

COMPANY BROCHURE



✓ WBR ENERGIES (SAS)

WE ARE AN ENGINEERING COMPANY & EQUIPMENT SUPPLIER PROVIDING **SERVICES & PRODUCTS** FOR THE ENERGY INDUSTRIES.

OUR EXPERTISE → ENGINEERING & SUPPLY OF:

- ✓ PIPING EQUIPMENT
- ✓ HIGH PRESSURE CONNECTORS
- ✓ CUSTOM DESIGNED STEEL STRUCTURES
- ✓ ACCESSORIES

COMPANY PRESENTATION

OUR SERVICES

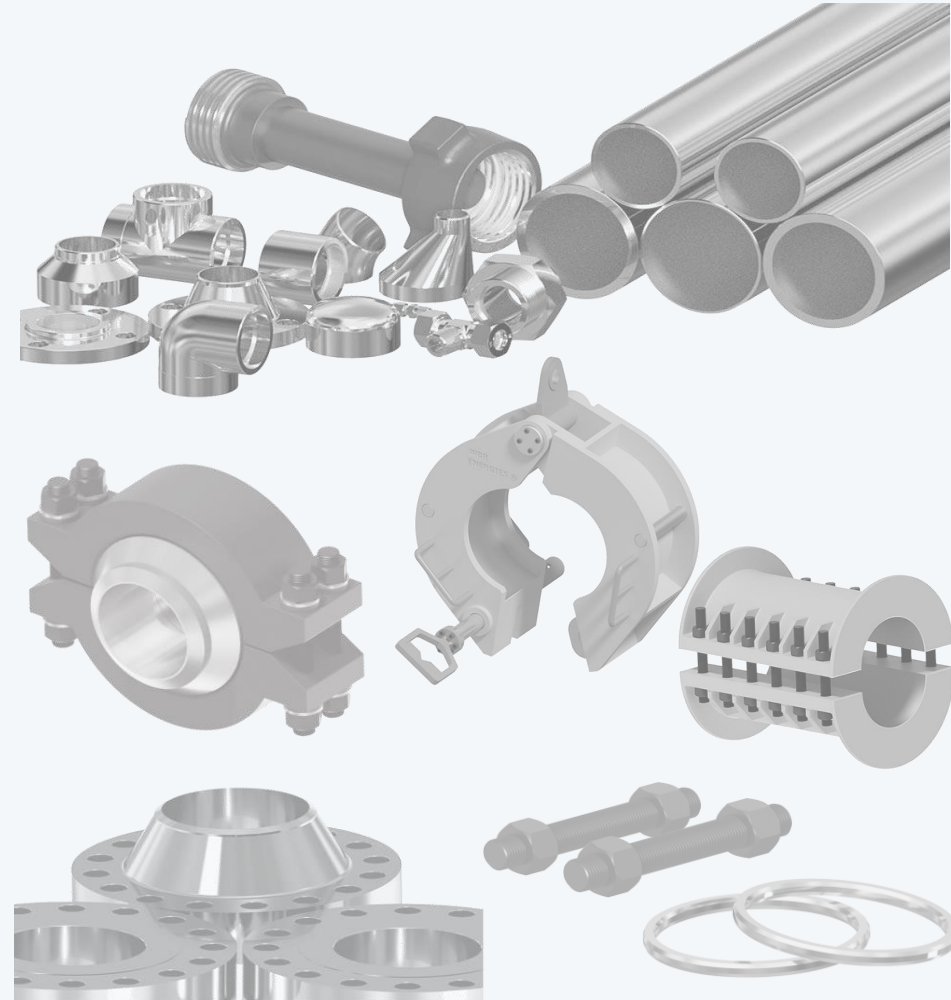
ENGINEERING & EQUIPMENT
SUPPLIER

☑ SUPPLY OF EQUIPMENTS & ACCESSORIES

☑ DESIGN & ENGINEERING

☑ PROJECT MANAGEMENT

☑ TESTING & CERTIFICATION



COMPANY PRESENTATION

OUR MARKETS / INDUSTRIES

ENGINEERING & EQUIPMENT
SUPPLIER

WBR ENERGIES PROVIDES INNOVATIVE **SERVICES** AND **PRODUCTS** FOR THE ENERGY INDUSTRIES

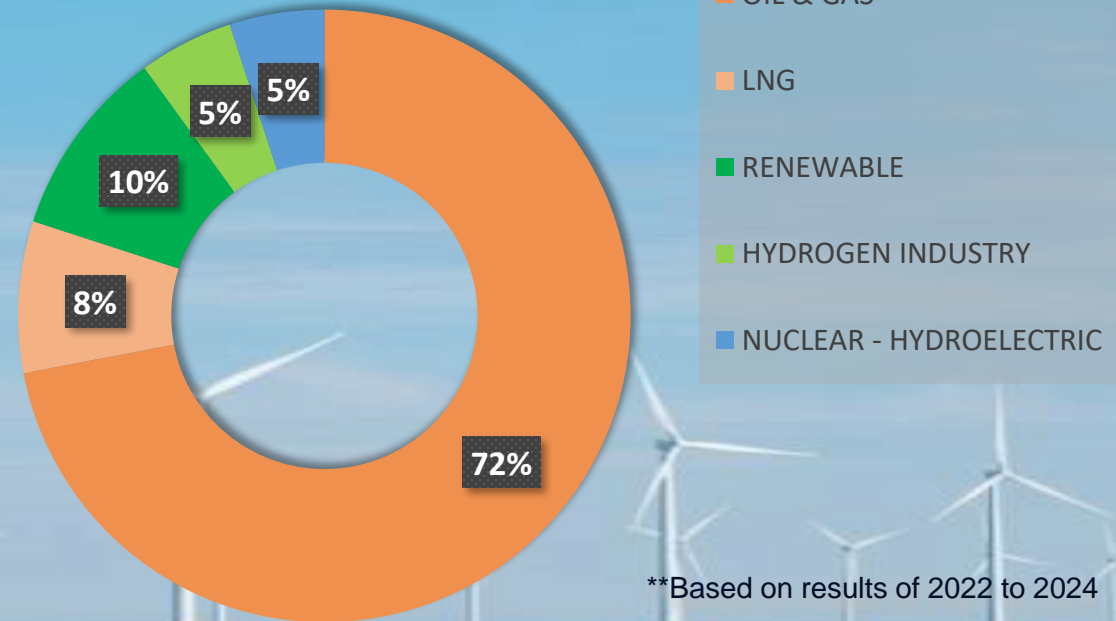
☑ OIL AND GAS: SUBSEA / OFFSHORE / ONSHORE

☑ LIQUIFIED NATURAL GAS (LNG)

☑ MARINE RENEWABLE

☑ HYDROGEN INDUSTRY

☑ NUCLEAR POWER - HYDROELECTRIC



**Based on results of 2022 to 2024

Our aim is to increase participation on Renewable / Hydrogen Industries to 35% by the end of 2026

COMPANY PRESENTATION

OUR CERTIFICATIONS

ENGINEERING & EQUIPMENT
SUPPLIER

WBR ENERGIES HAS DEVELOPED AND IMPLEMENTED AN INTEGRATED QUALITY MANAGEMENT SYSTEM
CERTIFIED ACCORDING TO REQUIREMENTS OF **ISO 9001:2015 / ISO 14001:2015 / ISO 45001:2018**

QUALITY



Intertek

ENVIRONMENT



Intertek

SAFETY



Intertek

COMPANY PRESENTATION

OUR LOCATIONS


ENGINEERING & EQUIPMENT
SUPPLIER

✓ 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



OUR PRODUCTS

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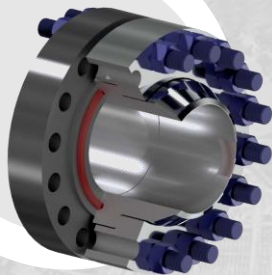
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OUR PRODUCTS

