

High Pressure "HP" Series



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PRODUCT OVERVIEW:

The **High Pressure ("HP") Swivel Joint** production line is based on the OILCO Liquid Handling Systems 90 Series platform. With ability more than doubling standard characteristics, the *HP Series* has operational and testing limits well north of 3000 psi. This ability has placed OILCO swivel joints in the forefront of complex prover arm and critical area manufacturing specifications for several U.S. design firms. Primary enhancements have been made to mechanical chambers, increased sealing surfaces, and inflation in overall wall diameter thickness. For increased load carrying capacity and high bending moments, the *HP Series* is available in a triple track, heavy duty ("HD") variant. All critical sealing surfaces are polished to a mirror finish to reduce rotational friction and increase packing seal life.

Utilizing established engineering techniques and base design parameters, the *HP Series* affords traditional OILCO predictability with an improved level of effective range, essentially filling the gap in construction availability and higher level performance swivel joints.

DEVELOPMENT HISTORY:

OILCO has developed a new swivel joint variant based on the well-established 90 Series platform. For nearly three decades, the 90 Series triple v-ring design has proven itself to be a performance cornerstone for the liquid petroleum, steel processing, and heavy industries across the world.

Since its inception, the OILCO 90 Series design has performed flawlessly. As a result of this immediate and consistent track record, multiple application alternatives have been incorporated into the main production line to accommodate changing industry concerns and needs. Low torque and stainless steel inserts, triple track heavy duty units, full surface steam jacketing, and high load units are only a few enhancements made to the original core design. And after a relatively quick research and development program, OILCO has introduced yet another option, geared toward prover arm engineers and manufacturers – **the HP Series**.



MANUFACTURING SPECIFICATIONS:

Seal Packing: V-Ring design, compressions spring energized and self-adjusting for normal operational wear
Teflon® with single Viton® backup (standard)

Material: Carbon Steel
ASTM A-106 Grade B



DESIGN NOTES:

- (1) All surfaces are to be machine finished before final testing and assembly
- (2) Operational and testing pressures determined by customer specification and ASTM pipe ratings
- (3) Swivel joint body and sleeve material are one-piece construction
- (4) High pressure swivel joints are offered with Teflon® chevron packing seals standard
- (5) Carbon steel material is ASME seamless schedule 80 & 160
- (6) During on-site manufacturing, remove packing seal material and protect all sealing surface areas

GENERAL NOTES:



Information:

Consult factory for all post-manufacturing recommendations, lubrication data and scheduling and all general maintenance and safety.



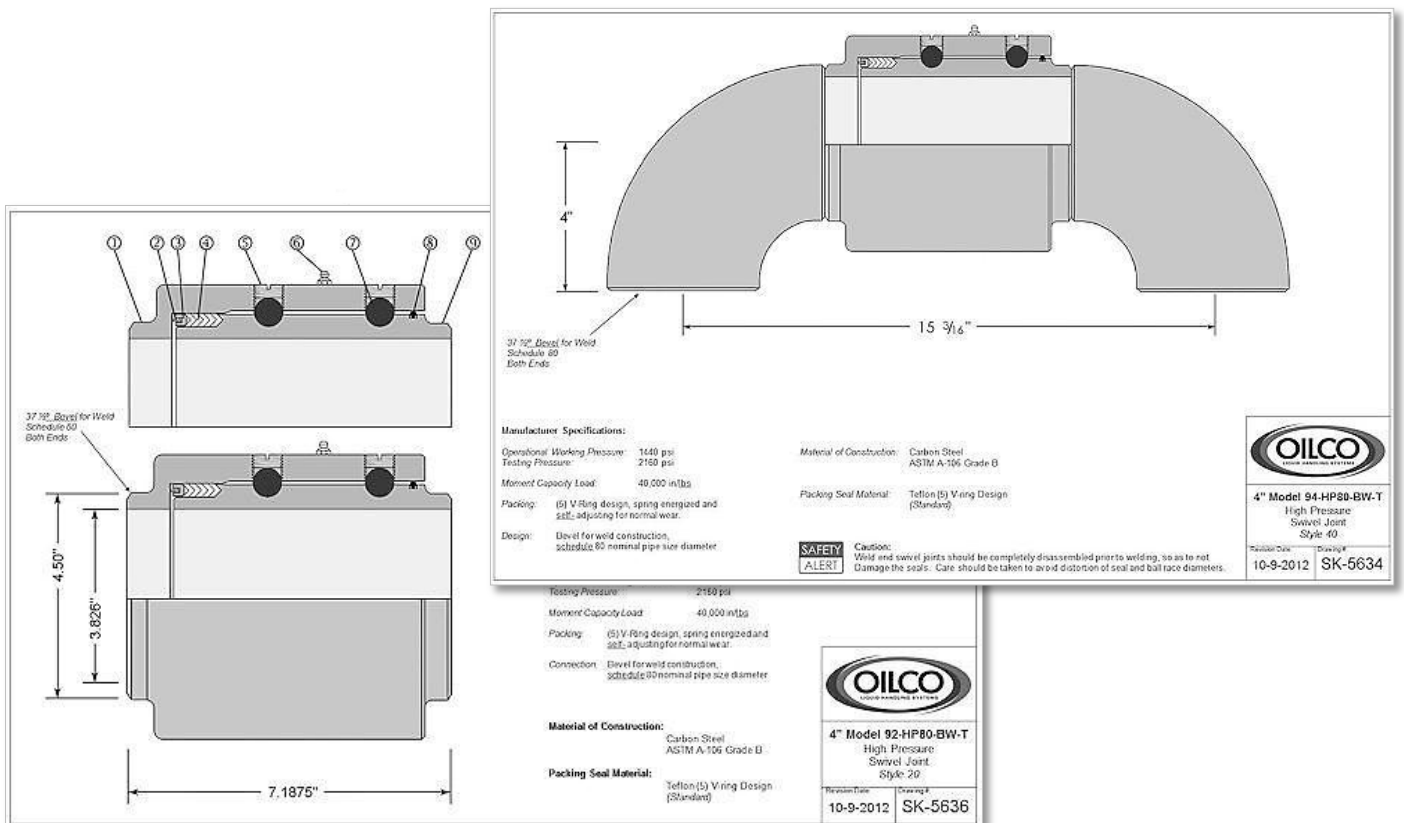
Caution:

