

i-Close

i-Close is a sliding sleeve designed to be run in open position as a part of the completion string to allow for communication between tubing and annulus during deployment. This allows for self-filling of the tubing and circulation during running in hole until the sleeve is closed. To close the tool, a dissolvable ball is dropped from surface and circulated to the integral ballseat in the i-Close. Upon ball seating, hydraulic pressure is applied to the tubing and the sleeve closes. The activation ball used is typically made from a dissolving material, which allows full access through the i-Close once the ball has dissolved.

The design allows for using the i-Close also when a tubing tail plug or similar is installed below the i-Close, where a small volume sump is present below the ball after the sleeve has closed. The i-Close has been tested and qualified according to ISO 14998 Annex A & D to grade V0. This means that after closing, the i-Close can be used to form part of the gas tight well barrier between tubing and annulus, allowing other completion or nipping operations to proceed without installing additional barriers. The i-Close can also be deployed in applications both in upper and lower completion strings where an injection or production point is required and it is desirable to be able to close it without intervention.

Features

- Run in hole in open position allowing displaced fluid to enter tubing
- Remotely closed with dissolving ball dropped from surface
- ISO 14998 V0 Annex A & D qualified
- Available in multi open/close versions

Benefits

- Allows completion to be run open-ended, limit flow past production packer
- Intervention less completion operations
- Form part of well barrier envelope during well construction or intervention phase
- Allows mechanical manipulation during the life of the well



Technical Data

Parameter	i-Close 450	i-Close 550
Max OD in. (mm)	5.760 (146.30)	8.25 (209.55)
Min ID in. (mm)	2.650 (67.31)	4.90 (124.50)
Thread configuration	Box x Box	Box – Box
Thread size	4.5"	5.5"
Thread weight	12.6#	20#
Thread type*	TSH Blue	Vam Top HC
Length in. (mm)	73.90 (1877)	81 (2057)
Weight (kg)	125	270
Burst Pressure (psi)	10,000	10,000
Collapse Pressure (psi)	7,500	10,000
Tension/Compression	288,000	500,000 lbf
Make-up torque internal threads (max)	9,000 ft. lbs	20,000 ft. lbs
Working temperature (°F)	275	275
Flow area – Bore	5.98 in ²	18.85 in ²
Flow area – Ports	9.18 in ²	14.17 in ²

*All thread types available upon request

Materials	
Inner Sleeve/End subs	13%Cr, L-80
Housing	13%Cr, L-80