



KrioSystem 
CRYOGENICS IS OUR PASSION

**LOW TEMPERATURE
IN SCIENCE AND INDUSTRY**

www.kriosystem.com.pl



Kriosystem

We deliver complete liquefied gases distribution systems, covering transferring, storing, heat exchanging and phase separation. Thanks to over 30-year-old experience and skilled team of engineers and specialists, we supply our clients with state-of-the-art cryogenic devices and installations that are applied for science, industrial and medical purposes.



Areas of activity

Our activity covers two application areas, based on the temperature level:

- liquid helium temperatures area (**HELIUM CRYOGENICS**), which covers systems operating in temperatures below -269 degC.
- liquid nitrogen temperatures area (**INDUSTRIAL CRYOGENICS, LNG, CRYOBIOLOGY**), which covers systems operating in temperatures between -70 and -200 degC. These are applications including liquefied oxygen, nitrogen, argon, carbon dioxide, methane (LNG) and other technical gases.

Big Science

KRIOSYSTEM delivers helium cryogenics devices to the largest and the most respected facilities for scientific research, which include:

● CERN in Geneva



● DESY (XFEL project) in Hamburg

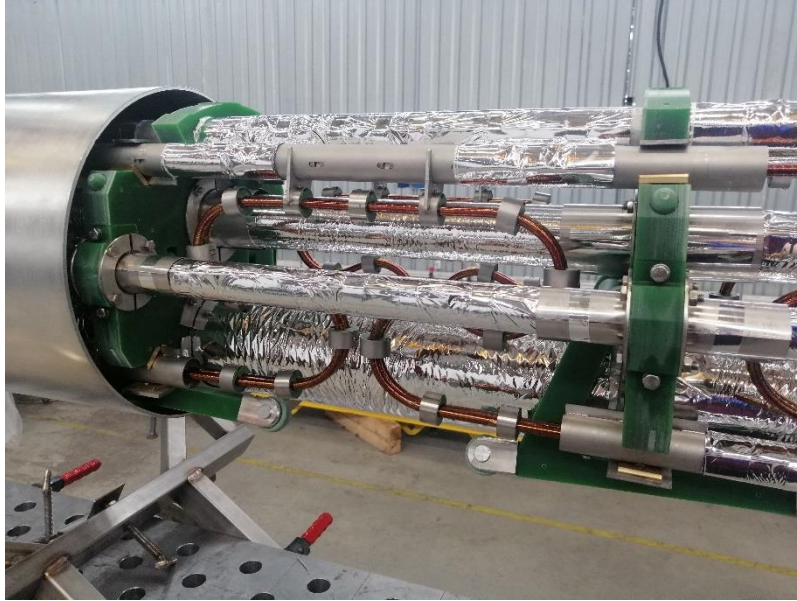


● ESS in Lund



● FAIR - GSI in Darmstadt





KRIOSYSTEM offers wide product range in this field, including:

● **CRYOSTATS** for testing and research purposes in liquid helium (including superfluid helium) environment.

● Liquid helium **MULTICHANNEL TRANSFER LINES.**



● **VALVE BOXES** for helium distribution along with phase separation.

