COMPLETION TOOLS

Evolution Oil Tools Inc

www.eotools.com

Complete Tools Catalogue – Table of Contents

MODEL INTEGRATOR-X PACKER

The Integrator-X Production Packer is a mechanical set, retrievable casing packer that effectively meets the requirements for zone isolation, injection and production. The full opening ID allows unrestricted flow and passage of full gage wireline tools and accessories. Mechanical lock-set action closes an internal bypass and allows application of pressure above or below the packer. The bypass closes during setting of the packer and opens to equalize pressure before releasing the slips.

The Integrator-X is released by one ¼ turn at the packer followed by straight pickup of the tubing. Seals below the upper slips allow debris above the packer to be washed away prior to releasing the packer. A rotational safety release feature is standard on the 7,500 psi rated packer. This feature is optional on 10,000 psi rated continue right hand rotation shears the "J" lug ring. After shearing continue right hand rotation (approximately 12 turns at the tool) releasing the mandrel. Straight pickup releases the packer.

When set the Integrator-X can be left with production tubing in tension, compression or neutral. This versatility is ideal for shallow wells and applications requiring fiberglass tubing.

MODEL INTEGRATOR-X FEATURES AND BENFITS

- 7,500 psi differential pressure rating.
- 10,000 psi (10K) option for higher pressure applications.
- "Big Bore" version for larger production tubing requirements.
- Large internal bypass.
- Production tubing can be left in tension, compression, or neutral.
- Holds pressure from above or below.
- Seals below upper slips allow flushing of debris prior to releasing.
- Easily converts to a retrievable bridge plug by adding a positive valve assembly.
- Safety release system.
- Components parts are interchangeable with other manufacturers.
- Mechanically set and released with right hand rotation.
- Available in right hand set right hand release and left hand set right hand release.

INTEGRATOR-X
PACKER

Packer Product No. 606 (7.5K), 607 (7.5K BB), 655 (10K), 656 (10K BB)

MODEL INTEGRATOR-X PACKER SPECIFICATION GUIDE

Casing In/mm	Casing Weight lbs/ft ... kg/m	Casing I.D.MIN In/mm	Casing I.D. MAX In/mm	Max O.D. Of tool In/mm	Min Bore of Tool In/mm	Thread Specification Box Up/Pin Down
2-7/8 73,03	6.5 9,67	2.347 59,61	2.441 62,00	2.312 58,73	1.000 25.40	1.315 EU 8 Rd 33,40
3-1/2 88,90	7.7 – 10.2 11,46 – 15,18	2.922 74,20	3.068 77,30	2.813 71,45	1.250 31,75	1.900 EU 8 Rd 48,26
4 101,60	9.5 – 11.0 14,14 – 16,37	3.476 88,30	3.548 90,1	3.250 82,55	1.500 38,10	
4-1/2 114,30	15.1 22,47	3.826 97,18	3.826 97,18	3.590 91,19		
	9.5 – 13.5 14,14 – 22,32	3.920 99,57	4.09 103,89	3.750 95,25		
5 127,00	18 – 20.8 26,78 – 30,95	4.156 105,56	4.276 108,61	4.000 101,60		
	11.5 -15 17,11 – 22,32	4.408 111,96	4.56 115,82	4.125 104,89	1.938 49,23	2.375 EU 8 Rd 60,33
5-1/2 139,70	20 -23 29,76 – 34,22	4.670 118,62	4.778 121,36	4.500 114,30		
	17 – 20 25,30 – 29,76	4.778 121,36	4.892 124,26	4.625 117,48		
	14 – 17 20,83 -25,30	4.892 124,26	5.012 127,70	4.625 117,48		
	20 – 23 29,76 - 34,22	4.670 118,62	4.778 121,36	4.500 114,30		
	15.5 – 17 23,06 – 25,30	4.778 121,36	4.950 125,73	4.625 117,48		
	13 – 15.5 19,34 – 23,06	4.950 125,73	5.044 128,12	4.781 121,44		
6-5/8 168,28	24 -28 35,71 – 41,66	4.950 125,73	5.920 150,37	5.588 141,94	2.360 59,94	2.875 EU 8 Rd 73,03
7 177,80	35 – 38 52,08 – 56,54	5.920 150,37	6.004 152,50	5.750 146,05		
	26 – 32 38,69 – 47,62	6.094 154,79	6.276 159,41	5.875 149,23		
	17 – 20 25,30 – 29,76	6.456 163,98	6.538 166,10	6.250 158,75		
	20 – 26 29,76 – 38,69	6.276 159,41	6.456 166,07	6.000 152,40		
	26 -32 38,69 – 47,62	6.094 154,79	6.276 159,41	5.875 149,23	3.000 76,30	3.500 EU 8 Rd 88,90
	17 – 24 25,30 – 35,71	6.336 160,94	6.538 166,10	6.000 152,40		
7-5/8 193,68	33.7 – 39 50,15 – 58,03	6.625 168,28	6.765 171,83	6.453 163,91	2.360 59,94	2.875 EU 8 Rd 73,03
	24 – 29.7 35,71 – 44,19	6.875 174,63	7.025 178,44	6.672 169,47		
	33.7 – 39 50,15 – 58,03	6.625 168,28	6.765 171,83	6.453 163,91	3.000 76,30	3.500 EU 8 Rd 88,90
	24 – 29.7 35,71 – 44,19	6.875 174,63	7.025 178,44	6.672 169,47		
8-5/8 219,08	32 -40 47,62 – 59,52	7.725 196,22	7.921 201,19	7.500 190,50		
	24 – 28 35,71 – 41,66	8.017 203,63	8.097 205,66	7.750 196,85	4.000 101,60	4.500 EU 8 Rd 114,30
9-5/8 244,48	43.5 – 53.5 64,72 – 79,61	8.535 216,79	8.755 222,38	8.250 209,55		
	32.3 – 43.5 48,06 – 64,72	8.755 222,38	9.001 228,63	8.500 215,90		

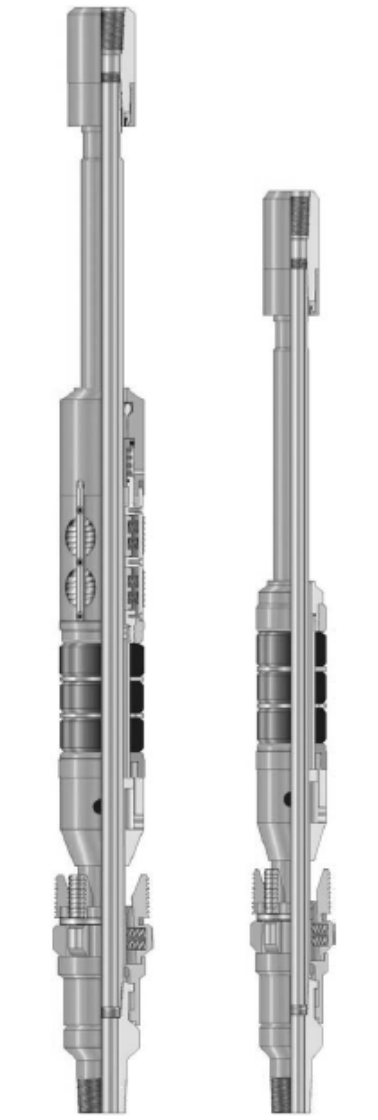
NOTE: Casing weights highlighted in Dark Grey are available in 7.5k and 10k bones. Weights in grey are available in 7.5k only. Casing weights shaded and in white text are currently unavailable. New sizes are being added. Please contact Evolution for updated availabilities.

Packer Product No. 606 (7.5K), 607 (7.5K BB), 655 (10K), 656 (10K BB)

MODEL "SR-3" PACKER

MODEL "SR-3" DOUBLE GRIP RETRIEVABLE CASING PACKER

The "SR-3" Double Grip is a truly versatile set down-type packer. It performs reliably in production, stimulation and testing operations.



