



MAPLE
OilTOOLS

catálogo

COMPLETION
SERVICES

Description	Pg
Service Tools	
HD Compression Set Packer	2
TS-U Spring Loaded Retrieving Tool	4
TS-U Retrievable Bridge Plug	5
Production Packers	
HS-1 Hydraulic Prod. Packer	7
ASI-X Production Packer	10
Permanent Bridge Plug & 16 Cement Retainer	13
Flow Control	
Model “EL” Sliding Sleeve	17
ER Landing Nipple	18
EF Landing Nipple	19
Accessories	
On- Off Tool	20
Shear Safety Joint	22
Sand Control Tools	
ComPlete™ FP System	23
Proweld Well Screens	31
DynaFlo Well Screens	32
Safety Systems	
FlowSafe TR Safety Valve	33
FlowSafe WR Safety Valve	35

HD COMPRESSION SET PACKER

The T613 HD is a heavy duty compression set retrievable packer, designed for general purpose service work, which can hold high differential pressures from above or below. It is set by a quarter turn at the packer followed by set down weight and the hydraulically operated upper holddown buttons anchor the packer when it is subject to high differential pressures from below. The HD packer may be run with a mechanical set bridge plug for straddling intervals and can perform multiple procedures in a single run. The packer's internal unloader allows circulation below the hold-down buttons making it easier to retrieve. The internal bypass also provides for circulation around the tool thereby allowing faster trip time with less tendency of swabbing.

Features and benefits

- Tubing connections are standard on the full-bore mandrel.
- Pressure-balanced mandrel hold-downs counteract pressure from below.
- Set by a quarter turn at the packer and released by picking up.
- Can be dressed to set with a quarter turn to the right or left as required.
- Can be dressed with carbide slips and hold down buttons for long life.
- The large-diameter hold-down buttons reduce casing damage.

HD Packer

SIZE Inches (mm)	MAX O.D Inches (mm)	MIN I.D. Inches (mm)	TEMP. RATING °F (°C)	PRESSURE RATING psi (bar)	PRODUCT NUMBER
4.500 (114.30)	3.656 (92.86)	1.859 (47.22)	300 (148-89)	10,000 (689.48)	T613-45B-000
4.500 (114.30)	3.750 (95.25)	1.859 (47.22)	300 (148-89)	10,000 (689.48)	T613-45A-000
4.500 (114.30)	3.812 (96.82)	1.859 (47.22)	300 (148-89)	10,000 (689.48)	T613-45D-000
5.000 (127.00)	4.000 (101.80)	1.859 (47.22)	300 (148-89)	10,000 (689.48)	T613-50B-000
5.000 (127.00)	4.125 (104.78)	1.859 (47.22)	300 (148-89)	10,000 (689.48)	T613-50A-000
5.500 (139.70)	4.500 (114.30)	1.984 (50.39)	300 (148-89)	10,000 (689.48)	T613-55B-000
5.500 (139.70)	4.625 (117.48)	1.984 (50.39)	300 (148-89)	10,000 (689.48)	T613-55A-000
6.625 (168.28)	5.375 (136.53)	2.484 (63.09)	300 (148-89)	10,000 (689.48)	T613-65D-000
6.625 (168.28)	5.500 (139.70)	2.484 (63.09)	300 (148-89)	10,000 (689.48)	T613-65A-000
6.625 (168.28)	5.750 (146.05)	2.484 (63.09)	300 (148-89)	10,000 (689.48)	T613-65B-000
7.000 (177.80)	5.875 (149.23)	2.484 (63.09)	300 (148-89)	10,000 (689.48)	T613-70A-000
7.000 (177.80)	5.969 (151.81)	2.484 (63.09)	300 (148-89)	10,000 (689.48)	T613-70C-000
7.000 (177.80)	6.000 (152.40)	2.484 (63.09)	300 (148-89)	10,000 (689.48)	T613-70B-000
7.650 (193.68)	6.453 (163.91)	2.484 (63.09)	300 (148-89)	10,000 (689.48)	T613-75A-000
7.650 (193.68)	6.672 (169.47)	2.484 (63.09)	300 (148-89)	10,000 (689.48)	T613-75C-000
8.625 (219.08)	7.531 (191.29)	2.984 (75.79)	300 (148-89)	8,000 (551.58)	T613-85A-000
9.625 (244.48)	8.250 (209.55)	3.938 (100.03)	300 (148-89)	8,000 (551.58)	T613-95B-000



SPRING LOADED RETRIEVING TOOL

The T577 Spring Loaded Retrieving Tool is used with the TS-U Retrievable Bridge Plug. The spring loaded design minimizes the possibility of the bridge plug coming free during running and retrieving. The strong compression spring keeps the bridge plug J- pins securely locked in the retrieving tool jay until sufficient weight collapses the spring allowing the retrieving tool to be removed.

Features and benefits

- Spring loaded design
- Full bore design for maximum circulation
- Durable construction

TS-U Spring Loaded Retrieving Tool

SIZE Inches (mm)	CASING WEIGHT lbs/ft (kg/m)	MAX O.D Inches (mm)	MIN I.D. Inches (mm)	PRODUCT NUMBER
4.500 (114.30)	9.5-13.5 (14.1-20.1)	3.750 (95.25)	2.000 (50.80)	T577-45A-000
5.000 (127.00)	11.5-15.0 (17.1-22.3)	3.750 (95.25)	2.000 (50.80)	T577-45A-000
5.000 (127.00)	18.0-20.8 (28.8-31.0)	3.750 (95.25)	2.000 (50.80)	T577-45A-000
5.500 (139.70)	13.0-20.0 (19.3-29.8)	4.500 (114.30)	2.000 (50.80)	T577-55A-000
5.500 (139.70)	20.0-23.0 (29.8-34.2)	4.500 (114.30)	2.000 (50.80)	T577-55A-000
5.500 (139.70)	13.0-20.0 (19.3-29.8)	4.500 (114.30)	2.375 (60.30)	T577-56A-000
5.500 (139.70)	20.0-23.0 (29.8-34.2)	4.500 (114.30)	2.375 (60.30)	T577-56A-000
7.000 (177.80)	17.0-26.0 (25.3-38.7)	5.875 (149.23)	2.500 (60.80)	T577-70A-000
7.000 (177.80)	26.0-32.0 (34.2-43.2)	5.875 (149.23)	2.500 (60.80)	T577-70A-000



TS-U RETRIEVABLE BRIDGE PLUG

The T727 TSU Bridge Plug is a high pressure retrievable bridge plug suitable for use in selective treating and testing of multiple zones. It is typically set mechanically on tubing or drillpipe but can be supplied in an electric line set version for special applications. The design includes a large internal by-pass area, to prevent swabbing while running or retrieving. The by-pass closes off during the setting process and re-opens during the retrieving process prior to the upper slips releasing so as to equalize pressure across the plug before it unsets. It can be set in tension making it ideal for use in both shallow applications, such as testing wellheads, and in deep set operations.

Features and benefits

- Suitable for use at any depth.
- Standard tool is set and released by a 1/4 turn to the right and pipe reciprocation.
- Other J-slot configurations are available.
- Large by-pass area to prevent swabbing.
- The pressure across the tool is equalized before unsetting.
- Available in electric line set version.
- An emergency shear release mechanism is part of the design.

