NEA LNG Compressor Application Range

NEA LNG compressors cover the major applications for handling LNG as well as for offshore and onshore plants within the LNG chain.

In order to maintain the critical conditions within LNG tanks, our **LNG BOG compressors** are used to manage reliable and efficient boil-off of the LNG.

**LNG Send-out compressors** constantly boost the vaporised LNG up to 110 bar for all pipeline networks.

Our **LNG Fuelgas compressors** deliver the suction pressure for injecting LNG boil-off for 2-stroke and 4-stroke engines.

NEA LNG compressors provide the right solutions for the wide range of LNG applications.

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### LNG BOG Compressor

- BOG comes directly from any LNG-tank
- inlet pressure 1.02 - 1.3 bar(a) (= BOG pressure)
- outlet pressure up to 11 bar(a)
- inlet temperature range: -160° to -90°C

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### LNG Send-out Compressor

- Sending-out the vaporised LNG to pipeline, onshore, etc.
- outlet pressure range: approx. 20 to 110 bar(a)
- also possible: inlet pressure = BOG pressure
- inlet temperature range: 20° to 40°C
LNG Fuelgas Compressor

Compressing BOG for injection into cylinders of propulsion engine:
- 2-stroke engine: up to approx. 300 bar(a)
- 4-stroke engine: up to approx. 8 bar(a)
- inlet temperature range: approx. -162° to -90°C
NEA BOG Small Scale

- NEA Type V63 up to 1,000 kg/h flow and up to 300 kg/h liquid LNG injection
- NEA Type V130 up to 2,000 kg/h flow and up to 600 kg/h liquid LNG injection
- skid mounted unit
- non-lube cylinders – V-type compressor
- outlet pressure from 6 up to 12 bar(a)
- inlet temperature range: -160° to -100°C
- flow up to 2,000 kg/h
- power@shaft up to 300 kW
- zero-emission available
NEA BOG Mid Scale

- NEA Type L300 up to 4,000 kg/h and up to 1,100 kg/h liquid LNG injection
- concrete foundation installation
- non-lube cylinders – horizontal compressor type
- outlet pressure from 6 up to 12 bar(a)
- inlet temperature range: -160° to -100°C
- flow up to 4,000 kg/h
- power@shaft up to 1,000 kW
INSPIRATION
INNOVATION
DEDICATION

NEA LNG
Injection
NEA Interstage Injection Solution

NEUMAN & ESSER’s innovative concept to inject LNG after the first compressor stage is an optimized solution for both the start-up period and for continuous operation. Besides the major advantage of yielding a higher LNG mass flow whilst power consumption remains nearly constant due to higher volumetric efficiency, this NEA solution provides two further positive effects. The more stages the compressor is designed for, the greater the impact. This enables the design engineer to select a compressor frame size and gain better LNG yield at the end of the process. A second option is to keep the volume flow constant at a fixed level by deciding in favor of a smaller compressor frame size. Whatever is decided, the LNG design engineer achieves higher efficiency.

The positive effects in detail:

- LNG capacity is increased by 15% for a 2-stage BOG compressor
- LNG capacity is controlled by injected LNG flow
- Smaller compressor frame size can be selected
- Quick compressor start-up is allowed for, making pre-cooling of LNG before feeding it into the compressor pipe system redundant
- No heat exchanger for process gas is required
- Less investments in and maintenance of related system components are required
Holdings
NEUMAN & ESSER Verwaltungs- und Beteiligungsgesellschaft mbH
Übach-Palenberg, Germany
NEUMAN & ESSER Investments, Inc.
Wilmington, Delaware, USA
NEUMAN & ESSER Investments Asia Ltd.
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NEUMAN & ESSER Compressor Application Centre Pvt. Ltd.
Pune, India
NEUMAN & ESSER Deutschland GmbH & Co. KG
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NEUMAN & ESSER Eng. (India) Pvt. Ltd.
Pune, India
NEUMAN & ESSER Egypt Ltd.
Cairo, Egypt
NEUMAN & ESSER Gulf FZE
Dubai, UAE
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Milan, Italy
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NEUMAN & ESSER Rus Ltd.
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NEUMAN & ESSER Sistemas de Moagem e Classificação Ltda
Belo Horizonte, Brazil
NEUMAN & ESSER South East Asia Ltd.
Rayong, Thailand
NEUMAN & ESSER USA, Inc.
Katy, Texas, USA
NEUMAN & ESSER Grinding and Classifying USA, Inc.
Katy, Texas, USA

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NEUMAN & ESSER Maschinenfabrik Wurzen GmbH
Wurzen, Germany
STASSKOL GmbH
Stassfurt, Germany

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