

COMPANY BROCHURE

WBR
ENERGIES
ENGINEERED SOLUTIONS



www.wbr-energies.com



+33 (0) 1 82 36 00 33



contact@wbr-energies.com

COMPANY PRESENTATION

ABOUT US

PIPING EQUIPMENT AND CUSTOM
STEEL STRUCTURES

✓ WBR ENERGIES (SAS)

WE ARE AN **ENGINEERING COMPANY** AND **EQUIPMENT SUPPLIER** SPECIALIZED IN PIPING EQUIPMENT AND CUSTOM STEEL STRUCTURES DEDICATED TO ENERGY INDUSTRIES.

ABOUT US:

WBR ENERGIES offers innovative solutions to support customers through complete life cycle of their projects, from **Conceptual Studies** and **Detailed Engineering**, to **Custom Manufacturing**, **Testing** and **Certification**.

Leading by our engineering expertise, we are focused on increase projects performances by offering a **high quality of products** and **services** to optimize costs and lead times.



COMPANY PRESENTATION

EXPERTISE

PIPING EQUIPMENT AND CUSTOM
STEEL STRUCTURES

✔ EXPERTISE

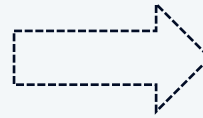
WBR ENERGIES PROVIDES INNOVATIVE SERVICES AND PRODUCTS FOR THE ENERGY INDUSTRIES

✔ HIGH PRESSURE CONNECTORS

✔ SPECIAL PIPING COMPONENTS

✔ CUSTOM DESIGNED STEEL STRUCTURES

✔ PIPING, FITTINGS & ACCESSORIES



OIL AND GAS: SUBSEA / OFFSHORE / ONSHORE

LIQUIFIED NATURAL GAS (LNG)

PETROCHEMICAL

NUCLEAR POWER

MARINE RENEWABLE / HYDROGEN INDUSTRY

BIOGAS - HYDROELECTRIC

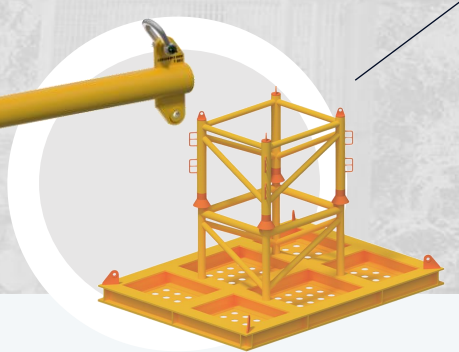
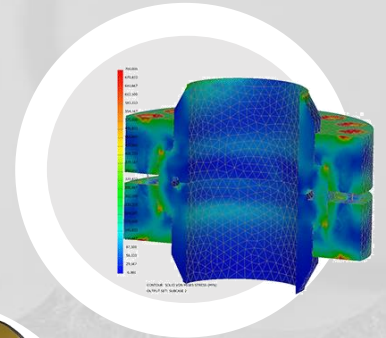
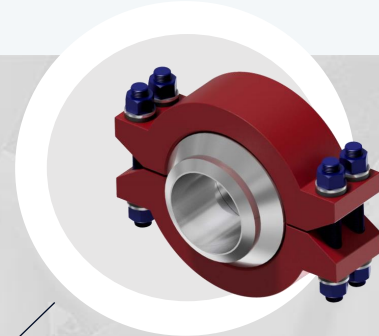
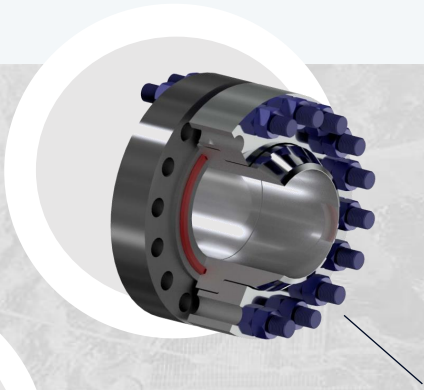
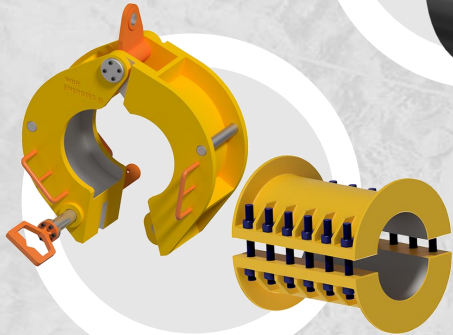
COMPANY PRESENTATION

EXPERTISE

PIPING EQUIPMENT AND CUSTOM STEEL STRUCTURES

PIPING EQUIPMENT AND CUSTOM STEEL STRUCTURES

AN ENGINEERING COMPANY AND EQUIPMENT SUPPLIER



COMPANY PRESENTATION

OUR LOCATIONS

PIPING EQUIPMENT AND CUSTOM
STEEL STRUCTURES

✓ OUR LOCATIONS

WE ARE OFFERING HIGH QUALITY OF SERVICES AND PRODUCTS FOR CUSTOMERS WORLDWIDE

✓ WBR ENERGIES - FRANCE

Head Office:

L'Espace Inneos

1401 Avenue de la Grande Halle 78200

Buchelay, France

☎ +33 (0) 1 82 36 00 33

✉ contact@wbr-energies.com



COMPANY PRESENTATION

WHO WE ARE

PIPING EQUIPMENT AND CUSTOM STEEL STRUCTURES

✓ OUR MANAGEMENT TEAM

WE ARE A TEAM OF SPECIALISTS WITH SEVERAL YEARS OF INDUSTRY EXPERIENCE, PROVIDING HIGH QUALITY OF SERVICES AND PRODUCTS TO OUR PARTNERS ON THE ENERGY MARKET.

Managing Director

Elisa BARITEAU
Mechanical Engineer
Expertise: Design, Innovation
Operational Roles: Business Management, Commercial

QHSE Manager

Alisson MATOS
Mechanical Engineer
Expertise: Quality, Health, Safety, Environment
Operational Role: Quality Management

Project Engineer, FEA Specialist

Vanessa DUC
FEA Engineer
Expertise: Design, Finite Elements Analysis
Operational Roles:
Engineering, Project Management

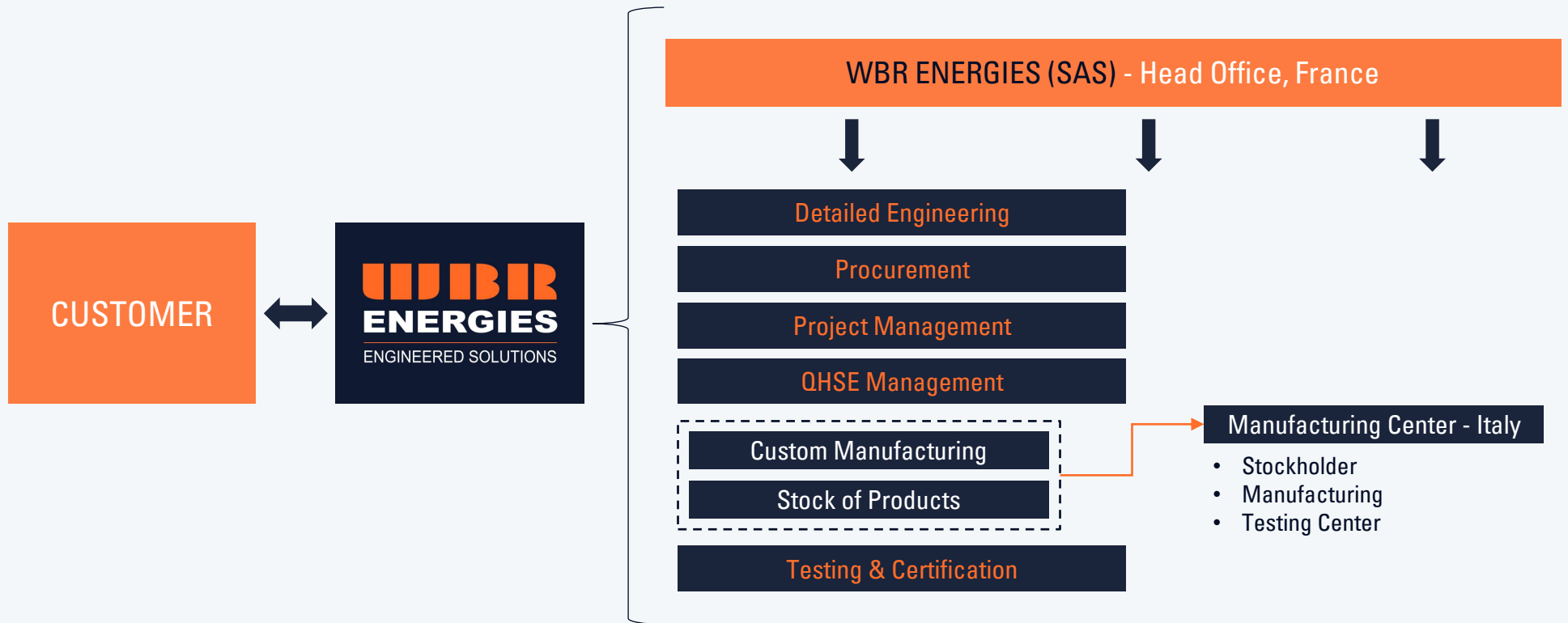
Project Manager

Ewerton BARRETO
Mechanical Engineer
Expertise: Design, Structural Analysis
Operational Roles:
Commercial, Engineering, Project Management

