

# WHY Choose Tube over Pipe?

SIMPLE, SAFE AND LIGHTWEIGHT



## EASY ASSEMBLY & DISASSEMBLY

Tube is easy to assemble and disassemble with no hot work or permits required.



## LIGHTWEIGHT

Tubing is much lighter than pipe. Reducing strain on the system and unexpected maintenance.



## BETTER FLOW

Reduced end connections and smoother ID allows for better flow while reducing the size of pumps and equipment.



## FAST ASSEMBLY

Tube installation is much faster than pipe.

- No special tools required
- No welding
- Cutting tube is simple
- Configurations can be changed quickly
- Ongoing maintenance is simple and reliable



## HIGHER PRESSURE RATINGS & TEMPERATURE

- Up to 60 000 PSI (4134 Bar)
- From cryogenic to 1100° C
- Various material types



# Bright Annealed vs Pickled Tubing

RELIABLE , HIGH PRESSURE, ANTI-CORROSIVE

## BRIGHT ANNEALED TUBING



# VS

## PICKLED TUBING



There are key differences between bright annealed tubing and pickled tubing from the manufacturing processes, quality, ease of use, anti-corrosive properties, flexibility, cost effectiveness and more

**SMOOTH AND BRIGHT**  
inside and outside surface finish



**DULL AND ROUGH** surface finish



Annealed in a controlled atmosphere containing hydrogen to **KEEP OXIDATION TO A MINIMUM**

Annealed in an open furnace where **ATMOSPHERIC OXYGEN** causes scaling on both the ID and OD



**NO SCALING**, therefore no need for the tubing to be pickled for cleaning



**PICKLED IN A BATH** containing diluted nitric and hydrofluoric acid to remove the scaling.

As it is not exposed to harmful chemicals the **PASSIVE OXIDE LAYER ON THE SURFACE REMAINS INTACT**



Surface is chemically attacked during the pickling process which can **DAMAGE THE PASSIVE OXIDE LAYER**

**SMOOTH SURFACE**  
offers increased corrosion resistance



**ROUGH SURFACE** has is more susceptible to corrosion



Has a higher manufacturing cost, but **OVERALL LOWER COST** of ownership



Has a lower manufacturing cost, but **HIGHER OVERALL COST** of ownership due to corrosion and constant replacement



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