



COMPLETION EQUIPMENT



Model MWB Wireline Set Bridge Plug - MWB TopSet

Model MWB is compact, small OD and designed as a high performance drillable bridge plug suitable for almost any temporary or permanent plugging operation. The plug is constructed from select materials which provide a combination of strength and drillability. It can be converted to Cement Retainer by changing out the guide and replacing the bridging plug with the correct valve assembly.



Special Features

- Sets securely in all standard hardness casing
- Ratchet lock rings secure dynamic setting force. Faster and safer run
- One piece packing element and metal back up rings combine for a superior seal
- Can be set directly with Baker wireline setting tools
- Shear studs are Baker style and connect directly to the Adjuster Sub
- Easily convertible from wireline set to mechanical set by adding a shear screw and changing the upper slip

*Please contact sales to inquire about high temperature applications.

MWB BRIDGE PLUG

PART NUMBER	CASING		SETTING RANGE		SETTING TOOL	TOOL OD
	OD (inches)	Wt T&C (pounds)	Min ID (inches)	Max ID (inches)		
062-0175-008	2 3/8	4.0-5.8	1.780	2.074	1 11/16" GO	1.75
062-0222-008	2 7/8	6.4-6.5	2.340	2.525	1 11/16" GO	2.22
062-0275-008	3 1/2	5.7-10.3	2.867	3.258	1 11/16" GO	2.75
062-0243-008	3 1/2	12.8-15.8	2.548	2.764	1 11/16" GO	2.43
062-0314-008	4	5.6-14	3.340	3.732	#10	3.14
062-0359-008	4 1/2	9.5-15.1	3.826	4.090	#10	3.59
062-0393-008	5	11.5-20.8	4.154	4.560	#20	3.93
062-0393-007	5	11.5-20.8	4.154	4.560	#10	3.93
062-0431-008	5 1/2	13-23	4.580	5.044	#20	4.31
062-0431-007	5 1/2	13-23	4.580	5.044	#10	4.31
062-0470-008	5 3/4	14-25.2	4.890	5.290	#20	4.70
062-0537-008	6 5/8	17-32	5.595	6.135	#20	5.37
062-0568-008	7	17-35	6.000	6.538	#20	5.68
062-0631-008	7 5/8	20-39	6.625	7.125	#20	6.31
062-0712-008	8 5/8	24-49	7.310	8.097	#20	7.12
062-0812-008	9 5/8	29.3-58.5	8.435	9.063	#20	8.12
062-0943-008	10 3/4	32.7-60.7	9.660	10.192	#20	9.43
062-1043-008	11 3/4	38-60	10.772	11.150	#20	10.43
062-0994-008	11 3/4	60-83	10.192	10.772	#20	9.94
062-1188-008	13 3/8	48-84.5	12.175	12.715	#20	11.88
062-1412-008	16	65-118	14.576	15.250	#20	14.12
062-1837-008	20	94-133	18.730	19.124	#20	18.37

Model MMB Mechanical Bridge Plug

Model MMB Tubing Set Bridge Plugs are used to isolate zones for temporary or permanent abandonment. These drillable Bridge Plugs set securely in all standard hardness casing. A ratchet lock ring stores the setting force in the Bridge Plug. The one piece packing element and metal back up rings combine for a superior seal. The case hardened, one piece slips virtually eliminate premature setting, yet can be easily drilled out. Set with Model MSB Mechanical Setting Tool. They are available for 4-1/2" through 20" casing.



Special Features

- Sets securely in all standard hardness casings
- Ratchet lock rings secure dynamic setting force, Faster and safer run
- One piece packing element and rocker action metal back up rings combine for a superior seal
- Pressure balanced sleeve valve is opened and closed by tubing manipulation from surface for better control
- Easily convertible from wireline set to mechanical set by adding a shear screw and changing the upper slip

*Please contact sales to inquire about high temperature applications.

MWB BRIDGE PLUG

PART NUMBER	CASING		SETTING RANGE		SETTING TOOL	TOOL OD
	OD (inches)	Wt T&C (pounds)	Min ID (inches)	Max ID (inches)		
062-0175-008	2 3/8	4.0-5.8	1.780	2.074	1 11/16" GO	1.75
062-0222-008	2 7/8	6.4-6.5	2.340	2.525	1 11/16" GO	2.22
062-0275-008	3 1/2	5.7-10.3	2.867	3.258	1 11/16" GO	2.75
062-0243-008	3 1/2	12.8-15.8	2.548	2.764	1 11/16" GO	2.43
062-0314-008	4	5.6-14	3.340	3.732	#10	3.14
062-0359-008	4 1/2	9.5-15.1	3.826	4.090	#10	3.59
062-0393-008	5	11.5-20.8	4.154	4.560	#20	3.93
062-0393-007	5	11.5-20.8	4.154	4.560	#10	3.93
062-0431-008	5 1/2	13-23	4.580	5.044	#20	4.31
062-0431-007	5 1/2	13-23	4.580	5.044	#10	4.31
062-0470-008	5 3/4	14-25.2	4.890	5.290	#20	4.70
062-0537-008	6 5/8	17-32	5.595	6.135	#20	5.37
062-0568-008	7	17-35	6.000	6.538	#20	5.68
062-0631-008	7 5/8	20-39	6.625	7.125	#20	6.31
062-0712-008	8 5/8	24-49	7.310	8.097	#20	7.12
062-0812-008	9 5/8	29.3-58.5	8.435	9.063	#20	8.12
062-0943-008	10 3/4	32.7-60.7	9.660	10.192	#20	9.43
062-1043-008	11 3/4	38-60	10.772	11.150	#20	10.43
062-0994-008	11 3/4	60-83	10.192	10.772	#20	9.94
062-1188-008	13 3/8	48-84.5	12.175	12.715	#20	11.88
062-1412-008	16	65-118	14.576	15.250	#20	14.12
062-1837-008	20	94-133	18.730	19.124	#20	18.37

WRBP WIDE RANGE BRIDGE PLUG



Model WRBP Wide Range Bridge Plug

Wide Range Wireline Set Bridge Plugs are specially designed to run through tubing or restricted pipe and set securely in larger tubing or casing below. These Bridge Plugs will set securely in any hardness casing. A ratchet lock ring stores the setting force in the Plug. The three piece packing element and metal back up rings combine for a superior seal. The case hardened, one piece slips virtually eliminate premature setting, yet can be easily drilled out. They are available for 1.610" through 5.044" setting range.

Special Features

- Sets securely in any hardness casing, including premium grades
- Ratchet lock rings secure dynamic setting force
- Three piece packing element and rocker action metal back up rings combine for a superior seal
- Compact, easy running
- Can be set either with GO, Baker or Gearhart wireline setting tools
- 5.8" sucker rod thread on the bottom shoes to accommodate a centralizer and other tools

WRBP WIDE RANGE BRIDGE PLUG

PART NUMBER	SETTING RANGE		TOOL OD
	Min ID (inches)	Max ID (inches)	
060-0146-403	1.610	1.995	1.468
060-0175-403	1.905	2.441	1.750
060-0190-403	2.156	2.765	1.906
060-0218-403	2.375	3.000	2.187
060-0228-403	2.441	3.343	2.281
060-0250-403	2.875	3.500	2.500
060-0275-403	3.187	3.920	2.750
060-0325-403	3.920	4.276	3.250
060-0350-403	3.696	4.276	3.500

MWBR RETIEVABLE BRIDGE PLUG

Model MWBR Wireline Set Retrievable Bridge Plug

Model "MWBR" Wireline Set Retrievable Bridge Plug is a medium performance retrievable bridge plug that is run and set by a wireline pressure setting tool and retrieved by either tubing or sandline. The plug is used for zone isolation, formation fracturing, acidizing, and wellhead repair and can be lubricated in and out of the well under pressure, thereby eliminating snubbing tubing or killing the well. The plug features a balanced equalizing valve located immediately above the three piece multi-hardness packing element system. Caged, bi-directional, one piece slips are located below the packing and firmly anchor the plug against pressure differentials from above or below. The plug is retrieved by ratcheting onto the retrieving neck, picking up four inches to equalize, setting down to unlock, then picking up to remove from well. No rotation is required to retrieve.



Special Features

- Compact, fast running, electric wireline set
- Tubing or sandline retrieved – No rotation required
- Balanced equalizing valve opens upwardly which reduces possibility of accidental opening
- Equalizes close to top of packing elements tubing manipulation from the surface for better control
- Field proven design

MWBR RETRIEVABLE BRIDGE PLUG

PART NUMBER	CASING		SETTING RANGE		MAX OD OF BRIDGE PLUG (inches)	RELEASE RING STRENGTH (pounds)	TUBING RETRIEVING TOOL	
	OD (inches)	Wt T&CT (pounds)	Min ID (inches)	Max ID (inches)				
054-5690-050	4 1/2	9.5-15.1	3.92	4.09	3.771	30,000	054-5690-081	
054-5690-051	5	15-18	4.276	4.408	4.125		054-5690-080	
054-5691-050	5 1/2	20-23	4.67	4.778	4.5		55,000	054-5691-080
054-5691-048		15.5-20	4.778	4.95	4.641			
054-5691-049		13-15.5	4.95	5.044	4.781			
054-5692-049	6 5/8	24-32	5.675	5.921	5.5	054-5692-090		
054-5692-050	7	32-35	6.004	6.094	5.812			
054-5692-051		26-29	6.184	6.276	5.968			
054-5692-052		23-26	6.276	6.366	6.078			
054-5692-053		17-20	6.456	6.538	6.0266			
054-5693-050	7 5/8	33.7-39	6.625	6.765	6.453	054-5693-080		
054-5693-051		24-29.7	6.875	7.025	6.672			
054-5694-050	8 5/8	32-40	7.725	7.921	7.531	054-5694-080		
054-5695-050	9 5/8	40-47	8.681	8.835	8.437	054-5695-080		
054-5695-051		47-53.5	8.535	8.681	8.218			

HYDRO-MECHANICAL BRIDGE PLUGS

Hydro-Mechanical Bridge Plugs - HYDRO-MECH

Hydro-Mech Bridge Plug is a hydraulically actuated, mechanically set bridge plug that is designed for easy drillout. It can be used in zonal isolation for squeeze cementing, fracturing, and plug and abandonment applications. The setting mechanism is built-in. A ball is placed in the tubing string plugging off the built-in equalizing ports. Pressure is then applied to set the top slip and then mechanical pull is applied to finish the set. Releasing the tubing string from the plug is done by simply turning to the right.

Special Features

- The setting mechanism and controls are self-contained eliminating the need for a complex mechanical setting tool
- Eliminates the expense of wireline setting tool and equipment
- Full tubing bore is available for unobstructed passage of fluids and wireline deployed perforating and logging equipment after the plug is set and tubing released
- Can be run and set in tandem with retrievable production packers or squeeze packers
- Top equalizing during drill-out assures safe drill-out without the plug coming up the hole due to pressures contained below the plug
- Sets securely in all standard hardness casing
- Excellent for use in deviated applications
- Available in high pressure and low pressure on most sizes



HYDRO-MECHANICAL BRIDGE PLUGS

PART NUMBER	CASING		SETTING RANGE		TOOL OD
	OD (inches)	Wt (pounds)	Min ID (inches)	Max ID (inches)	
062-0359-303	4 1/2	9.5-15.1	3.826	4.090	3.59
062-0393-303	5	11.5-20.8	4.154	4.560	3.93
062-0431-303	5 1/2	13-23	4.580	5.044	4.31
062-0537-303	6 5/8	17-32	5.595	6.135	5.37
062-0568-303	7	23-35	6.000	6.366	5.68
062-0600-303		17-23	6.366	6.358	6.00
062-0631-303	7 5/8	20-39	6.625	7.125	6.31
062-0812-303	9 5/8	29.3-58.4	8.435	9.063	8.12
062-1188-303	13 3/8	48-80.7	12.175	12.715	11.88
062-1837-303	20	94-133	18.730	19.124	18.37

Model MWR Cement Retainer



Model MWR Wireline Set Sleeve Valve Cement Retainers are used for secondary cementing operations. These drillable retainers set securely in all standard hardness casing. A ratchet lock ring stores the setting force in the retainer. The one piece packing element and metal back up rings combine for a superior seal. The case hardened, one piece slips virtually eliminate premature setting, yet can be easily drilled out. Set with electric line or hydraulic setting tool. They are available for 4-1/2" through 20" casing.

Special Features

- Sets securely in any hardness casing
- Ratchet lock rings secure dynamic setting force, faster, safer run-in
- One piece packing element and rocker action metal back up rings combine for a superior seal
- Can be converted to MMR Mechanical Set Cement Retainer or Bridge Plug
- Electric line set – Can be set directly with Baker wireline setting tools
- Shear studs are Baker style and connect directly to the Adjuster Sub
- Tests tubing – tubing can be tested before squeezing by picking up to close the valve and applying pressure
- Holds final squeeze pressure – automatic closing of the valve when picking up, or removal of stinger, ensures holding the squeeze under final pressure as cement is circulated out
- Isolates squeeze from hydrostatic pressure – keeping hydrostatic pressure off the zone just squeezed is important, especially for cementing low-fluid-level wells in batch-squeeze operations – Baker's unique valve guarantees an effective seal

*Please contact sales to inquire about high temperature applications.

MWR CEMENT RETAINER

PART NUMBER	CASING		SETTING RANGE		TOOL OD
	OD (inches)	Wt (pounds)	Min ID (inches)	Max ID (inches)	
062-0359-001	4 1/2	9.5-15.1	3.826	4.090	3.59
062-0393-001	5	11.5-20.8	4.156	4.560	3.93
062-0431-001	5 1/2	13.0-23.0	4.580	5.044	4.31
062-0470-001	5 3/4	14.0-26.0	4.890	5.290	4.70
062-0537-001	6 5/8	17.0-32.0	5.595	6.135	5.37
062-0568-001	7	17.0-35.0	6.004	6.538	5.68
062-0631-001	7 5/8	20.0-39.0	6.625	7.125	6.31
062-0712-001	8 5/8	24.0-49.0	7.511	8.097	7.12
062-0812-001	9 5/8	29.3-58.4	8.435	9.063	8.12
062-0943-001	10 3/4	32.75-60.7	9.660	10.192	9.43
062-1043-001	11 3/4	38.0-60.0	10.772	11.150	10.43
062-0994-001	11 3/4	60.0-83.0	10.192	10.772	9.94
062-1188-001	13 3/8	48.0-80.7	12.175	12.715	11.88
062-1412-001	16	65.0-118.0	14.576	15.250	14.12
062-1837-001	20	94.0-133.0	18.730	19.124	18.37

Model MMR Cement Retainer



The Model MMR Tubing Set Sleeve Valve Cement Retainers are used for secondary cementing operations. These drillable retainers set securely in any hardness casing. The case hardened, one piece slips virtually eliminate premature setting, yet can be easily drilled out. Set with Model MSR Mechanical Setting Tool. Single run to set and squeeze cement. They are available for 4-1/2" through 20" casing .

