

MATERIAAL	Machine Tappen				Synchroon Tappen			Synchr/Classic		Rol tappen		DC Groep		
	DOORL GATEN	BLINDE GATEN	DOORL GATEN	BLINDE GATEN	DOORL GATEN	BLINDE GATEN	BLINDE GATEN	3x3	Blind Doorl.					
DIN / CODE	werkstof nummer	DIN371 type	DIN371 type	V in M/min Ongecoat	DIN371 type	DIN371 type	V in M/min gecoat	DIN371 type	V in M/min gecoat	Type	V in M/min	treksterkte N/mm ²	rek %	
BOUWSTAAL														
St 37	1.0037	N320V-4	N360V-3	10-15	RTS320VS-4	RTS362VS-3	20-30	Z370VS-3	20-30	FP381VS-3	20-30	360-510	25	12
St 44	1.0044	N320V-4	N360V-3	10-15	RTS320VS-4	RTS362VS-3	20-30	Z370VS-3	20-30	FP381VS-3	20-30	430-580	22	
St 52	1.0052	N320V-4	N360V-3	10-15	RTS320VS-4	RTS362VS-3	20-30	Z370VS-3	20-30	FP381VS-3	20-30	490-660	19	
St 60	1.0060	N320V-4	N360V-3	10-15	RTS320VS-4	RTS362VS-3	20-30	Z370VS-3	20-30	FP381VS-3	20-30	590-770	15	12
INZETSTAAL														
C 15	1.0301	N320V-4	N360V-3	8-12	RTS320VS-4	RTS362VS-3	16-24	Z370VS-3	16-24	FP381VS-3	20-30	500	15	
15Cr3	1.7015	N320V-4	N360V-3	8-12	RTS320VS-4	RTS362VS-3	16-24	Z370VS-3	16-24	FP381VS-3	20-30	550	11	
16MnCr5	1.7131	N320V-4	N360V-3	8-12	RTS320VS-4	RTS362VS-3	16-24	Z370VS-3	16-24	FP381VS-3	20-30	700	10	
16CrNi6	1.5919	N320V-4	N360V-3	8-12	RTS320VS-4	RTS362VS-3	16-24	Z370VS-3	16-24	FP381VS-3	20-30	710	9	12
NITREERSTAAL														
34CrA16	1.8504	N320V-4	N360V-3	8-12	RTS320VS-4	RTS362VS-3	16-24	Z370VS-3	16-24	FP381VS-3	10-15	780	14	
34CrAlMo5	1.8507	S320VS-3	S360VS-3	3-5	RTS320VS-4	RTS362VS-3	3-5	Z370VS-3	3-5	FP381VS-3	10-15	780	14	15
41CrAlMo7	1.8509	S320VS-3	S360VS-3	3-5	RTS320VS-4	RTS362VS-3	3-5	Z370VS-3	3-5	FP381VS-3	10-15	980	12	
31CrMoV9	1.8519	H320-4	H350-3	4-8	RTS320VS-4	RTS362VS-3	8-16	Z370VS-3	8-16	FP381VS-3	10-15	1230	10	
AUTOMATENSTAAL														
9S20	1.0711	N320V-4	N360V-3	10-15	RTS320VS-4	RTS362VS-3	20-30	Z370VS-3	20-30	FP381VS-3	20-30	490- 740	8	11
9SMnPb28	1.0718	N320V-4	N360V-3	10-15	RTS320VS-4	RTS362VS-3	20-30	Z370VS-3	20-30	FP381VS-3	20-30	380- 570	8	11
ETG 100 (45S20)	1.0727	N320TN-4	N360TN-3	8-12	RTS320VS-4	RTS362VS-3	8-12	Z370VS-3	8-12	FP381VS-3	20-30	960- 1030	14	
60S20	1.0728	N320V-4	N360V-3	10-15	RTS320VS-4	RTS362VS-3	20-30	Z370VS-3	20-30	FP381VS-3	20-30	670- 880	7	
VEREDELINGSSTAAL														
