



Nine

**A COMPLETE RANGE OF
COMPLETION SOLUTIONS**

PRODUCT AND SOLUTIONS CATALOG

Nine Energy Service is a completions, wireline, and cementing solutions company with the perfect blend of cutting-edge capabilities, modern equipment, skilled technicians, and experienced, forward-thinking leaders. We are fully equipped to fill a much-needed position in the industry – a service company with the world-class resources of a major corporation and the responsiveness and efficiency of a local supplier that is strategically located near all the important plays in major North American basins.

Nine partners with our customers to provide smarter, customized solutions, which include:

CONVENTIONAL COMPLETION SOLUTIONS	UNCONVENTIONAL COMPLETION SOLUTIONS	WIRELINE SERVICES	CEMENTING SERVICES
TCP Services	Open hole Systems	Unconventional E-Line	Primary Cementing
Gravel Pack Systems	Cemented Systems	Conventional E-Line	Remedial Cementing
Liner Systems	Thru Tubing Milling	Specialty Services	Acidizing Services
DST Services			Pump Down Services
Production Packers			

We are dedicated to providing exceptional customer service and flawless wellsite execution, while thinking outside the box to develop solutions that fit your project, budget, and goals. Nine is committed to maximizing your performance in the most efficient and cost-effective way.

WE ARE NINE ENERGY SERVICE. CLOSE TO PERFECTION. FAR FROM ORDINARY. DRIVEN TO SUCCEED.

T-2 ON-OFF TOOL

The T-2 On-Off Tool is a left-hand release, tubing disconnect device that has an internal lock profile for securing flow control equipment.

APPLICATIONS

Operations that require tubing disconnect and re-engagement without disturbing the packer. The internal lock profile is used to retain flow control devices, such as plugs, valves, chokes, or regulators.

FEATURES

- 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
- X, F, and R internal lock profiles are available
- Straight set down to engage

SPECIFICATIONS

Overshot

Tubing Size (in.)	Casing Size (in.)					
	4-1/2	5-1/2	7	7-5/8	8-5/8	9-5/8
2-3/8	•	•	•			
2-7/8		•	•	•	•	•
3-1/2			•	•	•	•

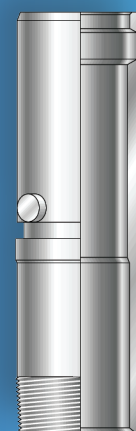
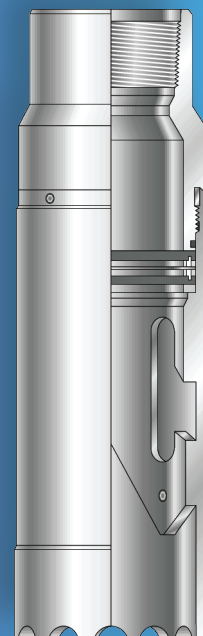
Seal Nipple

Tubing Size (in.)	F - Sealbore / x - Sealbore						
	1.781	1.812	1.875	2.250	2.312	2.750	2.812
2-3/8	•	•	•				
2-7/8	•	•	•	•	•		
3-1/2	•	•	•	•	•	•	•

Overshot

Tubing Size (in.)	R - Sealbore						
	1.781	1.812	1.875	2.250	2.312	2.750	2.812
2-3/8	•	•	•				
2-7/8	•	•	•	•	•		
3-1/2	•	•	•	•	•	•	•

Note: Additional sizes available upon request.



RETRIEVABLE PACKERS



AS1-X RETRIEVABLE PRODUCTION PACKER

The AS1-X Retrievable Production Packer effectively meets several requirements for zone isolation, injection, pumping, and production. Full opening gives unrestricted flow and allows the passage of wireline tools and other accessories. A mechanical lock-set action holds substantial pressure from above or below the packer, whether the packer is left in tension, compression, or neutral. A large, internal bypass reduces the swabbing effect when running or retrieving. The bypass closes upon setting the packer. When releasing, the bypass opens first to equalize pressure before releasing the upper slips. This packer has a rotational safety release feature, or an optional adjustable, straight-pull shear safety release.

The AS1-X Retrievable Production Packer can be set by compression or with tension, thus making it ideal for shallow wells requiring the use of fiberglass tubing.

FEATURES

- Available with Ecner Array
- Patented releasing slip system
- Bypass valve below upper slips, so the debris is washed from slips when valve is opened
- Bypass valve opens before hold down is released
- Can be set with tension for use in shallow wells
- No tension or compression required to hold tool in place after set
- 1/4 turn right-hand set, right-hand release
- Safety release (optional)

The AS1-X 10K packer incorporates all the features of AS1-X, with the ability to withstand differential pressure of 10,000 psi from above or below. AS1-X 10K is not available in sizes larger than 7-5/8 inch.

The AS1-X HP packer incorporates all the features of AS1-X, with the ability to withstand differential pressure of 7,500 psi from above or below. AS1-X HP is not available in sizes larger than 9-5/8 inch.



RETRIEVABLE PACKERS



SPECIFICATIONS

Size (in.)	Casing Weight (lbs./ft.)	Recommended Hole Size (in.)	Tool OD (in.)	Tool ID (in.)	Thread Connection Box Up/Pin Down (in.)
2-7/8	6.4 - 6.5	2.441	2.250	0.63	1.050 EUE
	8.6	2.259	2.125	0.63	1.050 EUE
	7.5 - 7.7	3.068	2.938	1.25	1.900 NUE
3-1/2	7.7 - 10.2	2.922 - 3.068	2.781	1.25	1.900 NUE
	12.95	2.750	2.562	1.00	1.315 NUE/1.660 EUE
	9.5 - 11.0	3.476 - 3.548	3.250	1.50	1.900 EUE
4	10.46 - 12.95	3.340 - 3.476	3.187	1.50	1.900 EUE
	9.5 - 13.5	3.920 - 4.090	3.750	1.94	2-3/8 EUE
	13.5 - 15.1	3.826 - 3.920	3.656	1.94	2-3/8 EUE
4-1/2	15.1	3.826	3.641	1.94	2-3/8 EUE
	15.1 - 16.6	3.754 - 3.826	3.594	1.50	1.900 EUE
	18.8	3.640	3.437	1.50	1.900 EUE
5	11.5 - 15	4.408 - 4.560	4.125	1.94	2-3/8 EUE
	18.0 - 20.8	4.156 - 4.276	4.000	1.94	2-3/8 EUE
	21.4	4.126	3.938	1.94	2-3/8 EUE
5-1/2	14.0	5.012	4.813	2.38	2-7/8 EUE
	14.0 - 20.0	4.778 - 5.012	4.625	2.00	2-3/8 EUE
	20.0 - 23.0	4.670 - 4.778	4.500	2.38	2-7/8 EUE
6	23.0 - 26.0	4.548 - 4.670	4.375	2.00	2-3/8 EUE
	12.0 - 20.0	5.352 - 5.620	5.188	2.38	2-7/8 EUE
	17.0 - 24.0	5.921 - 6.135	5.750	2.50	2-7/8 EUE
6-5/8	20.0 - 24.0	5.921 - 6.049	5.750	3.00	3-1/2 EUE
	24.0 - 32.0	5.675 - 5.921	5.500	2.50	2-7/8 EUE
	32.0 - 34.5	5.595 - 5.675	5.312	3.00	3-1/2 EUE
7	17.0 - 26.0	6.276 - 6.538	6.062	2.50	2-7/8 EUE
	26.0 - 32.0	6.094 - 6.276	6.125	3.00	3-1/2 EUE
	29.0 - 35.0	6.004 - 6.184	5.812	2.50	2-7/8 EUE
7-5/8	24.0 - 29.7	6.875 - 7.025	6.672	2.50	2-7/8 EUE
	33.7 - 39.0	6.625 - 6.765	6.453	3.00	3-1/2 EUE
	24.0 - 40.0	7.725 - 8.097	7.500	2.50	2-7/8 EUE
8-5/8	32.0 - 40.0	7.725 - 7.921	7.500	3.00	3-1/2 EUE
	44.0 - 49.0	7.511 - 7.625	7.312	4.00	4-1/2 LTC
	32.3 - 43.5	8.755 - 9.001	8.500	2.50	2-7/8 EUE
9-5/8	42.5 - 53.5	8.535 - 8.755	8.250	3.00	3-1/2 EUE
	32.75 - 51.0	9.850 - 10.192	9.625	2.50	2-7/8 EUE
	51.0 - 65.7	9.560 - 9.850	9.312	4.00	4-1/2 LTC
11-3/4	42.0 - 65.0	10.682 - 11.084	10.438	4.00	4-1/2 LTC
13-3/8	54.5 - 77.0	12.275 - 12.615	12.000	4.00	4-1/2 LTC
16	65.0 - 109.0	14.688 - 15.250	14.438	5.00	7 LTC
18-5/8	87.5 - 117.5	17.439 - 17.755	17.000	5.00	7 LTC
20	133.0 - 169.0	18.376 - 18.730	18.000	5.00	7 LTC