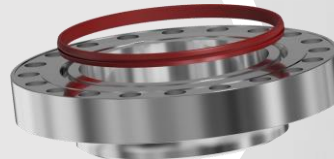
EQUIPMENTS & ACCESSORIES

ENGINEERING & EQUIPMENT
SUPPLIER

SPECIAL FLANGES



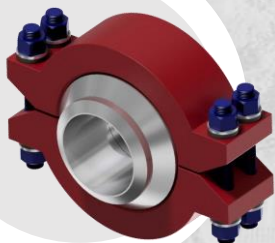
**COMPACT & STANDARD
FLANGES**



**CUSTOM DESIGNED STEEL
STRUCTURES**

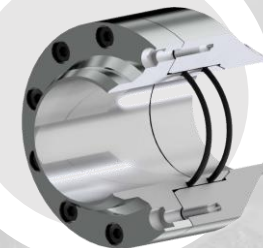


CLAMPS & HUBS



EQUIPMENT SUPPLY
DESIGN & ENGINEERING

**HIGH PRESSURE
CONNECTORS**



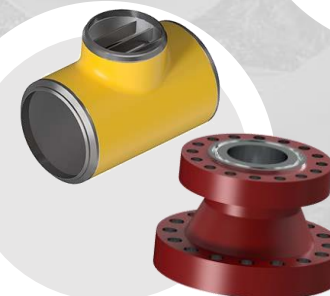
**ACCESSORIES &
DISTRIBUTION**



PULLING HEADS



**SPECIAL FORGED
COMPONENTS**



OUR PRODUCTS

EQUIPMENTS & ACCESSORIES

ENGINEERING & EQUIPMENT SUPPLIER

SPECIAL & STANDARD FLANGES

ASME B16.5 / ASME B16.47 / API17D /
NORSOK L-005

SWIVEL RING FLANGES

COMPACT FLANGES

WELDING NECK

BLIND

THREADED

LAPPED

SLIP ON

ORIFICE FLANGES

LONG WELDING NECK

SPECIAL FORGED COMPONENTS

ASME B16.11 / ASME B16.5 / API 6A /
NORSOK L-005

SPOOL ADAPTER FLANGES

NOZZLES

ANCHOR FLANGES

BARRED TEEs

ELBOWS

HIGH PRESSURE CONNECTORS

ASME VIII Div 2 / API 6A / DNVGL-RP-D101 /
API 16A

CLAMPS & HUBS

PULLING & HANDLING HEADS

CUSTOM DESIGNED CONNECTORS

CUSTOM STEEL STRUCTURES

ASME VIII Div 2 / API 6A / DNVGL-RP-D101 /
DNVGL-ST-F101 / API RP 2RD

STRUCTURAL CLAMPS

SPECIAL PIPE SPOOLS

SEAFASTENING

TRANSPORTATION FRAMES

PLATFORMS

TOOLING

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

AISI 4130 / 4140

ASTM A182 F316 / 316L / F304 / 304L

ASTM A182 F51 / F53 / F55 / F5 / F9 / F11 / F22 / F91

NORSOK M-630

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

API 5L X42 to X80

ASME IX / DNV-OS-F101 - CLADDED

SPECIALS - DUPLEX / INCONEL® / SUPER DUPLEX

*Other grades are available under request



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OUR PRODUCTS

EQUIPMENTS & ACCESSORIES

ENGINEERING & EQUIPMENT SUPPLIER

WROUGHT FITTINGS

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

ELBOWS: 45°, 90° & 180°, R=1D -
1.5D - 3D - 5D, LONG & SHORT
RADIUS

TEES: EQUAL & REDUCING TEES

REDUCERS: CONCENTRIC &
ECCENTRIC

CAPS

FORGED FITTINGS

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

ELBOWS: 45°, 90° & 180°, MALE-
FEMALE ELBOWS, UNION ELBOWS

TEES: EQUAL & REDUCING TEES

PLUGS & CAPS

UNIONS & BUSHINGS

COUPLINGS & HALF COUPLINGS

ACCESSORIES

ASME B16.5 / ASME B16.47 / API 6A /
NORSOK L-005

SPECTACLE BLINDS

LINE SPADES & SPACERS

SPECTACLE BLINDS RTJ

LINE BLIND

REVERSIBLE SPADES RTJ

NORSOK PADDLE & SPACER

ACCESSORIES

ASME B16.5 / API 6A / NORSOK L-005 / ASME
B18.2 / ASME B16.21 / DIN 931/933

RING JOINT GASKETS

FLAT GASKETS

ISOLATION GASKETS

GASKETS INSTALLATION TOOL

STUD BOLTS & NUTS

API 6A BOLTING

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

ASTM A234 WPB / A860 WPHY 52 to 65

MSS SP75 WPHY 52 to 65 / A420 WPL3 to WPL6

ASTM A403 WP304-WP316-WP321-WP347

CARBON STEEL / STAINLESS STEEL / ALUMINIUM

ASTM A193/A193M - ASTM A320/A320M

Zinc Plated / PTFE Coated / Xylan® / Fluoropolymer

SPECIALS - DUPLEX / INCONEL® / SUPER DUPLEX

ASME IX / DNV-OS-F101 – CLADDED

*Other grades are available under request

ENGINEERING SERVICES

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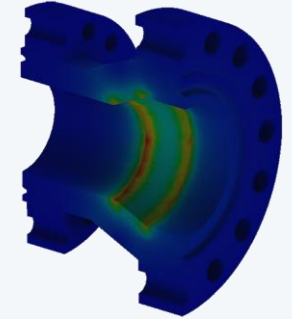
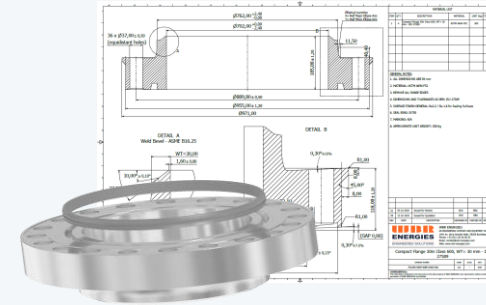
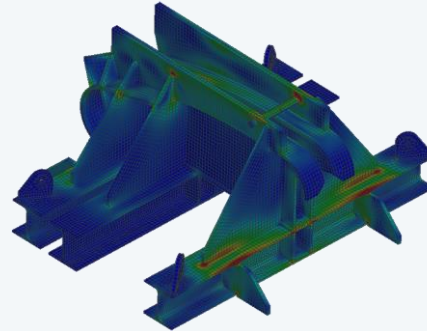
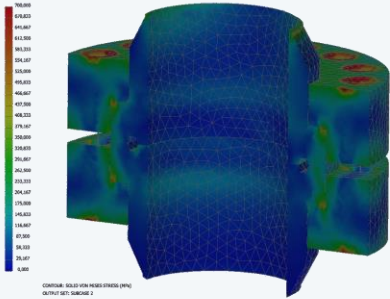
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OUR SERVICES

