

SMARTSTART PLUS® TIME DELAY TEST + FRAC VALVE

Start your completion off right

SmartStart PLUS® Time Delay Test + Frac Valve is a time delayed pressure-activated sliding sleeve that eliminates the need for tubing-conveyed perforating when completing the toe stage of horizontal wells. This enables you to better meet maximum casing pressure test requirements.

- Optional Time Delay setting of 15, 30, 45 or 60 minutes allows operator to exceed regulatory casing integrity test requirements
- Advanced Port Jetting™ Technology improves injectivity to formation
- One piece mandrel design provides a very robust tool that withstands burst pressure excess of 20,000 psi
- Opening sequence is controlled by a fit for purpose rupture disc that is designed to resist plugging or bridging at the membrane
- Mandrel design with TORQ Thru[™] Technology maintains casing string integrity and yield torque ratings. The tool can be "through torqued" onto the casing string for ease of make up
- Exceeds all safety and environmental standards



Packing lots of utility in a small footprint, Smartstart PLUS® is a reliable and cost-effective alternative for long, horizontal stage-1 completions.



TC-MV-577-0000

TC-MV-575-0000

SMARTSTART PLUS® 15 TIME DELAY TEST + FRAC VALVE Connection Max Min Make Up Delay Flow **Torque Rating** Working Temp. **Part Number** O.D. Length (ft) Min. Rating ft/lbs Pressure Size Area TC-MV-450-0000 15,000 19,000 45 5.65 3 34 6.00 15 325°F 6.8 TC-MV-450-0000-SE 4.5 5.65 3.34 6.00 15 375°F 6.8 15,000 19,000 TC-MV-455-0000 5.0 5.65 3.34 6.00 15 325°F 6.8 15,000 19,000 5.65 TC-MV-455-0000-SE 5.0 3.34 6.00 15 375°F 6.8 15,000 19,000 TC-MV-551-0000 5.5 6.5 3.75 5.25 15 325°F 7.5 20.000 21.000 TC-MV-551-0000-SE 5.5 6.5 3.75 5.25 15 375°F 7.5 20,000 21,000 TC-MV-570-0000 5.5 7.38 4.60 5.25 15 325°F 7.5 20,000 20,000

5 25

5.25

15

15

75

7.5

375°F

325°F

20,000

20,000

20,000

23,000

SMARTSTART PLUS® 30 TIME DELAY TEST + FRAC VALVE									
Part Number	Connection Size	Max O.D.	Min I.D.	Make Up Length (ft)	Delay Min.	Temp. Rating	Flow Area	Torque Rating ft/lbs	Working Pressure
TC-MV-450-0000-EX	4.5	5.65	3.34	6.00	30	325°F	6.8	15,000	19,000
TC-MV-450-0000-EX-SE	4.5	5.65	3.34	6.00	30	375°F	6.8	15,000	19,000
TC-MV-455-0000-EX	5.0	5.65	3.34	6.00	30	325°F	6.8	15,000	19,000
TC-MV-455-0000-EX-SE	5.0	5.65	3.34	6.00	30	375°F	6.8	15,000	19,000
TC-MV-551-0000-EX	5.5	6.88	3.75	5.25	30	325°F	7.5	20,000	21,000
TC-MV-551-0000-EX-SE	5.5	6.88	3.75	5.25	30	375°F	7.5	20,000	21,000
TC-MV-570-0000-EX	5.5	7.38	4.60	5.25	30	325°F	7.5	20,000	20,000
TC-MV-577-0000-EX	5.5	7.38	4.67	5.25	30	375°F	7.5	20,000	20,000
TC-MV-575-0000-EX	5.5	7.50	4.50	5.25	30	325°F	7.5	20,000	23,000

For more information, and to find a representative near you, visit nineenergyservice.com

7.38

7.50

5.5

5.5

4 67

4.50

 $^{^{\}ast}$ 45 and 60 minute tools are available upon request