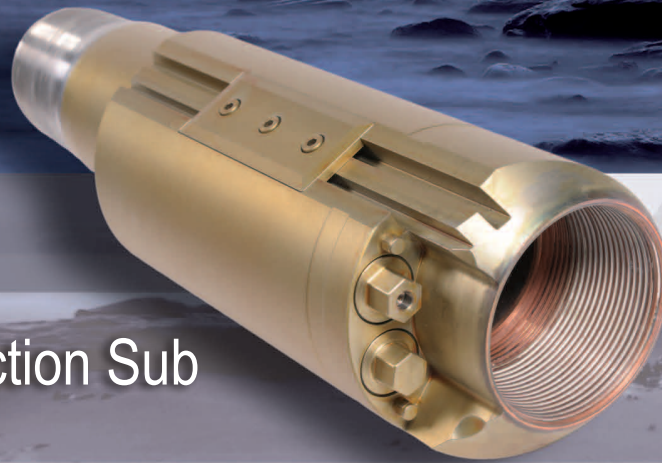


CIS

Chemical Injection Sub

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CIS

With Dual SafeLift CIS System

The The PTC Chemical Injection Sub (CIS) represents a new generation of injections subs, which is designed with the intention of function as a primary barrier in a producing hydrocarbon well.

The Chemical Injection Sub includes a shear-out system, allowing for performing a pressure test of the injection system before the injection starts.

Chemicals are injected through a dual Chemical Injection Valve system (SafeLift-CIS) inside the sub. The valves operate with a high opening pressure, before injection will start. The high opening pressure will reduce the risk for the chemicals to start u-tubing due to hydrostatic height.

DESIGN SPECIFICATIONS	
Description	760CIS0800092
Service	H ₂ S Sour Service
Material	AISI 410S (13 % Cr) L80 S13Cr or Inconel 718
Maximum OD	8.0"
Total Length	18.9"
Tubing Threads	4½" 12,6# Vam Top HC Cleanwell Box PIN* *Other threads available on request
Operating Pressure	345 bar [5 000 PSI]
Operating Temperature	55 °C to 121 °C
Shear Pressure	75 - 560 bar [1 100 - 8 100 PSI]
Elastomer on Shear-out Device	H-NBR
Bypass for Control Lines	2 X 11mm X 11mm (up to 6 on request)
Control Line Connection	¼" FJM-Connection
Valve Type	SafeLift-CIS
Primary Seal	Metal to Metal
Valve Size	1.0"
Valve Material	Inconel 718
Valve Operating Pressure	345 bar [5 000 PSI]
Valve Opening Pressure	3 - 120 bar [50 - 1 750 PSI]
Valve Certification/Qualification	ISO 17078-2 ISO 14310-V1/V0 ISO 15156