DESIGN & ENGINEERING

ENGINEERING & EQUIPMENT SUPPLIER



ANALYSIS OF HIGH-PRESSURE EQUIPMENT

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

STRUCTURAL ANALYSIS

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

3D / 2D MODELING

ASME B16.5 / ASME B16.47 / API 6A / NORSOK L-005 / API 16A / DNVGL-RP-D101 / DNVGL-ST-F101 / API RP 2RD

FLUID MECHANICS ANALYSIS

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

ALLOWABLE DESIGN STRESSES
DEFINITION

ELASTIC / ELASTIC-PLASTIC STRESS
ANALYSIS

CHECK AGAINST PLASTIC COLLAPSE /
LOCAL FAILURE

ALLOWABLE DESIGN STRESSES
DEFINITION

CHECK AGAINST PLASTIC COLLAPSE /
LOCAL FAILURE

INSTALLATION & TRANSPORTATION
ANALYSIS

3D MODELS / 2D DRAFTING

FABRICATION DRAWINGS

AS-BUILT DRAWINGS

INSTALLATION & TRANSPORTATION
LAYOUTS

FLUID FLOW CALCULATION

SEAT LEAKAGE CALCULATION

LOCAL PRESSURE LOSS EVALUATION

HEAT TRANSFER

DESIGN TOOLS

AUTODESK INVENTOR®

AUTODESK AUTOCAD®

NASTRAN®

ROBOT®

AUTODESK CFD®

ABAQUS®
*under request



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PREVIOUS PROJECTS

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PROJECTS

PREVIOUS PROJECTS

ENGINEERING & EQUIPMENT SUPPLIER

- ☑ COMPACT FLANGE 30in, Class 600, NORSOK L-005
Material: ASTM A964 F52

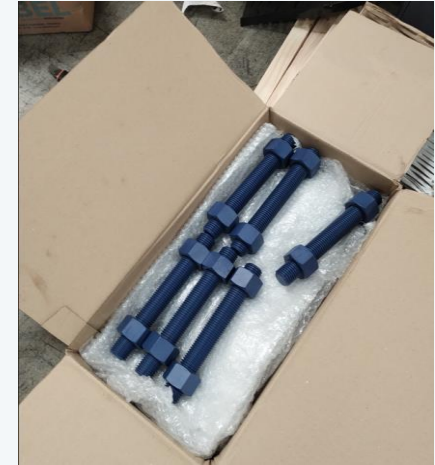
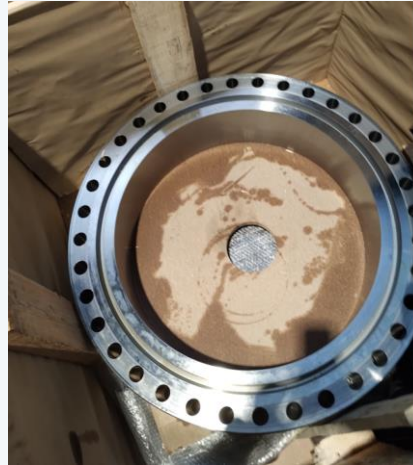
- ☑ SWIVEL FLANGE 30in, Class 300, ASME B16.47A
Material: Hub: ASTM A707 L3 CL3
Ring: ASTM A964 F52

- ☑ RTJ FLANGE 30in, Class 300, ASME B16.47A
Material: ASTM A964 F52

- ☑ BLIND FLANGE 16in, Class 300, ASME B16.5
Material: ASTM A964 F52

- ☑ SEAL RINGS IX400, IX750, NORSOK L-005
Material: SOFT IRON, PTFE coated blue

- ☑ M30 STUDS & HEX NUTS, ASME B16.5
Material: ASTM A193 B7 / ASTM A194 2H PTFE Coated



THANK YOU !

MERCI !

OBRIGADO !

GRAZIE !

Contact Us



Phone

+33 (0) 1 82 36 00 33



Email

contact@wbr-energies.com



Location

1401 Av. de la Grande Halle
78200 Buchelay, France

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APPENDIX (PRODUCTS DATASHEET)

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QUALITY



SAFETY

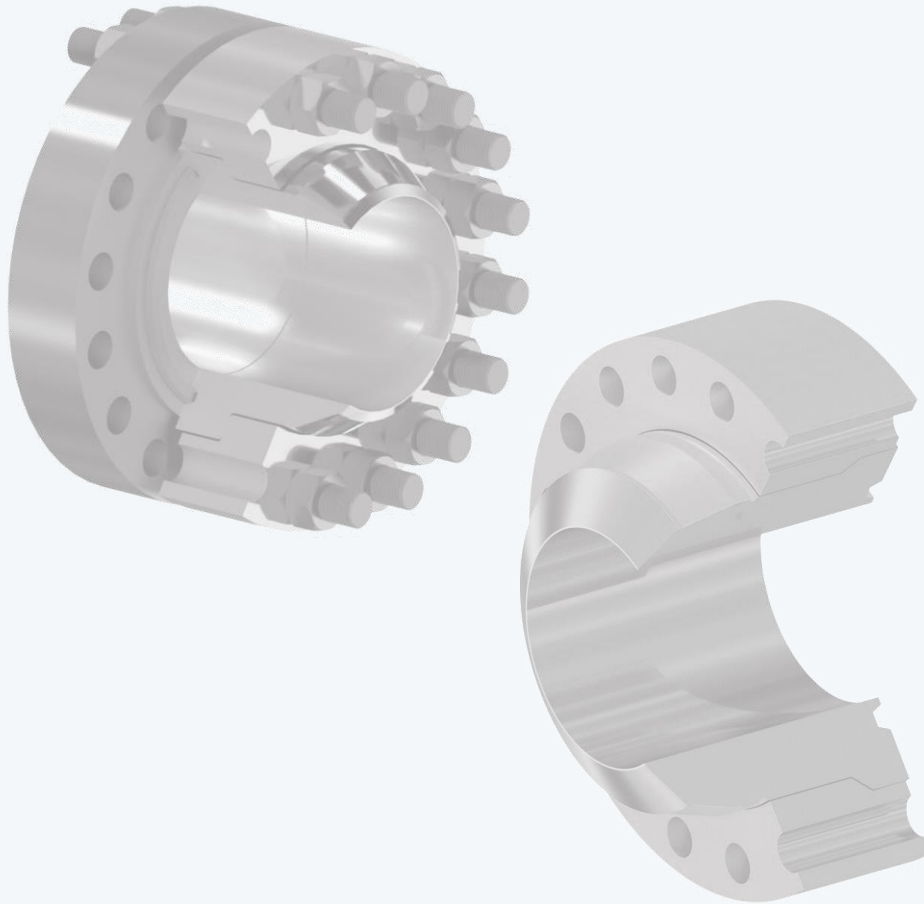


ENVIRONMENT

SWIVEL RING FLANGES

PRODUCT DATASHEET

ENGINEERING & EQUIPMENT
SUPPLIER



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

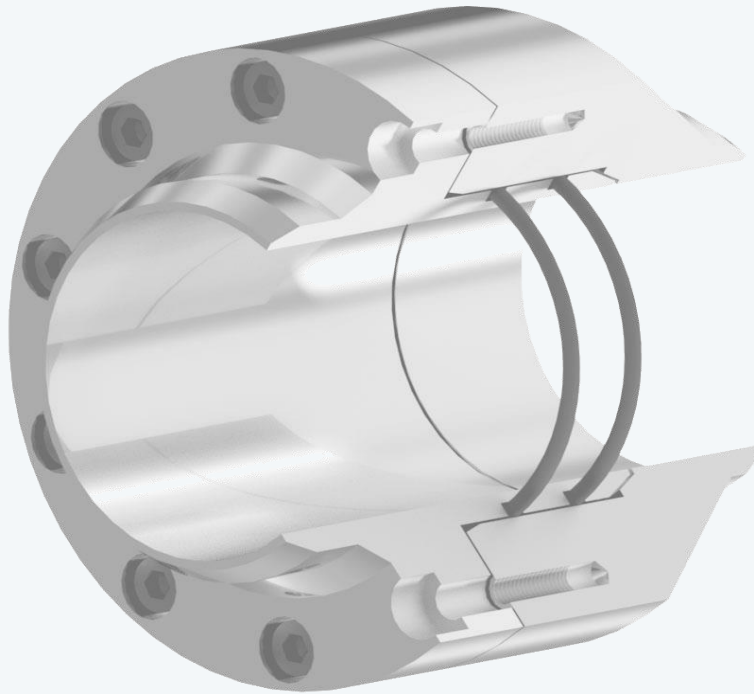
| | |
|-----------------------|---|
| ASTM A694 | F42 / F52 / F60 / F65 / F70 |
| ASTM A350 | LF2 Classes 1 and 2 / LF1 to LF9 |
| ASTM A105 | |
| API 6A | 36K / 45K / 60K / 75K |
| ASTM A182 | F316 / 316L / F304 / 304L |
| ASTM A182 | F51 / F53 / F55 / F5 / F9 / F11 / F22 / F91 |
| ASME IX / DNV-OS-F101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

