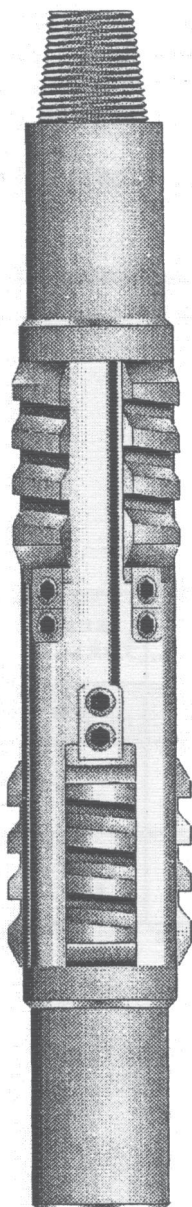


## Casing Scraper



The Classic Oilfield Casing Scraper is used to remove foreign matter on the inside casing wall in order to provide a smooth clean casing I.D. for running and setting packers and other sub-surface equipment.

The Casing Scraper features a one piece body with full 360° casing I.D. coverage provided by six spring loaded Scraper Blades. The design also features a large bypass area around and between the blades for ease of circulating. Each blade is secured in its own individual pocket and ensures that all thrust and rotational forces are absorbed directly by the one piece body. No special tools other than a Pipe Vise are required to change the blades or springs. The Casing Scraper features leaf type Incoloy Springs behind each self-sharpening blade, providing maximum useage before repairs or replacement is necessary.

API regular pin-up and box down are normally supplied with the Casing Scraper, with other connections available if required.

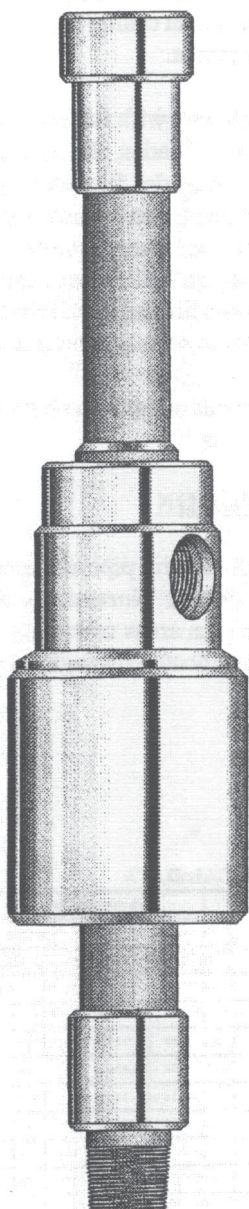
### OPERATION

The Casing Scraper may be run on tubing or drill pipe and operated equally well when reciprocated vertically or when rotated. Normally rotation is not necessary unless restrictions are encountered. In areas where packers or other tools are to be set, the scraper should be reciprocated through a number of times to ensure the casing is clean and smooth.

### TECHNICAL DATA

CASING				BLADE DIAMETER				CONNECTION	
O.D.		WEIGHT		COLLAPSED		EXTENDED		API REG.	
IN.	MM	LBS/FT	KG/M	IN.	MM	IN.	MM	IN.	MM
4 1/2	114.3	6.75 - 16.60	10.04 - 24.70	3.62	91.9	4.42	112.2	2 3/8	60.3
5	127.0	8.00 - 21.00	11.90 - 31.25	4.00	101.6	4.80	121.9	2 3/8	60.3
5 1/2	139.7	9.00 - 23.00	13.39 - 34.23	4.50	114.3	5.28	134.1	2 7/8	73.0
6 5/8	168.2	12.00 - 34.00	17.86 - 50.60	5.38	136.6	6.34	161.0	2 7/8	73.0
7	177.8	13.00 - 40.00	19.34 - 59.82	5.71	145.0	6.72	170.6	2 7/8	73.0
7 5/8	193.6	20.00 - 45.00	29.76 - 67.41	6.25	158.7	7.26	184.4	2 7/8	73.0
8 5/8	219.0	20.00 - 49.00	29.76 - 72.92	7.25	184.1	8.41	213.6	3 1/2	88.9
9 5/8	244.4	32.30 - 58.00	48.06 - 86.91	8.20	208.2	9.29	253.9	3 1/2	88.9
10 3/4	273.0	32.75 - 65.70	48.73 - 97.77	9.20	233.6	10.53	267.4	3 1/2	88.9

## Tubing Swivel



The Tubing Swivel provides a safe means of rotating the tubing string while circulating with a treating line connected. It is primarily used in conjunction with the SST or B-52 Selective Tools, to provide a means of operating the By-Pass Valve while the treating line is connected.

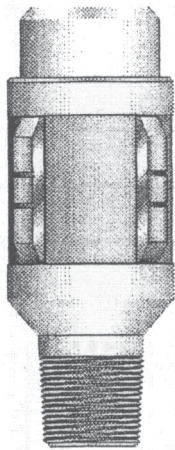
It can also be used to facilitate the operation of other Classic Oilfield Packers, or for light drilling.

When using this swivel, it is strongly recommended that the treating line be secured to the Tubing Swivel with a suitable safety chain or cable.

### TECHNICAL DATA

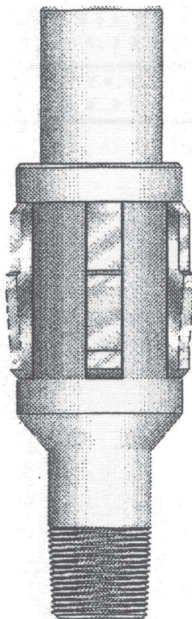
TUBING O.D.	OPERATING LOAD RATING		EUE THREAD	LINE PIPE CONNECTION
IN. / MM	LBS	daN	IN. / MM	IN. / MM
2 7/8 73.0	100,000	44,500	2 7/8 73.0	2 50.8
3 1/2 88.9	135,000	60,000	3 1/2 88.9	

## *Drag Assembly*



The Drag Assembly is designed with Drag Blocks and Inconel Springs. It is commonly run with Selective Acidizing equipment to anchor the bottom hole assembly, thus enabling torque transmission to rotational valves.

The centralizing effect of the Drag Assembly increases tool life, especially in Cup Type Acid Tools.



## *Collar Locator*

The Mechanical Casing Collar Locator provides a simple and reliable method of locating Casing Collars with the Tubing String to correlate the tubing depth to the logged depth. This tool is commonly run with Selective Acidizing Tool assemblies to locate the perforation depth.

### **OPERATION**

The Collar Locator is installed as an integral part of the Tubing String. To operate properly it must be installed above any Drag Block Assemblies or tools using Drag Blocks or Springs. The Collar Locator is designed to indicate the collars when moving the tubing up. Spring loaded pads on the Locator expand into the recess of the Casing Coupling. The additional force required to collapse the pads again in order to pass through the coupling, is indicated at surface.

The tubing may be rotated freely through the Collar Locator without having to rotate the pads in the casing.