Project Engineer, CFD Specialist

Anthony CUFFARO
CFD Engineer
Expertise: Computational Fluid Analysis
Operational Roles:
Engineering, Project Management

✓ OUR WORKING PROCESS



OUR SERVICES

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OUR SERVICES

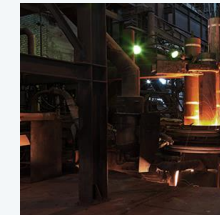
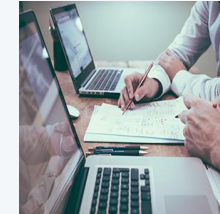
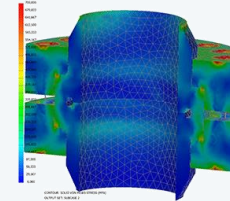
PIPING EQUIPMENT AND CUSTOM STEEL STRUCTURES

✓ DESIGN & ENGINEERING

✓ PROJECT MANAGEMENT

✓ CUSTOM MANUFACTURING

✓ TESTING & CERTIFICATION



OUR SERVICES

DESIGN & ENGINEERING

PIPING EQUIPMENT AND CUSTOM
STEEL STRUCTURES

☑ DESIGN & ENGINEERING

ANALYSIS OF HIGH PRESSURE EQUIPMENT

STRUCTURAL ANALYSIS – FEA CALCULATION

FLUID MECHANICS ANALYSIS

DESIGN – 3D MODELING / 2D DRAFTING

EQUIPMENT TECHNICAL SPECIFICATIONS

DESIGN TOOLS

- ☑ AUTODESK INVENTOR®
- ☑ NASTRAN® / ROBOT® / AUTODESK CFD®
- ☑ ABAQUS® (under request)

OUR SERVICES

DESIGN & ENGINEERING

PIPING EQUIPMENT AND CUSTOM STEEL STRUCTURES

ANALYSIS OF HIGH PRESSURE EQUIPMENT

DESIGN AND ANALYSIS OF:

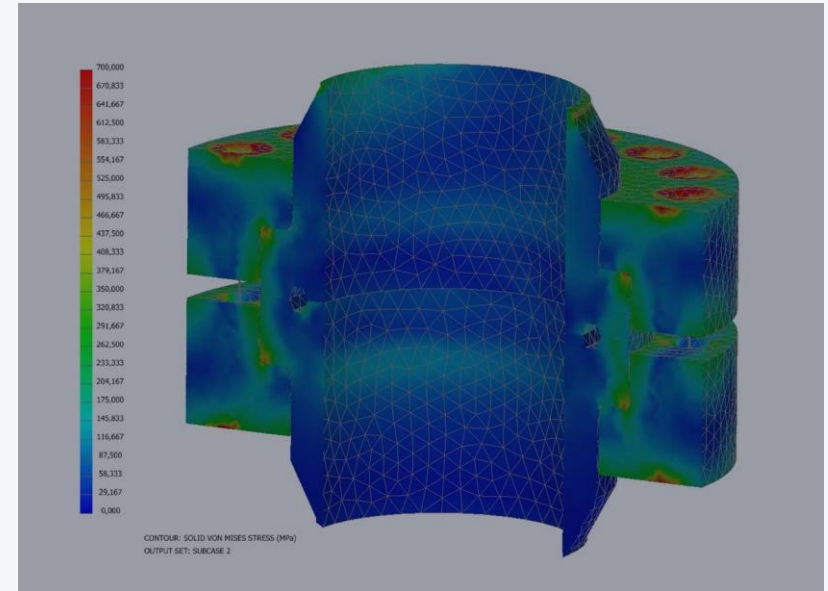
FLANGED JOINTS - CLAMPED CONNECTIONS - FLANGES - PIPING & FITTINGS -
WELDED JOINTS - NOZZLES - PULLING HEADS - SPECIAL PIPING COMPONENTS

CODES:

- ASME VIII Div 2 / ASME VIII Div 1 / ASME B31.3 / API 16A / API 6A
- DNVGL-RP-D101 / DNV-OS-F101 / EN13445 / CODAP

ANALYSIS:

- ALLOWABLE DESIGN STRESSES DEFINITION
- ELASTIC / ELASTIC-PLASTIC STRESS ANALYSIS
- CHECK AGAINST PLASTIC COLLAPSE / LOCAL FAILURE / BUCKLING / FATIGUE



DESIGN TOOLS

- AUTODESK INVENTOR®
- NASTRAN®
- ABAQUS® (under request)

OUR SERVICES

DESIGN & ENGINEERING

PIPING EQUIPMENT AND CUSTOM STEEL STRUCTURES

STRUCTURAL ANALYSIS – FEA CALCULATIONS

DESIGN AND ANALYSIS OF:

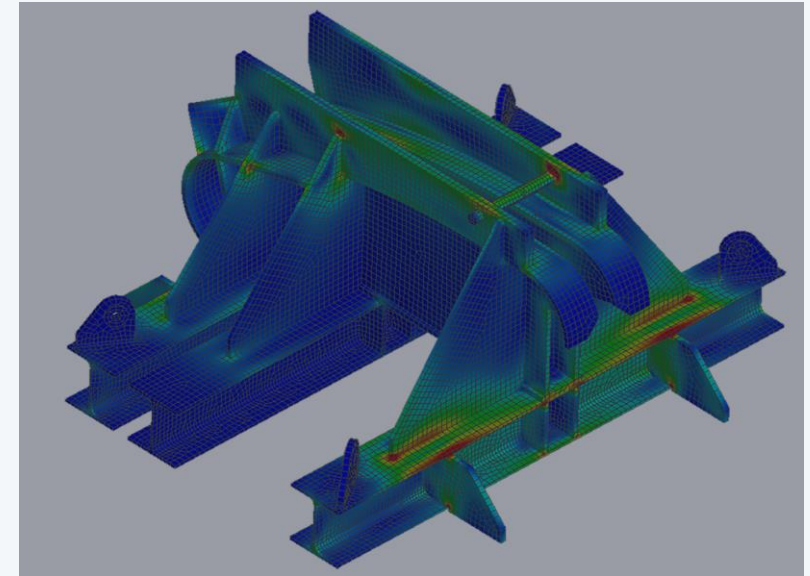
CUSTOM STEEL STRUCTURES - FRAMES - PLATFORMS - STRUCTURAL CLAMPS
- PIPE SPOOLS - LIFTING EQUIPMENT - SEAFASTENING

CODES:

- DNVGL-RP-D101 / DNVGL-OS-C101 / DNV-RP-C205 / DNV-RP-C203 / ...
- API RP 2RD / API 2A-WSD / AISC / EUROCODES

ANALYSIS:

- ALLOWABLE DESIGN STRESSES DEFINITION
- ELASTIC / ELASTIC-PLASTIC STRESS ANALYSIS
- CHECK AGAINST PLASTIC COLLAPSE / LOCAL FAILURE / BUCKLING / FATIGUE
- INSTALLATION ANALYSIS: LIFTING / LOAD OUT / LOWERING / ...
- TRANSPORTATION AND SEAFASTENING ANALYSIS



DESIGN TOOLS

- ☑ AUTODESK INVENTOR®
- ☑ NASTRAN® / ROBOT®
- ☑ ABAQUS® (under request)

OUR SERVICES

DESIGN & ENGINEERING

PIPING EQUIPMENT AND CUSTOM STEEL STRUCTURES

FLUID MECHANICS ANALYSIS

DESIGN AND ANALYSIS OF:

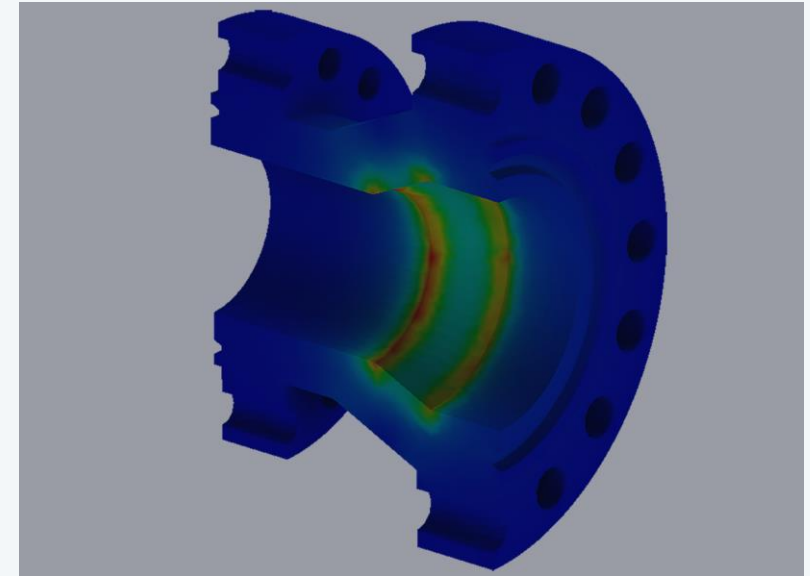
FLANGED JOINTS - CLAMPED CONNECTIONS - CONTROL VALVES - NOZZLES -
ORIFICE PLATES - ANTI-BACKFLOW VALVES - FITTINGS AND PIPING

CODES:

- IEC 60534 / AISI-FCI 70-2
- ASME MFC-3M / ISO 5167 / ASME PTC 19.5

ANALYSIS:

- FLUID FLOW CALCULATION
- FLOW COEFFICIENT EVALUATION
- SEAT LEAKAGE CALCULATION
- LOCAL PRESSURE LOSS EVALUATION
- HEAT TRANSFER



