# MISSION Roughneck White Lightning Bonded Full Open Drilling Valve

The MISSION<sup>™</sup> Roughneck<sup>™</sup> White Lightning bonded valve sets a new industry standard to meet the challenges of today's vast array of hostile drilling conditions encountered by drilling contractors worldwide.

The MISSION Roughneck White Lightning bonded valve features the following:

- Drilling valve design based on the field proven technology of the MISSION Roughneck full open valve.
- The proprietary geometry of the valve allows movement in seat during operation which prevents mating of the contacting surfaces. This attribute slows fluid channel formation when solids embedment occurs for extended run times.
- Bonded design prevents fluid migration between the metal valve body and elastomer seal.



Description	Series 6 (or API 6) part number	Series 7 (API 7) part number	Series 8 (or API 8) part number
WL White Lightning	9700602WL	9700601WL	9700606WL
Standard urethane	9700602	9700601	9700606
BL Black Lightning	9700602BL	9700601BL	9700606BL

#### **Design benefits**

- Cutting edge design slows development of wear points on the valve and valve seat for extended service life.
- Precision machined components for a close tolerance fit.
- Ideal for use in higher horsepower pumps, with pressures to 7500 psi and in mud temperatures up to 230°F (110°C).

#### **Added value**

- Uniform loading of the fluid end taper increasing fluid end life
- Design features of the valve extends the life of the valve and seat even in high solids environments

### Flexibility

- The Bonded Roughneck Valve is also available in standard urethane good to180°F (82°C).
- A Black Lightning<sup>™</sup> version is also available, which is suited for fluid temperatures up to 300°F (149°C) for applications such as geothermal drilling.



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