

LINER DEPLOYED SAGD FCD (S-FCD)

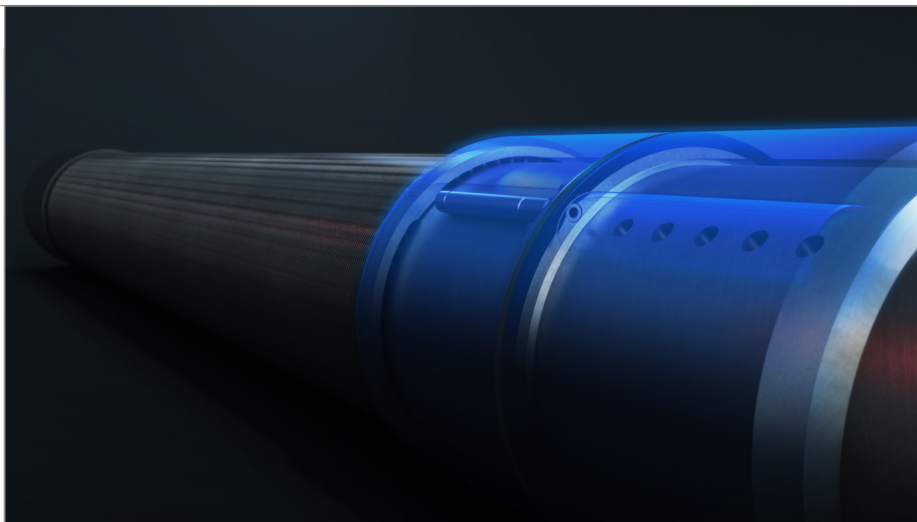
Steam limiting flow control device

APPLICATIONS

- Production wells requiring steam and sand control
- Openhole standalone completions
- Thermal and steam-assisted gravity drainage (SAGD) wells
- Vertical, deviated, and horizontal wells.

FEATURES & BENEFITS

- SAGD specific flow control system
- Balanced production from heel to toe resulting in better oil recovery.
- Faster production ramp up with lower Steam to Oil ratio.
- Strength and accuracy of Pangea direct wrap screens.
- High resistance to steam and low resistance to liquids, allowing wider completion design window.



The SAGD specific FCD was developed by the leading operators in Canada to namely limit steam breakthrough into SAGD producing wells. The S-FCD has shown superior performance to other commercially available FCDs that were designed for non-thermal applications. The results have been confirmed in stringent laboratory testing replicating downhole SAGD conditions and field trials. Simply put, the S-FCD has shown improved conformance and oil recovers, reduced steam requirements, and faster production ramp up.

How S-FCD works

The SAGD specific FCD uses the phase-change property of water at subcool conditions to create increased back pressure when operating at or near saturation point. Within the FCD a restriction is introduced that causes an increase in velocity. As per Bernoulli's principle velocity and pressure are inversely proportional to each other. The reduction in pressure leads to phase change from liquid to gas creating increased pressure dropped across the device. The pressure drop is significantly higher when the produced fluid/emulsion is at or near saturation.

Integrated FCD and screen media

As part of the Steelhaus Technologies family, Pangea is uniquely positioned to integrate most advanced FCDs with robust screens. At the Pangea manufacturing center, based in Calgary, is vertically integrated and utilize conveyor belt setup that promotes efficiency and reduces pipe handling. We manufacture our own slip-on punch screen with our in-house spiral welders, produce highly accurate Direct Wire Wrap screens and we machine all components.

LINER DEPLOYED SAGD SPECIFIC FCD

Basepipe Pipe Specification mm [in]	Sand Control Type	Slot Size	Screen Length m[ft]	Screen Material	Number of Nozzles
As per request or client supplied	Direct Wire Wrap Precision Punch Premium Mesh	As per request	1 to 9 [3.3 to 29.5]	304L	1 to 4

