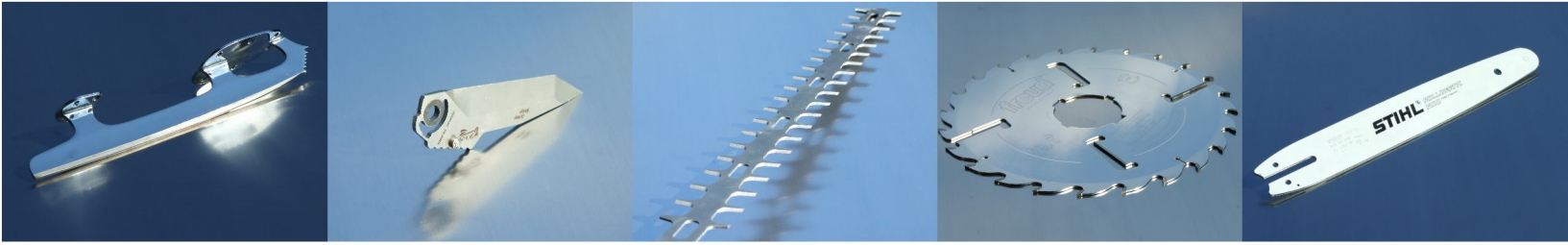




# Quenched and tempered steels



Standard	DIN EN 10132		
Grades	Tempering steels: C22E - C60E, 25CrMo4 - 50CrMo4 Boron-alloyed steels: 27MnCrB5-2 and similar Spring steels: C55S - C100S, 75Cr1 - 95Cr1, 51CrV4 - 80CrV2, 68CrNiMo33, 75Ni8, 102Cr6		
Chemical cast analysis	Based on DIN EN 10132 and also special analysis		
Strip thicknesses [mm] <sup>(1)</sup>	Martensite: 0.30 - 5.10		
Strip widths [mm] <sup>(2) (3)</sup>	Martensite: 35 - 720		
Delivery conditions	QT - martensitic quenched and tempered		
Mechanical properties <sup>(1)</sup>	Martensite:	Spring steels	Hardness 30 - 54 HRC
Hardness range		Tempering steels	Hardness 30 - 48 HRC
		Boron-alloyed steels	Hardness 30 - 44 HRC
Surfaces (appearance + finish)	Bright, grey-blue, polished and yellow tempered, brush-polished		
Edge conditions	GK - slit edges, SK - special edges (machined or edge-rolled)		
Dimensional tolerances	General tolerances:	acc. to DIN EN 10140 and special agreement	
	Strip width tolerances:	acc. to special agreement only	
Flatness	Max. 1.0 µm/mm width for martensitic tempered spring steels with C-contents of 0.67 - 1.00 %, Max. 1.5 - 2.0 µm/mm width for boron-alloyed grades and tempering steels.		
Delivery forms	Coils and cut to lengths		
Cut to length dimensions <sup>(2)</sup>	Width 80 - 720 mm	Length: 400 - 4000 mm	
Specialities	Hardening of low carbon steel with very good flatness values. Hardening of extreme cross-sections with especially wide and thick dimensions. Hardening in lead free process upon agreement.		

<sup>(1)</sup> Variations depending on grade and dimension to be taken into account <sup>(2)</sup> Further dimensions upon agreement

<sup>(3)</sup> Strip width < 35 mm only available in slit-after-hardening condition in strip thickness ≤ 0.80 mm