Special Features

- Sets securely in any hardness casing
- Ratchet lock rings secure dynamic setting force. Faster, safer run-in
- One piece packing element and metal back up rings combine for a superior seal
- Pressure balanced sleeve valve is opened and closed by tubing manipulation from the surface for better control
- Can be converted to MWR Wireline Set Cement Retainer or MMB Bridge plug
- Tests tubing – tubing can be tested before squeezing by picking up to close the valve and applying pressure
- Holds final squeeze pressure – automatic closing of the valve when picking up, or removal of stinger, ensures holding the squeeze under final pressure as cement is circulated out
- Isolates squeeze from hydrostatic pressure – keeping hydrostatic pressure off the zone just squeezed is important, especially for cementing low-fluid-level wells in batch-squeeze operations – Baker's unique valve guarantees an effective seal

*Please contact sales to inquire about high temperature applications.

MMR CEMENT RETAINER

PART NUMBER	CASING		SETTING RANGE		TOOL OD
	OD (inches)	Wt (pounds)	Min ID (inches)	Max ID (inches)	
062-0359-002	4 1/2	9.5-15.1	3.826	4.090	3.59
062-0393-002	5	11.5-20.8	4.156	4.560	3.93
062-0431-002	5 1/2	13.0-23.0	4.580	5.044	4.31
062-0470-002	5 3/4	14.0-26.0	4.890	5.290	4.70
062-0537-002	6 5/8	17.0-32.0	5.595	6.135	5.37
062-0568-002	7	17.0-35.0	6.004	6.538	5.68
062-0631-002	7 5/8	20.0-39.0	6.625	7.125	6.31
062-0712-002	8 5/8	24.0-49.0	7.511	8.097	7.12
062-0812-002	9 5/8	29.3-58.4	8.435	9.063	8.12
062-0943-002	10 3/4	32.75-60.7	9.660	10.192	9.43
062-1043-002	11 3/4	38.0-60.0	10.772	11.150	10.43
062-0994-002	11 3/4	60.0-83.0	10.192	10.772	9.94
062-1188-002	13 3/8	48.0-80.7	12.175	12.715	11.88
062-1412-002	16	65.0-118.0	14.576	15.250	14.12
062-1837-002	20	94.0-133.0	18.730	19.124	18.37

MMS STINGER SEAL ASSEMBLY



Model MSS Stinger Seal Assembly

The MSS Stinger Seal Assembly is a tubing conveyed latching seal assembly that is used to operate the sleeve valve in an MWR Cement Retainer previously set on wireline. The MSS should always be run in conjunction with a MTC Tubing Centralizer to provide easier entry into the Cement retainer. It features a snap-in, snap-out type latch that provides a surface indication of the stinger being landed into or removed from a retainer. The latch system allows the cement retainer valve to be opened and closed while the stinger remains latched and sealed in the bore of the retainer. This allows easy testing of the tubing before pumping cement.

Special Features

- Provide positive control when the work string is picked up to close the sleeve valve
- Re-engages each time the work string is lowered to open sleeve valve
- Helps prevent seal from pumping out during pumping operations or tubing testing
- One size operates several sizes of retainers
- Rotate or Snap-out release
- Can Run with Cement Retainers

MMS STINGER SEAL ASSEMBLY

PART NUMBER	CASING OD (inches)	THREAD BOX UP
062-0359-010	4 1/2 - 5 3/4	2 3/8 OD EU 8RD
062-0568-010	6 5/8 - 20	2 7/8 OD EU 8RD

MTC TUBING CENTRALIZER

Model MTC Tubing Centralizer

Model MTC Tubing Centralizer is used to center the tubing and provide easier entry into an MWR Cement Retainer previously set by wireline. It is made up above the stinger seal assembly and provides a centering device for entering the retainer bore.

Special Features

- Provides positive control and allows one size
- Tubing centralizer covers a large range of casing weights
- Most parts are interchangeable with the MSR Mechanical Setting Tool
- Allows tubing torque to be transmitted to tools below
- Can run with Baker Cement Retainers



MTC TUBING CENTRALIZER

PART NUMBER	CASING		THREADS BOX UP PIN DOWN
	OD (inches)	Wt T&CT (pounds)	
062-0395-011	4 1/2	9.5-15.1	2 3/8 OD EU 8D
	5	11.5-20.8	
	5 1/2	23.0	
062-0431-011	5 1/2	13.0-23.0	2 3/8 OD EU 8D
	5 3/4	14.0-26.0	
062-0537-011	6 5/8	17.0-32.0	2 7/8 OD EU 8RD
062-0568-011	7	17.0-35.0	
062-0631-011	7 5/8	20.0-39.0	
062-0712-011	8 5/8	24.0-49.0	
062-0812-011	9 5/8	29.3-58.4	
062-0943-011	10 3/4	32.75-60.7	
062-1043-011	11 3/4	38.0-60.0	
062-0994-011	11 3/4	60.0-83.0	
062-1188-011	13 3/8	48.0-80.7	
062-1412-011	16	65.0-118.0	
062-1837-011	20	94.0-133.0	

CEMENT RETAINER ACCESSORIES

Model M CONVERSION KITS



M series CR products can be easily converted to perform as a Slide Valve Cement Retainer, or a Bridge Plug. In addition, all sizes may be converted for electric line setting or mechanical setting by selection of proper upper slip and the appropriate running tools.

Slide Valve Cement Retainer



The Slide Valve Cement Retainer utilizes a slide valve which is pressure balanced in the closed position to reliably contain high fluid pressures, and opens at high pressure differential. Please refer to MWR and MMR for detailed information about Slide Valve Cement Retainers.

Bridge Plugs



Simple inexpensive "bridging plug" is now available in three sizes to convert Slide Valve Cement Retainers (both wireline set and tubing set) to Bridge Plugs. The Bridge Plug is held trapped between shoulders in the retainer body and valve shoe.



Model Hydraulic Setting Tools

Model MHSB Hydraulic Setting Tools are used to run and set packers, bridge plugs and cement retainers on a work string, production tubing or coil tubing. After dropping a ball, the setting tool translates hydraulic pressure applied to the tubing to a force transmitted throughout the adapter kit to the slips and pack off the sealing element of these tools. It allows setting in or deviated wells where it is often difficult to use electric wireline equipment. While running in the hole, the setting tool automatically fills with well bore fluid and remains balanced to prevent premature setting. After setting the packer, bridge plug or cement retainer, the coil tubing or tubing string and the setting tool can then be retrieved, while allowing the well bore fluids in the tubing to discharge through bypass ports in the tool.

Special Features

- Simple proven operation
- Uses the same adapters for running as are used with a Baker 10# or 20# setting tool
- Automatically fills and drains
- Hydraulically balanced while running in the hole to prevent premature setting
- Can withstand high tensile loads
- Two-stage cylinders are standard
- No rotation required

HYDRAULIC SETTING TOOL

MODEL PN	OD (inches)	CASING OD (inches)	SUITABLE TO TOOLS	PUMP PRESSURE SETTING	MAX PULL (lbs)	THREAD BOX UP
MHSB-10 066-0010-00	3.5	4" 4-1/2"	Bridge Plug Cement Retainer Permanent Packer	6,000 (psi) 65,000 (lbs)	70,000	2 3/8" - 8RD EUE
MHSB-20 066-0020-003	3.875	5	Bridge Plug Cement Retainer Permanent Packer	6,000 (psi) 75,000 (lbs)	78,000	2 7/8" - 8RD EUE
MHSG 066-0020-002	3.875	5	Bridge Plug Cement Retainer Permanent Packer	6,000 (psi) 75,000 (lbs)	78,000	
MEB-1 066-0030-001	3.875	5" 5-1/2"	Bridge Plug Cement Retainer Permanent Packer	5,000 (psi) 70,000 (lbs)	70,000	2 3/8" - 8RD EUE
MEB-2 066-0030-004	4	7	Bridge Plug Cement Retainer Permanent Packer	3,750 (psi) 70,000 (lbs)	78,000	2 7/8" - 8RD EUE
MEB-2 066-0030-006	5.5	5	Casing Patch	3,000 (psi) 78,000 (lbs)	78,000	2 3/8" - 8RD EUE

MSB MECHANICAL SETTING TOOL



Model MSB Mechanical Setting Tool

Model MSB Mechanical Setting Tools are used to mechanically set MMB Bridge Plugs. It is designed to contain the upper slips of Bridge Plug in a safe retracted position while running to setting depth. The upper slips are released by right hand rotation and slacking off on the work string.

Special Features

- Special designed Bow Spring provide positive control and allows one size Mechanical Setting Tools to cover a large range of casing weight
 - Locked with Bridge Plug
 - The Upper slips are held in a safe retracted position while running.
- Can quickly be configured to set MMR Cement Retainers
- These tools can be used to run a number of Competitive brand Baker style bridge plugs

MSB MECHANICAL SETTING TOOL

PART NUMBER	CASING		TOOL OD (inches)
	OD (inches)	Wt T&CT (pounds)	
062-0359-004	4-1/2	9.5-15.1	3.59
	5	11.5-20.8	
062-0431-004	5-1/2	13.0-23.0	4.31
062-0470-004	5-3/4	14.0-26.0	4.70
062-0537-004	6 5/8	17.0-32.0	5.37
062-0568-004	7	17.0-35.0	5.68
062-0631-004	7 5/8	20.0-39.0	6.31
062-0712-004	8 5/8	24.0-49.0	7.12
062-0812-004	9 5/8	29.3-58.4	8.12
062-0943-004	10 3/4	32.75-60.7	9.43
062-1043-004	11 3/4	38.0-60.0	10.43
062-0994-004		60.0-83.0	9.94
062-1188-004	13 3/8	48.0-80.7	11.88
062-1412-004	16	65.0-118.0	14.12
062-1837-004	20	94.0-113.0	18.37

MECHANICAL SETTING TOOL MSB



Model MSB Mechanical Setting Tool

Model MSR Mechanical Setting Tools are used to mechanically set MMR Sleeve Valve Cement Retainers. This tool incorporates both a stinger seal assembly and mechanical setting function. In addition, it has a built in snap latch, allowing the tool to be latched into the cement retainer with set down weight and released with either up strain or right-hand rotation. The sleeve valve on the cement retainer is in the open position while being run in the well. When the setting procedure is completed, the sleeve valve may be closed by picking up two inches at the tools or opened by slacking off two inches. The snap latch feature allows the sleeve valve to be shifted open or closed while the tubing is still anchored to the retainer. Another feature of the tool provides for running the sleeve valve either open or closed. Normally the valve is run open so the tubing may fill. However, for pressure testing the tubing, while running, the valve can be run closed. Cement Retainers can be set and pressure tested in a single trip.

Special Features

- Special designed Bow Spring provide positive control and allows one size Mechanical Setting Tools to cover a large range of casing weight
- The upper slips are held in a safe retracted position while running Allows users to set, pressure test tubing, and squeeze in a single trip. Can quickly be configured to set MMR Cement Retainers or MMB Bridge Plugs
- These tools can run standard Baker style plugs or retainer

MECHANICAL SETTING TOOL MSB

PART NUMBER	CASING		TOOL OD (inches)
	OD (inches)	Wt T&CT (pounds)	
062-0359-005	4-1/2	9.5-15.1	3.59
	5	11.5-20.8	
062-0431-005	5-1/2	13.0-23.0	4.31
062-0470-005	5-3/4	14.0-26.0	4.70
062-0537-005	6 5/8	17.0-32.0	5.37
062-0568-005	7	17.0-35.0	5.68
062-0631-005	7 5/8	20.0-39.0	6.31
062-0712-005	8 5/8	24.0-49.0	7.12
062-0812-005	9 5/8	29.3-58.4	8.12
062-0943-005	10 3/4	32.75-60.7	9.43
062-1043-005	11 3/4	38.0-60.0	10.43
062-0994-005		60.0-83.0	9.94
062-1188-005	13 3/8	48.0-80.7	11.88
062-1412-005	16	65.0-118.0	14.12
062-1837-005	20	94.0-113.0	18.37

PC-1 RETRIEVABLE PACKER



Model PC-1 Retrievable Packer

Model PC-1 Retrievable Packers are used for a variety of well treating and producing operations including squeeze cementing, formation fracturing, acidizing and testing. The PC-1 is a versatile tension set tool that holds differential pressure from above and below. It has a full opening bore that allows unrestricted fluid flow and easy passage of wireline tools. It is ideal for straddle operations using the Retrievable Bridge Plug. They are available for 3-1/2" through 9-5/8" casing.

Special Features

- Sets securely in all standard hardness casing. Full opening bore, thick wall, one piece body. Three piece packing element system
- Holds differential pressure from above and below
- Used where shallow setting depth prevents use of compression set packers
- Can be used with PCU-1 Unloader
- Field-proven design, recommended to 275 degrees F applications, if application need high temp, please contact us

PC-1 RETRIEVABLE PACKER

PART NUMBER	CASING	
	OD (inches)	Wt T&CT (pounds)
054-5603-201	3 1/2	9.2-10.2
054-5603-001	4 1/2	9.5-13.5
054-5603-002	5	15.0-18.0
054-5603-101	5 1/2 x 2 3/8 ID	20.0-23.0
054-5603-102		15.5-17.0
054-5603-103	5 1/2 x 2 ID	13.0-15.5
054-5603-104		20.0-23.0
054-5603-105		15.5-17.0
054-5603-106	7	13.0-15.5
054-5603-301		38.0-40.0
054-5603-302		32.0-35.0
054-5603-303		28.0-30.0
054-5603-304		23.0-26.0
054-5603-308	7 5/8	17.0-20.0
054-5603-305		33.7-39.0
054-5603-306		24.0-29.7
054-5603-307	8 5/8	20.0-24.0
054-5603-501		49.0
054-5603-502		44.0
054-5603-503		36.0-40.0
054-5603-504		32.0
054-5603-505	9 5/8	24.0-28.0
054-5603-601		53.5
054-5603-602		43.5-47.0
054-5603-603		40.0
054-5603-604		29.3-36.0

CS-1 RETRIEVABLE PACKER



Model CS-1 Retrievable Packer

Model CS-1 Retrievable Packers are used for a variety of well treating and producing operations including squeeze cementing, formation fracturing, acidizing and testing. These double-grip , single-string packers have a full opening bore that allows unrestricted fluid flow and easy passage of wireline tools. They also include hydraulically actuated upper button type slips and built-in pressure relief unloader. They are available for 4-1/2" through 7-5/8" casing.

