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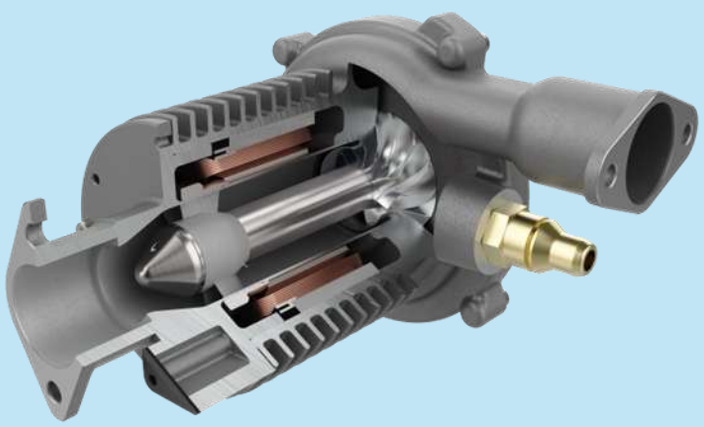
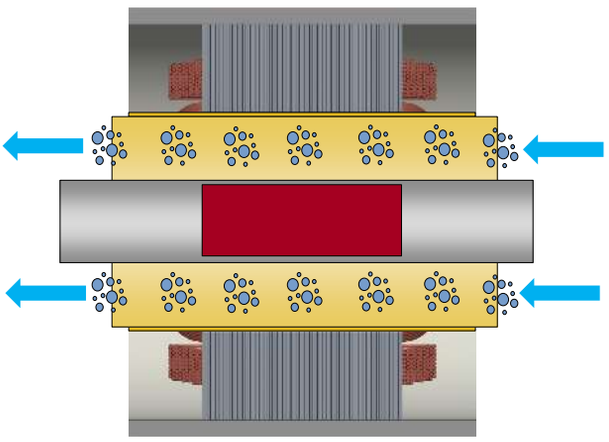
Media Gap Motor Technology

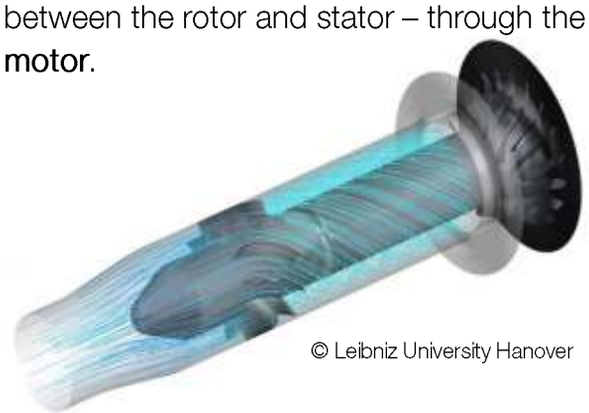
Application Cross-Blower (ATEX)

The Cross-Blower, originally developed as an H_2 recirculation blower for the anode circuit of PEM fuel cells, can compress any gaseous media—oil-free and hermetically sealed from current-carrying electrical components. This makes the Cross-Blower suitable for all explosion-proof (radial) gas compressors, with the added option of using oil-free bearings. The capability for ATEX certification is thus already integrated into the Media Gap Motor (MGM) design.





Cross-section of the MGM: If necessary, the **media** to be transported can be directed through the exceptionally large **gap** between the rotor and stator – through the **motor**.



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Integrated Droplet Separator:
The (current-carrying) stator is separated from the medium. The guide vanes cause the fluid to swirl, which separates water droplets and protects the impeller from being struck and damaged.

Your Advantages

- Compact design
- Low rotor weight → low moment of inertia
- No dynamic seals → hermetic separation / ATEX by Design
- Ideal for aerodynamic (= oil-free) bearings
- Negligible torque ripple → optimized rotor dynamics
- Very low UMP (Unbalanced Magnetic Pull)
  → Longer service life, reduced bearing losses

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Media Gap Motor Technology

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

- A collaborative project to design, evaluate, and develop a unit tailored to your specific requirements
- Optimization of existing systems
- Prototype construction and testing
- 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