*Other grades are available under request

HIGH PRESSURE CONNECTORS

PRODUCT DATASHEET

ENGINEERING & EQUIPMENT
SUPPLIER



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

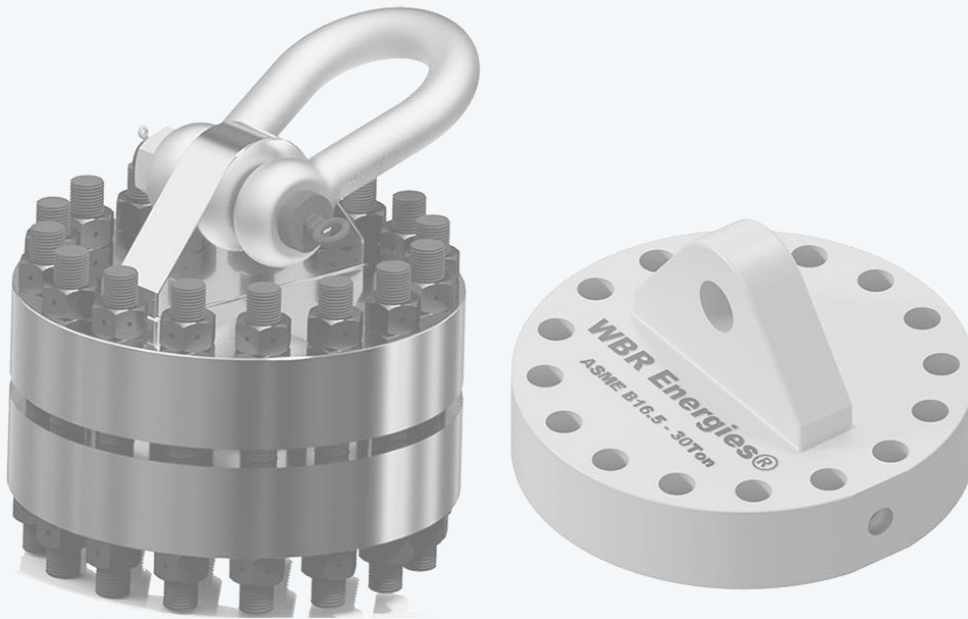
| | |
|-----------|---|
| ASTM A694 | F42 / F52 / F60 / F65 / F70 |
| ASTM A350 | LF2 Classes 1 and 2 / LF1 to LF9 |
| ASTM A105 | |
| API 6A | 36K / 45K / 60K / 75K |
| ASTM A182 | F316 / 316L / F304 / 304L |
| ASTM A182 | F51 / F53 / F55 / F5 / F9 / F11 / F22 / F91 |
| SPECIALS | DUPLEX / INCONEL®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

*Other grades are available under request

PULLING & HANDLING HEADS

PRODUCT DATASHEET

ENGINEERING & EQUIPMENT
SUPPLIER



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

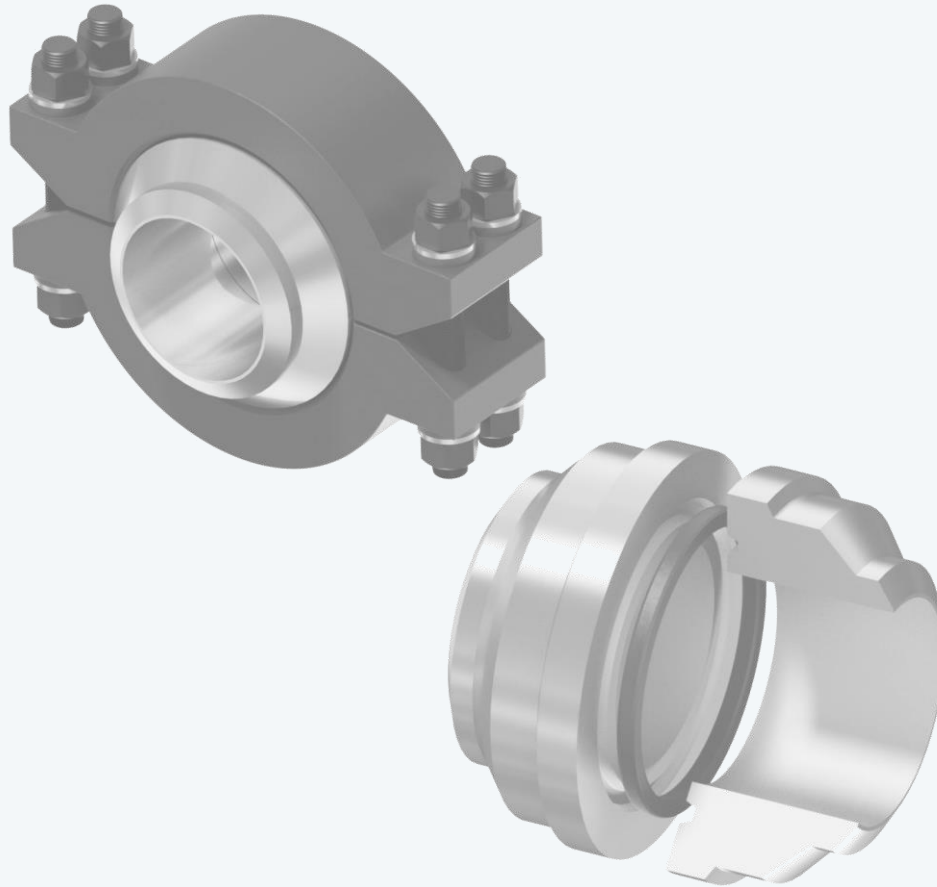
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|-----------|---|
| ASTM A694 | F42 / F52 / F60 / F65 / F70 |
| ASTM A350 | LF2 Classes 1 and 2 / LF1 to LF9 |
| ASTM A105 | |
| API 6A | 36K / 45K / 60K / 75K |
| ASTM A182 | F316 / 316L / F304 / 304L |
| ASTM A182 | F51 / F53 / F55 / F5 / F9 / F11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

