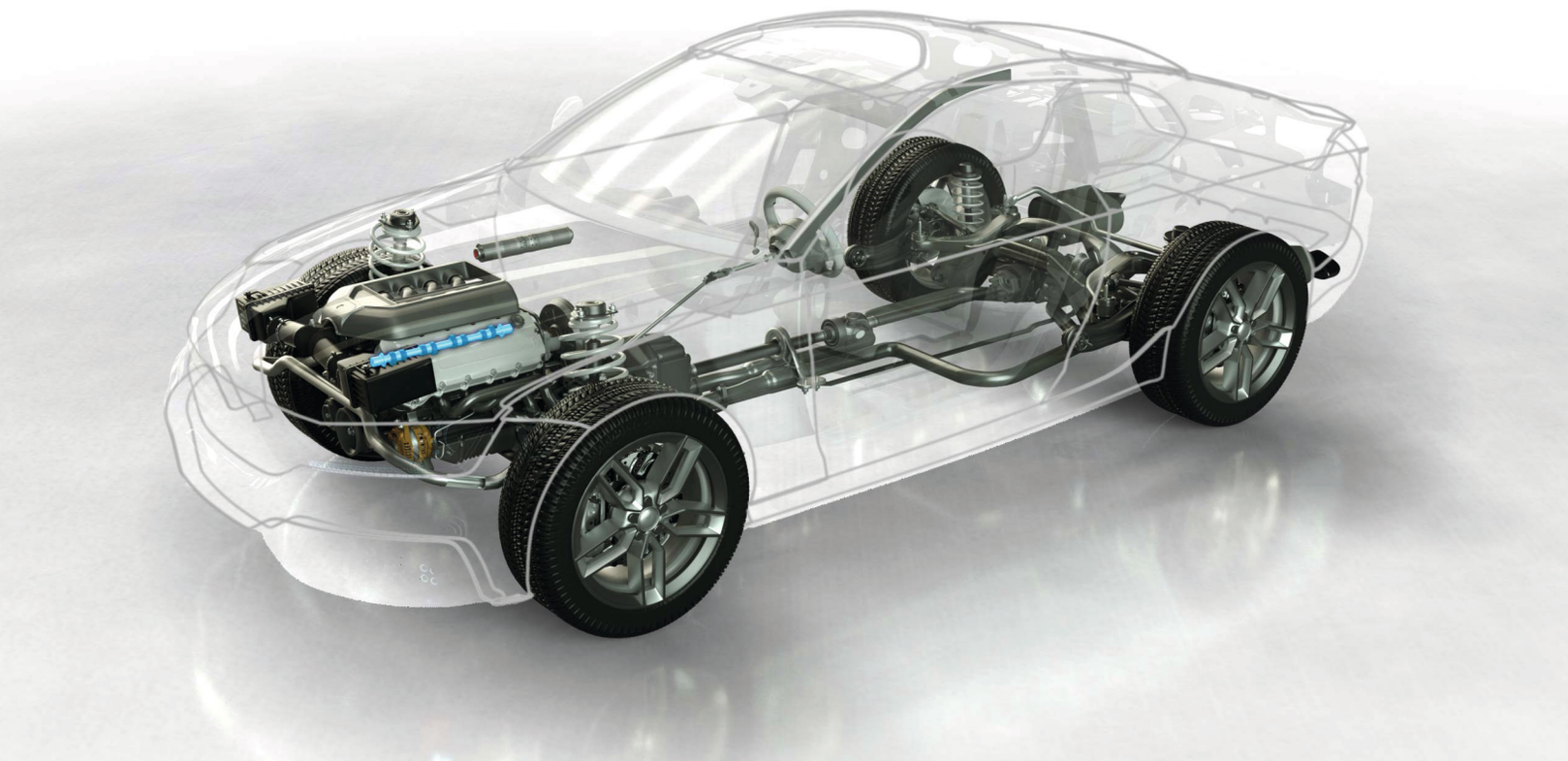
Mubea
precision steel tubes



Camshaft
assembled

Product information | Technical data sheet

Jansen Steel Tubes and Mubea Precision Steel Tubes produce welded-drawn precision steel tubes made of standard materials and high-tensile steel grades for assembled camshafts.

For the manufacturers of camshafts, accurate concentricity, high degrees of roundness and straightness as well as stringent dimensional tolerances are important aspects in the selection of tubes. Low levels of surface decarburisation allow a partial hardening. As a result of the trend towards lightweight design, high-tensile materials are increasingly in demand. The use of modern high-tensile materials allows further weight savings by reducing the wall thickness while maintaining the comparable physical properties.

Tube requirements

- High strength values (elongation at break, tensile strength)
- High torsional strength and reverse bending strength
- High geometrical accuracy
- Excellent surface condition
- High levels of strength and hardness after Q+T

Material properties

- High torsional strength and durability
- High levels of tensile strength
- Homogeneous strength properties and ductility
- Potential for reduced wall thickness

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

Geometry

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

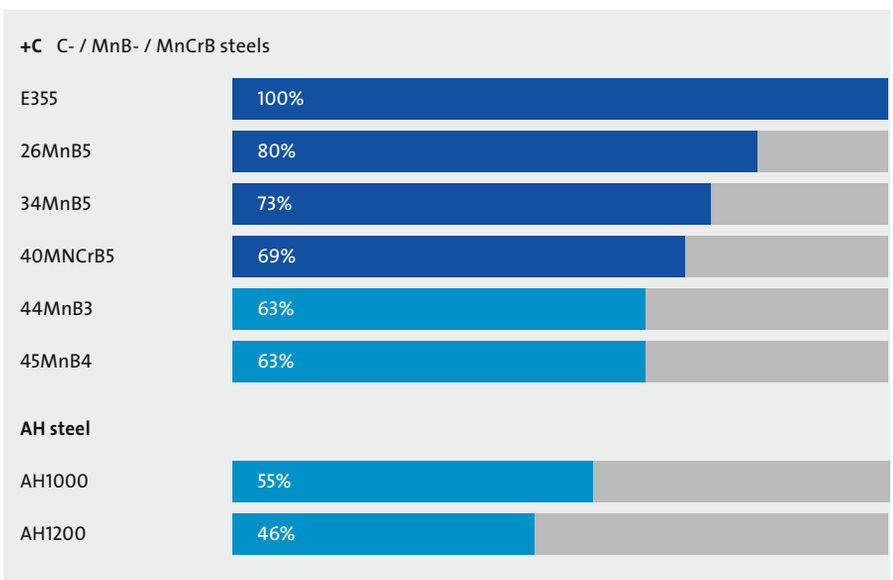
Surface

- 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
Camshaft (car)	✔ EN 10305-2	✔ E355 ✔ 26MnB5 ✔ 34MnB5 ✔ 40MnCrB5 ✱ 44MnB3 ✱ 45MnB4 ✱ AH1000 ✱ AH1200	✔ +C	✔ OD 22 - 33 ✔ WT 2.5 - 5.5 also available as TDT tube with variable wall thickness
Camshaft (HGV)	✔ EN 10305-2	✔ E355 ✔ 34MnB5 ✱ 40MnCrB5 ✱ 44MnB3 ✱ 45MnB4 ✱ AH1000 ✱ AH1200	✔ +C	✔ OD 33 - 60 ✔ WT 4 - 6.5 also available as TDT tube with variable wall thickness

Extract from achievable weight-savings



✔ ■ Series production
✱ ■ in validation

AH: air hardening
TDT: Tailor Drawn Tube
OD: ø outside diameter
WT: wall thickness

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