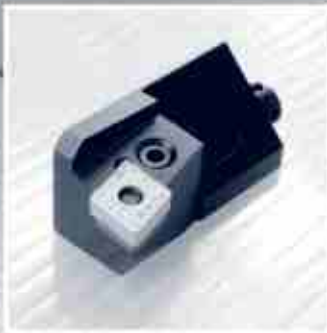


Inserts
General turning
Aluminum wheel turning
Automatic lathe
Ceramic tools
Parting and grooving
Threading
Drills
Cartridges
Brazed tools
Tooling



CANELA

Technical information

Reference list of materials	M.02
Accessories	M.08
Alphanumeric index	M.24

Reference list of materials (Steels)

ISO	Germany		U.S.A. AISI/SAE	Japan JIS	Spain UNE	U.K.		Sweden SS	France AFNOR	Italy UNI
	W.-nr.	DIN				BS	EN			
P	1.0038	RSt.37-2	A570.36	STKM 12A;C	-	4360 40 C	-	1311	E 24-2 Ne	-
	1.0038	GS-CK16	1115	-	-	030A04	1A	1325	-	-
	1.0116	St.37-3	A573-81 65	-	F.111	4360 40 B	-	1312	E 24-U	Fe37-3
	1.0401	C15	1015	-	F.112	080M15	-	1350	CC12	C15C16
	1.0402	C22	1020	-	11SMn28	050A20	2C/2D	1450	CC20	C20C21
	1.0715	9SMn28	1213	SUM22	11SMnPb28	230M07	-	1912	S250	CF9SMn28
	1.0718	9SMnPb28	12L13	SUM22L	10SPb20	-	-	1914	S250Pb	CF9SMnPb28
	1.0722	10SPb20	-	-	12SMn35	-	-	-	10PbF2	CF10Pb20
	1.0736	9SMn36	1215	-	12SMnPb36	240M07	1B	-	S300	CF9SMn36
	1.0737	9SMnPb36	12L14	-	C15K	-	-	1926	S300Pb	CF9MnPb36
	1.1141	Ck15	1015	S15C	-	080M15	32C	1370	XC12	C16
	1.1158	Ck25	1025	S25C	-	-	-	-	-	-
	1.8900	StE 380	A572-60	-	-	4360 55 E	-	2145	-	FeE390KG
	-	17 MnV 6	A572-60	-	-	4360 55 E	-	2142	NFA 35-501 E36	-
	1.0501	C35	1035	-	F.113	060A35	-	1550	CC35	C35
	1.0503	C45	1045	-	F.114	080M46	-	1650	CC45	C45
	1.0726	35S20	1140	-	F210G	212M36	8M	1657	35MF4	-
	1.1157	40Mn4	1039	-	-	150M36	15	-	35M5	-
	1.1167	36Mn5	1335	SMn438(H)	36Mn5	-	-	2120	40M5	-
	1.1170	28Mn6	1330	SCMn1	-	150M28	14A	-	20M5	C28Mn
	1.1183	Cf35	1035	S35C	-	060A35	-	1572	XC38TS	C36
1.1191	Ck45	1045	S45C	C45K	080M46	-	1672	CX42	C45	
1.1213	Cf53	1050	S50C	-	060A52	-	1674	XC48TS	C53	
1.0535	C55	1055	-	-	070M55	-	1655	-	C55	
1.0601	C60	1060	-	-	080A62	43D	-	CC55	C60	
1.1203	Ck55	1055	S55c	C55K	070M55	-	-	XC55	C50	
1.1221	Ck60	1060	S58C	-	080A62	43D	1678	XC60	C60	
1.1274	CK 101	1095	-	F-5117	060A96	-	1870	XC100	-	
1.1545	C105W1	W 1	SK 3	F-5118	BW1A	-	1880	Y105	C36KU	
1.1545	C105W1	W210	SUP4	F.515	BW2	-	2900	Y120	C120KU	
P	1.0144	St.44-2	A573-81	SM400A;B;C	-	4360 43C	-	1412	E28-3	-
	1.0570	St.52-3	-	SM490A;B;YA;YB	-	4360 50B	-	2132	E36-3	Fe52BFN/Fe52CFN
	1.0841	St.52-3	5120	-	F-431	150 M 19	-	2172	20 MC 5	Fe52
	1.0904	55Si7	9255	-	56Si7	250A53	45	2085	55S7	55Si8
	1.0961	60SiCr7	9262	-	60SiCr8	-	-	-	60SC7	60SiCr8
	1.3505	100Cr	52100	SUJ2	F.131	534A99	31	2258	100C6	100Cr6
	1.5415	15Mo3	ASTM A204Gr.A	-	16Mo3	1501-240	-	2912	15D3	16Mo3KW
	1.5423	16Mo5	4520	-	16Mo5	1503-245-420	-	-	-	16Mo5
	1.5622	14Ni6	ASTM A350LF5	-	15Ni6	-	-	-	16N6	14Ni6
	1.6523	21NiCrMo2	8620	SNCM220(H)	20NiCrMo2	805M20	362	2506	20NCD2	20NiCrMo2
	1.6546	40NiCrMo22	8740	SNCM240	40NiCrMo2	311-Type7	-	-	-	40NiCrMo2(KB)
	1.6587	17CrNiMo6	-	-	14NiCrMo13	820A16	-	-	18NCD6	-
	1.7015	15Cr3	5015	SCr415(H)	-	523M15	-	-	12C3	-
	1.7045	42Cr4	5140	SCr440	42Cr4	-	-	2245	-	-
	1.7176	55Cr3	5155	SUP9(A)	-	527A60	48	-	55C3	-
	1.7262	15CrMo5	-	SCM415(H)	12CrMo4	-	-	2216	12CD4	-
	1.7335	13CrMo4 4	ASTM A182F11;F12	-	14CrMo45	1501-620Gr27	-	-	15CD3.5	14CrMo4 5
	1.7380	10CrMo9 10	ASTM A182F.22	-	TU.H	1501-622Gr31;45	-	2218	12CD9, 10	12CrMo9, 10

Reference list of materials (Steels)

ISO	Germany		U.S.A. AISI/SAE	Japan JIS	Spain UNE	U.K.		Sweden SS	France AFNOR	Italy UNI
	W.-nr.	DIN				BS	EN			
P	1.7715	14MoV6 3	-	-	13MoCrV6	1503-660-440	-	-	-	-
	1.8515	31 CeMo 12	-	-	F-1712	722 M 24	-	2240	-	30CrMo12
	1.8523	39CrMoV13 9	-	-	-	897M39	-	-	30 CD 12	36CrMoV12
	1.7039	34MoCrS4 G	L1	-	-	524A14	40C	2092	-	105WCR 5
	1.5419	20MoCrS4	8620	-	F520.S	605A32	-	2108	-	-
	1.7228	55NiCrMoV6G	-	-	-	823M30	-	2512	-	653M31
	1.7139	16MnCr5	-	-	-	-	33	2127	-	-
	-	31NiCrMo134	-	-	F-1270	830M31	-	2534	-	-
	1.271	50NiCr13	L6	-	F-528	-	-	2550	55NCV6	-
	1.5710	36NiCr6	3135	SNC236	-	640A35	111A	-	35NC6	-
	1.5732	14NiCr10	3415	SNC415(H)	15NiCr11	-	-	-	14NC11	16NiCr11
	1.5752	14NiCr14	3415;3310	SNC815(H)	-	655M13;A12	36A	-	12NC15	-
	1.0904	55Si7	9255	-	-	-	-	2090	55S7	-
	1.6511	36CrNiMo4	9840	-	35NiCrMo4	816M40	110	-	40NCD3	38NiCrMo4(KB)
	1.6582	35CrNiMo6	4340	-	-	817M40	24	2541	35NCD6	35NiCrMo6(KB)
	1.7033	34Cr4	5132	SCr430(H)	35Cr4	530A32	18B	-	32C4	34Cr4(KB)
	1.7035	41Cr4	5140	SCr440(H)	42Cr4	530A40	18	-	42C4	41Cr4
	1.7131	16MnCr5	5115	-	16MnCr5	(527M20)	-	2511	16MC5	16MnCr5
	1.7218	25CrMo4	4130	SCM420;SCM430	55Cr3	1717CDS110	-	2225	25CD4	25CrMo4(KB)
	1.7220	34CrMo4	4137;4135	SCM432;SCCRM3	34CrMo4	708A37	19B	2234	35CD4	35CrMo4
	1.7223	41CrMo4	4140;4142	SCM440	42CrMo4	708M40	19A	2244	42CD4TS	41CrMo4
	1.7225	42CrMo4	4140	SCM440(H)	42CrMo4	708M40	19A	2244	42CD4	42CrMo4
	1.7361	32CrMo12	-	-	F.124.A	722M24	40B	2240	30CD12	32CrMo12
	1.8159	50CrV4	6150	SUP10	51CrV4	735A50	47	2230	50CV4	50CrV4
	1.8509	41CrAlMo7	-	-	41CrAlMo7	905M39	41B	2940	40CAD6,12	41CrAlMo7
	1.2067	100Cr6	L3	-	100Cr6	BL3	-	-	Y100C6	-
	1.2419	105WCr6	-	SKS31,SKS2,SKS3	105WCr5	-	-	2140	105WC13	10WCr6
1.2713	55NiCrMoV6	L6	SKT4	F.520.S	-	-	-	55NCDV7	-	
P	1.5662	X8Ni9	ASTM A353	-	XBNi09	1501-509;510	-	-	-	X10Ni9
	1.5680	12Ni19	2515	-	-	-	-	-	Z18N5	-
	1.6657	14NiCrMo134	-	-	14NiCrMo131	832M13	36C	-	-	15NiCrMo131
	1.2.080	X210Cr12	D3	SKD1	X210Cr12	BD3	-	-	Z200C12	X210Cr13KU
	1.2083	-	-	-	-	-	-	2314	-	X250Cr12KU
	1.2344	X40CrMoV5 1	H13	SKD61	X40CrMoV5	BH13	-	2242	Z40CDV5	X35CrMoV05KU
	1.2363	X100CrMoV5 1	A2	SKD12	X100CrMoV5	BA2	-	2260	Z100CDV5	X40CrMoV511KU
	1.2436	X210CrW12	-	SKD2	X210CrW12	-	-	2312	-	X100CrMoV511KU
	1.2542	45WCrV7	S1	-	45WCrSi8	BS1	-	2710	-	X215CrW12 1KU
	1.2581	X30wCrV9 3	H21	SKD5	X30WCrV9	BH21	-	-	Z30WCV9	45WCrV8KU
	1.2601	X165CrMoV 12	-	-	X160CrMoV12	-	-	2310	-	X28W09KU
	1.4718	X45GrSi93	HW3	SUH1	F322	401S45	52	-	Z45CS9	X160CrMoV12
	1.3343	S6-5-2	D3	SUH3	-	4959BA2	-	2715	Z40CSD10	F322
	1.3343	S6/5/2	M 2	SKH 51	F-5603	BM 2	-	2722	Z 85 WDCV	-
	1.3243	S6/5/2/5	M 35	SKH 55	F-5613	BM 35	-	2723	6-5-2-5	F-5603
1.3348	S2/9/2	M 7	-	F-5607	-	-	2782	-	F-5607	
1.2379	X210Cr12 G	HNV3	-	-	-	-	2736	-	-	
P	-	-	-	-	-	-	-	2223	-	-
	1.3401	G-X210Mn12	-	SCMnH/1	X120Mn12	Z120M12	-	-	Z120M12	XG120Mn12
	1.3401	-	-	SEMn H1	F-8251	BW 10	-	2183	2120 M12	Gx120 Mn12

