

MATERIAAL	Machine Tappen		Synchroon Tappen		Roltappen		DC Groep					
	DOORL GATEN	BLINDE GATEN	DOORL GATEN	BLINDE GATEN								
DIN / CODE	werkstof nummer	DIN371 type	DIN371 type	DIN371 type	DIN371 type	V in M/min Ongecoat gecoat	koeling/smering	V in M/min	koeling/smering	treksterkte N/mm ²	rek %	
BOUWSTAAL												
St 37	1.0037	N320V-4	N360V-3	RTS320VS-4	RTS362VS-3	10-15	20-30 S/E	FP381VS-3	20-30 S/E	360-510	25	12
St 44	1.0044	N320V-4	N360V-3	RTS320VS-4	RTS362VS-3	10-15	20-30 S/E	FP381VS-3	20-30 S/E	430-580	22	
St 52	1.0052	N320V-4	N360V-3	RTS320VS-4	RTS362VS-3	10-15	20-30 S/E	FP381VS-3	20-30 S/E	490-660	19	
St 60	1.0060	N320V-4	N360V-3	RTS320VS-4	RTS362VS-3	10-15	20-30 S/E	FP381VS-3	20-30 S/E	590-770	15	12
INZETSTAAL												
C 15	1.0301	N320V-4	N360V-3	RTS320VS-4	RTS362VS-3	8-12	16-24 S/E	FP381VS-3	20-30 S/E	500	15	
15Cr3	1.7015	N320V-4	N360V-3	RTS320VS-4	RTS362VS-3	8-12	16-24 S/E	FP381VS-3	20-30 S/E	550	11	
16MnCr5	1.7131	N320V-4	N360V-3	RTS320VS-4	RTS362VS-3	8-12	16-24 S/E	FP381VS-3	20-30 S/E	700	10	
16CrNi6	1.5919	N320V-4	N360V-3	RTS320VS-4	RTS362VS-3	8-12	16-24 S/E	FP381VS-3	20-30 S/E	710	9	12
NITREERSTAAL												
34CrA16	1.8504	N320V-4	N360V-3	RTS320VS-4	RTS362VS-3	8-12	16-24 S/E	FP381VS-3	10-15 S/E	780	14	
34CrAlMo5	1.8507	S320VS-3	S360VS-3	RTS320VS-4	RTS362VS-3		3-5 S/E	FP381VS-3	10-15 S/E	780	14	15
41CrAlMo7	1.8509	S320VS-3	S360VS-3	RTS320VS-4	RTS362VS-3		3-5 XS	FP381VS-3	10-15 S/E	980	12	
31CrMoV9	1.8519	H320-4	H350-3	RTS320VS-4	RTS362VS-3	4-8	8-16 XS	FP381VS-3	10-15 S/E	1230	10	
AUTOMATENSTAAL												
9S20	1.0711	N320V-4	N360V-3	RTS320VS-4	RTS362VS-3	10-15	20-30 S/E	FP381VS-3	20-30 S/E	490- 740	8	11
9SMnPb28	1.0718	N320V-4	N360V-3	RTS320VS-4	RTS362VS-3	10-15	20-30 S/E	FP381VS-3	20-30 S/E	380- 570	8	11
ETG 100 (45S20)	1.0727	N320TN-4	N360TN-3	RTS320VS-4	RTS362VS-3		8-12 S/E	FP381VS-3	20-30 S/E	960- 1030	14	
60S20	1.0728	N320V-4	N360V-3	RTS320VS-4	RTS362VS-3	10-15	20-30 S/E	FP381VS-3	20-30 S/E	670- 880	7	
VEREDELINGSSTAAL												
C22	1.0402	N320V-4	N360V-3	RTS320VS-4	RTS362VS-3	10-15	20-30 S/E	FP381VS-3	20-30 S/E	500- 650	22	