"SR-3" DOUBLE GRIP PACKER "SR-3" SINGLE GRIP PACKER

MODEL "SR-3" FEATURES AND BENEFITS

- Hydraulic piston-type hold down located below the bypass valve.
- Unique, built-in, "differential lock" helps keep the bypass valve closed.
- Effective bypass design speeds equalization and resist swab-off of packing element.
- Field proven, three element packing system and rocker type slips

MODEL "SR-3" SINGLE GRIP RETRIEVABLE CASING PACKER

Installed in wells where excessive bottom-hole pressure is not expected, the Evolution "SR-3" Single Grip Packer is the answer for a set down, retrievable packer. From the elements down, the "SR-3" Single Grip is identical to the "SR-3" Double Grip. Running, setting and releasing procedures are the same for both.

OPERATION:

To Set: The Evolution "SR-3" is set by making your last movement of the tubing upward and rotating the tubing to the right only ¾ of a turn at the tool and then slacking off to the desired tubing weight, closing the by-pass valve, setting slips, and packing off the three piece packing element system.

To Release: Picking up the tubing releases the packer (no rotation required). When the tubing is raised, the bypass valve opens to allow circulation through and around packer. When the tubing string is raised the full length of the packer, the J-pins (on the bottom sub) are oriented for automatic re-engagement. By then lowering the tubing slightly, the J-slot thus assuring complete release and preventing accidental re-setting while retrieving the packer.

Packer Product No. 600(DG), 601(SG), 602(DG BB), 603 (SG BB)

MODEL "SR-3" PACKER SPECIFICATION GUIDE

Casing		Packer Size	Preferred Range of Casing IDs		Gage & Guide Ring OD	Packing Element OD	Packing Element Spacer OD	Absolute Limits of Slip & Button Travel		Thread Specifications Box up/ Pin Down
O.D.	Wt in Lbs T & C		Min	Max				Min	Max	
4-1/2 114,30	15.1 22,47	41B	3.754 95,35	3.826 97,18	3.620 91,95	3-19/32 91,29	3.620 91,95	3.620 91,95	3.878 98,50	
4-1/2 114,30	9.5-13.5 14,4-16,37	43A	3.910 99,31	4.090 103,9	3.771 95,78	3-5/8 92,08	3.771 95,78	3.895 98,93	4.105 104,27	
5 127,00	15-18 22,32-26,78	43B	4.250 107,9	4.408 112,0	4.125 104,78	3-15/16 100,02	4.125 104,78	4.211 106,96	4.409 111,99	
5 127,00	11.5-15 17,11-22,32	43C	4.408 112,0	4.560 115,8	4.250 107,95	4-5/32 105,57	4.250 107,95	4.363 110,82	4.561 115,85	
5-1/2 139,70	26.0 38,69									2-3/8 OD EU 8 Rd 60,33
5-1/2 139,70	20-23 29,76-34,22	45A2	4.625 117,5	4.777 124,3	4.500 114,30	4-3/8 111,13	4.500 114,30	4.543 115,39	4.950 125,73	
5-1/2 139,70	15.5-20 23,06-29,76	45A4	4.778 121,4	4.950 125,7	4.641 117,88					
5-1/2 139,70	13-15.5 19,34-23,06	45B	4.950 125,7	5.190 131,8	4.781 121,44	4-11/16 119,06	4.781 121,44	4.825 122,56	5.196 131,98	
5-3/4 146,05	22.5 33,48									
6 152,40	26 38,69									
5-1/2 139,70	20-23 29,76-34,22	45A2 (2-3/8) 60.33	4.625 117,5	4.777 121,3	4.500 114,30	4-3/8 111,13	4.500 114,30	4.534 115,39	4.813 122,25	
5-1/2 139,70	17-20 25,30-29,76	45A4 (2-3/8) 60.33	4.778 121,4	4.892 124,25	4.641 117,88			4.641 117,88	4.892 124,26	
5-1/2 139,70	13-15.5 19,34-23,06	45B (2-3/8) 60.33	4.893 124,3	5.044 128,1	4.781 121,44	4-11/16 119,06	4.781 121,44	4.850 123,19	5.062 128,57	
6-5/8 168,28	24 35,71	47A2	5.830 148,1	5.937 50,8	5.656 143,66	5-1/2 139,7	5.656 143,66	5.653 143,59	6.139 155,93	
7 177,80	38 56,54									
6-5/8 168,28	17-20 25,30-29,76	47A4	5.938 150,8	6.135 155,8	5.812 147,62					
7 177,80	32-35 47,62-52,08									2-7/8 OD EU 8 Rd 73,02
7 177,80	26-29 38,69-43,15	47B2	6.136 155,8	6.276 159,4	5.968 151,59	5-3/4 146,05	5.968 151,59	5.919 150,34	6.456 163,98	
7 177,80	20-26 ? 29,76-38,69	47B4	6.276 159,4	6.456 164,0	6.078 154,38					
7 177,80	17-20 ? 25,30-29,76	47C2	6.456 164,0	6.578 167,1	6.266 159,16	6-1/8 155,58	6.266 159,16	6.357 161,47	6.966 176,94	
7-5/8 193,68	33.7-39 50,15-58,03	47C4	6.579 167,1	6.797 172,6	6.453 163,91					
7-5/8 193,68	24-29.7 35,71-44,19	47D2	6.798 172,7	7.025 178,4	6.672 169,47	6-1/2 165,1	6.672 169,47	6.607 167,82	7.216 183,29	
7-5/8 193,68	20 – 24 29,76-35,71	47D4	7.025 178,4	7.125 181,0	6.812 173,02					
9-5/8 244,48	47 - 53.5 69,94-79,61	51A2	8.343 211,9	8.681 220,5	8.218 208,74	7-15/16 201,61	8.218 208,74	8.169 207,49	8.935 226,95	
9-5/8 244,48	40- 47 59,52-69,94	51A4	8.681 220,5	8.835 224,4	8.437 214,30					3-1/2 OD EU 8 Rd 88,90
9-5/8 244,48	29.3 – 36 43,60-53,57	51B	8.836 224,4	9.063 230,2	8.593 218,26	8-3/8 212,73	8.593 218,26	8.548 217,12	9.083 230,71	

Packer Product No. 600(DG), 601(SG), 602(DG BB), 603 (SG BB)

MODEL "A-2" LOCK SET PACKER

The Evolution "A-2" Lock Set Retrievable Production Packer is a mechanically set packer suitable for production, injection and zone isolation applications. The packer design permits the tubing string to be left in tension, compression or neutral, making the packer ideal for these applications.

"A-2" LOCK SET

The Evolution "A-2" Lock Set incorporates releasable lock segments to hold the packing elements in the set position. Releasing the lock segments requires right hand rotation of the packer mandrel. This single direction release method prevents accidental release. After the packer is set, the dovetail slip arrangement prevents movement of the packer from pressure either above or below the packing elements. Adding an On-Off sealing connector allows production tubing to be retrieved without disturbing the packer.

MODEL "A-2" LOCK SET FEATURES AND BENEFITS

- Right hand rotation for both setting and releasing the packer.
- Dovetail slip configuration prevents packer movement from pressure in either direction.
- Lock segment design requires right hand rotation of the tubing string to release the packer.
- Tubing can be left in tension, compression, or neutral as desired to suit well conditions.
- Adding a positive slide valve to the system permits the packer to function as a mechanical bridge plug.
- Internal bypass for fast running and pressure equalization when retrieving.
- Both 2 Element and 3 Element stacks are available.

