

Reinforcement tube

Product information | Technical data sheet

Jansen Steel Tubes and Mubea Precision Steel Tubes produce welded precision steel tubes and profiles used as structural reinforcements in the automotive industry.

High-tensile materials are used for the structural reinforcement tubes. Applications within this automotive industry segment are very sensitive to quality and component failure in the event of an undesired deformation of the component may have serious consequences. The tight production

tolerances guarantee efficient and thus cost-effective tube processing during component production. The use of new modern air-hardening materials allows a significant reduction of the work involved by eliminating the tempering process, and thus a significant reduction in costs.



Tube requirements

- Excellent formability
- High levels of fatigue strength
- High levels of strength and hardness according to Q+T
- excellent surface conditions

Material properties

- High levels of fatigue strength
- Excellent reforming properties
- Excellent hardening properties
- Homogeneous strength properties and ductility

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 concentricity and axial run-out
- Minimised eccentricity
- Tube end processing: sawn/brushed; chamfered

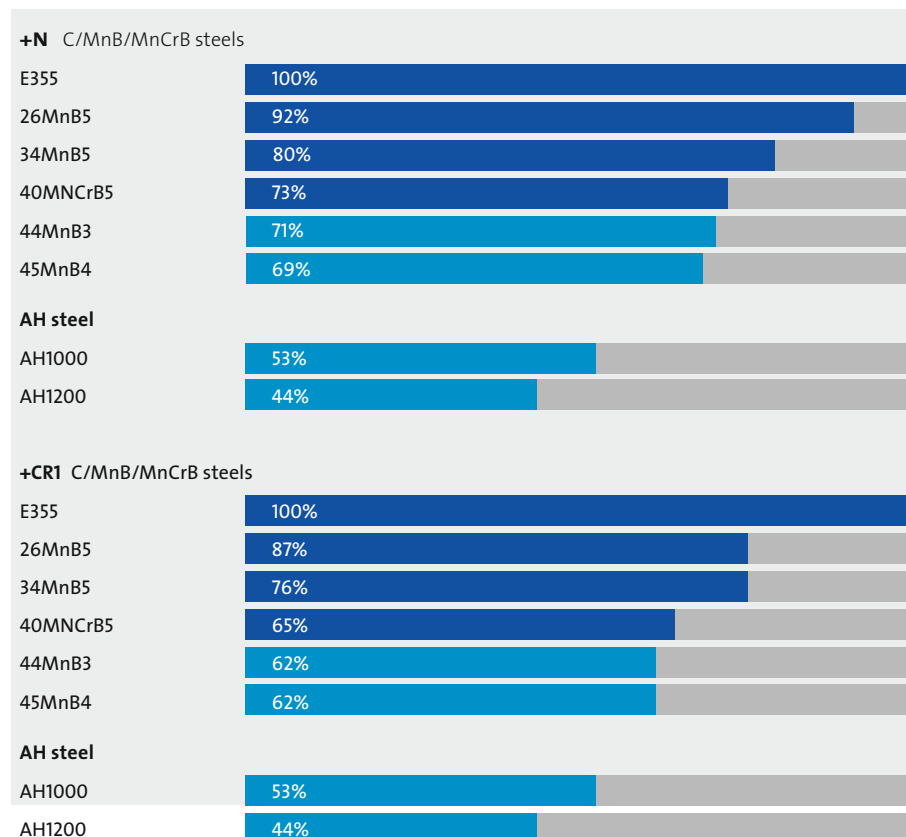
Surface

- 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
Reinforcement tube	✓ EN 10305-2 ✓ EN 10305-3	✓ E355	✓ +N ✓ +CR1	✓ AD 35 - 80 ✓ WD 2 - 6.5
		✓ 26MnB5		
		✓ 34MnB5		
		✓ 40MnCrB5		
		* 44MnB3		
		* 45MnB4		
		✓ 5700		
		* AH1000		
		* AH1200		
			* OP1000	
		* CP800		

Extract from achievable weight-savings



✓ Series production
* in validation

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