

Thru Tubing Inflatable Retrievable Packer

Product Family H33001

Applications

- Chemical stimulation, inhibition, water shut off treatments
- Pressure testing operations
- Selective well monitoring and testing
- Hole hunting / leak testing

Features and benefits

- Inflatable packing element allows large expansion ratios so the tool can be set below the production tubing
- Single trip to set, treat and release enables more efficient operation
- Does not require a rig on location, reducing operating costs

The **Pull to Equalize Retrievable Packer with Hydraulic Lock** provides a means of performing remedial and stimulation operations in wells without pulling the production tubing. An inflatable packing element on the packer is sized to pass through the production tubing, pack off the casing below and then return back to its original size when deflated so the packer can be retrieved back through the production tubing. The Packer operates with tubing pressure and a limited amount of tubing manipulation so it can be run on coiled tubing as well as threaded tubing.

The Packer has a Hydraulic Lock mechanism that carries the load of the packer while going into the hole preventing the shear screws from being loaded. When pressure is applied to set the packer the Hydraulic Lock is released allowing for the manipulation of the packer mandrel to the equalizing position and onto the release position. The packer can be run without the hydraulic lock if desired.

The Packer features a pull equalization function generally used prior to deflation. When it is desired to equalize across the packer, tension is applied to the tubing to shear the screws to open ports above the packer. After Equalization has occurred, setdown weight is applied to the packer and then tension re-applied to the packer to the shear releasing sleeve shear screws in order to deflate and retrieve the packer.



Size – Tool OD (in.)	1.69	2.13	2.50	3.00	3.38	4.25	5.38	5.75
Chassis OD (in.) (mm)	1.69 (43)	2.13 (54)						
Inflatable Element Length (in.) (ft)	48.00 (4.00)	66.13 (5.51)						
Tool Length (in.) (ft)	108.36 (9.03)	142.80 (11.90)						
Tensile Rating (above the inflatable element) (lb) (kg)	18,700 (8,500)	34,250 (15,568)						
Tensile Rating (through mandrel) (lb) (kg)	5,300 (2,410)	14,900 (6,773)						
*Maximum Pressure Rating (psi) (bar)	5,500 (379)	6,000 (414)	6,500 (448)	8,000 (552)	8,500 (586)			
Maximum Temperature Rating (°F) (°C)	300 (149)							
Maximum Expansion ID (in.) (mm)	4.892 (124)	6.765 (172)	8.681 (221)		9.760 (248)		12.415 (315)	
Maximum Restriction to pass through (in.) (mm)	1.75 (44)	2.19 (56)	2.56 (65)	3.06 (78)	3.44 (87)	4.31 (109)	5.44 (138)	5.81 (148)
Service	Standard & H ₂ S							

*This pressure is rated at minimal expansion. Pressure ratings decrease as element expansion increases.

Hole size element is to be set in (in./mm)

Element (in./mm)	OD	2.375	2.875	3.500	4.000	4.500	5.000	5.500	6.625	7.000	7.625	8.625	9.625	10.750	11.750	13.375
	ID	1.995 (51)	2.441 (62)	2.992 (76)	3.548 (90)	3.958 (101)	4.276 (109)	4.892 (124)	5.921 (150)	6.094 (155)	6.765 (172)	7.511 (191)	8.681 (221)	9.760 (248)	10.772 (271)	12.415 (315)

Maximum applied differential pressure (psi/bar)

Maximum temperature (°F/°C)

1.69 (42.9)	psi	5,500	5,500	4,600	3,200	2,600	2,200	1,700									
	bar	(379)	(379)	(317)	(221)	(179)	(152)	(117)									
	°F	300	300	300	300	300	250	250									
	°C	(149)	(149)	(149)	(149)	(149)	(121)	(121)									
2.13 (54.1)	psi		6,000	6,000	5,500	4,300	3,600	2,600	1,600	1,500	1,000						
	bar		(414)	(414)	(379)	(297)	(248)	(179)	(110)	(103)	(69)						
	°F		300	300	300	300	300	300	280	280	280						
	°C		(149)	(149)	(149)	(149)	(149)	(149)	(138)	(138)	(138)						
2.50 (63.5)	psi			6,500	6,500	6,300	5,500	4,200	2,500	2,300	1,800	1,550	1,300				
	bar			(448)	(448)	(434)	(379)	(290)	(172)	(159)	(124)	(107)	(90)				
	°F			300	300	300	300	300	300	280	280	260	260				
	°C			(149)	(149)	(149)	(149)	(149)	(149)	(138)	(138)	(127)	(127)				
3.00 (76.2)	psi				8,000	8,000	8,000	8,000	4,900	4,550	3,400	2,500	1,600				
	bar				(552)	(552)	(552)	(552)	(338)	(314)	(234)	(172)	(110)				
	°F				300	300	300	300	300	300	280	260	240				
	°C				(149)	(149)	(149)	(149)	(149)	(149)	(138)	(127)	(149)				
3.38 (85.9)	psi				8,500	8,500	8,500	8,500	6,500	6,200	4,900	3,700	2,450	1,700			
	bar				(586)	(586)	(586)	(586)	(448)	(428)	(338)	(255)	(169)	(117)			
	°F				300	300	300	300	300	300	300	280	280	275			
	°C				(149)	(149)	(149)	(149)	(149)	(149)	(149)	(138)	(138)	(135)			
4.25 (108.0)	psi							8,500	8,500	8,500	6,550	4,900	3,300	2,350			
	bar							(586)	(586)	(586)	(452)	(338)	(228)	(162)			
	°F							300	300	300	300	280	280	280			
	°C							(149)	(149)	(149)	(149)	(138)	(138)	(138)			
5.38 (136.7)	psi								8,500	8,500	8,500	8,100	5,950	4,700	3,800	2,800	
	bar								(586)	(586)	(586)	(559)	(410)	(324)	(262)	(197)	
	°F								300	300	300	300	300	280	280	280	
	°C								(149)	(149)	(149)	(149)	(149)	(138)	(138)	(138)	
5.75 (146.1)	psi								8,500	8,500	8,500	8,500	6,850	5,350	4,350	3,200	
	bar								(586)	(586)	(586)	(586)	(472)	(369)	(300)	(221)	
	°F								300	300	300	300	300	280	280	260	
	°C								(149)	(149)	(149)	(149)	(149)	(138)	(138)	(127)	

Reduce pressure ratings by 20% for H2S service elements. Standard service elements use high strength alloys but are susceptible to stress corrosion cracking (SCC) in H2S and other highly corrosive environments. H2S service elements use nickel alloy materials that meet the requirements of NACE MR0175. For element ratings in different IDs in different IDs from above, contact your local BHGE representative.