C22	1.0402	N320V-4	N360V-3	10-15	RTS320VS-4	RTS362VS-3	20-30	Z370VS-3	20-30	FP381VS-3	20-30	500- 650	22	
C45	1.0503	N320V-4	N360V-3	8-12	RTS320VS-4	RTS362VS-3	16-24	Z370VS-3	16-24	FP381VS-3	20-30	650- 800	16	13
C60	1.0601	N320V-4	N360V-3	8-12	RTS320VS-4	RTS362VS-3	16-24	Z370VS-3	16-24	FP381VS-3	20-30	800- 950	13	
42CrMo4V (veredeld)	1.7225	S320VS-4	S360VS-3	4-8	RTS320VS-4	RTS362VS-3	3-5	Z370VS-3	3-5	FP381VS-3	20-30	850-1000	20	15
42CrMo4v (veredeld)	1.7225	H320-4	H350-3	3-5	RTS320VS-4	RTS362VS-3	8-16	Z370VS-3	8-16			1000-1200	11	16
34CrNiMo6v (veredeld)	1.6582	H320-4	H350-3	3-5	H320TC-4	H350TC-3	3-5	Z370VS-3	3-5			1100-1300	10	16
34CrMo4v (veredeld)	1.7220	S320VS-4	S360VS-3	4-8	RTS320VS-4	RTS362VS-3	4-8	Z370VS-3	4-8	FP381VS-3	10-15	900-1100	10	15
38MnSi4 (veredeld)	1.5120	S320VS-4	S360VS-3	4-8	RTS320VS-4	RTS362VS-3	4-8	Z370VS-3	4-8	FP381VS-3	10-15	830-1030	12	
34Cr4 (veredeld)	1.7033	S320VS-4	S360VS-3	4-8	RTS320VS-4	RTS362VS-3	4-8	Z370VS-3	4-8	FP381VS-3	10-15	800-1100	14	
Weldox 900		S320VS-4	S360VS-3	6-8	RTS320VS-4	RTS362VS-3	8-12					900-1100	16	15
GEREEDSCHAPSTAAL														
C80W1	1.1525	N320V-4	N360V-3	10-15	RTS320VS-4	RTS362VS-3	20-30	Z370VS-3	6-12			640	-	
C125W	1.1663	N320V-4	N360V-3	10-15	RTS320VS-4	RTS362VS-3	20-30	Z370VS-3	6-12			710	-	
GELEG. GEREEDSCHAPSTAAL														
X210Cr12	1.2080	N320V-4	N360V-3	4-8	RTS320VS-4	RTS362VS-3	8-16	Z370VS-3	6-12	FP384VS-3	10-15	850-900	-	
X165CrV12	1.2201	N320V-4	N360V-3	4-8	RTS320VS-4	RTS362VS-3	8-16	Z370VS-3	6-12	FP384VS-3	10-15	800-1000	-	
105WCr6	1.2419	N320V-4	N360V-3	4-8	RTS320VS-4	RTS362VS-3	8-16	Z370VS-3	6-12	FP384VS-3	10-15	800-1000	-	
100MnCrW4 (Arne)	1.2510	N320V-4	N360V-3	4-8	RTS320VS-4	RTS362VS-3	8-16	Z370VS-3	6-12	FP384VS-3	10-15	680-720	-	
X155CrMoV121 (Sverker)	1.2379	N320V-4	N360V-3	4-8	RTS320VS-4	RTS362VS-3	8-16	Z370VS-3	6-12	FP384VS-3	10-15	850-900	-	
40CrMo7	1.2311	N320V-4	N360V-3	4-8	H320TC-4	H350TC-3	8-16	Z370VS-3	6-12	FP384VS-3	10-15	930-1350	-	
40CrMoS8 6	1.2312	N320V-4	N360V-3	4-8	RTS320VS-4	RTS362VS-3	8-16	Z370VS-3	6-12	FP384VS-3	10-15	800-1000	-	
X36CrMo17	1.2316	N320V-4	N360V-3	4-8	RTS320VS-4	RTS362VS-3	8-16	Z370VS-3	6-12	FP384VS-3	10-15	850-900	-	
