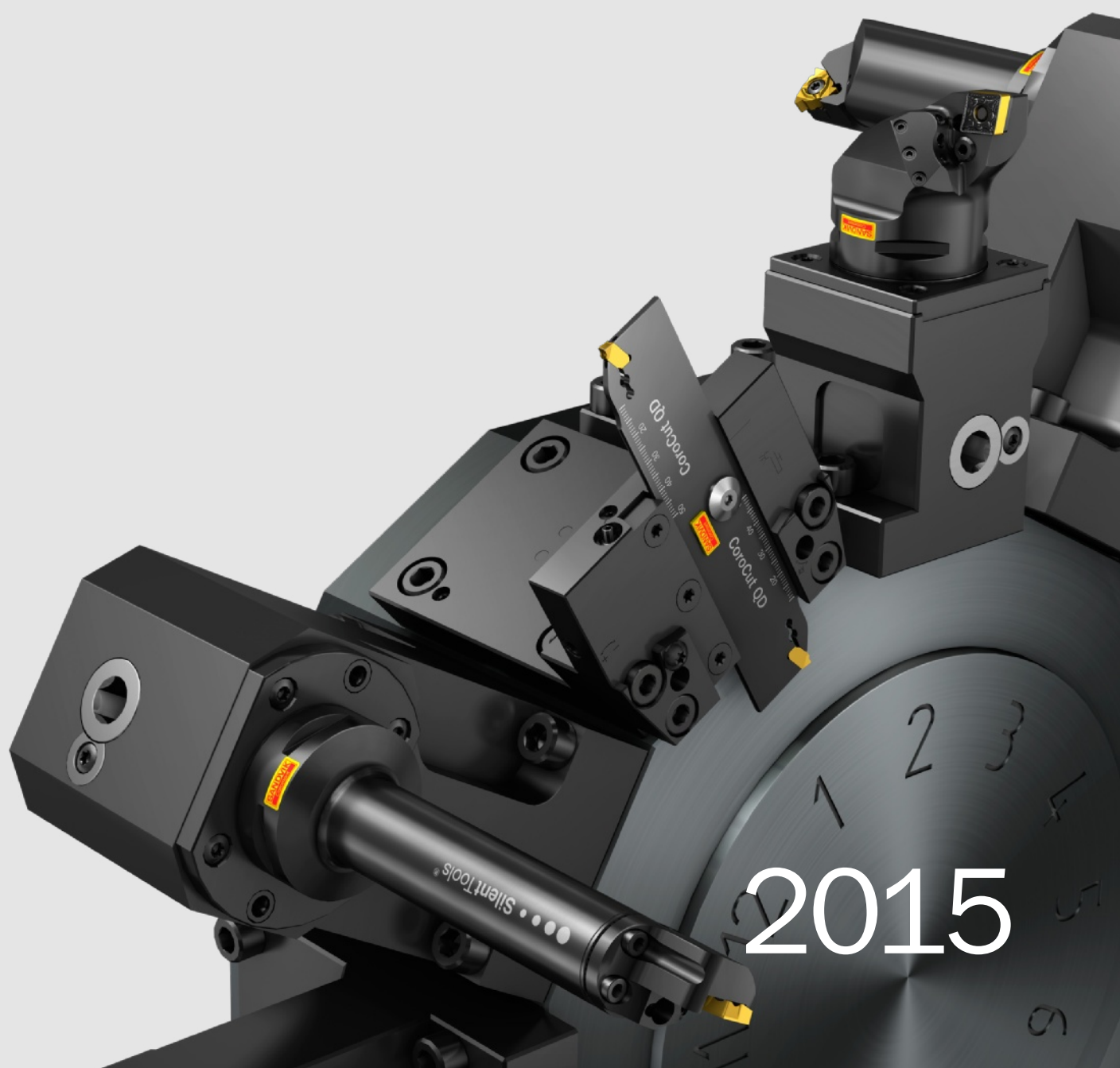


Turning tools

GENERAL TURNING
PARTING AND GROOVING
THREAD TURNING
MULTIFUNCTIONAL TOOLS
TOOL HOLDING
TURNING TOOL ADAPTORS



To make life easier, a new standard has been developed

ISO 13399 is an international standard that strives to simplify the exchange of data for cutting tools. You will notice a slight difference through the new parameters and descriptions of each tool.

For the first time ever, there is a standardized way of describing product data regarding cutting tools. When all tools in the industry share the same parameters and definitions, communicating tool information becomes very straightforward.

What does this mean to you?

Basically, it means that your systems can talk to ours, as they all speak the same language. Download product data from our web site and use it directly in your CAD/CAM software to assemble tools that you use in production. No need to look for information in catalogues and interpret data from one system to another. Imagine how much time this will save you!

Short name	Preferred Name
ADJLX	Maximum adjustment limit
ADJRG	Adjustment range
ALP	Clearance angle axial
AN	Clearance angle major
ANN	Clearance angle minor
APMX	Depth of cut maximum
B	Shank width
BAWS	Body angle workpiece side
BAMS	Body angle machine side
BBD	Balanced by design
BBR	Balanced by rotational test
BCH	Corner chamfer length
BD	Body diameter
BHTA	Body half taper angle
BN	Face land width
BS	Wiper edge length
BSG	Basic standard group
BSR	Wiper edge radius
CDX	Cutting depth maximum
CF	Spot chamfer
CHBA	Chamfer body angle
CHBL	Chamfer body length
CHW	Corner chamfer width
CICT	Cutting item count
CND	Coolant entry diameter
CNSC	Coolant entry style code
CNT	Coolant entry thread size
COATING	Coating
CP	Max coolant pressure
CRKS	Connection retention knob thread size
CRNT	Coolant radial entry thread size
CTPT	Operation type
CUTDIA	Work piece parting diameter maximum
CW	Cutting width
CWN	Minimum cutting width
CWTOLL	Cutting width lower tolerance
CWTOLU	Cutting width upper tolerance
CWX	Cutting width maximum
CXSC	Coolant exit style code
CZC	Connection size code
CZC _{MS}	Connection size code machine side
CZC _{WS}	Connection size code workpiece side
D1	Fixing hole diameter
DAH	Diameter access hole
DAXIN	Axial groove inside diameter minimum
DAXN	Minimum axial groove outside diameter
DAXX	Axial groove outside diameter maximum

GENERAL INFORMATION

ISO 13399

B	DBC	Diameter bolt circle
	DC	Cutting diameter
C	DCB	Connection bore diameter
	DCBN	Connection bore diameter minimum
	DCBX	Connection bore diameter maximum
	DCF	Cutting diameter face contact
	DCN	Cutting diameter minimum
	DCON	Connection diameter
	DCON _{MS}	Connection diameter machine side
	DCON _{WS}	Connection diameter workpiece side
	DCSF _{MS}	Contact surface diameter machine side
	DCSF _{WS}	Contact surface diameter workpiece side
D	DCX	Cutting diameter maximum
	DIX	Tool changer interference diameter maximum
	DMIN	Minimum bore diameter
	DMM	Shank diameter
	DN	Neck diameter
	DSGN	Design
	EPSR	Insert included angle
	FHA	Flute helix angle
	FLGT	Flange thickness
	FTDZ	For thread diameter size
	H	Shank height
	HA	Thread height theoretical
	HB	Thread height difference
	HBH	Head bottom offset height
E	HC	Thread height actual
	HF	Functional height
	HRY	Lowest point from reference plain
	HTB	Body height
	HTH	Height
	IC	Inscribed circle diameter
	INSL	Insert length
	INSUC	Insert usage code
	IZC	Insert size code
	KAPR	Tool cutting edge angle
F	KCH	Corner chamfer
	KRINS	Major cutting edge angle
	KWW	Keyway width
	L	Cutting edge length
	LAMS	Inclination angle
	LB	Body length
	LCF	Length chip flute
	LCOX	Cut off length maximum
	LE	Cutting edge effective length
	LF	Functional length
	LH	Head length
	LPR	Protruding length
	LS	Shank length
	LSC	Clamping length
G	LSCN	Clamping length minimum
	LSCS	Distance to clamping start
	LSCX	Clamping length maximum
	LSD	Dead shank length
	LU	Usable length (max. recommended)
	LUX	Usable length maximum
	MHD	Mounting hole distance
	MIID	Master insert identification
	MMCC	Code for preset torque
	MMCX	Max. cutting torque
H	NOF	Flute count
	NT	Tooth count
	OAH	Overall height
	OAL	Overall length
	OAW	Overall width
	OH	Overhang recommended
	OHN	Overhang minimum
	OHX	Overhang maximum
	ORDCODE	Ordercode
I		