TO SET THE PACKER: Slacking off during right-hand rotation of the tubing causes the mandrel to move downward to free the slips and initiate setting. An initial 6,000 lbs set down weight set the upper slips and begins compression of the packing element system. Then 10,000 lbs to 12,000 lbs of up-strain engages the lower slips. Setting down 6,000 lbs to 10,000 lbs moves the mandrel through the lock segments completes and locks in the pack off. If sufficient set-down weight is not available, left hand rotation or spudding can be used to attain required pack-off force.

TO RELEASE THE PACKER: Apply an up strain 3,000 lbs to 6,000 lbs and rotate the tubing to the right from eight to ten turns at the tool, until the tool moves up the hole. Continue to rotate the tool to the right several more turns while moving up the hole while being certain the slip are fully retracted.

Packer Product No. 608, 609 (BB)

MODEL "A-2" LOCK SET PACKER SPECIFICATION GUIDE

Casing		Preferred Range of Casing I.D.'s		Tool Size	Gage Ring O.D. (in) (mm)	Absolute Limits of Slip Travel		Drag Block Min. Comp. Height in/mm
O.D. in/mm	Weight lbs/ft-kg/M	Min. in/mm	Max. in/mm			Min. in/mm	Max. in/mm	
4 1/2 114, 30	11.6-13.5 17,11-22,32	3.910 99,31	4.000 101,60	43A2	3.771 95,78	3.687 93,65	4.207 106,86	3.750 95,25
	9.5-10.5 14,14-15,62	4.001 101,63	4.090 103,89	43A4				3.938 100,03
5 127, 00	15-18 22,32-26-78	4.250 107,95	4.408 111,96	43B	4.125 104,78	4.062 103,18	4.582 116,38	4.125 104,78
	11.5-15 17,11-22,32	4.408 111,96	4.560 115,82	43C	4.250 107,95			
	26 38,69							
5 1/2 139, 70	20-23 29,76-34,22	4.625 117,48	4.778 121,36	45A2	4.500 114,30	4.437 112,70	5.221 132,61	4.500 114,30
	15.5-20 23,06-29,76	4.778 121,36	4.950 125,73	45A4	4.641 117,88			
	13-15.5 19,340 23,06	4.950 125,73	5.190 131,83	45B	4.781 121,44			4.688 119,08
6 152, 40	26 38,69							
6-5/8 168, 28	24 35,71	5.830 148,08	5.937 150,80	47A2	5.656 143,66	5.562 141,28	6.665 169,29	5.500 139,70
	17-20 25,30-29,76	5.938 150,83	6.135 155,83	47A4	5.812 147,62			
7 177, 80	38 56,54	5.830 148,08	5.937 150,80	47A2	5.656 143,66			
	32-35 47,62-52,08	5.938 150,83	6.135 155,83	47A4	5.812 147,62			
	26-29 38,69-43,15	6.136 155,85	6.276 159,41	47B2	5.968 151,59			5.936 150,77
	23-26 34,22-38,69	6.276 159,41	6.366 161,70	47B4	6.078 154,38			
	17-20 25,30-29,76	6.456 163,98	6.578 167,08	47C2	6.266 159,16	6.200 157,48	7.303 185,50	6.375 161,93
7 5/8 193, 68	33.7-39 50,15-58,03	6.579 167,11	6.797 172,64	47C4	6.453 163,91			
	24-29.7 35,71-44,19	6.798 172,67	7.025 178,44	47D2	6.672 169,47			
	20-24 29,76-35,71	7.025 178,44	7.125 180,98	47D4	6.812 173,02			
8 5/8 219, 08	44-49 65,47-72,91	7.511 190,78	7.687 195,25	49A2	7.312 185,72	7.250 184,15	8.276 210,21	7.250 184,15
	32-40 47,62-59,52	7.688 195,28	7.921 201,19	49A4	7.531 191,29			
	20-28 29,76-41,66	7.922 201,22	8.191 208,05	49B	7.781 197,64			
9 5/8 244, 48	47-53.5 69,94-79,61	8.343 211,91	8.681 220,50	51A2	8.218 208,74	8.125 206,38	9.283 235,79	8.125 206,38
	40-47 59,52-69,94	8.681 220,50	8.835 224,41	51A4	8.437 214,30			
	29.3-36 43,60-53,57	8.836 224,44	9.063 230,20	51B	8.593 218,26			

Packer Product No. 608, 609 (BB)

MODEL "STP-1" TENSION PACKER

The "STP-1" Tension Packer is a compact, economical, retrievable packer. Primarily used in waterflood applications, this packer can also be used for production and/or treating operations. It is used where a set-down packer is impractical. Since the "STP-1" is tension set, it is ideally suited for shallow wells where set-down weight is not available.

"STP-1"
TENSION PAKER

MODEL "STP-1 FEATURES AND BENEFITS

- Utilizes Evolution rugged rocker type slips.
- Bore through the packer mandrel is larger than drift.
- Simple, low cost packer for fluid injection.
- Three release methods insure retrievability.
- Uses proven one-piece packing element.

MODEL "STP-1L" LARGE BORE TENSION PACKER DESCRIPTION

The "STP-1L" Tension Packer is a large-bore version of the Model "STP-1" and running and retrieving operations are the same.

OPERTAION

To Set: Run Packer to desired setting depth, making the last movement downward. Rotate the tubing to the left one-quarter at the tool. Then, pick up and pack-off the packing element.

To retrieve: Lower the tubing at least one foot (0.31m) more than 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 one-quarter turn at the packer so slips will now be in the running position. Packer can be moved to a new position and reset or it can be retrieved.

To Shear Release: As an alternate release method, the tension Packer has shear rings designed to part at tensions varying from 10,000 to 100,000 lbs(4,54-45, 35t). The cone, packing element and guide drop down and guide drop down and are carried out of the hole by the bottom sub.

Emergency Release: Left hand square threads on the top sub of the packer allow the tubing to be retrieved when the packer will not otherwise release.

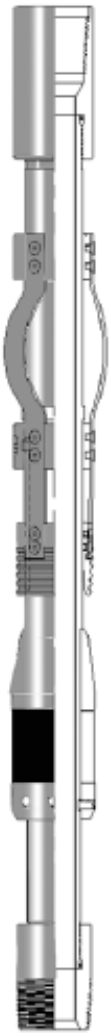
Packer Product No. 645, 605 (BB)

