We would like to present the procedurally optimized connection from magnetic ring to holding ring: Complete injection technique instead of adhesion. The direct injection of the parts with several cavities permits an efficient production including magnetization. An initially integrated hole pattern on the holding ring makes this simplified production process possible. Consequently there occurs a positive connection without additional gluing technique and extensive pre-treatment of the joining partners. An innovative tooling technique with multiple needle valve technique for injection technique without sprue makes this possible.

**APPLICATIONS**
- Ball bearings with rotary encoders
- Rotary encoders in the vehicle as e.g. gears or ball bearings in the power train
- Rotary encoders in motors as e.g. in machine tools, rotors, white goods or stair lifts
- Rotors

**TECHNICAL DATA**
- Environmental temperature -40 °C up to 180 °C
- Rotational speed up to 6500 r/min at 190 °C – without bandage
- Media resistance against gear oils
- With hard ferrite magnet no corrosion
- Proven in fluid-shock-tests over 500 hours and 1500 cycles
- Technical cleanliness on high level

**ADVANTAGES / BENEFIT**
- Dimensions up to approx. Ø 200 mm
- Magnetic ring height adjusted to steel part
- Magnetic accuracy <0.4° possible
- Multipole magnetized, anisotropically injected hard ferrite and NdFeB-magnets possible
- Depending on the volumes also completely automated possible
- Lean production process with high quality demands and short cycle time
We commit our expertise and our experience to your development process.

Based on ultra-modern standards, we combine knowledge, technology and craftsmanship to create an efficient process and ultimate quality.

The requirements expected of permanent magnets and magnet assemblies are becoming ever more individual and, at the same time, ever more complex. We therefore take pleasure in casting light on the entire value-added chain. With our unique linked chain of areas of expertise, we can act as a specialist and as an all-rounder, depending on what is required, as a one-stop shop for high-quality processes. Together, we can transform a good idea into a genuine competitive advantage. After all, for you, the perfect amalgam of experience, expertise and technical implementation means, above all, one thing – efficiency. This creates results that firmly embed success in your products.

MS-SCHRAMBERG – THE POWER OF THE WHOLE

As a medium-sized company, MS-Schramberg has been synonymous with problem-solving expertise and quality for 50 years. The company is one of Europe’s leading manufacturers of permanent magnets and assemblies. On an area of approx. 33,000 square meters in three plants in Schramberg, Germany, more than 550 employees are developing and producing more than 5,000 customer-specific articles, used successfully worldwide by companies from a wide range of sectors.

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