DESIGN TOOLS

- ☑ AUTODESK INVENTOR®
- ☑ AUTODESK CFD®
- ☑ ABAQUS® (under request)

OUR SERVICES

DESIGN & ENGINEERING

PIPING EQUIPMENT AND CUSTOM STEEL STRUCTURES

EQUIPMENT TECHNICAL SPECIFICATIONS

- DETAILED DRAWINGS
- DESIGN REPORTS / TECHNICAL DATASHEETS
- INSPECTION & TESTING PLAN
- MANUFACTURING PROCEDURE SPECIFICATION
- FACTORY ACCEPTANCE TESTING PROCEDURES
- DIMENSIONAL CONTROL PROCEDURES
- MANUFACTURING FINAL DOSSIER

DESIGN – 3D MODELING / 2D DRAFTING

- 3D MODELS
- 2D DRAFTING: GENERAL ARRANGEMENT / DETAILED DRAWINGS
- FABRICATION AND AS-BUILT DRAWINGS
- INSTALLATION & TRANSPORTATION LAYOUTS
- ISOMETRIC PLANS

DESIGN TOOLS

- AUTODESK INVENTOR®
- AUTODESK AUTOCAD®

OUR SERVICES

PROJECT MANAGEMENT

PIPING EQUIPMENT AND CUSTOM
STEEL STRUCTURES

☑ PROJECT MANAGEMENT

CONCEPTUAL & FEED STUDIES

DETAILED ENGINEERING

EQUIPMENT DATASHEETS

MATERIAL PROCUREMENT

CUSTOM MANUFACTURING

INSPECTION & TESTING

THIRD PARTY CERTIFICATION



OUR SERVICES

CUSTOM MANUFACTURING

PIPING EQUIPMENT AND CUSTOM STEEL STRUCTURES

✓ CUSTOM MANUFACTURING

FORGING & HEAT TREATMENT

Forging and Heat Treatment process is carried out in accordance with customer material specifications and following requirements of International.

ASTM A694 / ASTM A350 / ASTM A-707 / ASTM A105 / ASTM A322 / ASTM A182 ...

PRECISION MACHINING

All parts are machined according to customer design specifications and following dimensional requirements from International Design Codes.

Turning / Drilling / Boring / Reaming / Milling / Planning / Broaching ...

WELDING & FABRICATION OF STEEL STRUCTURES

Custom Steel Structures are fabricated in accordance with customer specifications and following requirements of International Construction Codes.

Cutting / Rolling / Bending / Machining

GTAW (TIG) / GMAW (MIG/MAG) / FCAW / WELD OVERLAY



OUR SERVICES

TESTING & CERTIFICATION

PIPING EQUIPMENT AND CUSTOM STEEL STRUCTURES

☑ TESTING & CERTIFICATION

HYDROSTATIC TESTING

PRESSURE TESTS

LEAK TESTING

LOAD TESTS

FIT UP & ASSEMBLY TESTS

☑ All products can be fully certified by a Third Party Authority: DNV® / Lloyd's Register® / Bureau Veritas® / Apave® / ...



OUR PRODUCTS

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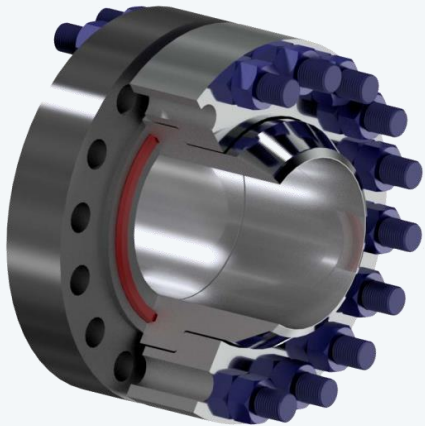


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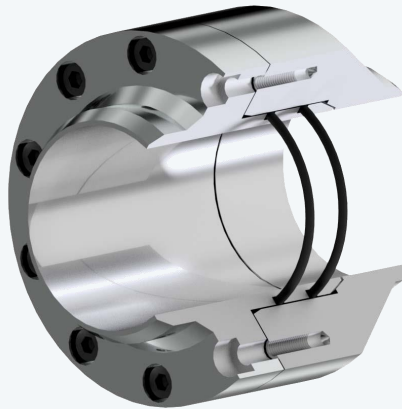
OUR PRODUCTS

