

RD Series Wireline Retrievable, Isolation Valve (1-in. OD)

Provides a smooth transition from blanking off the tubing for production until gas lift valves are required for unloading onshore unconventional wells

Applications

- Sealing off the pocket of the side-pocket mandrel to prevent communication between casing and tubing
- Blanking off the tubing for production until gas lift valves are required
- Pressurizing the tubing
- Isolating tubing and casing flow during single-alternative production and for test purposes during multipoint water- or gas-injection floods

Features and Benefits

- Valves can be manufactured from stainless steel, Monel[®], or other special alloy materials to fit well conditions and reduce nonproductive time
- Two sets of packing straddle and pack off casing ports to equalize casing and tubing pressure and enable the equalizing prong to be retrieved
- RD series dummy valves accept most common top latches and install in most mandrel pockets to provide greater operational flexibility and improve efficiency

Tool Description

The Weatherford McMurry-Macco[®] RD series wireline retrievable isolation valves are installed in a side pocket mandrel to block the mandrel injection ports. The dummy valve, with an appropriate latch, can be installed or retrieved in the well completion for various well servicing operations.

Weatherford RD gas lift valves can be provided to meet API 19G2 V-1 certification, currently the highest standard in the industry.



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Options

- Integral bottom collect latch available
- Special packing seals available for most requirements

Specifications

Valve OD	Ab Effective Bellows Area	Valve Series Model	Port Size in. (mm)	Ap* Area of Port in. (mm)	Ap/Ab Ratio	1-(Ap/Ab)	PPEF** Ap/Ab 1-(Ap/Ab)
1.0 in. (25.4 mm)	0.31 in. (200.0 mm)	R-1 R-1D	1/8 (3.18)	0.013 (8.4)	0.042	0.958	0.044
			5/32 (3.97)	0.021 (13.55)	0.067	0.933	0.072
			3/16 (4.76)	0.029 (18.71)	0.095	0.905	0.105
			1/4 (6.35)	0.052 (33.55)	0.166	0.834	0.199
			5/16 (7.94)	0.08 (51.61)	0.257	0.743	0.346
		R-1HV	3/8 (9.53)	0.114 (73.55)	0.368	0.632	0.582
1.5 in. (38.1 mm)	0.77 in. (496.8 mm)	R-2 R-2B	3/16 (4.76)	0.029 (18.71)	0.038	0.962	0.04
			1/4 (6.35)	0.052 (33.55)	0.067	0.933	0.072
			5/16 (7.94)	0.08 (51.61)	0.104	0.896	0.115
			3/8 (9.53)	0.114 (73.55)	0.148	0.8	0.174
			7/16 (11.11)	0.154 (99.35)	0.2	0.739	0.25

