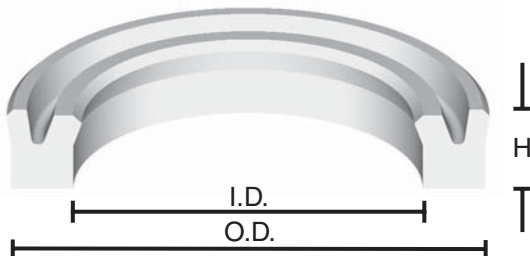
Part Number		Part Number		Part Number		Part Number	
MRTU-12X18X5.7		MRTU-18X25X5		MRTU-22X30X5.7		MRTU-28X38X7.3	
MRTU-12X20X5.7		MRTU-18X26X6		MRTU-22X32X7.3		MRTU-28X43X11.4	
MRTU-16X22X5		MRTU-20X26X5		MRTU-25X33X5.7		MRTU-30X38X6.3	
MRTU-16X24X5.7		MRTU-20X28X5.7		MRTU-25X35X7.7		MRTU-30X40X10	
MRTU-16X26X7.7		MRTU-20X30X7.7		MRTU-25X35X10		MRTU-32X40X6	

## STYLE MRTU ROD U-SEALS

Part Number		Part Number		Part Number		Part Number	
MRTU-32X40X7.7		MRTU-45X53X8.1		MRTU-60X75X11.8		MRTU-95X115X12	
MRTU-32X42X5.7		MRTU-45X55X7.3		MRTU-63X73X12		MRTU-100X115X9	
MRTU-32X42X7.3		MRTU-45X55X10		MRTU-63X78X10		MRTU-100X115X12	
MRTU-32X42X10		MRTU-45X60X10		MRTU-63X78X11		MRTU-100X120X11.8	
MRTU-32X47X9.1		MRTU-45X65X10		MRTU-65X75X11.8		MRTU-100X120X14.5	
MRTU-32X47X10		MRTU-50X60X7.3		MRTU-65X78X10		MRTU-105X115X11.5-VME	
MRTU-35X43X6.3		MRTU-50X60X10		MRTU-70X80X12		MRTU-105X115X13.2	
MRTU-35X43X8.2		MRTU-50X60X11.8		MRTU-70X83X10		MRTU-105X120X14.5	
MRTU-35X45X6		MRTU-50X65X9.5		MRTU-70X85X10		MRTU-110X130X11.8	
MRTU-35X45X7.7		MRTU-50X65X11		MRTU-70X85X11.5		MRTU-110X130X14.5	
MRTU-35X45X10		MRTU-50X65X14.5		MRTU-75X85X11.8		MRTU-120X130X11.5-VME	
MRTU-35X50X9		MRTU-55X65X10		MRTU-75X88X10		MRTU-125X145X14.5	
MRTU-35X50X10		MRTU-55X70X11.8		MRTU-78X86X11		MRTU-130X140X14.5	
MRTU-36X44X6.4		MRTU-56X66X10		MRTU-80X90X10		MRTU-130X150X14.5	
MRTU-36X44X8		MRTU-56X71X10		MRTU-80X90X12		MRTU-140X150X11.5	
MRTU-36X46X7		MRTU-56X71X11		MRTU-80X93X10		MRTU-140X160X11.8	
MRTU-36X46X10		MRTU-60X68X11		MRTU-80X95X12		MRTU-140X160X14.5	
MRTU-40X48X8.2		MRTU-60X70X10		MRTU-80X100X12		MRTU-150X170X13	
MRTU-40X50X7		MRTU-60X70X11.8		MRTU-80X100X14.5		MRTU-160X170X11.5-VME	
MRTU-40X50X8		MRTU-60X71X7		MRTU-85X100X9		MRTU-160X180X14.5	
MRTU-40X50X10		MRTU-60X72X10		MRTU-90X100X11.5-VME		MRTU-177.7X195X9.5	
MRTU-40X55X10		MRTU-60X75X10		MRTU-90X105X11.4			

## STYLE MRU ROD U-SEALS

Molded in a tough urethane this rod u-seal fits tightly in the groove while providing increased radial force on the rod.  
**NOTE:** E = European Urethane.



### SEAL INFORMATION

MATERIAL	URETHANE
TEMPERATURE RANGE	-65° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number		Part Number		Part Number		Part Number	
MRU-6X14X5.7-E		MRU-18X28X8-E		MRU-22X30X5.7-E		MRU-25X35X6	
MRU-12X20X5.7-E		MRU-20X26X5-E		MRU-25X33X5.7		MRU-25X35X7.2-E	
MRU-15X25X10		MRU-20X28X5.7		MRU-25X33X6.3-E		MRU-25X35X8	
MRU-18X24X4.5-E		MRU-20X30X8		MRU-25X33X10-E		MRU-25X35X10-E	
MRU-18X26X5.7-E		MRU-20X35X10-E		MRU-25X35X5		MRU-25X40X10-E	

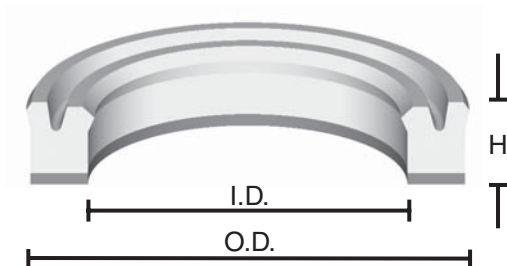
## STYLE MRU ROD U-SEALS

Part Number		Part Number		Part Number		Part Number	
MRU-28X38X7.3		MRU-45X55X6		MRU-70X85X10-E		MRU-110X130X13	
MRU-28X40X8.5-E		MRU-45X55X7.3		MRU-70X85X12-E		MRU-110X130X15	
MRU-30X38X5.7-E		MRU-45X58X9-E		MRU-70X90X12		MRU-112X127X10	
MRU-30X38X8-E		MRU-45X60X9		MRU-70X90X15-E		MRU-115X130X9	
MRU-30X40X6		MRU-45X60X10-E		MRU-75X85X6.3		MRU-115X135X12	
MRU-30X40X7		MRU-45X60X11.5-E		MRU-75X85X7-E		MRU-120X135X9	
MRU-30X40X7.3		MRU-45X65X12		MRU-75X85X12-E		MRU-120X140X10	
MRU-30X40X8		MRU-50X60X7.3		MRU-75X88X10		MRU-120X140X12	
MRU-30X40X10-E		MRU-50X60X10-E		MRU-75X90X9		MRU-120X140X13	
MRU-30X43X9-E		MRU-50X60X12-E		MRU-75X90X10-E		MRU-120X140X15	
MRU-30X43X10		MRU-50X63X8		MRU-75X90X11.4		MRU-125X145X12	
MRU-30X46X9		MRU-50X63X10		MRU-75X95X12		MRU-130X145X9	
MRU-32X40X5.7-E		MRU-50X65X9		MRU-80X93X10		MRU-130X150X12	
MRU-32X40X8-E		MRU-50X66X12		MRU-80X95X9		MRU-140X160X12	
MRU-32X42X6		MRU-50X70X12		MRU-80X95X10		MRU-150X170X12	
MRU-32X42X7.2-E		MRU-55X65X7.2-E		MRU-80X95X11.5-E		MRU-150X170X14.6	
MRU-32X42X7.3-GT		MRU-55X68X10		MRU-80X100X12		MRU-150X170X16	
MRU-32X42X10-E		MRU-55X70X9		MRU-85X100X9		MRU-160X180X12	
MRU-32X45X9.5-E		MRU-55X70X10-E		MRU-85X100X10		MRU-160X185X16	
MRU-32X47X10-E		MRU-55X71X12		MRU-85X105X12		MRU-170X195X16	
MRU-33X43X10-E		MRU-55X75X12		MRU-90X105X9		MRU-180X205X16	
MRU-35X43X5.7-E		MRU-56X66X7.3		MRU-90X105X10		MRU-200X225X16	
MRU-35X43X8-E		MRU-56X66X10-E		MRU-90X110X12			
MRU-35X45X6		MRU-56X71X9		MRU-90X110X15-E			
MRU-35X45X6.3		MRU-56X71X10-E		MRU-95X110X9			
MRU-35X45X7.3		MRU-60X73X10		MRU-95X110X10			
MRU-35X51X9		MRU-60X75X9		MRU-95X115X12			
MRU-36X46X7-E		MRU-60X80X12		MRU-100X113X12.5-E			
MRU-36X48X8-E		MRU-63X73X12-E		MRU-100X115X10			
MRU-36X51X10-E		MRU-63X78X10-E		MRU-100X115X12-E			
MRU-40X48X5		MRU-63X79X11.5-GT		MRU-100X120X12			
MRU-40X48X5.7-E		MRU-63X83X12		MRU-100X120X15-E			
MRU-40X50X6		MRU-65X75X6		MRU-105X120X9			
MRU-40X50X7.3		MRU-65X78X10		MRU-105X120X10			
MRU-40X55X9		MRU-65X80X9		MRU-105X125X12			
MRU-40X55X10		MRU-65X80X10-E		MRU-105X125X15			
MRU-40X56X12		MRU-65X85X12		MRU-110X125X9			
MRU-40X60X12		MRU-70X80X6-E		MRU-110X125X10			
MRU-42X50X7		MRU-70X83X10		MRU-110X130X10			
MRU-42X52X7.3		MRU-70X85X9		MRU-110X130X12			



## STYLE MRUB ROD U-SEALS W/BACK-UP RINGS

Molded in a tough urethane this rod u-seal fits tightly in the groove while providing increased radial force on the rod. The employment of a nylon back-up makes it highly extrusion resistant.



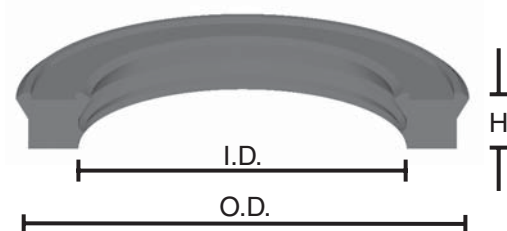
### SEAL INFORMATION

MATERIAL	URETHANE SEAL NYLON BACK-UP
TEMPERATURE RANGE	-40° TO +200° F
PRESSURE RANGE	0 TO 5,500 PSI
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number		Part Number		Part Number		Part Number	
MRUB-60X73X13.2		MRUB-70X83X13.2		MRUB-80X93X13.2		MRUB-95X110X13.2	
MRUB-63X78X11.5-GT		MRUB-70X86X11.5-GT		MRUB-85X100X13.2		MRUB-100X115X13.2	
MRUB-65X78X13.2		MRUB-75X88X13.2		MRUB-90X105X13.2		MRUB-110X130X13	

## STYLE MRTS ROD U-SEALS

Designed specifically for rod applications, the short lip design and solid 'U' cavity provide high sealability at low pressure. At the heel, a secondary lip provides stability, friction-reducing lube retention, and a contaminant blocker. Molded in polyurethane for excellent wear resistance.



### SEAL INFORMATION

MATERIAL	URETHANE
TEMPERATURE RANGE	-22° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

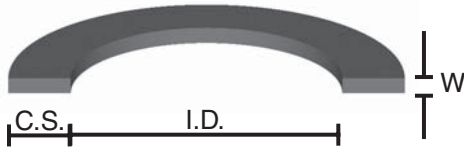
Part Number		Part Number		Part Number		Part Number	
MRTS-12X20X5.8		MRTS-25X35X5.8		MRTS-32X40X6.8		MRTS-45X55X10	
MRTS-18X25X5		MRTS-25X35X7		MRTS-35X43X6		MRTS-50X60X10	
MRTS-20X28X5.8		MRTS-28X36X5.8		MRTS-36X44X5.7		MRTS-55X65X10	
MRTS-22X28X4.5		MRTS-28X38X7		MRTS-40X48X8		MRTS-56X71X11.5	
MRTS-22X30X5.8		MRTS-30X38X5.8		MRTS-40X50X10		MRTS-60X68X8	
MRTS-22X32X7		MRTS-30X38X8		MRTS-40X55X10		MRTS-60X72X9	
MRTS-25X33X5.8		MRTS-30X40X10		MRTS-45X53X8		MRTS-70X78X8	

## STYLE MRTS ROD U-SEALS

Part Number		Part Number		Part Number		Part Number	
MRTS-80X88X8		MRTS-80X92X9		MRTS-90X98X8		MRTS-90X102X9	
MRTS-80X90X12							

## STYLE MBN U-SEAL BACK-UP RINGS

Hard nylon back-up rings for use with U-seals.



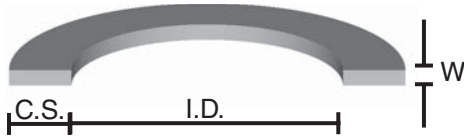
### SEAL INFORMATION

MATERIAL	NYLON
TEMPERATURE RANGE	-65° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (ID) X (CS) X (W)

Part Number		Part Number		Part Number		Part Number	
MBN-75X2.5X2.5		MBN-45X5.5X2.5		MBN-75X7.5X3		MBN-90X10X3	
MBN-28X3.7X1.5		MBN-63X6X1.5		MBN-80X7.5X3		MBN-95X10X3	
MBN-40X4X1.4		MBN-60X6.5X3		MBN-85X7.5X1.9		MBN-100X10X3	
MBN-42X4X1.5		MBN-65X6.5X3		MBN-85X7.5X3		MBN-105X10X3	
MBN-25X5X2		MBN-70X6.5X3		MBN-90X7.5X3		MBN-110X10X3	
MBN-30X5X3		MBN-75X6.5X3		MBN-95X7.5X3		MBN-120X10X3	
MBN-35X5X1.8		MBN-80X6.5X3		MBN-100X7.5X3		MBN-125X10X3	
MBN-40X5X1.5		MBN-40X7.5X3		MBN-105X7.5X3		MBN-130X10X3	
MBN-40X5X2.5		MBN-45X7.5X3		MBN-110X7.5X3		MBN-140X10X3	
MBN-50X5X1.6		MBN-50X7.5X2.5		MBN-120X7.5X3		MBN-160X12.5X3	
MBN-75X5X3		MBN-50X7.5X3		MBN-60X10X3		MBN-160X12.5X3.5	
MBN-117X5X4		MBN-60X7.5X2.5		MBN-70X10X3		MBN-170X12.5X3	
MBN-132X5X4		MBN-65X7.5X3		MBN-75X10X3		MBN-180X12.5X3.5	
MBN-145X5X4		MBN-70X7.5X1.6		MBN-80X10X3			
MBN-155X5X4		MBN-70X7.5X3		MBN-85X10X3			

## STYLE MBT U-SEAL BACK-UP RINGS

Filled PTFE back-up rings primarily used with U-seals.



### SEAL INFORMATION

MATERIAL	FILLED PTFE
TEMPERATURE RANGE	-40° TO +500° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (ID) X (CS) X (W)

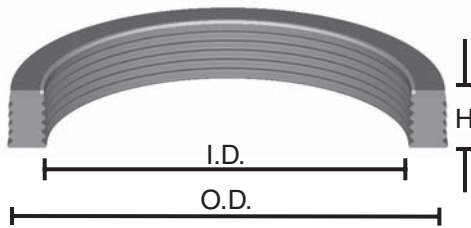
Part Number	Part Number	Part Number	Part Number
MBT-8X5X2SB	MBT-30X6.5X3SB	MBT-45X7.5X3	MBT-60X10X3SB
MBT-10X5X2SB	MBT-31.5X5X3SB	MBT-45X8X3SB	MBT-63X5X3SB
MBT-14X5X2SB	MBT-31.5X6.5X3SB	MBT-45X10X3B	MBT-63.5X3.8X4.3SB
MBT-15X5X2SB	MBT-32X4X1SG	MBT-48X7.5X2SG	MBT-64X8X3SB
MBT-16X4X2SB	MBT-32X4.8X1.5SG	MBT-48X7.5X3SB	MBT-65X5X1.5SG
MBT-16X5X2SB	MBT-32X5X2SG	MBT-50X5X1.5SG	MBT-65X5X3SB
MBT-18X1.5X2.6	MBT-32X8X3B	MBT-50X5X1.9	MBT-65X6.5X3SB
MBT-18X4X2SB	MBT-34X8X3SB	MBT-50X5X3SB	MBT-65X7.5X2SG
MBT-18X5X2SB	MBT-35X5X1.5SG	MBT-50X6.5X2SG	MBT-65X7.5X3SB
MBT-20X1X.85GM	MBT-35X5X2SG	MBT-50X6.5X3SB	MBT-65X10X3
MBT-20X4X2SB	MBT-35X5X3SB	MBT-50X7.5X0.6	MBT-66X6.5X3SB
MBT-20X5X2SB	MBT-35X7.5X3SB	MBT-50X7.5X2SG	MBT-67X5X3SB
MBT-21X3X2.5	MBT-35.5X4.75X3SB	MBT-50X7.5X3	MBT-70X5X1.5SG
MBT-22X4X1SG	MBT-35.5X7.5X3SB	MBT-50X8X3G	MBT-70X5X3SB
MBT-22.4X3.8X2SB	MBT-38X5X3SB	MBT-50X10X3SB	MBT-70X6.5X3SB
MBT-22.4X5.3X2SB	MBT-40X5X0.5	MBT-50.4X7.3X3SB	MBT-70X7.5X2SG
MBT-23.5X4X2SB	MBT-40X5X1.5	MBT-53X5X2SG	MBT-70X7.5X3SB
MBT-25X4X1SG	MBT-40X5X2SG	MBT-55X5X1.5SG	MBT-70X10X3C
MBT-25X4X2SB	MBT-40X5X3SB	MBT-55X5X3SB	MBT-71X4.5X3SB
MBT-25X5X2SB	MBT-40X6.5X2SG	MBT-55X6.5X3SB	MBT-71X5X3SB
MBT-25X6.5X2SB	MBT-40X7.5X3SB	MBT-55X7.5X2SG	MBT-71X10X3SB
MBT-25.5X3X1.25	MBT-40X7.5X3SB	MBT-55X7.5X3SB	MBT-75X5X1.5SG
MBT-25.5X5X2SB	MBT-40X7.5X3SB	MBT-55X8X3SB	MBT-75X5X2SG
MBT-26X2X2.5SG	MBT-40X8X3SB	MBT-55X10X3SB	MBT-75X5X3SB
MBT-27X6.5X3SB	MBT-42X6.5X2SG	MBT-56X5X3SB	MBT-75X6.5X3SB
MBT-28X3.75X3SB	MBT-43X2.5X0.6	MBT-60X5X1.5SG	MBT-75X7.5X2SG
MBT-28X6X3SB	MBT-45X5X1.5SG	MBT-60X5X3SB	MBT-75X7.5X3SB
MBT-28X6.5X3SB	MBT-45X5X2SGM	MBT-60X5.5X3SB	MBT-75X10X2C
MBT-29.5X3X1.25	MBT-45X5X3SGM	MBT-60X6.5X3SB	MBT-75X10X3SB
MBT-30X5X1.5SG	MBT-45X5X6	MBT-60X7.5X0.5	MBT-76X6.9X3SB
MBT-30X5X1.9SB	MBT-45X5.5X0.5	MBT-60X7.5X3SB	MBT-79X5X6
MBT-30X5X3SB	MBT-45X5.5X3SB	MBT-60X8X3SB	MBT-80X5X3SB

## STYLE MBT U-SEAL BACK-UP RINGS

Part Number		Part Number		Part Number		Part Number	
MBT-80X6.5X3SB		MBT-100X7.5X3SB		MBT-125X12.5X3SB		MBT-155X7.5X4SB	
MBT-80X7.5X3SB		MBT-100X10X3SB		MBT-130X7.5X3SB		MBT-155X10X4SB	
MBT-84X10X2.5SG		MBT-105X7.5X2SG		MBT-130X10X3SB		MBT-155X12.5X4SB	
MBT-85X7.5X2SG		MBT-105X7.5X3SB		MBT-135X7.5X3SB		MBT-160X7.5X4SB	
MBT-85X7.5X3SB		MBT-105X10X3SB		MBT-135X10X3SB		MBT-160X10X3SB	
MBT-85X10X3SB		MBT-110X7.5X3SB		MBT-135X12.5X3SB		MBT-160X10X4SB	
MBT-90X5X1.9		MBT-110X10X3SB		MBT-136X7X3SB		MBT-165X7.5X4SB	
MBT-90X5X2SG		MBT-112X6.5X3SB		MBT-140X7.5X3SB		MBT-170X5X4SB	
MBT-90X7.5X2SG		MBT-115X7.5X2G		MBT-140X10X3SB		MBT-170X7.5X4SB	
MBT-90X7.5X3SB		MBT-115X7.5X3SB		MBT-140X12.5X3SB		MBT-170X10X4SB	
MBT-90X10X3		MBT-115X8.5X3SB		MBT-145X7.5X3SB		MBT-170X15X4SB	
MBT-95X7.5X2SG		MBT-115X10X3SB		MBT-145X10X3SB		MBT-175X7.5X4SB	
MBT-95X7.5X3SB		MBT-120X7.5X3SB		MBT-145X12.5X3SB		MBT-175X12.5X4SB	
MBT-95X10X3		MBT-120X10X3SB		MBT-150X7.5X3SB		MBT-280X12.5X4SB	
MBT-100X7.5X1.5		MBT-125X7.5X3SB		MBT-150X10X3SB			

## STYLE MSMR ROD SEAL W/BACK-UP RINGS

With nitrile redundant lips and acetal header, this seal features high sealability with extrusion resistance capable of high pressure.



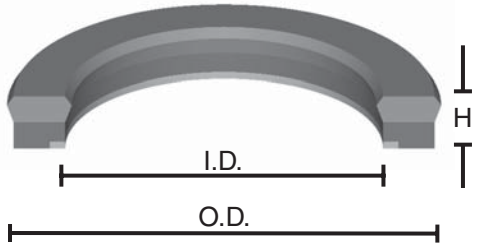
### SEAL INFORMATION

MATERIAL	NBR SEAL ACETAL HEADER AND ANTI-EXTRUSION RING
TEMPERATURE RANGE	-22° TO +212° F
PRESSURE RANGE	0 TO 10,000 PSI
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number		Part Number		Part Number		Part Number	
MSMR-30X43X20		MSMR-50X65X24.5		MSMR-63X83X27		MSMR-80X100X30	
MSMR-32X47X22.5		MSMR-50X70X30		MSMR-63X83X30		MSMR-90X110X30	
MSMR-40X50X17.3		MSMR-55X70X22.5		MSMR-65X85X29		MSMR-100X120X30	
MSMR-40X52X22.5		MSMR-55X70X25		MSMR-70X83X25		MSMR-105X125X30	
MSMR-40X55X22.5		MSMR-60X75X22.5		MSMR-70X85X22.5		MSMR-140X160X30	
MSMR-45X60X22.5		MSMR-60X75X25		MSMR-70X90X30		MSMR-160X180X28	
MSMR-50X63X20		MSMR-60X80X30		MSMR-75X95X30			
MSMR-50X65X22.5		MSMR-63X83X25		MSMR-80X95X22.5			

## STYLE MUFN-EI ROD U-SEALS W/BACK-UP RINGS

Incorporating a rubber seal lip, a rubberized fabric heel and an acetal back-up ring. This seal provides excellent sealability and high extrusion resistance.



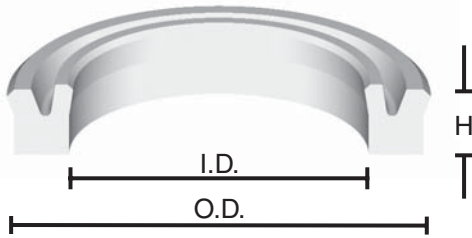
### SEAL INFORMATION

SEAL INFORMATION	
MATERIAL	NBR 80 DURO SEAL NEO-FAB HEEL ACETAL ANTI-EXTRUSION RING
TEMPERATURE RANGE	-22° TO +212° F
PRESSURE RANGE	0 TO 6,000 PSI
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number	Part Number	Part Number	Part Number
MUFN-16X24X6.5EI	MUFN-36X43X6EI	MUFN-55X70X10EI	MUFN-80X100X12EI
MUFN-20X28X6.5EI	MUFN-36X46X8EI	MUFN-55X75X14EI	MUFN-80X100X14EI
MUFN-22X30X6.5EI	MUFN-36X48X9EI	MUFN-56X66X10EI	MUFN-85X100X12EI
MUFN-22X35X9.5EI	MUFN-40X48X6EI	MUFN-56X71X12EI	MUFN-90X100X10.5EI
MUFN-25X33X6EI	MUFN-40X50X7.5EI	MUFN-56X76X14EI	MUFN-90X105X12EI
MUFN-25X33X6.5EI	MUFN-40X50X10EI	MUFN-60X70X7.5EI	MUFN-90X110X12EI
MUFN-25X33X7EI	MUFN-40X50X10.5EI	MUFN-60X70X9.5EI	MUFN-90X110X14EI
MUFN-25X35X7.5EI	MUFN-40X52X10.5EI	MUFN-60X70X10.5EI	MUFN-95X105X10EI
MUFN-25X35X8EI	MUFN-40X55X7.5EI	MUFN-60X70X12.5EI	MUFN-95X110X12EI
MUFN-25X37X10EI	MUFN-40X55X10.5EI	MUFN-60X72X9.5EI	MUFN-95X115X13.5EI
MUFN-25X38X9.5EI	MUFN-45X53X8EI	MUFN-60X75X12.5EI	MUFN-100X113X13EI
MUFN-28X38X7.5EI	MUFN-45X53X10.5EI	MUFN-60X80X14EI	MUFN-100X115X12EI
MUFN-28X38X8EI	MUFN-45X55X7.5EI	MUFN-63X75X10EI	MUFN-100X120X11.5EI
MUFN-28X40X9EI	MUFN-45X55X10.5EI	MUFN-63X78X12.5EI	MUFN-100X120X12EI
MUFN-30X38X6EI	MUFN-45X60X10EI	MUFN-63X83X14EI	MUFN-100X120X14EI
MUFN-30X40X7EI	MUFN-45X60X10.5EI	MUFN-65X75X13EI	MUFN-105X115X10.5EI
MUFN-30X40X10EI	MUFN-45X65X14EI	MUFN-65X85X14EI	MUFN-105X120X13EI
MUFN-30X45X10.5EI	MUFN-48X60X10.5EI	MUFN-70X80X12.5EI	MUFN-105X120X15EI
MUFN-32X40X8.5EI	MUFN-50X60X7.5EI	MUFN-70X82X9EI	MUFN-110X125X11.5EI
MUFN-32X42X8EI	MUFN-50X60X9.5EI	MUFN-70X84X12EI	MUFN-110X130X12EI
MUFN-32X45X9.5EI	MUFN-50X60X10EI	MUFN-70X85X12EI	MUFN-110X130X15EI
MUFN-35X43X6EI	MUFN-50X62X9.5EI	MUFN-70X90X14EI	MUFN-125X150X14EI
MUFN-35X45X6.5EI	MUFN-50X65X10.5EI	MUFN-75X85X12EI	MUFN-130X145X9EI
MUFN-35X45X7.5EI	MUFN-50X65X11EI	MUFN-80X95X10EI	MUFN-140X160X12EI
MUFN-35X45X10EI	MUFN-50X70X14EI	MUFN-80X95X12.5EI	
MUFN-35X50X10.5EI	MUFN-55X65X10.5EI	MUFN-80X96X10EI	

## STYLE MPU PISTON SEALS

Molded from high quality urethane and designed specifically for piston applications.



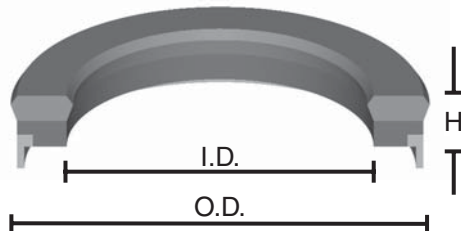
### SEAL INFORMATION

MATERIAL	URETHANE
TEMPERATURE RANGE	-65° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number		Part Number		Part Number		Part Number	
MPU-15X25X8.2		MPU-45X55X7.3		MPU-60X80X12		MPU-85X100X9	
MPU-17X25X5.7		MPU-45X60X10		MPU-61X71X6		MPU-85X100X11.4	
MPU-20X30X8		MPU-48X63X11.4		MPU-62X78X10		MPU-85X105X15	
MPU-21X37X11.8		MPU-50X60X6		MPU-65X75X6		MPU-90X100X6.8	
MPU-24X32X5.7		MPU-50X60X7		MPU-65X80X9		MPU-90X110X12	
MPU-25X35X7.3		MPU-50X65X10		MPU-65X80X11.4		MPU-100X110X8	
MPU-30X40X7.3		MPU-50X70X12		MPU-65X80X12		MPU-105X125X14.5	
MPU-30X40X10		MPU-50X70X15		MPU-67X75X8.8		MPU-115X125X15	
MPU-30X45X10		MPU-53X63X7		MPU-70X80X6		MPU-130X150X14.5	
MPU-32X50X10		MPU-53X63X7.3		MPU-70X80X6.8		MPU-140X150X13.6	
MPU-35X45X6		MPU-53X63X12		MPU-70X80X7		MPU-140X160X18.2	
MPU-35X45X7		MPU-55X70X9		MPU-70X90X12		MPU-180X200X14.5	
MPU-40X50X6		MPU-55X70X10		MPU-75X90X9			
MPU-40X50X7.3		MPU-57X73X10		MPU-80X90X6			
MPU-45X55X6		MPU-60X70X6		MPU-80X100X12			

## STYLE MUFN-PWO PISTON SEALS

Constructed of a rubber seal lip with a rubberized fabric heel, these seals feature a poly-acetal bearing ring. These seals offer excellent sealing ability and high pressure capability. The solid lip area increases the radial interference for improved low-pressure sealing. Commonly are used with our MSR retention rings.



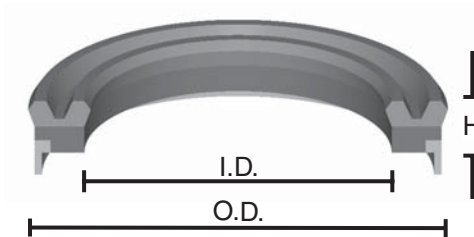
### SEAL INFORMATION

MATERIAL	NITRILE / FABRIC BASE ACETAL BEARING
TEMPERATURE RANGE	-22° TO +220° F
PRESSURE RANGE	0 TO 6,000 PSI
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number		Part Number		Part Number	
MUFN-30X50X14PWO		MUFN-60X80X14PWO		MUFN-80X100X14PWO	
MUFN-40X60X14PWO		MUFN-70X85X12PWO		MUFN-85X104.5X12.8PWO	
MUFN-50X70X14PWO		MUFN-70X90X14PWO		MUFN-85X105X14PWO	

## STYLE MUFN-UWO PISTON SEALS

Constructed of a rubber seal lip with a rubberized fabric heel, these seals feature a poly-acetal bearing ring. These seals offer excellent sealing ability and high pressure capability. Commonly are used with MSR retention rings.



### SEAL INFORMATION

MATERIAL	NITRILE / FABRIC BASE ACETAL BEARING
TEMPERATURE RANGE	-22° TO +220° F
PRESSURE RANGE	0 TO 6,000 PSI
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

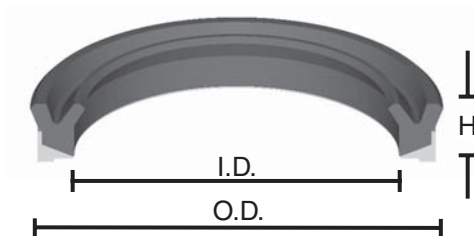
Part Number	
MUFN-26X40X9UWO	
MUFN-35X50X11UWO	
MUFN-40X50X10UWO	
MUFN-40X55X10.5UWO	

Part Number	
MUFN-48X63X9.5UWO	
MUFN-50X63X10UWO	
MUFN-60X80X14UWO	
MUFN-65X80X12UWO	

Part Number	
MUFN-70X90X14UWO	
MUFN-80X100X14UWO	

## STYLE MHP26 TWO PIECE PISTON SEALS

Molded from 70A nitrile for high sealability they employ a hard nylon anti-extrusion ring as a companion piece.



### SEAL INFORMATION

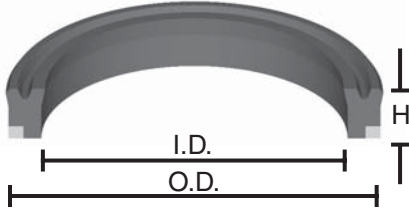
MATERIAL	NITRILE 70 SEAL NYLON BACK-UP
TEMPERATURE RANGE	-20° TO +220° F
PRESSURE RANGE	0 TO 3,000 PSI

Part Number	ID	OD	H	
MHP26-045	27	45	12.1	
MHP26-050	32	50	12.1	
MHP26-055	37	55	12.1	
MHP26-060	42	60	12.1	
MHP26-065	47	65	12.1	
MHP26-070	48	70	14.5	
MHP26-080	58	80	14.5	
MHP26-090	68	90	14.5	
MHP26-100	78	100	14.5	
MHP26-110	88	110	14.5	
MHP26-115	93	115	14.5	

Part Number	ID	OD	H	
MHP26-120	98	120	14.5	
MHP26-125	103	125	14.5	
MHP26-130	108	130	14.5	
MHP26-140	118	140	14.5	
MHP26-150	128	150	14.5	
MHP26-160	138	160	14.5	
MHP26-170	148	170	14.5	
MHP26-180	158	180	14.5	
MHP26-190	168	190	14.5	
MHP26-200	178	200	14.5	

## STYLE MHP27 U-TYPE PISTON SEALS

Molded from 70A nitrile for high sealability they employ a hard acetal anti-extrusion ring as a companion piece.



Part Number	ID	OD	H	
MHP27-040	25	40	12	
MHP27-050	35	50	12	

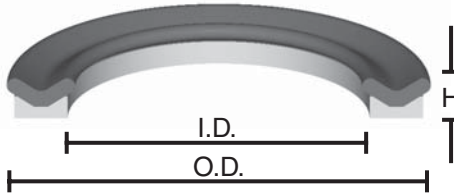
Part Number	ID	OD	H	
MHP27-070	45	70	15.5	

### SEAL INFORMATION

MATERIAL	NITRILE 70 SEAL ACETAL BACK-UP
TEMPERATURE RANGE	-20° TO +220° F
PRESSURE RANGE	0 TO 4,000 PSI

## STYLE MHP28 U-TYPE PISTON SEALS

Molded from 70A nitrile for high sealability they employ a hard nylon anti-extrusion ring as a companion piece.



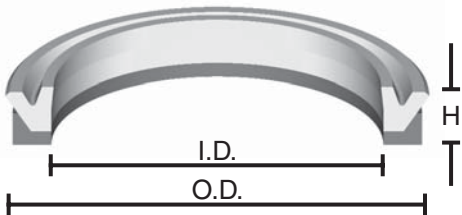
Part Number	ID	OD	H	
MHP28-070	40	70	12	
MHP28-080	50	80	12	
MHP28-085	55	85	12	

### SEAL INFORMATION

MATERIAL	NITRILE 70 SEAL NYLON BACK-UP
TEMPERATURE RANGE	-20° TO +220° F
PRESSURE RANGE	0 TO 3,000 PSI

## STYLE MHP29 U-TYPE PISTON SEALS

Molded from 70A nitrile for high sealability they employ a hard nylon anti-extrusion ring as a companion piece.



Part Number	ID	OD	H	
MHP29-060	45	60	12	
MHP29-070	55	70	12	
MHP29-085	70	85	12	

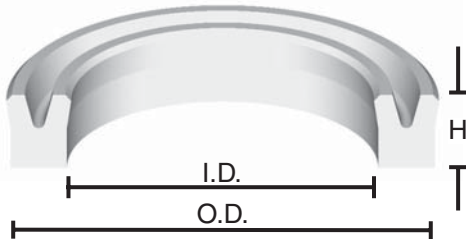
### SEAL INFORMATION

MATERIAL	URETHANE SEAL NYLON BACK-UP
TEMPERATURE RANGE	-65° TO +220° F
PRESSURE RANGE	0 TO 3,000 PSI



## STYLE MUU SYMMETRICAL U-SEALS

Utilizing tough polyurethane, these seals possess excellent wear and abrasion resistance. Symmetrical in design they can be used in rod or piston applications.



### SEAL INFORMATION

MATERIAL	URETHANE
TEMPERATURE RANGE	-65° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

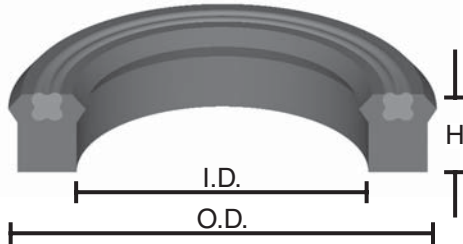
Part Number	Part Number	Part Number	Part Number
MUU-4X10X4	MUU-15X25X8	MUU-23.5X31.5X5	MUU-32X40X5.5
MUU-4X10X4.5	MUU-16X22X4	MUU-24X32X7	MUU-32X40X8
MUU-5X11X5	MUU-16X22X5	MUU-24X40X8	MUU-32X42X5.6
MUU-5X12X6	MUU-16X24X5	MUU-25X33X5	MUU-32X42X5.8
MUU-5X12X6.2	MUU-16X25X7.1	MUU-25X33X5.7	MUU-32X42X10
MUU-5X15X8	MUU-16X26X5	MUU-25X33X8	MUU-32X45X10
MUU-6X12X4	MUU-16X26X8	MUU-25X35X5	MUU-32X46X10
MUU-6X12X6	MUU-17X25X10	MUU-25X35X6	MUU-32X47X10
MUU-6X12X8	MUU-18X25X5	MUU-25X35X8	MUU-35X42X8
MUU-8X14X6	MUU-18X26X5	MUU-25X35X10	MUU-35X45X6
MUU-8X15X8	MUU-18X26X6.5	MUU-25X38X10	MUU-35X45X7
MUU-8X16X5.7	MUU-18X26X8	MUU-25X40X10	MUU-35X45X8
MUU-10X16X4	MUU-18X28X8	MUU-25X45X10	MUU-35X45X10
MUU-10X16X6	MUU-18X30X8	MUU-28X35X5	MUU-35X48X10
MUU-10X18X5.5	MUU-18X34X8	MUU-28X35.5X5	MUU-35X50X8
MUU-10X18X6	MUU-20X28X4	MUU-28X36X5	MUU-35X50X10
MUU-10X20X8	MUU-20X28X5	MUU-28X36X6.5	MUU-35X55X10
MUU-11.2X19.2X5	MUU-20X28X8	MUU-28X38X8	MUU-35.5X45X6
MUU-11.2X21.2X8	MUU-20X30X8	MUU-28X40X10	MUU-36X46X7
MUU-12X18X4.8	MUU-20X30X10	MUU-30X38X5	MUU-38X45X5
MUU-12X18X6	MUU-20X32X7.5	MUU-30X38X6	MUU-38X48X6
MUU-12X20X8	MUU-20X35X12	MUU-30X40X5	MUU-40X50X5
MUU-12X22X5	MUU-20X40X10	MUU-30X40X6	MUU-40X50X6
MUU-12X22X7	MUU-20X40X12	MUU-30X40X7	MUU-40X50X6.5
MUU-12X22X8	MUU-22X28X8	MUU-30X40X10	MUU-40X50X8
MUU-14X20X4.8	MUU-22X30X6	MUU-30X42X9	MUU-40X50X10
MUU-14X22X5	MUU-22X30X7	MUU-30X42X10	MUU-40X52X9
MUU-14X22X6	MUU-22X32X8	MUU-30X45X10	MUU-40X55X10
MUU-14X24X8	MUU-22X35X10	MUU-30X50X10	MUU-40X60X10
MUU-15X25X5	MUU-22.4X30X5	MUU-31.5X41.5X6	MUU-40X60X12

## STYLE MUU SYMMETRICAL U-SEALS

Part Number		Part Number		Part Number		Part Number	
MUU-40X60X18		MUU-56X75X6		MUU-75X95X12		MUU-120X140X14.5	
MUU-40X65X12		MUU-58X68X6		MUU-80X90X6		MUU-120X140X15	
MUU-42X50X8		MUU-60X70X6		MUU-80X90X10		MUU-125X140X8.9	
MUU-45X55X6		MUU-60X70X8		MUU-80X90X12		MUU-125X140X15	
MUU-45X55X6.5		MUU-60X70X10		MUU-80X95X8.4		MUU-125X145X15	
MUU-45X55X10		MUU-60X70X12		MUU-80X95X12		MUU-130X150X15	
MUU-45X56X7		MUU-60X75X10		MUU-80X100X10		MUU-136X150X9	
MUU-45X60X10		MUU-60X75X12		MUU-80X100X12		MUU-140X155X8.9	
MUU-45X60X11		MUU-60X80X10		MUU-84X104X12		MUU-140X160X12	
MUU-45X63X10		MUU-60X80X12		MUU-85X95X12		MUU-140X160X15	
MUU-45X65X10		MUU-60X80X18		MUU-85X100X9		MUU-145X160X9	
MUU-45X65X12		MUU-63X73X6		MUU-85X100X12		MUU-145X165X15	
MUU-48X58X10		MUU-63X75X10		MUU-85X105X12		MUU-150X165X8.9	
MUU-48X63X10		MUU-63X78X10		MUU-90X100X7		MUU-150X170X15	
MUU-50X60X6		MUU-63X78X11		MUU-90X100X8		MUU-155X180X15	
MUU-50X60X10		MUU-65X75X6		MUU-90X100X12		MUU-160X175X9	
MUU-50X62X9		MUU-65X80X11		MUU-90X105X9		MUU-160X180X14.5-E	
MUU-50X63X6		MUU-65X80X12		MUU-90X105X12		MUU-160X185X15	
MUU-50X65X10		MUU-65X85X10		MUU-90X110X12		MUU-165X180X9	
MUU-50X65X11		MUU-67X77X6		MUU-95X110X9		MUU-165X190X15	
MUU-50X70X10		MUU-70X80X5		MUU-95X115X12		MUU-170X195X15	
MUU-50X70X12		MUU-70X80X6		MUU-98X112X9		MUU-175X200X15	
MUU-52X62X12		MUU-70X80X8		MUU-100X115X9		MUU-180X205X15	
MUU-53X63X5		MUU-70X80X10		MUU-100X115X12		MUU-190X210X12	
MUU-53X63X6		MUU-70X80X12		MUU-100X120X12		MUU-190X215X15	
MUU-53X63X6.5		MUU-70X85X8.4		MUU-100X125X15		MUU-200X220X12	
MUU-53X73X12		MUU-70X85X12		MUU-105X120X15		MUU-200X225X15	
MUU-55X65X6		MUU-70X90X10		MUU-105X125X11.4		MUU-210X235X18	
MUU-55X65X10		MUU-70X90X12		MUU-105X125X15		MUU-220X240X12	
MUU-55X65X12		MUU-71X80X6		MUU-110X125X12		MUU-220X250X17	
MUU-55X70X12		MUU-75X85X6		MUU-110X125X15		MUU-230X250X12	
MUU-55X75X12		MUU-75X85X12		MUU-110X130X15		MUU-240X265X18	
MUU-56X66X6		MUU-75X90X7.5		MUU-112X125X9		MUU-250X275X18	
MUU-56X71X11		MUU-75X90X12		MUU-115X135X15			

## STYLE MUUL LOADED SYMMETRICAL U-SEALS

Molded from tough polyurethane material, these seals offer high resistance to wear and abrasion. Energized with a four-lobed ring they have greatly increased low pressure performance.



### SEAL INFORMATION

MATERIAL	URETHANE
TEMPERATURE RANGE	-65° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

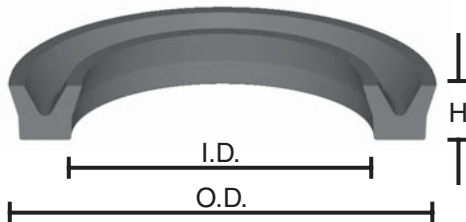
Part Number	Part Number	Part Number	Part Number
MUUL-9X19X8	MUUL-30X40X6	MUUL-45X60X9	MUUL-70X85X10
MUUL-10X20X8	MUUL-30X40X7	MUUL-45X60X10	MUUL-70X85X11.4
MUUL-12X22X7.7	MUUL-30X40X10	MUUL-45X65X12	MUUL-70X90X12
MUUL-12.5X22.5X8	MUUL-30X42X9	MUUL-50X60X6	MUUL-71X80X6
MUUL-14X22X5	MUUL-30X45X10	MUUL-50X60X7.3	MUUL-75X85X6
MUUL-14X24X8	MUUL-30X50X10	MUUL-50X60X10	MUUL-75X85X12
MUUL-15X25X8	MUUL-32X40X8	MUUL-50X65X9	MUUL-75X90X9
MUUL-16X24X5	MUUL-32X42X7.3	MUUL-50X65X10	MUUL-75X95X12
MUUL-16X26X8	MUUL-32X42X10	MUUL-50X70X12	MUUL-80X90X6
MUUL-18X26X5	MUUL-32X47X10	MUUL-53X63X6	MUUL-80X100X12
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MUUL-20X26X5	MUUL-35X45X6	MUUL-55X65X12	MUUL-85X100X12.5
MUUL-20X28X5	MUUL-35X45X10	MUUL-55X70X9	MUUL-85X105X12
MUUL-20X30X8	MUUL-35X50X10	MUUL-55X75X12	MUUL-90X100X6
MUUL-20X35X10	MUUL-35X55X10	MUUL-56X66X6	MUUL-90X105X9
MUUL-20X40X12	MUUL-36X44X6	MUUL-60X70X6	MUUL-90X110X12
MUUL-22X30X5.7	MUUL-36X46X10	MUUL-60X70X10	MUUL-95X115X12
MUUL-22X35X8	MUUL-40X48X8	MUUL-60X71X7	MUUL-100X115X9
MUUL-22X35X10	MUUL-40X50X6	MUUL-60X75X9	MUUL-100X120X12
MUUL-22X40X12	MUUL-40X50X7.3HT	MUUL-60X80X12	MUUL-105X120X9
MUUL-22.4X30X5	MUUL-40X50X10	MUUL-63X75X8.7	MUUL-105X125X12
MUUL-22.4X32.4X8	MUUL-40X53X8	MUUL-63X78X10.6HT	MUUL-105X125X15
MUUL-25X33X5	MUUL-40X55X9	MUUL-63X83X15	MUUL-110X125X9
MUUL-25X33X8	MUUL-40X55X10	MUUL-65X75X6	MUUL-110X130X12
MUUL-25X35X8	MUUL-40X60X12	MUUL-65X80X9	MUUL-110X130X14.5
MUUL-25X35X10	MUUL-42X55X7	MUUL-65X80X11.4	MUUL-110X130X15
MUUL-28X35.5X5	MUUL-45X53X8HT	MUUL-65X85X12	MUUL-112X125X9
MUUL-28X38X8	MUUL-45X55X6	MUUL-70X80X6	MUUL-115X135X12
MUUL-28X40X10	MUUL-45X55X7.3	MUUL-70X80X12	MUUL-120X140X12
MUUL-28X43X10	MUUL-45X55X10	MUUL-70X85X9	MUUL-120X140X14.5

## STYLE MUUL LOADED SYMMETRICAL U-SEALS

Part Number		Part Number		Part Number		Part Number	
MUUL-120X140X15		MUUL-135X155X15		MUUL-150X170X16		MUUL-180X200X12.5	
MUUL-125X140X9		MUUL-136X150X9		MUUL-150X180X18		MUUL-180X205X16	
MUUL-125X145X15		MUUL-140X155X9		MUUL-155X180X16		MUUL-190X210X12	
MUUL-125X150X18		MUUL-140X160X12		MUUL-160X175X9		MUUL-190X215X16	
MUUL-130X150X12		MUUL-140X160X15		MUUL-160X180X15		MUUL-200X220X12.5	
MUUL-130X150X13		MUUL-140X165X18.2		MUUL-160X185X16		MUUL-200X225X16	
MUUL-130X150X15		MUUL-145X160X9		MUUL-165X180X9.5		MUUL-200X225X18	
MUUL-130X150X16		MUUL-150X165X9		MUUL-170X190X15		MUUL-205X235X18	
MUUL-135X150X9		MUUL-150X170X15		MUUL-175X200X15		MUUL-240X265X18	

## STYLE MUSN SYMMETRICAL U-SEALS

Molded from 90A nitrile, this seal provides high sealability and temperature resistance to 250° F.



