EagleBurgmann
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RELY ON EXCELLENCE

RoTechBooster LNG300

Seal Supply Systems | Gas supply systems

Features

- Standard model
- High flow for low pressure
- Especially for low pressure refrigerant applications
- Compact, electric driven rotating design
- Hermetically sealed

Functional description

Adequate, clean, and dry gas flow at the seal governs seal reliability. During normal operation, this is achieved by taking product gas from a high-pressure stage or discharge of the compressor, flowing it through a conditioning system and using it to flush the seal.

When the compressor slows or is at pressurized standstill, gas flow is interrupted and leaves the seal(s) unprotected from contaminated product gas. This poses a serious risk, because unconditioned product gas leaves deposits at the seal, leading to high seal leakage or even seal failure. To alleviate this problem, seal gas boosters are utilized to draw gas from the compressor through the conditioning system and deliver clean and dry gas to the seal(s).

Advantages

Typical refrigerant applications have low operating pressures and require high flows to meet the compressor start permissive. The RoTechBooster LNG300 was designed to specifically support refrigerant compressors as used in the LNG industry.

- Simple to set-up, easy to operate
- High reliability and availability
- Continuous operation capability
- Increases seal reliability
- Low maintenance costs
- Energy efficient
- Eliminates concerns with dirty, wet, or unreliable external seal gas sources

Operating range

Impeller type: Single stage, regeneartive
Speed: 1,200 ... 4,000 min-1
Pressure: Vacuum ... 120 bar (1,740 PSI)
Temperature: -70 to 135 °C (-94 to 275 °F)
Flow: up to 100 Am3/hr
Motor size: 15 kW
Diameter: 535 mm (21")
Height: 1,279 mm (50")
Weight: 565 kg (1245 lb.)
Supply connections: 50 mm (2")

Operating conditions outside these ranges an engineered product. Contact your EagleBurgmann representative for additional details or email us at: rotechbooster@eagleburgmann.com

Standards and approvals

Certifications or compliance with NACE, PED, ATEX and others available upon request.

Recommended applications

- LNG refrigeration compressors

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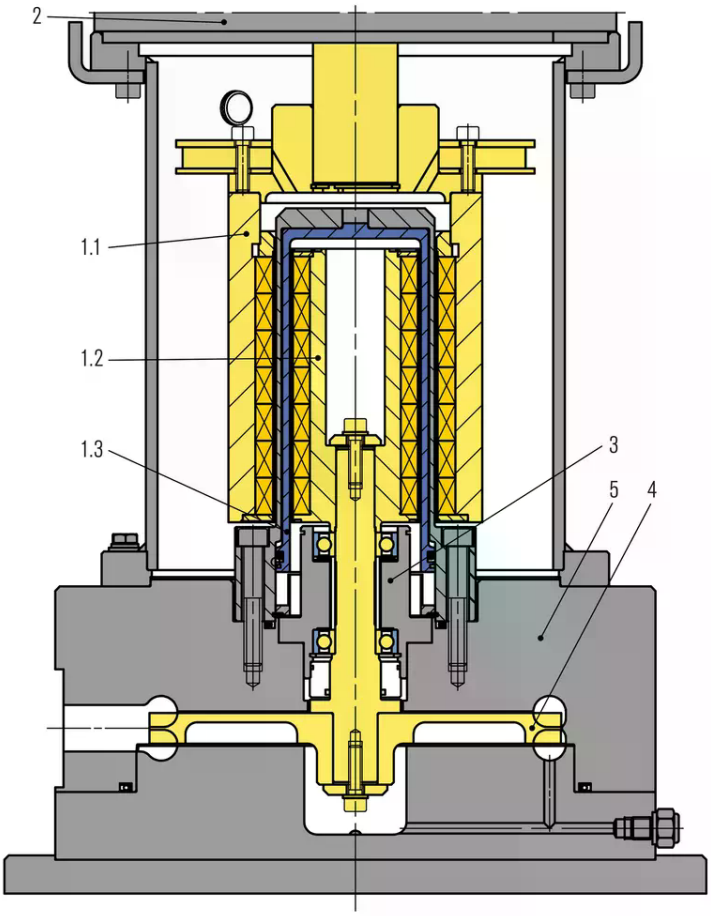
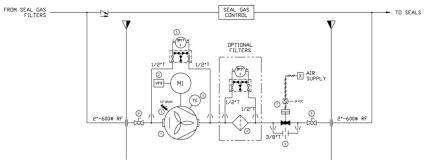
The RoTechBooster incorporates an EBNM high efficiency magnetic coupling eliminating the need for an additional mechanical seal. Incorporating a magnetic coupling removes any possible additional system leak paths, eliminates emissions, increases safety for personnel and produces virtually wear free operation. Using a high efficiency design efficiently transfers torque, which delivers higher pressure ratings and reduced operating costs. This coupling design guarantees maximum RoTechBooster availability ensuring abundant seal gas flow through all operating conditions.



Item	Description
1.1	Outer rotor
1.2	Inner rotor
1.3	Can / pressure barrier
2	Motor
3	Bearing cartridge
4	Impeller
5	Pressure housing

Installation, details, options



Item Description
1 RoTechBooster LNG300
2 Variable Frequency Drive (required)
3 Low Point Drain
4 Temperature Monitoring
5 Differential Pressure Transmitter
6 Optional Filter - single or duplex, upstream placement (illustrated) or, downstream placement (not illustrated)
7 On/Off Valve, actuated
8 Isolation Valves
9 Bypass Orifice

Charts

Performance diagram RoTechBooster LNG300

Example start conditions
Suction conditions:
Propane at 2.07 BarG 21°C (30 PSIG, 70°F)
Gas density at inlet pressure and temperature: 5.892 kg/m^3^
Required flow: 99.31 Am^3^/hr
Operation pressure: 0.35 BarD (5 PSID) @ 99.31 Am^3^/hr with Propan

Performance diagram RoTechBooster LNG300

Example Settle-out conditions
Suction conditions:
Propane at 8.6 BarG 21°C (124.7 PSIG, 70°F)
Gas density at inlet pressure and temperature: 3.969 kg/m^3^
Required flow: 99,3 Am^3^/hr
Operation pressure: 0.6 BarD (9.7 PSID) @ 99.31 Am^3^/hr with propane