C45	1.0503	N320V-4	N360V-3	RTS320VS-4	RTS362VS-3	8-12	16-24 S/E	FP381VS-3	20-30 S/E	650- 800	16	13
C60	1.0601	N320V-4	N360V-3	RTS320VS-4	RTS362VS-3	8-12	16-24 XS	FP381VS-3	20-30 S/E	800- 950	13	
42CrMo4V (veredeld)	1.7225	S320VS-4	S360VS-3	RTS320VS-4	RTS362VS-3		3-5 XS	FP381VS-3	20-30 S/E	850-1000	20	13
42CrMo4v (veredeld)	1.7225	H320-4	H350-3	RTS320VS-4	RTS362VS-3	4-8	8-16 XS			1000-1200	11	16
34CrNiMo6v (veredeld)	1.6582	H320-4	H350-3	H320TC-4	H350TC-3	3-5	3-5 XS			1100-1300	10	16
34CrMo4v (veredeld)	1.7220	S320VS-4	S360VS-3	RTS320VS-4	RTS362VS-3		4-8 XS	FP381VS-3	10-15 S/E	900-1100	10	15
38MnSi4 (veredeld)	1.5120	S320VS-4	S360VS-3	RTS320VS-4	RTS362VS-3		4-8 XS	FP381VS-3	10-15 S/E	830-1030	12	
34Cr4 (veredeld)	1.7033	S320VS-4	S360VS-3	RTS320VS-4	RTS362VS-3		4-8 XS	FP381VS-3	10-15 S/E	800-1100	14	
Weldox 900		S320VS-4	S360VS-3	RTS320VS-4	RTS362VS-3		8-12 XS		S/E	900-1100	16	15
GEREEDSCHAPSTAAL												
C80W1	1.1525	N320V-4	N360V-3	RTS320VS-4	RTS362VS-3	10-15	20-30 S/E			640	-	
C125W	1.1663	N320V-4	N360V-3	RTS320VS-4	RTS362VS-3	10-15	20-30 S/E			710	-	
GELEG.												
GEREEDSCHAPSTAAL												
X42Cr13	1.2083	N320V-4	N360V-3	RTS320VS-4	RTS362VS-3	4-8	8-16 XS			[HB=225]	-	
X210Cr12	1.2080	N320V-4	N360V-3	RTS320VS-4	RTS362VS-3	4-8	8-16 XS			[HB=250]	-	
X165CrV12	1.2201	N320V-4	N360V-3	RTS320VS-4	RTS362VS-3	4-8	8-16 XS			[HB=230]	-	
105WCr6	1.2419	N320V-4	N360V-3	RTS320VS-4	RTS362VS-3	4-8	8-16 XS			[HB=230]	-	
100MnCrW4 (Arne)	1.2510	N320V-4	N360V-3	RTS320VS-4	RTS362VS-3	4-8	8-16 XS			[HB=215]	-	
X155CrMoV121 (Sverker)	1.2379	N320V-4	N360V-3	RTS320VS-4	RTS362VS-3	4-8	8-16 XS			[HB=250]	-	
40CrMo7	1.2311	N320V-4	N360V-3	H320TC-4	H350TC-3	4-8	8-16 XS			930-1350	-	
40CrMoS8 6	1.2312	N320V-4	N360V-3	RTS320VS-4	RTS362VS-3	4-8	8-16 XS	FP384VS-3	10-15 E	[HB=230]	-	
X36CrMo17	1.2316	N320V-4	N360V-3	RTS320VS-4	RTS362VS-3	4-8	8-16 XS			[HB=250]	-	
X210CrW12	1.2436	N320TN-4	N360TN-3	N320TN-4	N360TN-3	6-10	8-12 XS			<850		14
90MnCrV8	1.2842	N320V-4	N360V-3	H320TC-4	H350TC-3	4-8	8-16 XS			[HB=220]	-	
56NiCrMoV7	1.2714	S320VS-4	S360VS-3	S320VS-4	S360VS-3	4-8	8-16 XS			1180-1350	-	