PCL	Peripheral cylindrical length
PDX	Profile distance ex
PDY	Profile distance ey
PHD	Premachined hole diameter
PHDX	Maximum premachined hole diameter
PL	Point length
PNA	Profile included angle
PRFRAD	Profile radius
PRSPC	Profile specification
PSIR	Tool lead angle
PSIRL	Cutting edge angle major left hand
PSIRR	Cutting edge angle major right hand
RADH	Radial body height
RADW	Radial body width
RAR	Right hand relief angle
RE	Corner radius
REL	Corner radius left
RER	Corner radius right
RETOLL	Corner radius lower tolerance
RETOLU	Corner radius upper tolerance
RGL	Regrind length
RMPX	Maximum ramping angle
RPMX	Rotational speed maximum
S	Insert thickness
SDL	Step diameter length
SIG	Point angle
SPTL	Splitline
SSC	Insert seat size code
STA	Step included angle
SUBSTRATE	Substrate
TCDC	Tolerance class cutting diameter
TCDMM	Shank diameter tolerance
TCHA	Achievable hole tolerance
TCHAL	Achievable hole tolerance lower
TCHAU	Achievable hole tolerance upper
TCT	Tolerance class tool
TCTR	Thread tolerance class
TD	Thread diameter
TDZ	Thread diameter size
TFLA	Tap floating length ahead
TFLB	Tap floating length behind
TG	Taper gradient
THCA	Thread helix correction angle
THCHT	Threading chamfer type
THFT	Form type
THFTS	Thread form standard series
THL	Thread length
THUB	Hub thickness
TP	Thread pitch
TPI	Threads per inch
TPIN	Threads per inch minimum
TPIX	Threads per inch maximum
TPN	Thread pitch minimum
TPX	Maximum thread pitch
TQ	Torque
TSYC	Tool style code
TTP	Thread type
ULDR	Usable length diameter ratio
VCX	Maximum cutting speed
W1	Insert width
WB	Body width
WF	Functional width
WFCIRP	Width to cutting item reference point
WSC	Clamping width
WT	Weight of item
ZEFF	Face effective cutting edge count
ZEFP	Peripheral effective cutting edge count (ZEFP)
ZWX	Maximum number of Wiper inserts

Conversion table

Metric to imperial

Distance

1 meter = 39.370 inch

1 meter = 3.281 feet

1 millimeter = 0.039 inch

Weight

1 kilogram = 2.205 pounds

1 kilogram = 35.274 ounces

Torque

1 Newton meter (Nm) = 0.738 pound-force feet (ft-lbs)

1 Newton meter (Nm) = 8.851 pound-force inches (in-lbs)

Imperial to metric

Distance

1 inch = 25.4 millimeter

1 foot = 0.3 meter

1 foot = 304.8 millimeter

Weight

1 pound = 0.45 kilogram

1 ounce = 28.35 gram

Torque

1 pound-force foot (ft-lbf) = 1.4 Newton meter (Nm)

1 pound-force inch (in-lbf) = 0.1 Newton meter (Nm)

Formulas and definitions:

v_c = cutting speed

n = spindle speed

f_t = table feed

z_n = total number of cutting edges

z_c = number of effective cutting edges

f_z = feed per tooth

f_n = feed per revolution

h_{ex} = maximum thickness

a_p = cutting depth

l_a = insert width

a_e = cutting width

a_e/D_c % = Radial immersion

T = machining time

Q = metal removal rate

n_{ap} = number of passes

TPI = threads per inch

k_c = specific cutting force

R_a = surface roughness

Metric

m/min (meter/minute)

rpm (revolution per minute)

mm/min

mm/z

mm/rev

mm

mm

mm

mm

%

min

cm³/min

N/mm²

μm

Imperial

ft/min (feet/minute)

inch/min

inch/z

inch/rev

inch

inch

inch

inch

%

min

inch³/min

lbs/in²

μin

Insert size

iC = inscribed circle in inch

$\triangle$
↔ = cutting edge length in mm



Additional tool options designed for your specific requirements.

Apart from a comprehensive standard programme we can offer tools to your dimensions on standard tool terms. In our Tailor Made offer you are free to specify your own dimensions without paying the price of a special tool.

Engineered solutions

When standard or Tailor Made solutions do not fulfill your needs you can depend on Sandvik Coromant's wide experience in engineered tool solutions to handle particularly demanding criteria.

Download the Tailor Made Tool Selection Guide in PDF-format at www.sandvik.coromant.com

For further details, contact your nearest Coromant sales representative.

Inquiry/ordering No. _____

CoroMill® 490

Customer _____		Customer No. (Coromant internal) _____		Date _____	
Street _____		Telephone _____		Customer attention _____	
Post Code/City/State _____		Telefax _____		Issuer _____	
Quantity _____		Customer denomination _____			

Even more possibilities thanks to tailored design!
If you do not find what you need in our comprehensive standard programme, choose the tool shape you require and we will tailor it for you to your dimensions.

Quick quotation
- Easy to order
- Competitive delivery

main catalogue or supplement catalogue

metric std ☐ Your value/Your choice ☐

above standard

Standard insert, 490R 08 T3 - 490R 14 04 -

essential pitch not valid for every combination

on insert size, cutter diameter and pitch

Coromant Capto		HSK A	
Size	D_s (mm)	Size	D_s (mm)
23	19.05-40 08	63	20-80 08/14
24	19.05-65 08/14		
25	19.05-70 08/14		
26	19.05-80 08/14		
28	31.75-84 08/14		

TDB		TDC	
Size	D_s (mm)	Size	D_s (mm)
42	100-125 14	40	180-200 14
48.1	125-160 14	47.625	200-254 14
50	125-180 14	60	200-254 14
50.8	180-200 14		

CoroMill® 490

Cylindrical

Size	D_s (mm)	IC
16	19.05-25.4 08	
20	19.05-40 08	
25	19.05-50.8 08/14	
32	25 - 40 08/14	
40	31.75-80 08/14	

Weldon

Size	D_s (mm)	IC
16	19.05-25.4 08	
20	19.05-40 08	
25	19.05-50.8 08/14	
32	25 - 40 08/14	
40	31.75-80 08/14	

Coromant Capto®

Size	D_s (mm)	IC
C3	19.05-40 08	
C4	19.05-65 08/14	
C5	19.05-70 08/14	
C6	19.05-80 08/14	
C8	31.75-84 08/14	

HSK type A

Size	D_s (mm)	IC
60	20-80 08/14	

Arbor mounting, TDA
acc. to ISO 6462 (including CTS)

Size	D_s (mm)	IC
16	37.5 - 50 08	
22	38.1 - 80 08/14	
22.225	38.1 - 80 08	
25.4	40 - 100 08/14	
27	40 - 100 08/14	
31.75	100 - 125 14	

TDB

Size	D_s (mm)	IC
32	100-125 14	
38.1	125-160 14	
40	125-180 14	
50.8	160-200 14	

TDC

Size	D_s (mm)	IC
40	180-200 14	
47.625	200-254 14	
60	200-254 14	

Options

Insert size 08 or 14

D_s -08, Diameter - 19.05-84 mm
-14, Diameter - 38.1-254 mm

Pitch type Even or Differential

Z_n -08, No of inserts 2-10
-14, No of inserts 2-20

Mounting type Arbor mounting

dm_{cut}/D_{cut} Mounting size, see above

l_1 Reach length, -08, 21 mm - 3 x D_s
-14, 40 mm - 3 x D_s

l_2 Total length, -08, 74-250 mm,
-14, 98-250 mm

l_3 Programming length, -08, 40-175.5 mm,
-14, 40-168.5 mm

Coolant hole -08, Yes - D_s x 63 mm/No
-14, Yes/No - all TDC and TDB size 50.8

Note for specific details regarding the options, contact your Coromant sales representative.

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Overview of Tailor Made product families

Parting & grooving

Inserts

CoroCut®

T-Max® Q-Cut

- Insert width
- Insert radius
- Insert shape
- Insert grade

Tools

T-Max Q-Cut®

CoroCut®

- Coupling/shank size
- Coupling type
- Cutting depths
- Cutting width
- Tool length
- Coolant supply
- Insert system
- Holder style
- Diameters
- Machining limitations

Threading

Inserts

CoroThread® 266

T-Max® U-Lock

- External/internal
- Insert size
- Profiles
- Pitch
- Taper angles
- Crest form

Safety information in connection with grinding of cemented carbide

Material composition

Most metal products contain tungsten carbide and cobalt. Other substances that may be present in hard metal are titanium carbide, tantalum carbide, niobium carbide, chromium carbide, molybdenum carbide or vanadium carbide. Some grades contain titanium carbonitride and/or nickel.

Routes of exposure

Grinding or heating of hard metal blanks or hard metal products will produce products that give off dangerous dust and fumes. Avoiding ingestion and contact with skin or eyes is very important.

Acute toxicity

Intake of the aforementioned substances is toxic. Inhalation may cause irritation and inflammation of the airways. Significantly higher acute inhalation toxicity has been reported during simultaneous inhalation of cobalt and tungsten carbide compared to inhalation of cobalt alone.

Skin contact can cause irritation and rash. Sensitive individuals may even experience an allergic reaction.

Chronic toxicity

Repeated inhalation of aerosols containing cobalt may cause obstruction of the airways. Prolonged exposure to increased concentrations may cause lung fibrosis or lung cancer. Epidemiological studies indicate that workers previously exposed to high concentrations of tungsten carbide/cobalt carried an increased risk of developing lung cancer.

Cobalt and nickel are potent skin sensitizers. Repeated or prolonged contact can cause irritation and sensitization.