### SEAL INFORMATION

MATERIAL	NITRILE 90
TEMPERATURE RANGE	-13° TO +212° F
PRESSURE RANGE	0 TO 2,000 PSI
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

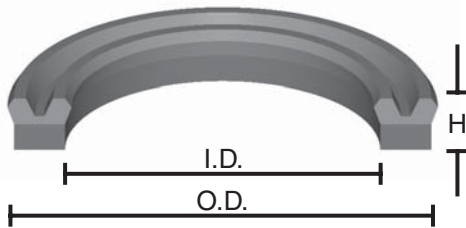
Part Number		Part Number		Part Number		Part Number	
MUSN-6.3X16.3X8		MUSN-22X30X5		MUSN-35.5X50.5X10		MUSN-55X65X6	
MUSN-7.1X17.1X8		MUSN-22.4X30X5		MUSN-36X46X6		MUSN-55X75X12	
MUSN-8X18X8		MUSN-22.4X32.4X8		MUSN-40X50X6		MUSN-56X66X6	
MUSN-9X19X8		MUSN-23.5X31.5X5		MUSN-40X53X9		MUSN-60X70X6	
MUSN-10X20X8		MUSN-25X33X5		MUSN-40X55X5		MUSN-60X71X7	
MUSN-11.2X21.2X8		MUSN-25X35X8		MUSN-40X55X10		MUSN-60X80X12	
MUSN-12.5X22.5X8		MUSN-28X35.5X5		MUSN-40X60X12		MUSN-63X73X6	
MUSN-14X24X8		MUSN-28X43X10		MUSN-45X55X6		MUSN-63X83X12	
MUSN-15X25X8		MUSN-30X40X6		MUSN-45X56X7		MUSN-64X80X12	
MUSN-16X24X5		MUSN-30X45X10		MUSN-45X60X10		MUSN-65X75X6	
MUSN-16X26X8		MUSN-31.5X41.5X6		MUSN-48X63X10		MUSN-65X85X12	
MUSN-18X26X5		MUSN-31.5X44.5X10		MUSN-50X60X6		MUSN-67X77X6	
MUSN-18X28X8		MUSN-35X45X6		MUSN-50X65X10		MUSN-67X87X12	
MUSN-20X28X5		MUSN-35X50X10		MUSN-53X63X6		MUSN-70X80X6	
MUSN-20X30X8		MUSN-35.5X45X6		MUSN-53X73X12		MUSN-70X90X12	

## STYLE MUSN SYMMETRICAL U-SEALS

Part Number		Part Number		Part Number		Part Number	
MUSN-71X80X6		MUSN-90X110X12		MUSN-112X125X9		MUSN-145X160X9	
MUSN-71X91X12		MUSN-95X110X9		MUSN-112X132X15		MUSN-150X165X9	
MUSN-75X85X6		MUSN-95X115X12		MUSN-115X130X9		MUSN-150X170X15	
MUSN-75X95X12		MUSN-98X112X9		MUSN-118X138X15		MUSN-160X175X9	
MUSN-80X90X6		MUSN-100X115X9		MUSN-120X140X15		MUSN-165X180X9	
MUSN-80X100X12		MUSN-100X120X12		MUSN-125X140X9		MUSN-180X200X12	
MUSN-85X100X9		MUSN-105X120X9		MUSN-125X145X15		MUSN-200X220X12	
MUSN-85X105X12		MUSN-105X125X15		MUSN-130X150X15		MUSN-204X224X12	
MUSN-90X100X6		MUSN-106X126X15		MUSN-136X150X9		MUSN-230X250X12	
MUSN-90X105X9		MUSN-110X130X15		MUSN-140X160X15			

## STYLE MUFN-U SYMMETRICAL U-SEALS

Incorporating a rubber U-cup shape and a rubberized fabric heel, this seal provides excellent sealability and high strength. The 'U' shape design decreases the radial interference for a lower lip friction.



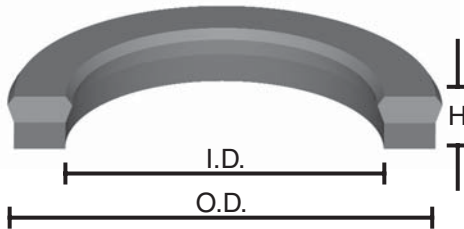
Part Number	
MUFN-56X71X9.5U	
MUFN-63X78X9.5U	

### SEAL INFORMATION

MATERIAL	NITRILE / FABRIC BASE
TEMPERATURE RANGE	-22° TO +212° F
PRESSURE RANGE	0 TO 2,900 PSI
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

## STYLE MUFN-P SYMMETRICAL U-SEALS

Incorporating a rubber seal lip and a rubberized fabric heel, this seal provides excellent sealability and high strength.

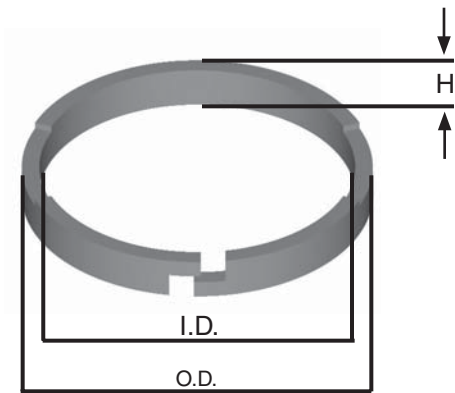


### SEAL INFORMATION

MATERIAL	NITRILE / FABRIC BASE
TEMPERATURE RANGE	-22° TO +212° F
PRESSURE RANGE	0 TO 2,900
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number	Part Number	Part Number
MUFN-12X19X6P	MUFN-32X47X10.5P	MUFN-50X70X14P
MUFN-12X20X6.3P	MUFN-35X43X6P	MUFN-50X80X25P
MUFN-14X22X6P	MUFN-35X45X7.5P	MUFN-55X65X7.5P
MUFN-15X23X5.8P	MUFN-35X50X10.5P	MUFN-56X66X7.5P
MUFN-16X24X6P	MUFN-35X50X11P	MUFN-56X76X14P
MUFN-16X26X7.5P	MUFN-36X44X6P	MUFN-60X70X7.5P
MUFN-18X24X5P	MUFN-36X44X8P	MUFN-60X72X9.5P
MUFN-18X25X6.5P	MUFN-36X46X7.5P	MUFN-60X80X14P
MUFN-18X26X6P	MUFN-36X48X9P	MUFN-63X75X9P
MUFN-18X28X5.8P	MUFN-36X51X11P	MUFN-65X77X9P
MUFN-20X26X5P	MUFN-38X50X9P	MUFN-65X80X11P
MUFN-20X28X5.8P	MUFN-40X48X6P	MUFN-70X78X6P
MUFN-20X28X6.5P	MUFN-40X48X8P	MUFN-70X80X7.5P
MUFN-20X30X8P	MUFN-40X50X7P	MUFN-70X82X9P
MUFN-22X30X5.8P	MUFN-40X50X10P	MUFN-70X85X9.5P
MUFN-22X30X6.5P	MUFN-40X50X10.5P	MUFN-70X90X14P
MUFN-22X30X7P	MUFN-40X55X11P	MUFN-80X92X9P
MUFN-22X32X7.5P	MUFN-40X60X14P	MUFN-80X100X14P
MUFN-24X32X7P	MUFN-42X50X6P	MUFN-85X100X12P
MUFN-25X32X6P	MUFN-45X55X7.5P	MUFN-90X102X9P
MUFN-25X33X6P	MUFN-45X55X10.5P	MUFN-90X105X12P
MUFN-25X35X8P	MUFN-45X60X10P	MUFN-100X115X12P
MUFN-25X38X9.5P	MUFN-45X60X11P	MUFN-100X120X14P
MUFN-28X36X6P	MUFN-48X63X11P	MUFN-110X125X11P
MUFN-30X38X6P	MUFN-50X58X8P	MUFN-120X132.7X9.5P
MUFN-30X38X7P	MUFN-50X60X7.5P	MUFN-120X140X12P
MUFN-30X40X7P	MUFN-50X65X10.5P	
MUFN-32X40X6P	MUFN-50X65X11P	

## STYLE MRT CUSHION SEALS



N = Filled Nylon  
P = Reinforced Phenolic

### SEAL INFORMATION

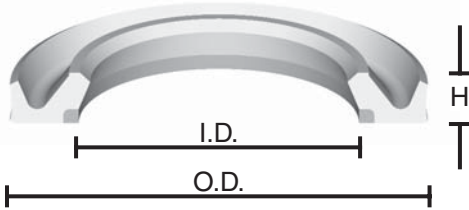
MATERIAL	FILLED NYLON OR REINFORCED PHENOLIC
TEMPERATURE RANGE	-40° TO +250° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number	ID	OD	H	Material
MRT-30A	25.80	30.00	5	P
MRT-30B	24.80	30.00	5	P
MRT-38	33.00	38.00	6	P
MRT-38A	33.00	38.00	6	P
MRT-38B	31.76	38.00	6	N
MRT-38C	31.80	38.00	6	P
MRT-40	33.65	38.85	6	N
MRT-46	41.00	46.00	6	N
MRT-65	60.00	65.00	6	N
MRT-65A	58.80	65.00	6	P
MRT-65B	61.05	64.00	6	N
MRT-70	65.00	70.00	6	N
MRT-70A	63.00	69.00	6	P
MRT-72A	64.80	70.80	6	P
MRT-75	70.00	75.00	6	N
MRT-75A	68.00	74.00	6	P
MRT-75C	68.80	75.00	6	P
MRT-80	75.00	80.00	6	N
MRT-80A	68.85	78.85	8	P
MRT-80C	73.80	80.00	6	P
MRT-85	80.00	85.00	6	N

Part Number	ID	OD	H	Material
MRT-85A	74.00	84.00	8	P
MRT-85B	78.76	85.00	6	N
MRT-89	89.00	94.00	6	P
MRT-90	85.00	90.00	6	N
MRT-90A	79.00	89.00	8	P
MRT-90C	83.80	90.00	6	P
MRT-95	90.00	95.00	6	N
MRT-95A	83.70	93.70	8	P
MRT-95B	88.80	95.0	6	N
MRT-100	95.00	100.00	6	N
MRT-100A	88.85	98.85	8	P
MRT-105	105.00	110.00	6	P
MRT-105A	93.50	103.50	8	P
MRT-107	101.80	107.00	6	P
MRT-115	109.80	115.00	6	P
MRT-117	117.00	122.00	6	P
MRT-120	114.80	120.00	6	P
MRT-120A	108.50	118.50	8	P
MRT-128A	116.00	128.00	10	P
MRT-134A	122.00	134.00	10	P

## STYLE MYR BUFFER SEALS

Molded in urethane and employing a back-up, this seal absorbs the shock of pressure spikes protecting the rod seal. The unique design relieves back pressure between the buffer and the rod seal.



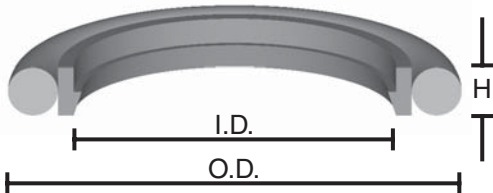
### SEAL INFORMATION

MATERIAL	URETHANE BUFFER NYLON ENERGIZER
TEMPERATURE RANGE	-30° TP +220° F
PRESSURE RANGE	0 TO 7,000 PSI
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number	Part Number	Part Number	Part Number
MYR-40X55.5X5.9	MYR-65X80.5X5.9	MYR-100X115.5X5.9	MYR-150X165.5X5.9
MYR-45X60.5X5.9	MYR-70X85.5X5.9	MYR-105X120.5X5.9	MYR-160X175.5X5.9
MYR-50X65.5X5.9	MYR-75X90.5X5.9	MYR-110X125.5X5.9	MYR-170X185.5X5.9
MYR-55X70.5X5.9	MYR-80X95.5X5.9	MYR-115X130.5X5.9	MYR-180X195.5X5.9
MYR-56X71.5X5.9	MYR-85X100.5X5.9	MYR-120X135.5X5.9	MYR-190X205.5X5.9
MYR-60X75.5X5.9	MYR-90X105.5X5.9	MYR-130X145.5X5.9	
MYR-63X78.5X5.9	MYR-95X110.5X5.9	MYR-140X155.5X5.9	

## STYLE MKR BUFFER SEALS

Molded in PTFE with a rubber energizer, this seal absorbs the shock of pressure spikes protecting the rod seal.



### SEAL INFORMATION

MATERIAL	FILLED PTFE BUFFER NITRILE 70 ENERGIZER
TEMPERATURE RANGE	-40° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number	Part Number	Part Number	Part Number
MKR-06X11X2	MKR-14X21.5X3	MKR-18X25.5X3	MKR-25X32.5X3
MKR-08X13X2	MKR-15X22.5X3	MKR-20X27.5X3	MKR-25X35.7X4
MKR-08X15.5X3	MKR-16X21X2	MKR-20X31X4	MKR-28X35.5X3
MKR-12X17X2	MKR-16X23.5X3	MKR-22X29.5X3	MKR-28X39X4
MKR-12X19.5X3	MKR-18X23X2	MKR-22X33X4	MKR-30X37.5X3

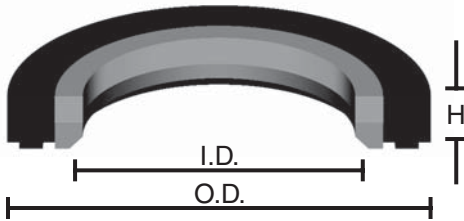


## STYLE MKR BUFFER SEALS

Part Number		Part Number		Part Number		Part Number	
MKR-30X40.7X3.9		MKR-45X57.6X4		MKR-63X78.5X5.9		MKR-110X125.5X5.9	
MKR-32X39.5X3		MKR-45X60.5X5.9		MKR-65X80.5X5.9		MKR-115X130.5X5.9	
MKR-32X43X4		MKR-50X60X4.5		MKR-70X81X4		MKR-120X135.5X5.9	
MKR-35X42.5X3		MKR-50X61X4		MKR-70X85.5X5.9		MKR-125X140.5X5.9	
MKR-35X46X4		MKR-50X62.6X4		MKR-75X90.5X5.9		MKR-130X145.5X5.9	
MKR-36X43.5X3		MKR-50X65.5X5.9		MKR-80X95.5X5.9		MKR-150X165.5X5.9	
MKR-36X47X4		MKR-55X70.5X5.9		MKR-85X100.5X5.9		MKR-160X175.5X5.9	
MKR-40X51X4		MKR-56X68.6X4		MKR-90X105.5X5.9		MKR-170X185.5X5.9	
MKR-40X52.6X4		MKR-56X71.5X5.9		MKR-95X110.5X5.9			
MKR-40X55.5X5.9		MKR-60X71X4		MKR-100X115.5X5.9			
MKR-45X56X4		MKR-60X75.5X5.9		MKR-105X120.5X5.9			

## STYLE MNBR BUFFER SEALS

Molded in PTFE with a rubber energizer and nylon anti-extrusion ring, this seal absorbs the shock of pressure spikes protecting the rod seal.



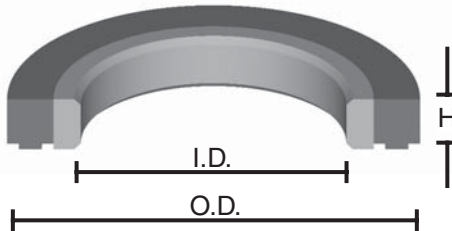
### SEAL INFORMATION

MATERIAL	NYLON / PTFE BUFFER NITRILE 70 ENERGIZER
TEMPERATURE RANGE	-40° TP +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number		Part Number		Part Number		Part Number	
MNBR-55X70.5X5.9		MNBR-75X90.5X5.9		MNBR-95X110.5X5.9		MNBR-115X130.5X5.9	
MNBR-60X75.5X5.9		MNBR-80X95.5X5.9		MNBR-100X115.5X5.9		MNBR-120X135.5X5.9	
MNBR-65X80.5X5.9		MNBR-85X100.5X5.9		MNBR-105X120.5X5.9		MNBR-125X140.5X5.9	
MNBR-70X85.5X5.9		MNBR-90X105.5X5.9		MNBR-110X125.5X5.9			

## STYLE MSBR BUFFER SEALS

Molded in Nylon with a rubber energizer this style absorbs the shock of pressure spikes and relieves back pressure by way of slots on the pressure side of the energizer.



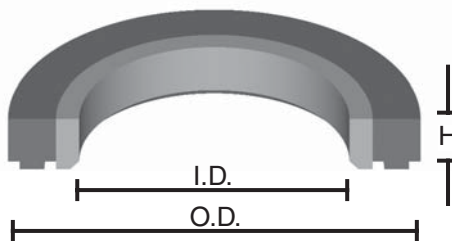
### SEAL INFORMATION

MATERIAL	NYLON BUFFER NITRILE 70 ENERGIZER
TEMPERATURE RANGE	-40° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number	Part Number	Part Number
MSBR-70X80X6.3	MSBR-85X95X6.3	MSBR-100X110X6.3
MSBR-75X85X6.3	MSBR-90X100X6.3	MSBR-110X120X6.3
MSBR-80X90X6.3	MSBR-95X105X6.3	MSBR-120X130X6.3

## STYLE MYBR BUFFER SEALS

Molded in PTFE with a rubber energizer, this seal absorbs the shock of pressure spikes protecting the rod seal. This style relieves back pressure by way of slots on the pressure side of the energizer.



### SEAL INFORMATION

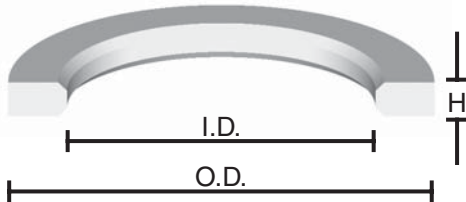
MATERIAL	FILLED PTFE BUFFER NITRILE 70 ENERGIZER
TEMPERATURE RANGE	-40° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number	Part Number	Part Number	Part Number
MYBR-40X55.5X5.9	MYBR-70X85.5X5.9	MYBR-95X110.5X5.9	MYBR-120X135.5X5.9
MYBR-45X60.5X5.9	MYBR-75X90.5X5.9	MYBR-100X115.5X5.9	MYBR-130X145.5X5.9
MYBR-55X70.5X5.9	MYBR-80X95.5X5.9	MYBR-105X120.5X5.9	
MYBR-60X75.5X5.9	MYBR-85X100.5X5.9	MYBR-110X125.5X5.9	
MYBR-65X80.5X5.9	MYBR-90X105.5X5.9	MYBR-115X130.5X5.9	

## STYLE MIR BUFFER SEALS

Molded in polyurethane this buffer seal is a simple flat, washer-like profile.

G2 = Glass / PTFE



SEAL INFORMATION	
MATERIAL	URETHANE
TEMPERATURE RANGE	-65° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

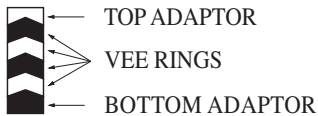
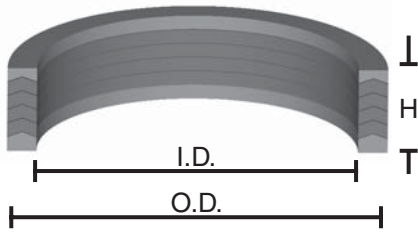
Part Number	
MIR-25X33.6X2.3	
MIR-30X41X2.9	
MIR-35X46X2.9	
MIR-35X48X3	
MIR-40X48X3	

Part Number	
MIR-50X55.5X3.4-G2	
MIR-50X58X2.9	
MIR-50X62.6X4	
MIR-56X68.6X4	
MIR-56X70X3	

Part Number	
MIR-56X73X4.8	
MIR-63X80X4.7	
MIR-65X78X4	
MIR-70X83X4	
MIR-70X83.5X3	

Part Number	
MIR-70X84X3	
MIR-75X88X4	
MIR-80X93X4	
MIR-90X104X4	
MIR-100X113X4	

## STYLE MVS VEE PACKING



**Construction Code Example: 1-5-1**

1 - 1 Top Adaptor  
 5 - 5 Vee Rings  
 1 - 1 Bottom Adaptor

SEAL INFORMATION	
MATERIAL	FABRIC / RUBBER VEE RINGS FABRIC / RUBBER OR ACETAL ADAPTORS
TEMPERATURE RANGE	-35° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number	Code	
MVS-10X20X11	1-3-1	
MVS-20X30X18.5	1-5-1	
MVS-20X31.5X17.5	1-3-1	
MVS-20X32X20	1-2-1	
MVS-20X32X22.5	1-5-1	

Part Number	Code	
MVS-22X32X18.5	1-3-1	
MVS-22X34X22.5	1-5-1	
MVS-25X35X19.6	1-4-1	
MVS-25X37X22.5	1-5-1	
MVS-25X40X11	1-1-1	

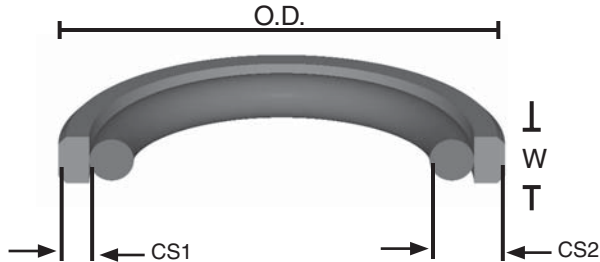
Part Number	Code	
MVS-28X40X22.5	1-5-1	
MVS-30X40X21	1-3-1	
MVS-30X42X22.5	1-5-1	
MVS-30X45X22.5	1-3-1	
MVS-32X44X22.5	1-5-1	

## STYLE MVS VEE PACKING

Part Number	Code		Part Number	Code		Part Number	Code	
MVS-35X45X17.5	1-3-1		MVS-60X80X14.6	1-1-1		MVS-90X115X27.4	1-3-1	
MVS-35X47X22.5	1-5-1		MVS-60X80X29.5DR	1-2-1		MVS-95X110X24	1-3-1	
MVS-35X50X11	1-1-1		MVS-60X80X30	1-3-1		MVS-95X120X33	1-3-1	
MVS-35X50X22.5	1-3-1		MVS-60X80X32	1-3-1		MVS-100X115X30	1-3-1	
MVS-36X48X22.5	1-5-1		MVS-60X80X37	1-5-1		MVS-100X120X21.5EI	1-1-1	
MVS-36X51X22.5	1-5-1		MVS-63X78X16	0-3-1		MVS-100X120X30DR	1-3-1	
MVS-40X50X17.3	1-3-1		MVS-63X78X22.5	1-5-1		MVS-100X120X40	1-5-1	
MVS-40X50X20	1-5-1		MVS-63X83X21.9	1-3-1		MVS-100X125X25.8	1-1-1	
MVS-40X52X22.5	1-5-1		MVS-63X83X30DR	1-2-1		MVS-105X120X25	1-3-1	
MVS-40X55X22.6	1-3-1		MVS-63X83X37	1-5-1		MVS-110X125X30	1-3-1	
MVS-40X56X17.6	1-3-1		MVS-65X80X22.5	1-3-1		MVS-110X130X30DR	1-3-1	
MVS-40X60X30	1-3-1		MVS-70X85X22.5	1-5-1		MVS-115X140X25	1-1-1	
MVS-42X54X22.5	1-5-1		MVS-70X90X30	1-3-1		MVS-120X145X46	1-5-1	
MVS-45X60X22.2	1-3-1		MVS-70X90X35	1-3-1		MVS-125X140X34	1-5-1	
MVS-45X60X22.5	1-5-1		MVS-70X90X40	1-5-1		MVS-125X145X29	1-3-1	
MVS-45X61X29	1-3-1		MVS-75X90X22.5	1-5-1		MVS-125X150X46	1-5-1	
MVS-45X65X28	1-3-1		MVS-75X95X30DR	1-2-1		MVS-130X155X33	1-3-1	
MVS-48X63X12.5	1-1-1		MVS-75X95X40	1-5-1		MVS-130X155X46	1-5-1	
MVS-50X65X16	0-3-1		MVS-80X95X22.5	1-3-1		MVS-140X155X34	1-5-1	
MVS-50X65X22.5	1-3-1		MVS-80X100X20.5	1-1-1		MVS-140X165X46	1-5-1	
MVS-50X65X24.6	1-3-1		MVS-80X100X30	1-3-1		MVS-150X170X30	1-3-1	
MVS-50X70X21.9	1-3-1		MVS-80X100X40	1-5-1		MVS-150X180X32.5	1-1-1	
MVS-50X70X30	1-3-1		MVS-80X105X27.4	1-3-1		MVS-150X180X60	1-5-1	
MVS-50X70X35	1-3-1		MVS-85X100X22.5	1-3-1		MVS-160X190X60	1-5-1	
MVS-55X70X22.5	1-3-1		MVS-85X100X25	1-3-1		MVS-170X200X32.5	1-2-1	
MVS-55X70X26.5	1-3-1		MVS-85X105X27.5	1-3-1		MVS-170X200X60	1-5-1	
MVS-55X75X26	1-3-1		MVS-85X105X40	1-5-1		MVS-180X210X60	1-5-1	
MVS-56X71X16	0-3-1		MVS-90X105X22.5	1-3-1		MVS-190X220X60	1-5-1	
MVS-56X71X22.5	1-3-1		MVS-90X110X20.5	1-1-1		MVS-200X220X40	1-5-1	
MVS-56X76X33	1-3-1		MVS-90X110X30	1-2-1		MVS-200X230X60	1-5-1	
MVS-60X75X22.5	1-5-1		MVS-90X110X40	1-5-1				

## STYLE MPS TWO PIECE PISTON SEALS

Molded from filled PTFE and machined to close tolerances, these seals feature low friction and excellent wear characteristics. Nitrile o-rings are used for energizers.



### SEAL INFORMATION

MATERIAL	PTFE PISTON SEAL NITRILE 70 ENERGIZER
TEMPERATURE RANGE	-40° TO +230° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (OD) X (W) X (CS1)

Part Number	OD	W	CS1	CS2
MPS-08X2X1-B5	8	2	1	2.78
MPS-10X2X1-B5	10	2	1	2.78
MPS-12X2X1-B5	12	2	1	2.78
MPS-14X2X1-B5	14	2	1	2.78
MPS-15X3X2-B5	15	3	2	4.62
MPS-16X2X1-B5	16	2	1	2.78
MPS-16X3X2-B5	16	3	2	4.62
MPS-17X3X2-B5	17	3	2	4.62
MPS-18X3X2-B5	18	3	2	4.62
MPS-20X3X2-B5	20	3	2	4.62
MPS-22X3X2-B5	22	3	2	4.62
MPS-25X3X2-B5	25	3	2	4.62
MPS-28X3X2-B5	28	3	2	4.62
MPS-30X2X1-B5	30	2	1	2.78
MPS-30X3X2-B5	30	3	2	4.62
MPS-32X2X1-B5	32	2	1	2.78
MPS-32X3X2	32	3	2	4.62
MPS-35X3X2-B5	35	3	2	4.62
MPS-36X3X2-B5	36	3	2	4.62
MPS-40X3X2-B5	40	3	2	4.62
MPS-40X4X2.9-B5	40	4	2.9	6.43
MPS-40X6X3.5-B5	40	6	3.5	8.83
MPS-42X4X2.9-B5	42	4	2.9	6.43
MPS-45X4.3X2	45	2	4.3	5.75
MPS-45X3.8X1.5	45	3.8	1.5	5
MPS-45X4X2.9-B5	45	4	2.9	6.43
MPS-45X4.3X2	45	4.3	2	6.52
MPS-45X4.4X1.2	45	4.4	1.2	4.7
MPS-48X4X2.9-B5	48	4	2.9	6.43
MPS-50X2.7X2.5	50	2.7	2.5	5.12

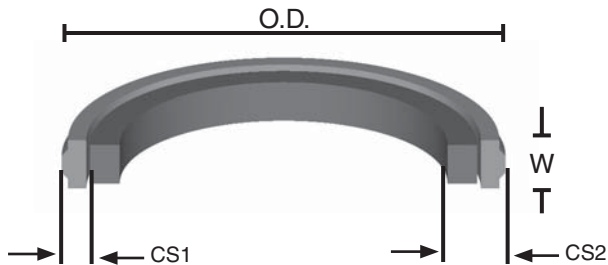
Part Number	OD	W	CS1	CS2
MPS-50X3X2-B5	50	3	2	4.62
MPS-50X3.8X1.5	50	3.8	1.5	4
MPS-50X4X2.9-B5	50	4	2.9	6.43
MPS-50X4.3X2	50	4.3	2	5.53
MPS-50X4.4X1.2	50	4.4	1.2	4.73
MPS-50X6X3.5	50	6	3.5	8.8
MPS-52X4X2.9-B5	52	4	2.9	6.43
MPS-53X4X2.5	53	4	2.5	6
MPS-55X4X2.9-B5	55	4	2.9	6.43
MPS-55X4.3X2	55	4.3	2	5.53
MPS-55X6X3.5	55	6	3.4	8.73
MPS-56X4X2.9-B5	56	4	2.9	6.43
MPS-60X3.8X2	60	3.8	2	5.5
MPS-60X4X2.9-B5	60	4	2.9	6.43
MPS-60X4.4X1.3	60	4.4	1.3	4.8
MPS-60X4.9X2.5	60	4.9	2.5	6
MPS-60X6X3.5	60	6	3.5	8.83
MPS-60X7X2.5	60	7	2.5	7.83
MPS-63X4X2.9-B5	63	4	2.9	6.43
MPS-63X5X1	63	5	1	6.33
MPS-63X6X3.5	63	6	3.5	8.88
MPS-63X7.3X2.5	63	7.3	2.5	8.2
MPS-65X4X2.9-B5	65	4	2.9	6.43
MPS-65X6X3.5	65	6	3.5	8.83
MPS-65X7.3X2.5	65	7.3	2.5	8
MPS-70X4X1.8	70	4	1.8	4.9
MPS-70X4X2.5	70	4	2.5	6
MPS-70X4X2.9	70	4	2.9	6.43
MPS-70X6X3.5	70	6	3.5	8.83
MPS-70X6.2X2.5	70	6.2	2.5	8.2

## STYLE MPS TWO PIECE PISTON SEALS

Part Number	OD	W	CS1	CS2		Part Number	OD	W	CS1	CS2	
MPS-70X7X2.5	70	7	2.5	7.83		MPS-110X7.9X5	110	7.9	5	12	
MPS-71X7.3X2.5	71	7.3	2.5	8.2		MPS-115X6X3.5	115	6	3.5	8.83	
MPS-75X4X2.9-B5	75	4	2.9	6.43		MPS-115X7X2.5	115	7	2.5	7.83	
MPS-75X6.2X2.5	75	6.2	2.5	8.2		MPS-115X7.9X5	115	7.9	5	12	
MPS-75X7.3X2.5	75	7.3	2.5	8.1		MPS-120X6X3.5	120	6	3.5	8.83	
MPS-80X4X2.9-B5	80	4	2.9	6.43		MPS-120X7.9X5	120	7.9	5	12	
MPS-80X6X3.5	80	6	3.5	8.83		MPS-125X6X3.5	125	6	3.5	8.83	
MPS-80X6.2X2.5	80	6.2	2.5	7.83		MPS-125X7X2.5	125	7	2.5	7.83	
MPS-80X7X2.5	80	7	2.5	7.83		MPS-125X7.9X5	125	7.9	5	12	
MPS-80X7.3X2.5	80	7.3	2.5	8		MPS-130X6X3.5	130	6	3.5	8.83	
MPS-80X7.9X5	80	7.9	5	12		MPS-130X7.9X5	130	7.9	5	12	
MPS-85X6X3.5	85	6	3.5	8.83		MPS-135X7.9X5	135	7.9	5	12	
MPS-85X7.9X5	85	7.9	5	12		MPS-140X7.9X5	140	7.9	5	12	
MPS-90X6X3.5	90	6	3.5	8.83		MPS-145X7.9X5	145	7.9	5	12	
MPS-90X7X2.5	90	7	2.5	7.83		MPS-150X7.9X5	150	7.9	5	12	
MPS-90X7.3X2.5	90	7.3	2.5	8		MPS-155X7.9X5	155	7.9	5	12	
MPS-90X7.9X5	90	7.9	5	12		MPS-160X7.9X5	160	7.9	5	12	
MPS-95X6X3.5	95	6	3.5	8.83		MPS-160X8.9X3.5	160	8.9	3.5	10.5	
MPS-95X7.9X5	95	7.9	5	12		MPS-165X7.9X5	165	7.9	5	12	
MPS-100X6X3.5	100	6	3.5	8.83		MPS-170X7.9X5	170	7.9	5	12	
MPS-100X7X2.5	100	7	2.5	7.83		MPS-180X7.9X5	180	7.9	5	12	
MPS-100X7.9X5	100	7.9	5	12		MPS-190X7.9X5	190	7.9	5	12	
MPS-105X6X3.5	105	6	3.5	8.83		MPS-200X7.9X5	200	7.9	5	12	
MPS-105X7.9X5	105	7.9	5	12		MPS-215X7.9X5	215	7.9	5	12	
MPS-110X6X3.5	110	6	3.5	8.83		MPS-225X7.9X5	225	7.9	5	12	
MPS-110X7X2.5	110	7	2.5	7.83		MPS-240X7.9X5	240	7.9	5	12	

## STYLE MPSU TWO PIECE PISTON SEALS

Molded from tough, wear resistant polyester with additives of 5% glass fiber and 5% PTFE these seals are totally interchangeable with style MPS seals of the same dimensions. Nitrile o-rings are used as energizers.



### SEAL INFORMATION

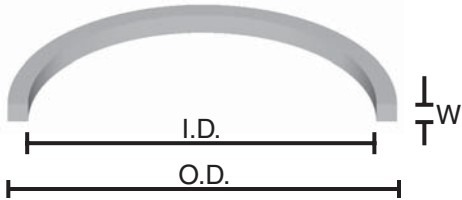
MATERIAL	GLASS/PTFE FILLED POLYESTER SEAL, RUBBER ENERGIZER
TEMPERATURE RANGE	-40 TO +230° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (OD) X (W) X (CS1)

Part Number	OD	W	CS1	CS2
MPSU-25X3X2	25	3	2	4.62
MPSU-30X3X2	30	3	2	4.62
MPSU-40X4X2.9	40	4	2.9	6.43
MPSU-40X6.3X2.5	40	6	2.5	7.1
MPSU-45X4X2.9	45	4	2.9	6.43
MPSU-50X4X2.9	50	4	2.9	6.43
MPSU-55X6X2.5	55	6	2.5	8.5
MPSU-60X4X2.9	60	4	2.9	6.43
MPSU-63X4X2.9	63	4	2.9	6.43
MPSU-63X6X2.4	63	6	2.4	4.7
MPSU-70X4X2.9	70	4	2.9	6.43
MPSU-70X6X2.8	70	6	2.8	7.9
MPSU-75X4X2.9	75	4	2.9	6.43
MPSU-80X6X3.5	80	6	3.5	8.83

Part Number	OD	W	CS1	CS2
MPSU-90X6X3.5	90	6	3.5	8.83
MPSU-90X7.3X2.5	90	7.3	2.5	5.6
MPSU-100X6X3.5	100	6	3.5	8.83
MPSU-120X10X4	120	10	4	11.6
MPSU-125X6X3.5	125	6	3.5	8.83
MPSU-130X6X3.5	130	6	3.5	8.83
MPSU-140X7.9X5	140	7.9	5	12
MPSU-140X10X4	140	10	4	11.6
MPSU-150X7.9X5	150	7.9	5	12
MPSU-150X10X4	150	10	4	11.6
MPSU-160X7.9X5	160	7.9	5	12
MPSU-170X7.9X5	170	7.9	5	12
MPSU-180X7.9X5	180	7.9	5	12
MPSU-210X7.9X5	210	7.9	5	12

## STYLE MBNP PISTON SEAL ANTI-EXTRUSION RINGS

Placed in adjacent grooves on each side of style MPS piston seals they prevent cold flow or extrusion at high pressures.



### SEAL INFORMATION

MATERIAL	NYLON
TEMPERATURE RANGE	-65° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (ID) X (CS) X (W)

Part Number	
MBNP-95X2.5X2.5	
MBNP-100X2.5X2.5	
MBNP-105X2.5X2.5	
MBNP-110X2.5X2.5	
MBNP-110X3X3	

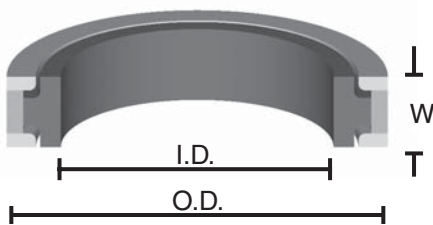
Part Number	
MBNP-115X3X3	
MBNP-120X3X3	
MBNP-125X3X3	
MBNP-130X3X3	
MBNP-135X3X3	

Part Number	
MBNP-140X3X3	
MBNP-145X3X3	
MBNP-150X3X3	
MBNP-160X3X3	
MBNP-170X3X3	

Part Number	
MBNP-180X3X3	
MBNP-190X3X3	

## STYLE MCPS FOUR PIECE PISTON SEALS

They consist of a filled PTFE cap energized by a T-shaped nitrile energizer and backed by two split nylon back-up rings. These seals offer low friction, high pressure operating conditions.



### SEAL INFORMATION

MATERIAL	PTFE PISTON SEAL NYLON BACK-UP BUNA-N ENERGIZER
TEMPERATURE RANGE	-20° TO +225° F
PRESSURE RANGE	0 TO 6,000 PSI
PART NUMBER	(Prefix) - (OD) X (ID) X (W)

Part Number	
MCPS-50X36X8.5	
MCPS-50X40X7.5	
MCPS-60X46X8.5	
MCPS-65X50X10.5	
MCPS-65X51X8.5	
MCPS-63X53X7.5	
MCPS-70X55X10.5	

Part Number	
MCPS-70X55X12	
MCPS-70X60X7.5	
MCPS-75X60X10.5	
MCPS-75X63X8.6	
MCPS-80X65X10.5	
MCPS-80X65X11.5	
MCPS-85X70X10.5	

Part Number	
MCPS-90X75X10.5	
MCPS-90X75X11.5	
MCPS-90X75X12.5	
MCPS-95X80X10.5	
MCPS-100X85X12	
MCPS-105X90X12	
MCPS-110X95X12	

Part Number	
MCPS-115X100X12	
MCPS-120X100X15.5	
MCPS-125X102X15.5	
MCPS-120X105X12	
MCPS-125X105X15.5	
MCPS-130X107X15.5	
MCPS-130X110X15.5	




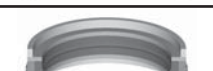


## STYLE MCPS FOUR PIECE PISTON SEALS

Part Number		Part Number		Part Number		Part Number	
MCPS-135X112X15.5		MCPS-150X130X18.5		MCPS-180X157X15.5		MCPS-250X222X17	
MCPS-140X117X15.5		MCPS-160X137X15.5		MCPS-180X160X15.5		MCPS-260X232X17	
MCPS-140X120X15.5		MCPS-160X140X15.5		MCPS-185X162X15.5		MCPS-280X252X17	
MCPS-140X120X18.5		MCPS-160X140X18.5		MCPS-190X167X15.5		MCPS-300X272X17	
MCPS-145X122X15.5		MCPS-165X142X15.5		MCPS-200X177X15.5BR			
MCPS-150X127X15.5		MCPS-170X147X15.5		MCPS-225X202X15.5			

## REPLACEMENT SPECIFIC PISTON SEALS FOR CATERPILLAR EQUIPMENT®

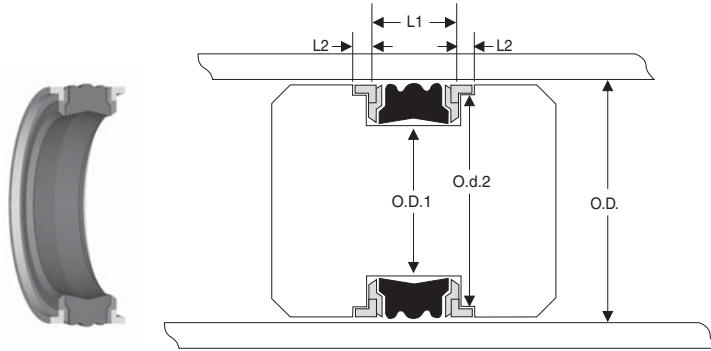
These seals are specials for certain Caterpillar® cylinders. **NOTE:** Caterpillar® part numbers are used as a reference only. We do not imply that these parts are original equipment parts.

PISTON SEAL TYPE	MATERIAL	TEMPERATURE RANGE	PRESSURE RANGE	
2 PIECE PISTON SEAL	PTFE PISTON SEAL NITRILE 70 ENERGIZER	-40° TO 220° F	0 TO 5,000 PSI	
2 PIECE STEP CUT PISTON SEAL	NYLON SEAL NITRILE 70 ENERGIZER	-40° TO 220° F	0 TO 5,000 PSI	
4 PIECE PISTON SEAL	PTFE PISTON SEAL NYLON BACK-UP BUNA-N ENERGIZER	-20° TO +225° F	0 TO 6,000 PSI	
5 PIECE PISTON SEAL	NBR 70 / FABRIC SEAL PTFE BACK-UP NYLON BEARING	-20° TO 190° F	0 TO 5,000 PSI	

Part Number	Application	Bore		Part Number	Application	Bore	
CTC-1200890	2-Piece Piston Seal	75		CTC-9X3610	2-Piece Step Cut Piston Seal	180	
CTC-9X7298	2-Piece Step Cut Piston Seal	100		CTC-0996998	4-Piece Piston Seal	80	
CTC-9X7301	2-Piece Step Cut Piston Seal	110		CTC-0996973	4-Piece Piston Seal	90	
CTC-9X3592	2-Piece Step Cut Piston Seal	120		CTC-5I5928	4-Piece Piston Seal	100	
CTC-9X3595	2-Piece Step Cut Piston Seal	130		CTC-0996922	4-Piece Piston Seal	110	
CTC-9X3598	2-Piece Step Cut Piston Seal	140		CTC-A04601713	4-Piece Piston Seal	110	
CTC-9X3601	2-Piece Step Cut Piston Seal	150		CTC-A04601719	4-Piece Piston Seal	160	
CTC-9X3604	2-Piece Step Cut Piston Seal	160		CTC-A04601215	5-Piece Piston Seal	110	
CTC-9X3607	2-Piece Step Cut Piston Seal	170		CTC-A04601216	5-Piece Piston Seal	120	

## STYLE MPSA FIVE PIECE PISTON SEALS

Designed to fit on one or two piece pistons, this piston seal employs a nitrile seal for high sealability, nylon split back-ups for extrusion resistance, and two split bearing rings. No further support bearings required.