TSW Bridge Plug

SIZE Inches (mm)	MAX O.D Inches (mm)	TEMP. RATING °F (°C)	RUNNING TOOL	WIRELINE ADAPTOR KIT	PRODUCT NUMBER
4.500 (114.30)	3.625 (92.08)				
4.500 (114.30)	3.750 (95.25)				
5.000 (127.00)	4.000 (101.80)				
5.000 (127.00)	4.125 (104.78)				
5.500 (139.70)	4.408 (111.91)				
5.500 (139.70)	4.500 (114.30)				
5.500 (139.70)	4.625 (117.48)				
6.000 (152.40)	5.188 (131.78)				
6.625 (168.28)	5.500 (139.70)				
6.625 (168.28)	5.750 (146.05)				
7.000 (177.80)	5.875 (149.23)				
7.000 (177.80)	6.000 (152.40)				
7.000 (177.80)	5.969 (151.61)				
7.625 (193.68)	6.453 (163.91)	275 (135)	T577-75A-000	T719-75A-000	T730-75A-000
7.625 (193.68)	6.672 (169.47)	275 (135)	T577-75A-000	T719-75A-000	T730-75C-000



HS-1 HYDRAULIC PRODUCTION PACKER

The T650 HS-1 Hydraulic Set Packer is a high-pressure hydraulic set double grip production packer for use in wells where it is desirable to set after the well has been flanged up. It is equally suitable for single completions or in wells where multiple packers are required, because the pressure balance system is zone activated thus offsetting pressure differentials across the packer. All parts are locked to prevent presetting due to pressure build up or debris when running in. It is retrieved by a straight pull shear release.

Features and benefits

- Suitable for single or multiple packer completions.
- All components are locked to prevent premature setting during run in.
- Set by hydraulic pressure from surface against a plug or ball and set below.
- Once set the release shear mechanism is unaffected by differential pressures.
- A pressure balanced system offsets pressure reversals.
- Released by a straight pull.

HS-1 Hydraulic Production Packer

SIZE Inches (mm)	MAX O.D Inches (mm)	MIN I.D. Inches (mm)	TEMP. RATING °F (°C)	PRESSURE RATING psi (bar)	PRODUCT NUMBER
4.500 (114.30)	3.656 (92.86)	1.984 (50.39)	300 (148-89)	7,000 (382.63)	T650-45B-000
4.500 (114.30)	3.750 (95.25)	1.984 (50.39)	300 (148-89)	7,000 (382.63)	T650-45A-000
5.500 (139.70)	4.500 (114.30)	1.984 (50.39)	300 (148-89)	7,000 (382.63)	T650-55B-000
5.500 (139.70)	4.625 (117.48)	1.984 (50.39)	300 (148-89)	7,000 (382.63)	T650-55A-000
5.750 (146.05)	4.744 (120.50)	1.984 (50.39)	300 (148-89)	7,000 (382.63)	T650-55D-000
6.625 (168.28)	5.500 (139.70)	2.484 (63.09)	300 (148-89)	7,000 (382.63)	T650-65A-000
7.000 (177.80)	5.875 (149.23)	2.484 (63.09)	300 (148-89)	7,000 (382.63)	T651-70A-000
7.000 (177.80)	6.000 (152.40)	2.484 (63.09)	300 (148-89)	7,000 (382.63)	T651-70B-000
7.000 (177.80)	5.875 (149.23)	2.984 (75.79)	300 (148-89)	7,000 (382.63)	T650-73A-000
7.000 (177.80)	6.000 (152.40)	2.984 (75.79)	300 (148-89)	7,000 (382.63)	T650-73B-000
7.650 (193.68)	6.453 (163.91)	2.984 (75.79)	300 (148-89)	7,000 (382.63)	T650-75A-000
7.650 (193.68)	6.625 (168.28)	2.984 (75.79)	300 (148-89)	7,000 (382.63)	T650-75B-000
9.625 (244.48)	8.250 (209.55)	2.984 (75.79)	300 (148-89)	5,000 (344.74)	T650-95A-000
9.625 (244.48)	8.250 (209.55)	2.984 (75.79)	300 (148-89)	5,000 (344.74)	T650-95B-000
9.625 (244.48)	8.250 (209.55)	3.250 (209.55)	300 (148-89)	5,000 (344.74)	T650-96A-000



ASI-X PRODUCTION PACKER

The T600 ASI-X Production Packer is a high pressure double grip tubing retrievable packer.

It is normally set and retrieved using a $\frac{1}{4}$ turn to the right but it can be modified to be run on electric wireline if preferred. It is designed to be run with the standard T-2 On-Off Tool disconnect as the seal assembly and retrieving tool. This configuration uses less equipment and trips than a conventional wireline set seal bore packer and allows it to be used in a variety of applications from production packer to retrievable bridge plug. The release mechanism incorporates an internal by-pass which opens to equalize pressure before the upper slips are released from the casing wall by means of a sequential release system.

Features and benefits

- The packer can be set in tension or compression depending on the application.
- It can be modified to be run on electric wireline using standard setting tools.
- It can also be supplied in a shear release configuration if needed.
- Standard setting and releasing methods incorporate a $\frac{1}{4}$ turn to the right at the tool.
- The internal by-pass equalizes pressure across the packer to reduce any tendency to swabbing.
- Use of the T-2 disconnect feature eliminates the need for expensive seal assemblies.
- Rated to 7,000psi at 300°F with elevated temperature capabilities up to 425°F with choice of appropriate elastomers.
- ASI-X Production Packer



ASI-X PRODUCTION PACKER

SIZE Inches (mm)	CASING WEIGHT lbs/ft (kg/m)	MAX O.D Inches (mm)	MIN I.D. Inches (mm)	PRODUCT NUMBER
2.500 (63.50)	6.4-6.5 (9.5-9.7)	2.250 (57.15)	0.868 (22.05)	T603-25A-000
3.500 (88.90)	9.3-10.2 (13.8-15.2)	2.781 (70.64)	1.235 (31.37)	T600-35A-000
4.500 (114.30)	13.5-15.1 (20.1-22.5)	3.656 (92.86)	1.922 (48-82)	T600-45B-000
4.500 (114.30)	9.5-13.5 (14.1-20.1)	3.750 (95.25)	1.922 (48-82)	T600-45A-000
5.000 (127.00)	18.0-20.8 (26.8-31.0)	4.000 (101.60)	1.922 (48-82)	T600-50B-000
5.000 (127.00)	11.5-15.0 (17.2-22.3)	4.125 (104.78)	1.922 (48-82)	T600-50A-000
5.500 (139.70)	20.0-23.0 (29.8-43.2)	4.500 (114.30)	1.985 (50.42)	T600-55B-000
5.500 (139.70)	14.0-20.0 (20.8-29.8)	4.625 (117.48)	1.985 (50.42)	T600-55A-000
5.500 (139.70)	13.0-14.0 (19.3-20.8)	4.781 (121.44)	1.985 (50.42)	T600-55C-000
5.500 (139.70)	23.0-26.0 (29.8-34.2)	4.406 (111.91)	2.360 (59.94)	T600-56E-000
5.500 (139.70)	20.0-23.0 (29.8-34.2)	4.500 (114.30)	2.360 (59.94)	T600-56B-000
5.500 (139.70)	15.5-20.0 (23.1-29.8)	4.625 (117.48)	2.360 (59.94)	T600-56A-000
5.500 (139.70)	13.0-14.0 (19.3-20.8)	4.781 (121.44)	2.360 (59.94)	T600-56C-000
6.000 (152.40)	14.0-20.0 (20.8-29.8)	5.188 (131.78)	2.360 (59.94)	T600-60A-000
6.625 (168.28)	24.0-32.0 (35.7-47.6)	5.500 (139.70)	2.485 (63.12)	T600-65A-000
6.625 (168.28)	17.0-24.0 (25.3-35.7)	5.750 (146.05)	2.485 (63.12)	T600-65B-000
7.000 (177.80)	26.0-32.0 (38.7-47.6)	5.875 (149.23)	2.485 (63.12)	T600-70A-000
7.000 (177.80)	23.0-29.0 (34.2-43.2)	5.969 (151.67)	2.485 (63.12)	T600-70C-000
7.000 (177.80)	17.0-26.0 (25.3-38.7)	6.000 (152.40)	2.485 (63.12)	T600-70B-000
7.000 (177.80)	26.0-32.0 (38.7-47.6)	5.875 (149.23)	2.985 (75.82)	T600-73A-000
7.000 (177.80)	17.0-26.0 (25.3-38.7)	6.000 (152.40)	2.985 (75.82)	T600-73B-000
7.625 (193.68)	33.7-39.0 (50.2-58.0)	6.453 (163.91)	2.485 (63.12)	T600-75A-000
7.625 (193.68)	29.7-33.7 (44.2-50.2)	6.625 (168.28)	2.485 (63.12)	T600-75B-000
7.625 (193.68)	20.0-24.0 (29.8-35.7)	6.672 (169.47)	2.485 (63.12)	T600-75C-000
7.625 (193.68)	33.7-39.0 (50.2-58.0)	6.453 (163.91)	2.985 (75.82)	T603-76A-000
7.625 (193.68)	24.0-29.7 (35.7-44.2)	6.625 (168.28)	2.985 (75.82)	T603-76B-000
8.625 (219.08)	24.0-40.0 (35.7-59.5)	7.500 (190.50)	2.485 (63.12)	T600-85A-000
8.625 (219.08)	24.0-32.0 (35.7-47.6)	7.750 (196.85)	2.485 (63.12)	T600-85B-000
8.625 (219.08)	32.0-40.0 (47.6-59.5)	7.500 (190.50)	2.985 (75.82)	T600-86A-010
8.625 (219.08)	32.0-53.5 (64.7-79.6)	7.500 (190.50)	3.985 (101.22)	T600-87A-000
9.625 (244.48)	43.5-53.5 (64.7-79.6)	8.250 (209.55)	3.985 (101.22)	T600-95A-000
9.625 (244.48)	32.3-43.5 (48.1-64.7)	8.500 (215.90)	3.985 (101.22)	T600-95B-000