Risk phrases

Toxic: danger of serious damage to health by prolonged exposure through inhalation

Toxic when inhaled

Limited evidence of a carcinogenic effect.

May cause sensitization by inhalation and skin contact

Preventive measures

Avoid formation and inhalation of dust. Use adequate local exhaust ventilation to keep personal exposure well below nationally authorised limits.

If ventilation is not available or adequate, use respirators appropriately approved for the purpose.

Use safety goggles or glasses with side shields when necessary.

Avoid repeated skin contact. Wear suitable gloves. Wash skin thoroughly after handling.

Use suitable protective clothing. Launder clothing if needed.

Do not eat, drink or smoke in the working area. Wash skin thoroughly before eating, drinking or smoking.

Material cross reference list

ISO	MC	CMC	Country										
			Europe	Germany	Great Britain		Sweden	USA	France	Italy	Spain	Japan	
			Standard										
			DIN EN	W.-nr.	BS	EN	SS	AISI/SAE/ASTM	AFNOR	UNI	UNE	JIS	
P	Unalloyed steel												
	P1.1.Z.AN	01.1	S235JR G2	1.0038	4360 40 C	-	1311	A570.36	E 24-2 Ne	-	-	STKM 12A;C	
	P1.1.Z.AN	01.1	S235J2 G3	1.0116	4360 40 B	-	1312	A573-81 65	E 24-U	Fe37-3	-	-	
	P1.1.Z.AN	01.1	C15	1.0401	080M15	-	1350	1015	CC12	C15C16	F.111	-	
	P1.1.Z.AN	01.1	C22	1.0402	050A20	2C/2D	1450	1020	CC20	C20C21	F.112	-	
	P1.1.Z.AN	01.1	C15E	1.1141	080M15	32C	1370	1015	XC12	C16	C15K	S15C	
	P1.1.Z.AN	01.1	C25E	1.1158	-	-	-	1025	-	-	-	S25C	
	P1.1.Z.AN	01.1	S380N	1.8900	4360 55 E	-	2145	A572-60	-	FeE390KG	-	-	
	P1.1.Z.AN	01.1	17MnV7	1.0870	4360 55 E	-	2142	A572-60	NFA 35-501 E 36	-	-	-	
	P1.1.Z.AN	02.1	55Si7	1.0904	250A53	45	2085	9255	55S7	55Si8	56Si7	-	
	P1.1.Z.AN	02.2	-	-	-	-	2090	9255	55S7	-	-	-	
	P1.2.Z.AN	01.2	C35	1.0501	060A35	-	1550	1035	CC35	C35	F.113	-	
	P1.2.Z.AN	01.2	C45	1.0503	080M46	-	1650	1045	CC45	C45	F.114	-	
	P1.2.Z.AN	01.2	40Mn4	1.1157	150M36	15	-	1039	35M5	-	-	-	
	P1.2.Z.AN	01.2	36Mn5	1.1167	-	-	2120	1335	40M5	-	36Mn5	SMn438(H)	
	P1.2.Z.AN	01.2	28Mn6	1.1170	150M28	14A	-	1330	20M5	C28Mn	-	SCMn1	
	P1.2.Z.AN	01.2	C35G	1.1183	060A35	-	1572	1035	XC38TS	C36	-	S35C	
	P1.2.Z.AN	01.2	C45E	1.1191	080M46	-	1672	1045	XC42	C45	C45K	S45C	
	P1.2.Z.AN	01.2	C53G	1.1213	060A52	-	1674	1050	XC48TS	C53	-	S50C	
	P1.2.Z.AN	01.3	C55	1.0535	070M55	-	1655	1055	-	C55	-	-	
	P1.2.Z.AN	01.3	C55E	1.1203	070M55	-	-	1055	XC55	C50	C55K	S55C	
	P1.2.Z.AN	02.1	S275J2G3	1.0144	4360 43C	-	1412	A573-81	E 28-3	-	-	SM 400A;B;C	
	P1.2.Z.AN	02.1	S355J2G3+C2	1.0570	4360 50B	-	2132	-	E36-3	Fe52BFN/Fe52CFN	-	SM490A;B;C;YA;YB	
	P1.2.Z.AN	02.1	S355J2G3	1.0841	150 M 19	-	2172	5120	20 MC 5	Fe52	F-431	-	
	P1.3.Z.AN	01.3	C60E	1.0601	080A62	43D	-	1060	CC55	C60	-	-	
	P1.3.Z.AN	01.3	C60E	1.1221	080A62	43D	1678	1060	XC60	C60	-	S58C	
	P1.3.Z.AN	01.4	C101E	1.1274	060 A 96	-	1870	1095	XC 100	-	F-5117	-	
	P1.3.Z.AN	01.4	C101u	1.1545	BW 1A	-	1880	W 1	Y105	C36KU	F-5118	SK 3	
	P1.3.Z.AN	01.4	C105W1	-	BW2	-	2900	W210	Y120	C120KU	F.515	SUP4	
	P1.3.Z.AN	02.1	S340 MGC	1.0961	-	-	-	9262	60SC7	60SiCr8	60SiCr8	-	
	P1.4.Z.AN	01.1	11SMn30	1.0715	230M07	-	1912	1213	S250	CF9SMn28	11SMn28	SUM22	
	P1.4.Z.AN	01.1	11SMnPb30	1.0718	-	-	1914	12L13	S250Pb	CF9SMnPb28	11SMnPb28	SUM22L	
	P1.4.Z.AN	01.1	10SPb20	1.0722	-	-	-	-	10PbF2	CF10SPb20	10SPb20	-	
	P1.4.Z.AN	01.1	11SMn37	1.0736	240M07	1B	-	1215	S 300	CF9SMn36	12SMn35	-	
	P1.4.Z.AN	01.1	11SMnPb37	1.0737	-	-	1926	12L14	S300Pb	CF9SMnPb36	12SMnP35	-	
	P1.4.Z.AN	01.2	35S20	1.0726	212M36	8M	1957	1140	35MF4	-	F210G	-	
	P1.5.C.UT	01.1	GC16E	1.1142	030A04	1A	1325	1115	-	-	-	-	
	Steel	Low-alloy steel											
		P2.1.Z.AN	02.1	16Mo3	1.5415	1501-240	-	2912	A204Gr.A	15D3	16Mo3KW	16Mo3	-
		P2.1.Z.AN	02.1	14Ni6	1.5622	-	-	-	A350LF5	16N6	14Ni6	15Ni6	-
		P2.1.Z.AN	02.1	21NiCrMo2	1.6523	805M20	362	2506	8620	20NCD2	20NiCrMo2	20NiCrMo2	SNCM220(H)
		P2.1.Z.AN	02.1	17CrNiMo6	1.6587	820A16	-	-	-	18NCD6	-	14NiCrMo13	-
		P2.1.Z.AN	02.1	15Cr3	1.7015	523M15	-	-	5015	12C3	-	-	SCr415(H)
		P2.1.Z.AN	02.1	55Cr3	1.7176	527A60	48	-	5155	55C3	-	-	SUP9(A)
		P2.1.Z.AN	02.1	15CrMo5	1.7262	-	-	2216	-	12CD4	-	12CrMo4	SCM415(H)
		P2.1.Z.AN	02.1	13CrMo4-5	1.7335	1501-620Gr27	-	-	A182 F11;F12	15CD3.5	14CrMo4 5	14CrMo45	-
										15CD4.5			
		P2.1.Z.AN	02.1	10CrMo9 10	1.7380	1501-622 Gr.31;45	-	2218	A182 F.22	12CD9, 10	12CrMo9, 10	TU.H	-
		P2.1.Z.AN	02.1	14MoV6 3	1.7715	1503-660-440	-	-	-	-	-	13MoCrV6	-
		P2.1.Z.AN	02.1	50CoMo4	1.7228	823M30	33	2512	-	-	653M31	-	-
		P2.1.Z.AN	02.2	14NiCr10	1.5732	-	-	-	3415	14NC11	16NiCr11	15NiCr11	SNC415(H)
		P2.1.Z.AN	02.2	14NiCr14	1.5752	655M13; A12	36A	-	3415;3310	12NC15	-	-	SNC815(H)
		P2.1.Z.AN	02.1/02.2	16MnCr5	1.7131	(527M20)	-	2511	5115	16MC5	16MnCr5	16MnCr5	-
		P2.1.Z.AN	02.1/02.2	34CrMo4	1.7220	708A37	19B	2234	4137;4135	35CD4	35CrMo4	34CrMo4	SCM432;SCCRM3
		P2.1.Z.AN	02.1/02.2	41CrMo4	1.7223	708M40	19A	2244	4140;4142	42CD4TS	41CrMo4	42CrMo4	SCM 440
P2.1.Z.AN		02.1/02.2	42CrMo4	1.7225	708M40	19A	2244	4140	42CD4	42CrMo4	42CrMo4	SCM440(H)	
P2.1.Z.AN		03.11	14NiCrMo134	1.6657	832M13	36C	-	-	-	15NiCrMo13	14NiCrMo131	-	
P2.2.Z.AN		02.1	31CrMo12	1.8515	722 M 24	-	2240	-	30 CD 12	30CrMo12	F-1712	-	
P2.2.Z.AN		02.1	39CrMoV13 9	1.8523	897M39	40C	-	-	-	36CrMoV12	-	-	
P2.2.Z.AN		02.1	41CrS4	1.7039	524A14	-	2092	L1	-	105WCR 5	-	-	
P2.2.Z.AN		02.1	50NiCr13	1.2721	-	-	2550	L6	55NCV6	-	F-528	-	
P2.2.Z.AN		03.11	45WCrV7	1.2542	BS1	-	2710	S1	-	45WCrV8KU	45WCrSi8	-	
P2.2.Z.AN/P2.5.Z.HT		02.1/02.2	36CrNiMo4	1.6511	816M40	110	-	9840	40NCD3	38NiCrMo4(KB)	35NiCrMo4	-	
P2.2.Z.AN/P2.5.Z.HT		02.1/02.2	34CrNiMo6	1.6582	817M40	24	2541	4340	35NCD6	35NiCrMo6(KB)	-	-	
P2.2.Z.AN/P2.5.Z.HT		02.1/02.2	34Cr4	1.7033	530A32	18B	-	5132	32C4	34Cr4(KB)	35Cr4	SCr430(H)	
P2.2.Z.AN/P2.5.Z.HT		02.1/02.2	41Cr4	1.7035	530A40	18	-	5140	42C4	41Cr4	42Cr4	SCr440(H)	
P2.2.Z.AN/P2.5.Z.HT		02.1/02.2	32CrMo12	1.7361	722M24	40B	2240	-	30CD12	32CrMo12	F.124.A	-	
P2.2.Z.AN/P2.5.Z.HT	02.1/02.2	51CrV4	1.8159	735A50	47	2230	6150	50CV4	50CrV4	51CrV4	SUP10		
P2.2.Z.AN/P2.5.Z.HT	02.1/02.2	41CrAlMo7	1.8509	905M39	41B	2940	-	40CAD6, 12	41CrAlMo7	41CrAlMo7	-		
P2.3.Z.AN	02.1	100Cr6	1.3505	534A99	31	2258	52100	100C6	100Cr6	F.131	SUJ2		

