

Eliminator[®] M Stage Tool Models 751E, 752E, 751PD, and 752PD

Enables stage cementing operations through use of a mechanically operated port system

Applications

- Stage cementing necessitated by weak formations or well hydrostatics
- Stage cementing with a packer to isolate weak formations below
- Selective formation cementing

Features and Benefits

- The tool reduces total pumping and hydrostatic pressure on weak zones and prevents lost circulation during cementing.
- The compact, simple design minimizes the number of moving parts, which provides a reliable stage tool.
- Increased wall thickness provides superior strength.
- Clear opening and closing indicators at the surface enable safe and efficient operations.
- The locking and anti-rotation devices accelerate drillout and save costly rig time.
- Circulating pressures are not limited by the stage tools because the tools are only activated by the opening cone.

Tool Description

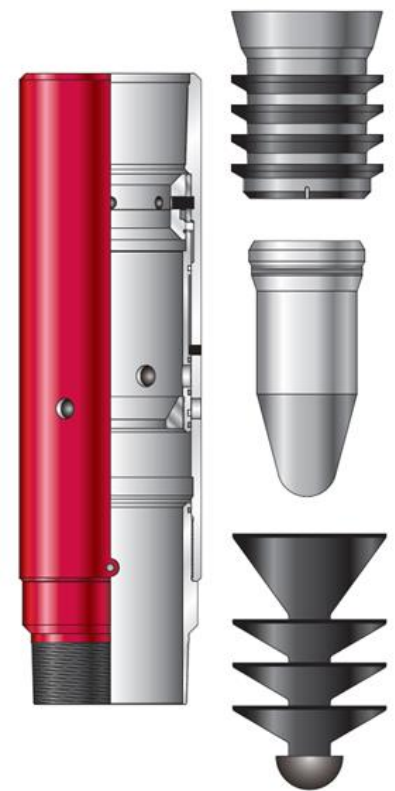
The Weatherford Eliminator M Stage Tool Models 751E, 752E, 751PD, and 752PD facilitate stage cementing through use of a mechanically opened port system.

For two-stage cementing operations, the first-stage cement slurry is pumped and displaced. To open the stage tool ports, a free-fall opening cone is dropped, and pressure is applied once the cone reaches the stage tool. The pressure shifts an internal unitary sleeve downward and aligns the ports on the sleeve with ports on the external stage tool body. Flow is then established with the annulus, and the second stage is pumped. A closing plug is pumped down the casing and is bumped on a closing seat. The bumping pressure releases locking lugs, moves the unitary sleeve downward, and closes the stage tool ports.

For three-stage operations, an additional free-fall cone and flexible closing plug are used once the second stage is complete.

Options

- Custom sizes, materials and threads are available upon request.
- Plug sets are available.
- Viton[®] seals are available for high-temperature applications.



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Viton is a registered trademark of DuPont Performance Elastomers L.L.C.

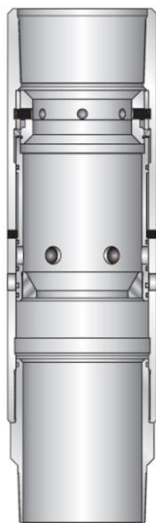
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Specifications

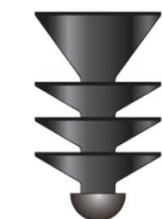
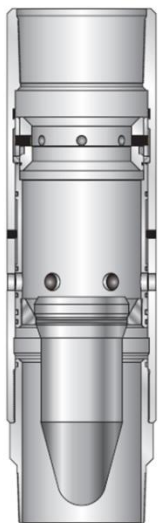
Size range	4 1/2 to 24 in. (114.3 to 609.6 mm)
Temperature rating for HNBR seals (standard)	350°F (177°C)
Temperature rating for Viton seals (special order)	400°F (204°C)

Application and Plug Set Guide

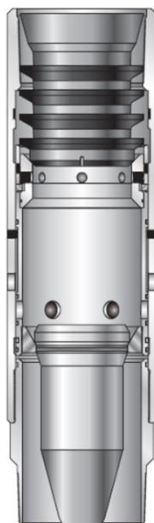
Model	Application	Plug Set
Model 751E	Two-stage cementing	First-stage plug, 751E free-fall opening cone, and 751E closing plug
	Pumpdown opening or continuous two-stage cementing	751E-2C bypass plug and 751E pumpdown opening plug
	Use of two-plug first-stage system	751E-2B bypass plug, shut-off plug and baffle
	Stage cancellation	751E-2D cancellation cone
Model 752E	Three-stage cementing	752E free-fall opening cone and 752E flexible closing plug
	Three-stage cementing, pumpdown opening, or continuous lower-stage cementing	752E-3C bypass plug and 752E pumpdown opening plug
Model 751PD	PDC drillable version of Model 751E	Same as Model 751E
Model 752PD	PDC drillable version of Model 752E	Same as Model 752E



Ports closed:
running in
hole



Ports open: cementing



Ports closed:
cementing
complete

The drawing at left illustrates the port opening and closing sequence.