## DRAG ASSEMBLY

## COLLAR LOCATOR

### TECHNICAL DATA

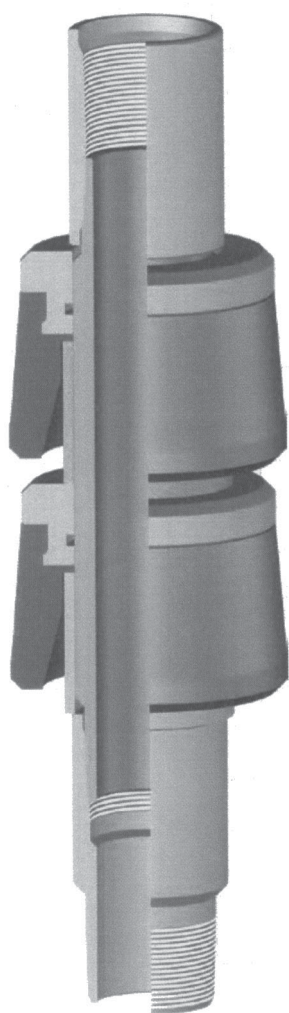
CASING			I.D.	EUE THREAD
O.D.	WEIGHT			
IN / MM	LB / FT	KG / M	IN / MM	IN / MM
4 1/2 114.3	9.5 - 11.6	14.1 - 17.3	1.933 49.0	2 3/8 60.3
5 127.0	11.5 - 18	17.1 - 26.8		
	17 - 20	25.3 - 34.2		
	17 - 20	25.3 - 34.2	2.408 61.2	2 7/8 73.0
	13 - 15.5	19.3 - 23.1	1.933 49.0	2 3/8 60.3
	13 - 15.5	19.3 - 23.1	2.408 61.2	2 7/8 73.0
5 3/4	16 - 19.5	23.8 - 29.0		
	13.9 - 16	20.7 - 19.3		
6 5/8 168.3	24 - 32	35.7 - 47.6		
7 177.8	22 - 28	32.7 - 41.7		
	24 - 35	35.7 - 52.1		
	22 - 28	32.7 - 41.7	2.99 76.0	3 1/2 88.9
	17 - 23	25.3 - 34.2	2.408 61.2	2 7/8 73.0
	17 - 20	25.3 - 29.8		
	17 - 20	25.3 - 29.8	2.99 76.0	3 1/2 88.9

## GV Cup Packer

The Classic Oilfield Type GV Cup Packer is an economical means of isolating casing leaks and depleted zones and is also a production or injection packer for low pressure applications. Depending on application, this packer can be run with cups opposed or in the same direction. The GV Cup Packer is also available with packing element back-up rings for higher pressure applications and comes in a full range of tubing and casing sizes in two-cup or four-cup models.

### SPECIAL FEATURES

- \* Economic design
- \* Cup direction option
- \* Tubing size options

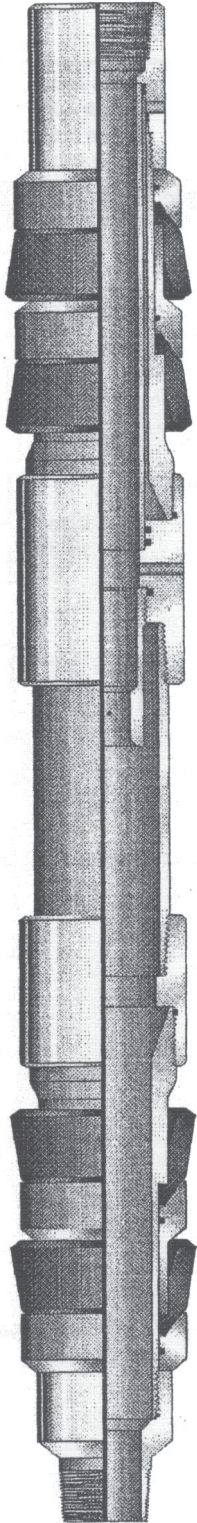


### PRODUCT SPECIFICATIONS

CASING		RECOMMENDED HOLE SIZE (inches)	TOOL OD (inches)	TOOL ID (inches)	THREAD CONNECTION BOX UP / PIN DOWN
SIZE (inches)	WEIGHT (lbs/ft)				
3 1/2	9.2 - 10.3	2.922 - 2.992	2.810	1.50	1.900 NUE
4 1/2	9.5 - 13.5	3.920 - 4.090	3.750	2.00	2 3/8 EUE
				2.50	2 7/8 EUE
5	15.1	3.826	3.650	2.00	2 3/8 EUE
	18	4.276	4.130	2.00	2 3/8 NUE
5 1/2	13 - 20	4.778 - 5.044	4.625	2.00	2 3/8 EUE
				2.50	2 7/8 EUE
				3.00	3 1/2 NUE
6 5/8	20 - 26	4.548 - 4.778	4.375	2.50	2 7/8 EUE
	20	6.049	5.750	3.00	3 1/2 EUE
	20 - 24	5.921 - 6.049	5.750	4.00	4 1/2 LTC
7	20 - 29	6.184 - 6.456	6.000	2.00	2 3/8 EUE
				2.50	2 7/8 EUE
				3.00	3 1/2 EUE
				4.00	4 1/2 LTC
7 5/8	24 - 26.4	6.969 - 7.025	6.750	2.50	2 7/8 EUE
	29.7 - 33.7	6.765 - 6.875	6.375	2.50	2 7/8 EUE
8 5/8	28 - 36	7.825 - 8.017	7.375	2.50	2 7/8 EUE
9 5/8	40 - 47	8.681 - 8.835	8.450	3.00	3 1/2 EUE
10 3/4	40.5 - 55.5	9.760 - 10.050	9.710	4.00	4 1/2 LTC

*\*Other sizes and connections available upon request.*

## SST



The Stage Stimulation Tool is a cup type selective tool specially designed to isolate and selectively acidize pre-determined intervals of perforation. Specially designed Cups, a Retrievable Blanking Bar and a large built-in Annular By-Pass make the SST easy to run and retrieve.

Drag Blocks with Inconel Springs provide drag for positive opening and closing of the By-Pass Valve. This tool uses heavy duty Casing Packer Cups with an additional Back-up Cup to assure Positive sealing.

An H or D Fluid Control Valve can be used with the SST Tool for controlling fluid levels in low fluid level wells.

A special Spacer Assembly is available on request, which adds a third Packer Cup onto each end approximately .5m behind the regular cups. This assembly is useful in applications where acid breaking back out of perforations is a problem.

Accessory equipment available for use with the SST are the D Fluid Control Valve, H Fluid Control Valve, By-Pass Valve, SR-2 Packer, Collar Locator and the Drag Assembly.

### OPERATION

From top to bottom the tool assembly is usually made up with the By-Pass Valve, Fluid Control Valve, SR-2 Packer and Selective Stimulation Tool. This assembly is run into the well with the By-Pass Valve open and positioned above or below the perforations in blank casing. The By-Pass Valve is closed and the SST and Tubing are pressure tested. The pressure is bled off and the SST is positioned across the first interval to be acidized. If required, a feed rate can be taken at this time and the Fluid Control Valve could be dropped down the tubing.

The By-Pass Valve is now opened and acid is circulated to the bottom. After the acid has been circulated down, the By-Pass Valve is closed and the required amount of acid is squeezed into the interval.

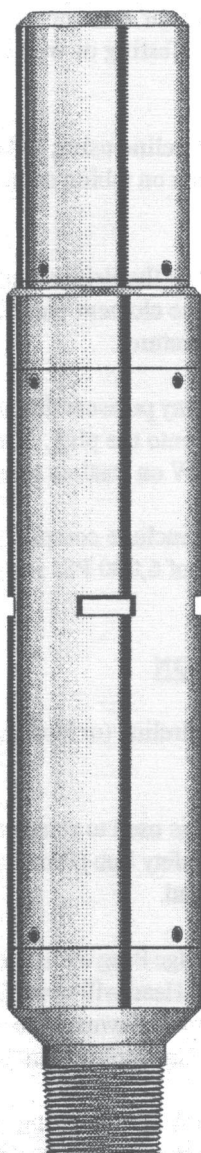
After acidizing is completed the By-Pass Valve is opened. The tools can be pulled from the well or positioned above the perforations and the spent acid swabbed back before pulling. If the SR-2 Packer was run with the SST it is set and the By-Pass Valve is closed before swabbing, so it is not necessary to swab the annulus volume.