X38CrMoV5 1	1.2343	S320VS-4	S360VS-3	S320VS-4	S360VS-3	4-8	8-16 XS			1180-1350	-	
X45NiCrMo4	1.2767	S320VS-4	S360VS-3	S320VS-4	S360VS-3	4-8	8-16 XS			1180-1350	-	
RVS (austenitisch)												
X12CrNiS18.8 (303)	1.4305	N320V-4	N360V-3	RTS320VS-4	RTS362VS-3	10-15	20-30 XS	FP381VS-3	10-20 S/E	500-700	35	21
G-X5CrNi 13 4	1.4313	Z320-4	Z362V-3	RTS320VS-4	RTS362VS-3	4-8	8-16 XS	FA381VS-3	10-20 S/E	720-880	18	
X5CrNi18.9 (304)	1.4301	Z320-4	Z362V-3	RTS320VS-4	RTS362VS-3	4-8	8-16 XS	FA381VS-3	10-15 S/E	500-700	45	22
X5CrNiMo18.10 (316)	1.4401	Z320-4	Z362V-3	RTS320VS-4	RTS362VS-3	4-8	8-16 XS	FA381VS-3	10-15 S/E	510-710	40	22
X5CrNiMo18.10 (316L)	1.4404	Z320-4	Z362V-3	RTS320VS-4	RTS362VS-3	4-8	8-16 XS	FA381VS-3	10-15 S/E	490-690	40	22
X2CrNiMoTi18.10 (316Ti)	1.4571	Z320-4	Z362V-3	RTS320VS-4	RTS362VS-3	4-8	8-16 XS	FA381VS-3	10-15 S/E	500-730	35	22
X2CrNi18.9 (304L)	1.4306	Z320-4	Z362V-3	RTS320VS-4	RTS362VS-3	4-8	8-16 XS	FA381VS-3	10-15 S/E	460-680	40	22
X10Cr13 (410)	1.4006	N320V-4	N360V-3	RTS320VS-4	RTS362VS-3	4-8	8-16 XS	FA381VS-3	10-15 S/E	450-650	20	
RVS (ferritisch,martensitisch)												
X20CrNi17 2	1.4057	S320VS-4	S360VS-3	S320VS-4	S360VS-3	4-8	8-12 X/S			750- 950	≥ 14	
X105CrMo17	1.4125	S320VS-4	S360VS-3	S320VS-4	S360VS-3	4-8	8-12 X/S			[HB≤285]	-	
45SiCr16 11	1.4704	S320VS-4	S360VS-3	S320VS-4	S360VS-3	4-8	8-12 X/S			880-1030	≥ 14	
X85CrMoV18 2	1.4748	S320VS-4	S360VS-3	S320VS-4	S360VS-3	4-8	8-12 X/S			1000-1200	≥ 7	
SUPER LEGERINGEN												
Ni 36 (Invar)	1.3912	Z320VS-4	Z362VS-3	Z320VS-4	Z362VS-3	3-5	6-12 XS	FA381VS-3	10-15 S/E	490	42	51
NiCu 30 Fe (Monel 400)	2.4360	Z320VS-4	Z362VS-3	Z320VS-4	Z362VS-3	3-5	6-12 XS	FA381VS-3	10-15 S/E	550	40	51
NiCr 15 Fe (Inconel 600)	2.4816	Z320VS-4	Z362VS-3	Z320VS-4	Z362VS-3	3-5	6-12 XS	FA381VS-3	10-15 S/E	620	45	51
X10 NiCrAlTi 32 20 (Hastalloy)	2.4876	Z320VS-4	Z362VS-3	Z320VS-4	Z362VS-3	3-5	6-12 XS	FA381VS-3	10-15 S/E	≤ 850	≥ 25	51
NiCr 20 TiAl (Nimonic 80)	2.4631	S320VS-4	S360VS-3	S320VS-4	S360VS-3	2-4	4-8 XS			≥ 980	≥ 12	
NiCr 19 NbMo (Inconel 718)	2.4668	S320VS-4	S360VS-3	S320VS-4	S360VS-3	2-4	4-8 XS			≥ 850	≤ 25	