Special Features

- Sets securely in all standard hardness casing
- Long carbonized friction pads act independent of slips and allow trouble free passage through collar, recesses and stage tool profiles
- Full opening bore, thick wall, one piece body. Three piece packing element system. Hydraulic hold down
- Surface controlled pressure equalization valve that requires no separate unloader

CS-1 RETRIEVABLE PACKER

PART NUMBER	CASING	
	OD (inches)	Wt T&CT (pounds)
054-5640-001	4 1/2	9.5-13.5
054-5640-005		15.1
054-5640-002	5	15.0-18.0
054-5640-003		11.5-15.0
054-5641-001	5 1/2	26.0
054-5641-005		20.0-23.0
054-5641-002		15.0-20.0
054-5642-001	6 5/8	13.0-15.5
054-5642-009	7	24.0
	6 5/8	38.0
054-5642-010	6 5/8	17.0-20.0
	7	32.0-35.0
054-5642-003	7	26.0-29.0
	6 5/8	12.0
054-5643-004	7	20.0-26.0
054-5643-001	7 5/8	17.0-20.0
054-5643-002		33.7-39.0
054-5643-003		24.0-29.7
		20.0-24.0

JS[®]-2A RETRIEVABLE PACKERS



Model JS[®]-2A Retrievable Packers

Retrievable Service Packer Model JS[®] -2A (with P110 Body, Coupling, Sub and Carbide Slips, Drag Blocks). Model JS[®]-2A Retrievable Packers are used in stimulation, perforating, gravel packing and testing applications. The hydraulic hold down is below the pressure equalization valve. The tool features a proven three element packing system and a hydraulically controlled balance piston designed to keep the by-pass closed when set. The tools are available in a 4-1/2" through 16" casing.

Special Features

- Sets securely in all standard hardness casing
- Three piece packing element system with metal backups accommodate low and high pressure applications for the broadest range of service
- Hydraulic hold down button unit with large internal flow path located below the bypass valve to reduce element swabbing and button wicker dulling. These hold down piston type slips are set by pressure from below
- Surface controlled combination bypass and equalizing valve
- Tubing pressure actuated hydraulic piston eliminate excessive set down weight requirements. This feature is far more efficient than collet type locking systems
- Automatic Jay Unit, setting the packer is accomplished by running to depth, picking up a few feet rotating 1/2 turns to the right and setting down
- Straight pickup of the tubing will first open the bypass valve and equalize pressure, continued pickup will release the packer and automatically engage the packer in the running position for further operations up or down the hole
- All JS 2A packers come with heavy duty long acme threads and dual O-Ring Backups on the body to coupling connections
- All J 2A packers come standard with 8 Round top and bottom connections. For API IF connections see our JS 3 packers. For other premium threads please contact sales
- Carbide slips, pistons and friction pads for high hardness casing P110 body coupling and sub for heavy duty jobs

JS®-2A RETRIEVABLE PACKERS

PART NUMBER	CASING		SETTING RANGE		TOOL		THREAD BOX X PIN
	OD (inches)	Wt (pounds)	Min ID (inches)	Max ID (inches)	OD (inches)	ID (inches)	
054-5640-401	4 1/2	9.5-13.5	3.91	4.09	3.77	1.812	2 3/8 EU 8RD
054-5640-402	5	15.0-18.0	4.25	4.408	4.13		
054-5640-504		11.5-15.0 26.0	4.408	4.56	4.25		
054-5641-601	5 1/2	20.0-23.0	4.625	4.778	4.51	1.938	
054-5641-605		15.5-20.0	4.778	4.95	4.64		
054-5641-602		13.0-15.5	4.95	5.19	4.78		
054-5642-601	6 5/8	24.0 38.0	5.83	5.937	5.65	2.375	2 7/8 EU 8RD
054-5642-609	7	32.0-35.0	5.938	6.135	5.81		
054-5642-610		26.0-29.0	6.136	6.276	5.97		
054-5642-603		20.0-26.0	6.276	6.456	6.07		
054-5642-604		17.0-20.0	6.456	6.578	6.27		
054-5643-601	7 5/8	33.7-39.0	6.579	6.797	6.45		
054-5643-602		24.0-29.7	6.798	7.025	6.67		
054-5643-603		20.0-24.0	7.025	7.125	6.81		
054-5644-605	8 5/8	57.4-60.7	7.062	7.25	6.98	3	3 1/2 EU 8RD
054-5644-601		44.0-49.0	7.511	7.625	7.31		
054-5644-602		32.0-40.0	7.725	7.921	7.53		
054-5644-603		20.0-28.0	8.017	8.191	7.78		
054-5645-601	9 5/8	47.0-53.5	8.535	8.681	8.21		
054-5645-602		40.0-47.0	8.681	8.835	8.44		
054-5645-603		29.3-36.0	8.921	9.063	8.59		
054-5646-601	10 3/4	40.5-55.5	9.75	10.05	9.5		
054-5647-602	11 3/4	60.8-83.0	10.192	11.772	10.06		
054-5647-601		38.0-65.0	10.682	11.15	10.38		
054-5648-601	13 3/8	48.0-72.0	12.347	12.715	12.13		
054-5649-601	16	75.0-102.0	14.75	15.125	14.5	3.75	

JS®-3 RETRIEVABLE STORM PACKER

MJS®-3 Retrievable Storm Packer

Model JS®-3 Retrievable Storm Packers are also used in production, stimulation, perforating gravel, packing and testing applications. The hydraulic hold down is below the pressure equalization valve. The tool features a proven three element packing system and a hydraulically controlled balance piston designed to keep the by-pass closed when set. The tools are available in 5-1/2" through 20" casing. Comes standard with API IF thread forms.

Special Features

- Sets securely in all standard hardness casing
- Three piece packing element system with metal backups accommodate low and high pressure applications for the broadest range of service
- Hydraulic hold down button unit with large internal flow path located below the bypass valve to reduce element swabbing and button wicker dulling these hold down piston type slips are set by pressure from below
- Surface controlled combination bypass and equalizing valve Tubing pressure actuated hydraulic piston eliminate excessive set down weight requirements. This feature is far more efficient than collet type locking systems
- Automatic Jay Unit, setting the packer is accomplished by running to depth, picking up a few feet rotating 1/2 turns to the right and setting down
- Straight pickup of the tubing will first open the bypass valve and equalize pressure, continued pickup will release the packer and automatically engage the packer in the running position for further operations up or down the hole
- All thread connection comes standard in API IF thread form All pressure bearing o-rings have backups for higher pressure resistance
- Load and pressure resistance designed to meet high load applications
- P110 body, coupling and sub for heavier duty jobs Carbide slips, pistons and drag blocks for high hardness casing



JS®-3 RETRIEVABLE STORM PACKER

PART NUMBER	CASING		SETTING RANGE		TOOL		THREAD BOX X PIN
	OD (inches)	Wt (pounds)	Min ID (inches)	Max ID (inches)	OD (inches)	ID (inches)	
054-5641-512	5 1/2	20.0-23.0	4.625	4.778	4.51	1.75	2 7/8 IF
054-5641-514		15.5-20.0	4.778	4.950	4.64		
054-5641-513		13.0-15.5	4.95	5.190	4.78		
054-5642-716	6 5/8	24.0	5.830	5.937	5.65	2.25	3 1/2 IF
		38.0					
054-5642-715	7	32.0-35.0	5.938	6.135	5.81		
054-5642-712		26.0-29.0	6.136	6.276	5.97		
054-5642-713		20.0-26.0	6.276	6.456	6.07		
054-5642-714		17.0-20.0	6.456	6.578	6.27		
054-5643-710	7 5/8	33.7-39.0	6.579	6.797	6.45		
054-5643-711		24.0-29.7	6.798	7.025	6.67		
054-5643-712		20.0-24.0	7.025	7.125	6.81		
054-5644-709	8 5/8	44.0-49.0	7.511	7.625	7.31		
054-5644-710		32.0-40.0	7.725	7.921	7.53		
054-5644-711		20.0-28.0	8.017	8.191	7.78		
054-5645-716	9 5/8	47.0-53.5	8.535	8.681	8.21	2.75	4 1/2 IF
054-5645-713							
054-5645-714		40.0-47.0	8.681	8.835	8.44		
054-5645-717							
054-5645-718		29.3-36.0	8.921	9.063	8.59		
054-5645-715							
054-5646-705	10 3/4	40.5-55.5	9.750	10.050	9.5	3.75	4 1/2 IF
054-5646-706		60.7	9.504	9.660	9.38		
054-5647-708	11 3/4	60.0-83.0	10.192	10.772	10.06		
054-5647-707		38.0-65.0	10.682	11.150	10.38		
054-5648-703	13 3/8	48.0-72.0	12.347	12.715	12.13		
054-5649-704	16	65.0-84.0	14.750	15.125	14.5		
054-5649-903	20	94.0-133.0	18.730	19.124	18.4		

MTXT RETRIEVABLE SERVICE PACKER



Model MTXT Retrievable Service Packer

Model MTXT Service Packer is a 1/4 turn, compression set, retrievable packer that is capable of holding high pressure from above and below. It is used for acidizing, fracturing, cementing, and casing pressure tests.

Special Features

- Full opening packer bore
- Hydraulic hold down pistons for pressure from below
- Built in unloader system
- Large by-pass area
- Left hand manual jay is standard
- Other jay systems are available
- Internal latch mechanism allows circulation at high rates of speed
- Carbide slips, pistons and drag blocks for high hardness casing

MTXT RETRIEVABLE SERVICE PACKER

PART NUMBER	CASING		SETTING RANGE		TOOL		THREAD BOX X PIN
	OD (inches)	Wt (pounds)	Min ID (inches)	Max ID (inches)	OD (inches)	ID (inches)	
080-2443-100	4 1/2	9.5-13.5	3.920	4.090	3.771	1.750	2 3/8" EU 8RD
080-2443-200	5	15.0-18.0	4.276	4.408	4.125		
080-2445-120	5 1/2	20.0-23.0	4.670	4.778	4.500	1.938	
080-2445-140		15.0-20.0	4.778	4.950	4.641		
080-2445-200		13.0-15.5	4.950	5.044	4.781		
080-2447-140	7	32.0-35.0	6.004	6.094	5.807	2.375	2 7/8" EU8RD
080-2447-220		26.0-29.0	6.184	6.276	5.963		
080-2447-240		20.0-26.0	6.276	6.456	6.073		
080-2447-320		17.0-20.0	6.456	6.538	6.266		

MRBP-1 RETRIEVABLE BRIDGE PLUG



Model MRBP-1 Retrievable Bridge Plug

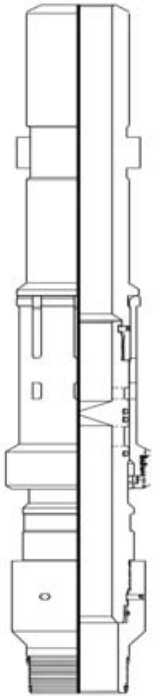
Model "MRBP-1" Retrievable Bridge Plug is a high pressure, mechanical, neutral set, packer type bridge plug that is capable of holding differential pressure from above or below and is compatible with most left hand set packers. Applications include temporary bridge plugs for acidizing, fracturing, casing pressure tests, well head replacement, zone isolation, and cementing.

Special Features

- Can be set up for right or left hand set
- Caged bi-directional slips
- Balanced equalizing system
- By-pass valve opens before the plug is released
- Over shot will wash to the gage ring
- Balanced piston arrangement enables the packing elements to hold equal pressure from above & below
- Multiple lock segments insure load distribution for easy release & prevent mandrel damage
- Bearing system reduces torque required for packer release
- 5 slips eliminate casing damage
- 6 drag blocks allow good control during setting/releasing
- Can run additional devices below the plug (pressure bombs, or retrieving head for second plug)
- Anti-swab packing element system
- By-pass valve can be opened & closed without releasing the plug
- Optional frac ball catcher kit is available

MRBP-1 RETRIEVABLE BRIDGE PLUG

CASING				TOOL OD (inches)
OD (inches)	WEIGHT (lb/ft)	Min ID (inches)	Max ID (inches)	
4 1/2	9.5 - 13.5	3.92	4.09	3.75
5	18.0 - 20.8	4.156	4.276	3.993
5	11.5 - 15.0	4.408	4.56	4.125
5 1/2	20.0 - 23.0	4.67	4.778	4.5
5 1/2	14.0 - 20.0	4.778	5.012	4.625
6 5/8	24.0 - 32.0	5.675	5.921	5.5
7	26.0 - 32.0	6.094	6.276	5.875
7	20.0 - 26.0	6.276	6.456	5.969
7 5/8	33.7 - 39.0	6.625	6.765	6.453
7 5/8	24.0 - 29.7	6.875	7.025	6.672
8 5/8	28.0 - 40.0	7.725	8.017	7.531
9 5/8	40.0 - 53.5	8.535	8.835	8.25

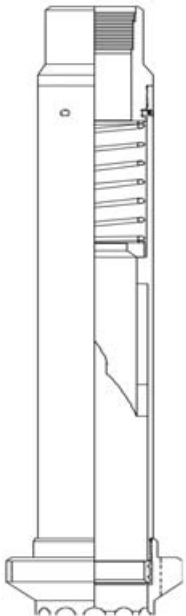


Model MH Valve

The Model MH Valve is a high pressure valve that converts a packer into a bridge plug. Used with neutral set packers to create a temporary bridge plug for acidizing, fracturing, cementing, casing pressure tests, well head replacement and zone isolation. Valve is manipulated by the running/pulling tool. Rotation will release the running tool while valve remains closed. Valve opens with set down weight that engages the running tool.

Special Features

- Simple double grip packer conversion into bridge plug
- Molded seals for multiple sets
- Running tool utilizes auto jay reconnect
- Easy to run and retrieve



CASING (inches)	RETRIEVING TOOL O.D. (inches)	THREAD CONNECTION
4 1/2	3.75	2 3/8" EU 8 RD
5		
5 1/2	4.5	2 7/8" EU 8 RD
7	5.5	
7 5/8	7.31	
8 5/8	8.19	3 1/2" EU 8 RD
9 5/8	8.19	



Model MSV-2 Storm Valve

The Storm Valve is a combination Back Pressure Valve and Safety Joint that is run above a JS®-3 Storm Packer, in order to provide well control protection during a temporary abandonment of the well, without having to pull the drill pipe. The Storm Valve allows the packers to be set and then permits disconnection and retrieval of the drill pipe and the upper sub of the valve, while at the same time automatically closing the Storm Valve, isolating the drill pipe below the Storm Packer.