### SEAL INFORMATION

MATERIAL	NBR 70 SEAL NYLON BACK-UP & BEARING
TEMPERATURE RANGE	-22° TO +212° F
PRESSURE RANGE	0 TO 6,000 PSI

Part Number	OD	OD1	Od2	L1	L2	Part Number	OD	OD1	Od2	L1	L2
MPSA-020	20	11	17	13.5	2.1	MPSA-060B	60	48	56	20.5	4.2
MPSA-022	22	13	19	13.5	2.1	MPSA-063E	63	47	58.4	18.4	6.35
MPSA-025A	25	15	21.4	16.4	6.35	MPSA-063	63	47	58.4	19.4	6.35
MPSA-025	25	15	22	12.5	4	MPSA-063A	63	51	59	20.15	4.2
MPSA-025B	25	16	22	13.5	2.1	MPSA-063B	63	53	60	12.5	4
MPSA-028	28	19	25	13.5	2.1	MPSA-065A	65	49	61	20.5	3.1
MPSA-030A	30	21	27	13.5	2.1	MPSA-065	65	50	60.4	18.4	6.35
MPSA-032A	32	22	27.4	12.5	4	MPSA-070	70	50	64.2	22.4	6.35
MPSA-032	32	22	27.4	16.3	6.35	MPSA-070B	70	54	66	20.5	3.1
MPSA-032C	32	22	28	15.5	2.6	MPSA-070A	70	58	66	20.15	4.2
MPSA-032D	32	24	28	15.5	3.2	MPSA-075	75	55	69.2	22.4	6.35
MPSA-032B	32	24	29	10	4	MPSA-075A	75	59	71	20.5	3.1
MPSA-035A	35	25	31	15.5	2.6	MPSA-080	80	60	74.2	22.4	6.35
MPSA-035	35	25	31.4	16.4	6.35	MPSA-080D	80	60	75	25	6.35
MPSA-040D	40	26	36	15.5	2.6	MPSA-080C	80	62	76	22.5	3.6
MPSA-040E	40	30	35.4	16.4	6.35	MPSA-080A	80	66	76	22.5	5.2
MPSA-040F	40	30	37	12.5	4	MPSA-085	85	65	79.2	22.4	6.35
MPSA-040G	40	32	36	15.5	3.2	MPSA-090	90	70	84.2	22.4	6.35
MPSA-042	42	28	38	15.5	2.6	MPSA-090C	90	72	86	22.5	3.6
MPSA-045A	45	29	40.4	18.4	6.35	MPSA-090B	90	76	86	22.5	5.2
MPSA-045B	45	31	41	15.5	2.6	MPSA-092	92	82	88	12.5	6.35
MPSA-045	45	35	40.4	16.4	6.35	MPSA-095	95	75	89.15	22.4	6.35
MPSA-050	50	34	45.4	18.4	6.35	MPSA-100	100	75	93.2	22.4	6.35
MPSA-050D	50	34	46	20.5	3.1	MPSA-100B	100	80	94.15	25	6.3
MPSA-050A	50	38	46	20.5	4.2	MPSA-100E	100	82	96	22.5	3.6
MPSA-050B	50	40	47	12.5	4	MPSA-100A	100	85	96	19.5	5
MPSA-055	55	39	50.4	18.4	6.4	MPSA-100F	100	86	96	22.5	5.2
MPSA-055B	55	39	51	20.5	3.1	MPSA-105	105	80	98.1	22.5	6.35
MPSA-060	60	44	55.4	18.4	6.35	MPSA-105A	105	92.5	98.8	14.3	6.35
MPSA-060C	60	44	56	20.5	3.1	MPSA-110A	110	85	103	25	6.35

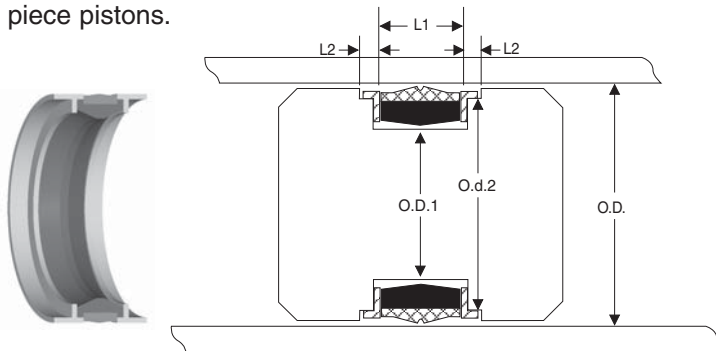
## STYLE MPSA FIVE PIECE PISTON SEALS

Part Number	OD	OD1	Od2	L1	L2
MPSA-110	110	85	103.1	22.4	6.35
MPSA-110D	110	92	106	22.5	3.6
MPSA-110B	110	96	106	22.5	5.2
MPSA-115	115	90	108.1	22.4	6.35
MPSA-115B	115	97	111	22.5	3.6
MPSA-120	120	95	113.1	22.4	6.35
MPSA-120B	120	106	116	22.5	5.2
MPSA-125	125	100	118	25.4	6.35
MPSA-125G	125	100	116.8	45.0	12.7
MPSA-125E	125	103	121	26.5	5.1
MPSA-125A	125	105	120	24.5	6.35
MPSA-125F	125	108	121	26.5	7.2
MPSA-130	130	105	122.6	25.4	9.52
MPSA-135	135	110	128.1	25.4	6.35
MPSA-140A	140	115	131.7	45	12.7
MPSA-140	140	115	132.6	25.4	9.52
MPSA-140B	140	115	133	25.4	6.35
MPSA-140E	140	118	136	26.5	5.1

Part Number	OD	OD1	Od2	L1	L2
MPSA-140C	140	120	135	25	6.35
MPSA-140F	140	123	136	26.5	7.2
MPSA-150A	150	125	141.7	45	12.7
MPSA-150	150	125	142.6	25.4	9.52
MPSA-150D	150	125	143	25.5	6.35
MPSA-160A	160	130	153	25.4	6.35
MPSA-160	160	135	152.6	25.4	9.5
MPSA-160H	160	135	154	32	10
MPSA-160B	160	140	155	25	6.35
MPSA-170A	170	140	163	25	6.35
MPSA-170	170	145	161.7	25.3	12.7
MPSA-175B	175	150	166.7	25.4	12.7
MPSA-180A	180	150	173	35.4	6.35
MPSA-180	180	155	171.7	25.4	12.7
MPSA-190	190	165	181.7	25.4	12.7
MPSA-200	200	175	191.6	25.4	12.7
MPSA-200B	200	175	191.6	45	12.7
MPSA-220A	220	195	211.6	25.7	12.7

## STYLE MPSB THREE PIECE PISTON SEALS

Incorporating a nitrile / fabric seal with two split bearing this assembly affords low friction and high strength for one or two piece pistons.



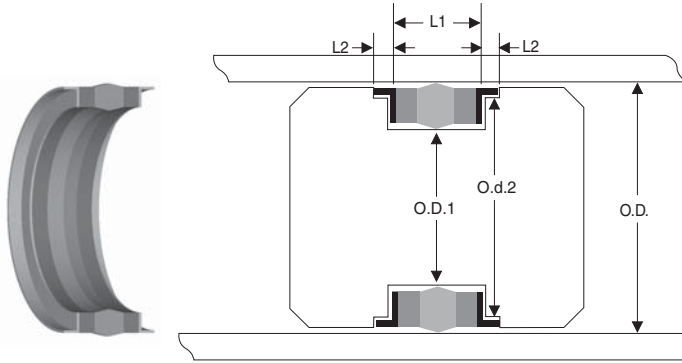
SEAL INFORMATION	
MATERIAL	NBR 70 / FABRIC SEAL OD NBR 70 SEAL ID ACETAL BEARING
TEMPERATURE RANGE	-22° TO +212° F
PRESSURE RANGE	0 TO 5,000 PSI

Part Number	OD	OD1	Od2	L1	L2
MPSB-035	35	24	31	15.5	3.2
MPSB-045	45	34	41	15.5	3.2
MPSB-050A	50	38	46	20.5	4.2
MPSB-060B	60	48	56	20.5	4.2
MPSB-070	70	58	66	20.5	4.2
MPSB-080	80	66	76	22.5	5.2
MPSB-090B	90	76	86	22.5	5.2
MPSB-100F	100	86	96	22.5	5.2

Part Number	OD	OD1	Od2	L1	L2
MPSB-110B	110	96	106	22.5	5.2
MPSB-120B	120	106	116	22.5	5.2
MPSB-125F	125	108	121	26.5	7.2
MPSB-150	150	133	146	26.5	7.2
MPSB-160	160	143	156	26.5	7.2
MPSB-180	180	163	176	26.5	7.2
MPSB-200	200	180	196	31.5	9.2

## STYLE MPSA-58 THREE PIECE PISTON SEALS

With nitrile seal bonded on each side by fabric material it also incorporates 2 full depth "L" bearings to form a very strong assembly. This seal requires a two piece piston.



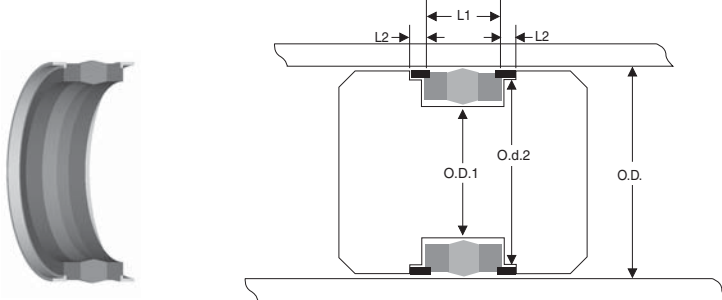
SEAL INFORMATION	
MATERIAL	NBR 70 / FABRIC SEAL ACETAL BEARING / BACK-UP
TEMPERATURE RANGE	-22° TO +212° F
PRESSURE RANGE	0 TO 5,000 PSI

Part Number	OD	OD1	Od2	L1	L2
MPSA-58-040	40	25	34.8	24	6
MPSA-58-050A	50	35	44.8	24	6
MPSA-58-060	60	40	53.8	31	7
MPSA-58-063B	63	48	57.8	24	6
MPSA-58-070	70	50	63.8	31	7
MPSA-58-080A	80	60	73.8	31	7
MPSA-58-090A	90	70	83.8	31	7

Part Number	OD	OD1	Od2	L1	L2
MPSA-58-100	100	80	93.8	31	7
MPSA-58-110	110	90	103.8	31	7
MPSA-58-120	120	100	113.8	31	7
MPSA-58-125A	125	100	118.8	38	9.5
MPDA-58-125C	125	100	116.8	45	12.7
MPSA-58-140B	140	120	133.8	31	7
MPSA-58-200	200	170	193	35.4	6.35

## STYLE MPSA-59 THREE PIECE PISTON SEALS

This style is designed for two piece pistons. The seal is a molded Nitrile rubber element with bonded rubberized fabric reinforcements and two anti-extrusion polyacetal bearings.



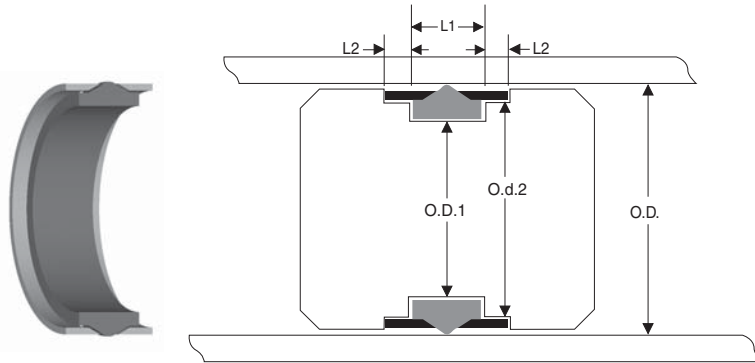
SEAL INFORMATION	
MATERIAL	NBR 70 / FABRIC SEAL ACETAL BEARING / BACK-UP
TEMPERATURE RANGE	-22° TO +212° F
PRESSURE RANGE	0 TO 5,000 PSI

Part Number	OD	OD1	Od2	L1	L2
MPSA-59-040	40	24	35.4	18	6.35
MPSA-59-050	50	34	45.4	18	6.35
MPSA-59-060	60	44	55.4	18	6.35
MPSA-59-063	63	47	58.4	19	6.35
MPSA-59-065	65	50	60.4	18	6.35
MPSA-59-070	70	50	64.15	22	6.35
MPSA-59-075	75	55	69.15	22	6.35
MPSA-59-080	80	60	74.15	22	6.35
MPSA-59-080A	80	60	74.15	31	6.35

Part Number	OD	OD1	Od2	L1	L2
MPSA-59-085	85	65	79.15	22	6.35
MPSA-59-090	90	70	84.15	22	6.35
MPSA-59-100A	100	75	93.15	22	6.35
MPSA-59-100	100	80	94.15	25	6.35
MPSA-59-110	110	90	104.1	25	6.35
MPSA-59-120	120	100	114.1	25	6.35
MPSA-59-125	125	100	118.1	25	6.35
MPSA-59-130	130	105	123	25	6.35

## STYLE MPSA-65 FIVE PIECE PISTON SEALS

Consisting of a nitrile seal and two split acetal bearing, this assembly is used in light duty applications and can be installed on one or two piece pistons.



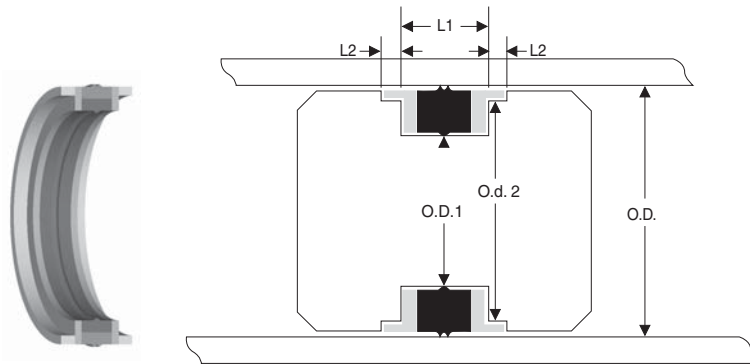
SEAL INFORMATION	
MATERIAL	NITRILE SEAL ACETAL BEARING
TEMPERATURE RANGE	-22° TO +212° F
PRESSURE RANGE	0 TO 3,000 PSI

Part Number	OD	OD1	Od2	L1	L2
MPSA-65-025	25	17.5	21.3	8.5	3.25
MPSA-65-040	40	30	35.5	11	4
MPSA-65-050	50	40	45.5	11	4
MPSA-65-063	63	53	58.5	11	4

Part Number	OD	OD1	Od2	L1	L2
MPSA-65-080	80	70	75.5	11	4
MPSA-65-100	100	87	93.8	14	6
MPSA-65-125	125	112	118.8	14	6

## STYLE MNCF FIVE PIECE PISTON SEALS

For two piece pistons, this seal incorporates a nitrile / fabric seal with two split bearings.



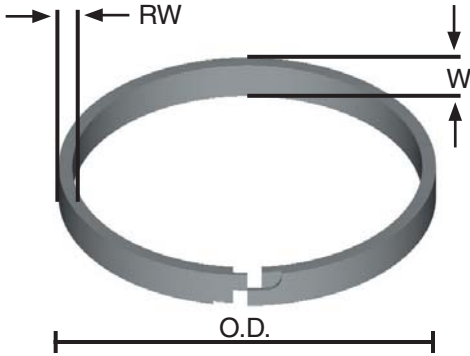
SEAL INFORMATION	
MATERIAL	NITRILE SEAL ACETAL BEARING
TEMPERATURE RANGE	-22° TO +190° F
PRESSURE RANGE	0 TO 5,000 PSI

Part Number	OD	OD1	Od2	L1	L2
MNCF-070	70	56	61.5	22	7.95
MNCF-080	80	66	71.5	22	7.95
MNCF-090	90	76	81.5	22	7.95

Part Number	OD	OD1	Od2	L1	L2
MNCF-100	100	86	91.5	22	9.95
MNCF-110	110	96	101.5	22	9.95
MNCF-120	120	106	111.5	22	9.95

## STYLE MSPR PISTON RING

Machined from cast iron, most employ an over-lapped joint which allows the passing of ports.

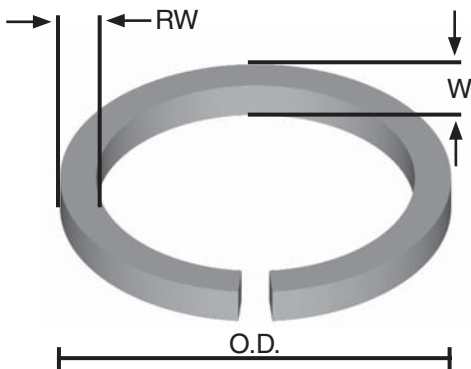


### SEAL INFORMATION

MATERIAL	CAST IRON
PART NUMBER	(Prefix) - (OD) X (W) X (RW)

Part Number		Part Number		Part Number		Part Number	
MSPR-40X2X2		MSPR-55X3X2.5		MSPR-105X4X4.4		MSPR-135X4X5.4	
MSPR-45X2.5X2.2		MSPR-90X4X3.5		MSPR-115X4X4.7		MSPR-140X4X5.7	
MSPR-50X2X2		MSPR-95X4X4		MSPR-120X4X5		MSPR-160X4X6.55	
MSPR-50X2.5X2.3		MSPR-100X4X4.7		MSPR-130X4X5.4		MSPR-185X4X7.55	

## STYLE MBR PISTON RING



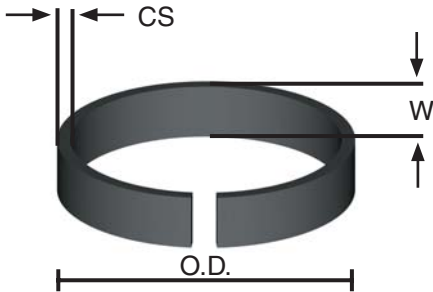
### SEAL INFORMATION

MATERIAL	BRONZE
PART NUMBER	(Prefix) - (OD) X (W) X (RW)

Part Number	
MBR-70X6X6	
MBR-80X6X6	

## STYLE MWR WEAR RINGS

This wear ring is molded from glass reinforced nylon. This style is highly recommended because of their wear rate and non-scoring properties and their ability to ingest metal chips.



### SEAL INFORMATION

MATERIAL	NYLON
TEMPERATURE RANGE	-40° TO +250° F
COMPRESSIVE STRENGTH	35,000 PSI
TENSILE STRENGTH	27,000 PSI
PART NUMBER	(Prefix) - (OD) X (W) X (CS)

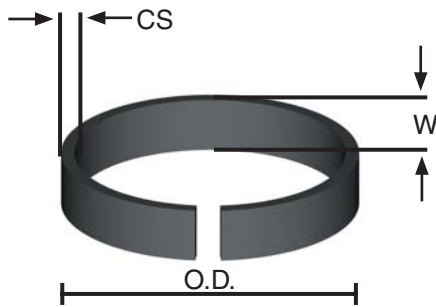
Part Number	Part Number	Part Number	Part Number
MWR-28X10X1.5	MWR-63X5.6X2.5	MWR-85X25.4X3.17	MWR-115X15X3
MWR-35X8X2	MWR-63X12X2-SC	MWR-86X25X3	MWR-115X15X4.5
MWR-35X15X1.5	MWR-63X20X2.5	MWR-86X50X3	MWR-120X5.9X3-SC
MWR-40X12X2	MWR-65X10X2	MWR-90X12.5X3	MWR-120X7.9X2.5
MWR-45X14.5X3	MWR-65X15.5X3	MWR-90X12.5X4.5	MWR-120X15X4.5
MWR-45X20X2	MWR-69X30X3	MWR-90X15X3.15	MWR-120X22.4X3-SC
MWR-48X22.5X1.5	MWR-70X10X2	MWR-90X25X3	MWR-120X30X3
MWR-50X5X3	MWR-70X10X3.12	MWR-95X12.5X4.5	MWR-120X35X3-SC
MWR-50X9.5X2	MWR-70X15.5X3	MWR-99X13.9X3.6-SL	MWR-125X7.9X2.5
MWR-50X9.5X2.5	MWR-70X19.5X3	MWR-100X5.9X3-SC	MWR-125X15X3
MWR-50X10X2	MWR-70X20X2.5	MWR-100X15X3.15	MWR-125X20X3
MWR-50X14.5X2	MWR-71X9.7X2.5	MWR-100X22.4X3-SC	MWR-130X7.9X2.5
MWR-50X14.8X2.5	MWR-75X5.4X2.5-SC	MWR-100X25X3	MWR-130X12X3
MWR-50X19X3.17	MWR-75X9.5X3.15	MWR-105X6X2.5-SC	MWR-130X15X5
MWR-50X20X2.5	MWR-75X10X2	MWR-105X12.5X4.5	MWR-130X30X3.5
MWR-51X9.6X3	MWR-75X12.7X3	MWR-105X24.5X3	MWR-130X40X3.5-SC
MWR-53X24.5X1.5	MWR-75X15X2	MWR-110X5.9X3-SC	MWR-135X7.9X2.5
MWR-55X7.9X2.5	MWR-75X25X3.15	MWR-110X7.9X2.5	MWR-135X14.8X3.5
MWR-55X10.5X3	MWR-80X6X3.12	MWR-110X12.5X2.75	MWR-135X15X5
MWR-55X15.5X3	MWR-80X10X2	MWR-110X12.5X4.5	MWR-140X7.9X2.5
MWR-55X20X2.5	MWR-80X10X3.12	MWR-110X15X3.1	MWR-140X9.5X2.5
MWR-56X12.7X3	MWR-80X13X2.5	MWR-110X22.4X3-SC	MWR-140X17.5X6-SC
MWR-60X12.7X3.17	MWR-80X15.5X3	MWR-110X25X3	MWR-140X20X3.12
MWR-60X14.5X2.5	MWR-80X19.5X3	MWR-110X30X3-SC	MWR-140X35X3.5
MWR-60X19X3.17	MWR-80X20X2.5	MWR-115X5.8X4-SC	MWR-140X45X3.5-SC
MWR-60X20X2.5	MWR-80X25X3	MWR-115X7.9X2.5	MWR-145X9.5X2.5
MWR-62X10X2	MWR-85X9.5X2.5	MWR-115X8X3.1-SC	MWR-145X14.8X3.5
MWR-63X5X3.1	MWR-85X25X2.5	MWR-115X9.5X2.5	MWR-150X14.8X3.5

## STYLE MWR WEAR RINGS

Part Number		Part Number		Part Number		Part Number	
MWR-150X17.5X6		MWR-170X50X4-SC		MWR-200X22X4		MWR-225X50X4	
MWR-150X35X3.5		MWR-180X20X3		MWR-200X22.5X6		MWR-250X27.5X6	
MWR-150X45X3.5-SC		MWR-180X22.5X4		MWR-200X45X4		MWR-250X55X4	
MWR-160X20X3.12		MWR-180X45X4		MWR-200X60X3.25-SC		MWR-260X27.5X6	
MWR-160X20X3.5		MWR-180X55X4-SC		MWR-220X60X3.25-SC		MWR-280X60X4	
MWR-160X20X6		MWR-185X22.5X6		MWR-224X45X4		MWR-300X30X6	
MWR-160X40X3.5		MWR-190X45X4		MWR-225X25X4			
MWR-160X45X3.5-SC		MWR-190X55X4-SC		MWR-225X25X6			

## STYLE MWRB WEAR RINGS

Fabricated from fine woven fabric and phenolic resins, this wear ring is strong yet light weight with an excellent wear rate.



### SEAL INFORMATION

SEAL INFORMATION	
MATERIAL	PHENOLIC
TEMPERATURE RANGE	-40° TO +250° F
COMPRESSIVE STRENGTH	34,000 PSI
TENSILE STRENGTH	10,600 PSI
PART NUMBER	(Prefix) - (OD) X (W) X (CS)

Part Number		Part Number		Part Number	
MWRB-35X16X1.5-SC		MWRB-50X12.6X3.3		MWRB-65X19.7X2.5	
MWRB-36X9.5X2-SC		MWRB-50X14.5X2		MWRB-69X31.5X3-SC	
MWRB-36X20X2		MWRB-50X15X2.5		MWRB-70X6.8X2.5-SC	
MWRB-39X25X2		MWRB-50X20X2.5		MWRB-70X9.5X2.5-SC	
MWRB-40X5.5X2.5-SC		MWRB-51X22.5X3		MWRB-70X10X2-SC	
MWRB-40X9.5X2.5		MWRB-55X15X2.5		MWRB-70X12X2.5	
MWRB-44X40X2		MWRB-55X15.5X3		MWRB-70X12.4X3	
MWRB-45X14.5X3		MWRB-56X25X3		MWRB-70X15X3-SC	
MWRB-45X20X2.5		MWRB-58X30X4-SC		MWRB-70X15.5X3	
MWRB-46X20X3		MWRB-60X10X2.5		MWRB-70X19.5X3	
MWRB-49X25X2		MWRB-60X14.5X2.5-SC		MWRB-70X20X2.5	
MWRB-50X5X2.5		MWRB-60X20X2.5		MWRB-70X30X2.5	
MWRB-50X6.8X2.5		MWRB-62X25X3		MWRB-75X10X2.5	
MWRB-50X9X2.5		MWRB-63X9.7X2.5		MWRB-75X19.6X3-SC	
MWRB-50X10X2.5		MWRB-65X15.5X3		MWRB-75X20X2.5-SC	



## STYLE MWRB WEAR RINGS

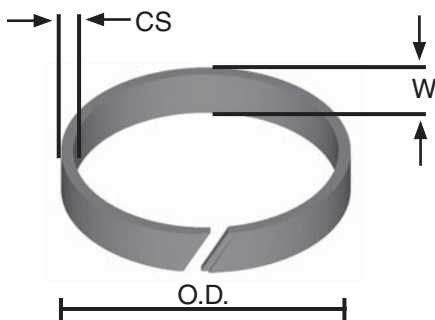
Part Number		Part Number		Part Number	
MWRB-75X30X2.5		MWRB-105X14.8X2.5		MWRB-135X7.9X2.5	
MWRB-76X31.5X3.12-SC		MWRB-105X24.5X3		MWRB-135X9.5X2.5	
MWRB-76X35X3-SC		MWRB-110X5.9X4-SC		MWRB-135X9.8X3.5-SC	
MWRB-80X10X2.5		MWRB-110X6X2.5		MWRB-135X14.8X2.5	
MWRB-80X15.5X3		MWRB-110X7.9X2.5		MWRB-135X14.8X3.5	
MWRB-80X15.7X3-SC		MWRB-110X9.5X2.5		MWRB-135X15X5	
MWRB-80X19.5X3		MWRB-110X12.5X3		MWRB-140X7.9X2.5	
MWRB-80X20X2.5		MWRB-110X14.8X2.5		MWRB-140X9.5X2.5	
MWRB-80X20X2.5-SC		MWRB-110X15X4		MWRB-140X9.5X2.5-SC	
MWRB-80X24.6X3-SC		MWRB-110X25X3		MWRB-140X12X3-SC	
MWRB-85X20X3-SC		MWRB-110X30X3		MWRB-140X14.8X2.5	
MWRB-85X25X2.5-SC		MWRB-113X20X4-SC		MWRB-140X14.8X3.5	
MWRB-85X25X3-SC		MWRB-115X7.9X2.5		MWRB-140X17.5X6	
MWRB-85X35X2.5		MWRB-115X9.5X2.5		MWRB-140X20X3.5	
MWRB-86X40X3		MWRB-115X14.8X2.5		MWRB-140X20X4	
MWRB-90X5X2.5		MWRB-115X15X4.5		MWRB-140X30X3-SC	
MWRB-90X10X3		MWRB-120X5.9X4-SC		MWRB-140X35X3.5	
MWRB-90X12.5X3		MWRB-120X7.9X2.5		MWRB-140X40X3.5	
MWRB-90X12.5X4.5		MWRB-120X9.5X2.5		MWRB-140X50X3-SC	
MWRB-90X24.6X3-SC		MWRB-120X12.4X3		MWRB-145X7.9X2.5	
MWRB-90X25X3		MWRB-120X14.8X2.5		MWRB-145X9.5X2.5	
MWRB-95X6X2.5		MWRB-120X14.8X3		MWRB-145X9.5X3.5	
MWRB-95X7.9X2.5		MWRB-120X14.8X3.5		MWRB-145X14.8X2.5	
MWRB-95X9.5X2.5		MWRB-120X15X4.5		MWRB-145X14.8X3.5	
MWRB-95X12.5X4.5		MWRB-120X25X3		MWRB-150X7.8X4-SC	
MWRB-95X14.8X2.5		MWRB-120X30X3		MWRB-150X7.9X2.5	
MWRB-100X5.9X4-SC		MWRB-120X30X3.5		MWRB-150X9.5X2.5	
MWRB-100X6X2.5-SC		MWRB-125X7.9X2.5		MWRB-150X14.8X2.5	
MWRB-100X7.9X2.5		MWRB-125X9.5X2.5		MWRB-150X14.8X3.5	
MWRB-100X9.5X2.5		MWRB-125X9.9X3-SC		MWRB-150X20X3-SC	
MWRB-100X12.5X3		MWRB-125X14.8X2.5		MWRB-150X20X3.5-SC	
MWRB-100X12.5X4.5-SC		MWRB-125X14.8X3		MWRB-150X35X3.5	
MWRB-100X14.8X2.5		MWRB-125X14.8X3.5		MWRB-150X40X3.5	
MWRB-100X14.8X3		MWRB-125X16.8X3.5		MWRB-150X42X3-SC	
MWRB-100X25X3		MWRB-130X7.9X2.5		MWRB-155X7.9X2.5	
MWRB-100X25X3-SC		MWRB-130X9.5X2.5		MWRB-155X9.5X2.5	
MWRB-100X30X3		MWRB-130X14.8X2.5		MWRB-155X14.8X2.5	
MWRB-100X30X3-SC		MWRB-130X14.8X3.5		MWRB-160X7.9X2.5	
MWRB-105X6X2.5		MWRB-130X15X5		MWRB-160X9.5X2.5	
MWRB-105X7.9X2.5		MWRB-130X20X4		MWRB-160X14.8X2.5	
MWRB-105X9.5X2.5		MWRB-130X30X3		MWRB-160X14.8X3.5	
MWRB-105X12.5X4.5		MWRB-130X30X3.5		MWRB-160X20X3-SC	

## STYLE MWRB WEAR RINGS

Part Number		Part Number		Part Number	
MWRB-160X20X3.5		MWRB-170X14.8X3.5		MWRB-190X14.8X3-SC	
MWRB-160X20X6		MWRB-170X14.8X4-SC		MWRB-190X15X2.5	
MWRB-160X25X2.5		MWRB-170X25X4-SC		MWRB-200X22X4	
MWRB-160X35X2.5		MWRB-170X40X3.5		MWRB-200X25X2.5	
MWRB-160X35X3-SC		MWRB-175X40X4		MWRB-200X40X4	
MWRB-160X40X3.5		MWRB-180X7.9X2.5		MWRB-200X45X4	
MWRB-160X45X3.5		MWRB-180X9.5X2.5		MWRB-225X45X4	
MWRB-160X50X3-SC		MWRB-180X14.8X2.5		MWRB-225X50X4	
MWRB-165X9.5X2.5		MWRB-180X14.8X3.5		MWRB-250X25X2.5	
MWRB-165X14.8X2.5		MWRB-180X22X4		MWRB-250X27.5X6	
MWRB-165X14.8X3.5		MWRB-180X22.5X6		MWRB-250X55X4	
MWRB-165X15X4		MWRB-180X25X2.5		MWRB-300X25X2.5	
MWRB-165X20X4		MWRB-180X40X4		MWRB-320X25X2.5	
MWRB-170X9.5X2.5		MWRB-180X45X4		MWRB-400X25X2.5	
MWRB-170X9.5X3-SC		MWRB-180X55X4			
MWRB-170X14.8X2.5		MWRB-185X22.5X6			

## STYLE MWRT WEAR RINGS

Made from filled PTFE, these rings are suitable for light duty bearing service, but are more often installed on the out-board ends of a piston to catch metal particles and protect the seal area.



### SEAL INFORMATION

MATERIAL	PTFE FILLED
TEMPERATURE RANGE	-100° TO +550° F
COMPRESSIVE STRENGTH	1,700 PSI
TENSILE STRENGTH	2,200 PSI
PART NUMBER	(Prefix) - (OD) X (W) X (CS)

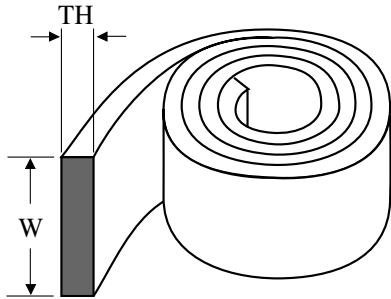
Part Number		Part Number		Part Number		Part Number	
MWRT-55X11.8X4		MWRT-80X11.8X4		MWRT-90X14.8X4		MWRT-110X5.9X4	
MWRT-70X5.5X2.5-B4		MWRT-85X19.5X2.5		MWRT-95X6X4		MWRT-110X5.9X4-B4	
MWRT-70X9.6X2.5		MWRT-90X4.4X3.8		MWRT-100X5.9X4-B4		MWRT-110X14.8X4	
MWRT-70X19.5X2.5		MWRT-90X6X4		MWRT-100X14.8X4		MWRT-115X6X4	
MWRT-75X19.5X2.5		MWRT-90X10X2.5		MWRT-105X6X4		MWRT-115X8X4	

## STYLE MWRT WEAR RINGS

Part Number		Part Number		Part Number		Part Number	
MWRT-120X8X4		MWRT-135X9.7X4		MWRT-150X8X4		MWRT-190X8.9X4-B4	
MWRT-125X8X4		MWRT-140X8X4		MWRT-150X9.7X4		MWRT-190X9.7X4	
MWRT-125X9.7X4		MWRT-140X9.7X4		MWRT-160X6X4-B4		MWRT-200X8.9X4-B4	
MWRT-130X4.75X4		MWRT-145X7.9X4		MWRT-160X9.7X4		MWRT-220X8.9X4-B4	
MWRT-130X8X4		MWRT-145X7.9X4.5		MWRT-165X9.7X4			
MWRT-130X11.6X2.5		MWRT-145X9.7X4		MWRT-170X8X4-B4			
MWRT-135X8X4		MWRT-150X6X4-B4		MWRT-170X9.7X4			

## STYLE MGF FLEXIBLE GUIDE BEARINGS

Fabricated from woven fabric and polyester resins, this material can be cut to length to fit rod or piston grooves.



SEAL INFORMATION	
MATERIAL	FABRIC REINFORCED POLYESTER
TEMPERATURE RANGE	-40° TO +250° F
COMPRESSIVE STRENGTH	8,500 PSI
PART NUMBER	(Prefix) - (W) X (TH)

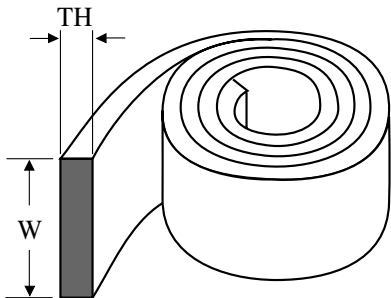
Part Number	
MGF-5.6X2.5	
MGF-9.7X2.5	

Part Number	
MGF-13X2.5	
MGF-15X2.5	

Part Number	
MGF-20X2.5	
MGF-25X2.5	

## STYLE MGB FLEXIBLE GUIDE BEARINGS

Manufactured to a large variety of widths and thicknesses, this material affords low friction capabilities but with low compressive strength. The material also has the capability of ingesting metal particles and keeping them from the seal area.



SEAL INFORMATION	
MATERIAL	40% BRONZE FILLED PTFE
TEMPERATURE RANGE	-50° TO +390° F
COMPRESSIVE STRENGTH	1,700 PSI
PART NUMBER	(Prefix) - (W) X (TH)

Part Number	
MGB-4X2.5	
MGB-5.5X2.5	
MGB-6X4	
MGB-6.1X2.5	
MGB-7.9X2.5	

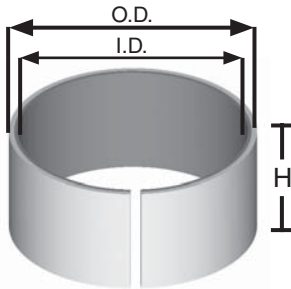
Part Number	
MGB-7.9X4	
MGB-8X2	
MGB-8.9X4	
MGB-9.5X2.5	
MGB-9.5X4	

Part Number	
MGB-10X2	
MGB-12X4	
MGB-14X3.5	
MGB-14.5X4	
MGB-15X2	

Part Number	
MGB-15X2.5	
MGB-20X2	
MGB-20X2.5	
MGB-30X2.5	
MGB-50X2	

## STYLE MDU ROD BUSHINGS

With a steel body, bronze liner and PTFE / lead overlay, these bushings possess excellent wearability and tremendous compressive strength.



### SEAL INFORMATION

MATERIAL	BRONZE LINING PTFE/LEAD OVERLAY STEEL BACKING
TEMPERATURE RANGE	-325° TO +536° F
COMPRESSIVE STRENGTH	44,000 PSI
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

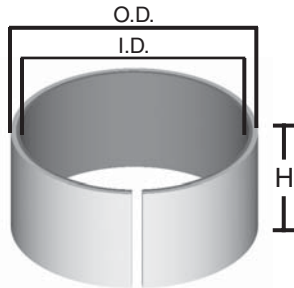
Part Number	Part Number	Part Number	Part Number
MDU-4X5.5X4	MDU-30X34X40	MDU-65X70X15	MDU-95X100X30
MDU-4X5.5X6	MDU-32X36X40	MDU-65X70X30	MDU-95X100X35
MDU-4X5.5X10	MDU-35X39X25	MDU-65X70X35	MDU-95X100X40
MDU-5X7X5	MDU-35X39X50	MDU-65X70X40	MDU-95X100X50
MDU-5X7X6	MDU-38X42X32	MDU-65X70X60	MDU-95X100X100
MDU-5X7X8	MDU-40X44X25	MDU-70X75X15	MDU-100X105X20
MDU-5X7X10	MDU-40X44X30	MDU-70X75X20	MDU-100X105X30
MDU-6X8X6	MDU-40X44X40	MDU-70X75X30	MDU-100X105X35
MDU-6X8X10	MDU-40X44X50	MDU-70X75X40	MDU-100X105X40
MDU-8X10X8	MDU-45X50X20	MDU-70X75X50	MDU-100X105X50
MDU-8X10X12	MDU-45X50X30	MDU-75X80X30	MDU-100X105X60
MDU-10X12X10	MDU-45X50X50	MDU-75X80X35	MDU-105X110X35
MDU-10X12X12	MDU-50X55X12	MDU-75X80X40	MDU-105X110X40
MDU-12X14X20	MDU-50X55X25	MDU-75X80X50	MDU-105X110X50
MDU-16X18X15	MDU-50X55X30	MDU-75X80X60	MDU-105X110X60
MDU-16X18X20	MDU-50X55X40	MDU-80X85X15	MDU-110X115X20
MDU-16X18X25	MDU-50X55X50	MDU-80X85X30	MDU-110X115X35
MDU-18X20X20	MDU-50X55X60	MDU-80X85X40	MDU-110X115X40
MDU-20X23X15	MDU-55X60X12	MDU-80X85X50	MDU-110X115X45
MDU-20X23X25	MDU-55X60X25	MDU-80X85X60	MDU-110X115X50
MDU-20X23X30	MDU-55X60X30	MDU-85X90X30	MDU-110X115X55
MDU-20X23X40	MDU-55X60X40	MDU-85X90X40	MDU-110X115X60
MDU-22X25X20	MDU-55X60X50	MDU-85X90X50	MDU-115X120X35
MDU-25X28X15	MDU-55X60X60	MDU-85X90X70	MDU-115X120X45
MDU-25X28X20	MDU-60X65X15	MDU-90X95X20	MDU-115X120X50
MDU-25X28X25	MDU-60X65X30	MDU-90X95X30	MDU-115X120X70
MDU-25X28X30	MDU-60X65X35	MDU-90X95X35	MDU-120X125X20
MDU-25X28X40	MDU-60X65X40	MDU-90X95X40	MDU-120X125X35
MDU-30X34X12	MDU-60X65X50	MDU-90X95X45	MDU-120X125X40
MDU-30X34X25	MDU-60X65X70	MDU-90X95X60	MDU-120X125X50

## STYLE MDU ROD BUSHINGS

Part Number		Part Number		Part Number		Part Number	
MDU-120X125X60		MDU-130X135X50		MDU-140X145X40		MDU-150X155X40	
MDU-125X130X35		MDU-130X135X60		MDU-140X145X50		MDU-150X155X60	
MDU-125X130X50		MDU-130X135X80		MDU-140X145X55		MDU-160X165X40	
MDU-125X130X70		MDU-135X140X60		MDU-140X145X60		MDU-160X165X50	
MDU-130X135X35		MDU-135X140X80		MDU-140X145X70		MDU-180X185X90	
MDU-130X135X40		MDU-140X145X35		MDU-140X145X80			

## STYLE MRB ROD BUSHINGS

Molded from a sturdy nylon material, these bushings are found chiefly in Ford metric cylinders.

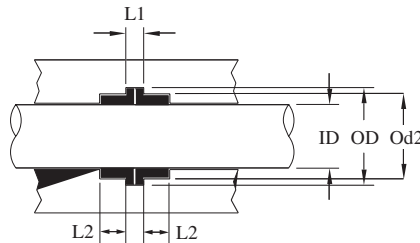


Part Number	
MRB-50X56X18	
MRB-50X56X28	
MRB-56X62X28	
MRB-63X69X28	

SEAL INFORMATION	
MATERIAL	NYLON
TEMPERATURE RANGE	-40° TO +250° F
COMPRESSIVE STRENGTH	35,000 PSI
TENSILE STRENGTH	27,000 PSI
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

## STYLE MWRA-L ROD BUSHINGS

Primarily a British design, this ring can be installed one or two in a groove. Excellent wear characteristics.



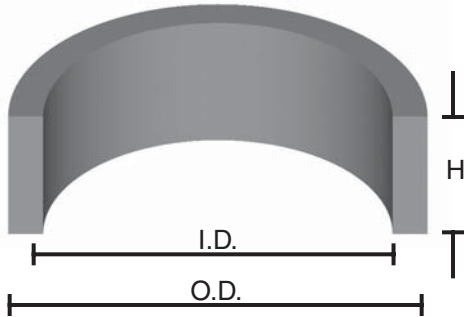
SEAL INFORMATION	
MATERIAL	ACETAL
TEMPERATURE RANGE	-40° TO +250° F
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number	ID	OD	Od2	L1	L2
MWRA-60X71X16-L	60	71	66	10	11
MWRA-78X89X16-L	78	89	84	10	11
MWRA-99X110X16-L	99	110	105	10	11
MWRA-120X131X16-L	120	131	126	10	11

Part Number	ID	OD	Od2	L1	L2
MWRA-141X152X16-L	141	152	147	10	11
MWRA-162X173X16-L	162	173	168	10	11
MWRA-183X194X16-L	183	194	189	10	11
MWRA-207X218X16-L	207	218	213	10	11

## STYLE MBB PISTON BUSHINGS

Installed as 2 halves in a closed groove, these bushings are found in many Japanese lift trucks.

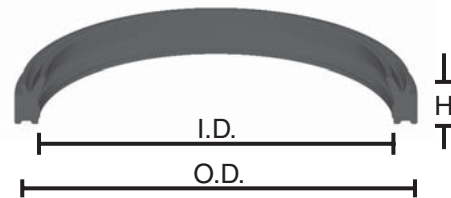


Part Number	
MBB-60X80X19.6	
MBB-70X90X24.6	
MBB-85X105X24.6	

SEAL INFORMATION	
MATERIAL	660 BRONZE
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

## STYLE MSWP SNAP-IN WIPERS

This wiper features a lip on top of the shoulder which makes contact with the throat of the groove. This serves to prevent contaminants from entering the groove.



SEAL INFORMATION	
MATERIAL	URETHANE
TEMPERATURE RANGE	-30° TO +220° F
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number	
MSWP-20X28X4	
MSWP-22X30X4	
MSWP-25X33X4	
MSWP-30X38X4	
MSWP-32X40X4	
MSWP-32X40X5	
MSWP-35X43X4	

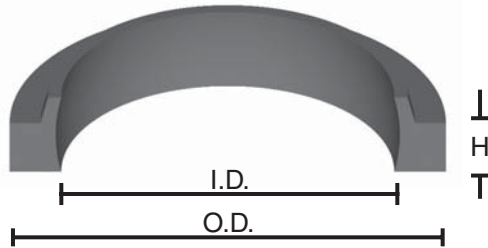
Part Number	
MSWP-36X44X4	
MSWP-40X48X4	
MSWP-40X48X5	
MSWP-45X53X4	
MSWP-50X58X4	
MSWP-50X58X5	
MSWP-55X63X4	

Part Number	
MSWP-56X64X4	
MSWP-60X68X4	
MSWP-63X71X4	
MSWP-65X73X4	
MSWP-70X78X4	
MSWP-70X80X6.3	
MSWP-75X83X4	

Part Number	
MSWP-80X88X4	
MSWP-80X90X6.3	
MSWP-85X93X4	
MSWP-90X98X4	
MSWP-100X108X4	
MSWP-140X152X5.5	

## STYLE MSWE SNAP-IN WIPERS

Molded in urethane, this wiper is flexible enough to easily snap into a groove yet tough enough to handle difficult rod wiping applications.



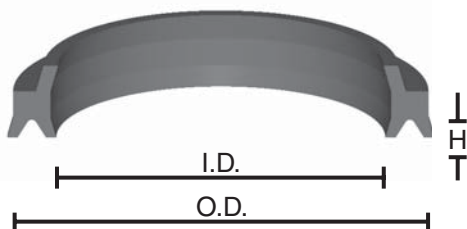
### SEAL INFORMATION

MATERIAL	URETHANE
TEMPERATURE RANGE	-30° TO +220° F
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number	Part Number	Part Number	Part Number
MSWE-14X20X3.8	MSWE-40X50X7	MSWE-63X71.6X5	MSWE-100X115X9.5
MSWE-16X22X3	MSWE-42X50X4	MSWE-63X73X6.3	MSWE-105X113X5
MSWE-18X24X3.5	MSWE-45X53X5	MSWE-65X73X5	MSWE-110X122X7
MSWE-20X26X3	MSWE-45X55X5	MSWE-65X75X7	MSWE-115X127X7
MSWE-20X28X5	MSWE-46X54X4	MSWE-70X78X5	MSWE-120X128X5
MSWE-22X30X5	MSWE-50X58X5	MSWE-75X83X5	MSWE-120X132X7
MSWE-25X33X5	MSWE-50X60X5	MSWE-80X88X5	MSWE-125X137X7
MSWE-28X36X5	MSWE-50X60X7	MSWE-80X92X7	MSWE-130X142X7
MSWE-30X38X5	MSWE-55X63X5	MSWE-85X93X5	MSWE-140X148X5
MSWE-32X40X5	MSWE-56X64X5	MSWE-90X98X5	MSWE-150X162X7
MSWE-35X43X5	MSWE-56X66X6.3	MSWE-90X100X6.3	MSWE-160X168X5
MSWE-36X44X5	MSWE-60X68X5	MSWE-90X102X7	MSWE-200X220X10
MSWE-40X48X5	MSWE-60X70X7	MSWE-90X102X7	
MSWE-40X50X5	MSWE-63X71X5	MSWE-95X107X7	

## STYLE MSWH SNAP-IN WIPERS

Molded in urethane, this wiper features a double lip which prevents fluid that seeps by the rod seal from exiting the cylinder.



