



Application Oil-free Refrigerant Compressor (TurboCool)

Fluid machinery

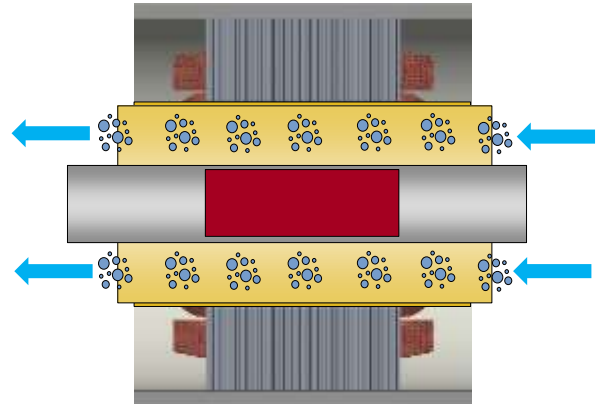


- high-speed radial compressor
- aerodynamic bearing system (= oil-free)

The drive remains enclosed and hermetically sealed from the refrigerant.



12kW TurboCool: The (natural) refrigerant is circulated by the motor. Compact and, due to its small size, ideal for use in enclosed spaces. Dimensions: 140x140x140mm



Cross-section Media Gap Motor (MGM):

If necessary, the media to be transported can be directed through the exceptionally large gap between the rotor and stator – through the motor.



Design principle: The rotor armature with a solid 2-pole magnet can be positioned behind or in front of the impeller, depending on requirements, bearing constraints, and design limitations.

Your Advantages

- Oil-free / suitable for all refrigerants (depending on the power class)
- Easily scalable
- High efficiency of the electric drive (MSM)
- Utilization of drive losses / heating of the refrigerant
- Ideal for aerodynamic bearings (= oil-free)
- Negligible torque ripple → optimized rotor dynamics
- Low UMP (Unbalanced Magnetic Pull) → Long bearing service life



Technology – Brief Profile

Media Gap Motor (MGM) - Technology

- Ideal for high-speed turbo compressors with aerodynamic (oil-free) bearings
- Reduced thermal load on the drive / no rotor cooling required
- Simple design
- Easily scalable and integrable
- High overall efficiency

Our Offer For You

- Joint project for the design, evaluation, and development of a refrigerant compressor for your application(s).
- Optimization of existing systems
- Construction and testing of prototypes.
- Support through to series production, if required.

G+L innotec GmbH

Engineering- & Industrialization Service Provider / Think Tank

- Founded in 2009
- Spin-off from an automotive supplier
- Highly experienced with series production
- Patent holder for the Media Gap Motor Technology
- Technology supplier for applications in the automotive, off-highway, aerospace, and stationary sectors

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Globally Patented Technology