MODEL "STP-1" PACKER SPECIFICATION GUIDE

Casing					Packer		
OD	Weight	Preferred Range of Casing I.D.s		Size	Nom. I.D.	Guide Ring O.D.	Thread Specifications** Box Up/Pin Down
		Min	Max				
In/mm	lb/ft-kg/m	In/mm	In/mm		In/mm	In/mm	In/mm
4 101,60	9.5 – 11 14,4-16,37	3.548 90,1	3.476 88,3	41A	1.94 49.28	3.25 82.55	2-3/8 OD EU 8 RD 60,33
4-1/2 114,30	9.5-13.5 14,14-20,09	3.910 99,31	4.160 105,66	43A	1.94 49.28	3.771 95,78	
5 127,00	15-18 22,32-26,78	4.161 105,69	4.408 111,96	43B		4.125 104,78	
	11.5-15 17,11-22,32	4.408 111,96	4.560 115,82	43C		4.250 107,95	
5-1/2 139,70	26 38,69				1.97 50,04		
	20-23 29,76-34,22	4.625 117,48	4.778 121,36	45A2		4.500 114,30	
	15.5-20 23,06-29,76	4.778 121,36	4.950 125,73	45A4		4.641 117,88	
	13-15.5 19,34-23,06	4.950 125,73	5.190 131,83	45B		4.781 121,44	
5-3/4 146,05	22.5 33,48						
5-1/2 139,70	13-17 19,34-25,30	4.876 123,85	5.044 128,12	45Bx2.90 STP-1L	2.90 73,66	4.750 120,65	2-7/8 O.D. EU 8RD 73,02
6-5/8 168,28	24 35,71	5.830 148,08	5.921 150,39	47A2	2.42 61,47	5.656 143,66	
	17-20 25,30-29,76	5.922 150,42	6.135 155,83	47A4		5.812 147,62	
7 177,80	38 56,54	5.830 148,08	5.921 150,39	47A2		5.656 143,66	
	32-35 47,62-52,08	5.922 150,42	6.135 155,83	47A4		5.812 147,62	
	26-29 38,69-43,15	6.136 155,85	6.276 159,41	47B2		5.968 151,59	
	20-26 29,76-38,69	6.276 159,41	6.456 163,98	47B4		6.078 154,38	
	17-20 25,30-29,76	6.456 163,98	6.538 166.07	47C2		6.266 159,16	
7-5/8 193,68	33.7-39 50,15-58,03	6.539 166,09	6.765 171,83	47C4		6.453 163,91	
	24-29.7 35,71-44,19	6.766 171,86	7.025 178,44	47D2		6.672 169,47	
	20-24 29,76-35,71	7.025 178,44	7.125 180,98	47D4		6.812 173,02	
5-1/2 139,70	13-17 19,34-25,30	4.876 123,85	5.044 128,12	45Bx2.90 STP-1L	2.90 73,66	4.750 120,65	3-1/2 O.D. EU 8RD 88,90
8-5/8 219,08	40-49 59,52-72,91	7.511 190,78	7.725 196,22	49A2	3.00 76,20	7.312 185,72	3-1/2 O.D. EU 8RD 88,90
	32-40 47,62-59,52	7.725 196,22	7.921 201,19	49A4		7.531 191,29	
	20-28 29,76-41,66	7.922 201,22	8.191 208,05	49B		7.781 197,64	
9-5/8 244,48	47-53.5 69,94-79,61	8.300 210,82	8.681 220,50	51A2	4.00 101,60	8.218 208,74	4-1/2 O.D. 8RD LG CSG 114,30
	40-47 59,52-69,94	8.681 220,50	8.835 24,41	51A4		8.437 214,30	
	29.3-36 43,60-53,57	8.836 224,43	9.063 230,20	51B		8.593 218,26	

Packer Product No. 645, 605 (BB)

MODEL "STP-1L" TENSION PACKER



"STP-1L"
TENSION PACKER

MODEL "STP-1L" TENSION PACKER
Evolution 2-7/8" "STP-1L" Large Bore Tubing Packer is a compact, economical, retrievable, tension-set, hookwall packer. It is best suited for low pressure applications.

APPLICATIONS

- Waterflood
- Production
- Treating
- Shallow and low fluid level wells where tubing weight is not adequate to set compression packers
- Wells where 2-7/8" tubing is utilized in place of casing

MODEL "STP-1L) FEATURES AND BENEFITS

- Larger than normal bore.
- Single piece packing element**.**
- Triple release mechanism-J-latch control for normal setting and release shear screws secondary release, right hand release safety joint for extreme emergencies.
- For use in 2-7/8" 6.4# Casing.
- 1.900" NU 10rd. Box by Pin Connections.

Packer Product No. 645

MODEL "SG" RETRIEVABLE CASING PACKER

The Evolution Model "SG" Retrievable Casing Packer is a compact economical setdown, weight activated, production packer. The "SG" can be used by itself for production applications. When combined with an unloader and a hold down assembly, the "SG" can be used for well stimulation, testing or other pressuring operations.

The "SG" Retrievable Casing Packer combines heavy-duty rocker type slips with a single piece packing element for economical, dependable performance. The large mandrel ID permits passage of gull gage wireline tools.

"SG" CASING PACKER

MODEL "SG" FEATURES AND BENEFITS

- Rugged rocker type slips and one piece packing element.
- Economical to maintain.
- Easy to set and release.
- Single piece element for economical, reliable performance.
- Large mandrel ID for non-restrictive passage of wireline tools.
- Safety joint for secondary release feature.
- Functions above 250°F (120°C) with an alternate packing element.
- Short and compact for easy storage, shipping and handling.

OPERATION

To Set: Run the packer to a position approximately one foot below the desired setting depth. Pick up until the packer reaches setting depth, then rotate the tubing a quarter (1/4) turn to the right to un-jay the slip assembly. Apply setdown weight to set and pack-off the tool.

To Release: Simply pick up the tubing to release.

Emergency Release: Apply tension and rotate the tubing to the right at least seven turns. This will allow the tubing and the top sub to be retrieved when the packer will not otherwise release.

Packer Product No. 618

MODEL "SG" PACKER SPECIFICATION GUIDE

CASING				PACKER			
OD	WEIGHT	ID RANGE IN WHICH PACKER MAY BE RUN		SIZE	NOM ID	CONE & GUIDE RING OD	THREAD SPECIFICATIONS BOX UP & PIN DOWN
		MIN	MAX				
in/mm	lb/ft-kg/m	in/mm	in/mm		in/mm	in/mm	in/mm
4-1/2 114,30	9.5-13.5 14,14-20,08	3.910 99,31	4.090 103,9	43A	1.94 49,28	3.771 95,78	2-3/8 OD EU 8RD 60,33
5 127,00	15-18 22,76-26,78	4.250 108,0	4.408 112,0	43B		4.125 104,78	
	11.5-15	4.408 112,0	4.560 115,8	43C		4.250 107,95	
5-1/2 139,70	26						
	20-23 29,76-34,22	4.625 117,5	4.778 121,4	45A2	1.97 50,04	4.500 114,30	
	15.5-20 23,06-29,76	4.778 121,4	4.950 125,7	45A4		4.641 117,88	
	13-15.5 19,34-25,29	4.950 125,7	5.190 131,8	45B		4.781 121,44	
5-3/4 146,05	22.5 33,48						
6 152,40	26 38,69						
6-5/8 168,28	24 35,71	5.830 148,1	5.921 150,4	47A2	2.41 61,21	6.656 143,66	2-7/8 OD EU 8RD 88,90
	17-20 25,30-29,76	5.922 150,4	6.135 155,8	47A4		5.812 147,62	
7 177,80	38 56,54	5.830 148,1	5.921 150,4	47A2		5.656 143,66	
	32-35 47,62-52,08	5.922 150,4	6.135 155,8	47A4		5.812 147,62	
	26-29 38,69-43,15	6.136 155,9	6.276 159,4	47B2		5.968 151,59	
	20-26 29,76-38,69	6.276 159,4	6.456 164,0	47B4		6.078 154,38	
	17-20 25,30-29,76	6.456 164,0	6.538 166,1	47C2		6.266 159,16	
7-5/8 193,68	33.7-39 50,14-58,03	6.539 166,1	6.765 171,8	47C4		6.453 163,91	
	24-29.7 35,71-44,19	6.766 171,9	7.025 178,4	47D2		6.672 169,47	
	20-24 29,24-35,71	7.025 178,4	7.125 181,0	47D4		6.812 173,02	

Packer Product No. 618

MODEL "PS-TXT" PACKER

MODEL "PS-TXT" – REMEDIAL STIMULATION SQUEEZE PACKER

The "PS-TXT" Remedial Stimulation Squeeze Packer is a retrievable, compression set service packer used for remedial applications suck as squeeze cementing, fracturing, acidizing, zone testing, and other operations where high pressure differentials are required.

"PS-TXT" PACKER

The "PS-TXT" utilizes an internal collet to prevent closing of the bypass system during running, circulating or reversing at high displacement rates. The collet releases during setting, by application of tubing weight, and closes the bypass. Setting requires manipulation of the J mechanism, which can be supplied as either right or left hand with a manual or automatic configuration. Drag blocks, wicker slips, and a three piece packing element system enhance packer performance. The hydraulic hold-down pistons are protected during running or circulating. This system minimizes damage potential and improves reliability. The "PS-TXT" short length makes it ideal for deviated or directional wells.

