

HARDWARE KITS

BEGINNER'S BOLT KITS

UNDRILLED KIT

102 Pieces

AN3	QTY	AN4	QTY	AN5	QTY
-3A	4	-5A	6	-4A	6
-4A	6	-6A	6	-6A	6
-5A	6	-7A	6	-10A	6
-6A	6	-10A	6	-11A	6
-7A	6	-11A	6	-13A	4
-10A	6	-15A	4	-14A	6

P/N 04-00090\$15.10

DRILLED KIT

102 Pieces

AN3	QTY	AN4	QTY	AN5	QTY
-4	6	-6	6	-6	6
-5	6	-7	6	-10	6
-6	6	-10	6	-14	6
-7	6	-12	6	-15	4
-10	6	-13	6	-16	6
-11	4	-14	4	-17	6

P/N 04-00100\$37.80

HOMEBUILDER'S KIT

CADMIUM PLATED

629 Pieces
AN Bolts Contains 4 each

DRILLED		UNDRILLED	
AN3-4		AN3-4A	
AN3-5		AN3-5A	
AN3-6	AN4-6	AN3-6A	AN4-6A
AN3-7	AN4-7	AN3-7A	AN4-7A
AN3-10	AN4-10	AN3-10A	AN4-10A
AN3-11	AN4-11	AN3-11A	AN4-11A
AN3-12	AN4-12	AN3-12A	AN4-12A
AN3-13	AN4-13	AN3-13A	AN4-13A
AN3-14	AN4-14	AN3-14A	AN4-14A
AN3-15	AN4-15	AN3-15A	AN4-15A
AN3-16	AN4-16	AN3-16A	AN4-16A
AN3-17	AN4-17	AN3-17A	AN4-17A
AN3-20	AN4-20	AN3-20A	AN4-20A

Also Included:

NYLON INSERT LOCKNUTS	
ITEM #	QTY.
AN365-1032	52
AN365-428	44

CASTLE NUTS	
ITEM #	QTY.
AN310-3	52
AN310-4	44

FLAT WASHERS	
ITEM #	QTY.
AN960-10L	30
AN960-416	30
AN960-416L	30

COTTER PINS	
ITEM #	QTY.
AN380-2-2	125

P/N 04-00230\$95.75

ADVANCED MECHANIC'S KIT

1,229 Pieces - Cadmium Plated

DRILLED	UNDRILLED	AN3	AN4	AN5	AN6
-4	-4A	3	3	3	3
-5	-5A	3	3	3	3
-6	-6A	3	3	3	3
-7	-7A	3	3	3	3
-10	-10A	3	3	3	3
-11	-11A	3	3	3	3
-12	-12A	3	3	3	3
-13	-13A	3	3	3	3
-15	-15A	3	3	3	3

Also Includes:

FLAT WASHERS	
ITEM #	QTY.
AN960-10	100
AN960-416	100
AN960-516	100
AN960-616	100

COTTER PINS	
ITEM #	QTY.
AN380-2-3	100
AN380-25-3	200
AN380-3-3	100

NYLON INSERT LOCKNUTS	
ITEM#	QTY.
AN365-1032	27
AN365-428	27
AN365-524	27
AN365-624	27

CASTLE NUTS	
ITEM#	QTY.
AN310-3	27
AN310-4	27
AN310-5	27
AN310-6	27

AN6-4 NOT INCLUDED

P/N 04-00240\$147.95

DELUXE BOLT PACK

UNDRILLED KIT BOLTS

500 Pieces

AN3	QTY	AN4	QTY	AN5	QTY
-3A	10	-5A	10	-6A	10
-4A	10	-6A	10	-10A	10
-5A	10	-7A	10	-12A	10
-6A	10	-10A	10	-16A	10
-7A	10	-11A	10		
-10A	10	-12A	10		
-11A	10	-13A	10		
-12A	10	-14A	10		
-13A	10	-15A	10		
-14A	10	-16A	10		
-15A	10	-17A	10		
-16A	10	-22A	10		
-17A	10	-24A	10		
-20A	10	-26A	10		

DRILLED KIT BOLTS

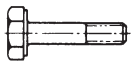
AN3	QTY	AN4	QTY	AN5	QTY
-5	10	-6	10	-7	10
-6	10	-7	10	-14	10
-7	10	-10	10	-14	6
-10	10	-12	10	-17	10
-12	10	-16	10	-24	10
-15	10	-20	10		
-20	10				
-24	10				

P/N 04-00245\$122.95

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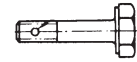
HARDWARE KITS

ECONOMY AN BOLT ASSORTMENTS



Bolt Assortment - Undrilled

QTY	P/N	QTY	P/N	QTY	P/N
10	AN3-3A	4	AN4-4A	4	AN5-5A
10	AN3-4A	4	AN4-5A	4	AN5-6A
10	AN3-5A	4	AN4-6A	4	AN5-7A
10	AN3-6A	4	AN4-7A	4	AN5-10A
10	AN3-7A	4	AN4-10A	4	AN5-11A
10	AN3-10A	4	AN4-11A	4	AN5-12A
4	AN3-11A	4	AN4-12A	4	AN5-13A
4	AN3-12A	4	AN4-13A	4	AN5-14A
4	AN3-13A	4	AN4-14A	4	AN5-15A
4	AN3-14A	4	AN4-15A	4	AN5-16A
4	AN3-15A	4	AN4-16A	4	AN5-17A
4	AN3-16A	4	AN4-17A	4	AN5-20A
4	AN3-17A	4	AN4-20A	4	AN5-24A
4	AN3-20A	4	AN4-24A		
4	AN3-24A				



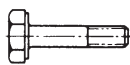
Bolt Assortment - Drilled

QTY	P/N	QTY	P/N	QTY	P/N
10	AN3-3	4	AN4-4	4	AN5-5
10	AN3-4	4	AN4-5	4	AN5-6
10	AN3-5	4	AN4-6	4	AN5-7
10	AN3-6	4	AN4-7	4	AN5-10
10	AN3-7	4	AN4-10	4	AN5-11
10	AN3-10	4	AN4-11	4	AN5-12
4	AN3-11	4	AN4-12	4	AN5-13
4	AN3-12	4	AN4-13	4	AN5-14
4	AN3-13	4	AN4-14	4	AN5-15
4	AN3-14	4	AN4-15	4	AN5-16
4	AN3-15	4	AN4-16	4	AN5-17
4	AN3-16	4	AN4-17	4	AN5-20
4	AN3-17	4	AN4-20	4	AN5-24
4	AN3-20	4	AN4-24	4	
1	AN3-24	4		4	

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204-piece Undrilled AssortmentP/N 04-00105**\$34.10**
 Above with CabinetP/N 04-00110**\$78.38**

204-piece Drilled AssortmentP/N 04-00115**\$76.75**
 Above with CabinetP/N 04-00120**\$131.34**



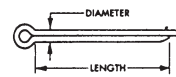
ECONOMY COMBINED AN BOLT ASSORTMENT

Both drilled and undrilled assortments shown above
 P/N 04-00125.....**\$110.95**
 Both assortments shown above with storage cabinet
 P/N 04-00130**\$190.42**



ECONOMY WASHER & COTTER PIN ASSORTMENTS

To Accompany AN Bolt Assortments Shown Above



Washers For
Undrilled Assortment

P/N 04-00135**\$2.80**

Washers & Cotter Pins
For Drilled Bolt Assortment

P/N 04-00140**\$4.25**

Washers & Cotter Pins
For Combined Assortment

P/N 04-00145**\$7.00**



WASHER ASSORTMENTS

1,500 Pieces - Stainless

Contains 100 each of the following:
 6, 8 & 10 AN960C & AN960CL
 6, 8 & 10 Nylon
 6, 8 & 10 MS35333
 6, 8 & 10 MS35338

P/N 04-00220**\$26.40**




WASHER ASSORTMENTS

1,500 Pieces - CAD-Plated

Contains 100 each of the following:
 6, 8 & 10 AN960 & AN960L
 6, 8 & 10 Nylon Washer
 6, 8 & 10 MS35333
 6, 8 & 10 MS35338

P/N 04-00215**\$12.00**

HARDWARE KITS



ECONOMY SCREW PACKS

1/2" 100 600-Piece Screw Pack

Flat Phillips - AN507C Machine Screws		Flat Phillips Sheet Metal Screws	
100	6-32 x 1/2	100	6 x 1/2B
100	8-32 x 1/2	100	8 x 1/2B
100	10-32 x 1/2	100	10 x 1/2B
Steel plated P/N 04-00180.....		\$32.80	
Stainless P/N 04-00185.....		\$35.20	

1/2" 600-Piece Screw Pack


Truss Phillips - AN526C Machine Screws		Truss Phillips Sheet Metal Screws	
100	6-32 x 1/2	100	6 x 1/2A
100	8-32 x 1/2	100	8 x 1/2A
100	10-32 x 1/2	100	10 x 1/2A
Steel plated P/N 04-00190.....		\$23.20	
Stainless P/N 04-00195.....		\$30.40	

1/2" 900-Piece Screw Pack

The entire contents of 600-piece pack shown above plus the following:


AN507C 100 100° CSK Flat Phillips Machine Screws

100	6-32 x 1/2
100	8-32 x 1/2
100	10-32 x 1/2
Steel plated P/N 04-00205.....	
Stainless P/N 04-00210.....	




STRAIGHT BUSHINGS

Part No.	Hole I.D.	Hole O.D.	Length	Price Ea.
AA304-20	1/4	3/8	1	\$0.30
AA309-5	3/16	5/16	3/4	\$0.43
B812-6	1/2	3/4	3/4	\$1.40
B812-7	1/2	3/4	7/8	\$0.75
B610-6	3/8	5/8	3/4	\$1.19



FLANGED BUSHINGS



Part No.	Hole I.D.	Hole O.D.	Length	Flange O.D.	Flange Thickness	Price Each
FB46-02	1/4	3/8	1/4	1/2	3/64	\$0.19
FB810-04	1/2	5/8	1/2	7/8	1/8	\$1.04
FB810-08	1/2	5/8	1	7/8	1/8	\$0.54
FB812-08	1/2	3/4	1	1	1/8	\$1.89
FB1012-04	5/8	3/4	1/2	1	1/8	\$0.61
FB1012-08	5/8	3/4	1	1	1/8	\$0.83
FB1013-08	.6270	.8150	1	1-1/16	5/32	\$2.60
FB1214-06	3/4	7/8	3/4	1-1/8	5/32	\$0.40
FB1620-06	1	1-1/4	3/4	1-1/2	3/16	\$1.94
FB1620-10	1	1-1/4	1-1/4	1-1/2	3/16	\$1.92
FF303-01	3/16	5/16	3/16	7/16	1/16	\$0.20
FF312-02	.252	.3775	1/2	15/32	1/16	\$0.52
FF435-01	1/4	7/16	1/2	1/2	1/16	\$1.89
FF512-03	.3765	.5030	5/8	5/8	3/32	\$0.99
FF520-10	3/8	1/2	3/8	5/8	1/16	\$0.34
FF520-15	3/8	1/2	1/4	5/8	1/16	\$0.25
FF620-01	.5020	.6270	1/2	7/8	1/16	\$1.08
FF703-03	5/8	3/4	5/8	1	3/32	\$1.35



SCREW KITS

Large Assortment 2,250 pieces

AN526 Machine Screw, Truss Phillips		Sheet Metal Screw, Truss Phillips	
100	4-40 x 1/2	100	4 x 1/2
100	6-32 x 1/2	100	6 x 1/2
100	8-40 x 3/8	100	8 x 1/2
100	8-32 x 1/2	100	8 x 1/2B
100	10-32 x 1/2	100	10 x 1/2
100	10-32 x 3/4		
AN507 100° CSK Machine Screw, FP		Nylon Insert Locknuts	
100	6-32 x 1/2	50	6-32
100	8-32 x 1/2	50	8-32
100	10-32 x 1/2	50	10-32
Flat Washer AN960		Nylon Washers	
100	6	100	6
100	8	100	8
100	10	100	10
		100° CSK Washers	
		50	8
		50	10
Stainless Kit P/N 04-00295.....		\$108.40	
Steel Plated Kit..... P/N 04-00296.....		\$84.40	

ECONOMY SCREW KIT

Stainless Steel - 2,100 Pieces

AN526C Machine Truss Phillips		AN507C Machine 100° CSK, Flat Phillips	
Sizes 6-32, 8-32, 10-32			
Qty.	Length	Qty.	Length
100	1/2"	100	1/2"
50	5/8"	50	5/8"
25	3/4"	25	3/4"
25	1"	25	1"
Sheet Metal Truss Phillips		Sheet Metal 100° CSK, Flat Phillips	
Sizes 6, 8, 10			
Qty.	Length	Qty.	Length
100	1/2"	100	1/2"
50	5/8"		
25	3/4"		
25	1"		
Stainless Kit P/N 04-00290.....			
\$150.00			

HARDWARE KITS

NUT-COTTER PIN ASSORTMENTS

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CAD-PLATED COTTER PIN KIT

350 PCS

100.....1/16 x 1/2"	50.....1/8 x 1"
100.....5/64 x 1/2"	25.....5/32 x 2"
50.....3/32 x 1/2"	25.....3/16 x 2"
P/N 04-00155 \$5.30	

STAINLESS STEEL COTTERPIN KIT

400 PCS

100.....1/16 x 1/2"	50.....1/8 x 1"
100.....5/64 x 1/2"	25.....5/32 x 2"
50.....3/32 x 1/2"	25.....3/16 x 2"
P/N 04-00150 \$19.30	

CAD PLATED COTTER PIN KIT

500 PCS

100.....1/16 x 1/2"	50.....1/16 x 1-1/2"
100.....5/64 x 3/4"	50.....5/32 x 2"
100.....3/32 x 1"	25.....3/16 x 2"
50.....1/8 x 3/4"	25.....3/16 x 2-1/2"
P/N 04-00165 \$9.30	

STAINLESS STEEL COTTER PIN KIT

500 PCS

100.....1/16 x 1/2"	50.....1/16 x 1-1/2"
100.....5/64 x 3/4"	50.....5/32 x 2"
100.....3/32 x 1"	25.....3/16 x 2"
50.....1/8 x 3/4"	25.....3/16 x 2-1/2"
P/N 04-00160 \$32.30	

DELUXE COTTER PIN KIT

500 PCS

AN380 - Cad-Plated

Dash	Size	Qty.	Dash	Size	Qty.
-1-2	1/32 x 1/2	50	-3-4	3/32 x 1	75
-1-4	1/32 x 1	50	-3-6	3/32 x 1-1/2	25
-2-2	1/16 x 1/2	100	-3-8	3/32 x 2	25
-2-3	1/16 x 3/4	100	-4-3	1/8 x 3/4	25
-2-4	1/16 x 1	100	-4-5	1/8 x 1-1/4	75
-25-2	5/64 x 1/2	25	-4-8	1/8 x 2	50
-25-3	5/64 x 3/4	25	-4-10	1/8 x 2-1/2	50
-3-3	3/32 x 3/4	75			

P/N 04-00375 **\$10.20**

AN381 - Stainless

Dash	Size	Qty.	Dash	Size	Qty.
-1-8	1/16 x 1/2	100	-3-16	3/32 x 1	75
-2-12	1/16 x 3/4	100	-3-24	3/32 x 1-1/2	25
-2-16	1/16 x 1	100	-4-12	1/8 x 3/4	25
-2-24	1/16 x 1-1/2	50	-4-16	1/8 x 1	50
-25-8	5/64 x 3/4	50	-4-24	1/8 x 1-1/2	25
-25-12	5/64 x 1/2	75	-4-32	1/8 x 2	25
-3-8	3/32 x 1/2	75	-4-40	1/8 x 2-1/2	25
-3-12	3/32 x 3/4	50			

P/N 04-00380 **\$33.60**



ECONOMY AN365 NUT PACKS

AN365C NUT KIT

Stainless

Qty.	Part No.
25	4-40
50	6-32
50	8-32
50	10-32
25	1/4-28

AN365 NUT KIT

Cad Plated

Qty.	Part No.
50	4-40
100	6-32
100	8-32
100	10-32
50	1/4-28

Stainless KitP/N 04-00170 **\$38.70**
 Cad Plated KitP/N 04-00175 **\$34.30**



LOCKNUT KIT 204 PIECES

Cad Plated. For undrilled bolt assortment

96 ea	AN365-1032
56 ea	AN365-428
52 ea	AN365-524

P/N 04-00330 **\$19.50**



CASTLE NUT KIT 204 PIECES

Cad Plated.

For drilled bolt assortment

96 ea	AN310-3
56 ea	AN310-4
52 ea	AN310-5

P/N 04-00335 **\$88.75**



AN365C NUT KIT

Stainless 200 pieces

50 ea	632	25 ea	428
50 ea	832	25 ea	524
50 ea	1032		

P/N 04-00340 **\$47.00**



AN365 NUT KIT

Cad Plated - 400 pieces

100 ea	632	50 ea	428
100 ea	832	50 ea	524
100 ea	1032		

P/N 04-00345 **\$36.90**

470 PIECE COMBO NUT ASSORTMENT

Nylon Insert Locknuts

Item #	Qty.
AN365-632	15
AN365-832	50
AN365-1032	50
AN365-428	50
AN365-524	15

Plain Hex Nuts

Item #	Qty.
AN315-3	25
AN315-4	25
AN315-5	15
AN315-6	15

Shear Castle Nuts

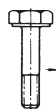
Item #	Qty.
AN310-3	50
AN310-4	50
AN310-5	15
AN310-6	15

Item #	Qty.
AN320-3	25
AN320-4	25
AN320-5	15
AN320-6	15

P/N 04-00350 **\$120.95**


HARDWARE KITS

DELUXE BOLT PACK

 700 BOLTS - 50 Sizes, individually packaged. AN3, AN4 and AN5 bolts in lengths from 3/8" to 2-3/4" with drilled and undrilled shanks, in quantities selected to accommodate popular usage. Furnished with a 24-drawer storage cabinet. An exceptionally fine value. P/N 04-00200\$174.95

PART NO.	QUANTITY	LENGTH	PART NO.	QUANTITY	LENGTH
<i>3/16" Dia., Undrilled Shank</i>			<i>1/4" Dia., Undrilled Shank</i>		
AN3-3A	10	3/8"	AN4-11A	12	1-1/8"
AN3-4A	15	1/2"	AN4-12A	12	1-1/4"
AN3-5A	25	5/8"	AN4-13A	12	1-3/8"
AN3-6A	25	3/4"	AN4-14A	12	1-1/2"
AN3-7A	12	7/8"	AN4-15A	12	1-5/8"
AN3-10A	30	1"	AN4-16A	12	1-3/4"
AN3-11A	30	1-1/8"	AN4-17A	12	1-7/8"
AN3-12A	30	1-1/4"	AN4-22A	6	2-1/4"
AN3-13A	20	1-3/8"	AN4-24A	6	2-1/2"
AN3-14A	20	1-1/2"	AN4-26A	6	2-3/4"
AN3-15A	20	1-5/8"	<i>1/4" Dia., Drilled Shank</i>		
AN3-16A	20	1-4/3"	AN4-6	10	3/4"
AN3-17A	20	1-7/8"	AN4-7	10	7/8"
AN3-20A	12	2"	AN4-10	10	1"
<i>3/16" Dia., Drilled Shank</i>			AN4-12	10	1-1/4"
AN3-5	15	5/8"	AN4-16	6	1-3/4"
AN3-6	20	3/4"	AN4-20	6	2"
AN3-7	20	7/8"	<i>5/16" Dia., Undrilled Shank</i>		
AN3-10	20	1"	AN5-6A	6	3/4"
AN3-12	10	1-1/4"	AN5-10A	8	1"
AN3-15	10	1-5/8"	AN5-12A	6	1-1/8"
AN3-20	8	2"	AN5-16A	6	1-3/4"
AN3-24	8	2-1/2"	<i>5/16" Dia., Drilled Shank</i>		
<i>1/4" Dia., Undrilled Shank</i>			AN5-7	6	7/8"
AN4-5A	24	5/8"	AN5-14	6	1-1/2"
AN4-6A	24	3/4"	AN5-17	6	1-7/8"
AN4-7A	24	7/8"	AN5-24	6	2-1/2"
AN4-10A	24	1"			

DELUXE WASHER & COTTER PIN PACK

 2000 WASHERS, 700 COTTER PINS - 31 Items, individually packaged, with a 15-drawer cabinet included. A combination of flat washers in steel and anodized aluminum, regular and light weight, large-area washers, internal locking type, Tinnerman countersunk washers and six useful sizes of cotter pins. P/N 04-00300\$95.50

WASHERS

PART NO.	QUANTITY	SIZE	PART NO.	QUANTITY	SIZE
<i>Steel, Regular Flat</i>			<i>Steel, Large Flat</i>		
AN960-6	100	#6	AN970-3	25	3/16"
AN960-8	100	#8	AN970-4	14	1/4"
AN960-10	250	3/16"	AN970-5	11	5/16"
AN960-416	200	1/4"	<i>Steel, Internal Lock</i>		
AN960-516	100	5/16"	MS35333-37	50	#6
<i>Steel, Light Flat</i>			MS35333-38	50	#8
AN960-6L	100	#6	MS35333-39	50	#10
AN960-8L	100	#8	MS35333-40	50	1/4"
AN960-10L	100	3/16"	MS35333-41	50	5/16"
AN960-416L	100	1/4"	<i>Tinnerman Countersunk</i>		
AN960-516L	50	5/16"	A3236-012-24A	100	#6
<i>Anod. Alum. Regular Flat</i>			A3135-017-24A	100	#8
AN960PD10	50	3/16"	A3235-028-24A	100	#10
AN960PD416	50	1/4"	<i>Anod. Alum. Light Flat</i>		
AN960PD10L	50	3/16"			
AN960PD416L	50	1/4"			

COTTER PINS

PART NO.	QUANTITY	SIZE	PART NO.	QUANTITY	SIZE
MS24665-132	225	1/16" x 1/2"L	MS24665-283	50	3/32" x 3/4"L
MS24665-134	200	1/16" x 3/4"L	MS24665-285	13	3/32" x 1"L
MS24665-136	200	1/16 x 1"L	MS24665-360	12	1/8" x 2"L

ASSORTED HARDWARE KITS

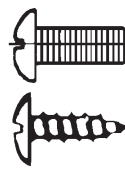
HOMEBUILDERS HARDWARE KIT

Contains: • 78 AN3 (10-32 size) Undrilled bolts in 13 consecutive sizes from AN3-4A through AN3-20A • 66 AN4 (1/4" dia.) Undrilled Bolts in 11 consecutive sizes from AN4-6A through AN4-20A • 100 AN365-1032 Stop Nuts • 100 AN365-428 Stop Nuts • 100 AN960-10 Washers • 100 AN960-416 Washers • 100 AN380-2-2 Cotter Pins
P/N 04-00400\$40.60
With 16-Drawer Storage CabinetP/N 04-00500\$78.16

MECHANICS HARDWARE KIT


Contains: • 40 AN3 (10-32 size) Bolts from 1/2" to 3" long • 44 AN4 (1/4" dia.) Bolts from 1" to 4" long • 52 AN5 (5/16" dia.) Bolts from 1" to 4" long • 24 AN6 (3/8" dia.) Bolts from 1-3/4" to 4-1/2" long • 300 AN960 Washers • 75 AN365 Stop Nuts • 100 AN380 Cotter Pins
Bolts are furnished in equal quantities with drilled and undrilled shanks. Lengths are spaced in 1/4" increments. The proper number, size and type of nuts, washers and cotter pins are furnished to mate with bolts.
P/N 04-00600\$232.20
With (2) 16-Drawer Storage Cabinets ..P/N 04-00700\$231.15

DELUXE SCREW PACK

 3500 SCREWS - 55 Items, individually packaged, with a 15-drawer cabinet included. A good working assortment of standard screws including truss head, 100° flat head and structural type, washer head, 100° flat head sheet metal screws for use with Tinnerman countersunk washers, truss head sheet metal screws, both sharp and blunt point, & brass instrument screws. P/N 04-00800\$206.95

PART NO.	QUANTITY	SIZE	PART NO.	QUANTITY	SIZE
<i>AN 526 Truss Hd Screw, Phillips</i>			<i>AN509 Structural Screws</i>		
AN526-632R6	100	6-32 x 3/8"	<i>100" C' snk Flat Head Phillips</i>		
AN526-632R8	100	x 1/2"	MS24694S5	25	8-32 x 1/2"
AN526-632R10	100	x 5/8"	MS24694S7	25	x 5/8"
AN526-632R12	100	x 3/4"	MS24694S9	25	x 3/4"
AN526-832R6	100	8-32 x 3/8"	MS24694S50	25	10-32 x 1/2"
AN526-832R8	100	x 1/2"	MS24694S2	25	x 5/8"
AN526-832R10	100	x 5/8"	MS24694S4	25	x 3/4"
AN526-832R12	100	x 3/4"	<i>Washer Head Structural Screws</i>		
AN526-1032R8	100	10-32 x 1/2"	AN525-832R8	25	8-32 x 1/2"
AN526-1032R10	100	x 5/8"	AN525-832R10	25	x 5/8"
AN526-1032R12	100	x 3/4"	AN525-1032R8	25	10-32 x 1/2"
AN526-1032R16	50	x 1"	AN525-1032R10	25	x 5/8"
<i>AN507 Screws</i>			AN525-1032R12	25	x 3/4"
<i>100" C' snk Flat Head Phillips</i>			<i>Sheet Metal Screws</i>		
MS2469326	100	6-32 x 3/8"	<i>100" C' snk Flat Head Phillips</i>		
MS24693S28	100	x 1/2"	NASS48P-6	100	#6 x 3/8"
MS24693S29	100	x 5/8"	NASS48P6-8	100	x 1/2"
MS24693S10	100	x 3/4"	NASS48P6-10	100	x 5/8"
MS24693S31	100	x 7/8"	NASS48P8-8	100	#8 x 1/2"
MS24693S48	100	8-32 x 3/8"	NASS48P8-10	100	x 5/8"
MS24693S50	100	x 1/2"	<i>Sheet Metal Screws, Truss Hd "B"</i>		
MS24693S51	100	x 5/8"	#4R x 1/4"	100	Phillips
MS24693S52	100	x 3/4"	#4R x 3/8"	100	Blunt Point
MS24693S54	50	x 1"	#4R x 1/2"	100	
MS24693S58	25	x 1-1/2"	#6R x 3/8"	100	
MS24693S272	100	x 1/2"	#6R x 1/2"	100	
MS24693S273	100	x 5/8"	#6R x 5/8"	100	
MS24693S274	100	x 3/4"	#8R x 1/2"	100	
MS24693S276	50	x 1"	#8R x 3/4"	100	
MS24693S280	25	x 1-1/2"	<i>Sheet Metal Screws, Truss Hd "A"</i>		
<i>Brass Instrument Screws</i>			#4R x 1/2"	200	Phillips
<i>Round Head Phillips</i>			#6R x 1/2"	200	Sharp Point
AN515B6R12	25	6-32 x 3/4"			

DELUXE NUT PACK

 1000 NUTS - 29 Items, individually packaged, with a 15-drawer cabinet included. Nuts have been carefully selected to include every commonly used type in aircraft assembly - Self-locking, castle, plain hex, Pal, Tinnerman and all-metal two-lug anchor nuts not found in other hardware assortments. P/N 04-00900\$227.26

PART NO.	QUANTITY	SIZE	PART NO.	QUANTITY	SIZE
<i>Elastic Stop Nuts</i>			<i>Check Nuts</i>		
AN365-632A	25	6-32	AN315-3	25	10-32
AN365-832A	25	8-32	AN316-4	25	1/4 x 28
AN365-1032A	75	10-32	<i>Palnuts</i>		
AN365-428A	50	1/4 x 28	MS27151-7	25	10-32
AN365-524A	25	5/16 x 24	MS27151-13	25	1/4 x 28
<i>All Metal Stop Nuts</i>			MS27151-16	25	5/16 x 24
MS21042-3	75	10-32	<i>Tinnerman Nuts, Flat Type</i>		
MS21042-4	25	1/4 x 28	#1777-6Z-1	50	#6
<i>Castle Nuts</i>			#1778-8Z-1	50	#8
AN310-3	50	10-32	#1779-10Z-1	25	#10
AN310-4	50	1/4 x 28	<i>Tinnerman Nuts, U Type</i>		
AN310-5	14	5/16 x 24	#1784-6Z-1	50	#6
<i>Shear Castle Nuts</i>			#A1932-8Z-1	50	#8
AN320-3	12	10-32	<i>Two Lug Anchor nuts</i>		
AN320-4	12	1/4 x 28	K1000-08	50	8-32
AN320-5	12	5/16 x 24	K1000-3	50	10-32
<i>Plain Hex Nuts</i>			K1000-4	25	1/4 x 28
AN315-3	25	10-32			
AN315-4	25	1/4 x 28			
AN315-5	25	5/16 x 24			

HARDWARE CABINETS

 Heavy-duty small parts organizer cabinets are included with each of the single-contents Hardware Packs. The "see-thru" clear plastic drawers measure 1-1/4" x 2-3/4" x 5-3/4". The plastic cabinets are metallic blue baked enamel finish. Unbreakable tote handle. Furnished with adjustable drawer dividers. 16 Drawer Cabinet included with all Packs except Bolt Pack.

CABINETS
 16-Drawer ..04-01464 ..\$15.20
 26-Drawer ..04-01465 ..\$22.60
 44-Drawer ..04-01466 ..\$32.70
 64-Drawer ..04-01467 ..\$30.90

PORTABLE ORGANIZERS
 12-62 compartments ..04-01468 ..\$17.70
 11-46 compartments ..04-01469 ..\$22.90
 Extra Dividers.....P/N 40-501 ..\$0.19

AIRFRAME NUTS



AN310 CASTLE, AN320 SHEAR NUTS

Fabricated from steel & cadmium plated per QQ-P-416A, Type II, Class 3. AN310 castle nuts are used with drilled-shank bolts, clevis bolts, eye bolts and studs. The slots in the nut accommodate a cotter pin for safety purposes. The thinner AN320 castellated shear nut, with half tensile rating of the AN310 nut, used with clevis bolts & threaded taper pins which are subject to shearing stress only.

AN310, AN320 Dash No.	Thread Size	Cotter Pin Size	AN310 Cad Plated Nuts Price	AN310C Stainless Nuts	AN320 Cad Plated Each	AN320C Stainless Nuts
-3	10-32	AN380-2-2	\$0.39	\$0.70	\$0.39	\$1.45
-4	1/4-28		\$0.49	\$0.73	\$0.54	\$0.92
-5	5/16-24		\$0.62	\$1.17	\$0.61	\$0.96
-6	3/8-24	AN380-3-3	\$0.77	\$1.70	\$0.66	\$1.17
-7	7/16-20		\$0.99	\$1.42	\$0.89	\$0.84
-8	1/2-20		\$1.46	\$3.15	\$1.26	\$2.70
-9	9/16-18	AN380-4-4	\$1.71	---	\$1.55	\$1.93
-10	5/8-18		\$2.85	---	\$1.62	\$3.00
-12	3/4-16	AN380-4-5	\$3.25	---	\$2.50	\$5.50

TAILWASHER PLUS - NUT/WASHER COMBINATIONS



This single step application allows the user to work in hard to reach and awkward areas without having to fumble with separate nuts and washers. The Tailwasher Plus fastener allows the application of a nut and washer at any angle or location without the worry of dropping a nut or washer, which in turn would damage moving components, not to mention the loss of time to retrieve the dropped items. Once the Tailwasher Plus fastener has been located in it's desired location, the tightening of the fastener can occur by either turning the bolt, or by holding the tail and breaking the nut loose from the washer as it is tightened with a wrench. The Tail is then bent and removed after desired torque is reached, leaving a clean and neat installation.

ZINC PLATED STEEL

PART #	DESCRIPTION	PRICE
04-00081	8-32 Tailwasher/nut	\$0.12
04-00082	10-32 Tailwasher/nut	-
04-00083	1/4-28 Tailwasher/nut	\$0.16
04-00084	5/16-24 Tailwasher/nut	\$0.24
04-00085	8-32 Tailwasher/ Nylon Lock Nut	-
04-00086	10-32 Tailwasher/ Nylon Lock Nut	-
04-00087	1/4-28 Tailwasher/ Nylon Lock Nut	\$0.24
04-00088	5/16-24 Tailwasher Nylon Lock Nut	-

STAINLESS STEEL

PART #	DESCRIPTION	PRICE
04-00089	8-32 Tailwasher/nut	\$0.18
04-00092	1/4-28 Tailwasher/nut	\$0.24
04-00093	5/16-24 Tailwasher/nut	\$0.30
04-00094	8-32 Tailwasher/ Nylon Lock Nut	-
04-00095	10-32 Tailwasher/ Nylon Lock Nut	-
04-00096	1/4-28 Tailwasher/ Nylon Lock Nut	\$0.28
04-00097	5/16-24 Tailwasher Nylon Lock Nut	-



AN315

AN315 FULL HEX, AN316 THIN CHECK NUTS

Fabricated from steel and cadmium plated per QQ-P-416A, Type II, Class 3. The AN315 plain hex nut is of rugged construction and can carry the same high tension load as the AN310 castle nut. It requires an auxiliary locking device such as a check nut or lock washer. AN316 hex check nuts can carry half the tension load of the AN315 nut. They are used as a locking device for plain nuts, set screws, rod ends, etc. Order by AN number. Add R or L after dash number for right-hand or left-hand thread. **Example:** AN316-5L is a thin check nut with 5/16-24 left-hand thread.

AN315	Price Ea.		Thread Size	AN316	Price Ea.	
	R	L			R	L
-640	\$0.34	\$0.78	6-40	None	None	None
-3	\$0.06	\$0.51	10-32	None	None	None
-4	\$0.09	\$0.37	1/4-28	-4	\$0.12	\$0.32
-5	\$0.12	\$0.46	5/16-24	-5	\$0.14	\$0.49
-6	\$0.17	\$0.66	3/8-24	-6	\$0.19	\$0.53
-7	\$0.62	\$1.75	7/16-20	-7	\$0.37	\$0.58
-8	\$0.59	---	1/2-20	-8	\$0.32	\$1.23
-9	\$1.65	---	9/16-18	-9	\$1.24	---



HEX NUT - LOW HEIGHT

Heat treated, cadmium plated steel with dry film lubricant applied. Self-locking. Standard temp. to 450°F.

Thread Size	NAS No.	Part No.	Price Ea.	Thread Size	NAS No.	Part No.	Price Ea.
6-32	679-A06	04-00143	\$0.24	5/16-24	679-A5	04-00148	\$0.73
8-32	679-A08	04-00144	\$0.17	3/8-24	679-A6	04-00149	\$0.76
10-32	679-A3	04-00146	\$0.20	7/16-20	679-A7	04-00154	\$3.25
1/4-28	679-A4	04-00147	\$0.35				

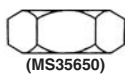


CAP NUTS ("ACORN NUTS")

Use these solid brass cap nuts to attach instrument panels to stud-type shock mounts. Give the panel an attractive, finished appearance and do not introduce magnetic interference.

Part No.	Thread Size	Price Ea.	Part No.	Thread Size	Price Ea.
AC632	6-32	\$0.27	AC1032	10-32	\$0.23
AC832	8-32	\$0.24	AC1428	1/4-28	\$0.39

AN345 PLAIN HEX MACHINE SCREW NUT



Fine Thread Thread	Cad-Plated		Stainless	
	Cat.#	Price	Cat.#	Price
10-32	AN345-10	\$0.04	AN345C10	\$0.24
1/4-28	AN345-428	\$0.07	AN345C428	\$0.46
5/16	AN345-524	\$0.16	N/A	
3/8-24	AN345-624	\$0.58	N/A	

AN340 PLAIN HEX MACHINE SCREW NUT

Coarse Thread - Use brass type for instruments



Thread	Dash#	AN340	AN340C	AN340B
		Cad-Plated Price	Stainless Price	Brass Price
4-40	-4	\$0.11	\$0.23	\$0.31
6-32	-6	\$0.07	\$0.19	\$0.18
8-32	-8	\$0.07	\$0.21	\$0.19
10-24	-10	\$0.07	\$0.67	\$0.27

AN350 WING NUTS



AN350 WING NUTS Fabricated from carbon steel and cadmium plated per specification QQ-P416A, Type II, Class 3. Tensile strength 50,000 PSI. A .070" hole is drilled in one wing for safety wire.

Dash No.	Thread Size	Price Each	Dash No.	Thread Size	Price Each
-632	3-32	---	-4	1/4-28	\$1.65
-832	8-32	\$1.50	-5	5/16-24	---
-1032	10-32	\$1.27			



MS27151 PAL NUTS

MS27151 engine nuts replace AC356 Pal nuts. They are stamped from 1050 spring steel and cadmium plated per QQ-P-416A, Type II, Class 3.

Dash No.	Thread Size	Price Each	Dash No.	Thread Size	Price Each
-7	10-32	\$0.17	-19	3/8-24	\$0.09
-13	1/4-28	\$0.12	-21	7/16-24	\$0.12
-16	5/16-24	\$0.12	-24	1/2-20	\$0.25

MS17825 SELF-LOCKING CASTLE NUTS

Manufactured to standard castle or shear nut specifications with a nylon insert added for positive safety. Use it throughout the control system. Should the cotter pin used with castle nuts be overlooked, the nut cannot work loose. The nylon insert will act as a stop nut.



