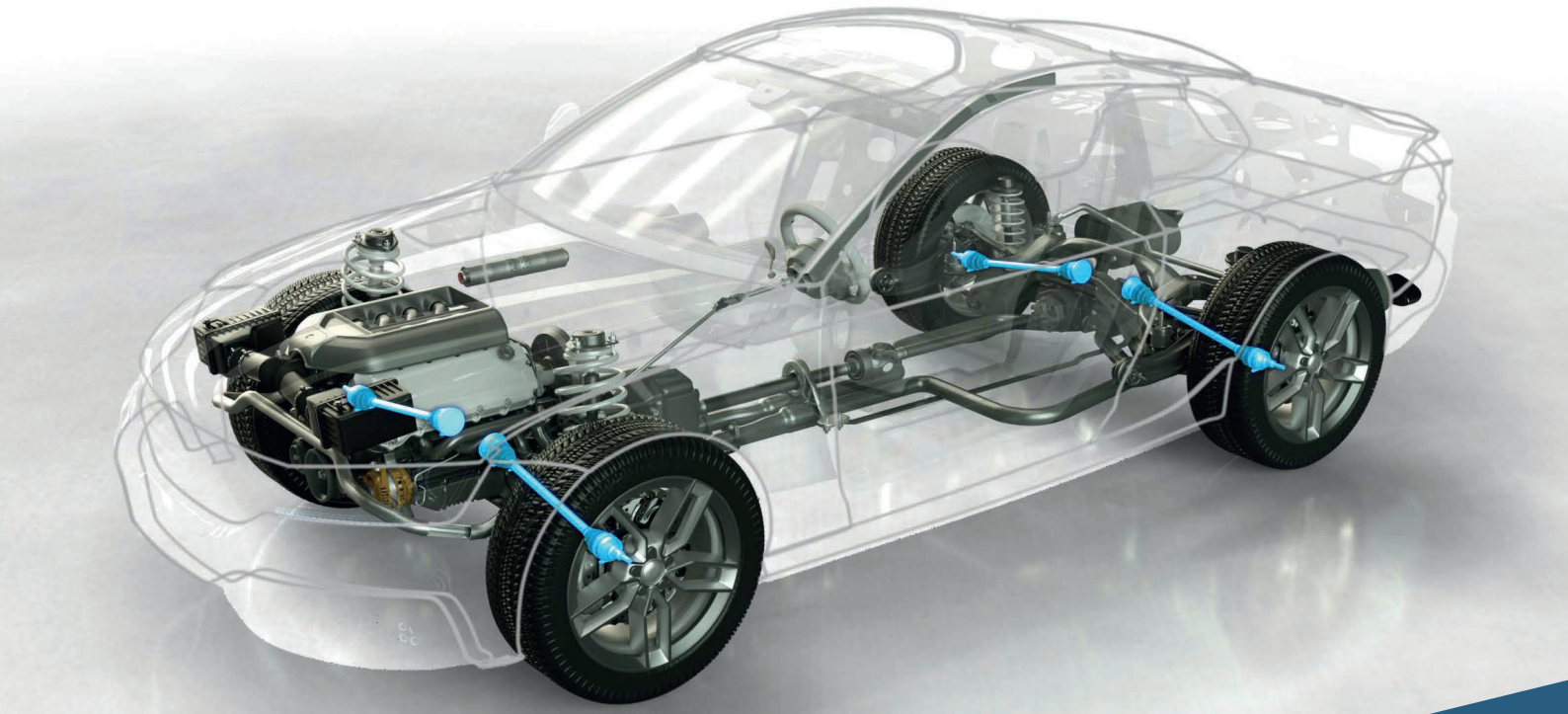
JANSEN

Jansen produces welded-drawn precision steel tubes made of high-tensile materials for three-part drive shafts.



Drive shaft
3-part

Product information | Technical data sheet

Tubes for the 3-part drive shafts are welded to other components to form one unit. Consequently, there are stringent requirements to dimensional tolerance, roundness, end processing qualities and the tubes' welding characteristics. The trend of light-weight design is increasingly demanding high-tensile materials.

