

TUBING DEPLOYED M-TOOL

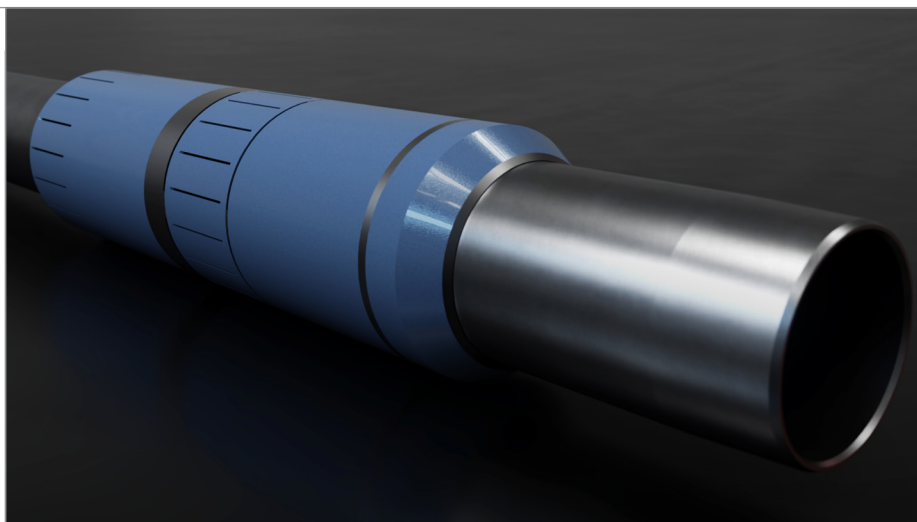
Steam limiting flow control device

APPLICATIONS

- Vertical, deviated, and horizontal wells.
- Production wells requiring steam and sand control
- Re-completion of thermal and steam-assisted gravity drainage (SAGD) wells

FEATURES & BENEFITS

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



The Tubing Deployed M-Tool provides the flexibility to enhance the performance of existing SAGD or thermal wells. The M-Tool was developed by the leading operators in Canada to namely limit steam breakthrough into SAGD producing wells. The M-Tool 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.

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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

