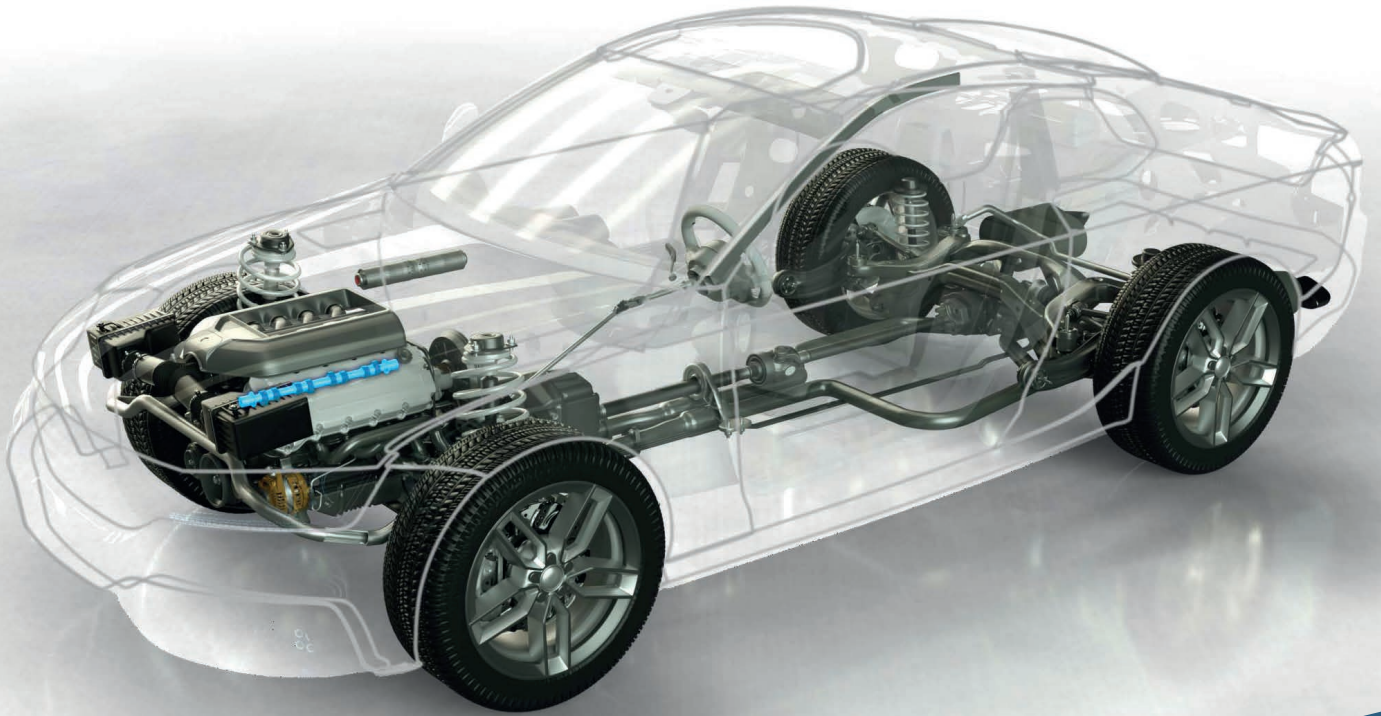


Jansen produces welded-drawn precision steel tubes made of standard materials and high-tensile steel grades for assembled camshafts.



## Camshaft assembled

[Product information](#) | [Technical data sheet](#)

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 light-weight 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

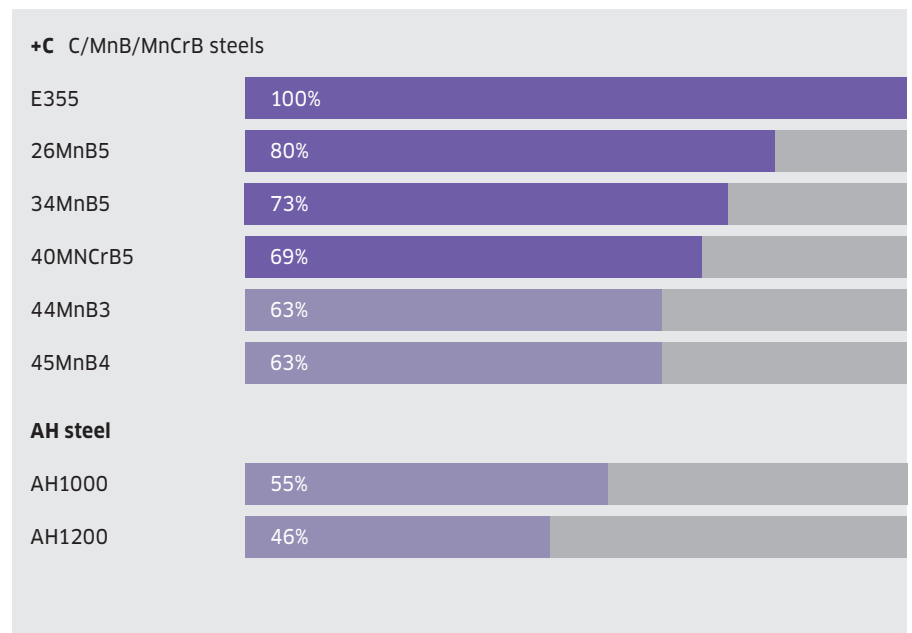
## Surface

- 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	✓ +C	✓ OD 22 - 33 ✓ WT 2.5 - 5.5
		✓ 26MnB5		
Camshaft (HGV)	✓ EN 10305-2	✓ 34MnB5	✓ +C	✓ OD 33 - 60 ✓ WT 4 - 6.5
		✓ 40MnCrB5		
		* 44MnB3		
		* 45MnB4		
		* AH1000		
		* AH1200		
		* AH1000		
		* AH1200		

## Extract from achievable weight-savings



- ✓ ■ Series production at Jansen
- \* ■ In validation at Jansen

AH: air hardening

OD: outside diameter  
WT: wall thickness