MODEL "PS-TXT" FEATURES AND BENEFITS

- Large internal bypass for maximum running and circulating rates.
- Internal collets prevents premature bypass closing.
- Three piece packing element system for reliable, proven performance.
- Setting controlled by versatile J system.
- Manufactured from rugged alloy steel for optimum reliability in severe applications.
- Uses the same slips as the Evolution Integrator-X series packer.
- Utilizes Evolution Model "SR-3" hold down pistons and packing element system.

Packer Product No. 633

MODEL "PS-TXT" PACKER SPECIFICATION GUIDE

Casing		Casing I.D. Range	Casing I.D. Range	Max O.D. of Tool	Thread Specifications
O.D. in/mm	Weight	Min	Max		
	lbs/ft-kg/M	in/mm	in/mm	in/mm	Box X Box
4-1/2 114,30	9.5-13.5 14,14-20,08	3.920 99,57	4.090 103,88	3.760 95,50	2-3/8 OD EU 8Rd
5 127,00	15 - 18 22,76-26,78	4.408 111,96	4.276 108,61	4.110 104,39	
5-1/2 139,70	20 - 23 29,76-34,22	4.670 118,62	4.778 121,36	4.500 114,30	
	15.5 - 20 23,06-29,76	4.778 121,36	4.950 125,73	4.640 117,86	
	13 - 15.5 19,34-25,29	4.950 125,73	5.044 128,12	4.760 120,90	
7 177,80	32 - 35 47,62-52,08	6.004 152,50	6.094 154,78	5.812 147,62	2-7/8 EU 8 Rd
	26 - 29 38,69-43,15	6.184 157,07	6.276 159,41	5.950 151,13	
	20 - 26 29,76-38,69	6.276 159,41	6.456 163,98	6.078 154,38	
7-5/8 193,67	33.7 - 39 50,14-58,03	6.625 168,27	6.765 171,83	6.453 163,91	
	26.4 - 33.7 39,28-50,14	6.765 171,83	6.969 177,01	6.593 167,46	
	24 - 29.7 35,71-44,19	6.875 174,62	7.025 178,43	6.672 169,46	
	20 - 24 29,24-35,71	7.025 178,43	7.125 180,97	6.812 173,02	

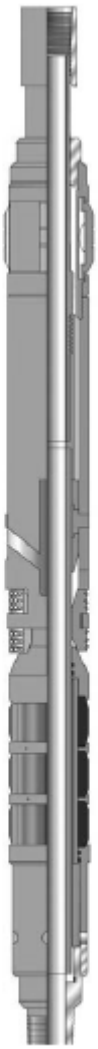
Packer Product No. 633

MODEL "32-A" TENSION SERVICE TOOL

The "32-A" Tension Service Tool is a heavy duty, tension set, retrievable service tool. The "32-A" is suitable for testing, fracturing and cementing.

The emergency release system uses a right-hand rotation of the tubing string which relaxes the packing element system and allows the slips to retract from the lower cone. This allows the packer to be removed from the well.

The SC tension unloader is run in tandem with "32-A" Tension Service Tool and provides a equalize by-pass to minimize the swabbing effect on the packing elements while the packer is being run.



"32-A" SERVICE TOOL

MODEL "32A" TENSION SERVICE TOOL FEATURES AND BENEFITS

- Hold pressure from above or below.
- Full opening for tubing ID compatibility.
- Bi-directional slips to secure service tool in place.
- Right hand rotational safety release.

OPERATION

To Set: The "32A" Tension Service Tool is run with the SC unloader above the tool, allowing equalization of the fluid levels while running the tool to setting depth. To set the tools, pick up on tubing weight while holding torque will allows the tool to take weight. Packing elements are not compressed and SC unloader is in the open position and circulations between tubing and annulus is possible. Tension is pulled to compress the packing system and closes the unloader isolating tubing from annulus.

To Release: Slack-off tubing weight which will result in setdown weight on "32-A" and open the SC unloader and establish communication between tubing and annulus. Rotate tubing string ½ turn to the right (or left if right-hand set) at the tool and pick-up on tubing while holding torque. The service tool will jay into the running slot and can be moved, reset or retrieved from the well. SC unloader should remain in the open position while packer is free.

Emergency Release: If serviced tool will not release using the normal procedure, right-hand rotation will release the safety joint. This will relax the packing elements and retract the slips from the cone allowing the service tool to be pulled from the well. The service tool must be pulled from the well and redressed before trying to reset serviced tool.

Product No. 631

MODEL "32-A" TENSION SERVICE TOOL

Casing		Ca sing I.D. Range		O.D. of Tool	Min. I.D.	Thread Connection
O.D.	Weight	Min.	Max.			
4-1/2 114,30	9.5-13.5 14,4-16,37	3.910 99,31	4.090 103,9	3.750 95,25	2.000 50,8	2.375 EU8 60,33
5 127,0	18-21 26,78-	4.156 105,56	4.276 108,61	4.000 101,6	2.000 50,8	2.375 EU8 60,33
5 127,0	11.5-15 17,11-22,32	4.408 112,0	4.560 115,8	4.125 104,78	2.000 50,8	2.375 EU8 60,33
5-1/2 139,70	14-20 20,83-29,76	4.778 121,36	5.012 127,31	4.625 117,48	2.000 50,8	2.375 EU8 60,33
5-1/2 139,70	20-23 29,76-34,2	4.670 118,62	4.778 121,36	4.500 114,30	2.000 50,8	2.375 EU8 60,33
6 152,40	15-20 22,32-29,76	5.352 135,94	5.524 140,31	5.156 130,96	2.000 50,8	2.375 EU8 60,33
7 177,80	17-23 25,30-34,2	6.366 161,70	6.538 166,07	6.125 155,58	2.500 63.5	2.875 EU8 73,03
7 177,80	26-32 38,69-47-62	6.094 153,65	6.276 159,41	5.875 149,22	2.500 63.5	2.875 EU8 73,03
7-5/8 193,68	26.4-33.7 38,69-50,15	6.765 171,83	6.969 177,01	6.500 165,1	2.500 63.5	2.875 EU8 73,03
8-5/8 219,07	24-40 35,71-59,52	7.725 196,22	8.097 205,66	7.500 190,5	2.500 63.5	2.875 EU8 73,03
9-5/8 244,48	43.5-53.5 64,72-79,61	8.535 216,79	8.755 222,38	8.250 209,55	2.500 63.5	2.875 EU8 73,03
9-5/8 244,48	40-47 59,52-69,94	8.681 220,50	8.835 224,41	8.375 212,73	2.500 63.5	2.875 EU8 73,03
9-5/8 244,48	32.3-43.5 48,06-64,72	8.755 222,38	9.001 228,63	8.500 215,9	2.500 63.5	2.875 EU8 73,03

Tension Service Tool Product No. 631

MODEL "ICW" BRIDGE PLUG

The Evolution "ICW" Bridge Plug is a wireline, packer type, retrievable bridge plug that is capable of holding high pressure from above or below.

APPLICATIONS
It is used for acidizing, fracturing, cementing, casing pressure tests, well head replacement and zone isolation.

"ICW" BRIDGE PLUG

MODEL "ICW: BRIDGE PLUG FEATURES AND BENEFITS

- Wireline, hydraulic or coiled tubing set.
- Caged bi-directional slips.
- Balanced equalizing system.
- Pressure equalized before release.
- Straight pull release.
- Rotational safety release mechanism.
- Over shot will wash to upper gauge ring.
- Coil tubing retrievable.
- Swab resistant packing element system.
- Compact design.
- Simple redress.

OPERATION

To Set: Assemble the appropriate wireline adaptor kit to the pressure setting assembly. Install the wireline plug and tension stud on the adapter kit. Make up the setting sleeve with the adapter nut until the setting sleeve begins to tighten again the bridge plug. Install the set screws into the bushing and setting sleeve. Install the power charge and the firing head to the setting assembly and run the tool string to the proper depth. Fire the pressure setting assembly and set the bridge plug.