X210CrW12	1.2436	N320TN-4	N360TN-3	6-10	N320TN-4	N360TN-3	8-12	Z370VS-3	6-12	FP384VS-3	10-15	700-850	-	14
90MnCrV8	1.2842	N320V-4	N360V-3	4-8	H320TC-4	H350TC-3	8-16	Z370VS-3	6-12	FP384VS-3	10-15	680-720	-	
56NiCrMoV7	1.2714	S320VS-4	S360VS-3	4-8	S320VS-4	S360VS-3	8-16					1180-1350	-	
X38CrMoV5 1	1.2343	S320VS-4	S360VS-3	4-8	S320VS-4	S360VS-3	8-16					1180-1350	-	
X45NiCrMo4	1.2767	S320VS-4	S360VS-3	4-8	S320VS-4	S360VS-3	8-16					1180-1350	-	
RVS (austenitisch)														
X12CrNiS18.8 (303)	1.4305	N320V-4	N360V-3	10-15	RTS320VS-4	RTS362VS-3	20-30	Z370VS-3	6-12	FP381VS-3	10-20	500-700	35	21
G-X5CrNi 13 4	1.4313	Z320-4	Z362V-3	4-8	RTS320VS-4	RTS362VS-3	8-16	Z370VS-3	6-12	FA381VS-3	10-20	720-880	18	
X5CrNi18.9 (304)	1.4301	Z320-4	Z362V-3	4-8	RTS320VS-4	RTS362VS-3	8-16	Z370VS-3	6-12	FA381VS-3	10-15	500-700	45	22
X5CrNiMo18.10 (316)	1.4401	Z320-4	Z362V-3	4-8	RTS320VS-4	RTS362VS-3	8-16	Z370VS-3	6-12	FA381VS-3	10-15	510-710	40	22
X5CrNiMo18.10 (316L)	1.4404	Z320-4	Z362V-3	4-8	RTS320VS-4	RTS362VS-3	8-16	Z370VS-3	6-12	FA381VS-3	10-15	490-690	40	22
X2CrNiMoTi18.10 (316Ti)	1.4571	Z320-4	Z362V-3	4-8	RTS320VS-4	RTS362VS-3	8-16	Z370VS-3	6-12	FA381VS-3	10-15	500-730	35	22
X2CrNi18.9 (304L)	1.4306	Z320-4	Z362V-3	4-8	RTS320VS-4	RTS362VS-3	8-16	Z370VS-3	6-12	FA381VS-3	10-15	460-680	40	22
X10Cr13 (410)	1.4006	N320V-4	N360V-3	4-8	RTS320VS-4	RTS362VS-3	8-16	Z370VS-3	6-12	FA381VS-3	10-15	450-650	20	
RVS (ferritisch,martensitisch)														
X20CrNi17 2	1.4057	S320VS-4	S360VS-3	4-8	S320VS-4	S360VS-3	8-12	Z370VS-3	6-12			750- 950	≥ 14	
X105CrMo17	1.4125	S320VS-4	S360VS-3	4-8	S320VS-4	S360VS-3	8-12	Z370VS-3	6-12			970-1000	-	
45SiCr16 11	1.4704	S320VS-4	S360VS-3	4-8	S320VS-4	S360VS-3	8-12	Z370VS-3	6-12			880-1030	≥ 14	
Super Duplex 17-4 PH	1.4410	S320VS-4	S360VS-3	4-8	S320VS-4	S360VS-3	8-12	Z370VS-3	6-12			950-1050	25	
X85CrMoV18 2	1.4542	S320VS-4	S360VS-3	4-8	S320VS-4	S360VS-3	8-12	Z370VS-3	6-12			1000-1200	20	
	1.4748	S320VS-4	S360VS-3	4-8	S320VS-4	S360VS-3	8-12	Z370VS-3	6-12			1000-1200	≥ 7	
SUPER LEGERINGEN														
Ni 36 (Invar)	1.3912	Z320VS-4	Z362VS-3	3-5	Z320VS-4	Z362VS-3	6-12			FA381VS-3	10-15	490	42	51
NiCu 30 Fe (Monel 400)	2.4360	Z320VS-4	Z362VS-3	3-5	Z320VS-4	Z362VS-3	6-12			FA381VS-3	10-15	550	40	51
