

High-Performance Rod Retention System

The Forum Energy Technologies High-Performance Rod Retention System (RRS) is a key component of the Osprey Mud Pump Fluid End solution and adds multiple benefits to overall drilling operations. The system reduces Piston change out times by up to 66%, significantly improves safety, and substantially lowers lifecycle costs by reducing maintenance, labor and drilling downtime.

Since 1993 the P-Quip RRS has been the system of choice for over 5,000 drilling rigs worldwide, from the smallest land rigs to the largest offshore installations. During this time, we have continually refined and enhanced the system to not just meet but exceed today's operational requirements.

The P-Quip Rod Retention System (RRS) is designed to eliminate problems associated with traditional clamp-style or aftermarket mechanical rod systems. There are no flanged joints on the rods to chip, wear, or break, hence rod life is enhanced. Our patented spring mechanisms minimize misalignment and wear by quickly and consistently aligning the pony rod to the piston rod. Our spring technology also compensates for the directional force changes seen during operation that lead to mechanical systems stretching and becoming loose and damaging the power end. Because the rod system is self-aligned, the life of the piston and liner is significantly improved, enhancing drilling performance.

Dismantling and re-assembly of the complete Rod System takes under five minutes, which reduces downtime and HSE issues associated with daily operations and maintenance.

Safe:

- Inherently safe, no hand injuries due to wrench slippage, sheared fittings or hammering
- Simple hydraulically actuated system that is fully passive (0 psi) during pump operations

Efficient:

- Decreased downtime, up to 66% faster Piston change out times
- 50% Lower lifecycle cost over 10 years versus competition
- Scope 3 GHG Footprint reduced by 5x over life of Rig
- Proven life of up to 20 years

Easy to Operate:

- Consistent retention force means no more under- or over-tightening of mechanical systems
- Direct replacement for OEM equipment [plug and play]
- Versions available for most pumps 1,000HP to 3,000HP