*Other grades are available under request

CLAMPS & HUBS – API 16A

PRODUCT DATASHEET

ENGINEERING & EQUIPMENT
SUPPLIER



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

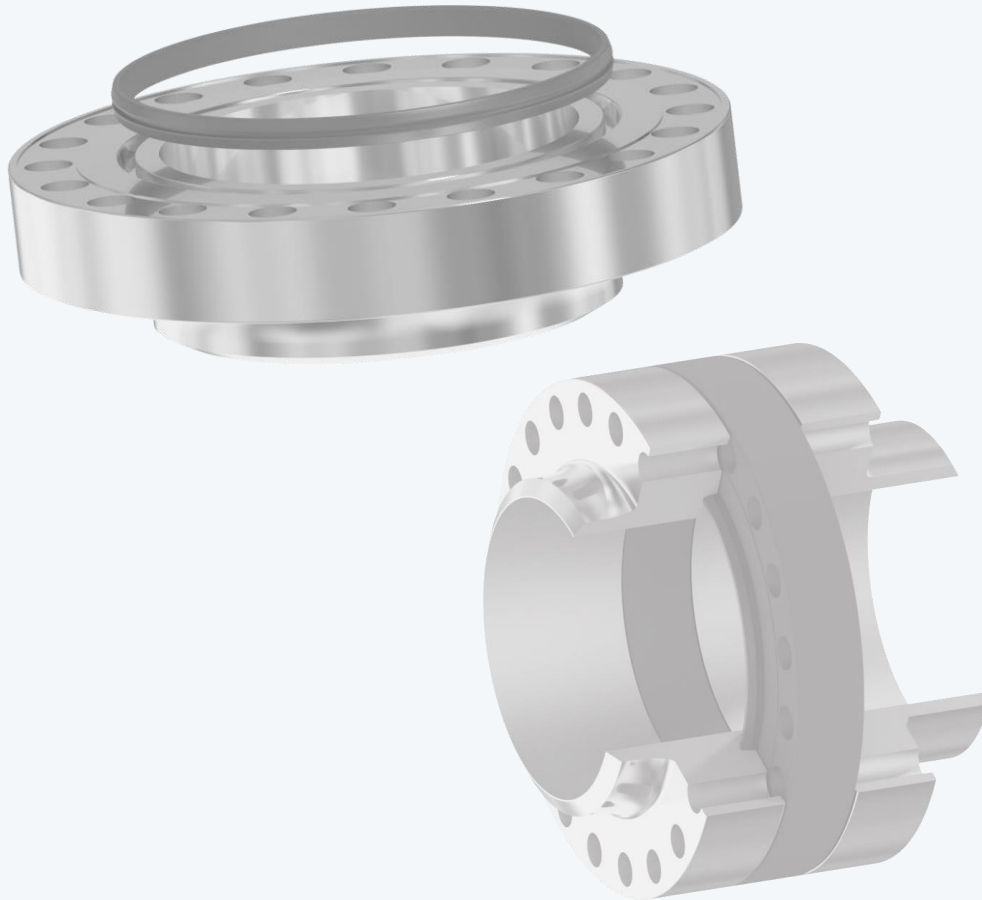
DUPLEX / INCONEL® / SUPER DUPLEX

*Other grades are available under request

COMPACT FLANGES

PRODUCT DATASHEET

ENGINEERING & EQUIPMENT
SUPPLIER



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

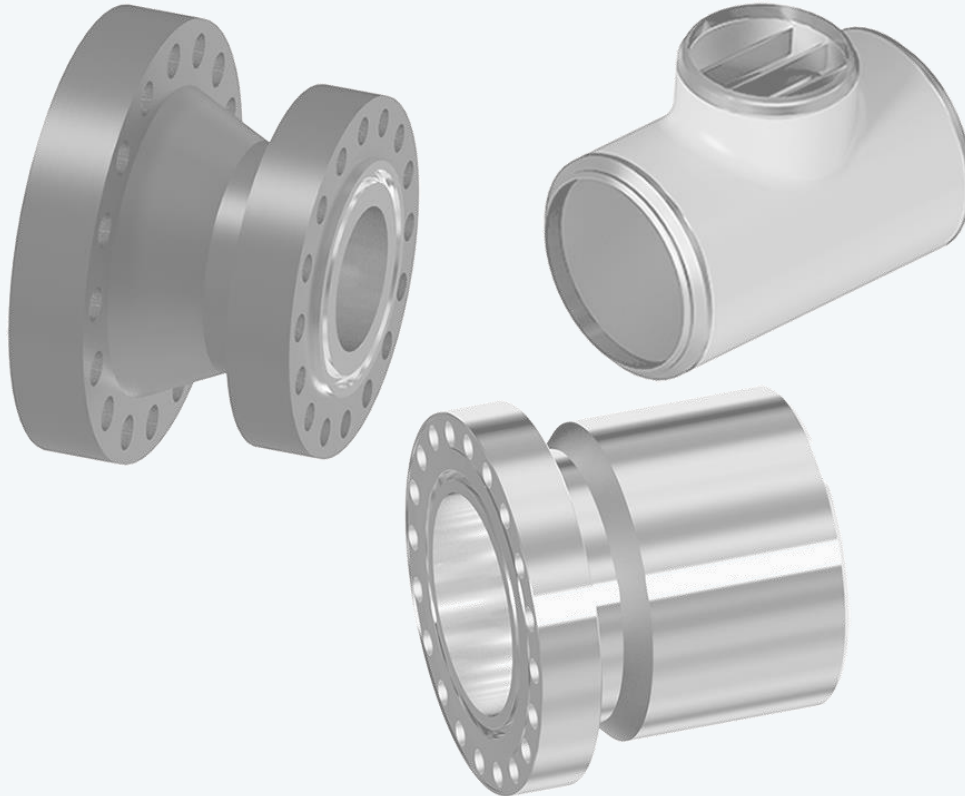
ASTM A694 **F42 / F52 / F60 / F65 / F70**
ASTM A350 **LF2 Classes 1 and 2 / LF1 to LF9**
ASTM A105
NORSOK M-630
ASTM A182 **F316 / 316L / F304 / 304L**
ASTM A182 **F51 / F53 / F55 / F5 / F9 / F11 / F22 / F91**
ASME IX / DNV-OS-F101 **Corrosion Resistance Overlay (Cladding)**
SPECIALS **DUPLEX / INCONEL®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

*Other grades are available under request

SPECIAL PIPING COMPONENTS

PRODUCT DATASHEET

ENGINEERING & EQUIPMENT
SUPPLIER



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

ASME B16.5

API 6A

NORSOK L-005

Forged Fittings, Socket-Welding and Threaded

Pipe Flanges and Flanged Fittings

Specification for Subsea Wellhead and Tree Equipment

Compact Flanged Connections

MATERIALS

ASTM A694

ASTM A350

ASTM A105

API 6A

NORSOK M-630

ASTM A182

ASTM A182

ASME IX / DNV-OS-F101

SPECIALS

F42 / F52 / F60 / F65 / F70

LF2 Classes 1 and 2 / LF1 to LF9

36K / 45K / 60K / 75K

F316 / 316L / F304 / 304L

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

Corrosion Resistance Overlay (Cladding)