### SEAL INFORMATION

MATERIAL	URETHANE
TEMPERATURE RANGE	-30° TO +220° F
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number	Part Number	Part Number	Part Number
MSWH-11.2X19.2X4.5	MSWH-20X28X4.5	MSWH-25X33X4.5	MSWH-32X40X5
MSWH-14X22X4.5	MSWH-22.4X30.4X4.5	MSWH-28X36X4.5	MSWH-35X43X5
MSWH-16X24X4.5	MSWH-23.5X31.5X4.5	MSWH-30X38X5	MSWH-35.5X43.5X5
MSWH-18X26X4.5	MSWH-25X32X3.75	MSWH-31.5X39.5X5	MSWH-36X44X3.6

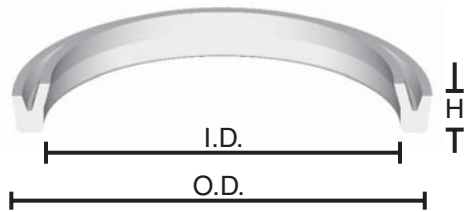


## STYLE MSWH SNAP-IN WIPERS

Part Number		Part Number		Part Number		Part Number	
MSWH-36X44X4.5		MSWH-50X60X5		MSWH-70X80X5.5		MSWH-98X108X6	
MSWH-40X48X5		MSWH-53X61X5		MSWH-70X80X6		MSWH-100X110X6	
MSWH-40X50.6X4.6		MSWH-55X63X5		MSWH-71X81X6		MSWH-112X122X6	
MSWH-42X51X4.5		MSWH-56X64X5		MSWH-75X85X5.5		MSWH-125X138X7	
MSWH-45X53X5		MSWH-60X68X5		MSWH-75X85X6		MSWH-136X149X7	
MSWH-50X58X4.5		MSWH-63X71X5		MSWH-80X90X6		MSWH-140X153X7	
MSWH-50X58X5		MSWH-65X73X5		MSWH-85X95X6		MSWH-145X158X7	
MSWH-50X59X3.6		MSWH-67X75X5		MSWH-90X100X6		MSWH-160X174X7	

## STYLE MSW SNAP-IN WIPERS

Molded in urethane, this wiper features a lip on the outer diameter to aid in contaminant exclusion.



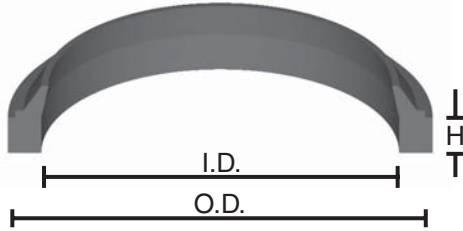
### SEAL INFORMATION

MATERIAL	URETHANE
TEMPERATURE RANGE	-30° TO +220° F
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number		Part Number		Part Number		Part Number	
MSW-25X34X4.5		MSW-50X60X6		MSW-70X83X7		MSW-95X108X7	
MSW-30X38X5		MSW-55X63X5		MSW-75X88X7		MSW-100X113X7	
MSW-35X43X5		MSW-55X65X6		MSW-80X93X7		MSW-110X123X7	
MSW-40X50X6		MSW-60X73X7		MSW-85X98X7		MSW-120X133X7	
MSW-45X55X6		MSW-65X79X7		MSW-90X103X7			

## STYLE MSWS SNAP-IN WIPERS

This light duty wiper is molded in polyurethane and feature a double stepped shoulder to fit tightly in the gland throat.



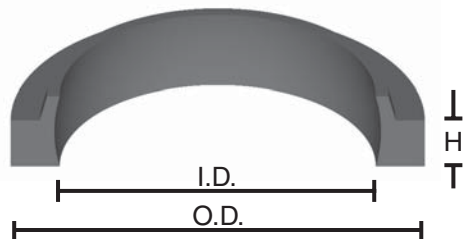
### SEAL INFORMATION

MATERIAL	URETHANE
TEMPERATURE RANGE	-30° TO +220° F
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number		Part Number		Part Number		Part Number	
MSWS-16X24X4		MSWS-32X40X4		MSWS-50X58X4		MSWS-70X78X4	
MSWS-20X28X4		MSWS-35X43X4		MSWS-55X63X4		MSWS-75X83X4	
MSWS-22X30X4		MSWS-36X44X4		MSWS-56X64X4		MSWS-80X88X4	
MSWS-25X33X4		MSWS-40X48X4		MSWS-60X68X4		MSWS-90X98X4	
MSWS-28X36X4		MSWS-42X50X4		MSWS-63X71X4		MSWS-100X108X4	
MSWS-30X38X4		MSWS-45X53X4		MSWS-65X73X4			

## STYLE MSWN SNAP-IN WIPERS

This medium duty wiper is molded in nitrile rubber



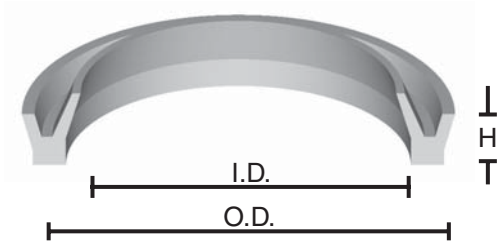
### SEAL INFORMATION

MATERIAL	NITRILE
TEMPERATURE RANGE	-22° TO +212° F
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number		Part Number		Part Number		Part Number	
MSWN-18X26X5		MSWN-36X48X6		MSWN-55X67X6		MSWN-70X82X7	
MSWN-20X28X4		MSWN-38X46X5		MSWN-56X66X5		MSWN-85X97X7	
MSWN-28X36X4		MSWN-40X52X6		MSWN-60X70X5		MSWN-100X112X7	
MSWN-30X42X6		MSWN-45X57X6		MSWN-63X73X5		MSWN-105X117X7	
MSWN-32X42X5		MSWN-50X62X5		MSWN-65X75X5		MSWN-140X152X7	
MSWN-32X44X6		MSWN-50X62X6		MSWN-70X80X5			
MSWN-35X47X6		MSWN-55X65X5		MSWN-70X82X6			

## STYLE CSWM SNAP-IN WIPERS

This wiper is a heavy duty scraper molded from a hard nylon material.



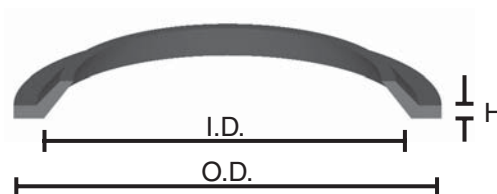
### SEAL INFORMATION

MATERIAL	NYLON
TEMPERATURE RANGE	-40° TO +212° F
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number		Part Number		Part Number		Part Number	
CSWM-16X26X4.5		CSWM-32X45X6		CSWM-56X69X6		CSWM-80X93X6	
CSWM-20X33X6		CSWM-36X49X6		CSWM-60X73X6		CSWM-90X103X6	
CSWM-22X35X6		CSWM-40X53X6		CSWM-63X76X6		CSWM-100X113X6	
CSWM-25X38X6		CSWM-45X58X6		CSWM-65X78X6			
CSWM-28X41X6		CSWM-50X63X6		CSWM-70X83X6			
CSWM-30X43X6		CSWM-55X68X6		CSWM-75X88X6			

## STYLE MDK SNAP-IN WIPERS

Molded in nitrile, this wiper is for light duty applications.



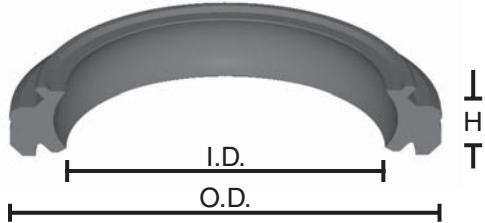
### SEAL INFORMATION

MATERIAL	NITRILE
TEMPERATURE RANGE	-22° TO +212° F
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number		Part Number		Part Number		Part Number	
MDK-25X33.6X1.6U		MDK-50X60X2.15		MDK-74X87X3.3		MDK-140X150X2.15	
MDK-30X37.5X1.6		MDK-55X65X2.15		MDK-80X90X2.15			
MDK-32X39.5X1.6		MDK-63X73X2.15		MDK-90X100X2.15			
MDK-33X40.5X1.6		MDK-70X80X2.15		MDK-100X110X2.15			

## STYLE MWSCK SNAP-IN WIPERS

Molded in nitrile, this double lipped wiper is found in Toyota lift trucks.



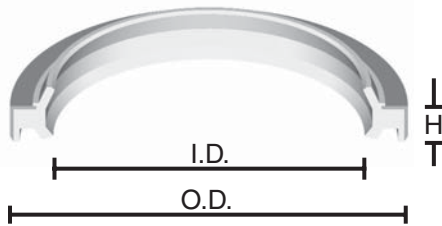
### SEAL INFORMATION

MATERIAL	NITRILE
TEMPERATURE RANGE	-49° TO +212° F
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number		Part Number	
MWSCK-25X37X6		MWSCK-35X47X7	
MWSCK-30X42X6		MWSCK-50X62X7	

## STYLE MCKBI METAL CLAD WIPERS

Utilizing a double lip of urethane bonded to a carbon steel case, this wiper prevents contaminant ingress at the wiping lip and around the outer case.



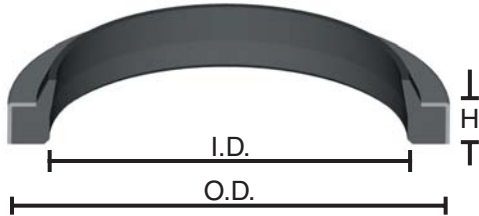
### SEAL INFORMATION

MATERIAL	URETHANE
TEMPERATURE RANGE	-30° TO +220° F
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number		Part Number		Part Number		Part Number	
MCKBI-25X37X6		MCKBI-60X74X8		MCKBI-90X104X8		MCKBI-150X170X10	
MCKBI-30X42X6		MCKBI-65X79X8		MCKBI-95X109X8		MCKBI-160X180X10	
MCKBI-35X47X7		MCKBI-70X82X7		MCKBI-105X121X9		MCKBI-170X190X10	
MCKBI-40X50X7		MCKBI-70X84X8		MCKBI-110X126X9		MCKBI-190X205X9	
MCKBI-40X52X7		MCKBI-75X87X7		MCKBI-120X136X9		MCKBI-200X216X8	
MCKBI-45X57X7		MCKBI-75X89X8		MCKBI-125X141X9			
MCKBI-50X62X7		MCKBI-80X94X8		MCKBI-130X146X9			
MCKBI-55X69X8		MCKBI-85X99X8		MCKBI-140X160X10			

## STYLE MCW METAL CLAD WIPERS

This wiper is a single lip design molded from high grade urethane and bonded to a carbon steel case.



SEAL INFORMATION	
MATERIAL	URETHANE
TEMPERATURE RANGE	-30° TO +220° F
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number	
MCW-20X30X4	
MCW-25X37X6	
MCW-28X38X5	
MCW-30X42X6	
MCW-30X45X7	
MCW-32X44X7	
MCW-32X45X7	
MCW-32X52X8	
MCW-35X47X7	

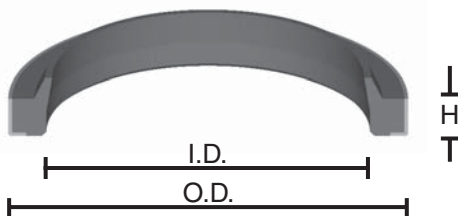
Part Number	
MCW-38X50X7	
MCW-40X52X7	
MCW-45X57X7	
MCW-50X62X7	
MCW-55X69X8	
MCW-56X70X8	
MCW-60X74X8	
MCW-63X77X8	
MCW-65X79X8	

Part Number	
MCW-70X80X7	
MCW-70X84X8	
MCW-75X89X8	
MCW-80X94X8	
MCW-85X99X8	
MCW-90X104X8	
MCW-95X109X8	
MCW-105X119X9	
MCW-105X121X9	

Part Number	
MCW-110X126X9	
MCW-115X131X9	
MCW-120X136X9	
MCW-130X146X9	
MCW-140X160X10	
MCW-150X170X10	
MCW-160X180X10	
MCW-180X205X12	

## STYLE MCWE METAL CLAD WIPERS

This wiper is molded from high grade urethane and bonded to a carbon steel case in a single lip design.



SEAL INFORMATION	
MATERIAL	URETHANE
TEMPERATURE RANGE	-40° TO +230° F
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number	
MCWE-12X20X4	
MCWE-18X28X7	
MCWE-20X28X3.5	
MCWE-20X30X5	
MCWE-20X30X7	
MCWE-22X32X6	
MCWE-25X35X7	
MCWE-28X38X7	
MCWE-30X40X5	

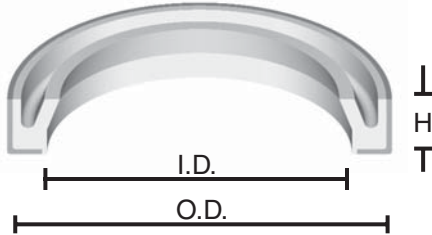
Part Number	
MCWE-30X40X7	
MCWE-32X42X7	
MCWE-32X45X7	
MCWE-33X43X7	
MCWE-35X45X7	
MCWE-36X45X7	
MCWE-36X46X7	
MCWE-40X50X7	
MCWE-42X52X7	

Part Number	
MCWE-45X55X7	
MCWE-50X60X7	
MCWE-55X65X7	
MCWE-56X66X7	
MCWE-60X70X7	
MCWE-63X75X7	
MCWE-65X75X7	
MCWE-70X80X7	
MCWE-80X90X7	

Part Number	
MCWE-85X95X7	
MCWE-90X100X7	
MCWE-105X115X7	
MCWE-110X120X7	
MCWE-115X125X7	
MCWE-120X130X7	

## STYLE MCWI METAL CLAD WIPERS

This wiper is a single lip design molded from high grade urethane and bonded to a carbon steel case.

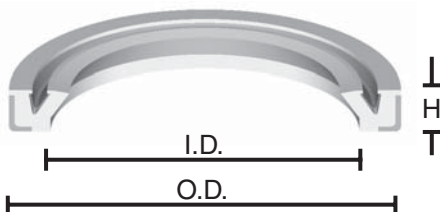


SEAL INFORMATION	
MATERIAL	URETHANE
TEMPERATURE RANGE	-30° TO +220° F
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number	Part Number	Part Number	Part Number
MCWI-35X50X9	MCWI-60X73X6	MCWI-80X94X8	MCWI-95X110X8
MCWI-40X52X7	MCWI-60X74X8	MCWI-80X100X7	MCWI-100X116X8
MCWI-40X55X9	MCWI-60X75X6	MCWI-85X99X8	MCWI-105X121X9
MCWI-45X57X7	MCWI-63X78X9	MCWI-85X100X8	MCWI-110X125X8
MCWI-45X60X9	MCWI-65X79X8	MCWI-90X100X7	MCWI-110X126X9
MCWI-50X64X8	MCWI-70X80X7	MCWI-90X104X8	MCWI-110X130X8
MCWI-50X65X9	MCWI-70X84X8	MCWI-90X105X6	MCWI-110X130X10
MCWI-55X69X8	MCWI-70X85X7	MCWI-90X105X7	MCWI-125X140X9
MCWI-56X70X7.5	MCWI-75X89X8	MCWI-90X105X8	MCWI-130X146X9
MCWI-56X71X9	MCWI-75X90X8	MCWI-90X106X8	MCWI-150X170X10
MCWI-60X70X7	MCWI-80X90X7	MCWI-95X109X8	

## STYLE MCWS METAL CLAD WIPERS

Molded from high grade urethane and bonded to a carbon steel case, this wiper utilizes a stainless steel finger spring to maintain a high radial force on the rod.

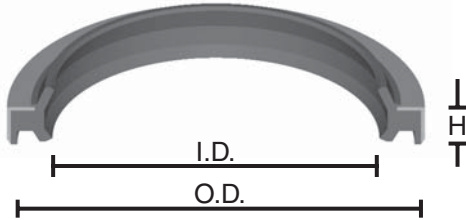


SEAL INFORMATION	
MATERIAL	URETHANE
TEMPERATURE RANGE	-30° TO +220° F
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number	Part Number	Part Number
MCWS-32X42X7	MCWS-50X60X7	MCWS-63X83X10
MCWS-40X50X7	MCWS-56X68X7	MCWS-70X90X10
MCWS-45X55X7	MCWS-63X75X7	MCWS-80X100X10

## STYLE MCKB METAL CLAD WIPERS

Utilizing a double lip of nitrile bonded to a carbon steel case, this wiper prevents contaminant ingress at the wiping lip and around the outer case.



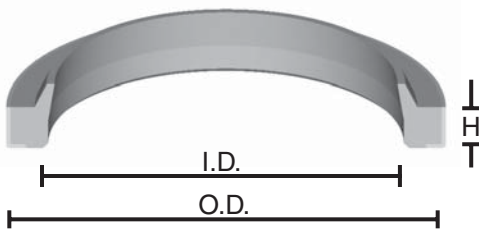
### SEAL INFORMATION

MATERIAL	NITRILE 70
TEMPERATURE RANGE	-20° TO +250° F
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number	Part Number	Part Number	Part Number
MCKB-20X32X6	MCKB-32X52X8	MCKB-50X72X8	MCKB-85X99X8
MCKB-22X32X6	MCKB-35X47X7	MCKB-55X69X8	MCKB-90X104X8
MCKB-22X34X6	MCKB-36X48X7	MCKB-60X74X8	MCKB-95X109X8
MCKB-25X37X6	MCKB-40X52X7	MCKB-65X79X8	MCKB-105X121X9
MCKB-30X42X6	MCKB-40X62X8	MCKB-70X84X8	MCKB-112X128X9
MCKB-30X45X6	MCKB-45X57X7	MCKB-75X89X8	MCKB-115X131X9
MCKB-30X47X7	MCKB-50X62X7	MCKB-80X94X8	

## STYLE MCWN METAL CLAD WIPERS

This wiper is a single lip design molded from high grade nitrile and bonded to a carbon steel case.



### SEAL INFORMATION

MATERIAL	NITRILE
TEMPERATURE RANGE	-30° TO +220° F
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number	Part Number	Part Number	Part Number
MCWN-10X16X3	MCWN-18X28X7	MCWN-22X32X5	MCWN-28X40X7
MCWN-12X18X3.5	MCWN-20X26X5	MCWN-22X32X7	MCWN-30X40X5
MCWN-12X20X4	MCWN-20X28X3.5	MCWN-22X35X5	MCWN-30X40X7
MCWN-12X22X5	MCWN-20X28X5	MCWN-25X33X4	MCWN-32X40X4
MCWN-15X25X5	MCWN-20X30X4	MCWN-25X35X5	MCWN-32X42X5
MCWN-16X22X3	MCWN-20X30X5	MCWN-25X35X7	MCWN-32X42X7
MCWN-16X26X5	MCWN-20X30X7	MCWN-28X38X5	MCWN-32X45X4
MCWN-18X26X3	MCWN-22X28X5	MCWN-28X38X7	MCWN-32X45X5

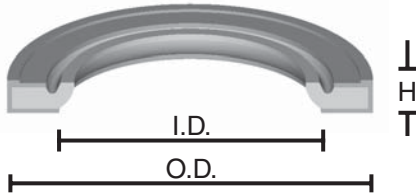
## STYLE MCWN METAL CLAD WIPERS

Part Number		Part Number		Part Number		Part Number	
MCWN-32X45X7		MCWN-45X55X7		MCWN-60X70X7		MCWN-95X105X7	
MCWN-33X43X7		MCWN-45X57X7		MCWN-60X75X7		MCWN-100X110X7	
MCWN-35X45X7		MCWN-45X60X7		MCWN-63X75X7		MCWN-105X115X7	
MCWN-35X47X7		MCWN-50X56X5		MCWN-65X75X7		MCWN-110X120X7	
MCWN-36X46X5		MCWN-50X60X7		MCWN-70X80X7		MCWN-115X125X7	
MCWN-38X48X7		MCWN-50X65X7		MCWN-75X83X7		MCWN-120X130X7	
MCWN-40X50X5		MCWN-52X62X7		MCWN-75X85X7		MCWN-125X140X9	
MCWN-40X50X7		MCWN-55X63X7		MCWN-78X88X7		MCWN-130X145X9	
MCWN-40X52X7		MCWN-55X65X7		MCWN-80X90X7		MCWN-140X155X9	
MCWN-42X52X7		MCWN-56X65X7		MCWN-85X95X7		MCWN-150X165X9	
MCWN-45X55X5		MCWN-56X66X7		MCWN-90X100X7		MCWN-160X175X9	



## STYLE MDS LINK PIN DUST SEALS

Molded in nitrile with steel case, this seal is double cased and used to exclude contaminants from cylinder link pins.



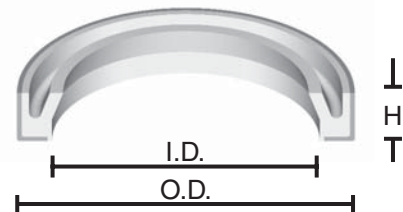
### SEAL INFORMATION

MATERIAL	NITRILE SEAL STEEL CASE
TEMPERATURE RANGE	-40° TO +220° F
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number		Part Number		Part Number		Part Number	
MDS-30X40X4		MDS-55X68X4		MDS-80X95X4		MDS-100X120X4	
MDS-35X45X4		MDS-60X75X4		MDS-80X95X6		MDS-110X125X4	
MDS-40X50X4		MDS-65X80X4		MDS-85X100X4		MDS-120X135X4	
MDS-45X55X4		MDS-70X85X4		MDS-90X105X4			
MDS-50X60X4		MDS-70X85X6		MDS-95X110X4			
MDS-50X65X6		MDS-75X90X4		MDS-100X115X4			

## STYLE MCWA METAL CLAD WIPERS

This seal is single cased with a urethane lip and used to exclude contaminants from cylinder link pins.

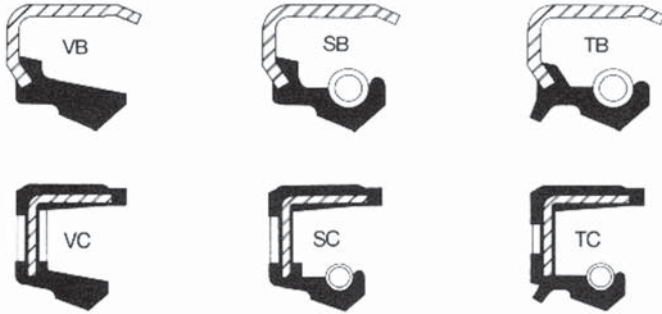
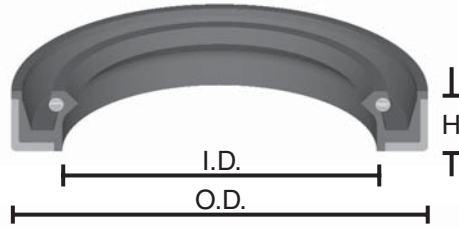


### SEAL INFORMATION

MATERIAL	URETHANE SEAL STEEL CASE
TEMPERATURE RANGE	-30° TO +220° F
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number		Part Number		Part Number		Part Number	
MCWA-40X50X3.18		MCWA-60X75X5		MCWA-71X86X5		MCWA-80X95X5	
MCWA-45X55X3.18		MCWA-65X80X5		MCWA-80X90X3.18		MCWA-90X100X7	
MCWA-55X65X3.18		MCWA-70X80X5		MCWA-80X90X7			

# OIL SEALS



SEAL INFORMATION	
MATERIAL	RUBBER SEAL STEEL CASE
TEMPERATURE RANGE	-40° TO +225° F
PRESSURE RANGE	10 PSI @ 1000 FPM
PART NUMBER	(Prefix) - (ID) X (OD) X (H)

Part Number		Part Number		Part Number		Part Number	
MOS-8X16X7TC		MOS-15X28X7TC		MOS-19X30X7TC		MOS-22X42X7TC	
MOS-8X18X5TC		MOS-15X30X7TC		MOS-19X32X8TEC		MOS-22X52X10TC	
MOS-8X25X8TC		MOS-15X32X7TC		MOS-19X34X7TC		MOS-23X34X8TC	
MOS-10X19X7TC		MOS-15X35X7TC		MOS-19X35X7TC		MOS-23X35X7TC	
MOS-10X20X7TC		MOS-16X20X2.5VM		MOS-20X26X4VC		MOS-24X40X7TC	
MOS-10X22X7TC		MOS-16X26X6TC		MOS-20X26X4VM		MOS-25X35X6TC	
MOS-12X19X3VC		MOS-16X28X7TC		MOS-20X28X4TM		MOS-25X35X7TC	
MOS-12X20X4TC		MOS-16X30X7TC		MOS-20X30X7TC		MOS-25X35X8TC	
MOS-12X20X5TC		MOS-16X35X7TC		MOS-20X32X7TC		MOS-25X36X7TC	
MOS-12X22X7TC		MOS-17X28X7TC		MOS-20X33X5TC		MOS-25X38X8TC	
MOS-12X24X7TC		MOS-17X29X7TC		MOS-20X35X6TC		MOS-25X40X5TC	
MOS-12X25X7TC		MOS-17X30X6TC		MOS-20X35X7TC		MOS-25X40X7TC	
MOS-12X26X7TC		MOS-17X30X7TC		MOS-20X36X7TC		MOS-25X40X8TC	
MOS-12X26X8TC		MOS-17X30X8TC		MOS-20X40X7TC		MOS-25X40X10TC	
MOS-12X28X7TC		MOS-17X32X7TC		MOS-20X45X7TC		MOS-25X42X6TC	
MOS-13X19X3VG		MOS-17X35X8TC		MOS-20X47X7TC		MOS-25X42X7TC	
MOS-13X25X7SC		MOS-17X38X7TC		MOS-22X28X4KC		MOS-25X45X8TC	
MOS-13X35X7TC		MOS-18X24X3KC		MOS-22X32X7SC		MOS-25X45X10TC	
MOS-14X20X3TC		MOS-18X28X4SC		MOS-22X32X7TC		MOS-25X47X7TC	
MOS-14X22X4TC		MOS-18X28X7TC		MOS-22X35X5TC		MOS-25X47X8TC	
MOS-14X24X6TC		MOS-18X30X7TC		MOS-22X35X7TC		MOS-25X52X7TC	
MOS-14X24X7TC		MOS-18X30X7TM		MOS-22X35X8TC		MOS-25X52X10TC	
MOS-14X28X7TC		MOS-18X30X8TC		MOS-22X36X7TC		MOS-25X62X7TC	
MOS-15X24X7TC		MOS-18X32X7TC		MOS-22X38X7TC		MOS-26X37X7TC	
MOS-15X25X7TC		MOS-18X35X7TC		MOS-22X40X7TC		MOS-26X40X7TC	

# OIL SEALS

Part Number		Part Number		Part Number		Part Number	
MOS-27X38X7TC		MOS-35X45X7TC		MOS-42X60X9TC		MOS-60X75X8TC	
MOS-27X43X8TC		MOS-35X46X7TC		MOS-42X62X8TC		MOS-60X78X9TC	
MOS-28X38X5TC		MOS-35X47X7TC		MOS-44X60X7TC		MOS-60X80X9TC	
MOS-28X38X7TC		MOS-35X48X8TC		MOS-44X62X8TC		MOS-60X80X10TC	
MOS-28X40X5TC		MOS-35X50X7TC		MOS-44X72X10TC		MOS-60X80X12TC	
MOS-28X40X7TC		MOS-35X50X8TC		MOS-45X58X7TC		MOS-60X82X12TC	
MOS-28X42X7TC		MOS-35X50X10TC		MOS-45X60X7TC		MOS-60X85X10TC	
MOS-28X42X8TC		MOS-35X52X7TC		MOS-45X62X6KB		MOS-60X95X10TC	
MOS-28X47X7TC		MOS-35X52X8TC		MOS-45X62X7TC		MOS-62X78X8SB	
MOS-28X47X10TC		MOS-35X54X8TC		MOS-45X62X7VTC		MOS-62X80X10TC	
MOS-28X48X8TC		MOS-35X55X8TC		MOS-45X62X8TC		MOS-62X85X8TC	
MOS-30X38X4SC		MOS-35X55X11TC		MOS-45X62X10TC		MOS-65X85X8TC	
MOS-30X40X7SB		MOS-35X55X12TC		MOS-45X65X7TC		MOS-65X85X10TC	
MOS-30X40X7TC		MOS-35X60X10SC		MOS-45X65X8TC		MOS-65X88X12TC	
MOS-30X42X7TC		MOS-35X62X10TC		MOS-45X65X12TC		MOS-65X90X10TC	
MOS-30X42X8TC		MOS-35X72X8TC		MOS-45X68X8TC		MOS-68X90X10TC	
MOS-30X43X8TC		MOS-36X47X7TC		MOS-45X68X10TC		MOS-70X80X10TC	
MOS-30X45X6TC		MOS-36X58X10TC		MOS-45X68X12TC		MOS-70X85X8TC	
MOS-30X45X8TC		MOS-38X50X7TC		MOS-45X72X8TC		MOS-70X90X7TC	
MOS-30X46X8TC		MOS-38X58X10TC		MOS-45X72X10TC		MOS-70X90X10TC	
MOS-30X47X7TC		MOS-40X50X8TC		MOS-48X62X8TC		MOS-70X90X12TC	
MOS-30X48X8TC		MOS-40X52X5TC		MOS-48X65X10TC		MOS-70X95X13TC	
MOS-30X50X7TC		MOS-40X52X7SC		MOS-50X60X8TC		MOS-70X100X10TC	
MOS-30X52X7TC		MOS-40X52X7TC		MOS-50X62X7TC		MOS-70X110X10TC	
MOS-30X52X8TC		MOS-40X54X7TC		MOS-50X65X6TC		MOS-75X95X10TC	
MOS-30X60X8TC		MOS-40X55X7TC		MOS-50X68X8TC		MOS-75X100X10TC	
MOS-30X62X7SC		MOS-40X55X8TC		MOS-50X70X10TC		MOS-80X100X7TC	
MOS-30X62X7TC		MOS-40X56X7TC		MOS-50X72X8TC		MOS-80X100X10TC	
MOS-30X72X10TC		MOS-40X58X8TC		MOS-50X72X12TC		MOS-80X105X10TC	
MOS-32X42X7TC		MOS-40X58X10SC		MOS-50X75X12TC		MOS-80X105X13TC	
MOS-32X43X7TC		MOS-40X60X10TC		MOS-50X80X8TC		MOS-80X110X10TC	
MOS-32X44X8TC		MOS-40X62X7TC		MOS-50X85X8TC		MOS-80X115X13TC	
MOS-32X45X7TC		MOS-40X62X10TC		MOS-50X90X10TC		MOS-82X105X12TC	
MOS-32X48X8TC		MOS-40X62X12TC		MOS-52X62X8TC		MOS-85X100X12TC	
MOS-32X52X8TC		MOS-40X68X7TC		MOS-54X68X10TC		MOS-85X110X10SC	
MOS-32X52X11TC		MOS-40X68X10SC		MOS-55X68X8TC		MOS-85X110X12TC	
MOS-32X55X8TC		MOS-40X68X10TC		MOS-55X70X8TC		MOS-90X105X10TC	
MOS-33X40X3VM		MOS-40X72X10TC		MOS-55X72X8TC		MOS-90X110X12TC	
MOS-33X45X7SC		MOS-40X75X12TC		MOS-55X72X10TC		MOS-90X115X13TB	
MOS-34X48X7TC		MOS-41X54X11DC		MOS-55X80X10TC		MOS-90X120X13TC	
MOS-34X52X10SC		MOS-42X52X8TC		MOS-55X85X10TC		MOS-95X120X12TC	
MOS-35X45X5VM		MOS-42X55X7TC		MOS-55X90X10TC		MOS-95X130X12TC	

## OIL SEALS

Part Number		Part Number		Part Number		Part Number	
MOS-100X125X12TC		MOS-115X145X14TC		MOS-130X160X12TC		MOS-180X220X13TC	
MOS-105X130X12TC		MOS-120X150X12TC		MOS-140X170X13TC		MOS-200X230X13TC	
MOS-110X140X12TC		MOS-120X150X15TC		MOS-150X180X15TC			
MOS-115X140X13TC		MOS-125X150X12VTF		MOS-160X200X12TC			

# O-RING SIZE CHART FOR METRIC SEALS

JIS B 2401	WIDTH	I.D.	JIS B 2401	WIDTH	I.D.	JIS B 2401	WIDTH	I.D.
P - 3	1.9 ±0.08	2.8 ±0.14	P - 71	5.7 ±0.13	70.6 ±0.62	G - 25	3.1 ±0.1	24.4 ±0.25
P - 4		3.8 ±0.14	P - 75		74.6 ±0.65	G - 30		29.4 ±0.29
P - 5		4.8 ±0.15	P - 80		79.6 ±0.69	G - 35		34.4 ±0.33
P - 6		5.8 ±0.15	P - 85		84.6 ±0.73	G - 40		39.4 ±0.37
P - 7		6.8 ±0.16	P - 90		89.6 ±0.77	G - 45		44.4 ±0.41
P - 8		7.8 ±0.16	P - 95		94.6 ±0.81	G - 50		49.4 ±0.45
P - 9		8.8 ±0.17	P - 100		99.6 ±0.84	G - 55		54.4 ±0.49
P - 10		9.8 ±0.17	P - 102		101.6 ±0.85	G - 60		59.4 ±0.53
P - 10A		9.8 ±0.17	P - 105		104.6 ±0.87	G - 65		64.4 ±0.57
P - 11		10.8 ±0.18	P - 110		109.6 ±0.91	G - 70		69.4 ±0.61
P - 11.2	11 ±0.18	P - 112	111.6 ±0.92	G - 75	74.4 ±0.65			
P - 12	11.8 ±0.19	P - 115	114.6 ±0.94	G - 80	79.4 ±0.69			
P - 12.5	12.3 ±0.19	P - 120	119.6 ±0.98	G - 85	84.4 ±0.73			
P - 14	13.8 ±0.19	P - 125	124.6 ±1.01	G - 90	89.4 ±0.77			
P - 15	14.8 ±0.20	P - 130	129.6 ±1.05	G - 95	94.4 ±0.81			
P - 16	15.8 ±0.20	P - 132	131.6 ±1.06	G - 100	99.4 ±0.85			
P - 18	17.8 ±0.21	P - 135	134.6 ±1.09	G - 105	104.4 ±0.87			
P - 20	19.8 ±0.22	P - 140	139.6 ±1.12	G - 110	109.4 ±0.91			
P - 21	20.8 ±0.23	P - 145	144.6 ±1.16	G - 115	114.4 ±0.94			
P - 22	21.8 ±0.24	P - 150	149.6 ±1.19	G - 120	119.4 ±0.98			
P - 22A	21.7 ±0.24	P - 150A	149.5 ±1.19	G - 125	124.4 ±1.01			
P - 22.4	22.1 ±0.24	P - 155	154.5 ±1.23	G - 130	129.4 ±1.05			
P - 24	23.7 ±0.24	P - 160	159.5 ±1.26	G - 135	134.4 ±1.08			
P - 25	24.7 ±0.25	P - 165	164.5 ±1.30	G - 140	139.4 ±1.12			
P - 25.5	25.2 ±0.25	P - 170	169.5 ±1.33	G - 145	144.4 ±1.16			
P - 26	25.7 ±0.26	P - 175	174.5 ±1.37	G - 150	149.3 ±1.19			
P - 28	27.7 ±0.28	P - 180	179.5 ±1.40	G - 155	154.3 ±1.23			
P - 29	28.7 ±0.29	P - 185	184.5 ±1.44	G - 160	159.3 ±1.26			
P - 29.5	29.2 ±0.29	P - 190	189.5 ±1.48	G - 165	164.3 ±1.30			
P - 30	29.7 ±0.29	P - 195	194.5 ±1.51	G - 170	169.3 ±1.33			
P - 31	30.7 ±0.30	P - 200	199.5 ±1.55	G - 175	174.3 ±1.37			
P - 31.5	31.2 ±0.31	P - 205	204.5 ±1.58	G - 180	179.3 ±1.40			
P - 32	31.7 ±0.31	P - 209	208.5 ±1.61	G - 185	184.3 ±1.44			
P - 34	33.7 ±0.33	P - 210	209.5 ±1.62	G - 190	189.3 ±1.47			
P - 35	34.7 ±0.34	P - 215	214.5 ±1.65	G - 195	194.3 ±1.51			
P - 35.5	35.2 ±0.34	P - 220	219.5 ±1.68	G - 200	199.3 ±1.55			
P - 36	35.7 ±0.34	P - 225	224.5 ±1.71	G - 205	204.3 ±1.58			
P - 38	37.7 ±0.37	P - 230	229.5 ±1.75	G - 210	209.3 ±1.61			
P - 39	38.7 ±0.37	P - 235	234.5 ±1.78	G - 215	214.3 ±1.64			
P - 40	39.7 ±0.37	P - 240	239.5 ±1.81	G - 220	219.3 ±1.68			
P - 41	40.7 ±0.38	P - 245	244.5 ±1.84	G - 225	224.3 ±1.71			
P - 42	41.7 ±0.39	P - 250	249.5 ±1.88	G - 230	229.3 ±1.73			
P - 44	43.7 ±0.41	P - 255	254.5 ±1.91	G - 235	234.3 ±1.77			
P - 45	44.7 ±0.41	P - 260	259.5 ±1.94	G - 240	239.3 ±1.81			
P - 46	45.7 ±0.42	P - 265	264.5 ±1.97	G - 245	244.3 ±1.84			
P - 48	47.7 ±0.44	P - 270	269.5 ±2.01	G - 250	249.3 ±1.88			
P - 49	48.7 ±0.45	P - 275	274.5 ±2.04	G - 255	254.3 ±1.91			
P - 50	49.7 ±0.45	P - 280	279.5 ±2.07	G - 260	259.3 ±1.94			
P - 48A	47.6 ±0.45	P - 285	284.5 ±2.10	G - 265	264.3 ±1.97			
P - 50A	49.6 ±0.45	P - 290	289.5 ±2.14	G - 270	269.3 ±2.01			
P - 52	51.6 ±0.47	P - 295	294.5 ±2.17	G - 275	274.3 ±2.04			
P - 53	52.6 ±0.48	P - 300	299.5 ±2.20	G - 280	279.3 ±2.07			
P - 55	54.6 ±0.49	P - 315	314.5 ±2.30	G - 285	284.3 ±2.10			
P - 56	55.6 ±0.50	P - 320	319.5 ±2.33	G - 290	289.3 ±2.14			
P - 58	57.6 ±0.52	P - 335	334.5 ±2.42	G - 295	294.3 ±2.17			
P - 60	59.6 ±0.53	P - 340	339.5 ±2.45	G - 300	299.3 ±2.20			
P - 62	61.6 ±0.55	P - 355	354.5 ±2.54	G - 305	304.3 ±2.24			
P - 63	62.6 ±0.56	P - 360	359.5 ±2.57	G - 310	309.3 ±2.27			
P - 65	64.6 ±0.57	P - 375	374.5 ±2.67	G - 315	314.3 ±2.30			
P - 67	66.6 ±0.59	P - 385	384.5 ±2.73	G - 320	319.3 ±2.33			
P - 70	69.6 ±0.61	P - 400	399.5 ±2.82	G - 325	324.3 ±2.36			
				G - 330	329.3 ±2.39			

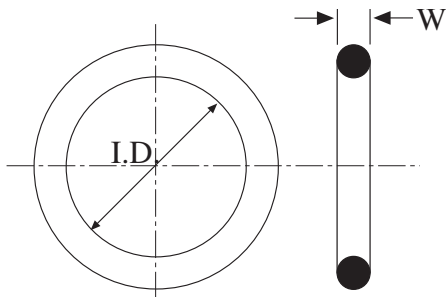
# O-RING SIZE CHART FOR METRIC SEALS

JIS B 2401	WIDTH	I.D.
G - 335	5.7 ±0.13	334.3 ±2.42
G - 340		339.3 ±2.45
G - 345		344.3 ±2.48
G - 350		349.3 ±2.51
G - 355		354.3 ±2.54
G - 360		359.3 ±2.57
G - 365		364.3 ±2.60
G - 370		369.3 ±2.63
G - 375		374.3 ±2.67
G - 380		379.3 ±2.70
G - 385		384.3 ±2.73
G - 390		389.3 ±2.76
G - 395	394.3 ±2.79	
G - 400	399.3 ±2.82	
V - 15	4 ±0.10	14.5 ±0.20
V - 24		23.5 ±0.24
V - 34		33.5 ±0.33
V - 40		39.5 ±0.37
V - 55		54.5 ±0.49
V - 70		69 ±0.61
V - 85		84 ±0.72
V - 100		99 ±0.83
V - 120		119 ±0.97
V - 150		148.5 ±1.18
V - 175	173 ±1.36	
V - 225	6 ±0.15	222.5 ±1.70
V - 275		272 ±2.02
V - 325		321.5 ±2.34
V - 380		376 ±2.68
V - 430		425.5 ±2.99
V - 480	10 ±0.30	475 ±3.30
V - 530		524.5 ±3.60
V - 585		579 ±3.92
V - 640		633.5 ±4.24
V - 690		683 ±4.54
V - 740		732.5 ±4.83
V - 790		782 ±5.12
V - 845		836.5 ±5.44
V - 950		940.5 ±6.06
V - 1055		1044 ±6.67

SM - O RINGS	WIDTH	I.D.
SM - 3	1.5 ±0.1	2.5 ±0.15
SM - 4		3.5 ±0.15
SM - 5		4.5 ±0.15
SM - 6		5.5 ±0.15
SM - 7		6.5 ±0.15
SM - 8		7.5 ±0.15
SM - 9		8.5 ±0.15
SM - 10		9.5 ±0.15
SM - 11.2		10.7 ±0.15
SM - 12		11.5 ±0.15
SM - 12.5		12 ±0.15
SM - 14		13.5 ±0.15
SM - 15	14.5 ±0.15	
SM - 16	15.5 ±0.15	
SM - 18	17.5 ±0.15	
SM - 20	19.5 ±0.15	
SM - 22	21.5 ±0.15	
SM - 22.4	2.0 ±0.1	21.9 ±0.15
SM - 24		23.5 ±0.15
SM - 25		24.5 ±0.15
SM - 26		25.5 ±0.15
SM - 28		27.5 ±0.15
SM - 29		28.5 ±0.15
SM - 30		29.5 ±0.15
SM - 31.5		31 ±0.15
SM - 32		31.5 ±0.15
SM - 34		33.5 ±0.15
SM - 35		34.5 ±0.15
SM - 35.5		35 ±0.15
SM - 36		35.5 ±0.15
SM - 38		37.5 ±0.15
SM - 39		38.5 ±0.15
SM - 40		39.5 ±0.15
SM - 42		41.5 ±0.25
SM - 44		43.5 ±0.25
SM - 45		44.5 ±0.25
SM - 46		45.5 ±0.25
SM - 48		47.5 ±0.25
SM - 50		49.5 ±0.25
SM - 53		52.5 ±0.25
SM - 55		54.5 ±0.25
SM - 56		55.5 ±0.25
SM - 60		59.5 ±0.25
SM - 63		62.5 ±0.25
SM - 65		64.5 ±0.25
SM - 67		66.5 ±0.25
SM - 70		69.5 ±0.25
SM - 71		70.5 ±0.4
SM - 75		74.5 ±0.4
SM - 80	79.5 ±0.4	
SM - 85	84.5 ±0.4	
SM - 90	89.5 ±0.4	
SM - 95	94.5 ±0.4	
SM - 100	99.5 ±0.4	
SM - 105	104.5 ±0.4	
SM - 110	109.5 ±0.4	
SM - 112	111.5 ±0.4	
SM - 115	114.5 ±0.4	
SM - 120	119.5 ±0.4	
SM - 125	124.5 ±0.4	
SM - 130	129.5 ±0.6	
SM - 132	131.5 ±0.6	

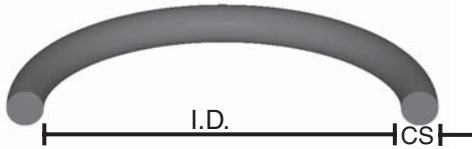
SM - O RINGS	WIDTH	I.D.
SM - 135		134.5 ±0.6
SM - 140		139.5 ±0.6
SM - 145		144.5 ±0.6
SM - 150		149.5 ±0.6

KS-O RINGS	WIDTH	I.D.
KS - 1	1.7 ±0.08	2.75 ±0.13
KS - 2		3.75 ±0.13
KS - 3		4.75 ±0.13
KS - 4		5.75 ±0.13
KS - 5		6.75 ±0.13
KS - 6		7.75 ±0.13
KS - 7		8.75 ±0.13
KS - 8		9.75 ±0.13
KS - 9	2.25 ±0.08	9.7 ±0.13
KS - 10		11.7 ±0.13
KS - 11		13.7 ±0.13
KS - 12		15.7 ±0.13
KS - 13		17.7 ±0.13
KS - 14	19.7 ±0.13	
KS - 15	3.3 ±0.10	19.6 ±0.15
KS - 16		21.6 ±0.15
KS - 17		23.6 ±0.15
KS - 18		24.6 ±0.15
KS - 19		25.6 ±0.15
KS - 20		27.6 ±0.15
KS - 21		29.6 ±0.15
KS - 22		31.6 ±0.15
KS - 23		33.6 ±0.15
KS - 24		35.6 ±0.15
KS - 25		37.6 ±0.15
KS - 26		39.6 ±0.15



# O-RINGS - 70 DURO NITRILE

Please specify 70 or 90 Durometer when ordering. Metric o-rings are offered in minimum package quantities (MP in chart).



