

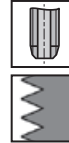


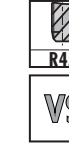






































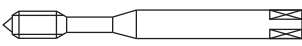
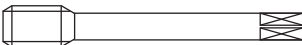

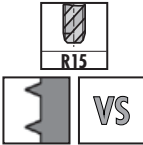

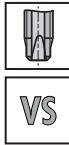
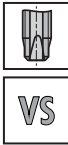
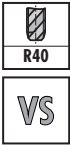


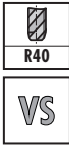


















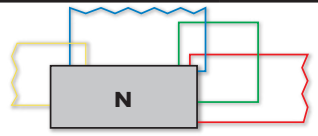











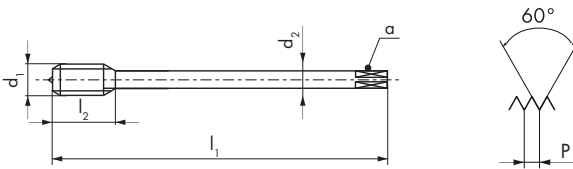













		N						
Merkmale Characteristics								
					V	TiN	R15	R40
Lochart Hole type								
			N320-3				N350-3	N360-3
DIN lang DIN long	DIN 371		124				124	131
ISO kurz ISO short	ISO 529							
Toleranz Tolerance	ISO 2 6H		124				124	131
Übermass Oversize	ISO 3 6G							131
Feintoleranz Fine tolerance	ISO 1 4H							
LH Linksgewinde LH Left-hand thread	ISO 2 6H							
		N410-3	N420-3	N420-4	N420V-4	N420TN-4	N450-3	N460-3
DIN lang DIN long	DIN 374/~DIN 376	125 - 130		125 - 130	125 - 128	125 - 127	124	132 - 133
ISO kurz ISO short	ISO 529							
Toleranz Tolerance	ISO 2 6H	125 - 129		125 - 129	125 - 128	125 - 127	124	132 - 133
Übermass Oversize	ISO 3 6G							132
Feintoleranz Fine tolerance	ISO 1 4H							
Toleranz Tolerance	7H (EN 60423)		128 - 129					
LH Linksgewinde LH Left-hand thread	ISO 2 6H	130		130				

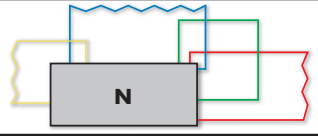








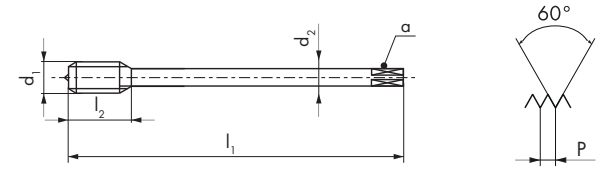






N					Z			
								
								
								
N360V-3	N360TN-3	N1110-1	N1110-3	N1110-S	Z320V-3 Z320V-4	Z320VS-4	Z360V-3	Z370VS-3
131	131				134	134	134	134
		146	146	146				
131	131	146	146	146	134	134	134	134
N460V-3	N460TN-3	N1210-1	N1210-3	N1210-S	Z420V-4	Z420VS-4	Z460V-3	Z470VS-3
132 - 133	132				135	135	135	135
		147 - 148	147 - 148	147 - 148				
132 - 133	132	147 - 148	147 - 148	147 - 148	135	135	135	135


		H		S		SA		
Merkmale Characteristics		 TiCN	 R25 TiCN	 VS	 R35 VS		 R15	 R10
		 NEW	 NEW					
Lochart Hole type								
		H320-4 H320TC-4	H350-3 H350TC-3	S320VS-4	S360VS-3	SA320-4	SA350-3	SA390-3
DIN lang DIN long	DIN 371	136	137	138	138	140	140	139
ISO kurz ISO short	ISO 529							
Toleranz Tolerance	ISO 2 6H	136	137	138	138	140	140	139
Übermass Oversize	ISO 3 6G							
Feintoleranz Fine tolerance	ISO 1 4H					140	140	
LH Linksgewinde LH Left-hand thread	ISO 2 6H							
		H420-4 H420TC-4	H450-3 H450TC-3	S420VS-4	S460VS-3	SA420-4	SA450-3	
DIN lang DIN long	DIN 374/~DIN 376	136	137	138	138	141	141	
ISO kurz ISO short	ISO 529							
Toleranz Tolerance	ISO 2 6H	136	137	138	138	141	141	
Übermass Oversize	ISO 3 6G							
Feintoleranz Fine tolerance	ISO 1 4H					141	141	
Toleranz Tolerance	7H (EN 60423)							
LH Linksgewinde LH Left-hand thread	ISO 2 6H							

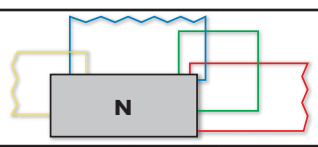
TL		K	QTAP				RTS	
								
								
			NEW	NEW	NEW	NEW		
								
TL320VS-4	TL351VS-3	K313TC-3	Q320VS-4	Q323VS-4	Q360VS-3	Q363VS-3	RTS320VS-4	RTS362VS-3
140	140	142	143	143	144	144	145	145
140	140	142	143	143	144	144	145	145
140	140							
TL420VS-4	TL451VS-3	K413TC-3	Q420VS-4	Q423VS-4	Q460VS-3	Q463VS-3	RTS420VS-4	RTS462VS-3
141	141	142	143	143	144	144	145	145
141	141	142	143	143	144	144	145	145
141	141							

								N410-3	N420-4	N420V-4	N420TN-4
								N410-3  31 62 73 74 91			
N420-4  62 63 64 72 73 74 81 91											
N420V-4   11 12 31 32											
N420TN-4   11 12 13 14 32											
								 	 	 	 
$\emptyset d_1$ MF	P mm	l_1 mm	l_2 mm	d_2 mm	a mm			ID	ID	ID	ID
* 4	0.35	63	14	2.8	2.1	3	3.65		● 142695		
4	0.5	63	14	2.8	2.1	3	3.5	● 101923	● 102145	● 142715	
4.5	0.5	70	15	3.5	2.7	3	4		● 102150		
5	0.5	70	15	3.5	2.7	3	4.5	● 101941	● 102167	● 142716	
5	0.75	70	15	3.5	2.7	3	4.25		● 102168		
5.5	0.5	80	17	4	3	3	5		● 142696		
6	0.5	80	17	4.5	3.4	3	5.5	● 101951	● 102178	● 142717	
6	0.75	80	17	4.5	3.4	3	5.25	● 101952	● 102179	● 102281	● 102249
7	0.5	80	17	5.5	4.3	3	6.5		● 102187		
7	0.75	80	17	5.5	4.3	3	6.25	● 101954	● 102188		
8	0.5	90	20	6	4.9	3	7.5	● 101955	● 102190	● 142718	
8	0.75	90	20	6	4.9	3	7.25	● 101956	● 102191	● 102283	
8	1	90	20	6	4.9	3	7	● 101957	● 102192	● 102284	● 102250
9	0.5	90	20	7	5.5	3	8.5		● 142697		
9	0.75	90	20	7	5.5	3	8.25		● 102200		
9	1	90	20	7	5.5	3	8		● 102201	● 143935	
10	0.5	100	22	7	5.5	3	9.5		● 142698		
10	0.75	100	22	7	5.5	3	9.25	● 101863	● 102056		
10	1	100	22	7	5.5	3	9	● 101864	● 102057	● 102262	● 102239
10	1.25	100	22	7	5.5	3	8.8	● 101865	● 102058	● 142719	● 148108

