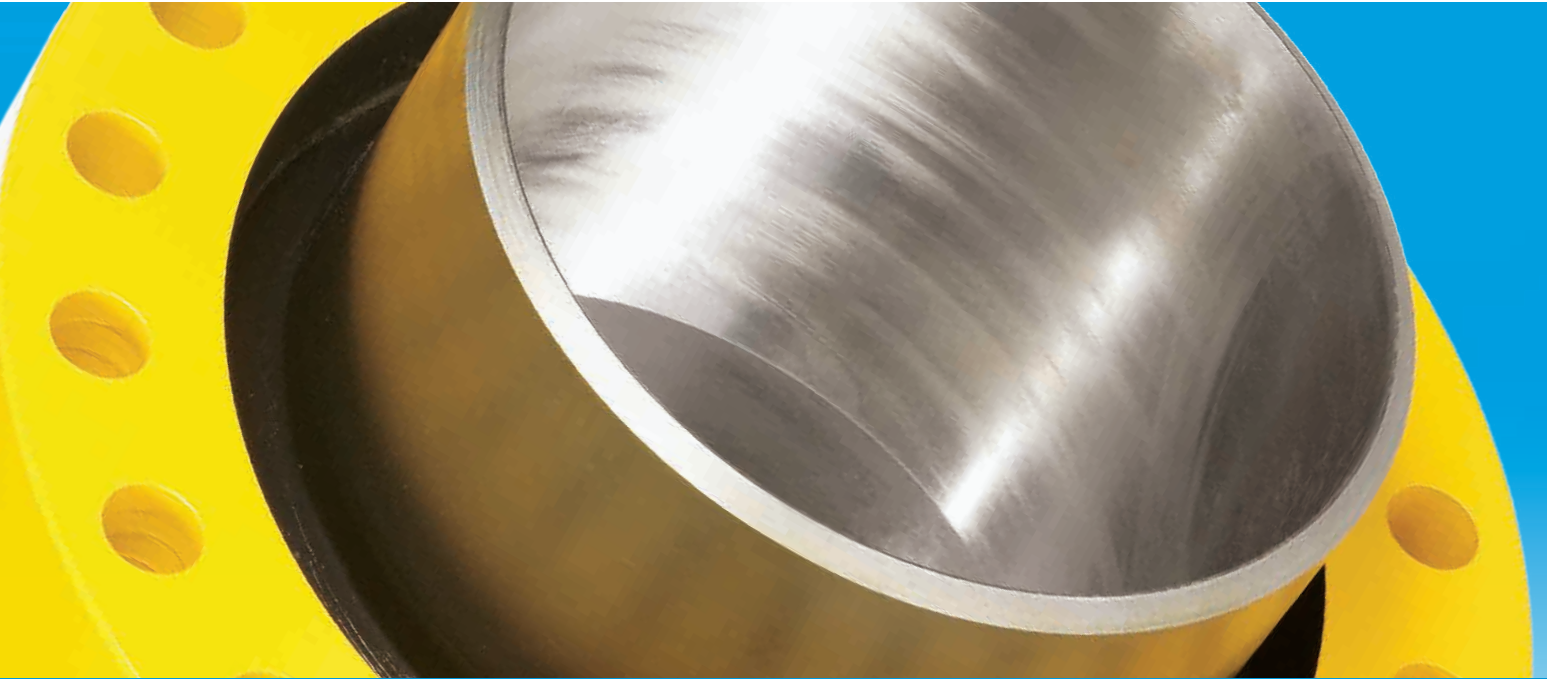




SUBSEA PIPELINE TECHNOLOGY

FlangeMate Misalignment Connector



FlangeMate Misalignment Connector

The Oil States - QCS **FlangeMate Misalignment Connector (FMF)** is a highly engineered product that facilitates connection of flanged tie-ins for underwater pipelines. This connector is designed to reduce time and cost to complete connections without sacrificing long-term operational integrity.

