

Helium recovery and management



Absolut System designs Helium recovery and management systems tailored to your space and your needs.

Specifically adapted to NMR cryo-magnets, MRI systems, MEG, systems for measuring magnetic or physical properties, etc.

Absolut System can help you define your needs and design your complete Helium recovery and liquefaction system.

»»» Helium recovery and liquefaction



Recondensation of Helium
Zero boil-off solution
10 to 60 litres per day



Helium liquefaction
15 to 80 litres per day



Compression & storage
Medium pressure



Helium purification
Automatic, without LN2 (Pulse-Tube)

°BLUEFORS

Exclusive reseller Bluefors Cryocooler Technologies (ex «Cryomech»)

Bluefors is a recognised leader in the manufacture of high-quality products and offers the widest selection of laboratory-scale helium recovery and liquefaction systems.

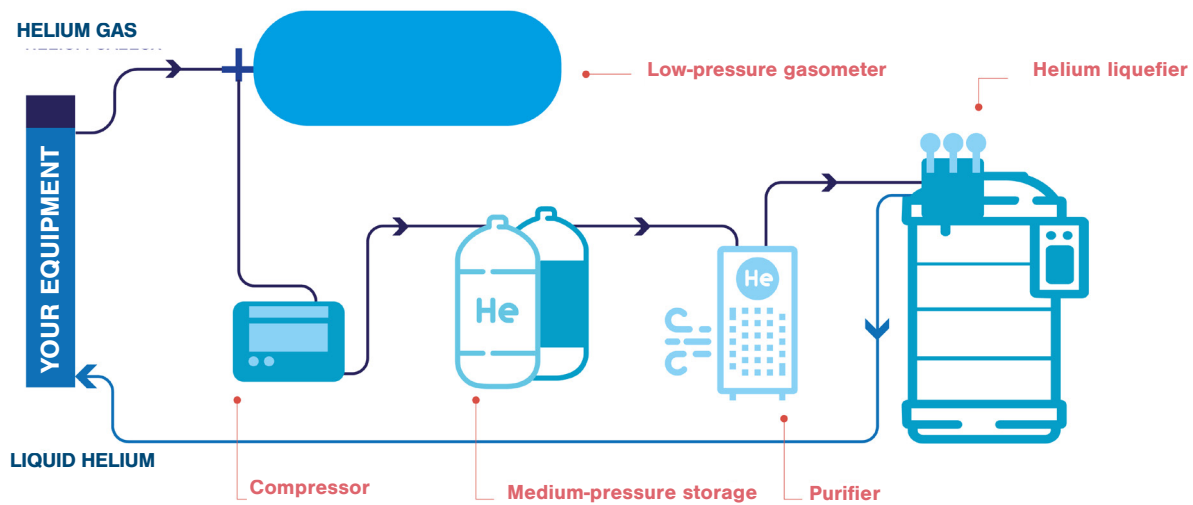
Absolut System is the exclusive distributor of Bluefors products in France (and French overseas departments and territories), Switzerland, Belgium, Italy, Spain, Morocco and Tunisia.

»»» Absolut System, designer of your cryogenic systems

Absolut System is a French SME specialising in cryogenic engineering for industry and scientific research. Thanks to our excellent synergy between know-how, collaboration and organisation, we provide cryogenics and thermal tailor-made equipments.

Absolut System designs, optimises and qualifies your technological solutions, from equipment such as cryocoolers or heat exchangers, to complex systems such as helium recovery circuits or vacuum test chambers.

»»» Complete Helium recovery system



Helium liquefier (LHeP)

Liquefaction rate of 15 to 80 litres/day

Helium liquefiers (LHeP) use Pulse-Tube cryocooler technology. They are designed for high reliability and long maintenance intervals.

100% automatic control | Touch screen
Remote monitoring



	Liquefaction rate	Storage tank	Required flow : He gas
LHeP15	≥ 15L/Day	60L	7.3 SLPM*
LHeP22	≥ 22L/Day	150L	10.7 SLPM
LHeP28	≥ 28L/Day	150L	13.6 SLPM
LHeP55	≥ 40L/Day	350L	26.7 SLPM
LHeP80	≥ 80L/Day	500L	38.9 SLPM

*SLPM : Standard litre per minute



Helium recondenser

Zero boil-off solution

Liquefaction rate of 10 to 60 litres/day



Helium recondensers (HeRL) convert your open-cycle appliance into a closed-cycle helium recycling system with zero boil-off.

Les HeRL permettent de recondenser l'évaporation des cryostats à bain d'hélium liquide.

Connexion et installation faciles

	Liquefaction rate	Recondensation rate	Cooling time
HeRL10	≥ 10 L/Day	≥ 18 L/Day	< 4 hours
HeRL15	≥ 15 L/Day	≥ 27 L/Day	< 4 hours
HeRL20	≥ 20 L/Day	≥ 40 L/Day	< 4 hours
HeRL40	≥ 40 L/Day	to be defined	< 4 hours
HeRL60	≥ 60 L/Day	to be defined	< 4 hours



Helium purification

Automatic, without LN2 (Pulse-Tube cryocooler)

Up to 99.9995% purification

Unlike liquid nitrogen-cooled purifiers, which require weekly refilling and monthly regeneration of the trap, the automatic purifier operates and regenerates automatically without any user intervention.

The system includes a gas purity analyser that triggers the regeneration cycle before contaminants can pass through.

All the equipment needed for automatic regeneration is built into the purifier.



Compression and storage

Medium pressure



Absolut System offers systems based on robust and reliable two-stage SCROLL* compression technology.

Compression up to 27 bar. Flow rate: 12.7 m³/h.

»»» Applications

- ▶ Highly sensitive MEG magnetometers
- ▶ Platforms for measuring the fundamental properties of condensed matter; MPMS and PPMS platforms
- ▶ MRI and NMR
- ▶ Superconducting magnets
- ▶ Dilution refrigerators
- ▶ Cyclotrons

- **Tailor-made Helium recovery systems**
- **High reliability and long maintenance intervals**
- **Highly modular**

Absolut System designs your dedicated system for recovering and liquefying Helium in the laboratory.



»»» Discover our other product ranges

- Thermal management (thermal links, exchangers, turbomachinery)
- Cryocoolers
- Helium circulation loops
- Cryostats and cryopumps
- Integrated space equipment
- Cryogenic storage
- Superconducting systems