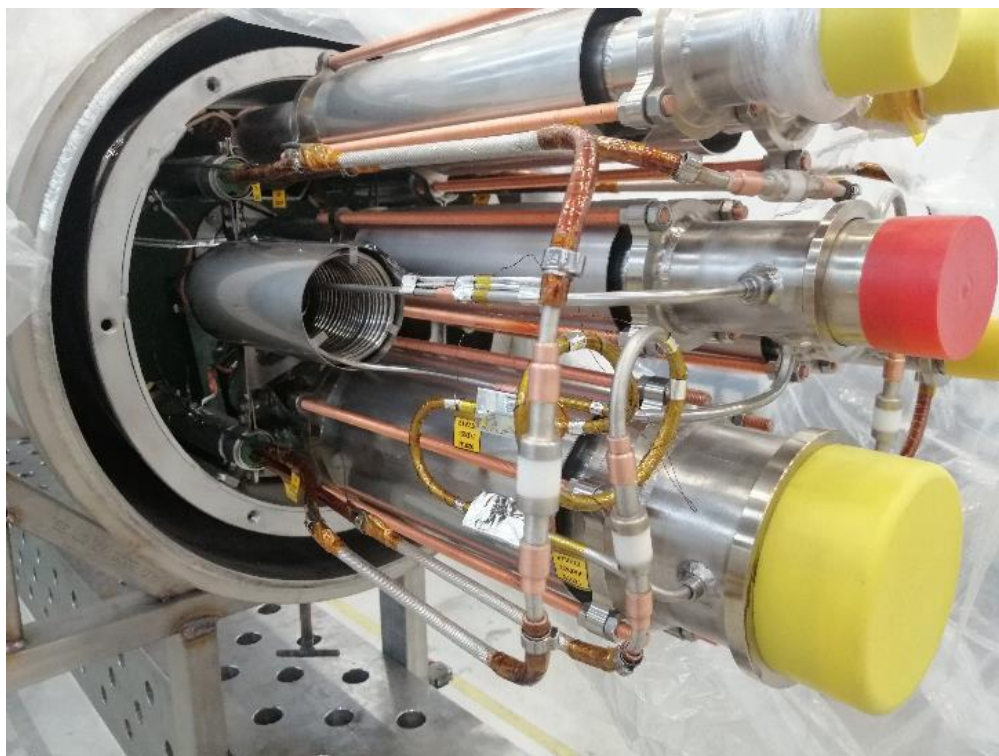
● **SUPERCONDUCTIVE MODULES** for transferring both liquid helium and electrical power in superconducting state.

CRYOGENIC BYPASS LINE- BPL project, FAIR in Darmstadt INKIND MANAGED BY UJ and WUST



Scope includes 26 modules for power and cryogen transfer:

- Power system based on 4 pairs of superconductive cable (13kA) – bus bars
- Cryogenic transfer system for helium distribution System (5-channel transfer line)



Helium cryogenic systems for CERN, Geneva




We are permanent supplier of cryogenic equipment to CERN- this covers:

- Valve boxes
- Multichannel transfer lines
- Complex cryogenic test facilities



Helium cryogenic systems for ESS, LUND

We are finalising the delivery of large cryogenic infrastructure for European Spallation Source project in LUND. The scope covered:

-  31 Valve boxes
-  500 m multichannel transfer lines
-  Auxiliary systems





Industrial gases

We make complete cryogenic systems for transferring and separation of liquified gases like nitrogen, oxygen, argon, methane (LNG). Applications are designed for temperatures to -196 degC and are used in food, chemical, metallurgical, offshore/onshore industries.