Dash No.	Thread Size	Price Each	Dash No.	Thread Size	Price Each
-3	10-32	\$1.12	-6	3/8-24	\$1.34
-4	1/4-28	\$1.16	-7	7/16-20	\$1.87
-5	5/16-24	\$1.32			

EXHAUST MANIFOLD NUTS



Part No.	Thread Size	Type	Engine Application	Price Each
21247	1/4-28	Brass	Cont. O-470	\$3.85
22022	5/16-24	Brass	Cont. A-65, (C-75 thru O-90, O-200, O-300)	\$0.86
STD1410	5/16-18	Steel	Lycoming	\$1.64
STD1411	1/4-28	Steel	Lycoming	\$1.95

MS21042 HEX NUTS (LUBED)

These are the same as MS21042- but have a dry film lube (dark grey).

Dash No.	Thread Size	Price Each	Dash No.	Thread Size	Price Each	Dash No.	Thread Size	Price Each
-L04	4-40	\$0.18	-L3	10-32	\$1.34	-L5	5/16-24	\$1.34
-L06	6-32	\$1.12	-L4	1/4-28	\$1.87	-L6	3/8-24	\$1.87
-L08	8-32	\$1.32						

MS21043 HEX NUTS (STAINLESS STEEL)

These are the same as MS21042 but are made from A-286 stainless steel and are silver plated.

Dash No.	Thread Size	Price Each	Dash No.	Thread Size	Price Each	Dash No.	Thread Size	Price Each
-04	4-40	\$0.49	-3	10-32	\$1.34	-5	5/16-24	\$1.34
-06	6-32	\$1.16	-4	1/4-28	\$1.87	-6	3/8-24	\$1.87
-08	8-32	\$1.32						

AXLE NUTS

Castle type nuts manufactured to MIL Specification MS21025 using 4140 steel. Mild steel nuts are not acceptable for use on certificated aircraft. 1-1/4" dia. nuts for 500 x 5 axles, 1-1/2" dia. nuts for 600 x 6 axles.



Nut Type	Thread Size	Part No.	Price	Nut Type	Thread Size	Part No.	Price
Castle	1-1/4x16	06-11800	\$10.45	Round	1-1/4x12	11725	\$6.40
Castle	1-1/2x16	06-11900	\$10.95	Round	1-1/2x16	11726	\$6.95

HA

STOP NUTS – ANCHOR NUTS



AN363 & MS21042 ALL METAL STOP NUTS

The AN363 and MS21042 all-metal stop nuts are designed for use in high temperature installations (up to 450°F). The MS21042 nuts are shorter than the AN363 nut but develop the same tensile strength. Fabricated from carbon steel and cadmium plated per specification QQ-P-416C.

AN363 CAD Plated Dash No.	Price Each	AN363C Stainless Dash No.	Price Each	Thread Size	MS21042 Dash No.	Price Each
-632	\$0.22	-632	\$0.96	6-32	-06	\$0.14
-832	\$0.19	-832	\$0.70	8-32	-08	\$0.15
-1032	\$0.21	-1032	\$0.69	10-32	-3	\$0.19
-428	\$0.28	-428	\$1.44	1/4-28	-4	\$0.18
-524	\$0.31	-524	\$1.86	5/16-24	-5	\$0.39
-624	\$0.44	-624	\$2.50	3/8-24	-6	\$0.53
-720	\$0.79	---	---	7/16-20	-7	\$4.85
-820	\$1.12	---	---	1/2-20	-8	\$4.35
-918	\$1.47	---	---	9/16-18	-9	---

AN364, AN365 ELASTIC STOP NUTS

These precision-made nuts are reliable and economical fastening devices. The fiber insert gives a friction grip on the threads of the bolt and holds securely. The AN364 (thin) stop nut is for use in structural applications where the bolt is loaded primarily in shear or in any application where the tensile strength of the regular height AN365 is not required. Cad stop nuts are furnished to military specifications. Insert color designates manufacturer only.

AN364, AN365 CAD PLATED STOP NUTS

Dash No.	Thread Size	Price Ea.		Dash No.	Thread Size	Price Ea.	
		AN364	AN365			AN364	AN365
-440A	4-40	\$0.13	\$0.09	-624A	3/8-24	\$0.49	\$0.26
-632A	6-32	\$0.12	\$0.11	-720A	7/16-20	\$1.14	\$0.68
-832A	8-32	\$0.09	\$0.09	-820A	1/2-20	\$0.77	\$0.61
-1024A	10-24	---	\$0.30	-918A	9/16-18	\$0.73	\$0.90
-1032A	10-32	\$0.12	\$0.09	-1018A	5/8-18	\$0.80	\$1.60
-428A	1/4-28	\$0.13	\$0.10	-1216A	3/4-16	\$1.42	\$1.39
-524A	5/16-24	\$0.37	\$0.15				



MS21044 / MS21083 STAINLESS STOP NUTS

Part Number	Bolt Size	Price Ea.	Part Number	Bolt Size	Price Ea.
MS21044C04	#4	\$0.38	MS21083C4	1/4	\$0.21
MS21044C9	9/16	\$3.50	MS21083C6	3/8	\$0.23
MS21044C10	5/8	\$3.50	MS21083C7	7/16	\$1.30
			MS21083C8	1/2	\$1.49
			MS21083C9	9/16	\$1.55
			MS21083C10	5/8	\$1.97

COMMERCIAL GRADE STAINLESS STOP NUTS

Dash No.	Thread Size	Price Ea.		Dash No.	Thread Size	Price Ea.	
		Com364	Com365			Com364	Com365
-440	4-40	\$0.15	\$0.09	-624	3/8-24	---	\$0.22
-632	6-32	\$0.06	\$0.14	-720	7/16-20	---	\$0.40
-832	8-32	\$0.09	\$0.07	-820	1/2-20	---	\$0.42
-1024	10-24	---	---	-918	9/16-18	---	---
-1032	10-32	\$0.18	\$0.04	-1018	5/8-18	---	\$0.42
-428	1/4-28	\$0.14	\$0.09	-1216	3/4-16	---	---
-524	5/16-24	---	\$0.12				



ALL-METAL FLOATING ANCHOR NUTS

Two-Lug Nut	Price Ea.	Thread Size	One-Lug Nut	Price Ea.
F5000-06	\$0.54	6-32	F2000-06	\$0.54
F5000-08	\$0.37	8-32	F2000-08	\$0.55
F5000-3	\$0.56	10-32	F2000-3	\$0.36

ANCHOR NUTS

Anchor nuts are designed for blind mounted applications where it is impractical to use hex nuts or where it is desirable to have an attached nut for ease of maintenance. Use 3/32" dia. rivets with nut sizes 632, 832, 1032 and 428. Use 1/8" dia. rivets with 524 and 624.



TWO LUG ANCHOR NUTS

AN366F	K1000	MK1000
NA1, MS21078, NAS1023N	MS21047, NAS680N, NAS1023A	MS21069, NAS697N

Elastic-Insert Anchor Nut					
Part No.	Thread Size	Price Each	Part No.	Thread Size	Price Each
MS21078-06	6-32	\$9.60	AN366F-428	1/4-28	\$0.92
AN366F-832	8-32	-	AN366F-524	5/16-24	\$1.56
AN366F-1032A	10-32	\$2.60			

All Metal Anchor Nut							
Dash No.	Thread Size	K1000 (Full Size)	K1000 (Miniature)	Dash No.	Thread Size	K1000 (Full Size)	MK1000 (Miniature)
		Price Ea.	Price Ea.			Price Ea.	Price Ea.
-06	6-32	\$0.29	\$0.33	-4	1/4-28	\$0.35	\$0.31
-08	8-32	\$0.22	\$0.31	-5	5/16-24	\$1.21	---
-3	10-32	\$0.22	\$0.25	-6	3/8-24	\$1.57	---

ONE LUG ANCHOR NUTS



NA17	K2000	MK2000
MS21080, NAS1025N	MS21051, NAS682A, NAS1025A	MS21071, NAS696A

Elastic-Insert Anchor Nut		Thread Size	All-Metal Anchor Nut	
Part No.	Price Each		Dash No.	Price Each
MS21080-3	\$3.75	10-32	-3	\$0.34
		6-32	-06	\$0.42
		8-32	-08	\$0.40
MS21080-4	---	1/4-28	-4	\$0.55
MS21080-5	\$1.92	5/16-24	---	---



CORNER NUTS

Elastic-Insert Anchor Nut	Price Ea.	Thread Size	All-Metal Anchor Nut	Price Ea.
22NA5-82	\$2.25	8-32	K3000-08	\$0.33
22NA5-02	\$8.50	10-32	K3000-3	\$0.25
22NA5-048	\$7.40	1/4-28	K3000-4	\$1.19

RIGHT ANGLE NUTS (Fixed)

Part No.	Thread Size	Price Ea.
22NA7-68-62	6-32	\$2.30
22NA7-68-82	8-32	---
22NA7-68-02	10-32	---

RIGHT ANGLE FLOATING NUTS

Part No.	Thread Size	Price Ea.
22NA27-22-62	6-32	\$7.50
22NA27-22-82	8-32	---



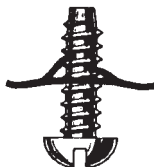
TWO LUG MINI ANCHOR NUTS

Part Number	Thread Size	Price Each
MF5000-06	6-32	\$0.51
MF5000-08	8-32	\$0.39
MF5000-3	10-32	\$0.52



TINNERMAN FASTENERS

TINNERMAN NUTS FOR SHEET METAL SCREWS



"B"-type Sheet Metal Screw

These speed nuts are self-locking steel fasteners. Locking action is derived from the force exerted by the two arched prongs against the root of the screw thread and by the spring tension of the prongs and base. The combined forces of the thread lock and spring tension provide a vibration proof fastening. Speed nuts retain their spring tension and may be used repeatedly without losing their self-locking effectiveness. Suitable for numerous non-structural applications.

Finish: Phosphate-coated with three coats of olive drab paint.

IMPORTANT: Speed nuts for aircraft are designed to fit standard AN530-AN531 type B sheet metal screws only. Do not use pointed type A sheet metal screws with aircraft Speed nuts. There is a difference in root diameter and thread pitch. Screw lengths: B type sheet metal screws have a blunt taper at the end. To be certain the fastener prongs grip on the full root diameter, the screw should protrude two to three threads beyond the prongs. See the illustration.

HA

FLAT TYPE (NAS 446)

Used to replace threaded nuts, lock washers, and spanner washers; weigh less than other types of self-locking aircraft fasteners. Can be applied faster, easier, and are vibration resistant. Provide maximum holding power at minimum cost per fastener. Turned-up ends prevent scoring of surfaces. Use with type B tapping screws.



Part No.	Screw Size	Price ea.
A1776-4Z-1	#4	\$0.24
A1777-6Z-1	#6	\$0.14
A1181-6Z-1D	#6	\$0.14
A1778-8Z-1	#8	\$0.16
A1779-10Z-1	#10	\$0.20

ANCHOR NUTS (NAS 444)

Riveted or welded in position. Attach access plates, doors or any part that must be fastened securely, yet easily removed with fasteners retained in a blind location. Install with AN426AD-3 rivets.



Part No.	Screw Size	Price/Ea.
A6195-6Z-1	#6	\$0.22
A6191-8Z-1D	#8	\$0.23
A6195-8Z-1	#8	\$0.35



LHA 4972 FLOATING CLIPNUT

Cadmium-plated steel

Part No.	Thread	Price Each
4972-5-62	6-32	\$1.18
4972-6-82	8-32	\$0.36
LHA4972-1032	10-32	\$0.79



"U" TYPE (NAS 395)

Snaps over edge of panels or into center hole locations. Holds itself in place for blind assembly. "Floats" free for easy hole alignment.

ANGLE BRACKETS

Combine bracket and fastener to reduce number of parts, speed up assembly and strengthen structure.



Part No.	Screw Size	Price Each
A6083-8Z-1	#8	\$3.75



INSTRUMENT MOUNTING NUTS

Cage type. Permit mounting of aircraft instruments from the front of the panel. No charge in panel or instrument design required. Non-magnetic (speed nut is brass; cage is phosphor bronze). Conform to MIL-N-3336. Cage is easily compressed with finger-pressure to allow insertion of legs into clearance holes. When fully inserted and pressure is released, legs spring apart; retain SPEED NUT in screw-receiving position. Turned-down corners hold firm against force of inserting screw and screw-tightening torque. All instrument mounting nuts listed below take a 6-32 machine screw.



Tinnerman Part No.	NAS Part No.	Instrument Thickness	Price Ea.
A8938-632-493	487-13	.062	\$0.84
A8939-632-493	487-14	.091	\$0.82
A6939-632-493	487-15	.125	\$0.89
A8940-632-493	487-16	.187	\$0.90
A8941-632-493	487-17	.250	\$0.83
A8942-632-493	487-18	.313	\$0.82
A8943-632-493	487-20	.375	\$0.68
A8944-632-493	487-21	over .375	\$0.63

MONADNOCK CLIP NUTS

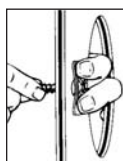
High strength Forged hex nuts suitable for structural and non-structural applications in metal, plastic and composite materials.



Size	Distance	Edge Tkns	Part Number	Price Ea.
6-32	.180-.120	.030-.051	04-00151	\$0.87
8-32	.310-.500	.020-.090	04-00152	\$0.45
10-32	.350-.500	.020-.090	04-00153	\$0.29

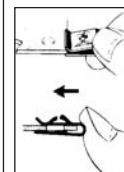
HOW TO APPLY SPEED NUT FASTENERS

Flat Type

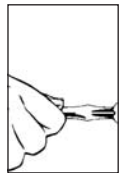


Fastener is positioned over screw clearance hole with screw-engaging prongs pointing up or outward. Screw is started into nut by hand from the underside.

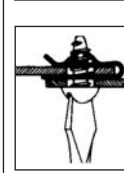
"U" Type



Push into position with thumb until extrusion on lower leg snaps into screw hole. The fastener "floats" in screw-receiving position to correct for normal misalignment in panel mounting holes.



Screw can be power-driven into locked position (when base arch of fastener is flat) or a hand screw driver can be used. No wrench is required, finger pressure will prevent it from turning.

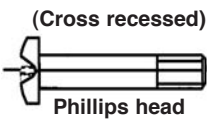


Place second panel in position & drive screw. Access to opposite side is unnecessary. Flush mounting can be made by embossing either panel.

Part Number	TypeB Scrw Size	Design Variation	P-panel Thkns Range	A Length	B Length	C-max. ctr. hole to edge	G-panel hole dia.	T-mat'l. Thkness	Price
A1784-6Z-1D	#6	E	.025-.051	0.61	0.44	0.281	0.250	0.025	\$0.17
A1785-6Z-1D	#6	E	.025-.064	0.84	0.44	0.500	0.281	0.025	\$0.26
A1789-8Z-1D	#8	E	.025-.051	0.61	0.44	0.281	0.250	0.028	\$0.23
A1787-8Z-1D	#8	E	.025-.064	0.84	0.44	0.500	0.281	0.028	\$0.24
A1788-8Z-1D	#8	A E	.025-.064	0.84	0.44	0.500	0.170	0.028	\$0.25
A1348-8Z-1D	#8	A E	.025-.064	0.73	0.50	0.343	0.170	0.028	\$0.23
A1932-8Z-1D	#8	B E	.032-.051	0.58	0.50	0.265	0.343	0.025	\$0.29
A1786-8Z-1D	#8	C E H	.040-.051	0.53	0.50	0.218	0.250	0.028	\$0.21
A1350-10Z-1D	#10	A E	.025-.064	0.73	0.50	0.343	0.218	0.031	\$0.28
A178710Z-1D	#10	E	.025-.064	0.84	0.44	0.500	0.281	0.031	\$0.23
A1758-10Z-1D	#10	E	.081-.094	0.62	0.44	0.281	0.281	0.031	\$0.17

MACHINE SCREWS

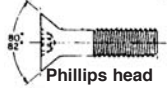
MS27039S & MS27039C MACHINE SCREWS



These pan head low alloy steel machine screws have 125,000 to 145,000 psi tensile strength with cadmium plate finish to QQ-P-416, Type 2, Class 3. MS27039C screws are stainless steel Manufactured to MIL-S-6050 or MIL-8695. Equivalent to NAS 220.

Part Number	Diameter & Thread Size	Length (inches)	MS27039 Price ea.	MS27039C Price ea.
MS27039-0804	8-32	9/32	\$0.18	---
MS27039-0806	8-32	13/32	\$0.12	\$0.12
MS27039-0807	8-32	15/32	\$0.12	\$0.12
MS27039-0808	8-32	17/32	\$0.10	\$0.10
MS27039-0809	8-32	19/32	\$0.09	\$0.09
MS27039-0810	8-32	21/32	\$0.17	\$0.17
MS27039-0811	8-32	23/32	\$0.09	---
MS27039-0812	8-32	25/32	\$0.10	\$0.10
MS27039-0814	8-32	29/32	\$0.11	---
MS27039-0816	8-32	1-1/32	\$0.12	\$0.12
MS27039-0818	8-32	1-5/32	\$0.17	---
MS27039-0820	8-32	1-9/32	\$0.15	---
MS27039-1-04	10-32	9/32	\$0.08	---
MS27039-1-05	10-32	11/32	\$0.10	---
MS27039-1-06	10-32	13/32	\$0.08	---
MS27039-1-07	10-32	15/32	\$0.14	---
MS27039-1-08	10-32	17/32	\$0.07	\$0.07
MS27039-1-09	10-32	19/32	\$0.11	---
MS27039-1-10	10-32	21/32	\$0.11	\$0.11
MS27039-1-11	10-32	23/32	\$0.11	---
MS27039-1-12	10-32	25/32	\$0.08	\$0.08
MS27039-1-13	10-32	27/32	\$0.17	---
MS27039-1-14	10-32	29/32	\$0.10	\$0.10
MS27039-1-15	10-32	31/32	\$0.10	---
MS27039-1-16	10-32	1-3/32	\$0.15	\$0.15

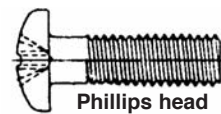
MS35190 MACHINE SCREWS (Cross Recessed)



These 82° flat head machine screws have 55,000psi minimum tensile strength and feature cadmium plate finish per QQ P-416, Type 2, Class 3. Manufactured from carbon steel to Federal Standard #66.

Part Number	Old AN505R Dash No.	Diameter & Thread Size	Length (inches)	Price each
MS35190-221	-4R4	4-40	1/4	\$0.11
MS35190-222	-4R5	4-40	5/16	\$0.19
MS35190-225	-4R8	4-40	1/2	\$0.17
MS35190-226	-4R10	4-40	5/8	\$0.14
MS35190-234	-6R4	6-32	1/4	\$0.17
MS35190-236	-6R6	6-32	3/8	\$0.07
MS35190-238	-6R8	6-32	1/2	\$0.06
MS35190-239	-6R10	6-32	5/8	\$0.10
MS35190-240	-6R12	6-32	3/4	\$0.08
MS35190-250	-8R5	8-32	5/16	\$0.09
MS35190-253	-8R8	8-32	1/2	\$0.08
MS35190-254	-8R10	8-32	5/8	\$0.09

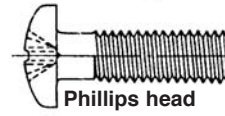
MS35207 MACHINE SCREWS (Cross recessed)



These pan head machine screws have 55,000 psi minimum tensile strength and are cadmium plated to Specification QQ-P-416, Type 2, Class 3. Manufactured from carbon steel per Federal Standard #66.

Part Number	Old AN520R Dash No.	Diameter & Thread Size	Length (inches)	Price each
MS35207-260	-10R5	10-32	5/16	\$0.07
MS35207-261	-10R6	10-32	3/8	\$0.06
MS35207-262	-10R7	10-32	7/16	\$0.05
MS35207-263	-10R8	10-32	1/2	\$0.05
MS35207-264	-10R10	10-32	5/8	\$0.09
MS35207-265	-10R12	10-32	3/4	\$0.09
MS35207-266	-10R14	10-32	7/8	\$0.08
MS35207-267	-10R16	10-32	1	\$0.08
MS35207-268	-10R20	10-32	1-1/4	\$0.07
MS35207-269	-10R24	10-32	1-1/2	\$0.09
MS35207-270	-10R28	10-32	1-3/4	\$0.11
MS35207-271	-10R32	10-32	2	\$0.16

MS35206 MACHINE SCREWS (Cross recessed)



These pan head machine screws feature 60,000 psi minimum tensile strength and are cadmium plated to specification QQ-P-416, Type 2, Class 3. Manufactured from carbon steel to Federal Standard #66, these screws can be used as replacements for AN526 machine screws. Phillips head.

Part Number	Old AN515R Dash No.	Diameter & Thread Size	Length (inches)	Price ea.
MS35206-203	-2R2	2-56	1/4	\$0.05
MS35206-204	-2R5	2-56	5/16	\$0.06
MS35206-205	-2R6	2-56	3/8	\$0.05
MS35206-206	-2R7	2-56	7/16	\$0.06
MS35206-207	-2R8	2-56	1/2	\$0.05
MS35206-208	-2R10	2-56	5/8	\$0.06
MS35206-209	-2R12	2-56	3/4	\$0.06
MS35206-212	-4R3	4-40	3/16	\$0.03
MS35206-213	-4R4	4-40	1/4	--
MS35206-214	-4R5	4-40	5/16	\$0.07
MS35206-215	-4R6	4-40	3/8	\$0.07
MS35206-216	-4R7	4-40	7/16	\$0.08
MS35206-217	-4R8	4-40	1/2	\$0.05
MS35206-218	-4R10	4-40	5/8	\$0.05
MS35206-219	-4R12	4-40	3/4	\$0.06
MS35206-220	-4R14	4-40	7/8	\$0.07
MS35206-221	-4R16	4-40	1	\$0.06
MS35206-222	-4R20	4-40	1-1/4	\$0.17
MS35206-223	-4R24	4-40	1-1/2	\$0.08
MS35206-226	-6R4	6-32	1/4	\$0.10
MS35206-227	-6R5	6-32	5/16	\$0.08
MS35206-228	-6R6	6-32	3/8	\$0.03
MS35206-229	-6R7	6-32	7/16	\$0.10
MS35206-230	-6R8	6-32	1/2	\$0.07
MS35206-231	-6R10	6-32	5/8	\$0.04
MS35206-232	-6R12	6-32	3/4	\$0.10
MS35206-233	-6R14	6-32	7/8	\$0.06
MS35206-234	-6R16	6-32	1	\$0.14
MS35206-235	-6R20	6-32	1-1/4	\$0.07
MS35206-236	-6R24	6-32	1-1/2	\$0.10
MS35206-238	-6R32	6-32	2	\$0.12
MS35206-241	-8R4	8-32	1/4	\$0.10
MS35206-242	-8R5	8-32	5/16	\$0.08
MS35206-243	-8R6	8-32	3/8	\$0.05
MS35206-244	-8R7	8-32	7/16	\$0.06
MS35206-245	-8R8	8-32	1/2	\$0.09
MS35206-246	-8R10	8-32	5/8	\$0.10
MS35206-247	-8R12	8-32	3/4	\$0.08
MS35206-248	-8R14	8-32	7/8	\$0.10
MS35206-249	-8R16	8-32	1	\$0.07
MS35206-250	-8R20	8-32	1-1/4	\$0.09
MS35206-251	-8R24	8-32	1-1/2	\$0.59
MS35206-252	-8R28	8-32	1-3/4	\$0.08
MS35206-253	-8R32	8-32	2	\$0.22
MS35206-261	-10R6	10-24	3/8	\$0.12
MS35206-262	-10R7	10-24	7/16	\$0.11
MS35206-263	-10R8	10-24	1/2	\$0.08
MS35206-264	-10R10	10-24	5/8	\$0.11
MS35206-265	-10R12	10-24	3/4	\$0.15
MS35206-267	-10R16	10-24	1	\$0.09



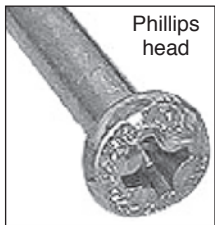
MACHINE SCREWS

MS27039 & MS27039C MACHINE SCREWS



These pan head low alloy steel machine screws have 125,000 to 145,000 psi tensile strength with cadmium plate finish to QQ-P-416, Type 2, Class 3. MS27039C screws are stainless steel Manufactured to MIL-S-6050 or MIL-8695. Equivalent to NAS 220.

MS27039C MACHINE SCREWS



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Part Number	Our Part No.	Diam. & Thrd. Size	Length (inches)	Price each	Part Number	Our Part No.	Diam. & Thrd. Size	Length (inches)	Price each
MS27039C08-04	04-01112	8-32	9/32	\$0.32	MS27039C1-19	04-01129	10-32	1-7/32	\$1.34
MS27039C08-05	04-01113	8-32	11/32	\$0.26	MS27039C1-20	04-01130	10-32	1-9/32	\$1.36
MS27039C08-11	04-01114	8-32	23/32	\$0.41	MS27039C1-21	04-01131	10-32	1-11/32	\$1.43
MS27039C08-13	04-01115	8-32	27/32	\$0.65	MS27039C1-22	04-01132	10-32	1-13/32	\$1.50
MS27039C08-14	04-01116	8-32	29/32	\$0.69	MS27039C1-23	04-01133	10-32	1-15/32	\$1.55
MS27039C08-15	04-01117	8-32	31/32	\$0.69	MS27039C1-24	04-01134	10-32	1-17/32	\$1.60
MS27039C08-17	04-01118	8-32	1-3/32	\$0.84	MS27039C4-06	04-01135	1/4-28	13/32	\$0.67
MS27039C1-04	04-01119	10-32	9/32	\$0.41	MS27039C4-07	04-01136	1/4-28	15/32	\$0.69
MS27039C1-05	04-01120	10-32	11/32	\$0.41	MS27039C4-08	04-01137	1/4-28	17/32	\$0.86
MS27039C1-06	04-01121	10-32	13/32	\$0.47	MS27039C4-09	04-01138	1/4-28	19/32	\$0.91
MS27039C1-09	04-01122	10-32	19/32	\$0.48	MS27039C4-10	04-01139	1/4-28	21/32	\$0.96
MS27039C1-10	04-01123	10-32	21/32	\$0.54	MS27039C4-11	04-01140	1/4-28	23/32	\$1.00
MS27039C1-11	04-01124	10-32	23/32	\$0.60	MS27039C4-12	04-01141	1/4-28	25/32	\$1.05
MS27039C1-13	04-01125	10-32	27/32	\$0.69	MS27039C4-13	04-01142	1/4-28	27/32	\$1.10
MS27039C1-15	04-01126	10-32	31/32	\$0.79	MS27039C4-14	04-01143	1/4-28	29/32	\$1.15
MS27039C1-17	04-01127	10-32	1-3/32	\$1.10	MS27039C4-15	04-01144	1/4-28	31/32	\$1.19
MS27039C1-18	04-01128	10-32	1-5/32	\$1.31	MS27039C4-16	04-01145	1/4-28	1-1/32	\$1.24

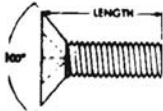
MS27039 MACHINE SCREWS



Part Number	Our Part No.	Diam. & Thrd. Size	Length (inches)	Price each	Part Number	Our Part No.	Diam. & Thrd. Size	Length (inches)	Price each
MS27039-0804	-	8-32	9/32	\$0.18	MS27039-1-18	04-01077	10-32	1-5/32	\$0.17
MS27039-0805	04-01063	8-32	11/32	\$0.10	MS27039-1-19	04-01078	10-32	1-7/32	\$0.17
MS27039-0806	-	8-32	13/32	\$0.12	MS27039-1-20	04-01079	10-32	19/32	\$0.18
MS27039-0807	-	8-32	15/32	\$0.12	MS27039-1-21	04-01080	10-32	1-11/32	\$0.18
MS27039-0808	-	8-32	17/32	\$0.10	MS27039-1-22	04-01081	10-32	1-13/32	\$0.18
MS27039-0809	-	8-32	19/32	\$0.09	MS27039-1-23	04-01082	10-32	1-15/32	\$0.19
MS27039-0810	-	8-32	21/32	\$0.17	MS27039-1-24	04-01083	10-32	1-17/32	\$0.20
MS27039-0811	-	8-32	23/32	\$0.09	MS27039-1-25	04-01084	10-32	1-19/32	\$0.35
MS27039-0812	-	8-32	25/32	\$0.10	MS27039-1-26	04-01085	10-32	1-21/32	\$0.35
MS27039-0813	-	8-32	27/32	\$0.10	MS27039-1-27	04-01086	10-32	1-23/32	\$0.35
MS27039-0814	-	8-32	29/32	\$0.11	MS27039-1-28	04-01087	10-32	1-25/32	\$0.36
MS27039-0815	04-01065	8-32	31/32	\$0.16	MS27039-1-29	04-01088	10-32	1-27/32	\$0.36
MS27039-0816	-	8-32	1-1/32	\$0.12	MS27039-1-30	04-01089	10-32	1-29/32	\$0.36
MS27039-0817	04-01066	8-32	1-3/32	\$0.19	MS27039-1-31	04-01090	10-32	1-31/32	\$0.41
MS27039-0818	-	8-32	1-5/32	\$0.17	MS27039-1-32	04-01091	10-32	2-1/32	\$0.47
MS27039-0819	04-01067	8-32	1-7/32	\$0.20	MS27039-4-06	04-01092	1/4-28	13/32	\$0.14
MS27039-0820	-	8-32	1-9/32	\$0.15	MS27039-4-07	04-01093	1/4-28	15/32	\$0.16
MS27039-0821	04-01068	8-32	1-11/32	\$0.24	MS27039-4-08	04-01094	1/4-28	17/32	\$0.18
MS27039-0822	04-01069	8-32	1-13/32	\$0.26	MS27039-4-09	04-01095	1/4-28	19/32	\$0.17
MS27039-0823	04-01070	8-32	1-15/32	\$0.26	MS27039-4-10	04-01096	1/4-28	21/32	\$0.17
MS27039-0824	04-01071	8-32	1-17/32	\$0.59	MS27039-4-11	04-01097	1/4-28	23/32	\$0.18
MS27039-1-04	-	10-32	9/32	\$0.08	MS27039-4-12	04-01098	1/4-28	25/32	\$0.18
MS27039-1-05	-	10-32	11/32	\$0.10	MS27039-4-13	04-01099	1/4-28	27/32	\$0.20
MS27039-1-06	-	10-32	13/32	\$0.08	MS27039-4-14	04-01101	1/4-28	29/32	\$0.21
MS27039-1-07	-	10-32	15/32	\$0.14	MS27039-4-15	04-01102	1/4-28	31/32	\$0.21
MS27039-1-08	-	10-32	17/32	\$0.07	MS27039-4-16	04-01103	1/4-28	1-1/32	\$0.22
MS27039-1-09	-	10-32	19/32	\$0.11	MS27039-4-17	04-01104	1/4-28	1-3/32	\$0.29
MS27039-1-10	-	10-32	21/32	\$0.11	MS27039-4-18	04-01105	1/4-28	1-5/32	\$2.20
MS27039-1-11	-	10-32	23/32	\$0.11	MS27039-4-19	04-01106	1/4-28	1-7/32	\$0.28
MS27039-1-12	-	10-32	25/32	\$0.08	MS27039-4-20	04-01107	1/4-28	1-9/32	\$0.29
MS27039-1-13	-	10-32	27/32	\$0.17	MS27039-4-21	04-01108	1/4-28	1-9/32	\$0.30
MS27039-1-14	-	10-32	29/32	\$0.10	MS27039-4-22	04-01109	1/4-28	1-9/32	\$0.30
MS27039-1-15	-	10-32	31/32	\$0.10	MS27039-4-23	04-01110	1/4-28	1-9/32	\$0.31
MS27039-1-16	-	10-32	1-1/32	\$0.15	MS27039-4-24	04-01111	1/4-28	1-9/32	\$0.32
MS27039-1-17	04-01076	10-32	1-3/32	\$0.16					

MACHINE SCREWS

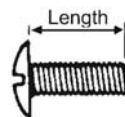
MS24693 & MS24693C MACHINE SCREWS (Formerly AN 507)



These non-structural screws have a 100° countersunk flat head. Cadmium plated, Type 2, C1.3. Tensile strength 55,000 PSI. For both CAD plated and Stainless MS24693C are stainless steel.

Thread	Length	MS24693 Cad Plated P/N	Price Each	MS24693C Stainless P/N	Price Each
4-40	3/8	MS24693S4	\$0.05	MS24693C4	\$0.03
	7/16	MS24693S5	\$0.04	---	---
	1/2	MS24693S6	\$0.04	MS24693C6	\$0.03
	5/8	MS24693S7	---	MS24693C7	\$0.04
	1	MS24693S10	\$0.03	MS24693C10	\$0.05
6-32	1/4	MS24693S24	\$0.05	MS24693C24	\$0.04
	3/8	MS24693S26	\$0.04	MS24693C26	\$0.05
	7/16	MS24693S27	---	MS24693C27	\$0.05
	1/2	MS24693S28	\$0.03	MS24693C28	\$0.05
	5/8	MS24693S29	\$0.05	MS24693C29	---
	3/4	MS24693S30	\$0.06	MS24693C30	\$0.07
8-32	1	MS24693S32	\$0.06	MS24693C32	\$0.05
	1/4	MS24693S46	\$0.06	MS24693C46	\$0.12
	3/8	MS24693S48	\$0.04	MS24693C48	\$0.06
	7/16	MS24693S49	---	MS24693C49	\$0.06
	1/2	MS24693S50	\$0.05	MS24693C50	\$0.08
	5/8	MS24693S51	\$0.06	MS24693C51	\$0.07
	3/4	MS24693S52	\$0.04	MS24693C52	\$0.08
10-32	1	MS24693S54	\$0.06	MS24693C54	\$0.09
	1-1/4	MS24693S56	---	MS24693C56	\$0.11
	1/4	MS24693S268	\$0.07	MS24693C268	\$0.12
	3/8	MS24693S270	\$0.06	MS24693C270	\$0.07
	7/16	MS24693S271	---	MS24693C271	\$0.06
	1/2	MS24693S272	\$0.08	MS24693C272	\$0.08
1/4-28	5/8	MS24693S273	\$0.07	MS24693C273	\$0.08
	3/4	MS24693S274	\$0.08	MS24693C274	\$0.08
	1	MS24693S276	\$0.08	MS24693C276	\$0.12
	1-1/4	MS24693S278	---	MS24693C278	\$0.13
	7/16	---	---	MS24693C293	\$0.22
1/4-28	1/2	MS24693S294	---	MS24693C294	\$0.16
	5/8	MS24693S295	---	MS24693C295	\$0.20
	1	---	---	MS24693C298	\$0.28

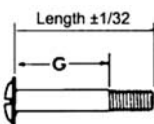
AN526 MACHINE SCREWS



Truss-head non-structural machine screws made of carbon steel, cadmium plated. Minimum tensile strength 55,000 PSI. Available in slot head or Phillips recessed head.

Thread	Length	Phillips Part No.	Price Each	Slotted Part No.	Price Each
4-40	1/2	AN526-440R8	\$0.06	----	---
	1	AN526-440R16	----	----	---
6-32	1/4	AN526-632R4	\$0.05	----	---
	5/16	AN526-632R5	\$0.05	----	---
	3/8	AN526-632R6	\$0.04	AN526-632-6	\$0.14
	7/16	AN526-632R7	\$0.05	----	---
	1/2	AN526-632R8	\$0.05	AN526-632-8	\$0.11
	9/16	AN526-632R9	\$0.06	----	---
	5/8	AN526-632R10	\$0.07	AN526-632-10	\$0.42
8-32	3/4	AN526-632R12	\$0.06	AN526-632-12	\$0.10
	7/8	AN526-632R14	\$0.05	----	---
	1	AN526-632R16	\$0.08	----	---
	1/4	AN526-832R4	\$0.05	----	---
	5/16	AN526-832R5	\$0.05	----	---
	3/8	AN526-832R6	\$0.04	AN526-832-6	\$0.04
	7/16	AN526-832R7	\$0.04	----	---
10-32	1/2	AN526-832R8	\$0.05	AN526-832-8	\$0.39
	9/16	AN526-832R9	\$0.07	----	---
	5/8	AN526-832R10	\$0.06	AN526-832-10	\$0.15
	3/4	AN526-832R12	\$0.05	AN526-832-12	\$0.45
	7/8	AN526-832R14	\$0.07	----	---
	1	AN526-832R16	\$0.08	AN526-832-16	\$0.10
	1/4	AN526-1032R4	\$0.18	----	---
10-32	5/16	AN526-1032R5	\$0.05	----	---
	3/8	AN526-1032R6	\$0.09	----	---
	7/16	AN526-1032R7	\$0.09	----	---
	1/2	AN526-1032R8	\$0.07	----	---
	9/16	AN526-1032R9	\$0.07	----	---
	5/8	AN526-1032R10	\$0.07	AN526-1032-10	\$0.16
	3/4	AN526-1032R12	\$0.07	AN526-1032-12	\$0.11
	7/8	AN526-1032R14	\$0.07	AN526-1032-14	\$1.30
	1	AN526-1032R16	\$0.08	----	---
	1-1/8	AN526-1032R18	\$0.08	----	---
	1-1/4	AN526-1032R20	\$0.11	AN526-1032-20	\$1.16
1-1/2	AN526-1032R24	\$0.11	----	---	
2	AN526-1032R32	\$0.57	----	---	

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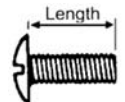


AN525 WASHER HEAD SCREWS

High-strength machine screws fabricated from alloy steel per specification QQ-S-689. Tensile strength 125,000 PSI. Cadmium plated per QQ-P-416A, Type II, Class 3. Cross-recessed head.