NiCr 15 Fe (Inconel 600)	2.4816	Z320VS-4	Z362VS-3	3-5	Z320VS-4	Z362VS-3	6-12			FA381VS-3	10-15	620	45	51
X10 NiCrAlTi 32 20 (Hastalloy)	2.4876	Z320VS-4	Z362VS-3	3-5	Z320VS-4	Z362VS-3	6-12			FA381VS-3	10-15	≥ 850	≥ 25	51
NiCr 20 TiAl (Nimonic 80)	2.4631	S320VS-4	S360VS-3	2-4	S320VS-4	S360VS-3	4-8					≥ 980	≥ 12	
NiCr 19 NbMo (Inconel 718)	2.4668	S320VS-4	S360VS-3	2-4	S320VS-4	S360VS-3	4-8					≥ 850	≤ 25	

MATERIAAL	Machine Tappen				Synchroon Tappen			Synchr / Classic		Roltappen		DC Groep		
	DOORL GATEN	BLINDE GATEN			DOORL GATEN	BLINDE GATEN	V in M/min	BLINDE GATEN	3xφ	Blind Doorl.	V in M/min			
DIN / CODE	werkstof nummer	DIN371 type	DIN371 type	V in M/min Ongecoat	DIN371 type	DIN371 type	V in M/min gecoat	DIN371 type	V in M/min gecoat	Type	V in M/min	treksterkte N/mm ²	rek %	
GIETIJZER														
GG 25	0.6025	GG350NI-3	GG350NI-3	10-15	RTS320VS-4	RTS362VS-3	20-30	GG353TC-3	20-30			250	0,5	31
GG 35	0.6035	GG350NI-3	GG350NI-3	10-15	RTS320VS-4	RTS362VS-3	20-30	GG353TC-3	20-30			350	0,5	
GGG 40	0.7040	N320V-4	N360V-3	10-15	RTS320VS-4	RTS362VS-3	20-30	GG353TC-3	20-30			400	17	31
GGG 50	0.7050	N320V-4	N360V-3	10-15	RTS320VS-4	RTS362VS-3	20-30					500	8	31
GGG 70	0.7070	N320V-4	N360V-3	10-15								700	3	
ALUMINIUM + LEGERINGEN														
AL99,5	3.0255	W320-4	W360-3	20-25	RTS320VS-4	RTS362VS-3	20-30	Z370VS-3	20-30	FP380CN-3	20-40	60- 95	20	71
ALCuMgPb	3.1645	W320-4	W360-3	10-15	RTS320VS-4	RTS362VS-3	20-30	Z370VS-3	20-30	FP380CN-3	20-40	370	7	
ALZnMgCu1,5 (Constructural)	3.4365	W320-4	W360-3	20-30	RTS320VS-4	RTS362VS-3	20-30	Z370VS-3	20-30	FP380CN-3	20-40	460- 520	7	
ALCu6BiPb (Decontal-500)	3.1855	W320-4	W360-3	10-15	RTS320VS-4	RTS362VS-3	20-30	Z370VS-3	20-30	FP380CN-3	20-40	295	8	
ALMgSi1 (AL51ST)	3.2315	W320-4	W360-3	20-25	RTS320VS-4	RTS362VS-3	20-30	Z370VS-3	20-30	FP380CN-3	20-40	215	10	72
* gietlegeringen <10 % Si														
G-AlSi6Cu4	3.2155	N320-4	N360-3	20-30	RTS320VS-4	RTS362VS-3	20-30	Z370VS-3	20-30			220	1	
G-AlSi8Cu3Fe	3.2161	N320-4	N360-3	20-30	RTS320VS-4	RTS362VS-3	20-30	Z370VS-3	20-30			240- 310	1- 3	73
* gietlegeringen >10 % Si														
G-AlSi12	3.2581	N320TN-4	GG350TC-3	10-15	RTS320VS-4	RTS362VS-3	20-30	GG353TC-3	20-30			220	1- 3	74
