



Best High Pressure & Drilling Technology

OIL AND ENERGY





BHTD - YOUR PARTNER FOR HIGHEST QUALITY AND RELIABILITY.

Design, production and testing of high pressure components all adhere to international standards and specifications. In accordance with ISO 9001, the company's quality management system is documented in a manual and certified by TUV. This manual includes all operations and areas of responsibilities within the company. Special processes and audits are described in additional work guidelines. Decades of experience in the field of high pressure technology, the selection of appropriate materials, and accurate order management are the preconditions for a high degree of reliability and performance of our products in compliance with the specifications given. Material certificates and test results of finished components are documented in cooperation with DNV, TUV, LLOYD'S, or other international inspection and testing agencies available to our clients. BHTD took its place as a world leader in the late fifties. The company recognized the evergrowing demand for high pressure valves, fittings, isometrics and other system components for the Oil & Energy industry, gaining an edge over competing companies.

BHTD has excellent expertise due to decades of experience on the world market, and also performs detail engineering – according to the specific interface definitions – at its headquarters in Kapfenberg, Austria. Complex customer requirements are executed in the framework of an efficient, objective oriented project management. BHTD's large inhouse fabrication capacity ensures tight quality control throughout the fabrication process.

VISION.

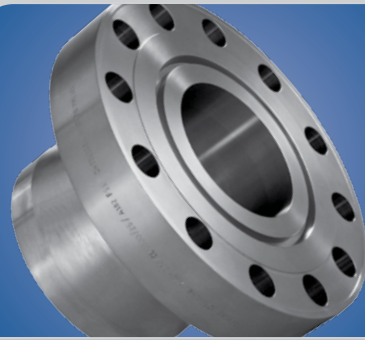
HIGH QUALITY PARTNERSHIP
COOPERATION WITH OUR
CUSTOMERS



OIL AND ENERGY

1.

SPECIAL FLANGES



2.

ISOMETRICS



3.

VALVES



1. SPECIAL FLANGES

BHDT COMPACT FLANGES ACC. NORSOK L-005

Compact Flanges offer outstanding benefits whenever size, weight and stress are critical factors in pipe-design. Compared to ANSI Flange connections, Compact Flanges save up to 80 % of weight withstanding high bending and tension loads without leaking. Therefore, no retightening of bolts is required! Compact Flange metal to metal connection with special steel seal rings ensure a 100 % leakfree connection by having three sealing surfaces in one joint.

Compact Flanges are designed as a complete closing static connection, keeping corrosion problem causing medium away from the sealing surfaces and bolts which ensures longlife usage under extreme conditions. BHDT offers Weld-Neck-, Swivel-, Blind- and Intergal Flange Connections as specified in NORSOK L-005 NCF5 and NCF4 Standard. For any requirement BHDT provides Compact Flange design acc. NORSOK L-005 in combination with Analytical Calculation, Finite Element Analysis, Design Verification acc. DIN EN 13445-3 and AMSE and Approval by Notified Bodies like Det Norske Veritas, TUV or others. Norsok M-630, M-650 and DNV-OS-E201 are also applicable.

BHDT'S PRODUCT LINE ALSO INCLUDES

- Weld Neck Flanges of all sizes and pressure classes made of Duplex, Superduplex and Carbon Steel
- Blind Flanges of all sizes and pressure classes made of Duplex, Superduplex and Carbon Steel
- Cladded Flanges with e.g. Inconell 625 cladding
- Swivel Flanges for nominal pipe diameters all sizes and pressure classes to NCF4 standard made of Duplex, Superduplex and Carbon Steel.

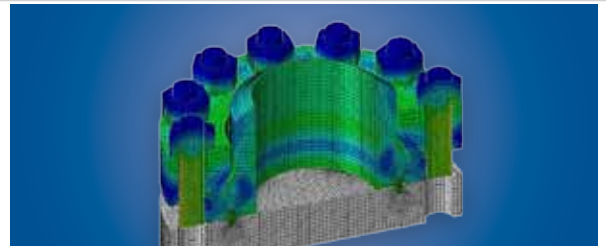
REFERENCES IN COMPACT FLANGE TECHNOLOGY

- FPSO OKHA – Woodside
- FPSO SKARV – BP
- Platform VALHALL – BP

BHDT is capable to provide complete pipe spools and valves made of Duplex, Superduplex and Carbon Steel for any high pressure application within the Oil and Gas Industry!