Dash No.	Length In.	Grip In.	Thread Size	Price Each	
-832R6	3/8	1/32	8-32	\$0.09	
-832R7	7/16	1/16		\$0.09	
-832R8	1/2	1/8		\$0.09	
-832R10	5/8	7/32		\$0.10	
-832R12	3/4	11/32	10-32	\$0.11	
-832R14	7/8	15/32		\$0.10	
-832R16	1	19/32		\$0.16	
-832R20	1-1/4	27/32		\$0.18	
-10R6	3/8	1/32		10-32	\$0.11
-10R7	7/16	1/16			\$0.09
-10R8	1/2	1/8			\$0.10
-10R10	5/8	7/32			\$0.08
-10R12	3/4	11/32	\$0.14		
-10R14	7/8	15/32	\$0.16		
-10R16	1	19/32	\$0.15		
-10R18	1-1/8	23/32	\$0.18		
-10R20	1-1/4	27/32	\$0.25		
-10R24	1-1/2	1-3/32	\$0.24		
-416R14	7/8	15/32	1/4-28	\$0.53	
-416R16	1	19/32		\$0.63	
-416R20	1-1/4	27/32		---	

AN526C STAINLESS STEEL MACHINE SCREWS

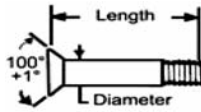


Stainless steel Phillips and slotted, Use slotted screws for antiques.

Thread	Length	Phillips Part No.	Price Each	Slotted Part No.	Price Each
4-40	1/2	AN526C-440R8	\$0.08	----	---
	1/4	AN526C-632R4	\$0.05	AN526C-632-4	\$0.40
6-32	3/8	AN526C-632R6	\$0.05	----	---
	1/2	AN526C-632R8	\$0.04	AN526C-632-8	\$0.20
	5/8	AN526C-632R10	\$0.05	AN526C-632-10	\$0.21
	3/4	AN526C-632R12	\$0.05	----	---
	1	AN526C-632R16	\$0.09	AN526C-632-16	\$0.29
8-32	1/4	AN526C-832R4	\$0.09	----	---
	3/8	AN526C-832R6	\$0.05	----	---
	1/2	AN526C-832R8	\$0.07	AN526C-832-8	\$0.16
	5/8	AN526C-832R10	\$0.06	AN526C-832-10	\$0.30
	3/4	AN526C-832R12	\$0.07	AN526C-832-12	\$0.34
10-32	1	AN526C-832R16	\$0.10	AN526C-832-16	\$0.20
	1/4	AN526C-1032R4	\$0.49	----	---
	3/8	AN526C-1032R6	\$0.07	AN526C-1032-6	\$0.21
	1/2	AN526C-1032R8	\$0.12	AN526C-1032-8	\$0.24
	5/8	AN526C-1032R10	\$0.09	AN526C-1032-10	\$0.20
	3/4	AN526C-1032R12	\$0.09	AN526C-1032-12	---
	1	AN526C-1032R16	\$0.09	----	---
1/4-20	1-1/4	AN526C-1032R20	----	----	---
	1-1/2	AN526C-1032R24	\$0.22	----	---
	1/2	AN526C-420R8	\$0.29	----	---
1/4-28	1/2	AN526C-428R8	\$0.23	----	---
	3/4	AN526C-428R12	\$0.37	----	---
	1-1/8	----	---	AN526C-428-18	\$0.09

Note: Some sizes of AN526C screws are furnished as commercial equipment as AN screws are no longer available.

FILLISTER HEAD SCREWS – MACHINE SCREWS



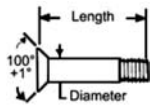
MS24694 MACHINE SCREWS (Formerly AN509)

These structural screws have a 100° countersunk head. Cadmium plated per QQ-P-416, Type II, Class 3. Minimum tensile strength 125,000 PSI.

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MS24694 Dash No.	AN509 Dash No.	Length In.	Grip In.	Thread Size	Price Each
-S1	-8R4	9/32	Length	8-32	\$0.07
-S2	-8R5	11/32	Minus	8-32	\$0.06
-S3	-8R6	13/32	/16"	8-32	\$0.12
-S4	-8R7	15/32		8-32	\$0.09
-S5	-8R8	17/32		8-32	\$0.06
-S7	-8R10	21/32		8-32	\$0.08
-S8	-8R11	23/32		8-23	---
-S9	-8R12	25/32		8-32	\$0.09
-S10	-8R13	27/32		8-32	---
-S11	-8R14	29/32		8-32	\$0.10
-S12	-8R15	31/32		8-32	---
-S13	-8R16	1-1/32		8-32	\$0.11
-S14	-8R17	1-1/32		8-32	---
-S15	-8R18	1-5/32		8-32	\$0.15
-S16	-8R19	1-7/32		8-32	---
-S17	-8R20	1-9/32		8-32	\$0.12
-S18	-8R21	1-11/32		8-32	---
-S19	-8R22	1-13/32		8-32	\$0.16
-S20	-8R23	1-15/32		8-32	---
-S21	-8R24	1-17/32		8-32	\$0.15
-S28	-8R31	1-31/32		8-32	\$0.51
-S29	-8R32	2-1/32		8-32	\$0.82
-S31	-8R34	2-5/32		8-32	\$1.36
-S46	-10R4	9/32		10-32	---
-S47	-10R5	11/32		10-32	---
-S48	-10R6	13/32	Length	10-32	\$0.09
-S49	-10R7	15/32	Minus	10-32	\$0.11
-S50	-10R8	17/32	15/32"	10-32	\$0.09
-S51	-10R9	19/32		10-32	\$0.09
-S52	-10R10	21/32		10-32	\$0.10
-S53	-10R11	23/32		10-32	\$0.10
-S54	-10R12	25/32		10-32	\$0.10
-S55	-10R13	27/32		10-32	\$0.12
-S56	-10R14	29/32		10-32	\$0.08
-S57	-10R15	31/32		10-32	---
-S58	-10R16	1-1/32		10-32	\$0.16
-S59	-10R17	1-3/32		10-32	\$0.17
-S60	-10R18	1-5/32		10-32	\$0.09
-S61	-10R19	1-7/32		10-32	---
-S62	-10R20	1-9/32		10-32	\$0.24
-S63	-10R21	1-11/32		10-32	---
-S64	-10R22	1-13/32		10-32	\$0.25

MS24694 Dash No.	AN509 Dash No.	Length In.	Grip In.	Thread Size	Price Each
-S65	-10R23	1-15/32		10-32	\$0.18
-S66	-10R24	1-17/32		10-32	\$0.19
-S67	-10R25	1-19/32		10-32	---
-S68	-10R26	1-21/32		10-32	---
-S69	-10R27	1-23/32		10-32	---
-S70	-10R28	1-25/32		10-32	\$0.23
-S71	-10R29	1-27/32		10-32	---
-S72	-10R30	1-29/32		10-32	\$0.34
-S74	-10R32	2-1/32		10-32	\$0.26
-S75	-10R33	2-3/32		10-32	\$1.12
-S76	-10R34	2-5/32		10-32	\$0.69
-S79	-10R37	2-11/32		10-32	\$0.40
-S82	-10R40	2-17/32		10-32	\$0.28
-S84	-10R42	2-21/32		10-32	\$0.30
-S88	-10R46	2-29/32		10-32	\$2.90
-S90	-10R48	3-1/32		10-32	\$0.54
-S93	-416R6	13/32		1/4-28	---
-S94	-416R7	15/32		1/4-28	---
-S95	-416R8	17/32		1/4-28	---
-S96	-416R9	19/32		1/4-28	---
-S97	-416R10	21/32	Length	1/4-28	\$0.19
-S98	-416R11	23/32		1/4-28	---
-S99	-416R12	25/32	Minus	1/4-28	\$0.22
-S100	-416R13	27/32		1/4-28	\$0.15
-S101	-416R14	29/32	17/32"	1/4-28	\$0.32
-S102	-416R15	31/32		1/4-28	\$0.18
-S103	-416R16	1-1/32		1/4-28	\$0.19
-S104	-416R17	1-3/32		1/4-28	\$0.21
-S105	-416R18	1-5/32		1/4-28	\$0.20
-S106	-416R19	1-7/32		1/4-28	\$0.26
-S107	-416R20	1-9/32		1/4-28	---
-S108	-416R21	1-11/32		1/4-28	---
-S109	-416R22	1-13/32		1/4-28	\$0.34
-S110	-416R23	1-15/32		1/4-28	\$0.25
-S111	-416R24	1-17/32			\$0.26
-S113	-416R26	1-21/32			\$0.46
-S115	-416R28	1-25/32			\$0.39
-S119	-416R32	2-1/32			\$0.72
-S121	-416R34	2-5/32			\$0.47
-S123	-416R36	2-9/32			\$1.66
-S148	-516R16	1-1/32	Length.Minus	5/16-24	\$1.20
-S178	-516R46	2-29/32	9/16"		\$0.96



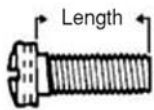
MS24694C STAINLESS STEEL MACHINE SCREWS

Same style screws as MS24694, except stainless steel. Phillips head. (Formerly AN509C)

MS Part No.	AN509C No.	Thread Size	Length Inches	Price ea.
MS24694C1	-8R4	8-32	9/32	\$0.11
MS24694C2	-8R5	8-32	11/32	\$0.11
MS24694C3	-8R6	8-32	13/32	\$0.10
MS24694C4	-8R7	8-32	15/32	\$0.12
MS24694C5	-8R8	8-32	17/32	\$0.10
MS24694C6	-8R9	8-32	19/32	\$0.13
MS24694C7	-8R10	8-32	21/32	\$0.10
MS24694C8	-8R11	8-32	23/32	\$0.14
MS24694C9	-8R12	8-32	25/32	\$0.12
MS24694C10	-8R13	8-32	27/32	\$0.16
MS24694C11	-8R14	8-32	29/32	\$0.19
MS24694C13	-8R16	8-32	1-1/32	\$0.20
MS24694C14	-8R17	8-32	1-3/32	\$1.88
MS24694C15	-8R18	8-32	1-5/32	\$1.30
MS24694C46	-10R4	10-32	9/32	\$0.13
MS24694C47	-10R5	10-32	11/32	\$0.11
MS24694C48	-10R6	10-32	13/32	\$0.12

MS Part No.	AN509C No.	Thread Size	Length Inches	Price ea.
MS24694C49	-10R7	10-32	15/32	\$0.12
MS24694C50	-10R8	10-32	17/32	\$0.12
MS24694C51	-10R9	10-32	19/32	\$0.15
MS24694C52	-10R10	10-32	21/32	\$0.09
MS24694C53	-10R11	10-32	23/32	\$0.17
MS24694C54	-10R12	10-32	25/32	\$0.15
MS24694C55	-10R13	10-32	27/32	\$0.19
MS24694C56	-10R14	10-32	29/32	\$0.20
MS24694C57	-10R15	10-32	31/32	\$0.19
MS24694C58	-10R16	10-32	1-1/32	\$0.18
MS24694C59	-10R17	10-32	1-3/32	\$0.24
MS24694C60	-10R18	10-32	1-5/32	\$0.31
MS24694C61	-10R19	10-32	1-7/32	\$0.33
MS24694C62	-10R20	10-32	1-9/32	\$0.34
MS24694C92		1/4-28	3/8	\$0.23
MS24694C94		1/4-28	7/16	\$0.35

FILLISTER HEAD SCREWS - DRIVE SCREWS



AN500, AN501 DRILLED FILLISTER HEADSCREWS

AN500 (coarse thread) & AN501 (fine thread) slotted fillister head screws are fabricated from carbon steel. Tensile strength 60,000 PSI. Cadmium plated, Type II Class 3.
 * "A" in Dash No. denotes drilled head

AN500 (Coarse Thread)				
AN500 Dash No.*	MS35265 Dash No.	Length (In.)	Thread Size	Price Each
-A4-3	MS35265-12	3/16	4-40	\$0.24
-A4-4	MS35265-13	1/4	4-40	\$0.25
-A4-5	MS35265-14	5/16	4-40	\$0.22
-A4-6	MS35265-15	1/4	4-40	\$0.34
-A4-7	MS35265-16	5/16	4-40	\$0.25
-A4-8	MS35265-17	1/4	4-40	\$0.26
-A4-10	MS35265-18	5/16	4-40	\$0.27
-A4-12	MS35265-19	1/4	4-40	\$0.28
-A6-4	MS35265-26	1/4	6-32	\$0.20
-A6-5	MS35265-27	5/16	6-32	\$0.18
-A6-6	MS35265-28	3/8	6-32	\$0.44
-A6-7	MS35265-29	7/16	6-32	\$0.24
-A6-8	MS35265-30	1/2	6-32	\$0.20
-A6-10	MS35265-31	5/8	6-32	\$0.24
-A6-12	MS35265-32	3/4	6-32	\$0.24
-A6-14	MS35265-33	7/8	6-32	\$0.28
-A8-4	MS35265-41	1/4	8-32	\$0.31
-A8-5	MS35265-42	5/16	8-32	\$0.25
-A8-6	MS35265-43	3/8	8-32	\$0.19
-A8-7	MS35265-44	7/16	8-32	\$0.22
-A8-8	MS35265-45	1/2	8-32	\$0.23
-A8-10	MS35265-46	5/8	8-32	\$0.18
-A8-12	MS35265-47	3/4	8-32	\$0.18
-A8-14	MS35265-48	7/8	8-32	\$0.23
-A8-16	MS35265-49	1	8-32	\$0.60
-A10-4	MS35265-59	1/4	10-24	\$0.23
-A10-5	MS35265-60	5/16	10-24	\$0.30
-A10-6	MS35265-61	3/8	10-24	\$0.20
-A10-7	MS35265-62	7/16	10-24	\$0.30
-A10-8	MS35265-63	1/2	10-24	\$0.24
-A10-10	MS35265-64	5/8	10-24	\$0.27
-A10-12	MS35265-65	3/4	10-24	\$0.31
-A10-16	MS35265-66	1	10-24	\$0.20
-A416-8	MS35265-79	1/2	1/4-20	\$0.96
-A416-10	MS35265-80	5/8	1/4-20	\$0.38
-416-12	MS35265-81	3/4	1/4-20	\$0.42
AN501 (Fine Thread)				
AN501 Dash No.*	MS35266 Dash No.	Length (In.)	Thread Size	Price Each
-8-12	-47	3/4		---
-A10-4	-59	1/4	10-32	\$0.43
-A10-5	-60	5/16	10-32	\$0.30
-A10-6	-61	3/8	10-32	\$0.28
-A10-7	-62	7/16	10-32	\$0.24
-A10-8	-63	1/2	10-32	\$0.26
-A10-10	-64	5/8	10-32	\$0.25
-A10-12	-65	3/4	10-32	\$0.21
-A10-14	-66	7/8	10-32	\$0.31
-A10-16	-67	1	10-32	\$0.27
-A10-20	-68	1-1/4	10-32	\$0.33
-A416-10	-80	5/8	1/4-28	\$0.32

AN500AD (Coarse Thread/Stainless Steel)				
AN500 Dash No.*	MS35275 Dash No.	Length (In.)	Thread Size	Price Each
-AD2-2	-201	1/8	2/56	\$0.60
-AD2-3	-202	3/16	2/56	\$0.35
-AD2-4	-203	1/4	2/56	\$0.31
-AD2-5	-204	5/16	2/56	\$0.33
-AD2-6	-205	3/8	2/56	\$0.34
-AD2-7	-206	7/16	2/56	\$0.34
-AD2-8	-207	1/2	2/56	\$0.35
-AD2-10	-208	5/8	2/56	\$0.35
-AD2-12	-209	3/4	2/56	\$0.38
-AD4-2	-211	1/8	4-40	\$0.39
-AD4-3	-212	3/16	4-40	\$0.30
-AD4-4	-213	1/4	4-40	\$0.31
-AD4-6	-215	3/8	4-40	\$0.32
-AD4-7	-216	7/16	4-40	\$0.32
-AD4-8	-217	1/2	4-40	\$0.32
-AD4-10	-218	5/8	4-40	\$0.32
-AD4-12	-219	3/4	4-40	\$0.33
-AD4-14	-220	7/8	4-40	\$0.33
-AD4-16	-221	1	4-40	\$0.35
-AD6-4	-226	1/4	6-32	\$0.29
-AD6-5	-227	5/16	6-32	\$0.29
-AD6-6	-228	3/8	6-32	\$0.29
-AD6-7	-229	7/16	6-32	\$0.30
-AD6-8	-230	1/2	6-32	\$0.30
-AD6-10	-231	5/8	6-32	\$0.32
-AD6-12	-232	3/4	6-32	\$0.33
-AD6-14	-233	7/8	6-32	\$0.39
-AD6-16	-234	1	6-32	\$0.41
-AD8-5	-242	5/16	8-32	\$0.33
-AD8-6	-243	3/8	8-32	\$0.33
-AD8-7	-244	7/16	8-32	\$0.34
-AD8-8	-245	1/2	8-32	\$0.34
-AD8-10	-246	5/8	8-32	\$0.34
-AD8-12	-247	3/4	8-32	\$0.35
-AD8-14	-248	7/8	8-32	\$0.35
-AD8-16	-249	1	8-32	\$0.45
AN501AD (Fine Thread/Stainless Steel)				
AN501 Dash No.*	MS35276 Dash No.	Length (In.)	Thread Size	Price Each
-AD10-5	-260	5/16	10-32	\$0.37
-AD10-6	-261	3/8	10-32	\$0.38
-AD10-7	-262	7/16	10-32	\$0.39
-AD10-8	-263	1/2	10-32	\$0.40
-AD10-10	-264	5/8	10-32	\$0.43
-AD10-12	-265	3/4	10-32	\$0.44
-AD10-14	-266	7/8	10-32	\$0.55
-AD10-16	-267	1	10-32	\$0.57



AN502, AN503 FILLISTER HEAD SCREWS

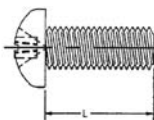
AN502 (fine thread) and AN503 (coarse thread) drilled head, slotted fillister head screws are fabricated from steel meeting specification MIL-S-6050. Tensile strength 125,000 PSI. Cadmium plated, Type I, Class 3.

AN502 (Fine Thread)							
AN502 Dash No.*	Length (In.)	Thread Size	Price Each	AN502 Dash No.*	Length (In.)	Thread Size	Price Each
-10-5	5/16	10-32	\$0.58	-10-12	3/4	10-32	\$0.32
-10-6	3/8	10-32	\$0.27	-10-16	1	10-32	\$0.39
-10-8	1/2	10-32	\$0.28	-416-12	3/4	1/4-28	\$0.70
-10-10	5/8	10-32	\$0.37	-416-16	1	1/4-28	\$1.46

AN503 (Coarse Thread)							
AN503 Dash No.*	Length (In.)	Thread Size	Price Each	AN503 Dash No.*	Length (In.)	Thread Size	Price Each
-6-4	1/4	6-32	\$0.29	-10-6	3/8	10-24	\$0.44
-6-6	3/8	6-32	\$0.26	-10-8	1/2	10-24	\$0.26
-8-4	1/4	8-32	\$0.23	-10-10	5/8	10-24	\$0.47
-8-6	3/8	8-32	\$0.26	-10-12	3/4	10-24	\$0.48
-8-8	1/2	8-32	\$0.31	-10-16	1	10-24	\$0.50
-8-10	5/8	8-32	\$0.23	-10-24	1-1/2	10-24	\$0.61
-8-16	1	8-32	\$0.42	-416-8	1/2	1/4-20	\$0.74
				-416-10	5/8	1/4-20	\$0.91
				-416-12	3/4	1/4-20	\$1.08

ALLOY/STRUCTURAL — MACHINE SCREWS

MS51957 / MS51958 STAINLESS MACHINE SCREWS



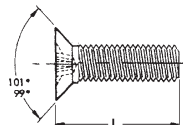
- Phillips Pan Head
- 300 Series Stainless Steel
- Finish - Passivate per QQ-P-35



Thread	Length	Phillips Part No.	Price Each	Thread	Length	Phillips Part No.	Price Each		
2-56	.188	MS51957-2	\$0.02	6-32	.500	MS51957-30	\$0.06		
	.250	MS51957-3	\$0.02		.625	MS51957-31	\$0.06		
	.312	MS51957-4	\$0.02		.750	MS51957-32	\$0.08		
	.375	MS51957-5	\$0.02		.875	MS51957-33	\$0.12		
	.438	MS51957-6	\$0.03		1.00	MS51957-34	\$0.10		
	.500	MS51957-7	\$0.03		8-32	.250	MS51957-41	\$0.11	
	.625	MS51957-9	\$0.04			.312	MS51957-42	\$0.07	
	.750	MS51957-10	\$0.04			.375	MS51957-43	\$0.05	
	4-40	.188	MS51957-12			\$0.03	.438	MS51957-44	\$0.05
		.250	MS51957-13			\$0.04	.500	MS51957-45	\$0.07
.312		MS51957-14	\$0.04	.625		MS51957-46	\$0.08		
.375		MS51957-15	\$0.04	.750		MS51957-47	\$0.11		
.438		MS51957-16	\$0.07	.875		MS51957-48	\$0.08		
.500		MS51957-17	\$0.05	1.00		MS51957-49	\$0.12		
.625		MS51957-18	\$0.05	10-32		.312	MS51958-60	\$0.07	
.750		MS51957-19	\$0.05		.375	MS51958-61	\$0.07		
.875		MS51957-20	\$0.04		.438	MS51958-62	\$0.08		
1.00		MS51957-21	\$0.05		.500	MS51958-63	\$0.07		
6-32	.188	MS51957-25	\$0.07		.625	MS51958-64	\$0.09		
	.250	MS51957-26	\$0.07		.750	MS51958-65	\$0.11		
	.312	MS51957-27	\$0.04		.875	MS51958-66	\$0.09		
	.375	MS51957-28	\$0.06		1.00	MS51958-67	\$0.08		
	.438	MS51957-29	\$0.07		1.25	04-00544	\$0.14		

NAS514 MACHINE SCREWS

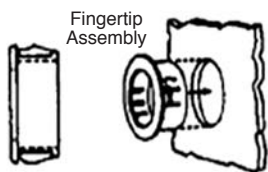
- Phillips 100° Flat Head
- Fully Threaded
- Alloy Steel (8740)
- Finish - Cadmium per QQ-P-416 Type II
- Tensile -125,000 145,000 PSI



Thrd.	Lgth.	Phillips Part No.	Price Each
4-40	.250	NAS514P440-4P	\$0.05
	.312	NAS514P440-5P	\$0.06
	.375	NAS514P440-6P	\$0.06
	.438	NAS514P440-7P	\$0.06
	.500	NAS514P440-8P	\$0.06
	.625	NAS514P440-10P	\$0.06
	.750	NAS514P440-12P	\$0.07
	.188	NAS514P632-3P	\$0.11
	.250	NAS514P632-4P	\$0.09
	.312	NAS514P632-5P	\$0.06
6-32	.375	NAS514P632-6P	\$0.06
	.438	NAS514P632-7P	\$0.10
	.500	NAS514P632-8P	\$0.10
	.625	NAS514P632-10P	\$0.06
	.750	NAS514P632-12P	\$0.07
	.875	NAS514P632-14P	\$0.09
	1.00	NAS514P632-16P	\$0.09
	.250	NAS514P832-4P	\$0.06
	.312	NAS514P832-5P	\$0.07
	.375	NAS514P832-6P	\$0.08
8-32	.438	NAS514P832-7P	\$0.06
	.500	NAS514P832-8P	\$0.10
	.625	NAS514P832-10P	\$0.09
	.750	NAS514P832-12P	\$0.12
	.875	NAS514P832-14P	\$0.13
	1.00	NAS514P832-16P	\$0.10
	1.25	NAS514P832-20P	\$0.13
	.250	NAS514P1032-4P	\$0.07
	.312	NAS514P1032-5P	\$0.08
	.375	NAS514P1032-6P	\$0.09
10-32	.438	NAS514P1032-7P	\$0.10
	.500	NAS514P1032-8P	\$0.10
	.625	NAS514P1032-10P	\$0.16
	.750	NAS514P1032-12P	\$0.16
	.875	NAS514P1032-14P	\$0.11
	1.00	NAS514P1032-16P	\$0.14
	1.25	NAS514P1032-20P	\$0.15

HA

SNAP BUSHINGS



These snap bushings are ideal for abrasion and cutting protection of wiring, antenna leads, tubing, cables, etc. that are routed through bulkheads, ribs and other internal aircraft structures. Made of hard black nylon, the bushings convert raw-edged holes to smooth, neat insulated ones. Just drill a hole about 1/8" larger than bushing I.D. and insert bushing. Spring-like fingers snap out to hold it in place.

Stocked in following sizes. Special sizes on request with 100 piece minimum. *For .062" max. bulkhead thickness. All others for .125" max. bulkhead thickness.

Mounting Part No.	Hole Dia.	Bushing I.D.	Price Ea.	Mounting Part No.	Hole Dia.	Bushing I.D.	Price Ea.
04-05700*	.250	1/8"	\$0.15	04-05753	.500	3/8	\$0.16
04-05710*	.312	3/16"	\$0.11	04-05775	.625	1/4"	\$0.14
04-05730	.375	1/4"	\$0.07	04-05773	.625	1/2"	\$0.12
04-05738	.437	1/4"	\$0.08	04-05790	.750	3/8"	\$0.18
04-05758	.500	1/4"	\$0.10	04-05793	.750	9/16"	\$0.19

*For .062" max. bulkhead thickness. All others for .125" max. bulkhead thickness. Less 15% Discount on 100 pieces per size.

AN535 DRIVE SCREWS

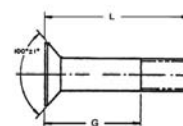


Hardened steel screws to make permanent fastenings to ferrous and non-ferrous castings, heavy gauge steel, plastics, etc. Cadmium plated. Spec. MS21318

AN535 Dash #	Dia. In.	Length In.	Sugg. Drill Size	Price Each	AN535 Dash #	Dia. In.	Length In.	Price Ea.
-00-4	.060	1/4	#55 (.052")	\$0.23	-00-2	.060	1/8	\$0.05
-0-4	.075	1/4	#51 (.067")	\$0.06	-0-03	.060	3/16	\$0.07
-2-3	.100	3/16	#44 (.086")	\$0.11	-0-2	.075	1/8	\$0.06
-2-4	.100	1/4	#44 (.086")	\$0.06	-0-3	.075	3/16	\$0.06
-4-4	.116	1/4	#37 (.104")	\$0.05	-2-2	.100	1/8	\$0.07
					-4-3	.116	3/16	\$0.07
					-4-5	.116	5/16	\$0.07

NAS517 FLUSH HEAD SCREWS

- Phillips 100 Deg. Flat Head
- Alloy Steel Per Mil-S-6049
- Finish - Cad Plate per QQ-P-416 Type II



Thrd	Grip	Lgth	Phillips Part No.	Price Each
8-32	-	.469	NAS517-2-1	\$0.08
	.125	.531	NAS517-2-2	\$0.07
	.188	.594	NAS517-2-3	\$0.07
	.250	.656	NAS517-2-4	\$0.09
	.312	.719	NAS517-2-5	\$0.07
	.375	.781	NAS517-2-6	\$0.07
	.438	.844	NAS517-2-7	\$0.12
	.500	.906	NAS517-2-8	\$0.10
	.562	.969	NAS517-2-9	\$0.09
	.625	1.031	NAS517-2-10	\$0.08
10-32	.688	1.093	NAS517-2-11	\$0.09
	.750	1.156	NAS517-2-12	\$0.09
	-	.406	NAS517-3-0	\$0.07
	-	.469	NAS517-3-1	\$0.07
	.125	.531	NAS517-3-2	\$0.10
	.188	.594	NAS517-3-3	\$0.08
	.250	.656	NAS517-3-4	\$0.11
	.312	.719	NAS517-3-5	\$0.12
	.375	.781	NAS517-3-6	\$0.11
	.438	.844	NAS517-3-7	\$0.09
	.500	.906	NAS517-3-8	\$0.15
	.562	.969	NAS517-3-9	\$0.10
	.625	1.031	NAS517-3-10	\$0.11
	.688	1.093	NAS517-3-11	\$0.12
	.750	1.156	NAS517-3-12	\$0.11
	.812	1.219	NAS517-3-13	\$0.11
.875	1.281	NAS517-3-14	\$0.18	
1.00	1.406	NAS517-3-16	\$0.18	

SET SCREWS

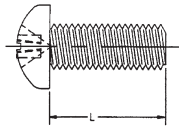


Set screws are used to provide immediate, binding location of various parts on shafts. Maximum holding pressure is made by the cup point edge gripping the contact surface. Allen head wrenches are used to operate set screws.

Part No.	Thread	Length	Price	Part No.	Thread	Length	Price
04-00182	8-32	3/16	\$0.12	04-00189	10-32	1/2	\$0.14
04-00183	8-32	1/4	\$0.12	04-00191	1/4-28	5/16	\$0.12
04-00184	10-32	1/4	\$0.10				
04-00189	10-32	1/2	\$0.14				
04-00191	1/4-28	5/16	\$0.12				

ALLOY STRUCTURAL & MACHINE SCREWS

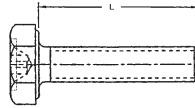
NAS600 - NAS603 MACHINE SCREWS



- Phillips Pan Head
- Alloy Steel (8740)
- Finish - Cadmium per QQ-P-416
- Tensile -160,000 - 180,000 PSI

Thread	Length	Part No.	Price Ea.
4-40	.188	NAS600-3P	\$0.07
	.250	NAS600-4P	\$0.07
	.312	NAS600-5P	\$0.05
	.375	NAS600-6P	\$0.07
	.438	NAS600-7P	\$0.08
6-32	.500	NAS600-8P	\$0.07
	.188	NAS601-3P	\$0.06
	.250	NAS601-4P	\$0.07
	.312	NAS601-5P	\$0.06
	.375	NAS601-6P	\$0.06
	.438	NAS601-7P	\$0.07
	.500	NAS601-8P	\$0.09
8-32	.562	NAS601-9P	\$0.07
	.625	NAS601-10P	\$0.10
	.750	NAS601-12P	\$0.08
	.188	NAS602-3P	\$0.06
	.250	NAS602-4P	\$0.08
	.312	NAS602-5P	\$0.08
	.375	NAS602-6P	\$0.09
	.438	NAS602-7P	\$0.10
	.500	NAS602-8P	\$0.10
	.562	NAS602-9P	\$0.11
	.625	NAS602-10P	\$0.12
10-32	.688	NAS602-11P	\$0.13
	.750	NAS602-12P	\$0.14
	.813	NAS602-13P	\$0.11
	.875	NAS602-14P	\$0.11
	1.00	NAS602-16P	\$0.15
	.250	NAS603-4P	\$0.07
	.312	NAS603-5P	\$0.08
	.375	NAS603-6P	\$0.09
	.438	NAS603-7P	\$0.13
	.500	NAS603-8P	\$0.10
	.562	NAS603-9P	\$0.12
.625	NAS603-10P	\$0.12	
.688	NAS603-11P	\$0.12	
.750	NAS603-12P	\$0.07	
.813	NAS603-13P	\$0.11	
.875	NAS603-14P	\$0.11	
.938	NAS603-15P	\$0.12	
1.00	NAS603-16P	\$0.13	
1.125	NAS603-18P	\$0.14	
1.25	NAS603-20P	\$0.13	

NAS1096 HEX HEAD SCREWS

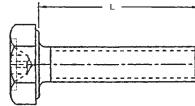


- Phillips Hex Head
- Alloy Steel per MIL-S-6049
- Finish - Cadmium per QQ-P-416 Type II
- Tensile - 125,000-145,000 PSI

Thread	Length	Part No.	Price Ea.
6-32	.375	NAS1096-1-6	\$0.07
	.438	NAS1096-1-7	\$0.09
	.500	NAS1096-1-8	\$0.13
	.562	NAS1096-1-9	\$0.09
	.625	NAS1096-1-10	\$0.12
8-32	.750	NAS1096-1-12	\$0.13
	.312	NAS1096-2-5	\$0.09
	.375	NAS1096-2-6	\$0.12
	.438	NAS1096-2-7	\$0.08
	.500	NAS1096-2-8	\$0.12
	.562	NAS1096-2-9	\$0.11
10-32	.625	NAS1096-2-10	\$0.10
	.750	NAS1096-2-12	\$0.12
	.312	NAS1096-3-5	\$0.08
	.375	NAS1096-3-6	\$0.09
	.438	NAS1096-3-7	\$0.15
	.500	NAS1096-3-8	\$0.11
	.562	NAS1096-3-9	\$0.13
	.625	NAS1096-3-10	\$0.13
	.750	NAS1096-3-12	\$0.13
	.875	NAS1096-3-14	\$0.13
1.00	NAS1096-3-16	\$0.13	
1.25	NAS1096-3-20	\$0.20	

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NAS1801 HEX HEAD SCREW

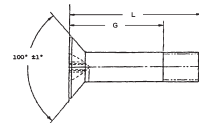


- Phillips Hex Head
- Alloy Steel Per MIL-S-6049
- Finish - Cad Plate per QQ-P-416, Type II
- Tensile - 160,000-185,000 PSI

Thread	Length	Part No.	Price Ea.
8-32	.250	NAS1801-08-4	\$0.07
	.312	NAS1801-08-5	\$0.08
	.375	NAS1801-08-6	\$0.08
	.438	NAS1801-08-7	\$0.09
	.500	NAS1801-08-8	\$0.11
	.562	NAS1801-08-9	\$0.10
	.625	NAS1801-08-10	\$0.11
	.750	NAS1801-08-12	\$0.12
	.875	NAS1801-08-14	\$0.13
	1.00	NAS1801-08-16	\$0.15
	1.125	NAS1801-08-18	\$0.16
10-32	1.25	NAS1801-08-20	\$0.17
	1.375	NAS1801-08-22	\$0.28
	.312	NAS1801-3-5	\$0.10
	.375	NAS1801-3-6	\$0.11
	.438	NAS1801-3-7	\$0.12
	.500	NAS1801-3-8	\$0.12
	.562	NAS1801-3-9	\$0.12
	.625	NAS1801-3-10	\$0.17
	.750	NAS1801-3-12	\$0.14
	.875	NAS1801-3-14	\$0.16
	1.00	NAS1801-3-16	\$0.18
1.125	NAS1801-3-18	\$0.20	
1.25	NAS1801-3-20	\$0.23	
1.375	NAS1801-3-22	\$0.24	
1.50	NAS1801-3-24	\$0.26	

NAS1202 / 1203 FLUSH HEAD SCREWS

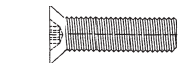
- Phillips 100° Flat Head
- Tensile - 160,000 - 180,000 PSI
- Alloy Steel Per MIL-S-6049
- Finish - Cadmium per QQ-P-416, Type II



Thrd.	Grip	Lgth.	Part No.	Price Ea.
8-32	.125	.401	NAS1202-2	\$0.07
	.188	.464	NAS1202-3	\$0.07
	.250	.526	NAS1202-4	\$0.12
	.312	.588	NAS1202-5	\$0.08
	.375	.651	NAS1202-6	\$0.08
	10-32	.125	.125	NAS1203-2
.188		.188	NAS1203-3	\$0.12
.250		.250	NAS1203-4	\$0.13
.312		.312	NAS1203-5	\$0.13
.375		.875	NAS1203-6	\$0.14
.438		.438	NAS1203-7	\$0.09
.500		.500	NAS1203-8	\$0.10

MS51959 MACHINE SCREWS

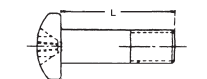
- Phillips 82° Flat Head
- Stainless Steel



Thrd.	Lgth.	Part No.	Each	Thrd.	Lgth.	Part No.	Each
2-56	.188	MS51959-2	\$0.04	6-32	.312	MS51959-27	\$0.05
	.250	MS51959-3	\$0.04		.375	MS51959-28	\$0.05
	.312	MS51959-4	\$0.04		.438	MS51959-29	\$0.05
	.375	MS51959-5	\$0.04		.500	MS51959-30	\$0.07
4-40	.250	MS51959-13	\$0.05		.625	MS51959-31	\$0.06
	.312	MS51959-14	\$0.04		.375	MS51959-43	\$0.06
	.375	MS51959-15	\$0.04		.438	MS51959-44	\$0.06
	.438	MS51959-16	\$0.04		.500	MS51959-45	\$0.09
	.500	MS51959-17	\$0.07	.625	MS51959-46	\$0.08	
				.750	MS51959-47	\$0.08	

NAS623 PAN HEAD SCREWS

- Phillips Pan Head
- Alloy Steel per MIL-S-6049
- Finish: Cadmium per QQ-P-416, Type II
- Tensile: 160,000-180,000 PSI



Thrd.	Lgth.	Part No.	Each	Thrd.	Lgth.	Part No.	Each
8-32	.338	NAS623-2-1	\$0.07	10-32	.588	NAS623-3-5	\$0.12
	.401	NAS623-2-2	\$0.07		.651	NAS623-3-6	\$0.10
	.464	NAS623-2-3	\$0.08		.714	NAS623-3-7	\$0.10
	.526	NAS623-2-4	\$0.08		.776	NAS623-3-8	\$0.12
	.588	NAS623-2-5	\$0.08		.838	NAS623-3-9	\$0.11
	.651	NAS623-2-6	\$0.08		.901	NAS623-3-10	\$0.11
	.714	NAS623-2-7	\$0.08		.964	NAS623-3-11	\$0.11
	.776	NAS623-2-8	\$0.10		1.026	NAS623-3-12	\$0.12
	.838	NAS623-2-9	\$0.09		1.088	NAS623-3-13	\$0.12
	.901	NAS623-2-10	\$0.10		1.151	NAS623-3-14	\$0.13
	.964	NAS623-2-11	\$0.10		1.214	NAS623-3-15	\$0.13
	1.026	NAS623-2-12	\$0.10		1.276	NAS623-3-16	\$0.13
10-32	.401	NAS623-3-2	\$0.08	1.338	NAS623-3-17	\$0.14	
	.464	NAS623-3-3	\$0.08	1.401	NAS623-3-18	\$0.14	
	.526	NAS623-3-4	\$0.09				

