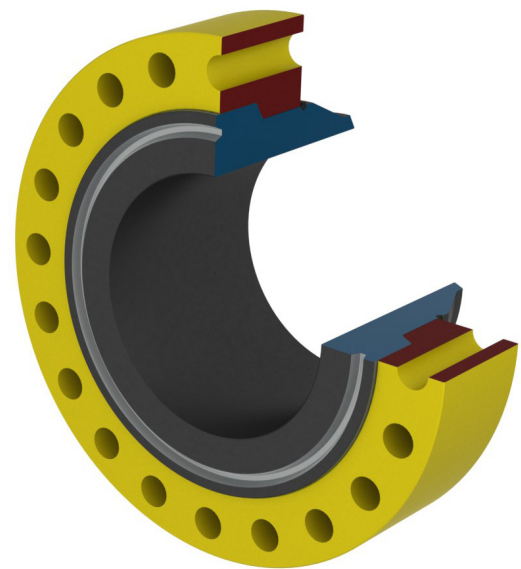
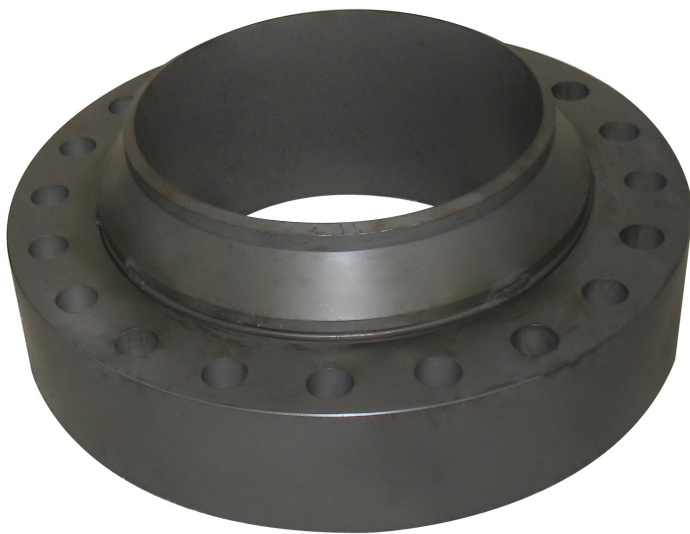


# Swivel Ring Flange

Easy alignment of flange bolting



Correct alignment is a critical factor when bolting subsea pipeline flanges. Oceanengineering's Swivel Ring Flange assembly enables easy alignment of bolt holes during makeup to a common flange including those defined by ASME B16.5, MSS SP-44, and API 6A.

The outer ring flange of the Swivel Ring Flange assembly is held in position by a retainer ring. The flange is able to rotate freely around the inner weld-neck hub to ensure accurate positioning of the bolt holes of the two flanges being joined.

# Swivel-Ring Flange

## Easy alignment of bolt holes

### Design Parameters

Nominal Pipe Size (NPS): any API Specification 5L pipe, wall thickness, and grade

Service: Standard (i.e. crude oil, natural gas, hydrocarbons, water, or chemical injection, etc.) and Sour (i.e. hydrogen sulfide, carbon dioxide, etc.)

Design Pressure Rating and Applicable Dimensions: ASME, MSS, or API

Design Temperature Range: 25°F to 250°F / -4°C to 121°C

### Material Specifications

Ring Flange: ASTM A694 F52 or F60 forging (or customer specified)

Hub: ASTM A694 F52 or F60 forging (or customer specified)

Coating: Zinc Phosphate

### Applicable Design Codes, Standards, and Specifications (latest editions):

OIE/PCRS Group Swivel Ring Flange Drawings, Bill of Materials (Controlled Copies), and Vendor Supplied Material Test Reports

OIE ISO 9001:2000 Quality Assurance - Quality Control Procedures and PCRS Operating Procedures

ASME Boiler Pressure Vessel Code, Section V Nondestructive Examination

ASME Boiler Pressure Vessel Code, Section VIII, Division 1 and 2

ASME B16.5, Pipe Flanges and Flanged Fittings

ASME B31.4, Pipeline Transportation Systems for Liquid Hydrocarbons and Other Liquids

API 5L, Specification for Line Pipe

API 6A, Specification for Wellhead and Christmas Tree Equipment

MSS SP-44, Steel Pipeline Flanges

NACE MR0175, Sulfide Stress Cracking Resistant Metallic Materials for Oilfield Equipment

### Certifications

ISO 9001:2008 - World Certification Services Ltd. - Accredited by UKAS Quality Management

EN 10204 Section 3.1B (DIN 50049), Inspection Documents for the Delivery of Metallic Products