



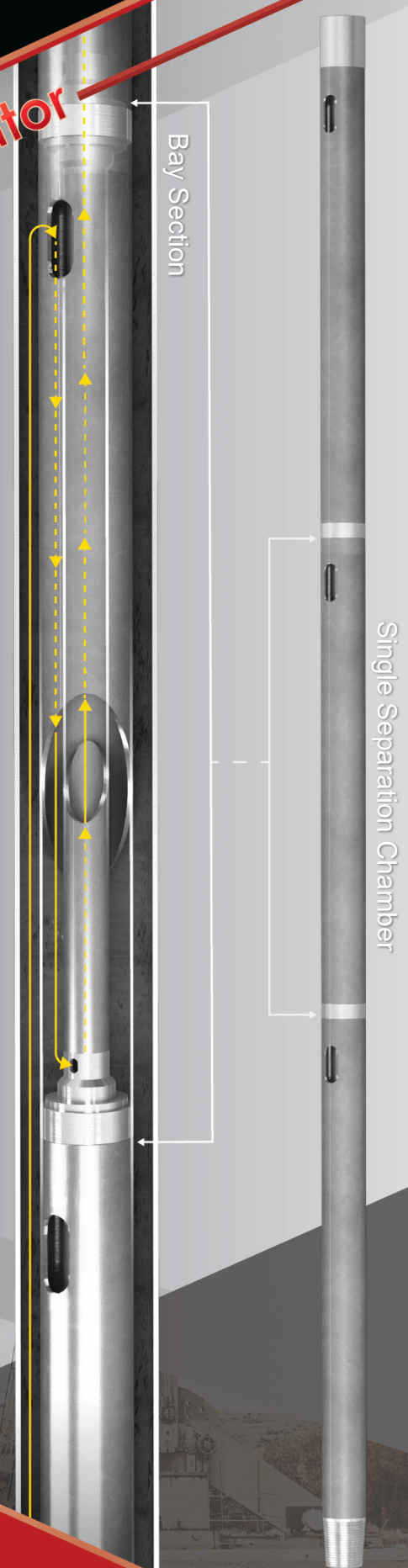
Multi-Stage Limited-Entry Separator

Technical Data Sheet

The new Multi-Stage Limited-Entry (MSLE) Gas Separator is designed to deliver equal fluid intake across multiple separation chambers. Further, they are designed to force a liquid-loaded state surrounding the entire separation stack through Annular Velocity Disruption (AVD) stages, resulting in a higher fluid concentration at each intake.

Designs will vary depending on wellbore conditions and volumes, but these units are capable of up to ~350 bfpd at 1.0"/second drop velocity or up to ~700 bfpd at 2.0"/second drop velocity.

Even in the most adverse bottom-hole conditions, expect exceptionally high efficiency out of these extremely heavy-built units.



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Multi-Stage Limited-Entry Separator

The **MSLE** can be run in a variety of configurations:

- 1.) The first option calls for running the **MSLE** separator with an Isolation-Ancor below the separator and can then be easily combined with a desander or other sand filtering device.
- 2.) The second option is to run a Slimline TAC below the MSLE.
- 3.) The last option calls for a TAC to be run well above the MSLE, in more of a “traditional” placement.

Specifications - 3.5" MSLE

OD - Couplings	3.600"
OD - Outer barrel	3.500"
ID - Outer barrel	2.625" (0.4375" WT)
Tool Total Weight	10 chamber = 1350 lbs.
Length - ea. section (double/triple stack sections; typically stack 3 or 4)	~20-22'
Inner - Tube material v4.1	Schedule 80 316L SS
Coupling and Nipple Threads	2-7/8" EUE L80 8th API
Elastomer Materials	High Temp Viton 75
Capacity 7-Stage (bbls/d)*	242 @ 1.0" / sec
Capacity 7-Stage (bbls/d)	484 @ 2.0" / sec
Capacity 10-Stage (bbls/d)	690 @ 2.0" / sec
Capacity 10-Stage (bbls/d)	345 @ 1.0" / sec

Lengths

Outer Barrel (per chamber)	72.0" or 120.0" each
Typical OA Length (7 & 10 chamber)	7 chamber = ~62' OA 10 chamber = ~78' OA



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