PIPING EQUIPMENT

CUSTOM MADE PRODUCTS



✓ SWIVEL RING FLANGES



✓ HIGH PRESSURE CONNECTORS

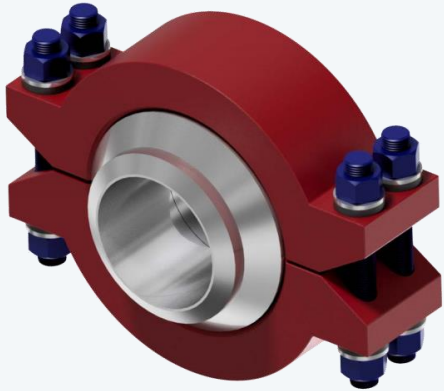


✓ PULLING & HANDLING HEADS

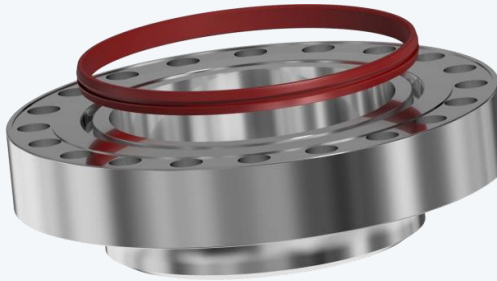
OUR PRODUCTS

PIPING EQUIPMENT

CUSTOM MADE PRODUCTS



CLAMPS & HUBS – API 16A



COMPACT FLANGES

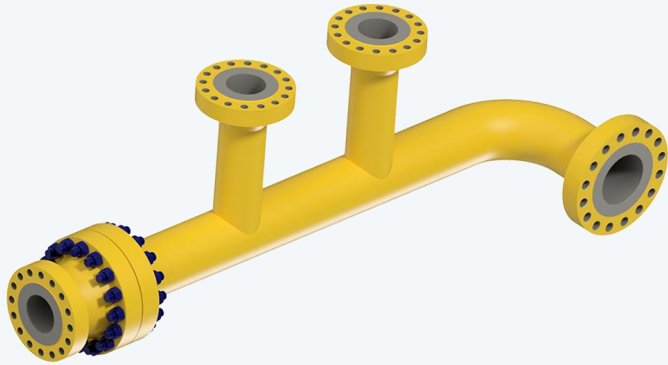


SPECIAL PIPING COMPONENTS

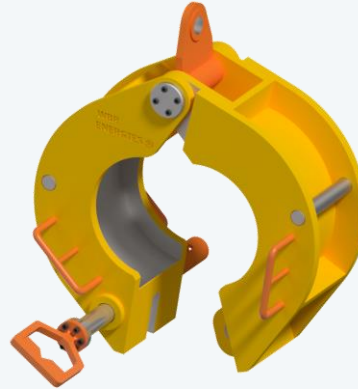
OUR PRODUCTS

CUSTOM DESIGNED STEEL STRUCTURES

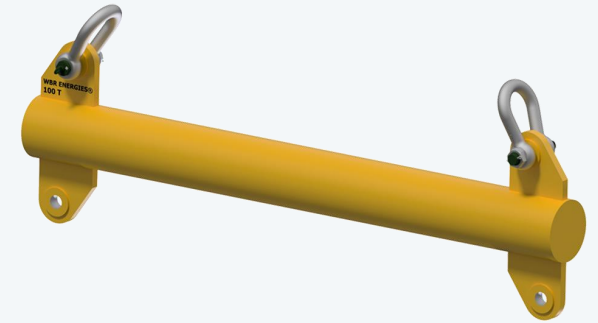
CUSTOM MADE PRODUCTS



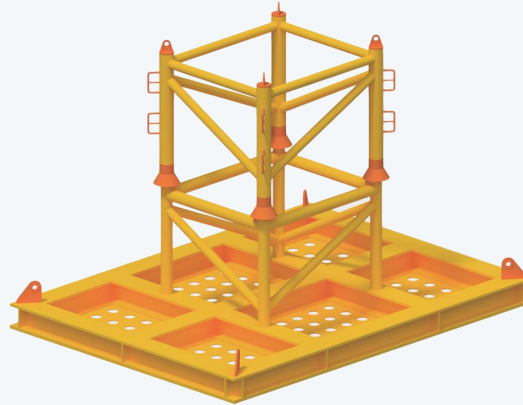
✓ PIPE SPOOLS



✓ STRUCTURAL CLAMPS



✓ SPREADER BARS & FRAMES

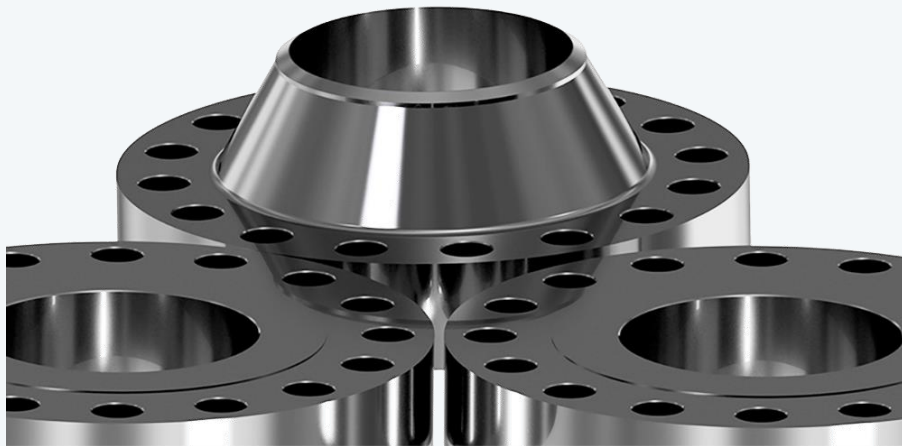


✓ CUSTOM STEEL STRUCTURES

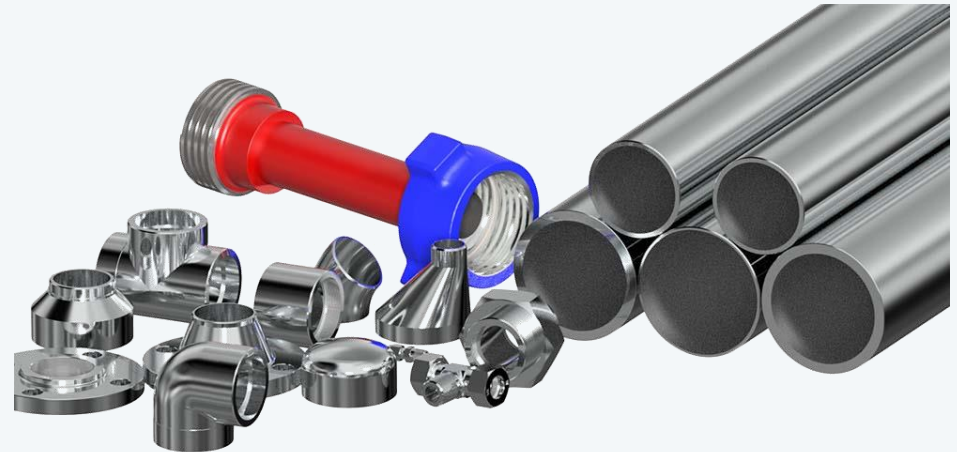
OUR PRODUCTS

DISTRIBUTION

DISTRIBUTION & ACCESSORIES



✓ STANDARD FLANGES



✓ PIPING & FITTINGS

OUR PRODUCTS

ACCESSORIES

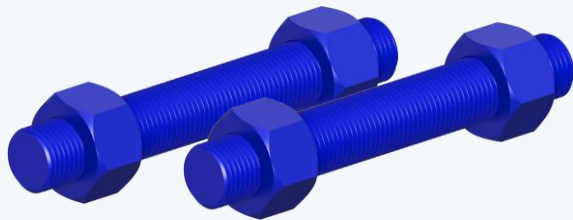
DISTRIBUTION & ACCESSORIES



✔ GASKET INSTALLATION TOOL



✔ SPECTACLE BLINDS & SPADES



✔ SPECIAL BOLTING



✔ RING JOINT GASKETS

PRODUCTS DATASHEETS

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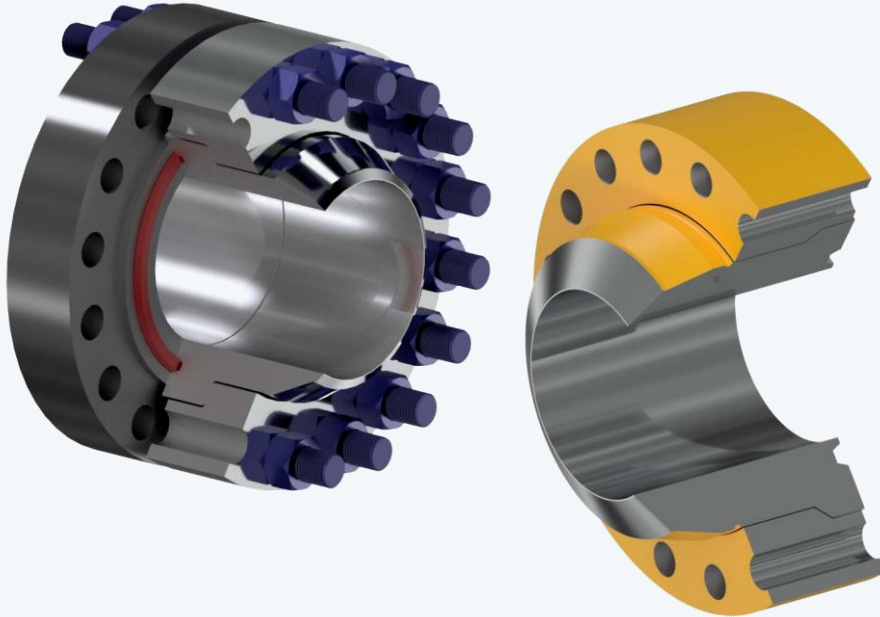


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SWIVEL RING FLANGES

PIPING EQUIPMENT

CUSTOM-MADE PRODUCTS



TYPES

SWIVEL RING FLANGES	ASME B16.5 / ASME B16.47
SWIVEL RING FLANGES	API 17D

SIZES & RATING

ASME B16.5 / B16.47	4in to 60in – Class 150 to 2500
API 17D	2 1/16in to 13 5/8in – 2000 PSI to 20000 PSI

DESIGN CODES

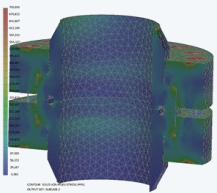
ASME B16.5	Pipe Flanges and Flanged Fittings
ASME B16.47	Large Diameter Steel Flanges
API 17D	Specification for Subsea Wellhead and Tree Equipment
ASME VIII Div 2	Rules for Construction of Pressure Vessels

MATERIALS

ASTM A694	F42 / F52 / F60 / F65 / F70
ASTM A350	LF2 Classes 1 and 2 / LF1 to LF9
ASTM A105	
API 6A	36K / 45K / 60K / 75K
ASTM A182	F316 / 316L / F304 / 304L
ASTM A182	F51 / F53 / F55 / F5 / F9 / F11 / F22 / F91
ASME IX / DNV-OS-F101	Corrosion Resistance Overlay (Cladding)
SPECIALS	DUPLEX / INCONEL® / SUPER DUPLEX

*Other grades are available under request

DESIGN & ENGINEERING



CUSTOM MANUFACTURING



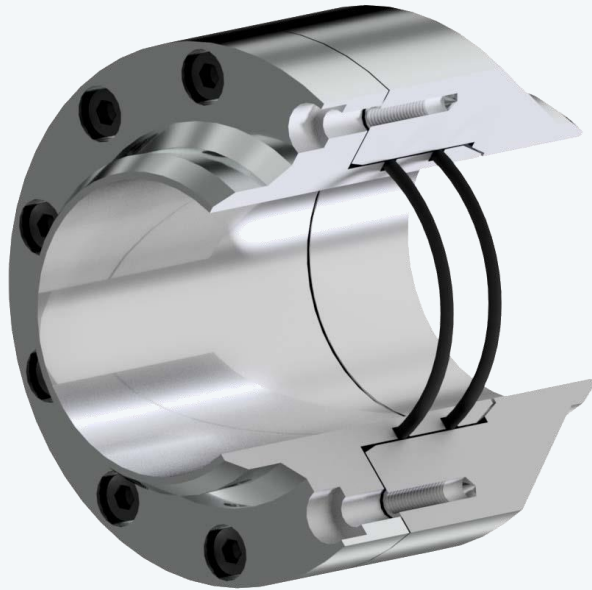
TESTING & CERTIFICATION



HIGH PRESSURE CONNECTORS

PIPING EQUIPMENT

CUSTOM-MADE PRODUCTS



TYPES

HIGH PRESSURE CONNECTORS for Hydraulic and Pneumatic applications
Custom designed according to customer technical requirements

SIZES & RATING

2in to 10in – Maximal Working Pressure 100 bar (for o-rings sealing interface solution)
Other sizes and pressure rating under request

DESIGN CODES

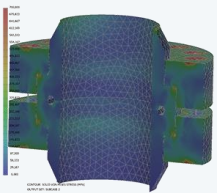
ASME VIII Div 2	Rules for Construction of Pressure Vessels
API 6A	Specification for Subsea Wellhead and Tree Equipment
API 16A	Specification for Drill-through Equipment
ISO 3601	Fluid Power Systems — O-rings
EN 13445	Unfired pressure vessels
DNVGL-RP-D101	Structural analysis of piping systems
ASME B31.3	Process Piping

MATERIALS

ASTM A694	F42 / F52 / F60 / F65 / F70
ASTM A350	LF2 Classes 1 and 2 / LF1 to LF9
ASTM A105	
API 6A	36K / 45K / 60K / 75K
ASTM A182	F316 / 316L / F304 / 304L
ASTM A182	F51 / F53 / F55 / F5 / F9 / F11 / F22 / F91
SPECIALS	DUPLEX / INCONEL® / SUPER DUPLEX

*Other grades are available under request

DESIGN & ENGINEERING



CUSTOM MANUFACTURING



TESTING & CERTIFICATION



PULLING & HANDLING HEADS

PIPING EQUIPMENT

CUSTOM-MADE PRODUCTS



TYPES

PULLING and HANDLING HEADS

ASME B16.5 / ASME B16.47 / API 6A / NORSOK L-005 / O-Ring Seal Solution

SIZES & RATING

ASME B16.5 / B16.47

4in to 60in – Class 150 to 2500

API 6A

1 13/16in to 21 1/4in – 2000 PSI to 20000 PSI

NORSOK L-005

4in to 48in – Class 150 to 2500

ISO 3601

O-Rings Seal Solution (maximal working pressure 100 bar)