Special Features

- Can be easily run by rotating the tubing string which can open and close the valve
- In emergency situation, the plug can open the drill pipe passage
- It is designed to be used with right hand set compression type packers only

MSV-2 STORM VALVE

PART NUMBER	CASING OD (inches)	GAGE RING NO.	TOOL		THREAD BOX X PIN
			Max OD (inches)	Min ID (inches)	
054-5605-103	7 7/8	054-5605-144	6.125	1.75	4 1/2" IF
	8 5/8	054-5605-145	7		
	9 5/8	054-5605-146	8		
	13 3/8	054-5605-147	11.75		
054-5605-104	7	054-5605-143	5.5		
	7 5/8	054-5605-144	6.125		
	8 5/8	054-5605-145	7		
	9 5/8	054-5605-146	8		
054-5605-105	5 1/2	NA	3.72	1	2 7/8" EU 8RD
054-5605-107		054-5605-167	4.5		2 7/8" IF
054-5605-109					

TAC-B TUBING ANCHOR CATCHER

Model TAC-B" TUBING ANCHOR CATCHER

Model TAC-B Tubing Anchor acts as a tubing anchor to maintain tension in the tubing string during the pump cycle and as a tubing catcher to prevent parted pipe from falling into the well. It is used in most rod pumping applications where it is important to maintain the tubing tension.

Special Features

- Increases pump efficiency
- Reduces operating costs by reducing maintenance and down time caused by casing, tubing or sucker rod wear
- Rotates left to set, right to release
- Straight pull emergency release
- Parts interchangeable with other manufactures
- Available with Right Hand Set



TAC-B TUBING ANCHOR CATCHER

PART NUMBER	CASING		SETTING RANGE		TOOL		THREAD BOX X PIN
	OD (inches)	Wt (pounds)	Min ID (inches)	Max ID (inches)	OD (inches)	ID (inches)	
080-5601-203	4	9.5-12.6	3.364	3.548	3.250	1	2 3/8" EU 8RD
080-5601-204	4 1/2	9.5-13.5	3.920	4.090	3.750	1.978	
080-5601-205	5	11.5-18.0	4.276	4.560	4.000		
080-5601-214		11.5-15.0	4.408	4.778	4.125		
080-5601-216	5 1/2	20.0-23.0	4.670	5.044	4.500	2.375	
080-5601-206		13.0-23.0					
080-5601-207	6	17.0-23.0	5.240	5.424	4.812		
080-5601-208	6 5/8	28.0-32.0	5.675	5.791	5.125	2.438	
080-5601-215		17.0-32.0	5.675	6.456	5.500		
080-5601-209	7	20.0-38.0					
080-5601-210	7 5/8	17.0-20.0					
080-5601-211	6 5/8	17.0-32.0	5.675	6.538	5.500	3	
	7	17.0-38.0					
080-5601-212	7 5/8	17.0-20.0	6.413	7.125	6.260		
	7 5/8	20.0-39.0					
080-5601-217	8 5/8	24.0-49.0	7.250	8.093	7.000		
080-5601-218	9 5/8	32.3-47.0	8.681	9.001	8.000		

MKV-1 K-CONNECTOR VALVE

Model MKV-1 K-Connector Valve

The MKV-1 K-Connector Valve or K-Valve is a valve that converts the Lock-Set Retrievable Packer or MAPSET Retrievable Packer into a Retrievable Bridge Plug.

The valve can be used at any time to create temporary zonal isolation when testing, squeezing or treating the wellbore, as well as when performing any work on the well head. The valve allows pressure to be equalized above and below the packer prior to releasing.

Special Features

- Lock open/closed
- Molded seals for multiple sets
- Running tool utilizes auto jay reconnect



MKV-1 K-CONNECTOR VALVE

PART NUMBER	TOOL SIZE	TOOL OD (inches)	RUNNING TOOL PN#	THREADS
080-0010-001	2 3/8	3.00	080-0010-011	2 3/4" EU 8RD
080-0010-002	2 7/8	3.50	080-0010-012	2 1/2" EU 8RD

Model H Unloader - Compression Activated Unloader



The Model H Compression Unloader is used with set down type packers for equalizing tubing and annulus pressures. Pressure is contained by three extra-large O-ring type seals which withstand repeated cycles of unloading and equalizing.

The unloader is manufactured in either a jay slot configuration or straight slot configuration. Both configurations provide means of transmitting torque through the unloader to ready the companion packer for setting. The straight slot unloader is closed by direct set down weight and opened by direct pick up on the work string. The jay slot unloader is closed by picking up, rotating one quarter turn to the right, then setting down. After setting down, the tubing can be rotated one quarter turn to the left, if desired, to lock the unloader closed. To open the unloader, use the reverse order mentioned above.

Special Features

- Unloads pressures from either above annulus or tubing Multiple acting
- Can be locked in the closed or open position
- Simple operation

H UNLOADER VALVE

PART NUMBER		SIZE	TOOL OD (inches)	THREAD BOX X PIN
JAY SLOT TYPE	STRAIGHT SLOT TYPE			
054-0235-009	054-0235-010	2 3/8"	3.75	2 3/8" OD EU 8RD
054-0235-055	054-0235-058	2 7/8"	4.50	2 7/8" OD EU 8RD
054-2035-115	054-0235-118	3 1/2"	5.50	3 1/2" OD EU 8RD

Model PCU-1 Unloader - Tension Activated Unloader

Model PCU-1 Up-strain Unloader is designed to equalize tubing and annulus pressures above a tension packer. The unloader is made up directly above the tension packer and is usually run in the hole in the open position to allow fluid bypass through tension packer and into the annulus. Torque is transmitted through the unloader to the tension packer by a key located in a key slot of the unloader body. Applying upstrain to set the packer will close the unloader and setting down weight will open it.

Special Features

- Unloads pressures from either direction
- Multiple acting. May be run in either open or closed position and then opened to closed as many times as required
- Full opening bore through tool
- Easy operation, set down weight to open and apply upstrain to close



PCU-1 UNLOADER VALVE

PART NUMBER	SIZE (inches)
054-5603-110	2 3/8
054-5603-310	2 7/8
054-5603-210	1.660

Model CSU-1 Tubing Tester Valve

Model CSU-1 Upstrain Tubing Tester is normally attached directly above a Model CS-1 Squeeze Packer, or any other model of weight set type packer. This valve is used to test tubing for leaks once the packer is set and to displace tubing fluid when performing a squeeze, stimulation, or injection operation.

Special Features

- Pressure test tubing prior to remedy of well
- Can also be used to pressure test tubing while running tubing string into well
- Used to displace fluids while squeezing, stimulation, or treating
- For use with any retrievable set-down type squeeze packer
- Will handle differential pressures from tubing or above annulus favors
- Easy to operate



CSU-1 TUBING TESTER VALVE

PART NUMBER	SIZE (inches)	TOOL		THREAD BOX X PIN
		OD (inches)	ID (inches)	
054-0240-001	2 3/8	3.75	1.88	2 3/8" OD EU 8RD
054-0240-002	2 7/8	5.25	2.38	2 7/8" OD EU 8RD

REPEATA-B RETRIEVABLE PRODUCTION PACKER

REPEATA-B Retrievable Production Packer

Model Repeata-B Retrievable Production Packers are used for production, injection, testing, fracturing, squeeze cementing, gravel packing and as temporary bridge plugs. These wireline set packers are retrievable with tubing, sandline, electric wireline or coil tubing and require no rotation to release or set. The bi-directional one-piece slips hold high pressure differentials from either direction. Repeata-B packers use conventional permanent packer seal nipples and accessories. They are available for 3-1/2" through 9-5/8".



Special Features

- Sets securely in all standard hardness casing
 - No rotation required to set or release
 - Three piece packing element system
 - Uses conventional drillable packer seal nipples and accessories
- Threaded pin down connection for easy installation of accessories, such as Screw-Out or Nok-Out Plug kits
- Can be set with GO, Baker or Gearhart Wireline Setting Tools

REPEAT-A-B RETRIEVABLE PRODUCTION PACKER

PART NUMBER	CASING		SETTING RANGE		PACKER			
	OD (inches)	Wt T&C (pounds)	Min ID (inches)	Max ID (inches)	Max OD (inches)	Seal Bore (inches)	Setting Strength (inches)	Max Slip Travel (inches)
051-5888-002	3 1/2	9.2-10.2	2.922	3.031	2.750	2.000	13,000	3.093
051-5880-002	4 1/2	9.5-13.5	3.920	4.090	3.771	1.968	29,000	4.155
051-5883-161		9.5-11.6	4.000		3.812	2.390		4.150
051-5883-162	5	15.0-18.0	4.276	4.408	4.062			4.562
051-5884-162	5 1/2	20.0-23.0	4.670	4.778	4.500	2.687	35,000	4.968
051-5884-161		13.0-17.0	4.892	5.044	4.656			5.187
051-5882-163	6 5/8	24.0-32.0	5.675	5.921	5.500	3.250	48,000	6.000
	7	38.0						
051-5882-162	6 5/8	17.0-20.0	6.004	6.184	5.812			6.357
		29.0-35.0						
051-5882-161	7	20.0-29.0	6.184	6.456	5.875			6.492
051-5886-162		17.0-20.0	6.456	6.765	6.187			6.948
		33.7-39.0						
051-5886-161	7 5/8	29.0-29.7	6.875	7.125	6.652			7.198
051-5885-163		36.0-49.0	7.511	7.825	7.250	4.000	55,000	8.210
051-5885-161	8 5/8	24.0-36.0	7.825	8.097	7.562			
051-5887-167		43.5-53.5	8.535	8.755	8.187			
051-5887-165	9 5/8	29.3-43.5	8.755	9.063	8.437			9.134
051-5887-163		43.5-53.5	8.535	8.755	8.187	4.750		
051-5887-161		29.3-43.5	8.755	9.063	8.437			

REPEATA-C RETRIEVABLE PRODUCTION PACKER

Model REPEATA-C Retrievable Production Packer

Model Repeata-C Retrievable Production Packers feature heavy duty slips that have 25% more contact area with the casing to prevent casing damage and a built in hydraulic cylinder to assure pack off under extreme pressures. Packers are used for production, injection, testing, fracturing, squeeze cementing, gravel packing and are particularly suited as temporary bridge plugs. These electric wireline set packers are retrievable with tubing, sand line, electric wireline or coil tubing. The bi-directional one-piece slips hold high pressure differentials from either direction. Repeata-C packers use conventional permanent packer seal nipples and accessories. They are available for 3 1/2" through 9 5/8".



Special Features

- 25% larger slip area than Repeata-B
- Features a built-in Hydraulic Cylinder that intensifies tubing pressure to assure that the tool stays packed under extreme pressure from below
- No rotation required to set or release
- Proven three piece packing element system available in multiple configurations for different applications
- Uses conventional drillable packer seal nipples and accessories
- Threaded pin down connection for easy installation of accessories, such as Screw-Out or Nok-Out Plug kits
- Can be set with GO, Baker or Gearhart Wireline Setting Tools

REPEATA-C RETRIEVABLE PRODUCTION PACKER

PART NUMBER	CASING		SETTING RANGE Min ID (inches)	TOOL OD	SEAL BORE
	OD (inches)	Wt (pounds)			
051-5888-202	3 1/2	9.2-10.2	2.922	2.750	2.000
051-5880-202	4 1/2	9.5-13.5	3.920	3.771	1.968
051-5883-201		9.5-11.6	4.000	3.812	2.390
051-5883-204	5	15.0-18.0	4.276	4.062	2.687
051-5884-205	5 1/2	20.0-23.0	4.670	4.500	3.250
051-5884-206		13.0-17.0	4.892	4.656	
051-5882-204	6 5/8	24.032.0 38.0	5.675	5.500	
051-5882-202		17.0-20.0 29.035.0	6.004	5.812	
051-5882-201	7	20.0-29.0	6.184	5.874	
051-5886-204	7 5/8	17.0-20.0 33.7-39.0	6.456	6.187	
051-5886-201		20.0-29.7	6.875	6.652	
051-5885-204	8 5/8	36.0-49.0	7.511	7.250	4.000
051-5885-201		24.0-36.0	7.825	7.562	
051-5887-208	9 5/8	43.5-53.5	8.535	8.187	
051-5887-207		29.3-43.5	8.755	8.437	
051-5887-204		43.5-53.5	8.535	8.187	4.750
051-5887-201		29.3-43.5	8.755	8.437	

REPEATA-BSI THERMAL PRODUCTION PACKER

Model REPEATA-BSI THERMAL PRODUCTION PACKER

Model Repeata-BSI Thermal Retrievable Production Packers are used for steam injection, testing, high rate and high temperature gravel packing and well screen applications, as well as temporary bridge plugs. These wireline set packers are retrievable with tubing, sandline, electric wireline or coil tubing and require no rotation to release or set. The bi-directional one-piece slips hold high pressure differentials from either direction. Repeata-BSI packers use conventional permanent packer seal nipples and accessories. They are available for 3-1/2" through 9-5/8".

Special Features

- Sets securely in all standard hardness casing
- Anchor Latch, J-Latch, Snap Latch and locator systems available with EPDM Steam Service Trim, temperature rated up to 600 degrees F and pressures up to 1,800 PSI
- With specialized non-steam service trim, temperature ratings up to 450 degrees F and pressures up to 10,000 psi
- No rotation required
- Composite proven retrievable soft set packing element system
- Uses Composite Drillable Packer seal nipples and accessories
- Threaded pin down connection for easy installation of accessories, such as Screw-Out or Nok-Out Plug kits
- The new 7" x 4" ID Top Set Repeata BSI packer is ideal for High Tate Gravel pack applications with counter pressure
- Counter acting position and larger slips
- Highly reliable and very popular top retrieving system as in all Repeata packers
- Can be set using most common wireline pressure setting assemblies available from many service companies in conjunction with proper setting adapter kit
- Can also be set with our crossover and hydraulic setting tool or with your own style of crossover if you prefer

REPEAT-BSI THERMAL PRODUCTION PACKER

PART NUMBER	CASING		SETTING RANGE		TOOL OD	SEAL BORE
	OD (inches)	Wt (pounds)	Min ID (inches)	Max ID (inches)		
051-5882-600	7	20.0-29.0	6.184	6.456	5.875	3.250

DGL-SI THERMAL PRODUCTION PACKER

Model DGL-SI THERMAL PRODUCTION PACKER

Model DGL-SI Thermal Production Packers are used on installations requiring premium production equipment for high temperatures and pressures. These wireline set millable packers are available for 2-7/8" through 11-3/4" casing.