To Retrieve: Make up the pulling tool on the tubing string and run it to the depth of the plug. Begin to circulate about one tubing joint before reaching the top of the plug to remove any sand and debris that might be present. Continue to circulate and slowly lower the pulling tool until the plug begins to support the weight of the tubing sting. Set 5-10,000 lbs on the plug to allow enough time for the differential pressure across the plug to equalize. Pull 10-15,000 lbs tension to release the plug. Move the tool string up the hole one stand to completely stretch out the slip system before attempting to move down hole.

Emergency Release: In the event the plug will not release when an upstrain in taken, pull 2-5,000 lbs at the plug while rotating slowly to the right eight turns at the tool. The pulling tool will back off of the retrieving head of the plug. Standard fishing operations, utilizing an overshot and tubing jars may then retrieve the plug.

Bridge Plug Product No. 636

MODEL "ICW" BRIDGE PLUG

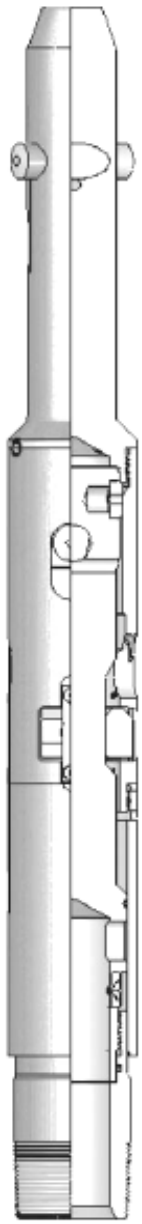
Casing				
O.D. in - mm	Weight lbs/ft - kg/m	Min. in - mm	Max. in - mm	Max. O.D. in - mm
4-1/2" 114.3	9.5-13.5 14.14-20.08	3.92 99.57	4.09 103.88	3.771 95.78
5" 127.0	15-18 22.32-26.78	4.276 108.61	4.408 111.96	4.125 104.78
	11.5-15 17.11-22.32	4.408 111.96	4.56 115.82	4.25 107.95
5-1/2" 139.7	20-23 29.76-34.22	4.67 118.62	4.778 121.36	4.50 114.30
	15.5-17 23.06-25.30	4.892 124.26	4.95 125.73	4.641 117.88
	13-15.5 19.35-23.06	4.95 125.73	5.044 128.12	4.781 121.44
7" 177.8	29-32 43.15-47.62	6.094 154.79	6.184 157.07	5.875 149.23
	23-26 34.22-38.69	6.276 159.41	6.366 161.69	6.023 152.98
	17-20 25.30-29.76	6.456 163.98	6.538 166.07	6.230 158.24

Bridge Plug Product No. 636

MODEL "PK" VALVE

APPLICATIONS

Used with neutral set packers to create a temporary bridge plug for acidizing, fracturing, cementing, casing pressure testing tests, well head replacement and zone isolation.



"PK" VALVE

MODEL "PK" VALVE FEATURES AND BENEFITS

- Balanced equalizing system.
- Large by-pass area minimizes plugging by debris.
- Bonded seals allow repeated opening.
- Opening during running and pulling.
- Strong jay pins are not threaded to the fishing neck.
- Retrieving head is auto-on jay, left hand release.
- Full bore retrieving head permits through tubing perforating.
- By-pass valve can be opened and closed without releasing the packer.
- Locked to retrieving head while running or pulling.
- 10,000 psi pressure rating.
- Available in 2-3/8" and 2-7/8" sizes

RUNNING

Close the valve. Slide the running tool over the top of the plug and engage the jay pins in the running tool slot. Pull up and rotate the running tool to the right to open the valve and to extend the locking dogs into the running tool housing. Make up the running tool with the tubing string and run the tools into the hole. Set the packer with the appropriate standard setting procedure.

CAUTION: The running tool will release from the valve if picked up while holding left hand torque on the tubing.

OPERATION

To Open the Valve: Apply right hand torque and slowly pick up on the running (maintaining right hand torque).

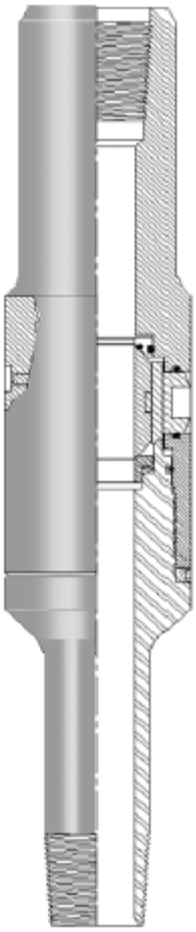
To Close the Valve: Apply left hand torque and set down on the running tool (maintaining left hand torque).

To Release the Running Tools from the Valve: Apply left hand torque and slowly pick up.

To Retrieve the Valve: Circulate sand and debris from the top of the valve. Slowly lower the running tool over the valve fishing neck. The running tool is an auto-jay mechanism, therefore, little or no torque is required to engage. When the packer begins to take weight, apply right hand torque and slowly pick up to open the valve. Allow sufficient time for pressure equalization across the valve. The packer can now be released and removed.

Valve Product No. 667

MODEL "SBV-K" BALL VALVE



"SBV-K" BALL VALVE

The Evolution Ball-Type Safety Valve is designed to thread into the tubing at the rig floor and close quickly in the event a pressure surge occurs from below. After weighting material is added to the well fluids, the valve can then be opened and circulation initiated.
This is a full-opening ball valve. The ball-type design permits it to be compact yet easy to handle and very strong. Standard test pressure is 10,000 psi.

APPLICATIONS

- Functions as mud saver.
- Also functions as an inside blowout preventer.

MODEL "SBV-K" BALL VALVE FEATURES AND BENEFITS

- Constructed of a special grade of alloy steel.
- Extra long bottom sub to accommodate multiple re-threading (USA only)
- The operating ball is constructed of non-corrosive stainless steel.
- Operating wrench and grease fitting included.

MAINTENANCE

Daily maintenance of the ball valve should include operating the valve stem to insure smooth operation. The pipe plug should also be removed and the grease fitting installed so the valve can be lubricated daily. When the grease fitting is removed and the pipe plug reinstalled, the pipe plug should be wrapped with Teflon tape prior to installation.

"SBV-K" BALL VALVE SPECIFICATION GUIDE

Tool	Description	
Size in.	Nominal Tool I.D.	Thread Specification Box Up / Pin Down
2-3/8 60,33	1.94 49,28	2-3/8 EU 8RD 60,33
2-7/8 73,03	2.50 63,50	2-7/8 EU 8RD 73,03
3-1/2 88,90	3.23 82,04	3-1/2 EU 8RD 88,90

*Disclaimer: The Paintearth Ball Type Safety Valve is to be used as a Tubing Safety Valve only as it only holds pressure from below. **(Not to be used as a Kelley Valve)**

MODEL "MWB" CAST IRON BRIDGE PLUG

The Model "MWB" Wireline Set Bridge Plugs are compact, small O.D. and designed for easy drill out. These bridge plugs will set securely in all but the very highest tensile casing. A ratchet lock ring stores the setting force in the plug. The one piece packing element and metal back up rings combine for a superior seal. The case hardened, one piece slips virtually eliminate premature setting, yet can be easily drilled out. They are available for 2-3/8" through 20" casing.

"MWB" BRIDGE PLUG

"MWB" CAST IRON BRIDGE PLUG FEATURES AND BENEFITS

- Sets securely in most casing, including many premium grades.
- Ratchet lock rings secure dynamic setting force.
- One piece packing element and rocker action metal back up rings combined for a superior seal.
- Compact, easy running.
- Can be set directly with Baker wireline setting tools.
- Compatible with existing Baker Style Setting Sleeves and Adjuster Subs.
- 10,000 psi pressure rating at 300°F.
- Higher temperature ratings are available upon request.
- Top equalizing.

APPLICATIONS

- Squeeze cementing
- Fracturing
- Temporary or permanent plug and abandonment

Bridge Iron Product No. 684

MODEL "MWB" CAST IRON BRIDGE PLUG SPECIFICATION GUIDE

Casing O.D.	Casing Weight	Setting. Range		O.D. of Tool	Setting Tool
		Min.	Max.		
in - mm	lbs/ft - kg/m	in - mm	in - mm	in - mm	
2-3/8" 60.33	4.0-5.8 5.95-8.63	1.780 45.21	2.074 52.68	1.75 44.45	#5
2-7/8" 73.00	6.4-6.5 9.52-9.67	2.340 59.440	2.525 64.140	2.22 56.39	#5
3-1/2" 88.90	5.7-10.3 8.48-15.33	2.867 72.822	3.258 82.753	2.75 69.85	#5
4" 101.60	5.6-14 8.33-20.83	3.340 84.836	3.732 94.793	3.14 79.76	#10
4-1/2" 114.30	9.5-16.6 14.14-24.70	3.826 97.180	4.090 103.886	3.59 91.19	#10
5 127.00	11.5-20.8 17.11-30.95	4.154 105.512	4.560 115.824	3.93 99.82	#10
5-1/2" 139.70	13-23 19.34-34.22	4.580 116.332	5.044 128.118	4.31 109.47	#20
5-3/4" 146.05	14-25.2 20.83-37.50	4.890 124.206	5.290 134.366	4.70 119.38	#20
6-5/8" 168.28	17-32 25.30-47.62	5.595 142.113	6.135 155.829	5.37 136.40	#20
7 177.80	17-35 25.30-52.08	6.000 152.400	6.538 166.065	5.68 144.27	#20
7-5/8" 193.68	20-39 29.76-58.03	6.625 168.275	7.125 180.975	6.31 160.27	#20
8-5/8" 219.08	24-49 35.71-72.91	7.310 185.674	8.097 205.664	7.12 180.85	#20
9-5/8" 244.48	29.3-58.5 43.60-87.05	8.435 214.249	9.063 230.200	8.12 206.25	#20
10-3/4" 273.05	32.7-60.7 48.66-90.32	9.660 245.364	10.192 258.877	9.43 239.52	#20
11-3/4" 298.45	38-60 56.54-89.28	10.772 273.609	11.150 283.210	10.43 264.92	#20
11-3/4" 298.45	60-83 89.28-123.50	10.192 258.877	10.772 273.609	9.94 252.48	#20
13-3/8" 339.73	48-84.5 71.42-125.74	12.175 309.245	12.715 322.961	11.88 301.75	#20
16" 406.40	65-118 96.72-175.58	14.576 370.230	15.250 387.350	14.12 358.65	#20
20" 508.00	94-133 139.87-197.90	18.730 475.742	19.124 485.750	18.37 466.60	#20

Bridge Iron Product No. 684

MODEL "MWR" CEMENT RETAINER

The Model "MWR" Wireline or Mechanical Set Cement Retainers are rugged, compact tools engineered for fast running downhole on either rubbing or electric line. Both models feature a positive, pressure balanced sleeve valve which is opened or closed simply by lowering or raising the tubing. Positively secured packing element and one piece slips combine to resist premature setting due to well debris or rough handling and assures protection from the hazards of high speed running in the well. The metal back-up rings prevent extrusion of the rubber at high pressures and temperature. Because of their design, the metal to metal contact developed by these back-up rings is made more secure by pressure increases. An internal ratchet lock ring retains the dynamic force induced in the retainers during the setting operation. This simple mechanism assures continued compression of the packing element regardless of pressure differentials. Case hardened, one piece slips, designed to bite into the hardest casing are located at each end of the retainer.

"MWR" CEMENT RETAINER

"MWR" CEMENT RETAINER FEATURES AND BENEFITS

- Sets securely in most casing, including many premium grades.
- Ratchet lock rings secure dynamic setting force.
- One piece packing element and rocker action metal back up rings combine for a superior seal.
- Compact, easy running.
- Can be set directly with Baker Wireline Setting Tools.
- Compatible with existing Baker Style Setting Sleeves and Adjuster Subs.
- 10,000 psi pressure rating at 300°F
- Higher temperature ratings are available upon request.
- Can easily be converted to from wireline to mechanical set.
- Fin bottom to aid in preventing "spinning" during drillout.

APPLICATIONS

- Squeeze Cementing

Cement Retainer Product No. 682, 649 (wireline), 683, 651 (mechanical)

MODEL "MWR" CEMENT RETAINER
SPECIFICATION GUIDE

Casing O.D.	Casing Weight	Setting. Range		O.D. of Tool	Setting Tool
		Min.	Max.		
in - mm	lbs/ft - kg/m	in - mm	in - mm	in - mm	
2-3/8" 60.33	4.0-5.8 5.95-8.63	1.780 45.21	2.074 52.68	1.75 44.45	#5
2-7/8" 73.00	6.4-6.5 9.52-9.67	2.340 59.440	2.525 64.140	2.22 56.39	#5
3-1/2" 88.90	5.7-10.3 8.48-15.33	2.867 72.822	3.258 82.753	2.75 69.85	#5
4" 101.60	5.6-14 8.33-20.83	3.340 84.836	3.732 94.793	3.14 79.76	#10
4-1/2" 114.30	9.5-16.6 14.14-24.70	3.826 97.180	4.090 103.886	3.59 91.19	#10
5 127.00	11.5-20.8 17.11-30.95	4.154 105.512	4.560 115.824	3.93 99.82	#10
5-1/2" 139.70	13-23 19.34-34.22	4.580 116.332	5.044 128.118	4.31 109.47	#20
5-3/4" 146.05	14-25.2 20.83-37.50	4.890 124.206	5.290 134.366	4.70 119.38	#20
6-5/8" 168.28	17-32 25.30-47.62	5.595 142.113	6.135 155.829	5.37 136.40	#20
7 177.80	17-35 25.30-52.08	6.000 152.400	6.538 166.065	5.68 144.27	#20
7-5/8" 193.68	20-39 29.76-58.03	6.625 168.275	7.125 180.975	6.31 160.27	#20
8-5/8" 219.08	24-49 35.71-72.91	7.310 185.674	8.097 205.664	7.12 180.85	#20
9-5/8" 244.48	29.3-58.5 43.60-87.05	8.435 214.249	9.063 230.200	8.12 206.25	#20
10-3/4" 273.05	32.7-60.7 48.66-90.32	9.660 245.364	10.192 258.877	9.43 239.52	#20
11-3/4" 298.45	38-60 56.54-89.28	10.772 273.609	11.150 283.210	10.43 264.92	#20
11-3/4" 298.45	60-83 89.28-123.50	10.192 258.877	10.772 273.609	9.94 252.48	#20
13-3/8" 339.73	48-84.5 71.42-125.74	12.175 309.245	12.715 322.961	11.88 301.75	#20
16" 406.40	65-118 96.72-175.58	14.576 370.230	15.250 387.350	14.12 358.65	#20
20" 508.00	94-133 139.87-197.90	18.730 475.742	19.124 485.750	18.37 466.60	#20

Cement Retainer Product No. 682, 649 (wireline), 683, 651 (mechanical)

MODEL "SB-2" ANCHOR CATCHER

This rugged "SB2" Tubing Anchor Catcher is proven, efficient, and reliable in years of field service, and can help provide more oil pumping stroke with less maintenance.