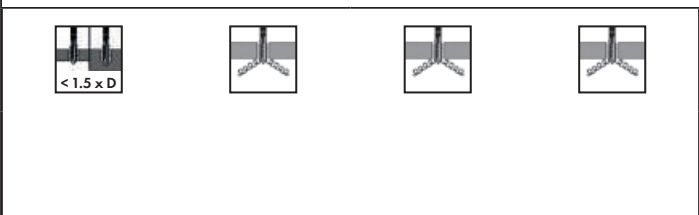
* N420-3 





									N410-3	N420-4	N420V-4	N420TN-4
									N410-3		31 62 73 74 91	
N420-4		62 63 64 72 73 74 81 91										
N420V-4	 V	11 12 31 32										
N420TN-4	 TiN	11 12 13 14 32										
									 C 2.5 x P	 B 4 x P	 B 4 x P	 B 4 x P
									ISO 2 6H	ISO 2 6H	ISO 2 6H	ISO 2 6H
Ø d ₁ MF	P mm	l ₁ mm	l ₂ mm	d ₂ mm	a mm			ID	ID	ID	ID	
11	0.5	100	19	8	6.2	3	10.5		● 142699			
11	0.75	100	19	8	6.2	3	10.25		● 142700			
11	1	100	19	8	6.2	3	10		● 142701			
11	1.25	100	19	8	6.2	3	9.8		● 142702			
12	0.5	100	14	9	7	3	11.5		● 102066			
12	0.75	100	24	9	7	3	11.25		● 142703			
12	1	100	24	9	7	3	11	● 101867	● 102067	● 142345	● 102241	
12	1.25	100	24	9	7	3	10.8	● 101868	● 102068	● 142721		
12	1.5	100	24	9	7	3	10.5	● 101869	● 102069	● 102264	● 102242	
13	1	100	21	11	9	3	12	● 158401	● 142704			
14	0.5	100	14	11	9	3	13.5		● 142705			
14	0.75	100	24	11	9	3	13.25		● 142706			
14	1	100	24	11	9	3	13	● 101871	● 102077			
14	1.25	100	24	11	9	3	12.8	● 101872	● 102078			
14	1.5	100	24	11	9	3	12.5	● 101873	● 102079	● 102266	● 102244	
15	1	100	26	12	9	3	14	● 101875	● 102085			
15	1.5	100	26	12	9	3	13.5	● 101876	● 102086			
16	0.75	100	26	12	9	3	15.25		● 142708			
16	1	100	26	12	9	*3	15	● 101877	● 102087			
16	1.25	100	26	12	9	*3	14.8	● 101878	● 102088			
16	1.5	100	26	12	9	*3	14.5	● 101879	● 102089	● 102268	● 102246	
17	1	100	26	12	9	3	16		● 142709			
17	1.5	100	26	12	9	3	15.5		● 142710			
18	0.75	110	26	14	11	4	17.25		● 142711			
18	1	110	26	14	11	4	17	● 101881	● 102095			
18	1.5	110	26	14	11	4	16.5	● 101882	● 102096	● 102270	● 145350	
18	2	125	33	14	11	3	16		● 142712			

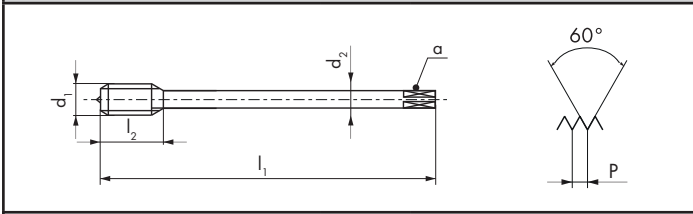
* N410-3 =  4









N410-3	N420-4	N420V-4	N420TN-4
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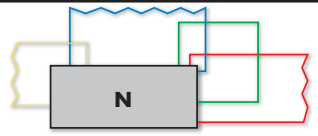
















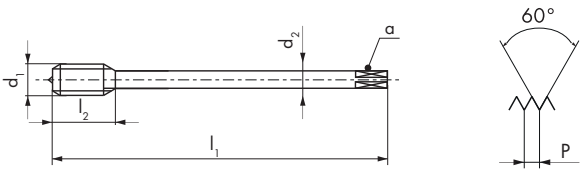












N410-3		31 62 73 74 91
N420-4		62 63 64 72 73 74 81 91
N420V-4	 V	11 12 31 32
N420TN-4	 TiN	11 12 13 14 32



			
ISO 2 6H	ISO 2 6H	ISO 2 6H	ISO 2 6H

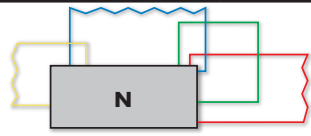









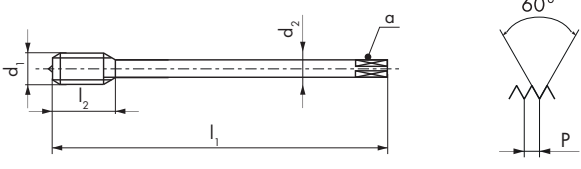





Ø d ₁ MF	P mm	l ₁ mm	l ₂ mm	d ₂ mm	a mm			ID	ID	ID	ID
20	1	125	28	16	12	4	19		● 102098		
20	1.5	125	28	16	12	4	18.5	● 101884	● 102099	● 102272	● 143932
20	2	140	36	16	12	3	18	● 105130	● 102100		
22	1	125	28	18	14.5	4	21		● 102104		
22	1.5	125	28	18	14.5	4	20.5	● 101886	● 102105	● 102274	
22	2	140	36	18	14.5	3	20	● 101887	● 142714		
24	1	140	30	18	14.5	4	23		● 102107		
24	1.5	140	30	18	14.5	4	22.5	● 101889	● 102108	● 102276	
24	2	140	34	18	14.5	4	22	● 101890	● 102109	● 102277	
25	1	140	30	18	14.5	4	24		● 142722		
25	1.5	140	30	18	14.5	4	23.5	● 101892	● 102112		
25	2	140	34	18	14.5	4	23		● 142723		
26	1	140	30	18	14.5	4	25		● 102113		
26	1.5	140	30	18	14.5	4	24.5	● 101893	● 102114	● 145896	
27	1.5	140	34	20	16	4	25.5		● 102115		
27	2	140	34	20	16	4	25	● 101894	● 102116		
28	1	140	30	20	16	4	27		● 142725		
28	1.5	140	30	20	16	4	26.5	● 101896	● 102118		
28	2	140	30	20	16	4	26	● 122023			