VS1-X RETRIEVABLE PRODUCTION PACKER

The VS1-X Packer is a full-opening, retrievable production packer that performs like a permanent packer without the expense of seal units. Run with an on/off tool, the VS1-X can be set on wireline and retrieved on tubing. Unlike other wireline-set, retrievable packers that require seal units and a separate retrieving tool, this packer can be pulled from the well without extra tubing runs. Once the packer has been retrieved, it can be redressed and run again on wireline or tubing. This is one of the most economical wireline-set, retrievable packers on the market today.

FEATURES

- Packer can be set on wireline or tubing
- No need for expensive seal units
- Packer can be run under pressure with plugging device
- Bypass opens before slips are released

SPECIFICATIONS

Size (in.)	Casing Weight (lbs./ft.)	Recommended Hole Size (in.)	Tool OD (in.)	Tool ID (in.)	Thread Connection Box Up/Pin Down (in.)
2-7/8	6.4 - 6.5	2.441	2.250	0.63	1.050 EUE
	7.5 - 7.7	3.068	2.938	1.25	1.900 NUE
3-1/2	7.7 - 10.2	2.922 - 3.068	2.781	1.25	1.900 NUE
	12.95	2.750	2.562	1.12	1.315 NUE/1.660 EUE
4	9.5 - 11.0	3.476 - 3.548	3.250	1.50	1.900 EUE
	10.46 - 12.95	3.340 - 3.476	3.187	1.50	1.900 EUE
4-1/2	9.5 - 13.5	3.920 - 4.090	3.750	1.94	2-3/8 EUE
	13.5 - 15.1	3.826 - 3.920	3.656	1.94	2-3/8 EUE
	15.1	3.826	3.641	1.94	2-3/8 EUE
	15.1 - 16.6	3.754 - 3.826	3.594	1.50	1.900 EUE
	18.8	3.640	3.437	1.50	1.900 EUE
5	11.5 - 15.0	4.408 - 4.560	4.125	1.94	2-3/8 EUE
	18.0 - 20.8	4.156 - 4.276	4.000	1.94	2-3/8 EUE
	13.0 - 14.0	5.012 - 5.044	4.813	2.38	2-7/8 EUE
	14.0 - 20.0	4.778 - 5.012	4.625	2.00	2-3/8 EUE
5-1/2	20.0 - 23.0	4.670 - 4.778	4.500	2.38	2-7/8 EUE
	23.0 - 26.0	4.548 - 4.670	4.375	1.94	2-3/8 EUE
	12.0 - 20.0	5.352 - 5.620	5.188	2.38	2-7/8 EUE
	17.0 - 24.0	5.921 - 6.135	5.750	2.50	2-7/8 EUE
6-5/8	20.0 - 24.0	5.921 - 6.049	5.750	3.00	3-1/2 EUE
	24.0 - 32.0	5.675 - 5.921	5.500	2.50	2-7/8 EUE
	32.0 - 34.50	5.595 - 5.675	5.312	2.50	2-7/8 EUE
	17.0 - 26.0	6.276 - 6.538	6.000	2.50	2-7/8 EUE
7	26.0 - 32.0	6.094 - 6.276	5.875	3.00	3-1/2 EUE
	29.0 - 35.0	6.004 - 6.184	5.812	2.50	2-7/8 EUE
	24.0 - 29.7	6.875 - 7.025	6.672	2.50	2-7/8 EUE
	33.7 - 39.0	6.625 - 6.765	6.453	3.00	3-1/2 EUE
8-5/8	24.0 - 40.0	7.725 - 8.097	7.500	3.00	3-1/2 EUE
	32.0 - 40.0	7.725 - 7.921	7.500	4.00	4-1/2 LTC
	44.0 - 49.0	7.511 - 7.625	7.312	2.50	2-7/8 EUE
	32.3 - 43.5	8.755 - 9.001	8.500	4.00	4-1/2 LTC
9-5/8	42.5 - 53.5	8.535 - 8.755	8.250	4.00	4-1/2 LTC
	32.75 - 51.0	9.850 - 10.192	9.625	4.00	4-1/2 LTC
10-3/4	45.5 - 51.0	9.850 - 9.950	9.400	4.00	4-1/2 LTC
	42.0 - 65.0	10.682 - 11.084	10.438	4.00	4-1/2 LTC
13-3/8	54.5 - 77.0	12.275 - 12.615	12.000	4.00	4-1/2 LTC

Notes: Additional sizes available upon request.



CREST III PACKER

The Crest III Packer is a weight-set service packer for high-pressure remedial work, such as acidizing, fracturing, and squeeze cementing. It sets with minimal tubing manipulation and will withstand differential pressure from above or below.

When set, a balance piston is actuated as pressure increases, exerting downward force on the inner mandrel, thus ensuring the equalizing valve is not pumped open.

A large integral fluid bypass allows the packer to be run quickly with minimal chance of swabbing off packing elements or dulling hold-down slips. No rotation is required to retrieve the tool, and its equalizing valve opens with the first upward movement.

