



## GKN SYNCHRONIZER RINGS FOR MANUAL TRANSMISSION

Prod. Group No. 3080



### The Challenge:

High performance, high precision and low cost transmission components



### The Solution:

Using GKN Sinter Metals advanced powder metal manufacturing techniques and extensive experiences for the development and series-production of net shape manufactured transmission components ready to assemble, for all customers, globally.

### Cost Savings:

- Cost-effective powder metals manufacturing processes
- Net shape process reduces subsequent machining operations
- Secondary of finishing operations in-house or sub contracted supplier
- Rapid prototyping reduces development time, risk and costs
- Multi site manufacturing and latest manufacturing equipment

### Higher Performance:

- Ready to assemble components
- Design optimization and weight reduction
- High density compaction and high performance materials
- Tailored heat treatments and surface technology
- Highest precision, excellent surface quality, repeatable, million times



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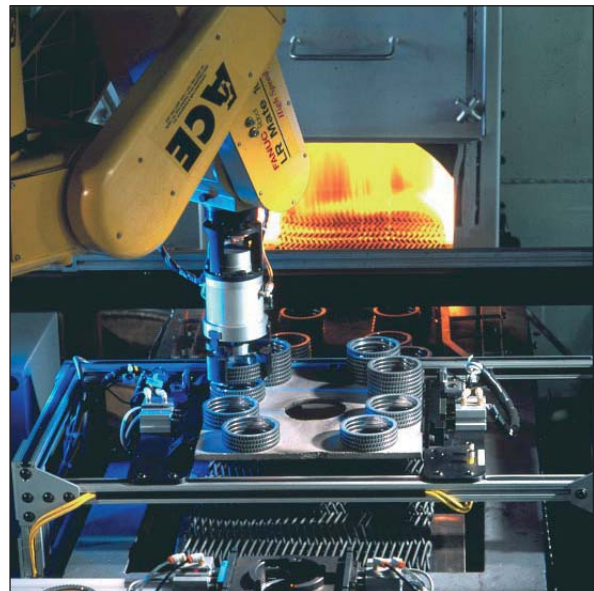
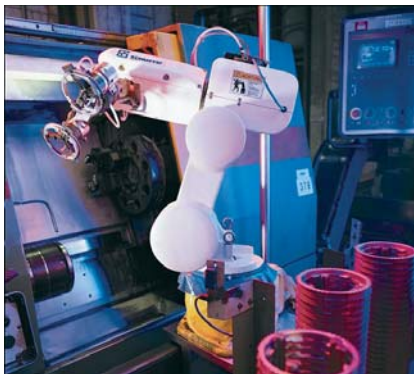
### Design Capabilities:

- All 2 and 3 D modelling and design capabilities
- In-house tool design and manufacturing
- Upfront tool and setup simulation
- Advanced press and CNC (multi platen) tool technology
- All certificated according ISO 9000 and VDA 6.1



### Applications:

Synchronizing components for all manual transmission systems from light vehicles to heavy duty trucks.



### Value added Engineering:

- Trough networked Center of Excellence and R&D Center
- Networked FEA-CAD-CAM engineering approach
- Material and process development
- Advanced measurements equipment