TIP PACKER

Description

Superior Completion Services' testable isolation production (TIP) packer is a versatile, hydraulically set, high-performance, tubing-retrievable packer that includes several design features to enhance reliability. The packer is designed with dual high-pressure sealing elements to ensure a positive seal. The dual elements enable high-pressure integrity tests without exposing liner tops or casing strings to test pressures. This configuration also provides a means of pressure testing the packer when positioned between producing intervals. The packer is also designed with no mandrel movement during setting, allowing multiple packers to be set simultaneously. The TIP packer is certified to handle 10,000 psi (68.9 MPa) differential pressures in both oil and gas environments. The packer is retrievable, and several release options are available.

Applications

- High-pressure, high-temperature wells
- Multizone completions

Features and Benefits

- Multiple release options available, including straight pull and cut-to-release
- One-piece mandrel prevents movement during setting
- Dual high-pressure and self-energizing sealing elements enhance packer seal and differential rating
- Unique pressure-sensitive interlock feature prevents premature setting
- Bidirectional slips
- Rotationally locks in running, set and release positions
- Pressure-assisted seals: above, internal and below
- Gauge ring positioned at lower end of packer
- Maximum slip area for high loads and pressure differentials



TIP PACKER

Technical Data

Differential pressure rating..... 10,000 psi (68.9 MPa)

Temperature rating..... 350°F (177°C)

TIP Packer									
Casing Size		Tool Size		Casing Weight Range		Maximum OD		Minimum ID	
in.	mm	in.	mm	lb/ft	kg/m	in.	mm	in.	mm
7	177.8	7.000 x 3.00	177.8 x 76.2	20.0 - 26.0	29.7 - 38.6	6.07	154.0	2.98	75.6
		7.000 x 3.50	177.8 x 88.9	32.0	47.6	5.88	149.4	2.93	74.2
		7.000 x 3.50	177.8 x 88.9	35.0 - 41.0	52.1 - 61.0	5.63	142.9	2.97	75.4
7 5/8	193.6	7.625 x 3.00	193.6 x 76.2	29.7 - 39.0	44.2 - 58.0	6.44	163.5	2.99	75.8
7 3/4	196.8	7.750 x 3.00	196.8 x 76.2	46.1	68.5	6.42	162.9	2.68	67.9
9 5/8	244.4	9.625 x 3.00	244.4 x 76.2	53.5	79.6	8.31	211.0	2.97	75.4
		9.625 x 3.75	244.4 x 95.2	53.5	79.6	8.31	211.0	3.72	94.4
		9.625 x 4.00	244.4 x 101.6	53.5	79.6	8.31	211.0	3.94	100.1
9 7/8	250.8	9.875 x 3.00	250.8 x 76.2	62.8 - 65.1	93.4 - 96.8	8.42	213.9	2.86	72.6
		9.875 x 3.75	250.8 x 95.2	62.8	93.4	8.42	213.9	3.72	94.4
10 1/8	257.1	10.125 x 3.00	257.1 x 76.2	79.20	117.8	8.42	213.9	2.97	75.4

WR BRIDGE PLUG

The WR Bridge Plug combines the advantages of wireline setting with easy and reliable retrievability. It is commonly used for zone or well isolation during Fracturing, Acidizing, Cement Squeezing, Testing or well head repair operations. This Bridge Plug may be run and set on wireline using a Baker E-4 Wireline Pressure Setting Assembly. It may also be run on tubing or endless tubing using a Hydraulic Setting Tool.

The WR's double acting slips securely anchor the Bridge Plug against pressure differentials from above or below. The three element pack off design ensures reliable sealing at high pressures and temperatures.

The unique equalizing valve design allows any pressure differential to be equalized before the Retrieving Head is latched onto the plug. This feature is especially advantageous when retrieving the WR on endless tubing.

The many advantages of this Bridge Plug include compact design – accurate setting depth – differential pressure rating of 10,000 PSI and a straight on and straight pull to release.

Operation

The WR Bridge Plug is connected to the Wireline (or Hydraulic) Setting Tool, run to required setting depth and set.

The WR Retrieving Tool (Product 10-081) is used to retrieve the Bridge Plug. When using the tool on endless tubing, a Safety Sub (Product 20-032) must be used in conjunction with the Retrieving Head.

The Retrieving Tool is lowered onto the Bridge Plug while circulating any sand or other debris off the plug. The Retrieving Head will open the valve, allowing any pressure differential to equalize. Continued downward movement will latch the Retrieving Head onto the Bridge Plug - upward motion releases the plug.

The Retrieving Head may be disconnected from the Bridge Plug if necessary with approximately 8 to 10 turns of right hand rotation while holding a slight amount of tension.





