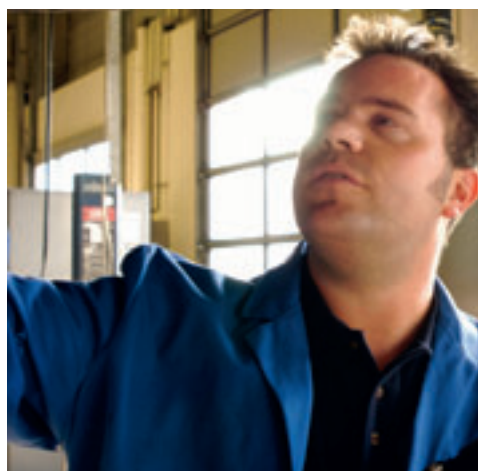
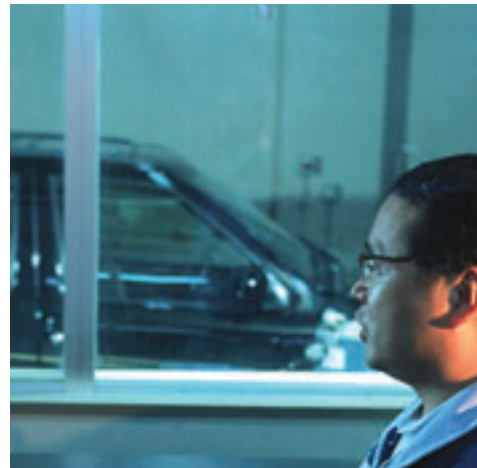




# GKN Driveline Research and Product Development



ALL OVER THE WORLD

## Partners in performance

GKN Driveline is a premier partner of the automotive industry worldwide. Producing driveline components for leading vehicle manufacturers from 49 locations across five continents. 21,000 GKN Driveline people focus their energy and imagination on finding new ways to provide added value for customers, drawing on the world's widest range of driveline components and technologies to engineer total systems that deliver improved performance, for many vehicle configurations.

Many of the innovations that led to today's reliable, durable, higher performance, more environmentally friendly vehicles have been pioneered by GKN Driveline's experts. These global specialist teams work in close partnership with leading vehicle manufacturers, solving the challenges of the future, and producing the technological developments that will drive the best of tomorrow's cars.

GKN Driveline continues to develop smaller, lighter, more efficient driveline solutions.

## Partners in progress

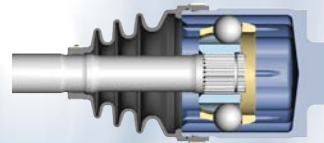
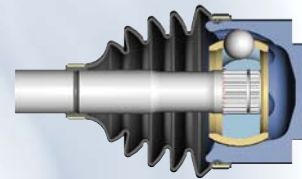
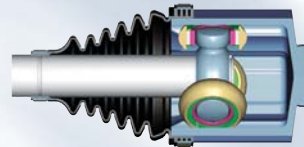
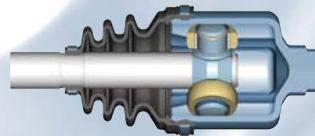
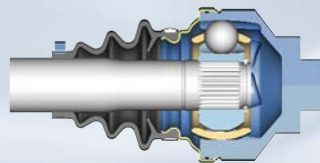
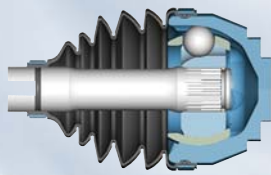
- World-class research and product development resources
- Unmatched engineering expertise and technological know-how
- Pioneering tomorrow's technology



# Sideshaft Technology

## Constant Velocity Joint Development

- Cost reduction
- Size reduction
- Weight reduction
- NVH improvement
- Durability optimisation
- Strength optimisation
- Improved working range
- TPE Boot development



# Driveline Technology

## Driveline Component Development

- Stability
- Reliability
- Traction
- Comfort
- Handling
- Environment



# Propshaft Technology

## Propshaft Development

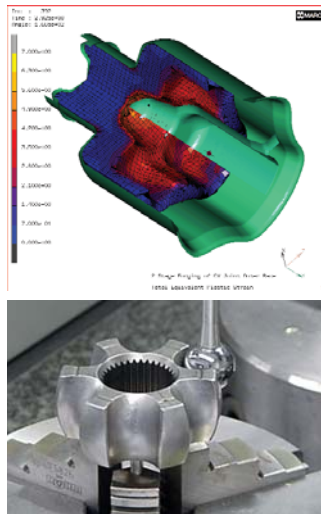
- Cost reduction
- Size reduction
- Strength optimisation
- Crash optimised features



## Support Technologies

### CAE Key Technologies / Tools

- 3D CAD: PRO Engineer / CATIA / IDEAS
- Kinematic simulation: ADAMS
- Analysis: MARC / Mechanica
- Process simulation: Superform / Sysweld / Opera



## Engineering Technology

- Virtual test and analysis
- Physical test and analysis
- Vehicle test and analysis
- Noise Vibration Harshness (NVH)
- Metrology
- Engineering prototyping
- Customer CAD



## Application Engineering

- Performance prediction
- Simulation
- Crash
- Hardware-in-the-loop
- Packaging
- Digital mock-up



## Process Development

- Laser welding
- Induction hardening
- Cold forming
- Combined hard machining



# Our global reach

GKN Driveline Research and Product Development Centres are sited to serve vehicle manufactures reliably and effectively.



**GKN Driveline:  
partners in performance;  
partners in progress;  
partners for the automotive industry**





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