## STAGE STIMULATION TOOL

### TECHNICAL DATA

CASING					THIMBLE O.D.	MAX I.D.	DROP BAR FISHING NECK	EUE THREAD
O.D.	WEIGHT		I.D.					
IN / MM	LB / FT	KG / M	IN	MM	IN / MM	IN / MM	IN / MM	IN / MM
4 1/2 114.3	11.60	17.3	4.000	101.6	3.771 95.8	1.25 31.8	0.75 19.5	2 3/8 60.3
	10.50	15.6	4.052	102.9				
	9.50	14.1	4.090	103.9				
5 127.0	18.00	26.8	4.276	108.6	4.000 101.6			
	15.00	22.3	4.408	112.0	4.125 104.8			
	13.00	19.3	4.492	114.1				
5 1/2 139.7	23.00	34.2	4.670	118.6	4.500 114.3	1.75 44.5		
	20.00	29.8	4.778	121.4				
	17.00	25.3	4.892	124.3	4.625 117.5			
	15.50	23.1	4.950	125.7				
	14.00	20.8	5.012	127.3	4.781 121.4			
	13.00	19.3	5.044	128.1				
6 5/8 168.3	28.00	41.7	5.791	147.1	5.500 139.7	2.25 57.2	1.187 30.2	2 7/8 73.0
	24.00	35.7	5.921	150.4				
	20.00	29.8	6.049	153.6	5.658 143.7			
7 177.8	35.00	52.1	6.004	152.5	5.780 146.8			
	32.00	47.6	6.094	154.8				
	29.00	43.2	6.184	157.1	5.940 150.9			
	26.00	38.7	6.276	159.4				
	23.00	34.2	6.366	161.7	6.210 157.7			
	20.00	29.8	6.456	164.0				
	17.00	25.3	6.538	166.1				
9 5/8 168.3	47.00	69.9	8.681	220.5	8.295 210.4			
	43.50	64.7	8.755	222.4				
	40.00	59.5	8.835	224.4				
	36.00	53.6	8.921	226.6	8.500 215.9			
	32.30	48.1	9.001	228.6				

## By-Pass Valve



The By-Pass Valve is a rotational circulating valve designed for use with the SST Tool. This valve opens or closes off communication between the tubing and the annulus.

The valve is used to by-pass tubing fluid when running or retrieving Selective Tools, and if required can also be used for circulation of fluids.

The By-Pass Valve features a pressure balanced sleeve design which allows for easy operation of the valve under high differential pressures. Specially designed chemical and wear resistant seals ensure reliable and trouble free operation.

Exclusive to this valve are the Thrust Bearings which allow for easy operation under tension or compression loads.

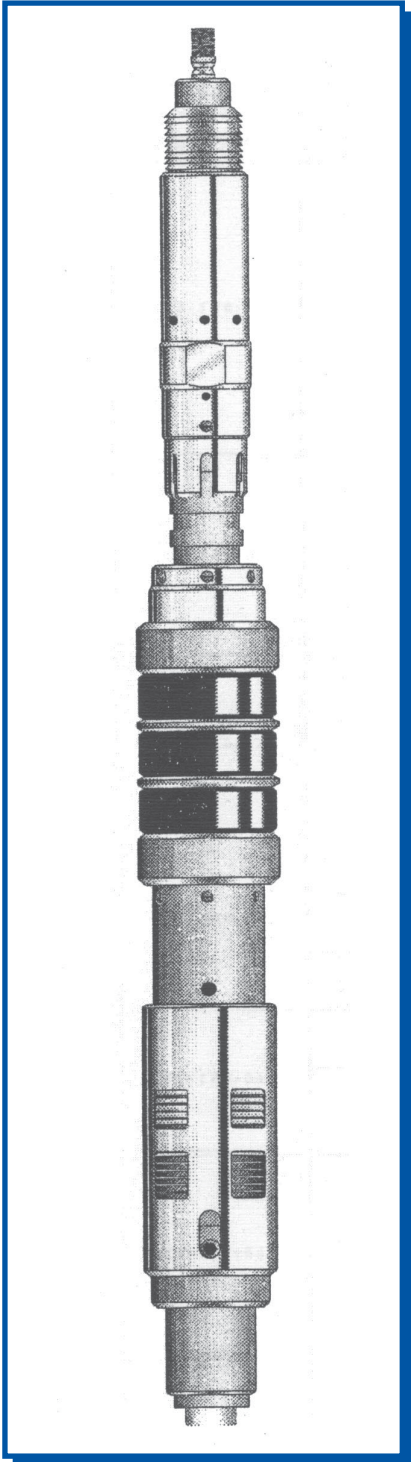
### OPERATION

The By-Pass Valve is opened by rotating 3 turns to the right and closed by rotating 3 turns to the left.

### TECHNICAL DATA

CASING O.D.	VALVE O.D.	VALVE I.D.	EUE THREAD
IN. / MM	IN. / MM	IN. / MM	IN. / MM
4 1/2 114.3	3.75 95.2	1.93 49.0	2 3/8 60.3
5 127.0			
5 1/2 139.7			
6 5/8 168.3			
7 177.8	5.00 127.0	2.44 62.0	2 7/8 73.0
8 5/8 219.1			
9 5/8 244.5			

## *CW Retrievable Bridge Plug*



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

The CW Retrieving Tool is used to retrieve the Bridge Plug. When using the tool on endless tubing, a Safety Sub 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.

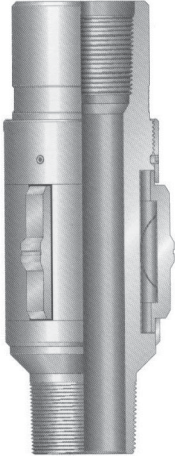
The Retrieving Head may be disconnected from the Bridge Plug if necessary with approximately 8 to 10 turns of right hand rotation while holding a slight amount of tension.

# CW RETRIEVABLE BRIDGE PLUG

## TECHNICAL DATA

CASING					GAUGE RING O.D.	BAKER SETTING TOOL
O.D.	WEIGHT		I.D.			
(in./mm)	(lb/ft)	(kg/m)	(in.)	(mm)	(in./mm)	(in./mm)
4 1/2 114.3	13.50	20.1	3.920	99.6	3.800 96.5	#10
	11.60	17.3	4.000	101.6		
	10.50	15.6	4.052	102.9		
	9.50	14.1	4.090	103.9		
5 127.0	18.00	26.8	4.276	108.6	4.062 103.2	
	15.00	22.3	4.408	112.0		
	13.00	19.3	4.494	114.1	4.250 108.0	
	11.50	17.1	4.560	115.8		
5 1/2 139.7	26.00	38.7	4.548	115.5	4.500 114.3	
	23.00	34.2	4.670	118.6		
	20.00	29.8	4.778	121.4		
	17.00	25.3	4.892	124.3	4.641 117.9	
	17.00	25.3	4.892	124.3		
	15.50	23.1	4.950	125.7		
	15.50	23.1	4.950	125.7	4.728 120.1	
	14.00	20.8	5.012	127.3		
	13.00	19.3	5.044	128.1		
6 5/8 168.3	32.00	47.6	5.675	144.1	5.560 141.2	
	28.00	41.7	5.791	147.1		
	24.00	35.7	5.921	150.4	5.658 143.7	
	20.00	29.8	6.049	153.6		
7 177.8	38.00	56.6	5.920	150.4	5.875 149.2	
	35.00	52.1	6.004	152.5		
	32.00	47.6	6.094	154.8		
	29.00	43.2	6.184	157.1		
	26.00	38.7	6.276	159.4	6.023 153.0	
	23.00	34.2	6.366	161.7		
	20.00	29.8	6.456	164.0	6.230 158.2	
	17.00	25.3	6.538	166.1		
7 5/8 193.7	39.00	58.0	6.625	168.3	6.375 161.9	
	33.70	50.2	6.765	171.9		
	29.70	44.2	6.875	174.6	6.625 168.3	
	26.40	39.3	6.969	177.0		
	24.00	35.7	7.025	178.4		
8 5/8 219.1	49.00	72.9	7.511	190.8	7.260 184.4	
	44.00	65.5	7.625	193.7		
	40.00	59.5	7.725	196.2		
	36.00	53.6	7.825	198.2	7.600 193.0	
	32.00	47.6	7.921	201.2		
	28.00	41.7	8.017	203.6		
	24.00	35.7	8.097	205.7		
9 5/8 244.5	53.50	79.6	8.535	216.8	8.285 210.4	
	47.00	69.9	8.681	220.5		
	43.50	64.7	8.755	222.4	8.500 215.9	
	40.00	59.5	8.835	224.4		
	36.00	53.6	8.921	226.6		
	32.30	48.1	9.001	228.6		

## *Mechanical Collar Locator*



The Mechanical Collar Locator is designed to run as part of the work string to provide positive location of the string in a well. The collar locator engages into the recess between casing joints easily locating tools to within one half of a casing joint. With the locator, operators can be sure they are not setting tools in a joint recess, ensuring maximum tool performance and avoiding costly mis-runs. It is compatible with virtually all packers, bridge plugs, acid tools and cement retainers run and set on tubing.