Material cross reference list

ISO	MC	CMC	Country												
			Europe	Germany	Great Britain	Sweden	USA	France	Italy	Spain	Japan				
			Standard	DIN EN	W.-nr.	BS	EN	SS	AISI/SAE/ASTM	AFNOR	UNI	UNE	JIS		
P	P2.3.Z.AN/H1.2.Z.HA	02.1/02.2	105WCr6	1.2419	-	-	2140	-	105WC13	10WCr6	105WCr5	SKS31			
	P2.3.Z.AN/H1.2.Z.HA	-	-	-	-	-	-	-	-	107WCr5KU	-	SKS2, SKS3			
	P2.3.Z.AN/H1.2.Z.HA	02.1/02.2	-	1.2714	-	-	-	L6	55NCDV7	-	F.520.S	SKT4			
	P2.3.Z.AN/H1.3.Z.HA	02.1/02.2	100Cr6	1.2067	BL3	-	-	L3	Y100C6	-	100Cr6	-			
	P2.4.Z.AN	02.1	16MnCr5	1.7139	-	-	2127	-	-	-	-	-			
	P2.5.Z.HT	02.1	16Mo5	1.5423	1503-245-420	-	-	4520	-	16Mo5	16Mo5	-			
	P2.5.Z.HT	02.1	40NiCrMo8-4	1.6562	311-Type 7	-	-	8740	-	40NiCrMo2(KB)	40NiCrMo2	SNCM240			
	P2.5.Z.HT	02.1	42Cr4	1.7045	-	-	2245	5140	-	-	42Cr4	SCR440			
	P2.5.Z.HT	02.1	31NiCrMo14	1.5755	830 M 31	-	2534	-	-	-	F-1270	-			
	P2.5.Z.HT	02.2	36NiCr6	1.5710	640A35	111A	-	3135	35NC6	-	-	SNC236			
	P2.6.C.UT	02.1	22Mo4	1.5419	605A32	-	2108	8620	-	-	F520.S	-			
	P2.6.C.UT	02.1/02.2	25CrMo4	1.7218	1717CDS110	-	2225	4130	25CD4	25CrMo4(KB)	AM26CrMo4	SCM420;SCM430			
	P2.6.C.UT	06.2	-	-	-	-	2223	-	-	-	-	-			
	High-alloy steel														
P3.0.Z.AN	03.11	X210Cr12	1.2080	BD3	-	-	D3	Z200C12	X210Cr13KU X250Cr12KU	X210Cr12	SKD1				
P3.0.Z.AN	03.11	X43Cr13	1.2083	-	-	2314	-	-	-	-	-				
P3.0.Z.AN	03.11	X40CrMoV5 1	1.2344	BH13	-	2242	H13	Z40CDV5	X35CrMoV05KU X40CrMoV511KU	X40CrMoV5	SKD61				
P3.0.Z.AN	03.11	X100CrMoV5 1	1.2363	BA2	-	2260	A2	Z100CDV5	X100CrMoV511KU	X100CrMoV5	SKD12				
P3.0.Z.AN	03.11	X210CrW12	1.2436	-	-	2312	-	-	X215CrW12 1KU	X210CrW12	SKD2				
P3.0.Z.AN	03.11	X30WCrV9 3	1.2581	BH21	-	-	H21	Z30WCV9	X28W09KU X30WCrV9 3KU	X30WCrV9	SKD5				
P3.0.Z.AN	03.11	X165CrMoV 12	1.2601	-	-	2310	-	-	X165CrMoW12KU	X160CrMoV12	-				
P3.0.Z.AN	03.21	X155CrMoV12-1	1.2379	-	-	2736	HN3	-	-	-	-				
P3.0.Z.HT	03.11	X8Ni9	1.5662	1501-509;510	-	-	ASTM A353	-	X10Ni9	XBNI09	-				
P3.0.Z.HT	03.11	12Ni19	1.5680	-	-	-	2515	Z18N5	-	-	-				
P3.1.Z.AN	03.11	S6-5-2	1.3343	4959BA2	-	2715	D3	Z40CSD10	15NiCrMo13	-	SUH3				
P3.1.Z.AN	03.13	-	-	BM 2	-	2722	M 2	Z85WDCV	HS 6-5-2-2	F-5603.	SKH 51				
P3.1.Z.AN	03.13	HS 6-5-2-5	1.3243	BM 35	-	2723	M 35	6-5-2-5	HS 6-5-2-5	F-5613	SKH 55				
P3.1.Z.AN	03.13	HS 2-9-2	1.3348	-	-	2782	M 7	-	HS 2-9-2	F-5607	-				
P3.2.C.AQ	06.33	G-X120Mn12	1.3401	Z120M12	-	2183	L3	Z120M12	XG120Mn12	X120Mn12	SCMnH/1				
Ferritic/martensitic stainless steel															
Steel	P5.0.Z.AN	05.11/15.11	X10CrAl13	1.4724	403S17	-	-	405	Z10C13	X10CrAl12	F.311	SUS405			
	P5.0.Z.AN	05.11/15.11	X10CrAl18	1.4742	430S15	60	-	430	Z10CAS18	X8Cr17	F.3113	SUS430			
	P5.0.Z.AN	05.11/15.11	X10CrAl2-4	1.4762	-	-	2322	446	Z10CAS24	X16Cr26	-	SUH446			
	P5.0.Z.AN	05.11/15.11	X1CrMoTi18-2	1.4521	-	-	2326	S44400	-	-	-	-			
	P5.0.Z.AN/P5.0.Z.HT	05.11/15.11	X6Cr13	1.4000	403S17	-	2301	403	Z6C13	X6Cr13	F.3110	SUS403			
	P5.0.Z.AN/P5.0.Z.HT	-	X7Cr14	1.4001	-	-	-	-	-	-	F.8401	-			
	P5.0.Z.AN/P5.0.Z.HT	05.11/15.11	X10Cr13	1.4006	410S21	56A	2302	410	Z10C14	X12Cr13	F.3401	SUS410			
	P5.0.Z.AN/P5.0.Z.HT	05.11/15.11	X6Cr17	1.4016	430S15	960	2320	430	Z8C17	X8Cr17	F3113	SUS430			
	P5.0.Z.AN/P5.0.Z.HT	05.11/15.11	X6CrAl13	1.4002	405S17	-	-	405	Z8CA12	X6CrAl13	-	-			
	P5.0.Z.AN/P5.0.Z.HT	05.11/15.11	X20Cr13	1.4021	420S37	-	2303	420	Z20C13	X20Cr13	-	-			
	P5.0.Z.AN/P5.0.Z.HT	05.11/15.11	X6CrMo17-1	1.4113	434S17	-	2325	434	Z8CD17.01	X8CrMo17	-	SUS434			
	P5.0.Z.HT	03.11	X45CrS9-3-1	1.4718	401S45	52	-	HW3	Z45CS9	X45GrSi8	F322	SUH1			
	P5.0.Z.HT	05.11/15.11	X85CrMoV18-2	1.4748	443S65	59	-	HN3	Z80CSN20.02	X80CrSiNi20	F.320B	SUH4			
	P5.0.Z.HT	05.11/15.11	X20CrMoV12-1	1.4922	-	-	2317	-	-	X20CrMoNi 12 01	-	-			
P5.0.Z.PH	05.11/15.11	X12CrS13	1.4005	416 S 21	-	2380	416	Z11CF13	X12 CrS 13	F-3411	SUS 416				
P5.0.Z.PH	05.11/15.11	X46Cr13	1.4034	420S45	56D	2304	-	Z40CM	X40Cr14	F.3405	SUS420J2				
P5.0.Z.PH	05.11/15.11	X19CrNi17-2	1.4057	431S29	57	2321	431	Z15CNI6.02	X16CrNi16	F.3427	SUS431				
P5.0.Z.PH	05.12/15.12	X5CrNiCuNb16-4	1.4542 1.4548	-	-	-	630	Z7CNU17-04	-	-	-				
P5.0.Z.PH	15.21	X4 CrNiMo16-5	1.4418	-	-	2387	-	-	Z6CND16-04-01	-	-				
P5.1.Z.AN/P5.0.Z.HT	05.11/15.11	X14CrMoS17	1.4104	-	-	2383	430F	Z10CF17	X10CrS17	F.3117	SUS430F				
Steel	P2.1.Z.AN	02.1	1.0045	Trade names	OVAKO 520M (Ovako Steel)	FORMAX (Uddeholm Tooling)	IMACRO NIT (Imatra Steel)	INEXA 482 (XM) (Inexa Profil)	S355J2G3(XM)	C45(XM)	16MnCrS5(XM)	INEXA280(XM)	070M20(XM)		
	P2.2.Z.AN	02.1												HARDOX 500 (SSAB – Swedish Steel Corp.)	
	P2.2.Z.AN	02.1													WELDOX 700 (SSAB – Swedish Steel Corp.)
	P2.5.Z.HT	02.2													
	P1.2.Z.AN														
	P1.2.Z.AN														
	P1.2.Z.AN														
	P2.5.Z.HT														
	P2.5.Z.HT														
	P2.5.Z.HT	02.2													
	P2.5.Z.HT	02.2													
	P2.5.Z.HT														
	P2.5.Z.HT														