SHEET METAL SCREWS



TRUSS HEAD TYPE A STAINLESS

Size	Length	Phillips Part No.	Price Each	Slotted	
				Part No.	Price/Ea.
4	1/4	T4X4	\$0.03	TS4X4	\$0.04
	3/8	T4X6	\$0.04	TS4X6	\$0.04
	1/2	T4X8	\$0.04	TS4X8	\$0.12
6	1/4	T6X4	\$0.03	TS6X4	\$0.25
	3/8	T6X6	\$0.04	TS6X6	\$0.05
	1/2	T6X8	\$0.05	TS6X8	\$0.07
	5/8	T6X10	\$0.04	TS6X10	\$0.15
	3/4	T6X12	\$0.05	TS6X12	\$0.10
	1	T6X16	\$0.07	TS6X16	\$0.09
8	3/8	T8X6	\$0.04	TS8X6	---
	1/2	T8X8	\$0.05	TS8X8	\$0.08
	5/8	T8X10	\$0.05	TS8X10	\$0.09
	3/4	T8X12	\$0.04	TS8X12	\$0.08
	1	T8X16	\$0.08	TS8X16	\$0.10
10	1-1/4	T8X20	\$0.08	TS8X20	\$0.09
	3/8	T10X6	\$0.11	TS10X6	\$0.10
	1/2	T10X8	\$0.10	TS10X8	\$0.07
	5/8	T10X10	\$0.09	TS10X10	\$0.12
	3/4	T10X12	\$0.07	TS10X12	\$0.09
10	1	T10X16	\$0.09	TS10X16	\$0.09
	1-1/4	T10X20	\$0.05	TS10X20	\$0.10

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ZINC-PLATED, TRUSS HEAD TYPE A & TYPE B



Size	Length	Phillips			Slotted	
		Part No. Type A	Part No. Type B	Price Each	Part No. Type A	Price Each
4	1/4	THA4X4	THB4X4	\$0.04	THA4-4	---
4	3/8	THA4X6	THB4X6	\$0.04	THA4-6	\$0.18
4	1/2	THA4X8	THB4X8	\$0.04	THA4-8	\$0.06
4	5/8	THA4X10	THB4X10	\$0.05	THA4-10	\$0.16
4	3/4	THA4X12	THB4X12	\$0.07	THA4-12	\$0.20
4	7/8	THA4X14	---	---	---	---
6	3/8	THA6X6	THB6X6	\$0.03	THA6-6	\$0.15
6	1/2	THA6X8	THB6X8	\$0.04	THA6-8	\$0.05
6	5/8	THA6X10	THB6X10	\$0.03	THA6-10	\$0.03
6	3/4	THA6X12	THB6X12	\$0.04	THA6-12	\$0.04
8	3/8	THA8X6	THB8X6	\$0.04	THA8-6	\$0.04
8	1/2	THA8X8	THB8X8	\$0.03	THA8-8	\$0.04
8	5/8	THA8X10	THB8X10	\$0.05	THA8-10	---
8	3/4	THA8X12	THB8X12	\$0.05	THA8-12	\$0.05
8	1	THA8X16	THB8X16	\$0.03	THA8-16	\$0.07
10	1/2	THA10X8	THB10X8	\$0.05	THA10-8	\$0.07
10	5/8	THA10X10	THB10X10	\$0.04	THA10-10	---
10	3/4	THA10X12	THB10X12	\$0.04	THA10-12	\$0.099
10	1	THA10X16	THB10X16	\$0.07	THA10-16	\$0.11



TRUSS HEAD TYPE B, PHILLIPS, STAINLESS

Size	Length	P/N	Price	Size	Length	P/N	Price
4	1/4	04-00164	\$0.09	8	3/8	04-00174	\$0.14
	3/8	04-00166	\$0.10		1/2	T8X8B	\$0.06
	1/2	04-00167	\$0.20		5/8	04-00007	\$0.07
6	1/4	04-00168	\$0.06		3/4	04-00176	\$0.10
	3/8	04-00169	\$0.06		1	04-00177	\$0.63
	1/2	T6X8B	\$0.04	10	3/8	04-00178	\$0.05
	5/8	04-00171	\$0.35		1/2	T10X8B	\$0.06
	3/4	04-00172	\$0.19		5/8	04-00008	\$0.08
1	04-00173	\$0.27	3/4		04-00179	\$0.11	
				1	04-00181	\$0.22	



ZINC-PLATED, 82° FLAT HEAD TYPE A

Zinc-plated Steel (Use slotted screws for antiques)

Size	Length	Phillips			Slotted	
		Part No. Type A	Part No. Type B	Price Each	Part No. Type A	Price Each
4	1/4	FHA4X4	FHB4X4	\$0.04	FHA4-4	---
4	3/8	FHA4X6	FHB4X6	\$0.03	FHA4-6	\$0.18
4	1/2	FHA4X8	FHB4X8	\$0.03	FHA4-8	---
4	5/8	FHA4X10	FHB4X10	---	FHA4-10	---
4	3/4	FHA4X12	FHB4X12	---	FHA4-12	---
6	3/8	FHA6X6	FHB6X6	\$0.06	FHA6-6	\$0.12
6	1/2	FHA6X8	FHB6X8	\$0.06	FHA6-8	\$0.05
6	5/8	FHA6X10	FHB6X10	\$0.07	FHA6-10	\$0.25
6	3/4	FHA6X12	FHB6X12	\$0.03	FHA6-12	---
8	3/8	FHA8X6	FHB8X6	\$0.04	FHA8-6	---
8	1/2	FHA8X8	FHB8X8	\$0.03	FHA8-8	\$0.05
8	5/8	FHA8X10	FHB8X10	\$0.03	FHA8-10	\$0.05
8	3/4	FHA8X12	FHB8X12	\$0.05	FHA8-12	---
8	1	FHA8X16	FHB8X16	\$0.08	FHA8-16	\$0.05
10	1/2	FHA10X8	FHB10X8	\$0.04	FHA10-8	\$0.07
10	5/8	FHA10X10	FHB10X10	\$0.04	FHA10-10	\$0.11
10	3/4	FHA10X12	FHB10X12	---	FHA10-12	\$0.09

82° OVAL HEAD TYPE A, PHILLIPS (for upholstery)

Size	Length	Stainless P/N	Price Ea	Zinc P/N	Price Ea
4	1/4	O4X4	\$0.04	O4X4Z	---
	3/8	O4x6	\$0.05	O4X6Z	\$0.09
	1/2	O4X8	\$0.05	O4X8Z	\$0.04
	5/8	O4X10	\$0.03	O4X10Z	\$0.04
6	3/8	O6X6	\$0.05	O6X6Z	\$0.04
	1/2	O6X8	\$0.04	O6X8Z	\$0.06
	5/8	O6X10	\$0.05	O6X10Z	\$0.07
	3/4	O6X12	\$0.05	O6X12Z	\$0.10
	1	O6X16	\$0.05	O6X16Z	---
8	3/8	O8X6	\$0.04	O8X6Z	\$0.07
	1/2	O8X8	\$0.05	O8X8Z	\$0.04
	5/8	O8X10	\$0.04	O8X10Z	\$0.04
	3/4	O8X12	\$0.04	O8X12Z	\$0.04
10	1	O8X16	\$0.08	O8X16Z	\$0.04
	1/2	O10X8	\$0.08	O10X8Z	\$0.09
	3/4	O10X12	\$0.05	O10X12Z	\$0.05

100° FLAT HEAD TYPE A, PHILLIPS, STAINLESS



Size	Length	Part No.	Price Each
6	1/2	C6X8	\$0.09
8	1/2	C8X8	\$0.05
10	1/2	C10X8	\$0.13

100° FLAT HEAD TYPE B, PHILLIPS, STAINLESS



Size	Length	Part No.	Price Ea
6	1/2	C6X8B	\$0.07
8	1/2	C8X8B	\$0.07
8	5/8	C8X10B	\$0.10
10	1/2	C10X8B	\$0.10

AN530 ROUND HEAD

Use slotted type for antiques.



Size	SLOTTED		PHILLIPS	
	Price	P/N AN530 Dash#	Price	P/N AN530 Dash#
4X1/4	---	---	\$0.05	4R4
4X3/8	\$0.24	-4-6	---	N/A
4X1/2	---	---	\$0.44	4R8
6X3/8	\$0.17	-6-6	\$0.09	6R6
6X1/2	\$0.10	-6-8	\$0.07	6R8
6X5/8	---	---	\$0.10	6R10
6X3/4	\$0.09	-6-12	\$0.19	6R12
8X3/8	---	---	\$0.06	8R6
8X1/2	---	---	\$0.09	8R8
10X1/2	\$0.05	10-8	\$0.11	10R8
10X1	---	---	\$0.07	10R16

FUEL TANK STRUCTURAL STAINLESS SCREW KITS (PER TANK)

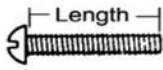
AIRCRAFT MODEL	PART NO.	PRICE
Cessna 150/152 (Standard)	04-01005	\$22.60
Cessna 150/152 (Long Range)	04-01004	\$35.00
Cessna 172	04-01003	\$45.60
Piper PA28 Cherokee (Standard)	04-01002	\$44.95
Piper PA28 Cherokee (Long Range)	04-01001	\$47.10
Cessna 150 Aerobat	04-01006	\$15.69
Cessna150/152 (67-77)	04-01008	\$16.20
Cessna 170AF	04-01009	\$21.09
Cessna 182F	04-01011	\$11.60
Piper Cherokee 140/150/160/180/235 (Cad. Plated)	04-01015	\$13.02

MACHINE SCREWS

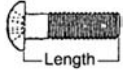
BRASS INSTRUMENT SCREWS

Use brass screws for all panel installations to eliminate magnetic interference.

AN515 & AN520 Round Head Screws



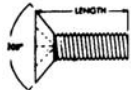
Part Number	Length (In.)	Thread Size	Price Each
AN515B6R8 (Recessed)	1/2	6-32	\$0.20
AN515B6-12 (Slot)	3/4	6-32	\$0.15
AN515B6R12 (Recessed)	3/4	6-32	\$0.08
AN515B8-16 (Slot)	1	8-32	\$0.14
AN515B10-16 (Slot)	1	10-24	\$0.70



MS35214 & MS35215 Pan Head Screws

Part No. (Recessed)	Length (In.)	Thread Size	Price Each
MS35214-12	1/4	4-40	\$0.09
MS35214-13	5/16	4-40	\$0.09
MS35214-14	3/8	4-40	\$0.09
MS35214-15	7/16	4-40	\$0.09
MS35214-16	1/2	4-40	\$0.09
MS35214-18	3/4	4-40	\$0.10
MS35214-23	1/4	6-32	\$0.10
MS35214-24	5/16	6-32	\$0.10
MS35214-25	3/8	6-32	\$0.16
MS35214-26	7/16	6-32	\$0.09
MS35214-27	1/2	6-32	\$0.09
MS35214-28	5/8	6-32	\$0.08
MS35214-29	3/4	6-32	\$0.07
MS35214-30	7/8	6-32	\$0.14
MS35214-31	1	6-32	\$0.11
MS35214-32	1-1/4	6-32	\$0.14

Part No. (Recessed)	Length (In.)	Thread Size	Price Each
MS35214-33	1-1/2	6-32	\$0.14
MS35214-40	3/8	8-32	\$0.13
MS35214-41	7/16	8-32	\$0.15
MS35214-42	1/2	8-32	\$0.08
MS35214-43	5/8	8-32	\$0.11
MS35214-44	3/4	8-32	\$0.14
MS35214-45	7/8	8-32	\$0.23
MS35214-46	1	8-32	\$0.12
MS35214-47	1-1/4	8-32	\$0.18
MS35214-48	1-1/2	8-32	\$0.25
MS35214-59	1	10-24	\$0.91
MS35215-53	3/8	10-32	\$0.13
MS35215-55	1/2	10-32	\$0.15
MS35215-56	5/8	10-32	\$0.16
MS35215-57	3/4	10-32	\$0.18
MS35215-59	1	10-32	\$0.91
MS35215-60	1-1/4	10-32	-



MS24693 Flat Head Screws (Recessed)

Part Number	Length (In.)	Thread Size	Price Each
MS24693BB2	.250	4-40	\$0.05
MS24693BB3	.312	4-40	\$0.07
MS24693BB4	.375	4-40	\$0.05
MS24693BB5	.438	4-40	\$0.05
MS24693BB6	.500	4-40	\$0.08
MS24693BB7	.625	4-40	\$0.06
MS24693BB8	.750	4-40	\$0.12
MS24693BB24	.250	6-32	\$0.05
MS24693BB25	.312	6-32	\$0.06
MS24693BB26	.375	6-32	\$0.09
MS24693BB27	.438	6-32	\$0.06
MS24693BB28	.500	6-32	\$0.09
MS24693BB29	.625	6-32	\$0.10
MS24693BB30	.750	6-32	\$0.07
MS24693BB31	.875	6-32	\$0.10

Part Number	Length (In.)	Thread Size	Price Each
MS24693BB32	1.00	6-32	\$0.09
MS24693BB33	1.13	6-32	\$0.09
MS24693BB34	1.25	6-32	\$0.13
MS24693BB36	1.50	6-32	\$0.08
MS24693BB48	.375	8-32	\$0.12
MS24693BB50	.500	8-32	\$0.13
MS24693BB51	.625	8-32	\$0.10
MS24693BB52	.750	8-32	\$0.11
MS24693BB54	1	8-32	\$0.13
MS24693BB56	1.25	8-32	\$0.18
MS24693BB272	.500	10-32	\$0.13
MS24693BB273	.625	10-32	\$0.15
MS24693BB274	.750	10-32	\$0.09
MS24693BB276	1.00	10-32	\$0.11
MS24693BB278	1.25	10-32	\$0.19

STAINLESS STEEL SCREW, WASHER & STOP NUT ASSORTMENT

This 2400 piece assortment is ideal for aircraft homebuilders, owners, mechanics and FBO's. It is packaged in a handy divided storage kit and contains 2100 stainless steel screws and washers and 300 stop nuts. Kit contains 100 each of the following:

NON-STRUCTURAL MACHINE SCREWS	
Countersunk Flat Head	Truss Head
AN507C632R8	AN526C632R8
AN507C832R8	AN526C832R8
AN507C832R10	AN526C832R10
AN507C1032R8	AN526C1032R8
AN507C1032R10	AN526C1032R10

ELASTIC STOP NUTS	
AN365C632	
AN365C832	
AN365C1032	

WASHERS	
Tinneman Countersunk	
A3135-SS-017 (#8)	
A3235-SS-020 (#10)	
Flat: AN960C6	
AN960C8 or AN960C10	

STAINLESS STEEL HARDWARE ASSORTMENT
 P/N 04-05000 **\$240.60**

SHEET METAL SCREWS	
Truss Head Phillips, Type A (Sharp Point)	
4R x 1/2	8R x 1/2
6R x 3/8	8R x 5/8
6R x 1/2	10R x 1/2

INDIVIDUAL AIRPLANE EXTERIOR STAINLESS TRIM SCREW AND WASHER KITS

These kits do not include any structural screws.

AIRCRAFT TYPE	# OF PIECES	P/N	PRICE
BEECHCRAFT			
Baron	1350	04-04400	\$60.95
Bonanza	650	04-04300	\$41.50
Musketeer/Sport	570	04-04350	\$30.90
Sundowner	575	04-04500	\$30.90
BELLANCA			
Citabria	300	04-00990	\$24.30
Viking		04-00880	\$22.95
CESSNA			
120/140	480	04-01200	\$24.95
150/152	500	04-01000	\$28.90
170	485	04-01010	\$24.95
170-B	540	04-01020	\$24.95
172/172 Skyhawk	450	04-01100	\$28.50
172RG		04-01400	\$28.95
172 XP	673	04-01300	\$33.20
175		04-01500	\$30.10
177/177RG Cardinal	900	04-01600	\$42.90
180/185 Skywagon	545	04-01700	\$29.50
182/182RG Skylane	550	04-01900	\$29.85
188 Agwagon	815	04-02000	\$43.95
190/195		04-02100	\$24.40
205		04-02200	\$29.90
206-208 Stationair	635	04-02300	\$33.70
210 Centurion	860	04-02400	\$38.95
310 (before 1963)	1500	04-02410	\$72.00
310 (1963 & up)	1090	04-02500	\$71.50
335/340	1580	04-02510	\$105.95
336/337	1130	04-02700	\$72.00
337 Super Skymaster	570	04-02710	\$95.95
401/402		04-00401	\$121.95
411/414/421	1340	04-02750	\$92.75
421		04-02800	\$110.95
COMMANDER - Lark/Darter		04-04510	\$28.50
ERCOUPE - 415C/Forney		04-04900	\$24.20
GRUMMAN			
AA1A/AA1B	600	04-04600	\$27.90
Ag Cat	575	04-04800	\$35.60
Cheetah/Tiger	1000	04-04700	\$47.50
LAKE - Amphibian		04-04710	\$24.40
PIPER			
Aerostar	1450	04-04720	\$117.60
Apache	1100	04-04730	\$67.39
Arrow	600	04-03800	\$42.50
Arrow III	735	04-03810	\$46.80
Aztec	1500	04-03200	\$56.86
Cherokee 140/150/160/180/235	530	04-03600	\$39.95
Cherokee Six	640	04-04000	\$39.95
Comanche (Single)	670	04-03300	\$28.50
Comanche (Twin)	1150	04-03900	\$57.75
J-3 Cub	370	04-03910	\$40.65
Navajo	2200	04-03920	\$165.95
Pawnee	1970	04-03400	\$131.95
PA28 Arrow (Fat Wing)		04-03800	\$42.50
PA28 Challenger/Archer		04-03500	\$44.20
PA28R Arrow (Tap. Wing)		04-03810	\$46.80
PA32R Lance		04-04010	\$41.50
Seneca I & II	1560	04-04100	\$72.75
Super Cub	405	04-04110	\$44.85
Tomahawk	640	04-04200	\$31.60
Tripacer/Colt	425	04-03100	\$26.70
Warrior/Archer	720	04-03700	\$29.50
PITTS - S2A		04-03710	\$29.95
ROCKWELL - 12/114		04-03720	\$28.90
MOONEY			
68, 77, 78		04-02900	\$52.75
201/231	800	04-03050	\$45.80
M20C	1360	04-02820	\$54.25
M20-C 69, 76		04-03000	\$54.50
M20E/G (up to 1976)	1000	04-02830	\$72.70
M20E/G (1977 & up)	1005	04-02840	\$79.60
M20F	1340	04-02850	\$104.80

NOTE: 10% discount offered if customer can provide us with types and sizes for aircraft not listed.



WASHERS



MS35338 LOCK WASHERS

MS35338 split, helical lock washers are made of carbon steel, cadmium plated per QQ-P-416A, Type II, Class 3. They replace AN935 medium-weight washers. Formerly AN935.

Cad. Plated			Stainless	
Size	Part No.	Price	Part No.	Price
6	MS35338-41	\$0.02	MS35338-136	\$0.04
8	MS35338-42	\$0.04	MS35338-137	\$0.02
10	MS35338-43	\$0.03	MS35338-138	\$0.03
1/4	MS35338-44	\$0.02	MS35338-139	\$0.07
5/16	MS35338-45	\$0.02	MS35338-140	\$0.09
3/8	MS35338-46	\$0.11	MS35338-141	\$0.20
7/16	MS35338-47	\$0.08	MS35338-142	\$0.49
1/2	MS35338-48	\$0.09	MS35338-143	\$0.59



MS35333 & MS35335 LOCK WASHERS

Type A
Internal Teeth
(MS35333)

Provide efficient locking action by spring tension and biting action of tapered twisted teeth. Made of 1050 spring steel and cadmium plated per specification QQ-P-416A, Type II, Class 3. Available with internal teeth (Type A) or external teeth (Type B).



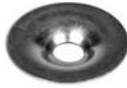
Type B
External Teeth
(MS35335)

Size	Cad. Plated Part No.	Price Each	Stainless Part No.	Price Each	Cad. Plated Part No.	Price Each
6	MS35333-37	\$0.03	MS35333-71	\$0.05	MS35335-30	\$0.03
8	MS35333-38	\$0.02	MS35333-72	\$0.08	MS35335-31	\$0.02
10	MS35333-39	\$0.03	MS35333-73	\$0.06	MS35335-32	\$0.03
1/4	MS35333-40	\$0.05	MS35333-74	\$0.06	MS35335-33	\$0.05
5/16	MS35333-41	\$0.04	MS35333-75	\$0.21	MS35335-34	\$0.06
3/8	MS35333-42	\$0.05	MS35333-76	\$0.31	MS35335-35	\$0.08
7/16	MS35333-43	\$0.06	MS35333-77	\$0.10	----	---
1/2	MS35333-44	\$0.11	MS35333-78	\$0.31	----	---

NAS549 PHENOLIC WASHERS

NAS549-10 Phenolic insulating washers for #10 screws.
Size: 13/64" I.D. x 7/16" O.D. x 1/16 thick.\$0.13 Ea.

TINNERMAN COUNTERSUNK WASHERS



For use with 100° flat-head screws such as MS24693 and MS24694 machine screws and NAS548 sheet metal screws to provide reinforced, low-profile attachments. Made of spring steel, cadmium plated.

Part No.	Screw Size	I.D. In.	O.D. In.	Price Each	Price per 100
A3236-012-24A	#6	.140	.50	\$0.12	\$9.60
A3135-017-24A	#8	.171	.56	\$0.09	\$7.20
A3235-028-24A	#10	.196	.75	\$0.07	\$5.60
A3475-028-24A	1/4	.255	.81	\$0.15	\$12.00

82° CSK STAINLESS FINISHING WASHERS



This washer is raised above fabric surface and screw fits down into washer.

Desc.	Part No.	Price Ea.
WF-4	04-00393	\$0.03
WF-6	04-00394	\$0.02
WF-8	04-00395	\$0.03
WF-10	04-00396	\$0.04

NYLON WASHERS

Part No.	Thread Size	Price Each	Part No.	Thread Size	Price Each
04-00219	#4	\$0.01	04-00217	#8	\$0.02
04-00216	#6	\$0.01	04-00218	#10	\$0.02

Less 20% Discount on 100 per size



100° CSK STAINLESS WASHERS

Use with 100° flathead screws to provide reinforced, low-profile attachments.

Size	Dimensions	Part No.	Price
6	.500 OD x .012 T	04-00397	\$0.18
8	.562 OD x .017 T	04-00392	\$0.12
10	.750 OD x .020 T	04-00398	\$0.22

Less 20% Discount on 100 per size



AN975 TAPER PIN WASHERS

Taper pin washers are used with AN386 threaded taper pins. Manufactured of steel, cadmium plated per QQ-P-416C, Type II, Class 2.

AN975 Dash #	Fits Taper Pin #	Price Ea.
-3	1, 2	\$0.55
-4	3	\$1.14
-5	4	\$3.10
-6	5	\$3.08



AN960 FLAT WASHERS

AN960 flat washers are used under hex nuts to provide a smooth bearing surface, as shims to obtain the correct grip length for a bolt and nut assembly, and to adjust the position of AN310 and AN320 castle nuts with respect to drilled cotter pin holes in bolts and clevis pins. Available in cadmium plated steel or anodized aluminum, and in regular and light thickness. Add the letter "L" to dash number to indicate light series. For anodized aluminum washers, add the letters "PD" after AN number.

Examples: AN960-416L is a light series cadmium plated steel washer for 1/4" dia. bolt. AN960PD-10 is an anodized aluminum washer for a 3/16" dia. bolt. AN960PD-10L is a light series anodized aluminum washer for a 3/16" dia. bolt.

Dash #	Bolt or Screw Size	O.D. (In.)	I.D. (In.)	Steel Thickness		Aluminum Thickness		Price	
				Lt.	Reg.	Lt.	Reg.	Steel each	Alum. each
-4	No. 4	.312	.124	.016	.032	.016	.032	\$0.02	\$0.03
-6	No. 6	.375	.149	.016	.032	.016	.032	\$0.01	\$0.05
-8	No. 8	.375	.174	.016	.032	.016	.032	\$0.02	\$0.04
-10	3/16"	.438	.203	.032	.063	.016	.063	\$0.03	\$0.05
-416	1/4"	.500	.265	.032	.063	.016	.063	\$0.03	\$0.07
-516	5/16"	.562	.328	.032	.063	.016	.063	\$0.03	\$0.09
-616	3/8"	.625	.390	.032	.063	.016	.063	\$0.04	\$0.05
-716	7/16"	.750	.453	.032	.063	.016	.063	\$0.06	\$0.12
-816	1/2"	.875	.515	.032	.063	.016	.063	\$0.12	\$0.12
-916	9/16"	1.062	.578	.032	.063	.016	.063	\$0.11	\$0.15
-1016	5/8"	1.118	.640	.032	.063	.016	.063	\$0.12	----
-1216	3/4"	1.312	.765	.032	.090	.016	.090	\$0.18	----

AN960C STAINLESS WASHERS

Size	Regular		Light	
	Part No.	Price Ea.	Part No.	Price Ea.
4	AN960C4	\$0.04	AN960C4L	\$0.05
5	----	---	----	---
6	AN960C6	\$0.05	AN960C6L	\$0.05
8	AN960C8	\$0.04	AN960C8L	\$0.03
3/16	AN960C10	\$0.03	AN960C10L	\$0.04
1/4	AN960C416	\$0.07	AN960C416L	\$0.02
5/16	AN960C516	\$0.12	AN960C516L	\$0.03
3/8	AN960C616	\$0.09	AN960C616L	\$0.03
7/16	AN960C716	\$0.08	AN960C716L	\$0.07
1/2	AN960C816	\$0.12	AN960C816L	\$0.06
9/16	AN960C916	\$0.03	AN960C916L	\$0.14
5/8	AN960C1016	\$0.26	AN960C1016L	\$0.08
3/4	AN960C1216	\$0.35	----	----



AN970 FLAT WASHERS

Manufactured of carbon steel, cadmium plated per QQ-P-416C, Type II, Class 2. They provide a greater bearing area than AN960 washers. Used on wooden structures under both the head of the bolt & the nut to prevent crushing the surface.

Dash No.	Bolt Size	O.D. (In.)	I.D. (In.)	Thickness (In.)	Price	
					Each	per 100
-3	3/16"	.875	.203	.063	\$0.07	\$5.60
-4	1/4"	1.125	.265	.063	\$0.09	\$7.20
-5	5/16"	1.375	.328	.063	\$0.12	\$9.60
-6	3/8"	1.625	.390	.063	\$0.15	\$12.00
-7	7/16"	1.812	.453	.109	\$0.22	\$17.60
-8	1/2"	2.000	.515	.109	\$0.49	\$39.20
-10	5/8"	2.375	.640	.125	\$0.93	\$74.40

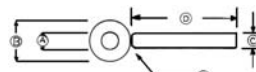
Flush Type
NAS390(603)

Countersink Type
NAS391(601)

FINISHING WASHERS



Screw or Bolt Size	Countersink Washer Part No.	Price		Flush Washer Part No.	Price	
		Each	100		Each	100
#4	NAS391B4P	\$0.06	\$4.80	NAS390B4P	---	---
#6	NAS391B6P	\$0.05	\$4.00	NAS390B6P	\$0.07	\$5.60
#8	NAS391B8P	\$0.07	\$5.60	NAS390B8P	\$0.06	\$4.80
#10	NAS391B10P	\$0.04	\$3.20	NAS390B10P	\$0.04	\$3.20

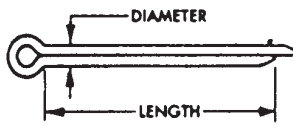


TAILWASHERS

Tailwashers enable the user to position the washer into difficult to reach and awkward areas. No more needle nose pliers or tape stuck to the washer to hold it in place. The extension (or Tail) is simply broken off after tightening.

Size	(A)	(B)	(C)	(D)	(E)	Thickness	Part No.	Price
#10	.203	.4375	.200	1.5	.10	.025	SS010	---
1/4"	.265	.565	.200	1.5	.10	.036	SS025	---
5/16"	.328	.6875	.200	1.5	.10	.036	SS312	\$0.15
3/8"	.390	.750	.200	1.5	.125	.036	SS375	---
7/16"	.453	.9375	.200	1.5	.125	.036	SS437	---

CLEVIS PINS - COTTER PINS



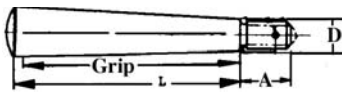
MS24665 COTTER PINS (formerly AN380)

MS24665 cotter pins are stocked in cadmium plated steel (formerly AN380) and in passivated corrosion resisting steel (formerly AN381) in the priced sizes listed below. Other sizes available on special order. Write for quotation.

Assortment of 100 Cadmium Plated Cotter Pins
P/N 04-05050.....\$3.40

Diameter and Length (In.)	Cadmium-Plated Steel			Corrosion-Resistant Steel		
	MS24665 Dash No.	AN380 Dash No.	Price per 100	MS24665 Dash No.	AN381 Dash No.	Price per 100
1/32 x 1/2	-5	-1-2	\$3.00	-22	-1-8	\$2.00
3/4	-7	-1-3	\$3.00	-24	-1-12	\$6.00
1	-9	-1-4	\$1.00	-26	-1-16	\$5.00
1/16 x 1/2	-132	-2-2	\$2.00	-151	-2-8	\$4.00
3/4	-134	-2-3	\$3.00	-153	-2-12	\$6.00
1	-136	-2-4	\$3.00	-155	-2-16	\$6.00
1-1/4	-138	-2-5	\$4.00	-157	-2-20	\$4.00
1-1/2	-140	-2-6	\$5.00	-159	-2-24	\$6.00
1-3/4	-142	-2-7	\$2.00	-161	-2-28	\$7.00
2	-143	-2-8	\$5.00	-162	-2-32	\$8.00
5/64 x 1/2	-208	- - -	\$3.00	-227	-25-8	\$4.00
5/64 x 3/4	-210	- - -	\$2.00			
3/32 x 1/2	-281	-3-2	\$3.00	-298	-3-8	\$5.00
3/4	-283	-3-3	\$4.00	-300	-3-12	\$6.00
1	-285	-3-4	\$3.00	-302	-3-16	\$7.00
1-1/4	-287	-3-5	\$2.00	-304	-3-20	\$7.00
1-1/2	-289	-3-6	\$4.00	-306	-3-24	\$10.00
2	-292	-3-8	\$6.00	-309	-3-32	\$10.00
1/8 x 1/2	-349	-4-2	\$4.00	-366	-4-8	\$5.00
3/4	-351	-4-3	\$2.00	-368	-4-12	\$14.00
1	-353	-4-4	\$3.00	-370	-4-16	\$13.00
1-1/4	-355	-4-5	\$6.00	-372	-4-20	\$9.00
1-1/2	-357	-4-6	\$3.00	-374	-4-24	\$11.00
2	-360	-4-8	\$5.00	-377	-4-32	\$12.00
2-1/2	-362	-4-10	\$6.00	-379	-4-40	\$15.00

AN386 TAPER PINS



Manufactured from alloy steel, minimum tensile strength 125,000 PSI. Cadmium plated per spec. QQ-P-416A,

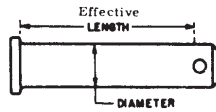
Type II, Class 3. Taper: 0.500"/ft. Use with AN975 taper pin washer, AN320 shear castle nut and cotter pin or with AN364 elastic stop nut. When installed, the small end of the tapered shank should protrude no more than 1/16" above the surface of the assembly. The first dash number is the Brown & Sharpe taper pin reamer number and the second dash number is the grip length in eighths of an inch. For undrilled threaded shank add the letter "A" after second dash number.

Example: AN386-1-8 is a #1 taper pin with a 1" grip & a cotter pin hole.

First Dash No.	Second Dash No. Range*	Dimensions			Thread Size	AN975 Washer Dash No.	AN320 Nut Dash No.	AN380 Cotter Pin Dash No.
		Length "L" In.	"A" In.	"D" In.				
1	6 - 22	Grip	7/16	.205	10-32	-3	-3	-2-2
2	6 - 24	+1/8"	7/16	.255	1/4-28	-3	-3	-2-2
3	6 - 26		29/64	.317	1/4-28	-4	-4	-2-2
4	6 - 28		33/64	.355	5/16-24	-5	-5	-2-2
5	6 - 31		35/64	.455	3/8-24	-6	-6	-3-3
6	8 - 34	Grip	35/64	.505	7/16-20	-7	-7	-3-3
7	10 - 38	+3/16"	19/32	.605	1/2-20	-8	-8	-3-3
8	10 - 42		21/32	.755	9/16-18	-9	-9	-4-4
9	12 - 48		47/64	.905	3/4-16	-12	-12	-4-5
10	14 - 48	Grip	51/64	1.050	7/8-14	-14	-14	-4-5
10A	14 - 32	+1/4"	51/64	1.153	7/8-14	-14	-14	-4-5

*Second dash number is grip length in eighths of an inch. Prices: AN385 and AN386 Taper Pins Average \$1.45 to 7.50 each, depending on size. Actual prices will be billed at time of shipment, or we can quote prior to shipment on request.

Taper Pin for SonexP/N AN386-1-8.....\$11.65



TAPER PIN REAMERS

We stock B & S taper pin reamers in sizes #1 through #7. Other sizes available. See Tool Section of this catalog.

CLEVIS PINS

Made of alloy steel per specification MIL-P-5673 and cadmium plated per QQ-P-416A, Type II, Class 3. Provided with drilled hole for cotter pin. Used with clevis forks and in secondary controls which are not subjected to continuous operation. Order by AN number and dash number.

Example: AN395-41 is a 5/16" dia. pin with an effective length of 1-9/32". Equivalent MS number is MS20392-4C41.

Dash No.	Effective Length (In.)	AN392 MS20392 -1C 1/8"	AN393 MS20392 -2C 3/16"	AN394 MS20392 -3C 1/4"	AN395 MS20392 -4C 5/16"	AN396 MS20392 -5C 3/8"
-7	7/32	\$0.30	\$0.26	--	--	--
-9	9/32	\$0.24	\$0.17	--	--	--
-11	11/32	\$0.25	\$0.42	\$0.23	\$0.88	--
-13	13/32	\$0.41	\$0.25	\$0.23	--	--
-15	15/32	\$0.23	\$0.31	\$0.30	\$0.70	--
-17	17/32	\$0.37	\$0.39	\$0.31	\$0.49	\$0.88
-19	19/32	\$0.31	\$0.30	\$0.36	\$0.42	\$0.61
-21	21/32	\$0.29	\$0.21	\$0.37	\$0.52	--
-23	23/32	\$0.35	\$0.40	\$0.26	\$0.45	\$4.00
-25	25/32	\$0.55	\$0.36	\$0.37	\$0.41	\$1.94
-27	27/32	\$0.40	\$0.30	\$0.35	\$0.66	\$0.77
-29	29/32	\$0.34	\$0.32	\$0.44	\$0.69	--
-31	31/32	\$0.30	\$0.22	\$0.26	\$0.61	--
-33	1-1/32	\$0.27	\$0.28	\$0.27	\$0.83	\$0.79
-35	1-3/32	\$0.49	\$0.30	\$0.35	\$0.92	\$1.55
-37	1-5/32	\$0.36	\$0.37	\$0.33	\$0.62	--
-39	1-7/32	\$0.44	\$0.25	\$0.53	\$0.59	--
-41	1-9/32	\$0.40	\$0.34	\$0.55	\$0.88	\$1.02
-43	1-11/32	\$0.24	\$0.42	\$0.33	\$0.63	--
-45	1-13/32	\$0.41	\$0.41	\$0.29	\$0.91	\$0.99
-47	1-15/32	\$1.17	\$0.65	\$0.36	\$2.25	\$0.74
-49	1-17/32	\$0.98	\$0.53	\$0.45	--	--
-51	1-19/32	--	\$0.30	\$1.91	\$1.08	--
-53	1-21/32	\$0.41	\$0.52	\$0.49	\$0.65	\$1.09
-55	1-23/32	\$0.72	\$0.34	\$0.52	--	\$4.80
-57	1-25/32	\$1.39	\$1.28	\$0.42	\$0.77	--
-59	1-27/32	\$4.75	\$0.61	\$1.65	--	\$1.34
-61	1-29/32	\$1.87	\$1.06	\$0.68	--	--
-63	1-31/32	\$0.83	\$1.09	\$0.37	\$2.55	\$1.16
-65	2-1/32	\$1.70	\$0.39	\$0.67	--	\$1.07
-67	2-3/32	\$1.49	\$0.44	\$0.90	--	\$0.87
-69	2-5/32	\$3.35	\$0.45	\$0.74	\$0.86	\$1.00
-71	2-7/32	--	\$1.29	--	\$5.50	--
-73	2-9/32	--	\$3.10	\$4.20	--	\$1.09
-75	2-11/32	--	\$4.20	\$0.63	--	\$1.21
-79	2-15/32	--	\$0.52	\$0.66	--	\$1.25
-81	2-17/32	--	\$2.35	\$4.20	--	\$9.50
-83	2-19/32	--	\$6.70	\$7.60	--	--
-85	2-21/32	--	--	\$1.09	\$0.58	\$0.67
-87	2-23/32	--	\$0.60	--	--	--
-89	2-25/32	--	\$1.00	--	\$0.70	--
-91	2-27/32	--	--	\$5.20	--	--
-93	2-29/32	--	\$0.47	--	--	\$1.43
-95	2-31/32	--	--	\$0.51	--	--
-97	3-1/32	--	--	\$6.50	--	\$1.92
-99	3-3/32	--	--	--	--	--
-101	3-5/32	--	--	--	--	\$5.10

Less 20% in lots of 25 per size. Request quotation on unlisted sizes. NOTE: Clevis pin prices fluctuate with changes in cost/availability at suppliers.