Reference list of materials (Stainless steels)

ISO	Germany		U.S.A.	Japan	Spain	U.K.		Sweden	France	Italy	
	W.-nr.	DIN				AISI/SAE	JIS				UNE
M	Stainless steel (Ferritic / Martensitic)	1.4000	X7Cr13	403	SUS403	F.3110	403S17	-	2301	Z6Cr13	X6Cr13
		1.4001	X7Cr14	-	-	F.8401	-	-	-	-	-
		1.4005	X12CrS13	416	SUS416	F.3411	416 S 21	-	2380	Z11CF13	X12 CrS 13
		1.4016	X8Cr17	430	SUS430	F.3113	430S15	960	2320	Z8C17	X8Cr17
		1.4006	X10Cr13	410	SUS410	F.3401	410S21	56A	2302	Z10C14	X12Cr13
		-	X8Cr17	430	SUS430	F.3113	430S17	60	2320	Z8C17	X8Cr17
		1.4034	X46Cr13	-	SUS420J2	F.3405	420S45	56D	2304	Z40CM	X40Cr14
		-	-	-	-	-	-	-	-	Z38C13M	-
		1.4003	-	405	-	-	405S17	-	-	Z8CA12	X6CrAl13
		1.4021	-	420	-	-	420S37	-	2303	Z20C13	X20Cr13
		1.4057	X22CrNi17	431	SUS431	F.3427	431S29	57	2321	Z15CNi6.02	X16CrNi16
		1.4104	X12CrMoS17	430F	SUS430F	F.3117	-	-	2383	Z10CF17	X10CrS17
		1.4113	X6CrMo17	434	SUS434	-	434S17	-	2325	Z8CD17.01	X8CrMo17
		1.4313	X5CrNi13 4	CA6-NM	SCS5	-	425C11	-	2385	Z4CND13.4M	(G)X6CrNi304
		1.4724	X10CrA113	405	SUS405	F.311	403S17	-	-	Z10C13	X10CrA112
		1.4742	X10CrA118	430	SUS430	F.3113	430S15	60	-	Z10CAS18	X8Cr17
		1.4747	X80CrNiSi20	HNV6	SUH4	F.320B	443S65	59	-	Z80CSN20.02	X80CrSiNi20
		1.4762	X10CrA124	446	SUH446	-	-	-	2322	Z10CAS24	X16Cr26
		1.4871	X53CrMnNiN21 9	EV8	SUH35, SUH36	-	349S54	-	-	Z52CMN21.09	X53CrMnNiN219
		1.4521	X1CrMoTi18 2	S44400	-	-	-	-	2326	-	-
1.4922	X20CrMoV12-1	-	-	-	-	-	2317	-	X20CrMoNi 12 01		
1.4542/	-	630	-	-	-	-	-	Z7CNU17-04	-		
1.4548	-	-	-	-	-	-	-	-	-		
M	Stainless steel (Austenitic)	1.4306	-	304L	-	-	304S11	-	2352	Z2CrNi18 11	X2CrNi18 11
		1.4350	X5CrNi189	304	SUS304	F.3551	304S31	58E	2332/2333	Z6CN18.09	X5CrNi18 10
		-	-	-	-	F.3541	-	-	-	-	-
		-	-	-	-	F.3504	-	-	-	-	-
		1.4305	X12CrNiS18 8	303	SUS303	F.3508	303S21	58M	2346	Z10CNF 18.09	X10CrNiS 18.09
		1.4301	X5CrNi189	304	SUS304	F.3551	304S15	58E	2332	Z6CN18.09	X5CrNi18 10
		-	-	-	SUS304L	-	304C12	-	2333	Z3CN19.10	-
		1.4306	X2CrNi18 9	304L	SCS19	F.3503	304S12	-	2352	Z2CrNi18 10	X2CrNi18 11
		1.4310	X12CrNi17 7	301	SUS301	F.3517	-	-	2331	Z12CN17.07	X12CrNi17 07
		1.4311	X2CrNiN18 10	304LN	SUS304LN	-	304S62	-	2371	Z2CN18.10	-
		1.4401	X5CrNiMo18 10	316	SUS316	F.3543	316S16	58J	2347	Z6CND17.11	X5CrNiMo17 12
		1.4429	X2CrNiMoN18 13	316LN	SUS316LN	-	-	-	2375	Z2CND17.13	-
		1.4404	-	316L	-	-	316S13	-	2348	Z2CND17-12	X2CrNiMo1712
		1.4435	X2CrNiMo18 12	316L	SCS16	-	316S13	-	2353	Z2CND17.12	X2CrNiMo17 12
		-	-	-	SUS316L	-	-	-	-	-	-
		1.4436	-	316	-	-	316S33	-	2343	Z6CND18-12-03	X8CrNiMo1713
		-	-	-	-	-	-	-	2347	-	-
		1.4438	X2CrNiMo18 16	317L	SUS317L	-	317S12	-	2367	Z2 NCDU25-20	X2CrNiMo18 16
		1.4539	X1NiCrMo	UNS V 0890A	-	-	-	-	2562	Z6CNT18.10	-
		1.4541	X10CrNiTi18 9	321	SUS321	F.3553	321S12	58B	2337	-	X6CrNiTi18 11
		-	-	-	-	F.3523	-	-	-	Z6CNNb18.10	-
		1.4550	X10CrNiNb18 9	347	SUS347	F.3552	347S17	58F	2338	-	X6CrNiNb18 11
		-	-	-	-	F.3524	-	-	-	-	-
		1.4571	X10CrNiMoTi18 10	316Ti	-	F.3535	320S17	58J	2350	Z6NDT17.12	X6CrNiMoNb17 13
		1.4583	X10CrNiMoNb 18 12	318	-	-	-	-	-	Z6CNDNb17 13B	-
		1.4828	X15CrNiSi20 12	309	SUH309	-	309S24	-	-	Z15CNS20.12	X6CrNi25 20

Reference list of materials (Stainless steels)

ISO	Germany		U.S.A.	Japan	Spain	U.K.		Sweden	France	Italy
	W.-nr.	DIN	AISI/SAE	JIS	UNE	BS	EN	SS	AFNOR	UNI
M Stainless steel (Austenitic)	1.4845	X12CrNi25 21	310S	SUH310	F.331	310S24	-	2361	Z12CN25 20	-
	1.4406	X10CrNi18.08	308	SCS17	F.8414	301S21	58C	2370	Z1NCDU25.20	-
	1.4418	X4 CrNiMo16 5	-	-	-	-	-	2387	Z6CND16-04-01	X2CrNiMo1712
	1.4568/ 1.4504	-	17-7PH	-	-	316S111	-	-	Z8CNA17-07	-
	1.4563	-	NO8028	-	-	-	-	2584	Z1NCDU31-27-03	-
	-	-	S31254	-	-	-	-	2378	Z1CNDU20-18-06AZ	-
	-	-	-	-	-	-	-	-	-	-
M Stainless steel (Austenitic / Ferritic (Duplex))	1.4417	X2CrNiMoSi19 5	S31500	-	-	-	-	2376	-	-
	-	X8CrNiMo27 5	S32900	-	-	-	-	2324	-	-
	-	X2CrNiN23 4	S322304	-	-	-	-	2327	Z2CN23-04AZ	-
	-	-	-	-	-	-	-	2328	-	-
	-	X2CrNiMoN22 53	S31803	-	-	-	-	2377	Z2CND22-05-03	-
-	-	-	-	-	-	-	-	-	-	

Reference list of materials (Castings)

ISO	Germany		U.S.A.	Japan	Spain	U.K.		Sweden	France	Italy	
	W.-nr.	DIN				AISI/SAE	JIS				UNE
K Malleable cast iron	-	-	-	FCMB310	-	-	8 290/6	-	0814	MN 32-8	-
	-	GTS-35	32510	FCMW330	-	-	B 340/12	-	0815	MN 35-10	-
	0.8145	GTS-45	40010	FCMW370	-	-	P 440/7	-	0852	Mn 450	GMN 45
	0.8155	GTS-55	50005	FCMP490	-	-	P 510/4	-	0854	MP 50-5	GMN 55
	-	GTS-65	70003	FCMP540	-	-	P 570/3	-	0858	MP 60-3	-
	0.8165	GTS-65-02	A220-70003	FCMP590	-	-	P570/3	-	0856	Mn 650-3	GMN 65
	0.8170	GTS-70-02	A220-80002	FCMP690	-	-	P690/2	-	0862	Mn700-2	GMN 70
K Cast iron	-	-	-	-	-	-	-	-	0100	-	-
	-	GG10	No 20 B	FC100	-	-	-	-	0110	Ft 10 D	-
	0.6015	GG15	No 25 B	FC150	FG 15	-	Grade 150	-	0115	Ft 15 D	G 15
	0.6020	GG20	No 30 B	FC200	-	-	Grade 220	-	0120	Ft 20 D	G 20
	0.6025	GG25	No 35 B	FC250	FG25	-	Grade 260	-	0125	Ft 25 D	G 25
	-	-	No 40 B	-	-	-	-	-	-	-	-
	0.6030	GG30	No 45 B	FC300	FG30	-	Grade 300	-	0130	Ft 30D	G 30
	0.6035	GG35	No 50 B	FC350	FG35	-	Grade 350	-	0135	Ft 35 D	G 35
	0.6040	GG40	No 55 B	-	-	-	Grade 400	-	0140	Ft 40 D	-
0.6660	GGL-NiCr202	A436 Type 2	-	-	-	L-NiCuCr202	-	0523	L-NC 202	-	
K Nodular SG iron	0.7040	GGG 40	60-40-18	FCD400	FGE 38-17	SNG 420/12	-	0717-02	FCS 400-12	GS 370-17	
	-	GGG 40.3	-	-	-	SNG 370/17	-	0717-12	FGS 370-17	-	
	0.7033	GGG 35.3	-	-	-	-	-	0717-15	-	-	
	0.7050	GGG 50	80-55-06	FCD500	FGE 50-7	SNG 500/7	-	0727-02	FGS 500-7	GS 500	
	0.7660	GGG-NiCr202	A43D2	-	-	Grade S6	-	0776	S-NC 202	-	
	-	GGG 60	-	FCD600	-	SNG 600/3	-	0732-03	FGS 600-3	-	
	0.7070	GGG 70	100-70-03	FCD700	FGS 70-2	SNG 700/2	-	0737-01	FGS 700-2	GS 700-2	

Reference list of materials (Non ferrous materials)

