# ENGINEERING SOLUTIONS FOR LNG TECHNOLOGY

TRAINING CATALOGUE 2025 / 2026









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#### **INTRODUCTION**

# INNOVATIVE SOLUTIONS: DEVELOPING SKILLS FOR FUTURE SUCCESS

Cryostar not only supplies advanced cryogenic equipment but also offers various services to help clients. Our training programmes for operators and maintenance staff are thriving. By investing in these programmes, businesses can equip their teams with the latest industry techniques and tools.

# TRAINING PREREQUISITES FOR CRYOSTAR COURSES

Theoretical courses can be combined with hands-on sessions based on equipment availability at the customer's site or Cryostar's factory. Trainees must be proficient in English or have a translator present, and they should possess a background in mechanical engineering with skills in maintaining industrial equipment.

### CARGO HANDLING EQUIPMENT

→ TYPICAL COURSE DURATION: 2 DAYS

#### **COURSE CONTENT**

- Centrifugal compressor fundamentals
- Single stage compressor
- Multi stage compressor
- Heat exchangers
- P&ID and Auxiliaries
- Anti-Surge protection
- Operation
- Maintenance

#### **REQUIREMENTS**

- A technical background
- Experience in the maintenance of industrial equipment
- Proficiency in reading technical drawings
- A basic understanding of cryogenic principles and of LNG process system

#### **BENEFITS**

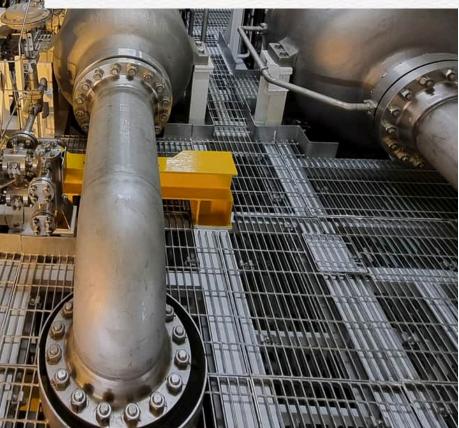
- Reduce operating and maintenance expenses by improving operator expertise.
- Train participants to make informed decisions
- Join a community of professionals dedicated to excellence in LNG operations

- Onsite / onboard
- Customer's or training facility
- Cryostar France or other Business Centres









# ONBOARD SUBCOOLER (ECOCHILL)

→ TYPICAL COURSE DURATION: 2 DAYS

#### **COURSE CONTENT**

- Ecochill General presentation, machine design and characteristics
- Control Panels and electrical equipment
- Operation procedures and philosophy
- Maintenance procedure and troubleshooting methods

#### **REQUIREMENTS**

- Technical background
- Experience in the maintenance of industrial equipment
- Ability to interpret technical drawings
- A basic understanding of cryogenic principles and of the LNG process system

#### **BENEFITS**

Gaining theoretical knowledge in:

- Compressors and turbines
- Troubleshooting techniques
- Maintenance practices
- Practical application experience

- Onsite / onboard
- Customer's or Training facility
- Cryostar France or other Business Centres



## RELIQUEFACTION SYSTEMS (ECOREL)

→ TYPICAL COURSE DURATION: 2 -3 DAYS

#### **COURSE CONTENT**

- EcoRel: general principles
- BOG compressor & LNG liquefaction loop
- BOG De-Superheater & Intercoolers
- Condenser and N2 Counter-Current Exchanger
- LNG Flash Drum
- BOG & Off-gas Heater
- N2 Loop
- N2 Compander and Inter/After Coolers
- N2 Dryer and Drums

#### **BENEFITS**

- Troubleshooting techniques
- Maintenance practices
- Practical application
- Enhanced comprehension of LNG reliquefaction systems and their components
- Improved decision-making abilities through comprehensive learning
- Greater safety and efficiency in operational processes

#### **REQUIREMENTS**

- Background in mechanics
- Experience in industrial equipment maintenance
- Ability to interpret technical drawings
- Basic understanding of cryogenic principles and LNG process system

- Onsite / onboard
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### CENTRIFUGAL PUMP- SUBTRAN

→ TYPICAL COURSE DURATION: 2 -3 DAYS

#### **COURSE CONTENT**

- Centrifugal pump fundamentals
- Pump construction
- P&ID and Auxiliaries
- Operation
- Maintenance & troubleshooting

#### **REQUIREMENTS**

- A background in mechanics
- Experience in maintaining industrial equipment
- Ability to interpret technical drawings
- Basic understanding of cryogenic principles and of the LNG process system.