DESIGN CODES

ASME VIII Div 2

Rules for Construction of Pressure Vessels

API 6A

Specification for Subsea Wellhead and Tree Equipment

ASME B16.5

Pipe Flanges and Flanged Fittings

ASME B16.47

Large Diameter Steel Flanges

NORSOK L-005

Compact Flanged Connections

ISO 3601

Fluid Power Systems – O-Rings

MATERIALS

ASTM A694

F42 / F52 / F60 / F65 / F70

ASTM A350

LF2 Classes 1 and 2 / LF1 to LF9

ASTM A105

API 6A

36K / 45K / 60K / 75K

ASTM A182

F316 / 316L / F304 / 304L

ASTM A182

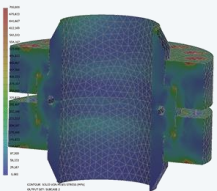
F51 / F53 / F55 / F5 / F9 / F11 / F22 / F91

SPECIALS

DUPLEX / INCONEL® / SUPER DUPLEX

*Other grades are available under request

DESIGN & ENGINEERING



CUSTOM MANUFACTURING



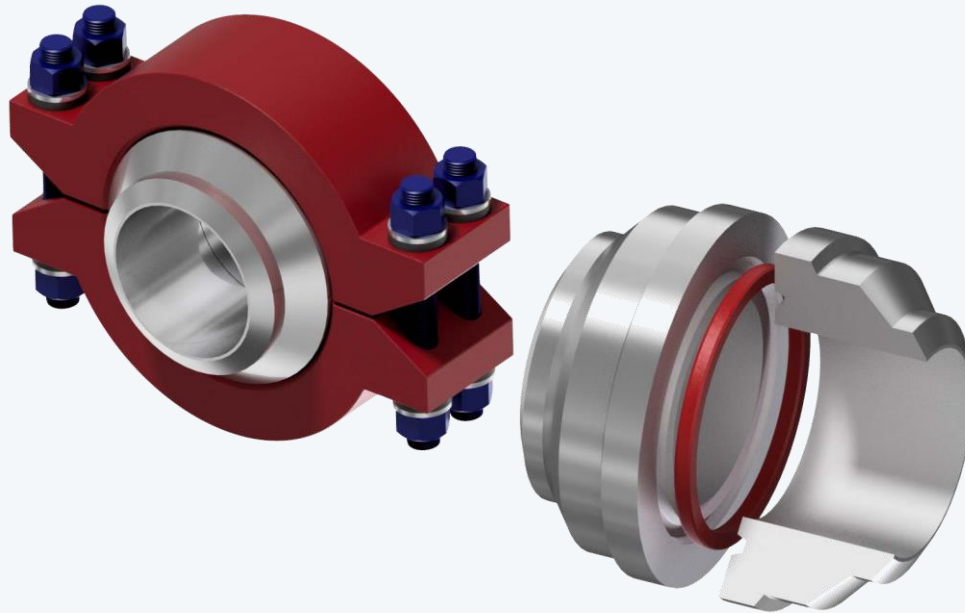
TESTING & CERTIFICATION



CLAMPS & HUBS – API 16A

PIPING EQUIPMENT

CUSTOM-MADE PRODUCTS



TYPES

CLAMPS and HUBS as per API 16A / API 6A

Hubs are available as Weld Neck, Integral & Blinds. Rings Joints Type: BX and RX

SIZES & RATING

CLAMPS

Clamp N°1 to Clamp N°28 – 2000 PSI to 20000 PSI

HUBS

1 13/16in to 21 1/4in – 2000 PSI to 20000 PSI

DESIGN CODES

API 16A

Specification for Drill Through Equipment

API 6A

Specification for Subsea Wellhead and Tree Equipment

ASME VIII Div 2

Rules for Construction of Pressure Vessels

MATERIALS

API 6A

36K / 45K / 60K / 75K

AISI

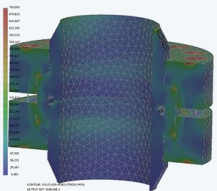
4130 / 4140

SPECIALS

DUPLEX / INCONEL® / SUPER DUPLEX

*Other grades are available under request

DESIGN & ENGINEERING



CUSTOM MANUFACTURING



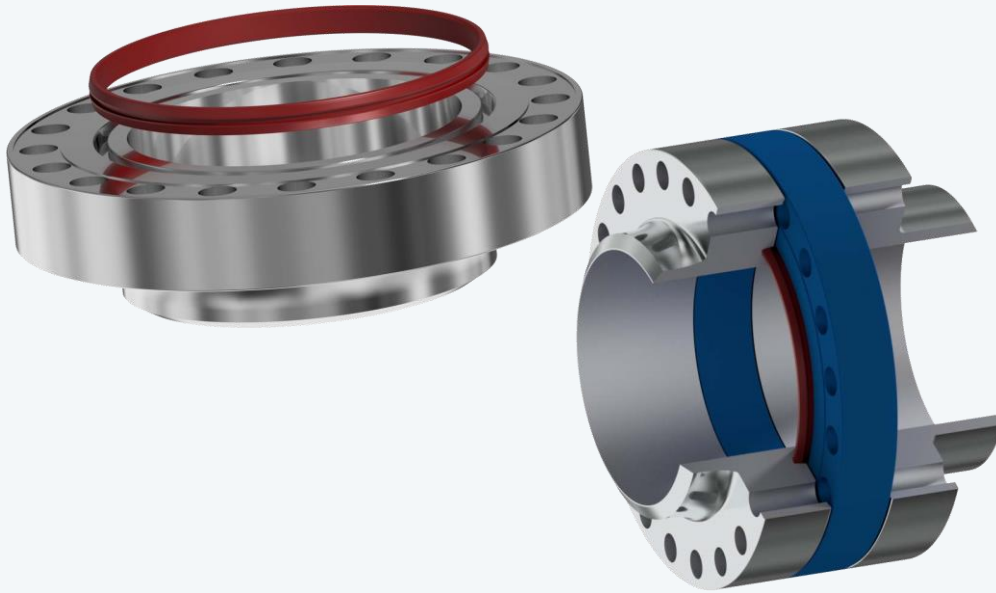
TESTING & CERTIFICATION



COMPACT FLANGES

PIPING EQUIPMENT

CUSTOM-MADE PRODUCTS



TYPES

COMPACT FLANGES NORSOK L-005 / ISO 27509
 Welding Neck / Blind / Integral / Rigid Interface / Paddle Blank / Spades / Reducing Threaded

SIZES & RATING

NORSOK L-005 / ISO 27509 4in to 48in – Class 150 to 2500
 **Custom dimensions for special load cases conditions under request

DESIGN CODES

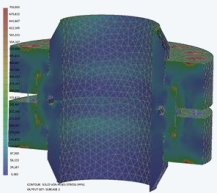
NORSOK L-005 Compact Flanged Connections
 ISO 27509 Compact Flanged Connections with IX Seal Rings

MATERIALS

ASTM A694 F42 / F52 / F60 / F65 / F70
 ASTM A350 LF2 Classes 1 and 2 / LF1 to LF9
 ASTM A105
 NORSOK M-630
 ASTM A182 F316 / 316L / F304 / 304L
 ASTM A182 F51 / F53 / F55 / F5 / F9 / F11 / F22 / F91
 ASME IX / DNV-OS-F101 Corrosion Resistance Overlay (Cladding)
 SPECIALS DUPLEX / INCONEL® / SUPER DUPLEX

*Other grades are available under request

DESIGN & ENGINEERING



CUSTOM MANUFACTURING



TESTING & CERTIFICATION



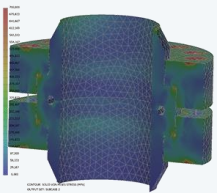
SPECIAL PIPING COMPONENTS

PIPING EQUIPMENT

CUSTOM-MADE PRODUCTS



DESIGN & ENGINEERING



CUSTOM MANUFACTURING



TESTING & CERTIFICATION



TYPES

SPECIAL PIPING COMPONENTS

Spool Adapter Flanges / Nozzles / Anchor Flanges / Forged Barred Tee / Elbows ...

SIZES & RATING

Various sizes and pressure ratings available under request

DESIGN CODES

ASME B16.11

Forged Fittings, Socket-Welding and Threaded

ASME B16.5

Pipe Flanges and Flanged Fittings

API 6A

Specification for Subsea Wellhead and Tree Equipment

NORSOK L-005

Compact Flanged Connections

MATERIALS

ASTM A694

F42 / F52 / F60 / F65 / F70

ASTM A350

LF2 Classes 1 and 2 / LF1 to LF9

ASTM A105

API 6A

36K / 45K / 60K / 75K

NORSOK M-630

ASTM A182

F316 / 316L / F304 / 304L

ASTM A182

F51 / F53 / F55 / F5 / F9 / F11 / F22 / F91

ASME IX / DNV-OS-F101

Corrosion Resistance Overlay (Cladding)

