### **Tool Specification**

# PureFlow Cementing Tool

Our PureFlow<sup>™</sup> cementing tool is designed specifically for the challenges of mono-bore horizontal multistage fracturing completions. The PureFlow stage tools' specifications for burst, collapse, and tensile ratings go well beyond industry standard and meet or exceed API5CT.

The PureFlow cementing tool can be installed at any wellbore inclination and is opened with internal casing pressure. Removable shear pins allow the operator to select the most appropriate opening and closing pressures for the job.

The closing plug drives the closing sleeve down, sealing the cementing ports and permanently locking the sleeve in the closed position.

The PureFlow can be installed in conjunction with our liner hanger product suite when combined with a special set of latch-in wiper plugs.

#### Applications

- Mono-bore horizontal multistage fracturing completions
- Open-hole liner hanger installations requiring cemented build sections
- Completion systems requiring API5CT-rated cementing accessories up to and exceeding 15K
- Primary cementing in wells with inclinations up to 90°
- Selective cementing or placement of treating fluids
- Operations needing alternative fluid paths above casing inflatable tools

#### **Features and benefits**

- Minimal internal components that require millout to gain full access through the cementing tool, significantly reducing millout time and debris
- Industry-leading flow area through the cementing ports
- Seals for the closing sleeve do not travel with the closing sleeve, negating the risk of extruding and failing the seals seen in competitor stage cementing tools
- Rated to 10K differential pre-millout, enabling operators to achieve a casing integrity pressure test above the cementing tool prior to millout
- Customizable closing wiper plugs for 4.50 in., 5.50 in., and 4.50 in. x 5.50 in.
- Compatible with our field-proven liner hanger systems with a custom liner wiper plug specifically designed for the closing seat of the PureFlow cementing tool
- Standard materials are L-80 and P-110
- Standard threads are LTC and BTC
- Premium materials, threads, and elastomers available upon request





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<b>Size</b> in. (mm)	<b>Weight range</b> lb/ft (kg/m)	Grade	Max. OD in. (mm)	<b>Min. ID</b> in. (mm)	<b>Burst (closed)</b> ksi (MPa)	<b>Collapse</b> (closed) ksi (MPa)	<b>Tensile</b> <b>Strength</b> kip (k.daN)	<b>Length</b> in. (m)	<b>Port flow area</b> in <sup>2</sup> (mm <sup>2</sup> )
4.500 (114.30)	11.6 (17.26)	L-80	5.875 (149.23)	3.936 (99.97)	9.47 (65.3)	8.47 (58.4)	294.0 (130.8)	45.9 (1.17)	7.10 (4,580)
4.500 (114.30)	13.5 (20.09)	L-80	5.875 (149.23)	3.820 (97.03)	11.80 (81.4)	10.30 (71.0)	353.5 (157.2)	43.9 (1.11)	7.10 (4,580)
4.500 (114.30)	15.1 (22.47)	L-80	5.875 (149.23)	3.760 (95.50)	12.90 (88.9)	11.10 (76.5)	353.5 (157.2)	43.9 (1.11)	7.10 (4,580)
4.500 (114.30)	13.5 - 15.1 (20.09 - 22.47)	P-110	5.875 (149.23)	3.820 (97.03)	18.46 (127.3)	16.08 (110.9)	488.3 (217.2)	43.9 (1.11)	7.10 (4,580)
5.500 (139.7)	20 (29.76)	L-80	7.250 (184.15)	4.720 (119.89)	10.80 (74.5)	9.50 (65.5)	495.0 (220.2)	49.0 (1.24)	9.46 (6,100)
5.500 (139.7)	20 (29.76)	P-110	7.250 (184.15)	4.720 (119.89)	14.81(102.1)	13.05 (89.9)	681.0 (302.9)	49.0 (1.24)	9.46 (6,100)
5.500 (139.7)	23 (34.23)	L-80	7.250 (184.15)	4.600 (116.84)	12.80 (88.3)	11.30 (77.9)	561.0 (249.5)	49.0 (1.24)	9.46 (6,100)
5.500 (139.7)	23 (34.23)	P-110	7.250 (184.15)	4.600 (116.84)	17.57 (121.2)	15.15 (104.5)	771.0 (343.0)	49.0 (1.24)	9.46 (6,100)

Note: Ratings exclude end connections.



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