

Well Construction

Downhole Service Tools

Standard Composite Cement Retainer & Bridge Plug

The Expro Standard Composite Cement Retainer is a nonmetallic high-quality tool primarily used for squeeze cementing. It has multiple uses, including primary and remedial cementing, well control, and temporary abandonment.

The composite retainer exhibits dramatically decreased removal times compared to standard cast iron retainers, resulting in longer bit life and decreased casing wear due to removal. This is achieved by the nonmetallic composition of the retainer, which provides faster drillability without sacrificing performance. The high-tech materials that make up the components of the composite retainer resist corrosion, are lightweight, and ensure a longer life in high-temperature wells.

Features and benefits

- Can be drilled out with PDC, conventional tricone, or junk-mill bits
- Consists of composite material with only minimal ferrous metal content
- Unique slip design (tested and field-proven in Q-125 casing)
 - Combines reliable casing bite characteristics with quick drillability
- Packing elements
 - Maintain integrity without the need for adding cement above the plug
 - Provide complete isolation and high drilling performance
- Design reduces drillout time, resulting in shorter rig times and less likelihood of casing damage



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Composite Cement Retainer

Specifications						
Casing size (in.)	Weight (lbs/ft)	Casing I.D. range	O.D. (in.)	Setting tool	Max. temperature (°F)	Max. pressure (psi)
4 1/2	9.5 - 15.1	3.820 - 4.090	3.61	#20 WLAK, Hydraulic, or Mechanical Setting Tool	250	10,000
5	11.5 - 18	4.276 - 4.560	3.93		250	10,000
5 1/2	13 - 23	4.670 - 5.044	4.31		250	10,000
5 3/4	17 - 22.5	4.860 - 5.190	4.50		250	10,000
6 5/8	17 - 34.5	5.580 - 6.130	5.38		250	10,000
7	17 - 35	6.000 - 6.530	5.69		250	10,000
7 3/4	46.1 - 52.5	6.250 - 6.560	6.00		250	10,000
7 5/8	20 - 39	6.620 - 7.250	6.31		250	10,000
8 5/8	24 - 52	7.430 - 8.090	7.12		250	8,000
9 5/8	29.3 - 61.1	8.370 - 9.060	8.12		250	8,000
10 3/4	32.7 - 60.7	8.370 - 9.060	9.44		250	5,000
11 3/4	38 - 60	9.660 - 10.192	10.43		250	4,000
13 3/8	48 - 72	10.772 - 11.150	12.00		250	3,000

Operational temperature range can be adjusted based on elastomeric material compound.

Composite Bridge Plugs

Specifications							
Casing size (in.)	Weight (lbs/ft)	Casing I.D. range	O.D. (in.)	Length (in.)	Setting tool	Max. temperature (°F)	Max. pressure (psi)
2-3/8	4.700	1.992 - 1.995	1.750	16.380	#5 WLAK / Long Stroke, or Multi-Stage Setting Tool	300/400	10,000
2-7/8	6.4 - 7.9	2.32 - 2.44	2.440	17.500		300/400	10,000
3-1/2	12.95	2.750	2.500	17.500		300/400	10,000
3-1/2	9.3 - 10.2	2.92 - 2.99	2.730	17.500		300/400	10,000
3-1/2	7.70	3.070	2.830	17.500	300/400	10,000	
4	9.5 - 11.0	3.48 - 3.55	3.190	23.880	#10 WLAK / Long Stroke, or Multi-Stage Setting Tool	300/400	10,000
4-1/2	18.8 - 20.0	3.640	3.380	23.880		300/400	10,000
4-1/2	15.1 - 17.1	3.75 - 3.83	3.440	23.880		300/400	10,000
4-1/2	9.5 - 13.5	3.92 - 4.09	3.570	23.880		300/400	10,000
5	23.20	4.040	3.570	23.880		300/400	10,000
5	11.5 - 18.0	4.28 - 4.56	3.920	23.880		300/400	10,000
5-1/2	23.0 - 26.8	4.50 - 4.67	4.130	23.800		300/400	10,000
5-1/2	15.5 - 20.0	4.78 - 4.95	4.300	23.800		300/400	10,000
5-1/2	14.00	5.010	4.600	23.800	#20 WLAK / Long Stroke, or Multi-Stage Setting Tool	300/400	10,000
7	23.0 - 32.0	6.09 - 6.37	5.750	24.000		300/400	10,000
7	17.0 - 20.0	6.46 - 6.54	5.950	24.000		300/400	10,000
7-5/8	24.0 - 33.7	6.77 - 7.03	6.250	24.000	300/400	10,000	

Operational temperature range can be adjusted based on elastomeric material compound.