

Steering

Product information | Technical data sheet

Mubea Precision Steel Tubes produce welded and welded-drawn precision steel tubes and profiles for steering systems made of standard materials as well as high-tensile materials.

Quality is paramount in steering applications and construction. Tight tolerances and very good reforming properties of the tubes ensure smooth component construction.

The use of modern high-tensile materials allows for weight savings by reducing the wall thickness while still maintaining the component's strength.



Tube requirements

Excellent formability
High torsional strength and durability
Excellent welding properties
High geometrical accuracy
Excellent surface condition

Material properties

High torsional strength and fatigue strength
Excellent reforming properties
Homogeneous strength properties and ductility
Excellently suitable 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)
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, completely processed/chamfered

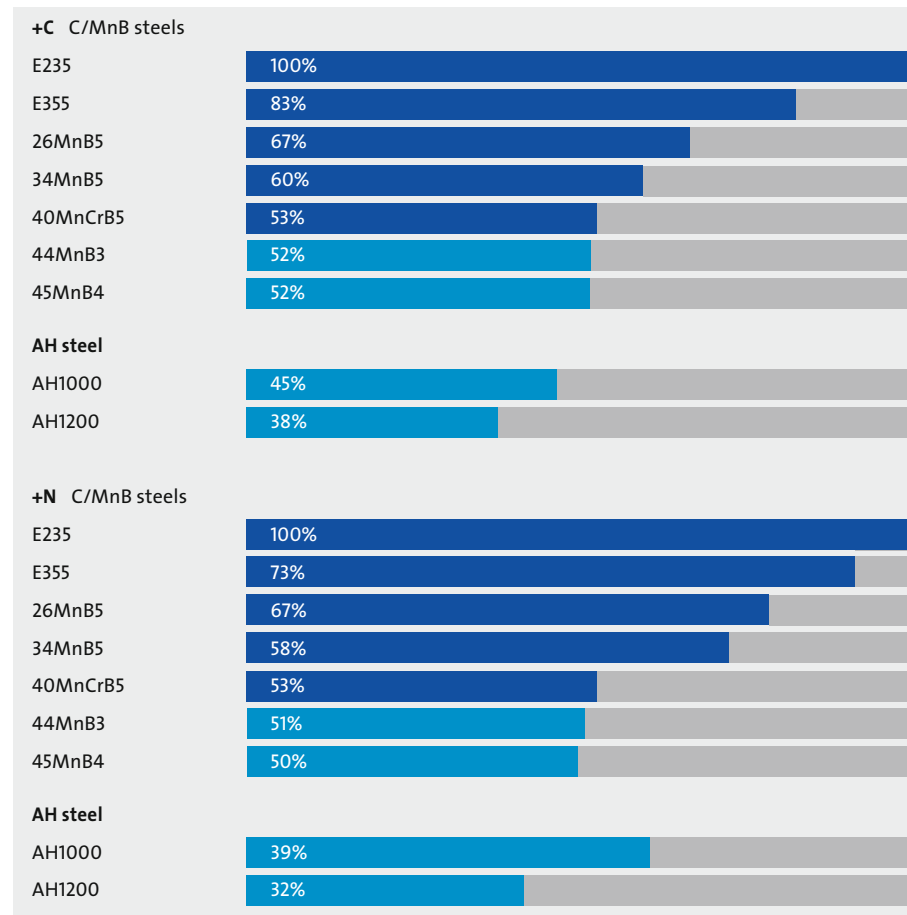
Surface

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
Steering shafts	✓ EN 10305-2	✓ E235 ✓ E355 ✓ 26MnB5 ✓ 34MnB5 ✓ 40MnCrB5 * 44MnB3 * 45MnB4	✓ +C ✓ +N	✓ OD 20 - 35 ✓ WT 1.5 - 3
Steering spindles		* AH1000 * AH1200		✓ OD 25 - 40 ✓ WT 2 - 4

Extract from achievable weight-savings



✓ Series production
* In validation

AH: air hardening

OD: outside diameter
WT: wall thickness