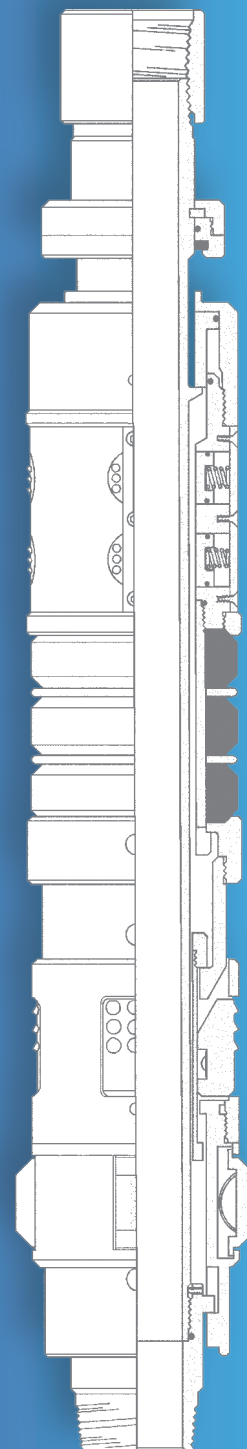
Standard equipment includes carbide-tipped hold-down slips, lower slips, and drag blocks.

FEATURES

- Last motion up – apply 1/4 left-hand or right-hand rotation to set
- Straight pick up to release

SPECIFICATIONS					
Size (in.)	Casing Wt. (lbs./ft.)	Gage & Guide Ring OD (in.)	Packing Element OD (in.)	Packer Bore (in.)	Connections
3-1/2	7.7-9.3	2.781	2.75	1.25	1.900 EU 10Rd
4	9.5-11.0	3.281	3.25	1.50	2-3/8 EU 8Rd
4-1/2	13.5-16.6	3.750	3.62	1.88	2-3/8 EU 8Rd
5	15-18	4.125	3.94	1.88	2-3/8 EU 8Rd
5	11.5-15	4.250	4.12	1.88	2-3/8 EU 8Rd
5-1/2	17-23	4.500	4.38	2.00	2-3/8 EU 8Rd
5-1/2	14-17	4.641	4.50	2.00	2-3/8 EU 8Rd
5-1/2	13-15.5	4.781	4.69	2.00	2-3/8 EU 8Rd
6-5/8	20-24	5.687	5.56	2.50	2-7/8 EU 8Rd
7	29-38	5.687	5.56	2.50	2-7/8 EU 8Rd
7	23-29	6.000	5.75	2.50	2-7/8 EU 8Rd
7	17-23	6.180	6.12	2.50	2-7/8 EU 8Rd
7-5/8	43-47	6.180	6.12	2.50	2-7/8 EU 8Rd
7-5/8	33-39	6.453	6.12	2.50	2-7/8 EU 8Rd
7-5/8	24-30	6.672	6.50	2.50	2-7/8 EU 8Rd

Note: Additional sizes available upon request.



MODEL "WR" RETRIEVABLE BRIDGE PLUG

The WR Bridge Plug is a wireline set, wireline (or tubing) retrievable, packer-type bridge plug capable of holding differential pressure from above or below.

The WR Bridge Plug is used as a temporary bridge plug for acidizing, fracturing, cementing, casing pressure tests, wellhead replacement, and zone isolation.

The WR Bridge Plug utilizes standard wireline or hydraulic setting tools.

FEATURES

- Wireline set/ wireline retrieve (tubing retrieval option)
- 10,000 PSI differential pressure rating above and below the plug
- Bi-directional slips
- Equalization feature prevents premature release against differential pressure

SPECIFICATIONS

Casing		Recommended Hole Size (in.)	Tool OD (in.)	Top Connection	Part Number	WLAK	Retrieving Tool
Size (in.)	Weight (lbs/ft)						
3-1/2	7.7 - 10.2	2.922 - 3.068	2.700	5/8-18 UNF PIN	73535	73535-05	73535RT
	9.5 - 11.0	3.476 - 3.548	3.250	5/8-18 UNF PIN	73540	73535-05	73540RT
	10.46 - 12.95	3.340 - 3.476	3.187	5/8-18 UNF PIN	73541	73535-05	73540RT
4	9.5 - 13.5	3.920 - 4.090	3.750	1,000-8 UNC PIN	73545	73545-10	73545RT
	13.5 - 15.1	3.826 - 3.920	3.650	1,000-8 UNC PIN	73544	73545-10	73545RT
	15.1 - 16.6	3.754 - 3.826	6.625	1,000-8 UNC PIN	73543	73545-10	73545RT
4-1/2	11.5 - 15.0	4.408 - 4.560	4.125	1,000-8 UNC PIN	73550	73545-10	73545RT
	18.0 - 21.0	4.154 - 4.276	3.969	1,000-8 UNC PIN	73552	73545-10	73545RT
	13.0 - 20.0	4.778 - 5.156	4.625	7/8-14 UNF PIN	73555	73557-20	73557RT
5	20.0 - 23.0	4.670 - 4.778	4.500	7/8-14 UNF PIN	73557	73557-20	73557RT
	23.0 - 26.0	4.548 - 4.670	4.406	7/8-14 UNF PIN	73554	73554-20	73554RT
	17.0 - 26.0	6.276 - 6.538	5.969	7/8-14 UNF PIN	73570	73570-20	73570RT
5-1/2	26.0 - 32.0	6.094 - 6.276	5.875	7/8-14 UNF PIN	73571	73570-20	73570RT



MODEL "WLTC" RETRIEVABLE BRIDGE PLUG

The WLTC Bridge Plug is designed to perform all tasks normally required of a tubing run packer-type bridge plug, but be quickly converted to run and set on wireline. It is designed to be rugged and compact (4-1/2" size is only 63" long).

When run on tubing, the WLTC can be energized w/ compression or tension. This bridge plug will withstand high differential pressures from above or below, while its balanced internal bypass valve is easily opened to equalize fully prior to release.

Activated slips are always on the low pressure side with the WLTC design, insuring that a tight packoff is maintained. When run on tubing, a circulation passage through the tool reduces swabbing by allowing fluid to bypass internally. When set, this passage allows effective washing of sand and debris above the elements, which assures easy release and retrieval.

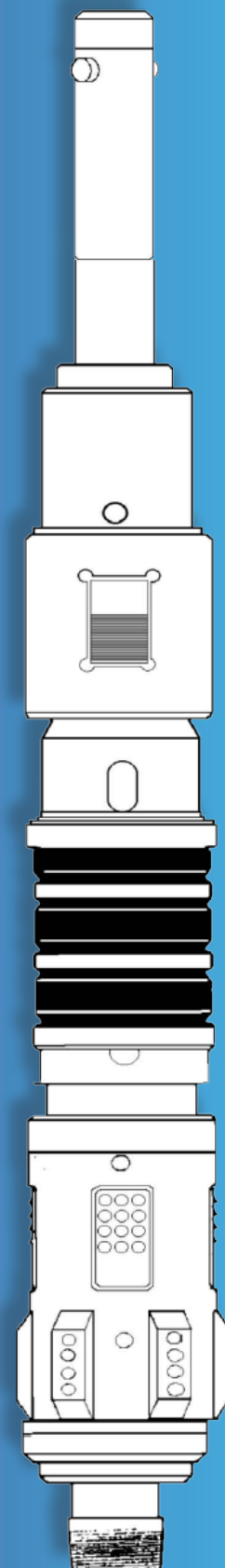
Standard equipment on the WLTC Bridge Plug includes carbide tipped slips & drag blocks, which are long lasting and eliminate problems setting in the hardest casings. A spring-loaded retrieving head is used to run (tubing-set) and retrieve (tubing or wireline set) the WLTC Bridge Plug. This helps prevent disconnecting the tool inadvertently. Sealer ball catcher assemblies are also available.