ISO	Germany		U.S.A.	Japan	Spain	U.K.		Sweden	France	Italy
	W.-nr.	DIN				AISI/SAE	JIS			
N Non ferrous materials	3.2373	G-AISI9MGWA	SC64D	C4BS	-	-	-	4251	A-STG	-
	-	G-ALMG5	GD-AISI12	AC4A	-	-	LM5	-	4252	A-SU12
	-	-	356.1	A5052	-	-	LM25	-	4244	-
	-	GD-AISI12	A413.0	A6061	-	-	-	-	4247	-
	-	GD-AISI8Cu3	A380.1	A7075	-	-	LM24	-	4250	-
	-	G-AISI12(Cu)	A413.1	ADC12	-	-	LM20	-	4260	-
	-	G-AISI12	A413.2	-	-	-	LM6	-	4261	-
	-	G-AISI10Mg(Cu)	A360.2	-	-	-	LM9	-	4253	-

Reference list of materials (Heat resistant super-alloys)

ISO	Germany		U.S.A. AISI/SAE	Japan JIS	Spain UNE	U.K.		Sweden SS	France AFNOR	Italy UNI
	W.-nr.	DIN				BS	EN			
S Heat resistant super-alloys	1.4864	X12NiCrSi36 16	330	SUH330	-	-	-	-	Z12NCS35.16	F-3313
	1.4865	G-X40NiCrSi38 18	-	SCH15	-	330C11	-	-	-	XG50NiCr39 19
	2.4603	-	5390A	-	-	-	-	-	NC22FeD	-
	2.4856	NiCr22Mo9Nb	5666	-	-	-	-	-	NC22FeDNB	-
	2.4630	NiCr20Ti	-	-	-	HR5,203-4	-	-	NC20T	-
	LW2.4662	NiFe35Cr14MoTi	5660	-	-	-	-	-	ZSNCDT42	-
	LW2.4670	S-NiCr13A16MoNb	5391	-	-	3146-3	-	-	NC12AD	-
	LW2.4668	NiCr19Fe19NbMo	5383	-	-	HR8	-	-	NC19eNB	-
	2.4375	NiCu30Al	4676	-	-	3072-76	-	-	-	-
	2.4631	NiCr20TiAk	-	-	-	Hr401,601	-	-	NC20TA	-
	2.4973	NiCr19Co11MoTi	AMS 5399	-	-	-	-	-	NC19KDT	-
	LW2.4668	NiCr19Fe19NbMo	AMS 5544	-	-	-	-	-	NC20K14	-
	LW2.4674	NiCo15Cr10MoAlTi	AMS 5397	-	-	-	-	-	-	-
	LW2.4964	CoCr20W15Ni	5537C	-	-	-	-	-	KC20WN	-
	-	CoCr22W14Ni	AMS 5772	-	-	-	-	-	KC22WN	-
S Titanium alloys	-	TiAl5Sn2.5	AMS R54520	-	-	TA14/17	-	-	T-A5E	-
	-	TiAl6V4	AMS R56400	-	-	TA10-13/TA28	-	-	T-A6V	-
	-	TiAl6V4ELI	AMS R56401	-	-	TA11	-	-	-	-
	-	TiAl4MoSn4Si0.5	-	-	-	-	-	-	-	-

Reference list of materials (Hardened materials)

ISO	Germany		U.S.A. AISI/SAE	Japan JIS	Spain UNE	U.K.		Sweden SS	France AFNOR	Italy UNI
	W.-nr.	DIN				BS	EN			
H Hardened materials	1.4108	X100CrMo13	440A	C4BS	-	-	-	-	-	-
	1.4111	X110CrMoV15	610	AC4A	-	-	-	-	-	-
	-	X65CrMo14	0-2	AC4A	-	-	-	-	-	-

Screws (Torx)

Inserts

General turning

Aluminium wheel turning

Automatic lathes

Ceramic tools

Parting and grooving

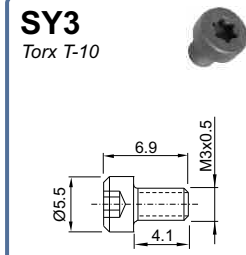
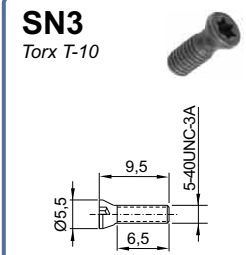
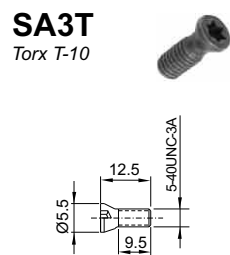
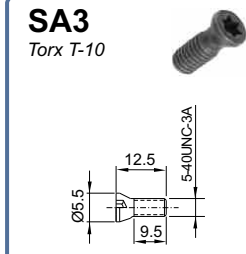
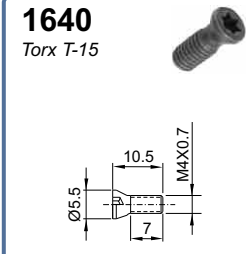
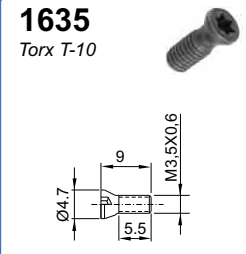
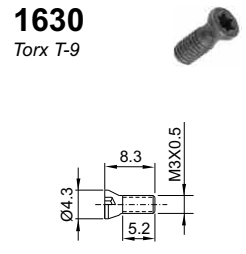
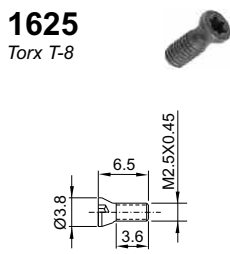
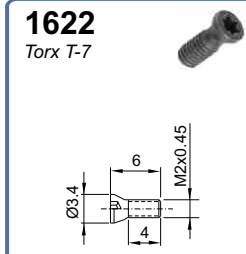
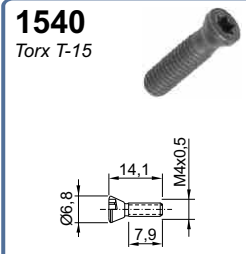
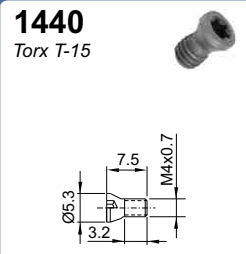
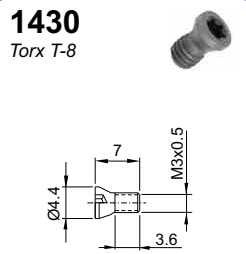
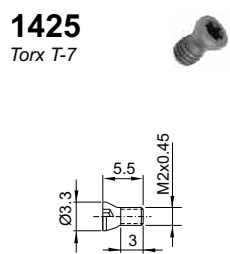
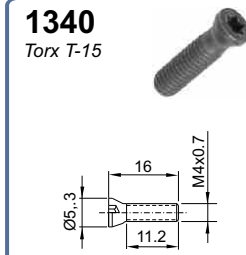
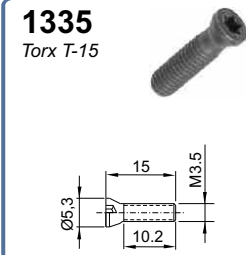
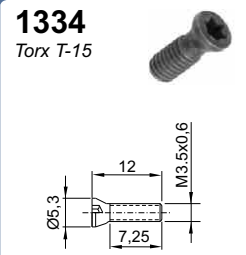
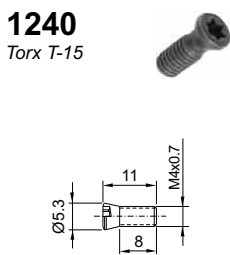
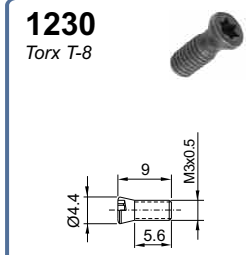
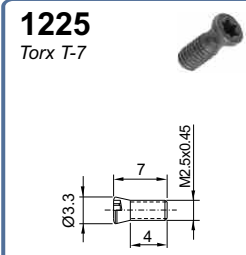
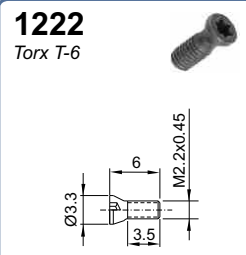
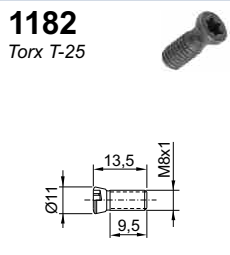
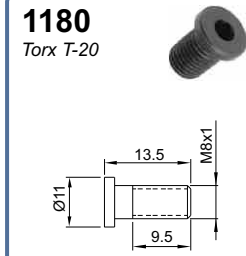
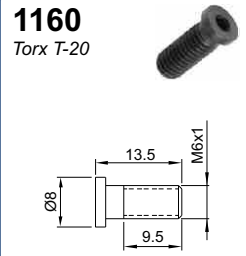
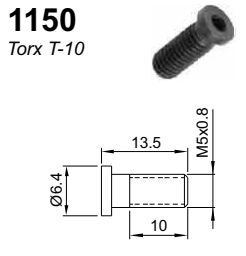
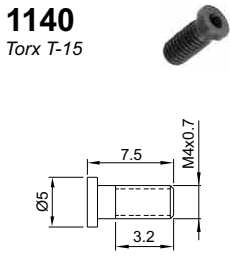
Threading

Drills

Cartridges

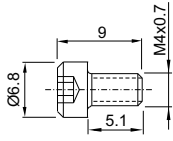
Brazed tools

Tooling

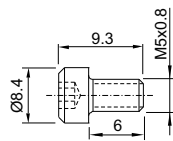


SY4

Torx T-20

**SY5**

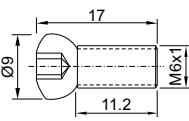
Torx T-25



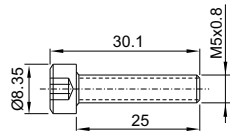
Screws (Allen)

