



Duplex steels

All over the world, the name BUTTING stands for high quality pipes, pipelines and components which are used in a great variety of industries and applications. The core skills of our family business are based in the knowledge of material, forming and welding technology and in quality assurance. We rely on more than 50 years of experience in welding and in processing corrosion resistant steels and alloys. Apart from austenitic steels, special alloys and titanium, BUTTING is a specialist in the fabrication of duplex, superduplex and lean duplex products.

Extensive product range

A wide range of high performance products according to DIN EN, ASTM/ASME, NORSOK and many more can be found in the company:

- **Longitudinally welded pipes**
 - Outside diameter from 60.3 to 2 032 mm (80")
 - The maximum ratio of wall thickness to the outer diameter is around 1.2:10
 - Wall thicknesses up to 60 mm
 - In random lengths of up to 18 mtrs
 - Extensive raw material availability for short-term delivery options
- **Special pipes**
 - Pipes with demanding tolerance requirements
 - Pipes in specific geometries
- **Spools**
- **Customised components**
- **Vessels, tanks and apparatus**

Our production technology ensures the implementation of project-specific requirements:

- Tailor-made tolerances
- Specific sizes
- Specific surface treatment
- Individual quality requirements

Rapid availability

The BUTTING company in Germany is stocking about 1 200 t of pipes with a range from 2" to 24" in 10S and 40S. The pipes in grade/material UNS S31803/ UNS S32205/ 1.4462 and 1.4410/UNS S32750 are tested acc. to ASTM A928/ASTM A790.

Moreover, we also have a warehouse with duplex and superduplex pipes in **Calgary, Canada**. The sizes range/dimensions from 2" to 30" in wall thicknesses of 10S and 40S.

Duplex steels in use

The world wide consumption of duplex steel is increasing steadily. The main reason for this development is their corrosion resistance to various corrosive substances that occur in the onshore and offshore applications, such as chlorides, carbon dioxide or low pH values. Duplex steel is typically used for:

- Process piping and pipelines
- Flow lines onshore and offshore
- Topside process systems
- Pump pipes and riser pipes
- Well heads
- Underwater manifolds



Duplex references

Since 1979, BUTTING products have been used in numerous projects:

- **The Statoil “Sleipner Vest” project:**
2 300 tons of pipes in size 508 x 14.5 mm
- **The Mittelplate production platform in Germany:**
8.5 km of duplex pipes in sizes 273 x 8 mm and 168.3 x 11 mm (in 18 mtrs production lengths) as well as six vessels made from duplex steel
- **A gas collection station for the “Kela 2” project in China:** Among other things, BUTTING supplied more than 4 500 mtrs of pipe with a diameter of 508 x 15.9 mm
- **Lurgi for the generation of bio-energy:**
16 columns up to 20 mtrs high, as well as 11 dryers and 2 flat bottom tanks
- **BHP Petroleum for the “BHP Billiton Zamzama Gas Plant” project:**
958 tons of pipes in size 219.1 x 8.74 mm
- **Saipem for the Gbaran-Ubie field:**
approx. 1 200 tons of pipes made from plates in 12 mtrs random lengths
- **GDF Suez for the “L5a-D line pipe” project in the North Sea:**
2 000 tons of pipes in size 273.1 x 15.09 mm
- **INPEX for the Australian “Ichthys” project:**
1 000 tons of pipes in different sizes from 8" to 18"
- **“Tyra” project in Denmark:**
156 tons of pipes in different sizes from 6" to 24"
- **“PDO” for the Mabrouk Deep Gas Field Development (Phase III):**
1 350 tons of pipes in different sizes from 8" to 12"
- **ConocoPhillips for the “Sumpal” project in Indonesia:**
150 tons of pipes in different sizes from 10" to 24"

Superduplex references

BUTTING distinguishes itself with the following projects, for instance:

- **Shell for the “Kingfisher” project:** more than 1 800 tons of longitudinally welded pipes in size 273 x 13.75 mm, laid using the reeling procedure
- **BG Tunisia for flow lines in the Miskar field:**
approx. 6 000 mtrs of pipes in size 273 x 14.3 mm, as well as 600 mtrs of riser pipes and a variety of elbows
- **Suction and feed pipes for sea water in the Emirate of Qatar:** prefabrication of spools with outer diameters of 24", 28" and 88"
- **CalEnergy in the USA for transfer lines:**
more than 850 tons of pipes with outer diameters of 20", 24" and 30"
- **Subsea 7/Total for the “West Franklin” project:**
752 tons of pipes in size 362 x 35 mm
- **Talisman for the “Montrose” project:**
116 tons of pipes in different sizes from 8" to 18"
- **TAQA for the “Cladhan” offshore project:** more than 17 000 mtrs of pipes in size 273.1 x 16.1 mm
- **“Snorre” project:**
280 tons of pipes in different sizes from 6" to 10"
- **Shell “Penguins” project:**
150 tons of pipes in different sizes from 6" to 14"
- **“Johan Sverdrup” project:**
220 tons pipes in sizes from 14" x 18.3 mm
- **Shell “Arran” project:**
130 tons of pipes in different sizes from 6" to 12"
- **Shell “Vito” project in USA:**
140 tons of pipes in different sizes up to 24"