LOCK PINS



AN415-2 corrosion resistant steel wire cowl lock pins 1-15/16" long, .080" dia. wire.

P/N AN415-2\$0.29 Ea\$23.20/100

Commercial steel cadmium plated wire lock pins 1-1/4" long, .062" dia. wire. P/N 04-05100.....\$0.10 Ea.....\$8.00/100

COWLING SAFETY PINS



Positive locking pins that can be readily used without aid of tools. Made of spring steel, cadmium plated, 1-1/16" long.

.051" Wire Dia.....AN416-1\$0.08 Ea.....\$6.40/100

.041" Wire Dia.....AN416-2\$0.23 Ea.....\$18.40/100

HA

CHERRY COMMERCIAL RIVETS

CHERRY AEROSPACE RIVETS SELF-PLUGGING CHERRY RIVETS



100° Countersunk Head (CR9162)



Universal Head (CR9163)

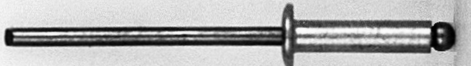
The self-plugging Cherry Blind Rivet is a 2-piece assembly - a hollow rivet and an inner member or stem, drawn into or through the hollow rivet. Cherry CR162 & CR163 series rivets are now replaced by CR9162 & CR9163 series rivets which are less expensive but do require the use of G-25B hand rivet gun with H-901-5-4C pulling head attached or G-29 which comes with the req. nosepiece.

P/N H-901-5-4C Pulling Head (required)\$414.95
G-29 P/N 01-00213\$142.95

Part No.	Head Style	Nominal Dia.	Grip Range	Price		
				Each	100	1000
CR9162-4-2	Csk	1/8"	.063-.125	\$0.14	\$12.60	\$112.00
CR9162-4-4			.188-.250	\$0.16	\$14.40	\$128.00
CR9162-4-6			.313-.375	\$0.29	\$26.10	\$232.00
CR9162-4-8			.438-.500	\$0.70	\$63.00	\$560.00
CR9163-4-2	Univ.	1/8"	.063-.125	\$0.21	\$18.90	\$168.00
CR9163-4-4			.188-.250	\$0.23	\$20.70	\$184.00
CR9163-4-6			.313-.375	\$0.22	\$19.80	\$176.00
CR9163-5-2	Univ.	5/32"	.063-.125	\$0.26	\$23.40	\$208.00

CHERRY N RIVETS

Break mandrel rivets Conform to MIL-R-24243 & IFI-114 Standards



LOW COST

Substantial savings in installed costs can be realized when Cherry N Rivets are substituted for spotwelds, screws or bolts.

FAST INSTALLATION

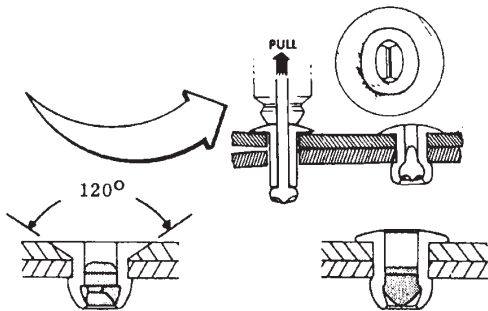
Quick and easy to use with hand or power riveters, Cherry N Rivets have endless fastening applications in manufacturing, maintenance.

UNIQUE FEATURES

Unusual mandrel design of Cherry N Rivets holds rivet and mandrel firmly together prior to installation and insures positive mandrel retention in the installed rivet.

NO MANDREL POP OUTS—

As the mandrel is drawn into the rivet, the end of the rivet sleeve closes in an elliptical configuration... locking the mandrel firmly in place!



FLUSH HEAD PROTRUDING HEAD CHERRY N RIVET IDENTIFICATION CODE

First letter is rivet material:

A = 5052 Aluminum B = 5056 Aluminum C = Stainless
M = Monel S = Steel U = Copper

Second letter is mandrel material:

A = 7178 Aluminum S = Steel C = Stainless

Third letter is head style:

P = Protruding L = Large C = Flush

First number is rivet diameter in 32nds of an inch:

For example,—4 is 4/32nds or 1/8" diameter

Second number is rivet maximum grip length in 16ths of an inch:

For example,—6 is 6/16ths or 3/8" grip length

MINIMUM RIVET SHEAR AND TENSILE STRENGTH (lbs.) CHERRY N RIVETS

RIVET DIAM.	BS SERIES ALUM RIVET STEEL MAND. GRADE 19		MS SERIES MONEL RIVET STEEL MAND. GRADE 40		CC SERIES STAINLESS RIVET STAINLESS MAND. GRADE 51	
	Shear	Tens	Shear	Tens	Shear	Tens
	3/32	125	175	200	300	230
1/8	200	325	350	525	450	600
5/32	325	450	600	900	750	1000
3/16	430	650	750	1100	1000	1300
1/4	750	1050	1450	2150	1700	2250

CHERRY Q RIVETS Structural—Self-plugging rivets



HIGH SHEAR STRENGTH

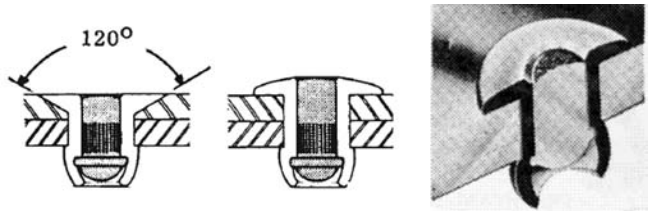
Cherry Q Rivet mandrel plugs the entire length of the rivet sleeve, providing full shear strength values for structural or load-bearing applications.

SEALING CAPABILITY

Specially designed mandrel of the Q Rivet is engineered to effect a seal, upon installation which offers resistance to leakage.

VIBRATION RESISTANT

Rivet sleeve curls over end of mandrel to insure its positive retention.



FLUSH HEAD PROTRUDING HEAD CHERRY Q RIVET IDENTIFICATION CODE

First letter is rivet material:

A = 5052 Aluminum B = 5056 Aluminum C = Stainless
M = Monel S = Steel

Second letter is mandrel material:

A = 7178 Aluminum S = Steel C = Stainless

Third letter is head style:

P = Protruding L = Large C = Flush

Fourth letter is type of rivet:

Q = Cherry Q Rivet, structural, self-plugging

First number is rivet diameter in 32nds of an inch:

For example,—6 is 6/32nds or 3/16" diameter

Second number is rivet maximum grip length in 1/16 of an inch:

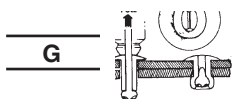
For example,—8 is 8/16ths or 1/2" grip length

MINIMUM RIVET SHEAR AND TENSILE STRENGTH (lbs.) CHERRY Q RIVETS

RIVET DIAM.	BS SERIES ALUM RIVET STEEL MAND. GRADE 19		MS SERIES MONEL RIVET STEEL MAND. GRADE 40		CC SERIES STAINLESS RIVET STAINLESS MAND. GRADE 51	
	Shear	Tens	Shear	Tens	Shear	Tens
	1/8	350	325	650	525	700
5/32	525	450	950	900	1050	1000
3/16	750	650	1450	1100	1650	1300
1/4	1250	1050	2350	2150	2450	2250



"POP" RIVETS – RIVNUTS



For conversion of the most frequently used "Pop" rivets to the corresponding CHERRY numbers, see the following table:

CHERRY Commercial Rivet Price Table

Cherry Rivet		USM "POP" Rivet Equiv.*	Rivet Dia.	Drill Size	Cherry Max Rivet Grip Length	Price**					
Type	No.					Price Ea. 1-99	Price per 100 10% Discount	Price for 600 12% Discount	Price for 1000 15% Discount	Price for 3000 18% Discount	Price for 10,000 20% Discount
"N"	BSP-41	AD41BS	1/8"	30	.062	\$0.03	\$2.70	\$15.84	\$25.50	\$73.80	\$240.00
	BSPS-42				.125	\$0.02	\$1.80	\$10.56	\$17.00	\$49.20	\$160.00
	BSPS-43				.185	\$0.04	\$3.60	\$21.12	\$34.00	\$98.40	\$320.00
	BSPS-44				.250	\$0.03	\$2.70	\$15.84	\$25.50	\$73.80	\$240.00
	BSP-46				.375	\$0.05	\$4.50	\$26.40	\$42.50	\$123.00	\$400.00
	BSP-48				.500	\$0.05	\$4.50	\$26.40	\$42.50	\$123.00	\$400.00
"N"	BSC-43	AK43BS	1/8"	30	.187	\$0.04	\$3.60	\$21.12	\$34.00	\$98.40	\$320.00
	44	44BS			.250	\$0.03	\$2.70	\$15.84	\$25.50	\$73.80	\$240.00
"N"	MSP-32	MD319BS	3/32"	41	.125	\$0.11	\$9.90	\$58.08	\$93.50	\$270.60	\$880.00
	42	424BS	1/8"		.125	\$0.12	\$10.80	\$63.36	\$102.00	\$295.20	\$960.00
	43	429BS			.187	\$0.18	\$16.20	\$95.04	\$153.00	\$442.80	\$1,440.00
	44	435BS			.250	\$0.10	\$9.00	\$52.80	\$85.00	\$246.00	\$800.00
	45	440BS			.312	\$0.29	\$26.10	\$153.12	\$246.50	\$713.40	\$2,320.00
	54	530BS	5/32"	20	.250	\$0.26	\$23.40	\$137.28	\$221.00	\$639.60	\$2,080.00
"N"	MSC-32	MK319BS	3/32"	41	.125	\$0.22	\$19.80	\$116.16	\$187.00	\$541.20	\$1,760.00
	42	424BS	1/8"	30	.125	\$0.11	\$9.90	\$58.08	\$93.50	\$270.60	\$880.00
"N"	CCP-42	SSD42SSDS	1/8"	30	.125	\$0.08	\$7.20	\$42.24	\$68.00	\$196.80	\$640.00
	44				.250	\$0.06	\$5.40	\$31.68	\$51.00	\$147.60	\$480.00
	46				.375	\$0.12	\$10.80	\$63.36	\$102.00	\$295.20	\$960.00
"N"	CCC-42	SSK42SSDS	1/8"	30	.125	\$0.13	\$11.70	\$68.64	\$110.50	\$319.80	\$1,040.00
"N"	SSP-42		1/8"	30	.125	\$0.02	\$1.80	\$10.56	\$17.00	\$49.20	\$160.00
	44				.250	\$0.04	\$3.60	\$21.12	\$34.00	\$98.40	\$320.00
	45		1/8"		.312	\$0.04	\$3.60	\$21.12	\$34.00	\$98.40	\$320.00
"N"	SSC-43		1/8"		.187	\$0.04	\$7.20	\$42.24	\$68.00	\$196.80	\$539.95
"Q"	BSPQ-41	AD41H	1/8"	30	.062	\$0.18	\$16.20	\$95.04	\$153.00	\$442.80	\$1,440.00
	42	AD42H		30	.125	\$0.13	\$11.70	\$68.64	\$110.50	\$319.80	\$1,040.00
	43	AD43H			.187	\$0.12	\$10.80	\$63.36	\$102.00	\$295.20	\$960.00
	44	AD44H			.250	\$0.24	\$21.60	\$126.72	\$204.00	\$590.40	\$1,920.00
	46	AD46H			.375	\$0.29	\$26.10	\$153.12	\$246.50	\$713.40	\$2,320.00
"Q"	AAPQ-42	AD43H	1/8"	30	.125	\$0.16	\$14.40	\$84.48	\$136.00	\$393.60	\$1,280.00
	44	AD44H		30	.250	\$0.14	\$12.60	\$73.92	\$119.00	\$344.40	\$1,120.00

CHERRY – Commercial rivets with maximum grip length greater than the material thickness may be substituted for a rivet of the required grip length.

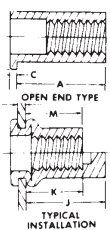
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*All USM "Pop" rivets are 1/64" larger than nominal diameter. Presented here for cross reference purposes only. **Quotations on larger quantities.

AVEX NON-STRUCTURAL BLIND RIVETS

Avex non- structural blind rivets, with aluminum body and steel stem, are similar to the Cherry BSP and BSC commercial rivets. We stock the standard dome head, 120° countersunk head and the low-profile "Lo-Pro" dome head rivets in diameters up to 3/16".

Head Style	Part No.	Dia.	Grip Range	Price		
				Each	100	1000
Dome	1601-0410	1/8"	To .187	\$0.05	\$4.50	\$40.00
	1601-0414	1/8"	To .312	\$0.05	\$4.50	\$40.00
	1601-0613	3/16"	To .250	\$0.06	\$5.40	\$48.00
	1601-0619	3/16"	To .437	\$0.05	\$4.50	\$40.00
	1604-0412	1/8"	To .250	\$0.04	\$3.60	\$32.00
Countersunk (120°)	1604-0514	5/32"	To .312	\$0.07	\$6.30	\$56.00
	1604-0615	3/16"	To .312	\$0.09	\$8.10	\$72.00
	1661-0613	3/16"	To .250	\$0.12	\$10.80	\$96.00
Lo-Pro	1661-0621	3/16"	To .500	\$0.07	\$6.30	\$56.00



RIVNUTS (FLAT HEAD, OPEN END)

The Rivnut is a one-piece internally threaded and countersunk tubular aluminum rivet that can be pulled up or headed while working entirely from one side, forming a bulge or head on the blind side. This upset is large enough to resist being pulled through metal or plastic even under conditions of eccentric load. It overcomes the difficulty of installing brackets, handles or other attachments to tubular pieces.

FLAT HEAD

Part Number		Grip Range	Length	Thread	Price Each
Keyed	Keyless				
A6K-75	A6-75	.010-.075	.438	6-32	\$0.16
A6K-120	A6-120	.075-.120	.500	6-32	\$0.19
A8K-75	A8-75	.010-.075	.438	8-32	\$0.14
----	A8-120	.075-.120	.500	8-32	\$0.18
A10K-80	A10-80	.010-.075	.438	10-32	\$0.23
A10K-140	A10-140	.075-.140	.500	10-32	\$0.43

COUNTERSUNK HEAD

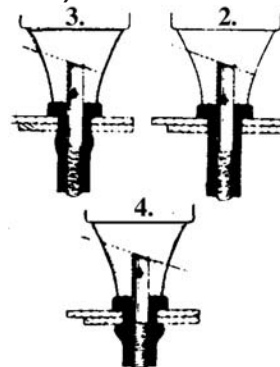
Part Number		Grip Range	Length	Thread	Price Each
Keyed	Keyless				
A6K-106	A6-106	.065-.106	.500	6-32	\$0.25
A8K-106	A8-106	.065-.106	.500	8-32	\$0.18

RIVNUT INSTALLATION

Rivnut is threaded onto pull-up stud of a hand or power-heading tool.

See TOOLS section (pgs.490-491) for Rivnut tools.

Rivnut on header tool mandrel, inserted in drilled hole ready for installation. Arrow indicates direction of mandrel movement as tool is operated. Mandrel retracts pulling threaded portion of Rivnut shank toward blind side of work, forming bulge around unthreaded shank area. Rivnut is clinched securely in place. Unthreading the tool mandrel leaves internal Rivnut threads intact, unharmed.

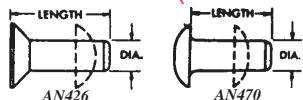


BLIND NUT PLATE

Installed Rivnuts also serve as blind nut plates for simple screw attachments.

RIVETS – CHERRYMAX – CHERRYLOCK

SOLID ALUMINUM RIVETS AN426 (MS20426) AN470 (MS20470)



"A" rivets are "soft". They are fabricated from 1100-grade aluminum and have a tensile strength of 16,000 PSI. "AD" rivets are fabricated from 2117 aluminum and heat treated to the T4 condition. They have a shear strength of 26,000 PSI and a tensile strength of 38,000 PSI. All rivets sold in 1/4 lb. & 1/8 lb. packages.

Dash No.	Dia. x L	Price per 1/4 Lb.		Qty/ Lb.	Price per 1/4 Lb		Qty/ Lb.
		AN426A	AN426AD		AN470A	AN470AD	
3-2	3/32 x 1/8	\$9.45	\$8.88	6406	\$8.45	\$8.38	4107
3-3	3/32 x 3/16	\$8.85	\$6.40	5003	\$6.53	\$6.60	3485
3-4	3/32 x 1/4	\$7.15	\$5.40	4103	\$4.98	\$5.53	3027
3-5	3/32 x 5/16	\$6.13	\$6.25	3478	\$5.25	\$6.05	2675
3-6	3/32 x 3/8	\$6.08	\$6.48	3018	\$6.30	\$5.65	2397
3-7	3/32 x 7/16	\$5.23	\$6.08	2666	\$5.85	\$5.73	2171
3-8	3/32 x 1/2	\$6.25	\$5.90	2161	\$5.45	\$5.45	1826
3-10	3/32 x 5/8	\$5.85	\$5.40	1817	\$7.00	\$5.43	1576
3-12	3/32 x 3/4	\$5.40	\$5.23	1640	\$5.03	\$4.99	1403
3-14	3/32 x 7/8	\$7.68	\$7.10	1567	\$8.65	\$8.63	1386
3-16	3/32 x 1	\$5.55	--	1378	\$3.60	\$7.20	1237
4-3	1/8 x 3/16	\$4.90	\$5.60	2810	\$4.60	\$4.28	1734
4-4	1/8 x 1/4	\$5.88	\$3.68	2308	\$4.63	\$3.48	1529
4-5	1/8 x 5/16	\$3.90	\$4.98	1958	\$3.70	\$3.83	1367
4-6	1/8 x 3/8	\$3.75	\$3.98	1700	\$4.53	\$3.80	1236
4-7	1/8 x 7/16	\$4.08	\$3.35	1502	\$4.45	\$3.70	1128
4-8	1/8 x 1/2	\$3.20	\$3.83	1346	\$4.63	\$3.83	1037
4-9	1/8 x 9/16	\$4.18	\$4.08	1219	\$3.95	\$3.98	960
4-10	1/8 x 5/8	\$3.55	\$3.88	1025	\$4.00	\$3.88	836
4-12	1/8 x 3/4	\$3.98	\$3.90	885	\$3.60	\$3.78	740
4-13	1/8 x 13/16	\$11.48	\$5.75	797	\$4.83	\$4.49	715
4-14	1/8 x 7/8	\$5.23	\$4.15	631	\$6.88	\$5.33	689
4-16	1/8 x 1	\$4.30	\$4.08	592	\$3.95	\$4.20	594
4-20	1/8 x 1-1/4	\$6.88	\$5.63	467	\$4.50	\$6.25	521
4-22	1/8 x 1-3/8	\$11.68	\$5.35	328	\$4.70	\$6.20	496
5-4	5/32 x 1/4	\$3.58	\$3.35	1440	\$3.53	\$3.83	888
5-5	5/32 x 5/16	\$3.35	\$3.35	1226	\$3.20	\$3.38	850
5-6	5/32 x 3/8	\$5.95	\$3.35	1079	\$3.75	\$3.38	802
5-7	5/32 x 7/16	\$5.00	\$3.99	946	\$3.43	\$3.35	672
5-8	5/32 x 1/2	\$3.75	\$3.28	849	\$3.43	\$3.53	621
5-9	5/32 x 9/16	\$5.13	\$3.84	770	\$3.78	\$3.33	578
5-10	5/32 x 5/8	\$4.55	\$3.35	649	\$3.63	\$3.35	507
5-12	5/32 x 3/4	\$4.08	\$3.73	494	\$4.63	\$3.30	407
5-16	5/32 x 1	\$5.08	\$3.80	450	\$5.43	\$3.30	366
5-22	5/32 x 1-3/8	\$5.58	\$4.80	368	\$4.33	\$3.90	314
6-5	3/16 x 5/16	\$3.50	\$3.38	846	\$3.45	\$3.25	515
6-7	3/16 x 7/16	\$3.18	\$3.68	728	\$3.45	\$3.43	436
6-10	3/16 x 5/8	\$2.93	\$3.85	451	\$3.45	\$4.18	334
6-14	3/16 x 7/8	\$4.13	\$3.55	390	\$3.33	\$3.30	299

10% Discount for 1 lb. rivets or more (per P/N)

SOLID RIVET ASSORTMENT

"AD" indicates Hard 2117 aluminum alloy. These rivets are heat treated and have a minimum tensile strength of 38,000 PSI. "A" indicates Soft 100 pure aluminum and have a minimum tensile strength of 16,000 PSI.

Each kit contains 1/8 lb each of the following 12 sizes:

3/32 (3-4, 3-6, 3-8); 5/32 (5-4, 5-5, 5-6, 5-8); 1/8 (4-4, 4-6, 4-8); 3/16 (6-6, 6-8)

Pack C.....AN470AD, Universal Hard.....P/N 04-00357\$25.32

Pack D.....AN470A, Universal Soft.....P/N 04-00358\$26.52

Pack E.....AN426AD, 100° CSK Hard.....P/N 04-00359\$25.71

Pack F.....AN426A, 100° CSK Soft.....P/N 04-00361\$29.07

OVER SIZE AND HALF SIZE RIVETS

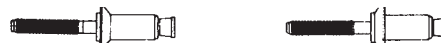
HALF-SIZE LENGTH RIVETS - These flush head AN426 rivets are ideal for those situations where one length is just too short & the next length is too long.

Part No.	Dia.	Length	Price Per 1/8 lb.
AN426AD-3-3.5	3/32"	7/32"	\$27.90
AN426AD-3-4.5	3/32"	9/32"	\$22.60
AN426AD-3-5.5	3/32"	11/32"	\$27.50

OVERSIZE SHANK RIVETS - These NAS1097 rivets feature a 1/8" diameter shank with a head size that of a 3/32" rivet. Perfect when rivet hole becomes enlarged requiring 1/8" shank but 3/32" head matches rest of your 3/32" rivets.

Part No.	Dia.	Length	Price Per 1/8 lb.
NAS1097AD-4-3.5	1/8"	7/32"	\$24.30
NAS1097AD-4-4	1/8"	1/4"	\$19.60
NAS1097AD-4-5	1/8"	5/16"	\$17.80
NAS1097AD-4-6	1/8"	3/8"	\$22.20

CHERRYMAX RIVETS



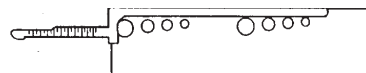
100° Countersunk Head (CR3242 & CR3212) Universal Head (CR3243 & CR3213)

Due to the large bulbed blind head, similar to that of a solid rivet, the Cherrylock and CherryMax rivets are especially suited for double dimpled or high vibration applications. They can be used as replacements for some solid rivets and are excellent for use in fiberglass or composites as the rivet spreads in a way that prevents crazing or cracking of the material. **NOTE:** CR3212 & CR3213 are nominal diameters. CR3242 & CR3243 are oversized diameters and measure 1/64" more than listed diameter.

Install with P/N 12-03105 G-27 Hand Gun.

Dash #	Dia.	CR3212 Grip Range	CR3213 Grip Range	Each	Price 100
4-1		----	.025-.062	---	---
4-2		.063-.125	.063-.125	\$0.46	\$41.40
4-3	.126	.126-.187	.126-.187	\$0.57	\$51.30
4-4		.188-.250	.188-.250	\$0.53	\$47.70
4-5		.251-.312	.251-.312	\$0.42	\$37.80
4-6		.313-.375	.313-.375	\$0.76	\$68.40
5-2		.065-.125	.063-.125	\$0.68	\$61.20
5-3		.126-.187	.126-.187	\$0.61	\$54.90
5-4	.157	.188-.250	.188-.250	\$0.62	\$55.80
5-5		.251-.312	.251-.312	\$0.62	\$55.80
5-6		.313-.375	.313-.375	\$0.80	\$72.00
Dash #	Dia.	CR3242 Grip Range	CR3243 Grip Range	Each	Price 100
4-1		----	.025-.062	\$0.70	\$63.00
4-2		.045-.125	.063-.125	\$0.48	\$43.20
4-3		.126-.187	.126-.187	\$0.52	\$46.80
4-4	.140	.188-.250	.188-.250	\$0.51	\$45.90
4-5		.251-.312	.251-.312	\$0.61	\$54.90
4-6		.313-.375	.313-.375	\$0.83	\$74.70
5-2		.063-.125	.063-.125	\$0.68	\$61.20
5-3		.126-.187	.126-.187	\$0.68	\$61.20
5-4	.173	.188-.250	.188-.250	\$0.73	\$65.70
5-5		.251-.312	.251-.312	\$0.66	\$59.40
5-6		.313-.375	.313-.375	\$0.68	\$61.20

CHERRYMAX GRIP GAUGE



Measures rivet diameter and length, P/N CHEGAU\$14.40

RIVET/RIVNUT BACK MARKERS



Used to locate pre-drilled holes in the wing ribs, fuel tank covers, panels, skin. Pre-drill the ribs, screw in the back markers, lay the skin sheet over the top, tap with a hammer, turn the sheet over, and drill the holes. This is especially useful for rivnut installation. Due to the large size of the hole required, small errors in location can lead to the "Oh darn, I missed the rib syndrome". Backmarkers can save you hours of frustration. Two sizes of threaded backmarkers are available. We recommend using the

04-00131 for wing ribs. Drilling the wing ribs with a 3/32" drill. Drop in the back markers. Mark the skin by taping with a soft hammer. Turn the skin over and drill the skin with a 3/32" drill. Cleco the skin into position enlarge the holes with #30 drill & cleco. Now you are ready to rivet.

Nut Plate	Marker Size	Drill Size	Part No.	Price Ea.
10-32*	—	—	04-00117	\$0.82
8-32*	—	—	04-00119	\$0.82
3/8-24	.327	5/8"	04-00121	\$0.94
5/16-24	.265	1/2"	04-00122	\$0.94
1/4-28	.209	1/2"	04-00123	\$0.95
10-32	.154	3/8"	04-00124	\$0.82
8-32	.128	3/8"	04-00127	\$0.82
6-32	.102	3/8"	04-00129	\$0.82
3/32" hole	.093	3/8"	04-00131	\$0.82

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NUTSERTS

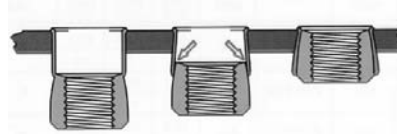


The A-T Series Insert is unique in that it can be installed into most any material above .030/.76 mm in thickness. As the A-T Series is installed, the threaded portion is completely swaged 360° into the sleeve portion and the hole. This permits the A-T Series to be used with Grade 8/metric 12.9 mating screws.

The A-T Series Insert is installed using light-weight, hand held pneumatic tools that can be located at any position in your product's assembly sequence. The A-T Series Insert can be installed either prior to or after finish.

As the A-T Series Insert is installed, the threaded nut portion is drawn into the upper sleeve portion.

360° SWAGING HOW IT WORKS FOR YOU



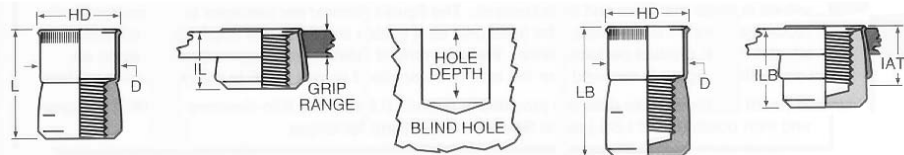
As this occurs, a 360° swaging action takes place anchoring the A-T Series in the parent material.

NUTSERT HOLE SIZE / MATERIAL THICKNESS CHART

Installation hole size for the A-T Series Insert is determined by the parent material's thickness and density. The thicker the material the larger the hole required to allow full 360° installation swaging. The application should be tested before hole size is specified.

THREAD SIZE	.030-.090 MAT. THICKNESS		.091-.124 MAT THICKNESS		.125-.186 MAT. THICKNESS		.187-OVER MAT. THICKNESS	
	DRILL SIZE	DECIMAL	DRILL SIZE	DECIMAL	DRILL SIZE	DECIMAL	DRILL SIZE	DECIMAL
4-40 UNC	3/16	.1875	#10	.1935	#10	.1935	#9	.1960
6-32 UNC	7/32	.2188	#2	.2210	#1	.2280	#1	.2280
8-32 UNC	1/4	.2500	"F"	.2570	17/64	.2656	17/64	.2656
10-24 UNC	9/32	.2812	"L"	.2900	"L"	.2900	19/64	.2969
10-32 UNF	9/32	.2812	"L"	.2900	"L"	.2900	19/64	.2969
1/4-20 UNC	3/8	.3750	3/8	.3750	"W"	.3860	25/64	.3906
1/4-28 UNC	3/8	.3750	3/8	.3750	"W"	.3860	25/64	.3906
5/16-18 UNC	1/2	.5000	1/2	.5000	33/64	.5156	33/64	.5156
5/16-24 UNC	1/2	.5000	1/2	.5000	33/64	.5156	33/64	.5156
3/8-16 UNC	9/16	.5625	9/16	.5625	37/64	.5781	37/64	.5781
1/2-13 UNC	3/4	.7500	49/64	.7656	25/32	.7810	51/64	.7970

HA



THREAD SIZE	THREAD CALL OUT	HD ±.005	L ±.015	D MAX.	IL MAX.	LB ±.015	ILB MAX.	IATD** MAX.	HOLE DEPTH MIN.	PART NO.	PRICE EACH
4-40 UNC	440	.211	.370	.1875	.205	.660	.495	.395	.400	ATS2-440	\$0.29
6-32 UNC	632	.240	.370	.2185	.205	.675	.505	.410	.400	ATS2-632	\$0.27
8-32 UNC	832	.269	.370	.2495	.205	.675	.505	.410	.400	ATS2-832	\$0.26
10-24 UNC	1024	.306	.370	.2805	.205	.685	.520	.385	.400	ATS2-1024	\$0.38
10-32 UNF	1032	.306	.370	.2805	.205	.685	.520	.385	.400	ATS2-1032	\$0.24
1/4-20 UNC	420	.400	.515	.3745	.275	1.005	.760	.615	.540	ATS2-420	\$0.38
1/4-28 UNC	420	.400	.515	.3745	.275	1.005	.760	.615	.540	ATS2-428	\$0.44
5/16-18 UNC	518	.528	.615	.4995	.325	1.065	.770	.630	.640	ATS2-518	\$1.05
5/16-24 UNC	518	.528	.615	.4995	.325	1.065	.770	.630	.640	ATS2-524	\$1.17
3/8-16 UNC	616	.588	.745	.5615	.390	1.450	1.095	.890	.770	ATS2-616	\$1.15
1/2-13 UNC	813	.800	.935	.7485	.485	NA	NA	NA	.960	ATS2-813	\$2.35

**Dimensions in minimum grip condition. Additional UNF thread sizes available.

AA-112 HI-TORQUER NUTSERT TOOLS



The hi-torquer tool is ideal for field and maintenance applications. It features a patented Quick Change thread size nose assembly. Order one base tool plus appropriate conversion kit.

THREAD SIZE	CONV. KIT PART NO.	PRICE EACH
4-40 UNC	AAT-202-440	\$18.50
6-32 UNC	AAT-202-632	\$18.50
8-32 UNC	AAT-202-832	\$18.40
10-24 UNC	AAT-202-1024	\$18.40
10-32 UNF	AAT-202-1032	\$18.60
1/4-20 UNC	AAT-202-420	\$18.40
1/4-28 UNC	AAT-202-428	\$17.20
5/16-18 UNC	AAT-202-518	\$18.40
5/16-24 UNC	AAT-202-524	\$18.40
3/8-16 UNC	AAT-202-616	\$18.35

Base tool, P/N AA-112\$43.80

AAT916 EXPENDABLE NUTSERT TOOLS



These expendable tools are ideal for applications such as field repair. They can also be packaged with instructions for use along with quantity of inserts for consumer assembly. Sizes 6-32, 8-32 include a hex key. Sizes 10-32, and larger require a wrench (not included).

THREAD SIZE	TOOL PART NUMBER	PRICE EACH
4-40 UNC	AAT-916-440	\$5.20
6-32 UNC	AAT-916-632	\$5.40
8-32 UNC	AAT-916-832	\$5.20
10-24 UNC	AAT-916-1024	\$5.20
10-32 UNF	AAT-916-1032	\$5.20
1/4-20 UNC	AAT-916-420	\$5.20
1/4-28 UNC	AAT-916-428	\$5.20
5/16-18 UNC	AAT-916-518	\$6.50
5/16-24 UNC	AAT-916-524	\$5.20
3/8-16 UNC	AAT-916-816	\$63.25

AAT312A MASTER NUTSERT ASSORTMENT KIT



The A-T Series master assortment kit is ideal for prototype and maintenance repair applications. The rugged hard shell plastic kit contains quantities of the A-T Series Inserts and the AA 112 Hi-torquer tool. It also contains a full compliment of thread size conversion kits and instruction label.

KIT CONTAINS:

THREAD SIZE	INSERT QTY	REFILL PAK PART NO.	CONV. KIT PART NO.
4-40 UNC	50	AAT400-440	AAT202-440
6-32 UNC	50	AAT400-632	AAT202-632
8-32 UNC	50	AAT400-832	AAT202-832
10-32 UNF	50	AAT400-1032	AAT202-1032
1/4-20 UNC	50	AAT400-420	AAT202-420
5/16-18 UNC	25	AAT400-518	AAT202-518

Kit, P/N AAT312A\$229.00

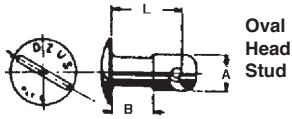
AIRCRAFT SPRUCE WEST
CORONA, CA • (877) 4-SPRUCE

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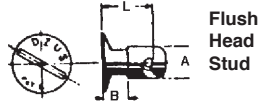
Prices Subject to Change Without Notice

AIRCRAFT SPRUCE EAST
PEACHTREE CITY, GA • (877) 477-7823

DZUS FASTENERS



Oval Head Stud



Flush Head Stud



Wing Head Stud

OVAL HEAD STUD, LONG UNDERCUT

STUD DIMENSIONS			CAD PLATED		STAINLESS		GROMMETS & SNAP RINGS	SPRINGS
A	B	L	Cat. #	Price Each	Cat. #	Price Each		
.1875	.075	.250	AJ3-25 ¹	\$1.92	N/A		GA3-175, 200, 250	S3-150, 175
.1875	.100	.300	AJ3-30	\$1.17	N/A		GP3B, GH3	200, 225
.1875	.150	.350	AJ3-35 ¹	\$1.08	AJ3-35SS ¹	\$3.05	SR3SS	
.1875	.200	.400	AJ3-40	\$1.37	N/A		SX-520SS	
.250	.100	.250	AJ4-25 ¹	\$1.16	AJ4-25SS ¹	\$3.15	GA4-225, 250, 275, 300	S4-200, 225
.250	.100	.300	AJ4-30	\$1.26	AJ4-30SS	\$2.05	GP4B, GH4	
.250	.150	.350	AJ4-35 ¹	\$2.30	AJ4-35SS ¹	\$1.92	SB4SS	
.250	.200	.400	AJ4-40	\$1.10	AJ4-40SS	\$2.10	SX-523SS	
.250	.225	.450	AJ4-45 ¹	\$3.40	N/A			
.250	.250	.500	AJ4-50	\$1.39	N/A			
.3125	.125	.300	AJ5-30	\$1.56	AJ5-30SS	\$1.67	GA5-312, 350, 375	S5A200, 225
.3125	.125	.350	AJ5-35 ¹	\$1.16	AJ5-35SS ¹	\$1.07	GP5B, GH5	250, 275
.3125	.190	.400	AJ5-40	\$1.05	AJ5-40SS	\$1.55	SR5SS	
.3125	.190	.450	AJ5-45 ¹	\$1.37	N/A		SX-510SS	
.3125	.250	.500	AJ5-50	\$1.15	N/A			
.3125	.300	.600	AJ5-60	\$1.46	N/A			
.3125	.400	.700	AJ5-70	\$1.61	N/A			
.375	.150	.350	AJ6-35 ¹	\$1.61	N/A		GA6-350, 375, 425	S6-225, 250, 275
.375	.190	.400	AJ6-40	\$1.86	N/A		GP6B, GH6	300
.375	.250	.500	AJ6-50	\$1.74	N/A		SR6SS	
.375	.300	.600	AJ6-60	\$2.55	N/A		SX-518SS	
.375	.350	.700	AJ6-70	\$2.20	N/A			
.4375	.190	.400	AJ7-40	\$4.55	N/A		GA7-375, 475, 525	S7-225, 250, 275,
.4375	.250	.500	AJ7-50	\$5.80	N/A		GH7	300
.4375	.300	.600	AJ7-60	N/A	N/A		SR7SS	
.4375	.300	.600	AJ7-60	\$2.25	N/A		SR7SS	
.4375	.350	.700	AJ7-70	\$4.75	N/A		SX-519SS	

FLUSH HEAD STUD, LONG UNDERCUT

STUD DIMENSIONS			CAD PLATED		STAINLESS		GROMMETS & SNAP RINGS	SPRINGS
A	B	L	Cat. #	Price Each	Cat. #	Price Each		
.1875	.150	.300	FJ3-30	\$1.90	N/A		GP3B-GH3	S3-150, 175, 200,
.1875	.175	.350	FJ3-35 ¹	\$2.55	N/A		SR3SS	225
.1875	.200	.400	FJ3-40	\$8.20	N/A		SX-520SS	
.250	.150	.300	N/A	N/A	FJ4-30SS	\$1.36	GF4-125, 150, 175, 200	S4-200, 225
.250	.175	.350	FJ4-35 ¹	\$1.79	FJ4-35SS ¹	\$2.30	GP4B, GH4	
.250	.200	.400	FJ4-40	\$1.45	FJ4-40SS	\$4.10	SR4SS	
.250	.225	.450	FJ4-45 ¹	\$1.76	FJ4-45SS ¹	\$2.95	SX-523SS	
.250	.250	.500	FJ4-50	\$3.20	N/A			
.3125	.225	.400	FJ5-40	\$1.25	FJ5-40SS	\$2.30	GF5-175, 225, 250	S5A200, 225
.3125	.250	.500	FJ5-50	\$2.05	N/A		GP5B, GH5	250, 275
.3125	.300	.600	FJ5-60	\$2.10	N/A		SR5SS	
.3125	.400	.700	FJ5-70	N/A	N/A		SX-510SS	
.375	.250	.500	FJ6-50	\$1.64	N/A		GF6-218, 250S6-225, 250, 275	300
.375	.300	.600	FJ6-60	\$1.64	N/A		GP6B, GH6	
.375	.350	.700	FJ6-70	\$6.20	N/A		SR6SS, SX-518SS	
.4375	.250	.500	FJ7-50	\$2.10	N/A		GF7-250, 325, 400	S7-225, 250, 275,
.4375	.300	.600	FJ7-60	\$2.85	N/A		GH7, SR7SS, SX-519SS	300
.4375	.350	.700	FJ7-70	\$4.50	N/A			

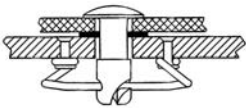
WING HEAD STUD, LONG UNDERCUT (A, B, L dimensions for AJW are same as for AJ; P, Q, R dimensions given are for wing head)

STUD DIMENSIONS			CAD PLATED		STAINLESS		GROMMETS & SNAP RINGS	SPRINGS
A	B	L	Cat. #	Price Each	Cat. #	Price Each		
.1875	.075	.250	AJW3-25 ¹	\$16.40	AJW3-25SS ¹	\$3.00	GA3-175, 200, 250	S3-150, 175
.1875	.100	.300	AJW3-30	\$2.40	N/A		GP3B, GH3	200, 225
.1875	.150	.350	AJW3-35 ¹	\$3.95	N/A		SR3SS	
.1875	.200	.400	AJW3-40	\$3.15	N/A		SX-520SS	
.250	.100	.250	AJW4-25 ¹	\$3.85	N/A		GA4-225, 250, 275, 300	S4-200, 225
.250	.100	.300	AJW4-30	\$2.00	N/A		GP4B, GH4	
.250	.150	.350	AJW4-35 ¹	\$1.84	N/A		SR4SS	
.250	.200	.400	AJW4-40	\$2.80	N/A		SX-523SS	
.3125	.125	.300	AJW5-30	\$1.27	N/A		GA5-312, 350, 375	S5A200, 225
.3125	.190	.400	AJW5-40	\$2.05	N/A		SR5SS	
.3125	.200	.450	AJW5-45 ¹	\$2.35	N/A		SX-510SS	
.3125	.250	.500	AJW5-50	\$1.79	N/A			

¹No longer available after our current stock is depleted. Please order next longer size.