WR BRIDGE PLUG

OD	Casing Weight		Range of casing I.D.'s I.D MIN I.D MAX				Product Number	Gauge Ring O.D		Retrieving Tool	Baker Setting Tool
in/mm	lb/ft	kg/m	in	mm	in	mm		in	mm		
4 1/2 114.3	15.1	22.5	3.701	94.0	3.826	97.9	10-049-0440	3.695	93.8	10-081-0440	#10
	9.5-13.5	14.1-20.1	3.920	99.6	4.090	103.9	10-049-0450	3.800	96.5	10-081-0450	
5 127.0	20.8	30.9	4.095	104.0	4.156	105.6	10-049-0490	4.062	103.2		
	21.4	31.8	4.001	101.6	4.126	104.8	10-049-0505	3.975	101.0		
	15.0-18.0	22.3-26.8	4.275	108.6	4.408	112.0	10-049-0500	4.125	104.8		
	11.5-15.0	17.1-22.3	4.408	112.0	4.562	115.8	10-049-0510	4.250	108.0		
5 1/2 138.7	26.8	39.9	4.375	111.1	4.500	114.3	10-049-0550	4.250	108.0	10-081-0550	
	20.0-23.0	29.8-34.2	4.670	118.6	4.778	121.4		4.500	114.3		
	15.5-20.0	23.1-29.8	4.778	121.4	4.950	125.7		4.641	117.9		
	13.0-15.5	19.3-23.1	4.950	125.7	5.044	128.1		4.728	120.1		
5 3/4 146.1	19.9	29.7	4.961	126.0	5.079	129.0	10-049-0600	4.728	120.1	#20	
	16.1	24	5.079	129.0	5.197	132.0	10-049-0610	4.823	122.5		
6 5/8 168.3	28.0-32.0	41.7-47.6	5.675	144.1	5.791	147.1	10-049-0650	5.570	141.5		
	24	35.7	5.796	147.2	5.921	150.4	10-049-0660	5.570	141.5		
7 177.6	38	56.5	5.795	147.2	5.920	150.4		5.658	143.7		
6 5/8 168.3	17.0-20.0	25.3-29.8	6.010	152.7	6.049	153.7	10-049-0670	5.812	142.6		
7 177.8	32.0-35.0	47.6-52.1	6.004	152.5	6.049	154.8		5.812	142.6		
	25.0-29.0	38.7-43.2	6.184	157.1	6.276	159.4	10-049-0700	5.875	149.2		
	20.0-26.0	29.8-38.7	6.276	159.4	6.456	164.0	10-049-0710	6.023	153.0		
	17.0-20.0	25.3-29.8	6.456	164.0	6.538	166.1	10-049-0720	6.230	158.2		
7 5/8 193.7	33.7-39.0	50.1-58.0	6.625	168.3	6.756	171.6	10-049-0750	6.375	161.9		
	24.0-29.7	35.7-44.2	6.875	174.6	7.025	178.4	10-049-0760	6.625	168.3		
8 5/6 219.1	44.0-49.0	65.5-72.9	7.511	190.8	7.625	193.7	10-049-0850	7.312	185.7		
	32.0-40.4	47.6-59.5	7.725	196.2	7.921	201.2	10-049-0860	7.531	191.3		
	20.0-28.0	29.8-41.7	8.017	203.6	8.191	205.7	10-049-0870	7.781	197.6		
9 5/8 244.5	47.0-53.5	69.9-79.6	8.535	216.8	8.681	220.5	10-049-0950	8.285	210.4		
	32.3-43.5	48.1-64.7	8.755	222.4	9.001	228.6	10-049-0960	8.500	215.9		
10 3/4 273.1	45.5-51.0	67.7-75.9	9.850	252.0	9.950	252.7	10-049-1076	9.690	246.1		
	32.75-40.5	48.7-60.3	10.05	255.3	10.19	258.9	10-049-1075				
11 3/4 298.5	38.0-60.0	56.5-89.3	10.77	273.0	11.15	283.2	10-049-1175	10.50	266.7		
11 3/4 298.5	48.0-72.0	71.4-107.1	12.35	313.6	12.72	323.0	10-049-1350	12.13	308.0		10-081-1350

PERMANENT BRIDGE PLUG & CEMENT RETAINER

The Model BKR Premium Cement Retainer (W/L) is a wireline set, high pressure retainer constructed of drillable cast-iron that uses ACT, Alpha, Bolt, Elder or Baker K-1 type setting sleeves and tension mandrels. It can be set on any Baker type wireline pressure setting tool or pipe/coil tubing with an ACT Hydraulic Setting Tool. When set, opposing slips are located above and below the rubber packing elements. The packing elements are contained by rocker action back-up rings that eliminate extrusion of the elements at high temperatures and pressures. A one way ratchet lock ring retains the setting force applied to the opposing slips and rubber to maintain a pressure tight seal. One-piece slips keep the retainer securely set in premium grade casings including P-110. The slip wickers are sharp and hardened to the wicker depth only allowing the slip to grip the casing wall while maintaining a soft cast-iron inside for easier drilling. It features a pressure balanced two way valve located in the bottom shoe. The operator controls the two way valve from the surface to hold the final squeeze pressure under the retainer or test tubing or keep hydrostatic pressure off the squeeze. Straight pick up closes the valve and set down weight opens the valve. This retainer is ideal for where squeeze cementing operations are being performed. Optional packing systems of Viton or Aflas are available on special order. Special application tools can be custom designed to fit your specific needs.

After the BKR Cement Retainer is set on wireline a BKR Seal Unit is required to perform the squeeze job. These seal units are available in two types, a locator seal unit or a snap latch seal unit. The seal unit is installed on the bottom of the workstring to control the two way valve in the set retainer.



Features and benefits

- Drillable cast iron construction
- Uses ACT, Alpha, Bolt, Elder or Baker K-1 Setting Sleeves
- Wireline set on Baker Type Wireline Pressure Setting Tool
- Hydraulic set on ACT Hydraulic Setting Tool
- Small OD's for extra clearance in heavy viscous fluids
- One-piece slips set in premium grade casings including P-110
- Pressure balanced two way valve
- Set down weight to open valve, pick up to close
- Optional Mechanical or BKR-1 Bridge Plug conversion kits

PERMANENT BRIDGE PLUG & CEMENT RETAINER



CompSet Packers											
Casing		Model BKR Premium Cement Retainer		Setting Range		Model BKR Wireline Setting Sleeve				Rating	
OD	WT	Part Number	OD	Min	Max	Sleeve Sleeve	Tension Mandrel	Stub Bushing	Baker No.	PSI	Temp.
4-1/2	9.5-16.65	050-3593-000	3.593	3.826	4.090	050-3593-200	050-3593-205	Not Required	10	10,000	325 Deg F
5	11.5-18	050-3937-000	3.937	4.154	4.560	050-3937-200	050-3937-205		20		
5-1/2	13-25	050-4312-000	4.312	4.580	5.044	050-4312-200			20		
6	10.5-12	050-5375-000	5.375	5.595	6.135	050-5687-200	050-5687-205		20		
6-5/8	17-34										
7	32-38										
7	17-35	050-5687-000	5.687	6.004	6.538				20		
7-5/8	20-39	050-6312-000	6.312	6.625	7.263	050-6312-000			20		
8-5/5	24-49	050-7125-000	7.125	7.511	8.248	050-7125-000			20	8,000	300 Deg F
9-5/8	29.3-53.5	050-8125-000	8.125	8.453	9.063	050-8125-000			20		
10-3/4	60.7-81	050-9000-000	9.000	9.250	9.660	050-9000-000	20	5,000			
10-3/4	32.75-60.7	050-9437-000	9.437	9.660	10.192	050-9437-000	20				
13-3/8	77-102	050-1156-000	11.663	9.250	12.464	050-1156-000	20	3,000			
13-3/8	48-72	050-1200-000	12.000	12.175	12.715	050-1200-000	20				

MODEL “EL” SLIDING SLEEVE

The ESS-ELL Model EL Sliding Sleeve is a down hole device, normally screwed into the production tubing, that allows communication between the tubing and the casing.

The closing sleeve has bonded upper seals to ensure the integrity of the seals for the extended periods of time downhole. They can be of various elastomer types.

The upper sub has a selective “EF” landing nipple profile machined into it to allow for the proper shifting of the sleeve and to serve as a receptacle for other flow control devices such as blanking plugs and separation tools.

The ESS-ELL Model ED-2 Shifting Tool is used to shift the EL Sliding Sleeve open and closed. The sleeve is designed so that normal wireline activities will not open or close the sleeve inadvertently. Upward jarring opens the sleeve and downward jarring closes it.