FEATURES

- Wireline or tubing set / tubing retrieve (1/4 rotation release)
- 10,000 PSI differential pressure rating above and below the plug
- Bi-directional slips

SPECIFICATIONS		
Casing Size (in.)	Casing Weight (lbs/ft)	Tool OD (in.)
2.875	8.6 - 8.7	2.125
2.875	6.4 - 6.5	2.300
3.500	9.2 - 10.2	2.781
3.500	7.7 - 9.3	2.844
4.000	9.5 - 11	3.281
4.500	13.5 - 16.6	3.640
4.500	9.5 - 13.5	3.750
5.000	15 - 18	4.125
5.000	11.5 - 15	4.250
5.500	17 - 23	4.500
5.500	14 - 20	4.641
5.500	13 - 15.5	4.781
6.625	24 - 32	5.500
6.625	20 - 24	5.750
7.000	32 - 38	5.750
7.000	29 - 32	5.875
7.000	23 - 29	5.970
7.000	17 - 23	6.188
7.625	24 - 29.7	6.672
7.625	33 - 39	6.453

Note: Additional sizes available upon request.



RETRIEVABLE PACKERS



R-3 DOUBLE & SINGLE GRIP PACKER

The R-3 is a double-grip, compression-set, retrievable packer.

APPLICATIONS

Most production, stimulation, and testing operations

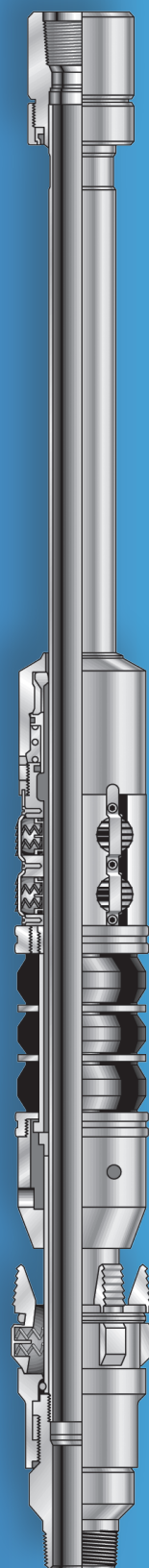
FEATURES

- Differential lock helps keep the bypass closed and locked to the mandrel during high-pressure operations
- Automatically returns to run-in position when moved up the hole
- Hydraulic hold down for differential pressure from below
- Long-stroke mandrel simplifies circulation of fluids without releasing the packer
- Large bypass allows speedy equalization of fluids
- Rocker-type slips
- Parts interchangeable with other manufacturers
- Standard right-hand set, optional left-hand set

SPECIFICATIONS

OD (in.)	Casing		Max. OD (in.)	Packer	
	Wt. (lbs./ft.)	Min. (in.)	Max. (in.)	Thread Connection	Box Up/ Pin Down (in.)
4-1/2	9.5 - 13.5	3.910	4.090	3.771	2-3/8 EUE 8RD
5	15.0 - 18.0	4.250	4.408	4.125	2-3/8 EUE 8RD
	11.5 - 15.0	4.408	4.560	4.250	2-3/8 EUE 8RD
5-1/2	26.0	4.408	4.560	4.250	2-3/8 EUE 8RD
	20.0 - 23.0	4.625	4.778	4.500	2-3/8 EUE 8RD
	15.5 - 20.0	4.778	4.950	4.641	2-3/8 EUE 8RD
5-3/4	13.0 - 15.5	4.950	5.190	4.781	2-3/8 EUE 8RD
	22.5	4.950	5.190	4.781	2-3/8 EUE 8RD
	26.0	4.950	5.190	4.781	2-3/8 EUE 8RD
6	20.0 - 23.0	5.191	5.390	5.062	2-3/8 EUE 8RD
	15.0 - 18.0	5.391	5.560	5.156	2-3/8 EUE 8RD
	34.0	5.561	5.609	5.406	2-3/8 EUE 8RD
	28.0 - 32.0	5.610	5.291	5.484	2-3/8 EUE 8RD
	24.0 - 28.0	5.992	5.921	5.781	2-3/8 EUE 8RD
6-5/8	24.0	5.830	5.937	5.656	2-7/8 EUE 8RD
	17.0 - 20.0	5.938	6.135	5.812	2-7/8 EUE 8RD
	38.0	5.830	5.937	5.656	2-7/8 EUE 8RD
	32.0 - 35.0	5.938	6.135	5.812	2-7/8 EUE 8RD
	26.0 - 29.0	6.136	6.276	5.968	2-7/8 EUE 8RD
	20.0 - 26.0	6.276	6.456	6.078	2-7/8 EUE 8RD
	17.0 - 20.0	6.456	6.578	6.266	2-7/8 EUE 8RD
7	33.7 - 39.0	6.579	6.797	6.453	2-7/8 EUE 8RD
	24.0 - 29.7	6.798	7.025	6.672	2-7/8 EUE 8RD
	20.0 - 24.0	7.025	7.125	6.812	2-7/8 EUE 8RD
8-5/8	44.0 - 49.0	7.511	7.687	7.312	3-1/2 EUE 8RD
	32.0 - 40.0	7.688	7.921	7.531	3-1/2 EUE 8RD
	20.0 - 28.0	7.922	8.191	7.781	3-1/2 EUE 8RD
9-5/8	47.0 - 53.5	8.343	8.681	8.218	3-1/2 EUE 8RD
	40.0 - 47.0	8.681	8.835	8.437	3-1/2 EUE 8RD
	29.3 - 36.0	8.836	9.063	8.593	3-1/2 EUE 8RD

Note: Additional sizes available upon request.



RETRIEVABLE PACKERS



LARGE BORE R-3 DOUBLE & SINGLE GRIP PACKER

The Large Bore R-3 is a double-grip, compression-set, retrievable packer.