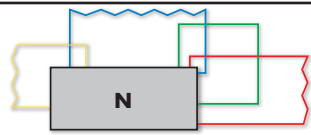
								N410-3	N420-4	N420V-4	N420-3
								N410-3		31 62 73 74 91	
N420-4		62 63 64 72 73 74 81 91									
N420V-4	 V	11 12 31 32									
N420-3		62 63 64 72 73 74 81 91									
											
											
Ø d ₁ MF	P mm	l ₁ mm	l ₂ mm	d ₂ mm	a mm			ID	ID	ID	ID
30	1	150	32	22	18	4	29	● 101898	● 102121		
30	1.5	150	32	22	18	4	28.5	● 101899	● 102122	● 143978	
30	2	150	32	22	18	4	28	● 101900	● 102123	● 143766	
32	1	150	32	22	18	4	31	● 101902			
32	1.5	150	32	22	18	4	30.5	● 101903	● 102126		● 143812
32	2	150	32	22	18	4	30	● 101904	● 102127		
33	1.5	160	32	25	20	4	31.5	● 101905	● 102128		
33	2	160	32	25	20	4	31	● 101906	● 102129		
34	1.5	170	32	28	22	4	32.5	● 101909			
35	1.5	170	32	28	22	4	33.5	● 101910	● 102132		
35	2	170	32	28	22	4	33	● 101911			
36	1.5	170	34	28	22	4	34.5	● 101912	● 102134		
36	2	170	34	28	22	4	34	● 101913	● 102135		
36	3	200	45	28	22	4	33	● 101914	● 102136		
38	1.5	170	34	28	22	4	36.5	● 101917	● 102139		
38	2	170	34	28	22	4	36	● 101918			
39	2	170	34	32	24	4	37	● 101920			
39	3	200	45	32	24	4	36	● 101921			

MF ISO DIN 13

HSSE



								N410-3	N420-4	N420-3
								N410-3		31 62 73 74 91
N420-4		62 63 64 72 73 74 81 91								
N420-3		62 63 64 72 73 74 81 91								
								 2.5 x P ISO 2 6H	 4 x P ISO 2 6H	 2.5 x P ISO 3 7H
Ø d ₁ MF	P mm	l ₁ mm	l ₂ mm	d ₂ mm	a mm			ID	ID	ID
40	1	170	34	32	24	5	39	● 101925		
40	1.5	170	34	32	24	5	38.5	● 101926	● 102152	● 143813
40	2	170	34	32	24	5	38	● 101927	● 102153	
40	3	200	45	32	24	4	37	* 101928		
42	1.5	170	34	32	24	5	40.5	● 101929	● 102155	
42	2	170	34	32	24	5	40	● 101930	● 102156	
42	3	200	45	32	24	4	39	● 101931	● 102157	
45	1.5	180	34	36	29	5	43.5	● 101933	● 102159	
45	2	180	34	36	29	5	43	● 101934		
45	3	200	45	36	29	4	42	● 101935		
48	1.5	190	36	36	29	5	46.5	● 101937	● 102163	
48	2	190	36	36	29	5	46	● 101938	● 102164	
48	3	220	48	36	29	5	45	● 101939	● 102165	
50	1.5	190	36	36	29	5	48.5	● 101943	● 102176	● 143814
50	2	190	36	36	29	5	48	● 101944	* 102177	
52	2	190	36	40	32	5	50	● 101947		
60	2	220	42	45	35	5	58	● 105132		
63	1.5	220	38	45	35	5	61.5			● 143815



N410-3 LH



31 62 73 74 91

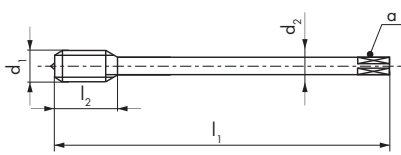
N420-4 LH





62 63 64 72 73 74
81 91

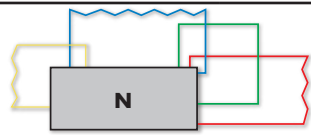
N410-3 LH




















N420-4 LH











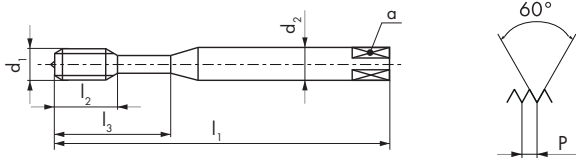
Ø d ₁ MF	P mm	l ₁ mm	l ₂ mm	d ₂ mm	α mm			ID	ID
4	0.5	63	14	2.8	2.1	3	3.5	● 104844	
5	0.5	70	15	3.5	2.7	3	4.5	● 104845	
6	0.5	80	17	4.5	3.4	3	5.5	● 104846	● 104870
6	0.75	80	17	4.5	3.4	3	5.25	● 104847	● 105133
7	0.75	80	17	5.5	4.3	3	6.25	● 104848	
8	0.5	90	20	6	4.9	3	7.5	● 104849	
8	0.75	90	20	6	4.9	3	7.25	● 104850	● 104871
8	1	90	20	6	4.9	3	7	● 104851	● 104872
10	0.75	100	22	7	5.5	3	9.25	● 104852	
10	1	100	22	7	5.5	3	9	● 104853	● 104873
10	1.25	100	22	7	5.5	3	8.8		● 104874
12	1	100	24	9	7	3	11	● 104854	● 104875
12	1.25	100	24	9	7	3	10.8	● 104855	● 104876
12	1.5	100	24	9	7	3	10.5	● 104856	● 104877
14	1	100	24	11	9	3	13	● 104857	● 104878
14	1.25	100	24	11	9	3	12.8	● 104858	
14	1.5	100	24	11	9	3	12.5	● 104859	● 104879
16	1	100	26	12	9	*3	15	● 104860	● 104880
16	1.5	100	26	12	9	*3	14.5	● 104861	● 104881
18	1	110	26	14	11	4	17	● 104862	
18	1.5	110	26	14	11	4	16.5	● 104863	● 104882
20	1	125	28	16	12	4	19	● 104864	
20	1.5	125	28	16	12	4	18.5	● 104865	● 104883
22	1.5	125	28	18	14.5	4	20.5	● 104866	● 104884
24	1.5	140	30	18	14.5	4	22.5	● 104867	● 104885
24	2	140	34	18	14.5	4	22	● 104868	● 104886
28	1.5	140	30	20	16	4	26.5	● 105166	
30	1.5	150	32	22	18	4	28.5	● 105167	● 105165
30	2	150	32	22	18	4	28	● 105168	



* N410-3 LH =  4







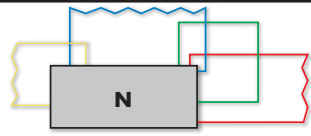
N360-3		     
N360V-3	 	  
N360TN-3	 	    

N360-3	N360V-3	N360TN-3	N360-3
			
			