SPECIALS

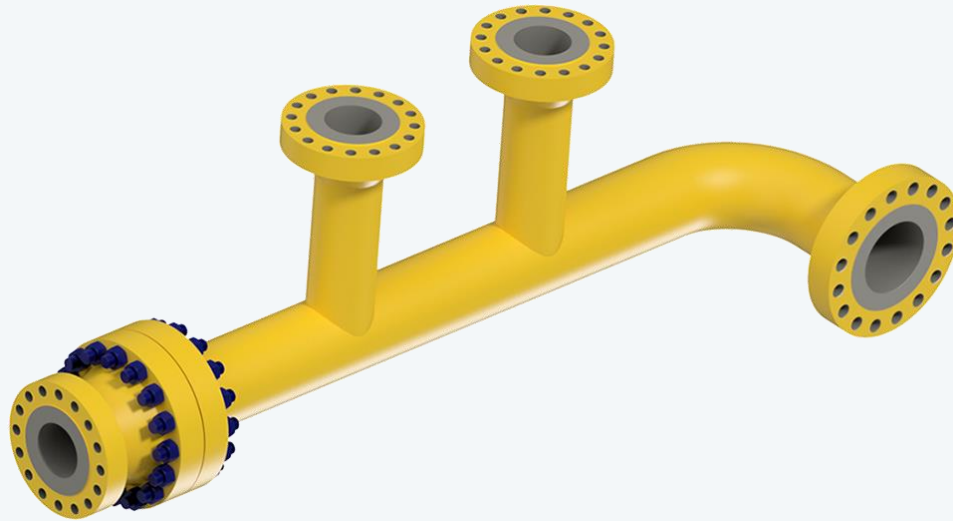
DUPLEX / INCONEL® / SUPER DUPLEX

*Other grades are available under request

PIPE SPOOLS

PIPING EQUIPMENT

CUSTOM-MADE PRODUCTS



TYPES

SPECIAL PIPE SPOOLS

Designed according to customers technical requirements

SIZES & RATING

Various sizes and pressure ratings available under request

DESIGN CODES

ASME B16.5

API 6A

NORSOK L-005

BS EN 1092-1

ASME VIII Div 2

DNVGL-RP-D101

ASME B31.3

Pipe Flanges and Flanged Fittings

Specification for Subsea Wellhead and Tree Equipment

Compact Flanged Connections

Circular flanges for pipes, valves, fittings and accessories

Rules for Construction of Pressure Vessels

Structural analysis of piping systems

Process Piping

MATERIALS

ASTM A694

ASTM A350

API 6A

EN 10219

API 5L

SPECIALS

F42 / F52 / F60 / F65 / F70

LF2 Classes 1 and 2 / LF1 to LF9

36K / 45K / 60K / 75K

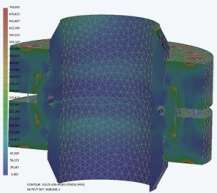
S235 / S275 / S355 / S420 / ...

X42 to X80

DUPLEX / INCONEL® / SUPER DUPLEX

*Other grades are available under request

DESIGN & ENGINEERING



CUSTOM MANUFACTURING



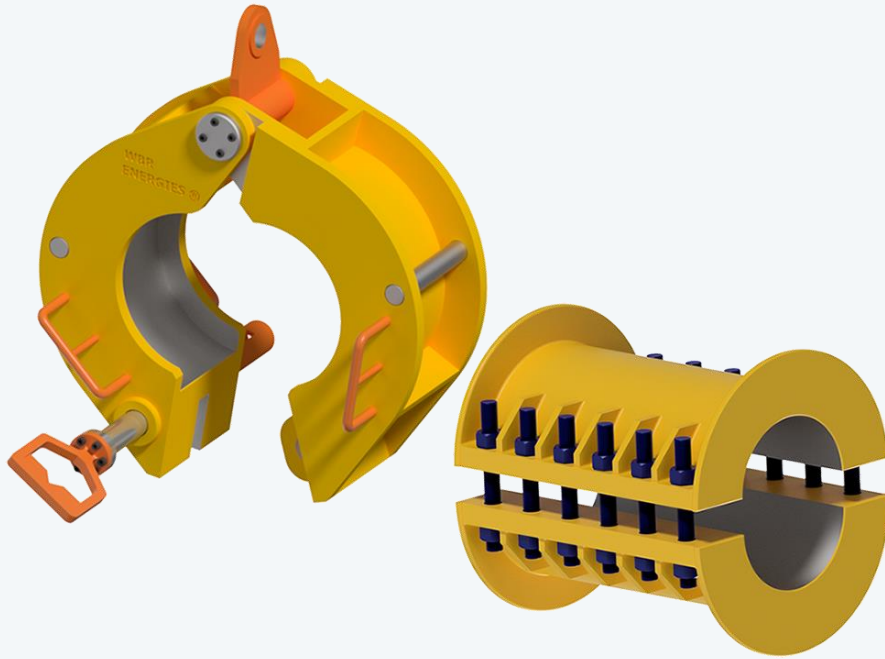
TESTING & CERTIFICATION



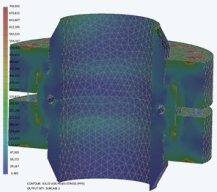
STRUCTURAL CLAMPS

STEEL STRUCTURES

CUSTOM-MADE PRODUCTS



DESIGN & ENGINEERING



CUSTOM MANUFACTURING



TESTING & CERTIFICATION



TYPES

STRUCTURAL CLAMPS, designed according to customers technical requirements
Our clamps can be adapted to be ROV operated for subsea applications.

SIZES & RATING

Various sizes and load capacities available under request

DESIGN CODES

ASME VIII Div 2	Rules for Construction of Pressure Vessels
DNVGL-RP-D101	Structural analysis of piping systems
DNVGL-ST-F101	Submarine pipeline systems
API 6A	Specification for Subsea Wellhead and Tree Equipment
API 16A	Specification for Drill-through Equipment

MATERIALS

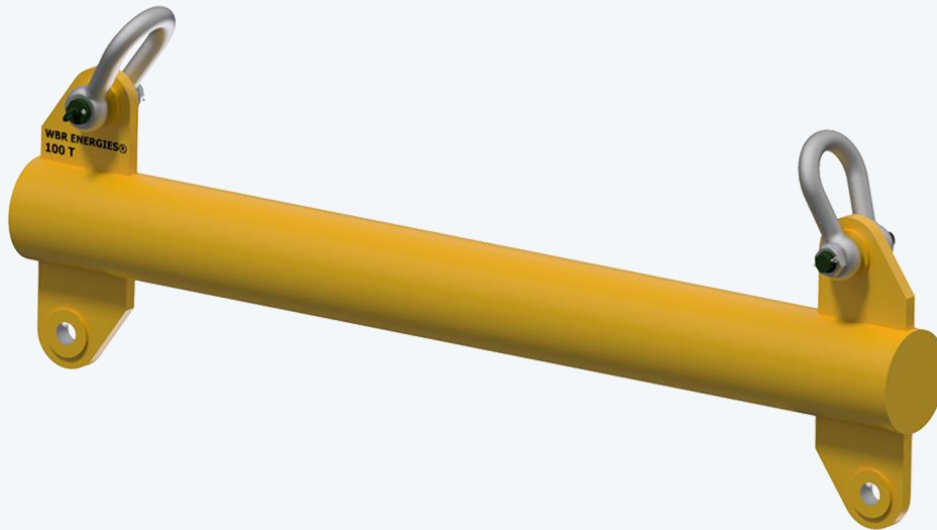
EN10025 / EN 10210 / EN 10219	S235 / S275 / S355 / S420 / ...
ASTM A350	LF2 Classes 1 and 2 / LF1 to LF9
ASTM A694	F52 / F60
AISI	4130 / 4140
API 5L	X42 to X80
SPECIALS	DUPLEX / INCONEL® / SUPER DUPLEX

*Other grades are available under request

SPREADER BARS & FRAMES

STEEL STRUCTURES

CUSTOM-MADE PRODUCTS



TYPES

LIFTING SPREADER BARS AND SPREADER FRAMES

Custom designed according to customers requirements

SIZES & RATING

Various sizes and load capacities available under request

DESIGN CODES

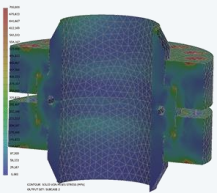
API 2A WSD	Constructing Fixed Offshore Platforms-Working Stress Design
API RP 2RD	Design of Risers for Floating Production Systems
AISC	Code of Standard Practice for Steel Buildings
DNVGL-OS-C101	Design of offshore steel structures
EN 1993 EUROCODE 3	Design of Steel Structures

MATERIALS

EN10025 / EN 10210 / EN 10219 S235 / S275 / S355 / S420 / ...

*Other grades are available under request

DESIGN & ENGINEERING



CUSTOM MANUFACTURING



TESTING & CERTIFICATION



CUSTOM STEEL STRUCTURES

STEEL STRUCTURES

CUSTOM-MADE PRODUCTS

TYPES

CUSTOM DESIGNED STEEL STRUCTURES

Seafastening / Fabrication Aids / Transportation Frames / Mudmats / Platforms / ...