Material cross reference list

ISO	MC	CMC	Country	Germany	Great Britain	Sweden	USA	France	Italy	Spain	Japan	
			Europe									
			Standard									
DIN EN	W.-nr.	BS	EN	SS	AISI/SAE/ASTM	AFNOR	UNI	UNE	JIS			
M	Austenitic stainless steel											
	M1.0.Z.AQ	05.11/15.11	X3CrNiMo13-4	1.4313	425C11	-	2385	CA6-NM	Z4CND13.4M Z38C13M	(G)X6CrNi304	-	SCS5
	M1.0.Z.AQ/M1.0.C.UT	05.11/15.11	X53CrMnNiN21-9	1.4871	349S54	-	-	EV8	Z52CMN21.09	X53CrMnNiN21 9	-	SUH35, SUH36
	M1.0.Z.AQ/M1.0.C.UT	05.21/15.21	X2CrNiN18-10	1.4311	304S62	-	2371	304LN	Z2CN18.10	-	-	SUS304LN
	M1.0.Z.AQ/M1.0.C.UT	05.21/15.21	X2CrNiMoN17-13-3	1.4429	-	-	2375	316LN	Z2CND17.13	-	-	SUS316LN
	M1.0.Z.AQ/M1.0.C.UT	05.21/15.21	X2CrNiMo17-12-2	1.4404	316S13	-	2348	316L	Z2CND17-12	X2CrNiMo1712	-	-
	M1.0.Z.AQ/M1.0.C.UT	05.21/15.21	X2CrNiMo18-14-3	1.4435	316S13	-	2353	316L	Z2CND17.12	X2CrNiMo17 12	-	SCS16, SUS316
	M1.0.Z.AQ/M1.0.C.UT	05.21/15.21	X3CrNiMo17-3-3	1.4436	316S33	-	2343, 2347	316	Z6CND18-12-03	X8CrNiMo1713	-	-
	M1.0.Z.AQ/M1.0.C.UT	05.21/15.21	X2CrNiMo18-15-4	1.4438	317S12	-	2367	317L	Z2CND19.15	X2CrNiMo18 16	-	SUS317L
	M1.0.Z.AQ/M1.0.C.UT	05.21/15.21	X6CrNiNb18-10	1.4550	347S17	58F	2338	347	Z6CNNb18.10	X6CrNiNb18 11	F.3552 F.3524	SUS347
	M1.0.Z.AQ/M1.0.C.UT	05.21/15.21	X6CrNiMoTi17-12-2	1.4571	320S17	58J	2350	316Ti	Z6NDT17.12	X6CrNiMoTi17 12	F.3535	-
	M1.0.Z.AQ/M1.0.C.UT	05.21/15.21	X10CrNiMoNb 18-12	1.4583	-	-	-	318	Z6CNDNb17 13B	X6CrNiMoNb17 13	-	-
	M1.0.Z.AQ/M1.0.C.UT	05.21/15.21	X15CrNiSi20-12	1.4828	309S24	-	-	309	Z15CNS20.12	-	-	SUH309
	M1.0.Z.AQ/M1.0.C.UT	05.21/15.21	X2CrNiMoN17-11-2	1.4406	301S21	58C	2370	308	Z1NCDU25.20	-	F.8414	SCS17
	M1.0.Z.AQ	05.21/15.21	X1CrNiMoCuN20-18-7	1.4547	-	-	2378	S31254	Z1CNDU20-18-06AZ	-	-	-
	M1.0.Z.AQ/M1.0.C.UT	05.21/15.21	X9CrNi18-8	1.4310	-	-	2331	301	Z12CN17.07	X12CrNi17 07	F.3517	SUS301
	M1.0.Z.PH	05.22/15.22	X7CrNiAl17-7	1.4568 1.4504	316S111	-	-	17-7PH	Z8CNA17-07	X2CrNiMo1712	-	-
	M1.0.Z.AQ/M1.0.C.UT	05.21/15.21	X2CrNi19-11	1.4306	304S11	-	2352	304L	Z2CN18-10	X2CrNi18 11	-	-
	M1.1.Z.AQ	05.21/15.21	-	-	304S12	-	-	-	-	-	-	-
	M1.1.Z.AQ	05.21/15.21	X5CrNi18-10	1.4301	304S31	58E	2332, 2333	304	Z6CN18.09	X5CrNi18 10	F.3504 F.3541	SUS304
	M1.1.Z.AQ	05.21/15.21	X5CrNi18-10	1.4301	304S15	58E	2332	304	Z6CN18.09	X5CrNi18 10	F.3551	SUS304
	M1.1.Z.AQ	05.21/15.21	X5CrNiMo17-2-2	1.4401	316S16	58J	2347	316	Z6CND17.11	X5CrNiMo17 12	F.3543	SUS316
	M1.1.Z.AQ	05.21/15.21	X6CrNiTi18-10	1.4541	321S12	58B	2337	321	Z6CNT18.10	X6CrNiTi18 11	F.3553 F.3523	SUS321
	M1.2.Z.AQ	05.21/15.21	X8CrNiS18-9	1.4305	303S21	58M	2346	303	Z10CNF 18.09	X10CrNiS 18.09	F.3508	SUS303
	Stainless steel	Super austenitic (Ni>20%) stainless steel										
M2.0.C.AQ		20.11	G-X40NiCrSi36-18	1.4865	330C11	-	-	-	-	XG50NiCr39 19	-	SCH15
M2.0.Z.AQ		05.21/15.21	X1NiCrMoCu25-20-5	1.4539	-	-	2562	UNS V 0890A	Z2 NCDU25-20	-	-	-
M2.0.Z.AQ		05.21/15.21	X8CrNi25-21	1.4845	310S24	-	2361	310S	Z12CN25 20	X6CrNi25 20	F.331	SUH310
M2.0.Z.AQ		20.11	X12NiCrSi36 16	1.4864	-	-	-	330	Z12NCS35.16	F-3313	-	SUH330
M2.0.Z.AQ		05.23/15.23	X1NiCrMoCu31-27-4	1.4563	-	-	2584	NO8028	Z1NCDU31-27-03	-	-	-
Duplex (austenitic/ferritic) stainless steel												
M3.1.Z.AQ/M3.1.C.AQ		05.51/15.51	X2CrNiN23-4	1.4362	-	-	2376	S31500	-	-	-	-
M3.1.Z.AQ/M3.1.C.AQ		05.51/15.51	X8CrNiMo27-5	-	-	-	2324	S32900	-	-	-	-
M3.2.Z.AQ/M3.2.C.AQ		05.52/15.52	X2CrNiN23-4	-	-	-	2327	S32304	Z2CN23-04AZ	-	-	-
M3.2.Z.AQ/M3.2.C.AQ	05.52/15.52	-	-	-	-	2328	-	-	-	-	-	
M3.2.Z.AQ/M3.2.C.AQ	05.52/15.52	X2CrNiMoN22-53	-	-	-	2377	S31803	Z2CND22-05-03	-	-	-	
	M1.1.Z.AQ	05.21/15.21		1.0045	Trade names							
	M1.1.Z.AQ	05.21/15.21	SANMAC 304 (Sandvik Steel)									
	M1.1.Z.AQ	05.21/15.21	SANMAC 304L (Sandvik Steel)									
	M1.1.Z.AQ	05.21/15.21	SANMAC 316 (Sandvik Steel)									
	M1.1.Z.AQ	05.21/15.21	SANMAC 316L (Sandvik Steel)									
	M1.0.Z.AQ	05.23/15.23	254 SMO									
	M2.0.Z.AQ	05.23/15.23	654 SMO									
	M3.2.Z.AQ	05.52/15.52	SANMAC SAF 2205 (Sandvik Steel)									
M3.2.Z.AQ	05.52/15.52	SANMAC SAF 2507 (Sandvik Steel)										

