

E-motor Stator & Rotor Lamination Core Stacks

Magna offers e-motor cores for electrified powertrains – featuring an advanced dot bonding process, which not only improves power density and weight reduction through higher stacking factor, but also requires lower activation temperature reducing process CO2 footprint.



Features and Specifications

- Electrical steel lamination sheet thicknesses (0.20-0.30mm)
- Non-grain oriented eSteel
- Working globally with multiple eSteel suppliers
- Ability to assemble rotor magnets using mechanical retention features or plastic injection over-molding
- Established tooling supplier base
- Precision high speed glue dispensing method (patent pending)
- Automated inline quality inspection

Competitive advantage/differentiators

- High speed stamping process (patent pending) and advanced manufacturing process resulting in lower overall cost
- Dot bonding process utilizes an adhesive designed for fast curing while providing high tensile strength
- Complex dot bonding adhesive patterns possible
- State of the art joining technologies (mech. interlock, laser weld, etc.)

Applications/benefits

- All cars, SUVs and LCVs using
- Primary & secondary eDrive systems
- Traction e-motors for BEV, HEV & PHEV
- Global manufacturing capability in all main regions (NA, EU & AP)
- Efficiency & performance improvements
- Improved rotor burst strength
- NVH improvements

SOP

Ideation

Discovery

Concept

Development

Serial Preparation

in Production