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	DOORL GATEN	BLINDE GATEN	DOORL GATEN	BLINDE GATEN	V in M/min	koeling/smering	V in M/min	koeling/smering						
DIN / CODE	werkstof nummer	DIN371 type	DIN371 type	DIN371 type	DIN371 type	Ongecoat	gecoat	treksterkte N/mm ²	rek %					
GIETIJZER														
GG 25	0.6025	GG350NI-3	GG350NI-3	RTS320VS-4	RTS362VS-3	10-15	20-30	S/E		250	0,5	31		
GG 35	0.6035	GG350NI-3	GG350NI-3	RTS320VS-4	RTS362VS-3	10-15	20-30	S/E		350	0,5			
GGG 40	0.7040	N320V-4	N360V-3	RTS320VS-4	RTS362VS-3	10-15	20-30	S/D		400	17	31		
GGG 50	0.7050	N320V-4	N360V-3	RTS320VS-4	RTS362VS-3	10-15	20-30	S/D		500	8	31		
GGG 70	0.7070	N320V-4	N360V-3			10-15	20-30	S/D		700	3			
ALUMINIUM + LEGERINGEN														
AL99,5	3.0255	W320-4	W360-3			20-25		X/S	FP380CN-3	20-40	S/E	60- 95	20	71
ALCuMgPb	3.1645	W320-4	W360-3			10-15		X/S				370	7	
ALZnMgCu1,5 (Constructal)	3.4365	W320-4	W360-3			20-30		X/S				460- 520	7	
ALCu6BiPb (Decontal-500)	3.1855	W320-4	W360-3			10-15		X/S				295	8	
ALMgSi1 (AL51ST)	3.2315	W320-4	W360-3	RTS320VS-4	RTS362VS-3	20-25		X/S	FP380CN-3	20-40	S/E	215	10	72
* gietlegeringen <10 % Si														
G-AlSi6Cu4	3.2155	N320-4	N360-3			20-30		X/S				220	1	
G-AlSi8Cu3Fe	3.2161	N320-4	N360-3	RTS320VS-4	RTS362VS-3	20-30		X/S	FP380CN-3	20-30	S/E	240- 310	1- 3	73
* gietlegeringen >10 % Si														
G-AlSi12	3.2581	N320TN-4	GG350TC-3	RTS320VS-4	RTS362VS-3	10-15	20-30	X/S				220	1- 3	74
G-AlSi12CuFe	3.2583	N320TN-4	GG350TC-3	RTS320VS-4	RTS362VS-3	10-15	20-30	X/S				220- 300	1- 3	74
MAGNESIUM + LEGERINGEN														
MgMn2	-	W320-4	W360-3			10-15		X/S				180- 200	-	
MgAl9Zn	-	W320-4	W360-3			10-15		X/S				160- 200	2- 5	
KOPER + LEGERINGEN														
E-Cu 57 (roodkoper)	2.0060	N321-4	N361-3	RTS320VS-4	RTS362VS-3	20-25		S	FA381VS-3	10-20	S/E	220	30	61
CuZn39Pb2 (Messing MS58)	2.0380	N320-4	N360-3	N320TN-4	N360TN-3	30-40		S/E				440- 510	15	62
CuZn37 (Messing MS63)	2.0321	W320-4	W360-3	RTS320VS-4	RTS362VS-3	16-24		S	FP380CN-3	20-30	S/E	440- 510	15	63
CuSn6/8 (Tinbrons)	1.1020	W320-4	W360-3	RTS320VS-4	RTS362VS-3	8-15		XS				700	≥1	
CuSn7ZnPb (Lagerbrons)	2.1090	N320-4	N360-3	RTS320VS-4	RTS362VS-3	8-15		XS				250- 300	16	
CuSn12 (Gietbrons)	2.1052	N320-4	N360-3	RTS320VS-4	RTS362VS-3	8-15		XS				250	12	
CuAl10Ni (Al-brons)	2.0966	special	special			3- 6		XS				790	18	
Hemiac 98		ZX320-4	ZX320-4	ZX320-4	ZX320-4	3- 5		XS				960	3	
Ampcoloy 940	Ampco 21	ZX320-4	ZX320-4	ZX320-4	ZX320-4	3- 5		XS						
TITAAAN + LEGERINGEN														
Ti (Grade 2)	3.7035	Z320V-4	Z362V-3	RTS320VS-4	RTS362VS-3	4-8		XS	FA381VS-3	10-20	S/E	390- 540	22	41
TiAl6V4 (Grade 5)	3.7165	TL351VS-3	TL351VS-3			2- 4		XS				900-1100	6-10	
KUNSTSTOFFEN														
Thermoplasten	-	W320-4	W360-3			20-30		L/D				-	-	81
Duroplasten	-	N320TC-4	N360TC-3			8-16	16-24	L/D				-	-	82
Vezelversterkte kunststoffen	-	N320TC-4	H350TC-3			4- 8	8-16	L/D				-	-	83

* eventueel N320TN-4 N360TN-3

**eventueel Z320VS-4 Z362VS-3

Bij gebruik van gecoate tappen kan een twee keer zo hoge slijfnijlheid gehanteerd worden

**** S = snijolie XS = speciale snijolie E = emulsie L = lucht D = droog

Let op: Voor tappen met verjongde schacht het eerste getal in de type aanduiding veranderen van 3 in 4...

Dat is voor alle tappen boven M10 al standaard



N type voor Normaal Staal



W type voor Aluminium



Z type voor Roestvast staal



S type voor Exotische staalsoorten



H type voor Gereedschap staal



RTS type voor Synchroon tappen