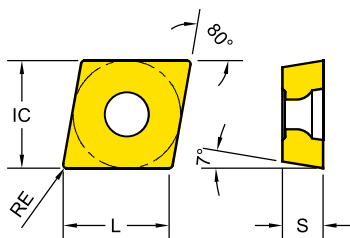


Inserti di tornitura positivi CCGT / CCMT 80°



Series	L	IC	S
CC*T 0602	6.2	6.35	2.38
CC*T 09T3	9.2	9.53	3.97
CC*T 1204	12.4	12.7	4.76

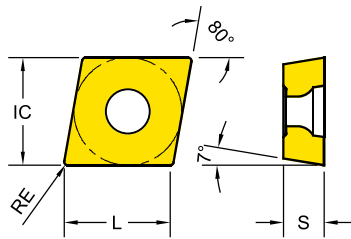
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■ Codici ad esaurimento scorte

Descrizione	Grado	RE	Fn (mm/giro)	Ap (mm)	Codice
CCGT 060202 - AL	YG10	0.2	0.02 ~ 0.15	0.1 ~ 2	22001398
CCGT 060204 - AL	YG100	0.4	0.02 ~ 0.15	0.5 ~ 2	22001278
	YG10				22001320
CCGT 09T302 - AL	YG100	0.2	0.02 ~ 0.08	0.5 ~ 1	22000340
	YG10				22000339
CCGT 09T304 - AL	YG100	0.4	0.05 ~ 0.25	0.5 ~ 2	22000330
	YG10				22000081
CCGT 09T308 - AL	YG100	0.8	0.1 ~ 0.35	1 ~ 3	22000331
	YG10				22000082
CCGT 120402 - AL	YG100	0.2	0.04 ~ 0.15	0.1 ~ 1	22000474
	YG10				22000473
CCGT 120404 - AL	YG100	0.4	0.04 ~ 0.2	0.3 ~ 1.5	22000476
	YG10				22000475
CCGT 120408 - AL	YG100	0.8	0.04 ~ 0.3	0.6 ~ 2.5	22000478
	YG10				22000477
CCMT 060204 - UF	YG3010	0.4	0.05 ~ 0.2	0.5 ~ 2	22000163
	YG3015				22000866
	YG3115				22002365
	YG3020				22000164
CCMT 09T304 - UF	YG3030	0.4	0.05 ~ 0.5	0.5 ~ 2	22000165
	YG3010				22000169
	YG3115				22002371
	YG3020				22000170
CCMT 09T308 - UF	YG3030	0.8	0.05 ~ 0.25	1 ~ 2	22000171
	YG3010				22000964
	YG3115				22002578
	YG3020				22000951
CCMT 120404 - UF	YG3030	0.4	0.10 ~ 0.25	0.10 ~ 0.25	22000953
	YG3115				22002579
	YG3020				22001347
	YG3030				22001337
CCMT 060204 - UG	YG1010	0.4	0.1 ~ 0.25	0.5 ~ 2	22001377
	YG3010				22000166
	YG3115				22002357
	YG3020				22000167
	YG3030				22000168
	YG801				22000006
YG214	22001900				
CCMT 060208 - UG	YG1010	0.8	0.1 ~ 0.25	0.8 ~ 2	22001825
	YG3010				22000479
	YG3115				22002378
	YG3020				22000683
	YG3030				22000684
	YG801				22000009
YG214	22001901				
CCMT 09T304 - UG	YG1010	0.4	0.15 ~ 0.3	0.5 ~ 2.5	22001844
	YG3010				22000172
	YG3115				22002206
	YG3020				22000173
	YG3030				22000174
	YG801				22000007
YG214	22001586				

► SEGUE

Inserti di tornitura positivi CCGT / CCMT 80°



Series	L	IC	S
CC*T 0602	6.2	6.35	2.38
CC*T 09T3	9.2	9.53	3.97
CC*T 1204	12.4	12.7	4.76

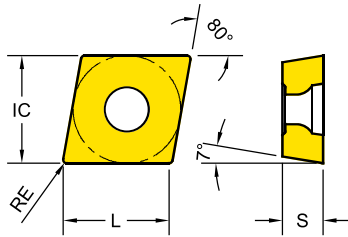
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■ Codici ad esaurimento scorte

Descrizione	Grado	RE	Fn (mm/giro)	Ap (mm)	Codice
CCMT 09T308 - UG	YG1010	0.8	0.15 ~ 0.3	0.8 ~ 2.5	22001553
	YG1001				22000445
	YG3010				22000150
	YG3115				22002180
	YG3020				22000151
	YG3030				22000152
	YG801				22000008
	YG214				22001908
CCMT 120404 - UG	YG1010	0.4	0.15 ~ 0.35	0.5 ~ 3	22001845
	YG3010				22000175
	YG3115				22002399
	YG3020				22000176
	YG3030				22000177
CCMT 120408 - UG	YG1010	0.8	0.15 ~ 0.35	0.8 ~ 3	22001462
	YG3010				22000153
	YG3015				22000867
	YG3115				22002183
	YG3020				22000154
	YG3030				22000155
	YG214				22000005
CCMT 120412 - UG	YG1010	1.2	0.15 ~ 0.35	1.2 ~ 3	22001846
	YG3010				22000483
	YG3115				22002580
	YG3020				22000915
	YG3030				22001135
CCGT 060201 - SF	YG214	0.1	0.02 ~ 0.15	0.1 ~ 1.5	22002341
	YG401				22002065
CCGT 060202 - SF	YG214	0.2	0.02 ~ 0.15	0.1 ~ 1.5	22002080
	YG401				22002066
CCGT 060204 - SF	YG214	0.4	0.03 ~ 0.2	0.1 ~ 2.4	22002086
	YG401				22002067
CCGT 09T301 - SF	YG214	0.1	0.02 ~ 0.15	0.1 ~ 2.5	22002339
	YG401				22002071
CCGT 09T302 - SF	YG214	0.2	0.02 ~ 0.15	0.1 ~ 2.5	22002340
	YG401				22002072
CCGT 09T304 - SF	YG214	0.4	0.03 ~ 0.2	0.1 ~ 2.5	22002093
	YG401				22002073
CCGT 09T308 - SF	YG214	0.8	0.03 ~ 0.25	0.10 ~ 2.5	22002096
	YG401				22002074
CCMT 060208 - MF	YG211	0.8	0.05 ~ 0.20	1 ~ 2	22002352
	YG213				22002439
	YG214				22002440
	YG401				22002351
CCMT 09T302 - MF	YG2025	0.2	0.06 ~ 0.2	0.2 ~ 2	22002501
	YG211				22002002
	YG213				22002003
	YG401				22002028

► SEGUE

Inserti di tornitura positivi CCGT / CCMT 80°



Series	L	IC	S
CC*T 09T3	9.2	9.53	3.97

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■ Codici ad esaurimento scorte

Descrizione	Grado	RE	Fn (mm/giro)	Ap (mm)	Codice
CCMT 09T304 - MF	YG2025	0.4	0.07 ~ 0.2	0.2 ~ 2	22002502
	YG211				22001589
	YG213				22001590
	YG214				22001947
	YG401				22002029
CCMT 09T308 - MF	YG2025	0.8	0.07 ~ 0.2	0.3 ~ 2	22002503
	YG211				22001957
	YG213				22001958
	YG214				22001959
	YG401				22001943
CCMT 09T304 - MM	YG2025	0.4	0.1 ~ 0.3	0.5 ~ 3	22002514
	YG211				22001591
	YG213				22001592
	YG214				22001946
	YG401				22002039
CCMT 09T308 - MM	YG2025	0.8	0.1 ~ 0.3	0.6 ~ 3	22002515
	YG211				22001887
	YG213				22001888
	YG214				22001956
	YG401				22001944
CCMT 09T302 - PF	YT100	0.2	0.04 ~ 0.15	0.08 ~ 2	22002541
CCMT 09T304 - PF	YT100	0.4	0.06 ~ 0.25	0.1 ~ 2	22002542
CCMT 09T308 - PF	YT100	0.8	0.08 ~ 0.3	0.15 ~ 2	22002543
CCMT 09T304 - PM	YT100	0.4	0.08 ~ 0.25	0.25 ~ 3	22002554
CCMT 09T308 - PM	YT100	0.8	0.1 ~ 0.3	0.5 ~ 3	22002555

Parametri di taglio indicativi

Tornitura

Velocità di taglio			Vc (m/min.)															
ISO	VDI	Gruppo materiali	YG1010		YG1001		YG3010		YG3015		YG3115		YG3020		YG3030		YG801	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Acciai non legati	-	-	220	480	230	450	200	430	180	500	160	380	130	350	120	200
	6~9	Acciai basso legati	-	-	220	420	180	380	150	350	170	450	140	320	130	280	70	200
	10~11	Acciai alto legati	-	-	-	-	60	200	90	180	60	300	60	130	70	110	-	-
M	12~13	Inox ferritici e martensitici	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	14	Inox Austenitici	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
K	15~16	Ghisa grigia	300	450	250	420	120	300	-	-	-	-	-	-	-	-	-	
	17~18	Ghisa nodulare	120	350	120	300	120	280	-	-	-	-	-	-	-	-	-	
N	21~30	Alluminio	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
S	31~37	Leghe resistenti al calore	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
H	38~41	Acciai temprati	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Tornitura

Velocità di taglio			Vc (m/min.)															
ISO	VDI	Gruppo materiali	YG2025		YG211		YG213		YG214		YG401		YT100		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Acciai non legati	-	-	-	-	-	-	-	-	-	-	150	480	-	-	-	-
	6~9	Acciai basso legati	-	-	-	-	-	-	-	-	-	-	160	480	-	-	-	-
	10~11	Acciai alto legati	-	-	-	-	-	-	-	-	-	-	70	360	-	-	-	-
M	12~13	Inox ferritici e martensitici	170	220	170	270	120	180	100	150	-	-	-	-	-	-	-	-
	14	Inox Austenitici	150	200	150	230	40	160	100	150	-	-	130	260	-	-	-	-
K	15~16	Ghisa grigia	-	-	-	-	-	-	-	-	-	-	130	450	-	-	-	-
	17~18	Ghisa nodulare	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Alluminio	-	-	-	-	-	-	-	-	-	-	-	-	250	1200	250	800
S	31~37	Leghe resistenti al calore	-	-	30	100	30	70	30	50	30	90	-	-	-	-	-	-
H	38~41	Acciai temprati	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Troncatura

Velocità di taglio			Vc (m/min.)			
ISO	VDI	Gruppo materiali	YG602G (YG602)		YG603	
			Min	Max	Min	Max
P	1~5	Acciai non legati	120	180	-	-
	6~9	Acciai basso legati	100	140	-	-
	10~11	Acciai alto legati	80	110	-	-
M	12~13	Inox ferritici e martensitici	70	160	50	90
	14	Inox Austenitici	55	140	40	80
K	15~16	Ghisa grigia	110	185	-	-
	17~18	Ghisa nodulare	110	140	-	-
N	21~30	Alluminio	250	440	-	-
S	31~37	Leghe resistenti al calore	25	45	-	-
H	38~41	Acciai temprati	25	50	-	-

Informazioni tecniche

Parametri di taglio indicativi

Barenatura

Velocità di taglio			Vc (m/min.)		Fn (m/giro)	
ISO	VDI	Gruppo materiali	YG812		YG812	
			Min	Max	Min	Max
P	1~5	Acciai non legati	170	200	0.015	0.025
	6~9	Acciai basso legati	95	160	0.015	0.025
	10~11	Acciai alto legati	85	95	0.015	0.025
M	12~13	Inox ferritici e martensitici	105	140	0.015	0.025
	14	Inox Austenitici	95	130	0.015	0.025
K	15~16	Ghisa grigia	140	190	0.015	0.025
	17~18	Ghisa nodulare	140	190	0.015	0.025
N	21~30	Alluminio	-	-	-	-
S	31~37	Leghe resistenti al calore	10	75	0.015	0.025
H	38~41	Acciai temprati	-	-	-	-

