

Propeller shaft

Product information | Technical data sheet

Mubea Precision Steel Tubes produce welded-drawn precision steel tubes for propeller shafts.

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 NVH (Noise, Vibration, and Harshness) issues. This guarantees smooth propeller shaft operation within the vehicle. The use of modern air hardening steel materials creates new opportunities to reduce weight.



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 (<50 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

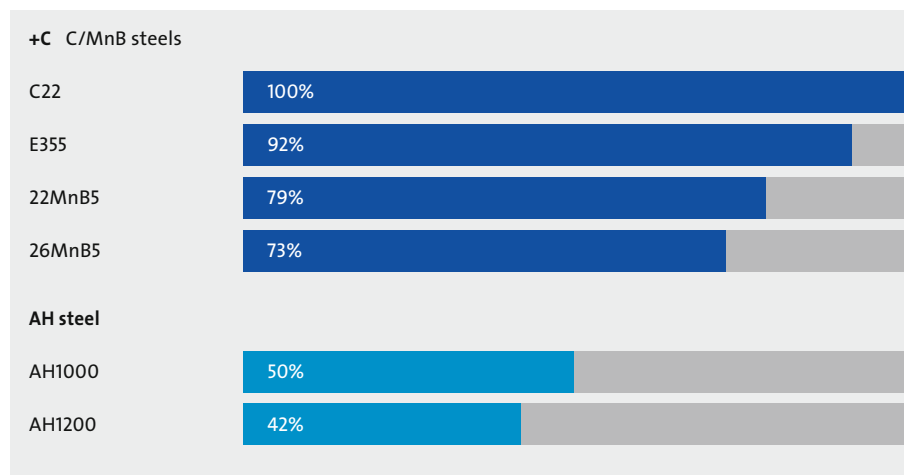
Minimised surface flaws
(adhesions, scratches, dents, etc.)

Minimised corrosion protection,
optionally specific corrosion protection

Materials & dimensions

Application	Tube standard	Steel grades	Delivery condition	Dimensions range mm
Propeller shaft	✓ EN 10305-2	✓ C22	✓ +C	✓ OD 50 - 85 ✓ WT 1.5 - 5
		✓ E355		
		✓ 22MnB5		
		✓ 26MnB5		
		* AH1000		
		* AH1200		

Extract from achievable weight-savings



✓ ■ Series production
* ■ In validation

AH: air hardening

OD: outside diameter

WT: wall thickness