Special Features

- Sets securely in all standard hardness casing
- Anchor Latch, J-Latch, Snap Latch and locator systems available with EPDM Steam Service Trim, temperature rated up to 600 degrees F and pressures up to 1,800 PSI
- With specialized non-steam service trim, temperature ratings up to 450 degrees F and pressures up to 10,000 psi
- Composite proven soft set packing element system Ratchet lock rings secure dynamic setting force
- Three piece packing element and rocker action metal back up rings combine for a superior seal
- Threaded pin down connection for easy installation of accessories, such as Screw-Out or Nok-Out Plug kits



DGL-SI THERMAL PRODUCTION PACKER

PART NUMBER	CASING		SETTING RANGE		TOOL OD	SEAL BORE
	OD (inches)	Wt (pounds)	Min ID (inches)	Max ID (inches)		
051-5811-600	6 5/8	17.0-20.0	6.004	6.366	5.687	3.250
	7	23-35				



Model MAD-1" TENSION PACKER

Model MAD-1 Tension Packer is a retrievable, tension set packer, designed to hold pressure from below. This economical tension packer is for shallow wells where sufficient set-down weight is not available. This packer is primarily used in water flood, oil production or treating applications. They are available for 4" through 9-5/8" casing. Model MADL-1 Tension Packer is a large-bore version of the Model MAD-L.

Special Features

- Short compact design enables easy running procedures, as well as transport
- Bore through the packer is larger than the drift
- Easy to operate J-Slot control
- Rocker type slips
- Proven one piece packing element
- Multiple release methods
- Parts are interchangeable with other manufacturers

MAD-1 TENSION PACKER

PART NUMBER	CASING		SETTING RANGE		SIZE	TOOL ID (inches)	TOOL OD (inches)	THREAD BOX X PIN
	OD (inches)	Wt (pounds)	Min ID (inches)	Max ID (inches)				
080-0141-100	4	9.55-11.6	3.428	3.548	41A	1.937	3.188	2 3/8 OD EU 8RD
080-0141-200	4 1/2	12.6-15.1	3.754	3.826	41B		3.609	
080-0143-100		9.53-13.5	3.91	4.09	43A		3.771	
080-0143-200	5	15-18	4.25	4.408	43B		4.125	
080-0143-300		11.5-15 26	4.408	4.56	43C		4.25	
080-0145-120	5 1/2	20-23	4.625	4.778	45A2		4.5	
080-0145-140		15.5-20	4.778	4.95	45A4	4.641		
080-0145-200	5 1/2	13-15.5	4.95	5.19	45B	4.781		
	5 3/4	22.5 26				1.978		
080-0145-300	6	20-23	5.191	5.39	45C	5.062		
080-0145-400	6	15-18	5.391	5.56	45D	5.156		
080-0145-540	6 5/8	28-32	5.61	5.791	45E4	5.484		
080-0147-120	6 5/8	24	5.83	5.937	47A2	5.656		
	7	38						
080-0147-140	6 5/8	17-20	5.938	6.135	47A4	5.812		
		32-35						
080-0147-220	7	26-29	6.136	6.276	47B2	5.968	2 7/8 OD EU 8RD	
080-0147-240		20-26	6.276	6.456	47B4	6.078		
080-0147-320		17-20	6.456	6.578	47C2	6.266		
080-0147-340		33.7-39	6.579	6.797	47C4	6.453		
080-0147-420	7 5/8	24-29.7	6.798	7.025	47D2	6.672		
080-0147-440		20-24	7.025	7.125	47D4	6.812		
080-0149-120	8 5/8	40-49	7.511	7.725	49A2	7.312	3 1/2 OD EU 8RD	
080-0149-140		32-40	7.725	7.921	49A4	7.532		
080-0149-200		20-28	7.922	8.191	49B	7.781		
080-0151-120	9 5/8	47-53.5	8.3	8.681	51A2	8.218	4 1/2 OD 8RD	
080-0151-140		40-47	8.681	8.835	51A4	8.437		
080-0151-200		29.3-36	8.836	9.063	51B	8.593		

MG-1 RETRIEVABLE COMPRESSION PACKER

Model MG-1 Retrievable Compression Packer, G-Type

The Model MG-1 Retrievable Compression Packer is a compact, economical set-down packer that can be used by itself for production applications or with a companion unloader and hold-down, it can be used for well stimulation, testing and other pressuring operations and then left in the well as a production packer.

Special Features

- Short compact design
- Permits passage of recording instruments
- Alternate packing element systems
- Simple construction, ease of operation
- Alternate body with larger I.D.



MG-1 RETRIEVABLE COMPRESSION PACKER

PART NUMBER	CASING		SETTING RANGE		TOOL ID (inches)	TOOL OD (inches)	THREAD BOX X PIN
	OD (inches)	Wt (pounds)	Min ID (inches)	Max ID (inches)			
080-0243-100	4 1/2	9.5-15.1	3.91	4.09	1.885	3.771	2 3/8" EU 8RD
080-0243-200	5	15.0-18.0	4.25	4.408	1.885	4.125	
080-0243-300		11.5-15.0	4.408	4.56	1.885	4.25	
080-0245-120	5 1/2	26.0	4.625	4.778	1.978	4.5	
080-0245-140		20.0-23.0	4.778	4.95	1.978	4.641	
080-0245-200		15.5-20.0	4.95	5.19	1.978	4.781	
080-0245-300	6	13.0-15.5	5.191	5.39	1.978	5.062	
080-0245-400		22.5	5.391	5.56	1.978	5.156	
080-0245-520	6 5/8	26.0	5.561	5.595	1.978	5.406	
080-0245-540		20.0-23.0	5.596	5.791	1.978	5.484	
080-0247-620		28.0-32.0	6.049	6.276	3	5.812	
080-0247-640	7	17.0-20.0	6.276	6.456	3	6.078	3 1/2" EU 8RD
080-0246-120		26.0-29.0	5.6	5.791	2.416	5.475	
080-0246-140	6 5/8	24.0-28.0	5.792	5.921	2.416	5.588	2 7/8" EU 8RD
080-0246-200	7	38.0	5.922	6.135	2.416	5.781	
080-0247-120	6 5/8	17.0-20.0	5.83	5.921	2.416	5.656	
080-0247-140		7	32.0-35.0	5.922	6.135	2.416	
080-0247-220	7	26.0-29.0	6.136	6.276	2.416	5.968	
080-0247-240		17.0-20.0	6.276	6.456	2.416	6.078	
080-0247-320		33.7-39.0	6.539	6.765	2.416	6.453	
080-0247-340	7 5/8	17.0-20.0	6.456	6.538	2.416	6.266	
080-0247-420		24.0-29.7	6.766	7.025	2.416	6.672	
080-0247-440		33.7-39.0	7.025	7.125	2.416	6.812	
080-0249-120	8 5/8	40.0-49.0	7.511	7.725	3	7.312	3 1/2" EU 8RD
080-0249-140		32.0-40.0	7.725	7.921	3	7.531	
080-0249-200		20.0-28.0	7.922	8.191	3	7.781	
080-0251-120	9 5/8	47.0-53.5	8.3	8.681	4	8.218	4 1/2" 8RD Long Casing
080-0251-140		40.0-47.0	8.681	8.835	4	8.437	
080-0251-200		29.3-36.0	8.836	9.063	4	8.593	
080-0253-100	10 3/4	32.7-55.5	9.625	10.192	4	9.5	
080-0253-200	11 3/4	38.0-60.0	10.605	11.2	4	10.5	
080-0255-100	12 3/4	43.0-53.0	11.75	12.3	4	11.625	
080-0255-200	13 3/8	48.0-72.0	12.3	12.715	4	12	

MR-3D LARGE BORE DOUBLE GRIP RETRIEVABLE PACKER



Model MR-3D LARGE BORE DOUBLE GRIP RETRIEVABLE PACKER

Large Bore Model MR-3D Double Grip Retrievable Casing Packers are used in production, stimulation and testing operations where maximum I.D. is required. Their hydraulic hold down is below the pressure equalization valve. They feature a proven three element packing system and a balance sleeve device to assist in keeping the by-pass closed. They are available for 5-1/2" through 7-5/8" casing.

Special Features

- Proven three piece packing element system available in multiple configurations for different applications
- Hydraulic hold down button unit with large internal flow path located below the bypass valve to reduce element swabbing and button wicker dulling
- Surface controlled combination bypass and equalizing valve
- Tubing pressure actuated collet lock to eliminate excessive set down weight requirements
- Carbide rocker slips available
- Parts are interchangeable with other manufacturers
- Large bore

MR-3D LARGE BORE DOUBLE GRIP RETRIEVABLE PACKER

PART NUMBER	CASING		SETTING RANGE		SIZE	TOOL OD (inches)	THREAD BOX X PIN
	OD (inches)	Wt T & C (pounds)	Min ID (inches)	Max ID (inches)			
080-1145-120	5 1/2	20.0-23.0	4.625	4.777	45A2	4.500	2 7/8 EU 8RD
080-1145-140		17.0-20.0	4.778	4.892	45A4	4.641	
080-1145-200		13.0-15.5	4.893	5.044	45B	4.781	
	5 3/4	22.5					
	6	26.0					
080-1147-140	6 5/8	20.0	5.983	6.135	47A4	5.812	
	7	32.0-35.0					
080-1147-220	6 5/8	17.0	6.136	6.276	47B2	5.968	
		26.0-29.0					
080-1147-240	7	20.0-26.0	6.276	6.456	47B4	6.078	
080-1147-320		17.0-20.0	6.454	6.578	47C2	6.266	
080-1147-340		33.7-39.0	6.579	6.797	47C4	6.453	
080-1147-420	7 5/8	24.0-29.7	6.798	7.025	47D2	6.672	
080-1147-440		20.0-24.0	7.025	7.125	47D4	6.812	

MR-3D DOUBLE GRIP RETRIEVABLE PACKER



Model MR-3D Double Grip Retrievable Packer, R-3 Type

Model MR-3D Double Grip Retrievable Casing Packers are used in production, stimulation and testing applications. Their hydraulic hold down is below the pressure equalization valve. They feature a proven three element packing system and a balance sleeve device to assist in keeping the by-pass closed. They are available for 4-1/2" through 9-5/8" casing.

Special Features

- Three piece packing element system
- Hydraulic hold down button unit with large internal flow path located below the bypass valve to reduce element swabbing and button wicker dulling
- Surface controlled combination bypass and equalizing valve
- Tubing pressure actuated collet lock to eliminate excessive set down weight requirements
- Field-proven design Carbide rocker slips available

MR-3D DOUBLE GRIP RETRIEVABLE PACKER

PART NUMBER	CASING		SETTING RANGE		SIZE	TOOL OD (inches)	THREAD BOX X PIN
	OD (inches)	Wt T & C (pounds)	Min ID (inches)	Max ID (inches)			
080-1043-101	4 1/2	9.5-13.5	3.910	4.090	43A	3.771	2 7/8 EU 8RD
080-1043-100		15.0-18.0	4.250	4.408	43B	4.125	
080-1043-200		5	11.5-15.0	4.408	4.560	43C	
080-1043-300	5 1/2	26.0	4.625	4.778	45A2	4.500	2 3/8 EU 8RD
080-1045-120		20.0-23.0	4.778	4.950	45A4	4.641	
080-1045-140		15.5-20.0	4.950	5.190	45B	4.781	
080-1045-200	5 3/4	13.5-15.5	5.191	5.390	45C	5.062	
080-1045-300	6	22.5	5.391	5.560	45D	5.156	
080-1045-400	5 1/2	26.0	5.561	5.609	45E2	5.406	
080-1045-520	6	34.0	5.610	5.791	45E4	5.484	2 7/8 EU 8RD
080-1045-540		28.0-32.0	5.791	5.921	45EF	5.484	
080-1045-560		24.0-28.0	5.600	5.791	46A2	5.475	
080-1046-120	6 5/8	28.0-32.0	5.791	5.921	46A4	5.588	
080-1046-140		24.0-28.0	5.922	6.135	46B	5.781	
080-1046-200	7	38.0	5.830	5.937	47A4	6.656	
080-1047-120	6 5/8	17.0-20.0	5.938	6.135	47B2	5.812	3 1/2 EU 8RD
080-1047-140	7	32.0-35.0	6.136	6.276	47B2	5.968	
080-1047-220	7	26.0-29.0	6.136	6.276	47B2	5.968	
080-1047-520		20.0-26.0	6.276	6.456	47B4	6.078	
080-1047-240	7 5/8	17.0-20.0	6.454	6.578	47C2	6.266	2 7/8 EU 8RD
080-1047-320		33.7-39.0	6.579	6.797	47C4	6.453	
080-1047-340		24.0-29.7	6.798	7.025	47D2	6.672	
080-1047-420	8 5/8	20.0-24.0	7.025	7.125	47D4	6.812	3 1/2 EU 8RD
080-1049-120		44.0-49.0	7.511	7.687	49A2	7.312	
080-1049-140		32.0-40.0	7.688	7.921	49A4	7.531	
080-1049-200	9 5/8	20.0-28.0	8.017	8.191	49B	7.781	
080-1051-120		47.0-53.5	8.343	8.681	51A2	8.218	
080-1051-140		40.0-47.0	8.681	8.835	51A4	8.437	
080-1051-200	9 5/8	29.3-36.0	8.836	9.063	51B	8.593	2 7/8 EU 8RD
080-1151-140		40.0-47.0	8.681	8.835	51A4	8.437	
080-1151-200		29.3-36.0	8.921	9.063	51B	8.593	

MR-3S SINGLE GRIP RETRIEVABLE PACKER



Model MR-3S Single Grip Retrievable Packer

Model MR-3 Single Grip Retrievable Casing Packers are used in production as a convention long stroke Packer. They feature a proven three element packing system and a large by-pass area through the Packer. They are available for 4" through 9-5/8" casing.