1006

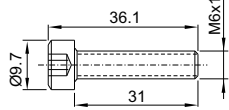
Allen 4

**1075**

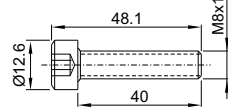
Allen 4

**1076**

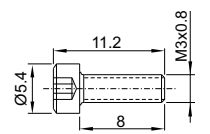
Allen 5

**1078**

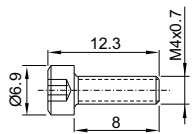
Allen 6

**1093**

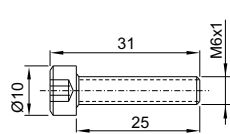
Allen 2.5

**1094**

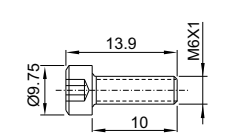
Allen 3

**1096**

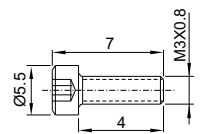
Allen 5

**1296**

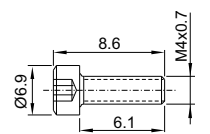
Allen 5

**1393**

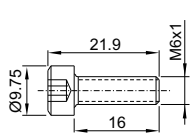
Allen 5

**1394**

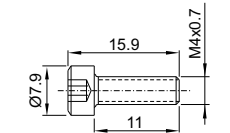
Allen 5

**1396**

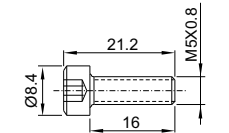
Allen 5

**1494**

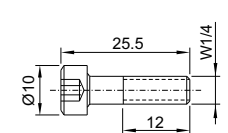
Allen 3

**1495**

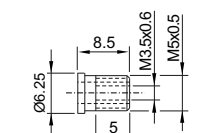
Allen 4

**1614**

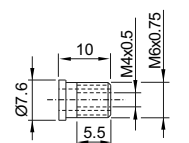
Allen 4

**1750**

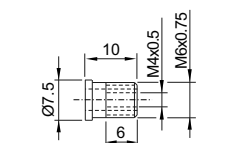
Allen 3.5

**1760**

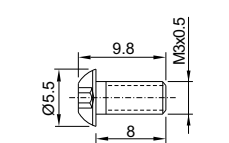
Allen 4

**1765**

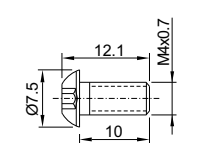
Allen 4

**1803**

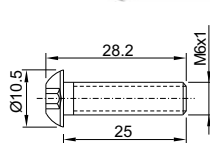
Allen 2

**1804**

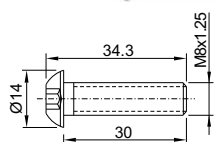
Allen 2.5

**1806**

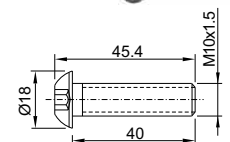
Allen 4

**1808**

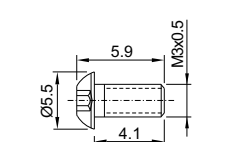
Allen 5

**1810**

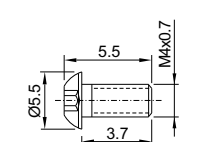
Allen 6

**1813**

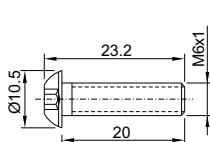
Allen 2

**1814**

Allen 2.5

**1816**

Allen 4



- Inserts
- General turning
- Aluminium wheel turning
- Automatic lathes
- Ceramic tools
- Parting and grooving
- Threading
- Drills
- Cartridges
- Brazed tools
- Tooling

1905
Allen 4

1906
Allen 5

1907
Allen 4

1915
Allen 2.5

1916
Allen 5

1935
Allen 2

1950
Allen 2.5

1955
Allen 3

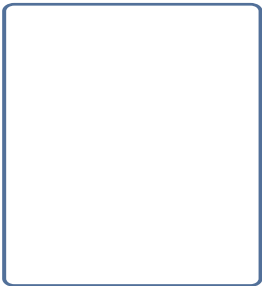


Clamp screws

1086
Allen 3

1098
Allen 4

1186
Allen 3



Screws

1503
Allen 1.5

1504
Allen 2

1505
Allen 2.5

1506
Allen 3

1508
Allen 4

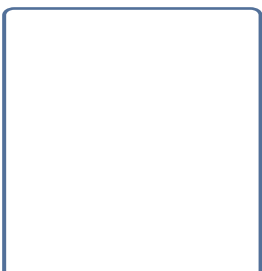
Adj. Screws

1403
Allen 4

1405
Allen 2

1406
Allen 2.5

1408
Allen ...



Lever lock system - Screws

1605
Allen 2


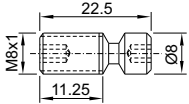
1606
Allen 2.5

1608
Allen 3

1610
Allen 4


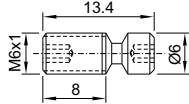
1612
Allen 5

1618
Allen 3


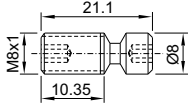
Technical drawing showing dimensions: total length 22.5, thread length 11.25, thread specification M8x1, and diameter Ø8.

1626
Allen 2.5


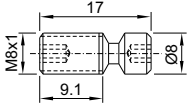
Technical drawing showing dimensions: total length 13.4, thread length 8, thread specification M6x1, and diameter Ø6.

1638
Allen 3


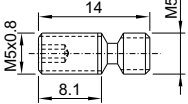
Technical drawing showing dimensions: total length 21.1, thread length 10.35, thread specification M8x1, and diameter Ø8.

1648
Allen 3


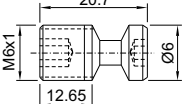
Technical drawing showing dimensions: total length 17, thread length 9.1, thread specification M8x1, and diameter Ø8.

1705
Allen 2


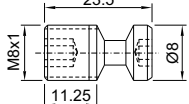
Technical drawing showing dimensions: total length 14, thread length 8.1, thread specification M5x0.8, and diameter Ø8.

1706
Allen 2.5


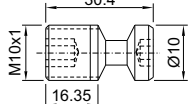
Technical drawing showing dimensions: total length 20.7, thread length 12.65, thread specification M6x1, and diameter Ø6.

1708
Allen 3


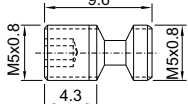
Technical drawing showing dimensions: total length 23.5, thread length 11.25, thread specification M8x1, and diameter Ø8.

1710
Allen 4

Technical drawing showing dimensions: total length 30.4, thread length 16.35, thread specification M10x1, and diameter Ø10.

1715
Allen 2


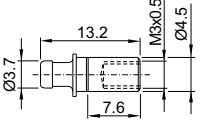



Technical drawing showing dimensions: total length 9.6, thread length 4.3, thread specification M5x0.8, and diameter Ø8.

Empty technical drawing box.


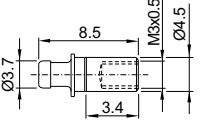
Lock pins

1642


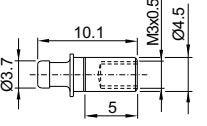
Technical drawing showing dimensions: total length 13.2, thread length 7.6, thread specification M3x0.5, diameter Ø4.5, and outer diameter Ø3.7.

1643


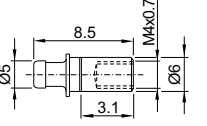
Technical drawing showing dimensions: total length 8.5, thread length 3.4, thread specification M3x0.5, diameter Ø4.5, and outer diameter Ø3.7.

1644


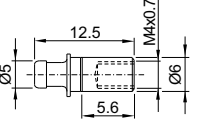
Technical drawing showing dimensions: total length 10.1, thread length 5, thread specification M3x0.5, diameter Ø4.5, and outer diameter Ø3.7.

1647


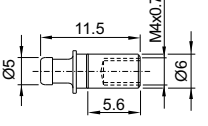
Technical drawing showing dimensions: total length 8.5, thread length 3.1, thread specification M4x0.7, diameter Ø6, and outer diameter Ø5.

1661


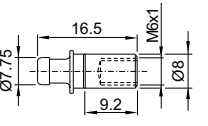
Technical drawing showing dimensions: total length 12.5, thread length 5.6, thread specification M4x0.7, diameter Ø6, and outer diameter Ø5.

1664

Technical drawing showing dimensions: total length 11.5, thread length 5.6, thread specification M4x0.7, diameter Ø6, and outer diameter Ø5.

1682


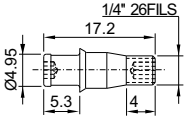
Technical drawing showing dimensions: total length 16.5, thread length 9.2, thread specification M6x1, diameter Ø8, and outer diameter Ø7.75.

Empty technical drawing box.

Empty technical drawing box.


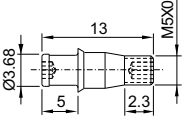
Empty technical drawing box.

1656
Allen 2.5


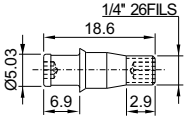
Technical drawing showing dimensions: total length 17.2, thread length 5.3, thread specification 1/4" 26FILS, diameter Ø4.95, and thread length 4.

1665
Allen 2


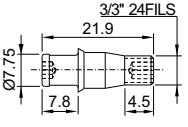
Technical drawing showing dimensions: total length 13, thread length 2.3, thread specification M5x0.8, diameter Ø3.68, and thread length 5.

1666
Allen 2.5


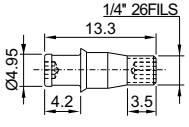
Technical drawing showing dimensions: total length 18.6, thread length 6.9, thread specification 1/4" 26FILS, diameter Ø5.03, and thread length 2.9.

1670
Allen 4

Technical drawing showing dimensions: total length 21.9, thread length 7.8, thread specification 3/3" 24FILS, diameter Ø7.75, and thread length 4.5.

1686
Allen 2.5

Technical drawing showing dimensions: total length 13.3, thread length 4.2, thread specification 1/4" 26FILS, diameter Ø4.95, and thread length 3.5.

Top clamp (C) system - Clamps

Inserts

General turning

Aluminium wheel turning

Automatic lathes

Ceramic tools

Parting and grooving

Threading

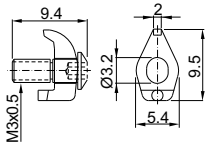
Drills

Cartridges

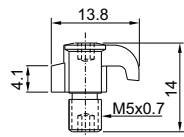
Brazed tools

Tooling

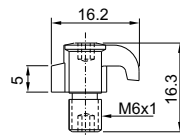
2000



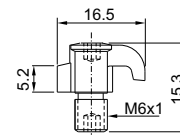
2107



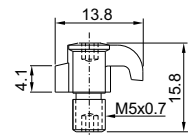
2109



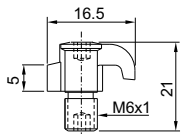
2119



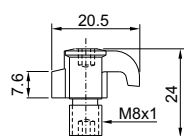
2207



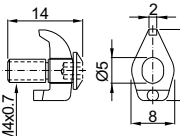
2209



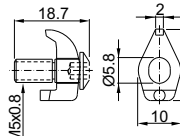
2211



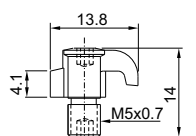
2304



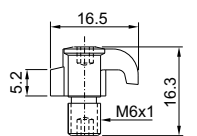
2305



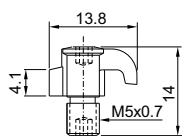
2307



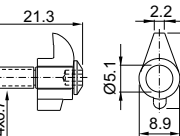
2309



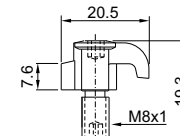
2407



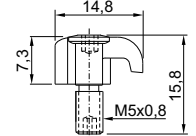
2409



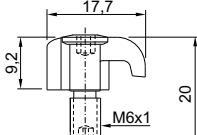
2411



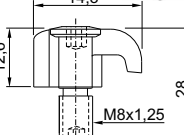
2516



2522

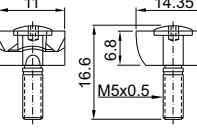


2527

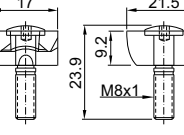


Wedge clamp (M) system - Clamps

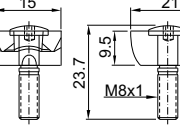
2006



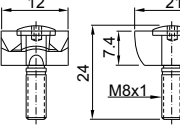
2011



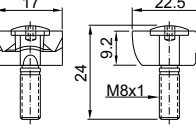
2014



2015

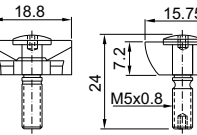


2024

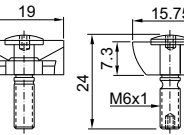


Wedge clamp (M-K) system - Clamps

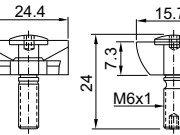
2017

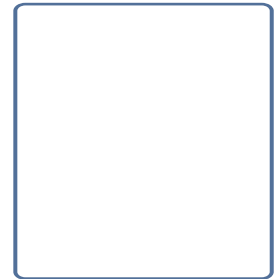
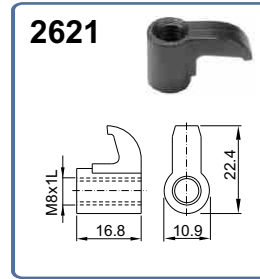
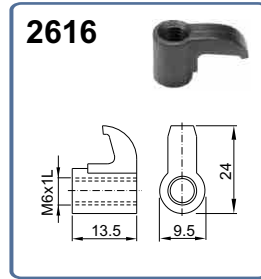
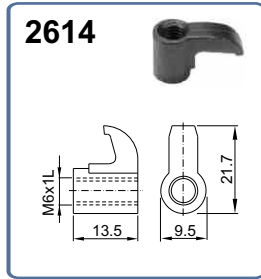
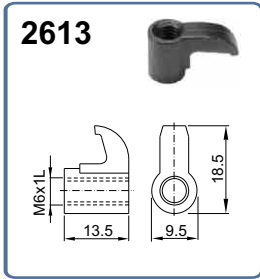


