

PRESSURE-DRILL W™ Welded HP Drilling Riser



SRP have developed the PRESSURE-DRILL W for use in production and drilling riser applications. The flange is suitable for full-bore, medium to high pressure applications, typically working pressures of 4,000psi - 10,000psi.

SRP's PRESSURE-DRILL W's are optimized designs drawing on years of experience and current industry best-practice. With detailed finite element analysis, SRP develop compact flange face designs with optimized face contact profiles to maximize flange capacity for dynamic loading. Flange preload values are carefully optimized to minimize the number of bolts whilst ensuring flange face contact and sealing in the most extreme loading conditions. This results in a compact flange with up to half the required bolts compared to an API flange. Coupled

with a 100% bolt tensioning system, the make-up time is comparable to low pressure drilling riser connection types.

The flange uses high strength bolts or studs, which are manufactured with tight control on chemical composition and heat treatment to reduce the risk of stress corrosion cracking. These bolts are retained in the flange to ensure there are no loose parts, thus reducing the handling requirements on the drill floor.

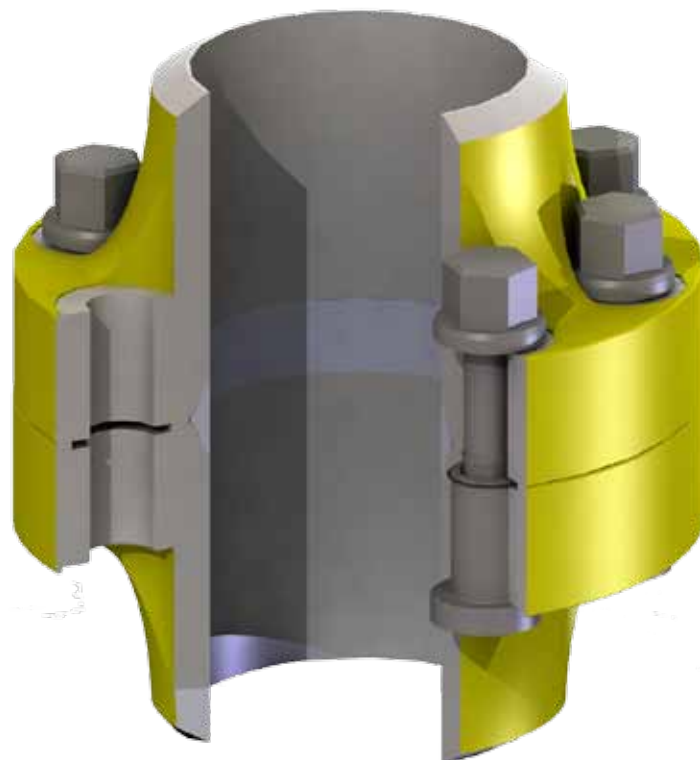
The transition between pipe and flange neck is optimized to minimize stress concentrations due to geometry and improve fatigue resistance.

COMMERCIAL ADVANTAGES

- Material savings of up to 20% through efficient design.
- Fast delivery through use of a flexible supply chain.
- Fewer bolts enables significant time savings during make/break.
- 100% single-pass flange make-up using bespoke tension tooling, further reducing make/break times.

TECHNICAL ADVANTAGES

- Compact flange provides low weight connection enabling deepwater application.
- Bespoke designs optimize the flange to achieve better, more reliable, welded connections.
- High bending and tension capacity, enabling shallow and deep water service.
- High pressure capability up to 10,000psi with 21" bore (for above 10,000psi please refer to SRP PRESSURE-DRILL-SF).
- Technology proven in extreme environments.



FEATURES AND FUNCTIONALITY

The PRESSURE-DRILL-W is an optimized bolted design for use on all types of riser systems without the need for specialist personnel to run the riser. Metal to metal gas tight sealing using standard bore seals provides robust and reliable sealing. Back seat test ports allow the correct seating of the gasket to be verified before the riser joint leaves the drill floor.

Internal handling grooves allows the use of a hydraulically operated running tool for running and retrieving the riser.

The flanges can be bolted together using specially designed multi-section tensioning tools to further increase the rate of connection.

APPLICATIONS

- High pressure drilling risers in shallow or deepwater.
- Full bore shallow water drilling risers to 10,000psi operating pressure.
- Highly loaded regions of production Top Tensioned Risers (TTR).



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