### **OPERATION**

Run the tool string to the desired depth. Watch the weight indicator while slowly raising or lowering the tubing string. When the collar engages in a joint recess it will show up as extra weight on the indicator. Refer to the wireline collar logs to determine the depth.



## *Model 'A' Tubing Dump Bailer*

The Model 'A' Tubing Dump Bailer provides a simple and economical method for carrying cement slurry into the well bore using tubing. Since it does not require expensive pumping equipment to operate, the Model 'A' is ideal for abandonments that involve placing cement on top of a bridge plug. It features a self-locking latch that locks the valve open. The Model 'A' is hydraulically balanced so it will not accidentally open if there is a pressure differential between the tubing and annulus.

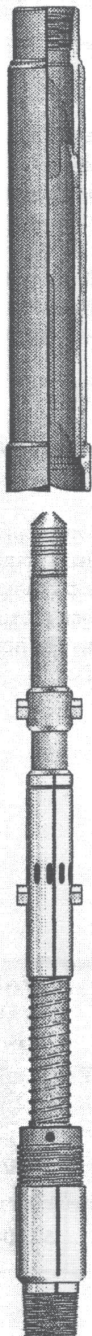
### **FEATURES**

- \* Hydraulically balanced
- \* Self-locks in the open position
- \* Adjustable shear release

### **OPERATION**

Run the Model 'A' Tubing Dump Bailer to the required depth. Set down on the tool below it (usually a bridge plug) to open the valve. The tool will lock in the open position. Move the tubing string up to displace the cement.

## P1-J VALVE



The P1-J Valve is a heavy duty component which converts a right hand set / right hand release Double Grip packer into a temporary Bridge Plug. This Bridge Plug can be used for Zone Isolation during Fracing, Acidizing, Cementing, Zone Testing or for casing and well head Pressure Testing. The recommended packer for use with the P1-J Valve is the Posi-Lock.

The P1-J Valve is run in conjunction with the P1-J Retrieving Head. The heavy duty Retrieving Head allows circulation even when latched onto the P1-J Valve.

The design of the unique, pressure balanced, positive valve operation virtually eliminates any chance of the valve being opened accidentally. The rugged valve may be opened or closed to unset or reset the Double Grip Packer numerous times.

### OPERATION

The P1-J Valve in conjunction with a Double Grip Packer is run to the desired setting depth. The packer is set as per normal setting procedures. Release the Retrieving Head by adding compression then picking up on the tubing holding left hand torque. The Equalizing Valve will automatically close as the Retrieving Head is disengaged.

To retrieve the Bridge Plug, the P1-J Retrieving Head is lowered down to the packer (circulation may be required to clear any debris). The Retrieving Head will automatically relatch onto the P1-J Valve and open the Equalizing Valve, equalizing differential pressure. Unset the Packer as per normal unsetting procedures.

### TECHNICAL DATA

CASING SIZE	EUE THREAD
4 1/2 114.3	2 3/8 60.3
5 127.0	
5 1/2 139.7	
7 177.8	2 7/8 73.0
8 5/8 219.1	
9 5/8 244.5	3 1/2 88.9

## SC Tension Unloader Valve



Classic Oilfield's SC Tension Unloader Valve is an accessory for a tension-set service packer, such as the 32-A Packer, that enables pressure to equalize above and below the packer before it is unseated. The valve also provides a fluid bypass when running in and out of the hole or spot treating fluids. A high strength collet sets the valve in the open or closed position, and a detent secures the valve in the position.

### APPLICATIONS

- \* General purpose service
- \* Squeeze cementing
- \* Testing and treating
- \* Cased-hole production testing

### FEATURES, ADVANTAGES AND BENEFITS

- \* The valve opens by the set-down weight and closes by upstrain, providing simple operation on the rig without rotation.
- \* The bonded seal enables repeated opening, saving rig time.
- \* The unloader seals are protected from fluid flow in the open position to ensure the correct valve operation.
- \* The large bypass provides high circulation rates.
- \* The durable, high-strength alloy steel construction provides torque transmission for packer operations.
- \* The valve unloads pressure from either direction, ensuring the safe unseating of tension-set packers.

### SPECIFICATIONS

SIZE (in./mm)	MAXIMUM O.D. (in./mm)	MINIMUM I.D. (in./mm)	STANDARD EU THREAD CONNECTION (in.)
1 1/4 31.75	2.25 57.15	0.75 19.05	1.660 10RD
1 1/2 38.1	3.25 82.55	1.625 41.275	1.90 8RD
2 3/8 60.325	3.75 95.25	2 50.8	2 3/8 8RD
2 7/8 73.025	4.5 114.3	2.5 63.5	2 7/8 8RD
3 1/2 88.9	5.469 138.913	3 76.2	3 1/2 8RD
4 1/2 114.3	6.25 158.75	4 101.6	4 1/2 8RD

## COS Tubing Bailer & Pump-to-Surface

The Classic Oilfield COS Sand Pump is a tubing conveyed, high volume pump device specifically designed for use in low fluid level wells, but equally successful in wells with full hydrostatic columns. The COS Sand Pump is used to remove sand and other debris from the wellbore by reciprocating the tubing.

### FEATURES

- \* Inexpensive to operate
- \* Simple design
- \* Large hex kelly for torque transmission
- \* High volume stroke for efficient operation
- \* High load and shock carrying capacity

### BENEFITS

- \* Does not require circulation pumps or fluids
- \* Available in 5' and 10' stroke
- \* Debris containment during clean out
- \* Pre-size PC pump on zone inflow

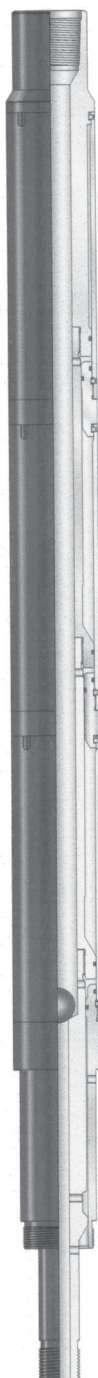
### APPLICATIONS

- \* Stimulation clean out
- \* Perforation clean out
- \* Low fluid well clean out

### SPECIFICATIONS

SIZE (in./mm)	MAXIMUM O.D. (in./mm)	MINIMUM I.D. (in./mm)	STANDARD EU THREAD CONNECTION (in.)
2 3/8	3 1/16	1.5	2 3/8 EU 8RD
2 7/8	3.75	2.0	2 7/8 EU 8RD
4 1/2	4.5	2.25	3 1/2 EU 8RD
5 1/2	5.5	2.50	3 1/2 EU 8RD

## COS Hydraulic Setting Tool



Classic Oilfield's Hydraulic Setting Tool conveys and sets all wireline-set sealbore packers, including the UltraPak™ permanent packer and BlackCat sealbore packers, on production and coiled tubings. The HST sets the packer by applying adjustable surface pressure until the preset shear force is reached. The HST has a bottom connection that accepts common wireline-setting tool adapter kits.

The HST is available with EUE tubing connections.

