

Your Challenge. Our Competence.
The Solutions.



Success-Story

TRIUMF - Canada's National Laboratory for Particle and Nuclear Physics

Linde Kryotechnik delivered a helium refrigeration plant to serve Canada's first superconducting linac.

Overview

TRIUMF, a world-class subatomic physics research laboratory, has achieved a new milestone by successfully commissioning a superconducting linear accelerator (linac) at its subatomic physics complex situated on the campus of the University of British Columbia in Vancouver. The superconducting linac will accelerate rare isotopes created by the TRIUMF cyclotron beam.

This development positions TRIUMF as the world's premier facility for the study of nuclear physics and astrophysics, addressing fundamental questions of the universe's existence.

The Challenge

A tough requirement was to achieve and guarantee the pressure stability in the cavities and to supply liquid helium almost without pressure disturbance towards the experiment's cryostats.

Our Competence

Our experience with similar projects requiring pressure stability and constant liquid helium level within the experiments made us the perfect partner. However, with more than 600 cryogenic installations around the world, Linde Kryotechnik is the design, construction and consulting specialist for helium refrigeration systems.

The Solution

Linde Kryotechnik delivered a TCF50 type helium refrigeration system that cools the superconducting linear accelerator to the operating temperature of 4.4 Kelvin. The refrigeration plant delivered overcapacities in the refrigeration and liquefaction mode and was successfully commissioned in spring of 2005.

Plant description:	Helium refrigeration plant
Capacity:	530 Watt at 4.5K
Scope of supply:	Refrigerator cold box TCF50 Main recycle compressor ESD441 Recovery compressor BSD82 Oil removal system & gas management Control system Installation design support Start-up and acceptance test

For more information on TRIUMF visit:
<http://www.triumf.info/public/media/news.php?which=13>

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