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Tube requirements

- High strength values (elongation at break, tensile strength)
- High torsional strength and durability
- Very good welding properties
- High geometrical accuracy (eccentricity, roundness)
- Excellent surface condition

Material properties

- High torsional strength and fatigue strength
- Homogeneous strength properties and ductility
- Very good suitability for welding
- Potential to reduce wall thickness

Structure

- Homogeneous, fine-grain structure in weld seam and basic material
- Minimised surface decarburisation of inner and outer surfaces (< 100 µm)
- Excellent weld seam quality

Geometry

- Minimised fluctuations in wall thickness and inner/outer diameter
- Minimised deviations in straightness
- Minimised deviations in concentricity and axial run-out
- Minimised eccentricity
- Specific tube end processing: sawn/brushed; chamfered, completely processed/chamfered

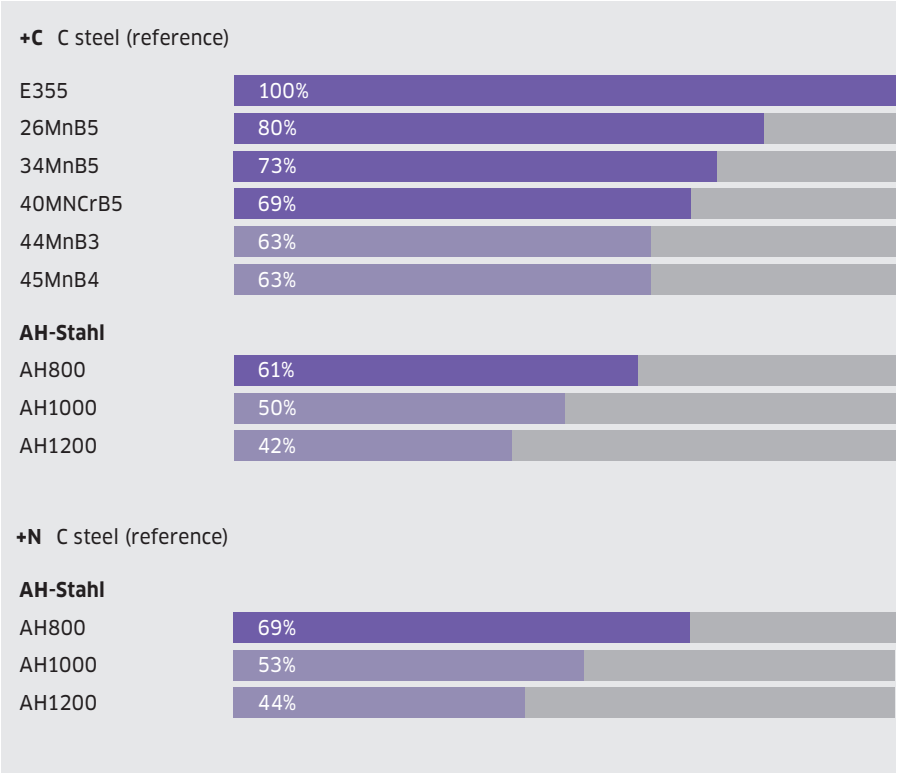
Surface

- Excellent surface condition
- Minimised surface flaws (adhesions, scratches, dents, etc.)
- Minimised corrosion protection, optionally specific corrosion protection

Materials & dimensions

Application	Tube standard	Steel grades	Delivery condition	Dimensions range mm
Drive shaft (3-part)	✔ EN 10305-2	✔ E355 ✔ 26MnB5 ✔ 34MnB5 ✔ 40MnCrB5 ✱ 44MnB3 ✱ 45MnB4 ✔ AH800 ✱ AH1000 ✱ AH1200	✔ +C ✔ +C ✔ +N	✔ OD 22 – 35 ✔ WT 2.5 – 5.5

Extract from achievable weight-savings



✔ ■ Series production at Jansen
✱ ■ In validation at Jansen

AH: air hardening

OD: outside diameter
WT: wall thickness