Fresatura

Velocità di taglio			Vc (m/min.)																			
ISO	VDI	Gruppo materiali	YG012		YG712		YG713		YG612		YG622		YG602		YG613		YG501(G)		YG5020		YG50	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Acciai non legati	180	280	170	300	200	300	180	280	140	400	180	270	100	210	-	-	-	-	-	-
	6~9	Acciai basso legati	150	250	180	250	170	270	150	250	120	320	150	240	70	180	-	-	-	-	-	-
	10~11	Acciai alto legati	80	150	100	140	85	145	70	140	70	170	70	130	40	90	-	-	-	-	-	-
M	12~13	Inox ferritici e martensitici	-	-	-	-	-	-	120	200	-	-	120	180	70	180	-	-	-	-	-	-
	14	Inox Austenitici	-	-	-	-	-	-	130	250	-	-	30	230	70	200	-	-	-	-	-	-
K	15~16	Ghisa grigia	-	-	-	-	-	-	-	-	120	270	120	250	-	-	160	300	200	350	-	-
	17~18	Ghisa nodulare	-	-	-	-	-	-	-	-	130	240	120	220	-	-	130	210	150	300	-	-
N	21~30	Alluminio	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	800
S	31~37	Leghe resistenti al calore	-	-	-	-	-	-	25	45	-	-	5	45	-	-	-	-	-	-	-	-
H	38~41	Acciai temprati	70	120	-	-	-	-	-	-	40	100	-	-	-	-	-	-	-	-	-	-

Foratura

Velocità di taglio			Vc (m/min.)					
ISO	VDI	Gruppo materiali	YG713		YG602		YG613	
			Min	Max	Min	Max	Min	Max
P	1~5	Acciai non legati	200	300	180	380	100	210
	6~9	Acciai basso legati	170	270	120	300	70	180
	10~11	Acciai alto legati	85	145	70	150	40	90
M	12~13	Inox ferritici e martensitici	-	-	120	200	70	180
	14	Inox Austenitici	-	-	130	250	70	200
K	15~16	Ghisa grigia	-	-	120	250	-	-
	17~18	Ghisa nodulare	-	-	130	220	-	-
H	38~41	Acciai temprati	-	-	-	-	-	-

Gruppi Materiali - tabella generica

ISO	VDI 3323	Descrizione Materiale	Composizione / Struttura / Trattamento		HB	HRC	Esempi	Pag	
P	1	Acciai non legati	0.15% C	Ricotto	125		S15C, C15, 1015	207	
	2		0.45% C	Ricotto	190	13	S45C, C45, 1045		
	3		0.45% C	Bonificato	250	25			
	4		0.75% C	Ricotto	270	28	SK5, Ck75, 1080		
	5		0.75% C	Bonificato	300	32			
	6	Acciai basso legati		Ricotto	180	10	SCM440, 42CrMo4, 410		
	7			Bonificato	275	29			
	8			Bonificato	300	32			
	9			Bonificato	350	38			
	10	Acciai alto legati Acciai da utensili		Ricotto	200	15	SKD, D2		
	11			Bonificato	325	35	SKH, SUH, M42		
M	12	Acciai inox	Ferritico / Martensitico	Ricotto	200	15	SUS 420, X40Cr13, 420	214	
	13		Martensitico	Bonificato	240	23			
	14			Austenitico	180	10			SUS 316, 316, X5CrNiMo 17 12 2
K	15	Ghisa grigia	Perlitica / Ferritica		180	10	FC, GG, EN-GJL-250	216	
	16		Perlitica (Martensitica)		260	26			
	17	Ghisa nodulare	Ferritica		160	3	FCD, GGG, EN-GJS-500-7		
	18		Perlitica		250	25			
	19	Ghisa malleabile	Ferritica		130		FCMW, FCMP, GTS, GJMB350-10		
	20		Perlitica		230	21			
N	21	Legha di alluminio	Non Trattabile		60		SAE 1000, AlMg 1, 3.3315	218	
	22		Trattabile Temprato		100		SAE 7050, AlCuMg 1, 3.1325		
	23	≤ 12% Si, Non Trattabile		75		ADC12, G-AlSi12, 3.2581			
	24	Alluminio fuso, legato	≤ 12% Si, Trattabile	Temprato	90		C4BS, G-AlSi10Mg, 3.2381		
	25		> 12% Si, Non trattabile		130				
	26	Rame e sue leghe di rame (Bronzo / Ottone)	Leghe, PB>1%		110		CuZn36Pb 3, 2.0375		
	27		CuZn, CuSnZn (Ottone)		90		CuZn 15, 2.0240		
	28		CuSn, rame senza pimbo e rame elettrolitico				G-CuZn40Fe, 2.0590		
	29	Materiali non ferrosi	Duroplastic, Plastiche rinforzate fibra						CFRP
	30		Gomma, Legno, etc.						
S	31	Superleghe resistenti al calore	Base Fe	Ricotto	200	15	X12 NiCrSi 36-16, 1.4864	220	
	32			Invecchiato	280	30			
	33			Ricotto	250	25	Inconel 718, NiCr20TiAl, 2.4631		
	34		Base Ni o Co	Invecchiato	350	38	NiCu30Al, 2.4375		
	35			Fuso	320	34	G-X120Mn12, 1.3401		
	36	Leghe di titanio	Titanio puro			400 Rm			
	37		Leghe Alpha + Beta		Temprato	1050Rm	TiAl6V4, 3.7165		
H	38	Acciai temprati			550	55	SK3	222	
	39				630	60			
	40	Fusione di ghisa	Fuso		400	42			
	41	Ghisa indurita	Temprato		550	55			

Informazioni tecniche

Gruppi Materiali

Mat'l No.	JIS	DIN	Descrizione Materiale			Composizione / Struttura / Trattamento					HB	HRc
			AISI/ASTM/SAE	BS	EN	0.15% C, Ricotto						
1.0037	STKM 12 C	St 37-2	-	4360 40 B	S235JR	E24-2	1311	Fe 360 B			16D	
1.0038	STKM 12 A	St 37-3	A570.36	4360 40 C	S275J2G3	E28-3	1312	Fe 360 D FF			ST14KP	
1.0045	SM 490 YA	S 355 JR	-	-	S 1207	E36-2	-	Fe 510 BFN				
1.0050	SS 50	St 50-2	A570 Gr. 50	4360 50 B	E 295	A50-2	2172	Fe 490			ST5PS	
1.0060	SM 58	St 60-2	A572 Gr. 65	4360 55 E	-	A60-2	1650	Fe 60-2			ST6PS	
1.0114		S 235 J0	-	En 40C	S 235 J0	E24-3		Fe 360 CFN				
1.0143		S 275 J0	-	-	S 275 J0	E28-3	1414	Fe 430 C				
1.0144	SM41C, SM400	St 44-3 N	A573 Gr. 81	4360 43C	S 275 J2 G3	E28-3	1412	Fe 430 D FF			ST14KP	
1.0149		Ro St 44-2	-	43C	S 275 J0 H	-	1412	Fe430C				
1.0301	S10C	C10	1010	045M10	C10	34C10, XC10		C10	F.1511	G10100	10	
1.0330	SPCC	St 12	-	DC 01	Fe P01	DC 01/Fe P01	1142	Fe P01			15KP	
1.0335	SPHE	D D 13 (StW 24)	A622(1008)	H S 3	D D 13	3C		FeP13			08KP	
1.0338	SPCE	St 4	A620(1008)	14491CR	Fe P04	Fe 14	1147	DC04/FeP04			08JU	
1.0345	SPV 50	P235 GH	A516 Gr. 65	P 235 GH	P 235 GH	A 37 CP	1330	Fe E 235		K02503		
1.0401	S15C	C15	1015	080M15	-	C18RR, XC18	1350	C15, C16	F.1110	G10170	15	
1.0402	S20C	C22	1020	050 A 20	1 C 22	C20	1450	C 20	F.1120	G10200	20	
1.0425	SPV315	P265GH/HII				A42CP	1430	Fe4101KW		K02801	16K	
1.0443	SC 450	G5-45	A2765-35	A1		E23-45M	1305					
1.0539		S355NH				TSE355-4	2134	Fe510B				
1.0545		S355N		4360-50E		E355R	2334	FeE355KG				
1.0546		S355NL		4360-50EE		E355FP	2135	FeE355KT				
1.0547		S355J0H		4360-50C		TSE355-3	2172	Fe510C				
1.0549		S355NLH					2135	Fe510D				
1.0553	SM 520 M	St52-3U	A14880-40	4360-50C		320-560M	1606	Fe510C				
1.0562	SM490A	St E 355	A633 Gr. C	P 355 N		FeE355KGN	2132	Fe E 355 KG		K12000	15GF	
1.0565		W St E 355		P 355 NH		P 355 NH	2106	Fe E 355 KW		K01600		
1.0566	SLA 37	T St E 355		P 355 NL1		P 355 NL1	2107	Fe E 355 KT				
1.0570	SM 50 YA	St 52-3	1	4360-50 C	S355JR	E36-3	2172	Fe 510 B			17G15	
1.0715	SUM22	9SMn28	1213	230M07		S250	1912	CF5Mn28	F.2111	G12130		
1.0718	SUM22L	9SMnPb28	12L13			S250Pb	1914	CF9SMnPb28	F.2112	G12134		
1.0721		10S20	1108	10S20		10S20		CF10S20	F.2121	G11080		
1.0722		10SPb20	11L08			10PbF2		CF10SPb20		G11084		
1.0736	SUM25	9SMn36	1215			S300		CF9Mn36	F.2113	G12150		
1.0737		9SMnPb36	12L14			S300Pb	1926	CF9SMnPb36	F.2114	G12144		
1.0972		S315MC		1501-40F30		E315D						
1.0976		S355MC		1501-43F35		E355D	2642	FeE355TM				
1.0982		S460MC		1501-50F45								
1.0984		S500MC				E490D	2662	FeE490TM				
1.0986		S500MC		1501-60F55		E560D		FeE560TM				
1.1121	S10C	Ck10	1010	040A10		XC10	1265	C10	F.1510	G10100	10	
1.1141	S15	Ck15	1015	040A15	32C	XC15	1370	C15	F.1110	G10150	15	
1.1151	S20C	C22E	1020	055M15		2C22	1450	C20	F.1120	G10230	20	
1.8900	S25C	StE380	A572-60	436055E			2145	FeE390KG				
		St44-2	A36	436043A		NFA35-501E28	1411					
		StE320-3Z		1501160			1421					

