

PRESSURE-DRILL™ SF SHRINK-FIT HP Drilling Riser

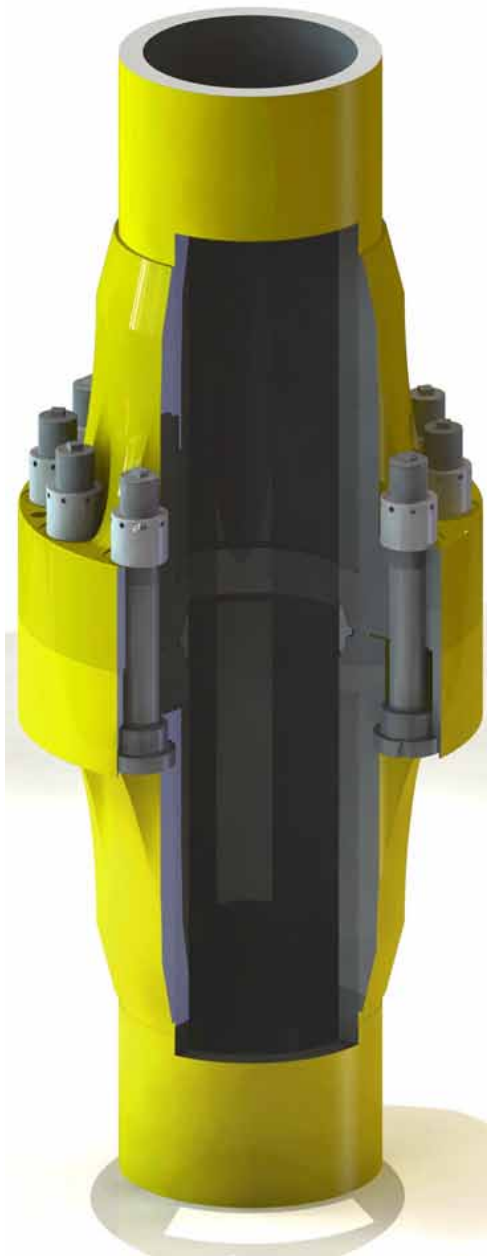


SRP produces a patented PRESSURE-DRILL SF product for use in critical production and drilling riser applications. The flange is thermally shrunk onto the pipe without the need for welding, enabling the use of high strength, thick wall or dissimilar metals that would present a significant weld qualification challenge. A machined profile, secondary lock mechanism and friction fit combine to provide pressure ratings in excess of 15,000psi.

The proven shrink-fit process generates a high integrity connection with respect to sealing, strength and fatigue, without the need for welding. The process

is quick, reliable and repeatable; a single assembly jig can load, position, heat, shrink, cool and unload a joint within 24 hours. Multiple jigs can easily be assembled in a small production area for fast assembly and short schedule requirements at low capital cost. The mechanical nature of the shrink-fit connection obviates the need for extensive weld qualification of the connection, thereby significantly improving project schedule and eliminating the risk of connection failure.

The PRESSURE-DRILL SF has been extensively developed and optimized for dynamic, fatigue critical applications using finite element analysis methods and subjected to rigorous qualification testing. (To read about the flange optimization, please see our Weld-On Flange product data sheet).



TECHNICAL ADVANTAGES

- Mechanical assembly process preserves mechanical and chemical properties of assembled components.
- Insensitive to high temperature applications.
- Fatigue performance of connection matches that of parent materials.

COMMERCIAL ADVANTAGES

- Enables deployment of light, ultra high pressure risers, reducing payloads on production facilities or the specifications of required drilling facilities.
- Shorter fabrication schedule by eliminating weld qualification.
- Enables use of dissimilar and unweldable metals.

FEATURES AND FUNCTIONALITY

The shrink-fit process creates a permanent high pressure metal to metal seal between the pipe and the flange. Connection capacities in excess of pipe capacity are achieved through a friction connection reinforced with multiple independent locking mechanisms.

The PRESSURE-DRILL SF technology can be applied to tapered stress and tension joints, enabling the use of smaller diameter forgings and standard oilfield machining capability, ultimately reducing the cost of these critical components.

APPLICATIONS

- High and ultra high pressure drilling and production risers, in shallow and deep water, including high pressure full bore drilling risers.
- Fatigue-optimized section of J-Lay or S-Lay pipe for the touch down zones of Steel Catenary Risers (SCR).
- Tapered stress, keel or tension joints that would otherwise be of integrally forged construction.



an **ACTEON** company

LONDON OFFICE

GMS House, Boundary Road
Woking, Surrey, GU21 5BX, United Kingdom
Phone: +44 1483 745030

HOUSTON OFFICE

16000 Barkers Point Lane, Suite 150
Houston, Texas 77079, United States
Phone: +1 (281) 394-1211