APPLICATIONS

Most production, stimulation, and testing operations

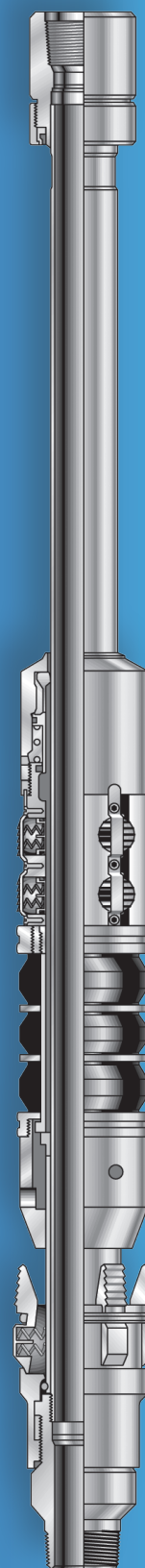
FEATURES

- Differential lock helps keep the bypass closed and locked to the mandrel during high-pressure operations
- Automatically returns to run-in position when moved up the hole
- Hydraulic hold down for differential pressure from below
- Long-stroke mandrel simplifies circulation of fluids without releasing the packer
- Large bypass allows speedy equalization of fluids
- Rocker-type slips
- Parts interchangeable with other manufacturers
- Large bore

SPECIFICATIONS

OD (in.)	Casing			Size (in.)	Packer	
	Wt. (lbs./ft.)	Min. (in.)	Max. (in.)		Max. OD (in.)	Standard Box x Pin (in.)
5-1/2	20.0 - 23.0	4.625	4.777	5-1/2 × 2.38	4.500	2-7/8 EUE 8RD
	17.0 - 20.0	4.778	4.892	5-1/2 × 2.38	4.641	2-7/8 EUE 8RD
	13.0 - 15.5	4.950	5.190	5-1/2 × 2.38	4.781	2-7/8 EUE 8RD
5-3/4	22.5	4.893	5.044	5-3/4 × 2.38	4.781	2-7/8 EUE 8RD
6	26.0	4.893	5.044	6 × 2.38	4.781	2-7/8 EUE 8RD
6-5/8	20.0	5.989	6.094	6-5/8 × 3.00	5.812	3-1/2 EUE 8RD
	17.0	6.136	6.276	6-5/8 × 3.00	5.968	3-1/2 EUE 8RD
7	32.0 - 35.0	5.989	6.094	7 × 3.00	5.812	3-1/2 EUE 8RD
	26.0 - 29.0	6.136	6.276	7 × 3.00	5.968	3-1/2 EUE 8RD
	20.0 - 26.0	6.276	6.456	7 × 3.00	6.078	3-1/2 EUE 8RD
	17.0 - 20.0	6.456	6.578	7 × 3.00	6.266	3-1/2 EUE 8RD
7-5/8	33.7 - 39.0	6.579	6.765	7-5/8 × 3.00	6.453	3-1/2 EUE 8RD
	24.0 - 29.7	6.766	7.025	7-5/8 × 3.00	6.672	3-1/2 EUE 8RD
	20.0 - 24.0	7.025	7.125	7-5/8 × 3.00	6.812	3-1/2 EUE 8RD

Note: Additional sizes available upon request.



RETRIEVABLE PACKERS



LOK-SET PACKER

The Lok-Set Packer is a compression-set, retrievable packer that allows the tubing to be left in a tension, compression, or neutral condition.

APPLICATIONS

Most production, injection, and zone isolation operations

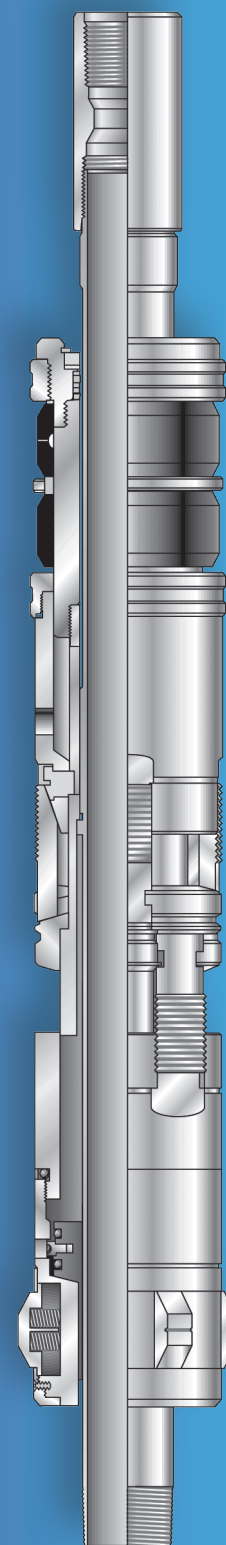
FEATURES

- Internal bypass
- Opposed dovetail slips for positive set
- Holds pressure from above or below
- Can leave tubing in a tension, compression, or neutral condition
- Right-hand rotation sets and releases the packer
- Retracted dovetail slips
- Converts to mechanical bridge plug with the addition of K Valve
- Parts interchangeable with other manufacturers
- Optional packing element systems

SPECIFICATIONS

Casing				Packer	
OD (in.)	Wt. (lbs./ft.)	Min. (in.)	Max. (in.)	Max. OD (in.)	Standard Box x Pin (in.)
4-1/2	11.6 - 13.5	3.910	4.00	3.771	2-3/8 EUE 8RD
	9.5 - 10.5	4.001	4.090	3.771	2-3/8 EUE 8RD
5	15.0 - 18.0	4.250	4.408	4.125	2-3/8 EUE 8RD
	11.5 - 15.0	4.408	4.560	4.250	2-3/8 EUE 8RD
5-1/2	26.0	4.408	4.560	4.250	2-3/8 EUE 8RD
	20.0 - 23.0	4.625	4.778	4.500	2-3/8 EUE 8RD
	15.5 - 20.0	4.778	4.950	4.641	2-3/8 EUE 8RD
6	13.0 - 15.5	4.950	5.190	4.781	2-3/8 EUE 8RD
	26.0	4.950	5.190	4.781	2-3/8 EUE 8RD
	20.0 - 23.0	5.191	5.390	5.062	2-3/8 EUE 8RD
6-5/8	15.0 - 18.0	5.391	5.560	5.156	2-3/8 EUE 8RD
	34.0	5.561	5.609	5.406	2-3/8 EUE 8RD
	24.0 - 32.0	5.610	5.921	5.484	2-3/8 EUE 8RD
7	17.0 - 24.0	5.922	6.135	5.781	2-3/8 EUE 8RD
	24.0	5.830	5.937	5.656	2-7/8 EUE 8RD
	17.0 - 20.0	5.938	6.135	5.812	2-7/8 EUE 8RD
7-5/8	38.0	5.830	5.937	5.656	2-7/8 EUE 8RD
	32.0 - 35.0	5.938	6.135	5.812	2-7/8 EUE 8RD
	26.0 - 29.0	6.136	6.276	5.968	2-7/8 EUE 8RD
8-5/8	23.0 - 26.0	6.276	6.366	6.078	2-7/8 EUE 8RD
	17.0 - 20.0	6.456	6.578	6.266	2-7/8 EUE 8RD
	33.7 - 39.0	6.579	6.797	6.453	2-7/8 EUE 8RD
9-5/8	24.0 - 29.7	6.798	7.025	6.672	2-7/8 EUE 8RD
	20.0 - 24.0	7.025	7.125	6.812	2-7/8 EUE 8RD
	44.0 - 49.0	7.511	7.687	7.312	3-1/2 EUE 8RD
10-5/8	32.0 - 40.0	7.688	7.921	7.531	3-1/2 EUE 8RD
	20.0 - 28.0	7.922	8.191	7.781	3-1/2 EUE 8RD
	47.0 - 53.5	8.343	8.681	8.218	3-1/2 EUE 8RD
11-5/8	40.0 - 47.0	8.681	8.835	8.437	3-1/2 EUE 8RD
	29.3 - 36.0	8.836	9.063	8.593	3-1/2 EUE 8RD

Note: Additional sizes available upon request.



