

SPM® EXL Plug Valve

Longer life and reliable sealing performance in harsh pumping operations

WEIR

Oil & Gas



Design Features

- Robust forging with enhanced material specification and “true-bore” I.D.
- Improved grease distribution and convenient access points
- Free-floating plug design provides reliable, adjustment-free operations
- Improved sealing design for better performance across low and high pressures
- Bottom access and engineered tools for convenient maintenance
- Robust actuators for more rapid actuation
- CE and DNV certification available

The SPM® EXL plug valve is designed to provide longer life and reliable sealing performance in harsh pumping operations. The design of the valve includes a robust forged body with internal geometry designed to provide long life, and reduce flow turbulence and pressure drop through the valve. Unique sealing features, highlighted on the back page, also provide superior sealing performance across low and high pressure applications.

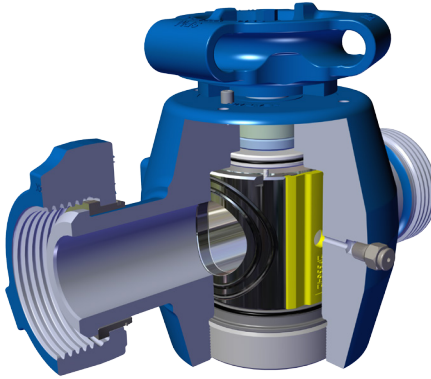
Grease distribution is critical to the life of a plug valve. It improves sealing performance, reduces friction resulting in lower torque required to actuate, and fills voids around internal components where entrapped corrosive fluids could stagnate between pumping operations. The SPM® EXL plug valve facilitates exceptional grease distribution through the utilization of dual side-entry grease inserts paired with a channelled plug that allows for improved, uniform fill.

First available in 3-inch 1502/15K configurations, the SPM® EXL plug valve is available with hammer union or SPM® Safety Iron® end connections, and can be equipped with a manual, gear/wheel or hydraulic actuator.

Patents pending



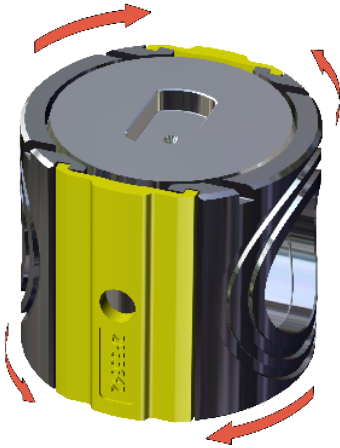
The SPM® EXL Plug valve has a redesigned gear actuator which reduces the overall stack height by 2.74 in / 69.2mm



Sealing Enhancements

- The SPM® EXL plug valve features a floating plug designed to provide reliable alignment and adjustment-free operation
- The two-piece plug features a decoupled plug and stem, allowing superior floating capability which is important in seal alignment
- A thrust bearing is utilized to facilitate plug rotation with lowered torque requirement
- The valve utilizes dual engineered face seals on the seal segments
 - The dual static face seals incorporate a self-energizing uni-directional design, each optimized to seal in one direction, to allow for superior sealing in both low- and high-pressure applications
- Allows for the removal of the weep feature found on the seal segments in the legacy valve, eliminating a typical entry path for contaminants to enter the valve
- A self-energized dynamic seal around plug is created through uniquely designed elastomer side segments
- The SPM® EXL valve's proprietary design utilizes seal segments that are preloaded to the plug through elastomer side segments to provide an initial seal between the dynamic seal surfaces to eliminate sand trapping, decrease washouts and enhanced low-pressure sealing performance
- Plug is nickel plated for corrosion resistance and reduced friction for a lower torque requirement to actuate

Patents pending



Elastomer side segments interlock with seal segments to provide 900-lb. pre-load force

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