Special Features

- Proven three piece packing element system available in multiple
- Configurations for different applications
- Large by-pass area
- Surface controlled combination bypass and equalizing valve
- Carbide rocker slip available
- Parts are interchangeable with other manufacturers

MR-3S SINGLE GRIP RETRIEVABLE PACKER

PART NUMBER	CASING		SETTING RANGE		SIZE	TOOL OD (inches)	THREAD BOX X PIN			
	OD (inches)	Wt (pounds)	Min ID (inches)	Max ID (inches)						
080-1541-100	4	9.5-11.6	3.428	3.546	41A	3.303	2 3/8 EU 8RD			
080-1541-200	4 1/2	15.1	3.754	3.826	41B	3.620				
080-1543-100		9.5-13.5	3.910	4.090	43A	3.771				
080-1543-200	5	15.0-18.0	4.25	4.408	43B	4.125				
080-1543-300		11.5-15.0	4.408	4.560	43C	4.250				
080-1545-120	5 1/2	20.0-23.0	4.625	4.778	45A2	4.500				
080-1545-140		15.5-20.0	4.778	4.950	45A4	4.641				
080-1545-200		13.0-15.5	4.950	5.190	45B	4.781				
080-1545-300	22.5	26.0						20.0-23.0	5.191	5.390
080-1545-400	6	15.0-18.0	5.391	5.560	45D	5.156				
080-1545-520	6 5/8	34.0	5.561	5.609	45E2	5.406				
080-1545-540	6 5/8	28.0-32.0	5.610	5.791	45E4	5.484				
080-1545-560	6 5/8	24.0-23.0	5.791	5.921	45EF	5.484				
080-1645-120	5 1/2	20.0-23.0	4.625	4.777	45A2	4.500				
080-1645-140		17.0-20.0	4.778	4.892	45A4	4.641				
080-1645-200		13.0-15.5	4.893	5.044	45B	4.781				
080-1546-120	6 5/8	28.0-32.0	5.600	5.791	46A2	5.475				
080-1546-140		24.0-28.0	5.791	5.921	46A4	5.588				
080-1546-200	7	38.0						6 5/8	17.0-20.0	5.922
080-1547-120	7	32.0-35.0	5.830	5.937	47A2	5.656				
080-1547-140	6 5/8	24.0					38.0	17.0-20.0	5.938	6.135
080-1547-220	7	32.0-35.0	6.136	6.276	47B2	5.968				
080-1547-240		26.0-29.0					6.276	6.456	47B4	6.078
080-1547-320		20.0-26.0					6.456	6.578	47C2	6.266
080-1547-340	7 5/8	17.0-20.0	6.579	6.797	47C4	6.453				
080-1547-420		33.7-39.0	6.798	7.025	47D2	56.672				
080-1547-440		24.0-29.7	7.025	7.125	47D4	6.812				
080-1549-120	8 5/8	20.0-24.0	7.511	7.687	49A2	7.312				
080-1549-140		44.0-49.0					7.688	7.921	49A4	7.531
080-1549-200		32.0-40.0					7.922	8.191	49B	7.781
080-1551-120	9 5/8	20.0-28.0	8.343	8.681	51A2	8.218				
080-1551-140		47.0-53.5					8.681	8.835	51A4	8.437
080-1551-200		40.0-47.0					8.836	9.063	51B	8.593
080-1551-200		29.3-36.0								

MAPSET MECHANICAL SET RETRIEVABLE PRODUCTION PACKER



Model MAPSET Mechanical Set Retrievable Production Packers

The Model MAPSET single string mechanical Production Packer is a retrievable, double grip compression or tension-set production packer that holds pressure from above or below. Once set the tubing string can be left in tension, compression, or in a neutral position. A large internal bypass reduces the swabbing effect during run-in and retrieval, and closes when the packer is set. When the packer is released, the bypass opens first, allowing the pressure to equalize before the upper slips are pulled from the casing. The Model MAPSET also features an upper slip releasing system that reduces the force required to release the packer. A non-directional slip is released first, making it easier to release other slips. These flexible features allow the MAPSET to be run in a variety of applications ranging from Production Packer to Bridge Plug to Service Packer.

Special Features

- Internal bypass reduces swabbing
- Holds 7,500 psi high pressure differentials from above or below Incorporates standard setting and releasing methods of only one quarter turn to the right
- Tubing string can be held in tension, compression or neutral set while the packer remains engaged
- Optional shear release features available upon request
- Many different elastomers are available for different running requirements Bypass valve is below upper slips so the debris is washed from slips when the valve is opened
- Can be configured with Carbide Slips and Drag Blocks for premium casing

MAPSET MECHANICAL SET RETRIEVABLE PRODUCTION PACKER

PART NUMBER	CASING		SETTING RANGE		TOOL OD (inches)	TOOL ID (inches)	THREAD BOX X PIN	
	OD (inches)	Wt (pounds)	Min ID (inches)	Max ID (inches)				
054-5330-201	3 1/2	7.7-10.2	2.922	3.068	2.781	1.25	1.500" NU 10RD	
054-5330-001	4 1/2	15.1-16.6	3.754	3.826	3.594	1.5	1.900" NU 10RD	
054-5330-002		9.5-13.5	3.920	4.090	3.750	1.938	2 3/8" EU 8RD	
054-5330-003		13.5-15.1	3.826	3.920	3.650	1.938		
054-5330-006	5	18.0-20.8	4.156	4.276	4.000	1.938		
054-5330-007		11.5-15	4.408	4.560	4.125	1.938		
054-5331-001	5 1/2	20.0-23.0	4.670	4.778	4.500	1.938		2 7/8" EU 8RD
054-5331-002		14.0-20.0	4.778	5.012	4.625			
054-5331-006		20.0-23.0	4.670	4.778	4.500	2.375		
054-5331-007		15.5-17.0	4.892	4.95	4.625			
054-5331-008		13.0-14.0	5.012	5.044	4.775			
054-5331-009		9.0-13.0	5.044	5.192	4.813			
054-5332-001	6 5/8	24.0-32.0	5.675	5.921	5.500	3.000	3 1/2" EU 8RD	
054-5332-002		20.0-24.0	5.921	6.049	5.750			
054-5332-003		17.0-24.0	5.921	6.135	5.750			
054-5332-004	7	26.0-32.0	6.094	6.276	5.875	2.500	2 7/8" EU 8RD	
054-5332-005		17.0-26.0	6.276	6.538	6.000	3.000	3 1/2" EU 8RD	
054-5332-006		26.0-32.0	6.094	6.276	5.875			
054-5332-007		17.0-26.0	6.276	6.538	6.000			
054-5333-001		7 5/8	33.7-39.0	6.625	6.765	6.437		2.500
054-5333-002	33.7-39.0		6.625	6.765	6.437	3.000		3 1/2" EU 8RD
054-5333-003	24.0-29.7		6.875	7.025	6.672			
054-5333-004	24.0-29.7		6.875	7.025	6.672	2.500	2 7/8" EU 8RD	
054-5335-001	9 5/8	43.5-53.5	8.535	8.755	8.250	4.000	4 1/2" EU 8RD	
054-5335-002		32.3-43.5	8.755	9.001	8.500			

MAPSET-HP MECHANICAL SET RETRIEVABLE PRODUCTION PACKER



Model MAPSET-HP Mechanical Set Retrievable Production Packers

The Model MAPSET-HP single string Mechanical Production Packer is a retrievable, double grip compression or tension-set production packer that holds pressure from above or below. Once set, the tubing string can be left in tension, compression, or in a neutral position. A large internal bypass reduces the swabbing effect during run-in and retrieval, and closes when the packer is set. When the packer is released, the bypass opens first, allowing the pressure to equalize before the upper slips are pulled from the casing. The Model MAPSET-HP also features an upper slip releasing system that reduces the force required to release the packer. A non-directional slip is released first, making it easier to release the other slips. These flexible features allow the MAPSET-HP to be run in a variety of applications ranging from Production Packer to Bridge Plug to Service Packer.

Special Features

- Internal bypass reduces swabbing
- Holds 10,000 psi high pressure differentials from above or below
- Only one-quarter right rotation is required to set and release
- Tubing string can be held in tension, compression or neutral set while the packer remains engaged
- Optional shear release features are available upon request
- Packing element options are available for hostile environments
- Bypass valve is below upper slips so the debris is washed from slips when the valve is opened
- Can be configured with Carbide Slips and Drag Blocks for premium casing

MAPSET-HP MECHANICAL SET RETRIEVABLE PRODUCTION PACKER

PART NUMBER	CASING		SETTING RANGE		TOOL OD (inches)	TOOL ID (inches)	THREAD BOX X PIN
	OD (inches)	Wt (pounds)	Min ID (inches)	Max ID (inches)			
054-5360-002	4 1/2	9.5-13.5	3.92	4.09	3.750	1.938	2 3/8"EU 8RD
054-5360-003		13.5-15.1	3.826	3.92	3.650		
054-5360-006	5	18.0-20.8	4.156	4.276	4.000		
054-5360-007		11.5-15.0	4.408	4.56	4.125		
054-5361-001	5 1/2	20.0-23.0	4.670	4.778	4.500		
054-5361-002		14.0-20.0	4.778	5.012	4.625		
054-5361-009		23.0-26.0	4.548	4.670	4.406		
054-5361-006		20.0-23.0	4.670	4.778	4.500		
054-5361-007	7	15.5-20.0	4.778	4.95	4.625	2.375	2 7/8"EU 8RD
054-5362-004		26.0-32.0	6.094	6.276	5.875		
054-5362-005		17.0-26.0	6.276	6.538	6.000		
054-5363-001	7 5/8	33.7-39.0	6.625	6.765	6.453	2.500	
054-5363-004		24.0-29.7	6.875	7.025	6.672		

LOCK-SET DOUBLE-GRIP RETRIEVABLE PACKER



Model Lock-Set Double-Grip Retrievable Packer

Model Lock-Set Retrievable Casing Packer is a Full Bore Double Grip Retrievable Packer with a built-in pressure equalizing unloader. It holds pressure from above or below. The opposed, non-transferring dovetail slips prevent movement of the packer in either direction, while allowing landing of the tubing in tension, compression, or neutral. It is a general purpose packer for production, injection, zone isolation, or remedial operations.

Special Features

- Sets securely in all standard hardness casing
- Internal by-pass
- Opposed dovetail slips for positive set
- Holds pressure from above or below
- Can leave tubing in a tension, compression, or neutral position
- Right-hand rotation sets and releases the packer
- Carbide inserted slips available for higher grade casing
- Converts to Mechanical Bridge Plug with the addition of Model K-Connector Valve

LOCK-SET DOUBLE-GRIP RETRIEVABLE PACKER

PART NUMBER	CASING		SETTING RANGE		TOOL OD (inches)	TOOL ID (inches)	SIZE	THREAD BOX X PIN
	OD (inches)	Wt T & C (pounds)	Min ID (inches)	Max ID (inches)				
080-2343-120	4 1/2	11.6-13.5	3.91	4.000	3.771	1.978	43A2	2 3/8" EU 8RD
080-2343-140		9.6-10.5	4.001	4.090	3.771		43A4	
080-2343-200	5	15.0-18.0	4.25	4.408	4.125		43B	
080-2343-300		11.5-15.0 26.0	4.408	4.560	4.250		43C	
080-2345-120	5 1/2	20.0-23.0	4.625	4.778	4.500	2.000	45A2	
080-2345-140		15.5-20.0	4.778	4.950	4.641		45A4	
080-2345-200	6	13.0-15.0 26.0	4.95	5.190	4.781		45B	
080-2345-300		20.0-23.0	5.191	5.39	5.062		45C	
080-2345-400	6 5/8	15.0-18.0	5.391	5.56	5.156	45D		
080-2345-500		34.0	5.561	5.609	5.406	45E		
080-2345-600		24.0-32.0	5.61	5.921	5.484	45F		
080-2345-700		17.0-24.0	5.922	6.135	5.781	45G		
080-2347-120	7	24.0 38.0	5.830	5.937	5.656	2.438	47A2	2 7/8" EU 8RD
080-2347-140	6 5/8	17.0-20.0 32.0-35.0	5.938	6.135	5.812		47A4	
080-2347-220	7	26.0-29.0	6.136	6.276	5.968		47B2	
080-2347-240		23.0-26.0	6.276	6.366	6.078		47B4	
080-2347-320	7 5/8	17.0-20.0	6.456	6.578	6.266	47C2		
080-2347-340		33.7-39.0	6.579	6.797	6.453	47C4		
080-2347-420		24.0-29.7	6.798	7.025	6.672	47D2		
080-2347-440		20.0-24.0	7.025	7.125	6.812	47D4		
080-2349-120	8 5/8	44.0-49.0	7.511	7.687	7.312	3.481	49A2	4" NU 8RD
080-2349-140		32.0-40.0	7.688	7.921	7.531		49A4	
080-2349-200		20.0-28.0	7.922	8.191	7.781		49B	
080-2351-120	9 5/8	47.0-53.5	8.343	8.681	8.218		51A2	
080-2351-140		40.0-47.0	8.681	8.835	8.437	51A4		
080-2351-200		29.3-36.0	8.836	9.063	8.593	51B		

PHP-2-SR HYDRAULIC SET PACKER



Model PHP-2-SR Hydraulic Set Packer

Model PHP-2-SR Hydraulic Set Packer can be run in single or multiple zone installations. It is recommended for deviated wells where conditions are not suitable for mechanical or electric wire packers. No tubing movement is required or generated to set the packer. Once set, the packer is locked in place by one-piece bi-directional slips and will hold high differential pressures. The packer can be released by either straight pull or right-hand tubing rotation. An equalizing and bypass feature is incorporated in the release mechanism. They are available for 5" through 9 5/8" casing.

Special Features

- Recommended for deviated wells tubing pressure actuated
- Proven three piece packing element system available in multiple configurations for different applications
- Straight pull or rotational release
- Bi-directional one-piece slips below the packing

PHP-2-SR HYDRAULIC SET PACKER

PART NUMBER	CASING		SETTING RANGE		TOOL OD (inches)	TOOL ID (inches)	THREAD BOX X PIN	
	OD (inches)	Wt T & C (pounds)	Min ID (inches)	Max ID (inches)				
054-5670-002	5	15.0-18.0	4.276	4.408	2.000	4.070	2 3/8" EU 8RD	
054-5671-004	5 1/2	20.0-23.0	4.670	4.778	1.930	4.500		
054-5671-003		14.0-20.0	4.778	5.012	1.930	4.500		
054-5671-008		9.0-13.0	5.044	5.192	1.930	4.810		
054-5671-013		20.0-23.0	4.670	4.778	1.930	4.500		
054-5671-012	7	14.0-20.0	4.778	5.012	1.930	4.500	2 7/8" EU 8RD	
054-5671-009		9.0-13.0	5.044	5.192	1.930	4.810		
054-5672-007		29.0-38.0	5.920	6.184	2.440	5.680		
054-5672-002		26.0-29.0	6.184	6.279	2.440	5.960		
054-5672-001	9 5/8	20.0-26.0	6.279	6.456	2.440	6.070	3 1/2" EU 8RD	
054-5672-008		29.0-38.0	5.920	6.184	3.000	5.680		
054-5672-005		26.0-29.0	6.184	6.279	3.000	5.960		
054-5672-004		20.0-26.0	6.279	6.456	3.000	6.070		
054-5674-003	9 5/8	43.5-53.5	8.538	8.755	2.440	8.180	2 7/8" EU 8RD	
054-5674-004		36.0-47.0	8.681	8.921	2.440	8.430		
054-5674-001		9 5/8	43.5-53.5	8.538	8.755	3.000	8.180	3 1/2" EU 8RD
054-5674-002			36.0-47.0	8.681	8.921	3.000	8.430	

MFH RETRIEVABLE HYDROSTATIC PACKER



Model MFH Retrievable Double-Grip Hydrostatic Single-string Packer

Model MFH Retrievable Hydrostatic Packer is used in production, injection and zonal isolation. It can be run in single or multiple zone installations. It is recommended for deviated wells where conditions are not suitable for mechanical or wireline set packers. No tubing movement is required or generated to set the packer. Once set, the packer is locked in place by one-piece no-directional slips. The packer can be released by straight pull. They are available in 4 1/2" through 9-5/8" casing.