SIZES & RATING

Various sizes and load capacities available under request

DESIGN CODES

API 2A WSD

Constructing Fixed Offshore Platforms-Working Stress Design

API RP 2RD

Design of Risers for Floating Production Systems

AISC

Code of Standard Practice for Steel Buildings

DNVGL-OS-C101

Design of offshore steel structures

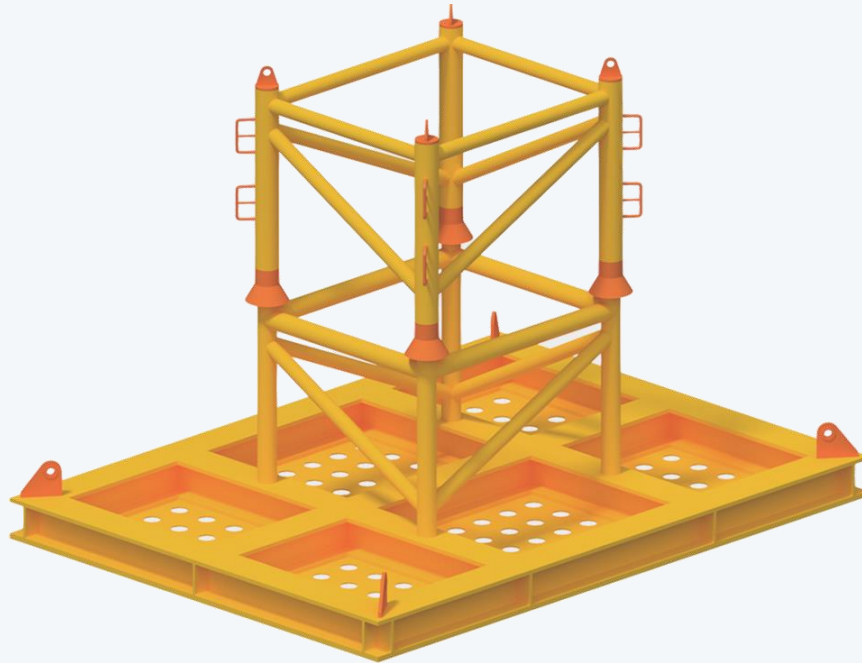
EN 1993 EUROCODE 3

Design of Steel Structures

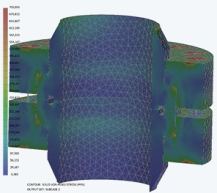
MATERIALS

EN10025 / EN 10210 / EN 10219 S235 / S275 / S355 / S420 / ...

*Other grades are available under request



DESIGN & ENGINEERING



CUSTOM MANUFACTURING



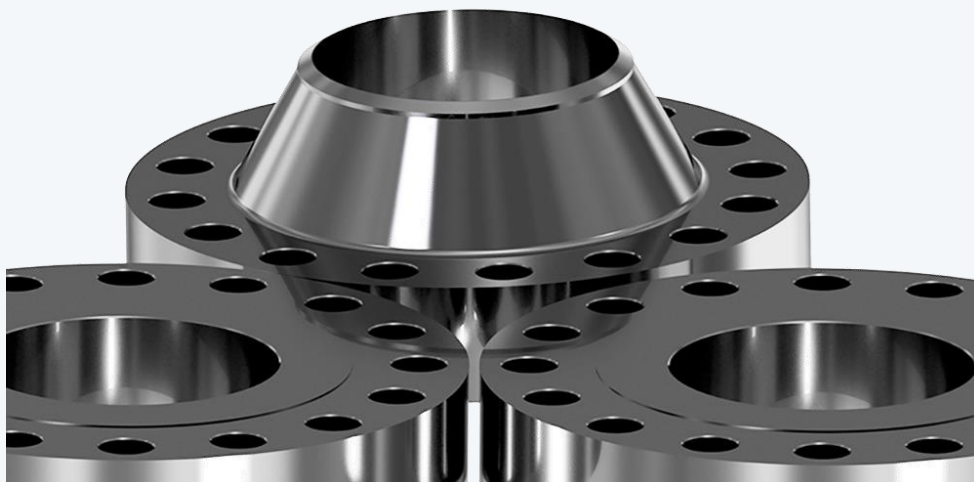
TESTING & CERTIFICATION



STANDARD FLANGES

DISTRIBUTION

DISTRIBUTION & ACCESSORIES



TYPES

WELDING NECK – BLIND - THREADED

LAPPED – SLIP ON

ORIFICE FLANGES – LONG WELDING NECK

SIZES & RATING

ASME B16.5 / ASME B16.47	1/2in to 60in – Class 150 to 2500
API 6A	1 13/16in to 21 1/4in – 2000 PSI to 20000 PSI
NORSOK L-005 / ISO 27509	4in to 48in – Class 150 to 2500
BS EN 1092-1	DN10 to DN2000 – PN 2,5 to PN 400

DESIGN CODES

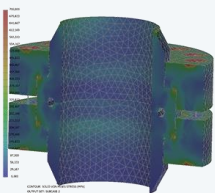
ASME B16.5	Pipe Flanges and Flanged Fittings
ASME B16.47	Large Diameter Steel Flanges
API 6A	Specification for Subsea Wellhead and Tree Equipment
NORSOK L-005	Compact Flanged Connections
BS EN 1092-1	Circular flanges for pipes, valves, fittings and accessories

MATERIALS

ASTM A694	F42 / F52 / F60 / F65 / F70
ASTM A350	LF2 Classes 1 and 2 / LF1 to LF9
ASTM A105	
NORSOK M-630	
API 6A	API 6A – 36K / 45K / 60K / 75K
ASTM A182	F316 / F304 / F22
ASME IX / DNV-OS-F101	Corrosion Resistance Overlay (Cladding)
SPECIALS	DUPLEX / INCONEL® / SUPER DUPLEX

*Other grades are available under request

DESIGN & ENGINEERING



CUSTOM MANUFACTURING



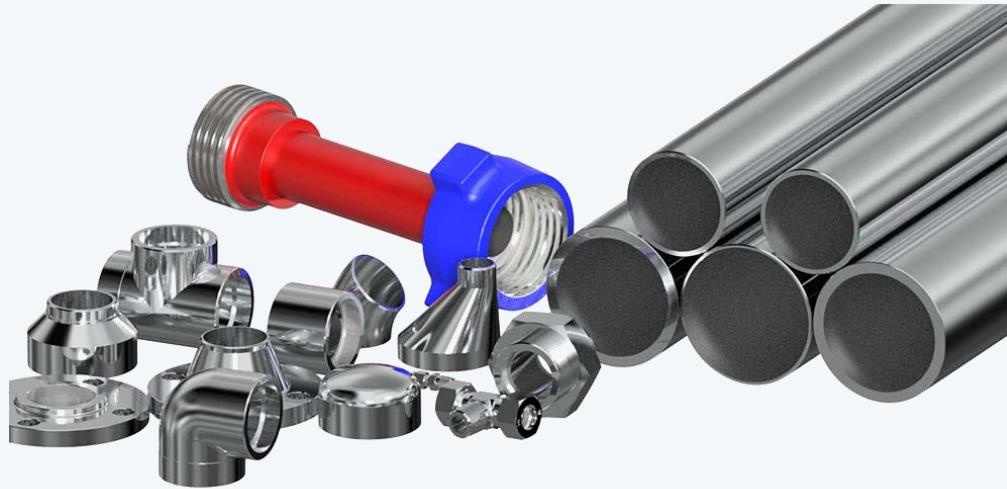
TESTING & CERTIFICATION



FITTINGS & PIPING

DISTRIBUTION

DISTRIBUTION & ACCESSORIES



WROUGHT BUTT WELD FITTINGS

TYPES:

ELBOWS: 45°, 90° & 180°, Short Radius (R=1D), Long Radius (R=1.5D), R=3D & R=5D
TEEs: Equals & Reducing Tees / REDUCERS: Concentric & Eccentrics / CAPS

CODES:

ASME B16.9 – ASME B16.28 – MSS SP 43/75 – BS1640- BS1965

SIZES:

from ½ in to 48in

MATERIALS:

ASTM A234 WPB / A860 WPHY 52 to 65 / MSS SP75 WPHY 52 to 65 / A420 WPL3 to WPL6
ASTM A234 WP5-WP1-WP11-WP22-WP9-WP91
ASTM A403 WP304-WP316-WP321-WP347

FORGED FITTINGS

TYPES:

ELBOWS: 45°, 90° & 180°, Male-Female Elbows, Union elbows
TEEs: Equals & Reducing Tees / CAPS / PLUGS / UNIONS / HEX HEAD BUSHINGS
COUPLINGS / HALF COUPLINGS / COUPLINGS TYPE HAMMER® – WECO®

CODES:

ASME B16.11, BS1740, BS3799, MSS SP 79/95/97

SIZES:

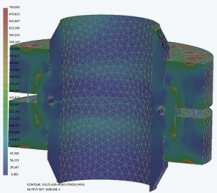
from 1/8 in to 4in

MATERIALS:

ASTM A694 F52 to F65 / ASTM A350 / ASTM A150
ASTM A182 – F304 – F316 – F321 – F 347 – F51 – F53 – F55 – F5 – F9 – F11 – F22 – F91
ASTM A234 WP5 – WP1 – WP11 – WP22 – WP9 – WP91