CLOSED

OPEN

SIZE AVAILABILITY CHART

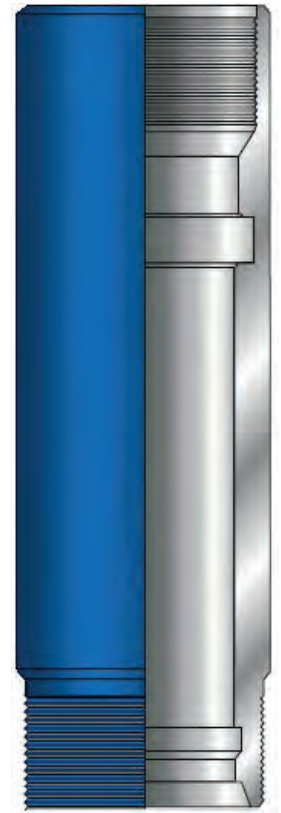
Tubing Size (Metric)	1.900		2-1/6		2-3/8			2-7/8		3-1/2		4-1/2	
	48mm		52mm		60mm			73mm		89mm		114mm	
Seal Bore (Metric)	1.43	1.50	1.56	1.62	1.78	1.81	1.87	2.25	2.31	2.75	2.31	3.75	3.81
	36	38	39	41			47	57	58	57	58	95	97

MODEL “ER” LANDING NIPPLE

The ESS-ELL Model “ER” Landing Nipple is a Bottom NO-Go landing nipple that allows for the location of many Flow Control Devices, such as Blanking Plugs, Bottom Hole Chokes, etc.

The “ER” has a locking groove which serves to allow for the internal locking of the flow control devices. The honed seal area provides a polished seal surface to pack off any flow control device. The bottom no-go shoulder provides the means to positively locate the appropriate flow control device into the “ER”.

There are a wide range of materials from which the “ER” can be machined. The “standard” material is alloy steel which meets NACE MR 01-75 (1984 Editorial Revision) specifications for H₂S service (hardness is 18-22 Rc)



SIZE AVAILABILITY CHART*

Tubing Size (Metric)	1.900		2-1/6		2-3/8			2-7/8		3-1/2
	48mm		52mm		60mm			73mm		89mm
Seal Bore (Metric)	1.43	1.50	1.56	1.62	1.78	1.81	1.87	2.25	2.31	2.75
	36	38	39	41	45	46	47	57	58	

DIMENSIONAL DATA

Seal Bore (Metric)	1.43	1.50	1.56	1.62	1.78	1.81	1.87	2.25	2.31	2.75
	36	38	39	41	45	46	47	57		
Length*	9.5-12		9.68-11.56		10.5-13			11.5/13.5		12.5/14.5
Min. OD**	2.109		2.250		2.560			3.109		3.687
No-Go ID	1.385	1.447	1.510	1.572	1.728	1.760	1.822	2.197	2.259	2.697

*Length may vary depending on the type of thread used.

**Nipple OD is normally joint or coupling OD. OD cannot be smaller than that shown on the chart.

MODEL “EF” LANDING NIPPLE

The ESS-ELL Model “EF” Landing Nipple is a selective landing nipple that allows for the location of many Flow Control Devices, such as Blanking Plugs, Bottom Hole Chokes, etc.

The “EF” has a locking groove which serves to allow for the internal locking of the flow control devices. The honed seal area provides a polished seal surface to pack off any flow control device. In addition, in many cases it is possible to run and land API sucker rod pumps into the “EF” Landing Nipples.

There are a wide range of materials from which the “EF” can be machined. The “standard” material is alloy steel which meets NACE MR 01-75 (1984 Editorial Revision) specifications for H₂S service (hardness is 18-22 Rc). All API and premium threads can be machined into the “EF” Nipple.



SIZE AVAILABILITY CHART*

Tubing Size (Metric)	1.900		2-1/6		2-3/8			2-7/8		3-1/2		
	48mm		52mm		60mm			73mm		89mm		
Seal Bore (Metric)	1.43	1.50	1.56	1.62	1.78	1.81	1.87	2.25	2.28	2.31	2.75	2.81
	36	38	39	41	45	46	47	57	57.5	58	69	71

DIMENSIONAL DATA

Seal Bore (Metric)	1.43	1.50	1.56	1.62	1.78	1.81	1.87	2.25	2.28	2.31	2.75	2.81
	36	38	39	41	45	46	47	57	57.5	58	69	71
Length *(in.)	11-15		11-15		12-17			13-18		13-18		
Min. Odt (in.)	2.109		2.25		2.56			3.109		3.687		

*Length may vary depending on the type of thread used.

**Nipple OD is normally joint or coupling OD. OD cannot be smaller than that shown on the chart.

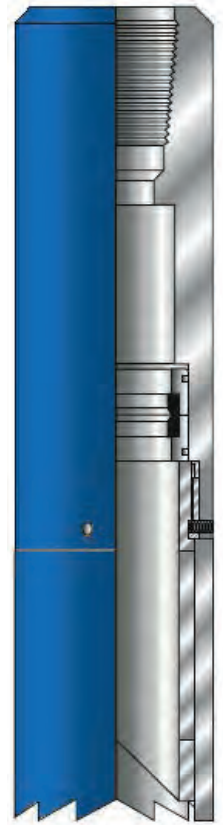


ON-OFF OVERSHOT

The ON-OFF Overshot was designed to disconnect and connect the tubing string from a doublegrip production packer that does not require tension or compression, consist of treating, testing and production applications. The profile stingers run with the overshoot are available in variety of profiles sizes and materials.

Features and benefits

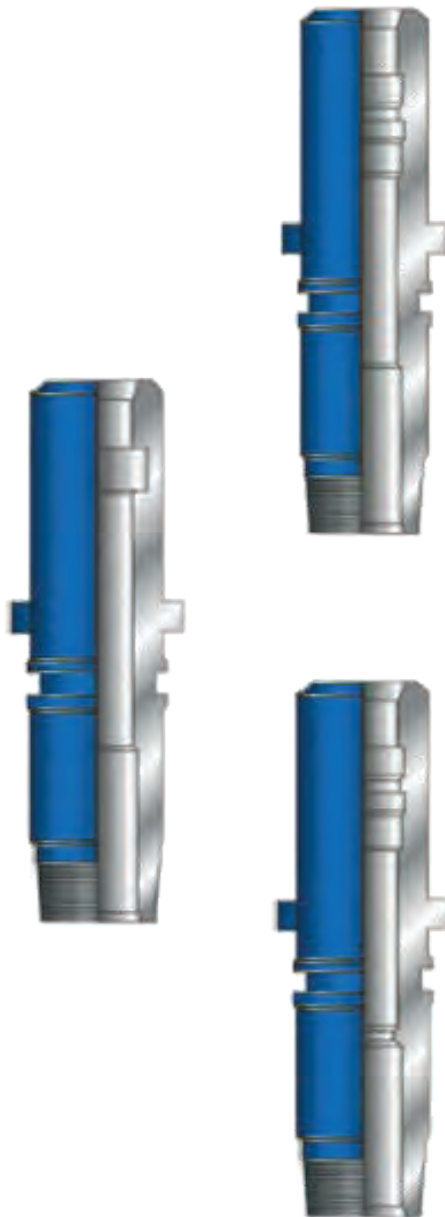
- Proven Bonded Seal System
- Built for strength and durability
- Variety of profile nipples
- Available in special metallurgy
- Available shear pinned up or down position
- Available in spring loaded design