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			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="font-size: 2em; font-weight: bold; color: #0070C0;">P</div> <div style="text-align: center;"> VDI 3323 2 </div> <div style="text-align: center;"> Acciai non legati </div> <div style="text-align: center;"> 0.45% C, Ricotto </div> <div style="text-align: center;"> 190 </div> <div style="text-align: center;"> 13 </div> </div>												
1.0501	S35C	C35	1035	080A32		1C35	1572	C35	F.113	G10350	35	
1.0503	S45C	C45	1045	060A47		XC42H1TS	1672	C45	F.114	G10450	45	
1.0511	S40C	C40	1040	080M40		1C40		C40	F.114.A	G10400	40	
1.0540	S50C	C50					1674	C50		G10500		
1.0551		G5-52	A2770-36	A2		280-480M	1505					
1.0553	SM 520 M	St52-3U	A14880-40	4360-50C		320-560M	1606	Fe510C				
1.0577		S 355 J2 G 4	A738	Fe 510 D 2 FF		A52FP	2107					
1.0726		35S20	1140	212M36	8M	35MF6	1957			G11400	40	
1.0727		45S20	1146			45MF4	1973			G11460		
1.1157		40Mn4	1039	150M36	15	40M5				G10390	40G	
1.1158	S25C	C25E	1025	070M25		XC25		C25	F.1120	G10250	25	
1.1166	SMn433H	34Mn5	1536						T0.B	G15360		
1.1167	SMn438(H)	36Mn5	1335	150M36		40M5	2120	36Mn6	F.1203	G13350	35G2	
1.1170	SCMn1	28Mn6	1330	150M28	14A	20M5		C28Mn	28Mn6	G13300	30G	
1.1178	S30C	C30E		080M30		XC32		C30	2C30	G10300		
1.1180		C35R	1035	080A35		3C35	1572		F.1135	G10350		
1.1181	S35C	C35E	1035	080A35		XC38	1572	C36	F.1130	G10340	35	
1.1191	S45C	Ck45	1045	080A46		XC45	1672	C45	F.1140		45	
1.1206	S50C	C50E	1050	080M50		2C50	1674	C50		G10500	50	
1.1213	S50C	Cf53	1050	070M55		XC48HTS	1674	C53		G10500	50	

Mat'l No.	JIS	DIN	Descrizione Materiale			Composizione / Struttura / Trattamento					HB	HRC
			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="font-size: 2em; font-weight: bold; color: #0070C0;">P</div> <div style="text-align: center;"> VDI 3323 3 </div> <div style="text-align: center;"> Acciai non legati </div> <div style="text-align: center;"> 0.45% C, Bonificato </div> <div style="text-align: center;"> 250 </div> <div style="text-align: center;"> 25 </div> </div>												
1.0481	SG365	17 Mn 4/P 295 GH	A516 Gr.70	224-460B	P 295 GH	A 48 CP	2102	Fe E 295	A47RC1	K03501	14G2	
1.0501	S35C	C35	1035	080A32		1C35	1572	C35	F.1130	G10350	35	
1.0503	S45C	C45	1045	060A47		XC42H1TS	1672	C45	F.1140	G10450	45	
1.0614		C76D	1074			XC75				G10750		
1.0616		C86D	1086			XC80		C85		G10860		
1.0618		C92D	1095			XC90				G10950		
1.0726		35S20	1140	212M36	8M	35MF6	1957			G11400	40	
1.1157		40Mn4	1039	150M36	15	40M5				G10390	40G	
1.1165	SMn433H	30Mn5	1036	120M36		35M5		30Mn5	F.8211	K13300	30G2	
1.1167	SMn438(H)	36Mn5	1335	150M36		40M5	2120	36Mn6	F.1203	G13350	35G2	
1.1186	S40C	C40E	1040	060A40		2C40		C40		G10400		
1.1191	S45C	Ck45	1045	080M46		2C45	1672	C45	F.1140		45	
1.1201	S50C	C45R	1049	080M46		3C45	1660	C45	F.1145		38HM	
1.1213	S50C	Cf53	1050	070M55		XC48HTS	1674	C53		G10500	50	
1.7242	SCM 418 H	18CrMo4										
1.7337		16CrMo4-4	A387 Gr.12					A18CrMo45KW		K11564	15C M	
1.7362	SCMV 6	12CrMo195		3606-625		Z10CD5-05		16CrMo205		K41545		
		17MnV6	A572-60	436055E		NFA35-501E36	2142					

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			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands
<div style="display: flex; justify-content: space-between; align-items: center;"> P VDI 3323 4 Acciai non legati 0.75% C, Ricotto 270 28 </div>												
1.0603	S70 C -CSP	C67	107	080A67		XC65		C67		G10700		
1.0605		C75	1075	144980HS				C75		G10740	75	
1.1203	S55C	Ck55	1055	060A57		2C55	1655	C55	F.1150	G10550	55	
1.1209		C55R	1055	070M55		3C55		C55	F.1155	G10550		
1.1221	S58C	Ck60	1060	060A62	43D	2C60	1678	C60	F.1150	G10640	60	
1.1231	S70 C-CSP	C67E	1070	060A67		XC68	1770	C70	F.5103	G10700	65GA	
1.1248	C75	C75E	1074	060A78		XC75	1774	C75	F.5107	G10800	75(A)	
1.1269	SK 5 -CSP	C85E	1086			XC90		C90		G10900	85(A)	
1.1274	SUP4	Ck 101	1095	060 A 96	C 100S	XC100	1870	C100	F.5117	G10950		
1.1545	SK 3	C 105 W1	W1	BW 2	C 105U	Y1 105	1880	C 100 KU	F.5118		U10A	
1.1663	SK 2	C125W	W112			Y2120					U13	

Mat'l No.	JIS	DIN	Descrizione Materiale			Composizione / Struttura / Trattamento					HB	HRC
			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands
<div style="display: flex; justify-content: space-between; align-items: center;"> P VDI 3323 5 Acciai non legati 0.75% C, Bonificato 300 32 </div>												
1.0070		St 70-2	1055	Fe690-2FN	-	A70-2	1655	Fe 690	F.1150		55	
1.0535	S55C	C55	1055	070M55		1C55	1655	C55		J05000	55	
1.0601	S58C	C60	1060	060A62	43D	1C60		C60		G10600	60(G)	
1.1203	S55C	Ck55	1055	060A57		2C55	1655	C55	F.1150	G10550	55	
1.1221	S58C	Ck60	1060	060A62	43D	2C60	1678	C60	F.1150	G10640	60	
1.1274	SUP4	Ck 101	1095	060 A 96	C 100S	XC100	1870	C100	F.5117	G10950		
1.1545	SK 3	C 105 W1	W1	BW 2	C 105U	Y1 105	1880	C 100 KU	F.5118		U10A	
1.1663	SK 2	C125W	W112			Y2120					U13	
1.5120		38MnSi4										
1.5710	SNC236	36NiCr6	3135	640A35	111A	35NC6						
1.7701		51CrMoV4						51CrMoV4				

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P		VDI 3323 6	Descrizione Materiale Acciaio basso legato			Composizione / Struttura / Trattamento Ricotto					HB 180	HRC 10
Mat'l No.	JIS	DIN	AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands
1.0116		St 37-3	A570 Gr. 36	4360-40C	S 235 J2 G3	E24-3	1312	Fe 360 D1(2)	AE235D		ST3KP	
1.0904	SKH 1, SKT 4	55Si7	9255	250A53	45	55S7	2085	55Si8	56Si7	G92550	55S2	
1.0961	SUP 7	60SiCr7	9262			60SC6		60SiCr8	60SiCr8	G92620		
1.2067		100Cr6	L3	BL3		Y100C6			100Cr6			
1.2108		90CrSi5	L1				2092	105WCr5				
1.2210		115CrV3	L2			100C3		107CrV3KU	F.520L		11KHF	
1.2241		51CrV4										
1.2330	SCM435TK	35CrMo4	4135	708A37		34CD4	2234	35CrMo4			35KHM	
1.2419	SKS31	105WCr6		105WC13		105WC13	2140	10WCr6			CWG	
1.2510	SKS3	100MnCrW4	01	B01		90 MWCV 5	2140	95 MnWCr 5 KU	F.5220		9KHVG	
1.2542		45WCrV7	S1	BS1			2710	45WCrV8KU			5CW25F	
1.2550		60WCrV7	S1			55WC20	2710	58WCr9KU			5KHV25F	
1.2713	SKT4	55NiCrMoV6	L6			55NCDV7			F.520S		5C NM	
1.2721		50NiCr13	L6			55NVC6	2550		F.528			
1.2842		90MnCrV8	02	B02		90MV8				T31502	9G2F	
1.3501		100Cr2	E50100									
1.3505	SUJ2	100Cr6	52100	25135	31	100C6	2258	100Cr6	F.1310		SC C 15	
1.5024		46Si7				45S7		46Si7	F.1451			
1.5025		51Si7	9259H		50Si7	51S7	2090	50Si7	F.1450			
1.5026		55Si7			56Si7	55S7	2085	55Si7	F.1440	G92550	55S2	
1.5027		60Si7	9260	251A60	60Si7	60S7		60Si7	F.1441	G92600	60S2	
1.5028	SUP7	65Si7	9260H									
1.5415	STFA 12	15Mo3	A204Gr.A	1503-243B		15D3	2912	16Mo3(KG)	F.2601	K11820		
1.5419	SCPH11	20Mo4	4419	1503-243-430			2512	G20Mo5		G44190		
1.5423	SB450M	16Mo5	4520	1503-245-420				16Mo5(KG)	F.2602	K11522		
1.5622		14Ni6	A350-LF5			16N6		14Ni6(KG)	F.2641			
1.5732	SNC415(H)	14NiCr10	3415			14NC11		16NiCr11				
1.5752	SNC815(H)	14NiCr14	3310	655M13	36A	12NC15					20X2H4A	
1.6511	SUP10	36CrNiMo4	9840	816M40	110	40NCD3		36NiCrMo4(KB)			40C N2MA	
1.6523	SNCM220(H)	21NiCrMo2	8620	805M20	362	20NCD2	2506	20NiCrMo2			20C GNM	
1.6546	SNCM240	40NiCrMo2-2	8740	311-Tyre7				40NiCrMo2(KB)			38C GNM	
1.6566		17NiCrMo6-4										
1.6587		17CrNiMo6		820A16		18NCD6		14NiCrMo13				
1.6657		10NiCrMo13-4						14NiCrMo131				
1.7015	SCr415(H)	10Cr3	5015	523M15		12C3				G50150	15C	
1.7033	SCr430(H)	34Cr4	5132	530A32	18B	32C4		34Cr4(KB)		G51300	35C	
1.7035	SCr440(H)	41Cr4	5140	530M40	18	42C4	2245	41Cr4		G51400	40H	
1.7131	SCR 415	16MnCr5	5115	527M17		16MCS	2511	16MnCr5		G51150	12KHN2	
1.7139		16MnCr55					2127				18HG	
1.7176	SUP9(A)	55Cr3	5155	527A60	48	55C3	2253	55Cr3			50C GA	
1.7218	SCM420	25CrMo4	4130	CDS110		25CD4	2225	25CrMo4(KB)			20C M	
1.7220	SCM432	34CrMo4	4135	708 A 37		35CD4	2234	34CrMo4			35C M	
1.7223	SNB22-1	41CrMo4	4142					41CrMo4			40C FA	
1.7225	SCM 440 (H)	42CrMo4	4140	708 M 40	42 CrMo 4	42 CD 4	2244	42 CrMo 4	F.1252		38HM	
1.7228		55NiCrMoV6G		823M30	33		2512	653M31				
1.7262	SCM415(H)	15CrMo5				12CD4	2216	12CrMo4				
1.7321		20mOcr4					2625					
1.7335	SCM415(H)	13CrMo4-4	A182-F11	1501-620		15CD4-5	2216	14CrMo45			12C M	
1.7361		32CrMo12		722M24	40B	30CD12	2240	30CrMo12	F.124A			
1.7380		10CrMo9-10	A182F22	1501-622		12CD9-10	2218	12CrMo9			12KH8	

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P		VDI 3323 6	Descrizione Materiale Acciaio basso legato			Composizione / Struttura / Trattamento Ricotto					HB 180	HRC 10
Mat'l No.	JIS	DIN	AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands
1.7715		14MoV6-3		1503-660-440				13MoCrV6				
1.8159	SUP 10	50CrV4	6150	735A50	47	50CrV4	2230	50CrV4		G61500	50C GFA	
1.8161		58CrV4										
1.8509	SACM 645	41CrAlMo7	A355A	905M39	41B	40CAD6-12	2940	41CrAlMo7				
1.8523		39CrMoV13-9		897M39	40C			36CrMoV12				

