



Vacuum insulated transfer lines

VIP – LNG

Compared to conventional foam-insulated pipes, using VIP saves time and resources: With a heat input of 3 W/m^2 , vacuum insulation is many times more effective than when conventional insulation materials (rock wool or glass foam insulation) are used, installation at the construction site is faster and the service life of the pipe is longer.

Maximum efficiency for your project: The cost-efficient transfer of liquid natural gas and liquid hydrogen LH_2 (LNG) requires piping systems in much larger dimensions than is the case for other cryogenic liquids. Smaller pipe diameters can be selected so that the cost of materials can be reduced.

Our proprietary technology enables flow rates of $6\,000 \text{ m}^3/\text{h}$ with nominal diameters of up to DN 1 000. We also ensure a heat input of $< 3 \text{ W/m}^2$ for these sizes.

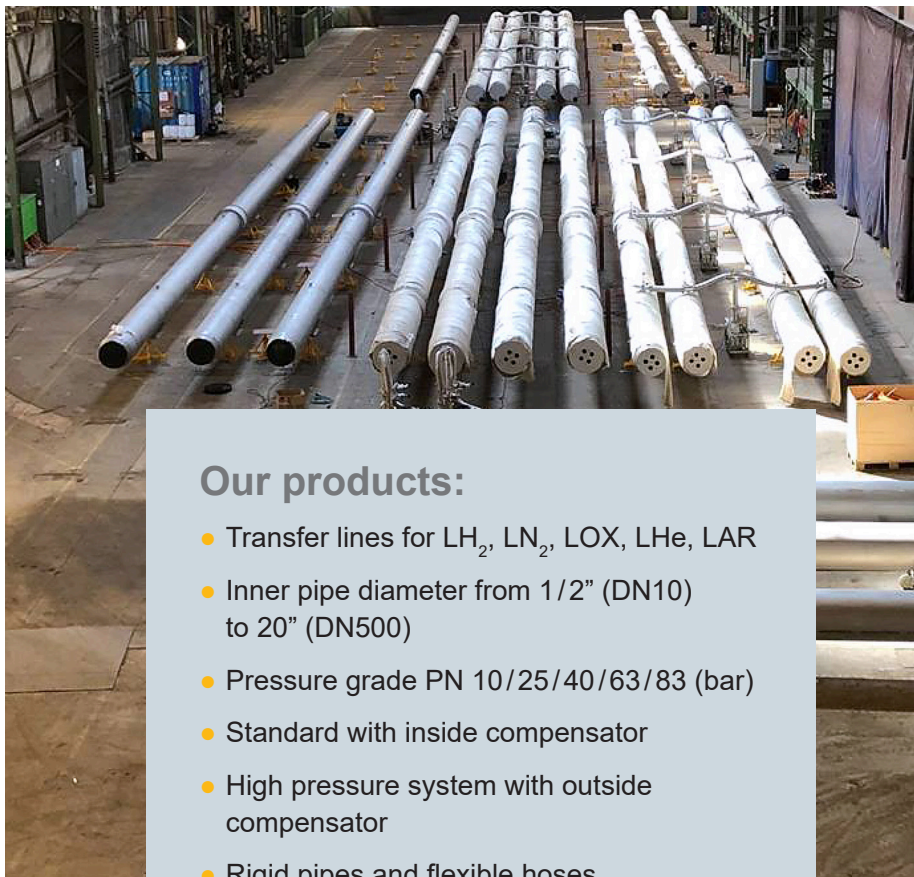
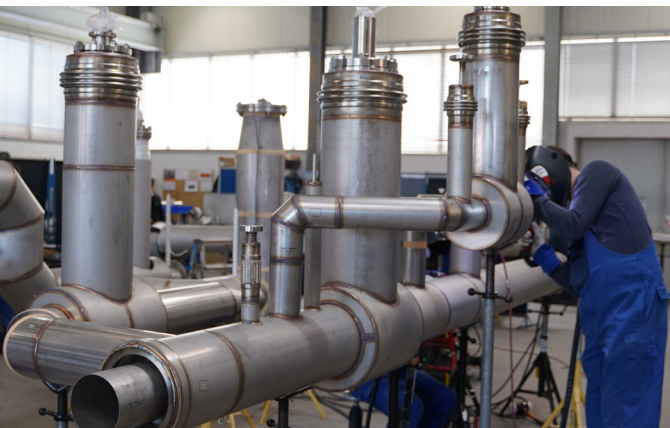
The advantages for you:

- Due to the smaller amount of boil-off gas it is possible to use smaller compressors
- Reduction of the steel construction due to smaller pipe diameters
- Shortened assembly time due to pre-installed insulation and support
- Longer service life due to corrosion resistant materials

Currently, more than approx. 3 000 metres of VIP transfer lines including cryogenic valves for the international and national market are planned, manufactured and shipped from Burgkirchen every year.



BUTTING



Our products:

- Transfer lines for LH₂, LN₂, LOX, LHe, LAR
- Inner pipe diameter from 1/2" (DN10) to 20" (DN500)
- Pressure grade PN 10/25/40/63/83 (bar)
- Standard with inside compensator
- High pressure system with outside compensator
- Rigid pipes and flexible hoses
- Plug-in Johnston couplings or welded spool connections

Standardised vacuum insulated piping (VIP)

Transfer lines combine vacuum and multi-layer insulation for minimum heat input and maximum efficiency when transferring cryogenic fluids.

Integrated compensators, getter material and spacers with the lowest thermal conductivity ensure safety and durability. In addition to standard lines, the company's areas of expertise include:

- Transfer systems for trailers (HE, H₂, Ai, O₂, M₂)
- Hydrogen systems for the automotive industry
- Refuelling systems for the aircraft and aerospace industries (hydrogen and oxygen)
- Special components (e.g. neon tanks)

Your benefit:

- Minimum heat impact of around 3 Watt per m² of rigid lines
- Each prefabricated spool is fully vacuum insulated (high vacuum 10⁻⁵ mbar)
- VIP-Spools with He-Leaktest 10⁻⁸ mbar and gas pressure test
- The individual spools can be connected via two different coupling types:
 1. Johnston – plug in coupling
 2. Welding coupling
- Manufacturing code in PED and ASME



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