## SEAL INFORMATION

MATERIAL	70 DURO NITRILE
TEMPERATURE RANGE	-40° TO +220° F
PART NUMBER	(Prefix) - (ID) X (CS)

List Number	MP	List Number	MP	List Number	MP
MOR-3X1	100	MOR-36X1.5	50	MOR-104.4X1.78	1
MOR-4X1	100	MOR-41X1.5	50	MOR-6.3X1.8	50
MOR-5X1	100	MOR-42X1.5	25	MOR-7.5X1.8	50
MOR-6X1	100	MOR-43X1.5	25	MOR-9.5X1.8	50
MOR-8X1	100	MOR-45X1.5	25	MOR-10.6X1.8	50
MOR-15X1	100	MOR-46X1.5	25	MOR-12.5X1.8	25
MOR-16X1	100	MOR-47X1.5	25	MOR-2.8X1.9	100
MOR-19X1	100	MOR-53X1.5	20	MOR-3.8X1.9	100
MOR-21X1	100	MOR-57X1.5	20	MOR-4.8X1.9	100
MOR-2.5X1.5	100	MOR-64X1.5	20	MOR-5.8X1.9	100
MOR-3X1.5	100	MOR-65X1.5	20	MOR-6.8X1.9	100
MOR-3.5X1.5	100	MOR-71X1.5	20	MOR-7.8X1.9	100
MOR-4X1.5	100	MOR-72X1.5	20	MOR-8.8X1.9	100
MOR-5X1.5	100	MOR-77X1.5	20	MOR-9.8X1.9	100
MOR-6X1.5	100	MOR-95X1.5	20	MOR-15.8X1.9	100
MOR-7X1.5	100	MOR-2.2X1.6	100	MOR-3X2	100
MOR-8X1.5	100	MOR-3.1X1.6	100	MOR-4X2	100
MOR-8.5X1.5	100	MOR-4.1X1.6	100	MOR-5X2	100
MOR-9X1.5	100	MOR-5.1X1.6	100	MOR-6X2	100
MOR-10X1.5	100	MOR-6.1X1.6	100	MOR-7X2	100
MOR-11X1.5	100	MOR-7.1X1.6	25	MOR-8X2	100
MOR-12X1.5	100	MOR-8.1X1.6	25	MOR-9X2	100
MOR-13X1.5	100	MOR-9.1X1.6	25	MOR-10X2	100
MOR-14X1.5	100	MOR-10.1X1.6	25	MOR-11X2	100
MOR-15X1.5	100	MOR-11.1X1.6	20	MOR-12X2	100
MOR-16X1.5	100	MOR-12.1X1.6	20	MOR-12.5X2	100
MOR-17X1.5	100	MOR-13.1X1.6	20	MOR-13X2	100
MOR-17.5X1.5	100	MOR-14.1X1.6	20	MOR-14X2	100
MOR-18X1.5	100	MOR-15.1X1.6	20	MOR-15X2	100
MOR-19X1.5	100	MOR-16.1X1.6	20	MOR-16X2	100
MOR-20X1.5	100	MOR-17.1X1.6	20	MOR-17X2	100
MOR-22X1.5	100	MOR-18.1X1.6	20	MOR-18X2	100
MOR-23X1.5	100	MOR-19.1X1.6	20	MOR-19X2	100
MOR-25X1.5	100	MOR-22.1X1.6	5	MOR-20X2	50
MOR-26X1.5	100	MOR-25.1X1.6	5	MOR-21X2	50
MOR-27X1.5	100	MOR-27.1X1.6	5	MOR-22X2	50
MOR-28X1.5	100	MOR-29.1X1.6	5	MOR-23X2	50
MOR-30X1.5	50	MOR-32.1X1.6	2	MOR-23.5X2	50
MOR-32X1.5	50	MOR-35.1X1.6	2	MOR-24X2	50
MOR-35X1.5	50	MOR-37.1X1.6	2	MOR-24.5X2	50

## O-RINGS - 70 DURO NITRILE

List Number	MP		List Number	MP		List Number	MP	
MOR-26X2	50		MOR-4.3X2.4	50		MOR-55.5X2.4	5	
MOR-27X2	50		MOR-4.6X2.4	50		MOR-57.6X2.4	5	
MOR-28X2	50		MOR-5.3X2.4	50		MOR-59.6X2.4	5	
MOR-28.5X2	25		MOR-5.6X2.4	50		MOR-59.7X2.4	5	
MOR-30X2	25		MOR-6.3X2.4	50		MOR-61.6X2.4	5	
MOR-31X2	25		MOR-6.6X2.4	25		MOR-64.6X2.4	5	
MOR-34X2	25		MOR-7.3X2.4	25		MOR-67.6X2.4	5	
MOR-35X2	25		MOR-7.6X2.4	25		MOR-69.6X2.4	5	
MOR-36X2	25		MOR-8.3X2.4	25		MOR-4X2.5	100	
MOR-37X2	25		MOR-8.6X2.4	25		MOR-5X2.5	100	
MOR-37.5X2	25		MOR-9.3X2.4	20		MOR-6X2.5	100	
MOR-39X2	20		MOR-9.6X2.4	20		MOR-7X2.5	100	
MOR-39.5X2	20		MOR-9.8X2.4	100		MOR-8X2.5	100	
MOR-42X2	20		MOR-10.3X2.4	20		MOR-9X2.5	100	
MOR-43X2	20		MOR-10.6X2.4	20		MOR-10X2.5	100	
MOR-44X2	20		MOR-10.8X2.4	100		MOR-11X2.5	100	
MOR-45X2	20		MOR-11X2.4	100		MOR-12X2.5	100	
MOR-46X2	20		MOR-11.3X2.4	20		MOR-13X2.5	100	
MOR-48X2	20		MOR-11.6X2.4	20		MOR-14X2.5	100	
MOR-50X2	20		MOR-11.8X2.4	100		MOR-15X2.5	100	
MOR-52X2	20		MOR-12.3X2.4	20		MOR-16X2.5	100	
MOR-53X2	20		MOR-12.6X2.4	20		MOR-17X2.5	100	
MOR-55X2	20		MOR-12.8X2.4	100		MOR-18X2.5	100	
MOR-56X2	20		MOR-13.3X2.4	20		MOR-19X2.5	50	
MOR-57X2	20		MOR-13.8X2.4	100		MOR-20X2.5	50	
MOR-58X2	20		MOR-14.3X2.4	10		MOR-21X2.5	50	
MOR-63X2	20		MOR-14.8X2.4	100		MOR-22X2.5	50	
MOR-64.5X2	20		MOR-15.8X2.4	100		MOR-23X2.5	50	
MOR-66X2	10		MOR-16.3X2.4	10		MOR-24X2.5	50	
MOR-67X2	10		MOR-16.6X2.4	20		MOR-25X2.5	50	
MOR-68X2	10		MOR-17.3X2.4	10		MOR-26X2.5	50	
MOR-69.5X2	10		MOR-17.8X2.4	100		MOR-27X2.5	50	
MOR-70X2	10		MOR-18.8X2.4	100		MOR-28X2.5	50	
MOR-72X2	10		MOR-19.6X2.4	20		MOR-29X2.5	50	
MOR-73X2	10		MOR-19.8X2.4	100		MOR-30X2.5	50	
MOR-74X2	10		MOR-20.8X2.4	100		MOR-31X2.5	50	
MOR-74.5X2	10		MOR-21.8X2.4	100		MOR-32X2.5	50	
MOR-76X2	10		MOR-27.3X2.4	10		MOR-35X2.5	25	
MOR-78X2	10		MOR-27.6X2.4	10		MOR-36X2.5	25	
MOR-79.5X2	10		MOR-29.6X2.4	10		MOR-37X2.5	25	
MOR-80X2	10		MOR-31.6X2.4	10		MOR-37.5X2.5	20	
MOR-84.5X2	10		MOR-34.6X2.4	10		MOR-38X2.5	20	
MOR-85X2	10		MOR-37.6X2.4	10		MOR-39X2.5	20	
MOR-86X2	10		MOR-39.6X2.4	10		MOR-40X2.5	20	
MOR-90X2	10		MOR-44.6X2.4	10		MOR-42X2.5	20	
MOR-93X2	10		MOR-47.6X2.4	5		MOR-45X2.5	20	
MOR-100X2	10		MOR-49.6X2.4	5		MOR-46X2.5	20	
MOR-114.5X2	5		MOR-51.6X2.4	5		MOR-47X2.5	20	
MOR-3.3X2.4	100		MOR-52.8X2.4	10		MOR-48X2.5	20	
MOR-3.6X2.4	50		MOR-54.6X2.4	5		MOR-49X2.5	20	



## O-RINGS - 70 DURO NITRILE

List Number	MP		List Number	MP		List Number	MP	
MOR-50X2.5	20		MOR-22.2X3	50		MOR-69X3	10	
MOR-53X2.5	20		MOR-23X3	50		MOR-70X3	10	
MOR-54X2.5	20		MOR-24X3	50		MOR-72X3	10	
MOR-55X2.5	20		MOR-24.2X3	15		MOR-74X3	10	
MOR-57X2.5	20		MOR-25X3	25		MOR-74.5X3	10	
MOR-58X2.5	20		MOR-26X3	25		MOR-75X3	10	
MOR-59X2.5	20		MOR-27X3	25		MOR-76X3	10	
MOR-60X2.5	20		MOR-28X3	25		MOR-77X3	10	
MOR-63X2.5	10		MOR-29X3	25		MOR-78X3	10	
MOR-65X2.5	10		MOR-30X3	25		MOR-79X3	10	
MOR-67X2.5	10		MOR-31X3	25		MOR-79.5X3	10	
MOR-69X2.5	10		MOR-32X3	25		MOR-80X3	10	
MOR-70X2.5	10		MOR-33X3	25		MOR-82X3	10	
MOR-72X2.5	10		MOR-34X3	20		MOR-85X3	10	
MOR-73X2.5	10		MOR-35X3	20		MOR-86X3	10	
MOR-75X2.5	10		MOR-36X3	20		MOR-88X3	10	
MOR-76X2.5	10		MOR-36.2X3	20		MOR-89X3	10	
MOR-80X2.5	10		MOR-36.5X3	20		MOR-90X3	10	
MOR-85X2.5	10		MOR-37.5X3	20		MOR-92X3	10	
MOR-90X2.5	10		MOR-38X3	20		MOR-94.5X3	10	
MOR-94X2.5	10		MOR-39X3	20		MOR-95X3	10	
MOR-100X2.5	5		MOR-40X3	20		MOR-96X3	10	
MOR-116X2.5	5		MOR-41.5X3	20		MOR-97X3	10	
MOR-120X2.5	5		MOR-42X3	20		MOR-99X3	5	
MOR-140X2.5	5		MOR-42.2X3	20		MOR-100X3	5	
MOR-14X2.65	50		MOR-43X3	20		MOR-104X3	5	
MOR-15X2.65	50		MOR-44X3	20		MOR-104.5X3	5	
MOR-16X2.65	50		MOR-45X3	20		MOR-106X3	5	
MOR-18X2.65	50		MOR-46X3	20		MOR-108X3	5	
MOR-25X2.65	25		MOR-47X3	20		MOR-109.5X3	5	
MOR-30X2.65	25		MOR-48X3	20		MOR-110X3	5	
MOR-5X3	100		MOR-49.5X3	20		MOR-114.5X3	5	
MOR-6X3	100		MOR-51X3	20		MOR-115X3	5	
MOR-8X3	100		MOR-52X3	20		MOR-118X3	5	
MOR-9X3	100		MOR-54X3	20		MOR-120X3	5	
MOR-9.5X3	100		MOR-54.5X3	20		MOR-125X3	5	
MOR-10X3	100		MOR-55X3	20		MOR-128X3	5	
MOR-11X3	100		MOR-56X3	20		MOR-130X3	5	
MOR-12X3	100		MOR-57X3	20		MOR-132X3	5	
MOR-13X3	50		MOR-58X3	20		MOR-135X3	5	
MOR-14X3	50		MOR-59X3	20		MOR-139.5X3	5	
MOR-15X3	50		MOR-59.5X3	20		MOR-145X3	5	
MOR-16X3	50		MOR-60X3	20		MOR-149X3	5	
MOR-17X3	50		MOR-62X3	10		MOR-150X3	5	
MOR-18X3	50		MOR-64X3	10		MOR-155X3	5	
MOR-19X3	50		MOR-64.5X3	10		MOR-160X3	5	
MOR-19.2X3	50		MOR-65X3	10		MOR-170X3	5	
MOR-20X3	50		MOR-66X3	10		MOR-175X3	2	
MOR-21X3	50		MOR-67X3	10		MOR-180X3	2	
MOR-22X3	50		MOR-68X3	10		MOR-194X3	2	

## O-RINGS - 70 DURO NITRILE

List Number	MP		List Number	MP		List Number	MP	
MOR-205X3	2		MOR-28.7X3.5	20		MOR-12X4	50	
MOR-215X3	2		MOR-29.2X3.5	20		MOR-14X4	50	
MOR-220X3	2		MOR-29.7X3.5	20		MOR-15X4	50	
MOR-225X3	2		MOR-30X3.5	20		MOR-16X4	50	
MOR-240X3	2		MOR-30.7X3.5	20		MOR-17X4	50	
MOR-245X3	2		MOR-31.2X3.5	20		MOR-19X4	50	
MOR-260X3	1		MOR-31.7X3.5	20		MOR-20X4	50	
MOR-24.4X3.1	25		MOR-33.7X3.5	20		MOR-21X4	50	
MOR-29.4X3.1	20		MOR-34.7X3.5	20		MOR-22X4	25	
MOR-32X3.1	20		MOR-35.2X3.5	20		MOR-23X4	25	
MOR-34.4X3.1	20		MOR-35.7X3.5	20		MOR-23.5X4	25	
MOR-39.4X3.1	20		MOR-37X3.5	20		MOR-24X4	25	
MOR-44.4X3.1	10		MOR-37.7X3.5	20		MOR-25X4	25	
MOR-49.4X3.1	10		MOR-38X3.5	20		MOR-27X4	25	
MOR-54.4X3.1	10		MOR-38.7X3.5	20		MOR-28X4	25	
MOR-57.4X3.1	10		MOR-39.7X3.5	20		MOR-30X4	20	
MOR-59.4X3.1	10		MOR-40.7X3.5	20		MOR-31X4	20	
MOR-64.4X3.1	10		MOR-41.7X3.5	20		MOR-32X4	20	
MOR-69.4X3.1	10		MOR-42X3.5	20		MOR-33X4	20	
MOR-74.4X3.1	5		MOR-43.7X3.5	10		MOR-34X4	20	
MOR-79.4X3.1	5		MOR-44.7X3.5	10		MOR-35X4	20	
MOR-84.4X3.1	5		MOR-45.7X3.5	10		MOR-37X4	20	
MOR-89.4X3.1	5		MOR-47.7X3.5	10		MOR-38X4	20	
MOR-94.4X3.1	5		MOR-48.7X3.5	10		MOR-40X4	20	
MOR-99.4X3.1	5		MOR-49.7X3.5	10		MOR-41X4	20	
MOR-104.4X3.1	5		MOR-50X3.5	10		MOR-42X4	20	
MOR-109.4X3.1	5		MOR-52X3.5	10		MOR-44X4	20	
MOR-114.4X3.1	5		MOR-56X3.5	10		MOR-45X4	20	
MOR-119.4X3.1	5		MOR-58X3.5	10		MOR-47X4	10	
MOR-124.4X3.1	5		MOR-60X3.5	10		MOR-48X4	10	
MOR-129.4X3.1	5		MOR-63X3.5	10		MOR-50X4	10	
MOR-134.4X3.1	2		MOR-65X3.5	10		MOR-52X4	10	
MOR-139.4X3.1	2		MOR-69X3.5	10		MOR-54X4	10	
MOR-144.4X3.1	2		MOR-71X3.5	10		MOR-55X4	10	
MOR-149.4X3.1	2		MOR-73X3.5	10		MOR-56X4	10	
MOR-16.6X3.3	5		MOR-86X3.5	5		MOR-57X4	10	
MOR-14X3.5	50		MOR-105X3.5	5		MOR-58X4	10	
MOR-15X3.5	50		MOR-112X3.5	5		MOR-60X4	10	
MOR-16X3.5	50		MOR-118X3.5	5		MOR-62X4	10	
MOR-20X3.5	50		MOR-120X3.5	5		MOR-64X4	10	
MOR-21X3.5	50		MOR-132X3.5	5		MOR-65X4	10	
MOR-21.7X3.5	25		MOR-145X3.5	5		MOR-66X4	10	
MOR-22X3.5	25		MOR-170X3.5	2		MOR-67X4	10	
MOR-22.1X3.5	25		MOR-175X3.5	2		MOR-68X4	10	
MOR-23.7X3.5	25		MOR-180X3.5	2		MOR-70X4	10	
MOR-24.7X3.5	25		MOR-200X3.5	2		MOR-72X4	10	
MOR-25X3.5	25		MOR-202X3.5	2		MOR-75X4	10	
MOR-25.2X3.5	25		MOR-210X3.5	2		MOR-76X4	5	
MOR-25.7X3.5	25		MOR-9X4	50		MOR-78X4	5	
MOR-27.7X3.5	20		MOR-11X4	50		MOR-80X4	5	

## O-RINGS - 70 DURO NITRILE

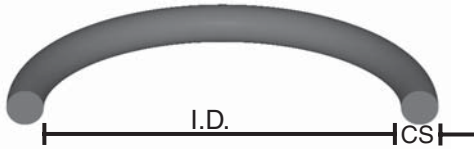
List Number	MP	List Number	MP	List Number	MP
MOR-82X4	5	MOR-285X4	1	MOR-150X5	5
MOR-84X4	5	MOR-287X4	1	MOR-155X5	2
MOR-86X4	5	MOR-438X4	1	MOR-158X5	2
MOR-89X4	5	MOR-15X5	25	MOR-160X5	2
MOR-90X4	5	MOR-16X5	25	MOR-165X5	2
MOR-92X4	5	MOR-19X5	25	MOR-173X5	2
MOR-95X4	5	MOR-20X5	20	MOR-175X5	2
MOR-96X4	5	MOR-21X5	20	MOR-180X5	2
MOR-98X4	5	MOR-22X5	20	MOR-195X5	2
MOR-100X4	5	MOR-24X5	20	MOR-200X5	2
MOR-102X4	5	MOR-27X5	20	MOR-205X5	2
MOR-104X4	5	MOR-28X5	20	MOR-220X5	2
MOR-105X4	5	MOR-30X5	20	MOR-225X5	2
MOR-108X4	5	MOR-32X5	20	MOR-235X5	1
MOR-110X4	5	MOR-35X5	20	MOR-240X5	1
MOR-112X4	5	MOR-40X5	10	MOR-245X5	1
MOR-114X4	5	MOR-42X5	10	MOR-250X5	1
MOR-115X4	5	MOR-44X5	10	MOR-255X5	1
MOR-116X4	5	MOR-45X5	10	MOR-265X5	1
MOR-117X4	5	MOR-50X5	10	MOR-275X5	1
MOR-118X4	5	MOR-52X5	10	MOR-290X5	1
MOR-119X4	5	MOR-55X5	10	MOR-300X5	1
MOR-120X4	5	MOR-58X5	10	MOR-330X5	1
MOR-124X4	5	MOR-60X5	10	MOR-345X5	1
MOR-126X4	5	MOR-65X5	10	MOR-350X5	1
MOR-127X4	5	MOR-68X5	10	MOR-375X5	1
MOR-128X4	5	MOR-70X5	10	MOR-395X5	1
MOR-129X4	5	MOR-73X5	5	MOR-40X5.3	10
MOR-130X4	5	MOR-75X5	5	MOR-45X5.3	10
MOR-132X4	5	MOR-78X5	5	MOR-50X5.3	10
MOR-133X4	5	MOR-80X5	5	MOR-58X5.3	10
MOR-134X4	5	MOR-82X5	5	MOR-63X5.3	5
MOR-136X4	5	MOR-85X5	5	MOR-150X5.3	2
MOR-137X4	5	MOR-92X5	5	MOR-170X5.3	2
MOR-140X4	5	MOR-95X5	5	MOR-47.6X5.7	5
MOR-142X4	5	MOR-97X5	5	MOR-49.6X5.7	5
MOR-146X4	5	MOR-100X5	5	MOR-51.6X5.7	5
MOR-150X4	5	MOR-105X5	5	MOR-52.6X5.7	5
MOR-155X4	5	MOR-107X5	5	MOR-54.6X5.7	5
MOR-160X4	5	MOR-108X5	5	MOR-55.6X5.7	5
MOR-164X4	5	MOR-110X5	5	MOR-57.6X5.7	5
MOR-170X4	5	MOR-112X5	5	MOR-59.2X5.7	5
MOR-172X4	5	MOR-118X5	5	MOR-59.6X5.7	2
MOR-177X4	5	MOR-120X5	5	MOR-61.6X5.7	2
MOR-180X4	5	MOR-121X5	5	MOR-62.6X5.7	2
MOR-200X4	5	MOR-122X5	5	MOR-64.6X5.7	2
MOR-240X4	2	MOR-125X5	5	MOR-66.6X5.7	2
MOR-250X4	2	MOR-130X5	5	MOR-69.6X5.7	2
MOR-265X4	2	MOR-138X5	5	MOR-70.6X5.7	2
MOR-270X4	2	MOR-140X5	5	MOR-74.3X5.7	5

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List Number	MP		List Number	MP		List Number	MP	
MOR-74.6X5.7	2		MOR-214.3X5.7	2		MOR-144.1X8.4	1	
MOR-79.3X5.7	5		MOR-219.3X5.7	2		MOR-149.5X8.4	1	
MOR-79.6X5.7	2		MOR-224.3X5.7	1		MOR-154.5X8.4	1	
MOR-84.3X5.7	5		MOR-229.3X5.7	1		MOR-159.5X8.4	1	
MOR-84.6X5.7	2		MOR-234.3X5.7	1		MOR-164.1X8.4	1	
MOR-89.3X5.7	5		MOR-239.3X5.7	1		MOR-164.5X8.4	1	
MOR-89.6X5.7	2		MOR-249.3X5.7	1		MOR-169.5X8.4	1	
MOR-94.3X5.7	5		MOR-254.3X5.7	1		MOR-174.5X8.4	1	
MOR-94.6X5.7	2		MOR-259.3X5.7	1		MOR-179.5X8.4	1	
MOR-99.3X5.7	5		MOR-269.3X5.7	1		MOR-184.5X8.4	1	
MOR-99.6X5.7	2		MOR-274.3X5.7	1		MOR-189.5X8.4	1	
MOR-101.6X5.7	2		MOR-279.3X5.7	1		MOR-194.5X8.4	1	
MOR-104.3X5.7	5		MOR-289.3X5.7	1		MOR-199.5X8.4	1	
MOR-104.6X5.7	2		MOR-299.3X5.7	1		MOR-204.5X8.4	1	
MOR-109.3X5.7	5		MOR-304.3X5.7	1		MOR-208.5X8.4	1	
MOR-109.6X5.7	2		MOR-309.3X5.7	1		MOR-209.5X8.4	1	
MOR-111.6X5.7	2		MOR-344.3X5.7	1		MOR-214.5X8.4	1	
MOR-114.6X5.7	2		MOR-359.3X5.7	1		MOR-219.5X8.4	1	
MOR-119.6X5.7	2		MOR-399.3X5.7	1		MOR-224.5X8.4	1	
MOR-124.3X5.7	2		MOR-404.3X5.7	1		MOR-229.5X8.4	1	
MOR-124.6X5.7	2		MOR-424.3X5.7	1		MOR-234.5X8.4	1	
MOR-129.3X5.7	2		MOR-429.3X5.7	1		MOR-239.5X8.4	1	
MOR-129.6X5.7	2		MOR-434.3X5.7	1		MOR-244.5X8.4	1	
MOR-131.6X5.7	2		MOR-439.3X5.7	1		MOR-249.5X8.4	1	
MOR-134.3X5.7	2		MOR-444.3X5.7	1		MOR-254.5X8.4	1	
MOR-134.6X5.7	2		MOR-449.3X5.7	1		MOR-259.5X8.4	1	
MOR-139.3X5.7	2		MOR-459.3X5.7	1		MOR-264.5X8.4	1	
MOR-139.6X5.7	2		MOR-464.3X5.7	1		MOR-269.5X8.4	1	
MOR-144.3X5.7	2		MOR-469.3X5.7	1		MOR-274.5X8.4	1	
MOR-144.6X5.7	2		MOR-474.3X5.7	1		MOR-279.5X8.4	1	
MOR-149.3X5.7	2		MOR-479.3X5.7	1		MOR-284.5X8.4	1	
MOR-149.6X5.7	2		MOR-484.3X5.7	1		MOR-289.5X8.4	1	
MOR-154.3X5.7	2		MOR-489.3X5.7	1		MOR-294.5X8.4	1	
MOR-159.3X5.7	2		MOR-494.3X5.7	1		MOR-299.5X8.4	1	
MOR-164.3X5.7	2		MOR-499.3X5.7	1		MOR-314.5X8.4	1	
MOR-169.3X5.7	2		MOR-20X6	10		MOR-319.5X8.4	1	
MOR-174.3X5.7	2		MOR-25X6	10		MOR-339.5X8.4	1	
MOR-179.3X5.7	2		MOR-30X6	10		MOR-354.5X8.4	1	
MOR-184.3X5.7	2		MOR-37X6	10		MOR-359.5X8.4	1	
MOR-189.3X5.7	2		MOR-46X6	10		MOR-384.5X8.4	1	
MOR-194.3X5.7	2		MOR-50X6	10		MOR-399.5X8.4	1	
MOR-199.3X5.7	2		MOR-114X6	5				
MOR-209.3X5.7	2		MOR-160X6	2				

# O-RINGS - 90 DURO NITRILE

Please specify 70 or 90 Durometer when ordering. Metric o-rings are offered in minimum package quantities (MP in chart).



## SEAL INFORMATION

MATERIAL	90 DURO NITRILE
TEMPERATURE RANGE	-40° TO +220° F
PART NUMBER	(Prefix) - (ID) X (CS)

List Number	MP	List Number	MP	List Number	MP
MOR-5X1.5-90D	50	MOR-11.8X2.4-90D	25	MOR-94.3X3-90D	5
MOR-13X1.5-90D	50	MOR-12.3X2.4-90D	20	MOR-105X3-90D	1
MOR-16X1.5-90D	50	MOR-12.8X2.4-90D	25	MOR-135X3-90D	1
MOR-2.2X1.6-90D	25	MOR-13.8X2.4-90D	20	MOR-24.4X3.1-90D	25
MOR-3.1X1.6-90D	25	MOR-14.8X2.4-90D	20	MOR-29.4X3.1-90D	20
MOR-4.1X1.6-90D	25	MOR-15.8X2.4-90D	20	MOR-34.4X3.1-90D	20
MOR-7.1X1.6-90D	20	MOR-16.3X2.4-90D	20	MOR-39.4X3.1-90D	20
MOR-9.1X1.6-90D	20	MOR-16.8X2.4-90D	20	MOR-44.4X3.1-90D	10
MOR-10.1X1.6-90D	20	MOR-17.8X2.4-90D	20	MOR-49.4X3.1-90D	10
MOR-13.1X1.6-90D	20	MOR-18.8X2.4-90D	20	MOR-54.4X3.1-90D	10
MOR-13.3X1.8-90D	2	MOR-19.8X2.4-90D	20	MOR-59.4X3.1-90D	5
MOR-2.8X1.9-90D	100	MOR-20.8X2.4-90D	20	MOR-62.4X3.1-90D	10
MOR-3.8X1.9-90D	100	MOR-21.8X2.4-90D	20	MOR-64.4X3.1-90D	5
MOR-4.8X1.9-90D	100	MOR-10X2.5-90D	50	MOR-69.4X3.1-90D	5
MOR-5.8X1.9-90D	100	MOR-13X2.5-90D	50	MOR-74.4X3.1-90D	5
MOR-6.8X1.9-90D	50	MOR-14X2.5-90D	50	MOR-79.4X3.1-90D	5
MOR-7.8X1.9-90D	50	MOR-15X2.5-90D	25	MOR-84.4X3.1-90D	5
MOR-8.8X1.9-90D	50	MOR-16X2.5-90D	25	MOR-89.4X3.1-90D	5
MOR-9.8X1.9-90D	50	MOR-17X2.5-90D	25	MOR-94.4X3.1-90D	5
MOR-4X2-90D	100	MOR-18X2.5-90D	25	MOR-99.4X3.1-90D	5
MOR-6X2-90D	50	MOR-19X2.5-90D	25	MOR-104.4X3.1-90D	5
MOR-8X2-90D	50	MOR-9X3-90D	50	MOR-109.4X3.1-90D	5
MOR-9X2-90D	50	MOR-10X3-90D	50	MOR-114.4X3.1-90D	5
MOR-10X2-90D	50	MOR-11X3-90D	50	MOR-119.4X3.1-90D	5
MOR-11X2-90D	50	MOR-17X3-90D	20	MOR-124.4X3.1-90D	5
MOR-12X2-90D	50	MOR-18X3-90D	10	MOR-129.4X3.1-90D	5
MOR-14X2-90D	50	MOR-19X3-90D	10	MOR-134.4X3.1-90D	2
MOR-16X2-90D	50	MOR-19.2X3-90D	10	MOR-139.4X3.1-90D	2
MOR-19X2-90D	50	MOR-20X3-90D	10	MOR-144.4X3.1-90D	2
MOR-20X2-90D	25	MOR-22.2X3-90D	10	MOR-21.7X3.5-90D	20
MOR-114.5X2-90D	5	MOR-23X3-90D	10	MOR-22.1X3.5-90D	20
MOR-4.3X2.4-90D	50	MOR-26.2X3-90D	10	MOR-23.7X3.5-90D	20
MOR-5.3X2.4-90D	50	MOR-27X3-90D	10	MOR-24.7X3.5-90D	20
MOR-5.6X2.4-90D	50	MOR-28X3-90D	10	MOR-25.2X3.5-90D	20
MOR-7.6X2.4-90D	25	MOR-42.2X3-90D	5	MOR-25.7X3.5-90D	10
MOR-8.3X2.4-90D	20	MOR-45X3-90D	5	MOR-27.7X3.5-90D	10
MOR-8.6X2.4-90D	20	MOR-56X3-90D	5	MOR-28.7X3.5-90D	10
MOR-9.8X2.4-90D	25	MOR-57X3-90D	5	MOR-29.2X3.5-90D	20
MOR-10.8X2.4-90D	25	MOR-60X3-90D	5	MOR-29.7X3.5-90D	10
MOR-11X2.4-90D	25	MOR-84X3-90D	1	MOR-30.7X3.5-90D	10

## O-RINGS - 90 DURO NITRILE

List Number	MP		List Number	MP		List Number	MP	
MOR-31.2X3.5-90D	20		MOR-79.6X5.7-90D	2		MOR-234.3X5.7-90D	1	
MOR-31.7X3.5-90D	10		MOR-84.6X5.7-90D	2		MOR-239.3X5.7-90D	1	
MOR-33.7X3.5-90D	10		MOR-89.6X5.7-90D	2		MOR-249.3X5.7-90D	1	
MOR-34.7X3.5-90D	10		MOR-94.6X5.7-90D	2		MOR-259.3X5.7-90D	1	
MOR-35.2X3.5-90D	20		MOR-99.6X5.7-90D	2		MOR-269.3X5.7-90D	1	
MOR-35.7X3.5-90D	10		MOR-101.6X5.7-90D	2		MOR-274.3X5.7-90D	1	
MOR-37.7X3.5-90D	10		MOR-104.6X5.7-90D	2		MOR-279.3X5.7-90D	1	
MOR-38.7X3.5-90D	10		MOR-109.6X5.7-90D	2		MOR-289.3X5.7-90D	1	
MOR-39.7X3.5-90D	10		MOR-111.6X5.7-90D	2		MOR-149.5X8.4-90D	1	
MOR-40.7X3.5-90D	10		MOR-114.6X5.7-90D	2		MOR-154.5X8.4-90D	1	
MOR-41.7X3.5-90D	10		MOR-119.6X5.7-90D	2		MOR-159.5X8.4-90D	1	
MOR-43.7X3.5-90D	5		MOR-124.6X5.7-90D	2		MOR-164.5X8.4-90D	1	
MOR-44.7X3.5-90D	5		MOR-129.6X5.7-90D	2		MOR-169.5X8.4-90D	1	
MOR-45.7X3.5-90D	5		MOR-131.6X5.7-90D	2		MOR-174.5X8.4-90D	1	
MOR-47.7X3.5-90D	5		MOR-134.6X5.7-90D	2		MOR-179.5X8.4-90D	1	
MOR-48.7X3.5-90D	5		MOR-139.6X5.7-90D	2		MOR-184.5X8.4-90D	1	
MOR-49.7X3.5-90D	5		MOR-144.6X5.7-90D	2		MOR-189.5X8.4-90D	1	
MOR-59X3.5-90D	5		MOR-149.3X5.7-90D	2		MOR-194.5X8.4-90D	1	
MOR-75X5-90D	2		MOR-149.6X5.7-90D	2		MOR-199.5X8.4-90D	1	
MOR-130X5-90D	2		MOR-154.3X5.7-90D	2		MOR-204.5X8.4-90D	1	
MOR-47.6X5.7-90D	5		MOR-159.3X5.7-90D	2		MOR-208.5X8.4-90D	1	
MOR-49.6X5.7-90D	5		MOR-164.3X5.7-90D	1		MOR-209.5X8.4-90D	1	
MOR-52.6X5.7-90D	5		MOR-169.3X5.7-90D	1		MOR-214.5X8.4-90D	1	
MOR-54.6X5.7-90D	5		MOR-174.3X5.7-90D	1		MOR-219.5X8.4-90D	1	
MOR-55.6X5.7-90D	5		MOR-179.3X5.7-90D	1		MOR-224.5X8.4-90D	1	
MOR-57.6X5.7-90D	2		MOR-184.3X5.7-90D	1		MOR-234.5X8.4-90D	1	
MOR-59.6X5.7-90D	2		MOR-189.3X5.7-90D	1		MOR-239.5X8.4-90D	1	
MOR-61.6X5.7-90D	2		MOR-194.3X5.7-90D	1		MOR-259.5X8.4-90D	1	
MOR-62.6X5.7-90D	2		MOR-199.3X5.7-90D	1		MOR-264.5X8.4-90D	1	
MOR-64.6X5.7-90D	2		MOR-204.3X5.7-90D	1		MOR-299.5X8.4-90D	1	
MOR-66.6X5.7-90D	2		MOR-209.3X5.7-90D	1		MOR-319.5X8.4-90D	1	
MOR-69.6X5.7-90D	2		MOR-214.3X5.7-90D	1		MOR-359.5X8.4-90D	1	
MOR-70.6X5.7-90D	2		MOR-219.3X5.7-90D	1		MOR-374.5X8.4-90D	1	
MOR-74.6X5.7-90D	2		MOR-229.3X5.7-90D	1				

## O-RINGS - KITS



### O-RING SPLICE KIT INCH & METRIC SIZES

**Part Number: Met/Inch Splice Kit**

This kit can produce O-Rings of any standard inch size cross-section plus a wide variety of metric sizes. Each kit contains quick drying adhesive, cutting and splicing jig, razor blade and 14 lengths of 70 Durometer Buna-N cord stock as follows:

**Inch cross-sections: (inch)**

1/16" (.070), 3/32" (.103), 1/8" (.139),  
3/16" (.210), 1/4" (.275)

**Metric cross-sections: (mm)**

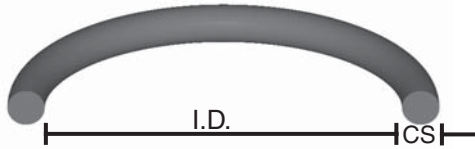
1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 5.0, 5.7, 8.4

### O-Ring Cord Stock

Part Number	C.S.	
MORC-1.5	1.5	
MORC-2.0	2	
MORC-2.5	2.5	
MORC-3.0	3	
MORC-4.0	4	
MORC-5.0	5	
MORC-5.7	5.7	
MORC-8.4	8.4	

## O-RINGS - 75 DURO FLUOROCARBON

Please specify 75 or 90 Durometer when ordering. Metric o-rings are offered in minimum package quantities (MP in chart).



### SEAL INFORMATION

MATERIAL	75 DURO FLUOROCARBON
TEMPERATURE RANGE	-20° TO +400° F
PART NUMBER	(Prefix) - (ID) X (CS)

List Number	MP	List Number	MP	List Number	MP
MOR-3X1V	20	MOR-23.5X2V	5	MOR-17X2.5V	4
MOR-4X1V	10	MOR-24X2V	5	MOR-18X2.5V	5
MOR-6X1V	20	MOR-25X2V	5	MOR-19X2.5V	5
MOR-2X1.5V	15	MOR-26X2V	5	MOR-20X2.5V	5
MOR-5X1.5V	20	MOR-27X2V	5	MOR-22X2.5V	5
MOR-7X1.5V	15	MOR-30X2V	5	MOR-23X2.5V	5
MOR-11X1.5V	10	MOR-32X2V	5	MOR-28X2.5V	5
MOR-12X1.5V	10	MOR-35X2V	5	MOR-35X2.5V	2
MOR-13X1.5V	10	MOR-37.5X2V	5	MOR-59X2.5V	1
MOR-17X1.5V	1	MOR-39X2V	3	MOR-9X3V	5
MOR-3.1X1.6V	20	MOR-39.5X2V	2	MOR-10X3V	5
MOR-4.1X1.6V	20	MOR-44X2V	2	MOR-11X3V	5
MOR-7.1X1.6V	10	MOR-50X2V	2	MOR-13X3V	5
MOR-9.1X1.6V	10	MOR-55X2V	2	MOR-15X3V	5
MOR-13.1X1.6V	10	MOR-7.6X2.4V	10	MOR-16X3V	5
MOR-4.8X1.9V	15	MOR-8.3X2.4V	10	MOR-17X3V	5
MOR-5.8X1.9V	15	MOR-8.6X2.4V	10	MOR-19X3V	5
MOR-6.8X1.9V	10	MOR-9.8X2.4V	5	MOR-20X3V	5
MOR-7.8X1.9V	10	MOR-10.8X2.4V	5	MOR-22X3V	5
MOR-8.8X1.9V	10	MOR-11.3X2.4V	5	MOR-22.2X3V	5
MOR-9.8X1.9V	10	MOR-11.8X2.4V	5	MOR-25X3V	5
MOR-3X2V	10	MOR-12.3X2.4V	5	MOR-26X3V	5
MOR-4X2V	10	MOR-13.3X2.4V	5	MOR-27X3V	5
MOR-5X2V	10	MOR-13.8X2.4V	5	MOR-28X3V	2
MOR-6X2V	10	MOR-14.8X2.4V	5	MOR-29X3V	2
MOR-7X2V	10	MOR-15.8X2.4V	5	MOR-30X3V	2
MOR-8X2V	10	MOR-17.3X2.4V	5	MOR-32X3V	2
MOR-9X2V	10	MOR-17.8X2.4V	5	MOR-33X3V	2
MOR-10X2V	10	MOR-19.8X2.4V	5	MOR-34X3V	2
MOR-11X2V	10	MOR-20.8X2.4V	5	MOR-35X3V	2
MOR-12X2V	10	MOR-21.8X2.4V	5	MOR-36X3V	2
MOR-13X2V	10	MOR-39.6X2.4V	2	MOR-38X3V	2
MOR-14X2V	5	MOR-7X2.5V	10	MOR-39X3V	2
MOR-15X2V	5	MOR-10X2.5V	5	MOR-42.2X3V	2
MOR-16X2V	5	MOR-11X2.5V	5	MOR-46X3V	1
MOR-17X2V	5	MOR-12X2.5V	5	MOR-48X3V	2
MOR-18X2V	5	MOR-13X2.5V	5	MOR-49.5X3V	2
MOR-19X2V	5	MOR-14X2.5V	5	MOR-52X3V	2
MOR-20X2V	5	MOR-15X2.5V	5	MOR-57X3V	1
MOR-22X2V	5	MOR-16X2.5V	5	MOR-60X3V	1



## O-RINGS - 75 DURO FLUOROCARBON

List Number	MP		List Number	MP		List Number	MP	
MOR-62X3V	1		MOR-84.4X3.1V	1		MOR-59.6X5.7V	1	
MOR-64X3V	1		MOR-89.4X3.1V	1		MOR-64.6X5.7V	1	
MOR-65X3V	1		MOR-94.4X3.1V	1		MOR-69.6X5.7V	1	
MOR-68X3V	1		MOR-99.4X3.1V	1		MOR-79.6X5.7V	1	
MOR-72X3V	1		MOR-104.4X3.1V	1		MOR-84.6X5.7V	1	
MOR-74X3V	1		MOR-109.4X3.1V	1		MOR-89.6X5.7V	1	
MOR-78X3V	1		MOR-114.4X3.1V	1		MOR-94.6X5.7V	1	
MOR-95X3V	1		MOR-119.4X3.1V	1		MOR-99.6X5.7V	1	
MOR-24.4X3.1V	2		MOR-124.4X3.1V	1		MOR-109.6X5.7V	1	
MOR-29.4X3.1V	2		MOR-38X4V	1		MOR-114.6X5.7V	1	
MOR-39.4X3.1V	2		MOR-41X4V	2		MOR-119.6X5.7V	1	
MOR-44.4X3.1V	1		MOR-44X4V	1		MOR-129.6X5.7V	1	
MOR-49.4X3.1V	1		MOR-48X4V	1		MOR-134.6X5.7V	1	
MOR-54.4X3.1V	1		MOR-60X4V	1		MOR-139.6X5.7V	1	
MOR-59.4X3.1V	1		MOR-72X4V	1		MOR-154.3X5.7V	1	
MOR-64.4X3.1V	1		MOR-124X4V	1		MOR-189.3X5.7V	1	
MOR-69.4X3.1V	1		MOR-49.6X5.7V	1				
MOR-74.4X3.1V	1		MOR-52.6X5.7V	1				
MOR-79.4X3.1V	1		MOR-54.6X5.7V	1				

## O-RING KITS

### COMMON JAPANESE SIZES O-RINGS IN 70 DUROMETER

Part Number: Metric O Kit-J



This 380 piece kit contains the most popular Japanese Industrial metric O-ring sizes.

I.D.	C.S	QTY	I.D.	C.S	QTY
2.8	1.9	25	20.8	2.4	8
3.8	1.9	20	21.8	2.4	8
4.8	1.9	20	24.4	3.1	6
5.8	1.9	20	29.4	3.1	7
6.8	1.9	15	21.7	3.5	5
7.8	1.9	15	22.1	3.5	5
8.8	1.9	15	23.7	3.5	7
9.8	1.9	15	24.7	3.5	7
9.8	2.4	15	25.2	3.5	7
10.8	2.4	15	25.7	3.5	7
11.0	2.4	15	27.7	3.5	7
11.8	2.4	12	28.7	3.5	6
12.8	2.4	12	29.2	3.5	6
13.8	2.4	12	29.7	3.5	6
14.8	2.4	12	30.7	3.5	6
15.8	2.4	12	31.2	3.5	6
17.8	2.4	8	14.5	4.0	4
19.8	2.4	8	23.5	4.0	6

### COMMON JAPANESE SIZES O-RINGS IN 90 DUROMETER

Part Number: Metric O Kit-J-90D



This 380 piece kit contains the most popular Japanese Industrial metric O-ring sizes in 90 durometer NBR.

I.D.	C.S	QTY	I.D.	C.S	QTY
2.8	1.9	25	20.8	2.4	8
3.8	1.9	20	21.8	2.4	8
4.8	1.9	20	24.4	3.1	6
5.8	1.9	20	29.4	3.1	7
6.8	1.9	15	21.7	3.5	5
7.8	1.9	15	22.1	3.5	5
8.8	1.9	15	23.7	3.5	7
9.8	1.9	15	24.7	3.5	7
9.8	2.4	15	25.2	3.5	7
10.8	2.4	15	25.7	3.5	7
11.0	2.4	15	27.7	3.5	7
11.8	2.4	12	28.7	3.5	6
12.8	2.4	12	29.2	3.5	6
13.8	2.4	12	29.7	3.5	6
14.8	2.4	12	30.7	3.5	6
15.8	2.4	12	31.2	3.5	6
17.8	2.4	8	14.5	4.0	4
19.8	2.4	8	23.5	4.0	6

## O-RING KITS

### COMMON EUROPEAN SIZES O-RINGS IN 70 DUROMETER

Part Number: Metric O Kit-E



This 500 piece kit contains the most popular European metric O-ring sizes.

I.D.	C.S.	QTY	I.D.	C.S.	QTY
5.0	1.5	20	19.0	2.0	10
13.0	1.5	15	20.0	2.0	10
16.0	1.5	10	4.3	2.4	15
2.2	1.6	20	5.3	2.4	15
3.1	1.6	20	5.6	2.4	15
4.1	1.6	20	7.6	2.4	15
7.1	1.6	20	8.3	2.4	15
9.1	1.6	15	8.6	2.4	15
10.1	1.6	15	10.0	2.5	10
13.1	1.6	15	13.0	2.5	10
4.0	2.0	20	14.0	2.5	10
6.0	2.0	20	15.0	2.5	10
8.0	2.0	15	17.0	2.5	10
9.0	2.0	15	18.0	2.5	10
10.0	2.0	15	19.0	2.5	10
12.0	2.0	15	9.0	3.0	10
14.0	2.0	10	10.0	3.0	10
16.0	2.0	10	11.0	3.0	10

### COMMON EUROPEAN SIZES O-RINGS IN 90 DUROMETER

Part Number: Metric O Kit-E-90D



This 500 piece kit contains the most popular European metric O-ring sizes.

I.D.	C.S.	QTY	I.D.	C.S.	QTY
5.0	1.5	20	19.0	2.0	10
13.0	1.5	15	20.0	2.0	10
16.0	1.5	10	4.3	2.4	15
2.2	1.6	20	5.3	2.4	15
3.1	1.6	20	5.6	2.4	15
4.1	1.6	20	7.6	2.4	15
7.1	1.6	20	8.3	2.4	15
9.1	1.6	15	8.6	2.4	15
10.1	1.6	15	10.0	2.5	10
13.1	1.6	15	13.0	2.5	10
4.0	2.0	20	14.0	2.5	10
6.0	2.0	20	15.0	2.5	10
8.0	2.0	15	17.0	2.5	10
9.0	2.0	15	18.0	2.5	10
10.0	2.0	15	19.0	2.5	10
12.0	2.0	15	9.0	3.0	10
14.0	2.0	10	10.0	3.0	10
16.0	2.0	10	11.0	3.0	10

## STYLE MBT BACK-UP RINGS

Commonly used with metric o-rings, these back-up rings are made of virgin PTFE unless suffix specifies otherwise.