RETRIEVABLE PACKERS



AD-1 TENSION PACKER

The AD-1 is a tension-set, retrievable packer.

APPLICATIONS

- Waterflood
- Shallow or low fluid level wells with insufficient tubing weight to set compression packers

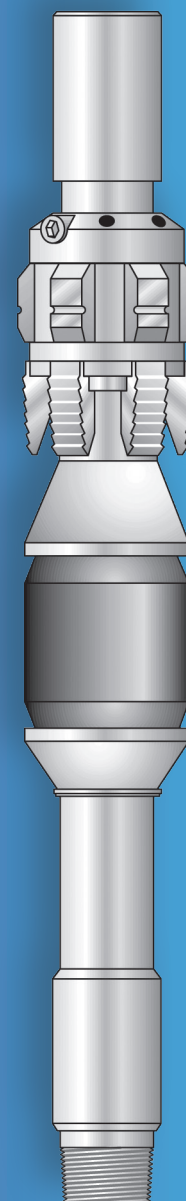
FEATURES

- Compact
- J-slot control for normal set and release
- Shear ring secondary release
- Right-hand safety joint emergency release
- Rocker-type slips
- Inexpensive
- Parts interchangeable with other manufacturers

SPECIFICATIONS

OD (in.)	Casing			Packer	
	Wt. (lbs./ft.)	Min. (in.)	Max. (in.)	Max. OD (in.)	Standard Box × Pin (in.)
4-1/2	9.5 - 13.5	3.910	4.160	3.771	2-3/8 EUE 8RD
5	15.0 - 18.0	4.161	4.408	4.125	2-3/8 EUE 8RD
	11.5 - 15.0	4.408	4.560	4.250	2-3/8 EUE 8RD
5-1/2	26.0	4.408	4.560	4.250	2-3/8 EUE 8RD
	20.0 - 23.0	4.625	4.778	4.500	2-3/8 EUE 8RD
	15.5 - 20.0	4.778	4.950	4.641	2-3/8 EUE 8RD
5-3/4	13.0 - 15.5	4.950	5.190	4.781	2-3/8 EUE 8RD
	22.5	4.950	5.190	4.781	2-3/8 EUE 8RD
6	26.0	4.950	5.190	4.781	2-3/8 EUE 8RD
	20.0 - 23.0	5.191	5.390	5.062	2-3/8 EUE 8RD
	15.0 - 18.0	5.391	5.560	5.156	2-3/8 EUE 8RD
6-5/8	34.0	5.561	5.595	5.406	2-3/8 EUE 8RD
	28.0 - 32.0	5.596	5.791	5.484	2-3/8 EUE 8RD
	24.0	5.830	5.921	5.656	2-7/8 EUE 8RD
7	17.0 - 20.0	5.922	6.135	5.812	2-7/8 EUE 8RD
	38.0	5.830	5.921	5.656	2-7/8 EUE 8RD
	32.0 - 35.0	5.922	6.135	5.812	2-7/8 EUE 8RD
7-5/8	26.0 - 29.0	6.136	6.276	5.968	2-7/8 EUE 8RD
	20.0 - 26.0	6.276	6.456	6.078	2-7/8 EUE 8RD
	17.0 - 20.0	6.456	6.538	6.266	2-7/8 EUE 8RD
8-5/8	33.7 - 39.0	6.539	6.765	6.453	2-7/8 EUE 8RD
	24.0 - 29.7	6.766	7.025	6.672	2-7/8 EUE 8RD
	20.0 - 24.0	7.025	7.125	6.812	2-7/8 EUE 8RD
9-5/8	40.0 - 49.0	7.511	7.725	7.312	3-1/2 EUE 8RD
	32.0 - 40.0	7.725	7.921	7.531	3-1/2 EUE 8RD
	20.0 - 28.0	7.922	8.191	7.781	3-1/2 EUE 8RD
10-3/4	47.0 - 53.5	8.300	8.681	8.218	4-1/2 LTC
	40.0 - 47.0	8.681	8.835	8.437	4-1/2 LTC
	29.3 - 36.0	8.836	9.063	8.593	4-1/2 LTC
10-3/4	32.7 - 55.5	9.625	10.192	9.500	5 LTC × 5 STC

Note: Additional sizes available upon request.



RETRIEVABLE PACKERS



ADL-1 TENSION PACKER

The ADL-1 is a large-bore, tension-set, retrievable packer.

APPLICATIONS

- Waterflood
- Shallow or low fluid level wells with insufficient tubing weight to set compression packers

FEATURES

- Compact
- J-slot control for normal set and release
- Shear ring secondary release
- Right-hand safety joint emergency release
- Rocker-type slips
- Inexpensive
- Large bore
- Parts interchangeable with other manufacturers

SETTING PROCEDURE

Run the packer to desired setting depth, making the last movement downward.

Rotate the tubing to the left 1/4 turn at the tool. Then, pick up and pack off.

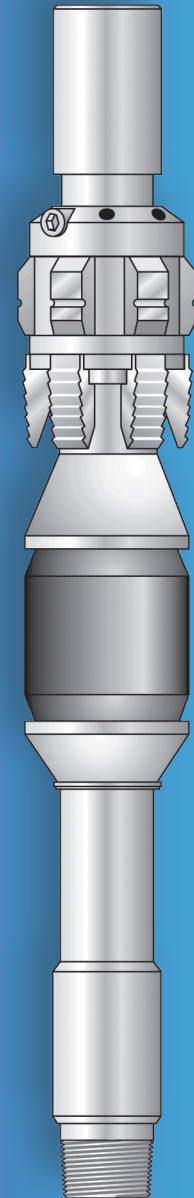
RELEASING PROCEDURE

Lower the tubing at least one foot more than is needed to remove applied tension, so that the J-pin will move fully to the top of the J-slot.

Rotate the tubing to the right 1/4 turn at the packer, so that slips will now be in the running position. Packer can be moved to a new position and reset, or it can be retrieved.

As an alternate release method, the ADL-1 Tension Packer has shear rings designed to part at tension varying from 13,000 to 100,000 lbs. The cone, packing element, and guide dropdown are carried out of the hole by the bottom sub.

For emergency tubing retrieval, left-hand threads on the top sub of the packer allow the tubing to be retrieved when the packer will not otherwise release.



SPECIFICATIONS

OD (in.)	Casing			Size (in.)	Packer	
	Wt. (lbs./ft.)	Min. (in.)	Max. (in.)		Max. OD (in.)	Standard Box × Pin (in.)
5-1/2	13.0 - 17.0	4.876	5.044	5-1/2 × 2.90	4.750	3-1/2 EUE 8RD
6	23.0 - 26.0	5.140	5.240	6 × 2.90	5.000	3-1/2 EUE 8RD
	18.0 - 20.0	5.241	5.424	6 × 2.90	5.218	3-1/2 EUE 8RD
7	23.0 - 29.0	6.136	6.366	7 × 4.12	5.968	4-1/2 LTC or STC
	17.0 - 20.0	6.367	6.538	7 × 4.12	6.266	4-1/2 LTC or STC
8-5/8	24.0 - 32.0	7.921	8.097	8-5/8 × 4.00	7.600	

Note: Additional sizes available upon request.