Oil States - QCS has installed FlangeMate Misalignment Connectors in sizes from 4" to 56". Stock inventory sizes available from 4" to 30" for expedited delivery.





Key Benefits

- Angular adjustment of $\pm 10^\circ$ (20° total misalignment)
- Bolt hole rotation enables fast alignment and bolt insertion
- Repeatable, integral metal-to-metal seal
- Integrated annulus test port and seal test feature
- Enhanced wiper seal system isolates the metal seal area from contaminants
- Accommodates high-capacity flange spreader loading
- ASME compliant

Applications

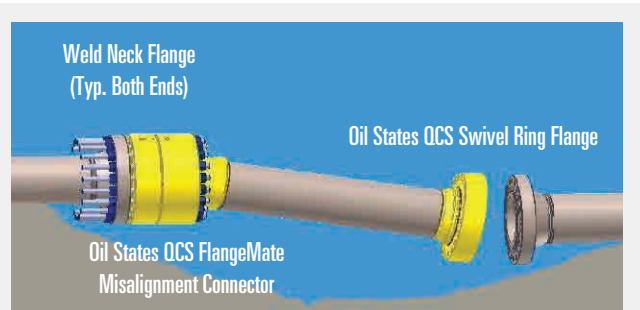
- Pipeline repair operations – shallow water, diver assist

Services

- Engineering design
- Testing – FAT, SIT design qualification
- Coatings
- Installation technical assistance

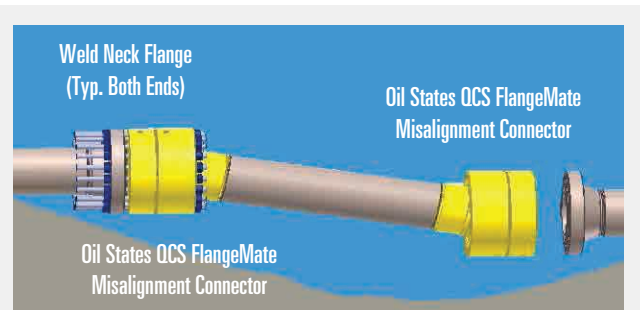
About Oil States - QCS

A division of Oil States Industries, Inc., Houston-based Oil States - QCS designs, manufactures and markets proprietary deep and shallow water pipeline connectors for subsea pipeline construction, repair and expansion projects.



Typical Spool Piece Tie-Ins

FlangeMate x Swivel Ring Spool
Provides bolt hole alignment and limited angular alignment.



Recommended Option

FlangeMate x FlangeMate Spool
Provides bolt hole alignment and maximum angular alignment.



www.oilstates.com

OIL STATES - QCS MANUFACTURING, ENGINEERING, & SALES

7250 W 43rd Street, Suite 100
Houston, Texas 77092 USA
Tel +1 713 920-9800
Fax +1 713 920-9801

SALES OFFICES:

Europe & Eurasia

OIL STATES - FRANCE
5 Allée des Mésanges
13012 Marseille, France
Tel +33 491 95 60 51

OIL STATES - AZERBAIJAN

Suite 5, 1 F. Amirov Street
Baku, AZ1000 Azerbaijan
Tel/Fax +994 125 981 125

Asia

OIL STATES - SINGAPORE

42-H Penjuru Road
Singapore 609158
Tel +65 6773 7555
Fax +65 6773 7667

Africa & Middle East

OIL STATES - NIGERIA

No. 50C Glover Road
Ikoyi, Lagos, Nigeria
Tel +234 1 2718363
Fax +234 1 2718364

OIL STATES - UAE (MENA)

Jumeirah Lakes Towers, Cluster F
HDS Tower, unit 2209
Dubai, United Arab Emirates
Tel +971 4 452 8482
Fax +971 4 368 8403

South America

OIL STATES - BRAZIL

02 Corporate & Offices, Ed. Evolution
III Bloco
2, Sala 105
Av. Paisagista José Silva de Azevedo Neto,
No. 200
Barra da Tijuca, RJ, Brazil
CEP 22775-056
Tel +55 21 3503 2400