

Zapp is Certified to DIN EN ISO 9001

Choice of Materials

Alloy no.	DIN-Steel name	AISI/SAE	UNS	Zapp-brand name**/****	
Austenitic grades					
1.4301	X5CrNi18-10	304	S30400	Ergste 1.4301PA	Zapp 304PA
1.4303	X4CrNi18-12	305	S30500	Ergste 1.4303SA,ST	Zapp 305SA,ST
1.4306	X2CrNi19-11	304L	S30403	Ergste 1.4306LA,LF	Zapp 304LA,LF
1.4310	X10CrNi18-8	301 302	S30100 S30200	Ergste 1.4310FC,FF,FM,FS	Zapp 301FC,FF*,FS Zapp 301FM
1.4372	X12CrMnNiN17-7-5	201	S20100	Ergste 1.4372FH	Zapp 201FH
1.4401	X5CrNiMo17-12-2	316	S31600	Ergste 1.4401PC	Zapp 316PC
1.4404	X2CrNiMo17-12-2	316L	S31603	Ergste 1.4404LA	Zapp 316LA
1.4435	X2CrNiMo18-14-3	316L	S31603	Ergste 1.4435LA	Zapp 316LA
1.4439	X2CrNiMoN17-13-5	317LMN	S31726	Ergste 1.4439LN	Zapp 317LMN
1.4441	X2CrNiMo18-15-3	~ 316LVM F138/F139	S31673	Ergste 1.4441LA	
1.4539	X1NiCrMoCuN25-20-5	904L	N08904	Ergste 1.4539	
1.4541	X6CrNiTi18-10	321	S32100	Ergste 1.4541TA,TW	Zapp 321TA,TW
1.4550	X6CrNiNb18-10	347	S34700	Ergste 1.4550	
1.4571	X6CrNiMoTi17-12-2	316Ti	S31635	Ergste 1.4571TB,TW	Zapp 316TB,TW
1.4828	X15CrNiSi20-12	309	S30900	Ergste 1.4828ZA	Zapp 309ZA*
1.4833	X12CrNi23-13	309S	S30908	Ergste 1.4833	
1.4841	X15CrNiSi25-21	314	S31400	Ergste 1.4841ZA	Zapp 314ZA
1.4845	X8CrNi25-21	310S	S31008	Ergste 1.4845ZA	Zapp 310ZA
1.4876	X10NiCrAlTi32-21	B163, Alloy 800	N08800	Ergiloy 1.4876	Ergiloy 1.4876
Ferritic grades					
1.4016	X6Cr17	430	S43000	Ergste 1.4016IM	Zapp 430IM*
1.4113	X6CrMo17-1	434	S43400	Ergste 1.4113IL	Zapp 434IL*
1.4510	X3CrTi17	430Ti	S43036	Ergste 1.4510IT	Zapp 430IT*
1.4512	X2CrTi12	409	S40900	Ergste 1.4512IT	Zapp 409IT*
1.4521	X2CrMoTi18-2	444	S44400	Ergste 1.4521IS	
Martensitic grades					
1.4006	X12Cr13	410	S41000	Westig 1.4006	Zapp 410
1.4021	X20Cr13	420	S42000	Westig 1.4021YB,YC*	Zapp 420YB,YC*
1.4028	X30Cr13	420F	S42020	Westig 1.4028YA	Zapp 420YA
1.4028	X30Cr13	420	S42000	Westig1.4028MO,YB*	Zapp 420MO,YB
1.4034	X46Cr13	420	S42000	Westig 1.4034YD*	Zapp 420YD*
1.4122	X39CrMo17-1	-	-	Westig 1.4122YL	Zapp 420YL
1.4037	X65Cr13	-	-	Westig 1.4037YR	Zapp 420YR