Special Features

- Hydraulically activated, hydrostatic set contains both a built-in unloader and bypass
- Pack-off is mechanically locked and constantly reinforced by hydrostatic pressure proven three piece packing element system available in multiple configurations for different applications
- No mandrel movement during setting allows stacked packer applications simple operation with a straight pull release

MFH RETRIEVABLE HYDROSTATIC PACKER

PART NUMBER	CASING		SETTING RANGE		TOOL OD (inches)	TOOL ID (inches)	THREAD BOX X PIN
	OD (inches)	Wt T & C (pounds)	Min ID (inches)	Max ID (inches)			
080-2043-100	4 1/2	9.5-13.5	3.910	4.090	3.771	1.93	2 3/8" EU 8RD
080-2043-200	5	15.0-18.0	4.250	4.408	4.125		
080-2043-300		11.5-15.0 26.0	4.408	4.560	4.250		
080-2045-120	5 1/2	20.0-23.0	4.625	4.778	4.500	1.995	2 3/8" EU 8RD or 2 7/8" EU 8RD
080-2045-140		15.5-20.0	4.778	4.950	4.641		
080-2045-200		13.0-15.5 26.0	4.950	5.190	4.781		
080-2045-300	6	20.0-23.0	5.191	5.39	5.062		
080-2045-400		15.0-18.0	5.391	5.56	5.156		
080-2045-520	6 5/8	34.0	5.561	5.609	5.406		
080-2045-540		28.0-32.0	5.610	5.791	5.484		
080-2046-140		24.0-28.0	5.791	5.921	5.588	2.416	2 7/8" EU 8RD
	7 38.0						
080-2047-120	6 5/8 7	24.0 38.0	5.830	5.937	5.656	2.000 or 2.416	2 3/8" EU 8RD or 2 7/8" EU 8RD
080-2047-140	6 5/8	17.0-20.0 32.0-35.0					
080-2047-220	7	26.0-29.0	6.136	6.276	5.968		
080-2047-240		20.0-26.0	6.276	6.456	6.078		
080-2047-320		17.0-20.0	6.456	6.578	6.266		
080-2047-340	7 5/8	33.7-39.0	6.579	6.797	6.453		
080-2047-420		24.0-29.7	6.798	7.025	6.672		
080-2047-440		20.0-24.0	7.025	7.125	6.812		
080-2049-120		8 5/8	44.0-49.0	7.511	7.687	7.312	
080-2049-140	32.0-40.0		7.688	7.921	7.531		
080-2049-200	20.0-28.0		7.922	8.191	7.781		
080-2051-120	9 5/8	47.0-53.0	8.343	8.681	8.218	2.500 or 3.000	2 7/8" EU 8RD or 3 1/2" EU 8RD
080-2051-140		40.0-47.0	8.681	8.835	8.437		
080-2051-200		29.3-36.0	8.921	9.063	8.593		

MFHL HYDRAULIC SET PACKER



Model MFHL- Hydraulic Set Packer, FHL Type

Model MFHL Retrievable Double-Grip Large Bore Hydrostatic Single String Packer is a large bore version of the Model MFH Packer. Features, advantages and operational procedures are basically the same as those described for the Model MFH Packer shown in basic unit filed in front of this index tab. Only the information that differs from that shown in the basic unit is contained in this unit.

Special Features

- Hydraulically activated, hydrostatic set Contains both a built-in unloader and bypass
- Pack-off is mechanically locked and constantly reinforced by hydrostatic pressure
- Proven three piece packing element system available in multiple configurations for different applications
- No mandrel movement required during setting allows for stacked packer applications
- Simple operation with a straight pull release

MFHL HYDRAULIC SET PACKER

PART NUMBER	CASING		SETTING RANGE		TOOL OD (inches)	TOOL ID (inches)	THREAD BOX X PIN																																																																					
	OD (inches)	Wt T & C (pounds)	Min ID (inches)	Max ID (inches)																																																																								
080-2147-120	6 5/8	24.0	5.83	5.921	5.66	3	3 1/2" EU 8RD																																																																					
	7	38.0						080-2147-140	6 5/8	20.0	5.989	6.094	5.81	3	3 1/2" EU 8RD	7	32.0-35.0	080-2147-220	6 5/8	17.0	6.135	6.276	5.97	3	3 1/2" EU 8RD		26.0-29.0	080-2147-240	7	20.0-26.0	6.276	6.456	6.08	3	3 1/2" EU 8RD	080-2147-320	17.0-20.0	6.456	6.578	6.27	080-2147-340	7 5/8	33.7-39.0	6.579	6.765	6.45	3	3 1/2" EU 8RD	080-2147-420	24.0-29.7	6.766	7.025	6.67	080-2147-440	20.0-24.0	7.025	7.125	6.81	080-2151-120	9 5/8	47.0-53.0	8.343	8.681	8.22	4	4 1/2" Lg. Casing	080-2151-140	40.0-47.0	8.681	8.835	8.44	080-2151-200	29.3-36.0	8.836	9.063	8.59
080-2147-140	6 5/8	20.0	5.989	6.094	5.81				3	3 1/2" EU 8RD																																																																		
	7	32.0-35.0						080-2147-220			6 5/8	17.0	6.135			6.276	5.97	3	3 1/2" EU 8RD		26.0-29.0	080-2147-240	7			20.0-26.0	6.276	6.456	6.08	3	3 1/2" EU 8RD	080-2147-320	17.0-20.0			6.456	6.578	6.27	080-2147-340	7 5/8	33.7-39.0		6.579	6.765	6.45	3			3 1/2" EU 8RD	080-2147-420	24.0-29.7	6.766	7.025	6.67	080-2147-440	20.0-24.0	7.025	7.125	6.81		080-2151-120	9 5/8	47.0-53.0	8.343			8.681	8.22	4	4 1/2" Lg. Casing	080-2151-140	40.0-47.0	8.681	8.835	8.44	080-2151-200
080-2147-220	6 5/8	17.0	6.135	6.276	5.97						3	3 1/2" EU 8RD																																																																
		26.0-29.0						080-2147-240					7			20.0-26.0	6.276			6.456	6.08	3	3 1/2" EU 8RD			080-2147-320	17.0-20.0	6.456	6.578			6.27	080-2147-340			7 5/8	33.7-39.0	6.579	6.765		6.45	3	3 1/2" EU 8RD	080-2147-420	24.0-29.7					6.766	7.025	6.67	080-2147-440	20.0-24.0	7.025	7.125	6.81	080-2151-120	9 5/8	47.0-53.0	8.343		8.681	8.22	4	4 1/2" Lg. Casing	080-2151-140	40.0-47.0			8.681	8.835	8.44	080-2151-200	29.3-36.0	8.836
080-2147-240	7	20.0-26.0	6.276	6.456	6.08			3								3 1/2" EU 8RD																																																												
080-2147-320		17.0-20.0	6.456	6.578	6.27																																																																							
080-2147-340	7 5/8	33.7-39.0	6.579	6.765	6.45								3				3 1/2" EU 8RD																																																											
080-2147-420		24.0-29.7	6.766	7.025	6.67																																																																							
080-2147-440		20.0-24.0	7.025	7.125	6.81																																																																							
080-2151-120		9 5/8	47.0-53.0	8.343	8.681	8.22	4							4 1/2" Lg. Casing																																																														
080-2151-140	40.0-47.0		8.681	8.835	8.44																																																																							
080-2151-200	29.3-36.0		8.836	9.063	8.59																																																																							

Model MT-2 On-Off Tool

Model MT-2 On-Off Tool is a left-hand release, tubing disconnect device with an internal lock profile for securing flow control equipment. It is used in operations that require tubing disconnect and re-engagement without releasing the packer. The internal lock profile is used to retain flow control devices such as plugs, valves or chokes.

Special Features

- 1/4 turn Left-hand release, auto-on Optional right-hand release
- Bonded seals allow multiple disconnects
- Can be pinned in a shear-up or shear-down position
- Type MX internal lock profiles are standard



MT-2 ON/OFF TOOL

CASING SIZE		Max OD		Min ID		THREAD BOX X PIN (inches)
inches	mm	inches	mm	inches	mm	
4 1/2	114.30	3.75	95.25	1.87	47.63	2 3/8 8RD EUE
5 1/2	139.70	4.50	114.30	2.31	58.75	2 7/8 8RD EUE
7	177.80	5.88	149.23	2.81	71.45	3 1/2 8RD EUE
7 5/8	193.68	6.25	158.75	2.31	58.75	2 7/8 8RD EUE
9 5/8	244.48	8.02	203.71	2.81	71.45	3 1/2 8RD EUE

MX & MXN LANDING NIPPLE



Model MX Landing Nipple

The "MX" Nipple offers an expanded versatility to downhole selection. Any desired number of "MX" Nipple can be placed in the production string, thereby offering an unlimited number of positions for setting and locking surface control devices. May be used as seating nipple in the following applications: blanking plugs to shut in well or test the production tubing. Velocity type safety valves. Equalizing check valves. Chokes to reduce surface flowing pressures. Instrument hangers with geophysical devices such as pressure and temperature recorders.



Model MXN Landing Nipple

The "MXN" Nipple is designed for use in single nipple installations or as the bottom nipple when placed in a series of type "MX" landing nipples. "MXN" Nipple can be used in the above applications as "MX", except that, it has restricted "No-Go" I.D.

Special Features

- Versatility to reduce completion and production costs
- Nipple bore compatible with tubing size and weight to permit flow capacity
- Designed for standard tubing weight
- All premium threads available

MX & MXN LANDING NIPPLE

TUBING SIZE		MX				MXN			
		Min. Nipple I.D.		Packing Bore		Min. Nipple I.D.		Packing Bore	
inches	mm	inches	mm	inches	mm	inches	mm	inches	mm
1.900	48.26	1.500	38.10	1.500	38.10	1.448	36.78	1.500	36.78
2 1/16	52.39	1.625	41.28	1.625	41.28	1.536	39.01	1.625	39.01
2 3/8	60.33	1.875	47.63	1.875	47.63	1.791	45.59	1.875	45.59
2 7/8	73.03	2.313	58.75	2.313	58.75	2.205	56.01	2.313	56.01
3 1/2	88.90	2.750	69.85	2.750	69.85	2.635	67.72	2.750	67.56
		2.812	71.42	2.812	71.42	2.660	67.56	2.812	67.56

MF & MR LANDING NIPPLE



Model MF Landing Nipple

The "MF" Nipple is a top NO-GO or selective nipple which provides for the location of various wireline flow control devices in the production string. Be sure to consider carefully the location and number of the model "MF" seating nipple provides maximum versatility in the positioning of the various flow control accessories. May be used as seating nipple in the following applications: blanking plugs to shut in well or test the production tubing. Velocity type safety valves. Equalizing check valves. Chokes to reduce surface flowing pressures. Instrument hangers with geophysical devices such as pressure and temperature recorders.



Model MR Landing Nipple

The "MR" Nipple is a bottom NO-GO seating nipple which allows for location of various flow control devices in the production string. "MR" Nipple can be used in the above applications and has restricted 1.D.

Special Features

- Accept selective or top NO-GO locks
- Honed internal sealing bore for maximum sealing capacities
- Locking groove/no-go shoulder combination above seal bore
- All premium threads available

MF & MR LANDING NIPPLE

TUBING SIZE		MF				MR			
		Min. Nipple I.D.		Packing Bore		Min. Nipple I.D.		Packing Bore	
inches	mm	inches	mm	inches	mm	inches	mm	inches	mm
1.900	48.26	1.500	38.10	1.500	38.10	1.447	36.75	1.500	38.10
2 3/8	60.33	1.781	45.24	1.781	45.24	1.728	43.89	1.781	45.24
		1.812	46.02	1.812	46.02	1.760	44.70	1.812	46.02
		1.875	47.63	1.875	47.63	1.822	46.28	1.875	47.63
2 7/8	73.03	2.250	57.15	2.250	57.15	2.197	55.80	2.250	57.15
		2.312	58.72	2.312	58.72	2.259	57.37	2.312	58.72
3 1/2	88.90	2.750	69.85	2.750	69.85	2.697	68.50	2.750	69.85
		2.812	71.42	2.812	71.42	2.759	70.07	2.812	71.42



Model MXO Sliding Sleeve

MXO sliding sleeve is a downhole flow control device mounted in the production tubing. It effectively controls the flow between the tubing and the casing annulus by means of internal sleeve that is opened and closed by standard wireline methods.

Model MXA Sliding Sleeve

MXA sliding sleeve is a downhole flow control device as the "MXO" circulating sleeve. The difference is that the model "B" shifting tool is used to open (jarring up) or close (jarring down) the "MXO" circulating sleeve.

Model MXD Sliding Sleeve

MXD sliding sleeve is a downhole flow control device as the "MXO" circulating sleeve. The difference is that it has a larger communication port area than "MXO" circulating sleeve.

Model ML Sliding Sleeve

"ML" sliding sleeve is a downhole flow control device mounted in the production tubing to provide communication between the tubing and casing annulus.

Special Features

- Dependable, simple and quick
- Features a nipple profile above and a packing bore above and below the communication ports
- Can be closed without leaving any obstructions in the tubing once the shifting operation is completed
- The standard model "B" shifting tool is used to open and close the sleeves MXO, MXA & MXD
- The Model "D-2" shifting tool is used to open (jarring down) the ML sliding sleeve
- All premium threads available

SLIDING SLEEVE

MXA, MXO, MXD SSD					
Tubing OD		Seal Bore		Max OD	
inches	mm	inches	mm	inches	mm
2 3/8	60.33	1.875	47.63	3.098	78.56
2 7/8	70.03	2.313	58.75	3.750	95.25
3 1/2	88.90	2.750	69.85	4.500	114.30
		2.812	71.42		

ML SSD												
TUBING SIZE	inches	2 3/8			2 7/8			3 1/2		4 1/2		
	mm	6.33			70.03			88.90		114.30		
SEAL BORE	inches	1.781	1.812	1.875	2.250	2.313	2.750	2.812	3.688	3.750	3.812	
	mm	45.25	46.02	47.36	57.15	58.75	69.85	71.42	93.68	95.25	96.82	

MPX & MPXN BYPASS BLANKING PLUG



Model MPX Plug

MPX plug is a selective device capable of holding pressure differentials from above or below when set at any "MX" profile nipple of the same size.