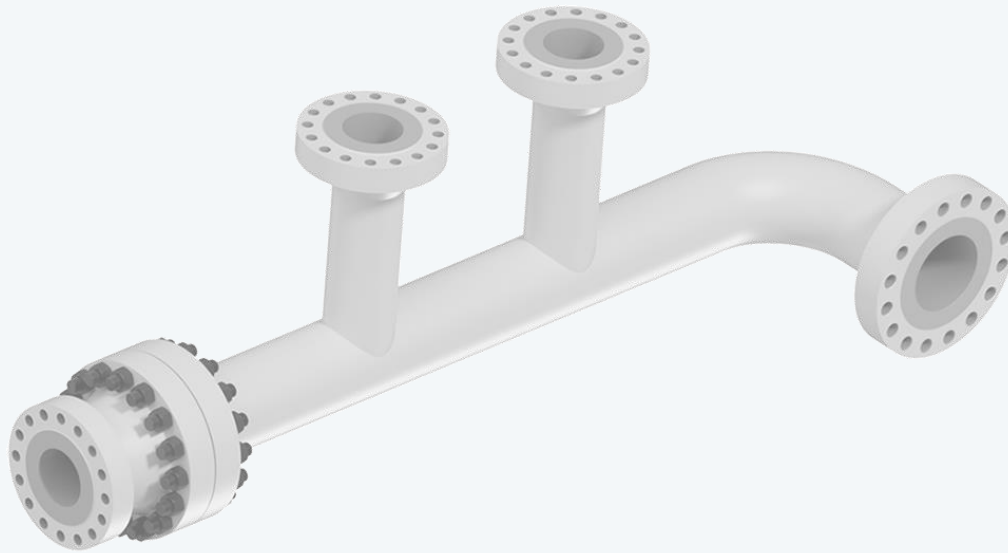
DUPLEX / INCONEL® / SUPER DUPLEX

*Other grades are available under request

PIPE SPOOLS

PRODUCT DATASHEET

ENGINEERING & EQUIPMENT SUPPLIER



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

Pipe Flanges and Flanged Fittings

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

ASME VIII Div 2

Rules for Construction of 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

API 6A

36K / 45K / 60K / 75K

EN 10219

S235 / S275 / S355 / S420 / ...

API 5L

X42 to X80

SPECIALS

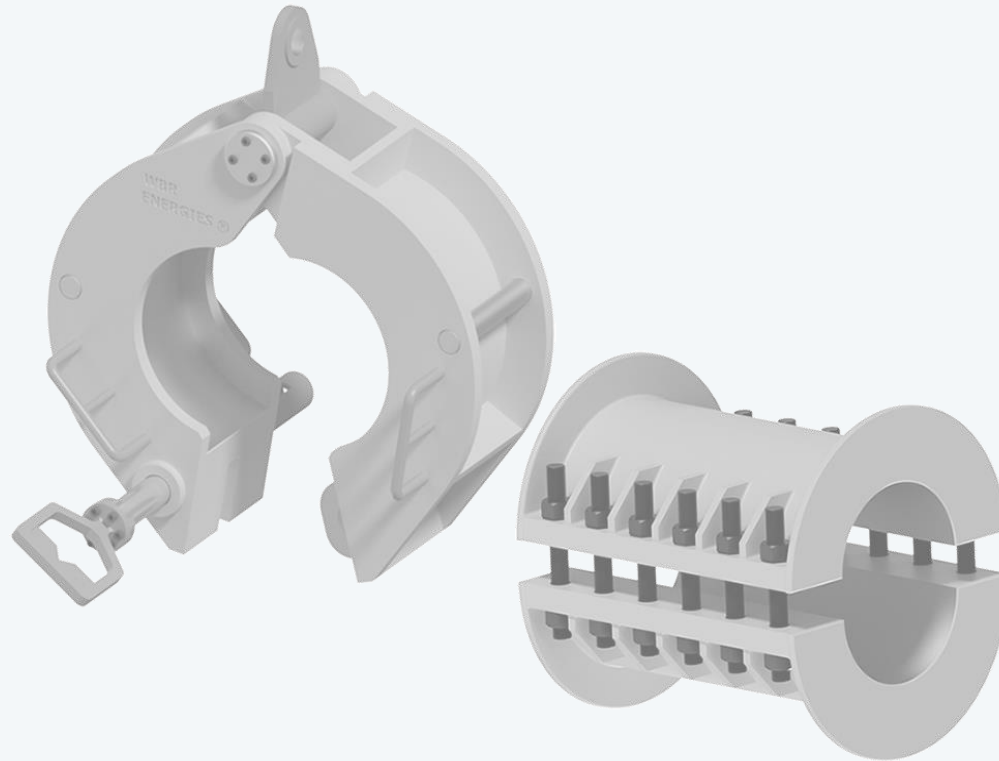
DUPLEX / INCONEL® / SUPER DUPLEX

*Other grades are available under request

STRUCTURAL CLAMPS

PRODUCT DATASHEET

ENGINEERING & EQUIPMENT
SUPPLIER



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

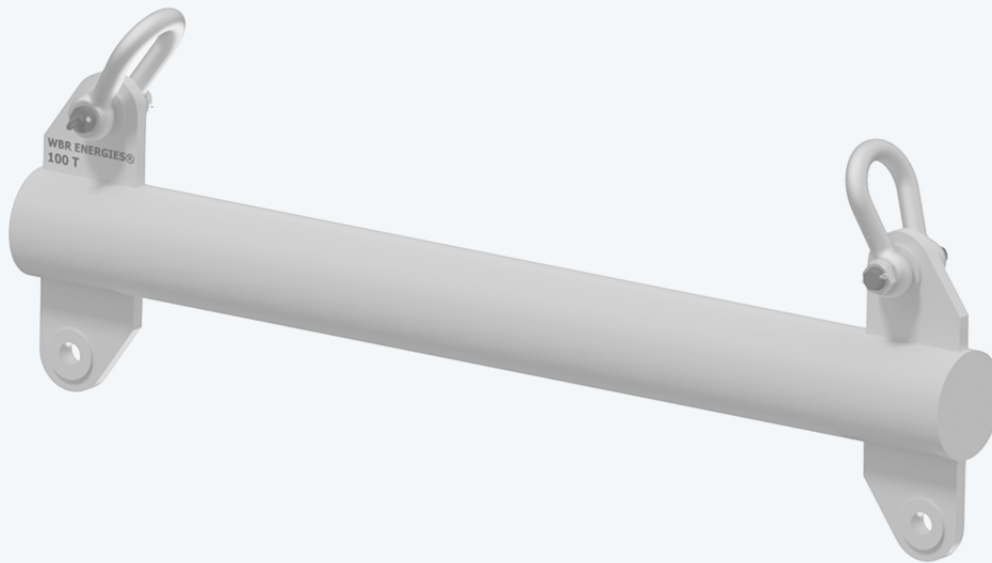
| | |
|-------------------------------|----------------------------------|
| EN10025 / EN 10210 / EN 10219 | S235 / S275 / S355 / S420 / ... |
| ASTM A350 | LF2 Classes 1 and 2 / LF1 to LF9 |
| ASTM A694 | F52 / F60 |
| AISI | 4130 / 4140 |
| API 5L | X42 to X80 |
| SPECIALS | DUPLEX / INCONEL® / SUPER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