DZUS FASTENERS

STUD AND SPRING SELECTION TABLES



1. Find total thickness (distance) from underside of stud head to point of spring attachment).
2. Select stud "L" and spring "H" dims.

Size 3 Stud, S3 Spring			Size 4 Stud, S4 Spring		
USE			USE		
Total Thickness	Stud Dim. L	Spring Dim. H	Total Thickness	Stud Dim. L	Spring Dim. H
.045 - .069	-25	-225	.050 - .074	-25	-225
.070 - .094	-25	-200	.075 - .099	-25	-200
.095 - .119	-30	-225	.100 - .124	-30	-225
.120 - .144	-30	-200	.125 - .149	-30	-200
.145 - .169	-30	-175	.150 - .174	-35	-225
.170 - .194	-30	-150	.175 - .199	-35	-200
.195 - .219	-35	-175	.200 - .224	-40	-225
.220 - .224	-35	-150	.225 - .249	-40	-200
.245 - .269	-40	-175	.250 - .274	-45	-225
.270 - .294	-40	-150	.275 - .299	-45	-200
			.300 - .324	-50	-225
			.325 - .344	-50	-200

Size 5 Stud, S5A Spring			Size 6 Stud, S6 Spring		
USE			USE		
Total Thickness	Stud Dim. L	Spring Dim. H	Total Thickness	Stud Dim. L	Spring Dim. H
.055 - .079	-30	-275	.090 - .114	-35	-300
.080 - .104	-30	-250	.115 - .139	-35	-275
.105 - .129	-30	-225	.140 - .164	-35	-300
.130 - .154	-30	-200			
.155 - .179	-40	-275	.165 - .189	-40	-275
.180 - .204	-40	-250	.190 - .214	-40	-250
.205 - .229	-40	-225	.215 - .239	-40	-225
.230 - .254	-40	-200	.240 - .264	-50	-300
.255 - .279	-50	-275	.225 - .249	-40	-200
.280 - .304	-50	-250	.265 - .289	-50	-275
.305 - .329	-50	-225	.290 - .314	-50	-250
.330 - .354	-50	-200	.315 - .339	-50	-225
.355 - .379	-60	-275	.340 - .364	-60	-300
.380 - .404	-60	-250	.365 - .389	-60	-275
.405 - .429	-60	-225	.390 - .414	-60	-250
.430 - .454	-60	-200	.415 - .439	-60	-225
.455 - .479	-70	-275	.440 - .464	-70	-300
.480 - .504	-70	-250	.465 - .489	-70	-275
.505 - .529	-70	-225	.490 - .514	-70	-250
.530 - .554	-70	-200	.515 - .539	-70	-225

INSTALLATION TOOLS

Part #	Description (Installs:)	Price
A3	A, AJ3 Oval Head Studs & Grommets	\$48.80
A4	A4,AJ4 Oval Head Studs & Grommets	\$128.95
A5*	A5,AJ5 Oval Head Studs & Grommets	\$59.50
A6.5	A6.5,AJ6.5 Oval Head Studs&Grommets	\$44.70
A7	A7, AJ7Oval Head Studs & Grommets	\$206.95
F5	F5, FJ5 Flush Head Studs & Grommets	\$34.90
F6.5	F6.5,FA6.5,FJ6.5 Flush Head Studs & Grommets	\$32.40

* Note: A5 tool is specially designed to install grommets in Bonanza cowlings without removing cowling brackets. This will save you alot of time.

RETAINING SPRINGS



When there is a gap between the top and bottom panels, a **retaining spring** is used to hold the stud in locking position for alignment with receptacle.

SNAP RINGS



A **snap ring** is used when there is not a lot of pull-out load. This ring is expandable easily installed with pliers or screwdriver and takes little space.

Part No.	Price ea
SX-520SS	\$0.40
SX-523SS	\$0.13
SX-510SS	\$0.58
SX-518SS	\$1.50
SX-519SS	\$0.55

Part No.	Price ea
SR3SS	\$0.06
SR4SS	\$0.22
SR5SS	\$0.09
SR6SS	\$0.06
SR7SS	\$0.84

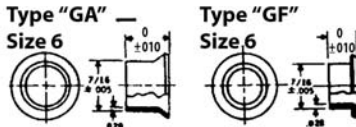


SPRINGS

"S" Type Springs					
Part No.	Price Ea	Part No.	Price Ea	Part No.	Price Ea
S3-150	\$0.34	S5A275	\$0.66	S3-175	\$0.75
S6A-225	\$1.01	S3-200	\$0.31	S6A-250	\$0.70
S3-225	\$0.34	S6A-275	\$0.79	S4-200	\$0.73
S6-300	\$1.38	S4-225	\$0.67	S7-225	\$1.47
S5A-200	\$0.44	S7-250	\$2.70	S5A-225	\$0.34
S7-275	\$1.60	S5A-250	\$0.33	S7-300	\$1.02

The dash number represents the height ("H" dimension) of the spring.
EXAMPLE.: S3-150 = .150.

FULL GROMMETS



A **full grommet** is used when protection of the hole is a definite consideration. It protects panel finish and reduces stud play. A tool is required for installation. The

HA

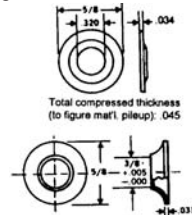
"GA" type full grommet is used with a protruding head stud, and the "GF" type with a flush head stud.

ALUMINUM

Outer Panel Thickness	Type "GA"		Type "GF"	
	Part No.	Price	Part No.	Price
.015 - .025	GA3-175	\$1.18	N/A	---
.026 - .050	GA3-200	\$1.01	N/A	---
.051 - .094	GA3-250	\$1.27	N/A	---
.015 - .025	GA4-225	---	GF4-125	\$0.50
.026 - .050	GA4-250	\$0.95	GF4-150	\$1.20
.051 - .075	GA4-275	\$1.25	GF4-175	\$1.86
.076 - .100	GA4-300	\$1.50	GF4-200	\$0.90
.031 - .062	GA5-312	\$0.96	GF5-175	\$1.74
.063 - .094	GA5-350	\$1.00	GF5-225	\$1.50
.095 - .125	GA5-375	\$1.07	GF5-250	\$1.06
.040 - .065	GA6-350	\$1.17	GF6-218	---
.066 - .100	GA6-375	\$1.16	GF6-250	\$1.26
.101 - .135	GA6-425	\$0.94	---	---
.050 - .095	GA7-375	\$0.91	GF7-250	\$1.25
.096 - .156	GA7-475	---	GF7-325	---
.157 - .218	GA7-525	\$5.30	GF7-400	\$0.80

HALF GROMMETS

A half grommet does not break easily, and it flattens but guarantees hold of the stud. It is used when protection of the hole is not a consideration, but protection of panel finish might be. The "GH" type half grommet is installed with a tool; the "GP" type is pushed on by hand.



Type "GP" Thermoplastic		Type "GH" Aluminum	
Part No.	Price ea	Part No.	Price ea
GP3B	\$0.59	GH3	\$0.10
GP4B	\$0.13	GH4	\$0.10
GP5B	\$0.06	GH5	\$0.15
GP6B	\$0.47	GH6	\$0.13
GP7B	---	GH7	\$0.41

DZUS FASTENER SPRING ADJUSTER



The MS-7301 tool easily adjusts Dzus fastener springs for a perfect fit every time. Great for Warbirds and vintage aircraft. Bend springs in or out with a few simple turns. P/N 04-00957\$29.40

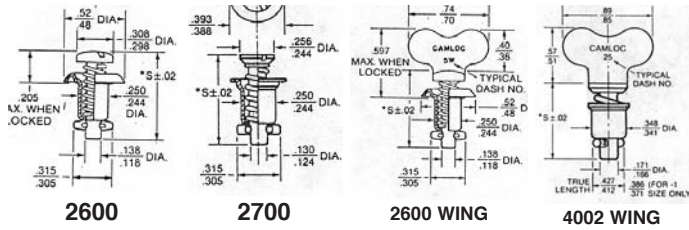
DZUS DRIVER

The MS-Driver is a great tool for locking and unlocking Dzus fasteners. The large handle gives you plenty of torque and is comfortable in the hand. The blade has a radius end to fit fastener slots better than a standard screwdriver and is heat treated steel with zinc plating for long life. P/N 04-00958\$13.85



CAMLOC FASTENERS

The 2600 and 2700 series Camloc fasteners exceed requirements for MIL-F-5591, Style 3, Size 2. Shear and tensile strength: 300 lbs. (ultimate), 200 lbs. (rated). Studs and washers listed are made of steel. The receptacles are made of copper base alloy. All components listed are rated to 450° F. The 4002 series fasteners are considerably stronger than the 2600 and 2700 series. Shear and tensile strength: 1050 lbs. (ultimate), 700 lbs. (rated). All studs and grommets listed are made of steel. Rated to 450° F.



2600 STUDS

Dash No.	CAD Plated		Stainless		CAD Plated	
	2600 Slot Price Ea	268S Phillips Price Ea	Dash No.	2600 Slot Price Ea	Wing CAD Plated	Price Each
-1	\$1.06	\$1.70	-1S	\$1.95	2600-2W	\$2.15
-2	\$1.10	\$1.01	-2S	\$1.63	2600-3W	\$2.90
-3	\$1.59	\$2.70	-3S	\$1.64	2600-4W	\$3.30
-4	\$0.99	\$0.92	-4S	\$2.80	2600-5W	\$2.30
-5	\$1.21	\$0.99	-5S	\$1.90	2600-6W	\$2.40
-6	\$2.10	\$1.77	-6S	\$1.97	2600-7W	\$2.50
-7	\$1.55	\$1.61	-7S	\$2.10	2600-8W	\$5.10
-8	\$1.15	\$1.15	-8S	\$1.84	2600-9W	\$2.55
-9	\$1.16	\$1.31	-9S	\$2.05	2600-10W	\$2.95
-10	\$1.38	\$1.38	-10S	\$2.35	2600-11W	\$6.50
-11	\$1.47				2600-12W	\$5.00
-12	\$1.26				2600-14W	\$5.20
-13	\$2.40					
-14	\$1.95	\$2.90				

2700 STUDS

Dash No.	CAD Plated		Stainless	
	2700 Slot Price Ea	27S3 Phillips Price Ea	Dash No.	2700 Slot Price Ea
-1	\$2.25	\$2.25	-1S	\$2.70
-2	\$1.69	\$1.47	-2S	\$2.45
-3	\$1.84	\$1.42	-3S	\$2.15
-4	\$2.35	\$2.25	-4S	\$1.60
-5	\$1.81	\$1.26	-5S	\$2.15
-6	\$1.74	\$1.59	-6S	\$2.15
-7	\$1.55	\$1.34	-7S	\$1.89
-8	\$1.55	\$1.59	-8S	\$2.45
-9	\$1.84	\$2.20	-9S	\$2.15
-10	\$1.59	\$1.78	-10S	\$2.20
-11	\$1.42			
-13	\$1.82			
-14	\$1.64	\$3.75		

4002 STUDS

Dash No.	CAD Plated / Stainless				Dash No.	4002 SS Slot Price Ea	Wing CAD Plated	Price Each
	4002 CAD Plated Slot Price Ea	40S5 CAD Plated Phillips Price Ea	SS Phillips 40S5	Price Ea				
-2	\$1.30	\$2.90	40S5-2S	\$3.10	-2S	\$2.35	4002-2W	\$5.15
-3	\$1.54	\$2.70	40S5-3S	\$2.40	-3S	\$2.55	4002-3W	\$4.95
-4	\$1.35	\$1.32	40S5-4S	\$2.10	-4S	\$3.20	4002-4W	\$3.30
-5	\$1.25	\$1.49	40S5-5S	\$2.10	-5S	\$2.35	4002-5W	\$3.85
-6	\$1.67	\$1.95	40S5-6S	\$2.45	-6S	\$2.80	4002-6W	\$3.65
-7	\$1.28	\$1.80	40S5-7S	\$2.60	-7S	\$3.30		
-8	\$1.47	\$2.50	40S5-8S	\$2.55	-8S	\$3.00	4002-8W	\$4.20
-9	\$1.42	\$1.68	40S5-9S	\$2.65	-9S	\$2.95	4002-9W	\$4.75
-10	\$2.50		40S5-10S	\$2.95			4002-10W	\$5.00
-11	\$1.87						4002-11W	---
-12	\$2.45						4002-12W	\$5.30
-13	\$1.92							
-14	\$2.30							
-15	\$2.75							
-16	\$1.99							
-17	\$2.10							

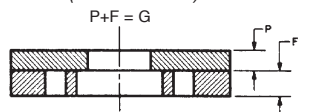
RECEPTACLES

Rivet Holes	2600, 2700 Series Part No.	Price Each	4002 Series Part No.	Price Each
Plain	212-12N	\$1.33	214-16N	\$3.55
Plainsunk	212-12ND*	\$2.55	214-16ND*	\$2.20
Plain	Floating Bronze		244-16	\$2.25

2600 / 2700 STUD LENGTH SELECTION

Total material thickness "G" consists of the thickness of all materials to be fastened. This must include the thickness of the material "P" to which the stud assembly is attached, the material "F" to which the receptacle is attached plus gaskets (if used) and allowance for paint or other protective finishes. If the total thickness is near the upper limit of the stud grip range, the next longer stud should be used. This will still maintain positive locking of the fastener under vibration.

P (panel thickness)062
 F (frame thickness) + .062
 GRIP (total thickness) = .124



STUD SELECTION TABLE Using 212-12 Receptacle

Total Grip Thickness	Use 2600	Use 2700
.020 - .059	2600-1	2700-1
.060 - .089	2600-2	2700-2
.090 - .119	2600-3	2700-3
.120 - .149	2600-4	2700-4
.150 - .179	2600-5	2700-5
.180 - .209	2600-6	2700-6
.210 - .239	2600-7	2700-7
.240 - .269	2600-8	2700-8
.270 - .299	2600-9	2700-9
.300 - .329	2600-10	2700-10
.330 - .359	2600-11	2700-11
.360 - .389	2600-12	2700-12
.390 - .419	2600-13	2700-13
.420 - .449	2600-14	2700-14

4002 Series (large head) Stud Selection

To select the proper length stud, first select the grommet, for example 4002-G. Next, select the receptacle, such as 214-16. After determining the total grip thickness, use the grommet column under which the selected grommet and receptacle appear. Use the dash number which appears opposite the determined total grip thickness.

Example: If the total determined grip thickness "G" was .144, the stud dash number for the above 4002-G grommet and 214-16 receptacle would be -4. The stud part number would be 4002-4.

Total Grip Thickness Range "G"	Stud Dash Number	
	4002-G Grommet & 214-16 Receptacle	4002-N, 4002-O Grommet & 214-16 Receptacle
.021 - .050	--*	-1
.055 - .080	--*	-2
.081 - .110	-2*	-3
.111 - .140	-3	-4
.141 - .170	-4	-5
.171 - .200	-5	-6
.201 - .230	-6	-7
.231 - .260	-7	-8
.261 - .290	-8	-9
.291 - .320	-9	-10
.321 - .350	-10	-11
.351 - .380	-11	-12
.381 - .410	-12	-13
.411 - .440	-13	-14
.441 - .470	-14	-15
.471 - .500	-15	-16
.501 - .530	-16	-17
.531 - .560	-17	-

*4002-G grommet requires .090" minimum grip.

2600, 2700 SERIES RETAINING WASHERS

Retaining washers are required for studs of -5 length or greater. Use split washer 2600-SW2 where it is desirable to have the stud fall away for minimum internal projection. Use internal tooth washer 2600-LW where it is desirable to retain the stud assembly rigidly.

P/N 2600-SW-2.....\$0.20 P/N 2600-LW\$0.09

4002 SERIES GROMMETS, WASHERS & SNAP RINGS

Description	Part Number	Price Each
CAD Plated		
Flush Grommet	4002-G	\$0.52
Plus-Flush Grommet	4002-N	\$0.59
Stud Retaining Grommet	4002-O	\$0.76
High Shear Flush Grommet	40G1-5	\$1.91
Grommet Snap Ring	R4G	\$0.15
High Shear Retaining Ring	R4T	\$0.42
Retaining Ring	4002-SW	\$0.19
STAINLESS		
Flush Grommet	4002-GS	\$2.25
Flush Grommet	4002-HS	\$2.35
Plus Flush Grommet	4002-NS	\$1.70
Flush Grommet	4002-OS	\$2.65
Retaining Ring	40G26-1	\$0.68

CAMLOC FASTENERS

COWLING KITS

Aircraft Make & Model	Stainless				Cad-Plated Phillips	
	Slotted		Phillips		P/N	Price
	P/N	Price	P/N	Price		
Aerosport			ACROCP	\$24.80		
Aero Commander 690	AECOMCS	\$545.30			AECOMC	\$495.93
Aerostar	AESTARCS	\$629.44			AESTARC	\$385.40
Beech Baron B55 ('69 SN TC1230) ^A	BBAR55CS	\$307.28	BBAR55CP ^B	\$312.88		
Beech Baron B58	BBARCS	\$213.36			BBARC	\$136.66
Beech Baron P58	BBARPCS	\$262.02				
Bellanca Scout 8GCBC	BSCOCS	\$77.32				
Bellanca Viking	BVIKSCS	\$132.36			BVIKC	\$64.70
Cessna 150 (1967-77)	C150CS	\$44.97	C150CP	\$34.46		
Cessna 172 (1967-82)	C172CS	\$54.15	C172CP	\$40.60		
Cessna 172RG (1984)	C172RGCS	\$225.36			C172RGC	\$394.71
Cessna 172XP	C172XPCS	\$103.40			C172XPC	\$45.87
Cessna 177	C177CS	\$56.21	C177CP	\$41.37		
Cessna 182 (1961-69)	C18265CS	\$162.56				
Cessna 182 (1971 SN 60752)	C18271CS	\$163.16	C18271CP	\$164.16	C18271C	\$71.38
Cessna 182 (1973 & up)	C182CS	\$102.01			C182C	\$50.71
Cessna 182RG	C182RGCS	\$227.56			C182RGC	\$138.26
Cessna 206	C206CS	\$158.59			C206C	\$62.85
Cessna 210	C210CS	\$179.32			C210C	\$95.05
Cessna 310K	C310CS	\$780.31			C310C	\$395.44
Cessna 320	C320CS	\$678.64			C320C	\$270.94
Cessna 337	C337CS	\$485.72			C337C	\$216.62
Cessna 340	C340CS	\$541.40			C340C	\$295.12
Cessna 414	C414CS	\$466.40			C414C	\$198.89
Cessna 421	C421CS	\$796.78			C421C	\$385.61
Mooney 20J	M20JCS	\$81.26	<i>Kit contains Southco or Camloc studs, washers, retainers & a push tool for the Southco studs. A&B Retainers for Dzus fastener not included. ^BDzus Fastener is slotted. The nose cowl components, if applicable, are not included in any cowl kit.</i>			
Piper PA18	PA18CS	\$41.75				
Piper Cheyenne	PCHECS	\$645.05				
Piper Comanche Twin (Nose)	PCOMTNC	\$64.48				
Piper Comanche Twin	PCOMTCS	\$534.50				

HA

QUICK RELEASE PINS



These pins, of stainless steel, are made to exacting standards. Push button on top contracts and releases two (or four) balls at end of shank. These balls lock onto and release from part for fast removal. The following types and sizes are most commonly used for hang gliders. Not for structural use on aircraft. Request quote on special sizes (25 piece minimum).

Part No.	MS Part No.	Head Type	Shank Dia.	Length	Price
LG4S-T-0.343	----	TEE	1/4"	11/32"	\$8.95
LG4S-T-1.400	MS17985-414	TEE	1/4"	1-9/32"	\$9.98
LG4S-T-2.080	MS17985-421	TEE	1/4"	2-1/32"	\$10.90

Less 10% for 12, Less 15% for 25, Less 20% for 50. May be assorted.

CAMLOC ACCESS DOORS FOR WHEEL PANTS



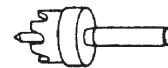
These 1" diameter spring loaded access doors can be riveted into your wheel pants. They open inward, so that using an appropriate tool, you can check pressure or inflate your tires easily without removing the wheel pants. Made of stainless steel which can be polished if desired. Recommended by Rutan Aircraft Factory.

P/N KM713-16-064\$13.85 ea.

CAMLOC FASTENER TOOLS

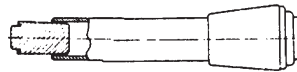


PLIERS P/N 4P3.....\$16.95

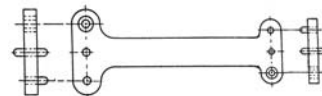


HOLE SAWS

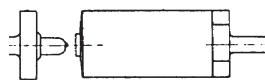
Stock Sizes:
P/N HS-471 (.471" dia.).....\$437.95
P/N HS-687 (.687" dia.).....\$318.95
Other diameters available



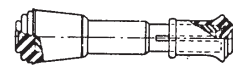
4002 SERIES
SNAP RING TOOL
P/N T26.....\$17.70



RECEPTACLE DRILL JIG
For 4002 Series and 2600/2700 Series receptacles
P/N 01-00155.....\$23.80



#2S200M & F
2700 SERIES DIMPLING TOOL
P/N 2S200M-1, 1/4"x9/16"L\$312.95
P/N 2S200F-1, 1/4"x9/16"L\$281.95
P/N 2S200M-2, 5/16"x5/8"L\$330.00

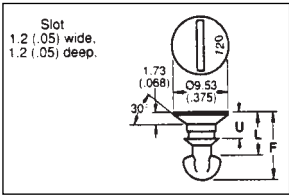


2600-LW
LOCKWASHER TOOL
P/N T98-1\$99.50

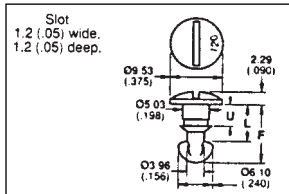
SOUTHCO FASTENERS

SOUTHCO STUDS

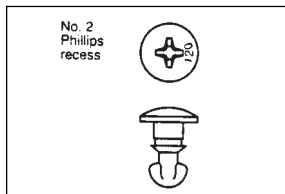
FLUSH SLOTTED



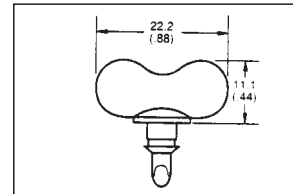
OVAL SLOTTED



OVAL PHILLIPS



WING HEAD

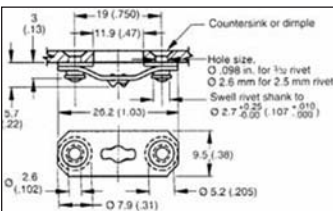


FLUSH HEAD #82 Dacrotized Slotted		OVAL HEAD #82 Dacrotized Slotted		OVAL HEAD #82 Stainless Slotted		OVAL HEAD #82 Stainless Phillips		WING HEAD #82 Dacrotized		OVAL HEAD #85 Stainless Slotted	
P/N	Price Each	P/N	Price Each	P/N	Price Each	P/N	Price Each	P/N	Price Each	P/N	Price Each
82-14-100-16	---	82-11-100-16	\$0.71	82-11-100-20	\$1.46	82-19-120-20	\$0.72	82-12-100-16	\$1.35	85-11-100-20	\$0.63
82-14-120-16	\$1.07	82-11-120-16	\$1.14	82-11-120-20	\$1.25	82-19-140-20	\$0.91	82-12-120-16	\$1.34	85-11-120-20	\$1.02
82-14-140-16	---	82-11-140-16	\$0.75	82-11-140-20	\$1.64	82-19-160-20	\$1.00	82-12-140-16	\$1.49	85-11-140-20	\$0.09
82-14-160-16	---	82-11-160-16	\$0.75	82-11-160-20	\$1.04	82-19-180-20	\$0.79	82-12-160-16	\$0.81	85-11-160-20	\$1.79
82-14-180-16	---	82-11-180-16	\$1.13	82-11-180-20	\$0.94	82-19-200-20	\$0.97	82-12-180-16	\$1.35	85-11-180-20	\$0.90
82-14-200-16	---	82-11-200-16	\$1.10	82-11-200-20	\$1.03	82-19-220-20	\$0.99	82-12-200-16	\$0.74	85-11-200-20	\$1.63
82-14-220-16	---	82-11-220-16	\$0.63	82-11-220-20	\$1.04	82-19-240-20	---	82-12-220-16	\$2.70	85-11-220-20	\$1.09
82-14-240-16	---	82-11-240-16	\$0.75	82-11-240-20	\$0.94	82-19-260-20	---	82-12-240-16	\$0.81	85-11-240-20	\$1.47
82-14-260-16	---	82-11-260-16	\$0.75	82-11-280-20	\$0.94	82-19-250-20	---	82-12-300-16	\$1.31	85-11-260-20	\$0.96
82-14-280-16	---	82-11-280-16	---	82-11-300-20	---	82-19-300-20	---	82-12-340-16	\$1.32	85-11-280-20	\$1.44
82-14-300-16	---	82-11-300-16	---	82-11-330-20	---	82-19-220-20	---	82-12-380-16	---	85-11-300-20	\$1.29

Quantity Discount: Less 15% on 100 pcs (Per P/N)



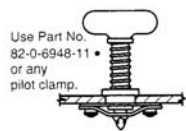
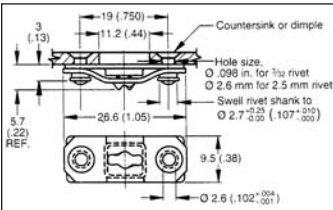
#82 SOUTHCO RECEPTACLES



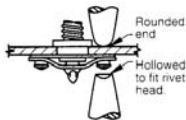
Floating for Riveting w/o Base - This space saving stainless steel receptacle offers optimum weight savings by eliminating base.
P/N 82-35-295-20 ..\$0.99/ea

Floating for Riveting w/ Base - Full-floating dacrotized steel receptacle is mounted to inside panel with two 3/32" rivets. Compact dimensions save space and weight.
P/N 82-35-302-15 ..\$0.34/ea

Fixed for welding with Base - Exactly the same as the receptacle with base above except this receptacle features two welding studs for installation by welding rather than rivets.
P/N 82-35-303-15 ..\$0.98/ea



Clip-On Receptacles - These versatile receptacles will fit material thickness from .020 to .190 by simply slipping over the hole and clipping in place. Easily removed as well, these receptacles do not require welding or riveting.
P/N 82-47-113-200 (dacrotized)\$0.71/ea
P/N 82-47-113-150 (stainless)\$0.28/ea



Rubber Vibration Isolation Receptacles - Use these receptacles where it is necessary to isolate vibration between panels.
P/N 82-35-306-10\$5.80

#85 RECEPTACLES

Rivet Type - Receptacle Spring: 1064 steel, dacrotized
Base: 1010 steel, dacrotized. P/N 85-35-295-15\$0.57

Receptacle Spring: 17-7 PH, stainless steel, passivated
Base: 305 stainless steel, passivated. P/N 85-35-295-20\$1.80/ea

Weld Type - Receptacle Spring: 1064 steel, dacrotized
Base: 1010 steel, dacrotized Rivet: steel, copper-plated. P/N 85-35-296-15\$0.40/ea

Clip-On Type - 17-7 PH stainless steel, passivated. P/N 85-47-101-20\$2.10/ea

DETERMINING SOUTHCO STUD PART NO.

Southco studs are commonly used to secure Cessna cowlings, particularly on models 150, 172, and 177. We stock the popular Southco No. 82 1/4 turn fastener studs, receptacles, and accessories.

Material Thickness	Thickness Size
.090 - .109	100
.110 - .129	120
.130 - .149	140
.150 - .169	160
.170 - .189	180
.190 - .209	200
.210 - .229	220
.230 - .249	240
.250 - .269	260
.270 - .289	280

To Determine Part No.
Select Stud part number using chart above. Example:
82 - 14 - 220 - 16
Southco Head Stud Material
Fastener Type (Slotted) Length Type (Dacrotized)
Number

Southco Sealing Washer - This black synthetic washer is used under head of Southco Studs. P/N 82-43-201-38\$0.20/ea

Southco Ejector Spring - This stainless steel spring enables the stud head to stand away from the panel when the unit is not fastened. When using the ejector spring, add two grip lengths to stud length to allow for spring and wear washer. P/N 43-13-1-24\$0.12/ea

Southco Wear Washer - A plastic washer to reduce wear around the Southco stud. When using wear washer add one grip length to stud length selection. P/N 82-46-101-39\$0.12/ea.

Southco Split Ring Retainer - Can be installed by hand or tool, and is fabricated from stainless steel. P/N 82-32-101-20\$0.06/ea

Southco Split Ring Retainer Tool - Designed to install Southco split ring retainers. P/N 82-0-7596-11\$17.00/ea

Southco Push-On Retainer - designed for installation using the retainer tool below.
StainlessP/N 82-32-201-20\$0.07/ea
PlasticP/N 82-32-301-12\$0.10/ea

Southco Push-On Retainer Tool - An easy-to-use tool quickly installs Southco push-on retainers P/N 82-0-22542-11\$15.70/ea

#85 RETAINERS

Split Ring Hand or tool installation. Stainless steel. P/N 85-34-101-20\$0.13/ea

Push-On Tool installation only. 302 Stainless Steel, Passivated P/N 85-34-201-20\$0.13/ea

Nylon Black P/N 85-34-301-12\$0.09/ea

#85 THERMOPLASTIC (Cupped Nylon) WEAR WASHER

Natural color. Order stud one size longer than size you would use without washer. Adjustment Formula: Add 0.51/.020 to your total material thickness. P/N 85-46-101-39\$0.15/ea

CLICK BOND FASTENERS

CLICK BOND FASTENERS

Click Bond Fasteners mount to surfaces with adhesive. They are assembled in a disposable, self-fixturing device of plastic that aligns and holds the fastener in position and under controlled pressure while the bonding material cures. After the installation is completed, the holding fixture is removed and the conventional attachment is made to the fastener. Bonded fasteners eliminate welding or drilling surfaces and result in reinforced substrate strength, leakproof and corrosion resistant attachments. Aircraft Spruce & Specialty Co. offers Click Bond Fasteners in convenient, pre-packaged kits as shown.



CABLE TIE MOUNT KIT

Each cable tie mount in this kit is pre-assembled in a temporary, easy-to-remove fixture that holds the cable tie mount in place and under pressure while the adhesive cures. No additional installation tools are needed. The kit includes four CB3019AA3N cable tie mounts with nylon ties (5" 40 lbs.), one adhesive packet, surface preparation materials, and instructions.

P/N 04-06000\$13.50

four CB3019AA3N cable tie mounts with nylon ties (5" 40 lbs.), one adhesive packet, surface preparation materials, and instructions.

FLOATING NUTPLATE KIT



The Click Bond adhesive bonded floating nutplate has a metal base and is installed using a disposable, elastomeric fixture that temporarily holds the nutplate in place and under pressure while the adhesive cures. The fixture prevents fouling of the clearance hole. No additional tools are needed for making the nutplate attachment. This fastener meets or exceeds the standards set by MIL-N-25027 for push-out, torque-out, and cycle life. Bonded nutplates eliminate composite damaging rivets, reinforce the structure, and reduce installation time. The kit includes four CB2009A3S floating nutplates (10-32) with aluminum baseplate, one adhesive packet, surface preparation materials, and instructions.

P/N 04-06005\$22.85/ea.

The Click Bond adhesive bonded floating nutplate has a metal base and is installed using a disposable, elastomeric fixture that temporarily holds the nutplate in place and under pressure while the adhesive cures. The fixture prevents fouling of the clearance hole. No additional tools are needed for making the nutplate attachment. This fastener meets or exceeds the standards set by MIL-N-25027 for push-out, torque-out, and cycle life. Bonded nutplates eliminate composite damaging rivets, reinforce the structure, and reduce installation time. The kit includes four CB2009A3S floating nutplates (10-32) with aluminum baseplate, one adhesive packet, surface preparation materials, and instructions.

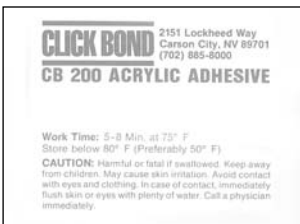
REPAIR PATCH KIT



These self-fixturing surface mounted patches repair small holes and fastener leaks without access to the reverse side of the surface. The patches are adhesively bonded to flat or curved surfaces with the aid of an integral, disposable fixture. The high peel strength adhesive allows the patches to withstand supersonic flight, cleaning, de-icing, and paint stripping. Patches can be removed easily with heat application. The kit includes one CP125-000-005A1A1 aluminum repair patch (.005 thick and 1.25 inch diameter), one adhesive packet, surface preparation materials, and instructions.

P/N 04-06015.....\$11.95

These self-fixturing surface mounted patches repair small holes and fastener leaks without access to the reverse side of the surface. The patches are adhesively bonded to flat or curved surfaces with the aid of an integral, disposable fixture. The high peel strength adhesive allows the patches to withstand supersonic flight, cleaning, de-icing, and paint stripping. Patches can be removed easily with heat application. The kit includes one CP125-000-005A1A1 aluminum repair patch (.005 thick and 1.25 inch diameter), one adhesive packet, surface preparation materials, and instructions.



CB 200 ACRYLIC ADHESIVE

A high strength, two part adhesive. 3.5 gram package. One package is usually sufficient to do five of any Click Bond fasteners.

P/N 04-06040\$1.75

CLICK BOND 2151 Lockheed Way
Corona City, NY 89701
(702) 885-8000

Work Time: 5-8 Min. at 75° F
Store below 80° F (Preferably 50° F)

CAUTION: Harmful or fatal if swallowed. Keep away from children. May cause skin irritation. Avoid contact with eyes and clothing. In case of contact, immediately flush skin or eyes with plenty of water. Call a physician immediately.

Shop Online!

www.aircraftspruce.com

AIRCRAFT SPRUCE WEST
CORONA, CA • (877) 4-SPRUCE

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AIRCRAFT SPRUCE EAST
PEACHTREE CITY, GA • (877) 477-7823

STUD KITS

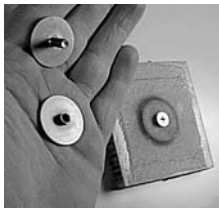


Click Bond studs are available in several sizes. The Metal Small Base Stud Kit includes six CS62-1032-12AX-CR aluminum small base stainless studs, six stainless nylocks/washers (10-32), one adhesive packet, surface preparation materials, and instructions. The Metal Large Base Stud Kit includes four CS125-1420-16AX-CR aluminum large base stainless studs, four stainless nylock/washers (1/4-20), one adhesive packet, surface preparation materials, and instructions. The Fiberglass Base Stud Kit includes two CS125-1032-12G-CR fiberglass large base stainless studs, two stainless nylocks/washers (10-32), one adhesive packet, surface preparation materials, and instructions.

