

MAGNET ROTOR “JOINED IN BUSHING WITH SHAFT”

IDEALLY SUITED FOR ROTORS WITH HIGH REVOLUTION SPEED

So far magnet rotors have been produced in several consecutive production processes which were very complex. Magnet rings have been produced and in a second production step glued with a shaft. According to the customer's requirement an additional burst protection has been applied. A stainless steel bushing has been shrunk on the magnets and afterwards been glued.

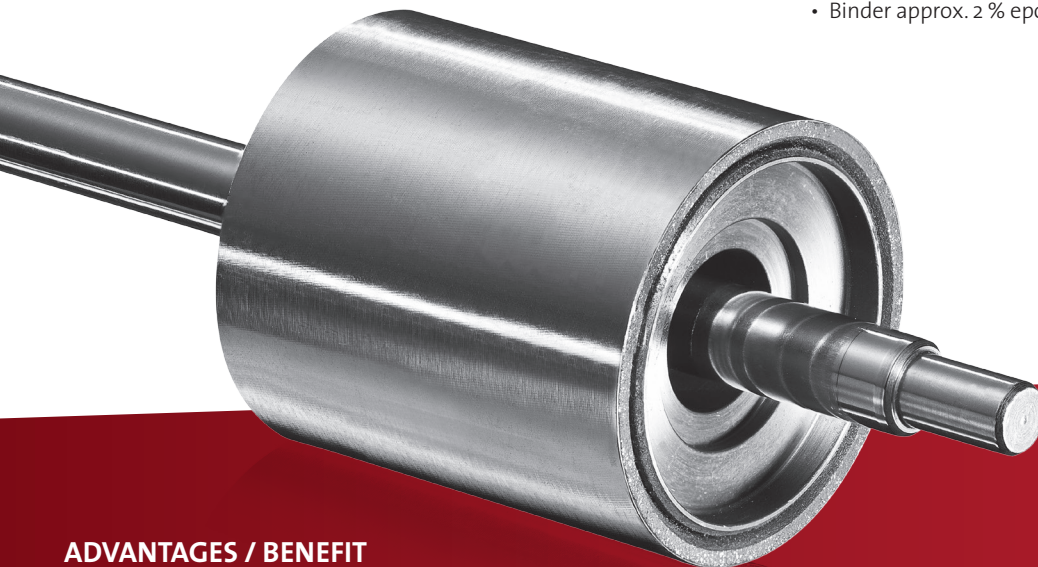
We have developed an efficient production process which allows unification of all production steps in just one work process. The pressing of the ring magnet and joining in a bushing is effected in one work step. The shaft with iron core is joint in the not already hardened magnet ring. Afterwards the complete assembly can be finished and magnetised.

APPLICATIONS

For rotors with high revolution speed (e.g. vacuum cleaner motors with energy efficiency class A***), power tools, small gears for vehicles (e.g. window lifter), fans, water pumps, internal and external rotor-motors, turbo charger and e-booster.

TECHNICAL DATA

- Material denomination NdFeB 72/70 pw | 65/70 pw | 65/85 pw
- Isotropic
- Remanence typical 700 mT
- Magnetization several poles at circumference possible
- Binder approx. 2 % epoxy



ADVANTAGES / BENEFIT

- No adhesive bond
- No gluing gap and therefore little unbalance
- Inexpensive production due to the fact that in one work step the complete can be produced
- The joining of the magnet in housings / pots is also possible
- Motor revolution speeds of over 50.000 rpm are realizable (burst protection)
- The magnets can be capsulated in stainless steel bushings (media dense welding possible)
- Also the joining in CFRP-bushings is possible
- Little use of magnetic material as wall thicknesses up to 1,5 mm are realizable
- Magnet alloy without dysprosium
- High level of automation possible

PROBLEM SOLVING CAPABILITY

We commit our expertise and our experience to your development process.

BECAUSE OUR AREAS OF EXPERTISE ARE INTERLINKED ...

PROCESSING COMPETENCE

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

... IDEAS TRANSFORM INTO A SUCCESS STORY FOR YOU.

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: We are there beside you as a dependable partner, all the way from shared product development to on-schedule delivery. 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.

IMPLEMENTATION EXPERTISE

With our name, we guarantee you a bespoke, innovative result – turning a product into a competitive advantage.

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.