

SIMplus retrievable bridge plug

Creates a reliable, high-performance seal barrier in dynamic downhole pressure and temperature environments



Nominal tubing size:
2 7/8 in to 7 in [73 to 178 mm]



Certification:
ISO 14310:2008 and API Specification 11D1 validation grade V3



Temperature:
up to 300 degF [149 degC]



Differential pressure:
up to 7,500 psi [51.7 MPa]

Applications

- Certified well barrier during well suspension for completion, workover, and well maintenance
- Zonal isolation for leaks, water or gas shutoff, or stimulation
- Packer setting for deployment of flow control devices and straddles
- Deployment of shut-in tools and gauges for production testing

How it improves wells

The SIMplus* retrievable bridge plug is an expandable elastomeric barrier that creates a reliable, high-performance downhole seal even in dynamic environments with cycling downhole pressure and temperature. It offers excellent operational flexibility, high assurance, and conformance to the most stringent well barrier criteria whilst its debris-tolerant design also limits solids ingress and assures recovery reliability. The bridge plug can also function as a packer for deployment of a wide range of inflow control devices including downhole chokes and check valves and for the suspension of shut-in tools and downhole gauges.

The large inside diameter (ID) of the SIMplus bridge plug also makes this sealing system ideal for modular straddle applications including slickline-conveyed gas lift and sandscreen deployments.



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How it works

The SIMplus bridge plug can be set mechanically with slickline and all standard setting tools at any chosen depth within the completion tubing or liner without the requirement for a nipple profile. Available in all industry sizes from 2 7/8 in up to 7 in, it can be deployed by all conventional conveyance methods including slickline, e-line, coiled tubing, drillpipe, and tractor. Additionally, it has multiple equalizing assembly options to suit well and operational conditions, including melon, prong, or pump open-type systems.

The SIMplus bridge plug can be recovered using a conventional GS-type pulling tool on any conveyance method.

SIMplus Bridge Plug Technical Information

Nominal Tubing Size, in	Weight, lbm/ft [kg/m]	Plug OD, in [mm]	Plug ID, in [mm]	Length, in [mm]	ISO 14310:2008 V3 Qualification		
					Differential Pressure, psi [MPa]	Temperature Range, [†] degF [degC]	Max. Setting ID, in [mm]
2 7/8	6.4 [9.5]	2.22 [56.4]	0.781 [19.8]	54 [1,372]	7,500 [51.7]	104–300 [40–149]	2.493 [63.3]
3 1/2	9.2–10.2 [13.7–15.2]	2.72 [69.1]	1.259 [32]	61 [1,549]	5,000 [34.5]	104–300 [40–149]	3.046 [77.4]
4 1/2	11.6–15.1 [17.3–22.5]	3.65 [92.7]	2.000 [50.8]	59 [1,499]	5,000 [34.5]	104–300 [40–149]	4.030 [102.4]
5 1/2	15.5 [23]	4.53 [115.1]	2.362 [60]	61 [1,549]	5,000 [34.5]	104–300 [40–149]	5.030 [127.8]
	17–20 [25.3–29.8]	4.53 [115.1]	2.362 [60]	61 [1,549]	5,000 [34.5]	104–300 [40–149]	4.975 [126.4]
	23 [34.2]	4.45 [113.0]	2.362 [60]	61 [1,549]	5,000 [34.5]	104–300 [40–149]	4.765 [121.0]
7	29–32 [43.2–47.6]	5.72 [145.3]	2.362 [60] [‡]	63 [1,600]	5,000 [34.5]	104–300 [40–149]	6.293 [159.8]
	23–26 [34.2–38.7]	5.84 [148.3]	2.362 [60] [‡]	63 [1,600]	5,000 [34.5]	104–300 [40–149]	6.465 [164.2]

[†] Contact a Schlumberger representative for operations outside this temperature range.

[‡] 3.15-in [80.01-mm] ID available on request.

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Additional information

This ISO 14310:2008 V3 product is manufactured to level 3 quality grade for performance tracking and traceability (other grades available on request). Components are manufactured in 17-4 PH stainless steel and rated for limited sour service deployment. Tools meeting full NACE MR0175 specification are available on request.

The bridge plug is simple to redress in the field, minimizing asset requirements, NPT, and providing greater operational flexibility.

The takeaways

The SIMplus retrievable bridge plug offers a reliable and retrievable well barrier or flow control deployment system for a variety of hole sizes, temperatures, and pressures. Deployment and retrieval are simple and can be done using conventional tools.

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