*Other grades are available under request

SPREADER BARS & FRAMES

PRODUCT DATASHEET

ENGINEERING & EQUIPMENT
SUPPLIER



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

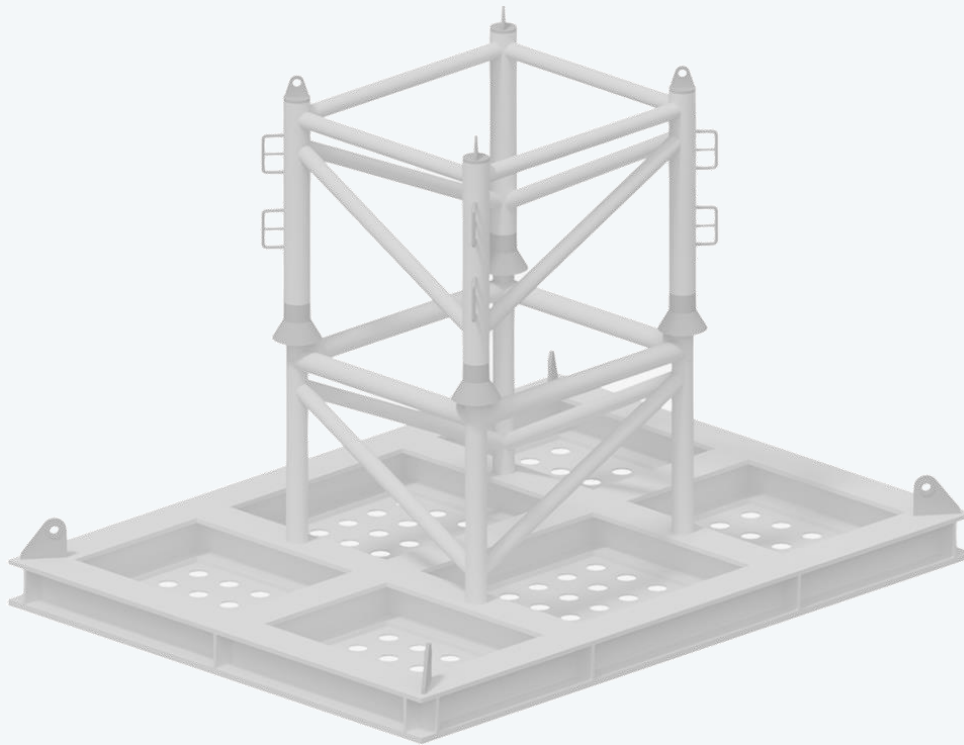
EN10025 / EN 10210 / EN 10219 S235 / S275 / S355 / S420 / ...

*Other grades are available under request

CUSTOM STEEL STRUCTURES

PRODUCT DATASHEET

ENGINEERING & EQUIPMENT
SUPPLIER



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 |
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MATERIALS

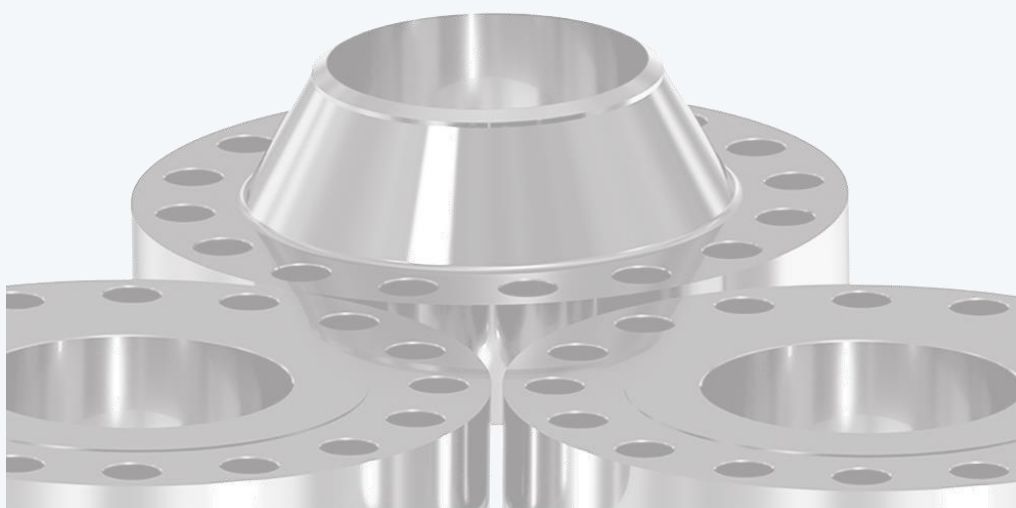
EN10025 / EN 10210 / EN 10219 S235 / S275 / S355 / S420 / ...

*Other grades are available under request

STANDARD FLANGES

PRODUCT DATASHEET

ENGINEERING & EQUIPMENT SUPPLIER



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

FITTINGS & PIPING

PRODUCT DATASHEET

ENGINEERING & EQUIPMENT
SUPPLIER

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 1/2 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

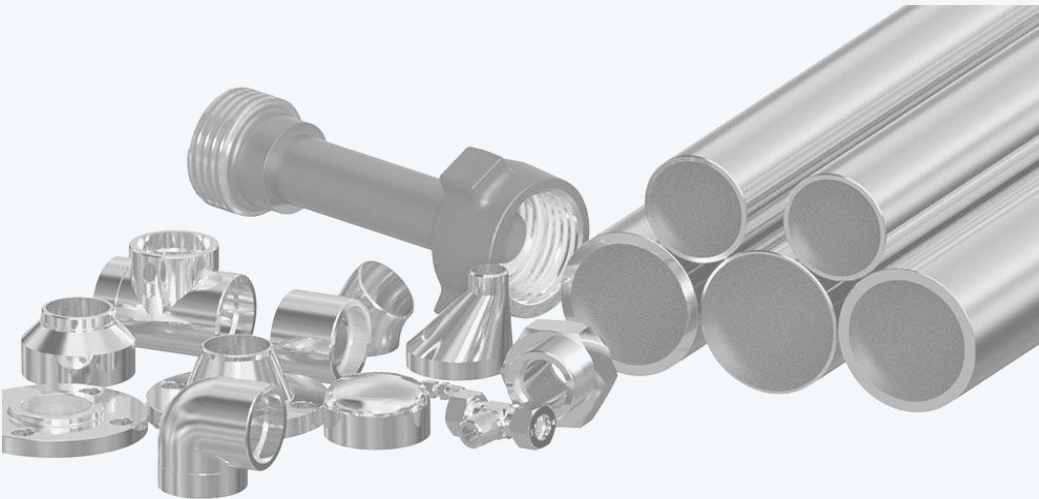
MATERIALS:

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

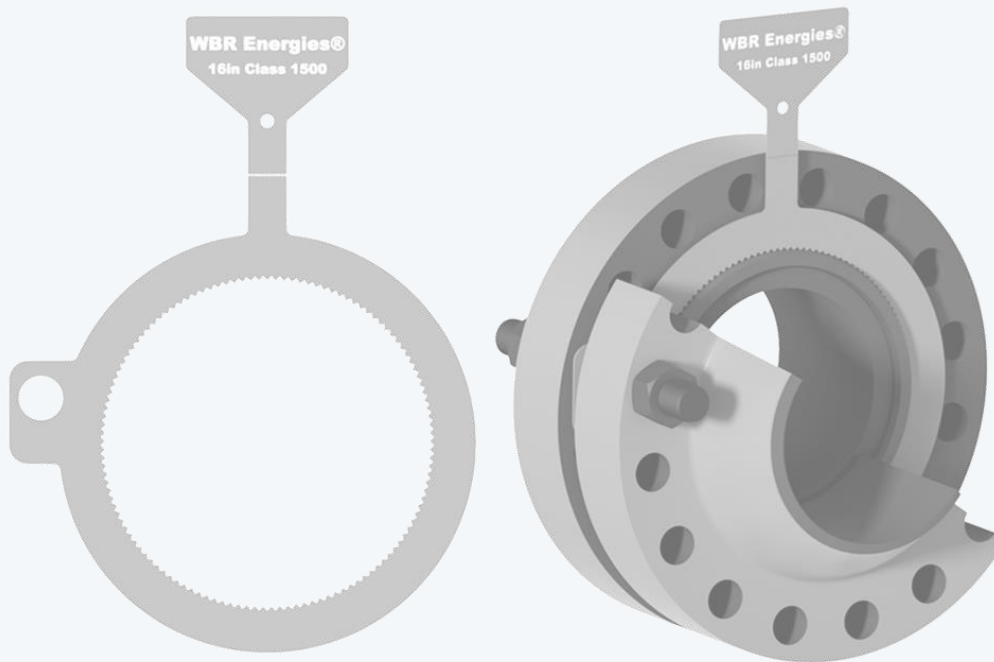
*Other grades are available under request