#### **BENEFITS**

To acquire the theoretical knowledge and to gain practical experience about:

- Centrifugal pumps
- Troubleshooting methods
- Maintenance procedures

- Onsite / onboard
- Customer's or Training facility
- Cryostar France or other Business Centres





## RECIPROCATING PUMP- HPP & MRP

→ TYPICAL COURSE DURATION: 2-3 DAYS

#### **COURSE CONTENT**

- Reciprocating pump fundamentals
- Pump construction
- P&ID and Auxiliaries
- Operation
- Maintenance & troubleshooting

#### **BENEFITS**

To acquire the theoretical knowledge and to gain practical experience about:

- Reciprocating pump
- Troubleshooting methods
- Maintenance procedures

#### **REQUIREMENTS**

- A background in mechanics
- Experience in maintaining industrial equipment
- Ability to interpret technical drawings
- Basic understanding of cryogenic principles and of the LNG process system.

- Onsite / onboard
- Customer's or Training facility
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# WHAT MAKES CRYOSTAR'S TRAINING PROGRAMMES UNIQUE AND EFFECTIVE?

## **Innovative Equipment**

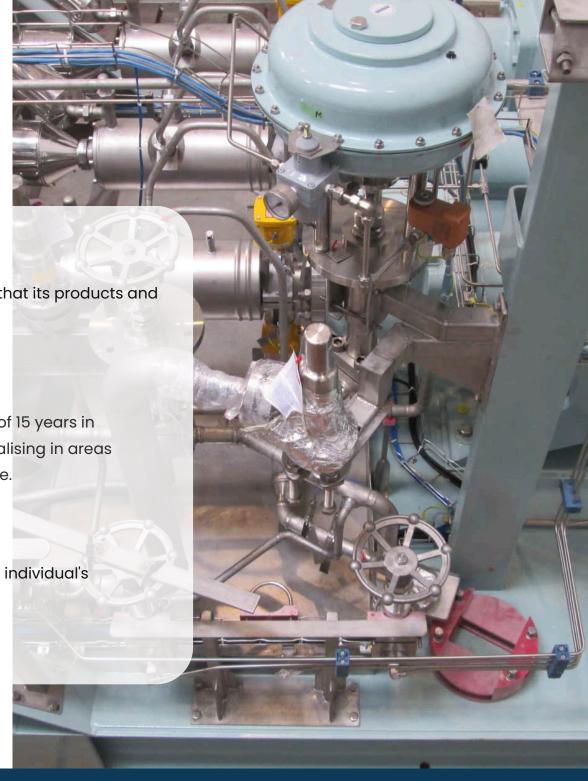
 Cryostar is committed to continuous innovation, ensuring that its products and services remain at the forefront of technology.

# **Decades of Experience**

 Our instructors are experienced engineers with an average of 15 years in hands-on workshops, on-site operations, and design, specialising in areas such as manufacturing, testing, operation, and maintenance.

# **Certification and Recognition**

 Certificates of completion may be awarded, showcasing the individual's competency in cryogenic technologies.





# HANDS-ON LNG EXPERIENCE AT CRYOSTAR'S CENTRE

Whether you're new to the LNG sector or looking to update your skills, our courses are designed to cater to all levels of expertise. Participants will benefit from our facilities and access to the latest technology, ensuring they leave with a solid understanding of LNG operations. Our experienced instructors are recognised experts in their field, committed to providing insights that are both practical and forward-thinking.

With professional guidance and a supportive learning atmosphere, our training prepares operators and maintenance personnel to tackle the challenges of LNG systems both efficiently and effectively. To enrol in a course, please contact our training coordinator or visit our website for more information.

To receive our pricing details, simply reach out to us via email, and we'll be happy to assist you.

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