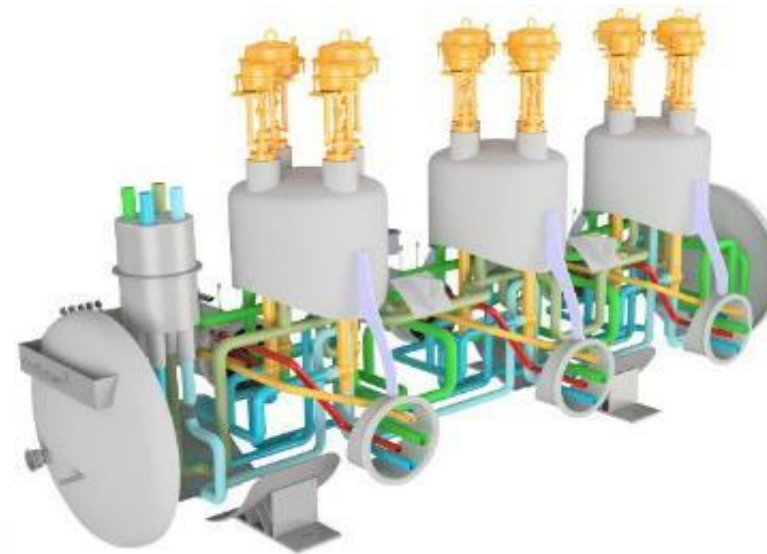
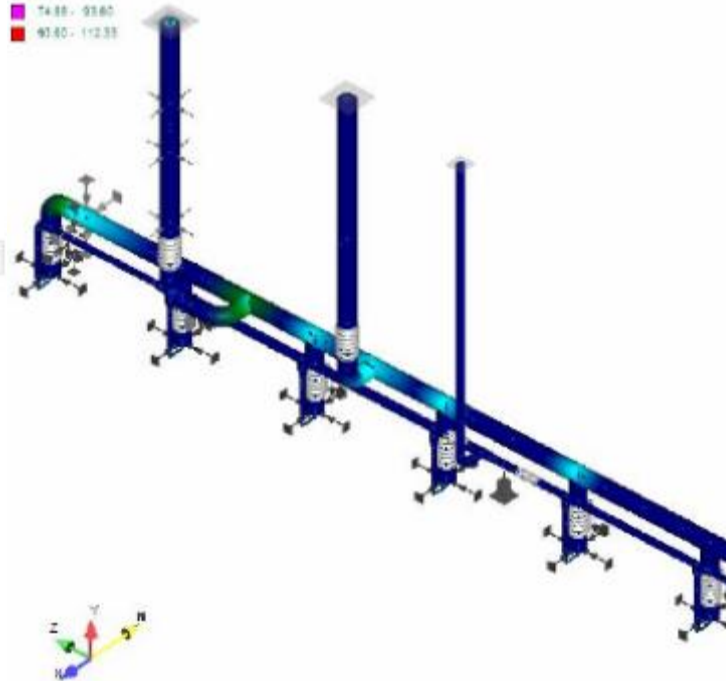
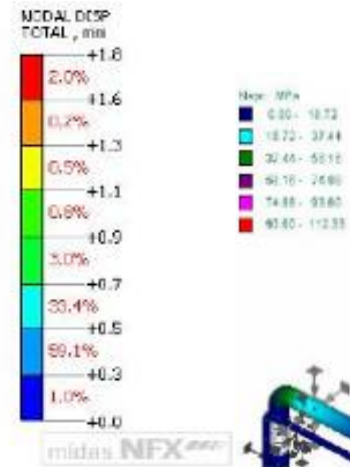
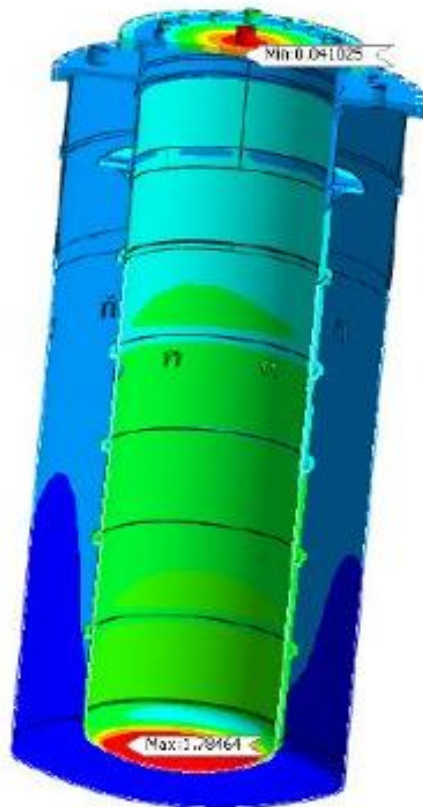
KRIOSYSTEM offers wide product range in this field, including:

- **VIP (vacuum insulated piping)** – modular cryogenic pipe sections joined by bayonets, welded muffs.
- **PHASE SEPARATORS**– vacuum insulated cryogenic vessels for separation of liquid state from gas state.

- **CRYOGENIC FITTINGS** (valves, cryovents)
- **LNG** bunkering and piping distribution

Designing

- Detailed CAD 3D models
- Thermomechanical analysis and modeling
- FEM analysis
- Process design
- Manufacturing 2D drawings



PRODUCTION



- We have 1800m2 production hall equipped in machining, welding, vacuum and helium leak testing equipment
- Our competencies covers soldering, welding, cryogenic insulation and vacuum technology
- We employ 15 engineers for design, technology and production engineering
- Manufacturing personnel is 30, covers welders, fitters, technicians



RESOURCES



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