GASKET INSTALLATION TOOL

PRODUCT DATASHEET

ENGINEERING & EQUIPMENT
SUPPLIER



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

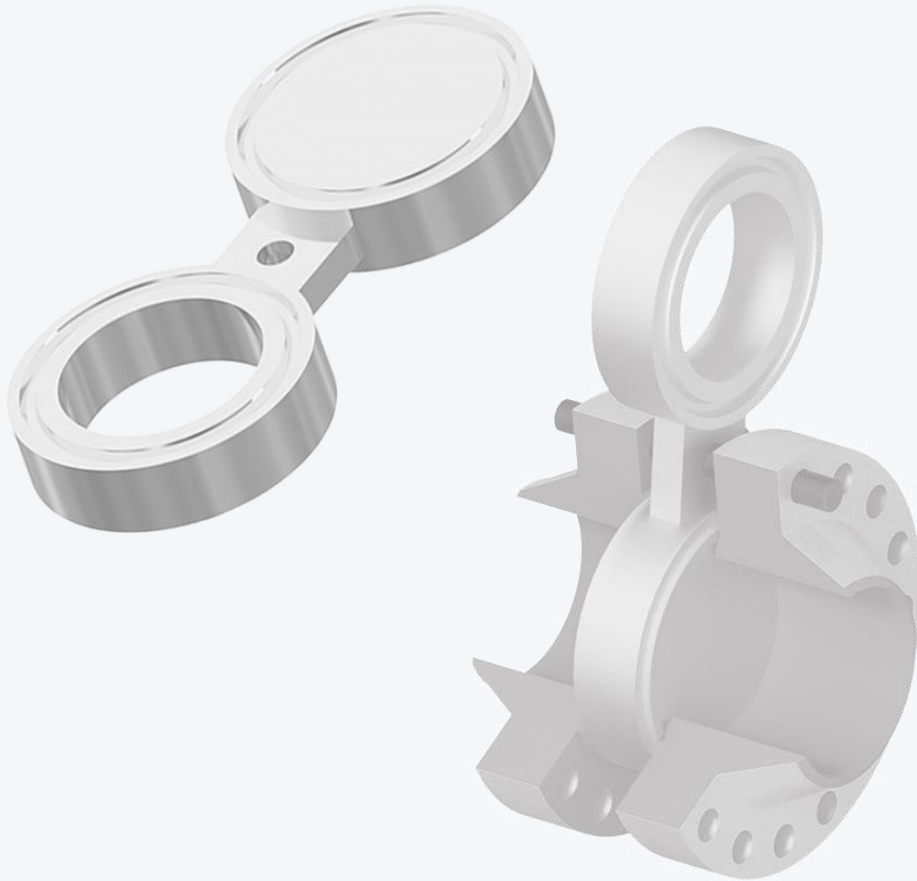
CARBON STEEL
STAINLESS STEEL
ALUMINIUM

*Other grades are available under request

SPECTACLE BLINDS / SPADES

PRODUCT DATASHEET

ENGINEERING & EQUIPMENT
SUPPLIER



TYPES

SPECTABLE 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

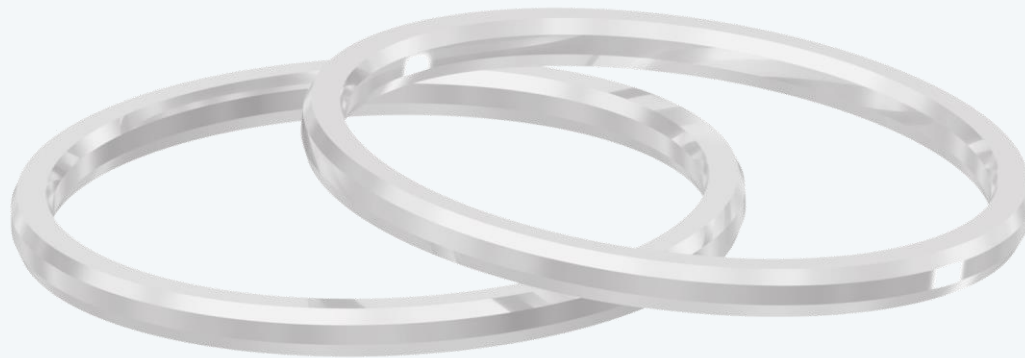
| | |
|-----------|----------------------------------|
| ASTM A694 | F42 / F52 |
| ASTM A350 | |
| ASTM A105 | |
| API 6A | 36K / 45K |
| ASTM A182 | F316 / 316L / F304 / 304L |
| SPECIALS | DUPLEX / INCONEL® / SUPER DUPLEX |

*Other grades are available under request

RING JOINT GASKETS

PRODUCT DATASHEET

ENGINEERING & EQUIPMENT SUPPLIER



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

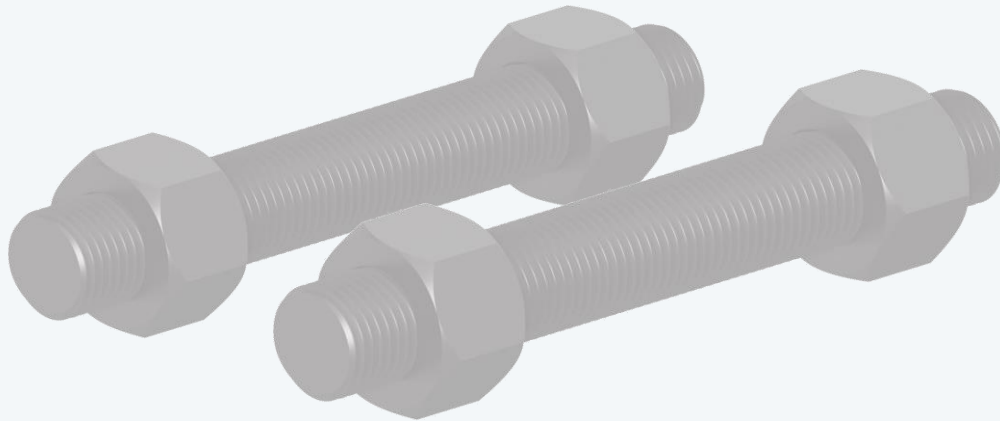
| | |
|-----------------|--|
| CARBON STEEL | Soft Iron / Low Carbon Steel |
| STAINLESS STEEL | 316 / 304 |
| SPECIAL GRADES | DUPLEX / INCONEL® / SUPER DUPLEX |
| COATING | Zinc Plated / PTFE Coated / Xylan® / Fluoropolymer |

*Other grades are available under request

SPECIAL BOLTING

PRODUCT DATASHEET

ENGINEERING & EQUIPMENT SUPPLIER



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

ASME VIII Div.2

API 6A

API 20E

API 20F

NORSOK L-005

Pipe Flanges and Flanged Fittings

Rules for Construction of Pressure Vessels

Specification for Subsea Wellhead and Tree Equipment

Alloy and Carbon Steel Bolting

Corrosion Resistant Bolting

Compact Flanged Connections

MATERIALS

ASTM A193/A193M

ASTM A320/A320M

DIN 931/DIN 933

COATING

Grades: B7 / B7M / B8 / B8M / B16

Grades: L7 / L7M / B8 / B8M

Grades: 4.6 / 4.8 / 5.6 / 5.8 / 8.8 / 10.9 / 12.9

Zinc Plated / Hot dip Galvanized / PTFE / Xylan® /

Zintek® / Delta Protekt® / Fluoropolymer coated

*Other grades are available under request

Contact Us



Phone

+33 (0) 1 82 36 00 33



Email

contact@wbr-energies.com



Location

1401 Av. de la Grande Halle
78200 Buchelay, France

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