Weld end swivel joints should be completely disassembled prior to welding so as to not damage the seals. Care should be taken to avoid distortion of seal and ball race diameters.



Warning:

Any improper handling or disregard for both onsite safety and operational procedures or factory recommendations could cause unnecessary damage to the unit and severe personal injury.



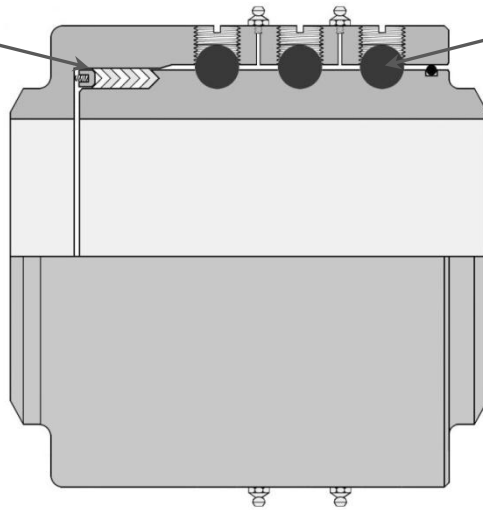
ENGINEERING PRECISION:

100% full time energized
chevron packing seals

Oversized radial ball
bearings in standard dual
rows or heavy duty "HD"
triple track rows

Smooth bore design,
unobstructed flow

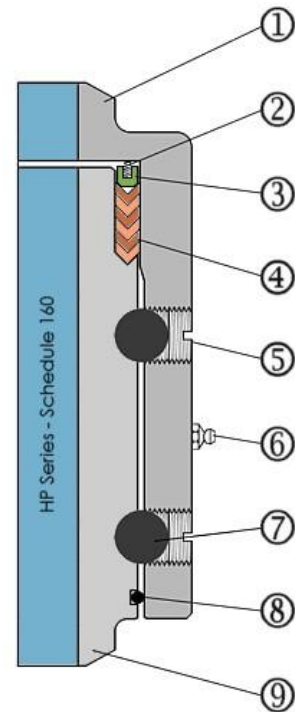
37 1/2° bevel for weld
schedule 80 & 160,
both ends



SWIVEL JOINT COMPONENT LIST:

HP SERIES – SCHEDULE 80 & 160

- 1 Swivel Joint Outer Body Housing
- 2 Stainless Steel Compression Springs
- 3 Teflon® Spring Adapter
- 4 Chevron V-Ring Packing Seals
- 5 Ball Retainer Screws
- 6 Grease Fitting
- 7 Radial Ball Bearings
- 8 Environmental Dust Seal
- 9 Swivel Joint Inner Sleeve



THE HP SERIES – REQ'S & SPEC'S

The OILCO High Pressure swivel joints meet current operational and design standards conforming to both B31.3 and the NACE MR1075 parameters. Governed by ASTM stress pressure limitations and testing guidelines, these swivels are engineered to be adaptable to national requirements as outlined by heavy industry and each of the established refinery safety measures.