

Drive shaft 3-part

Product information | Technical data sheet

Mubea Precision Steel Tubes produce welded-drawn precision steel tubes made of high-tensile materials for three-part drive shafts.

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.



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 (< 50 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

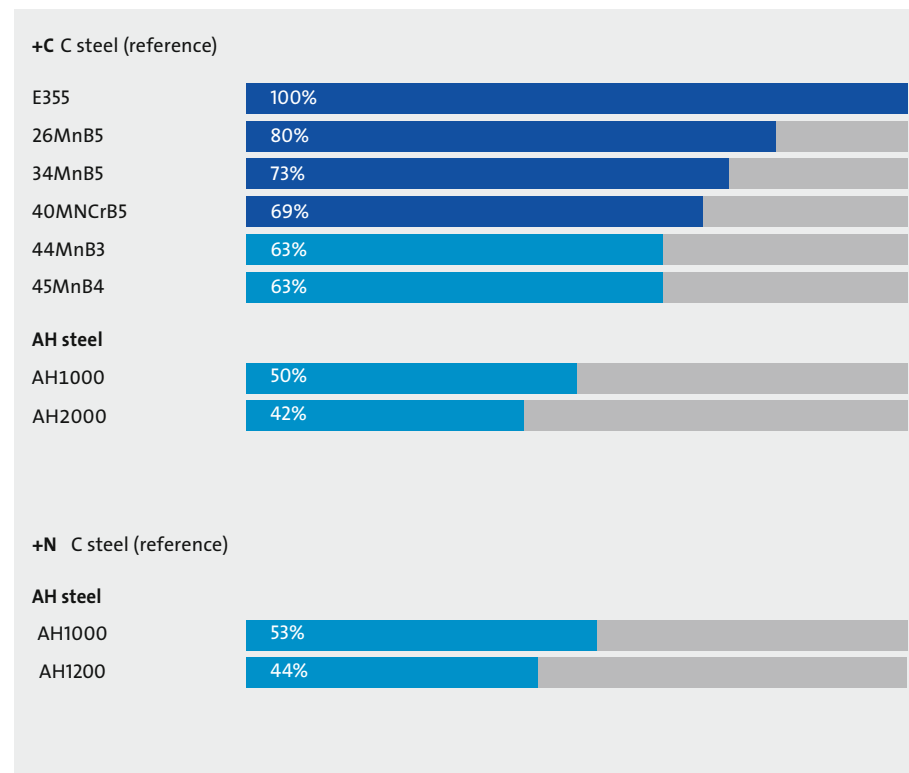
Surface

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	✓ +C	✓ OD 22 - 60 ✓ WT 2.5 - 6.5
		✓ 26MnB5		
		✓ 34MnB5		
		✓ 40MnCrB5		
		* 44MnB3	✓ +N	
		* 45MnB4		
		* AH1000		
		* AH1200		

Extract from achievable weight-savings



✓ ■ Series production
* ■ In validation

AH: air hardening

OD: outside diameter
WT: wall thickness