Material cross reference list

ISO	MC	CMC	Country									
			Europe	Germany	Great Britain	Sweden	USA	France	Italy	Spain	Japan	
			Standard									
			DIN EN	W.-nr.	BS	EN	SS	AISI/SAE/ASTM	AFNOR	UNI	UNE	JIS
K	Malleable cast iron											
	K1.1.C.NS	07.1	-	-	8 290/6	-	0814	-	MN 32-8	-	-	FCMB310
	K1.1.C.NS	07.1	EN-GJMB350-10	0.8135	B 340/12	-	0815	32510	MN 35-10	-	-	FCMW330
	K1.1.C.NS	07.2	EN-GJMB450-6	0.8145	P 440/7	-	0852	40010	Mn 450	GMN 45	-	FCMW370
	K1.1.C.NS	07.2	EN-GJMB550-4	0.8155	P 510/4	-	0854	50005	MP 50-5	GMN 55	-	FCMP490
					P 570/3		0858	70003	MP 60-3			FCMP540
	K1.1.C.NS	07.2	EN-GJMB650-2	0.8165	P570/3	-	0856	A220-70003	Mn 650-3	GMN 65	-	FCMP590
	K1.1.C.NS	07.3	EN-GJMB700-2	0.8170	P690/2	-	0862	A220-80002	Mn700-2	GMN 70	-	FCMP690
	Grey cast iron											
	K2.1.C.UT	08.1	-	-	-	-	0100	-	-	-	-	-
	K2.1.C.UT	08.1	EN-GJL-100	0.6010	-	-	0110	No 20 B	Ft 10 D	-	-	FC100
	K2.1.C.UT	08.1	EN-GJL-150	0.6015	Grade 150	-	0115	No 25 B	Ft 15 D	G 15	FG 15	FC150
	K2.1.C.UT	08.1	EN-GJL-200	0.6020	Grade 220	-	0120	No 30 B	Ft 20 D	G 20	-	FC200
	K2.1.C.UT	08.2	EN-GJL-250	0.6025	Grade 260	-	0125	No 35 B	Ft 25 D	G 25	FG 25	FC250
	K2.1.C.UT	08.2	EN-JLZ	0.6040	Grade 400	-	0140	No 55 B	Ft 40 D	-	-	-
	K2.2.C.UT	08.2	EN-GJL-300	0.6030	Grade 300	-	0130	No 45 B	Ft 30 D	G 30	FG 30	FC300
	K2.2.C.UT	08.2	EN-GJL-350	0.6035	Grade 350	-	0135	No 50 B	Ft 35 D	G 35	FG 35	FC350
	K2.3.C.UT	08.3	GGL-NiCr20-2	0.6660	L-NiCuCr202	-	0523	A436 Type 2	L-NC 202	-	-	-
	Nodular cast iron											
	K3.1.C.UT	09.1	EN-GJS-400-15	0.7040	SNG 420/12	-	0717-02	60-40-18	FCS 400-12	GS 370-17	FGE 38-17	FCD400
	K3.1.C.UT	09.1	EN-GJS-400-18-LT	0.7043	SNG 370/17	-	0717-12	-	FGS 370-17	-	-	-
	K3.1.C.UT	09.1	EN-GJS-350-22-LT	0.7033	-	-	0717-15	-	-	-	-	-
	K3.1.C.UT	09.1	EN-GJS-800-7	0.7050	SNG 500/7	-	0727	80-55-06	FGS 500-7	GS 500	FGE 50-7	FCD500
	K3.2.C.UT	09.2	EN-GJS-600-3	0.7060	SNG 600/3	-	0732-03	-	FGS 600-3	-	-	FCD600
	K3.3.C.UT	09.2	EN-GJS-700-2	0.7070	SNG 700/2	-	0737-01	100-70-03	FGS 700-2	GS 700-2	FGS 70-2	FCD700
	K3.5.C.UT	-	EN-GJSA-XNiCr20-2	0.7660	Grade S6	-	0776	A43D2	S-NC 202	-	-	-
	Compacted graphite iron											
	K4.1.C.UT	-	EN-GJV-300									
K4.1.C.UT	-	EN-GJV-350										
K4.2.C.UT	-	EN-GJV-400										
K4.2.C.UT	-	EN-GJV-450										
K4.2.C.UT	-	EN-GJV-500										
Austempered ductile iron												
K5.1.C.NS	-	EN-GJS-800-8	-	-	-	-	ASTM A897 No. 1	-	-	-	-	
K5.1.C.NS	-	EN-GJS-1000-5	-	-	-	-	ASTM A897 No. 2	-	-	-	-	
K5.2.C.NS	-	EN-GJS-1200-2	-	-	-	-	ASTM A897 No. 3	-	-	-	-	
K5.2.C.NS	-	EN-GJS-1400-1	-	-	-	-	ASTM A897 No. 4	-	-	-	-	
K5.3.C.NS	-	-	-	-	-	-	ASTM A897 No. 5	-	-	-	-	

Material cross reference list

ISO	MC	CMC	Country									
			Europe	Germany	Great Britain		Sweden	USA	France	Italy	Spain	Japan
			Standard									
			DIN EN	W.-nr.	BS	EN	SS	AISI/SAE/ASTM	AFNOR	UNI	UNE	JIS
N	Aluminium based alloys											
	N1.3.C.AG	30.21	G-AISI9MGWA	3.2373	-	-	4251	SC64D	A-S7G	-	-	C4BS
	N1.3.C.UT	30.21	G-ALMG5	-	LM5	-	4252	GD-AISI12	A-SU12	-	-	AC4A
	N1.3.C.UT/N1.3.C.AG	30.21/30.22	-	-	LM25	-	4244	356.1	-	-	-	A5052
	N1.3.C.UT	-	GD-AISi12	-	-	-	4247	A413.0	-	-	-	A6061
	N1.3.C.AG	-	GD-AISI8Cu3	-	LM24	-	4250	A380.1	-	-	-	A7075
	N1.3.C.UT	-	G-AISI12(Cu)	-	LM20	-	4260	A413.1	-	-	-	ADC12
	N1.3.C.UT	-	G-AISI12	-	LM6	-	4261	A413.2	-	-	-	-
N1.3.C.AG	-	G-AISI10Mg(Cu)	-	LM9	-	4253	A360.2	-	-	-	-	
S	Nickel based alloys											
	S2.0.Z.AG	20.22	S-NiCr13A16MoNb	LW2 4670	mar-46	-	-	5391	NC12AD	-	-	-
	S2.0.C.UT	20.24	NiCo15Cr10MoAlTi	LW2 4674	-	-	-	AMS 5397	-	-	-	-
	S2.0.Z.AG	20.22	NiFe35Cr14MoTi	LW2.4662	-	-	-	5660	ZSNCDT42	-	-	-
	S2.0.Z.AG	20.22	NiCr19Fe19NbMo	LW2.4668	HR8	-	-	5383	NC19eNB	-	-	-
	S2.0.Z.AG	20.22	NiCr20TiAk	2.4631	Hr401.601	-	-	-	NC20TA	-	-	-
	S2.0.Z.AG	20.22	NiCr19Co11MoTi	2.4973	-	-	-	AMS 5399	NC19KDT	-	-	-
	S2.0.Z.AG	20.22	NiCr19Fe19NbMo	LW2.4668	-	-	-	AMS 5544	NC20K14	-	-	-
	S2.0.Z.AN	20.21	-	2.4603	-	-	-	5390A	NC22FeD	-	-	-
	S2.0.Z.AN	20.21	NiCr22Mo9Nb	2.4856	-	-	-	5666	NC22FeDNB	-	-	-
	S2.0.Z.AN	20.21	NiCr20Ti	2.4630	HR5.203-4	-	-	-	NC20T	-	-	-
	S2.0.Z.AG	20.22	NiCu30AL3Ti	2.4375	3072-76	-	-	4676	-	-	-	-
	Cobalt alloys											
	-	-	CoCr20W15Ni	-	-	-	-	5537C, AMS	KC20WN	-	-	-
	S3.0.Z.AG	20.32	CoCr22W14Ni	LW2.4964	-	-	-	5772	KC22WN	-	-	-
	Titanium alloys											
	S4.2.Z.AN	23.22	TiAl5Sn2.5	3.7115.1	TA14/17	-	-	UNS R54520	T-A5E	-	-	-
	S4.2.Z.AN	23.22	TiAl6V4	3.7165.1	TA10-13/TA28	-	-	UNS R56401	UNS R56400	-	-	-
	S4.3.Z.AN	23.22	TiAl5V5Mo5Cr3	-	-	-	-	-	T-A6V	-	-	-
	S4.2.Z.AN	23.22	TiAl4Mo4Sn4Si0.5	3.7185	-	-	-	-	-	-	-	-
Heat resistant super alloys	Trade names											
	Iron based alloys											
	S2.0.Z.UT/S2.0.Z.AN	20.11	Incoloy 800									
	Nickel based alloys											
	S2.0.Z.AN	20.2	Haynes 600									
	S2.0.Z.AN	20.2	Nimocast PD16									
	S2.0.Z.AG	20.2	Nimonic PE 13									
	S2.0.Z.AG	20.2	Rene 95									
	S2.0.Z.AN	20.21	Hastelloy C									
	S2.0.Z.AN	20.21	Incoloy 825									
	S2.0.Z.AN	20.21	Inconel 600									
	S2.0.Z.AN	20.21	Monet 400									
	S2.0.Z.AG	20.22	Inconel 700									
	S2.0.Z.AG	S2.0.Z.AG	Inconel 718									
	S2.0.Z.AG	20.22	Mar – M 432									
	S2.0.Z.AG	20.22	Nimonic 901									
	S2.0.Z.AG	20.22	Waspaloy									
	S2.0.C.NS	20.24	Jessop G 64									
	Cobalt alloys											
	S3.0.Z.AG	20.3	Air Resist 213									
S3.0.Z.AG	20.3	Jetalloy 209										
H	Hardened materials											
	H1.2.Z.HA	04.1	X100CrMo13	1.4108	-	-	2258 08	440A	-	-	-	C4BS
	H1.3.Z.HA	04.1	X110CrMoV15	1.4111	-	-	2534 05	610	-	-	-	AC4A
	H1.2.Z.HA	04.1	X65CrMo14	-	-	-	2541 06	0-2	-	-	-	AC4A
Hardened materials												