### SEAL INFORMATION

MATERIAL	PTFE
TEMPERATURE RANGE	-40° TO +500° F
PART NUMBER	(Prefix) - (ID) X (CS) X (W)

Part Number		Part Number		Part Number		Part Number	
MBT-3X1.5X1.25		MBT-43X2.5X0.6		MBT-29X3X1.25		MBT-62X5X1.9	
MBT-4X1.5X1.25		MBT-45X2.5X1.25		MBT-29.5X3X1.25		MBT-63X5X1.9	
MBT-5X1.5X1.25		MBT-50X2.5X1.25		MBT-30X3X1.25		MBT-65X5X1.9	
MBT-6X1.5X1.25		MBT-55X2.5X1.25		MBT-30X3X2.3		MBT-67X5X1.9	
MBT-7X1.5X1.25		MBT-57X2.5X1.5		MBT-31X3X1.25		MBT-70X5X1.9	
MBT-8X1.5X1.25		MBT-60X2.5X1.25		MBT-31.5X3X1.25		MBT-71X5X1.9	
MBT-9X1.5X1.25		MBT-65X2.5X1.25		MBT-32X3X1.25		MBT-75X5X1.9	
MBT-10X1.5X1.25		MBT-70X2.5X1.25		MBT-34X3X1.25		MBT-80X5X1.9	
MBT-13X1.5X1		MBT-75X2.5X1.25		MBT-35X3X1.25		MBT-85X5X1.9	
MBT-10X2X1.25		MBT-80X2.5X1.25		MBT-35.5X3X1.25		MBT-90X5X1.9	
MBT-11X2X1.25		MBT-85X2.5X1.25		MBT-36X3X1.25		MBT-95X5X1.9	
MBT-11.2X2X1.25		MBT-88X2.5X1.3		MBT-38X3X1.25		MBT-100X5X1.9	
MBT-12X2X1.25		MBT-90X2.5X1.25		MBT-39X3X1.25		MBT-102X5X1.9	
MBT-12.5X2X1.25		MBT-95X2.5X1.25		MBT-40X3X1.25		MBT-105X5X1.9	
MBT-13X2X1.2		MBT-100X2.5X1.25		MBT-41X3X1.25		MBT-110X5X1.9	
MBT-14X2X1.25		MBT-105X2.5X1.25		MBT-42X3X1.25		MBT-112X5X1.9	
MBT-15X2X1.25		MBT-110X2.5X1.25		MBT-44X3X1.25		MBT-115X5X1.9	
MBT-16X2X1.25		MBT-115X2.5X1.25		MBT-45X3X1.25		MBT-120X5X1.9	
MBT-18X2X1.25		MBT-120X2.5X1.25		MBT-46X3X1.25		MBT-125X5X1.9	
MBT-20X2X1.25		MBT-125X2.5X1.25		MBT-48X3X1.25		MBT-130X5X1.9	
MBT-21X2X1.25		MBT-130X2.5X1.25		MBT-49X3X1.25		MBT-132X5X1.9	
MBT-22X2X1.25		MBT-135X2.5X1.25		MBT-50X3X1.25		MBT-135X5X1.9	
MBT-28X2X1.5S		MBT-140X2.5X1.25		MBT-62X3.5X1.1		MBT-140X5X1.9	
MBT-47X2X1.25		MBT-145X2.5X1.25		MBT-82X3.5X1.5G		MBT-145X5X1.9	
MBT-53X2X1.25		MBT-155X2.5X1.5		MBT-50X5X1.9		MBT-150X5X1.9	
MBT-11.8X2.1X1		MBT-21X3X2.5		MBT-52X5X1.9		MBT-155X5X1.9	
MBT-20X2.5X1.25		MBT-22X3X1.25		MBT-53X5X1.9		MBT-160X5X1.9	
MBT-25X2.5X1.25		MBT-22.4X3X1.25		MBT-55X5X1.9		MBT-165X5X1.9	
MBT-30X2.5X1.25		MBT-24X3X1.25		MBT-56X5X1.9		MBT-170X5X1.9	
MBT-32X2.5X1.5		MBT-25X3X1.25		MBT-58X5X1.9		MBT-180X5X1.9	
MBT-35X2.5X1.25		MBT-26X3X1.25		MBT-60X5X1.5SG		MBT-180X5X2.5	
MBT-40X2.5X1.25		MBT-28X3X1.25		MBT-60X5X1.9		MBT-185X5X1.9	

## STYLE MBT BACK-UP RINGS

Part Number		Part Number		Part Number		Part Number	
MBT-185X5X1.9		MBT-280X5X1.9		MBT-195X7.5X2.75		MBT-255X7.5X2.75	
MBT-190X5X1.9		MBT-290X5X1.9		MBT-200X7.5X2.75		MBT-260X7.5X2.75	
MBT-195X5X1.9		MBT-300X5X1.9		MBT-205X7.5X2.75		MBT-265X7.5X2.75	
MBT-200X5X1.9		MBT-112X7.5X3SCG		MBT-209X7.5X2.75		MBT-270X7.5X2.75	
MBT-210X5X1.9		MBT-150X7.5X2.75		MBT-210X7.5X2.5		MBT-275X7.5X2.75	
MBT-214X5X1.9		MBT-155X7.5X2.75		MBT-210X7.5X2.75		MBT-280X7.5X2.75	
MBT-215X5X1.9		MBT-160X7.5X2.75		MBT-220X7.5X2.75		MBT-285X7.5X2.75	
MBT-230X5X1.9		MBT-165X7.5X2.75		MBT-225X7.5X2.75		MBT-290X7.5X2.75	
MBT-240X5X1.9		MBT-170X7.5X2.75		MBT-230X7.5X2.75		MBT-295X7.5X2.75	
MBT-250X5X1.9		MBT-175X7.5X2.75		MBT-235X7.5X2.75		MBT-300X7.5X2.75	
MBT-260X5X1.9		MBT-180X7.5X2.75		MBT-240X7.5X2.75		MBT-315X7.5X2.75	
MBT-270X5X1.9		MBT-185X7.5X2.75		MBT-245X7.5X2.75		MBT-55X8X3SB	
MBT-275X5X1.9		MBT-190X7.5X2.75		MBT-250X7.5X2.75			

## STYLE MBU BACK-UP RINGS



### SEAL INFORMATION

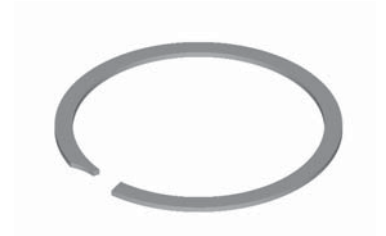
MATERIAL	URETHANE
TEMPERATURE RANGE	-40° TO +200° F
PART NUMBER	(Prefix) - (ID) X (CS) X (W)

Part Number		Part Number		Part Number		Part Number	
MBU-6X2X1.3		MBU-70X2.5X1.3		MBU-56X3.5X1.25		MBU-115X5X1.7	
MBU-14X2X1.3		MBU-72.5X2.5X1.3		MBU-66X3.5X1.2		MBU-120X5X1.7	
MBU-16X2X1.3		MBU-75X2.5X1.3		MBU-72X3.5X1.25		MBU-130X5X1.7	
MBU-25X2.5X1.3		MBU-80X2.5X1.3		MBU-76X3.5X1.1		MBU-140X5X1.7	
MBU-30X2.5X1.3		MBU-85X2.5X1.3		MBU-40X5X1.7		MBU-145X5X1.7	
MBU-33X2.5X1.5		MBU-90X2.5X1.3		MBU-50X5X1.7		MBU-150X5X1.7	
MBU-35X2.5X1.3		MBU-95X2.5X1.3		MBU-53X5X1.7		MBU-155X5X1.7	
MBU-37X2.5X1.3		MBU-98X2.5X1.3		MBU-55X5X1.7		MBU-160X5X1.7	
MBU-40X2.5X1.3		MBU-100X2.5X1.3		MBU-60X5X1.7		MBU-170X5X1.7	
MBU-43X2.5X1.3		MBU-105X2.5X1.3		MBU-75X5X1.7		MBU-180X5X1.7	
MBU-45X2.5X1.3		MBU-110X2.5X1.3		MBU-78X5X1.7		MBU-190X5X1.7	
MBU-47X2.5X1.3		MBU-115X2.5X1.3		MBU-85X5X1.7		MBU-145X7.5X2.1	
MBU-50X2.5X1.3		MBU-125X2.5X1.3		MBU-90X5X1.7		MBU-145X7.5X2.5	
MBU-55X2.5X1.3		MBU-130X2.5X1.3		MBU-95X5X1.7		MBU-155X7.5X1.7	
MBU-58X2.5X1.3		MBU-140X2.5X1.3		MBU-100X5X1.7		MBU-180X7.5X2.1	
MBU-65X2.5X1.3		MBU-47X3.5X1.1		MBU-110X5X1.7		MBU-200X7.5X2.1	

## RETAINER RINGS

### Spiral Type Retainer Rings

Part Number	Bore	Ring OD	Radial Wall	Thickness	
MSL-32	32.0	34.5	3.0	0.80	
MSL-34	34.0	36.3	2.7	0.62	
MSL-54	52.0	54.8	3.0	0.80	
MSL-74	74.0	74.0	3.5	1.00	



### Lock Wire

Part Number	Description	
MLW-2	MLW - 2 mm Round Cross Section- Sold per inch	
MLW-3	MLW - 3 mm Round Cross Section- Sold per inch	

### Internal Retainer Rings

Part Number	Bore	Ring OD	Thickness	
M300-30	30.0	32.1	1.20	
M300-32	32.0	34.4	1.20	
M300-42	42.0	45.5	1.30	
M300-45	45.0	48.5	1.75	
M300-47	47.0	50.5	1.75	
M300-48	48.0	51.5	1.75	
M300-50	50.0	54.2	2.00	
M300-52	52.0	56.2	2.00	
M300-55	55.0	59.2	1.50	
M300-60	60.0	64.2	2.00	
M300-62	62.0	66.2	2.00	
M300-72	72.0	76.5	2.50	
M300-80	80.0	84.5	2.50	
M300-82	82.0	87.5	2.50	
M300-130	130.0	137.0	4.00	



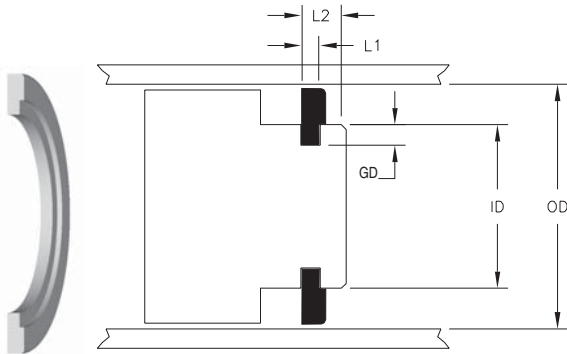
### External Retainer Rings

Part Number	Shaft Diam	Ring ID	Thickness	
M310-13	13.0	11.9	1.00	
M310-14	14.0	12.9	1.00	
M310-25	25.0	23.0	1.20	
M310-28	28.0	25.9	1.50	
M310-30	30.0	27.9	1.50	
M310-45	45.0	41.5	1.75	
M310-50	50.0	45.8	2.00	
M310-60	60.0	55.8	2.00	
M310-65	65.0	60.8	2.50	



# STYLE MSR U-SEAL RETAINER RINGS

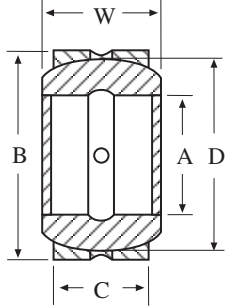
These rings are split for ease of installation and are retained in a groove. Their use is primarily to retain a single acting piston seals. Commonly are used with MUFN style piston seals.



SEAL INFORMATION	
MATERIAL	ACETAL
TEMPERATURE RANGE	-22° TO +212° F
PART NUMBER	(Prefix) - (OD) X (ID)

Part Number	ID	OD	L1	L2	Groove Depth	
MSR-40X26	26	40	3.12	6.00	2.10	
MSR-40X28	28	40	3.12	6.00	2.10	
MSR-50X30	30	50	3.30	6.48	2.10	
MSR-50X35	35	50	3.30	6.48	2.10	
MSR-50X40	40	50	2.62	6.48	2.10	
MSR-55X40	40	55	3.30	6.00	2.10	
MSR-60X40	40	60	3.30	6.48	2.10	
MSR-63X50	50	63	3.30	6.48	2.10	
MSR-65X50	50	65	3.10	6.00	2.10	
MSR-70X50	50	70	3.30	6.48	2.10	
MSR-80X60	60	80	3.30	6.48	2.10	
MSR-80X65	65	80	3.12	6.48	2.10	
MSR-90X70	70	90	3.30	6.48	2.10	
MSR-104.5X85	85	104.5	3.30	6.48	2.10	
MSR-105X85	85	105	4.60	6.48	2.10	
MSR-110X90	90	110	3.30	6.48	2.10	
MSR-115X95	95	115	3.30	6.48	2.10	

## STYLE MHH SELF ALIGNING BEARINGS



### SEAL INFORMATION

MATERIAL

CARBON  
CHROMIUM STEEL

Part Number	A	B	W	C	D	
MHH20ES	20	35	16	12	29	
MHH20ES2RS	20	35	16	12	29	
MHH25ES	25	42	20	16	35.5	
MHH25ES2RS	25	42	20	16	35.5	
MHH30ES	30	47	22	18	40.7	
MHH30ES2RS	30	47	22	18	40.7	
MHH35ES	35	55	25	20	47	
MHH35ES2RS	35	55	25	20	47	
MHH40ES	40	62	28	22	53	
MHH40ES2RS	40	62	28	22	53	
MHH45ES2RS	45	68	32	25	60	
MHH50ES	50	75	35	28	66	
MHH50ES2RS	50	75	35	28	66	
MHH60ES	60	90	44	36	80	
MHH70ES	70	105	49	40	92	
MHH70ES2RS	70	105	49	30	92	
MHH80ES	80	120	55	45	105	



# Kits & Tools

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## O-RING KITS

### O-RING KIT

Part Number: 568 Kit-A

PART NUMBER	QTY	PART NUMBER	QTY
006-012	20	210-222	10
110-116	13	325-327	7

This kit contains a total of 382 O-Rings in 30 different sizes, providing an extremely low cost per size value.



### O-RING METRIC KIT

Part Number: Metric O Kit-J-A

I.D X C.S. (mm)	QTY	I.D X C.S. (mm)	QTY
3 X 2.0	16	20 X 3.0	12
4 X 2.0	16	22 X 3.0	12
5 X 2.0	16	24 X 3.0	12
6 X 2.0	16	25 X 3.0	12
7 X 2.0	16	27 X 3.0	12
8 X 2.0	16	28 X 3.0	12
10 X 2.0	16	30 X 3.0	12
10 X 2.5	16	32 X 3.0	12
11 X 2.5	13	33 X 3.0	12
12 X 2.5	13	35 X 3.0	12
14 X 2.5	13	36 X 3.0	12
16 X 2.5	13	38 X 3.0	12
17 X 2.5	13	38 X 4.0	9
19 X 2.5	13	41 X 4.0	9
19 X 3.0	12	44 X 4.0	9

The Metric O-Kit J-A contains a total of 389 O-Rings in 30 different sizes, another extremely low cost per size value.

## O-RING KITS

## O-RING MINI KIT

Part Number: 568 Mini Kit

PART NUMBER	QTY	PART NUMBER	QTY
006	20	110	10
007	20	111	10
008	20	112	10
009	15	113	10
010	15	114	10
011	15	115	10
012	10	116	10
014	10	210	10
016	10	211	10

This popular mini kit contains a total of 225 O-Rings in 18 different sizes.



## O-RING METRIC MINI KIT

Part Number: Metric Mini Kit-J

I.D X C.S. (mm)	QTY	I.D X C.S. (mm)	QTY
3 X 2.0	20	10 X 2.5	10
4 X 2.0	20	11 X 2.5	10
5 X 2.0	20	12 X 2.5	10
6 X 2.0	15	14 X 2.5	10
7 X 2.0	15	16 X 2.5	10
8 X 2.0	15	17 X 2.5	10
10 X 2.0	10	19 X 2.5	10
12 X 2.0	10	19 X 3.0	10
14 X 2.0	10	20 X 3.0	10

The Metric version of the Mini O-ring kit also contains a total of 225 O-Rings in 18 different sizes.

Note: Quantities limited. Mini kits will not be reordered when stock is depleted.



## O-RING KITS

### U.S. INDUSTRIAL O-RING KIT

Part Number: 568 Kit

PART NUMBER	QTY	PART NUMBER	QTY
005-011	25	111-116	10
012	15	117-121	7
013-018	10	210-211	10
110	15	212-219	7

This kit contains a total of 436 70 Durometer O-Rings in 36 different sizes, providing an extremely low cost per size value.



### O-RING WAREHOUSE KIT

Part Number: 568 WH Kit

PART NUMBER	QTY	PART NUMBER	QTY
001-016	20	217-229	5
017-024	10	230-232	3
025-031	7	233-237	2
032-043	5	325-328	5
044-046	2	329-330	4
110-116	15	331-338	2
117-124	10	901-914	5
125-142	5	916, 918	5
143-146	3	920, 924	5
147-151	2	928, 932	5
210-216	10		



Our O-ring Warehouse kit is ideally suited for the repair shop that needs a large on-hand selection of O-rings to insure quick repair of all machine types. 1,110 O-Rings in 150 different sizes are included in this kit. Each size is individually packaged in heavy duty ziploc bags to protect against environmental exposure and contamination. All packages are then stored in a sturdy styrene cabinet with pull-out drawers for easy access to parts. Included card shows size, dimensions, and drawer location for each ring.

### QUAD WAREHOUSE KIT

Part Number: Quad-Ring WH Kit

PART NUMBER	QTY	PART NUMBER	QTY
QR-4004-012	10	QR-4125-135	3
QR-4013-030	5	QR-4136-154	2
QR-4031-038	3	QR-4204-216	5
QR-4039-048	2	QR-4217-229	3
QR-4108-116	10	QR-4230-338	2
QR-4117-124	5		



Similar to the O-Ring Warehouse kit, the Quad Seal Warehouse kit contains a total of 583 four-lobed seals in 145 different sizes. This kit is ideal for the small distributor who wishes to have a comprehensive on-hand inventory of Quad seals for counter sales.

## O-RING KITS

## 90 DUROMETER O-RING KIT

Part Number: 568 90D Kit

PART NUMBER	QTY	PART NUMBER	QTY
005-011-90D	25	111-116-90D	10
012-90D	15	117-121-90D	7
013-018-90D	10	210-211-90D	10
110-90D	15	212-219-90D	7

This kit contains a total of 436 90 Durometer O-Rings in 36 different sizes, providing an extremely low cost per size value.



Our 90 Durometer O-ring Warehouse kit is ideally suited for the repair shop that needs a large on-hand selection of O-Rings to insure quick repair of all machine types. 1,110 O-Rings in 150 different sizes are included in this kit.



## 90 DUROMETER O-RING WAREHOUSE KIT

Part Number: 568 WH Kit-90D

PART NUMBER	QTY	PART NUMBER	QTY
001-016-90D	20	217-229-90D	5
017-024-90D	10	230-232-90D	3
025-031-90D	7	233-237-90D	2
032-043-90D	5	325-328-90D	5
044-046-90D	2	329-330-90D	4
110-116-90D	15	331-338-90D	2
117-124-90D	10	901-914-90D	5
125-142-90D	5	916, 918-90D	5
143-146-90D	3	920, 924-90D	5
147-151-90D	2	928, 932-90D	5
210-216-90D	10		

## 900 BOSS O-RING KIT

Part Number: 900 Boss Kit

PART NUMBER	QTY
904	35
905-906	30
907-910	20
911-914	15
916	15



This 250 piece assortment contains the most popular size 90 Durometer Boss O-rings, individually boxed, which will supply your shop, service truck, or parts counter with the sizes you need!

## O-RING KITS

### MAX O-RING KIT

**Part Number:**  
MAX 1381 Kit

**Part Number:**  
MAX 1381 Kit-P90D



These sturdy kits, packaged in a heavy duty box, contains 1415 O-Rings in the most popular sizes. Every service truck should have one of these. Five internal boxes contain 1/16" C/S, 3/32" C/S, 1/8" C/S, Boss and Flange fitting o-rings. Contents and quantities are listed below.

#### Flange Seals

FLANGE NUMBER	QTY	FLANGE NUMBER	QTY
8	10	20	5
12	10	24	5
16	10	32	5

#### Boss O-Rings

BOSS NUMBER	QTY	BOSS NUMBER	QTY
903	15	907	25
904	25	910	25
906	15	912	15
908	25	916	10

#### 1/16" C/S O-Rings

O-RING NUMBER	QTY	O-RING NUMBER	QTY
006 - 118	25	028	15
019 - 021	20	029	10
022 - 026	15	030	10



#### 3/32" C/S O-Rings

O-RING NUMBER	QTY	O-RING NUMBER	QTY
109 - 118	25	129	10
119 - 120	20	131	10
121 - 127	15	133	10
128	10	135	5

#### 1/8" C/S O-Rings

O-RING NUMBER	QTY	O-RING NUMBER	QTY
210 - 214	20	228	10
215 - 222	15	232	10
223 - 224	10	236	10
226	10		

### FLUOROCARBON O-RING KIT

**Part Number:** 568 FC Kit

PART NUMBER	QTY	PART NUMBER	QTY
005-011V	25	111-116V	10
012V	15	117-121V	7
013-018V	10	210-211V	10
110V	15	212-219V	7

This kit contains a total of 436 75 Durometer Fluorocarbon O-Rings in 36 different sizes, providing an extremely low cost per size value.



## O-RING KITS

## 900 BOSS FLUOROCARBON O-RING KIT

Part Number: 900 Boss FC

PART NUMBER	QTY
904V	35
905-906V	30
907-910V	20
911-914V	15
916V	15

This 250 piece assortment contains the most popular size 90 Durometer Boss O-rings, individually boxed, which will supply your shop, service truck, or parts counter with the sizes you need!



## PTFE O-RING KIT

Part Number: 568 PTFE Kit

PART NUMBER	QTY
005-012T	15
013-018T	10
110-116T	10
117-121T	5
210-219T	5

This kit contains a total of 325 PTFE O-Rings ( 55 - 58 Shore D) in 36 different sizes. PTFE O-Rings can withstand temperatures up to 500° F and are impervious to a wide range of chemicals.



## QUAD RING KIT

Part Number: Quad-Ring Kit

PART NUMBER	QTY	PART NUMBER	QTY
4005-4012	10	4110-4116	6
4013-4016	6	4117-4121	4
4017-4018	5	4210-4219	5

This kit contains a total of 226 Quad Seals in 36 different sizes, providing an extremely low cost per size value.



## O-RING KITS



## O-RING FLANGE KIT

Part Number: 568 Flange Kit

PART NUMBER	QTY	PART NUMBER	QTY
210-90D	10	225-90D	10
214-90D	10	228-90D	10
219-90D	10	232-90D	10
222-90D	10		

This kit contains a total of 70, 90 Durometer O-Rings, in 7 different sizes, providing an extremely low cost per size value.



## O-RING FACE KIT

Part Number: 568 Face Kit

PART NUMBER	QTY	PART NUMBER	QTY
011-90D	25	018-90D	20
012-90D	25	021-90D	15
014-90D	25	025-90D	10
016-90D	25	029-90D	10

This kit contains a total of 155 90 Durometer O-Rings in 8 different sizes, providing an extremely low cost per size value.



## SPLIT FLANGE SEAL KIT

Part Number: SFS Kit

PART NUMBER	QTY	PART NUMBER	QTY
SFS-8	5	SFS-24	5
SFS-12	5	SFS-32	5
SFS-16	5	SFS-40	5
SFS-20	5		

This kit contains 35 Split Flange Seals in 7 popular sizes.

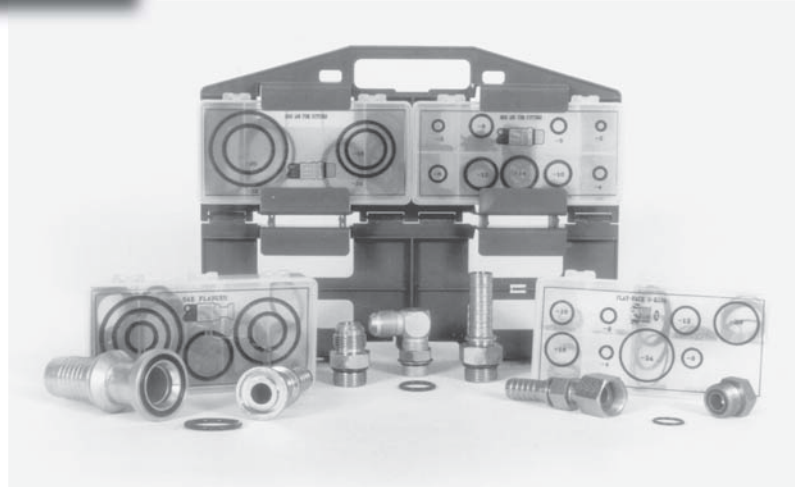


## O-RING KITS

### HOSE END & ADAPTER KIT

**Part Number: O-R Fitting Kit**

This handy kit contains 27 sizes and 216 pieces of 90A Durometer O-rings for boss, split flange and flat face hose end fittings and adapters. Each box has a graphic label identifying the type of application and dash number for the seal. A chart on the back of the box lists popular OEM part number matches for each O-ring. Due to popular demand, these kits are now available individually.



### SAE FLANGE SEALS

**Part Number: SAE Flange Seals**

BOX PART NUMBER	PART NUMBER	QTY
-8	568-210-90D	8
-12	568-214-90D	8
-16	568-219-90D	8
-20	568-222-90D	8
-24	568-225-90D	8
-32	568-228-90D	8

### FLAT FACE SEALS

**Part Number: Flat Face O-Rings**

BOX PART NUMBER	PART NUMBER	QTY
-4	568-011-90D	8
-6	568-012-90D	8
-8	568-014-90D	8
-10	568-016-90D	8
-12	568-018-90D	8
-16	568-021-90D	8
-20	568-025-90D	8
-24	568-029-90D	8

### BOSS & TUBE SEALS

**Part Number: Boss & Tube Fittings-1**

**Part Number: Boss & Tube Fittings-2**

BOX PART NUMBER	PART NUMBER	QTY	BOX PART NUMBER	PART NUMBER	QTY
-2	568-902	8	-12	568-912	8
-3	568-903	8	-14	568-914	8
-4	568-904	8	-16	568-916	8
-5	568-905	8	-20	568-920	8
-6	568-906	8	-24	568-924	8
-8	568-908	8	-32	568-932	8
-10	568-910	8			

## O-RING KITS

### COMMON JAPANESE SIZES O-RINGS IN 70 DUROMETER

Part Number: **Metric O Kit-J**



This 380 piece kit contains the most popular Japanese Industrial metric O-ring sizes.

I.D.	C.S	QTY	I.D.	C.S	QTY
2.8	1.9	25	20.8	2.4	8
3.8	1.9	20	21.8	2.4	8
4.8	1.9	20	24.4	3.1	6
5.8	1.9	20	29.4	3.1	7
6.8	1.9	15	21.7	3.5	5
7.8	1.9	15	22.1	3.5	5
8.8	1.9	15	23.7	3.5	7
9.8	1.9	15	24.7	3.5	7
9.8	2.4	15	25.2	3.5	7
10.8	2.4	15	25.7	3.5	7
11.0	2.4	15	27.7	3.5	7
11.8	2.4	12	28.7	3.5	6
12.8	2.4	12	29.2	3.5	6
13.8	2.4	12	29.7	3.5	6
14.8	2.4	12	30.7	3.5	6
15.8	2.4	12	31.2	3.5	6
17.8	2.4	8	14.5	4.0	4
19.8	2.4	8	23.5	4.0	6

### COMMON JAPANESE SIZES O-RINGS IN 90 DUROMETER

Part Number: **Metric O Kit-J-90D**



This 380 piece kit contains the most popular Japanese Industrial metric O-ring sizes in 90 durometer NBR.

I.D.	C.S	QTY	I.D.	C.S	QTY
2.8	1.9	25	20.8	2.4	8
3.8	1.9	20	21.8	2.4	8
4.8	1.9	20	24.4	3.1	6
5.8	1.9	20	29.4	3.1	7
6.8	1.9	15	21.7	3.5	5
7.8	1.9	15	22.1	3.5	5
8.8	1.9	15	23.7	3.5	7
9.8	1.9	15	24.7	3.5	7
9.8	2.4	15	25.2	3.5	7
10.8	2.4	15	25.7	3.5	7
11.0	2.4	15	27.7	3.5	7
11.8	2.4	12	28.7	3.5	6
12.8	2.4	12	29.2	3.5	6
13.8	2.4	12	29.7	3.5	6
14.8	2.4	12	30.7	3.5	6
15.8	2.4	12	31.2	3.5	6
17.8	2.4	8	14.5	4.0	4
19.8	2.4	8	23.5	4.0	6

## O-RING KITS

## COMMON EUROPEAN SIZES O-RINGS IN 70 DUROMETER

Part Number: Metric O Kit-E



This 500 piece kit contains the most popular European metric O-ring sizes.

I.D.	C.S.	QTY	I.D.	C.S.	QTY
5.0	1.5	20	19.0	2.0	10
13.0	1.5	15	20.0	2.0	10
16.0	1.5	10	4.3	2.4	15
2.2	1.6	20	5.3	2.4	15
3.1	1.6	20	5.6	2.4	15
4.1	1.6	20	7.6	2.4	15
7.1	1.6	20	8.3	2.4	15
9.1	1.6	15	8.6	2.4	15
10.1	1.6	15	10.0	2.5	10
13.1	1.6	15	13.0	2.5	10
4.0	2.0	20	14.0	2.5	10
6.0	2.0	20	15.0	2.5	10
8.0	2.0	15	17.0	2.5	10
9.0	2.0	15	18.0	2.5	10
10.0	2.0	15	19.0	2.5	10
12.0	2.0	15	9.0	3.0	10
14.0	2.0	10	10.0	3.0	10
16.0	2.0	10	11.0	3.0	10

## COMMON EUROPEAN SIZES O-RINGS IN 90 DUROMETER

Part Number: Metric O Kit-E-90D



This 500 piece kit contains the most popular European metric O-ring sizes.

I.D.	C.S.	QTY	I.D.	C.S.	QTY
5.0	1.5	20	19.0	2.0	10
13.0	1.5	15	20.0	2.0	10
16.0	1.5	10	4.3	2.4	15
2.2	1.6	20	5.3	2.4	15
3.1	1.6	20	5.6	2.4	15
4.1	1.6	20	7.6	2.4	15
7.1	1.6	20	8.3	2.4	15
9.1	1.6	15	8.6	2.4	15
10.1	1.6	15	10.0	2.5	10
13.1	1.6	15	13.0	2.5	10
4.0	2.0	20	14.0	2.5	10
6.0	2.0	20	15.0	2.5	10
8.0	2.0	15	17.0	2.5	10
9.0	2.0	15	18.0	2.5	10
10.0	2.0	15	19.0	2.5	10
12.0	2.0	15	9.0	3.0	10
14.0	2.0	10	10.0	3.0	10
16.0	2.0	10	11.0	3.0	10

## O-RING SPLICE KITS

### O-RING SPLICE KIT INCH SIZES

**Part Number: 568 Splice Kit**

**Kit Contains:**

1. Stock of 70 Durometer Buna O-ring Cord
2. Razor Blade
3. Splicing tool
4. Tube of Adhesive

**Replacement Parts**

**Parts:**

#568 Splice Tool  
#568 Adhesive  
70 Duro. Cord



### O-RING SPLICE KIT INCH & METRIC SIZES

**Part Number: Met/Inch Splice Kit**

This kit can produce O-Rings of any standard inch size cross-section plus a wide variety of metric sizes. Each kit contains quick drying adhesive, cutting and splicing jig, razor blade and 14 lengths of 70 Durometer Buna-N cord stock as follows:

**Inch cross-sections: (inch)**

1/16" (.070), 3/32" (.103), 1/8" (.139),  
3/16" (.210), 1/4" (.275)

**Metric cross-sections: (mm)**

1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 5.0, 5.7, 8.4



These kits can produce O-Rings of any circumference. The 568 kit contains the most popular inch cross sectional sized O-ring cord. The Metric and Inch Kit has both standard inch size cross sectional cord plus a wide variety of metric sized cord. Both kits contain quick drying adhesive, a cutting and splicing jig, a razor blade and 70 Durometer Buna-N cord.

## FLUOROCARBON O-RING SPLICE KIT INCH SIZES

**Part Number: 568 FC Splice Kit**

**Kit Contains:**

1. Stock of 75 Durometer Fluorocarbon Cord
2. Razor Blade
3. Splicing tool
4. Tube of Adhesive

**Replacement Parts**

**Parts:**

#568 Splice Tool  
#568 Adhesive  
75 Duro. Fluorocarbon Cord



## BACK-UP RING KITS

### 574 BACK-UP RING KIT

Part Number: 574 Kit

PART NUMBER	QTY	PART NUMBER	QTY
574-005	10	574-114	10
574-006	10	574-115	10
574-007	10	574-116	10
574-008	10	574-117	5
574-009	10	574-118	5
574-010	10	574-119	5
574-011	10	574-120	5
574-012	10	574-121	5
574-013	10	574-210	7
574-014	10	574-211	7
574-015	10	574-212	7
574-016	10	574-213	7
574-017	10	574-214	5
574-018	10	574-215	5
574-110	10	574-216	5
574-111	10	574-217	5
574-112	10	574-218	5
574-113	10	574-219	5

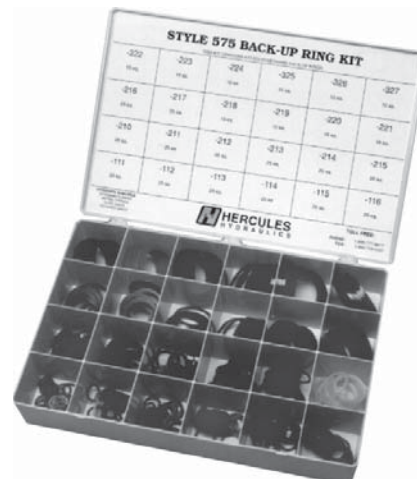


This 293 piece kit contains 36 of the most popular size "Parback®" Style Dished Cross Section back-up rings. Molded of 90A Durometer Buna-N Rubber, they stretch for installation and return quickly to their original size. SIZES CORRESPOND TO O-RING NUMBERS. Your shop and service truck should not be without this handy kit.

### 575 BACK-UP RING KIT

Part Number: 575 Kit

PART NUMBER	QTY	PART NUMBER	QTY
575-111	25	575-216	25
575-112	25	575-217	15
575-113	25	575-218	15
575-114	25	575-219	15
575-115	25	575-220	15
575-116	25	575-221	15
575-210	25	575-222	15
575-211	25	575-223	15
575-212	25	575-224	15
575-213	25	575-325	10
575-214	25	575-326	10
575-215	25	575-327	10



This 475 piece kit contains 24 of the most popular size Urethane Back-up Rings. This assortment is essential for parts counters, shop use, and service trucks.



## BACK-UP RING KITS

### PTFE BACK-UP RING KIT

Part Number: 575 PTFE Kit S

PART NUMBER	QTY	PART NUMBER	QTY
575-005ST	15	575-114ST	10
575-006ST	15	575-115ST	10
575-007ST	15	575-116ST	10
575-008ST	15	575-117ST	5
575-009ST	15	575-118ST	5
575-010ST	15	575-119ST	5
575-011ST	15	575-120ST	5
575-012ST	15	575-121ST	5
575-013ST	10	575-210ST	5
575-014ST	10	575-211ST	5
575-015ST	10	575-212ST	5
575-016ST	10	575-213ST	5
575-017ST	10	575-214ST	5
575-018ST	10	575-215ST	5
575-110ST	10	575-216ST	5
575-111ST	10	575-217ST	5
575-112ST	10	575-218ST	5
575-113ST	10	575-219ST	5



This 325 piece kit contains 36 of the most popular size PTFE Back-up Rings. These rings are compatible with all hydraulic fluids, since they are virtually chemically inert, and can be used in applications involving elevated operating temperatures. These rings are scarf cut to facilitate installation.

### STYLE 870 KIT

Part Number: 870 TRI-Kit

The 870 Tri-Kit is packaged in three sturdy cases that contain 180 U-Cups. The U-Cups conform to AN-6226 size standards in 36 popular sizes ranging from 1/8" to 1-1/8" inside diameter. All of the seals are molded from 70A Durometer Buna-N rubber.



# RETAINER RING KITS

Each kit has an assortment of retainer rings (Tru-arc, Eaton, or spiral wound style) packed in a reusable plastic box. All rings are made in the USA from carbon spring steel.

**Each kit contains:** 18 sizes - 9 internal, 9 external • 216 rings per box • 12 rings per size

## TRU-ARC

**Part Number: 300-310 Kit**

PART NUMBER	QTY.	PART NUMBER	QTY.
300-050	12	310-050	12
300-062	12	310-062	12
300-075	12	310-075	12
300-087	12	310-087	12
300-100	12	310-100	12
300-112	12	310-112	12
300-125	12	310-125	12
300-137	12	310-137	12
300-150	12	310-150	12



## SPIRAL WOUND

**Part Number: SRR Kit**

PART NUMBER	QTY.	PART NUMBER	QTY.
WHM-050	12	WSM-050	12
WHM-062	12	WSM-062	12
WHM-075	12	WSM-075	12
WHM-087	12	WSM-087	12
WHM-100	12	WSM-100	12
WHM-112	12	WSM-112	12
WHM-125	12	WSM-125	12
WHM-137	12	WSM-137	12
WHM-150	12	WSM-150	12



## EATON

**Part Number: ERR Kit**

PART NUMBER	QTY.	PART NUMBER	QTY.
NAN-050	12	XAN-050	12
NAN-062	12	XAN-062	12
NAN-075	12	XAN-075	12
NAN-087	12	XAN-087	12
NAN-100	12	XAN-100	12
NAN-112	12	XAN-112	12
NAN-125	12	XAN-125	12
NAN-137	12	XAN-137	12
NAN-150	12	XAN-150	12

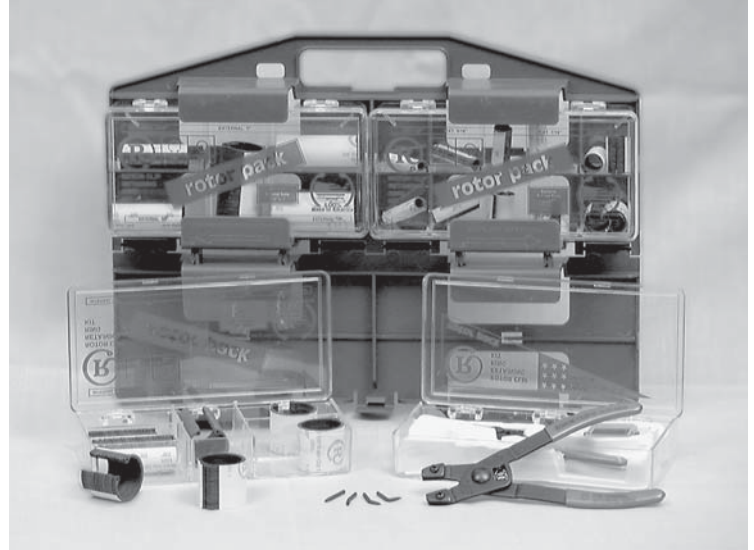


## RETAINER RING KITS

### ROTOR PACK KIT

Part Number: RPK 4 Kit

Packaged in four plastic cases with a handy carrying case, our rotor pack kit contains approximately 50 each of 20 common internal/external retaining ring sizes. The internal rings fit housings or bores from 3/8" internal diameter to 1-1/8". External rings accommodate shaft sizes from 1/4" internal diameter to 1-1/8". Two retainer ring installation pliers are also included.



These assortments contain the most popular size retainer rings, boxed in a handy storage and display case, which will supply your shop, service truck, or parts counter with the sizes you need!

### INTERNAL RETAINER RINGS

Part Number: 300 Kit

PART NUMBER	BORE SIZE	QTY.	PART NUMBER	BORE SIZE	QTY.
300-075	0.750	10	300-200	2.000	10
300-087	0.875	10	300-225	2.250	5
300-100	1.000	10	300-250	2.500	5
300-112	1.125	10	300-275	2.750	5
300-125	1.250	10	300-300	3.000	5
300-137	1.375	10	300-350	3.500	5
300-150	1.500	10	300-400	4.000	5
300-162	1.625	10	300-450	4.500	2
300-175	1.750	10	300-500	5.000	2

### EXTERNAL RETAINER RINGS

Part Number: 310 Kit

PART NUMBER	SHAFT SIZE	QTY.	PART NUMBER	SHAFT SIZE	QTY.
310-100	1.000	5	310-200	2.000	5
310-125	1.250	5	310-225	2.250	5
310-137	1.375	5	310-250	2.500	5
310-150	1.500	5	310-275	2.750	3
310-175	1.750	5	310-300	3.000	3





# ASSORTMENT KITS

## CAP PLUG KIT

Part Number: **Cap Plug Kit**



This sturdy kit, packaged in an unbreakable box, contains 553 cap plugs in the most popular sizes.

Cap Plug Number	QTY	Cap Plug Number	QTY	Cap Plug Number	QTY
CAP-2-X	50	CAP-PD-100	15	CAP-G-22	10
CAP-4	50	CAP-PD-120	10	CAP-G-25	12
CAP-6-X	50	CAP-PD-140	5	CAP-G-27	16
CAP-9	40	CAP-PD-160	10	CAP-P-28	25
CAP-12-X	25	CAP-G-2	20	CAP-P-38	25
CAP-14	20	CAP-G-8	20	CAP-P-48	25
CAP-PD-60	25	CAP-G-14	20	CAP-P-68-H	25
CAP-PD-80	25	CAP-G-18	20	CAP-P-88-H	10

## CAT® SILICONE O-RING KIT

Part Number: **CTC-4C8253**



This handy kit, in an unbreakable box, contains 149 silicone o-rings in the 32 most popular sizes used on Caterpillar® equipment.

## CAT® D-RING KIT

This handy kit, in an unbreakable box, contains the 9 most popular sized D-Rings used on Caterpillar® equipment.

Part Number: **CTC-4C4784**



## CAT® NITRILE O-RING KIT

This handy kit, in an unbreakable box, contains 570 nitrile o-rings in the 32 most popular sizes used on Caterpillar® equipment.

Part Number: **CTC-4C4782**




**NOTE:** Caterpillar® part numbers are used as a reference only. We do not imply that these parts are original equipment parts.

## ASSORTMENT KITS

### COTTER PIN KIT

Part Number: Cotter Pin Kit




	1/16" X 1" 150 pcs.	3/32" X 1" 150 pcs.
	1/8" X 1 1/4" 75 pcs.	3/32" X 1 1/2" 100 pcs.
	1/8" X 2" 50 pcs.	5/32" X 2 1/2" 30 pcs.
555 Pieces		

### WOODRUFF KEY KIT

Part Number: Woodruff Keys Kit




	1/8" X 1/2" No. 3 16 pcs.	1/8" X 5/8" No. 5 15 pcs.
	3/32" X 5/8" No. 6 15 pcs.	3/16" X 3/4" No. 9 10 pcs.
	1/4" X 7/8" No. A 5 pcs.	1/4" X 1" No. 15 4 pcs.
65 Pieces		

### GREASE FITTING KIT

Part Number: Grease Fitting Kit



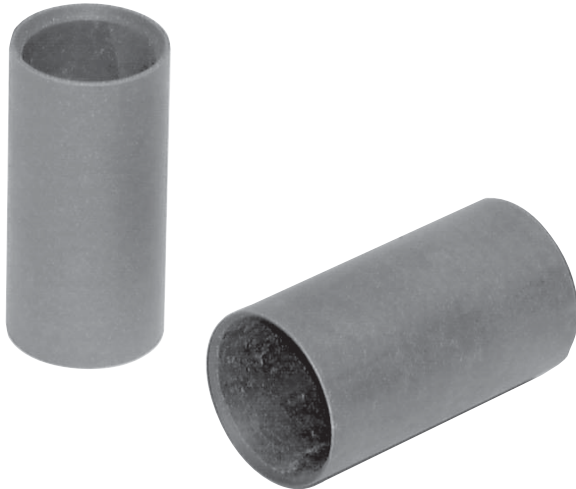
	1/8" NPT Straight 6 pcs.	1/4" - 28 Straight 6 pcs.
	3/16" Drive Straight 4 pcs.	1/8" NPT 45 1/8" NPT 90 3 pcs. ea.
	1/4" - 28 45 1/4" - 28 90 3 pc. ea.	5/16" Drive Straight 4 pcs.
32 Pieces		

## INSTALLATION TOOLS

### ROD U-SEAL INSTALLATION TOOLS

Part Number	Seal ID Range
IT 100	3/4" to 1-1/4"
IT 150	1-3/8" to 1-7/8"
IT 200	2" to 3"
IT 100-NN	3/4" to 1-1/4"
IT 150-NN	1-3/8" to 1-7/8"
IT 200-NN	2" to 3"

These tools aid U-seal installation, eliminating the risk of damaging the seal lip.



### PUMP & MOTOR SHAFT SEAL INSTALLATION TOOL

**Part Number: CMST-100  
CMST-200**

These guides protect fragile seal lips during installation. Use on all Commercial and Commercial replacement units. For small shafts use CMST-100, and for larger shafts use CMST-200.

## REMOVAL TOOLS

**We have the packing removal tools to fit your needs.  
Try out these high quality tools in your shop.**

Proper tools make the job of servicing cylinders easier and faster and reduce the possibility of damaging the finely machined surfaces. The handy tools listed on this page aid in the repair of telescopic cylinders and make it easier to do a quality job.

### O-RING PICK SET 1

**Part Number: O-Ring Pick**

These Bronze O-ring Picks, w/ black vinyl case, aid in the installation and extraction of O-rings.



### O-RING PICK SET 2

**Part Number: ORP-B**

**Part Number: ORP-SS**

Available in brass (ORP-B) or stainless steel (ORP-SS), these tools have been specifically engineered to enhance o-ring removal and replacement. Coated handles increase the tools performance in less than perfect environments.



### O-RING PICK SET 3

**Part Number: O Pick Set**

Packaged in a clear vinyl pouch, kit contains a knurled handle and four screw-in picks with different hook configurations. Set includes straight tip, o-ring 90° tip, hook tip, and angle tip.



### O-RING PICK SET 4

**Part Number: Maxi Pick Set**

Packaged in a plastic pouch, these highly visible picks feature screwdriver-type colored handles. Set includes awl, hook tip, 45° bent tip tool, and 90° bent tip tool.



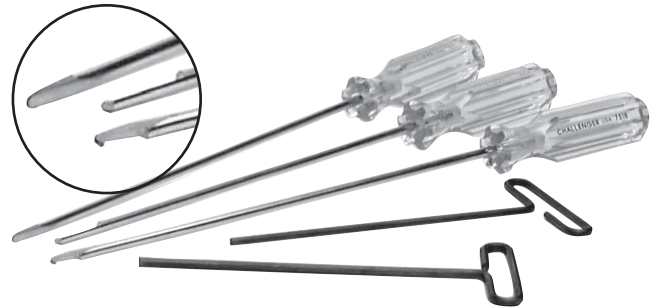
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Proper tools make the job of servicing cylinders easier and faster and reduce the possibility of damaging the finely machined surfaces. The handy tools listed on this page aid in the repair of telescopic cylinders and make it easier to do a quality job.