$\emptyset d_1$ MF	P mm	l_1 mm	l_2 mm	l_3 mm	d_2 mm	a mm		
4	0.5	63	7.5	21	4.5	3.4	3	3.5
5	0.5	70	9	25	6	4.9	3	4.5
6	0.5	80	11	30	6	4.9	3	5.5
6	0.75	80	11	30	6	4.9	3	5.25
8	0.75	90	12.5	35	8	6.2	3	7.25
8	1	90	12.5	35	8	6.2	3	7
10	0.75	100	14	39	10	8	3	9.25
10	1	100	14	39	10	8	3	9
10	1.25	100	14	39	10	8	3	8.8





			
ISO 2 6H	ISO 2 6H	ISO 2 6H	ISO 3 6G
ID	ID	ID	ID ^{6H} + mm
● 101632	● 101712	● 111618	● 101631 0.020
● 101641	● 101714	● 111617	● 101640 0.020
● 101648	● 143990		
● 101650	● 101716	● 101702	● 101649 0.022
● 101658	● 101719		● 101657 0.022
● 101660	● 101720	● 101704	● 101659 0.026
● 101606	● 144401		
● 101608	● 101706	● 101695	● 101607 0.026
● 101609	● 105134	● 110965	

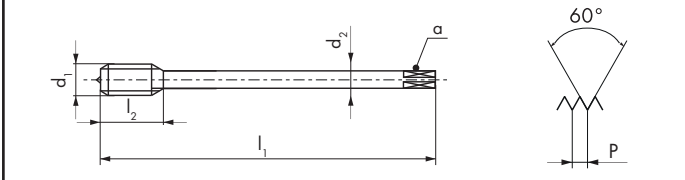




N460-3	N460V-3	N460TN-3	N460-3
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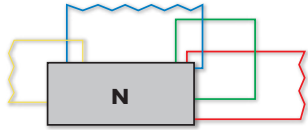


			
63 72 73 74 81 91	11 12 32	11 12 13 14 32	
			
			

			
ISO 2 6H	ISO 2 6H	ISO 2 6H	ISO 3 6G



Ø d ₁ MF	P mm	l ₁ mm	l ₂ mm	d ₂ mm	a mm			ID	ID	ID	ID ^{6H} + mm
12	1	100	14	9	7	3	11	• 102353	• 102462	• 102447	• 102352 0.026
12	1.25	100	14	9	7	3	10.8	• 102354	• 102463	• 144202	
12	1.5	100	14	9	7	3	10.5	• 102356	• 102464	• 102448	• 102355 0.032
13	1	100	14	11	9	3	12	• 102364			
14	1	100	14	11	9	3	13	• 102365	• 102466		
14	1.5	100	14	11	9	3	12.5	• 102367	• 102467	• 102450	• 102366 0.032
15	1	100	14	12	9	3	14	• 102370			
15	1.5	100	18	12	9	3	13.5	• 102371			
16	1	100	14	12	9	4	15	• 102372	• 102469		
16	1.5	100	14	12	9	4	14.5	• 102374	• 102470	• 102452	• 102373 0.032
18	1	110	18	14	11	4	17	• 102380	• 143926		
18	1.5	110	18	14	11	4	16.5	• 102382	• 102472	• 145346	• 102381 0.032
20	1	125	20	16	12	4	19	• 102384	• 146377		
20	1.5	125	20	16	12	4	18.5	• 102386	• 102474	• 148780	
20	2	140	24	16	12	4	18	• 102387	• 143566		
22	1	125	20	18	14.5	4	21	• 102392	• 147702		
22	1.5	125	20	18	14.5	4	20.5	• 102393	• 102476		
24	1.5	140	22	18	14.5	4	22.5	• 102396	• 102478		
24	2	140	22	18	14.5	4	22	• 102397	• 102479		
25	1.5	140	22	18	14.5	4	23.5	• 102399	• 143810		
26	1.5	140	22	18	14.5	4	24.5	• 102400	• 143952		
27	1.5	140	22	20	16	4	25.5	• 102401	• 143965		
27	2	140	22	20	16	4	25	• 102402	• 144201		
28	1.5	140	22	20	16	4	26.5	• 102403	• 144997		



N460-3



63 72 73 74 81 91

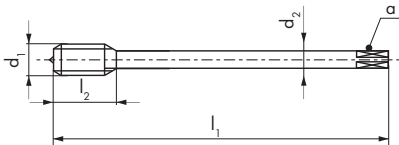
N460V-3





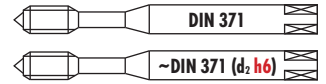
11 12 32

N460-3

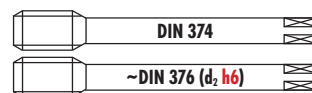
N460V-3



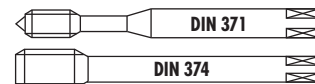
$\varnothing d_1$ MF	P mm	l_1 mm	l_2 mm	d_2 mm	a mm			ID	ID
30	1.5	150	24	22	18	4	28.5	● 102404	● 142524
30	2	150	24	22	18	4	28	● 102405	● 142581
32	1.5	150	24	22	18	4	30.5	● 102406	● 143605
33	2	160	26	25	20	4	31	● 102407	● 147604
33	3	180	33	25	20	4	30	● 175437	● 150448
35	1.5	170	24	28	22	5	33.5	● 102408	● 146846
36	1.5	170	24	28	22	5	34.5	● 102409	● 143824
36	2	170	28	28	22	5	34	● 175436	● 164870
36	3	200	36	28	22	4	33	● 115072	● 150453
39	3	200	40	32	24	5	36	● 174995	● 122669
42	3	200	40	32	24	5	39	● 174996	● 150436



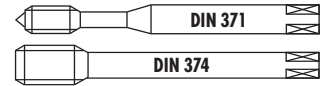
										Z320V-4	Z320VS-4	Z360V-3	Z370VS-3	
Z320V-4		V	11 12 13 21 32											
Z320VS-4		VS	11 12 13 14 21 22 23 32 61 63 94											
Z360V-3		V	12 21 32											
Z370VS-3		VS	CLASSIC	14 15 21 22 23 24 51 61 94										
Z370VS-3		VS	SYNCHRO	13 14 15 21 22 23 24 51 52										PM
Ø d₁ MF	P mm	l₁ mm	l₂ mm	l₃ mm	d₂ mm	a mm				ID	ID			
* 3	0.35	56	12	18	3.5	2.7	3	2.65		● 115468				
6	0.75	80	17	30	6	4.9	3	5.25		● 142726	● 123691			
8	1	90	20	35	8	6.2	3	7		● 142727	● 124289			
10	1	100	22	39	10	8	3	9		● 142728	● 120060			
10	1.25	100	22	39	10	8	3	8.8		● 196023	● 196024			
Ø d₁ MF	P mm	l₁ mm	l₂ mm	l₃ mm	d₂ mm	a mm				ID				
4	0.5	63	7.5	21	4.5	3.4	3	3.5		● 104675				
5	0.5	70	9	25	6	4.9	3	4.5		● 104676				
6	0.75	80	11	30	6	4.9	3	5.25		● 104677				
8	1	90	12.5	35	8	6.2	3	7		● 104678				
10	1	100	14	39	10	8	3	9		● 104674				
Ø d₁ MF	P mm	l₁ mm	l₂ mm	l₃ mm	d₂ h6 mm	a mm				ID				
6	0.75	80	11	30	6	4.9	3	5.25		● 166117				
8	1	90	12.5	35	8	6.2	3	7		● 166118				
10	1	100	14	39	10	8	3	9		● 166119				
10	1.25	100	14	39	10	8	3	8.8		● 196020				



