

ISO Extreme Retrievable Well Barrier

Creates a VO-rated barrier that isolates the wellbore without the need for a nipple profile

Applications

- Packer setting and completion installation
- Contingent plugging of completions with damaged nipples
- Temporary zonal isolation and plugging
- Hanging of completion accessories within the tubing string
- Temporary well suspension
- Pressure testing of production tubing and packer setting
- Wellhead repair and replacement

Features and Benefits

- The ISO Extreme retrievable well barrier meets ISO 14310 V0 standards for high-performance reliability.
- The 10,000-psi (69-MPa) pressure rating provides high-integrity sealing to minimize loss-of-containment risk and associated health, safety, and environmental risks.
- Retrieval is achieved using an internal sleeve that is shifted down to equalize the pressure and then sheared up to release, minimizing the risk of the plug releasing before equalization.
- An internal and external fish neck provides options for removal.
- The short maximum running OD enables passage through wellbore restrictions.
- The tool enhances operational flexibility by enabling deployment on industry-standard-setting tools on any conveyance means.
- The element booster system traps boost pressure into the elements for higher-pressure and -temperature applications.
- Rotational locking during milling operations facilitates removal if it is not possible to retrieve the plug conventionally.
- Optimized slip and casing contact minimizes potential damage to tubing.
- Through the ports, the flow area exceeds the ID area to mitigate the risk of debris plugging the well barrier in overbalanced situations.
- The plug releases with as little as 3,000 lb (1,361 kg) to allow for the use of slickline for retrieval.
- The plugs are compatible with existing standard and trip-saver junk catchers to minimize inventory requirements.
- Body lock rings in the slip system prevent re-engagement of the slips after release.



ISO Extreme well barrier creates a VO rated barrier to isolate the wellbore temporarily.



ISO Extreme Retrievable Well Barrier

Tool Description

The Weatherford ISO Extreme retrievable well barriers are set on electric line, slickline, tubing, or coiled tubing (CT) to temporarily isolate the well. The high-performance HNBR packing element provides a VO-rated seal that holds pressure from above and below while protecting the bidirectional, low-stress slip system from debris contamination. The plug is easily retrieved on tubing, CT, or slickline with a standard GS retrieval tool. An external fish neck serves as an alternative retrieval method. Once the retrieval tool engages the top of the plug, jarring down will shear an equalizing valve that locks in the *open* position. Straight pull releases the plug, and a release-retention system maintains run-in diameter of the plug for easy removal from the wellbore.

Specifications

Casing/Tubing			Maximum OD	To Pass Restriction	Length	Temperature Rating ^(b)	ISO Validation Grade	Pressure Rating Above	Pressure Rating Below
Size	Weight	ID Range							
2-7/8 in. ^(a) (73.03 mm)	6.4 to 8.7 lb/ft (9.5 to 12.9 kg/m)	2.373 to 2.494 in. (60.27 to 63.35 mm)	2.280 in. (57.91 mm)	2.313 in. (58.75 mm)	98.1 in. (2,491.7 mm)	40 to 325°F (4 to 163°C)	VO	10,000 psi (69 MPa)	10,000 psi (69 MPa)
3-1/2 in. ^(a) (88.90 mm)	9.2 to 9.3 lb/ft (13.7 to 13.9 kg/m)	2.93 to 3.06 in. (74.37 to 77.75 mm)	2.720 in. (69.09 mm)	2.750 in. (69.85 mm)	98.1 in. (2,491.7 mm)	40 to 325°F (4 to 163°C)	VO	10,000 psi (69 MPa)	10,000 psi (69 MPa)
4-1/2 in. (114.30 mm)	11.6 to 13.5 lb/ft (17.3 to 20.1 kg/m)	3.853 to 4.069 in. (97.87 to 103.35 mm)	3.650 in. (92.71 mm)	3.688 in. (93.68 mm)	98.3 in. (2,496.8 mm)	40 to 325°F (4 to 163°C)	VO	10,000 psi (69 MPa)	10,000 psi (69 MPa)
	13.5 to 15.1 lb/ft (20.1 to 22.5 kg/m)	3.752 to 4.019 in. (95.30 to 102.08 mm)	3.600 in. (91.44 mm)	3.630 in. (92.20 mm)					
5-1/2 in. (139.70 mm)	17 to 23 lb/ft (25.3 to 34.2 kg/m)	4.578 to 4.976 in. (116.28 to 126.39 mm)	4.470 in. (113.54 mm)	4.562 in. (115.87 mm)	103.6 in. (2,631.4 mm)	40 to 325°F (4 to 163°C)	VO	10,000 psi ^(c,e) (69 MPa)	10,000 psi ^(c,e) (69 MPa)
			4.530 in. (115.06 mm)					10,000 psi ^(c) (69 MPa)	10,000 psi ^(c) (69 MPa)
	23 to 26 lb/ft (34.2 to 38.7 kg/m)	4.445 to 4.765 in. (112.90 to 121.03 mm)	4.380 in. (111.25 mm)	4.410 in. (112.01 mm)				10,000 psi ^(c,d) (69 MPa)	10,000 psi (69 MPa)
			4.445 to 4.665 in. (112.90 to 118.49 mm)	4.280 in. (108.71 mm)				4.312 in. (109.52 mm)	
7 in. (177.80 mm)	23.0 to 29.0 lb/ft (34.2 to 43.2 kg/m)	6.087 to 6.466 in. (154.61 to 164.24 mm)	5.940 in. (150.88 mm)	6.000 in. (152.40 mm)	133.6 in. (3,393.44 mm)	40 to 325°F (4 to 163°C)	VO	10,000 psi ^(c,d) (69 MPa)	10,000 psi ^(c,d) (69 MPa)
	29.0 to 38.0 lb/ft (43.2 to 56.6 kg/m)	5.801 to 6.208 in. (147.35 to 157.68 mm)	5.720 in. (145.29 mm)	5.750 in. (146.05 mm)					

(a) Currently in development and testing – specifications are subject to change

(b) 40°F requires a change of elastomers

(c) 275°F

(d) 8,000 psi at 325°F

(e) 8,000 psi in 17# max ID