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Metal Small Base Stud KitP/N 04-06020\$8.85
Metal Large Base Stud KitP/N 04-06025\$11.50
Fiberglass Base Stud Kit.....P/N 04-06030.....\$14.95

EZ-POINT NUTS & STUDS FOR COMPOSITES



Creating a hard point in a composite laminated structure has never been easier. Simply drill a hole, prep the area, apply structural adhesive to the alodined, cleaned surface of the EZ-Point and snap into place. Simple and clean. For secondary structural applications, apply three plies of bid cloth to the area. Un-glassed samples were tested to failure in excess of 200 lbs. in shear. Glassed samples exceeded testing ability at over 500 lbs. Perfect for Adel clamps, trim and auto pilot servos, hydraulics, anything but primary structure. Available in 8-32, 10-32, 1/4 - 20, 1/4 - 28, your choice of locking, blind and studs. Used extensively in the installation of the Flesher 360 interior for the Lancair.

Creating a hard point in a composite laminated structure has never been easier. Simply drill a hole, prep the area, apply structural adhesive to the alodined, cleaned surface of the EZ-Point and snap into place. Simple and clean. For secondary structural applications, apply three plies of bid cloth to the area. Un-glassed samples were tested to failure in excess of 200 lbs. in shear. Glassed samples exceeded testing ability at over 500 lbs. Perfect for Adel clamps, trim and auto pilot servos, hydraulics, anything but primary structure. Available in 8-32, 10-32, 1/4 - 20, 1/4 - 28, your choice of locking, blind and studs. Used extensively in the installation of the Flesher 360 interior for the Lancair.

STUDS			BLIND NUTS			LOCKING NUTS		
THREAD	P/N	\$ EA	THREAD	P/N	\$ EA	THREAD	P/N	\$ EA
8-32	04-06330	\$1.60	8-32	04-06350	\$1.75	8-32	04-06370	\$1.60
10-32	04-06335	\$1.65	10-32	04-06355	\$1.80	10-32	04-06375	\$1.65
1/4 - 20	04-06340	\$1.75	1/4 - 20	04-06360	\$2.05	1/4 - 28	04-06380	\$1.75
						1/4 - 28	04-06385	\$1.80

EZ-POINT STRIPS FOR COMPOSITES



Take the guesswork out of nut plate spacing with EZ-Point Strips. They maintain consistent spacing while remaining flexible enough to conform to curvature. Perfect for cowl-

ing attachments, Access doors, removable wingtips, anywhere you would use a standard 10/32 or 8/32 nut plate. Locking threads, available in one, two and three inch centers. Sold in one-foot sections.

8-32 thread, 1" centers.....P/N 04-06450\$29.10 ea.
8-32 thread, 2" centers.....P/N 04-06455\$21.70 ea.
8-32 thread, 3" centers.....P/N 04-06460\$7.95 ea.
10-32 thread, 1" centers.....P/N 04-06465\$26.80ea.
10-32 thread, 3" centers.....P/N 04-06475\$10.80 ea.

HA

AIR LOC FASTENERS

A-LOCK (AIRLOC) FASTENERS



A-LOCK fasteners are common to Beechcraft airplanes and latches on many cowlings. The design consists of a simple stud, with a pin pressed into the shank. The pin is installed after inserting the stud through the panel hole and removed prior to removing the stud. Some installations use a grommet in the fastener hole. Unlike other fasteners, the grommet does not usually require replacement when installing new studs. Base part numbers indicate stud diameter and head style. A-LOCK studs are made in several blank lengths indicated by the first dash number in the charts. Each blank length can have up to 10 second dash numbers or grip sizes. The second dash number indicates the maximum grip range in .010" increments. MilSpec primarily stocks sizes common to Beech aircraft in stainless steel for replacement purposes. To remove an A-LOCK stud, simply clip or remove the pin enough to back the stud out of the hole. New pins are pressed in using special pliers, or by modifying standard vice grip pliers. Drill or cut one jaw of the vice grip to allow proper relief for the pin. If new grommets are required, a flaring tool is necessary (see below).

HA

MS P/N	Our P/N	Size/Head Style	Grip	"A"	Total Length	Price
112060-1-060	04-00931	#2 Flush	.081-.090	.230	.359	\$3.90
112060-1-070	04-00932	#2 Flush	.081-.090	.230	.359	---
112060-1-080	04-00933	#2 Flush	.081-.090	.230	.359	\$3.60
112060-1-090	04-00934	#2 Flush	.081-.090	.230	.359	\$2.85
98293-1-060SS	04-00935	#2 Round	.081-.090	.230	.359	---
294186-1-070	04-00935	#5 Flush	.081-.090	.230	.359	---
294186-1-080	04-00936	#5 Flush	.081-.090	.230	.359	\$3.70
294186-1-100	04-00937	#5 Flush	.081-.090	.230	.359	\$2.80
294186-2-180	04-00938	#5 Flush	.081-.090	.230	.359	\$3.60
294186-2-190	04-00939	#5 Flush	.081-.090	.230	.359	\$3.60
294186-2-200	04-00940	#5 Flush	.081-.090	.230	.359	\$3.65
294186-2-210	04-00941	#5 Flush	.081-.090	.230	.359	\$3.55
294186-2-230	04-00942	#5 Flush	.081-.090	.230	.359	\$3.60
294186-2-240	04-00943	#5 Flush	.081-.090	.230	.359	\$3.60
294186-2-250	04-00944	#5 Flush	.081-.090	.230	.359	\$3.60
294290-1-080	04-00945	#5 Round	.081-.090	.230	.359	\$2.70
294290-1-090	04-00946	#5 Round	.081-.090	.230	.359	\$3.60
294290-2-170	04-00947	#5 Round	.081-.090	.230	.359	\$3.60

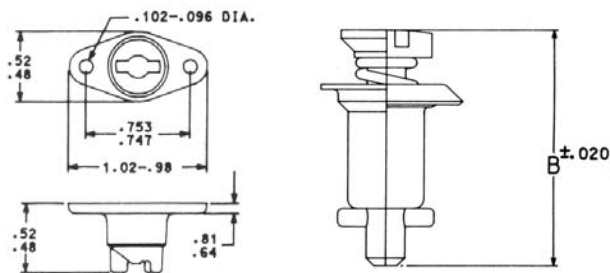
A-LOCK RECEPTACLES (Solid Receptacle)

Series	Rivet Spacing	Solid Rec. Plain	Our Part No.	Price ea.	Solid Rec. Countersink	Our Part No.	Price ea.
#2	3/4"	99871-P098	04-00948	---	99871-C098	04-00951	\$2.90
#5	1"	99833-P098	04-00949	---	99833-C098	04-00952	\$2.70
		99833-P130	04-00950	---	99833-C130	04-00953	\$2.70

A-LOCK RECEPTACLES (Floating Receptacle)

Series	Rivet Spacing	Float. Rec. Plain	Our Part No.	Price ea.	Float. Rec. Countersink	Our Part No.	Price ea.
#2	3/4"	--	--	--	99967-C098	-	\$2.90
#5	1"	99947-P098	04-00954	\$2.70	99947-C098	04-00956	\$2.70
		99947-P130	04-00955	\$2.70	99947-C130	-	\$2.70

#2 RECEPTACLE



BEECH BONANZA COWLING FASTENER CONVERSION KITS

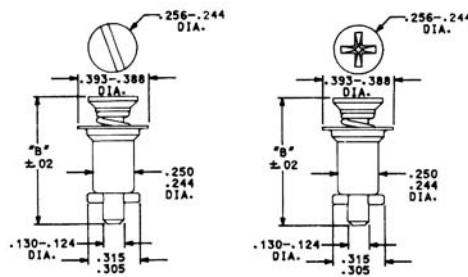


Great looking kits for converting Bonanza cowlings to the eSuperior MilSpec C-Lock fasteners. Convert any Bonanza main engine cowling from the original Dzus fasteners to the heavy duty MilSpec 4000 series C-Locks. Convert early Bonanza gill (cheek) panels from Airloc to the MilSpec 2700 series fasteners. Convert later Bonanza gill (cheek) panels to the heavy duty MilSpec 4000 series C-Locks.

All kits are in stainless steel. Slotted or Phillips head options available please specify when ordering. Simple installation. Instructions and tips included with each kit. Main and cheek can be done in less than 5 hours.

Beech Kit No.	Model	Serial No.	Description	Price
B35-2700	33	CD1-350	Gill conversion 2700 series Slotted head (looks original)	\$138.40
	35	D1-6567	Gill conversion 2700 series Phillips head	\$91.50
B35-2700P	33	CD1-350	Gill conversion 2700 series Phillips head	\$91.50
B35-4000S	33	All	Main Cowling Conversion 4002 Series Slotted head	\$53.50
	35	D1-9068	Main Cowling Conversion 4002 Series Phillips head	\$77.50
B35-4000P	33	All	Main Cowling Conversion 4002 Series Slotted head	\$77.50
	35	D1-9068	Main Cowling Conversion 4002 Series Phillips head	\$77.50
B35-4000GS	33	CD-351-on	Gill Conversion 4002 Series Slotted head	\$203.60
	35	D6562-on	Gill Conversion 4002 Series Slotted head	
	36	E1-on	Gill Conversion 4002 Series Slotted head	
B35-4000GP	33	CD351-on	Gill Conversion 4002 Series Phillips head	\$125.95
	35	D6562-on	Gill Conversion 4002 Series Phillips head	
	36	E1-on	Gill Conversion 4002 Series Phillips head	

#2 STUD ASSEMBLY - FLUSH



Slotted Recess

Cross Recess

A-LOCK GROMMETS

May not require replacement when installing new studs.



Series	Panel Thick.	Flush Head	Part No.	Price
#2	up to .040	295846-1	04-00962	\$1.44
	.041-.080	295846-2	04-00963	\$1.48
#5	.041-.121	295250-2	04-00964	\$2.10
	.122-.201	295250-5	04-00965	\$1.48

FLARING TOOLS FOR A-LOCK GROMMETS

These tools are required for replacing any A-LOCK grommet.

MS P/N	Our P/N	Type	Price
MS29693/29695	04-00959	#2 Flush	\$17.60
MS9529/29667	04-00960	#5 Flush	\$17.60
MS9529/29770	04-00961	#5 Round	\$17.60

AN FITTINGS

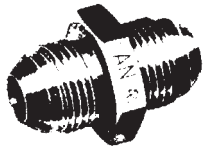
The aircraft fittings shown on the following pages conform to current AN and MS specifications. We stock aluminum, brass and/or steel fittings. Fittings not regularly stocked can be special ordered. Order by Part Number. Example: AN840-8D.



AN804

**TEE,
Flared Tube with
Bulkhead on Run**

Size No.		Tube O.D.	Thread Size	Price Each	
Steel	Alum.			Steel	Alum.
2	2D	1/8	5/16-24	\$10.10	---
3	3D	3/16	3/8-24	\$10.90	\$6.70
4	4D	1/4	7/16-20	\$1.70	\$7.60
5	5D	5/16	1/2-20	\$25.50	\$6.90
6	6D	3/8	9/16-18	\$10.00	\$6.20
8	8D	1/2	3/4-16	\$18.95	\$10.50
10	10D	5/8	7/8-14	---	\$18.40
12	12D	3/4	1-1/16-12	---	---



AN815

**UNION,
Flared Tube**

Size No.		Tube O.D.	Thread Size	Price Each	
Steel	Alum.			Steel	Alum.
2	2D	1/8	5/16-24	\$5.50	\$2.20
3	3D	3/16	3/8-24	\$3.70	\$2.05
4	4D	1/4	7/16-20	\$2.55	\$1.83
5	5D	5/16	1/2-20	\$2.85	\$2.20
6	6D	3/8	9/16-18	\$2.55	\$2.35
8	8D	1/2	3/4-16	\$4.70	\$3.35
10	10D	5/8	7/8-14	\$6.20	\$3.40
12	12D	3/4	1-1/16-12	\$9.50	\$6.00

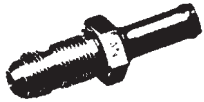


AN818

**NUT,
Coupling**

Size No.		Tube O.D.	Thread Size	Price Each	
Steel	Alum.			Steel	Alum.
2	2D	1/8	5/16-24	\$0.58	\$0.48
3	3D	3/16	3/8-24	\$0.83	\$0.44
4	4D	1/4	7/16-20	\$0.84	\$0.48
5	5D	5/16	1/2-20	\$0.74	\$0.57
6	6D	3/8	9/16-18	\$1.11	\$0.59
8	8D	1/2	3/4-16	\$1.64	\$1.09
10	10D	5/8	7/8-14	\$2.25	\$1.56
12	12D	3/4	1-1/16-12	\$3.90	\$2.10

HA



AN807

**ADAPTER
Hose to Universal**

Size No.		Hose I.D.	Thread Size	Price Each	
Brass	Alum.			Brass	Alum.
4	4D	1/4	7/16-20	\$7.00	\$5.70
6	6D	3/8	9/16-18	\$6.75	\$6.60
8	8D	1/2	3/4-16	---	\$8.40



AN816

**NIPPLE,
Flared Tube and
Pipe Thread**

Size No.		Tube O.D.	Pipe Size	Price Each	
Steel	Alum.			Steel	Alum.
2	2D	1/8	1/8	\$4.15	\$1.60
3	3D	3/16	1/8	\$2.05	\$1.23
4	4D	1/4	1/8	\$2.55	\$1.37
4-4	4-4D	1/4	1/4	\$2.60	\$1.42
5	5D	5/16	1/8	\$3.00	\$1.48
6	6D	3/8	1/4	\$2.60	\$1.64
6-2	6-2D	3/8	1/8	\$2.85	\$1.79
6-6	6-6D	3/8	3/8	\$2.50	\$2.35
7	7D	1/2	1/4	\$5.50	\$2.95
8	8D	1/2	3/8	\$3.30	\$2.80
10	10D	5/8	1/2	\$5.20	\$3.15
12	12D	3/4	3/4	\$4.40	\$4.40



**AN819
(MS20819)**

**SLEEVE,
Coupling**

Size No.		Tube O.D.	Price Each	
Steel	Alum.		Steel	Alum.
2	2D	1/8	\$0.32	\$0.36
3	3D	3/16	\$0.52	\$0.28
4	4D	1/4	\$0.37	\$0.33
5	5D	5/16	\$0.50	\$0.33
6	6D	3/8	\$0.55	\$0.40
8	8D	1/2	\$0.66	\$0.56
10	10D	5/8	\$1.37	\$0.98
12	12D	3/4	\$2.40	---



AN814

**PLUG AND BLEEDER,
Screw Thread**

Size No.		Tube O.D.	Thread Size	Price Each	
Steel	Alum.			Steel	Alum.
2	2D	1/8	5/16-24	\$2.95	\$3.50
3	3D	3/16	3/8-24	\$2.55	\$1.25
4	4D	1/4	7/16-20	\$2.35	\$1.19
5	5D	5/16	1/2-20	\$3.10	\$2.50
6	6D	3/8	9/16-18	\$4.00	\$1.82
8	8D	1/2	3/4-16	\$3.20	\$2.00
10	10D	5/8	7/8-14	---	\$2.95
12	12D	3/4	1-1/16-12	\$4.65	\$5.00



AN817

**NUT,
Sleeve,
Coupling**

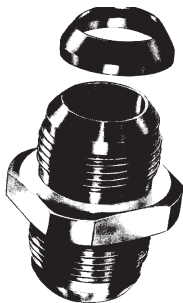
The AN817 nut/sleeve has been largely superseded by the AN818 nut and AN819 sleeve. The AN817 fittings are available on special order, but the less expensive AN818/AN819 combination should be used wherever possible.



AN821

**ELBOW,
Flared Tube, 90°**

Size No.		Tube O.D.	Thread Size	Price Each	
Steel	Alum.			Steel	Alum.
2	2D	1/8	5/16-24	\$8.70	\$9.80
3	3D	3/16	3/8-24	\$8.80	\$5.90
4	4D	1/4	7/16-20	\$5.20	\$2.85
5	5D	5/16	1/2-20	\$7.86	\$4.40
6	6D	3/8	9/16-18	\$6.20	\$4.30
8	8D	1/2	3/4-16	\$6.87	\$5.70
10	10D	5/8	7/8-14	\$11.30	\$8.50
12	12D	3/4	1-1/16-12	---	\$10.20



DEL 37° FITTING SEALS

DEL fitting seals are designed to eliminate leakage due to scratches on the sealing surface, improper torquing, or poor finishes on tube ends, in high or low pressure applications. For use with AN, MS, and JIC 37° flared fittings, DEL fitting seals also reduce tube flare cracking by reducing torque needed, eliminating nose damage to the fitting, and allow reuse of hardware. Approved by FAA, NASA, SAE, Air Force, Army, Navy, and major aerospace contractors.

Part Number	Tube Size OD	Fitting Dash Size	Price Each
04-05002	1/8	2	\$1.33
04-05003	3/16	3	\$1.33
04-05004	1/4	4	\$1.67
04-05006	3/8	6	\$1.45
04-05008	1/2	8	\$1.46
04-05010	5/8	10	\$1.49
04-05012	3/4	12	\$1.52
04-05016	1	16	\$1.54

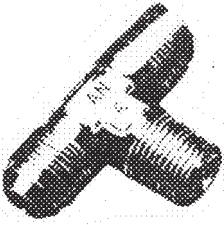
AN FITTINGS



AN822
(MS20822)

ELBOW, Flared Tube and Pipe Thread, 90°

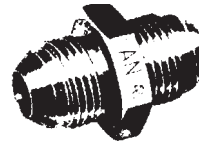
Size No.	Tube		Pipe Size	Price Each	
	Steel	Alum.		Steel	Alum.
2	2D	1/8	1/8	\$15.40	\$8.40
3	3D	3/16	1/8	\$6.95	\$4.65
4	4D	1/4	1/8	\$4.70	\$3.35
4-4	4-4D	1/4	1/4	\$5.40	\$3.45
5	5D	5/16	1/8	\$7.70	\$3.20
6	6D	3/8	1/4	\$5.70	\$3.90
6-2	6-2D	3/8	1/8	\$8.30	\$4.55
6-6	6-6D	3/8	3/8	\$9.80	\$5.70
8	8D	1/2	3/8	\$7.60	\$5.20
10	10D	5/8	1/2	\$7.10	\$7.18
12	12D	3/4	3/4	\$13.90	\$10.50



AN825
(MS20825)

TEE, Flared Tube with Pipe Thread on Side

Size No.	Tube		Pipe Thread	Price Each	
	Steel	Alum.		Steel	Alum.
2	2D	1/8	1/8	---	\$8.40
3	3D	3/16	1/8	\$8.10	\$5.90
4	4D	1/4	1/8	\$7.70	\$5.60
5	5D	5/16	1/8	\$8.40	\$7.60
6	6D	3/8	1/4	\$9.10	\$6.00
8	8D	1/2	3/8	---	\$6.60
10	10D	5/8	1/2	---	\$9.40
12	12D	3/4	3/4	---	---



AN832

UNION, Flared Tube, Bulkhead and Universal

Size No.	Tube		Thread Size	Price Each	
	Steel	Alum.		Steel	Alum.
2	2D	1/8	5/16-24	\$5.60	\$4.10
3	3D	3/16	3/8-24	\$6.60	\$2.65
4	4D	1/4	7/16-20	\$5.80	\$2.60
5	5D	5/16	1/2-20	\$6.20	\$3.95
6	6D	3/8	9/16-18	\$6.00	\$2.70
8	8D	1/2	3/4-16	\$4.70	\$4.60
10	10D	5/8	7/8-14	\$8.90	\$5.20
12	12D	3/4	1-1/16-12	\$15.60	\$7.10

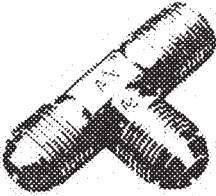
HA



AN823
(MS20823)

ELBOW, Flared Tube and Pipe Thread, 45°

Size No.	Tube		Pipe Thread	Price Each	
	Steel	Alum.		Steel	Alum.
2	2D	1/8	1/8	\$13.30	\$9.40
3	3D	3/16	1/8	\$13.90	\$4.98
4	4D	1/4	1/8	\$5.40	\$3.70
5	5D	5/16	1/8	\$11.70	\$4.45
6	6D	3/8	1/4	\$6.20	\$4.70
8	8D	1/2	3/8	\$6.30	\$6.20
10	10D	5/8	1/2	---	\$8.40
12	12D	3/4	3/4	\$9.30	\$11.60



AN826
(MS20826)

TEE, Tube with Pipe Thread on Run

Size No.	Tube		Pipe Thread	Price Each	
	Steel	Alum.		Steel	Alum.
2	2D	1/8	1/8	---	\$7.20
3	3D	3/16	1/8	\$6.10	\$5.60
4	4D	1/4	1/8	\$6.60	\$4.85
5	5D	5/16	1/8	\$13.80	\$4.65
6	6D	3/8	1/4	\$8.60	\$5.70
8	8D	1/2	3/8	\$7.40	\$6.80
10	10D	5/8	1/2	---	---
12	12D	3/4	3/4	---	\$14.60



AN833

ELBOW, Flared Tube Bulkhead and Universal, 90°

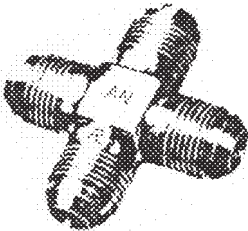
Size No.	Tube		Thread Size	Price Each	
	Steel	Alum.		Steel	Alum.
2	2D	1/8	5/16-24	\$9.30	\$3.95
3	3D	3/16	3/8-24	\$7.10	\$4.85
4	4D	1/4	7/16-20	\$6.10	\$4.75
5	5D	5/16	1/2-20	\$10.30	\$5.70
6	6D	3/8	9/16-18	\$8.60	\$5.90
8	8D	1/2	3/4-16	\$6.80	\$7.70
10	10D	5/8	7/8-14	---	\$11.90
12	12D	3/4	1-1/16-12	---	\$13.90



AN824

TEE, Flared Tube

Size No.	Tube		Thread Size	Price Each	
	Steel	Alum.		Steel	Alum.
2	2D	1/8	5/16-24	\$11.30	\$9.50
3	3D	3/16	3/8-24	\$8.00	\$3.98
4	4D	1/4	7/16-20	\$9.30	\$4.55
5	5D	5/16	1/2-20	\$9.30	\$5.50
6	6D	3/8	9/16-18	\$10.20	\$4.85
8	8D	1/2	3/4-16	\$11.90	\$5.40
10	10D	5/8	7/8-14	\$11.20	\$9.50
12	12D	3/4	1-1/16-12	---	\$14.20



AN827

CROSS, Flared Tube

Size No.	Tube		Thread Size	Price Each	
	Steel	Alum.		Steel	Alum.
2	2D	1/8	5/16-24	---	---
3	3D	3/16	3/8-24	---	\$7.10
4	4D	1/4	7/16-20	\$13.40	\$9.40
5	5D	5/16	1/2-20	---	\$9.20
6	6D	3/8	9/16-18	---	\$6.90
8	8D	1/2	3/4-16	---	\$9.40
10	10D	5/8	7/8-14	---	---
12	12D	3/4	1-1/16-12	---	\$16.80

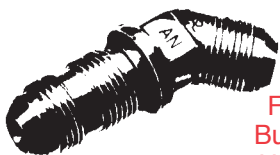


AN834

TEE, Flared Tube, Bulkhead and Universal

Size No.	Tube		Thread Size	Price Each	
	Steel	Alum.		Steel	Alum.
2	2D	1/8	5/16-24	---	\$5.30
3	3D	3/16	3/8-24	---	\$7.70
4	4D	1/4	7/16-20	\$9.40	\$5.10
5	5D	5/16	1/2-20	\$14.95	\$8.60
6	6D	3/8	9/16-18	\$10.90	\$5.60
8	8D	1/2	3/4-16	\$12.10	\$10.00
10	10D	5/8	7/8-14	---	\$4.65
12	12D	3/4	1-1/16-12	---	---

AN FITTINGS



**AN837
ELBOW,
Flared Tube,
Bulkhead and
Universal 45°**

Size No.	Tube		Thread Size	Price Each	
	Steel	Alum.		Steel	Alum.
2	2D	1/8	5/16-24	---	\$9.30
3	3D	3/16	3/8-24	\$10.90	\$6.10
4	4D	1/4	7/16-20	\$6.93	\$5.00
5	5D	5/16	1/2-20	\$9.73	\$5.20
6	6D	3/8	9/16-18	\$8.50	\$4.70
8	8D	1/2	3/4-16	\$9.40	\$5.40
10	10D	5/8	7/8-14	\$11.60	\$10.90
12	12D	3/4	1-1/16-12	\$23.10	---



**AN838
ELBOW,
Hose to Universal, 90°**

Size No.	Hose		Thread Size	Price Each	
	Brass	Alum.		Brass	Alum.
4	4D	1/4	7/16-20	---	\$6.50
6	6D	3/8	9/16-18	---	\$15.40



**AN840
HOSE NIPPLE,
Pipe Thread**

Size No.	Hose		Pipe Size	Price Each	
	Brass	Alum.		Brass	Alum.
4	4D	1/4	1/8	\$3.65	\$2.25
6	6D	3/8	1/4	\$3.35	\$2.80
8	8D	1/2	3/8	\$6.70	\$3.75
---	10D	5/8	1/2	---	\$9.20
12	12D	3/4	3/4	\$14.30	\$5.96



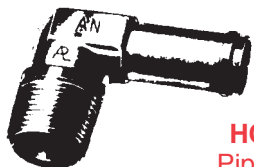
**AN844
HOSE ELBOW,
Pipe Thread, 45°**

Size No.	Tube		Pipe Thread	Price Each	
	Brass	Alum.		Brass	Alum.
4	4D	1/4	1/8	\$7.50	\$8.30
6	6D	3/8	1/4	---	\$8.70
8	8D	1/2	3/8	\$11.80	\$11.00
10	10D	5/8	1/2	\$14.30	\$14.90



**AN848
ELBOW,
Hose Bulkhead, 90°**

Size No.	Hose		Thread Size	Price Each	
	Brass	Alum.		Brass	Alum.
---	4D	1/4	7/16-20	--	\$20.60
---	6D	3/8	9/16-18	--	\$32.70
---	8D	1/2	3/4-16	--	\$34.50



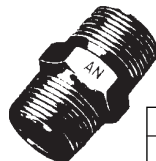
**AN842
HOSE ELBOW,
Pipe Thread, 90°**

Size No.	Hose		Pipe Thread	Price Each	
	Brass	Alum.		Brass	Alum.
4	4D	1/4	1/8	\$3.45	\$7.40
6	6D	3/8	1/4	\$7.40	\$7.40
8	8D	1/2	3/8	---	\$7.90
10	10D	5/8	1/2	\$13.50	\$14.10
12	12D	3/4	3/4	\$18.50	\$16.70



**AN910
COUPLING,
Pipe Thread**

Size No.	Thread		Price Each	
	Brass	Alum.	Brass	Alum.
1	1D	1/8	\$2.60	\$2.40
2	2D	1/4	\$3.45	\$2.65
3	3D	3/8	\$3.15	\$4.25
4	4D	1/2	\$7.20	\$5.30
6	6D	3/4	\$10.10	\$9.20



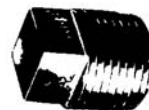
**AN911
NIPPLE,
Pipe Thread**

Size No.	Pipe		Price Each	
	Brass	Alum.	Brass	Alum.
1	1D	1/8	\$2.30	\$1.12
2	2D	1/4	\$1.54	\$1.94
3	3D	3/8	\$2.60	\$2.75
4	4D	1/2	\$7.00	\$3.98
6	6D	3/4	\$6.80	\$7.50



**AN912
BUSHING,
Pipe Thread Reducer**

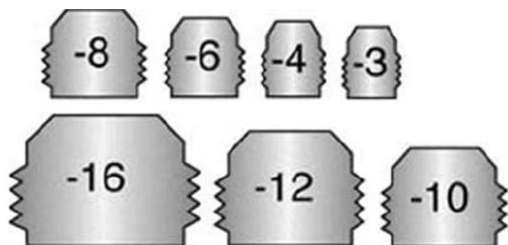
Size No.	Pipe Size	Price Each	Size No.	Pipe Size	Price Each
1D	1/4-1/8	\$1.56	8D	3/4-3/8	\$5.20
2D	3/8-1/4	\$1.84	9D	3/4-1/4	\$2.80
3D	3/8-1/8	\$1.80	10D	1-3/4	\$6.80
4D	1/2-3/8	\$2.40	11D	1-1/2	\$13.40
5D	1/2-1/4	\$2.85	12D	1-3/8	\$11.60
6D	1/2-1/8	\$2.95	13D	11/4-3/4	\$8.60
7D	3/4-1/2	\$4.00			



**AN913
(MS20913)
PLUG, Square Head,
Pipe Thread**

Size No.	Pipe		Price Each				
	Brass	Steel	Alum.	Thread	Brass	Steel	Alum.
1	1S	1D	1/8		\$2.75	\$2.55	\$2.60
2	2S	2D	1/4		\$3.05	\$2.50	\$3.90
3	3S	3D	3/8		\$5.10	---	\$3.45
4	4S	4D	1/2		\$4.70	---	\$3.75
6	6S	6D	3/4		\$6.70	---	\$11.20

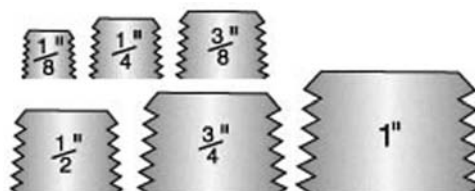
AN FITTING SIZES



AN Size	Metal Tube O.D.	Thread Size
2	1/8	5/16-24 SAE
3	3/16	3/8-24 SAE
4	1/4	7/16-20 SAE
5	5/16	1/2-20 SAE
6	3/8	9/16-18 SAE
8	1/2	3/4-16 SAE
10	5/8	7/8-14 SAE
12	3/4	1-1/16-12 SAE
16	1"	1-5/16-12 SAE

NPT FITTING SIZES

Pipe Thread Size	Threads per inch	Theoretical I.D. of Fitting	Closest AN Fitting Size
1/16"	27	1/16"	
1/8"	27	1/8"	4
1/4"	18	1/4"	6
3/8"	18	3/8"	8
1/2"	14	1/2"	10
3/4"	14	3/4"	12
1"	11.5	1"	16
1-1/4"	11.5	1-1/4"	20
1-1/2"	11.5	1-1/2"	24
2"	11.5	2"	

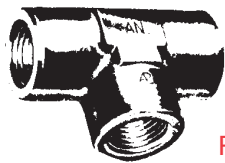


AN FITTINGS



AN914 ELBOW,
Internal
and External
Pipe Thread, 90°

Size No.		Pipe Thread	Price Each	
Brass	Alum.		Brass	Alum.
1	1D	1/8	\$6.00	\$5.20
2	2D	1/4	\$7.50	\$5.20
3	3D	3/8	\$9.00	\$6.97
4	4D	1/2	\$16.94	\$13.20
6	6D	3/4	---	\$23.10



AN917 TEE,
Internal,
Pipe Thread

Size No.		Pipe Thread	Price	
Brass	Alum.		Brass	Alum.
1	1D	1/8	\$9.40	\$6.60
2	2D	1/4	\$14.10	\$6.70
3	3D	3/8	\$10.10	\$7.90
4	4D	1/2	\$16.30	\$9.90
6	6D	3/4	---	\$13.20



AN924 NUT,
Flared Tube, Bulkhead
and Universal Fitting

Size No.		O.D.	Tube Size	Thread		Price	
Steel	Alum.			Steel	Alum.		
2	2D	1/8	5/16-24	\$0.72	\$0.73		
3	3D	3/16	3/8-24	\$0.73	\$0.48		
4	4D	1/4	7/16-20	\$0.67	\$0.38		
5	5D	5/16	1/2-20	\$1.39	\$0.52		
6	6D	3/8	9/16-18	\$1.06	\$0.58		
8	8D	1/2	3/4-16	\$2.10	\$1.02		
10	10D	5/8	7/8-14	\$1.59	\$1.10		
12	12D	3/4	1-1/16-12	\$3.70	\$1.52		

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AN915 ELBOW,
Internal
and External
Pipe Thread, 45°

Size No.		Pipe Thread	Price	
Brass	Alum.		Brass	Alum.
1	1D	1/8	\$10.00	\$5.70
2	2D	1/4	---	\$7.00
3	3D	3/8	\$12.70	\$11.20
4	4D	1/2	\$14.20	\$9.40
6	6D	3/4	---	\$14.80

AN918 CROSS INTERNAL PIPE THREAD



Size #	Pipe Thread	Price Ea
Alum.		Alum.
1D	1/8	\$9.20
2D	1/4	\$6.60
3D	3/8	\$20.90
4D	1/2	\$13.10
6D	3/4	\$9.30

AN929 CAP,
Flared Tube
Fitting



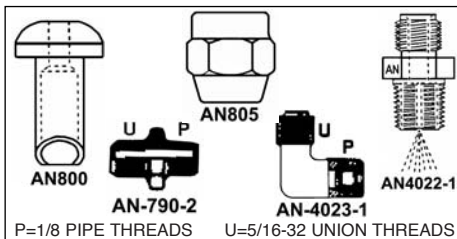
Size No.	Tube O.D.	Thread Size	Price Each
2D	1/8	5/16-24	\$1.11
3D	3/16	3/8-24	\$0.90
4D	1/4	7/16-20	\$0.83
5D	5/16	1/2-20	\$0.94
6D	3/8	9/16-18	\$1.23
8D	1/2	3/4-16	\$1.99
10D	5/8	7/8-14	\$2.85
12D	3/4	1-1/16-12	\$4.30



AN916 ELBOW,
Internal
Pipe Thread, 90°

Size No.		Pipe Thread	Price	
Brass	Alum.		Brass	Alum.
1	1D	1/8	\$6.30	\$6.10
2	2D	1/4	\$8.50	\$11.60
3	3D	3/8	\$9.60	\$9.70
4	4D	1/2	--	\$11.70
6	6D	3/4	--	\$10.40

PRIMER FITTINGS



AN No.	Description	Thread	Price
AN780-2	Union Nipple	1/8x5/16-32	\$5.35
AN800-2	Union Cone	--	\$1.97
AN805-2	Union Nut	5/16-32	\$1.23
AN4022-1	Discharge Nipple	1/8x5/16-32	\$9.60
AN4023-1	Discharge Elbow	1/8x5/16-32	\$7.20



AN919 REDUCER,
External Thread

Size No.		Tube O.D.	Price	
Brass	Alum.		Brass	Alum.
0	0D	3/16-1/8	\$15.30	\$2.50
1	1D	1/4-1/8	\$4.15	\$2.30
2	2D	1/4-3/16	\$4.05	\$2.25
3	3D	5/16-1/4	\$2.35	\$2.65
4	4D	3/8-1/8	\$18.40	\$3.05
5	5D	3/8-3/16	\$9.30	\$3.50
6	6D	3/8-1/4	\$3.55	\$2.90
7	7D	3/8-5/16	\$5.10	\$3.80
8	8D	1/2-1/8	\$19.70	\$7.70
9	9D	1/2-3/16	---	\$6.80
10	10D	1/2-1/4	\$7.60	\$3.35
11	11D	1/2-5/16	\$7.60	\$7.60
12	12D	1/2-3/8	\$9.50	\$3.10

ALUMINUM MANIFOLD FITTINGS

ORDERING INFORMATION

Basic part number on all fittings is 04-00XXX, complete the part number by filling in the last 3 digits after selecting the fitting you need according to the details below. Example: 04-00102.

First Code Number - Determines the style of the fitting.

- 1: One port in the end with two ports out, 90° cross drilled with one port per side. 3 ports total. Two Mounting Holes.
- 2: One port in the end with four ports out, 90° cross drilled with two ports per side. 5 ports total. Two Mounting Holes.
- 3: One port in the end with six ports out, 90° cross drilled with three ports per side. 7 ports total. Four Mounting Holes.
- 4: One port in the end with eight ports out, 90° cross drilled with four ports per side. 9 ports total. Four Mounting Holes.
- 5: One port in the end with four ports out, 90° drilling with four ports on one side only. 5 ports total. Two Mounting Holes.

Second Code Number - Determines the style of porting.

- 0: All the ports are the same.
- 1: Inlet port is one size larger than outlet ports.
- 2: Inlet port is two sizes larger than outlet ports.

Third Code Number - Determines the inlet port size.

- 2: 1/8-27 taper pipe thread (NPT)
- 4: 1/4-18 taper pipe thread (NPT)
- 6: 3/8-18 taper pipe thread (NPT)
- 8: 1/2-14 taper pipe thread (NPT)

In the example above - 04-00102, this would be a 1/8 NPT inlet with two outlets of the same size.

Ex. - 04-00326, this would have a 3/8 NPT inlet w/six 1/8 NPT outlets.

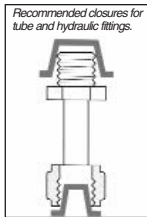
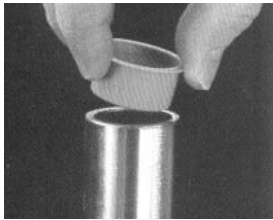


Our aluminum manifold fittings are a bolt-on design with taper pipe threads. These fittings are designed to provide a convenient means of plumbing multiple hoses from and/or to one source with the fitting being bolted to a supporting structure. This design will eliminate Adel clamps at the juncture of the hoses and eliminate additional tee type fittings when more than two hoses are to be connected to one source. Applications include brake reservoir lines, static system, suction systems, fuel systems, air line pigs, smoke systems, and more. Not for use on oxygen systems or pressures over 150 psi.