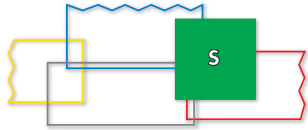
									Z420V-4	Z420VS-4	Z460V-3	Z470VS-3
Z420V-4		V	11 12 13 21 32									
Z420VS-4		VS	11 12 13 14 21 22 23 32 61 63 94									
Z460V-3		V	12 21 32									
Z470VS-3		VS		14 15 21 22 23 24 51 61 94								
Z470VS-3		VS		13 14 15 21 22 23 24 51 52								PM
									ISO 2 6H	ISO 2 6H	ISO 2 6H	6HX
Ø d ₁ MF	P mm	l ₁ mm	l ₂ mm	d ₂ mm	a mm				ID	ID		
12	1	100	24	9	7	3	11		● 142729			
12	1.5	100	24	9	7	3	10.5		● 142730	● 120421		
14	1.5	100	24	11	9	3	12.5		● 142731	● 120688		
16	1.5	100	26	12	9	3	14.5		● 142732	● 120878		
18	1.5	110	26	14	11	4	16.5		● 196025	● 196027		
20	1.5	125	28	16	12	4	18.5		● 163931	● 196026		
Ø d ₁ MF	P mm	l ₁ mm	l ₂ mm	d ₂ mm	a mm					ID		
12	1	100	14	9	7	3	11			● 104729		
12	1.5	100	14	9	7	3	10.5			● 104730		
14	1.5	100	14	11	9	3	12.5			● 104731		
16	1.5	100	14	12	9	4	14.5			● 104732		
18	1.5	110	18	14	11	4	16.5			● 104733		
20	1.5	125	20	16	12	4	18.5			● 104734		
22	1.5	125	20	18	14.5	4	20.5			● 104735		
24	1.5	140	22	18	14.5	4	22.5			● 104736		
24	2	140	22	18	14.5	4	22			● 104737		
Ø d ₁ MF	P mm	l ₁ mm	l ₂ mm	d ₂ h ₆ mm	a mm					ID		
12	1.5	110	14	* 10	* 8	4	10.5			● 166120		
14	1.5	110	14	* 12	* 9	4	12.5			● 166121		
16	1.5	110	18	12	9	4	14.5			● 166122		
18	1.5	125	21	14	11	4	16.5			● 196021		
20	1.5	140	24	16	12	4	18.5			● 196022		
* Norme DC / * DC Norm/ * Norma DC												



										H320-4	H420-4	H320TC-4	H420TC-4		
H320-4 15 16 62 64 82															
H420-4 15 16 62 64 82															
H320TC-4 15 16 24 31 82 83 92 93														NEW	NEW
H420TC-4 15 16 24 31 82 83 92 93															
Ø d ₁ MF	P mm	l ₁ mm	l ₂ mm	l ₃ mm	d ₂ mm	a mm				ID	ID	ID	ID		
6	0.75	80	17	30	6	4.9	3			● 101214		● 196035			
8	0.75	90	20	35	8	6.2	3			● 101216					
8	1	90	20	35	8	6.2	3			● 101217		● 196036			
10	1	100	22	39	10	8	3			● 101204		● 172963			
10	1.25	100	22	39	10	8	3			● 175213		● 173079			
12	1.25	100	24		9	7	4				● 101273				
12	1.5	100	24		9	7	4				● 101274		● 196037		
14	1.5	100	24		11	9	4			● 101276			● 164053		
16	1.5	100	26		12	9	4			● 101278			● 196038		
18	1.5	110	26		14	11	4			● 101280			● 196039		
20	1.5	125	28		16	12	4			● 101282			● 148362		
24	2	140	34		18	14.5	4			● 101285					

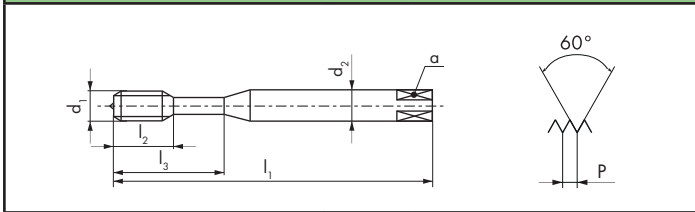


										H350-3	H450-3	H350TC-3	H450TC-3
H350-3													
H450-3													
H350TC-3													
H450TC-3													
Ø d ₁ MF	P mm	l ₁ mm	l ₂ mm	l ₃ mm	d ₂ mm	a mm				ID	ID	ID	ID
6	0.75	80	11	30	6	4.9	3	5.25		● 101249		● 196033	
8	0.75	90	12.5	35	8	6.2	3	7.25		● 101252			
8	1	90	12.5	35	8	6.2	3	7		● 101253		● 150356	
10	1	100	14	39	10	8	3	9		● 101235		● 148753	
10	1.25	100	14	39	10	8	3	8.8		● 145590		● 196034	
12	1	100	14		9	7	4	11			● 101302		
12	1.5	100	14		9	7	4	10.5			● 101303		● 145561
14	1.5	100	14		11	9	4	12.5			● 101306		● 184003
16	1.5	100	14		12	9	4	14.5			● 101308		● 176013
18	1.5	110	18		14	11	4	16.5			● 101310		● 160146
20	1.5	125	20		16	12	4	18.5			● 101312		● 160147
22	1.5	125	20		18	14.5	4	20.5			● 101314		
24	1.5	140	22		18	14.5	4	22.5			● 101316		
24	2	140	22		18	14.5	4	22			● 101317		
27	2	140	22		20	16	4	25			● 101319		
30	1.5	150	24		22	18	4	28.5			● 101321		
30	2	150	24		22	18	4	28			● 101322		



S320VS-4		VS	13 15 16 22 23 24 52
S420VS-4		VS	13 15 16 22 23 24 52
S360VS-3		VS	13 15 16 22 23 24 52
S460VS-3		VS	13 15 16 22 23 24 52

S320VS-4	S420VS-4	S360VS-3	S460VS-3



6HX	6HX	6HX	6HX

Ø d ₁ MF	P mm	l ₁ mm	l ₂ mm	l ₃ mm	d ₂ mm	a mm		
6	0.75	80	17	30	6	4.9	3	5.25
8	1	90	20	35	8	6.2	3	7
10	1	100	22	39	10	8	3	9
12	1.5	100	24		9	7	4	10.5
14	1.5	100	24		11	9	4	12.5
16	1.5	100	26		12	9	4	14.5

ID	ID
★ 123690	
● 124288	
● 120059	
	● 120420
	● 120687
	● 120877

Ø d ₁ MF	P mm	l ₁ mm	l ₂ mm	l ₃ mm	d ₂ mm	a mm		
8	1	90	12.5	35	8	6.2	3	7
10	1	100	14	39	10	8	3	9
12	1.5	100	14		9	7	4	10.5
14	1.5	100	14		11	9	4	12.5
16	1.5	100	14		12	9	4	14.5