2018



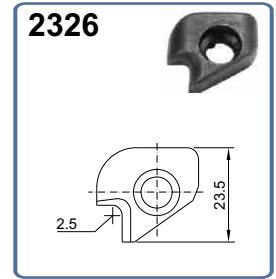
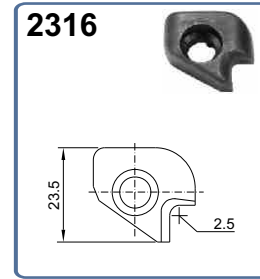
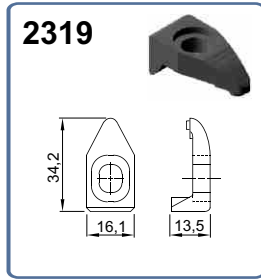
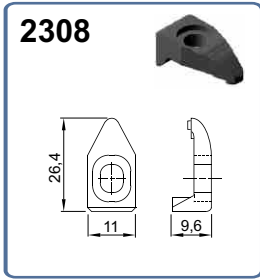
2023



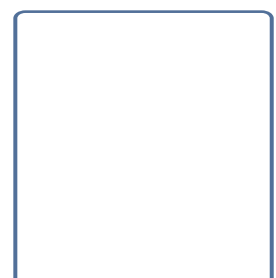
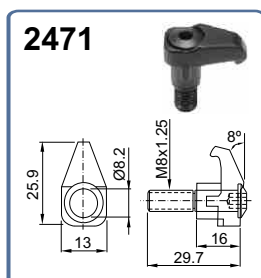
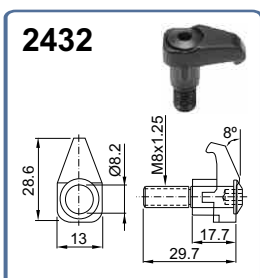
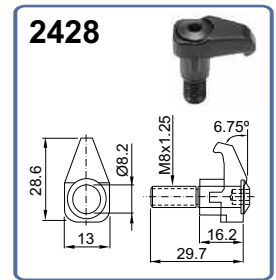
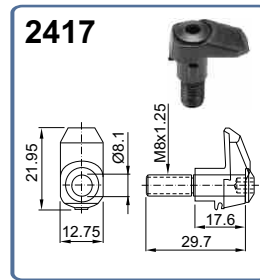
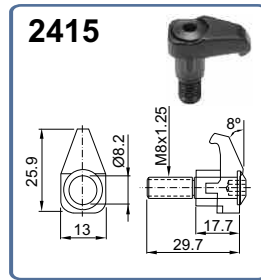
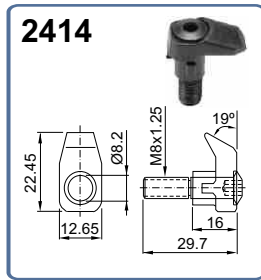
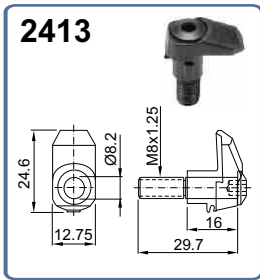


Dimple lock - Clamps

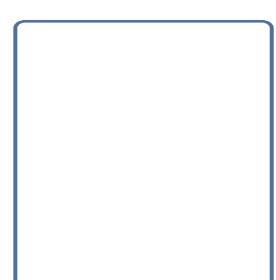
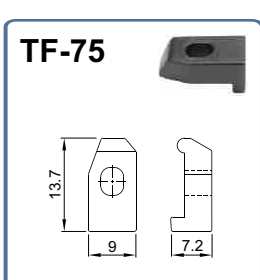
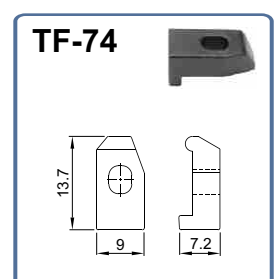
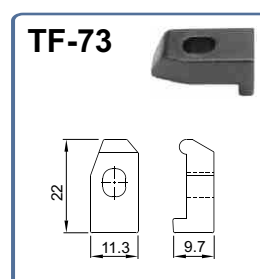
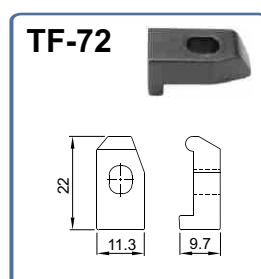
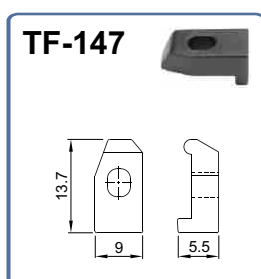
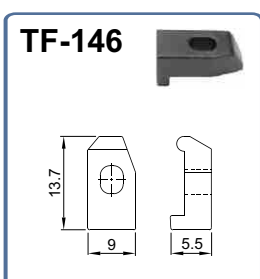
KNUX - Clamps



Ceramic tools - Clamps



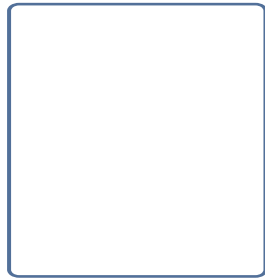
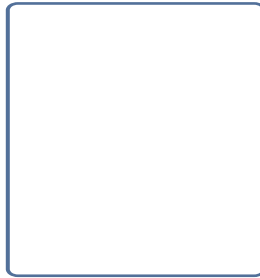
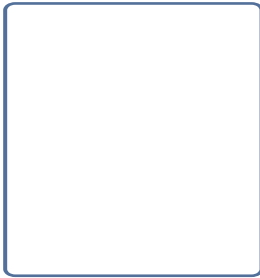
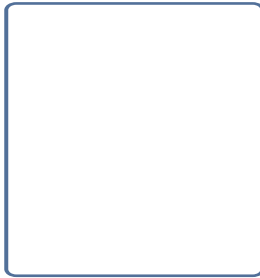
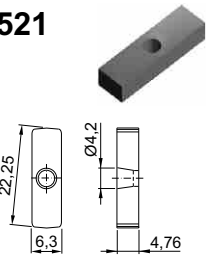
Notch tools - Clamps



- Inserts
- General turning
- Aluminium wheel turning
- Automatic lathes
- Ceramic tools
- Parting and grooving
- Threading
- Drills
- Cartridges
- Brazed tools
- Tooling

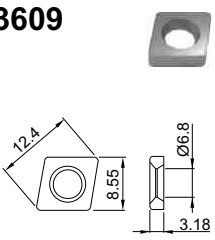
Shim seat

3521

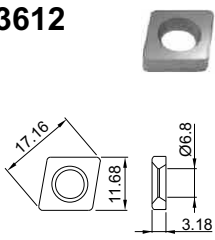


80° Rhombic - Shim seats

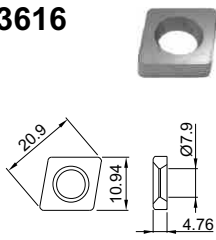
3609



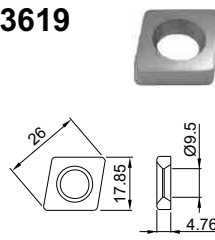
3612



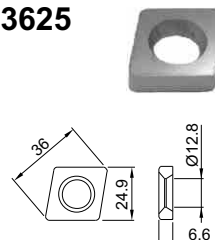
3616



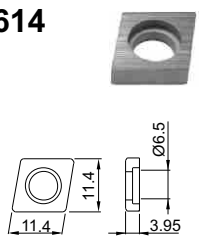
3619



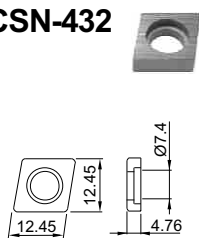
3625



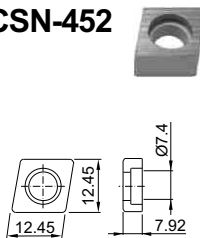
3614



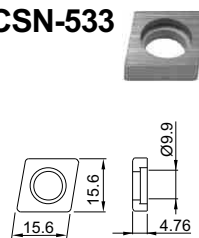
ICSN-432



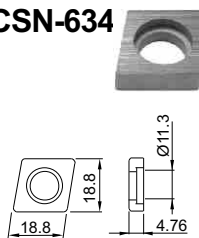
ICSN-452



ICSN-533

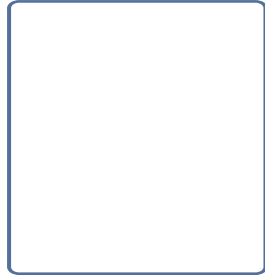
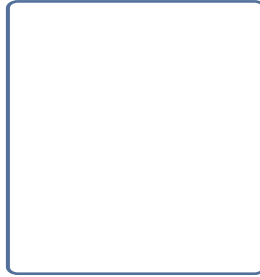
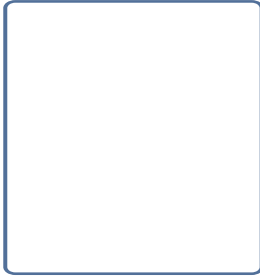
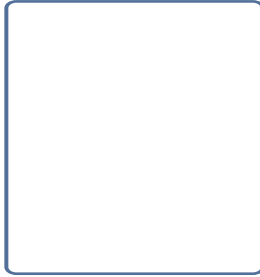
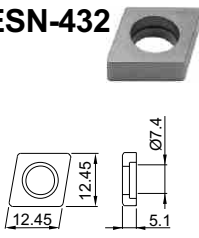