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Precipitation hardening steels					
1.4457	8CrNiMo17-5-3	633	S35000	Ergste 1.4457	Zapp 350
1.4568	X7CrNiAl17-7	631	S17700	Ergste 1.4568GA	Zapp 631
1.4980	X5NiCrTi26-15	660	S66286	Ergste 1.4980	Zapp 286
Nickel/nickel base alloys					
2.4068	LC-Ni99	Alloy 201	N02201	Ergiloy 2.4068	Ergiloy 201
2.4360	NiCu30Fe	Alloy 400	N04400	Ergiloy 2.4360	Ergiloy 400
2.4602	NiCr21Mo14W	Alloy C-22	N06022	Ergiloy 2.4602	Ergiloy C-22
2.4816	NiCr15Fe	Alloy 600	N06600	Ergiloy 2.4816	Ergiloy 600
2.4851	NiCr23Fe	Alloy 601	N06601	Ergiloy 2.4851	
2.4856	NiCr22Mo9Nb	Alloy 625	N06625	Ergiloy 2.4856	Ergiloy 625
2.4668	NiCr19Fe19Nb5Mo	Alloy 718	N07718	Ergiloy 2.4668	Ergiloy 718
2.4669	NiCr15Fe7TiAl	Alloy 688, Alloy X-750	N07750	Ergiloy 2.4669	Ergiloy X-750
2.4819	NiMo16Cr15W	Alloy C-276	N10276	Ergiloy 2.4819	Ergiloy C-276
2.4665	NiCr22Fe18Mo	Alloy X	N06002	Ergiloy 2.4665	Ergiloy X
-	-	Alloy 864	N35135	Ergiloy 864	Ergiloy 864
Titan/titanium alloys					
3.7025	Ti Grade 1	Ti Grade 1	R50250	Ergitan 3.7025	Ergitan Grade 1
3.7035	Ti Grade 2	Ti Grade 2	R50400	Ergitan 3.7035	Ergitan Grade 2
3.7065	Ti Grade 4	Ti Grade 4	R50700	Ergitan 3.7065	Ergitan Grade 4
Grade 9	Ti Grade 9	Ti Grade 9	R56320	Ergitan Grade 9	Ergitan Grade 9
High carbon, only hardened and tempered					
1.1274	Ck101	1095	G10950	Westig 1.1274QA	Zapp 1095
1.2067	100Cr6	L1/L3	T61203	Westig 1.2067	Zapp 23
1.1121	Ck10	1010	G10100	Westig 1.1121	Zapp 0338QA

* Works analyses limits selectively restricted compared to the standard analyses. Deviations marked with*

** Complying with standards: DIN 17742, DIN 17743, DIN 17744, EN 10088-2, EN 10095, EN 10151, EN 10269, EN 10302, ISO 5832-1 Comp.D, ISO 5832-2, ASTM B348, Register of European Steel.

*** Complying with standards: AMS 5542, ASTM A167, ASTM A176, ASTM A240/A240M, ASTM A959, ASTM B127, ASTM B162, ASTM B168, ASTM B348, ASTM B424, ASTM B435, ASTM B443, ASTM B575, ASTM B670, ASTM F139

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Selected carbon steels on request. We welcome inquiries as per JIS and GOST.

Production, Performance Range Precision Strip Standards and Special Designs

Standards	Additional Zapp capabilities
Delivery performances, conditions, surfaces	
Annealed, cold-reduced according to DIN EN 10088-2, spring hard according to DIN EN 10151, hardened and tempered according to DIN EN 10088-2	Closer abided mechanical and technological properties; hardness on request; oxide reduced, degreased, stress relieved; defined roughness; dull rolled, bright rolled and polished; brushed, crystal (shot blasted), satin (spark eroded); foil coated (color marked); lacquered or galvanized coated, roll-bonding claddings
Size tolerances	
DIN EN ISO 9445	DIN EN ISO 9445 P, closer tolerances on request
Deviation from straightness	
DIN EN ISO 9445	DIN EN ISO 9445 R, closer tolerances on request
Flatness	
DIN EN ISO 9445	DIN EN ISO 9445, closer tolerances on request
Edge finishes	
Mill edges, slit	Reduced burr, deburred, rolled, chamfered, rounded
Forms of delivery	
Coils up to 500 lbs/inch (8 kg/mm) width inside diameter 12"/16"/20" (300/400/500 mm)	Coils with specific inner diameter on request; spools up to 4400 lbs (2000 kg) oscillated wound, welded: 0.004-0.039" (0.1- 1.0 mm) thickness; 0.08-2.36" (2- 60 mm) width; Bars and sheets in cut length on request: 0.002- 0.028" (0.05 - 0.70 mm) thickness, ≤ 42" (1066 mm) width

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