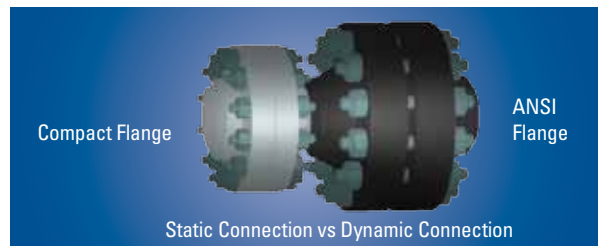
DNV CERTIFICATE
Compact flanges Swivel type



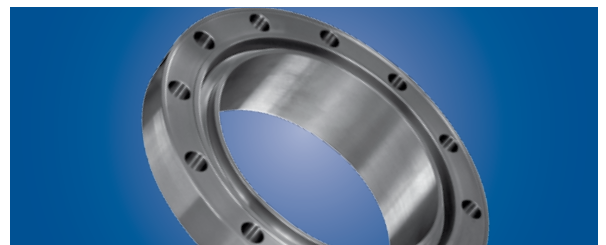
BHDT Swivel Flange – Loadcase 311,5 bar and 250 °C, von Mises equivalent stress



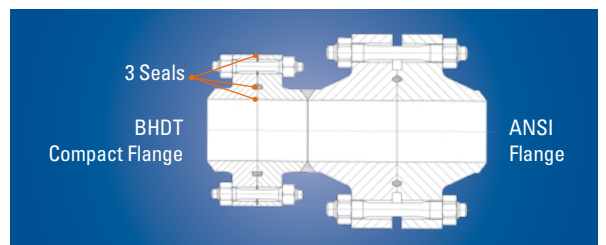
BHDT Swivel Flange



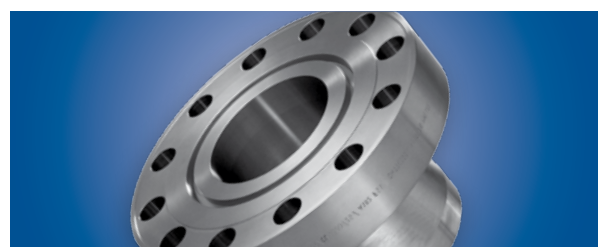
BHDT Compact Flange vs ANSI Flange



BHDT Compact Flange

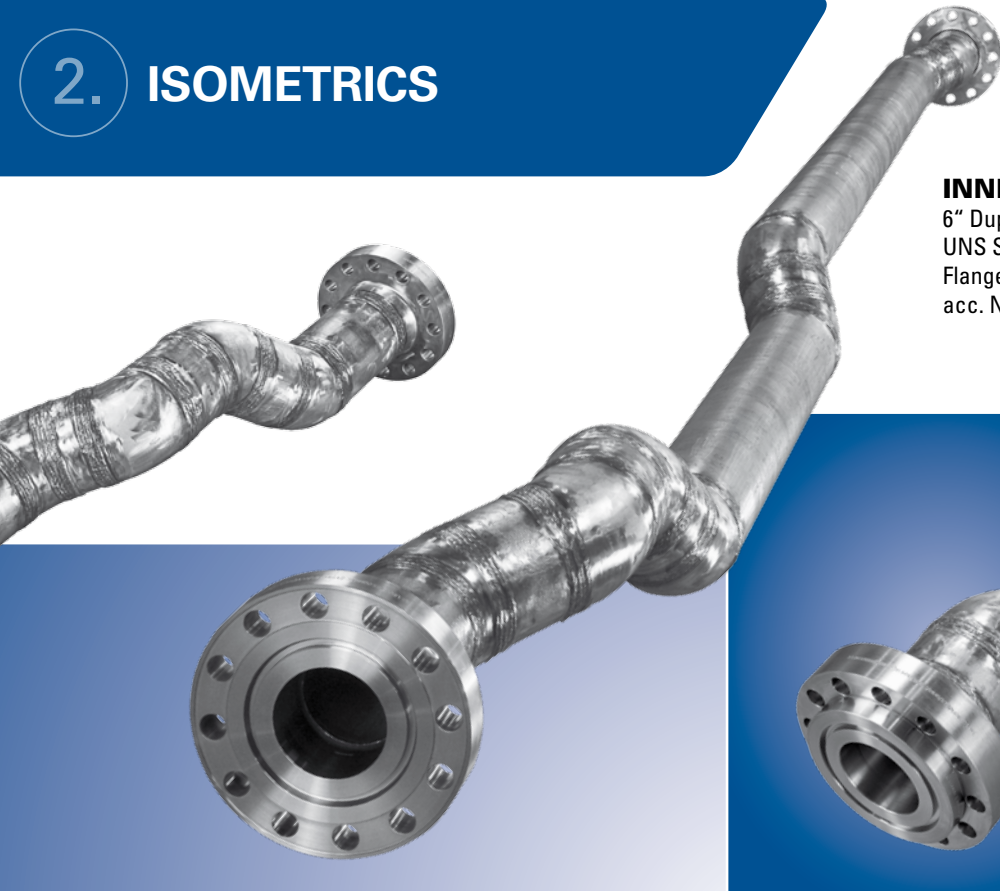


Sealing BHDT Compact Flange



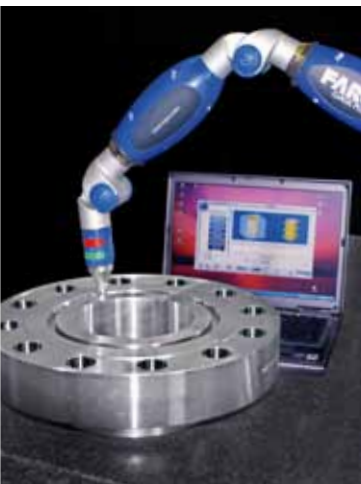
BHDT Compact Flange

2. ISOMETRICS



INNER PIPES TURRET FPSO

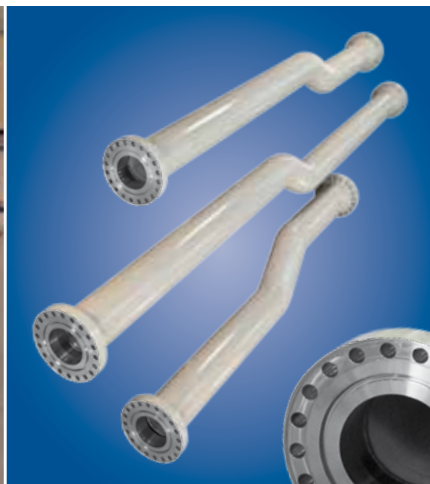
6" Duplex pipe spool
 UNS S31803 with NCF5 Weld Neck Compact
 Flange & BHDT NCF4 Swivel Compact Flange
 acc. NORSOK L-005



3D Measurement



3D Laser Tracker



INNER PIPES TURRET FPSO

14", 40mm WT Duplex pipe spools UNS S31803 with
 NCF5 Weld Neck Compact Flange acc. NORSOK L-005



Welding Tables

3. VALVES



CHECK VALVE
with hollow cone, NS 6"
PN 25 MPa
25Cr-22Ni-2Mo
(Böhler A405)



ANGLE VALVE
gear operated, NS 6", weld
neck flange, PN 2500 lbs
SA182 F316LUG
(Böhler A220)



ANGLE VALVE
stub ends, steam jacket
NS 5", PN 18.5 MPa
SA182 F316LUG
(Böhler A220)



**VALVE BODY FOR
MONOBLOCK
VALVE**
NS 1", PN 25 MPa
Duplex



ANGLE VALVE
NS 8", PN 37,8 MPa
SA350 LF2
(Böhler V313)



**VALVE BODY FOR
ANGLE VALVE**
NS 1", PN 25 MPa
Duplex



VALVE TEST FACILITY:
BHDT has its own control valve testing facility.
NP0.6 MPa to 250 MPa, NS up to 300 mm

- Flow coefficient KV (Cv), characteristics
- Media pressure drop factor FI
- Leak test Pressure upstream of the valve