ICSN-634



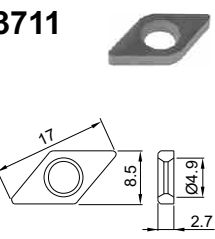
75° Rhombic - Shim seats

IESN-432

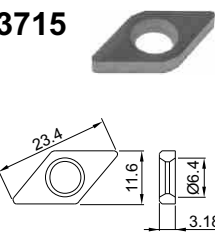


55° Rhombic - Shim seats

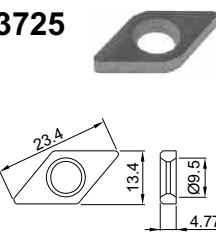
3711



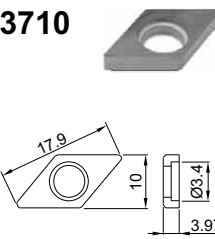
3715



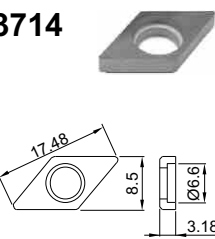
3725



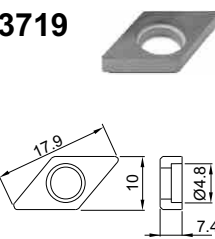
3710



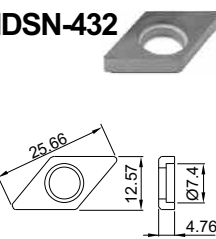
3714



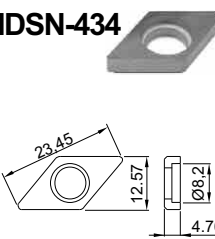
3719



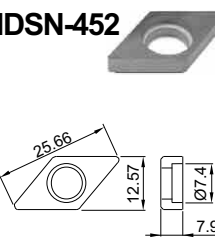
IDSN-432



IDSN-434



IDSN-452



35° Rhombic - Shim seats

3718

3722

IVSN-322

IVSN-342



Round - Shim seats

3810

3812

3816

3820

3825

3832

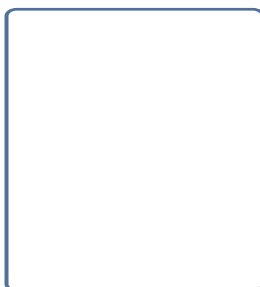
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3912

3915

3919

3925



3811

3814

IRSN-43

IRSN-45

IRSN-53

IRSN-63

IRSN-84

3809

3813

3819

3835

Square - Shim seats

Inserts

General turning

Aluminium wheel turning

Automatic lathe

Ceramic tools

Parting and grooving

Threading

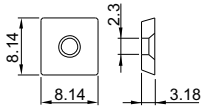
Drills

Cartridges

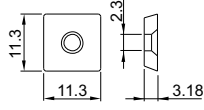
Brazed tools

Tooling

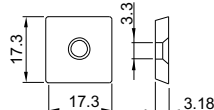
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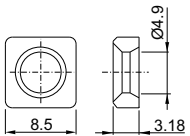
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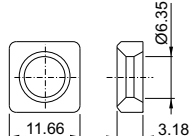
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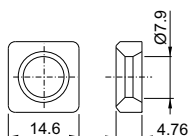
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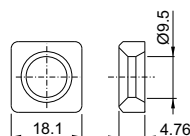
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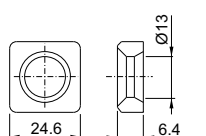
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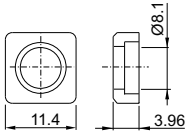
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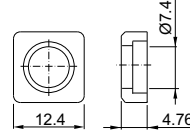
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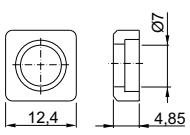
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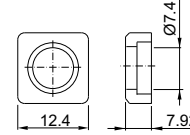
ISSN-432



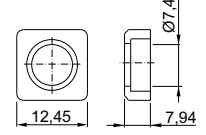
ISSN-434



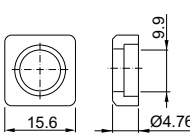
ISSN-452



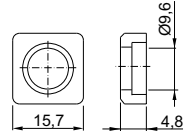
ISSN-454



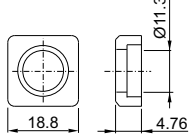
ISSN-533



ISSN-534

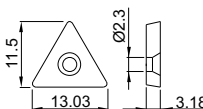


ISSN-634

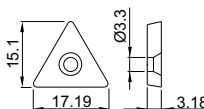


Triangular - Shim seats

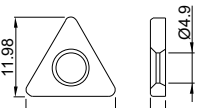
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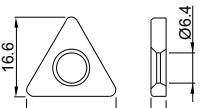
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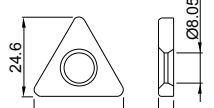
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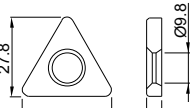
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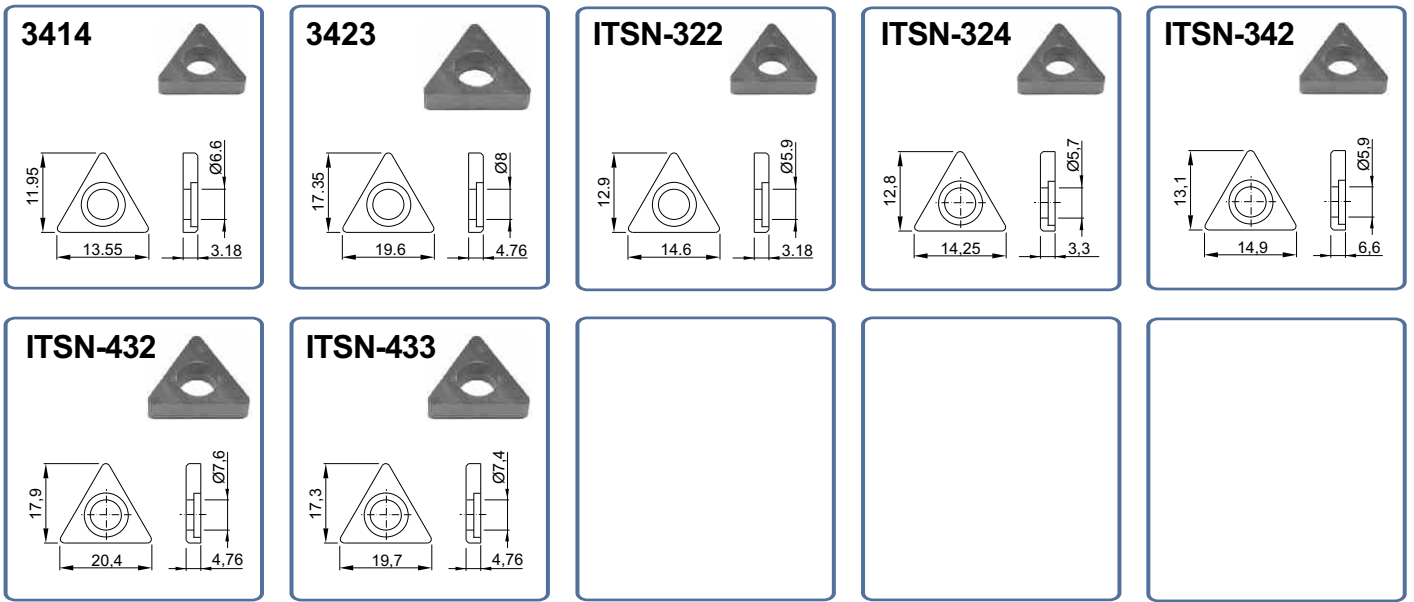


3427



3433





Threading - Shim seats



- Inserts
- General turning
- Aluminium wheel turning
- Automatic lathe
- Ceramic tools
- Parting and grooving
- Threading
- Drills
- Cartridges
- Brazed tools
- Tooling

YI4		YI5				
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3126R		3126L		3132R		3132L	
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Trigon - Shim seats

3007		3008				
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3006		IWSN-432				
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KNUX - Shim seats

3226		3236				
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Others

0009

Technical drawing showing a cylindrical component with a diameter of $\text{Ø}4$ and a length of 9mm.

0012

Technical drawing showing a cylindrical component with a diameter of $\text{Ø}4.75$ and a length of 9mm.

0015

Technical drawing showing a cylindrical component with a diameter of $\text{Ø}6.5$ and a length of 12mm.

0019

Technical drawing showing a cylindrical component with a diameter of $\text{Ø}8$ and a length of 12mm.

0025

Technical drawing showing a cylindrical component with a diameter of $\text{Ø}12.5$ and a length of 20mm.

2803

Technical drawing showing a ring component with an outer diameter of $\text{Ø}6.8$, an inner diameter of $\text{Ø}3.25$, and a thickness of 0.5mm.

2804

Technical drawing showing a ring component with an outer diameter of $\text{Ø}9$, an inner diameter of $\text{Ø}4.3$, and a thickness of 0.8mm.

2806

Technical drawing showing a ring component with an outer diameter of $\text{Ø}12$, an inner diameter of $\text{Ø}6.4$, and a thickness of 1.5mm.

2808

Technical drawing showing a ring component with an outer diameter of $\text{Ø}16$, an inner diameter of $\text{Ø}8.4$, and a thickness of 1.6mm.

2810

Technical drawing showing a ring component with an outer diameter of $\text{Ø}21$, an inner diameter of $\text{Ø}10.5$, and a thickness of 2.5mm.

4002

Technical drawing showing a cylindrical component with a diameter of $\text{Ø}2.1$, a length of 10mm, and a height of 1.1mm.

4012

Technical drawing showing a cylindrical component with a diameter of $\text{Ø}3$, a length of 10mm, and a height of 1.5mm.

4022

Technical drawing showing a cylindrical component with a diameter of $\text{Ø}4.5$, a length of 10mm, and a height of 1.5mm.

4109

Technical drawing showing a cylindrical component with an outer diameter of $\text{Ø}5.76$, an inner diameter of $\text{Ø}4.9$, a length of 4.6mm, and a height of 5.2mm.

4110

Technical drawing showing a cylindrical component with an outer diameter of $\text{Ø}5.6$, an inner diameter of $\text{Ø}4.9$, a length of 6.1mm, and a height of 6.8mm.

4112

Technical drawing showing a cylindrical component with an outer diameter of $\text{Ø}7$, an inner diameter of $\text{Ø}6.6$, a length of 5.2mm, and a height of 5.8mm.

4115

Technical drawing showing a cylindrical component with an outer diameter of $\text{Ø}9$, an inner diameter of $\text{Ø}8.2$, a length of 7.7mm, and a height of 8.7mm.

4116

Technical drawing showing a cylindrical component with an outer diameter of $\text{Ø}6.82$, an inner diameter of $\text{Ø}6.5$, a length of 8.5mm, and a height of 9.1mm.

4119

Technical drawing showing a cylindrical component with an outer diameter of $\text{Ø}10.57$, an inner diameter of $\text{Ø}9.7$, a length of 9.8mm, and a height of 11mm.

4125

Technical drawing showing a cylindrical component with an outer diameter of $\text{Ø}14.7$, an inner diameter of $\text{Ø}13.2$, a length of 9.7mm, and a height of 11.8mm.

4129

Technical drawing showing a cylindrical component with an outer diameter of $\text{Ø}10.5$, an inner diameter of $\text{Ø}9.8$, a length of 6.9mm, and a height of 8mm.

4133

Technical drawing showing a cylindrical component with an outer diameter of $\text{Ø}10.4$, an inner diameter of $\text{Ø}9.8$, a length of 8.4mm, and a height of 9.5mm.