For the sake of the environment

Get into the Sandvik Coromant Recycling Concept (CRC) now!

The Sandvik Coromant Recycling Concept (CRC) is a comprehensive service for used carbide inserts and solid carbide tools offered by Sandvik Coromant to all its customers.

In the light of increasing consumption of non-renewable raw materials, the economic management of dwindling resources is a duty owed by all manufacturers.

Sandvik Coromant is playing its part by offering to collect used carbide inserts and solid carbide tools and recycle them in the most environmentally friendly way.

All used carbide inserts are collected in the collection box at the workplace.

When the collection box is sufficiently full, its contents are transferred to the transport box. The full transport box is then sent to the nearest Sandvik Coromant office or to your Sandvik Coromant dealer who can also give you more information.

The benefits of the CRC speak for themselves

- A worldwide ISO and OHAS certified recycling system.
- Open to all Sandvik Coromant customers.
- Simple procedure with collection and transport boxes.
- Less waste, easing the burden on the environment.
- Better utilisation of resources.
- Other manufacturers' carbide inserts are also accepted.



Order collection boxes for each lathe, milling machine, drill or for your machining centre. We recommend one collection box for inserts and one separate box for solid carbide tools for each cutting workplace.

For detailed instructions on how to sell your used cemented carbide, please visit www.sandvik.coromant.com and select your market.

Collection box (yellow):	Order numbers
Transport box for solid carbide tools (plywood):	91617
Transport box inserts (plywood):	92994
	92995

General turning inserts

Inserts, metric

C	N	M	G	12	04	08	-			-	PF
1	2	3	4	5	6	7		8	9		12

Inserts, inch

C	N	M	G	4	3	2	-			-	PF
1	2	3	4	5	6	7		8	9		12

Inserts, advanced cutting materials, metric

C	N	G	A	12	04	08	-	T	010	20
1	2	3	4	5	6	7		8	10	11

Inserts, advanced cutting materials, inch

C	N	G	A	4	3	2	-	T	03	20
1	2	3	4	5	6	7		8	10	11

1 Insert shape

C 	D 
K 	R 
S 	T 
V 	W 

2 Insert clearance angle

B 	C 
E 	N 
P 	O Specific description

3 Tolerances, metric

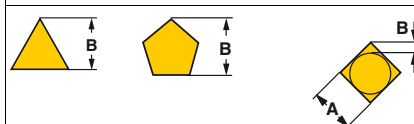
Class	S	IC / W1
G	±0.13	±0.025
M	±0.13	±0.05 – ±0.15 ¹⁾
U	±0.13	±0.08 – ±0.25 ¹⁾
E	±0.025	±0.025

¹⁾Varies depending on the size of IC. See below.

Inscribed circle IC mm	Tolerance class	
	M	U
3.97		
5.0		
5.56		
6.0		
6.35		
8.0		
9.525		
10.0		
12.0		
12.7		
15.875		
16.0		
19.05		
20.0		
25.0		
25.4		
31.75		
32.0		

For positive inserts iC is valid for a sharp corner. See cutting edge condition F. (Picture 8).

3 Tolerances, inch

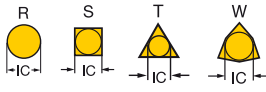


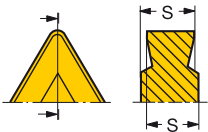
A: Theoretical diameter of the insert inscribed circle.
T: Thickness of the insert.
B: See figures.

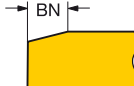
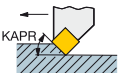
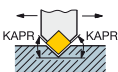
Tolerances in inch

Class	B:	A:	T:
A	±.0002	±.001	±.001
B	.0002	.001	.005
C	.0005	.001	.001
D	.0005	.001	.005
E	.001	.001	.001
F	.0002	.0005	.001
G	.001	.001	.005
H	.0005	.0005	.001
J	.0002	.002-.005	.001
K	.0005	.002-.005	.001
L	.001	.002-.005	.001
M	.002-.005	.002-.005	.005
U	.005-.012	.005-.010	.005
N	.002-.010	.002-.004	.001

General turning inserts

4 Insert type		5 Insert size													
A		Q		 Inscribed circle is indicated in 1/8". *) For insert shape K (KNMX, KNUX) only the theoretical cutting edge length is indicated.	Cutting edge length, metric										
G		R			IC mm	IC inch	C	D	R	S	T	V	W	K	
M		T													
N		W			3.18	1/8"					05				
P		X			Special design	3.97	5/32"					06		02	
						5.0	7/32"			05					
				5.56					09						
				6.0				06			11	11	04		
				6.35		1/4"	06	07							
				8.0					08						
				9.525		3/8"	09	11	09	09	16	16	06	16 ¹⁾	
				10.0		10.0			10						
				12.0					12						
				12.7		1/2"	12	15	12	12	22	22	08		
13			13				13								
15.875	5/8"	16		15	15	27									
16.0				16											
19.0	3/4"	19		19	19	33									
20.0				20											
25.0				25 ¹⁾											
25.4	1"	25		25 ²⁾	25										
31.75	1 1/4"			31											
32				32											
1) Metric base design															
2) Inch base design															