CASING SIZE		MAX O.D		MIN I.D.		THREAD CONNECTION		PRODUCT NUMBER
In.	mm	lbs/ft	kg/m	in.	mm	in.	mm	
2-7/8	73.0	2.250	57.15	1000	25.4	1.660 EUE	42.2	T512-25A-000
3-1/2	88.9	2.750	69.85	1.500	38.1	1.900 NUE	48.3	T512-35A-000
4	101.6	3.250	82.55	1.500	38.1	1.900 EUE	48.3	T512-40A-000
4-1/5	114.3-127	3.750	95.25	2.000	50.8	2-3/8 EUE	60.3	T512-45A-000
4-1/5	114.3-127	3.750	95.25	2.375	60.3	2-7/8 EUE	73.0	T512-46A-000
5-1/2-6-5/8	139.7-168.3	4.500	114.3	2.000	50.8	2-3/8 EUE	60.3	T512-55A-000
5-1/2-6-5/8	139.7-168.3	4.500	114.3	2.500	63.5	2-7/8 EUE	73.0	T512-56A-000
7-7-5/8	177.8-193.7	5.750	146	2.500	63.5	2-7/8 EUE	73.0	T512-70A-000
7-7-5/8	177.8-193.7	5.750	146	3.000	76.2	3-1/2 EUE	88.9	T512-73A-000
8-5/8	219.1	6.500	165.1	2.500	63.5	2-7/8 EUE	73.0	T512-85A-000
8-5/8	219.1	6.500	165.1	4.000	101.6	4-1/2 EUE	114.3	T512-86A-000
9-5/8	244.5	7.500	190.5	2.500	63.5	2-7/8 EUE	73.0	T512-95A-000
9-5/8	244.5	7.500	190.5	4.000	101.6	4-1/2 EUE	114.3	T512-96A-000
10-3/4	273.1	8.500	215.9	2.500	63.5	2-7/8 EUE	73.0	T512-10A-000
10-3/4	273.1	8.500	215.9	4.000	101.6	4-1/2 EUE	114.3	T512-11A-000

ON-OFF TOOL STINGER

The T-2 ON-OFF TOOL STINGERS are used to disconnect the tubing string from a packer. The stingers are used with the T-2 OVERSHOT and are available in a variety of profile types, sizes and from broad range of material types.



SHEAR SAFETY JOINT

The **Shear Safety Joint** provides for emergency release of the tubing string. Straight pull separates the tool at a predetermined shear value.



TUBING SIZE		MAX O.D		MIN I.D.		THEREAD CONNECTION		PRODUCT NUMBER
In.	mm	lbs/ft	kg/m	in.	mm	in.	mm	
1.600	42.2	2.220	56.4	1.375	34.9	1.660 EUE 10RD	42.2	T569-16A-000
1.900	48.3	2.500	63.5	1.500	38.1	1.900 EUE 10RD	48.3	T569-19A-000
2-3/8	60.3	3.062	77.8	2.000	50.8	2-3/8 EUE 8RD	60.3	T569-20A-000
2-7/8	73.0	3.688	93.7	2.500	63.5	2-7/8 EUE 8RD	73.0	T569-25A-000
3-1/2	88.9	4.500	114.3	3.000	76.2	3-1/8 EUE 8RD	88.9	T569-35A-000

COMPLETE TM FP SYSTEM

Description

Superior Completion Services' ComPlete™ frac-pack (FP) system is a single- trip, single-zone, frac- or gravel-pack completion system. The system allows set-down weight to be applied in both squeeze and circulating positions to eliminate problems associated with tubing movement during the well treatment. It can be repeatedly cycled between the squeeze and circulating positions with minimal up-and-down movement of the work string.

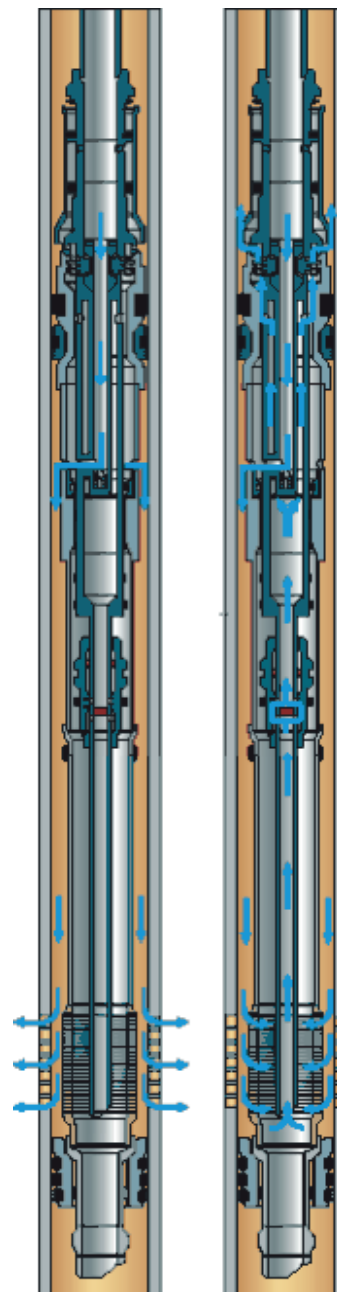
The system is simple in design and offers mechanical indications of all positions and tool movements. The service tool position is the same in the squeeze and circulating positions, minimizing the potential for erosion.

Applications

- Conventional single-trip gravel and frac packing
- Acid stimulation treatments
- Horizontal or vertical well displacements
- Conventional multizone completions

Features and Benefits

- Hydraulic pressure-release (tubing or annular) with redundant mechanical release.
- True live annulus pressure monitoring in the circulating position.
- Reverse circulation through wash pipe is possible in the circulating position for removal of pills, debris, etc.
- Ports are aligned in all treating positions.
 - Squeeze
 - Circulating
- Treating sleeve incorporates bonded production seals for maximum Circulating pressure integrity and reliability.
- Isolation valve provides zonal isolation in reverse position
- Short overall length.



Squeeze

Circulating

COMPLETE™ FP SYSTEM

Technical Data

Minimum overall length..... 16 ft (4.9 m)

Temperature rating..... 350°F (177°C)

ComPlete™ FP System									
Casing Size		Minium OD		Pump Rate		Proppant Volumen		Diferrenal Pressure Rating	
in.	mm.	in.	mm.	bbl/min	mm.	lb	kg	psi	MPa
5 - 5 1/2	127 - 139.7	2.69	68.3	15	68.3	150,000	68,040	10,000	68.9
7 - 7 3/4	177.8 - 196.9	3.25	82.6	35	82.6	300,000	136,079	10,000	68.9
7 - 9 5/8	177.8 - 196.9	4.00	101.6	35	101.6	350,000	158,759	10,000	68.9
9 5/8 - 13/8	244.5 - 339.7	4.75	120.7	40	120.7	500,000	226,799	10,000	68.9
9 5/8 - 13/8	244.5 - 339.7	6.00	152.4	50	152.4	500,000	226,799	10,000	68.9

ComPlete™ FP Extreme System									
Casing Size		Minium OD		Pump Rate		Proppant Volumen		Diferrenal Pressure Rating	
in.	mm.	in.	mm.	bbl/min	mm.	lb	kg	psi	MPa
7 3/4*	196.9	4.00	101.6	40	6.36	500,000	226,799	12,500	86.2
9 5/8 - 10									
1/8*	244.5 - 257.2	6.00	152.4	50	7.95	500,000	226,799	12,500	86.2

ComPlete™ FP Ultra System									
Casing Size		Minium OD		Pump Rate		Proppant Volumen		Diferrenal Pressure Rating	
in.	mm.	in.	mm.	bbl/min	mm.	lb	kg	psi	MPa
7 3/4*	196.9	3.88	98.4	40	6.36	500,000	226,799	15,000	103.4
9 5/8 - 10									
1/8*	250.8 - 257.2	5.50	139.7	40	6.36	1,000,000	453,597	15,000	103.4

* Tested with intermediate- and high-strength proppant.