### APPLICATIONS

- \* Deviated or horizontal wells
- \* Large casing packers
- \* Wireline-set sealbore packer completions

### FEATURES, ADVANTAGES AND BENEFITS

- \* The HST accepts common wireline adapter kits, enabling it to set all Classic Oilfield permanent and retrievable sealbore packers.
- \* The HST enables the well to be circulated before the packer is set, preventing debris accumulation.
- \* The heavy duty HST construction enables the packer assembly to be pushed into place in high-angle and horizontal wells, enabling the packer to be set where wireline deployment is difficult or impractical.
- \* The stackable piston arrangement enables the setting pressure to be varied to the output force of the well.
- \* The automatic fill-and-drain feature enables the work string to fill with well fluids as tools are run and to drain during retrieval, preventing the pulling of a wet string.

### SPECIFICATIONS

SIZE (in./mm)	TOOL O.D. (in./mm)	STANDARD THREAD CONNECTION (in.)	BOTTOM CONNECTION (in.)
1 1/2 38.1	2.13 54.10	1 1/2 BLANK for MT	#05 BAKER E-4
			2 1/8 GO
2 3/8 60.325	3.63 92.20	2 3/8 EU 8RD	#10 BAKER E-4
2 7/8 73.025	4.38 111.25	2 7/8 EU 8RD	#20 BAKER E-4

## *MST Mechanical Setting Tool*



The Classic Oilfield Mechanical Setting Tool is designed to run and mechanically set the Classic Oilfield PCR Cement Retainer or the Classic Oilfield Cast Iron Bridge Plug at any depth on tubing or drill pipe.

### **APPLICATIONS**

- \* Setting cement retainers or bridge plugs on tubing or drill pipe
- \* Squeeze cementing
- \* Well abandonment
- \* Temporary or permanent zone isolation

### **FEATURES, ADVANTAGES AND BENEFITS**

- \* Locked to cement retainer or bridge plug to avoid premature setting or loss
- \* Top slips partially covered to protect from accidental damage and pre-set
- \* Will set other manufacturer's cement retainer or bridge plug
- \* Allow users to set, pressure test tubing and squeeze in single trip
- \* Can quickly be configured to set cement retainers or bridge plugs
- \* Drag blocks field proven design for long life

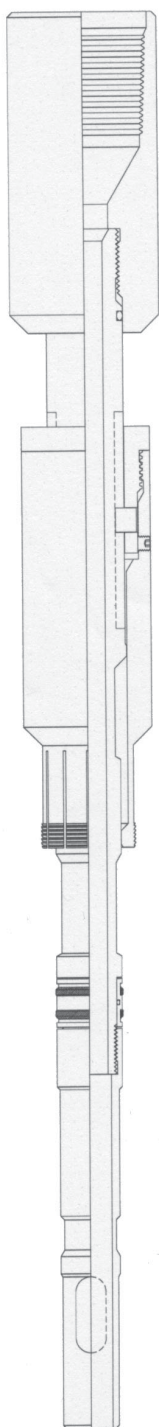
## MST MECHANICAL SETTING TOOL

### SPECIFICATIONS

CASING		DRAG BLOCK		MST SETTING TOOL	
SIZE (in./mm)	WEIGHT (lb/ft - kg/m)	EXPANDED (in./mm)	COLLAPSED (in./mm)	MIN I.D. (in./mm)	THREAD CONNECTION BOX UP (in.)
4 1/2 114.30	9.5 - 13.5 14.14 - 20.09	4.283 108.79	3.750 95.25	.75 19.05	2 3/8" EU 8RD
5.000 3.94	18.0 - 21.0 26.78 - 31.25	4.375 111.13	3.815 96.90	.75 19.05	2 3/8" EU 8RD
5.000 3.94	15.0 - 18.0 22.32 - 26.78	4.490 114.05	4.015 101.98	.75 19.05	2 3/8" EU 8RD
5.000 3.94	11.5 - 15.0 17.11 - 22.32	4.660 118.36	4.230 107.44	.75 19.05	2 3/8" EU 8RD
5 1/2 139.70	17.0 - 234.0 25.30 - 34.22	5.150 130.81	4.500 114.30	.75 19.05	2 3/8" EU 8RD
5 1/2 139.70	13.0 - 17.0 19.34 - 25.30	5.250 133.35	4.600 116.84	.75 19.05	2 3/8" EU 8RD
6 5/8 168.28	24.0 - 32.0 35.71 - 47.62	6.355 161.42	5.500 139.70	1.250 31.75	2 7/8" EU 8RD
7.000 177.80	29.0 - 38.0 43.15 - 56.54	6.355 161.42	5.500 139.70	1.250 31.75	2 7/8" EU 8RD
7.000 177.80	17.0 - 32.0 25.30 - 47.62	6.930 176.02	5.920 150.37	1.250 31.75	2 7/8" EU 8RD
7 5/8 193.68	24.0 - 45.3 35.71 - 67.41	7.325 186.06	6.370 161.80	1.250 31.75	2 7/8" EU 8RD
8 5/8 219.08	28.0 - 52.0 41.66 - 77.38	8.190 208.03	7.235 183.77	1.250 31.75	2 7/8" EU 8RD
9 5/8 244.48	32.0 - 61.0 47.62 - 90.77	9.190 233.43	8.235 209.17	1.250 31.75	2 7/8" EU 8RD
10 3/4 273.05	51.0 - 81.0 75.89 - 120.53	10.065 255.65	9.110 231.39	1.250 31.75	2 7/8" EU 8RD
10 3/4 273.05	32.75 - 60.7 48.73 - 90.32	10.425 264.80	9.470 240.54	1.250 31.75	2 7/8" EU 8RD
11 3/4 298.45	38.0 - 65.0 56.54 - 96.72	11.500 292.10	10.545 267.84	1.250 31.75	2 7/8" EU 8RD
13 3/8 339.73	48.0 - 72.0 71.42 - 107.14	13.450 341.63	12.110 307.59	1.250 31.75	2 7/8" EU 8RD
16.000 406.40	84.0 - 118.0 124.99 - 175.58	15.190 385.83	14.000 355.60	1.250 31.75	4 1/2" IF

## JSA Snap Out Stinger Assembly

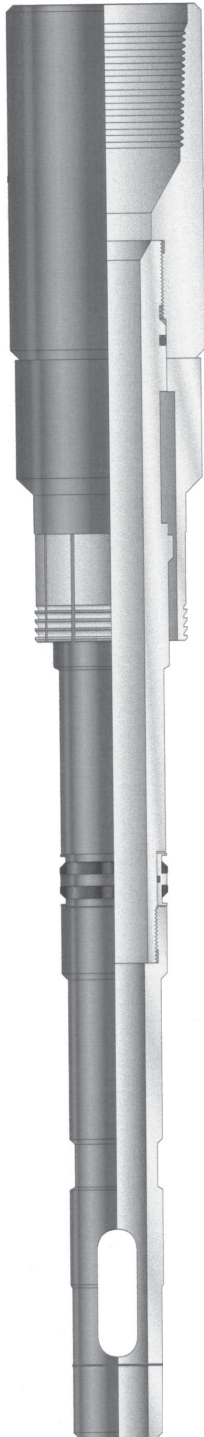
The Classic Oilfield JSA Snap Out Stinger Assembly is used with the Classic Oilfield Wireline Set Cement Retainer. The JSA provides a positive latch for cementing operation and released with a quarter turn to the right at the tool.