P		VDI 3323 7	Descrizione Materiale Acciaio basso legato			Composizione / Struttura / Trattamento Bonificato					HB 275	HRC 29
Mat'l No.	JIS	DIN	AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands
1.5415	STFA 12	15Mo3	A204Gr.A	1503-243B		15D3	2912	16Mo3(KG)	F.2601	K11820		
1.5423	SB450M	16Mo5	4520	1503-245-420				16Mo5(KG)	F.2602	K11522		
1.5622		14Ni6	A350-LF5			16N6		14Ni6(KG)	F.2641			
1.5732	SNC415(H)	14NiCr10	3415			14NC11		16NiCr11				
1.5752	SNC815(H)	14NiCr14	3310	655M13	36A	12NC15					20X2H4A	
1.5755	SNC236	31NiCr14		653M31		18NC13	2534		F.1270			
1.6565	SNCM447	40NiCrMo6	4340	817M40	24	35NCD6	2541	35NiCrMo6(KB)			38C 2N2MA	
1.6587		17CrNiMo6		820A16		18NCD6		14NiCrMo13				
1.6657		10NiCrMo13-4						14NiCrMo131				
1.6957		26NiCrMoV14-5										
1.7015	SCr415(H)	10Cr3	5015	523M15		12C3				G50150	15C	
1.7262	SCM415(H)	15CrMo5				12CD4	2216	12CrMo4				
1.7335	SCM415(H)	13CrMo4-4	A182-F11	1501-620		15CD4-5	2216	14CrMo45			12C M	
1.7380		10CrMo9-10	A182F22	1501-622		12CD9-10	2218	12CrMo9			12KH8	
1.7715		14MoV6-3		1503-660-440				13MoCrV6				
1.7733		24CrMoV55				20CDV6		21CrMoV511				
1.7755		GS-45CrMoV10-4										
1.8070		21CrMoV511						35NiCr9				

P		VDI 3323 8	Descrizione Materiale Acciaio basso legato			Composizione / Struttura / Trattamento Bonificato					HB 300	HRC 32
Mat'l No.	JIS	DIN	AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands
1.1730		C45W3	C45W			XC48						
1.2332	SCM(440)	47CrMo4	4142	708M40	19A	42CD4	2244	42CrMo4				
1.5736	SNC 631 (H)	36NiCr10	3435			30NC11						
1.6523	SNCM220(H)	21NiCrMo2	8620	805M20	362	20NCD2	2506	20NiCrMo2			20C GNM	
1.7033	SCr430(H)	34Cr4	5132	530A32	18B	32C4		34Cr4(KB)		G51300	35C	
1.7218	SCM420	25CrMo4	4130	CDS110		25CD4	2225	25CrMo4(KB)			20C M	
1.8515		32CrMo12		722M24	40B	30CD12	2240	32CrMo12	F.124A			

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				BS	EN	Acciaio basso legato	Bonificato						
1.0904	SKH 1, SKT 4	55Si7	9255	250A53	45	55S7	2085	55Si8		G92550	55S2		
1.0961	SUP 7	60SiCr7	9262			60SiCr6		60SiCr8		G92620			
1.2067		100Cr6	L3	BL3		Y100C6		100Cr6					
1.2419	SKS31	105WCr6		105WC13		105WC13	2140	10WCr6			CWG		
1.2542		45WCrV7	S1	BS1			2710	45WCrV8KU			5CW25F		
1.2713	SKT4	55NiCrMoV6	L6			55NCV7			F.520S		5CNM		
1.4882		X50CrMnNiNbN219				Z50CMNNb21-09							
1.5120		38MnSi4											
1.5710	SNC236	36NiCr6	3135	640A35	111A	35NC6							
1.5755	SNC236	31NiCr14		830m31		18NC13	2534		F.1270				
1.6511	SUP10	36CrNiMo4	9840	816M40	110	40NCD3		36NiCrMo4(KB)			40CN2MA		
1.6546	SNCM240	40NiCrMo2-2	8740	311-Tyre7				40NiCrMo2(KB)			38C GNM		
1.7035	SCr440(H)	41Cr4	5140	530M40	18	42C4	2245	41Cr4		G51400	40H		
1.7176	SUP9(A)	55Cr3	5155	527A60	48	55C3	2253	55Cr3			50C GA		
1.7220	SCM432	34CrMo4	4135	708Aa37		35CD4	2234	34CrMo4			35C M		
1.7223	SNB22-1	41CrMo4	4142					41CrMo4			40C FA		
1.7225	SCM 440 (H)	42CrMo4	4140	708 M 40	42 CrMo 4	42 CD 4	2244	42 CrMo 4	F.1252		38HM		
1.7361		32CrMo12		722M24	40B	30CD12	2240	30CrMo12	F.124A				
1.8159	SUP 10	50CrV4	6150	735A50	47	50CrV4	2230	50CrV4	51CrV4	G61500	50C GFA		
1.8161		58CrV4											
1.8509	SACM 645	41CrAlMo7	A355A	905M39	41B	40CAD6-12	2940	41CrAlMo7					
1.8523		39CrMoV13-9		897M39	40C			36CrMoV12					

Mat'l No.	JIS	DIN	AISI/ASTM/SAE	Descrizione Materiale			Composizione / Struttura / Trattamento					HB	HRC
				BS	EN	Acciaio alto legato Acciaio da utensili	Ricotto						
1.0347	SPCD	RR St 3	A619	CR 3	Fe P03	F 13		DC03/FeP03			08JU		
1.0723	SUM32	15S22		210A15			1922		F.210F				
1.2080	SKD1	X210Cr12	D3	BD3	X210Cr12	Z200C12		X205Cr12KU		T30403	KH12		
1.2162	SCR 420 H	21MnCr5				20MC5							
1.2311		40CrMnMo7				40CMD8		35cRm08KU					
1.2312		40CrMnMoS8.6	P20+S			40CMD8S							
1.2316		X36CrMo17			X38CrMo16								
1.2343	SKD 6	X38CrMoV5-1	H11	BH11		Z38CDV5		X37CrMoV51KU		T20811	4C 5MFS		
1.2344	SKD61	X40CrMoV5-1	H13	BH13		Z40CDV5	2242	X40CrMoV511KU	F.5318	T20813	4C 5MF15		
1.2363	SKD12	X100CrMoV5-1	A2	BA2		Z100CDV5	2260	X100CrMoV51KU	F.5227		9KH5VF		
1.2379	SKD11	X155CrWm121	D2	BD2		Z160CDV12	2310	X165CrMoW12KU		T30402	KH12MF	KRUPP2379	
1.2436	SKD 2	X210CrW12	D4(D6)	BD6		Z200CD12	2312	X215CrW121KU	F.5213		KH12		

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P		VDI 3323 10	Descrizione Materiale Acciaio alto legato Acciaio da utensili			Composizione / Struttura / Trattamento Ricotto					HB 200	HRC 15
Mat'l No.	JIS	DIN	AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands
1.2510	SKS3	100MnCrW4	01	B01		90MWCV5	2140	95MnWCr5KU	F.5220		9KHVG	
1.2581	SKD5	X30WCrV9-3	H21	BH21		Z30WCV9		X30WCrV93KU	F.526	T20821	3C 2W8F	
1.2601		X165CrMoV12					2310	X160CrMoV12			KH12MF	
1.2606	SKD 62	X37CrMoW51	H12	BH12		Z35CWV5		X35CrMoW05KU	F.537	T20812	5C NM	
1.2764		X19NiCrMo4										
1.2767		X45NiCrMo4				45NCD16		40NiCrMoV8KU				
1.2842		90MnCrV8	02	B02		90MV8		90MnVCr8KU		T31502	9G2F	
1.3243	SKH55	S6-5-2-5	T15			KCV06-05-05-04-02	2723	H56-5-2-5			R6M5K5	
1.3249	SKH 3	S18-1-2-5	T4	BT4		Z80WKCV18-05-04					R18K5F2	
1.3343	SKH51, SKH9	S6-5-2	M2	BM2		Z85WDCV	2722	H5652	F.5604		R6M5	
1.3348	SKH 58	S2-9-2	M7			Z100DCWV09-04-02	2782	H5292	F.5607			
1.3355	SKH 2	S18-0-1	T1	BT1		Z80WCV18-4-01					R18	
1.4718	SUH1	X45CrSi9-3	HNW3	401S45	52	Z45CS9		X45CrSi8	F.322		40C 9S2	
1.5662	SL9N60(53)	X8Ni9	ASMA353	502-650		9Ni		X10Ni9	F.2645			
1.5680		12Ni19	2515	12Ni19		Z18N5						

P		VDI 3323 11	Descrizione Materiale Acciaio alto legato Acciaio da utensili			Composizione / Struttura / Trattamento Bonificato					HB 325	HRC 35
Mat'l No.	JIS	DIN	AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands
1.2080	SKD1	X210Cr12	D3	BD3	X210Cr12	Z200C12		X205Cr12KU		T30403	KH12	
1.2344	SKD61	X40CrMoV5-1	H13	BH13		Z40CDV5	2242	X40CrMoV511KU	F.5318	T20813	4C 5MF15	
1.2363	SKD12	X100CrMoV5-1	A2	BA2		Z100CDV5	2260	X100CrMoV51KU	F.5227		9KH5VF	
1.2436	SKD 2	X210CrW12	D4(D6)	BD6		Z200CD12	2312	X215CrW121KU	F.5213		KH12	
1.2581	SKD5	X30WCrV9-3	H21	BH21		Z30WCV9		X30WCrV93KU	F.526	T20821	3C 2W8F	
1.2601		X165CrMoV12					2310	X160CrMoV12			KH12MF	
1.2714	SKT 4	55NiCrMoV7	6F3/L6			55NiCrMoV7			F.5205		5KHNV	
1.3202		S12-1-4-5		BT15				H512-1-5-5				
1.3207		S10-4-3-10		BT42		Z130WKCDV						
1.3243	SKH55	S6-5-2-5	T15			KCV06-05-05-04-02	2723	H56-5-2-5			R6M5K5	
1.3246		S7-4-2-5	M35			Z110WKCDV07-05-04		H57-4-2-5				
1.3247	SKH 51	S2-10-1-8	M42	BM42		Z110DKWV09-08-04		H52-9-1-8			R2AM9K5	
1.3255	SKH 3	S18-1-2-5	T4	BT4		Z80WKCV18-05-04					R18K5F2	
1.3343	SKH51, SKH9	S6-5-2	M2	BM2		Z85WDCV	2722	H5652	F.5604		R6M5	
1.3348	SKH 58	S2-9-2	M7			Z100DCWV09-04-02	2782	H5292	F.5607			
1.3355	SKH 2	S18-0-1	T1	BT1		Z80WCV18-4-01					R18	
1.4718	SUH1	X45CrSi9-3	HNW3	401S45	52	Z45CS9		X45CrSi8	F.322		40C 9S2	
1.4935	SUH 616	X20CrMoWV121	422							S42200		
1.5680		12Ni19	2515	12Ni19		Z18N5						