4135

Technical drawing showing a cylindrical component with an outer diameter of $\text{Ø}7.2$, an inner diameter of $\text{Ø}6.6$, a length of 6.8mm, and a height of 7.7mm.

4201

Technical drawing showing a cylindrical component with a diameter of $\text{Ø}2.5$, a length of 5.9mm, and a height of 3.1mm.

4202

Technical drawing showing a cylindrical component with a diameter of $\text{Ø}2.5$, a length of 8.1mm, and a height of 3.1mm.

4203

Technical drawing showing a cylindrical component with a diameter of $\text{Ø}2.5$, a length of 12.5mm, and a height of 3.1mm.

4204

Technical drawing showing a cylindrical component with a diameter of $\text{Ø}2.5$, a length of 14.5mm, and a height of 3.1mm.

Others

Inserts

General turning

Aluminium wheel turning

Automatic lathes

Ceramic tools

Parting and grooving

Threading

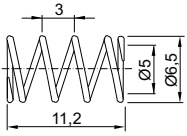
Drills

Cartridges

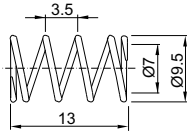
Brazed tools

Tooling

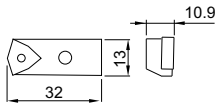
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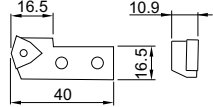
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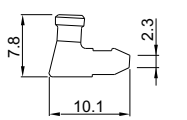
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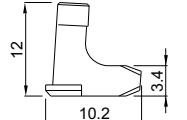
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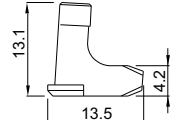
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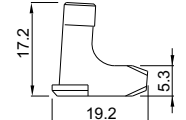
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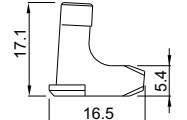
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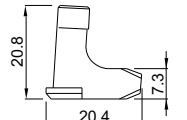
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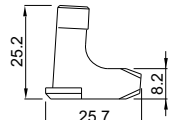
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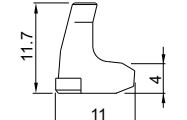
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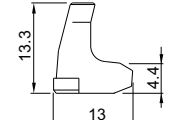
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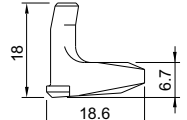
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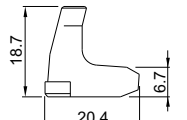
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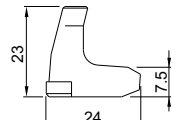
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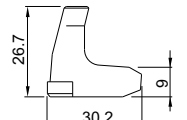
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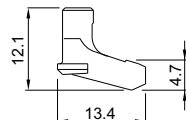
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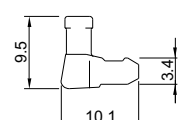
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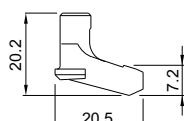
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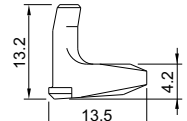
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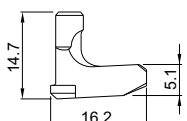
8219



8312



8415



Others

9009

9011

9012

9016

9019

9022

9111

9112

9116

9119

9122

9216

9222

9316

9322

9509

9512

9609

9612

9414

9416

Allen Wrenches

Inserts

General turning

Aluminium wheel turning

Automatic lathes

Ceramic tools

Parting and grooving

Threading

Drills

Cartridges

Brazed tools

Tooling

5002



Allen 2

5003



Allen 3

5004



Allen 4

5005



Allen 5

5006



Allen 6

5015



Allen 1,5

5025



Allen 2,5

Torx Wrenches

5506



Torx T6

5507



Torx T7

5508



Torx T8

5509



Torx T9

5510



Torx T10

5515



Torx T15

5516



Torx T15 / Allen 3,5

5517



Torx T15 / Allen 4

5520



Torx T20

5525



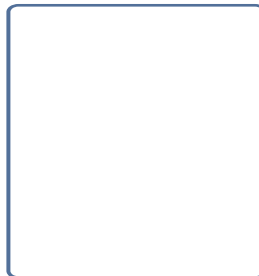
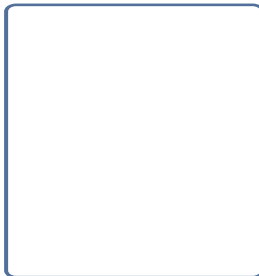
Torx T25

Others

5732



5733



Inserts
General turning
Aluminium wheel turning
Automatic lathes
Ceramic tools
Parting and grooving
Threading
Drills
Cartridges
Brazed tools
Tooling

Inserts

Ref.	Page
CCGT-AL	A.18
CCGT-AP	A.18
CCMT-03	A.18
CCMW	A.18
CNGP	A.18
CNMA	A.19
CNMG-CF	A.19
CNMG-CFC	A.19
CNMG-CFM	A.19
CNMG-CM	A.19
CNMG-CMC	A.20
CNMG-CMF	A.20
CNMG-CMR	A.20
CNMG-CR	A.20
CNMG-CS	A.20
CNMM	A.21
DCGT-AL	A.21
DCGT-AP	A.21
DCMT-03	A.21
DCMW	A.21
DNGP	A.22
DNMA	A.22
DNMG-CF	A.22
DNMG-CFC	A.22
DNMG-CFM	A.22
DNMG-CM	A.23
DNMG-CMC	A.23
DNMG-CMF	A.23
DNMG-CMR	A.23
DNMG-CS	A.23
DNMX	A.24
ECMT	A.24
EPMT	A.24
EPMW	A.24
EPMX	A.24
GXGP-AL	A.25
KNUX	A.25
RCGT-AL	A.25
RCGT-AP	A.25
RCMT	A.25
RNMG	A.26
SCGT-AL	A.26
SCMT-03	A.26
SCMT-39	A.26
SCMW	A.26
SNMA	A.27
SNMG-CFM	A.27
SNMG-CMR	A.27
SNMG-CR	A.27
SNMM	A.27
SPMR-33	A.28
SPMT	A.28
SPUN	A.28
TCGT-AL	A.28
TCMT-03	A.28
TCMW	A.29
TNMA	A.29
TNMG-CF	A.29
TNMG-CFC	A.29
TNMG-CFM	A.29
TNMG-CM	A.30

Ref.

Page

TNMG-CMC	A.30
TNMG-CMF	A.30
TNMG-CMR	A.30
TNMG-CS	A.30
TNMX	A.31
TPMN	A.31
TPMR-33	A.31
TPUN	A.31
TPUX	A.32
VBMM	A.32
VCGT-AL	A.32
VCGT-AP	A.32
VCMT-03	A.32
VNGP	A.33
VNMG	A.33
VNMG-CMC	A.33
WCMT	A.33
WCMX	A.33
WNMA	A.34
WNMG-CF	A.34
WNMG-CFM	A.34
WNMG-CM	A.34
WNMG-CMC	A.34
WNMG-CMF	A.35
WNMG-CMR	A.35
WNMG-CS	A.35

Ceramic inserts

CNGA	F.05
CNGN	F.05
CNGX	F.05
DNGA	F.05
DNGN	F.06
DNGX	F.06
ENGN	F.06
GWG	F.06
GWG R/L	F.07
RNGN	F.07
SNGA	F.08
SNGN	F.08
SNGX	F.08
SNKN	F.08
TNGA	F.09
TNGN	F.09
VNGA	F.09
VNGN	F.09
VNGA	F.09

PCD inserts

CCMW	F.10
CNGA	F.10
DCMW	F.10
DNGA	F.10
SNGA	F.10
TCMW	F.11
TNGA	F.11
TPMN	F.11

Parting and grooving inserts

Ref.	Page
ER/L LG	G.06
MRCN	G.03
MRCR/L	G.03
MTC	G.03
MTCJ	G.03
MTE	G.03
MTR	G.04
MTRJ	G.04
PTNT	G.04
PTR/LT	G.04
NG	G.05
NR	G.05
NT	G.06

Threading inserts

EL-60°/55°	H.04
EL-ISO	H.06
EL-ISO TD	H.06
EL-LG	H.10
EL-W	H.08
ER-60°/55°	H.04
ER-60°/55° TD	H.04
ER-ISO	H.06
ER-ISO TD	H.06
ER-LG	H.10
ER-UN	H.08
ER-W	H.08
ER-W TD	H.08
L166G-ISO	H.11
L166L-ISO	H.11
NL-60°/55°	H.05
NL-ISO	H.07
NL-W	H.09
NR-60°/55°	H.05
NR-60°/55° TD	H.05
NR-ISO	H.07
NR-ISO TD	H.07
NR-UN	H.08
NR-W	H.09
NR-W TD	H.09
R166G-B	H.11
R166G-ISO	H.11
R166L-ISO	H.11
TNMC	H.10
TPMC	H.10

Drills inserts

SPMT	I.02
WCMT	I.02
WCMX	I.02
XPMT	I.02

Brazed tools inserts

AB	K.03
ABC	K.03
C	K.03
D	K.03
E	K.03
FIL	K.04
PR	K.04
TR	K.04

Toolholders

Ref.	Page
CKJN 93°	B.06
CKNN 63°	B.07
CSBP 75°	B.08
CSDP 45°	B.09
CSKP 75°	B.10
CSSP 45°	B.11
CSTP 60°	B.12
CTBP 75°	B.13
CTCPN 90°	B.14
CTCP 90°	B.15
CTDP 45°	B.16
CTFP 90°	B.17
CTGP 90°	B.18
CTTP 60°	B.19
DCLN 95°	B.21
DDJN 93°	B.22
DSSN 45°	B.23
DTGN 90°	B.24
DWLN 95°	B.25
MCLN 95°	B.26
MCLN-K 95°	B.27
MDJN-K 93°	B.28
MSSN-K 45°	B.29
MSSN 45°	B.30
MTEN 60°	B.31
MTJN 93°	B.32
MTJN-K 93°	B.33
MTNN 63°	B.34
MVJN-K 93°	B.35
MVQN-K 117°30'	B.36
MVVN-K 72°30'	B.37
MWLN 95°	B.38
MWLN-K 95°	B.39
PCBN 75°	B.40
PCFN 90°	B.41
PCKN 75°	B.42
PCLN 95°	B.43
PCMNN 45°	B.44
PCSN 45°	B.45
PDJN 93°	B.46
PDNN 63°	B.47
PRDC	B.48
PRSC	B.49
PRSN	B.50
PSBN 75°	B.51
PSDN 45°	B.52
PSKN 75°	B.53
PSSN 45°	B.54
PTDN 45°	B.55
PTFN 90°	B.56
PTGN 90°	B.57
PTTN 60°	B.58
PWLN 95°	B.59
SCAC 90°	B.60
SCLC 95°	B.61
SDJC 93°	B.62

Ref.**Page**

SDNC 62°30'	B.63
SRDC	B.64
SSBC 75°	B.65
SSDC 45°	B.66
SSSC 45°	B.67
STAC 90°	B.68
STDC 45°	B.69
STFC 90°	B.70
STGC 90°	B.71
STJC 93°	B.72
STTC 60°	B.73
SVHC 107°30'	B.74
SVJB 93°	B.75
SVJC 93°	B.76
SVLC 95°	B.77
SVVB 72°30'	B.78
SVVC 72°30'	B.79
SVXC 113°	B.80
SVZC 100°	B.81