*Other grades are available under request

DESIGN & ENGINEERING



CUSTOM MANUFACTURING



TESTING & CERTIFICATION



GASKET INSTALLATION TOOL ACCESSORIES

DISTRIBUTION & ACCESSORIES



TYPES

GASKET INSTALLATION TOOL for ASME Flanges : R – RX – BX

GASKET INSTALLATION TOOL for API Flanges : R – RX – BX – SBX

SIZES & RATING

ASME B16.5 / ASME B16.47 4in to 60in – Class 150 to 2500

API 6A 1 13/16in to 21 1/4in – 2000 PSI to 20000 PSI

DESIGN CODES

ASME B16.5 Pipe Flanges and Flanged Fittings

ASME B16.47 Large Diameter Steel Flanges

API 6A Specification for Subsea Wellhead and Tree Equipment

MATERIALS

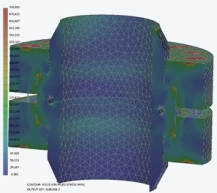
CARBON STEEL

STAINLESS STEEL

ALUMINIUM

*Other grades are available under request

DESIGN & ENGINEERING



CUSTOM MANUFACTURING

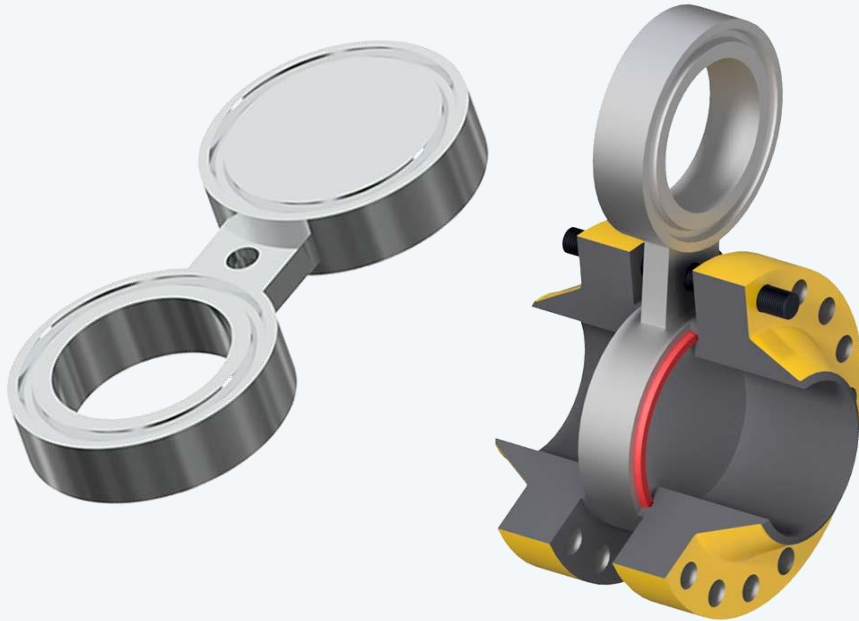


TESTING & CERTIFICATION



SPECTACLE BLINDS / SPADES ACCESSORIES

DISTRIBUTION & ACCESSORIES



TYPES

SPECTACLE BLINDS – LINE SPADES & SPACERS – SPECTACLE BLINDS FOR RTJ FLANGES
 LINE BLIND FEMALE TYPE WITH RTJ GROOVE – REVERSIBLE SPADES FOR RTJ FLANGES
 LINE BLINDS MALE TYPE FOR RTJ FLANGES
 NORSOK PADDLE & SPACER

SIZES & RATING

ASME B16.5 / ASME B16.47	4in to 60in – Class 150 to 2500
API 6A	1 13/16in to 21 1/4in – 2000 PSI to 20000 PSI
NORSOK L-005	4in to 48in – Class 150 to 2500

DESIGN CODES

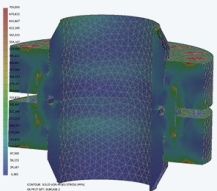
ASME B16.5	Pipe Flanges and Flanged Fittings
ASME B16.47	Large Diameter Steel Flanges
ASME B16.48	Line Blanks
API 6A	Specification for Subsea Wellhead and Tree Equipment
API 590	Steel Line Blanks
NORSOK L-005	Compact Flanged Connections

MATERIALS

ASTM A694	F42 / F52
ASTM A350	
ASTM A105	
API 6A	36K / 45K
ASTM A182	F316 / 316L / F304 / 304L
SPECIALS	DUPLEX / INCONEL® / SUPER DUPLEX

*Other grades are available under request

DESIGN & ENGINEERING



CUSTOM MANUFACTURING

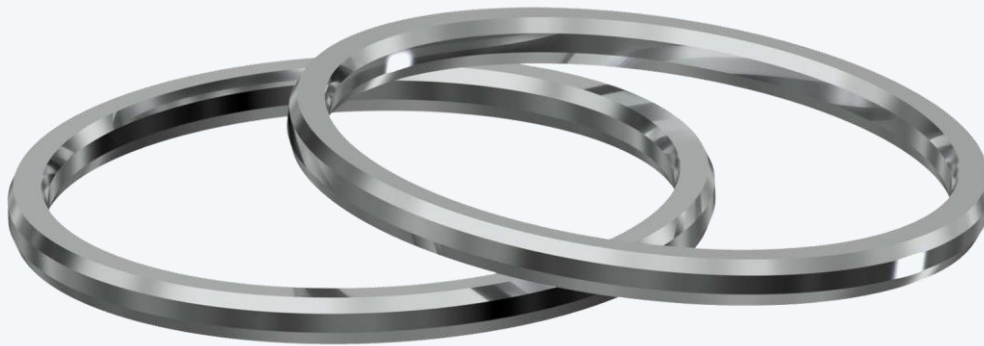


TESTING & CERTIFICATION



RING JOINT GASKETS ACCESSORIES

DISTRIBUTION & ACCESSORIES



TYPES

Ring Joint Gaskets for ASME Flanges: TYPE: R – RX – BX

Ring Joint Gaskets for API Flanges: TYPE: R – RX – BX – SBX

Ring Joint Gaskets for NORSOK Flanges: TYPE: IX

Gaskets for Raised Face Flanges: TYPE: Flat Gasket – Spiral wound gasket

SIZES & RATING

ASME B16.5 / ASME B16.47 4in to 60in – Class 150 to 2500

API 6A 1 13/16in to 21 1/4in – 2000 PSI to 20000 PSI

NORSOK L-005 4in to 48in – Class 150 to 2500

ASME B16.21 1/2in to 24in – Class 150 to 2500

DESIGN CODES

ASME B16.5 Pipe Flanges and Flanged Fittings

ASME B16.47 Large Diameter Steel Flanges

API 6A Specification for Subsea Wellhead and Tree Equipment

NORSOK L-005 Compact Flanged Connections

ASME B16.21 Nonmetallic Flat Gaskets for Pipe Flanges

MSS-SP-44 Steel Pipeline Flanges

MATERIALS

CARBON STEEL Soft Iron / Low Carbon Steel

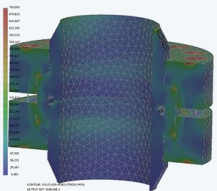
STAINLESS STEEL 316 / 304

SPECIAL GRADES DUPLEX / INCONEL® / SUPER DUPLEX

COATING Zinc Plated / PTFE Coated / Xylan® / Fluoropolymer

*Other grades are available under request

DESIGN & ENGINEERING



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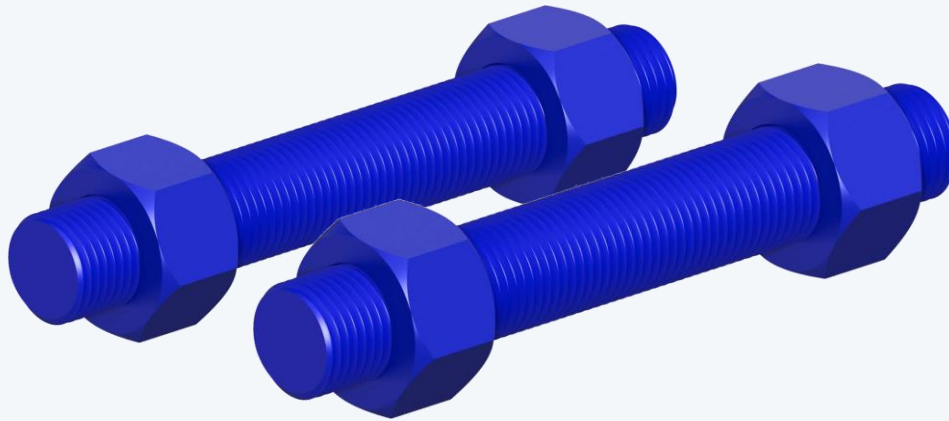


TESTING & CERTIFICATION



SPECIAL BOLTING ACCESSORIES

DISTRIBUTION & ACCESSORIES



TYPES

STUD BOLTS & HEX NUTS - ASME B18.2.1 / ASME B18.2.2
API 6A BOLTING - PSL 1 / PSL 2 / PSL 3 / PSL 4 – BSL-1/BSL-2/BSL-3
NORSOK L-005 BOLTING - Manufactured in accordance with NORSOK M650 / NORSOK M630
HEX NUTS WITH TOMMY BAR HOLES - For Hydraulic Bolt Tensioner applications
BOLTS / SCREWS / NUTS / WASHERS - DIN 933 / ISO4017 / DIN 931 / ISO4014 / DIN 558 / ISO4018 / DIN-EN14339 / DIN 912 / ISO 4762 / DIN 934 / ISO 4032 / DIN 125 / ISO 7089

SIZES & RATING

1/4in to 4in – all lengths

DESIGN CODES

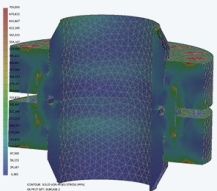
ASME B16.5	Pipe Flanges and Flanged Fittings
ASME VIII Div.2	Rules for Construction of Pressure Vessels
API 6A	Specification for Subsea Wellhead and Tree Equipment
API 20E	Alloy and Carbon Steel Bolting
API 20F	Corrosion Resistant Bolting
NORSOK L-005	Compact Flanged Connections

MATERIALS

ASTM A193/A193M	Grades: B7 / B7M / B8 / B8M / B16
ASTM A320/A320M	Grades: L7 / L7M / B8 / B8M
DIN 931/DIN 933	Grades: 4.6 / 4.8 / 5.6 / 5.8 / 8.8 / 10.9 / 12.9
COATING	Zinc Plated / Hot dip Galvanized / PTFE / Xylan® / Zintek® / Delta Protekt® / Fluoropolymer coated

*Other grades are available under request

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THANK YOU !

MERCI !

OBRIGADO !

GRAZIE !

WUBER
ENERGIES
ENGINEERED SOLUTIONS

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