RETRIEVABLE PACKERS



B TUBING ANCHOR CATCHER

The B Tubing Anchor Catcher helps maintain tension in the tubing string and prevents parted pipe from falling to the bottom of the well.

APPLICATIONS

Most rod pumping applications, where it is important to maintain tension in the tubing

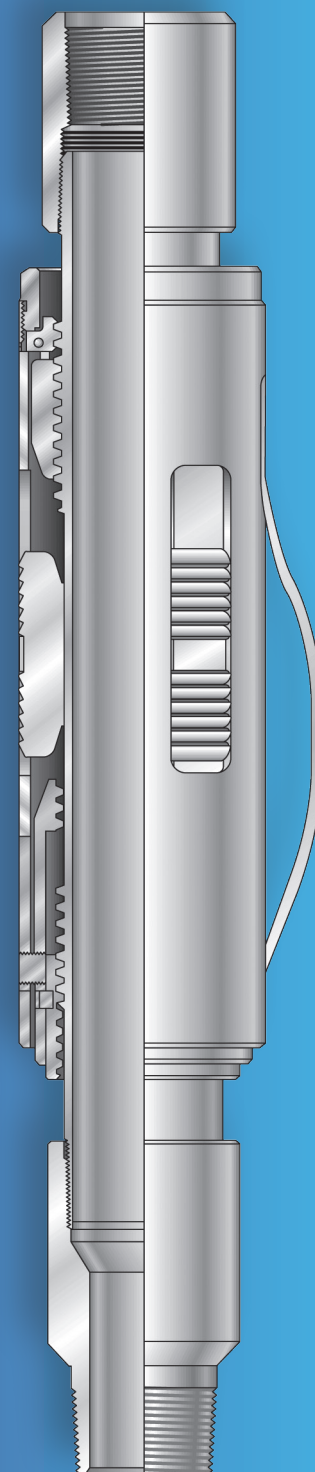
FEATURES

- Rotate left to set, right to release
- Straight-pull emergency shear release
- Increases pump efficiency
- Improves operating costs by reducing maintenance and downtime caused by tubing or sucker rod wear
- Optional right-hand set
- Parts interchangeable with other manufacturers

SPECIFICATIONS

OD (in.)	Casing			Size	Anchor	
	Wt. (lbs./ft.)	Min. (in.)	Max. (in.)		Max. OD (in.)	Standard Box x Pin (in.)
4	9.5 - 12.6	3.250	3.562	41	2.875	
4-1/2	9.5 - 13.5	3.826	4.090	43A	3.750	2-3/8 EUE 8 RD
5	11.5 - 18.0	4.276	4.560	43B	4.000	
5-3/4	11.5 - 15.0	4.408	4.778	43C	4.125	
5-1/2	13.0 - 23.0	4.670	5.044	45A	4.500	
6	18.0 - 23.0	5.240	5.424	45B	4.812	2-3/8 EUE 8 RD or 2-7/8 EUE 8 RD
6-5/8	17.0 - 32.0	5.675	6.456	47A	5.500	2-3/8 EUE 8 RD or 2-7/8 EUE 8 RD
7	20.0 - 38.0	5.675	6.456	47B	5.500	2-3/8 EUE 8 RD or 2-7/8 EUE 8 RD
7	17.0 - 20.0	6.413	7.125	47B	6.250	2-3/8 EUE 8 RD or 2-7/8 EUE 8 RD
7-5/8	20.0 - 39.0	6.413	7.125	47B	6.250	
6-5/8	17.0 - 20.0	5.675	6.538	47 x 3.00	5.500	
7-5/8	17.0 - 38.0	5.675	6.538	47 x 3.00	5.500	3-1/2 EUE 8 RD
8-5/8	24.0 - 49.0	7.250	8.093	49	7.000	
9-5/8	32.3 - 47.0	8.681	9.001	51	8.000	
10-3/4	32.75 - 65.7	9.560	10.192	53	8.656	

Note: Additional sizes available upon request.



2-3/8 INCH - 20 INCH BRIDGE PLUG

The 2-3/8 inch through 20 inch are premium plugs designed to run on electric line.

APPLICATIONS

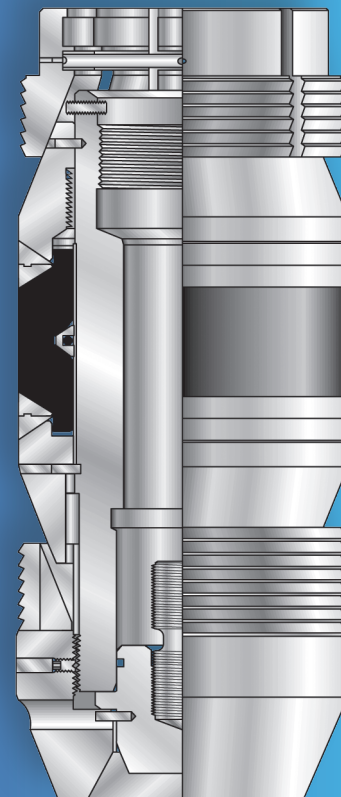
Used to isolate zones for temporary or permanent abandonment

FEATURES

- Cost competitive
- Constructed with drillable materials
- Retaining rings to assist in preventing element extrusion
- Top set with shear stud
- No tension mandrel required
- Rated at 300° F
- Runs on existing electric line setting tool with most existing sleeves
- P-110 casing compatible

SPECIFICATIONS					
Casing OD (in.)	T & C Weight (lbs./ft.)	Plug OD (in.)	Setting Range (in.)		Set Force (lbs.)
			Min.	Max	
2-3/8	4.0 - 5.8	1.750	1.780	2.074	9,000
2-7/8	6.4 - 6.5	2.220	2.340	2.525	9,000
3-1/2	5.75 - 10.3	2.750	2.867	3.258	9,000
3-1/2	12.8 - 15.8	2.430	2.548	2.764	9,000
4	5.6 - 14.0	3.140	3.340	3.732	20,000
4-1/2	9.5 - 16.6	3.562	3.826	4.090	33,000
5	11.5 - 20.8	3.937	4.154	4.560	33,000
5-1/2	13.0 - 23.0	4.312	4.580	5.044	33,000
5-3/4	14.0 - 25.2	4.699	4.890	5.290	33,000
6-5/8	17.0 - 32.0	5.375	5.595	6.135	50,000
7	17.0 - 35.0	5.687	6.000	6.538	50,000
7-5/8	20.0 - 39.0	6.312	6.625	7.125	50,000
8-5/8	24.0 - 49.0	7.125	7.310	8.097	50,000
9-5/8	29.3 - 58.4	8.125	8.435	9.063	50,000
10-3/4	32.7 - 60.7	9.437	9.660	10.192	50,000
11-3/4	38.0 - 60.0	10.437	10.772	11.150	50,000
11-3/4	60.0 - 83.0	9.937	10.192	10.772	50,000
13-3/8	48.0 - 84.5	11.880	12.175	12.715	50,000
16	65.0 - 118.0	14.125	14.576	15.250	50,000
20	94.0 - 133.0	18.375	18.730	19.124	50,000

Note: Additional sizes available upon request.