### 5 PIECE TOOL KIT SET

**Part Number: CH-TK-1**



### CHEVRON ASSEMBLY TOOL

**Part Number: CM-376-9067-001**

### FLEXIBLE PACKING HOOKS

Part Number	Packing Space	Length	
FPH-187	3/16"-up	6-1/2"	
FPH-312R	5/16"-up	7-1/2"	
FPH-437R	7/16"-up	10-1/2"	
FPH-500R	1/2"-up	14-1/2"	



With a tempered tool steel corkscrew tip and a woven strand steel flexible shaft, this tool makes hard to reach packing easy to pull out. Works best by using two hooks at diametrically opposed points (180°).

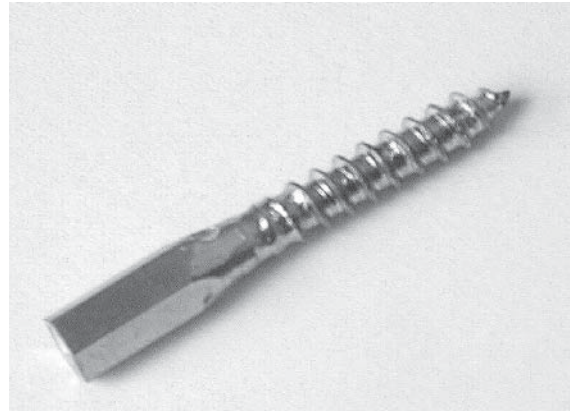
## REMOVAL TOOLS

**We have the packing removal tools to fit your needs.  
Try out these high quality tools in your shop.**

Proper tools make the job of servicing cylinders easier and faster and reduce the possibility of damaging the finely machined surfaces. The handy tools listed on this page aid in the repair of telescopic cylinders and make it easier to do a quality job.

### REPLACEABLE WOODSCREW TIPS

Part Number	Packing Space
FPH-RTW312	5/16"-up
FPH-RTW437	7/16"-up
FPH-RTW500	1/2"-up



### REPLACEABLE CORKSCREW TIPS

Part Number	Packing Space
FPH-RTC312	5/16"-up
FPH-RTC437	7/16"-up
FPH-RTC500	1/2"-up



### SOLID SHAFT PICKS

Part Number	Packing Space	Length
SSP-125		9-1/2"
SSP-187	3/16"-up	9-1/2"
SSP-312	5/16"-up	10"

Formed from hardened steel, this tool's length and sharp angled point gets at hard to reach o-rings, back-up rings & braided packing. You'll be amazed at all the uses you find for this tool.





## REMOVAL TOOLS

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### 11 PIECE PACKING TOOL KIT

**Part Number: Pack Tool Set-11**

PART NUMBER	QTY	PART NUMBER	QTY
FPH-312R	2	FPH-RTC312	1
FPH-437R	2	FPH-RTC437	1
SSP-125	1	WRENCH	1
SSP-187	1	BOX	1
SSP-312	1		



### 17 PIECE PACKING TOOL KIT

**Part Number: Pack Tool Set-17**



PART NUMBER	QTY	PART NUMBER	QTY
FPH-312R	2	FPH-RTC437	1
FPH-437R	2	FPH-RTC500	1
FPH-500R	2	FPH-RTW312	1
SSP-125	1	FPH-RTW437	1
SSP-187	1	FPH-RTW500	1
SSP-312	1	WRENCH	1
FPH-RTC312	1	BOX	1

## MEASURING TOOLS

### O-RING MEASURING CONE

**Part Number:** O Ring Cone-Inch

Handy cone provides o-ring dash numbers instantly. Measures 184 of the most widely used sizes in 5 standard widths, 1/4" ID to 5-5/8" ID. Made of high density polyurethane, the cone stands 17-1/2" high.



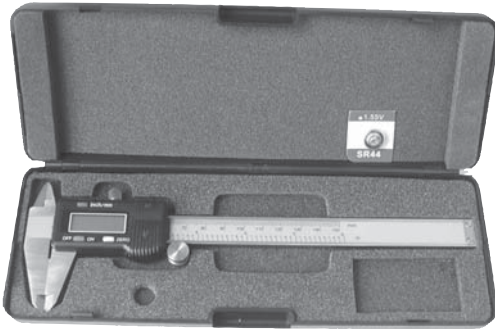
### DIGITAL CALIPERS

**Part  
Number**

---

HH-Caliper-6  
HH-Caliper-6-P  
HH-Caliper-12  
HH-Caliper-12-P

A high quality instrument, able to measure up to 150mm or 6". A push of a button changes from inches to metric. A clear LCD display shows a reading with a resolution of 0.0005" (0.01mm) that is accurate to  $\pm 0.03$ mm). These calipers come in a sturdy, padded plastic case with instructions and a spare battery.



### PI TAPES

**Part**

**Number**

---

PI-212

**Size**

---

2" - 12"

This handy tool allows for quick accurate measuring of the outside diameters (OD) of vee packing, large U-Seals, Piston Rings, and metal parts such as cylinder stages, rams and rods. This tape comes with certificate of calibration. Accurate to .001".





## MEASURING TOOLS

### POWER PUNCH MAXI SET

**Part Number: Maxi Punch Set**

PART NUMBER	PUNCH RANGE
Punch Set	1/4, 5/16, 3/8, 7/16, 1/2, 16,5/8, 1/16, 3/4, 3/16, 7/8, 5/16, 1

This extremely high quality punch set includes 13 punches, power punch, centering pin, punch pad and carrying case. Durable cutting heads cut washers and bolt holes effortlessly. Guaranteed 100% satisfaction.



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**Urethane**

Formulated of copolymers of ether or ester based urethanes, this material is used in a wide application of seals, wipers, back-up rings, cushions, bumpers, and a myriad of other uses. Highly resistant to oil swell, ozone, oxidation and abrasion, it also has excellent cut resistance. Highly resilient, urethanes also have high tensile strength and elongation properties. Urethanes remain an excellent choice in hydraulic systems using petroleum based fluids. Most urethane seals remain flexible and efficient in temperatures ranging from -65° F to +200° F with some able to withstand intermittent temperatures up to +300° F.

**Nitrile**

The most common nitrile copolymer blend is the compound known as Buna-N. Possessing very good resistance to petroleum based hydraulic oils, Buna-N also works well with fuels such as diesel or gasoline. Nitrile seals have a good resistance to compression set, but their flexibility suffers somewhat in the lower temperature range. Seals made from this material have a low resistance to ozone and must be stored carefully in most environments. Working temperatures are -40° to +240° F.

**PTFE**

Most PTFE seals, in order to retain their toughness and flexibility, are fortified with short glass fiber, bronze flashes, carbon, graphite, or a combination of these fillers. Because of a lack of resilience (memory) in PTFE, an energizer is most often employed to obtain the desired fit. Benefits are chemical inertness, high heat resistance, low temperature flexibility, low running friction, and non-adhesive characteristics. Temperatures to +500° F are obtainable but are often reduced by the filler or energizer employed.

**Fluorocarbon**

Fluorocarbon combines high temperature resistance with excellent chemical resistance. Excellent for use with alcohol and aromatic fuels and highly resistant to ultraviolet light and ozone. This material is not recommended for use in low temperatures or in aircraft hydraulic fluids. Temperature range is -20° to +400° F.

**Ethylene-Propylene**

Ethylene-Propylene can be used for sealing phosphate ester hydraulic fluids such as Skydrol. Not suitable for petroleum based fluids, Ethylene-Propylene is highly effective for use with steam, acetone, dilute acids and alkalies. Specially compounded Ethylene-Propylene can be made suitable for automobile brake systems. Temperature range from -20° to +300° F.

**Silicone**

Silicone is an elastomer made from silicon, oxygen, hydrogen, and carbon. The key use of this material is in static seals employed in a wide (-75° F to +450° F) range of temperatures. Silicone has a high resistance to dry heat, ultraviolet light and ozone. This material is not recommended for dynamic situations due to poor abrasion resistance and high friction characteristics.

## Glossary of Terms

- Bearing/Wear Rings:** Soft metal or plastic rings placed in grooves on the piston or in the head to prevent contact between hard metal surfaces.
- Durometer:** A generic term referring to the instrument and the scale used to measure the relative hardness of various elastomers. The lower the durometer reading, the softer the material.
- Dynamic Seal:** A sealing device used between mating surfaces that have relative motion.
- Elastomer:** A rubber-like material having the capacity for large deformation and rapid, complete recovery from the deforming force.
- Gland:** A groove or open area machined into the head or piston that houses the sealing device.
- Static Seal:** A sealing device used between mating surfaces that have no relative motion.
- Wiper/Scraper:** A device placed in the head of a cylinder for the purpose of excluding foreign matter from the inside of the cylinder.





Fluid	Nitrile	SBR	EPDM	Neoprene	Polyacrylate	Urethane	Silicone	Fluoroelastomer
Dow Gard	R	R	R	R	M	M	R	R
Dowtherm A & E	U	U	U	U	U	U	U	R
Elco 28	R	U	U	M	R	R	R	R
Epoxy Resins	X	X	R	R	X	X	X	U
Ethane	R	U	U	R	R	M	U	R
Ethanol	R	R	R	R	U	R	R	R
Ethanolamine	R	R	R	R	U	M	R	U
Ethyl Acetate	U	U	R	U	U	U	R	U
Ethyl Benzene	U	U	U	U	U	U	U	R
Ethyl Cellulose	R	R	R	R	U	R	R	U
Ethyl Chloride	R	R	R	R	M	R	U	R
Ethyl Ether	M	U	M	U	U	R	U	U
Ethyl Formate	U	U	R	R	X	X	X	R
Ethyl Hexanol	M	R	R	R	X	X	X	R
Ethyl Merlaptan	U	U	X	M	X	X	M	R
Ethylene Chloride	U	U	U	U	U	U	U	R
Ethylene Oxide	U	U	R	U	U	U	U	U
Formaldehyde	M	M	R	M	U	U	R	U
Formic Acid	M	R	R	R	X	X	M	U
Freon 12	R	R	R	R	X	R	U	R
Fuel Oil	R	U	U	R	R	U	U	R
Furfuryl Alcohol	U	U	R	U	U	U	U	X
Furan	U	U	X	U	U	X	X	X
Furfural	U	U	R	U	U	X	U	U
Fyrquel	U	U	R	U	U	U	R	R
Gallic Acid	R	R	R	R	U	I	X	R
Gasoline	R	U	U	R	R	R	U	R
Gelatin	R	R	R	R	U	U	R	R
Glucose	R	R	R	R	X	U	R	R
Glycerine	R	R	R	R	U	U	R	R
Heptane	R	U	U	R	R	R	U	R
Hexaldehyde	U	U	R	R	X	X	R	U
Hexane	R	U	U	R	R	R	U	R
Hexanol	R	R	M	R	U	U	R	R
Home Heating Oil	R	U	U	M	R	R	R	R
Hydrazine	R	R	R	R	X	X	R	X
Hydrochloride Acid	R	M	R	R	M	U	U	R
Hydrocyanic Acid	R	R	R	R	U	X	M	R
Hydrogen Peroxide	R	R	R	R	U	X	R	R
Hydrogen Sulfide	U	U	R	R	U	X	M	U
Hydroquinone	M	U	U	U	U	X	X	R
Hypoid Gear Lube	R	U	U	M	R	R	M	R
Iodine	R	R	R	U	X	X	X	R
Iso Octane	R	U	U	R	R	R	U	R
Iso Phorone	U	U	R	U	U	U	U	U
Isocyanate	X	X	X	X	X	X	X	R
Isopar	R	X	U	R	R	R	U	R
Isopropanol	R	R	R	R	U	U	R	R
Isopropyl Acetate	U	U	R	U	U	U	U	U
JP-4(MIL-J-5624)	R	U	U	U	R	R	U	R

Fluid	Nitrile	SBR	EPDM	Neoprene	Polyacrylate	Urethane	Silicone	Fluoroelastomer
JP-4(MIL-J-5624)	R	U	U	U	R	R	U	R
Kerosene	R	U	U	R	R	R	U	R
Lacquers	U	U	U	U	U	U	U	U
Lactic Acid	R	R	R	R	U	X	X	R
Lard	R	U	R	R	R	R	R	R
Linoleic Acid	R	U	U	R	X	X	R	R
Linseed Oil	R	U	M	M	R	X	R	R
Lye Solutions	R	R	R	R	U	U	R	R
Malathion	R	U	U	X	X	X	U	R
Maleic Acid	U	U	U	U	U	X	X	R
Mercury	R	R	R	R	X	X	X	R
Meter-Cresol	U	U	U	R	U	U	U	R
Methacrylic Acid	U	U	R	R	U	U	U	M
Methane	R	U	U	R	R	M	U	R
Methanol	R	R	R	R	U	U	U	U
Methyl Acetate	U	U	R	R	U	U	U	U
Methyl Cellosolve	M	U	R	R	U	U	U	M
Methyl Ether Ketone	U	U	R	U	U	U	U	U
Methyl Mercaptan	X	X	R	X	X	X	X	X
Methylene Chloride	U	U	U	U	U	U	U	R
Milk	R	R	R	R	U	U	R	R
Mineral Oil	R	U	M	R	R	R	R	R
Mineral Spirits	R	U	U	U	R	R	U	R
Monovinyl Acetylene	R	R	R	R	X	X	R	R
Mustard	X	R	R	X	X	X	R	R
Naphtha	R	U	U	U	R	R	U	R
Naphthalene	U	U	U	U	X	X	U	R
Naphthenic Acid	R	U	U	U	X	X	U	R
Natural Gas	R	R	U	R	R	R	R	R
Neatsfoot Oil	R	U	R	U	R	R	R	R
Nitric Acid	U	M	R	U	U	U	U	M
Nitrobenzene	U	U	U	U	U	U	U	R
Nitropropane	U	U	R	U	U	U	U	U
Octane	R	U	U	U	U	U	U	R
Octanol	R	R	R	R	U	U	R	R
Oleic Acid	M	U	U	M	X	X	U	R
Oleum	R	U	U	M	X	X	U	R
Oronite 8200	R	U	U	R	X	R	U	R
Oxalic Acid	R	R	R	R	R	X	X	R
Peanut Oil	R	U	M	M	R	X	R	R
Pentane	R	M	U	R	R	U	U	R
Perchlorethylene	R	U	U	U	U	U	U	R
Petroleum Ether	U	U	U	U	U	U	U	R
Phenol	U	U	U	U	U	U	U	R
Phenylhydrazine	U	M	U	U	U	X	X	R
Phosphoric Acid	R	R	R	R	M	U	R	R
Pine Oil	R	U	U	U	U	X	X	R
Potassium Hydroxide	R	R	R	R	U	U	M	U
Propane	R	U	U	R	R	M	U	R
Propanol	R	R	R	R	U	U	R	R

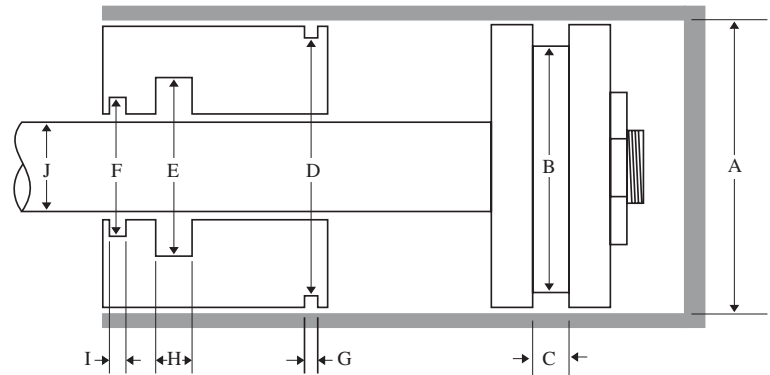
Fluid	Nitrile	SBR	EPDM	Neoprene	Polyacrylate	Urethane	Silicone	Fluoroelastomer
Propyl Acetate	U	U	R	U	U	U	U	U
Pydraul	U	U	R	U	U	U	U	R
Pyranol	R	U	U	R	R	R	U	R
Pyridine	U	R	U	U	U	X	U	U
Rapeseed Oil	R	U	R	R	R	R	U	R
Resurcinol	X	R	R	X	X	X	X	X
SAE 10W30	R	U	U	M	R	R	R	R
Seawater	R	R	R	R	U	U	R	X
Silicone Grease	R	R	R	R	R	R	R	R
Silver Nitrate	R	R	R	R	R	R	R	R
Skelly Solvent	R	U	U	U	X	X	X	R
Skydrol	U	U	R	U	U	U	U	R
Skydrol 500	U	U	R	U	U	U	U	R
Sodium Hydroxide	R	R	R	R	U	R	R	R
Sovasol	R	U	U	R	R	R	U	R
Soy Bean Oil	R	U	M	M	R	X	R	R
Stearic Acid	R	R	R	R	R	U	U	R
Stoddard Solvent	R	U	U	R	R	R	U	R
Sucrose	R	R	R	R	U	U	R	R
Sulfuric Acid	R	R	R	R	R	U	U	R

Fluid	Nitrile	SBR	EPDM	Neoprene	Polyacrylate	Urethane	Silicone	Fluoroelastomer
Tall Oil	R	U	U	M	R	U	X	R
Tannic Acid	R	R	R	R	U	X	R	R
Tar	R	U	U	M	U	X	R	R
Tartaric Acid	R	R	R	R	X	X	R	R
Tetrachloro Ethane	U	U	U	U	U	U	U	R
Tetralin	U	U	U	U	U	U	U	R
Tidewater Oil	R	U	U	R	R	R	R	R
Toluene	U	U	U	U	U	U	U	R
Trichloro Ethylene	M	U	U	U	U	U	U	R
Triethanol Amine	M	R	R	R	U	U	X	U
Turbine Oil	R	U	U	U	R	R	U	R
Turpentine	R	U	U	U	R	U	U	R
UCDN 50HB280X	R	R	R	R	X	X	R	R
Univis J-43	R	U	U	R	R	R	U	R
Varnish	R	U	U	U	U	M	U	R
Vinegar	R	R	R	R	U	U	R	R
Water	R	R	R	R	U	U	R	R
Wheat Germ Oil	R	U	U	M	R	R	R	R
Whiskey & Wine	R	R	R	R	U	U	R	R
Wood Oil	R	U	U	R	X	M	U	R

**HOW OFTEN HAVE YOU RECEIVED A CYLINDER FOR REPAIR AND THE SEALS WERE ...**

- MISSING
- COOKED
- INCORRECT
- EXTRUDED
- NIBBLED
- TWISTED
- ROLLED
- SPLIT
- WORN OUT

The chart below can be used by your counter people, repair shops, or sales people, to determine the seals you need. Note the dimensions, refer to your Catalog and call our sales staff with your information. If the part number(s) you need can't be located in the catalog, our Sales personnel will be glad to help you .



**FOR A PROFESSIONAL ANALYSIS OF SEAL FAILURE, SEND YOUR DAMAGED SEALS TO OUR ENGINEERING DEPARTMENT.**

**PISTON SEALS AND BEARINGS**

**DIAGRAM REFERENCE**

**DIMENSIONS**

- A = Bore = Seal O.D.
- B = Groove Diameter = Seal I.D.
- C = Groove Width = Nominal Seal Width

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**ROD SEALS AND BEARINGS**

**DIAGRAM REFERENCE**

**DIMENSIONS**

- D = Gland Groove Diameter = Seal I.D.
- E = Rod Seal Groove Diameter = Seal O.D.
- F = Wiper Groove Diameter = Wiper O.D.
- G = Gland Groove Width = Nominal Seal Width
- H = Rod Seal Groove Width = Nominal Seal Width
- I = Wiper Groove Width = Base Width
- J = Rod Diameter = Seal & Wiper I.D.

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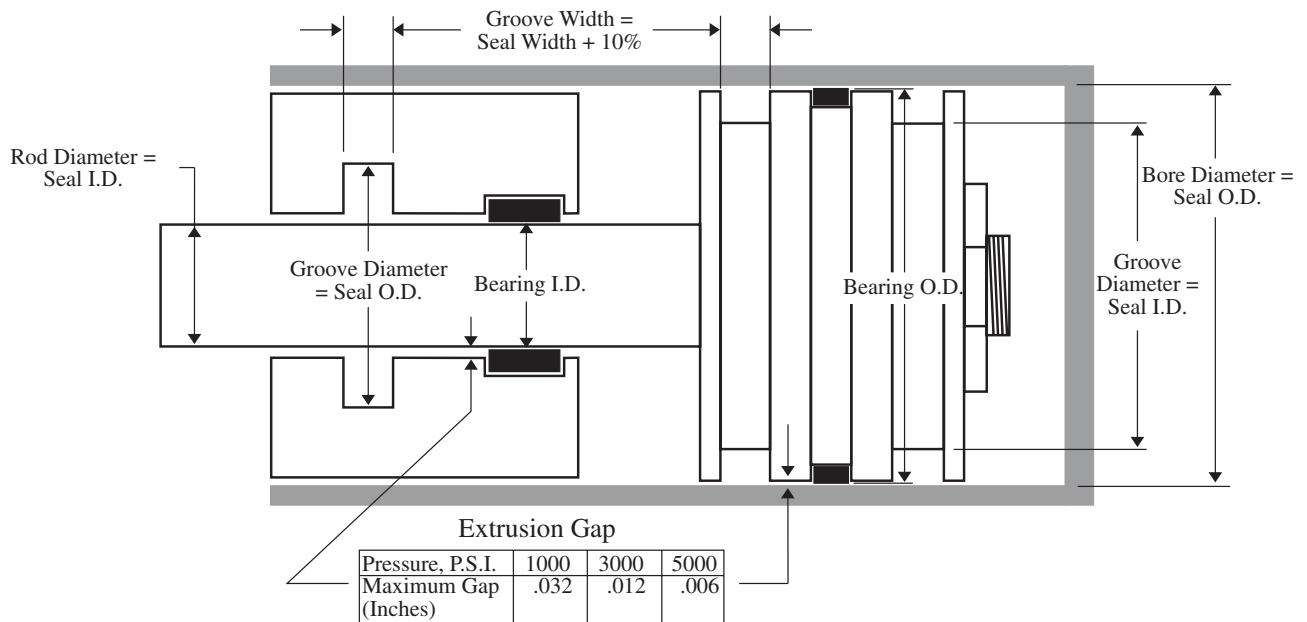


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COPY FOR SHOP & COUNTER USE




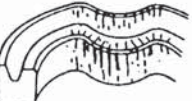








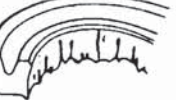

## ROD AND ROD GROOVE DIAMETERS


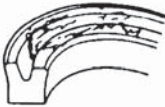
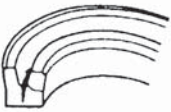
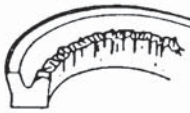
ROD DIAM RANGE, IN.	ROD DIAM. TOLERANCE	GROOVE DIAM TOLERANCE	MAX DIAMETRICAL CLEARANCE		
			1000 PSI	3000 PSI	5000 PSI
.125 - .687	+ .0 / -.002	+ .004 / -.0	.008	.006	.004
.750 - 2.875	+ .0 / -.003	+ .008 / -.0	.012	.008	.004
3.000 - 7.000	+ .0 / -.004	+ .010 / -.0	.014	.010	-
7.000 - 7.750	+ .0 / -.005	+ .011 / -.0	.016	.010	-
8.000 - 9.500	+ .0 / -.005	+ .012 / -.0	.016	-	-
10.000 - 15.000	+ .0 / -.006	+ .015 / -.0	.016	-	-

## BORE AND PISTON GROOVE DIAMETERS

BORE DIAM RANGE, IN.	BORE DIAM. TOLERANCE	GROOVE DIAM TOLERANCE	MAX DIAMETRICAL CLEARANCE		
			1000 PSI	3000 PSI	5000 PSI
.750 - 1.062	+ .003 / -.0	+ .0 / -.004	.010	.008	.004
1.125 - 1.625	+ .003 / -.0	+ .0 / -.005	.010	.008	.004
1.750 - 2.500	+ .003 / -.0	+ .0 / -.007	.012	.008	.004
2.625 - 2.875	+ .003 / -.0	+ .0 / -.008	.012	.008	.005
3.000 - 3.500	+ .004 / -.0	+ .0 / -.008	.014	.010	-
3.625 - 5.625	+ .004 / -.0	+ .0 / -.009	.014	.010	-
5.750 - 6.750	+ .004 / -.0	+ .0 / -.010	.014	.010	-
7.000 - 8.500	+ .005 / -.0	+ .0 / -.011	.016	.010	-
9.000 - 11.000	+ .005 / -.0	+ .0 / -.011	.016	-	-
12.000 - 16.000	+ .006 / -.0	+ .0 / -.012	.018	-	-

## EXAMPLES OF SEAL FAILURES AND THEIR CAUSES

TYPE OF FAILURE	VISIBLE CONDITION	PROBABLE CAUSE	POSSIBLE CURE
HARDENING	Hardening of the dynamic face causing glazing and cracks 	Heat generated by high speed	Slow stroke speed Use alternative seal device
	Hardening of the whole seal. Loss of elasticity. 	High fluid temperature. Deterioration of fluid. Compatibility of seal to fluid	Lower oil temperature. Renew Fluid Change to different seal compound
WEAR	Dynamic face is worn to glossy mirror-like finish 	Insufficient lubrication	Check oil viscosity Use alternative seal device
	Wear on dynamic lip is egg-shaped 	Rod or piston bore not concentric	Hone to within seal specs Replace worn rod or cylinder tube
	Abnormal wear on one side of the dynamic lip 	Worn bearing or wear ring. Excessive lateral load	Replace bearings Increase bearing area
SCARRING	Cut or dent on the lip 	Storage on a nail or peg. Improper installation tool	Store flat in a plastic bag in a closed cardboard box Installation tools should not have sharp edges
	Scratches on the dynamic side 	Scars on the rod or bore. Foreign material in fluid	Hone, polish, and de-burr metal parts Flush system
SWELLING	Material soft and misshaped 	Absorption of fluid. Fluid and seal are incompatible. Water in system	Change seal compound or system fluid Flush system
DETERIORATION	Cracks and loss of elasticity. Material easily crumbles 	High fluid temperature. Exposure to ozone or sunlight	Lower oil temperature Store seals away from sunlight and arc welding area.
GROOVING	Axial cuts on the dynamic side 	Metal chips or other foreign material in system. Imploded air bubbles	Flush system Bleed air from system
EXTRUSION	Extruded material on dynamic side of heel 	Gap between mating surfaces too wide. Worn bearings. Pressure extreme	Employ back-up ring. Replace bearings. Use alternative seal
	Extruded material on static side of seal 	Uneven support surface. Undersize back-up ring	Machine surface. Correct back-up size

EXAMPLES OF SEAL FAILURES AND THEIR CAUSES			
TYPE OF FAILURE	VISIBLE CONDITION	PROBABLE CAUSE	POSSIBLE CURE
FRACTURING	Chunks of material torn from dynamic side 	Excessive back pressure	Check relief valves
	Pressure side of seal burned and broken 	Explosion of residual air at high pressure. "Dieseling"	Check maximum pressure. Bleed air from system
	Long cracks in the "V" portion of the seal 	Frequent high pressure shocks or spikes. Low temperature start-up	Use alternative style seal. Warm system before applying pressure
	Breaking off of entire dynamic side 	Deterioration of material and/or fluid	Use alternative material or seal. Flush system

**For a professional analysis of seal failure, send your damaged seals to our Engineering Department.**

When trying to determine the cause of a seal failure it is imperative that all aspects of the situation be investigated. Often, a seal failure points to another part of the hydraulic system that has failed or been compromised in some way. To help you determine where the potential cause of a failure lies, we have developed a seal failure check list. By filling in the necessary information you should be able to determine the cause of a failure and decide what measures to take to assure future trouble free operation. If you have any questions regarding this form, please contact our sales staff.

## Please Fill This Out Completely

1. Describe the application:

**A. Type:**  Telescopic  Piston-rod cylinder  Pump/Motor  Other \_\_\_\_\_

**B. Fluid Medium:** Type: \_\_\_\_\_

Pressure: normal: \_\_\_\_\_ psi Temperature: system: \_\_\_\_\_ °F ambient: \_\_\_\_\_ °F

min: \_\_\_\_\_ psi min: \_\_\_\_\_ °F

max: \_\_\_\_\_ psi max: \_\_\_\_\_ °F

**C. Speed:** Cycles/min: \_\_\_\_\_ Length of stroke: \_\_\_\_\_ in Average speed: \_\_\_\_\_

2. Inspect the application before seal removal:

**A. Amount of leakage:** \_\_\_\_\_  Slight  Moderate  Heavy leakage

**B. Condition of area:** \_\_\_\_\_  Clean  Dusty  Mud packed

Painted  Other \_\_\_\_\_

**C. Leakage source:** \_\_\_\_\_  Between wiper lip and rod  Wiper blown out  
 At gland bolt holes  At gland OD  
 Between piston and rod  Across piston seal  Other \_\_\_\_\_

3. Inspect external cylinder conditions:

Collision that caused a pressure spike in cylinder  Cylinder dented  Side loading present

4. Remove seals and inspect internal cylinder conditions

**A. Shaft:**  Rod diameter out of tolerance (check entire length)  Rod is scratched or scarred  
 Eccentricity of rod and cylinder head  Surface finish (RMS) is too smooth or too rough

**B. Bore:**  Bore diameter out of tolerance (check entire length)  Bore is scratched or scarred  
 Bore is out of round  Surface finish (RMS) is too smooth or too rough  
 Eccentricity of piston head and cylinder bore

**C. Groove:**  Groove dimensions are out of tolerance  Surface is nicked or scratched  
 Surface is dirty or rusted  Surface finish (RMS) is too smooth or too rough

**D. Bearing surfaces:**  Improper support causing eccentricity  Abnormal wear of wear ring and/or bearing surfaces

5. Inspect the seals for signs of failure:

**A. Describe the failed seal**

i. Seal type:  Piston  Rod  Static

Part Number: \_\_\_\_\_ Size: \_\_\_\_\_ Material: \_\_\_\_\_ Profile: \_\_\_\_\_

Companion parts: \_\_\_\_\_

ii. Operation:  Dynamic:  Rotary  Reciprocating  Oscillating

Static:  Radial  Face

**B. Describe the conditions of failure**

i. Service length until failure: \_\_\_\_\_

ii. Describe seal condition: See Chart in Master Seal Catalog pages 7 & 8

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



Inches		Millimeters
Fractions	Decimals	
—	.0004	.01
—	.004	.10
—	.01	.25
1/64	.0156	.397
—	.0197	.50
—	.0295	.75
1/32	.03125	.794
—	.0394	1.0
3/64	.0469	1.191
—	.059	1.5
1/16	.062	1.588
5/64	.0781	1.984
—	.0787	2.0
3/32	.094	2.381
—	.0984	2.5
7/64	.109	2.778
—	.1181	3.0
1/8	.125	3.175
—	.1378	3.5
9/64	.141	3.572
5/32	.156	3.969
—	.1575	4.0
11/64	.172	4.366
—	.177	4.5
3/16	.1875	4.763
—	.1969	5.0
13/64	.203	5.159
—	.2165	5.5
7/32	.219	5.556
15/64	.234	5.953
—	.2362	6.0
1/4	.250	6.350
—	.2559	6.5
17/64	.2656	6.747
—	.2756	7.0
9/32	.281	7.144
—	.2953	7.5
19/64	.297	7.541
5/16	.312	7.938
—	.315	8.0
21/64	.328	8.334
—	.335	8.5
11/32	.344	8.731
—	.3543	9.0
23/64	.359	9.128

Inches		Millimeters
Fractions	Decimals	
—	.374	9.5
3/8	.375	9.525
25/64	.391	9.922
—	.3937	10.0
13/32	.406	10.319
—	.413	10.5
27/64	.422	10.716
—	.4331	11.0
7/16	.438	11.113
29/64	.453	11.509
15/32	.469	11.906
—	.4724	12.0
31/64	.484	12.303
—	.492	12.5
1/2	.500	12.700
—	.5118	13.0
33/64	.5156	13.097
17/32	.531	13.494
35/64	.547	13.891
—	.5512	14.0
9/16	.563	14.288
—	.571	14.5
37/64	.578	14.684
—	.5906	15.0
19/32	.594	15.081
39/64	.609	15.478
5/8	.625	15.875
—	.6299	16.0
41/64	.6406	16.272
—	.6496	16.5
21/32	.658	16.669
—	.6693	17.0
43/64	.672	17.066
11/16	.6875	17.463
45/64	.703	17.859
—	.7087	18.0
23/32	.719	18.256
—	.7283	18.5
47/64	.734	18.653
—	.7480	19.0
3/4	.750	19.050
49/64	.7656	19.447
25/32	.781	19.844
—	.7874	20.0
51/64	.797	20.241

Inches		Millimeters
Fractions	Decimals	
13/16	.8125	20.638
—	.8268	21.0
53/64	.828	21.034
27/32	.844	21.431
55/64	.859	21.828
—	.8661	22.0
7/8	.875	22.225
57/64	.8906	22.622
—	.9055	23.0
29/32	.9062	23.019
59/64	.922	23.416
15/16	.9375	23.813
—	.9449	24.0
61/64	.953	24.209
31/32	.969	24.606
—	.9843	25.0
63/64	.9844	25.003
1	1.000	25.400
—	1.0236	26.0
1-1/32	1.0312	26.194
1-1/16	1.062	26.988
—	1.063	27.0
1-3/32	1.094	27.781
—	1.1024	28.0
1-1/8	1.125	28.575
—	1.1417	29.0
1-5/32	1.156	29.369
—	1.1811	30.0
1-3/16	1.1875	30.163
1-7/32	1.219	30.956
—	1.2205	31.0
1-1/4	1.250	31.750
—	1.2598	32.0
1-9/32	1.281	32.544
—	1.2992	33.0
1-5/16	1.312	33.338
—	1.3386	34.0
1-11/32	1.344	34.131
1-3/8	1.375	34.925
—	1.3779	35.0
1-13/32	1.406	35.719
—	1.4173	36.0
1-7/16	1.438	36.513
—	1.4567	37.0
1-15/32	1.469	37.306

Inches		Millimeters
Fractions	Decimals	
—	1.4961	38.0
1-1/2	1.500	38.100
1-17/32	1.531	38.894
—	1.5354	39.0
1-9/16	1.562	39.688
—	1.5748	40.0
1-19/32	1.594	40.481
—	1.6142	41.0
1-5/8	1.625	41.275
—	1.6535	42.0
1-21/32	1.6562	42.069
1-11/16	1.6875	42.863
—	1.6929	43.0
1-23/32	1.719	43.656
—	1.7323	44.0
1-3/4	1.750	44.450
—	1.7717	45.0
1-25/32	1.781	45.244
—	1.8110	46.0
1-13/16	1.8125	46.038
1-27/32	1.844	46.831
—	1.8504	47.0
1-7/8	1.875	47.625
—	1.8898	48.0
1-29/32	1.9062	48.419
—	1.9291	49.0
1-15/16	1.9375	49.213
—	1.9685	50.0
1-31/32	1.969	50.006
2	2.000	50.800
—	2.0079	51.0
2-1/32	2.03125	51.594
—	2.0472	52.0
2-1/6	2.062	52.388
—	2.0866	53.0
2-3/32	2.094	53.181
2-1/8	2.125	53.975
—	2.126	54.0
2-5/32	2.156	54.769
—	2.165	55.0
2-3/16	2.1875	55.563
—	2.2047	56.0
2-7/32	2.219	56.356
—	2.244	57.0
2-1/4	2.250	57.150



Inches		Millimeters
Fractions	Decimals	
2-9/32	2.281	57.944
—	2.2835	58.0
2-5/16	2.312	58.738
—	2.3228	59.0
2-11/32	2.344	59.531
—	2.3622	60.0
2-3/8	2.375	60.325
—	2.4016	61.0
2-13/32	2.406	61.119
2-7/16	2.438	61.913
—	2.4409	62.0
2-15/32	2.469	62.706
—	2.4803	63.0
2-1/2	2.500	63.500
—	2.5197	64.0
2-17/32	2.531	64.294
—	2.559	65.0
2-9/16	2.562	65.088
2-19/32	2.594	65.881
—	2.5984	66.0
2-5/8	2.625	66.675
—	2.638	67.0
2-21/32	2.656	67.469
—	2.6772	68.0
2-11/16	2.6875	68.263
—	2.7165	69.0
2-23/32	2.719	69.056
2-3/4	2.750	69.850
—	2.7559	70.0
2-25/32	2.781	70.6439
—	2.7953	71.0
2-13/16	2.8125	71.4376
—	2.8346	72.0
2-27/32	2.844	72.2314
—	2.8740	73.0
2-7/8	2.875	73.025
2-29/32	2.9062	73.819
—	2.9134	74.0
2-15/16	2.9375	74.613
—	2.9527	75.0
2-31/32	2.969	75.406
—	2.9921	76.0
3	3.000	76.200
3-1/32	3.0312	76.994
—	3.0315	77.0

Inches		Millimeters
Fractions	Decimals	
3-1/16	3.062	77.788
—	3.0709	78.0
3-3/32	3.094	78.581
—	3.1102	79.0
3-1/8	3.125	79.581
—	3.1496	80.0
3-5/32	3.156	80.169
3-3/16	3.1875	80.963
—	3.1890	81.0
3-7/32	3.219	81.756
—	3.2283	82.0
3-1/4	3.250	82.550
—	3.2677	83.0
3-9/32	3.281	83.344
—	3.3071	84.0
3-5/16	3.312	84.1377
3-11/32	3.344	84.9314
—	3.3464	85.0
3-3/8	3.375	85.725
—	3.3858	86.0
3-13/32	3.406	86.519
—	3.4252	87.0
3-7/16	3.438	87.313
—	3.4648	88.0
3-15/32	3.469	88.108
3-1/2	3.500	88.900
—	3.5039	89.0
3-17/32	3.531	89.694
—	3.5433	90.0
3-9/16	3.562	90.4877
—	3.5827	91.0
3-19/32	3.594	91.281
—	3.622	92.0
3-5/8	3.625	92.075
3-21/32	3.656	92.869
—	3.6614	93.0
3-11/16	3.6875	93.663
—	3.7008	94.0
3-23/32	3.719	94.456
—	3.7401	95.0
3-3/4	3.750	95.250
—	3.7795	96.0
3-25/32	3.781	96.044
3-13/16	3.8125	96.838
—	3.8189	97.0

Inches		Millimeters
Fractions	Decimals	
3-27/32	3.844	97.631
—	3.8583	98.0
3-7/8	3.875	98.425
—	3.8976	99.0
3-29/32	3.9062	99.219
—	3.9370	100.0
3-15/16	3.9375	100.013
3-31/32	3.969	100.806
—	3.9764	101.0
4	4.000	101.600
4-1/16	4.062	103.188
4-1/8	4.125	104.775
—	4.1338	105.0
4-3/16	4.1875	106.363
4-1/4	4.250	107.950
4-5/16	4.312	109.538
—	4.3307	110.0
4-3/8	4.375	111.125
4-7/16	4.438	112.713
4-1/2	4.500	114.300
—	4.5275	115.0
4-9/16	4.562	115.888
4-5/8	4.625	117.475
4-11/16	4.6875	119.063
—	4.7244	120.0
4-3/4	4.750	120.650
4-13/16	4.8125	122.238
4-7/8	4.875	123.825
—	4.9212	125.0
4-15/16	4.9375	125.413
5	5.000	127.000
—	5.1181	130.0
5-1/4	5.250	133.350
5-1/2	5.500	139.700
—	5.5118	140.0
5-3/4	5.750	146.050
—	5.9055	150.0
6	6.000	152.400
6-1/4	6.250	158.750
—	6.2992	160.0
6-1/2	6.500	165.100
—	6.6929	170.0
6-3/4	6.750	171.450
7	7.000	177.800
—	7.0866	180.0

Inches		Millimeters
Fractions	Decimals	
—	7.4803	190.0
7-1/2	7.500	190.500
—	7.8740	200.0
8	8.000	203.200
—	8.2677	210.0
8-1/2	8.500	215.900
—	8.6614	220.0
9	9.000	228.600
—	9.0551	230.0
—	9.4488	240.0
9-1/2	9.500	241.300
—	9.8425	250.0
10	10.000	254.001
—	10.2362	260.0
—	10.6299	270.0
11	11.000	279.401
—	11.0236	280.0
—	11.4173	290.0
—	11.8110	300.0
12	12.000	304.801
13	13.000	330.201
—	13.7795	350.0
14	14.000	355.601
15	15.000	381.001
—	15.7480	400.0
16	16.000	406.401
17	17.000	431.801
—	17.7165	450.0
18	18.000	457.201
19	19.000	482.601
—	19.6850	500.0
20	20.000	508.001

Square Head “High Pressure” Cylinders

Working Pressure of Hydraulic Fluid P.S.I.

BORE	AREA	ROD	SIZE	50	100	250	500	1000	1500	2000	3000	5000
1-1/2	PUSH	—		88	177	443	885	1,770	2,655	3,540	5,310	8,850
	PULL	STD	5/8	73	146	365	730	1,460	2,190	2,920	4,380	7,300
	PULL	2:1	1	49	98	245	490	980	1,470	1,960	2,940	4,900
2	PUSH	—		157	314	785	1,570	3,140	4,710	6,280	9,420	15,700
	PULL	STD	1	118	236	590	1,180	2,360	3,540	4,720	7,080	11,800
	PULL	2:1	1-3/8	83	166	415	830	1,660	2,490	3,320	4,980	8,300
2-1/2	PUSH	—		246	491	1,228	2,455	4,910	7,265	9,820	14,730	24,550
	PULL	STD	1	206	412	1,030	2,060	4,120	6,180	8,240	12,360	20,600
	PULL	2:1	1-3/4	125	250	625	1,250	2,500	3,750	5,000	7,500	12,500
3-1/2	PUSH	—		415	830	2,075	4,150	8,300	12,450	16,600	24,900	41,500
	PULL	STD	1-3/8	341	681	1,703	3,405	6,810	10,215	13,620	20,430	34,050
	PULL	2:1	2	258	515	1,288	2,575	5,150	7,725	10,300	15,450	25,750
4	PUSH	—		628	1,257	3,143	6,285	12,570	18,855	25,140	37,710	62,850
	PULL	STD	1-3/4	508	1,016	2,540	5,080	10,160	15,240	20,320	30,480	50,800
	PULL	2:1	2-1/2	383	766	1,916	3,830	7,660	11,490	15,320	22,980	38,300
5	PUSH	—		982	1,964	4,910	9,820	19,640	29,460	39,280	58,920	98,200
	PULL	STD	2	825	1,649	4,123	8,245	16,490	24,735	32,980	49,470	82,450
	PULL	2:1	3-1/2	500	1,001	2,503	5,005	10,010	15,015	20,020	30,030	50,050
6	PUSH	—		1,413	2,827	7,068	14,135	28,270	42,405	56,540	84,810	141,350
	PULL	STD	2-1/2	1,168	2,336	5,840	11,680	23,360	35,040	46,720	70,080	116,800
	PULL	2:1	4	786	1,571	3,928	7,855	15,710	23,565	31,420	47,130	78,550
7	PUSH	—		1,924	3,849	9,623	19,245	38,490	57,735	76,980	115,470	192,450
	PULL	STD	3	1,571	3,142	7,855	15,710	31,420	47,130	62,840	94,260	157,100
	PULL	2:1	5	942	1,885	4,713	9,425	18,850	28,275	37,700	56,550	94,250
8	PUSH	—		2,514	5,027	12,568	25,135	50,270	75,405	100,540	150,810	251,350
	PULL	STD	3-1/2	2,032	4,064	10,160	20,320	40,640	60,960	81,280	121,920	203,200
	PULL	2:1	5-1/2	1,326	2,651	6,628	13,255	26,510	39,765	53,020	79,530	132,550
10	PUSH	—		3,927	7,854	19,635	39,270	78,540	117,810	157,080	235,620	392,700
	PULL	STD	4-1/2	3,132	6,264	15,660	31,320	62,640	93,960	125,280	187,920	313,200
	PULL	2:1	7	2,003	4,006	10,015	20,030	40,060	60,090	80,120	120,180	200,300

This table is a ready reference of forces available from either end from various cylinder and rod sizes at a range of pressures. For pressures intermediate between those shown, add force values from two or more pressures whose sum equals the given operating pressure.