G-AlSi12CuFe	3.2583	N320TN-4	GG350TC-3	10-15	RTS320VS-4	RTS362VS-3	20-30	GG353TC-3	20-30			220- 300	1- 3	74
MAGNESIUM + LEGERINGEN														
MgMn2	-	W320-4	W360-3	10-15	RTS320VS-4	RTS362VS-3	20-30	Z370VS-3	20-30			180- 200	-	
MgAl3Zn	-	W320-4	W360-3	10-15	RTS320VS-4	RTS362VS-3	20-30	Z370VS-3	20-30			160- 200	2- 5	
KOPER + LEGERINGEN														
E-Cu 57 (roodkoper)	2.0060	N321-4	N361-3	20-25	RTS320VS-4	RTS362VS-3	25-30	Z370VS-3	25-30	FA381VS-3	10-20	220	30	61
CuZn39Pb2 (Messing MS58)	2.0380	N320-4	N360-3	30-40	N320TN-4	N360TN-3	20-30		20-30	FA381VS-3	10-20	440- 510	15	62
CuZn37 (Messing MS63)	2.0321	W320-4	W360-3	16-24	RTS320VS-4	RTS362VS-3	20-30	Z370VS-3	20-30	FA381VS-3	20-30	440- 510	15	63
CuSn6/8 (Tinbrons)	1.1020	W320-4	W360-3	8-15	RTS320VS-4	RTS362VS-3	16-30	Z370VS-3	16-30	Z370VS-3	16-30	700	≥1	
CuSn7ZnPb (Lagerbrons)	2.1090	N320-4	N360-3	8-15	RTS320VS-4	RTS362VS-3	16-30	Z370VS-3	16-30	FP381VS-3	10-20	250- 300	16	
CuSn12 (Gietbrons)	2.1052	N320-4	N360-3	8-15	RTS320VS-4	RTS362VS-3	16-30	Z370VS-3	16-30	FP381VS-3	10-20	250	12	
CuAl10Ni (Al-brons)	2.0966	special	special	3- 6						FA381VS-3	10-20	790	18	
Hemiacx 98		ZX320-4	ZX320-4	3- 5	ZX320-4	ZX320-4	3-5					960	3	
Ampcoloy 940	Ampco 21	ZX320-4	ZX320-4	3- 5	ZX320-4	ZX320-4	3-5							
TITAN + LEGERINGEN														
Ti (Grade 2)	3.7035	Z320V-4	Z362V-3	4-8	RTS320VS-4	RTS362VS-3	8-16			FA381VS-3	10-20	390- 540	22	41
TiAl6V4 (Grade 5)	3.7165	TL351VS-3	TL351VS-3	2- 4	TL351VS-3	TL351VS-3	2-4					900-1100	6-10	
KUNSTSTOFFEN														
Thermoplasten	-	W320-4	W360-3	20-30	RTS320VS-4	RTS362VS-3	25-35	Z370VS-3	25-35			-	-	81
Duroplasten	-	N320TC-4	N360TC-3	8-16	RTS320VS-4	RTS362VS-3	16-24	Z370VS-3	16-24			-	-	82
Vezelversterkte kunststoffen	-	N320TC-4	H350TC-3	4- 8	RTS320VS-4	RTS362VS-3	8-16	Z370VS-3	8-16			-	-	83

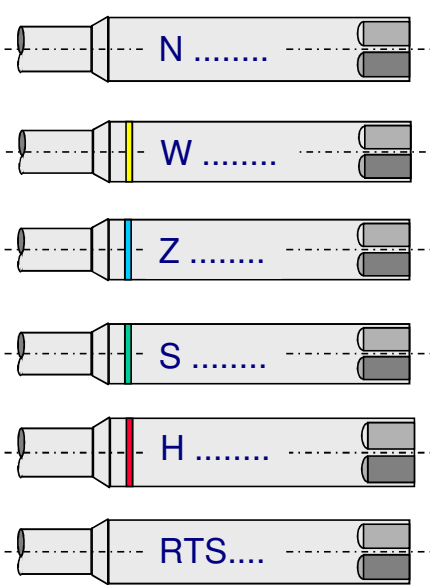
Opmerkingen:

Versterkte, doorvallende schacht

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

Koeling

Dat is voor alle tappen boven M10 al standaard
In principe koelen, smeren met Emulsie met een verhouding van 7%
In moeilijke situaties smeren met snijolie of pure Emulsie.



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