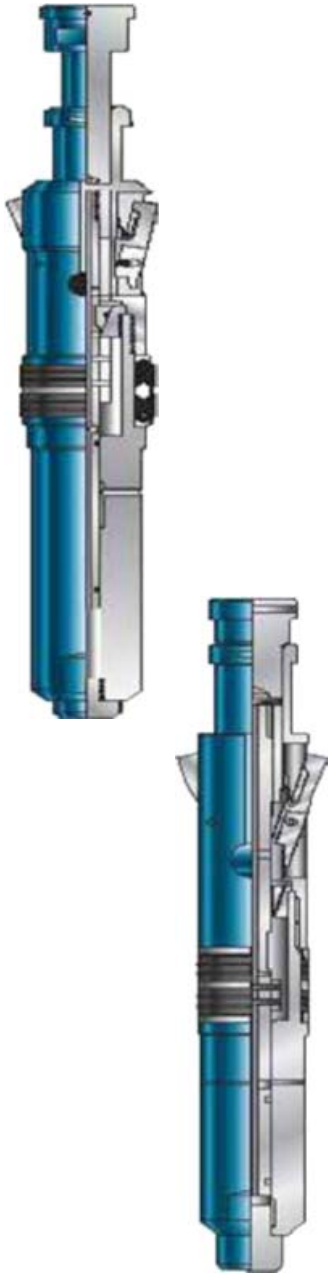
Model MPXN Plug

MPXN plug is non-selective device capable of holding pressure differentials from above or below when set at any MXN profile nipple of the same size.

MPX & MPXN BYPASS BLANKING PLUG

MPX, MPXN				
Max OD	inches	1.875	2.313	2.750
	mm	47.50	58.60	69.85
PROFILE SIZE	inches	1.875	2.313	2.750
	mm	47.50	58.60	69.85

MFWG & MRZG BYPASS BLANKING PLUG



Model MFWG Bypass Blanking Plug

The Model MFWG Bypass Blanking Plug is a Top NO-GO wireline retrievable tubing plug, which can be landing in the matched "MF" Landing Nipple. It is designed with a Removable Mandrel for equalizing pressures. The Removable Mandrel is held in the Bypass position by the running tool, to allow fluid Bypass when landing in the seating nipple. When the plug is locked into the desired Seating Nipple, the Removable Mandrel is shifted and locked to close the Bypass Ports. To equalize, a standard wireline pulling tool latches on to and retrieves the Removable Mandrel. After the pressures have been equalized through the Bypass Ports, the plug may be retrieved with a standard pulling tool and proper probe.

Model MRZG Bypass Blanking Plug

The Model MRZG Bypass Blanking Plug is a Bottom NO-GO wireline retrievable plug. It can be landing in the "MR" Landing Nipple. Its working theory and operating is same as the model "MFWG" Bypass Blanking Plug.

MFWG & MRZG BYPASS BLANKING PLUG

TUBING SIZE		PACKING SIZE		SIZE		Max OD			
						MFWG		MRZG	
inches	mm	inches	mm	inches	mm	inches	mm	inches	mm
1.900	48.26	1.500	38.10	1.500	38.10	1.552	39.42	1.490	37.85
2 3/8	60.33	1.781	45.24	1.781	45.24	1.865	47.37	1.771	44.98
		1.812	46.02	1.812	46.02			1.802	45.77
		1.875	47.62	1.875	47.62	1.928	48.97	1.865	47.37
2 7/8	73.03	2.250	57.15	2.250	57.15	2.302	58.47	2.240	56.90
		2.312	58.72	2.312	58.72	2.365	60.07	2.302	58.47
3 1/2	88.90	2.750	69.85	2.750	69.85	2.802	71.17	2.740	69.60
		2.812	71.42	2.812	71.42	2.865	72.77	2.802	71.17

MFSG BYPASS BLANKING PLUG

Model MFSG Bypass Blanking Plug



The Model MFSG Bypass Blanking Plug is a selectively wireline retrievable tubing plug that is designed with a removable mandrel for equalizing pressures. It can be landing in the matched "MF" Landing Nipple. The removable mandrel is held in the bypass position by the running tool, to allow fluid bypass when running through several of the same size nipples. When the plug is locked into the desired seating nipple, the removable mandrel is shifted and locked to close the bypass ports. To equalize, a standard wireline pulling tool latches onto and retrieves the removable mandrel. After the pressures have been equalized through the bypass ports, the plug may be retrieved with a standard pulling tool and proper probe.

MFSG BYPASS BLANKING PLUG

TUBING SIZE		PACKING SIZE		SIZE		Max OD	
inches	mm	inches	mm	inches	mm	inches	mm
1.900	48.26	1.500	38.10	1.500	38.10	1.490	37.85
2 3/8	60.33	1.781	45.24	1.781	45.24	1.771	44.98
		1.812	46.02	1.812	46.02	1.802	45.77
		1.875	47.62	1.875	47.62	1.865	47.37
2 7/8	73.03	2.250	57.15	2.250	57.15	2.240	56.90
		2.312	58.72	2.312	58.72	2.302	58.47
3 1/2	88.90	2.750	69.85	2.750	69.85	2.740	69.60
		2.812	71.42	2.812	71.42	2.802	71.17



Model MD-2 Shifting Tool

The Model MD-2 Shifting Tool is a wireline operated tool used to open and close the Model "ML" Circulating Sleeve. Any number of sleeves, of the same size, in a single tubing string can be shifted in any combination or in any sequence.

Special Features

- Dependable, simple, quick
- Features a nipple profile above and a packing bore above and below the communication ports
- Ports can be closed without leaving any obstructions in the tubing once the shifting operation is completed
- The Model "D-2" Shifting Tool is used to open (arranging down) the "ML" Circulating Sleeve
- All premium threads available
- At least 6 feet, without restrictions, should be provided below the sleeve

MD-2 SHIFTING TOOL

TUBING SIZE	SIZE		Pin THD
inches	inches	mm	
2 3/8	1.781	45.24	0.937 OD. 10N THD
	1.812	46.02	
	1.875	47.63	
2 7/8	2.250	57.15	
	2.313	58.75	
3 1/2	2.750	69.85	
	2.812	71.42	
4 1/2	3.688	93.68	
	3.750	95.25	
	3.812	96.82	

MBS & MBP SHIFTING TOOL

Model MBS & MBP SHIFTING TOOL



The Model "MB" Shifting Tool is a wireline operated tool used to open and close the circulating sleeve. The Model "MBS" Shifting Tool has selective keys, which require you to shear the pin in the shifting tool before releasing. After the tool is released, it will not engage any more sleeves.

The model "MBP" Shifting Tool has positive keys, which can be self-release from the sleeve after shifting. After the tool is released, they also can engage sleeve traveled in the hole.

Special Features

- The Automatic Locating Collet on the tool positively notifies the operator when the desired sleeve is reached. Running through two consecutive seal bores located two feet apart, indicates a sleeve
- Running through only one seal bore indicates a landing nipple
- Proof of Sleeve Shift. After completing a shift, an attempt to repeat the operation will give a surface indication that the shift was performed
- Safety Release. If the sleeve is opened in the presence of a differential pressure in favor of the annulus, the release mechanism is held inoperative by flow until the pressures equalize
- Emergency Release. The Shifting Tool has a shear pin release mechanism below the shifting Dogs for emergency release
- Deliberate Release. Even after the Shifting Tool is seated in a sleeve, it can be released without shifting the sleeve
- Open/Close Sequence. Upward jarring opens the sleeve. This allows the use of Hydraulic or Mechanical jars. Run in the inverted position, the tool will close the sleeve with downward jarring
- At least 6 feet, without restrictions, should be provided below the sleeve

MBS & MBP SHIFTING TOOL

TUBING SIZE		SIZE		PACKING SIZE	
inches	mm	inches	mm	inches	mm
2 3/8	60.33	1.812	46.02	1.812	46.02
		1.875	47.63	1.875	47.63
2 7/8	73.03	2.313	58.75	2.250	57.15
				2.313	58.75
3 1/2	88.90	2.562	65.07	2.562	65.07
				2.750	69.85
				2.812	71.42

MAPFRAC LINER TOP PACKER



Model MAPfrac Liner Top Packer

The MAPfrac Liner Top Packer is a hydraulic set, single trip permanent packer that incorporates a reliable sealing system capable of operating in differential working pressures up to 10,000 psi. When run in conjunction with the MAPfrac Multi-Zone Completion System it serves as the top most seal of the liner or as annular isolation between the open hole and intermediate casing in a long string application. For connection back to a work string, frac string or production casing the packer can be incorporated with a tie back seal bore receptacle and still maintain full bore capabilities.

Special Features

- Expandable metal back up rings prevent element extrusion
- Hydraulically set double grip permanent packer
- Dual piston setting chamber
- Full bore diameter through entire tool

*Please contact sales to inquire about other sizes, material, premium threads, higher pressure temperature applications.

MAPFRAC LINER TOP PACKER

PART NUMBER	CASING SIZE (inches)	CASING WEIGHT (lb/ft)	TOOL OD (inches)	TOOL ID (inches)	TRIGGER PRESSURE (psi)	W.P. (psi)	Max. Temperature °F	STANDARD END CONNECTION
805813002	7	20-26	6	4	2,900	10,000	275	4 1/2 LTC
805813001		26-32	5.875					
200550500	9 5/8	32.3-53.5	8.125	4.75	2,700	7,000		5 1/2 LTC

MAPFRAC OPEN HOLE PACKER



Model MAPfrac Open Hole Packer

The MAPfrac Open Hole Packer is a hydraulically activated open hole packer for use in downhole horizontal or vertical well applications. When used with the MAPfrac Multi- Zone Completion System the packer provides reliable, annular isolation between staged stimulation operations with the use of a fully retained packing element that is locked in place when set. This compact and modular design also allows for better handling and make-up on the rig floor as well a reduced risk of premature setting while running in the hole.

Special Features

- Mesh back up rings for extrusion prevention.
- Setting force retained by locking mechanism
- Field proven element assembly
- P110 material construction

*Please contact sales to inquire about other sizes, material, premium threads, higher pressure temperature applications.

MAPFRAC OPEN HOLE PACKER

PART NUMBER	CASING SIZE (inches)	TOOL OD (inches)	TOOL ID (inches)	TRIGGER PRESSURE Max. (psi)	OPEN HOLE SETTING RANGE (inches)	W.P. (psi)	Max. Temperature °F
575750003	4 1/2	5.75	3.92	2,100	6.000-6.500	10,000	300
578000001	5 1/2	8	4.75	2,700	8.375-8.500	7,000	

Model MAPfrac Frac Sleeve

The MAPfrac ball activated frac sleeve is designed for use in multi-stage fracturing operations within a horizontal wellbore.

Generally placed at equal distance and isolated between stages, this robust design allows for effective proppant placement in the wellbore through a series of exit ports. When RIH the valve is closed and is not affected by differential casing pressure until the ball has seated. By using specially sized frac balls each valve is shifted open in a set sequence that allows communication between the formation and casing. By performing individual staged fracs, a continuous operation can then be maintained.

Special Features

- Cast Iron ball seat
- Non-rotational seat for drill out
- Full-bore after drill out
- Large exit flow ports
- Variable set opening pressure
- P110 material construction

*Please contact sales to inquire about other sizes, material, premium threads, higher pressure temperature applications.



MAPFRAC FRAC SLEEVE

PART NUMBER	CASING SIZE (inches)	TOOL OD (inches)	TOOL ID (inches)	OPEN PRESSURE Max. (psi)	EXIT FLOW AREA (inches ²)	W.P. (psi)	Max. Temperature °F
200450300	4 1/2	5.5	3.92	3,250	12.93	10,000	300
200550300	5 1/2	7.25	4.778	3,000	22.34	8,000	

MAPFRAC FRACSTART VALVE

Model MAPfrac FracStart Valve

The FracStart Valve serves as the initiation point for communication to the reservoir at the lower most point of the well when run in cemented or open hole casing strings. Designed to activate on hydrostatic casing pressure alone, the valve functions at set operating pressures thus giving the operator an option to pressure test casing before opening. This compact, modular design allows for ease in handling and adds cost savings by replacing some conventional methods of perforating the toe section for fracturing operations.

Special Features

- Allows for casing tests prior any wellbore operations
- Used as an initiation point for fracturing operations
- Large exit flow ports for minimal flow restriction
- Hydro-static casing pressure operation
- Large bore ID for standard cement wipe plug use

*Please contact sales to inquire about other sizes, material, premium threads, higher pressure temperature applications.



MAPFRAC FRACSTART VALVE

PART NUMBER	CASING SIZE (inches)	OPEN HOLE ID		TOOL OD (inches)	TOOL ID (inches)	MAX HYDROSTATIC PRESSURE (psi)	Max. Temperature °F
		Min (inches)	Max (inches)				
300550002	5 1/2	8.25	8.75	7.72	4.5	15,000	300

MAPFRAC INITIATOR VALVE

Model MAPfrac Initiator Valve

The MAPfrac Initiator Valve is a hydraulically activated, differential sleeve that provides the first point of entry and communication to the formation in the completion string. Generally located just above the float equipment, when opened it can be used to stimulate the lower most zone of the wellbore or just as an exit port to pump down the 1st frac ball for the first stage frac operation. This compact, modular design allows for ease in handling on the rig floor and a selective opening pressure than can be adjusted on location.

Special Features

- Casing/Annulus pressure activation
- Full Bore ID when opened
- Shift sleeve locked out when opened
- Variable set opening pressure
- P110 Material construction

*Please contact sales to inquire about other sizes, material, premium threads, higher pressure temperature applications.



MAPFRAC INITIATOR VALVE

PART NUMBER	CASING SIZE (inches)	TOOL OD (inches)	TOOL ID (inches)	OPEN PRESSURE RANGE (psi)	FLOW AREA (inches ²)	W.P. (psi)	Max. Temperature °F
200450250	4 1/2	5.65	3.92	3,250	12.93	10,000	300
200550200	5 1/2	7.25	4.625	5,000	20.56		

MAPFRAC CIRCULATION-SETTING VALVE

Model MAPfrac Circulation-Setting Valve



The MAPfrac Circulation-Setting valve is a normally open valve located just above the float equipment but below the initiator valve. In the open position the valve allows fluid to be circulated through the casing string when needed during deployment into the wellbore. Once at setting depth, the valve is shifted closed with the use of a setting ball pumped down from the surface. This action closes off the internal circulation ports turning the valve into a virtual blanking plug which then allows for hydraulic activation of all tools in the casing string above. After tools are set, casing surface pressure can then be released leaving the tool string closed to the reservoir until the well is ready to be stimulated.

Special Features

- Ball activated closing
- Remains closed after being shifted
- Large exit ports for circulation and reduction of trash build up.
- Acts as blanking plug after closure
- P110 material construction

*Please contact sales to inquire about other sizes, material, premium threads, higher pressure temperature applications.

MAPFRAC CIRCULATION-SETTING VALVE

PART NUMBER	CASING SIZE (inches)	TOOL OD (inches)	MIN SETTING BALL OD (inches)	CLOSING PRESSURE (psi)	MAX PUMP RATE (bpm)	W.P. (psi)	Max. Temperature °F
200450100	4 1/2	5	0.925	1,800-2,000	12	10,000	300
200550100	5 1/2	7.5	1.5	2,600-2,700			