RPM	Horse Power												
	1	2	3	4	5	6	7	8	9	10	15	20	25
1	63,025	126,050	189,076	252,100	315,125	378,150	441,175	504,200	567,225	630,250	945,375	105,042	131,302
2	31,512	63,025	94,538	126,050	157,563	189,075	220,588	252,100	283,613	315,125	472,688	630,250	787,813
3	21,009	42,017	63,025	84,036	105,042	126,050	147,058	168,067	189,075	210,083	315,125	420,167	525,208
4	15,756	31,512	47,269	63,025	78,781	94,538	110,294	126,050	141,806	157,563	236,344	315,125	393,906
5	12,605	25,210	37,815	50,420	63,025	75,630	88,236	100,840	113,445	126,050	189,076	252,100	315,125
6	10,506	21,009	31,513	42,017	52,521	63,025	73,529	84,033	94,538	105,040	157,563	210,083	262,604
7	9,004	18,007	27,011	36,016	45,018	54,021	63,025	72,029	81,032	90,036	135,054	180,071	225,089
8	7,878	15,756	23,634	31,512	39,391	47,269	55,147	63,025	70,903	78,780	118,172	157,563	196,953
9	7,003	14,006	21,010	28,011	35,014	42,017	49,019	56,022	63,025	70,030	105,042	140,056	175,069
10	6,303	12,605	18,908	25,210	31,512	37,815	44,118	50,420	56,723	63,025	94,538	126,050	157,563
20	3,151	6,303	9,454	12,605	15,756	18,908	22,059	25,210	28,316	31,512	47,269	63,025	78,781
25	2,521	5,042	7,563	10,084	12,605	15,126	17,647	20,168	22,689	25,210	37,815	50,420	63,025
30	2,101	4,202	6,303	8,403	10,504	12,605	14,705	16,807	18,908	21,009	31,513	42,017	52,521
40	1,576	3,151	4,727	6,303	7,878	9,454	11,029	12,605	14,181	15,756	23,634	31,513	39,391
50	1,261	2,521	3,782	5,042	6,303	7,563	8,824	10,084	11,345	12,605	18,908	25,210	31,513
60	1,050	2,101	3,151	4,202	5,252	6,303	7,353	8,403	9,454	10,504	15,756	21,009	26,260
70	900	1,801	2,701	3,601	4,502	5,402	6,303	7,203	8,103	9,004	13,506	18,007	22,509
75	840	1,681	2,521	3,361	4,202	5,042	5,882	6,723	7,563	8,403	12,605	16,806	21,008
80	788	1,576	2,363	3,151	3,939	4,727	5,515	6,303	7,090	7,878	11,817	15,756	19,695
90	700	1,400	2,101	2,801	3,501	4,202	4,902	5,602	6,303	7,003	10,504	14,006	17,507
100	630	1,261	1,891	2,521	3,151	3,782	4,412	5,042	5,672	6,303	9,453	12,605	15,758
150	420	840	1,261	1,681	2,101	2,251	2,941	3,361	3,781	4,202	6,303	8,403	10,504
200	315	630	945	1,261	1,575	1,891	2,206	2,521	2,836	3,151	4,727	6,303	7,878
250	252	504	756	1,008	1,260	1,531	1,765	2,017	2,269	2,521	3,782	5,042	6,303
300	210	420	630	840	1,050	1,261	1,471	1,681	1,891	2,101	3,151	4,202	5,252
350	180	360	540	720	900	1,080	1,261	1,441	1,621	1,801	2,701	3,601	4,502
400	158	315	473	630	788	945	1,104	1,261	1,418	1,576	2,364	3,151	3,939
450	141	280	420	560	700	840	980	1,120	1,261	1,401	2,101	2,801	3,501
500	126	252	378	504	630	756	882	1,008	1,134	1,261	1,891	2,521	3,151
550	115	229	344	458	573	688	802	917	1,031	1,146	1,719	2,292	2,865
600	105	210	315	420	525	630	735	840	945	1,050	1,576	2,101	2,626
650	97	194	291	388	485	582	679	776	873	970	1,454	1,939	2,424
700	90	180	270	360	450	540	630	720	810	900	1,351	1,801	2,251
750	84	168	252	336	420	504	588	672	756	840	1,261	1,681	2,101
800	79	158	236	315	393	473	551	630	709	788	1,182	1,576	1,970
850	74	148	222	297	371	445	519	593	667	741	1,112	1,483	1,854
900	70	140	210	280	350	420	490	560	630	700	1,050	1,400	1,751
950	66	133	199	265	332	398	464	531	597	663	995	1,327	1,659
1000	63	126	189	252	315	378	441	504	567	630	945	1,261	1,576
1100	57	115	172	229	286	344	401	458	516	573	860	1,146	1,432
1200	53	105	158	210	263	315	368	420	473	525	788	1,050	1,313
1300	48	97	145	194	242	291	339	388	436	485	727	970	1,212
1400	45	90	135	180	225	270	315	360	405	450	675	900	1,125
1500	42	84	126	168	210	252	294	336	378	420	630	840	1,050
1600	39	79	118	158	197	236	276	315	355	394	591	788	985
1700	37	74	111	148	185	222	260	296	334	371	556	741	927
1800	35	70	105	140	175	210	245	280	315	350	525	700	875
1900	33	66	100	133	166	199	232	265	299	332	498	663	829
2000	32	63	95	126	158	189	221	252	284	315	473	630	788
2100	30	60	90	120	150	180	210	240	270	300	450	600	750
2200	29	57	86	115	143	172	201	229	258	286	430	573	716
2300	27	55	82	110	137	164	192	219	247	274	411	548	685
2400	26	53	79	105	131	158	184	210	236	263	394	525	657
2500	25	50	76	101	126	151	176	202	227	252	378	504	630
2750	23	46	69	92	115	138	160	183	206	229	344	458	573
3000	21	42	63	84	105	126	147	168	189	210	315	420	525
3250	19	39	58	78	97	116	136	155	175	194	291	388	485
3500	18	36	54	72	90	108	126	144	162	180	270	360	450
3750	17	34	50	67	84	101	118	134	151	168	252	336	420
4000	16	32	47	63	79	95	110	126	142	158	236	315	394
4250	15	30	44	59	74	89	104	119	133	148	222	297	371
4500	14	28	42	56	70	84	98	112	126	140	210	280	350
4750	13	27	40	53	66	80	93	106	119	133	199	265	332
5000	13	25	38	50	63	76	88	101	113	126	189	252	315
6000	11	21	32	42	53	63	74	84	95	105	158	210	263
7000	9	18	27	36	45	54	63	72	81	90	135	180	225
8000	8	16	24	32	39	47	55	63	71	79	118	158	197
9000	7	14	21	28	35	42	49	56	63	70	105	140	175
10000	6	13	19	25	32	38	44	50	57	63	95	126	158

Inches / Minute

PISTON DIAMETER	ROD DIAMETER	FLOW - GPM										
		1	2	3	5	10	12	15	20	25	50	75
1	—	298	596	894	1490							
	1/2	392	784	1176	1960							
1-1/2	—	130	260	392	654	1308						
	5/8	158	316	476	792	1584						
	1	235	470	706	1176	2352						
2	—	73	146	221	368	736	883	1120				
	3/4	85	170	257	428	956	1025	1283				
	1	97	184	294	490	980	1175	1465				
	1-3/8	139	278	418	697	1394	1673	2090				
2-1/2	—	47	94	141	235	470	565	675	940	1175		
	1	56	112	168	280	560	672	840	1120	1400		
	1-3/8	67	134	203	339	678	813	1015	1355	1695		
	1-3/4	92	184	277	463	926	1110	1385	1850	2310		
3	—	32	64	98	163	326	392	490	653	817		
	1	36	72	110	184	368	440	551	735	920		
	1-1/2	43	86	131	218	436	523	655	872	1090		
	2	58	116	176	294	588	705	882	1175	1470		
3-1/2	—	24	48	72	120	240	288	360	480	600	1200	
	1-1/4	27	54	82	137	274	330	411	548	685	1370	
	1-3/4	32	64	96	160	320	384	480	640	800	1600	
	2	35	70	107	178	356	428	534	712	890	1780	
4	—	18	36	55	92	184	220	276	368	460	920	
	1-1/4	20	40	61	102	204	244	306	408	510	1020	
	1-3/4	22	44	68	113	226	273	339	452	565	1130	
	2	24	48	73	122	244	294	366	488	610	1220	
	2-1/2	30	60	90	150	300	362	450	600	750	1500	
5	—	12	24	35	58	116	141	174	232	290	580	870
	1-1/2	13	26	39	64	128	155	193	258	320	640	960
	2	14	28	42	70	140	168	210	280	350	700	1050
	2-1/2	16	32	47	78	156	188	235	315	390	780	1170
	3	18	36	55	92	184	220	275	365	460	920	1380
	3-1/2	22	44	66	111	222	266	333	444	555	1110	1665
6	—	8	16	24	41	82	98	123	162	202	404	606
	1-3/4	9	18	27	45	90	107	135	180	225	450	675
	2-1/2	10	20	30	50	100	118	150	200	250	500	750
	3	11	22	33	54	108	130	165	206	270	540	810
	3-1/2	12	24	37	62	124	148	185	245	310	620	930
	4	15	30	44	73	146	176	220	295	365	730	1095
8	—	4	8	14	23	46	55	69	92	115	230	345
	3-1/2	5-1/2	11	17	28	56	68	85	115	140	280	420
	4	6	12	18	30	60	73	90	122	150	300	450
	5	7-1/2	15	22	38	76	90	114	150	185	375	555
	5-1/2	8-1/2	17	26	43	86	104	129	172	215	430	645
10	—	3	6	9	15	30	35	44	60	73	146	220
	4-1/2	3-1/2	7	11	18	36	44	55	75	92	184	275
	5	4	8	12	20	40	47	60	80	100	200	300
	5-1/2	4-1/2	9	13	21	42	50	63	84	105	210	315
	7	5-1/2	11	17	29	58	69	87	115	145	290	435

This chart is based on the formula  $V = \frac{231 \times \text{GPM}}{\text{EFF. CYL. AREA (Sq. Inches)}}$

## Required to Drive a Hydraulic Pump

GPM	PUMP PRESSURE PSI										
	100	200	250	300	400	500	750	1000	1250	1500	2000
1/2	.04	.07	.09	.10	.14	.17	.26	.34	.43	.52	.69
1	.07	.14	.17	.21	.28	.34	.52	.69	.86	1.03	1.37
1 1/2	.10	.21	.26	.31	.41	.52	.77	1.03	1.29	1.54	2.06
2	.14	.28	.34	.41	.55	.69	1.03	1.37	1.72	2.06	2.75
2 1/2	.17	.34	.43	.52	.69	.86	1.29	1.72	2.15	2.58	3.43
3	.21	.41	.52	.62	.83	1.03	1.54	2.06	2.57	3.09	4.12
3 1/2	.24	.48	.60	.72	.96	1.20	1.80	2.40	3.00	3.60	4.81
4	.28	.55	.69	.82	1.10	1.37	2.06	2.75	3.43	4.12	5.49
5	.34	.69	.86	1.03	1.32	1.72	2.57	3.43	4.29	5.15	6.86
6	.41	.82	1.03	1.24	1.65	2.06	3.09	4.12	5.15	6.18	8.24
7	.48	.96	1.20	1.44	1.92	2.40	3.60	4.81	6.01	7.21	9.61
8	.55	1.10	1.37	1.65	2.20	2.75	4.12	5.49	6.86	8.24	11.0
9	.62	1.24	1.55	1.85	2.47	3.09	4.63	6.18	7.72	9.27	12.4
10	.69	1.37	1.62	2.06	2.75	3.43	5.15	6.86	8.58	10.3	13.8
11	.76	1.51	1.89	2.27	3.02	3.78	5.66	7.55	9.44	11.3	15.1
12	.83	1.65	2.06	2.47	3.30	4.12	6.18	8.24	10.3	12.4	16.5
13	.89	1.79	2.23	2.68	3.57	4.46	6.69	8.92	11.2	13.4	17.8
14	.96	1.92	2.40	2.88	3.84	4.81	7.21	9.61	12.0	14.4	19.2
15	1.03	2.06	2.57	3.09	4.12	5.15	7.72	10.3	12.9	15.4	20.6
16	1.10	2.20	2.75	3.30	4.39	5.49	8.24	11.0	13.7	16.5	22.0
17	1.17	2.33	2.92	3.50	4.68	5.83	8.75	11.7	14.6	17.5	23.3
18	1.24	2.47	3.09	3.71	4.94	6.18	9.27	12.4	15.4	18.5	24.7
19	1.30	2.61	3.26	3.91	5.22	6.52	9.78	13.0	16.3	19.6	26.1
20	1.37	2.75	3.43	4.12	5.49	6.86	10.3	13.7	17.2	21.6	27.5
25	1.72	3.43	4.29	5.15	6.86	8.58	12.9	17.2	21.5	25.8	34.3
30	2.06	4.12	5.15	6.18	8.24	10.3	15.4	20.6	25.7	30.9	41.2
35	2.40	4.81	6.01	7.21	9.61	12.0	18.0	24.0	30.0	36.0	48.0
40	2.75	5.49	6.86	8.24	11.0	13.7	20.6	27.5	34.3	41.2	54.9
45	3.09	6.18	7.72	9.27	12.4	15.4	23.2	31.0	38.6	46.3	61.8
50	3.43	6.86	8.58	10.3	13.7	17.2	25.7	34.3	42.9	51.5	68.6
55	3.78	7.55	9.44	11.3	15.1	18.9	28.3	37.8	47.2	56.6	75.5
60	4.12	8.24	10.3	12.4	16.5	20.6	30.9	41.2	51.5	61.8	83.4
65	4.46	8.92	11.2	13.4	17.8	22.3	33.5	44.6	55.8	66.9	89.2
70	4.81	9.61	12.0	14.4	19.2	24.0	36.0	48.0	60.1	72.1	96.1
75	5.15	10.3	12.9	15.4	20.6	25.7	38.6	51.4	64.3	77.2	103.0
80	5.49	11.0	13.7	16.5	22.0	27.5	41.2	54.9	68.6	82.4	109.8
90	6.18	12.4	15.4	18.5	24.7	30.9	46.3	61.8	77.2	92.7	123.6
100	6.86	13.7	17.2	20.6	27.5	34.4	51.5	68.6	85.8	103.0	137.3

This chart is based on the formula 
$$HP = \frac{GPM \times PSI}{1714 \times \text{EFFICIENCY}}$$

For the purposes of this chart, pump efficiency was assumed to be 85%.

As horsepower varies directly with flow or pressure, multiply proportionately to determine values not shown. For instance, at 4000 PSI multiply 2000 PSI values by 2.

Diam.	Circum.	Area	Diam.	Circum.	Area	Diam.	Circum.	Area	Diam.	Circum.	Area	Diam.	Circum.	Area
			1	3.1416	.7854	5	15.708	19.635	12	37.699	113.10	24	75.398	452.39
1/64	.04909	.00019	1/16	3.3379	.8866	1/8	16.101	20.629	1/4	38.485	117.86	1/4	76.184	461.86
1/32	.09818	.00077	1/8	3.5343	.9940	1/4	16.493	21.648	1/2	39.270	122.72	1/2	76.969	471.44
3/64	.14726	.00173	3/16	3.7306	1.1075	3/8	16.886	22.691	3/4	40.055	127.68	3/4	77.764	481.11
1/16	.1965	.00307	1/4	3.9270	1.2272	1/2	17.279	23.758	13	40.841	132.73	25	78.540	490.87
5/64	.24544	.00479	5/16	4.1233	1.3530	5/8	17.671	24.850	1/4	41.626	137.89	1/4	79.325	500.74
3/32	.29452	.00690	3/8	4.3197	1.4849	3/4	18.064	25.967	1/2	42.412	143.14	1/2	80.111	510.71
7/64	.34361	.00940	7/16	4.5160	1.6230	7/8	18.457	27.109	3/4	43.197	148.49	3/4	80.896	520.77
1/8	.39270	.01227	1/2	4.7124	1.7671	6	18.850	28.274	14	43.982	153.94	26	81.681	530.93
9/64	.44179	.01553	9/16	4.9087	1.9175	1/8	19.242	29.465	1/4	44.768	159.48	1/4	82.467	541.19
5/32	.49087	.01917	5/8	5.1051	2.0739	1/4	19.635	30.680	1/2	45.553	165.13	1/2	83.252	551.55
11/64	.53996	.02320	11/16	5.3014	2.2365	3/8	20.028	31.919	3/4	46.338	170.87	3/4	84.038	562.00
3/16	.58905	.02761	3/4	5.4978	2.4053	1/2	20.420	33.183	15	47.124	176.71	27	84.823	572.56
13/64	.63814	.03241	13/16	5.6941	2.5802	5/8	20.813	34.472	1/4	47.909	182.65	1/4	85.608	583.21
7/32	.68722	.03758	7/8	5.8905	2.7612	3/4	21.206	35.785	1/2	48.695	188.69	1/2	86.394	593.96
15/64	.73631	.04314	15/16	6.0868	2.9483	7/8	21.598	37.122	3/4	49.480	194.83	3/4	87.179	604.81
1/4	.78540	.04909	2	6.2832	3.1416	7	21.991	38.485	16	50.265	201.06	28	87.965	615.75
17/64	.83449	.05542	1/16	6.4795	3.3410	1/8	22.384	39.871	1/4	51.051	207.39	1/4	88.750	626.80
9/32	.88357	.06213	1/8	6.6759	3.5466	1/4	22.776	41.282	1/2	51.836	213.82	1/2	89.535	637.94
19/64	.93266	.06922	3/16	6.8722	3.7583	3/8	23.169	42.718	3/4	52.622	220.35	3/4	90.321	649.18
5/16	.98175	.07670	1/4	7.0686	3.9761	1/2	23.562	44.179	17	53.407	226.98	29	91.106	660.52
21/64	1.03084	.08456	5/16	7.2649	4.2000	5/8	23.955	45.664	1/4	54.192	233.71	1/4	91.892	671.96
11/32	1.0799	.09281	3/8	7.4613	4.4301	3/4	24.347	47.173	1/2	54.978	240.53	1/2	92.677	683.49
23/64	1.1290	.10143	7/16	7.6576	4.6664	7/8	24.740	48.707	3/4	55.763	247.45	3/4	93.462	695.13
3/8	1.1781	.11045	1/2	7.8540	4.9087	8	25.133	50.265	18	56.549	254.47	30	94.248	708.86
25/64	1.2272	.11984	9/16	8.0503	5.1572	1/8	25.525	51.849	1/4	57.334	261.59	1/4	95.033	718.69
13/32	1.2763	.12962	5/8	8.2467	5.4119	1/4	25.918	53.456	1/2	58.119	268.80	1/2	95.819	730.62
27/64	1.3254	.13978	11/16	8.4430	5.6727	3/8	26.311	55.088	3/4	58.905	276.12	3/4	96.604	742.64
7/16	1.3744	.15033	3/4	8.6394	5.9396	1/2	26.704	56.745	19	59.690	283.53	31	97.389	754.77
29/64	1.4235	.16126	13/16	8.8357	6.2126	5/8	27.096	58.426	1/4	60.476	291.04	1/4	98.175	766.99
15/32	1.4726	.17257	7/8	9.0321	6.4918	3/4	27.489	60.132	1/2	61.261	298.65	1/2	98.960	779.31
31/64	1.5217	.18427	15/16	9.2284	6.7771	7/8	27.882	61.862	3/4	62.046	306.35	3/4	99.746	791.73
1/2	1.5708	.19635	3	9.4248	7.0686	9	28.274	63.617	20	62.832	314.16	32	100.531	804.25
17/32	1.6690	.22166	1/8	9.8175	7.6699	1/8	28.667	65.397	1/4	63.617	322.06	1/4	101.316	816.86
9/16	1.7671	.24850	1/4	10.210	8.2958	1/4	29.060	67.201	1/2	64.403	330.06	1/2	102.102	829.58
19/32	1.8653	.27688	3/8	10.603	8.9462	3/8	29.452	69.029	3/4	65.188	338.16	3/4	102.887	842.39
5/8	1.9635	.30680	1/2	10.996	9.6211	1/2	29.845	70.882	21	65.973	346.36	33	103.673	855.30
21/32	2.0617	.33824	5/8	11.388	10.321	5/8	30.238	72.760	1/4	66.759	354.66	1/4	104.458	868.31
11/16	2.1598	.37122	3/4	11.781	11.045	3/4	30.631	74.662	1/2	67.544	363.05	1/2	105.243	881.41
23/32	2.2580	.40574	7/8	12.174	11.793	7/8	31.023	76.589	3/4	68.330	371.54	3/4	106.029	894.62
3/4	2.3562	.44179	4	12.566	12.566	10	31.416	78.540	22	69.115	380.13	34	106.814	907.92
25/32	2.4544	.47937	1/8	12.959	13.364	1/4	32.201	82.516	1/4	69.900	388.82	1/4	107.600	921.32
13/16	2.5525	.51849	1/4	13.352	14.186	1/2	32.987	86.590	1/2	70.686	397.61	1/2	108.385	934.82
27/32	2.6507	.55914	3/8	13.744	15.033	3/4	33.772	90.763	3/4	71.471	406.49	3/4	109.170	948.42
7/8	2.7489	.60132	1/2	14.137	15.904	11	34.558	95.033	23	72.257	415.48	35	109.956	962.11
29/32	2.8471	.64504	5/8	14.530	16.800	1/4	35.343	99.402	1/4	73.042	424.56	1/4	110.741	975.91
15/16	2.9452	.69029	3/4	14.923	17.721	1/2	36.128	103.87	1/2	73.827	433.74	1/2	111.527	989.80
31/32	3.0434	.73708	7/8	15.315	18.665	3/4	36.914	108.43	3/4	74.613	443.01	3/4	112.312	1003.8

## BASIC FORMULAS

FORMULA FOR:	WORD FORMULA	LETTER FORMULA
<b>FLUID PRESSURE</b> In Pounds/Square Inch	PRESSURE = $\frac{\text{FORCE (pounds)}}{\text{UNIT AREA (Square Inches)}}$	$P = \frac{F}{A}$ or $\text{psi} = \frac{F}{A}$
<b>FLUID FLOW RATE</b> In Gallons/Minute	FLOW RATE = $\frac{\text{VOLUME (Gallons)}}{\text{UNIT TIME (Minutes)}}$	$Q = \frac{V}{T}$
<b>FLUID POWER</b> In Horsepower	HORSEPOWER = $\frac{\text{PRESSURE (PSI)} \times \text{FLOW (GPM)}}{1714}$	$HP = \frac{PQ}{1714}$

## FLUID FORMULAS

<b>VELOCITY THROUGH PIPING</b> In Feet/Second Velocity	VELOCITY = $\frac{.3208 \times \text{FLOW RATE THROUGH I.D. (GPM)}}{\text{INTERNAL AREA (Square Inches)}}$	$V = \frac{.3208Q}{A}$
<b>COMPRESSIBILITY OF OIL</b> In Additional Required Oil To Reach Pressure	ADDITIONAL VOLUME = $\frac{\text{PRESSURE (PSI)} \times \text{VOLUME OF OIL UNDER PRESSURE}}{250,000 \text{ (Approx.)}}$	$VA = \frac{PV^*}{250,000}$ * Approximately 1/2% per 1000 psi
<b>COMPRESSIBILITY OF A FLUID</b>	COMPRESSIBILITY = $\frac{1}{\text{BULK MODULUS OF THE FLUID}}$	$C(\beta) = \frac{1}{BM}$
<b>SPECIFIC GRAVITY OF A FLUID</b>	SPECIFIC GRAVITY = $\frac{\text{WEIGHT OF ONE CUBIC FOOT OF FLUID}}{\text{WEIGHT OF ONE CUBIC FOOT OF WATER}}$	$SG = \frac{W}{62.4283}$
<b>VALVE (CV) FLOW FACTOR</b>	VALVE FACTOR (CV) = $\frac{\text{FLOW RATE (GPM)} \times \sqrt{\text{SPECIFIC GRAVITY}}}{\text{PRESSURE DROP (PSI)}}$	$CV = \frac{Q \sqrt{SG}}{\Delta P}$
<b>VISCOSITY IN CENTISTOKES</b>	For Viscosities of 32 to 100 Saybolt Universal Seconds: CENTISTOKES = $.2253 \times \text{SUS} - \frac{194.4}{\text{SUS}}$	$CS = .2253 \text{ SUS} - \frac{194.4}{\text{SUS}}$
<b>VISCOSITY IN CENTISTOKES</b>	For Viscosities of 100 to 240 Saybolt Universal Seconds: CENTISTOKES = $.2193 \times \text{SUS} - \frac{134.6}{\text{SUS}}$	$CS = .2193 \text{ SUS} - \frac{134.6}{\text{SUS}}$
<b>VISCOSITY IN CENTISTOKES</b>	For Viscosities Greater Than 240 Saybolt Universal Seconds: CENTISTOKES = $\frac{\text{SUS}}{4.635}$	$CS = \frac{\text{SUS}}{4.635}$

NOTE: Saybolt Universal Seconds is often abbreviated SSU.

## PUMP FORMULAS

<b>PUMP OUTLET FLOW</b> In Gallons/Minute	FLOW = $\frac{\text{RPM} \times \text{PUMP DISPLACEMENT (Cu. In./Rev.)}}{231}$	$Q = \frac{nd}{231}$
<b>PUMP INPUT POWER</b> In Horsepower Required	HORSEPOWER INPUT = $\frac{\text{FLOW RATE OUTPUT (GPM)} \times \text{PRESSURE (psi)}}{1714 \times \text{EFFICIENCY (Overall)}}$	$HP_{IN} = \frac{QP}{1714 \text{ Eff}}$ or $\frac{\text{GPM} \times \text{psi}}{1714 \text{ Eff}}$
<b>PUMP EFFICIENCY</b> Overall in Percent	OVERALL EFFICIENCY = $\frac{\text{OUTPUT HORSEPOWER}}{\text{INPUT HORSEPOWER}} \times 100$	$\text{Eff}_{OV} = \frac{HP_{OUT}}{HP_{IN}} \times 100$
	OVERALL EFFICIENCY = $\text{VOLUMETRIC Eff.} \times \text{MECHANICAL Eff.}$	$\text{Eff}_{OV} = \text{Eff}_{VOL} \times \text{Eff}_{MECH.}$
<b>PUMP EFFICIENCY</b> Overall in Percent	VOLUMETRIC EFFICIENCY = $\frac{\text{ACTUAL FLOW RATE OUTPUT (GPM)}}{\text{THEORETICAL FLOW RATE OUTPUT (GPM)}} \times 100$	$\text{Eff}_{VOL} = \frac{O_{ACT.}}{O_{THEO.}} \times 100$
<b>PUMP EFFICIENCY</b> Mechanical in Percent	MECHANICAL EFFICIENCY = $\frac{\text{THEORETICAL TORQUE TO DRIVE}}{\text{ACTUAL TORQUE TO DRIVE}} \times 100$	$\text{Eff}_{MEC} = \frac{T_{THEO.}}{T_{ACT.}} \times 100$
<b>PUMP LIFE</b> $B_{10}$ BEARING LIFE	$B_{10}$ HOURS OF BEARING LIFE = $\text{RATED LIFE HOURS} \times \frac{\text{RATED SPEED (RPM)}}{\text{NEW SPEED (RPM)}} \times \left( \frac{\text{RATED PRESSURE (PSI)}}{\text{NEW PRESSURE (PSI)}} \right)^3$	$B_{10} = \text{RATED HRS.} \times \frac{\text{RPM}_R}{\text{RPM}_N} \times \left( \frac{\text{PR}}{\text{PN}} \right)^3$

<b>ACTUATOR FORMULAS</b>		
FORMULA FOR:	WORD FORMULA	LETTER FORMULA
<b>CYLINDER AREA</b> In Square Inches	AREA = $\pi \times \text{RADIUS}^2$ (Inches)	A = $\pi r^2$
	= $\frac{\pi \times \text{DIAMETER}^2}{4}$ (Inches)	A = $\frac{\pi D^2}{4}$ or A = $.785D^2$
<b>CYLINDER FORCE</b> In Pounds, Push or Pull	FORCE = PRESSURE (psi) X NET AREA (Square Inches)	F = psi X A or F = PA
<b>CYLINDER VELOCITY or SPEED</b> In Feet/Second	VELOCITY = $\frac{231 \times \text{FLOW RATE (GPM)}}{12 \times 60 \times \text{NET AREA (Square Inches)}}$	F = $\frac{231Q}{720A}$ or V = $\frac{.3208Q}{A}$
<b>CYLINDER VOLUME CAPACITY</b> In Gallons of Fluid	VELOCITY = $\frac{\pi \times \text{RADIUS}^2 \text{ (Inches)} \times \text{STROKE (Inches)}}{231}$	V = $\frac{\pi r^2 l}{231}$
	= $\frac{\text{NET AREA (Square Inches)} \times \text{STROKE (Inches)}}{231}$	V = $\frac{A l}{231}$ l = Length of Stroke
<b>CYLINDER FLOW RATE</b> In Gallons Per Minute	FLOW RATE = $\frac{12 \times 60 \times \text{VELOCITY (Feet/Sec.)} \times \text{NET AREA (Sq. Inches)}}{231}$	Q = $\frac{720vA}{231}$ or Q = $3.117vA$
<b>FLUID MOTOR TORQUE</b> In Inch Pounds	TORQUE = $\frac{\text{PRESSURE (psi)} \times \text{F.M. DISPLACEMENT (Cu. In./Rev.)}}{2\pi}$	T = $\frac{\text{psi } d}{2\pi}$ or T = $\frac{Pd}{2\pi}$
	= $\frac{\text{HORSEPOWER} \times 63025}{\text{RPM}}$	T = $\frac{63025 \text{ HP}}{n}$
	= $\frac{\text{FLOW RATE (GPM)} \times \text{PRESSURE (psi)} \times 36.77}{\text{RPM}}$	T = $\frac{36.77QP}{n}$ or T = $\frac{36.77Q\text{psi}}{n}$
<b>FLUID MOTOR TORQUE/100 psi</b> In Inch Pounds	TORQUE/100 psi = $\frac{\text{F.M. DISPLACEMENT (Cu. Inches/Revolution)}}{.0628}$	T <sub>100psi</sub> = $\frac{d}{.0628}$
<b>FLUID MOTOR SPEED</b> In Revolutions/Minute	SPEED = $\frac{231 \times \text{FLOW RATE (GPM)}}{\text{F.M. DISPLACEMENT (Cu. Inches/Revolution)}}$	n = $\frac{231Q}{d}$
<b>FLUID MOTOR POWER</b> In Horsepower Output	HORSEPOWER = $\frac{\text{TORQUE OUTPUT (Inch Pounds)} \times \text{RPM}}{63025}$	HP = $\frac{Tn}{63025}$
<b>THERMAL FORMULAS</b>		
<b>RESERVOIR COOLING CAPACITY</b> Based on Adequate Air Circulation	HEAT (BTU/HR) = $2 \times \text{TEMPERATURE DIFFERENCE BETWEEN RESERVOIR WALLS AND AIR (°F)} \times \text{AREA OF RESERVOIR (Sq. Ft.)}$	BTU/HR = $2.0 \times \Delta T \times A$
<b>HEAT IN HYDRAULIC OIL (approx.)</b> Due to System Inefficiency (SG=.89-.92)	HEAT (BTU/HR) = FLOW RATE (GPM) X 210 X TEMPERATURE DIFFERENCE (°F)	BTU/HR = Q X 210 X ΔT
<b>HEAT IN FRESH WATER (approx.)</b>	HEAT (BTU/HR) = FLOW RATE (GPM) X 500 X TEMPERATURE DIFFERENCE (°F)	BTU/HR = Q X 500 X ΔT
<b>NOTE:</b> One British Thermal Unit (BTU) is the amount of heat required to raise the temperature of one pound of water one degree. One Horsepower = 2545 BTU/HR.		



## ACCUMULATOR FORMULAS

<b>PRESSURE or VOLUME</b> w/ Constant "T" (Temperature)	ORIGINAL PRESSURE X ORIGINAL VOLUME = FINAL PRESSURE X FINAL VOLUME	$P_1 V_1 = P_2 V_2$ Isothermic
<b>PRESSURE or TEMPERATURE</b> w/ Constant "V" (Volume)	ORIGINAL PRESSURE X FINAL TEMPERATURE = FINAL PRESSURE X ORIGINAL TEMPERATURE	$P_1 T_2 = P_2 T_1$ Isochoric
<b>VOLUME or TEMPERATURE</b> w/ Constant "P" (Pressure)	ORIGINAL VOLUME X FINAL TEMPERATURE = FINAL VOLUME X ORIGINAL TEMPERATURE	$V_1 T_2 = V_2 T_1$ Isobaric
<b>PRESSURE or VOLUME</b>	ORIGINAL PRESSURE X ORIGINAL VOLUME <sup>n</sup> = FINAL PRESSURE X FINAL VOLUME <sup>n</sup>	$P_1 V_1^n = P_2 V_2^n$
w/ Temperature Change Due to Heat of Compression	FINAL TEMP. = $\left(\frac{\text{ORIG. VOLUME}}{\text{FINAL VOLUME}}\right)^{n-1}$ = $\left(\frac{\text{FINAL PRESSURE}}{\text{ORIG. PRESSURE}}\right)^{n-1/n}$	$\frac{T_2}{T_1} = \left(\frac{V_1}{V_2}\right)^{n-1} = \left(\frac{P_2}{P_1}\right)^{n-1/n}$

NOTE: Where "P" = psia (ABSOLUTE) = psig (GAUGE PRESSURE) + 14.7 psi

## VOLUME &amp; CAPACITY EQUIVALENTS

	Cubic Inches	Cubic Feet	Cubic Yards	Liters	U.S. Gallons	Imperial Gallons	Water at Max. Density 39.2°F 4°C	
							Pounds of Water	Kilograms of Water
Cu Inches	1	.0005787	.00002143	.016384	.004329	.0036065	.0361275	.0163872
Cu Feet	1728	1	.037037	28.317	7.48052	6.23210	62.4283	28.3170
Cu Yards	46,656	27	1	764.56	201.974	168.266	1685.56	764.559
Liters	61.0234	.0353145	.001308	1	.264170	.220083	2.20462	1
U.S. Gallons	231	.133681	.004951	3.78543	1	.833111	8.34545	3.78543
Imp. Gallons	277.274	.160459	.0059429	4.54374	1.20032	1	10.0172	4.54373
Lbs Water	27.6798	.0160184	.0005929	.453592	.119825	.0998281	1	.453593

To Convert	Into	Multiply By
Atmospheres	cms of mercury	76.0
atmospheres	ft. of water (at 4°C)	33.90
atmospheres	in. of mercury (at 0°C)	29.92
atmospheres	kgs/sq cm	1.0333
atmospheres	kgs/sq meter	10,332
atmospheres	pounds/sq in.	14.70
Bar	newtons/sq m	105
bar	atmospheres	0.9869
bar	at (tech.)	1.0197
bar	psi	14.504
Barrels-Oil	gals-oil	42
BT Units	kg-calories	1.2520
BTUs	ft-lbs	777.9
BTUs	hp-hrs	3.927x10-4
BTUs	kgs-meters	107.5
BTUs	kw-hrs	2.928x10-4
BTU/Min	ft-lbs/sec	12.96
BTU/min	hp	0.02356
BTU/min	kw	0.01757
BTU/min	watts	17.57
Centimeters	inches	0.3937
cm	meters	0.01
cm	mm	10
Cms Mercury	atm	0.01316
cms mercury	ft water	0.4461
cms mercury	kgs/sq meter	136.0
cms mercury	lbs/sq ft	27.85
cms mercury	lbs/sq in	0.1934
Cms/Second	ft/min	1.969
cms/sec	ft/sec	0.03281
cms/sec	km/hr	0.036
cms/sec	meters/min	0.6
cms/sec	miles/hr	0.02237
cms/sec	miles/min	3.728x10-4
Cms/Sec/Sec	ft/sec/sec	0.03281
Cubic Cms	cu ft	3.531x10-5
cu cms	cu in	6.102x10-2
cu cms	cu meters	10-6
cu cms	cu yds	1.308x10-6
cu cms	gals	2.642x10-4
cu cms	liters	10-3
cu cms	pints (liq)	2.113x10-3
cu cms	quarts (liq)	1.057x10-3
Cubic Feet	cubic cms	2.832x104
cu ft	cu inches	1728
cu ft	cu meters	0.02832
cu ft	cu yds	0.03704
cu ft	gals	7.48052
cu ft	liters	28.32
cu ft	pints (liq)	59.84

To Convert	Into	Multiply By
cu ft	quarts (liq)	29.92
Cu Ft/Min	cu cms/sec	472.0
cu ft/min	gals/sec	0.1247
cu ft/min	liters/sec	0.4720
cu ft/min	lbs water/min	62.43
cu ft/min	gals/min	448.831
Cu Inches	cc	16.39
cu ins	cu ft	5.787x10-4
cu ins	cu meters	1.639x10-5
cu ins	cu yds	2.143x10-5
cu ins	gals	4.329x10-3
cu ins	liters	1.639x10-2
cu ins	pints (liq)	0.03463
cu ins	quarts (liq)	0.01732
Cu Meters	cc	104
cu M	cu ft	35.31
cu M	cu ins	61,023
cu M	cu yds	1.308
cu M	gals	264.2
cu M	liters	103
cu M	pints (liq)	2113
cu M	quarts (liq)	1057
Cu Yards	cu cms	7.646x105
cu yds	cu ft	27
cu yds	cu ins	46.656
cu yds	cu meters	0.7646
cu yds	gals	202.0
Decimeters	meters	0.1
Degs (Angle)	minutes	60
Degs (angle)	radians	0.01745
Degs (angle)	secs	3600
Degrees/Sec	radians/sec	0.01745
degs/sec	revs/min	0.1667
degs/sec	revs/sec	0.002778
Feet	cms	30.48
ft	ins	12
ft	meters	0.3048
ft	yds	1/3
Ft of Water	atms	0.02950
ft of w	ins mercury	0.8826
ft of w	kgs/sq cm	0.03048
ft of w	lbs/sq ft	62.32
ft of w	lbs/sq in	0.4328
Feet/Min	cms/sec	0.5080
ft/min	ft/sec	0.01667
ft/min	kms/hr	0.01829
ft/min	meters/min	0.3048
ft/min	miles/hr	0.01136
Ft/Sec/Sec	cms/sec/sec	30.48
ft/sec/sec	Meters/sec/sec	0.3048

To Convert	Into	Multiply By
Ft-Pounds	BTUs	1.286x10 <sup>-3</sup>
ft lbs	hp-hrs	5.050x10 <sup>-7</sup>
ft lbs	kg-calories	3.241x10 <sup>-4</sup>
ft lbs	kg-meters	0.1383
ft lbs	kw-hrs	3.766x10 <sup>-7</sup>
Ft-lbs/Min	BTUs/min	1.286x10 <sup>-3</sup>
ft-lbs/min	ft-lbs/sec	0.01667
ft-lbs/min	hp	3.03x10 <sup>-5</sup>
ft-lbs/min	kg-calories/min	3.241x10 <sup>-4</sup>
ft-lbs/min	kws	2.260x10 <sup>-5</sup>
Ft-Lbs/Sec	BTUs/min	7.717x10 <sup>-2</sup>
ft-lbs/sec	hp	1.818x10 <sup>-3</sup>
ft-lbs/sec	kg-calories/min	1.945x10 <sup>-2</sup>
ft-lbs/sec	kws	1.356x10 <sup>-3</sup>
Gallons	ccs	3785
gals	cu ft	0.1337
gals	cu ins	231
gals	cu meters	3.785x10 <sup>-3</sup>
gals	liters	3.785
gals	pints (liq)	8
gals	quarts (liq)	4
Gallons, Imp	US gals	1.20095
gallons, US	imp gals	0.83267
Gals Water	lbs water	8.3304
Gallons/Min	cu ft/sec	2.228x10 <sup>-3</sup>
gals/min	liters/sec	0.06308
gals/min	cu ft/hr	8.0208
Horse-Power	BTUs/min	42.44
hp	ft-lbs/min	33,000
hp	ft-lbs/sec	550
hp	hp (metric)	1.014
hp	kg-calories/min	10.70
hp	kws	0.7457
hp	watts	745.7
Hp-Hours	BTUs	2547
hp-hrs	ft-lbs	1.98x10 <sup>6</sup>
hp-hrs	kg-calories	641.7
hp-hrs	kg-meters	2.737x10 <sup>5</sup>
hp-hrs	kw-hrs	0.7457
Inches	cms	2.540
Inches	mms	25.4
Ins Mercury	atms	0.03342
ins mercury	ft water	1.133
ins mercury	kgs/sq cm	0.03453
ins mercury	lbs/sq ft	70.73
ins mercury	lbs/sq in	0.4912
Ins of Water	atms	0.002458
ins of w	ins mercury	0.07355
ins of w	kgs/sq cm	0.002540
ins of w	lbs/sq ft	5.202

To Convert	Into	Multiply By
ins of w	lbs/sq in	0.03613
Kilograms	dynes	980,665
kgs	lbs	2.205
kgs	tons (short)	1.102x10 <sup>-3</sup>
kgs	grams	1000
Kgs/Sq Cm	atms	0.9678
kgs/sq cm	ft water	32.81
kgs/sq cm	ins mercury	28.96
kgs/sq cm	lbs/sq ft	2048
kgs/sq cm	lbs/sq in	14.22
Kilometers	cms	105
kms	ft	3281
kms	meters	103
kms	miles	0.6214
Kms/Hr	cms/sec	27.78
kms/hr	ft/min	54.68
kms/hr	ft/sec	0.9113
kms/hr	meters/min	16.67
kms/hr	miles/hr	0.6214
Kms/Hr/Sec	cms/sec/sec	27.78
kms/hr/sec	ft/sec/sec	0.9113
kms/hr/sec	Meters/sec/sec	0.2778
Kilowatts	BTUs/min	56.92
kws	ft-lbs/min	4.425x10 <sup>4</sup>
kws	ft-lbs/sec	737.6
kws	hp	1.341
kws	kg-calories/min	14.34
kws	watts	103
Kilowatt-Hrs	BTUs	3415
kw-hrs	ft-lbs	2.655x10 <sup>6</sup>
kw-hrs	hp-hours	1.341
kw-hrs	kg-calories	860.5
kw-hrs	kg-meters	3.67x10 <sup>5</sup>
Liters	ccs	103
liters	cu ft	0.03531
liters	cu ins	61.02
liters	cu meters	10 <sup>-2</sup>
liters	gals	0.2642
liters	quarts (liq)	1.057
Liters/Min	gals/sec	4.403x10 <sup>-3</sup>
Meters	cms	100
meters	ft	3.281
meters	ins	39.37
meters	kms	10 <sup>-3</sup>
meters	mms	103
Meters/Min	cms/sec	1.667
meters/min	ft/min	3.281
meters/min	ft/sec	0.05468
meters/min	kms/hr	0.06
meters/min	miles/hr	0.03728

To Convert	Into	Multiply By
Meters/Sec	ft/min	196.8
meters/sec	ft/sec	3.281
meters/sec	kms/hr	3.6
meters/sec	kms/min	0.06
meters/sec	miles/hr	2.237
meters/sec	miles/min	0.03728
Microns	meters	10 <sup>-6</sup>
microns	in	39x10 <sup>-6</sup>
Miles/Hr	cms/sec	44.70
miles/hr	ft/min	88
miles/hr	ft/sec	1.467
miles/hr	kms/hr	1.609
miles/hr	meters/min	26.82
Millimeters	cms	0.1
mms	ins	0.03937
Minutes (Angle)	radians	2.909x10 <sup>-4</sup>
Newton	kgs	0.1020
Ounces	lbs	0.0625
ozs	gram	28.349527
Ozs (Fluid)	cu in	1.805
ozs (fluid)	liters	0.02957
Pounds	ozs	16
lbs	kgs	0.4536
lbs	tons (short)	0.0005
lbs	newtons (N)	4.44
lbs	gram	453.5924
Pounds/Inch	newton-meters	0.1113
Pounds/Foot	newton-meters	1.356
Lbs of Water	cu ft	0.01605

To Convert	Into	Multiply By
lbs of water	cu in	27.73
lbs of water	gals	0.1204
Lbs of Water/Min	cu ft/sec	2.679x10 <sup>-4</sup>
Pounds/Cu Ft	lbs/cu in	5.787x10 <sup>-4</sup>
Pounds/Cu In	lbs/cu ft	1728
Pounds/Sq In	atms	0.06804
lbs/sq in	ft water	2.311
lbs/sq in	in mercury	2.036
lbs/sq in	kgs/sq cm	0.07031
Radians	degrees	57.29578
Tons (Long)	kgs	1016
tons (long)	lbs	2240
tons (long)	tons (short)	1.12000
Tons (Short)	kgs	2000
tons (short)	kps	907.18486
tons (short)	tons (long)	0.89287
tons (short)	tons (metric)	0.90718
Watts	BTUs/min	0.05692
watts	ft-lbs/min	44.26
watts	ft-lbs/sec	0.7376
watts	hp	1.341x10 <sup>-3</sup>
watts	kg-calories/min	0.01434
watts	kws	10 <sup>-3</sup>
Watt/Hours	BTUs	3.415
watt-hrs	ft-lbs	2655
watt-hrs	hp-hrs	1.341x10 <sup>-3</sup>
watt-hrs	kg-calories	0.8605
watt-hrs	kg-meters	367.1
watt-hrs	kw-hrs	10 <sup>-3</sup>

## Approximate Weights of Materials

Material	lbs. / cu. yd.	tons / cu. yd.	Material	lbs. / cu. yd.	tons / cu. yd.
Andesite stone	4,887	2.44	Earth & sand, wet	3,240	1.62
Ashes	1,080	0.52	Fire Brick	3,915	1.95
Asphalt	2,700	1.35	Fire Clay	3,510	1.75
Asphaltum	2,349	1.17	Garbage	1,150	0.57
Basalt rock	4,887	2.44	Gravel, dry	2,970	1.48
Brick, soft clay	2,718	1.35	Gravel, out of water	1,620	0.81
Brick, hard clay	3,397	1.69	Granite	4,536	2.26
Brick, pressed	3,806	1.90	Lime, quick, loose	1,431	0.71
Brick, paving	4,246	2.12	Lime, quick, shaken	1,485	0.70
Block, paving	3,694	1.84	Limestone, solid	4,536	2.26
Bluestone	2,970	1.48	Limestone, loose	2,592	1.29
Cement, natural	1,512	0.75	Marble, solid	4,455	2.22
Cement, Portland	2,430	1.21	Marble, loose	2,592	1.29
Cement, Portland, set	4,941	2.47	Mortar, set	2,781	1.39
Cement, Rosendale	1,863	0.93	Mud, dry	2,430	1.21
Cinders	1,080	0.54	Mud, packed	3,105	1.55
Clay, dry	1,701	0.85	Mud, wet	2,916	1.45
Clay, wet	2,970	1.48	Pitch	1,863	0.93
Clay & gravel, dry	2,700	1.35	Plaster of Paris	2,646	1.32
Coal, anthracite	1,536	0.76	Powder, blasting	1,682	0.84
Coal, bituminous	1,275	0.64	Quartz	4,374	2.18
Coke	837	0.42	Rubbish	199.8	0.09
Concrete, cinders	2,970	1.48	Sand, dry, loose	2,619	1.30
Concrete, gravel	4,104	2.05	Sand, wet	3,186	1.59
Concrete, limestone	4,050	2.02	Sandstone	4,023	2.01
Concrete, sandstone	3,915	1.95	Slag, blank	1,890	0.94
Concrete, trap rock	4,185	2.09	Slag, screenings	2,700	1.35
Crushed stone	2,700	1.35	Slag, machine	2,592	1.29
Earth, dry, loose	1,890	0.94	Slag, sand	1,485	0.74
Earth, damp, loose	2,106	1.05	Shale	4,374	2.18
Earth, damp, packed	2,592	1.29	Slate	4,725	2.31
Earth & gravel, dry	2,700	1.35	Tar	1,674	0.83
Earth & gravel, wet	3,240	1.62	Tile	2,970	1.43
Earth & sand, dry	2,709	1.35	Trap stone	5,849	2.52

## Steel &amp; Aluminum Gauge, Thickness and Weight

Gauge	Thickness (inches)	Weight (lbs./ft <sup>2</sup> )
<b>Steel</b>		
3/8"	0.375	15.320
1/4" (approx. 3 Ga.)	0.250	10.200
3/16" (approx. 7 Ga.)	0.188	7.650
8 Ga.	0.164	6.875
9 Ga.	0.149	6.250
10 Ga.	0.134	5.625
11 Ga.	0.120	5.000
12 Ga.	0.105	4.375
13 Ga.	0.090	3.750
14 Ga.	0.075	3.125
<b>Aluminum</b>		
3/8"	0.375	5.18
1/4"	0.250	3.53
3/16"	0.188	2.65
5/32"	0.156	2.25