References

- CompSet™ Packers data sheet

COMPSET™ PACKER

Description

Superior Completion Services' CompSet™ externally retrievable Sealbore packers are designed for high-pressure (HP) completions. A 12,500 psi (86.2 MPa) Extreme version is also available. These packers provide

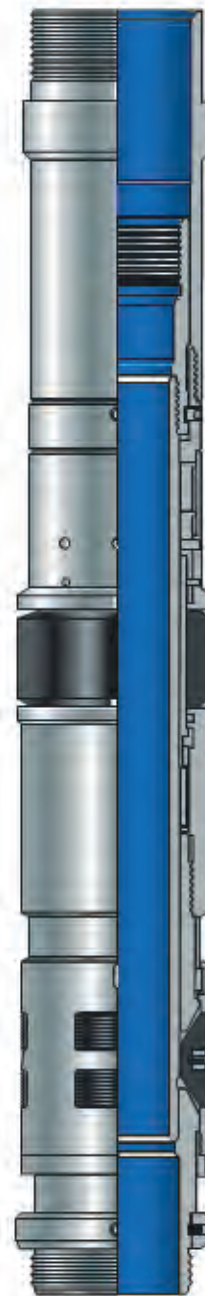
HP cycling without leakage or failure for a wide range of completion and stimulation applications, including gravel and Frac packing, high-rate water packing, stimulations and horizontal completions. The HP packers can also be used as production Sealbore packers.

Applications

- Gravel/Frac packing
- Sand control
- Horizontal and vertical wells
- Zonal isolation; production isolation

Features and Benefits

- Available in HP and Extreme options
- Single-sealing packing element eliminates extrusion and extends packer life downhole.
- External retrieving sleeve facilitates packer retrieval with obstruction in Sealbore.
- Designed for simple external release and retrieval; optional internal release.
- Large bore through packer and seals.
- Single HP sealing element.
- Splined to facilitate milling removal if required.
- Gauge ring on lower end of packer helps prevent premature setting when an obstruction or tight spot is encountered.
- Hydraulic- or wireline-set.
- Can be released with restricted ID.
- Rotationally locked.



SAND CONTROL TOOLS



MAPLE
OIL TOOLS

COMPSET™ PACKER

Technical Data

CompSet Packers											
Casing OD		Casing Weight Range		Maximum OD		Minimum ID*		Standart Seal ID*		Differential Pressure Rating	
in.	mm.	lb/ft	kg/m	in.	mm.	in.	mm.	in	mm	psi	MPa
CompSet Packers											
5	127.0	11.5 - 15.0	17.1 - 22.3	4.25	108.0	2.69	68.2	1.93	48.9	10,000	69.0
		18.0 - 21.0	26.7 - 31.3	4.00	101.5	2.69	68.2	1.93	48.9	10,000	69.0
5 1/2	139.7	13.0 - 15.5	19.3 - 23.0	4.00	121.8	2.69	68.3	1.93	48.9	10,000	69.0
		17.0 - 23.0	25.3 - 34.2	4.52	114.7	2.69	68.3	1.93	48.9	10,000	69.0
		26.0	38.70	4.25	108.0	2.69	68.3	1.93	48.9	10,000	69.0
6 5/8	168.3	28.0 - 32.0	41.6 - 47.6	5.52	140.1	2.69	68.3	1.93	48.9	7,500	51.7
7	177.8	20.0 - 26.0	29.7 - 38.7	6.08	154.3	3.25 - 4.00	88.6, 101.6	2.38, 2.99	60.3, 75.8	10,000	69.0
		26.0 - 32.0	38.7 - 47.6	5.89	149.6	3.25 - 4.00	88.6, 101.6	2.38, 2.99	60.3, 75.8	10,000	69.0
		32.0 - 38.0	47.6 - 56.5	5.74	145.7	3.25 - 4.00	88.6, 101.6	2.38, 2.99	60.3, 75.8	10,000	69.0
		41.0	61.00	5.64	143.3	3.25	82.6	2.38	60.3	10,000	69.0
		46.4 - 51.0	73.70	5.31	140.1	2.69	68.3	1.93	48.9	10,000	69.0
7 5/8	193.7	24.0 - 29.7	35.7 - 44.2	6.68	169.7	3.25 - 4.00	82.6, 101.6	2.38, 2.99	60.3, 75.8	10,000	69.0
		29.7 - 39.0	44.2 - 58.0	6.44	163.5	3.25 - 4.00	82.6, 101.6	2.38, 2.99	60.3, 75.8	10,000	69.0
9 5/8	24.5	36.0 - 43.5	53.6 - 64.7	8.53	216.7	3.25, 4.00	82.6, 101.6	2.38, 2.99	60.3, 75.8	10,000	69.0
		36.0 - 43.5	53.6 - 64.7	8.53	216.7	4.75, 6.00	120.7, 152.4	3.47, 4.99	88.1, 126.6	10,000	69.0
		43.5 - 53.5	64.7 - 79.6	8.32	211.4	3.25, 4.00	82.6, 101.6	2.38, 2.99	60.3, 75.8	10,000	69.0
		43.5 - 53.5	64.7 - 79.6	8.32	211.4	4.75, 6.00	120.7, 152.4	3.47, 4.99	88.1, 126.6	10,000	69.0
9 7/8	250.8	62.8	93.5	8.42	213.9	6.00	152.4	4.74	120.3	10,001	69.0
10 3/4	273.1	55.5 - 65.7	82.6 - 97.8	9.38	235.7	4.75, 6.00	120.7, 152.4	3.47, 5.00	88.1, 127.0	8,000	55.2
11 3/4	298.5	54.0 - 65.0	80.4 - 96.7	10.40	264.2	4.75	120.7	3.47	88.1	8,000	55.2
CompSet Packers											
7 3/4	196.9	46.1	68.6	6.68	169.7	4.00	101.6	2.99	76.0	12,500	86.2
9 7/8	250.8	62.8	93.5	8.42	213.9	6.00	152.4	4.74	120.3	12,500	86.2
10 1/8	257.1	79.3	117.9	8.42	213.9	6.00	152.4	4.74	120.3	12,500	86.2

* Alternate bore configurations available upon request.

PROWELD™ WELL SCREENS

Description

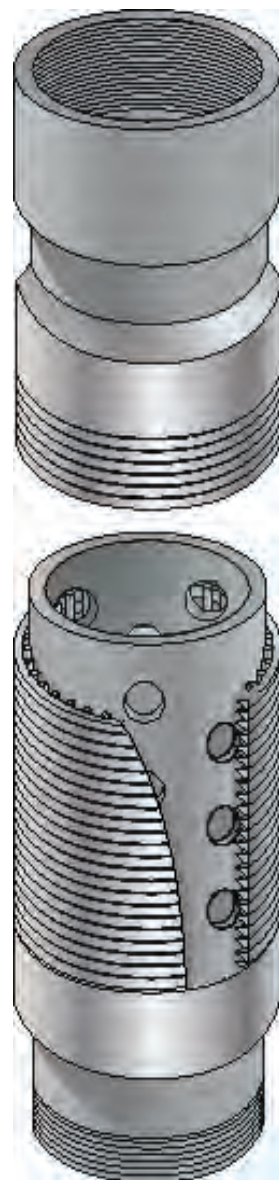
Superior Completion Services' ProWeld™ well screens are tough, long-lasting screens designed for gravel-pack and standalone screen installations in cased- and Open hole environments. Superior Completion combines innovative wire-wrap technology and advanced manufacturing processes to create ProWeld screens. The result is a product that outperforms conventional wire-wrap screens with superior strength and extended service life.

Applications

- Cased- and Open hole environments
- Particularly well suited for fracturing, high-rate gravel-pack and standalone operations

Features and Benefits

- Innovative wire shape provides maximum erosion resistance and strength compared with standard configurations.
- Higher number of ribs provides greater strength and tolerance for the life of the screen. Improved design reduces washouts caused by necking of wrap wire.
- Heavy-duty construction enables the screen jacket to maintain gauge Tolerance.
- Superior Completion Services is capable of shaping custom wire configurations with our own in-house wire-shaping mill.
- Available in direct wrap and tight-on-pipe (TOP) jackets.
- Conventional and heavy-duty (HD) wire options are standard.



DYNAFLO™ DB WELL SCREENS

Description

Superior Completion Services' DynaFlo™ diffusion-bonded (DB) well screens are heavy-duty premium sand-exclusion screens designed for use in gravel-pack and standalone screen installations in cased- and openhole environments. DB screens offer 30 to 40% greater surface area than deep-media screens.