- Pressure downstream of the valve
- Pressure drop
- Stroke position
- Flow rates 0,5 up to 1300 m³/h (0,13 up to 340 gal/h)

HIGH PRESSURE VALVES:

- Hydraulic actuated on/off valves
- Gear actuated valves
- Manually actuated valves
- Safety relief valves (spring loaded)
- Blow off valves (hydraulically operated)
- Check valves
- Angle valves
- Evaluation of flow characteristics

CONTROL VALVE

NS 14", PN 250 bar, Linear characteristic
 Cv value = 920, Pneumatic actuator with
 Intelligent positioner SRD,
 Position transmitter
 Mat. 25Cr-22Ni-2Mo (Böhler A405)



CONTROL VALVE
 up to NS 10", PN 32.5 MPa
 Duplex



CONTROL VALVE
 NS 16", PN 25 MPa
 SA182 F316LUG
 (Böhler A220)



GLOBE CONTROL VALVE
 NS 4", PN 25 MPa
 SA182 F316LUG
 (Böhler A220)

PERFORMANCES

BHDT – RELIABILITY SINCE 1958

ENGINEERING

- Design acc. Norsok and DIN EN 13445-3
- Analytical Calculation acc. Norsok L-005 and M630
- Finite Element Analysis of possible load cases
- Third party verification and approval of design

DOCUMENTATION

- 100% traceability of single items produced
- Repeatability based on project specific data books

MATERIAL SUPPLY

- Carbon steel (Standard and Low Temp.)
- Duplex and Superduplex Material according Norsok M630
- Sourced from certified Suppliers

SUCCESSFUL PROJECT PARTNERSHIP WITH OUR CUSTOMER

**QUALITY CONTROL
 CERTIFICATION**

- EN ISO 9001:2008
- AD 2000 Merkblatt HP-0/HP 100 R and EN ISO 3834-2
- EN ISO 3834-2
- ÖNORM M 7812-1
- PED 97/23/EC Module D/D1, E/E1 and H/H1 für EU
- GOST-RTN
- GOST
- Notified Bodies (DNV, TUV, Lloyds, ...)