### SPECIFICATION GUIDE

PRODUCT		
	ENGLISH	METRIC
SIZE (IN./MM)	2.375	60.33
MAXIMUM O.D. (IN./MM)	3.070	77.98
MINIMUM I.D. (IN./MM)	0.719	18.26
TOP THREAD CONNECTION	2 3/8" EU 8RD BOX	
STINGER O.D. (IN./MM)	1.338	33.99
SEAL	BONDED 90D NITRILE	
PRODUCT		
	ENGLISH	METRIC
SIZE (IN./MM)	2.875	70.03
MAXIMUM O.D. (IN./MM)	3.690	93.73
MINIMUM I.D. (IN./MM)	1.120	28.45
TOP THREAD CONNECTION	2 7/8" EU 8RD BOX	
STINGER O.D. (IN./MM)	1.990	50.55
SEAL	BONDED 90D NITRILE	

## SS A Stinger Seal Assembly



The Classic Oilfield SS A Stinger Seal Assembly is a tubing conveyed latching seal assembly that is used to operate the sliding valve in a Classic Oilfield Cement Retainer previously set on wireline. The Classic Oilfield SSA should always be run with a Classic Oilfield TC Tubing Centralizer to provide for easier entry into the cement retainer.

The Classic Oilfield SSA Stinger Seal Assembly features a built-in snap out indicator. This provides positive control when the work string is picked up to close the slide valve. The snap out indicator re-engages each time the work string is lowered to open the valve. The snap out indicator helps prevent the seal from pumping out during pumping operations or tubing testing. The snap out indicator may be removed from the cement retainer by straight pull or by rotation if desired.

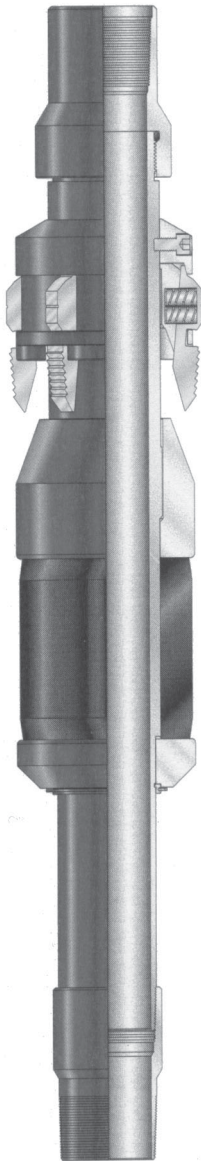
### APPLICATIONS

- \* Squeeze cementing
- \* Reusable with multiple wireline set cement retainers
- \* Used with mechanical or wireline set cement retainers

### SPECIFICATIONS

CASING		THREAD CONNECTION BOX-UP
SIZE (in./mm)	WEIGHT (lb/ft - kg/m)	
4 1/2 114.30	9.5 - 15.1 14.14 - 22.47	2 3/8" EU 8RD
5 127.00	11.5 - 18.0 17.11 - 26.78	2 3/8" EU 8RD
5 1/2 139.70	13.0 - 23.0 19.34 - 34.22	2 3/8" EU 8RD
6 5/8 168.28	17.0 - 34.5 25.30 - 51.34	2 7/8" EU 8RD
7 177.80	17.0 - 35.0 25.30 - 52.08	2 7/8" EU 8RD
7 5/8 193.68	20.0 - 39.0 29.76 - 58.03	2 7/8" EU 8RD
8 5/8 224.48	24.0 - 52.0 35.71 - 77.38	2 7/8" EU 8RD
9 5/8 224.48	29.3 - 61.1 43.60 - 90.92	2 7/8" EU 8RD
10 3/4 273.05	32.75 - 60.7 48.73 - 90.32	2 7/8" EU 8RD
11 3/4 298.45	38.0 - 60.7 56.54 - 90.32	2 7/8" EU 8RD

## *Coil Tubing Tension Packers*



Classic Oilfield's Coil Tubing Tension Packers are tension-set, single grip, retrievable production packers that isolate the annulus in low-pressure production, water injection, and pressure work.

The J-slot provides simple packer setting and release and reliable operation on the rig. The compact, cost-effective packer uses three release methods to ensure retrievability. The set-down weight can be rotated one-fourth turn to the right, the top sub can be rotated similarly to the safety joint, and a shear-ring, straight-pull release can be used.

### **APPLICATIONS**

- \* Injection wells
- \* Shallow, low-pressure production
- \* Well stimulation, testing, and other pressure operations

### **FEATURES, ADVANTAGES AND BENEFITS**

- \* The short design and simple one-fourth turn for setting and releasing make the packer easy to run.
- \* The full opening enables maximum well-fluid circulation through the packer during run-in.
- \* The field-proven rocker slips and one-piece packing element help ensure a correct setting and packoff.
- \* The large bore Coil Tubing enables the maximum flow rate from the well.
- \* The right safety-joint emergency release provides a reliable, inexpensive tubing-string release if necessary.
- \* Both packers can be left in the well as production packers, avoiding rig time for retrieval.

## COIL TUBING TENSION PACKERS

### SPECIFICATIONS

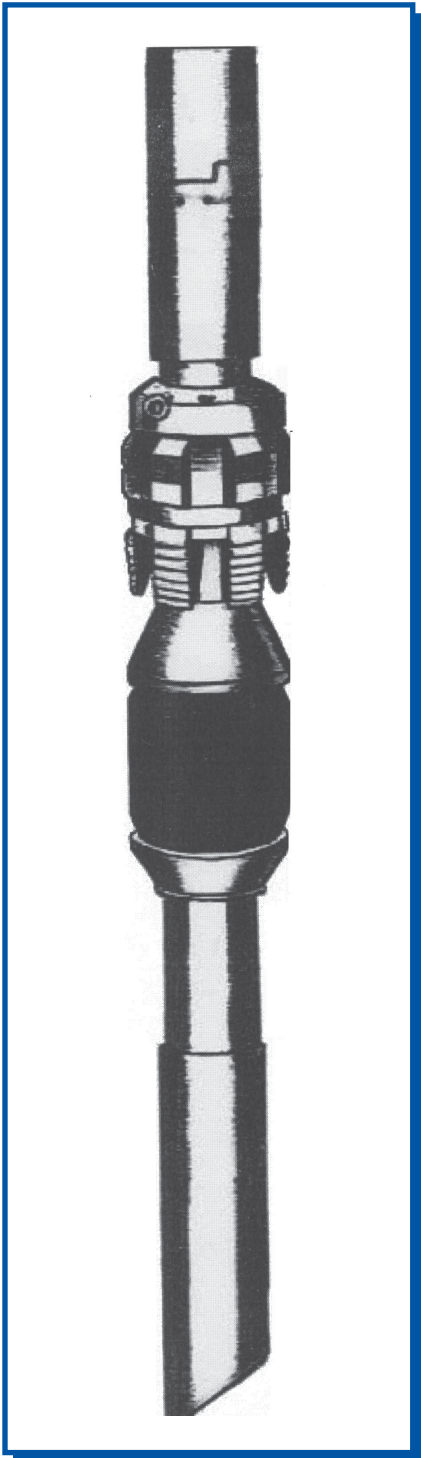
CASING				PACKER	
O.D. (in./mm)	WEIGHT (lb/ft - kg/m)	I.D. (in./mm)		MAXIMUM O.D. (in./mm)	STANDARD BOX-AND-PIN THREAD CONNECTION (in.)
		MINIMUM	MAXIMUM		
4 101.6	9.5 - 11.6 14.1 - 17.3	3.428 87.07	3.548 90.12	3.285 83.44	2 3/8 EU <sup>1</sup> 8RD <sup>2</sup>
4 1/2 114.3	9.5 - 13.5 14.1 - 20.1	3.920 99.57	4.090 103.89	3.771 95.78	2 3/8 EU 8RD
5 127.0	11.5 - 15.0 17.1 - 22.3	4.408 111.96	4.560 115.82	4.250 107.95	2 3/8 EU 8RD
	15.0 - 18.0 22.3 - 26.8	4.276 108.61	4.408 111.96	4.125 104.78	
5 1/2 139.7	13.0 - 15.5 19.3 - 23.1	4.950 125.73	5.044 128.12	4.781 121.44	2 3/8 EU 8RD
	13.0 - 17.0 19.3 - 25.3	4.892 124.26		4.750 120.65	2 7/8 EU 8RD
	15.5 - 20.0 23.1 - 29.8	4.778 121.36	4.950 125.73	4.641 117.88	2 3/8 EU 8RD
	20.0 - 23.0 29.8 - 34.2	4.670 118.62	4.778 121.36	4.500 114.30	
5 3/4 146.1	22.5 33.5	4.950 125.73	5.190 131.83	4.781 121.44	2 3/8 EU 8RD
6 152.4	26.0 38.7	4.950 125.73	5.190 131.83	4.781 121.44	2 3/8 EU 8RD
6 5/8 168.3	17.0 - 20.0 25.3 - 29.8	6.049 153.64	6.135 155.83	5.812 147.62	2 7/8 EU 8RD
	24.00 35.7	5.830 148.08	5.921 150.39	5.656 143.66	