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M		VDI 3323 12	Descrizione Materiale			Composizione / Struttura / Trattamento					HB	HRC
			Acciaio inox			Ferritico / Martensitico, Ricotto					200	15
Mat'l No.	JIS	DIN	AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands
1.4000	SUS403	X6Cr13	403	403S17		Z6C13	2301	X6Cr13	F.3110	S40300	08C 13	ATI 410S
1.4001		X7Cr14	410 S	403S7		Z8C13	2301		F.8401		08C 13	
1.4002	SUS 405	X6CrAl13	405	405S17		Z6CA13	2302	X6CrAl13		S40500		
1.4005	SUS416	X12CrS13	416	416S21		Z11CF13	2380	X12CrS13	F.3411	S41600		ATI 416
1.4006	SUS410	X12Cr13	410	410S21	56A	Z10C13	2302	X12Cr13	F.3401	S41000	12C 13	ATI 410
1.4016	SUS430	X6Cr17	430	430S15	X8Cr17	Z8C17	2320	X8Cr17	F.3113	S43000	12C 17	ATI 430
1.4027	SCS 2	GX20Cr14		420C29		Z20C13M					20C 13L	
1.4028	SUS420J2	X30Cr13	420	420S45		Z30C13	2304			S42020	20C 13	
1.4034	SUS420J2	X46Cr13		420S45		Z40C14		X40Cr14	F.3405			
1.4057	SUS431	X19CrNi17-2	431	431S29	57	Z15CN16-02	2321	X16CrNi16	F.3427	S43100	20C 17N2	431 (HT)
1.4086		GX120Cr29		452C11								
1.4104	SUS430F	X12CrMoS17	430F	420S37		Z10CF17	2383	X10CrS17	F.3117	S43020		
1.4112	SUS 440 B	X90CrMoV18	440B							S44003	95KH18	
1.4113	SUS434	X6CrMo17	434	434S17		Z8CD17-01	2325	X8CrMo17		S43400		AL 434
1.4313	SCS5	X3CrNi13-4	CA6-NM	425C11		Z4CND13-04M	2385	(G)X6CrNi304		J91540		
1.4340		GX40CrNi274								J92615		
1.4417		X2CrNiMoSi195	S31500				2376			S39215		
1.4418		X4CrNiMo165				Z6CND16-04-01	2387					APX4
1.4510	SUS430LX	X6CrTi17	XM8			Z4CT17		X6CrTi17	F.3115	S43035	08C 17T	430Ti
1.4511	SUS430LK	X6CrNb17				Z4CNb17		X6CrNb17	F.3122			AXC525
1.4512	SUH409	X6CrTi12	409	LW19		Z3CT12		X6CrTi12		S40900		
1.4720		X20CrMo13										
1.4724	SUS 405	X10CrAl13	405	403S17		Z10C13		X10CrAl12	F.311		10C 13SJU	
1.4742	SUS430	X10CrAl18	430	439S15	60	Z10CAS18		X8Cr17	F.3113	S43000	15C 13SJU	
1.4747	SUH4	X80CrNiSi20	HNv6	443S65	59	Z80CSM20-02		X80CrSiNi20	F.320B	S65006		
1.4749		X18CrN28	446								15KH28	
1.4762	SUH446	X10CrAl124	446			Z10CAS24	2322	X16Cr26		S44600		
1.4871	SUH35,SUH36	X53CrMnNiN21-9	EV8	349S54		Z52CMN21-09		X53CrMnNiN219		S63008	55C 20G9AN4	
		X10CrNi15	429									
		X12CrNi18-9	302	302S31		Z10CN18-09	2330					

M		VDI 3323 13	Descrizione Materiale			Composizione / Struttura / Trattamento					HB	HRC
			Acciaio inox			Martensitico, Bonificato					240	23
Mat'l No.	JIS	DIN	AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands
1.4000	SUS403	X6Cr13	403	403S17		Z6C13	2301	X6Cr13	F.3110	S40300	08C 13	ATI 410S
1.4001		X7Cr14	410 S	403S7		Z8C13	2301		F.8401		08C 13	
1.4006	SUS410	X12Cr13	410	410S21	56A	Z10C13	2302	X12Cr13	F.3401	S41000	12C 13	ATI 410
1.4016	SUS430	X6Cr17	430	430S15	X8Cr17	Z8C17	2320	X8Cr17	F.3113	S43000	12C 17	ATI 430
1.4021	SUS 420J1	X20Cr13	420	420S37		Z20C13	2303	14210	F.5261	S42000	20C 13	ATI 420
1.4027	SCS 2	GX20Cr14		420C29		Z20C13M					20C 13L	
1.4031	SUS 420J2	X40Cr13	420			Z40C14	-2304		F.3404	S42080	40C 13	
1.4034	SUS420J2	X46Cr13		420S45		Z40C14		X40Cr14	F.3405			
1.4057	SUS431	X19CrNi17-2	431	431S29	57	Z15CN16-02	2321	X16CrNi16	F.3427	S43100	20C 17N2	431 (HT)
1.4104	SUS430F	X12CrMoS17	430F	420S37		Z10CF17	2383	X10CrS17	F.3117	S43020		
1.4113	SUS434	X6CrMo17	434	434S17		Z8CD17-01	2325	X8CrMo17		S43400		AL 434
1.4313	SCS5	X3CrNi13-4	CA6-NM	425C11		Z4CND13-04M	2385	(G)X6CrNi304		J91540		
1.4544		A 700	321	S.524		Z 10 CNT 18 11		X6CrNiTi1811		J92630	08C 18N12T	
1.4546		X5CrNiNb18-10	348	347S31				X6CrNiNb1811		J92640		ATI 348
1.4871	SUH35,SUH36	X53CrMnNiN21-9	EV8	349S54		Z52CMN21-09		X53CrMnNiN219		S63008	55C 20G9AN4	
1.4922		X20CrMnV12-1					2317	x20CrMnOn1201				
1.4923		X22CrMoV121										Jethete X20

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M		VDI 3323 14	Descrizione Materiale				Composizione / Struttura / Trattamento					HB	HRc
			Acciaio inox				Austenitico					180	10
Mat'l No.	JIS	DIN	AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands	
1.4301	SUS304	X5CrNi18-10	304	304S15		Z5CN18-09	2332		F.3551	S30409	08C 18N10		
1.4305	SUS303	X10CrNiS18-10	303	303S21	58M	Z8CNF18-09	2346	X10CrNiS18.09	F.3508	S30300	30C 18N11	ATI 303	
1.4306	SCS19	X2CrNi1911	304L	304C12	X3CrNi1810KD	Z2CN18-09	2352	GX2CrNi1910	F.3503	S30403	03KH18N11	ATI 304L	
1.4308	SUS304L	GX6CrNi18-9	CF-8	304C15	58E	Z6CN18-10M	2333					CF-8	
1.4310	SUS301	X10CrNi18-8	301	301S21		Z12CN17-07	2331	X2CrNi1807	F.3517	S30100	07KH16N6	ATI 301	
1.4311	SUS304LN	X2CrNiN18 10	304LN	304S62		Z2CN18-10	2371	X2CrNiN1810	F.3541	S30453	03KH18N11		
1.4312	SCS12	GX10CrNi188	305	302C25		Z10CN18-9M					10C 18N9L	ATI 305	
1.4350	SUS304	X5CrNi18-9	304	304S15	58E	Z6CN18-09	2332	X5CrNi1810	F.3551	S30400		ATI 304	
1.4362		X2CrNiN234	S32304			Z2CN23-04AZ	2327			S32304		ATI 2304TM	
1.4371		X3CrMnNiN18887	202	284S16		Z8CMN18-08-05							
1.4401	SUS316	X5CrNiMo17-12-2	316	316S13		Z3CND17-11-01	2347	X5CrNiMo17 12 2	F.3534	S31600	08KH17H13M2T	ATI 316	
1.4404	SUS316L	X2CrNiMo17-13-2	316L	316S11		Z2CND17-12	2348	X2CrNiMo1712	F.3533	S31603		ATI 316L	
1.4406	SUS316LN	X2CrNiMoN17122	316LN	316S61		Z2CND17-12AZ		X2CrNiMoN1712	F.3542	S31653	07C 18N	ATI 316LN	
1.4408	SCS14	GX6CrNiMo18-10	CF-8M	316C16			2343	X7CrNiMo2010	F.8414	J92900	10G2S2MSL		
1.4410	SCS 14 A	GX10CrNiMo18-9				Z5CND20-12M	2328			S32750			
1.4429	SUS316LN	X2CrNiMoN17-13-3	316Ln	316S62		Z2CND17-13AZ	2375	X2CrNiMoN17133	F.3543		03KH16N15M3		
1.4435	SUS316L	X2CrNiMo18143	316L	316S11		Z3CND17-12-03	2375	X2CrNiMo17 13 2	F.3533	S31603	03C 17N14M3		
1.4436	SUS316	X3CrNiMo17-13-3	316	316S19		Z6CND18-12-03	2343	X5CrNiMo17 12 2	F.3543	S31600			
1.4438	SUS317L	X2CrNiMo18164	317L	317S12		Z2CND19-15-04	2367	X2CrNiMo18 16 4	F.3539	S31703		ATI 317L	
1.4439		X2CrNiMoN17135	(s31726)			Z3CND18-14-06AZ							
1.4440		X2CrNiMo18-16											
1.4449	SUS317	X5CrNiMo17133	317	317S16				X5CrNiMo1815		S31700		ATI 317	
1.4460	SUS 329 J1	X8CrNiMo275	329				2324			S32900		10RE51	
1.4462	SUS329J3L	X2CrNiMoN2253		318S13		Z3CND22-05Az	2377			S31803		ATI 2205TM	
1.4500		X7NiCrMoCuNb2520				Z3NCDU25-20M				J95150			
1.4521	SUS444	X2CrMoTi18-2	443444				2326	X2CrMoTiN18 2	F.3123				
1.4539		X1NiCrMoCuN25205				Z2NCDU25-20	2562			N08904		ATI 904L	
1.4541	SUS321	X14CrNiTi18-10	321	321S31		Z6CNT18-10	2337	X6CrNiTi18 11	F.3523	S32100	06C 18N10T	ATI 321	
1.4542	SUS630	X5CrNiCuNb174	630			Z7CNU15-05						UGIMA 4542	
1.4545		Z7CNU15.05	15-5PH							S15500		ATI 15-5	
1.4547		X1CrNiMoN20187	S31254				2378			S31254		Uranus B25 6Mo	
1.4550	SUS347	X6CrNiNb18-10	347	347S17	58F	Z6CNNb18-10	2338	X6CrNiNb 18 11	F.3552	S34700	08C 18N12B	ATI 347	
1.4552	SCS 21	GX7CrNiNb18-9				Z4CNNb19-10M				J92710			
1.4568	SUS 631	X 7 CrNiAl 17 7		316S111		Z 9 CAN 17-7	2388	Z8CNA17-07		S17700	09C 17NJU1	17-7PH	
1.4571	SUS 316Ti	X6CrNiMoTi17-12-2	316Ti	320S31	58J	Z6NDT17-12	2350	X6CrNiMoTi17 12	F.3535		10C 17N13M2T	ATI 316Ti	
1.4581	SCS 22	GX5CrNiMoNb18		318C17		Z4CNDNb18-12M							
1.4583		X6CrNiMoNb18-12	318	303S21		Z15CNS20-12		X15CrNiSi2 12					
1.4585		GX7CrNiMoCuNb1818						X6CrNiMoTi17 12		J94651			
1.4821		X20CrNiSi254				Z20CNS25-04				S44635			
1.4823		GX40CrNiSi274								J92605			
1.4828	SCS17	X15CrNiSi20-12	309	309S24	58C	Z15CNS20-12			F.8414	S30900	20C 20N14S2	ATI 309	
1.4833	SUS 309 S	X6CrNi2213	309S	309S13		Z15CN24-13				J93400			
1.4845	SUH310	X12CrNi25-21	310S	310S24		Z12CN25-20	2361	X6CrNi2520	F.331	S31008	20C 23N18	ATI 310S	
1.4878	SUS321	X12CrNiTi18-9	321	321S20	58B	Z6CNT18-12(B)	2337	X6CrNiTi1811	F.3553	S32100		ACX315	
1.4891		X5CrNiNb18-10	Ss30415				2372						
1.4893		X8CrNiNb11	S30815				2368						
1.4948		X6CrNi1811	304H	304S51		Z5CN18-09	2333			S30480			
1.4980		X5NiCrTi2515	660				2570			S66286		Incoloy A 286	
		X5NiCrN3525											
		X2CrNiMoN18134	S31753										
		X2CrNiMoN25227											

