

Tubing-Fill Test Valve

Fill and pressure test tubing while running in hole

APPLICATIONS

- Reservoir testing
- Downhole testing
- Deviated and deepwater wells
- HPHT wells
- Completion operations

BENEFITS

- Automatic filling feature saves time in the hole
- No activation required before pressure testing

FEATURES

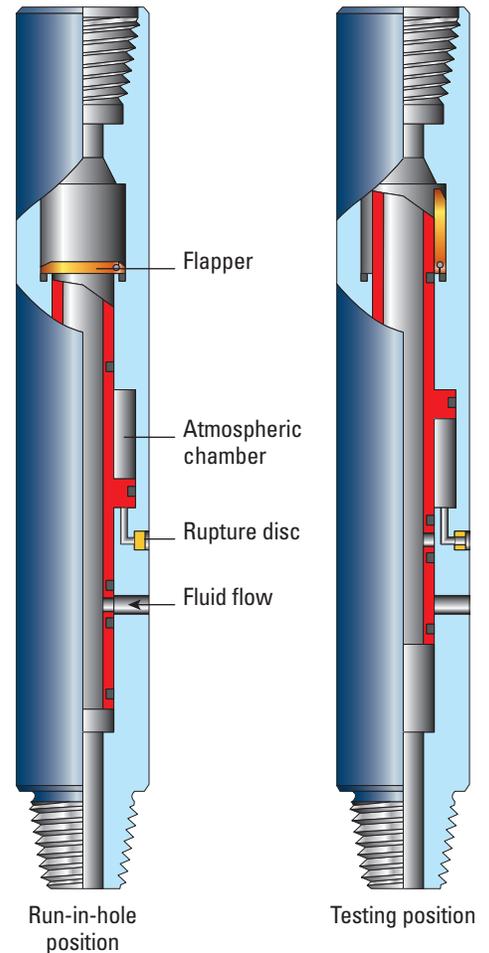
- Reliable flapper valve design
- Fluid enters through the bypass ports
- Flapper permanently locked open by rupturing a disc
- Fullbore access through the flapper when opened

The tubing-fill test valve (TFTV) enables filling and testing the tubing while running in the hole.

As the string is lowered into the hole, fluid enters the tubing through the TFTV bypass ports. The fluid creates a differential pressure that causes the flapper to open and then fills the tubing.

The tubing can be tested at any depth by pressuring-up on the tubing string against the flapper valve. When the test string is at depth, annulus pressure is applied to rupture a disc, causing the flapper to lock fully open. Once the flapper is open, the tool has fullbore access.

The TFTV-F is the standard 5-in OD by 2.25-in fullbore ID tool. The slimhole version, TFTV-G, has a 3.125-in OD and a 1.125-in ID; it is suitable for downhole testing applications where casing is smaller than 7 in. The TFTV-H is part of the large-bore with a 7-in OD and a 3.5-in ID. The TFTV-H is used for tests with high flow rates, long-duration tests, and through-tubing operations.



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Specifications

Model	TFTV-F	TFTV-G	TFTV-HK
OD, in [mm]	5 [127]	3.125 [79]	7.0 [177.8]
ID, in [mm]	2.25 [57]	1.125 [28.6]	3.5 [88.9]
Pressure ratings			
Differential, psi [MPa]	15,000 [103]	15,000 [103]	12,000 [827]
Max. on annulus, psi [MPa]	25,000 [172]	20,000 [138]	20,000 [1,379]
Max. in tubing, psi [MPa]	29,000 [200]	29,000 [200]	20,000 [1,379]
Temperature rating, degF [degC]	425 [218]	425 [218]	350 [177]
Service (NACE MR0175)	H ₂ S, acid	H ₂ S, acid	H ₂ S, acid
Tensile strength at min. yield, lbf [kN]	350,000 [1,557]	160,000 [712]	480,000 [217,728]
Length, ft [m]	5.63 [1.72]	5.47 [1.67]	8.62 [2.63]
Weight, lbm [kg]	280 [127]	105 [48]	800 [362.88]
Connection	3½ IF or PH-6	2¾ Reg or PH-6	5.0 Hydril Wedge 563

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