WIDE RANGE BRIDGE PLUG

The Wide Range Bridge Plug is a premium plug designed to run on electric line.

APPLICATIONS

Wide Range Bridge Plugs have small outside diameters for running through tubing or drillpipe with restricted internal diameters.

FEATURES

- Cost competitive
- Runs through tubing nipples and other restrictions
- Top set with shear stud
- 10,000 psi rated at 350° F
- P-110 casing compatible
- Three-piece element with rocker action back-up rings
- One-piece slips

SPECIFICATIONS

Plug OD (in.)	Setting Range (in.)	
	Min.	Max
1.468	1.610	1.995
1.750	1.905	2.441
1.906	2.156	2.765
2.187	2.375	3.000
2.281	2.441	3.343
2.500	2.875	3.500
2.750	3.187	3.920
3.250	3.920	4.276
3.500	3.696	4.276
4.062	4.154	5.044

Note: Additional sizes available upon request.



CEMENT RETAINER

The Cement Retainer is a modular-designed, drillable cement retainer.

APPLICATIONS

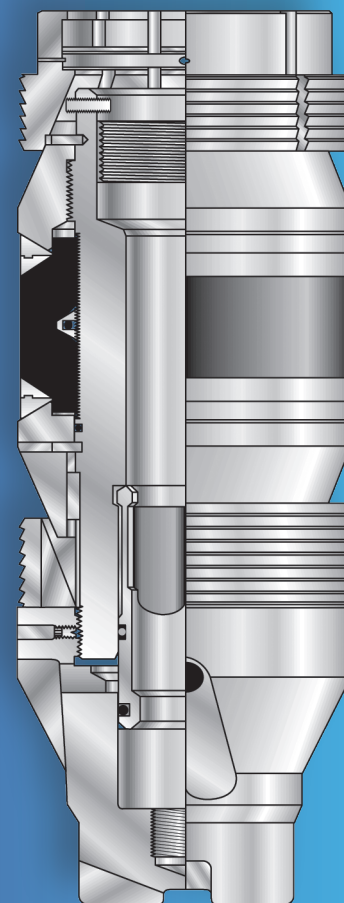
- Acidizing
- Fracturing or cementing with a cement retainer

FEATURES

- Simple, surface-controlled valve
- Allows pressure testing before squeeze
- Valve automatically closes when the stinger is removed, locking in the squeeze pressure
- Simple conversion to bridge plug
- Mechanical or wireline set
- Easily drilled

SPECIFICATIONS					
Casing OD (in.)	T & C Weight (lbs./ft.)	Plug OD (in.)	Setting Range (in.)		Set Force (lbs.)
			Min.	Max	
2-3/8	4.0 - 5.8	1.750	1.780	2.074	9,000
2-7/8	6.4 - 6.5	2.220	2.340	2.525	9,000
3-1/2	5.75 - 10.3	2.750	2.867	3.258	9,000
4	5.6 - 14.0	3.140	3.340	3.732	20,000
4-1/2	9.5 - 15.1	3.593	3.826	4.090	33,000
5	11.5 - 20.8	3.937	4.156	4.560	33,000
5-1/2	13.0 - 23.0	4.312	4.580	5.044	33,000
5-3/4	14.0 - 25.2	4.700	4.890	5.290	33,000
6-5/8	17.0 - 32.0	5.375	5.595	6.135	50,000
7	17.0 - 35.0	5.688	6.004	6.538	50,000
7-5/8	20.0 - 39.0	6.312	6.625	7.125	50,000
8-5/8	24.0 - 49.0	7.125	7.511	8.097	50,000
9-5/8	29.3 - 58.4	8.125	8.435	9.063	50,000
10-3/4	32.7 - 60.7	9.437	9.660	10.192	50,000
11-3/4	38.0 - 60.0	10.437	10.772	11.150	50,000
11-3/4	60.0 - 83.0	9.937	10.192	10.772	50,000
13-3/8	48.0 - 80.7	11.875	12.175	12.715	50,000
16	65.0 - 118.0	14.125	14.576	15.250	50,000
20	94.0 - 133.0	18.375	18.730	19.124	50,000

Note: Additional sizes available upon request.



MECHANICAL SETTING TOOL

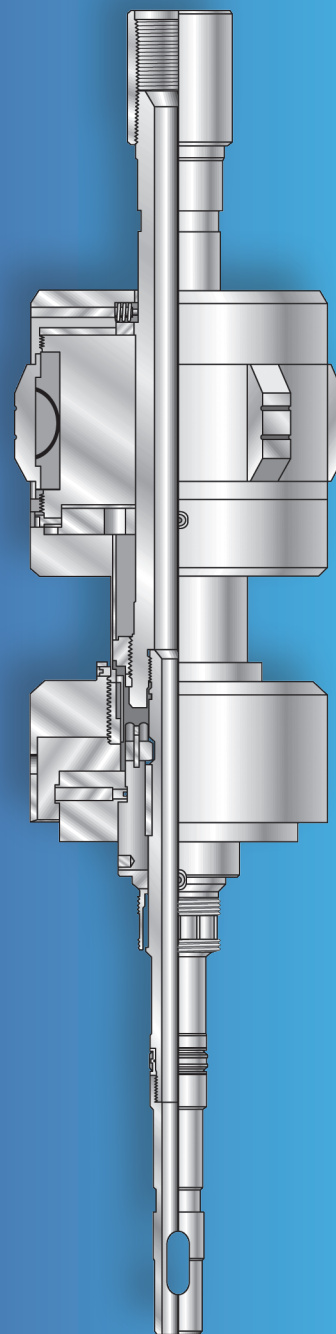
The Mechanical Setting Tool is for setting drillable cement retainers and bridge plugs with pipe.

APPLICATIONS

Setting cement retainers or bridge plugs on tubing or drillpipe

FEATURES

- Allows single run for squeeze work
- Locked to cement retainer or bridge plug to avoid premature setting or loss
- Top slips partially covered to protect from accidental damage
- Modular design
- Will set other manufacturers' cement retainer or bridge plugs
- Drag spring design also available



SNAP-OUT STINGER ASSEMBLY

The Snap-Out Stinger Assembly (SOSA) is a tubing-conveyed stinger assembly used to operate the sliding valve of a cement retainer.

APPLICATIONS

- Acidizing
- Fracturing or cementing with a cement retainer

PRODUCT FEATURES

- Same tool operates several sizes of retainers
- Deters seals from pumping out of the retainer
- Multiple safety release (rotate, snap-out)
- Gives positive indication of stinger location

SETTING PROCEDURE

Run the SOSA to the setting depth of the cement retainer. Wash any debris off the retainer. When the stinger enters the retainer bore, stop washing and set approximately 1,000 lbs. down on the retainer.

RETRIEVING PROCEDURE

When the job is finished, the SOSA can also be released from the cement retainer by pulling 5,000 to 8,000 lbs. of tension.

The SOSA can also be released from the retainer by rotating 8 to 10 turns to the right at the tool, while pulling 1,000 to 2,000 lbs. of tension.