DynaFlo DB well screens incorporate DB-laminated filter media comprised of either three or four layers of wire mesh selected to provide accurate particle size control while maximizing flow rate and strength. The DB filter media is protected by an outer perforated shroud. The entire assembly is welded onto a specified base pipe to provide a rugged sand-exclusion screen. The base pipe is either perforated (standard) or non perforated with special production control valves positioned as needed.



Applications

- Sand control
- High-rate water packs, fracturing and openhole environments
- Vertical, deviated or horizontal wells

Features and Benefits

- Extensive selection of media available for a wide range of formation sand sizes to optimize sand control effectiveness.
- Fixed pore geometry enhances sand control under high operating pressures.
- Enhanced screen properties include rigidity, strength, and resistance to distortion, abrasion and vibration.
Mesh porosity: 55% minimum.
- Multiple-layered design incorporates filtration and drainage layers into a single rigid cartridge.

FLOWSAFE™ TUBING-RETRIEVABLE SAFETY VALVE

Description

Superior Completion Services' FlowSafe™ tubing-retrievable (TR) safety valve is a flapper-type, equalizing or non equalizing, surface-controlled subsurface safety valve (SCSSV) installed in the production string. The patent-pending valve is designed to provide subsurface isolation to minimize loss of production, protect human life, and reduce the potential for environmental discharge or damage to production equipment resulting from an uncontrolled surface or subsurface event.

The FlowSafe SCSSV is hydraulically controlled from the surface through a control line connected to the well control/emergency shutdown system. The FlowSafe TR safety valve is designed to facilitate easy installation of secondary FlowSafe wireline-retrievable (WR) safety valves to provide continuous fail-safe operation.

Applications

- Offshore environments and in onshore wells located in environmentally sensitive areas
- Any area in which the integrity of the wellhead can be compromised

Features and Benefits

- Hydraulically controlled.
- Certified per API 14A specifications.
- Maximized flow-through ID design.
- Self-equalized through flapper option.
- Non elastomeric seals.
- Metal-to-metal body joints.
- Secondary lockout /communication.
- Inverted dual ferrule control line connection.
- Optimized design helps eliminate sand fouling.
- Compact design and minimal number of parts increases reliability.
- Minimized number of potential leak paths.
- Premium metallurgies available for varied environments.



FLOWSAFE™ TUBING-RETRIEVABLE SAFETY VALVE

Technical Data

FlowSafe™ TR Safety Valves												
Tubing Size*		Model	Maximum OD		Polished Bores				Working Pressure		Tensile Strength**	
in.	mm		in.	mm	in.	mm	in.	mm	psi	MPa	lb	kg
FlowSafe TR 5,000-psi Safety Valves												
2 3/8	60.3	BT(E)-5	3.625	92.08	1.875	47.6			5,000	34,474	167,191	75,837
2 7/8	70.3	BT(E)-5	4.610	117.1	2.313	58.7	2.188	55.6			186,180	84,450
3 1/2	88.9	BT(E)-5	5.175	131.4	2.813	71.4	2.750	69.9			302,760	137,330
4 1/2	114.3	BT(E)-5	6.908	175.4	3.813	96.9	3.688	93.7			425,740	193,112
		BTSP(E)-5	6.550	166.4	3.813	96.9	3.688	93.7			380,007	172,368
5 1/2	139.7	BTSP(E)-5	7.686	195.2	4.563	115.9					602,970	273,502
7	177.8	BTSP(E)-5	9.203	233.8	5.963	151.0			886,905	402,293		
FlowSafe TR 7,500-psi Safety Valves												
4 1/2	114.3	BTSP(E)-7.5	6.915	175.6	3.813	96.9	3.688	93.7	7,500	51,710	535,980	243,116
5 1/2	139.7	BTSP(E)-7.5	8.107	205.9	4.563	115.9					780,264	353,922
7	177.8	BTSP(E)-7.5	9.537	242.2	5.963	151.0					1,353,420	613,901
FlowSafe TR 10,000-psi Safety Valves												
2 3/8	60.3	BT(E)-10	3.625	92.1	1.875	47.6			10,000	68,948	198,485	90,031
2 7/8	70.3	BT(E)-10	5.130	130.3	2.313	58.7	2.188	55.6			283,132	128,427
3 1/2	88.9	BT(E)-10	5.540	140.7	2.813	71.4	2.750	69.9			374,733	169,976
4 1/2	114.3	BTSP(E)-10	7.350	186.7	3.813	96.9	3.688	93.7			468,509	212,512
5 1/2	139.7	BTSP(E)-10	8.592	218.2	4.563	115.9					780,264	353,922
7	177.8	BTSP(E)-10	9.982	253.5	5.963	151.0					1,455,058	660,003

** The tensile ratings listed are specific to the metallurgy for the valves listed and are exclusive of end connections. Tensile calculations are performed at ambient temperatures. Additional information is available upon request.

FLOWSAFE™ WIRELINE-RETRIEVABLE SAFETY VALVE

Description

Superior Completion Services' FlowSafe™ wireline-retrievable (WR) safety valve is a flapper type, equalizing or nonequalizing, surface-controlled subsurface safety valve (SCSSV). The patent-pending valve is designed to provide subsurface isolation to minimize loss of production, protect human life, and reduce the potential for environmental discharge or damage to production equipment resulting from an uncontrolled surface or subsurface event.

The FlowSafe WR safety valve can be installed as a primary safety valve landed in a hydraulic nipple. It can also be used to remediate a failed tubing-retrievable (TR) safety valve or as an integral part of the InjectSafe® chemical injection system.

Applications

- Offshore environments and in onshore wells located in environmentally sensitive areas
- Any area in which the integrity of the wellhead can be compromised

Features and Benefits

- Hydraulically controlled
- Certified per API 14A specifications
- Maximized flow-through ID design
- Self-equalized through flapper option
- Optimized design helps eliminate sand fouling
- Compact design and minimal number of parts increases reliability
- Replacement for an existing TR safety valve
- Facilitates flow assurance well design criteria
- Minimized number of potential leak paths
- Premium metallurgies available for varied environments



FLOWSAFE™ WIRELINE-RETRIEVABLE SAFETY VALVE

Technical Data

FlowSafe™ WR Safety Valves										
Tubing Size		Model	Minimum ID		Polished Bores				Working Pressure	
in.	mm.		in.	mm.	in.	mm.	in.	mm	psi	MPa
2 3/8	60.3	BW(E)-5/10	0.810	20.57	1.88	47.6			5,000 or 10,000	34.5 or 68.9
2 7/8	70.3	BW(E)-5/10	1.125	28.58	2.31	58.7	2.188	55.6		
3 1/2	88.9	BW(E)-5/10	1.500	38.10	2.81	71.4	2.750	69.9		
4 1/2	114.3	BW(E)-5/10	2.125	53.98	3.81	96.9	3.688	93.7		
5 1/2	139.7	BW(E)-5/10	2.600	66.04	4.56	115.9				
7	177.8	BW(E)-5/10	3.500	88.90	5.96	151.0	6.000	152.0		

* The data provided above is not inclusive of all pressure ratings and ODs available in the tubing sizes listed. For additional information, contact your Superior Completion Services representative.



MAPLE Oil TOOLS

CONTÁCTENOS

Oficina Principal

Carrera 9A #99-02
Oficina 803
Edificio Citibank
Bogotá - Colombia
(601) **3003682**

Base Funza

Vía Funza-Siberia Km 5.5
Parque Industrial
Japón-Perú
Bodega 4
Funza - Colombia

Base Bucaramanga

Mz. H Bodega 49
Parque Industrial
de Bucaramanga
Bucaramanga - Colombia
601) **6762666**

ventas@mapleoilttools.com
www.mapleoilttools.com