## COIL TUBING TENSION PACKERS

### SPECIFICATIONS (continued)

CASING				PACKER	
O.D. (in./mm)	WEIGHT (lb/ft - kg/m)	I.D. (in./mm)		MAXIMUM O.D. (in./mm)	STANDARD BOX-AND-PIN THREAD CONNECTION (in.)
		MINIMUM	MAXIMUM		
7 177.8	17.0 - 20.0 25.3 - 29.8	6.456 163.98	6.538 166.07	6.266 159.16	2 7/8 EU 8RD
					3 1/2 EU 8RD
					4 1/2 LTC <sup>3</sup> x 4 1/2 STC <sup>4</sup>
	20.0 - 26.0 29.8 - 38.7	6.276 159.41	6.456 163.98	6.078 154.38	2 7/8 EU 8RD
	23.0 - 29.0 34.2 - 43.2	6.184 157.07	6.366 161.70	5.968 151.59	3 1/2 EU 8RD
			6.276 159.41		4 1/2 LTC x 4 1/2 STC
	26.0 - 29.0 38.7 - 43.28	6.044 153.52	6.094 154.79	5.812 147.62	2 7/8 EU 8RD
	32.0 - 35.0 47.6 - 52.1				
	38.0 56.6				
7 5/8 193.7	20.0 - 24.0 29.8 - 35.7	7.025 178.44	7.125 180.98	6.812 173.02	2 7/8 EU 8RD
	24.0 - 29.7 35.7 - 44.2	6.875 174.63	7.025 178.44	6.6725 169.47	
	33.7 - 39.0 50.2 - 58.0	6.625 168.28	6.765 171.83	6.453 163.91	
9 5/8 244.5	29.3 - 36.0 43.6 - 53.6	8.921 226.59	9.063 230.20	8.593 218.26	3 1/2 EU 8RD
	40.0 - 47.0 59.5 - 69.9	8.681 220.50	8.825 224.16	8.437 214.30	
	47.0 - 53.5 69.9 - 79.6	8.535 216.79	8.681 220.50	8.218 208.74	
					4 1/2 LTC 8RD

## *CAD-1 Modified Tension Set Debris Packer*



The Classic Oilfield CAD-1 is a tension set, single grip, retrievable debris hold down packer. The CAD-1 is compact, inexpensive and commonly utilized for circulating down wiper plug floating in well bore or holding down undesired debris in well bore.

### **FEATURES**

Compact, rocker type slips, shear release, one piece element backed with ratchet to ensure pack off, fully retrievable.

### **BENEFITS**

Cost effective, non-permanent system, durable design enables to carry string weight while circulating into place, no premature set, able to circulate through sand and set.

### **APPLICATION**

Sealed wiper plug hold down on producing well bores.  
Debris holds down after drilling and fishing applications.

## CAD-1 MODIFIED TENSION SET DEBRIS PACKER

### SPECIFICATIONS

CASING				PACKER	
O.D. (in./mm)	WEIGHT (lb/ft - kg/m)	I.D. (in./mm)		MAXIMUM O.D. (in./mm)	STANDARD BOX-AND-PIN THREAD CONNECTION (in.)
		MINIMUM	MAXIMUM		
4 101.6	9.5 - 11.6 14.1 - 17.3	3.428 87.07	3.548 90.12	3.285 83.44	2 3/8 EU <sup>1</sup> 8RD <sup>2</sup>
4 1/2 114.3	9.5 - 13.5 14.1 - 20.1	3.920 99.57	4.090 103.89	3.771 95.78	2 3/8 EU 8RD
5 127.0	11.5 - 15.0 17.1 - 22.3	4.408 111.96	4.560 115.82	4.250 107.95	2 3/8 EU 8RD
	15.0 - 18.0 22.3 - 26.8	4.276 108.61	4.408 111.96	4.125 104.78	
5 1/2 139.7	13.0 - 15.5 19.3 - 23.1	4.950 125.73	5.044 128.12	4.781 121.44	2 3/8 EU 8RD
	13.0 - 17.0 19.3 - 25.3	4.892 124.26		4.750 120.65	2 7/8 EU 8RD
	15.5 - 20.0 23.1 - 29.8	4.778 121.36	4.950 125.73	4.641 117.88	2 3/8 EU 8RD
	20.0 - 23.0 29.8 - 34.2	4.670 118.62	4.778 121.36	4.500 114.30	
5 3/4 146.1	22.5 33.5	4.950 125.73	5.190 131.83	4.781 121.44	2 3/8 EU 8RD
6 152.4	26.0 38.7	4.950 125.73	5.190 131.83	4.781 121.44	2 3/8 EU 8RD
6 5/8 168.3	17.0 - 20.0 25.3 - 29.8	6.049 153.64	6.135 155.83	5.812 147.62	2 7/8 EU 8RD
	24.00 35.7	5.830 148.08	5.921 150.39	5.656 143.66	

## CAD-1 MODIFIED TENSION SET DEBRIS PACKER

### SPECIFICATIONS (continued)

CASING				PACKER	
O.D. (in./mm)	WEIGHT (lb/ft - kg/m)	I.D. (in./mm)		MAXIMUM O.D. (in./mm)	STANDARD BOX-AND-PIN THREAD CONNECTION (in.)
		MINIMUM	MAXIMUM		
7 177.8	17.0 - 20.0 25.3 - 29.8	6.456 163.98	6.538 166.07	6.266 159.16	2 7/8 EU 8RD
					3 1/2 EU 8RD
					4 1/2 LTC <sup>3</sup> x 4 1/2 STC <sup>4</sup>
	20.0 - 26.0 29.8 - 38.7	6.276 159.41	6.456 163.98	6.078 154.38	2 7/8 EU 8RD
	23.0 - 29.0 34.2 - 43.2	6.184 157.07	6.366 161.70	5.968 151.59	3 1/2 EU 8RD
			6.276 159.41		4 1/2 LTC x 4 1/2 STC
	26.0 - 29.0 38.7 - 43.2	6.044 153.52	6.094 154.79	5.812 147.66	2 7/8 EU 8RD
	32.0 - 35.0 47.6 - 52.1			5.656 143.66	
	38.0 56.6	5.830 148.08	5.921 150.39		
7 5/8 193.7	20.0 - 24.0 29.8 - 35.7	7.025 178.44	7.125 180.98	6.812 173.02	2 7/8 EU 8RD
	24.0 - 29.7 35.7 - 44.2	6.875 174.63	7.025 178.44	6.672 169.47	
	33.7 - 39.0 50.2 - 58.0	6.625 168.28	6.765 171.83	6.453 163.91	
9 5/8 244.5	29.3 - 36.0 43.6 - 53.6	8.921 226.59	9.063 230.20	8.593 218.26	3 1/2 EU 8RD
	40.0 - 47.0 59.5 - 69.9	8.681 220.50	8.825 224.16	8.437 214.30	
	47.0 - 53.5 69.9 - 79.6	8.535 216.79	8.681 220.50	8.218 208.74	4 1/2 LTC 8RD

## *C1-XS Double Grip Injection Packer*



Classic Oilfield's C1-XS mechanically set injection packer is designed specifically for injection wells and maintains many of the features of the Classic Oilfield's C1-XS packer. The C1-XS packer is a retrievable, double-grip, compression or tension-set injection packer that can be left in tension, compression, or in a neutral position to hold pressure from above or below. A patented upper-slip release system reduces the force required for releasing the packer. A non-directional slip is released first, facilitating release of the other slips.