PRODUCTION

- PPS Software for planning and production control
- CAM (Unigraphics) with postprocessing
- Up to 5 axis simultaneous milling
- Lathe (<6m length / Ø 1,8m)
- Deep hole drilling (<21 m length / Ø 300mm)
- Tube inside honing (<21 m length / Ø 300mm)
- Heat treatment
- Pressure Testing and PED approval
- Certification

ADDITIONAL PRODUCTS:



HIGH PRESSURE SYSTEMS

- Tubular reactors, interstage cooler
- Angle valves
- Control valves
- Safety relief valves
- Check valves
- Vessels
- Fittings
- Injection pumps, pressure test stations
- Bolt tensioning devices
- Isometrics, distribution blocks
- High pressure tubes



HIGH PRESSURE PUMPS

- Waterjet cutting applications
- Peroxide Dosing for LDPE plants
- Pressure test units and systems
- Autofrettage purposes



EQUIPMENT FOR FERTILIZER PLANTS

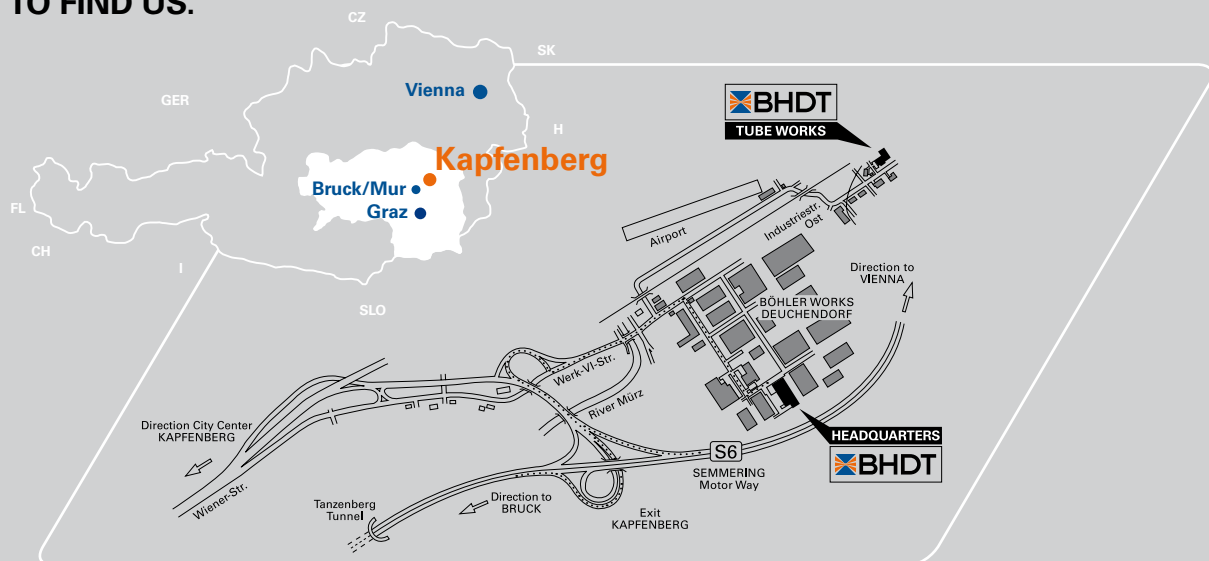
- Angle valves
- Globe valves
- Safety relief valves
- Check valves
- Control valves
- Sampling valves
- Isometrics
- Vessels
- Fittings



BHDt SERVICE

- Engineering Services
- Installation Services
- Corrosion Inspection Services
- Troubleshooting Services
- Emergency Repair Services
- Spare Parts Management
- Training Services

HOW TO FIND US.



BHDt GmbH
 Werk-VI-Strasse 52
 8605 Kapfenberg, Austria
 Phone: +43-3862-303-0
 Fax: +43-3862-303-4
 E-mail: info@bhdt.at
 Internet: www.bhdt.at

BHDt GmbH is a member of:

