



DESCRIPTION

The Paintearth "A2" 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.

The Paintearth "A2" 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.

PAINTEARTH "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.

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 setdown weight sets 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 upstrain of 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.

**PAINTEARTH "A-2"
LOCK SET**

MODEL PAINTEARTH "A-2" LOCK SET PACKER

PRODUCT No. 608, 609 (BB)



PAINTEARTH "A-2" LOCK SET PRODUCTION PACKER SPECIFICATION

| 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 | 3.910 | 4.000 | 43A2 | 3.771 | 3.687 | 4.207 | 3.750 |
| | 17,11-22,32 | 99,31 | 101,60 | | 95,78 | 93,65 | 106,86 | 95,25 |
| 5 127, 00 | 9.5-10.5 | 4.001 | 4.090 | 43A4 | | | | 3.938 |
| | 14,14-15,62 | 101,63 | 103,89 | | | | | 100,03 |
| 5 127, 00 | 15-18 | 4.250 | 4.408 | 43B | 4.125 | 4.062 | 4.582 | 4.125 |
| | 22,32-26-78 | 107,95 | 111,96 | | 104,78 | | | |
| 5 1/2 139, 70 | 11.5-15 | 4.408 | 4.560 | 43C | 4.250 | 4.437 | 5.221 | 4.500 |
| | 17,11-22,32 | 111,96 | 115,82 | | 107,95 | | | |
| | 26 | | | | | | | |
| | 38,69 | | | | | | | |
| 5 1/2 139, 70 | 20-23 | 4.625 | 4.778 | 45A2 | 4.500 | 4.437 | 5.221 | 4.500 |
| | 29,76-34,22 | 117,48 | 121,36 | | 114,30 | | | |
| | 15.5-20 | 4.778 | 4.950 | 45A4 | 4.641 | | | |
| | 23,06-29,76 | 121,36 | 125,73 | | 117,88 | | | |
| 6 152, 40 | 13-15.5 | 4.950 | 5.190 | 45B | 4.781 | 4.437 | 5.221 | 4.688 |
| | 19,34023,06 | 125,73 | 131,83 | | 121,44 | | | |
| 6-5/8 168, 28 | 26 | | | | | 5.562 | 6.665 | 5.500 |
| | 24 | 5.830 | 5.937 | 47A2 | 5.656 | | | |
| | 35,71 | 148,08 | 150,80 | | 143,66 | | | |
| 7 177, 80 | 17-20 | 5.938 | 6.135 | 47A4 | 5.812 | 5.562 | 6.665 | 5.936 |
| | 25,30-29,76 | 150,83 | 155,83 | | 147,62 | | | |
| | 38 | 5.830 | 5.937 | 47A2 | 5.656 | | | |
| | 56,54 | 148,08 | 150,80 | | 143,66 | | | |
| | 32-35 | 5.938 | 6.135 | 47A4 | 5.812 | | | |
| | 47,62-52,08 | 150,83 | 155,83 | | 147,62 | | | |
| | 26-29 | 6.136 | 6.276 | 47B2 | 5.968 | | | |
| 38,69-43,15 | 155,85 | 159,41 | | 151,59 | | | | |
| 7 5/8 193, 68 | 23-26 | 6.276 | 6.366 | 47B4 | 6.078 | 6.200 | 7.303 | 6.375 |
| | 34,22-38,69 | 159,41 | 161,70 | | 154,38 | | | |
| | 17-20 | 6.456 | 6.578 | 47C2 | 6.266 | | | |
| 7 5/8 193, 68 | 25,30-29,76 | 163,98 | 167,08 | | 159,16 | 6.200 | 7.303 | 6.375 |
| | 33.7-39 | 6.579 | 6.797 | 47C4 | 6.453 | | | |
| | 50,15-58,03 | 167,11 | 172,64 | | 163,91 | | | |
| | 24-29.7 | 6.798 | 7.025 | 47D2 | 6.672 | | | |
| 7 5/8 193, 68 | 35,71-44,19 | 172,67 | 178,44 | | 169,47 | 6.200 | 7.303 | 6.375 |
| | 20-24 | 7.025 | 7.125 | 47D4 | 6.812 | | | |
| 7 5/8 193, 68 | 29,76-35,71 | 178,44 | 180,98 | | 173,02 | | | |

NOTE: Casing weights highlighted in Grey are available in 7.5k and 10k bores. Weights highlighted in Red are available in 7.5K only. Casing weights shaded and in WHITE text are currently unavailable.

RETRIEVABLE PRODUCTION PACKERS

