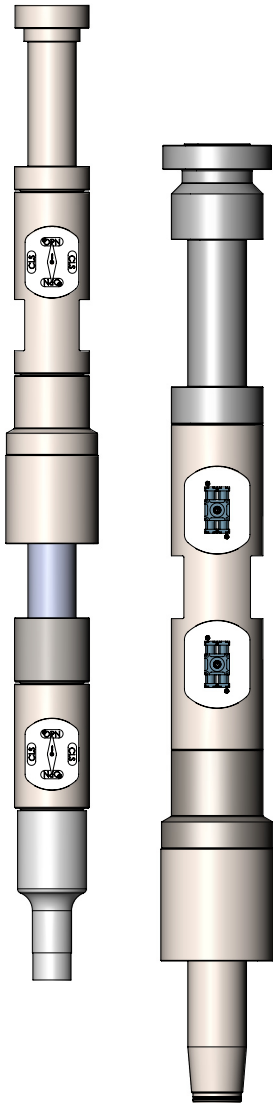


SURFACE TEST TREE (FLOWHEAD)



The M&M Oil Tools surface test tree, or flowhead, is used for well control during deep water completion operations. Our quality design is lightweight and compact, fitting through most v-doors. The surface test tree also comes with landing string crossovers; and is adaptable to different configurations. Designed to meet API 6A requirements.

DESCRIPTION:

- 750-ton capacities
- 6.0" & OR 6.5" internal diameter
- 15,000 OR 20,000 psi working pressure designs

COMPONENTS:

- 7-1/16, 15M, OR 20M
- 750-ton capacity integral lift sub
- Dual hydraulically actuated 6.0", OR 6.5", 15M WP, OR 20M WP internal diameter EZ-FLOW Cartridge™ ball valve, with closed and open position indicators
- Dual opposing 3-1/16 15M WP OR 20M WP side port flanges
- 750-ton load cylindrical roller bearing swivel; designed to operate under tension or compression

The surface test tree utilizes M&M's patented EZ-FLOW CARTRIDGE valve; its unique floating ball and spring loaded seat design forces pressure and flow through the seat, not around its exterior. This eliminates unreliable single direction seat seals, erosion and fouling/binding frequently seen in competitive designs. Our floating vented ball and double floating seats guarantee differential pressure by acting only across the downstream side of the ball and seat to minimize the load, prevent distortion of the ball and protect seat support arms. These features, combined with a proprietary stem bearing, reduce the torque required to operate the valve by 50% compared to other designs.

M&M's API Q-1 Quality Management System provides full traceability. Drillpipe threads conform to API 7-1. Each valve is provided with material certificates, test reports and Certificate of Conformance.