### **FEATURES**

- \* Holds pressure differentials from above or below
- \* Can be set using tension or compression
- \* Only one-quarter right rotation required for setting or releasing
- \* Field proven release system
- \* Straight-pull safety-release feature
- \* Elastomer options available for hostile environments

### **BENEFITS**

- \* Field proven design is versatile, meets most production, stimulation and injection needs
- \* Can be run with a Model T-2 on-off tool
- \* Can be left in tension, compression or neutral position
- \* Ideal for use with fibreglass tubing

### **APPLICATIONS**

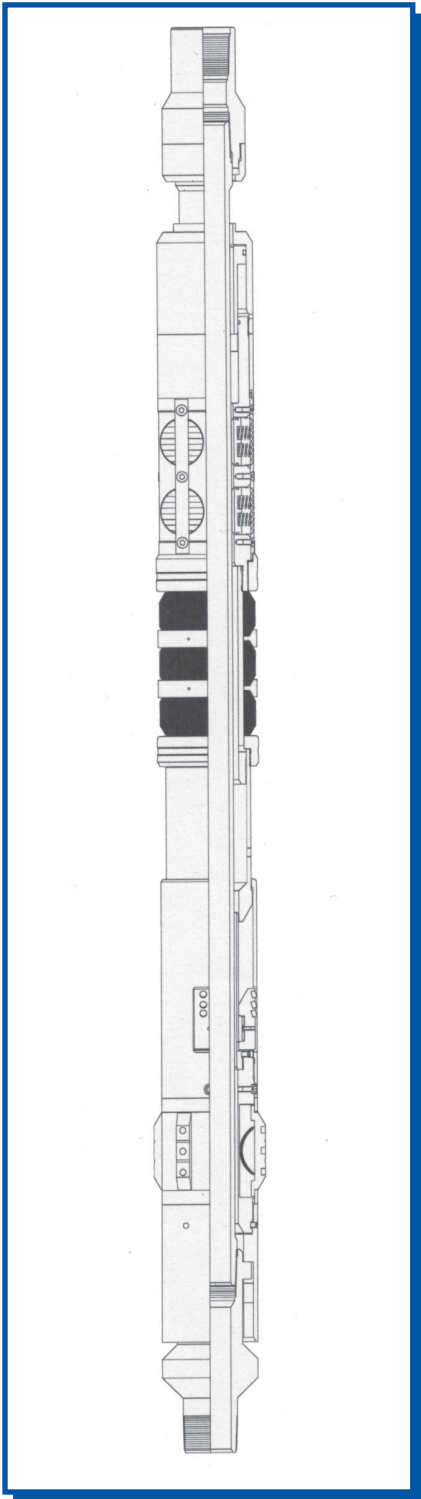
The C1-XS injection packer effectively meets several requirements for zonal isolation, injection, pumping and production. It is ideal for completions that require periodic casing integrity tests.

## C1-XS DOUBLE GRIP INJECTION PACKER

### SPECIFICATIONS

CASING			PACKER			
O.D. (in./mm)	WEIGHT (lb/ft)	MIN. I.D. (in./mm)	MAX. I.D. (in./mm)	MAX. O.D. (in./mm)	MIN. I.D. (in./mm)	STANDARD THREAD CONNECTIONS (in.)
4 1/2 114.30	9.5 - 13.5	3.920 99.57	4.090 103.89	3.750 95.25	1.938 49.23	2 3/8 EU 8RD
5 1/2 139.70	14.0 - 17.0	4.892 124.26	5.012 127.30	4.625 117.47	1.938 49.23	2 3/8 EU 8RD
	20.0 - 23.0	4.670 118.62	4.778 121.36	4.500 114.30		
	15.5 - 17.0	4.892 124.26	5.012 127.31	4.625 117.47	2.375 60.33	2 7/8 EU 8RD
6 5/8 168.38	24.0 - 32.0	5.675 144.15	5.921 150.39	5.500 139.70	2.500 63.50	2 7/8 EU 8RD
	17.0 - 24.0	5.921 150.39	6.135 155.83	5.750 146.05		
7 177.80	17.0 - 26.0	6.276 159.41	6.538 166.07	6.000 152.40	2.500 63.50	2 7/8 EU 8RD
					3.000 76.20	3 1/2 EU 8RD

## *CST Compression-Set Retrievable Service Packer*



The Classic Oilfield's CST Packer is a three-quarter-turn, compression-set, retrievable service packer capable of holding differential pressure from above or below. The CST packer can be used for conventional service work such as acidizing, fracturing, squeeze cementing and casing tests.

### **FEATURES**

- \* Hydraulic hold-down pistons for pressure from below
- \* Large bypass area for equalization and circulation
- \* Caged slips with carbide buttons
- \* Three-quarter turn to set, pick up to release
- \* Built-in bypass allows equalization and circulation
- \* Right or left-hand set available

### **BENEFITS**

- \* Easy to run and set
- \* Carbide buttons are standard on slips and for long-life and durability
- \* Easy and economical to redress

### **APPLICATIONS**

- \* Cased-hole testing
- \* Squeeze cementing
- \* Acidizing or fracturing operations

## CST COMPRESSION-SET RETRIEVABLE SERVICE PACKER

### SPECIFICATIONS

CASING				PACKER	
O.D. (in./mm)	WEIGHT (lb/ft - kg/m)	MINIMUM I.D. (in./mm)	MAXIMUM I.D. (in./mm)	MAXIMUM O.D. (in./mm)	THREAD CONNECTION BOX-UP / PIN DOWN
4 1/2 114.3	9.5 - 13.5 14.14 - 20.09	3.920 99.57	4.090 103.89	3.771 95.78	2 3/8 EU 8RD
5 127.0	15.0 - 18.0 22.32 - 26.78	4.276 108.61	4.408 111.96	4.125 104.78	2 3/8 EU 8RD
	11.5 - 15.0 17.11 - 22.32	4.408 111.96	4.560 115.82	4.250 107.95	2 3/8 EU 8RD
5 1/2 139.70	20.0 - 23.0 29.76 - 34.22	4.670 118.62	4.778 121.36	4.500 114.30	2 3/8 EU 8RD
	20.0 - 23.0 29.76 - 34.22	4.670 118.62	4.778 121.36	4.500 114.30	2 3/8 EU 8RD
	15.5 - 20.0 23.06 - 29.76	4.778 121.36	4.950 125.73	4.641 117.88	2 3/8 EU 8RD
	13.0 - 15.5 19.34 - 23.06	4.950 125.73	5.044 128.12	4.781 121.44	2 3/8 EU 8RD
7 177.80	38.0 56.54	5.830 148.08	5.937 150.80	5.656 143.66	2 7/8 EU 8RD
	32.0 - 35.0 47.62 - 52.08	6.004 152.50	6.094 154.79	5.812 147.62	2 7/8 EU 8RD
	26.0 - 29.0 38.69 - 43.15	6.184 157.07	6.276 159.41	5.968 151.59	2 7/8 EU 8RD
	20.0 - 23.0 29.76 - 34.22	6.366 161.70	6.456 163.98	6.078 154.38	2 7/8 EU 8RD
	17.0 - 20.0 25.30 - 29.76	6.456 163.98	6.538 166.07	6.281 159.54	2 7/8 EU 8RD
7 5/8 193.68	33.7 - 39.0 50.15 - 58.03	6.625 168.28	6.765 171.83	6.453 163.91	2 7/8 EU 8RD
	24.0 - 29.7 35.71 - 44.19	6.875 174.63	7.025 178.44	6.672 169.47	2 7/8 EU 8RD
	20.0 - 24.0 29.76 - 35.71	7.025 178.44	7.125 180.98	6.812 173.02	2 7/8 EU 8RD