ID	ID
	● 111528
	● 111529
	● 111540
	● 111541
	● 111542

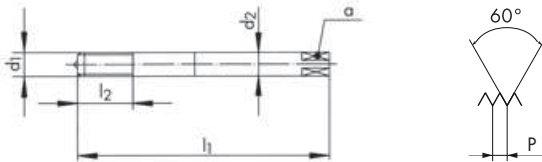
aero

SA390-3



16 53

SA390-3



6HX

$\varnothing d_1$ MF	P mm	l_1 mm	l_2 mm	d_2 mm	a mm			ID
10	1	100	30	10	8	3	9	* 149751
12	1	110	35	12	9	4	11	* 149769
12	1.5	110	35	12	9	4	10.5	* 149773
14	1.5	110	40	16	12	4	12.5	* 149790

aero

SA320-4



15 16 52 64

SA350-3



15 16 52 64

TL320VS-4

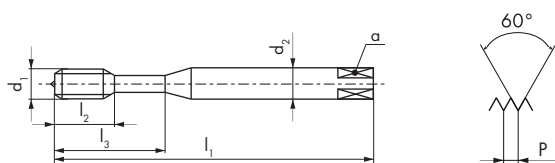


41 42

TL351VS-3



41 42



SA320-4

SA350-3

TL320VS-4

TL351VS-3



< 1.5 x D

< 2 x D



< 2 x D



4 x P

2.5 x P

4 x P

2.5 x P

4HX

4HX

4HX

4HX

Ø d ₁ MF	P mm	l ₁ mm	l ₂ mm	l ₃ mm	d ₂ mm	a mm		
4	0.5	63	14		4.5	3.4	3	3.5
5	0.5	70	15		6	4.9	3	4.5
6	0.5	80	15	23	6	4.9	3	5.5
8	1	90	18	29	8	6.2	3	7
10	1	100	20	33	10	8	3	9

















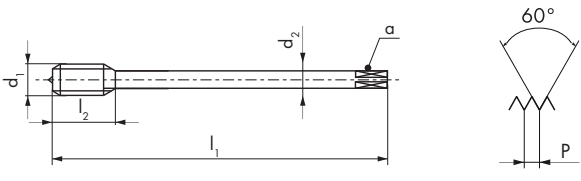




















ID	ID	ID	ID
	* 149079		● 152033
	● 149144		● 152049
* 149193		* 152058	● 152059
● 149304	● 149306		● 152080
● 149362	● 149364		● 152093

6HX	6HX	6HX	6HX
-----	-----	-----	-----

Ø d ₁ MF	P mm	l ₁ mm	l ₂ mm	l ₃ mm	d ₂ mm	a mm		
4	0.5	63	14		4.5	3.4	3	3.5
5	0.5	70	15		6	4.9	3	4.5
6	0.5	80	15	23	6	4.9	3	5.5
8	1	90	18	29	8	6.2	3	7
10	1	100	20	33	10	8	3	9

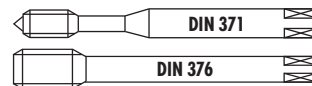
ID	ID	ID	ID
● 149081	● 149083		● 152035
● 149146	● 149148		● 152051
	* 149199		● 152061
● 149308	● 149310		● 148019
● 149366	● 149368	* 152094	● 148026

aero

								SA420-4	SA450-3	TL420VS-4	TL451VS-3
SA420-4  15 16 52 64								   			
SA450-3  15 16 52 64								   			
TL420VS-4  VS 41 42								 			
TL451VS-3  VS 41 42								 			
								   			
								   			
Ø d₁	P	l₁	l₂	d₂	a			ID	ID	ID	ID
12	1	100	19	9	7	4	11	* 152209		* 152218	
12	1.5	100	24	9	7	4	10.5		* 152213		
16	1.5	100	26	12	9	4	14.5		* 152216		* 152226
								   			
								   			
Ø d₁	P	l₁	l₂	d₂	a			ID	ID	ID	ID
12	1	100	19	9	7	4	11	* 152228		* 152237	
12	1.5	100	24	9	7	4	10.5	* 152227			
14	1.5	100	24	11	9	4	12.5		* 152233	* 152238	
16	1	100	23	12	9	4	15				* 152244
16	1.5	100	26	12	9	4	14.5		* 152235		

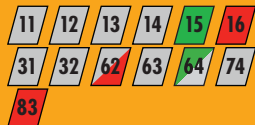
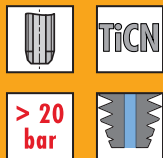


PM

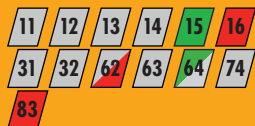
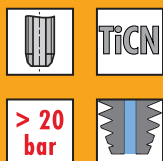


K

K313TC-3

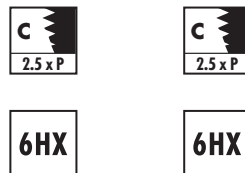
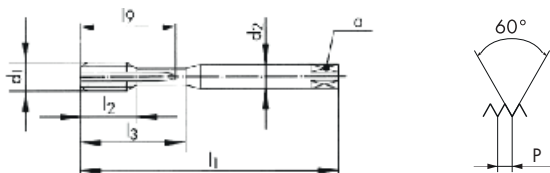


K413TC-3



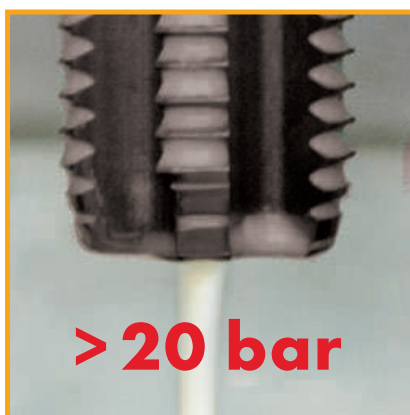
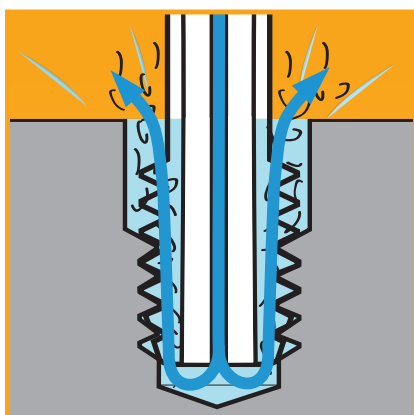
K313TC-3

K413TC-3



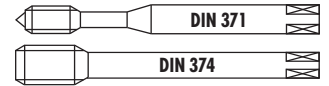
Ø d ₁ MF	P mm	l ₁ mm	l ₂ mm	l ₃ mm	l ₀ mm	d ₂ mm	a mm		
10	1	100	22	39	37	10	8	3	9
10	1.25	100	22	39	37	10	8	3	8.8
12	1	110	24		42	9	7	3	11
12	1.25	110	24		42	9	7	3	10.8
12	1.5	110	24		42	9	7	3	10.5
14	1.5	110	28		49	11	9	3	12.5
16	1.5	110	30		56	12	9	3	14.5
20	1.5	140	36		70	16	12	5	18.5