MODEL "SB-2" ANCHOR CATCHER FEATURES AND BENEFITS

- The "SB-2" Tubing Anchor Catcher prevents vertical tubing movement and improves pump efficiency during the pumping cycle.
- Reduces down time by eliminating cyclic stress and wear on both rods and tubing.
- When normal release is not possible, emergency releasing at pre-selected loads with an upward pull is provided by a selective shear pin.
- Two sets of Bi-directional wickers in each slip prevent movement upward or downward and hold the tool in place as long as desired. They will also hold parted tubing in place.
- Small outside diameter of anchor catchers permits fast running and retrieving speeds.

"SB-2" ANCHOR CATCHER

OPERATION

To Set: At desired depth, rotate tubing to the left 5 to 8 turns (depending on casing weight) using hand wrenches.

NOTE: Proper torque must be applied when making up tubing joints to prevent back-off when setting the tool with left-hand torque.

To Release: With tubing in slight compression rotate 5 to 8 turns to the right at the tool. If normal release is not possible, emergency shear release may be accomplished with an upward pull which is greater than the total of the shear strength of the pins plus the weight of the tubing.

MODEL "SB-2" TUBING ANCHOR CATCHER RIGHT HAND SET

FEATURES AND BENEFITS

- Designed to run in wells with progressive cavity pump-screw pumps (PCP).
- Anchors tubing so appropriate tension may be applied for the PCP application.
- Catches tubing if parting occurs.
- Provides No-Turn feature for the PCP operation while maximizing pump efficiency and preventing the tubing from unscrewing as a result of right hand torque.

OPERATION

To Set: Use same procedures as Product No. 610 except right hand rotation engages slips with casing.

To Release: Primary release method is the shear release: The alternate method is left hand rotation 5 to 8 turns at the tool.

Anchor Catcher Product No. 610, 611 (BB), 612 (RH SET)

MODEL "SB-2" ANCHOR CATCHER

Casing		Tool Size	Maximum OD Anchor	Recommended Range of Casing I.D.		Maximum Casing I.D. for Safe Setting	Minimum Bore thru Anchor	Thread-Box Up/Pin Down
O.D.	Weight			Min	Max			
in/mm	lb/ft-kg/m		in/mm	in/mm	in/mm	in/mm	in/mm	in/mm
4-1/2 114,30	9.5-13.5 14,14-20,09	43A	3.750 95,25	3.830 97,28	4.090 103,89	4.250 107,95	1.940 49,28	2-3/8 OD EU 8RD 60,33
5 127,00	11.5-18 17,1-26,79	43B	4.000 101,60	4.280 108,71	4.560 115,82	4.560 115,82		
5-1/2 139,70	13-23 19,35-34,22	45A	4.500 114,30	4.670 118,62	5.040 128,02	5.190 131,83	2.375 60,33	2-7/8 OD EU 8RD 73,03
7 177,80	20-32 29,76-47,62	47A	5.550 140,97	6.090 154,69	6.460 164,08	6.600 167,64	2.440 61,98	
	35-38 52,08-56,54		5.50 139,70	5.680 144,27	6.000 152,40	6.550 166,37		
7-5/8 193,68	20-39 29,76-58,09	47B	6.250 158,75	6.410 162,81	7.130 181,10	7.190 182,62		
6-5/8 168,28	17-32 25,30-47,62	Big Bore 47 X 3.00	5.500 139,70	5.675 144,15	6.538 166,07	6.552 166,42	3.000 76,20	3-1/2 OD EU 8RD 88,90
7 177,80	17-38 25,30-56,54							
	17-20 25,30-29,76	Big Bore 47B x 3.00	6.260 159,00	6.413 162,89	7.125 180,98	7.187 182,55		
7-5/8 193,68	20-39 29,76-58,06		5.500 139,70					

Anchor Catcher Product No. 610, 611 (BB), 612 (RH SET)

MODEL "SC-1" ANCHOR CATCHER

The "SC-1" Anchor Catcher is a retrievable double grip tubing anchor designed to anchor the tubing string in tension or compression. When installed with the proper amount of tubing string in tension, this anchor prevents movement of the tubing string during rod pumping operations. This results in more oil production per pump stroke and in turn extends the life of the pump, rods and tubing and decreases the pumping costs.

"SC-1" ANCHOR CATCHER

This anchor catcher incorporates an emergency shear release system which is easily adjustable in the field. Unless otherwise specified, anchors are furnished with a total of 22,000 daN (50,000 lbs) secondary release shears.

The "SC-1" Anchor utilizes drag blocks backed up by Inconel Leaf Springs which results in more positive drag, thus reducing repair costs by at least 50% of the cost for repairing older drag spring designs.

OPERATION

To Set: Install the "SC-1" Anchor Catcher in the tubing string just below or above the pump for the best results, although it may be installed at any point. Run to desired depth and rotate the tubing to the left to set the anchor catcher. The number of turns required will depend on casing weight. When the slips have set the tubing will torque up.

To ensure the anchor slips are solidly engaged with the casing, hold left hand torque on the tubing and set down 4,500 – 6,500 daN (10,000 – 14,500 lbs) of tubing weight. Pick up and set down several times to be sure the Anchor slips are properly set in the casing. Pick up to install the dognut and land the tubing, making sure the tubing is in sufficient tension when landed.

To Release: To pull the "SC-1" Anchor Catcher lower the tubing to release the tension, and rotate to the right while working the tubing up and down slightly. When pulling care should be taken to ensure the tubing is not rotated with left hand torque or it may cause the anchor to reset.

Should the "SC-1" Anchor Catcher fail to release with normal procedures, an upward pull of the tubing string weight, plus the total value of the shear pins will release the anchor.

Anchor Catcher Product No. 672

MODEL "SC-1" ANCHOR CATCHER
SPECIFICATION GUIDE

Casing						
O.D. in - mm	Weight lbs/ft - kg/m	Min. in - mm	Max. in - mm	Anchor O.D. in - mm	Anchor I.D. in - mm	EUE Connection in - mm
4-1/2" 114.3	9.5-13.5 14.14-20.08	3.92 99.57	4.09 103.88	3.75 95.25	1.93 49.02	2-3/8" 60.33
5-1/2" 139.7	17-23 25.30-34.22	4.67 118.62	4.892 124.26	4.50 114.3	2.44 61.98	2-7/8" 73.00
	13-17 19.35-25.30	4.892 124.26	5.044 128.12			
7" 177.8	23-32 34.22-47.62	6.094 154.79	6.366 161.69	5.75 146.05		
	17-20 25.30-29.76	6.456 163.98	6.538 166.07			
	23-32 34.22-47.62	6.094 154.79	6.366 161.69		3.00 76.20	3-1/2" 88.90
	17-20 25.30-29.76	6.456 163.98	6.538 166.07			

Anchor Catcher Product No. 672

MODEL "T-2" ON/OFF TOOL

The "T-2" On/Off Tool is a high pressure, left hand release, tubing disconnect device. It is designed as a two-piece tool, consisting of a running overshot and seal nipple.

"T-2" ON/OFF TOOL

APPLICATIONS

Applications for the "T-2" On/Off Tool include testing, treating, production, completion, and other remedial operations. It is used in operation that require tubing disconnect and re-engagement without disturbing the packer.

"T-2" ON/OFF TOOL FEATURES AND BENEFITS

- 10,000 psi working pressure differential rating.
- Left-hand release; Auto-on.
- Optional Right-hand release.
- Premium tubing connections available upon request.
- Seal nipples available with various profiles.
- Premium seals can be used to improve performance.
- Bonded seals allow multiple disconnects.

"T-2" ON/OFF SPECIFICATION GUIDE

Availability						
Casing OD						
in	4-1/2"	5-1/2"		7"		
mm	114,30	139,70		177,80		
Tubing OD						
in	2-3/8"	2-3/8"	2-7/8"	2-3/8"	2-7/8"	3-1/2"
mm	60,33	60,34	73,03	60,34	73,03	88,90

On/Off Tool Product No. 574 (Overshot), 571, 572 (Seal Nipple)