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Mat'l No.	JIS	DIN	Descrizione Materiale			Composizione / Struttura / Trattamento					HB	HRc	
			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS			GOST
		K	VDI 3323	Descrizione Materiale			Composizione / Struttura / Trattamento					HB	HRc
		15	Ghisa grigia			Perlitica / Ferritica					180	10	
0.6010	FC100	GG10	A48 20 B	Grade 100	GJL-100	Ft 10 D	0100	G10	FG10		Sc 10		
0.6015	FC150	GG15	A48 25 B	Grade 150	GJL-150	Ft 15 D	0115	G15	FG15		Sc 15		
0.6020	FC200	GG20	A48 30 B	Grade 220	GJL-200	Ft 20 D	0120	G20	FG20	W06020	Sc 20		
0.6025	FC250	GG25	A48 40 B	Grade 260	GJL-250	Ft 25 D	0125	G25	FG25		Sc 25		
0.6660		GGL-NiCr 20 2	1050/700/7	Grade F2	GJLA-XNiCr 20-2	L-NC 202	0523	-		F41002		Ni-Resist 2	
1.4449	SUS317	X5CrNiMo17133	317	317S16				X5CrNiMo1815		S31700		ATI 317	

Mat'l No.	JIS	DIN	Descrizione Materiale			Composizione / Struttura / Trattamento					HB	HRc	
			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS			GOST
		K	VDI 3323	Descrizione Materiale			Composizione / Struttura / Trattamento					HB	HRc
		16	Ghisa grigia			Perlitica (Martensitica)					260	26	
0.6025	FC250	GG25	A48 40 B	Grade 260	GJL-250	Ft 25 D	0125	G25	FG25		Sc 25		
0.6030	FC300	GG30	A48 45 B	Grade 300	GJL-300	Ft 30 D	0130	G30	FG30		Sc 30		
0.6035	FC350	GG35	A48 50 B	Grade 350	GJL-350	Ft 35 D	0135	G35	FG35		Sc 35		
0.6040	FC400	GG40	A48 60 B	Grade 400	GJL-400	Ft 40 D	0140	G40	FC40		Sc 40		

Mat'l No.	JIS	DIN	Descrizione Materiale			Composizione / Struttura / Trattamento					HB	HRc	
			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS			GOST
		K	VDI 3323	Descrizione Materiale			Composizione / Struttura / Trattamento					HB	HRc
		17	Ghisa nodulare			Ferritica					160	3	
0.7033	FCD350-22L	GGG35.3	-	350/22L40	GJS-350-22-LT	FGS 370-17	0717-15	-					
0.7040	FCD400	GGG40	60-40-18	SNG 420-12	GJS-400-15	FCS 400-12	0717-02	GS 400-12	FG E38-17	F32800	Vc 42-12		
0.7043	FCD 370	GGG40.3	60-40-18	SNG 370-17	GJS-400-18-LT	FGS 370-17	0717-12	GS0 42-17			Vc 42-12		
0.6040	FC400	GG40	A48 60 B	Grade 400	GJL-400	Ft 40 D	0140	G40	FC40		Sc 40		

Mat'l No.	JIS	DIN	Descrizione Materiale			Composizione / Struttura / Trattamento					HB	HRc	
			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS			GOST
		K	VDI 3323	Descrizione Materiale			Composizione / Struttura / Trattamento					HB	HRc
		18	Ghisa nodulare			Perlitica					250	25	
0.7050	FCD500	GGG50	80-55-06	SNG 500-7	GJS-500-7	FGS 500-7	0727-02	GS 500-7	FG E50-7	F33100	Vc 50-2		
0.7060	FCD600	GGG60	80-55-06	SNG 600-3	GJS-600-3	FGS 600-3	0732-03	GS 600-3	FG E60-2		Vc 60-2		
0.7070	FCD700	GGG70	100-70-03	SNG 700-2	GJS-700-2	FGS 700-2	0737-01	GS 700-2	FG S70-2	F34800	Vc 70-2		
0.7652	FCDA-NiMn 13 7	GGG NiMn 13-7	-	Grade S6	GJSA-XNiMn 13-7	FGS Ni13 Mn7	0772	-				Nodumag	
0.7660		GGG NiCr 20-2	A436 D2	Grade S2	GJSA-XNiCr 20-2	FGS Ni20 Cr2	0776	-				Ni-Resist D-2	

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Mat'l No.	JIS	DIN	AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE/IHA	UNS	VDI 3323 19				
											Descrizione Materiale	Composizione / Struttura / Trattamento	HB	HRC	
0.8135	FCMW330	GTS-35	32510	B 340-12	GJMB350-10	MN 35-10	0815	GMN 35	GTS35		Kc 35-10	Ghisa malleabile	Ferritica	130	

Mat'l No.	JIS	DIN	AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE/IHA	UNS	VDI 3323 20				
											Descrizione Materiale	Composizione / Struttura / Trattamento	HB	HRC	
0.8145	FCMW370	GTS-45	A220-40010	P 440-7	GJMB450-6	MN 450	0852	GMN 45				Ghisa malleabile	Perlitica	230	21
0.8155	FCMP490	GTS-55	50005	P 510-4	GJMB-550-4	MP 50-5	0854	GMN 55			Kc 60-3				
0.8165	FCMP590	GTS-65	70003	P 570-3	GJMB-650-2	MN 650-3	0856	GMN 65							
0.8170	FCMP690	GTS-70	90001	P 690-2	GJMB-700-2	MN 700-2	0862	GMN 70			Kc 70-2				

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N

VDI 3323
21

Descrizione Materiale
Alluminio legato

Composizione / Struttura / Trattamento
Non trattabile

HB
60

HRC

Mat'l No.	JIS	DIN	AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands
3.0205		Al99	Al99									
3.0255	(A1050)	Al99.5	1000	L31		A59050C					D1	
3.3315		AlMg1										

TRONCATURA

N

VDI 3323
22

Descrizione Materiale
Alluminio legato

Composizione / Struttura / Trattamento
Duro

HB
100

HRC

Mat'l No.	JIS	DIN	AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands
3.1325		AlCuMg1									AD35	
3.1655	A2011	AlCuSiPb										
3.2315		AlMgSi1									AK9	
3.4345		AlZnMgCu0,5	7050	L86		AZ4GU/9051		811-04				
3.4365	7075	AlZnMgCu1,5	7075	7075		7075		AlZn5.8MgCuCr			B95	

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N

VDI 3323
23

Descrizione Materiale
Fusione di alluminio, legato

Composizione / Struttura / Trattamento
≤ 12% Si, Non trattabile

HB
75

HRC

Mat'l No.	JIS	DIN	AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands
3.2163		G-AlSi9Cu3									VAL8	
3.2382		GD-AlSi10Mg										
3.2383		G-AlSi0Mg(Cu)	A360.2	LM9			4253					
3.2581		G-AlSi12										
3.3561		G-AlMg5										
3.5101		G-MgZn4sE1Zr1	ZE41	MAG5								
3.5103		MgSE3Zn27r1	EZ33	MAG6		G-TR3Z2						
3.5812		G-MgAl8Zn1	AZ81	NMAG1								
3.5912		G-MgAl9Zn1	AZ91	MAG7								
			A356-72	2789		NFA32-201						
	A5052		356.1	LM25			4244				AK7	
		G-AlSi12	A413.2	LM6			4261					
	ADC12	G-AlSi12(Cu)	A413.1	LM20			4260				AK12	
	A6061	GD-AlSi12	A413.0				4247					
	A7075	GD-AlSi8Cu3	A380.1	LM24			4250					

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N		VDI 3323 24	Descrizione Materiale Fusione di alluminio, legato				Composizione / Struttura / Trattamento ≤ 12% Si, Trattabile, Indurito					HB 90	HRc
Mat'l No.	JIS	DIN	AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands	
2.1871		G-AlCu4TiMg											
3.1754		G-AlCu5Ni1,5											
3.2371		G-AlSi7Mg	4218B									AK8	
3.2373	C4BS	G-AlSi9MgWA	SC64D			A-57G	4251					AK9	
3.2381		G-AlSi10Mg										AK12	
3.5106		G-MgAg3SE2Zr1	QE22	mag12									
		G-ALMG5	GD-AISI12	LM5		A-SU12	4252						

N		VDI 3323 26	Descrizione Materiale Rame e sue leghe (Bronzo / Ottone)				Composizione / Struttura / Trattamento Leghe a facile lavorabilità, PB>1%					HB 110	HRc
Mat'l No.	JIS	DIN	AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands	
2.0375		CuZn36Pb3										LS60-2	
2.1090		G-CuSn75pb	C93200			U-E7Z5pb4							
2.1096		G-CuSn5ZnPb	C83600	LG2									
2.1098		G-CuSn2Znpb	C83600										
2.1182		G-CuPb15Sn	C23000	LB1		U-pb15E8							

N		VDI 3323 27	Descrizione Materiale Rame e sue leghe (Bronzo / Ottone)				Composizione / Struttura / Trattamento CuZn, CuSnZn (Ottone)					HB 90	HRc
Mat'l No.	JIS	DIN	AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands	
2.0240	C2300	CuZn15										L90	
2.0321		CuZn37	C27200	cz108		CuZn36,CuZn37		C2700				L63	
2.0590		G-CuZn40Fe											
2.0592		G-CuZn35Al1	C86500	U-Z36N3		HTB1							
2.0596		G-CuZn34Al2	C86200	HTB1		U-Z36N3						LTs23AD	
2.1293		CuCrZr	C18200	CC102		U-Cr0-8Zr							

N		VDI 3323 28	Descrizione Materiale Rame e sue leghe (Bronzo / Ottone)				Composizione / Struttura / Trattamento CuSn, rame senza piombo e rame elettrolitico					HB 100	HRc
Mat'l No.	JIS	DIN	AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands	
2.0060		E-Cu57											
2.0966		CuAl10Ni5Fe4	C63000	Ca104		U-A10N						BrAD	
2.0975		G-CuAl10Ni	B-148-52										
2.1050		G-CuSn10	c90700	CT1									
2.1052		G-CuSn12	C90800	pb2		UE12P							
2.1292		G-CuCrF35	C81500	CC1-FF									

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VDI 3323
31

Descrizione Materiale
Superleghe resistenti al calore

Composizione / Struttura / Trattamento
Base Fe, Ricotto

HB
200

HRC
15

Mat'l No.	JIS	DIN	AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands
1.4558	NCF 800 TB	X2NiCrAlTi3220	N08800	NA15								
1.4562		X1NiCrMoCu32287	N08031									
1.4563		X1NiCrMoCuN31274	N08028			Z1NCU31-27-03	2584				EK77	
1.4864	SUH330	X12NiCrSi36-16	330	NA17		Z12NCS37-18				N08330		
1.4865	SCH15	GX40NiCrSi38-18		330C40				XG50NiCr3919		J94605		
1.4958		X5NiCrAlTi3120										