ID	ID
● 175729	
● 196067	
	● 175731
	● 175733
	● 175735
	● 175737
	● 175739
	● 171205





PM



QTAP

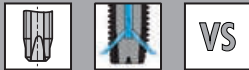
Q320VS-4



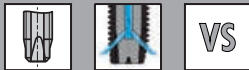
Q420VS-4



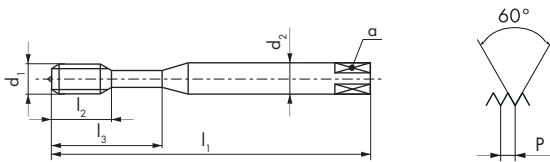
Q323VS-4



Q423VS-4



- 11 12 13 14
- 15 21 22 23
- 24 31 32 51
- 52 61 62 63
- 64 71 72 73
- 74 81 82 83
- 91 92 94



Q320VS-4

Q420VS-4

Q323VS-4

Q423VS-4



NEW



NEW



NEW



NEW



ISO 2
6H



ISO 2
6H



ISO 2
6H



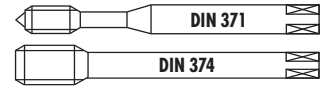
ISO 2
6H

Ø d ₁ MF	P mm	l ₁ mm	l ₂ mm	l ₃ mm	d ₂ mm	a mm		
6	0.75	80	17	30	6	4.9	3	5.25
8	1	90	20	35	8	6.2	3	7
10	1	100	22	39	10	8	3	9
12	1	100	24		9	7	3	11
12	1.5	100	24		9	7	3	10.5
14	1.5	100	24		11	9	3	12.5
16	1.5	100	26		12	9	3	14.5
18	1.5	110	26		14	11	4	16.5
20	1.5	125	28		16	12	4	18.5

ID	ID	ID	ID
● 197661		● 197684	
● 197662		● 197685	
● 197663		● 197686	
	● 197664		● 197687
	● 197665		● 197688
	● 197666		● 197689
	● 197667		● 197690
	● 197668		● 197691
	● 197669		● 197692



≤ Ø 16 > Ø 16



QTAP

Q360VS-3



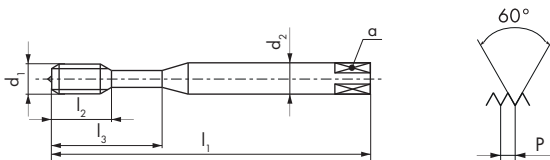
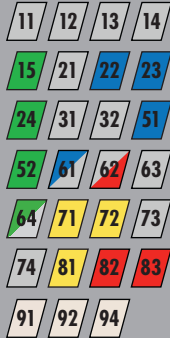
Q460VS-3



Q363VS-3



Q463VS-3



Q360VS-3

Q460VS-3

Q363VS-3

Q463VS-3



NEW



NEW



NEW



NEW



< 2.5 x D



< 2.5 x D



< 2.5 x D



< 2.5 x D



ISO 2 6H



ISO 2 6H



ISO 2 6H



ISO 2 6H

Ø d ₁ MF	P mm	l ₁ mm	l ₂ mm	l ₃ mm	d ₂ mm	a mm		
4	0.5	63	7.5	21	4.5	3.4	3	3.5
5	0.5	70	9	25	6	4.9	3	4.5
6	0.75	80	11	30	6	4.9	3	5.25
8	1	90	12.5	35	8	6.2	3	7
10	1	100	14	39	10	8	3	9
12	1	100	14		9	7	3	11
12	1.5	100	14		9	7	3	10.5
14	1.5	100	14		11	9	3	12.5
16	1.5	100	14		12	9	4	14.5
18	1.5	110	18		14	11	4	16.5
20	1.5	125	20		16	12	4	18.5
22	1.5	125	20		18	14.5	4	20.5
24	1.5	140	22		18	14.5	4	22.5
24	2	140	22		18	14.5	4	22

ID

ID

ID

ID

● 197670

● 197693

● 197671

● 197694

● 197672

● 197695

● 197673

● 197696

● 197674

● 197697

● 197675 ● 197698

● 197676 ● 197699

● 197677 ● 197700

● 197678 ● 197701

● 197679 ● 197702

● 197680 ● 197703

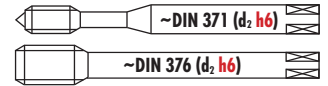
● 197681 ● 197704

● 197682 ● 197705

● 197683 ● 197706



Uniquement pour taraudage synchro
Nur für Synchrobearbeitung
Only for rigid tapping
Solo per mescolatura sincrona
Solo para resacado sincronizado
Только для rigid tapping

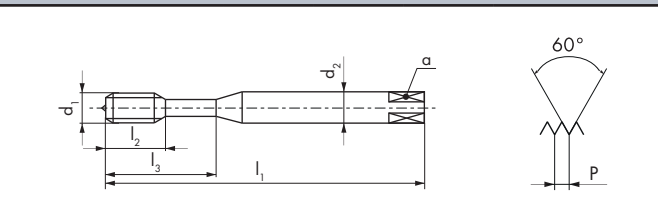
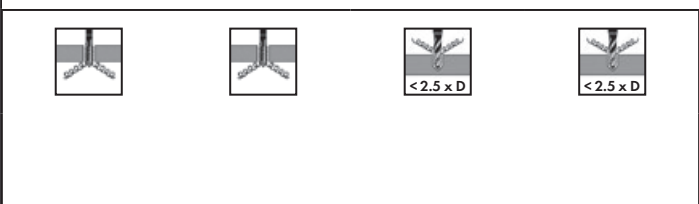


RTS

Rigid Tapping Synchro

RTS320VS-4		VS	11 12 13 14 15 21 31 32 51 61 63 64 72 73 74 81 82 83 91 92 94	
RTS420VS-4		VS	11 12 13 14 15 21 31 32 51 61 63 64 72 73 74 81 82 83 91 92 94	
RTS362VS-3			VS	11 12 13 14 15 21 31 32 51 61 63 64 72 73 74 81 82 83 91 92 94
RTS462VS-3			VS	11 12 13 14 15 21 31 32 51 61 63 64 72 73 74 81 82 83 91 92 94

RTS320VS-4	RTS420VS-4	RTS362VS-3	RTS462VS-3
------------	------------	------------	------------



6HX	6HX	6HX	6HX

Ø d ₁ MF	P mm	l ₁ mm	l ₂ mm	l ₃ mm	d ₂ h6 mm	a mm		
8	1	90	12.5	35	8	6.2	3	7
10	1	100	14	39	10	8	3	9
12	1.5	110	14		* 10	* 8	3	10.5
14	1.5	110	14		* 12	* 9	3	12.5
16	1.5	110	18		12	9	3	14.5