Part No.	Price	Part No.	Price	Part No.	Price
04-00102	\$9.40	04-00214	\$12.67	04-00328	\$23.10
04-00104	\$13.20	04-21600	\$15.55	04-00402	\$21.80
04-00106	\$13.95	04-21800	\$24.60	04-00404	\$29.20
04-00108	\$17.60	04-00226	\$16.90	04-00414	\$21.68
04-00114	\$10.40	04-00228	\$17.17	04-00416	\$26.54
04-00116	\$10.72	04-00302	\$17.40	04-00426	\$23.33
04-00118	\$12.57	04-00304	\$19.63	04-00428	\$27.99
04-00126	\$9.98	04-00306	\$26.56	04-00502	\$14.90
04-00128	\$11.88	04-00308	\$28.64	04-00504	\$20.10
04-00202	\$12.90	04-00314	\$18.70	04-00514	\$17.30
04-00204	\$17.10	04-00316	\$21.69	04-00516	\$17.89
04-00206	\$18.35	04-00318	\$25.56	04-00526	\$15.74
04-00208	\$20.68	04-00326	\$19.29	04-00528	\$19.35

CAPPLUGS

T SERIES CAPPLUGS (NON-THREADED)

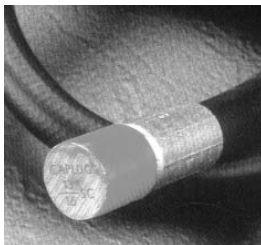
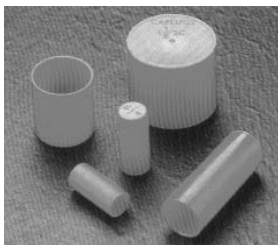


Tapered Caplugs can be used as either caps or plugs. Because they are tapered in design and made from highly pliable (or flexible) Polyethylene, they can be applied to fit snugly and are readily removable, whether used for capping or plugging. Especially recommended for use on MIL Std. and SAE-type tube and hydraulic fittings and for threaded external and internal NPT fittings.

Part No.	Dash No.	Tubing O.D.	Thread	Caplugs As Plugs	Caplugs As Caps	Price Each
04-00045	-2	1/8	5/16-24	1	2	\$0.06
04-00046	-3	3/16	3/8-24	2	3-X	\$0.07
04-00047	-4	1/4	7/16-20	3	4-X	\$0.10
04-00048	-5	5/16	1/2-20	4	5	\$0.09
04-00049	-6	3/8	9/16-18	5	6-X	\$0.10
04-00050	-8	1/2	3/4-16	8	9-X	\$0.10
04-00051	-10	5/8	7/8-14	10	11-X	\$0.09
04-00052	-12	3/4	1 1/16-12	12-X	13-X	\$0.13
04-00053	-16	1	1 5/16-12	14-X	15-X	\$0.18

Less 20% Discount on 50 Caplugs (Same P/N)

SC SERIES CAPPLUGS (NON-THREADED)

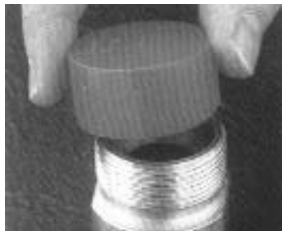


Series SC sleeve caps are designed to fit outside diameters of tubing sizes listed with a snug friction grip. Available in 57 different O.D.'s and lengths. Ideal for capping and protecting both threaded and non-threaded tubing or rod ends. They also make excellent masks, for painting, plating or grit-blasting operations.

Part No.	Caplug No.	A		B		Price Each
		To fit tube Inches	O.D. mm	Inside Inches	Length mm	
04-00054	SC-1/8	1/8	3.18	.59	14.99	\$0.06
04-00055	SC-3/16-5	3/16	4.76	.35	8.89	\$0.06
04-00056	SC-3/16-16	3/16	4.76	1.00	25.40	\$0.06
04-00057	SC-1/4-4	1/4	6.35	.22	5.59	\$0.07
04-00058	SC-1/4-14	1/4	6.35	.88	22.35	\$0.06
04-00059	SC-5/16	5/16	7.94	.88	22.35	\$0.09
04-00060	SC-3/8	3/8	9.53	.88	22.35	\$0.07
04-00061	SC-7/16-14	7/16	11.11	.88	22.35	\$0.08
04-00062	SC-1/2-8	1/2	12.70	.50	12.70	\$0.08
04-00063	SC-1/2-14	1/2	12.70	.88	22.35	\$0.09
04-00064	SC-9/16-9	9/16	14.29	.56	14.22	\$0.09
04-00065	SC-9/16-14	9/16	14.29	.88	22.35	\$0.10
04-00066	SC-5/8	5/8	15.88	.88	22.35	\$0.11
04-00067	SC-3/4	3/4	19.05	.88	22.35	\$0.13
04-00068	SC-7/8	7/8	22.23	.88	22.35	\$0.14
04-00069	SC-1	1	25.40	1.00	25.40	\$0.12

Less 20% Discount on 50 Caplugs (Same P/N)

CD SERIES CAPPLUGS (NON-THREADED)

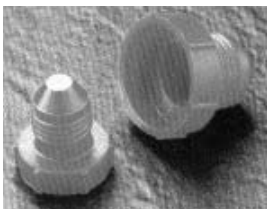


Knurled for ease of application, Series CD caps seal flared JIC fittings exceptionally well against dirt and moisture, as well as for masking during dipping, painting and plating.

Part No.	Caplug No.	To Cap Normal Tubing Size Inches	To fit Thread	Dim A		No. of Knurls	Price Each
				In	mm		
04-00032	CD-3	3/16	3/8-24	.47	11.94	4	\$0.10
04-00033	CD-4	1/4	7/16-20	.47	11.94	4	\$0.11
04-00034	CD-5	5/16	1/2-20	.47	11.94	6	\$0.15
04-00035	CD-6	3/8	9/16-18	.53	13.46	6	\$0.12
04-00036	CD-6A	3/8	5/8-18	.53	13.46	6	\$0.15
04-00037	CD-8	1/2	3/4-16	.57	14.48	6	\$0.16
04-00038	CD-10	5/8	7/8-14	.68	17.27	6	\$0.17
04-00039	CD-11	-	1-14	.78	19.81	8	\$0.13
04-00040	CD-12	3/4	1 1/16-12	.75	19.05	8	\$0.12

Less 20% Discount on 50 Caplugs (Same P/N)

PD SERIES CAPPLUGS (THREADED)



Series PD Plugs, designed for use on flared JIC fittings, air knurled for ease of application. They will seal low pressure requirements with light finger tightening. PD plugs can be used to seal 37° flare fittings without gaskets.

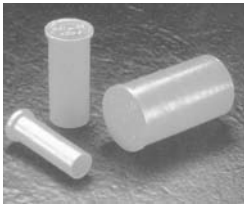
Part No.	Caplug No.	To Plug Nominal Tubing Size	To fit Thread	Dimensions						Price Each	
				B		C		D			
				in	mm	in	mm	in	mm		
04-00023	PD-30	3/16	3/8-24	.46	11.68	.50	12.70	.18	4.57	\$0.13	
04-00024	PD-40	1/4	7/16-20	.53	13.46	.62	15.75	.19	4.83	\$0.13	
04-00025	PD-50	5/16	1/2-20	.53	13.46	.68	17.27	.25	6.35	\$0.22	
04-00026	PD-60	3/8	9/16-18	.50	12.70	.81	20.57	.25	6.35	\$0.16	
04-00027	PD-65	3/8	5/8-18	.59	14.99	.81	20.57	.25	6.35	\$0.14	
04-00028	PD-80	1/2	3/4-16	.75	19.05	.94	23.88	.25	6.35	\$0.18	
04-00029	PD-100	5/8	7/8-14	.87	22.10	1.06	26.93	.25	6.35	\$0.18	
04-00030	PD-121	3/4	1-1/16-14	1.12	28.45	1.31	33.28	.25	6.35	\$0.18	
04-00031	PD-160	1	1-5/16-12	.93	23.62	1.50	38.10	.25	6.35	\$0.22	

Less 20% Discount on 50 Caplugs (Same P/N)

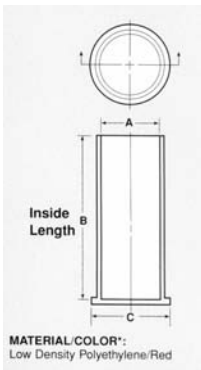
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CAPPLUGS

RCL SERIES CAPPLUGS (UNTHREADED)



Series RCL caps are ideal for protecting threaded or smooth cylindrical surfaces. Originally designed for use on hydraulic double threaded bulkhead fittings, they are especially suitable where greater longitudinal protection is required.



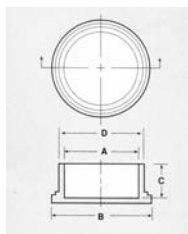
Part No.	Caplug No. (formerly series B-203)	A To Cap Thread Size Inches	B Inside Length		C		Price Each
			In	mm	in	mm	
04-00079	RCL-2	5/16	1.24	31.50	.46	11.68	\$0.12
04-00080	RCL-3	3/8	1.24	31.50	.52	13.21	\$0.11
04-00009	RCL-4	7/16	1.33	33.78	.58	14.73	\$0.13
04-00011	RCL-5	1/2	1.33	33.78	.64	16.26	\$0.11
04-00012	RCL-6	9/16	1.41	35.82	.70	17.78	\$0.13
04-00013	RCL-8	3/4	1.56	39.63	.88	22.35	\$0.15
04-00014	RCL-9	M-20 (.787)	1.56	39.63	.91	23.11	\$0.37
04-00015	RCL-10	7/8	1.70	43.18	1.01	25.66	\$0.17
04-00016	RCL-12	1 ¹ / ₁₆	1.89	48.01	1.19	30.23	\$0.20

Less 20% Discount on 50 Caplugs (Same P/N)

EC SERIES CAPPLUGS (UNTHREADED)



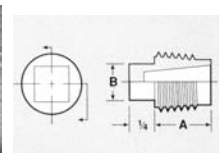
Static dissipative EC Series Caplugs provide positive ESD and physical protection for all common sizes of threaded electrical and electronic connectors. Also suitable for protecting non-threaded bayonet-type connectors.



Part No.	Caplug No.	A-Caps Nominal Thread Size Inches	Dimensions				Price Each
			B		C		
			In	mm	in	mm	
04-00070	EC-4	1/4	.48	12.19	.50	12.70	\$0.06
04-00071	EC-5	5/16	.55	13.97	.56	14.22	\$0.06
04-00072	EC-6	3/8	.62	15.75	.50	12.70	\$0.09
04-00073	EC-8	1/2	.74	18.79	.50	12.70	\$0.09
04-00074	EC-9	9/16	.78	19.81	.44	11.18	\$0.10
04-00075	EC-10	5/8	.84	21.34	.50	12.70	\$0.10
04-00076	EC-12	3/4	.97	24.63	.50	12.70	\$0.10
04-00077	EC-14	7/8	1.12	28.44	.50	12.70	\$0.11
04-00078	EC-16	1	1.22	30.98	.50	12.70	\$0.09

Less 20% Discount on 50 Caplugs (Same P/N)

P SERIES CAPPLUGS (THREADED)

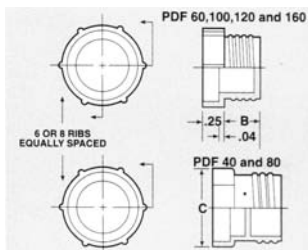
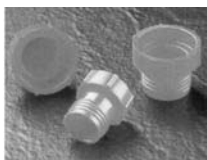


Series P pipe plug are available in three styles: square head, round head, recessed socket. They are molded in high density polyethylene and are ideal for keeping moisture, dirt and other contaminants from NPT-threaded ports.

Part No.	Caplug No.	To Fit	Dimensions						Price Each
			A		B		C		
			in	mm	in	mm	in	mm	
04-00041	P-18	1/8" NPT	.44	11.18	.28	7.11	-	-	\$0.15
04-00042	P-28	1/4" NPT	.50	12.70	.37	9.40	-	-	\$0.15
04-00043	P-38	3/8" NPT	.56	14.22	.44	11.18	-	-	\$0.21
04-00044	P-48	1/2" NPT	.59	14.99	.56	14.22	-	-	\$0.24

Less 20% Discount on 50 Caplugs (Same P/N)

PDF SERIES CAPPLUGS (THREADED)



Series PDF plugs are designed for easy mechanical or hand installation on flat-faced O-ring fittings.

Part No.	Caplug No.	To Plug Nominal Tubing Size	To Fit Thread Size	Dimensions				Price Each
				B		C		
				in	mm	in	mm	
04-00018	PDF-60	3/8"	11/16-16	.44	11.18	.87	22.10	\$0.18
04-00019	PDF-80	1/2"	13/16-16	.50	12.70	.94	23.88	\$0.20
04-00020	PDF-100	5/8"	1-14	.59	14.99	1.16	29.47	\$0.20
04-00021	PDF-120	3/4"	1 ³ / ₁₆ -12	.63	16.00	1.33	33.78	\$0.26
04-00022	PDF-160	1"	1 ⁷ / ₁₆ -12	.75	19.05	1.63	41.40	\$1.14

Less 20% Discount on 50 Caplugs (Same P/N)

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NYLO-SEAL FITTINGS

NYLO-SEAL FITTINGS



Nylo-Seal tube fittings are exceptionally strong. The bodies, made of nylon, are stronger than machined fittings of similar composition. They are furnished complete with nut/sleeve assemblies, made of acetal copolymer. Since the sleeve snaps into and is retained by the nut there is no fumbling for a loose sleeve. Just insert tube into the fitting and tighten the nut 2 to 2-1/2 full turns.

Note: The most frequently used combination of tube and pipe sizes are 1/4" Tube x 1/8" Pipe and 3/8" Tube x 1/4" Pipe.

259-P CAP, 259-N Insert (Nylon)

Part No.	Tube O.D.	A	D
259-N	1/4	3/8	1/8
259-P	3/8	7/16	13/64

261-N Nut and Sleeve Assembly

Part No.	Tube O.D.	Thd.	A	C
261-N	1/4	7/16-20	15/32	9/16
261-N	3/8	5/8-20	37/64	3/4

268-N Male Connector

Tube O.D.	Pipe Thd.	A	B	C	D	E
1/4	1/8	1-13/64	1	5/8	15/64	15/32
1/4	1/4	1-25/64	1-3/16	5/8	15/64	11/16
3/8	1/4	1-17/32	1-21/64	13/16	5/16	19/32
3/8	3/8	1-19/32	1-25/64	13/16	11/32	19/32



262-N Union

Tube O.D.	A	B	C	D	E
1/4	1-25/64	63/64	5/8	7/32	15/32
3/8	1-21/32	1-1/4	13/16	23/64	19/32

269-N Male Elbow

Tube O.D.	Pipe Thd.	A	B	D	E	F
1/4	1/8	1-1/64	13/16	7/32	3/8	27/32
1/4	1/4	1-1/64	13/16	13/32	3/8	1-1/32
3/8	1/4	1-9/64	15/16	5/16	7/16	1-1/32
3/8	3/8	1-9/64	15/16	11/32	7/16	1-3/32

264-N Union Tee

Tube O.D.	A	B	D	E
1/4	1-9/64	47/64	7/32	15/32
3/8	1-11/64	31/31	11/32	19/32

271-N Male Run Tee

Tube O.D.	Pipe Thd.	A	B	D	E	F
1/4	1/8	59/64	21/32	7/32	15/32	3/4
1/4	1/4	59/64	13/32	7/32	15/32	29/32
3/8	1/4	1-5/32	61/64	5/16	19/32	1-1/16
3/8	3/8	1-3/16	61/64	23/64	19/32	1-7/64

266-N Female Connector

Tube O.D.	Pipe Thd.	A	B	C	D	E
1/4	1/8	1-9/64	15/16	9/16	7/32	9/16
1/4	1/4	1-5/16	1-7/64	11/16	7/32	47/64
3/8	1/4	1-27/64	1-7/32	11/16	11/32	3/4
3/8	3/8	1-27/64	1-7/32	13/16	11/32	3/4

272-N Male Branch Tee

Tube O.D.	Pipe Thd.	A	B	D	E	F
1/4	1/8	15/16	47/64	7/32	15/32	3/4
1/4	1/4	15/16	47/64	7/32	15/32	13/16
3/8	1/4	1-11/64	31/32	5/16	19/32	1-1/16
3/8	3/8	1-11/64	31/32	23/64	19/32	1-7/64

265-N Elbow Union

Tube O.D.	A	B	D	E
1/4	1-1/64	13/16	7/32	3/8
3/8	1-5/32	15/16	11/32	7/16

282-N Bulkhead Union

Tube O.D.	Pipe Thd.	A	B	C	D	E	F	G
1/4	7/16-20	1-57/64	1-31/64	5/8	7/32	15/32	5/8	5/16
3/8	5/8-20	2-1/4	1-53/64	13/16	11/32	19/32	7/8	3/8

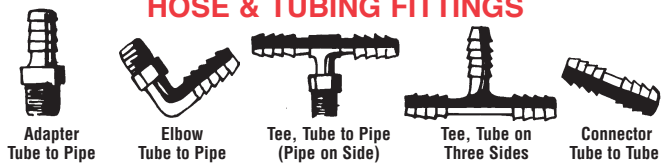
***Use 259-N inserts with all Poly-Flo tubing connections. Not needed with Nylo-Seal tubing.**

Part No.	Tube Size In.	Price Each	Part No.	Size (In) Tube Pipe	Price Each	Part No.	Size (In) Tube Pipe	Price Each
259-N 04	1/4	\$0.69	266-N 04 x 02	1/4 x 1/8	\$4.80	271-N 04 x 02	1/4 x 1/8	\$2.50
259-N 06	3/8	\$0.72	266-N 04 x 04	1/4 x 1/4	\$4.35	271-N 04 x 04	1/4 x 1/4	\$3.40
259-P 04	1/4	\$0.65	266-N 06 x 04	3/8 x 1/4	\$4.85	271-N 06 x 04	3/8 x 1/4	\$6.00
259-P 06	3/8	\$0.77	266-N 06 x 06	3/8 x 3/8	\$5.30	271-N 06 x 06	3/8 x 3/8	\$4.40
261-N 04	1/4	\$0.61	268-N 04 x 02	1/4 x 1/8	\$1.64	272-N 04 x 02	1/4 x 1/8	\$2.60
261-N 06	3/8	\$0.92	268-N 04 x 04	1/4 x 1/4	\$1.68	272-N 04 x 04	1/4 x 1/4	\$3.20
262-N 04	1/4	\$1.86	268-N 06 x 04	3/8 x 1/4	\$1.80	272-N 06 x 04	3/8 x 1/4	\$4.25
262-N 06	3/8	\$2.60	268-N 06 x 06	3/8 x 3/8	\$1.84	272-N 06 x 06	3/8 x 3/8	\$6.20
264-N 04	1/4	\$3.10	269-N 04 x 02	1/4 x 1/8	\$1.83	282-N 04	1/4	\$4.75
264-N 06	3/8	\$4.65	269-N 04 x 04	1/4 x 1/4	\$1.80	282-N 06	3/8	\$5.60
265-N 04	1/4	\$2.45	269-N 06 x 04	3/8 x 1/4	\$2.75	----	----	----
265-N 06	3/8	\$3.90	269-N 06 x 06	3/8 x 3/8	\$2.85	----	----	----

Less 10% on 50 pieces per size, Less 20% on 100 pieces per size

HOSE FITTINGS – PIPE FITTINGS

HOSE & TUBING FITTINGS



Hose and tubing Insert Fittings are available in high density polyethylene or Nylon. Use polyethylene fittings with Tygon, nylon or soft rubber tubing to assemble low pressure instrument lines such as airspeed pitot and static lines. Use Nylon fittings in gravity-feed fuel lines and engine breather lines.

Fitting Type	Size	Polyethylene		Nylon	
		Part No.	Price Each	Part No.	Price Each
ADAPTER <i>Tube to pipe</i>	3/16Tx1/8P	0700-150	\$0.34	0701-150	\$0.44
	1/4Tx1/8P	0700-153	\$0.70	0701-153	\$0.48
	5/16Tx1/8P	0700-156	\$0.52	0701-156	----
	3/8Tx1/8P	0700-158	\$0.68	0701-158	\$0.57
	1/4Tx1/4P	0700-110	\$0.54	0701-110	\$0.62
ELBOW <i>Tube to Pipe</i>	1/4Tx1/8P	0710-153	\$0.80	0711-153	\$0.87
	3/8Tx1/8P	0710-158	\$0.85	0711-158	\$0.84
	1/4Tx1/4P	0710-110	\$1.04	0711-110	\$0.96
	3/8Tx1/4P	0710-162	\$0.67	0711-162	\$0.85
ELBOW <i>Tube to Tube</i>	1/4Tx1/4T	0710-015	\$0.75	0711-015	\$0.95
	3/8Tx3/8T	0710-020	\$1.04	0711-020	\$0.84
	1/4Px1/8P	0725-153	\$0.51	0726-153	\$0.77
REDUCING CONNECTOR	3/8Px1/8P	0725-161	\$0.58	0726-161	\$0.80
	3/8Px1/4P	0725-162	\$0.66	0726-162	\$0.89
	1/4Tx1/4Tx1/8P	0715-153	\$1.04	0716-153	\$0.87
TEE <i>Tube to pipe</i>	3/8Tx3/8Tx1/4P	0715-162	\$1.04	0716-162	\$0.84
	1/4Tx1/4Tx1/4P	0715-110	\$0.96	0716-110	\$0.85
	3/16Tx3/16Tx3/16T	0715-011	\$0.33	0716-011	\$0.75
TEE <i>All Tube</i>	1/4Tx1/4Tx1/4T	0715-015	\$1.04	0716-015	\$0.94
	3/8Tx3/8Tx3/8T	0715-020	\$1.04	0716-020	\$0.85
	1/4Tx1/4T	0705-015	\$0.60	0706-015	\$0.55
CONNECTOR <i>Tube to Tube</i>	3/8Tx3/8T	0705-020	\$0.68	0706-020	\$0.56

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BRASS POLY-FLO FITTINGS

Poly-Flo Flareless tube fittings consist of a brass body, nut and sleeves. Use with PolyFlo, PVC or Nylaflo pressure tubing. The Poly-Flo fittings have the same configuration as Nylo-Seal fittings of the same basic part number.

261UB - NUT WITH SLEEVE				
Tube O.D.	Thread Size	Part Number	Price Each	
1/8	5/16-24	261UB-02	\$0.59	
3/16	3/8-24	261UB-03	\$0.56	
1/4	3/8-24	261UB-04	\$0.57	

268P - MALE CONNECTOR				
Tube O.D.	Pipe Thread	Part Number	Price Each	
1/8	1/8	268P-02x02	\$1.40	
3/16	1/8	268P-03x02	\$1.68	
1/4	1/8	268P-04x02	\$1.40	

262P - UNION				
Tube O.D.	Thread Size	Part Number	Price Each	
1/8	--	262P-02	\$3.45	
3/16	--	262P-03	\$4.45	
1/4	--	262P-04	\$2.95	

269P - MALE ELBOW				
Tube O.D.	Pipe Thread	Part Number	Price Each	
3/16	1/8	269P-03x02	\$2.65	
1/4	1/8	269P-04x02	\$1.85	

264P - UNION TEE				
Tube O.D.	Thread Size	Part Number	Price Each	
3/16	--	264P-03	\$6.10	
1/4	--	264P-04	\$3.85	

270P - FEMALE ELBOW				
Tube O.D.	Pipe Thread	Part Number	Price Each	
3/16	1/8	270P-03x02	\$3.45	

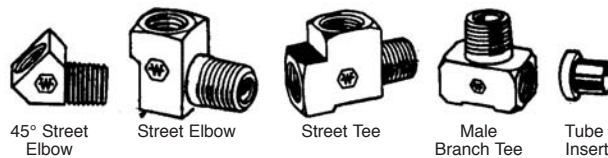
266P - FEMALE CONNECTOR				
Tube O.D.	Pipe Thread	Part Number	Price Each	
1/8	1/8	266P-02x02	\$2.75	
3/16	1/8	266P-03x02	\$2.90	

272P - MALE BRANCH TEE				
Tube O.D.	Pipe Thread	Part Number	Price Each	
3/16	1/8	272P-03x02	\$6.50	

P/N 84-LB-03 Tube compression Fitting Tee\$6.70

WEATHERHEAD BRASS PIPE FITTINGS

These brass elbows and tees provide flexibility in the routing of lines which terminate in male pipe threads.



45° STREET ELBOW		
Part Number	Pipe Thread	Price Each
3350x2	1/8	\$1.21
3350x4	1/4	\$1.84
3350x6	3/8	\$2.75

90° STREET ELBOW		
Part Number	Pipe Thread	Price Each
3400x2	1/8	\$0.98
3400x4	1/4	\$1.43
3400x6	3/8	\$2.60

MALE BRANCH TEE		
Part Number	Pipe Thread	Price Each
3600x2	1/8	\$1.72
3600x4	1/4	\$2.55
3600x6	3/8	\$3.90

STREET TEE		
Part Number	Pipe Thread	Price Each
3750x2	1/8	\$1.67
3750x4	1/4	\$3.80
3750x6	3/8	\$4.15

MISCELLANEOUS WEATHERHEAD BRASS FITTINGS

Part No.	Description	Size	Price Each
2030-4	Tube Insert*	1/8ODx3/32ID	\$0.47
3220x4x2	Bushing	1/8FPx1/4MP	\$0.52
6100x2	Nut	1/8T	\$0.26
6200x2	Male Connector	1/8Tx1/8P	\$0.42
66x2	Fml Connector	1/8Tx1/8P	\$1.30

* Used for Long-EZ brake fittings.

WEATHERHEAD BARB-TITE REUSABLE HOSE ENDS

Designed for use with hoses with maximum working pressure up to 250 PSI. Easy to assemble and disassemble.

MALE PIPE		Hose I.D.	Pipe Size	Cut-off Factor	Price Each
10006B-102	Straight Pipe	3/8"	1/8"	1-1/2	\$1.42
10006B-104		3/8"	1/4"	1-1/2	\$1.24
10006B-106		3/8"	3/8"	1-11/16	\$1.61
10006B-C02	90° Pipe	3/8"	1/8"	3/8	\$4.10
10006B-C04		3/8"	1/4"	3/8	\$4.20

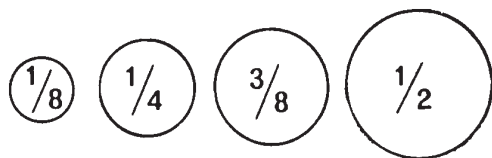
ASSEMBLY INSTRUCTIONS



TO ASSEMBLE - Cut hose to correct length. To obtain correct length, subtract "Cut-Off Factor" for each end from overall length. Push hose on fitting until seated under protective cap. Lubricate hose & end for easy assembly.



TO DISASSEMBLE - Slit hose from protective cap to end of Barb- Tite insert. Bend hose and remove with quick jerk.



CLAMPS



MS21919 DG & WDG CLAMPS

Loop-type cushioned aluminum alloy clamp. Cushion (non-fuel resistant) is bonded to inner surface and edges of clamp. WDG clamps are cushion wedge type. Cushion assures tight fit and eliminates vibration, thus preventing line abrasion.

Tube Dia.	Dash No.	Price Each	Dash No.	Price Each	Tube Dia.	Dash No.	Price Each	Dash No.	Price Each
1/8	DG2	\$0.38	WDG2	\$0.41	1-5/16	DG21	\$1.52	WDG21	\$1.64
3/16	DG3	\$0.34	WDG3	\$0.47	1-3/8	DG22	\$1.08	WDG22	\$1.67
1/4	DG4	\$0.20	WDG4	\$0.32	1-7/16	DG23	\$0.99	WDG23	\$2.35
5/16	DG5	\$0.22	WDG5	\$0.33	1-1/2	DG24	\$0.92	WDG24	\$1.15
3/8	DG6	\$0.18	WDG6	\$0.37	1-9/16	DG25	\$1.92	WDG25	\$2.95
7/16	DG7	\$0.44	WDG7	\$0.47	1-5/8	DG26	\$1.19	WDG26	\$1.54
1/2	DG8	\$0.36	WDG8	\$0.43	1-3/4	DG28	\$1.53	WDG28	\$1.89
9/16	DG9	\$0.54	WDG9	\$0.57	1-7/8	DG30	\$1.83		
5/8	DG10	\$0.40	WDG10	\$0.45	1-15/16	DG31	\$1.59		
11/16	DG11	\$0.58	WDG11	\$0.73	2	DG32	\$1.15		
3/4	DG12	\$0.33	WDG12	\$0.59	2-1/16	DG33	\$2.45		
13/16	DG13	\$0.61	WDG13	\$0.69	2-1/8	DG34	\$1.43		
7/8	DG14	\$0.50	WDG14	\$0.83	2-1/4	DG36	\$2.85		
15/16	DG15	\$0.69	WDG15	\$0.81	2-3/8	DG38	\$2.15		
1	DG16	\$0.37	WDG16	\$0.63	2-1/2	DG40	\$1.50		
1-1/16	DG17	\$0.95	WDG17	\$0.91	2-5/8	DG42	\$1.31		
1-1/8	DG18	\$0.85	WDG18	\$0.98	2-3/4	DG44	\$2.90		
1-3/16	DG19	\$1.14	WDG19	\$1.51	2-7/8	DG46	\$3.55		
1-1/4	DG20	\$0.65	WDG20	\$0.96	3	DG48	\$1.48		

Less 15% in lots of 50. May be assorted.



Aero-Seal QS 100 HOSE CLAMPS

Tangential worm-screw type for use on fuel, oil, air and coolant lines. Worm drive provides uniform clamping pressure without distorting hose. The QS100 series has stainless steel band with cadmium-plated carbon steel thumb screw. To attach, just push housing to the desired position on the band, snugly around hose, & the threads of the worm screw will drop into the slots. Tighten thumb screw with finger pressure - no tools required.

QS100 Dash No.	Dia. Range (In.)		Price Each	QS100 Dash No.	Dia. Range (In.)		Price Each
	Min.	Max.			Min.	Max.	
M6W	7/16	25/32	\$1.38	M24W	1-1/16	2	\$1.10
M8W	1/2	29/32	\$1.12	M28W	1-1/16	2-1/4	\$1.14
M10W	9/16	1-1/16	\$1.40	M32W	1-9/16	2-1/2	\$1.49
M12W	11/16	1-1/4	\$1.40	M36W	1-13/16	2-3/4	\$1.22
M16W	13/16	1-1/2	\$1.23	M40W	2-1/16	3	\$1.69

Less 15% in lots of 50. May be assorted.

Aero-Seal QS 200 HOSE CLAMPS

Aero-Seal stainless steel clamps are for industrial & aircraft applications. This tangential worm-screw type clamp is for use on fuel, oil, air & coolant lines. The worm drive provides uniform clamping pressure without distorting hose. Attach by pushing housing snugly around the hose to desired position on the band—the threads of the worm screw will drop into slots. Tighten slotted head with screwdriver.

QS200 Dash No.	Dia. Range (In.)		Price Each	Dash No.	Dia. Range (In.)		Price Each
	Min.	Max.			Min.	Max.	
-06H	7/16	25/32	\$1.04	-44H	2-5/16	3-1/4	\$1.51
-08H	1/2	29/32	\$1.08	-48H	2-9/16	3-1/2	\$1.51
-10H	9/16	1-1/16	\$1.09	-52H	2-13/16	3-3/4	\$1.55
-12H	11/16	1-1/4	\$1.05	-56H	3-1/16	4	\$1.54
-16H	13/16	1-1/2	\$1.08	-60H	3-5/16	4-1/4	\$1.60
-20H	13/16	1-3/4	\$1.07	-64H	3-9/16	4-1/2	\$1.74
-24H	1-1/16	2	\$1.11	-72H	4-1/8	5	\$1.86
-28H	1-5/16	2-1/4	\$1.14	-80H	4-5/8	5-1/2	\$2.05
-32H	1-9/16	2-1/2	\$1.07	-88H	5-1/8	6	\$2.10
-36H	1-13/16	2-3/4	\$1.23	-96H	5-5/8	6-1/2	\$2.10
-40H	2-1/16	3	\$1.43	---	---	---	---

Less 15% in lots of 50. May be assorted.

SNAPPER CLAMPS

A quick ratchet closure provides specific take-up, eliminating excessive tightening which may mutilate the hose.
 3/8" for 1/4" fuel lineP/N 05-00940.....**\$0.33**
 1", for radiator hoseP/N 05-00941**\$0.56**

BREEZE AERO-SEAL STAINLESS CLAMP KITS

Pack A : Contains 2 each QS200 -52H, -64H, -72H and -80H. P/N 05-00942.....**\$14.40**
Pack B : Contains 2 each QS200 -8H, -12H, -24H, -32H, -40H, & -64H. P/N 05-01340.....**\$14.96**



AN742 PLAIN CLAMPS

Plain loop-type line support clamps, made of aluminum alloy meeting specification QQ-A-362, condition T. Heat-treated to a minimum tensile strength of 50,000 PSI.

Dash No.	For Tube O. D. (In.)	Price Each	Dash No.	For Tube O. D. (In.)	Price Each
-D3	3/16	\$0.16	-D8	1/2	\$0.37
-D4	1/4	\$0.15	-D10	5/8	\$0.38
-D5	5/16	\$0.49	-D12	3/4	\$0.36
-D6	3/8	\$0.35	-D15	15/16	\$0.87
-D7	7/16	\$1.25	-D16	1	\$0.45

Less 15% in lots of 50. May be assorted.

BREEZE MINIATURE CLAMPS



The best clamp for small diameter hose and tubing. Stainless steel band and housing with plated carbon steel screw. Applies an even circumferential pressure with less torque.

7/32" to 5/8"P/N 6504**\$0.71 Ea.**
 7/16" to 7/8"P/N 6506**\$0.69 Ea.**

SPEED CLAMPS



Self-locking, ratchet-type hose clamps. 1-piece construction - no bolts, nuts or thumb screws. Fast, easy installation & removal on low and medium-pressure connections. Approved for use on military aircraft. Clamps are made of special aircraft spring steel. Finish is a phosphate coating plus three coats of olive drab paint.

Tinnerman A3122 Dash No.	NAS 397 Dash No.	Hose O.D. (In.)		Price Each
		Min.	Max.	
-8-1J	-8	15/32	1/2	\$1.51
-14-1J	-14	13/16	7/8	---
-16-1J	-16	15/16	1	\$3.20
-28-1J	-28	1-19/32	1-3/4	---

Less 15% for 100 per size.

OETIKER STEPLESS SCREW CLAMPS



Oetiker Stepless Screw Clamps feature a unique tongue-in-groove design to provide a perfect 360° seal. Their narrow band width of 9 mm is designed to fit grooved objects. They are ideal where specialty clamping needs have to be met and the application calls for a smooth inner surface such as on flexible duct sleeves. The tongue-in-groove design provides that "stepless" complete seal. Manufactured using 300 AISI series stainless steel.

P/N	Clamping O.D. Range Inches	Price Each	P/N	Clamping O.D. Range Inches	Price Each
028-9	13/16" - 1-1/8"	\$2.85	090-9	3-5/16" - 3-1/2"	\$3.00
031-9	15/16" - 1-1/4"	\$2.90	095-9	3-1/2" - 3-3/4"	\$3.00
032-9	1-1/16" - 1-1/4"	\$2.85	100-9	3-11/16" - 3-15/16"	\$3.25
036-9	1-1/4" - 1-7/16"	\$2.90	105-9	3-15/16" - 4-1/8"	\$3.35
040-9	1-3/8" - 1-9/16"	\$2.95	110-9	4-1/8" - 4-5/16"	\$3.30
045-9	1-9/16" - 1-3/4"	\$3.05	115-9	4-5/16" - 4-1/2"	\$3.30
050-9	1-3/4" - 2"	\$3.10	120-9	4-1/2" - 4-11/16"	\$3.30
055-9	1-15/16" - 2-1/8"	\$2.95	125-9	4-11/16" - 4-15/16"	\$3.30
060-9	2-1/8" - 2-3/8"	\$3.10	130-9	4-7/8" - 5-1/8"	\$3.35
065-9	2-5/16" - 2-9/16"	\$3.20	135-9	5-1/16" - 5-5/16"	\$3.15
070-9	2-9/16" - 2-3/4"	\$3.20	140-9	5-1/2" - 5-11/16"	\$3.50
075-9	2-3/4" - 3"	\$3.10	145-9	5-11/16" - 5-7/8"	\$3.50
080-9	2-15/16" - 3-1/8"	\$3.15	150-9	5-7/8" - 6-1/16"	\$3.15
085-9	3-1/8" - 3-5/16"	\$3.25	160-9	6-1/16" - 6-1/4"	\$3.60
			165-9	6-1/4" - 6-1/2"	\$3.30

Less 15% in lots of 50. May be assorted.

LINE CLAMPS



These line clamps are lightweight but tough enough for the most rugged applications. Feature single piece .050" thick aluminum construction. No more messy bundles. Each clamp is shaped to hold braided line, tubing, or wiring securely, without pinching. Secured w/ standard tie wraps, these clamps keep movement and wear to a minimum. Can be adjusted to mount on any tubing from 1"-2".

Size	P/N	Price	Size	P/N	Price
1/4"	05-00004	\$0.60	5/8"	05-00007	\$0.76
3/8"	05-00005	\$0.70	3/4"	05-00008	\$0.80
1/2"	05-00006	\$0.75	1"	05-00009	\$0.90

30 piece assortment - includes 5 of each clamp P/N 05-02205**\$22.55**