Boring bars**Ref.****Page**

A..PCLN 95°	C.22
A..PDUN 93°	C.23
A..PSKN 75°	C.25
A..PSSN 45°	C.26
A..PTFN 90°	C.27
A..PWLN 95°	C.28
A..SCLC 95°	C.31
A..SDQC 107°30'	C.33
A..SDUC 93°	C.35
A..SDUC 93°-EX	C.36
A..STFC 90°	C.43
A..SVQC 107°30'	C.45
A..SVUC 93°	C.47
A..X-MTUN 93°	C.49
A..X-PCLN 95°	C.50
A..X-PDUN 93°	C.51
A..X-PWLN 95°	C.52
A..X-SCLC 95°	C.53
A..X-SDUC 93°	C.54
A..X-STFC 93°	C.55
A..X-SXFN 90°	C.56
H..SCLC 95°	C.31
H..SDUC 93°	C.35
H..STFC 90°	C.43
J..SCLC 95°	C.31
J..SDUC 93°	C.35
J..STFC 90°	C.43
JX	C.48
S..CKUN 93°	C.06

Ref.**Page**

S..CSKP 75°	C.07
S..CTFP 90°	C.08
S..CTUP 93°	C.09
S..DCLN 95°	C.10
S..DDUN 93°	C.11
S..MCLN-K 95°	C.12
S..MDUN-K 93°	C.13
S..MSKN-K 75°	C.14
S..MTFN 90°	C.15
S..MTFN-K 90°	C.16
S..MTUN 93°	C.17
S..MVUN-K 93°	C.18
S..MWLN 95°	C.19
S..MWLN-K 95°	C.20
S..PCKN 75°	C.21
S..PCLN 95°	C.22
S..PDUN 93°	C.23
S..PDUN 93°-EX	C.24
S..PSKN 75°	C.25
S..PTFN 90°	C.27
S..PWLN 95°	C.28
S..SCLC 95°	C.30
S..SCLCN 95°	C.32
S..SDQC 107°30'	C.33
S..SDUC 93°	C.34
S..SDUC 93°-EX	C.36
S..SELC 97°30'	C.38
S..SELP 97°30'	C.39
S..SSKC 75°	C.40
S..SSSC 45°	C.41
S..STFC 90°	C.42
S..STUC 93°	C.44
S..SVQC 107°30'	C.45
S..SVUB 93°	C.46
S..SVUC 93°	C.47
SET SCLC 95°	C.58
SET SDQC 107°30'	C.59
SET SDUC 93°	C.60
SET STFC 90°	C.61

Inserts

General turning

Aluminium wheel turning

Automatic lathes

Ceramic tools

Parting and grooving

Threading

Drills

Cartridges

Brazed tools

Tooling

Aluminium wheel turning

Ref.	Page
CZAP	D.02
CZLP 95°	D.03
CZXP	D.04
SVXC 130°	D.05

Automatic lathes

Ref.	Page
00.30	E.06
608.00	E.08
CZCB	E.22
SCAC 90°	E.12
SCLC 95°	E.13
SDAC 90°	E.14
SDJC 93°	E.15
SDNC 63°	E.16
SET STHE	E.05
SET MT	E.07
STHE	E.05
STJC 93°	E.17
SVAC 90°	E.18
SVJC 93°	E.19
SVVC 72°30'	E.20
SXAN 90°	E.21

Ceramic tools

Ref.	Page
CCBN 75°	F.14
CCKN 75°	F.15
CCLN 95°	F.16
CDJN 93°	F.17
CELN 97°30'	F.18
CRDC	F.19
CRDN	F.20
CRSN	F.21
CSDN 45°	F.22
CSKN 75°	F.23
CSRN 75°	F.24
CSSN 45°	F.25
CSXN 85°	F.26
CSYN 85°	F.27
CTFN 90°	F.28
CTGN 90°	F.29
CVJN 93°	F.30
CVVN 62°30'	F.31
S..CCLN 95°	F.32
S..CDQN 107°30'	F.33
S..CDUN 93°	F.34
S..CELN 97°30'	F.35
S..CSKN 75°	F.36
S..CSSN 45°	F.37
S..CSYN 85°	F.38

Parting and grooving

Ref.	Page
CRCFN	G.17
CPTS	G.16
CZCB	G.10
CZCF	G.11
CZCP	G.12
CZFB	G.08
CZGB	G.08
DPTS	G.16
NE 93°	G.20
NNTO 93°	G.23
NR 45°	G.21
NS 93°	G.22
S.. CZGB	G.15
S.. CZGF	G.14
XLCF	G.13
XLCFN	G.18
XLCTN	G.19

Threading tools

Ref.	Page
CTAN 90°	H.15
CTXN 90°	H.18
CXAP 90°	H.20
STAN 90°	H.14
STCN 90°	H.19
STXN 90°	H.17
SXAN 90°	H.13
SXGN 90°	H.16
H.. SXFN 90°	H.22
J.. SXFN 90°	H.22
S.. CTXN 90°	H.24
S.. CXFP 90°	H.27
S.. STGN 90°	H.25
S.. STGP 90°	H.26
S.. STXN 90°	H.23
S.. SXFN 90°	H.21

Drills

Ref.	Page
40..	I.04
41..	I.05
42..	I.06
45..	I.07
48..	I.08
49..	I.09
4744.64	I.10

Cartridges

Ref.	Page
CSKP 75°	J.04
CSSP 45°	J.04
CTFP 90°	J.05
CTGP 90°	J.05
CTSP 45°	J.06
CTTP 60°	J.06
CTWP 30°	J.07
PCFN 90°	J.08
PCLN 95°	J.08
PSKN 75°	J.09
PSRN 75°	J.09
PSSN 45°	J.10
PTFN 90°	J.10
PTGN 90°	J.11
PTSN 45°	J.11
PTTN 60°	J.12
PTWN 30°	J.12
SCFC 90°	J.13
SCLC 95°	J.13
SSKC 75°	J.14
SSSC 45°	J.14
STFC 90°	J.15
STGC 90°	J.15
STSC 45°	J.16
STTC 60°	J.16
STWC 30°	J.17

Brazed tools

Ref.	Page
C6 60°	K.13
D6 90°	K.13
ISO 1 75°	K.06
ISO 2 45°	K.06
ISO 351 80°	K.09
ISO 4 90°	K.07
ISO 5 90°	K.07
ISO 6 90°	K.08
ISO 7 90°	K.08
ISO 8 75°	K.11
ISO 9 90°	K.11
UI 30 55° - 60°	K.09
UI 40 55° - 60°	K.12
UI 50 90°	K.12
UI 80	K.10

Tooling

Ref.	Page
CK-B	L.05
RC	L.03
RN	L.03
SP-B	L.04
SPX-B	L.04

Eines Canela, S.A.

Conditions of sale:

All sales are made in accordance with our standard conditions of sale, current at the time orders are accepted. Specifications and prices subject to change without notice.

Product warranty:

Eines Canela will repair or replace any of its products, which in its judgement, are found to be defective in material or workmanship. All claims must be made in writing within thirty days after receipt of product. No claims for labor or damages will be allowed. In no event shall Eines Canela be liable for consequential or special damages of any kind.

Special tool quotation:

Orders for special tools must be confirmed in writing before manufacturing can begin. Special items and non-stock standard items cannot be cancelled or returned for exchange or credit.

Delivery terms:

Barcelona. Full transportation costs will be charged to the buyer. Specify shipment to be made by other than regular means of transportation.

Claims:

Claims for loss in transit must be made against the transportation company. The foregoing shall constitute the sole and exclusive remedies of the customer and are in lieu of all other warranties, expressed, implied or statutory, including but not limited to any implied warranty of merchantability or fitness.

Returns:

No merchandise will be accepted for return after 30 days of shipment. All returns must be pre-paid and must be accompanied by our Return Goods Authorization (RGA) number. This number must appear on the outside of the box. Merchandise must be received in good condition or will be refused.

Eines Canela, S.A.

This catalog contains information and specifications concerning cutting tools sold by Eines Canela. Although some of the cutting tools made from carbides are very tough and resist breakage, most are brittle and special safety precautions are required when using them.

Small fragment and chips may be thrown from a cutting tool when a fracture occurs. Since these fragments or chips are thrown at very high speeds and are very hot, contact with the skin or eyes could cause severe injury. Also, the grinding of these cutting tools will produce fine carbide and cobalt or nickel dust which may be harmful to the lungs. Listed below are some suggestions on how to minimize the potential for injury while using cutting tools.

For more information about the product hazards and safety precautions that must be taken to minimize the possibility of injury while using cutting tools, please call your Eines Canela Sales Engineer.

Eines Canela has no control over use of these cutting tools. The user must determine the suitability of these tools in its particular application.

WARNING: Very hot chip fragments may be thrown from cutting tools at very high speeds. These chips can cause severe burns, cuts or punctures to the skin, or damage to the eyes. The following are some of the safety precautions that must be followed by operators and observers while using cutting tools:

1. Make sure that the insert size and shape are adequate for use to which it is being put.
2. Chip control is necessary to prevent a continuous chip catching in the workpiece.
3. Chips are very hot and have sharp edges and should not be moved by hand.
4. Turn off the machine whenever chips are removed or when the cutting tools are changed.
5. Do not use air hoses to blow chips away from the machine.
6. To prevent tool breakage use the correct size toolholder.
7. Make sure that the overhang on the toolholder is as short as possible. Too much overhang can result in chatter and tool breakage.
8. To prevent the workpiece from coming loose during use, be sure the workpiece is tight and secure in its holder.
9. Overloading of tungsten carbide cutting tools may cause fractures of these tools.
10. A slug may be ejected at high speeds during drilling.

To protect the operator and observer from possible flying objects which could result in severe injury, the following protective devices should be worn or used while using cutting tools:

1. Wear hard hats.
2. Wear safety glasses with side shields.
3. Wear closed shoes with steel toes.
4. Keep protective enclosure on machine in place during operation.

WARNING: Grinding or finishing carbide produces fine carbide and cobalt or nickel dust. This dust may cause injury to the lungs. Operators and observers must take the following safety precautions to minimize the possibility of such injury:

1. Use with adequate ventilation
2. Maintain the dust or mist level below recommended levels.
3. Avoid breathing dust or mist. If not possible, wear appropriate respirators, particularly when grinding tungsten carbide.
4. Minimize prolonged skin contact.
5. Wash hands thoroughly after handling.

WARNING: Use of cutting fluids and work materials create hazards. Be careful at all times.

1. Keep the cutting fluid clean so no particles can be carried back across the workpiece and possibly scratch it.
2. Cutting fluids may catch on fire when exposed to high temperatures generated during cutting.
3. Work materials such as aluminium, magnesium, uranium and titanium are flammable and could catch on fire.
4. Cutting fluids should be treated or replaced to reduce bacterial levels which may cause illness.

-WARNING-

Speeds, Feeds and Grade information within this catalogue are for reference only. If the operator does not feel safe using our speeds, feeds and grades, then the operator should use what is comfortable to him or her. Eines Canela is not responsible for any damage or injury that occurs using the speeds, feeds and grades information within catalogue.

Conditions, terms, and prices are subject to change without notice. Any typographical or other error in this catalogue is subject to correction