

Burst Port System-Integrated Seat (BPS-iS)

BPS-iS is a toe initiation valve with an integrated seat and ball isolation mechanism. It allows the casing string to be pressure-tested to pressures above the toe-valve initiation pressure. After flow is initiated, a ball is dropped, lands on the seat, and isolates the nozzle section. This operation allows pressure-testing of the casing. Post testing, the ball dissolves and passes through the seat enabling flow to resume.



Features

- Toe valve with an integrated ball/seat isolation mechanism
- Tool activated with applied pressure at surface
- No moving parts
- Millable seat
- Full ID after optional seat mill out
- Dissolvable activating ball
- Manufactured to match casing size, weight, material, and thread type
- Customized rupture discs for desired opening pressure and flow area

Benefits

- Decouples casing pressure test and flow initiation operation
- No costly intervention for activation or re-establishment of flow
- Simple integrated design with no complex operations sequencing
- Can be run as part of a variety of multistage fracturing systems
- Significant cost and time savings compared to traditional toe perforation methods

Applications

- Wells that require 100% casing pressure integrity testing
- Areas where flow initiation pressures cannot exceed test pressures
- Cemented or open hole multistage completions
- Toe frac initiation for plug and per applications
- High temperature applications up to 450°F (232°C)

Burst Port System-Integrated Seat (BPS-IS) Specifications

Technical data

Sizes in.	Casing size in. (mm)	Length ¹ in. (mm)	OD in. (mm)	ID ² in. (mm)	Maximum pressure	Number of ports ³	Flow area per port in. ² (cm ²)
3.500	3.500 (88.90)	27.70 (703.58)	4.500 (114.30)	As per casing weight	Limited by casing pressure	Up to 24	0.15 (0.97)
3.500 (Slim-Hole)	3.500 (88.90)	33.00 (838.20)	3.531 (89.69)	1.800 (45.72)	Limited by casing pressure	Up to 24	0.15 (0.97)
4.500	4.500 (114.30)	18.00 (457.20)	5.750 (146.05)	As per casing weight	Limited by casing pressure	Up to 25	0.15 (0.97)
4.500 (Slim Hole)	4.500 (114.30)	25.12 (638.05)	5.250 (133.35)	3.410 (86.61)	Limited by casing pressure	Up to 25	0.15 (0.97)
5.000	5.000 (127.00)	18.80 (477.52)	5.900 (149.86)	As per casing weight	Limited by casing pressure	Up to 25	0.15 (0.97)
5.000 (Slim Hole)	5.000 (127.00)	25.00 (635.00)	5.600 (142.24)	3.875 (98.43)	Limited by casing pressure	Up to 25	0.15 (0.97)
5.500	5.500 (139.70)	20.00 (508.00)	7.000 (177.80)	As per casing weight	Limited by casing pressure	Up to 24	0.15 (0.97)
5.500 (Slim Hole)	5.500 (139.70)	22.50 (571.50)	6.375 (161.93)	As per casing weight	Limited by casing pressure	Up to 24	0.15 (0.97)
6.000	6.000 (152.40)	27.80 (706.13)	7.500 (190.50)	As per casing weight	Limited by casing pressure	Up to 24	0.15 (0.97)
6.625	6.625 (168.28)	26.00 (660.40)	8.100 (205.74)	As per casing weight	Limited by casing pressure	Up to 24	0.15 (0.97)

1 Premium threading will affect overall length

2 Minimum ID through the seat is customizable based on pressure differential requirements

3 Number of ports can be modified in design, consult applications for more options