* Norme DC / * DC Norm/ * Norma DC

ID	ID
● 150615	
● 150630	
	● 150640
	● 150655
	● 150665

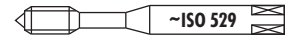
Ø d ₁ MF	P mm	l ₁ mm	l ₂ mm	l ₃ mm	d ₂ h6 mm	a mm		
8	1	90	12.5	35	8	6.2	3	7
10	1	100	14	39	10	8	3	9
12	1.5	110	14		* 10	* 8	3	10.5
14	1.5	110	14		* 12	* 9	3	12.5
16	1.5	110	18		12	9	3	14.5

* Norme DC / * DC Norm/ * Norma DC

ID	ID
● 150617	
● 150632	
	● 151862
	● 151869
	● 151871

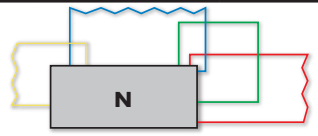









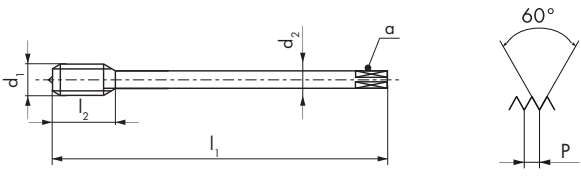





sur demande
auf Anfrage
on request
su richiesta
sobre pedido
no zampocy

≥ Ø 6 mm



										N1110-1	N1110-3	N1110-S
										<p>N1110-1 </p> <p>N1110-3 31 62 73 74 91</p> <p>N1110-S </p>		
Ø d ₁ MF	P mm	l ₁ mm	l ₂ mm	l ₃ mm	d ₂ mm	a mm			ID	ID	ID	
2	0.25	45	8		2.8	2.1	3					
2.2	0.25	45	9.5		2.8	2.1	3					
2.5	0.35	45	9.5		2.8	2.1	3					
3	0.35	48	11	18	3.15	2.5	3					
3.5	0.35	50	13	20	3.55	2.8	3					
4	0.35	53	13	21	4	3.15	3					
4	0.5	53	13	21	4	3.15	3					
4.5	0.5	53	13	21	4.5	3.55	3					
5	0.35	58	16	25	5	4	3					
5	0.5	58	16	25	5	4	3					
5	0.75	58	16	25	5	4	3					
5.5	0.5	62	17	26	5.6	4.5	3					
6	0.5	66	19	30	6.3	5	3					
6	0.75	66	19	30	6.3	5	3					
7	0.5	66	19	30	7.1	5.6	3					
8	0.75	72	22	35	8	6.3	3					
8	1	72	22	35	8	6.3	3					
9	0.5	72	22	36	9	7.1	3					
9	0.75	72	22	36	9	7.1	3					
9	1	72	22	36	9	7.1	3					
10	0.5	80	24	39	10	8	3					
10	1	80	24	39	10	8	3					
10	1.25	80	24	39	10	8	3					
										<p>P 0.25</p>		

									N1210-1	N1210-3	N1210-S
									<p>N1210-1</p>		
<p>N1210-3</p> <p>31 62 73 74 91</p>											
<p>N1210-S</p>											
$\emptyset d_1$ MF	P mm	l_1 mm	l_2 mm	d_2 mm	a mm				ID	ID	ID
11	0.5	85	22	8	6.3	3		10.5	● 103485		
11	0.75	85	22	8	6.3	3		10.25	● 103486		
11	1	85	22	8	6.3	3		10	● 103487		
11	1.25	85	22	8	6.3	3		9.8	● 103488		
12	0.5	89	24	9	7.1	3		11.5	● 103490		
12	0.75	89	24	9	7.1	3		11.25	● 103491		
12	1	89	24	9	7.1	3		11	● 103305	● 103493	● 111169
12	1.25	89	24	9	7.1	3		10.8	● 103307	● 103495	● 111171
12	1.5	89	24	9	7.1	3		10.5	● 103308	● 103497	● 111172
14	0.5	95	24	11.2	9	3		13.5		● 103502	
14	0.75	95	24	11.2	9	3		13.25		● 103503	
14	1	95	24	11.2	9	3		13	● 103312	● 103504	● 111175
14	1.25	95	24	11.2	9	3		12.8	● 103314	● 103506	● 111177
14	1.5	95	24	11.2	9	3		12.5	● 103315	● 103508	● 111178
15	0.75	90	23	11.2	9	3		14.25		● 103512	
15	1	90	23	11.2	9	3		14		● 103513	
16	0.5	102	32	12.5	10	4		15.5		● 103515	
16	0.75	102	32	12.5	10	4		15.25		● 103516	
16	1	102	32	12.5	10	4		15	● 103321	● 103517	● 111183
16	1.5	102	32	12.5	10	4		14.5	● 103322	● 103520	● 111184
17	1	95	23	12.5	10	4		16		● 103525	
18	0.75	112	30	14	11.2	4		17.25		● 103527	
18	1	112	30	14	11.2	4		17	● 103326	● 103528	● 111187
18	1.5	112	30	14	11.2	4		16.5	● 103327	● 103531	● 111188
18	2	112	30	14	11.2	3		16		● 103533	
19	1	112	33	14	11.2	4		18		● 103536	

									N1210-1	N1210-3	N1210-S
									<p>N1210-1  </p> <p>N1210-3   31 62 73 74 91</p> <p>N1210-S  </p>		
										 < 1.5 x D	 < 2.5 x D
									 5 x P	 C 2 x P	 ISO 2 6H
Ø d ₁ MF	P mm	l ₁ mm	l ₂ mm	d ₂ mm	a mm			ID	ID	ID	
20	1	112	37	14	11.2	4	19	● 103332	● 103537	● 111198	
20	1.25	112	37	14	11.2	4	18.8		● 103539		
20	1.5	112	37	14	11.2	4	18.5	● 103334	● 103540	● 111195	
22	1	115	32	16	12.5	4	21		● 103545		
22	1.5	115	32	16	12.5	4	20.5	● 103340	● 103546	● 121669	
22	2	115	32	16	12.5	3	20		● 103548		
24	1	120	30	18	14	4	23		● 103552		
24	1.5	120	30	18	14	4	22.5	● 103343	● 103553	● 111202	
24	2	130	45	18	14	4	22	● 103344	● 103555	● 111203	
25	1	120	30	18	14	4	24		● 103559		
25	1.5	120	30	18	14	4	23.5		● 103560		
25	2	120	30	18	14	4	23		● 103561		
26	1	120	30	18	14	4	25		● 103562		
26	1.5	120	30	18	14	4	24.5	● 103346	● 103563	● 111207	
26	2	120	30	18	14	4	24		● 103564		
27	1	127	30	20	16	4	26		● 103565		
27	1.5	127	30	20	16	4	25.5		● 103566		
27	2	135	45	20	16	4	25	* 103351	* 103567	* 111210	
28	1	127	30	20	16	4	27		● 103570		
28	1.5	127	30	20	16	4	26.5		● 103571		
30	1.5	127	32	20	16	4	28.5	● 103355	● 103575	● 111214	
30	2	127	32	20	16	4	28	● 103356	● 103577	● 111215	