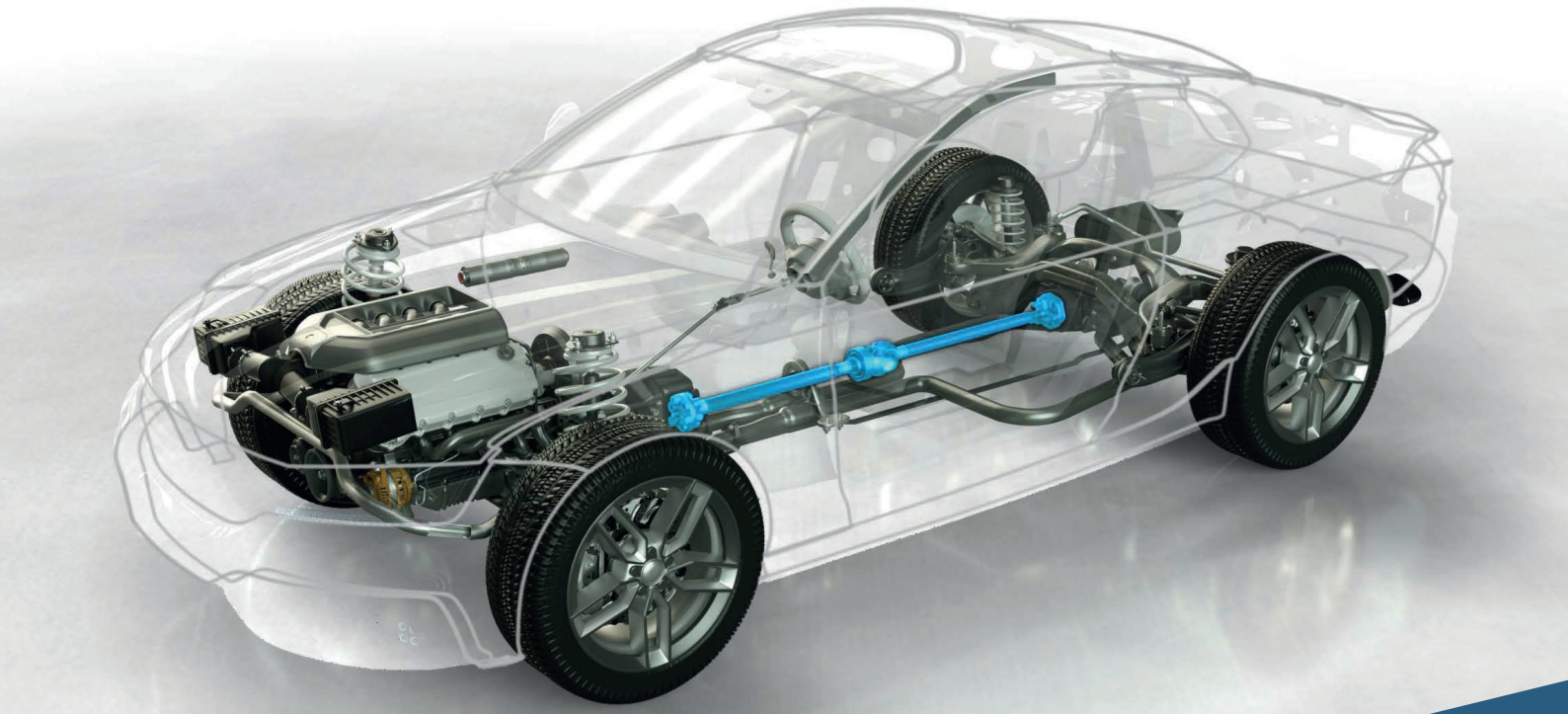
JANSEN

Jansen produces welded-drawn precision steel tubes for propeller shafts.



Propeller shaft

Product information | Technical data sheet

During processing, tubes for the propeller shafts are partly drawn in at the ends, leading to high demands on the formability and the quality of the weld seam. Stringent tolerances in terms of concentricity, straightness and wall thickness are necessary to prevent running noise and vibrations. This guarantees smooth propeller shaft operation within the vehicle. The use of modern air hardening steel materials creates new opportunities to reduce weight.

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Tube requirements

- Excellent formability (drawing in, hammering)
- 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
- Excellent reforming properties
- Homogeneous strength properties and ductility
- Excellently suitable for welding

Structure

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

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

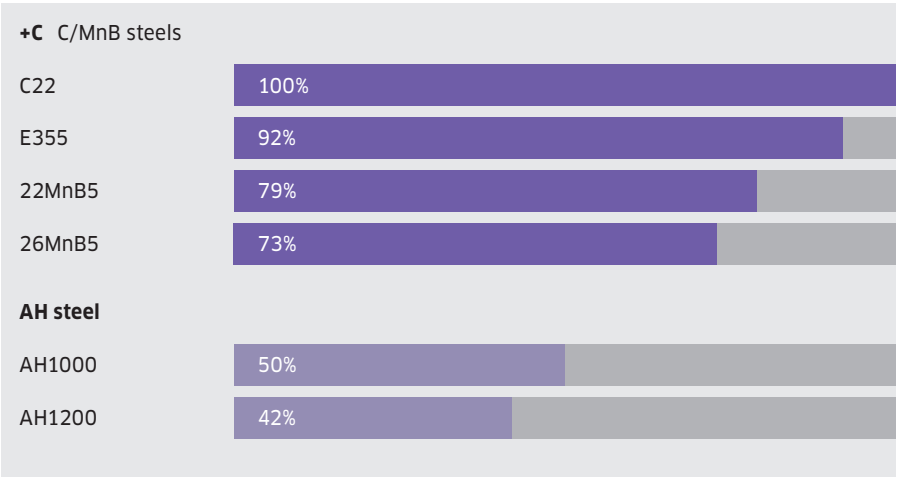
Surface

- 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
Propeller shaft (Car)	✔ EN 10305-2	✔ C22 ✔ E355 ✔ 22MnB5 ✔ 26MnB5 ✱ AH1000 ✱ AH1200	✔ +C	✔ OD 50 – 90 ✔ WT 1.5 – 3
Propeller shaft (HGV)	✔ EN 10305-2	✔ C22 ✔ E355 ✔ 22MnB5 ✔ 26MnB5 ✱ AH1000 ✱ AH1200	✔ +C	✔ OD 60 – 120 ✔ WT 2 – 5

Extract from achievable weight-savings



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

AH: air hardening

OD: outside diameter
WT: wall thickness