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S

VDI 3323
32

Descrizione Materiale
Superleghe resistenti al calore

Composizione / Struttura / Trattamento
Base Fe, Invecchiata

HB
280

HRC
30

Mat'l No.	JIS	DIN	AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands
1.4977		X40CoCrNi2020				Z42CNKDWNb						

BARENATURA

S

VDI 3323
33

Descrizione Materiale
Superleghe resistenti al calore

Composizione / Struttura / Trattamento
Base Ni o Co, Ricotto

HB
250

HRC
25

Mat'l No.	JIS	DIN	AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands
2.4360		NiCu30Fe		NA13		NU30				N04400		Monel400
2.4603		NiCr30FeMo	5390A			NC22FeD						Hastelloy G-30
2.4610		NiMo16Cr16Ti								N26455		Hastelloy C-4
2.4630		NiCr20Ti		HR5,203-4		NC20T				N06075		Nimonic75
2.4631	NCF 80A	NiCr20TiAl		HR40		NC20TA				N07080	KHN771YuR	Nimonic 80A
2.4642	NCF 690	NiCr29Fe				Nnc30Fe				N06690		Inconel 690
2.4856		NiCr22Mo9Nb		NA21		NC22FeDNb				N06625		Inconel 625
2.4858		NiCr21Mo		NA16		NC21FeDU				N08825	KHN38VT	Incoloy 825

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34

Descrizione Materiale
Superleghe resistenti al calore

Composizione / Struttura / Trattamento
Base Ni o Co, Invecchiato

HB
350

HRC
38

Mat'l No.	JIS	DIN	AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands
2.4375		NiCu30Al	4676	NA18		NU30AT				N05500		MonelK500
2.4662		NiFe35Cr14MoTi	5660			Z5NCDT42				N09901		Incoloy 901
2.4668		NiCr19Fe19NbMo	5383	HR8		NC19eNB				N07718		Inconel 718
2.4670		S-NiCr13A16MoNb	5391	Mar-46		NC12AD						Nimocast 713
2.4694		NiCr16Fe7TiAl								N07751		Inconel 751
2.4955		NiFe25Cr20NbTi										
2.4964		CoCr20W15Ni	5772			KC20WN						Haynes 25
		CoCr22W14Ni	AMS 5772			KC22WN						

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Mat'l No.	JIS	DIN	Descrizione Materiale			Composizione / Struttura / Trattamento					HB	HRC	
			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands	
		S	VDI 3323	Superleghe resistenti al calore			Base Ni o Co, Fuso					320	34
2.4669		NiCr15Fe7TiAl				NC15TNbA					N07750	Inconel X750	
2.4685		G-NiMo28									N10665	Hastelloy B	
2.4810		G-NiMo30										Hastelloy C	
2.4973		NiCr19Co11MoTi	AMS 5399			NC19KDT					VTS-1		
3.7115		TiAl5Sn2									R54520	VT1-00 ATI Grade 6	

Mat'l No.	JIS	DIN	Descrizione Materiale			Composizione / Struttura / Trattamento					HB	HRC	
			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands	
		S	VDI 3323	Leghe di titanio			Titanio puro					400 Rm	
2.4674		NiCo15Cr10MoAlTi	AMS 5397								N13100	IN 100	
3.7025		Ti1	R50250	2TA1							R50250	ATI 30 CP Gr. 1	
3.7225		Ti1pd	R52250	TP1							R52250		

Mat'l No.	JIS	DIN	Descrizione Materiale			Composizione / Struttura / Trattamento					HB	HRC	
			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands	
		S	VDI 3323	Leghe di titanio			Leghe Alpha + Beta, Temprato					1050 Rm	
3.7124		TiCu2		2TA21-24									
3.7145		TiAl6Sn2Zr4Mo2Si	R54620								R54620		
3.7165		TiAl6V4	AMS R56400	TA10-13		T-A6V						VT6	
3.7185		TiAl4Mo4Sn2		TA45-51									
3.7195		TiAl3V2.5									R56320	ATI 3-2.5	
		TiAl4Mo4Sn4Si0.5											
		TiAl5Sn2.5	AMS R54520	TA14/17		T-A5E							
		Ti6Al4VELI	AMS R56401	TA11									

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H		VDI 3323 38	Descrizione Materiale Acciaio temprato			Composizione / Struttura / Trattamento Temprato					HB 550	HRC 55
Mat'l No.	JIS	DIN	AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands
1.1231	S70 C-CSP	Ck 67	1070	060 A 67	C 67S	XC 68	1770	C 70	F.5103		70	
1.1248	C 75	Ck 75	1078, 1080	060 A 78	C 75S	XC 75	1774	C 75	F.5107		75	
1.1274	SUP 4	Ck 101	1095	060 A 96	C 100S	XC100	1870	C100	F.5117			
1.1545	SK 3	C 105 W1	W1	BW 2	C 105U	Y1 105	1880	C 100 KU	F.5118		U10A	
1.2762		75CrMoNiW67	-	-	-	-	-	-	-			
1.3401	SCMnH1	GX120Mn12	A128(A)			Z120M12	2183	GX120Mn12	F.8251		110G13L	
1.4021	SUS 420 J1	X 20 Cr 13	420	420 S 37	X 20 Cr 13	Z 20 C 13	2303	X 20 Cr 13	F.5261		20KH13	ATI 420
1.4109	SUS 440 A	X 65 CrMo 14	440 A	-	X 70 CrMo 15	Z 70 D 14	-	-	-			ATI 440A
1.4112	SUS 440 B	X 90 CrMoV 18	440 B	409 S 19	X 90 CrMoV 18	Z 2 CND 18 05	2327	X CrTi 12				
1.4125	SUS 440 C	X 105 CrMo 17	440 C	-	X 105 CrMo 17	Z 100 CD 17	-	X 105 CrMo 17			95KH18	ATI 440C
1.6746		32NiCrMo14-5	-	832M31	32niCrMo145	35NCD14	-	-				
1.7176	SUP9(A)	55Cr3	5155	527A60	48	55C3	2253	55Cr3				
1.7225	SCM 440 (H)	42CrMo4	4140	708 M 40	42 CrMo 4	42 CD 4	2244	42 CrMo 4	F.1252		38HM	

H		VDI 3323 40	Descrizione Materiale Fusione di ghisa			Composizione / Struttura / Trattamento Fusione					HB 400	HRC 42
Mat'l No.	JIS	DIN	AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands
0.9620		GX260NiCr42	A532 IB	Grade 2 A	GJN-HV520	FB Ni4 Cr2 BC	0512	-		F45001		Ni-Hard2
0.9625		GX330NiCr42	A532 IA	Grade 2 B	GJN-HV550	FB Ni4 Cr2 HC	0513	-		F45000		Ni-Hard1
0.9630		GX300CrNiSi9.5.2	A532 ID	Grade 2 C	GJN-HV600	FB Cr9 Ni5	0457	-		F45003		Ni-Hard 4
0.9640		GX300CrMoNi1521	-	-	-	-	-	-		F45005		
0.9650		GX260Cr27	-	Grade 3 D	-	-	0466	-				
0.9655		GX300CrNiMo271	-	Grade 3 E	-	-	-	-			20C 25N2052	
1.4841	SUH 310	X15CrNiSi25-20	310	314S31	X 15 CrNiSi 25 20	Z15CNS25-20	-	-		S31400		Cronifer 2520

H		VDI 3323 41	Descrizione Materiale Ghisa temprata			Composizione / Struttura / Trattamento Temprato					HB 550	HRC 55
Mat'l No.	JIS	DIN	AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands
0.9635		GX300 CrMo 15 3	-	-	-	-	-	-				
0.9645		GX260 CrMoNi 20 21	-	-	-	-	-	-		F45007		

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Tabella comparazione geometrie rompitruciolo

Inserti Negativi

Materiali	YG-1	SANDVIK	ISCAR	KENNAMETAL	Seco	Walter	Mitsubishi	Kyocera	Tungaloy	Sumitomo	Taegutec	Korloy	
ACCIAIO	SF	-	SF	FF (G-class), WF, UF	FF1, FF2	FP5, FV5	PK (G-class), FY, FH, FS	DP (G-class), GP WQ	01, TF	FA, FL, FB	FA	VL	
	UF	QF	F3P, NF	FN	MF2	NF4, NF3	FP, C	PP, GP DP, XF, XP	TS, TSF, ZF, 11, NS, NM, CB	LU, FE, SU	FLP, FA, FS, GG-FU, FX, FLP, FG, FM	VF, VB	
	PSF	XF	NF, TF	FN	MF2	MP3	FP, FH	HQ	TSF	NSU	FG, FM	VQ	
	UL	PF, XF		FN, MN	MF3	NS6	C (Cemet)	CQ, VC, PP	AS	SE	MLP, FC, FT	VQ, VC	
	UM			-	MF5	MP3	SH, SA, LP	PQ, CJ, VF, XQ	ZM, AM	SX		LP	
	UG	PM, QM, XM	PP, TF, M3P, M4PW	MN	M3, M5, MR3	NM4, MP5, MU5, NM6	MA, MH, MP, MV	MA, MH, MP, MV	GS, PS, PG	TM AM, DM, ZM	GU (□UG□), GE, UX	MLP, MC, MGP, PC, MM	VM, MP
	UC	PR	GN	MR, RP	MR4, M5, M6	MG-	MG-, None C/B	XS	TH, THS	UZ	MT, MGP, MG-	B25	
	UR	XMR	R3P, NR	RN	MR3, MR6	NR4, RP5, RP7	RP, GH	PT, GT, PH	TU, TRS, TUS	MU, ME, MX	RGP, RT, RX	HR, GR	
PWM	WF, WR WMX, WM	WF, WG	FW, MW, RW	W-M3, W-MF2, W-MF5, M6, W-R4	NF, NM	SW, MW	WP, WF, WQ, WE	AFW, FW, ASW, SW	LUW, SEW, GUW	WS, WA, WT	VW, LW		
ACCIAIO INOX	MF	MF	SF, F3M, NF	FF, FP	MF1	NF4, FM5	SH, LM	MQ, SQ	SF, SA	SU, EF	EA, SF	VP2, MP	
	MM	MM	M3MW, TF, M3M	MP, UP	MF4	MM5(NM4)	MS, GM	TK, MS	SM, SS	GU	EM, ML	HS, MM	
	MG		VL, PP	MR		RM5, NR4	MM, ES	SG, SX	S, TA	EX, EG			
GHISA	MR	MR, XMR, MRR	GN, R3M, NR	P, RP	M5, M6 MR7, RR6	NRS	GH, RM	MU	TH, SH, TU	MU, HM, EM	ET	GS, RM	
	UC	KF	M3P, GN	T-20, FN, MT	MF3, MF5, M4	NM, MK5	LK, MA	None C/B, C	CF	UZ	MT	MP	
	UG	KM	GN, A	UN(RP), T-20	M5	NM5, RK5	MK, GK	KQ, KG	CM, None C/B	GZ	MG-	B25, MK	
SUPER LEGHE	..MA	KR, KRR	NR, A	MR, S-20, ...MA, T-20	MR7	MV7, RK7	RK, -MA	-MA, GC, KH, ZS	CH	(□UX□)	KT, RT	-MA, RK	
	SF	SF	SF	FS (G-class) LF (G-class)	MF1	NF4	FJ(G-class)	MQ	-	EF	EA, SF	VP1	
	SM	NGP, SM	PP, TF, VL	MS, GP, P, UN	MF4	NMS, NMT	MJ(G-class), MS	SQ, MS, MU, TK	HRM HMM	EX	EM MGS, MP, MK	VP3	
SR	SR, SMR	MR	RP	MR3, MR4	NRS, NRT	RS, GJ	SG, SX	SA	MU	ET	VP4		

