

Our technical possibilities

... custom engineered steel for every application



Table to compare Stainless Steel grades acc. to EN 10 088-2

Material No.	Material grad	ASTM-Type	UK BS	France AFNOR	Sweden SIS	Japan JIS
1.4016*	X 6 Cr 17	430	430 S 17	Z 8 C 17	2320	SUS 430
1.4021	X 20 Cr 13	(420)	420 S 37	Z 20 C 3	2303	SUS 420 J 1
1.4031	X 39 Cr 13	(420)	430 S 45	Z 33 C 132	2303	SUS 420 J 2
1.4034	X 46 Cr 13	(420)		Z 44 C 14		
1.4113*	X 6 CrMo 17-1	434	434 S 17	Z 8 CD 17-01		SUS 343
1.4301*	X 5 CrNi 18-10	304	304 S 31	Z 7 CN 18-9	2332/33	SUS 304
1.4303*	X 4 CrNi 18-12	(305)	305 S 19	Z 8 CN 18-12		SUS 305
1.4306*	X 2 CrNi 19-11	304L	304 S 11	Z 3 CN 18-10	2352	SUS 304 L
1.4307*	X 2 CrNi 18-9	304L				
1.4310*	X 10 CrNi 18-8	(301)	301 S 21	Z 11 CN 17-08	2331	SUS 301
1.4311	X 2 CrNiN 18-10	304LN	304 S 61	Z 3 CN 18-10 AZ	2371	SUS 304 L
1.4401*	X 5 CrNiMo 17-12-2	316	316 S 31	Z 7 CND 17-12-02	2347	SUS 316
1.4404*	X 2 CrNiMo 17-12-2	316L	316 S 11	Z 3 CND 17-12-02	2348	SUS 316 L
1.4435*	X 2 CrNiMo 18-14-3	316L	316 S 13	Z 3 CND 17-13-03	2353	SUS 316 L
1.4436*	X 3 CrNiMo 17-13-3	316	316 S 33	Z 6 CND 18-12-03	2343	SUS 316
1.4438	X 2 CrNiMo 18-15-4	317L		Z 3 CND 19-15-04	2367	SUS 317 L
1.4462	X 2 CrNoMoN 22-5-3		318 S 13	Z 3 CND 22-05-AZ	2377	SUS 329 J 3 L
1.4509*	X 2 CrTiNb 18	441		Z 3 CTNb 18		
1.4510*	X 3 CrTi 17	439		Z 4 CT 17		SUS 430 LX
1.4511*	X 8 CrNb 17	430Cb				
1.4512*	X 2 CrTi 12	409	409 S 19	Z 3 CT 12		SUS 409
1.4520*	X 2 CrTi 17					
1.4521*	X 2 CrMoTi 18-2	444				SUS 444
1.4539*	X 1 NiCrMoCuN 25-20-5		904 S 13	Z 2 NCDU 25-20	2662	
1.4541*	X 6 CrNiTi 18-10	321	321 S 31	Z 6 CNT 18-10	2337	SUS 321
1.4571*	X 6 CrNiTi 17-12-2	316Ti	320 S 31	Z 6 CNDT 17-12	2350	SUS 316 TI
1.4713	X 10 CrAl 7			Z 8 Ca 7		
1.4828*	X 15 CrNiSi 20-12	(309)	S 94			
1.4841*	X 15 CrNiSi 25-20	(310)	S 24	Z 12 CNS 25-20	2361	
1.4845	X 12 CrNi 25-21.	(310S)	S 24		2361	
1.4878*	X 12 CrNiTi 18-9	(321)	S 20		2337	

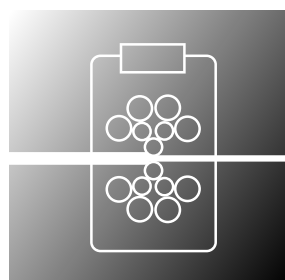
* available grades from stock

Our technical capabilities...



Slit strip

Width: 4 - 1,570 mm
 Thickness: 0.10 - 6.00 mm
 Coil I.D.: 305/406/508/610 mm
 Coil O.D.: by arrangement
 Coil weight: max. 25 to
 Tolerances: according to EN ISO 9445:2006 by arrangement



Precision strip

(in single layer/pancake or traverse wound coils)

Spool width: 200 - 400 mm
 Thickness: 0,10 - 1,50 mm
 Coil I.D.: 305/406/508 mm
 Coil O.D.: by arrangement
 Coil weight: max. 1.5 to
 Tolerances: according to EN ISO 9445:2006 by arrangement



Standard sheets and specified sheets

Standard: 1,000 x 2,000 mm, 1,250 x 2,500 mm,
 1,500 x 3,000 mm
 Width: 180 - 1,500 mm (every dimension by arrangement)
 Length: 100 - 6,000 / 12,000 mm
 Thickness: 0.20 - 6.00 mm
 Tolerance: according to EN ISO 9445:2006 by arrangement

Special dimensions on request. We deliver all strip, bars and sheet marked and with a trade certificate acc. to EN 10204:2005. The original certificates 2.3 and 3.1 are available and can be sent on request. "Ü-Marking" and possibly ADW2 if needed can be arranged (authorization TÜV Nord e.V.)

Table to compare Surface Conditions according to EN 10 088-2

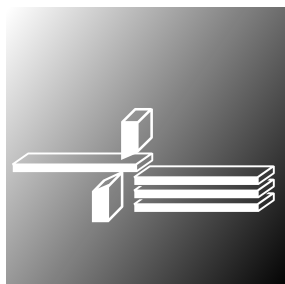


Term	EN 10 088-2 Abbreviation	Execution	Surface condition	Finished form				DIN 17 440 / DIN 17 441**
				F	R	B	S*	
Hot rolled / hot formed	1U	hot formed, not heat-treated, not de-scaled	scale		x	x	x	a1
	1C	hot formed, heat-treated, not de-scaled	scale	x	x	x	x	b (Ic)
	1E	hot formed, heat-treated, mechanically de-scaled	scale free	x	x	x	x	c1 (IIa)
	1D	hot formed, heat-treated, pickled	scale free	x	x	x	x	c2 (IIa)
	1X	hot formed, heat-treated, Rough machined (peeled or turned)	clean				x	e
Cold rolled / cold processed	2H	cold strain hardened	bright	x		x		f (IIIa)
	2C	cold rolled, heat-treated, not de-scaled	smooth, scaling through heat-treatment	x				
	2E	cold rolled, heat-treated, mechanically de-scaled	rough, tarnished	x				
	2D	cold processing, heat-treated, pickled	smooth	x		x		h (IIIb)
	2B	heat-treated, rough machined (peeled), mechanically polished	smoother than 2D				x	n (IIIc)
	2B	cold rolled, heat-treated, pickled, cold re-rolled	smoother than 2D	x				n (IIIc)
	2R	cold rolled, bright annealed	reflective	x				m (III d)
	2Q	cold rolled, hardened and tempered scale free	scale free	x				
Special conditions	1G / 2G	ground		x		x		O (IV)
	1J / 2J	brushed or matt polished		x				Q
	1K / 2K	silk matt finished		x				
	1P / 2P	bright polished		x				P (V)
	2F	cold rolled, heat-treated, cold re-rolled with textured rollers	matt	x		x		P (V)
	1M / 2M	patterned		x				
	2W	corrugated		x				
	2L	coloured		x				
	1S / 2S	surface coated		x				

*F = flat products R = Wire rod B = bar/profile S = Semi finished products

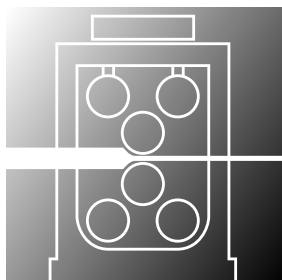
**formerly used abbreviation

Our technical capabilities...



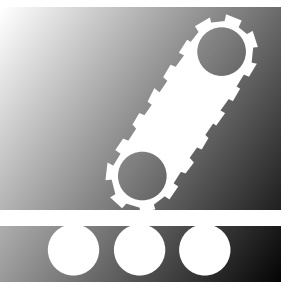
Bars (made out of steel strip, straightened, rolled edges)

Width:	10 - 180 mm
Thickness:	1.00 - 6.00 mm
Length:	max. 12,000 mm
Tolerance:	EN ISO 9445:2006 / DIN 10 17 (similar) Special execution with sharp edge (similar to EN ISO 9445:2006)
Marking:	Bars stamped individually



Rolled profiles

Width:	10 - 250 mm
Thickness:	0.40 - 6.00 mm
Tensile Strength:	to be agreed
Edge forms:	(gk) cut edge (gak) cut edge with minimum burrs (wak) roll rounded off edge (sgk) specialist edges: fully round or (sak) rectangular or acc. to drawing



Surface finish

Design:	ground grit 80 - 400 brushed
Protection:	paper interleaving Protective foil if required (one side or both sides)

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