Inserti Positivi

Materiali	YG-1	SANDVIK	ISCAR	KENNAMETAL	Seco	Walter	Mitsubishi	Kyocera	Tungaloy	Sumitomo	Taegutec	Korloy
ACCIAIO	PF	PF	PF, F3P	FP	FF1	FP4	SV, FP	GP	PSF, PF	FB, LU	FA, FG	VL, VF
	UF	PF, UF UM	PF, F3P SM, 14	11, UF	F1	FP4, PS5	SMG(G-class), FV, LP	CF, PF, DP, PP, VF	01, TSF	FP, SU, SC	FX, GT-SL, GT-SA, GT-SM	VL
	PM	SM, M3P	MF	MF2, F2	MP4	MV	HQ, GK	PSS, PS	SU, SC	FM, PC, MT	MP	
	UG	PM, XM, XF	SM, M3P	LF, FP (Posi)	M5	FP6, PM5, E47	MP	XQ, XP	PM, TM 23, 24	MU, LB, SF	MT, PMR-	HMP
ACCIAIO INOX	MF	MF, MMC	PF, SM, M3M, 14	11, UF, GT-LF, FP	F1, F2	FM4	FM, LM	MQ	PSF, PSS, PS	FC, SI LU, SU	FG, SA	VP1
	MM	MM	M3M, SM	MP, MF	M3	MM4, RM4	MM		PM	MU		VL
GHISA	UG	KM, KR	SM, 14	MT, T-20, MP, C	M5	F2, FK6, MK4, RK6	MK, None C/B	None C/B	CM, None C/B	MU, None C/B	PC, MT	MP, C25
SUPER LEGHE	SF	GT-UM		GT-HP, LF	GT-F1	GT-PF2	FS(G-class) LS(G-class)				GT-FGS, SA	VP1
	SM	MF, UM	SM, PF, F3M, 14	FP, LF	F1, F2	PF4, PS5	FS-P(G-class) LS-P(G-class)	MQ	PSF	SI	FG	VL
	SR	MM	M3M, SM		MF2	PM5	LS, MS		PSS, PS		PC	MP
ALLUMINIO	AL	AL	AS	HP	AL	MN2	AZ	AP, AH	AL, PP	AG	GT-SA, FL	AK, AR

Informazioni tecniche

Tabella comparazione gradi di tornitura

Rivestimento CVD

ISO	YG-1	ISCAR	SANDVIK	SECO	PRAMET	KENAMETAL	TUNGALOY	MITSUBISHI	WALTER	TAEGUTEC	KORLOY	SUMITOMO	KYOCERA
P	YG3010	IC8150	GC4415	TP0501	T9310 T9315	KCP05B	T9205	UE6105	WPP10G	TT8105B	NC3215	AC8015P	CA510
		IC9150	GC4305	TP1500		KCP05	T9105	UE6110	WPP01	TT8115B		AC810P	CA515
	IC9015	GC4315	TP1501	KCPK05	T9215	MY5015	WPP05S	TT8105	AC700G	CA5505			
	IC9015	GC4315	TP1501	KCP10B	T9115	MC6015	WPP10S	TT8115	AC700G	CA5515			
YG3115	IC8150	GC4315	TP1501	T9315	KCP10	T9115	MC9015	WPP10	TT8115	NC3215	AC8015P	CA515	
	IC9150	GC4415	TP1500		KCP10B	T9215	MC6115	WPP10S	TT8115B		AC8020P	CA5515	
YG3020	IC8250	GC4425	TP2500	T9325	KCP25	T9225	MC6025	WPP20G	TT8125B	NC3120	AC8025P	CA025P	
	IC9250	GC4325	TP2501		KCP25B	T9125	UE6020	WMP20S	LC225P		AC820P	CA525	
YG3030	IC8350	GC4235	TP3500	T9335	KCP30B	T9235	MC6035	WPP30G		NC3030	AC8035P	CA530	
	IC9350	GC2135	TP3501		KCP30	T9135	UE6035	WPP30S			AC830P	CA535	
M	YG3030	IC6015	GC2015	TM1501	T7325 T7330 T7335	KCM15B	T6120	MC7015	WMP20S	TT9215	NC9115	AC6020M	CA6515
		IC6025	GC2025	TM2501		KCM15	T6020	MC7025		TT9225	NC9125	AC610M	
IC520M	GC2035	TM3501	KCM25B	T6130	KCM25	US7020	TT9235	NC9135	AC6030M				
IC4050	GC235	KCM35B	KCM25	T6030	KCM35B	US735		NC5330	AC6040M				
IC635		KCM35	KCM35			UH6400			AC830P				
YG2025	IC9025	GC2220	TM2501	TM2000	KCM25	T6120	MC7025	TT9225	TT5100	AC6020M	AC6030M	CA6525	
	IC9325												
K	YG1010 YG1001	IC5005	GC3205	TK0501	T5305 T5315	KCK05	T5105	MC5005	WKK10S	TT3005	NC6310	AC4010K	CA310
		IC5010	GC3210	TK1501		KCK05B	T5115	UC5105	WKK20S	TT7005		AC405K	
IC4028	GC3215		KCK15	T1215	KCK15B	T1115	WAK30	TT7310	AC4015K				
IC8150			KCK20	T1115	KCK20B	T5125	WKP30S	TT7015	AC415K				
			KCK20B	T5020	KCPK05	T5020	WKK10		AC420K				
							WKK20		AC8025P				

Rivestimento PVD

P	YG801	IC807	GC1025	TP1030	T6310 T8430 T8345	KU10T	AH330	VP10RT	WTA43 WTA41	TT4410	PC5300 PC5400 PC3035	AC1030U	PR930
		IC830		TP1020		KCU10	AH725	MS6015		TT9020			
IC507		KT315	AH730	VP15TF	TT4430			PR1535					
IC908		KU25T	SH725	VP20MF	TT9080			PR1725					
		KC5010	SH730	VP20RT	TT8080								
				UP20M									
M	YG211	IC3028	GC1105	TS2000	T6310 T8315	KCU10	AH120	VP10RT	WSM21	TT5030	PC8105	SC520U	
		IC907	GC1115	TS2050		AH140	AH630	WSM01	PC8110		AC1030U		
		GC2015		AH645		WSM10S							
	YG401	IC807				MP9005		TT5080	PC8115	AC5005S			
YG213	IC908	GC2025	CP200	T8330 M6330	KCU25	SH725	VP15TF	WSM20S	TT9080	PC5300 PC8120 PC9030	AC530U	PR930	
			CP500		KCU5025	AH7025	VP20MF					PR1225	
							VP20RT					PR1535	
							UP20M					PR1725	
							MP7025						
YG214	IC330	GC2035	CP600	T8430		SH730		WSM30S	TT8080 TT8020	PC5400			
	IC830					GH330							
						GH730							
						AH4035							
S	YG401	IC804	GC1025	TS2000	M6330 T6310	KCS10	AH110	MP9005	WSM01	TT3010 TT3020	PC8105	AC5015S	PR005S
		IC806	GC1105	TS2050		KCU10	AH120	VP05RT	WSM10S		PC8110	SC5025S	PR015S
IC830	GC1125	TS2500	KCU25		MP9015	WSM20S	WSM21	PC8115	AC510U	PR1535			
IC807		TH1000	KC5010		VP10RT	WSM21	WSM30S	PC5300	AC520U	PR1125			
IC908		CP200	KC5025		MP9025			PC5400		PR1305			
					VP20RT					PR1310			

Non rivestito

N	YG10	IC20		KX		K313		HT10	WK1		H01 H05	H1	KW10
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Cermet

P10	YT100	IC30N	CT5005 CT5015 CT525 GC1525	TP1030 CMP CM	TT010 TT310	KT5020 KT125 KT150	GT730 GT530 NS520 NS720	UP35N	TN60 TN610 TN620 TN90	CT3000	CN1500 CN2500 CC125	T1500A T1000A T2500Z	TN60 TN610 TN620 TC40N
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Informazioni tecniche

Tabella comparazione gradi di fresatura

ISO	YG-1	SANDVIK	SECO	KENNAMETAL	ISCAR	WALTER	TUNGALOY	MITSUBISHI	TAEGUTEC	KORLOY	SUMITOMO	KYOCERA	HITACHI	DIJET
P	YG712	GC4220 GC1130	T250M MP3000	KC715M KC522M KC635M		WKP25S WKP25 WAM10	T3130 GH330	MP8010 MP6120 MP6130 MP9120	TT7070 TT7080 TT7030	PC3700 PC3600 PC3500	ACP2000 ACZ310	PR730	CY9020 JP4020 TB6045	JC5003
	YG713	GC4230 GC4330	T350M F25M	KC525M	IC950 IC1008	WAM20 WAM30	AH710 AH120 T3225			PC210F	ACP200 ACZ330	PR830 PR630	JP4120 CY250	JC5015
	YG602	GC1030 GC4240	F30M	KC725M KC735M	IC900 IC808 IC908 IC330	WKP35G WKP35S	T3130 AH3035 AH110	VP15TF VP20RT MP9130	TT9030 TT9080	NC5330 PC5300 NCM325 NC5350	ACP3000	PR1025 PR1225	PTH30E JS4060 JP4160	JC5030 JC5040
	YG613	GC4340 GC1040	F40M T60M	KCPM20 KC935M KCPM40	IC830 IC928	WKP45S WKP45X WSP45S	AH725 AH730 GH330 AH130 AH140	FH7020 VP30RT F7030	TT8020 TT8025 TT8080	NC5340 PC5400 NCM335	ACP300 ACZ350	PR1525 PR1230 PR660	JM4160 PTH40H	
M	YG602	GC2030 GC1030	F25M	KC635M KC522M KC725M	IC330	WAM30 WXM35 WSM35	AH725 AH120 GH110 AH730	VP15TF MP7130 MP7030	TT9030 TT9080	PC210F PC5300 NCM325 NC5350	XCU2500 ACM100 ACP200 ACM300	PR1025 PR1225 PR1525 PR630	JX1015 TB6020 CY250 GX2160 JX1045	JC5003 JC5015 JC5030
	YG613	GC2040	F30M F40M	KC722	IC928 IC328	WSP45	AH140 GH340	MP9030 MP7140 VP30RT	TT8080 TT8020	PC9530 NCM335 PC5400	ACP300 ACZ350 ACP400	PR660 PR1535 PR660	TB6045 JX1060 TB6060	JC5040
K	YG5020	GC3220 GC1020	MK1500 MP1500	KC915M	DT7150 IC5100 IC418	WAK15	T1015	VP15TF	TT6290 TT7515 TT6800	NC5330 PC8110	XCK2000	PR1510 PR510		JC5003
	YG501	GC3040	MK2050 MK2000	KCK15 KC520M	IC910 IC810	WKK25S WKP25	T1115 T1215 AH120	MP8010 MC5020	TT6080 TT6030	PC6510 NC5340	ACK200 ACZ310	PR1210 PR905		JC5015
	YG622		MK3000			WKP35	GH110	VP20RT		NC5350 PC5300	ACK300	CA420M		
S	YG602	GC1025 GC1040	F40M MM4500	KC510M KCU30M	IC328 IC408	WSM35S		VP15TF VP30RT	TT9030 TT8020 TT9540	PC5300 PC5400 PC9540	AC520U	CA6535 PR620	ACS05E	
	YG613	S30T S40T	MS2500	KC725M	IC903	WSM45S WSM45X		MP9130	TT8080 TT3540	UPC845		PR660 PR1535		
	YG012	GC1130 GC1030	MP1500 MP3000		IC1008			VP15TF						

TORNATURA

TRONCATURA

BARENATURA

FRESATURA

FORATURA

INFORMAZIONI TECNICHE