6	Insert thickness, S mm, inch	7	Nose radius, RE mm, inch	8	Cutting edge condition																																																																																			
																																																																																								
	<table><tr><th>Metric</th><th>Inch</th></tr><tr><td>01 S = 1.59</td><td>1 S = .0625</td></tr><tr><td>T1 S = 1.98</td><td>(1.2) S = .075</td></tr><tr><td>02 S = 2.38</td><td>(1.5) S = 3/32</td></tr><tr><td>03 S = 3.18</td><td>2 S = 1/8</td></tr><tr><td>T3 S = 3.97</td><td>(2.5) S = 5/32</td></tr><tr><td>04 S = 4.76</td><td>3 S = 3/16</td></tr><tr><td>05 S = 5.56</td><td>4 S = 1/4</td></tr><tr><td>06 S = 6.35</td><td>5 S = 5/16</td></tr><tr><td>07 S = 7.94</td><td>6 S = 3/8</td></tr><tr><td>09 S = 9.52</td><td>6.3 S = .394</td></tr><tr><td>10 S = 10.00</td><td>7.6 S = .475</td></tr><tr><td>12 S = 12.00</td><td></td></tr></table>	Metric	Inch	01 S = 1.59	1 S = .0625	T1 S = 1.98	(1.2) S = .075	02 S = 2.38	(1.5) S = 3/32	03 S = 3.18	2 S = 1/8	T3 S = 3.97	(2.5) S = 5/32	04 S = 4.76	3 S = 3/16	05 S = 5.56	4 S = 1/4	06 S = 6.35	5 S = 5/16	07 S = 7.94	6 S = 3/8	09 S = 9.52	6.3 S = .394	10 S = 10.00	7.6 S = .475	12 S = 12.00			<table><tr><th>Metric:</th><th>Inch:</th><th>Actual dimension: inch</th></tr><tr><td>00 = 0</td><td>00</td><td>Round</td></tr><tr><td>01 = 0.1</td><td>03</td><td>.004</td></tr><tr><td>02 = 0.2</td><td>0</td><td>.008</td></tr><tr><td>04 = 0.4</td><td>1 = 1/64</td><td>.0156</td></tr><tr><td>05 = 0.5</td><td></td><td></td></tr><tr><td>08 = 0.8</td><td>2 = 1/32</td><td>.0312</td></tr><tr><td>10 = 1.0</td><td></td><td></td></tr><tr><td>12 = 1.2</td><td>3 = 3/64</td><td>.047</td></tr><tr><td>15 = 1.5</td><td></td><td></td></tr><tr><td>16 = 1.6</td><td>4 = 1/16</td><td>.0625</td></tr><tr><td>24 = 2.4</td><td>6 = 3/32</td><td>.094</td></tr><tr><td>32 = 3.2</td><td>8 = 1/8</td><td>.125</td></tr></table>	Metric:	Inch:	Actual dimension: inch	00 = 0	00	Round	01 = 0.1	03	.004	02 = 0.2	0	.008	04 = 0.4	1 = 1/64	.0156	05 = 0.5			08 = 0.8	2 = 1/32	.0312	10 = 1.0			12 = 1.2	3 = 3/64	.047	15 = 1.5			16 = 1.6	4 = 1/16	.0625	24 = 2.4	6 = 3/32	.094	32 = 3.2	8 = 1/8	.125		<table><tr><td>F</td><td></td><td>Sharp cutting edge</td></tr><tr><td>A</td><td></td><td>ER treated cutting edge (ANSI)</td></tr><tr><td>E</td><td></td><td>ER treated cutting edge</td></tr><tr><td>T</td><td></td><td>Negative land</td></tr><tr><td>K</td><td></td><td>Double negative lands</td></tr><tr><td>S</td><td></td><td>Negative land and ER treated cutting edge</td></tr></table>	F		Sharp cutting edge	A		ER treated cutting edge (ANSI)	E		ER treated cutting edge	T		Negative land	K		Double negative lands	S		Negative land and ER treated cutting edge
Metric	Inch																																																																																							
01 S = 1.59	1 S = .0625																																																																																							
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Metric:	Inch:	Actual dimension: inch																																																																																						
00 = 0	00	Round																																																																																						
01 = 0.1	03	.004																																																																																						
02 = 0.2	0	.008																																																																																						
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S		Negative land and ER treated cutting edge																																																																																						

9 Hand of tool	10 Chamfer width metric, inch	11 Chamfer angle
R  Feed	 Metric: 010 BN = 0.10 025 BN = 0.25 070 BN = 0.70 150 BN = 1.50 200 BN = 2.00 Inch: 03 BN = .003 08 BN = .008 30 BN = .030 60 BN = .060 80 BN = .080	 15 GB = 15° 20 GB = 20°
L Feed 		
N Feed  Feed	For more information, see code key on page I16	

12 Manufacturer's option
The ISO code consists of nine symbols including 8 and 9 which are used only when required. In addition the manufacturer may add further three symbols e. g. - WF = Wiper – finishing - WMX = Wiper, medium machining - PF = ISO P – finishing - PR = ISO P – roughing

Inserts for advanced materials

Metric

C	N	G	A	12	04	08	T	010	20	R	A	WG
1	2	3	4	5	6	7	8	9	10	11	12	13

Inch

C	N	G	A	4	3	2	T	03	20	R	A	WG
1	2	3	4	5	6	7	8	9	10	11	12	13

1 Insert shape	
C	
D	
K	
R	
S	
T	
V	
W	

2 Insert clearance angle	
B	
C	
E	
N	
P	
O	Specific description

3 Tolerances, metric	
Class	S
G	±0.13
M	±0.13
U	±0.13
E	±0.025
IC / W1	
	±0.025
	±0.05 – ±0.15 ¹⁾
	±0.08 – ±0.25 ¹⁾
	±0.025
¹⁾ Varies depending on the size of IC. See below.	
Inscribed circle	Tolerance class
IC mm	M
3.97	
5.0	
5.56	
6.0	
6.35	±0.05
8.0	
9.525	
10.0	
12.0	±0.08
12.7	
15.875	
16.0	±0.10
19.05	
20.0	
25.0	±0.13
25.4	
31.75	±0.15
32.0	
	U
	±0.08
	±0.13
	±0.18
	±0.25
	±0.25

For positive inserts iC is valid for a sharp corner. See cutting edge condition F. (Picture 8).

3 Tolerances, inch	
	
	
A: Theoretical diameter of the insert inscribed circle. T: Thickness of the insert. B: See figures.	
Tolerances in inch	
Class B:	A:
A ±.0002	±.001
B .0002	.001
C .0005	.001
D .0005	.001
E .001	.001
F .0002	.0005
G .001	.001
H .0005	.0005
J .0002	.002-.005
K .0005	.002-.005
L .001	.002-.005
M .002-.005	.002-.005
U .005-.012	.005-.010
N .002-.010	.002-.004

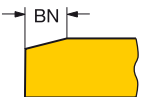
5 Insert size	
Inscribed circle, inch	Cutting edge length, metric
IC mm	IC inch
3.18	1/8"
3.97	5/32"
5.0	
6.0	
6.35	1/4"
8.0	
9.525	3/8"
10.0	
12.0	
12.7	1/2"
15.875	5/8"
16.0	
19.0	3/4"
20.0	
25.0	1"
25.4	1/4"
31.75	
32	

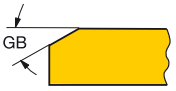
4 Insert type	
A	
Q	
G	
R	
M	
T	
N	
W	
P	
X	
	Special design

6 Insert thickness, S mm, inch			
 			
Metric		Inch	
01	S = 1.59	1.	S = .0625
T1	S = 1.98	(1.2)	S = .075
02	S = 2.38	(1.5)	S = 3/32
03	S = 3.18	2	S = 1/8
T3	S = 3.97	(2.5)	S = 5/32
04	S = 4.76	3	S = 3/16
05	S = 5.56	4	S = 1/4
06	S = 6.35	5	S = 5/16
07	S = 7.94	6	S = 3/8
09	S = 9.52	6.3	S = .394
10	S = 10.00	7.6	S = .475
12	S = 12.00		

7 Nose radius, RE mm, inch		
		
Metric:	Inch:	Actual dimension:
00 = 0	00	Round
01 = 0.1	03	.004
02 = 0.2	0	.008
04 = 0.4	1 = 1/64	.0156
05 = 0.5		
08 = 0.8	2 = 1/32	.0312
10 = 1.0		
12 = 1.2	3 = 3/64	.047
15 = 1.5		
16 = 1.6	4 = 1/16	.0625
24 = 2.4	6 = 3/32	.094
32 = 3.2	8 = 1/8	.125
Note: See example for approximation of metric nose radius. 16=1.6mm=.063≈.0625		

8 Cutting edge condition		
F		Sharp cutting edge
E (A)		ER treated cutting edge
		A (inch) E (metric)
T		Negative land
K		Double negative lands
S		Negative land and ER treated cutting edge

9 Chamfer width		
	ISO mm	ANSI inch
	010 BN = 0.10	03 BN = (.003)
	015 BN = 0.15	06 BN = (.006)
	020 BN = 0.20	08 BN = (.0078)
	025 BN = 0.25	08 BN = (.0098)
	070 BN = 0.70	30 BN = (.030)
	150 BN = 1.50	60 BN = (.060)
	200 BN = 2.00	80 BN = (.080)

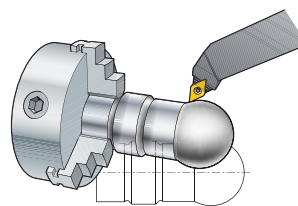
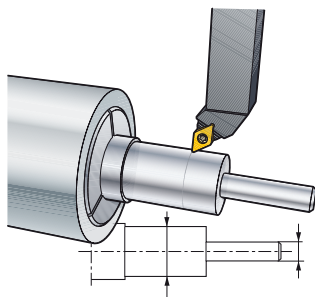
10 Chamfer angle, degrees		
	15 GB = 15°	30 GB = 30°
	20 GB = 20°	35 GB = 35°
	25 GB = 25°	

11 Hand of insert	
Inserts designed solely for machining in left or right direction are indicated as below.	
R	Right hand design
L	Left hand design

12 Insert Type (CBN)		
To allow a variety of machining demands to be met, several types of inserts comprising CBN and PCD is manufactured. To easy identify the different types Sandvik Coromant uses a letter to denote the variants.		
A	CBN, Multi Corner Inserts - Fully indexable - CBN top to bottom of the carbide carrier corners	
B	CBN, Multi Corner Inserts - Fully indexable - CBN brazed to the top and bottom of the carbide carrier corners.	
E	CBN, Single tip inserts - Non-indexable - CBN brazed to the top of one of the carbide carrier corners	
F	CBN, Multi tip inserts - Indexable - CBN brazed to each corner of the carbide carrier	
D	CBN, Full top inserts - Indexable - CBN sintered to the complete top surface of the carbide carrier	
M	CBN, Solid inserts - Fully indexable - Complete insert mode from CBN	

13 Wiper Geometry		
Our unique Wiper and Xcel technologies can be used to boost productivity and generate superior surface finish.		
WG	Wiper geometry for general purpose machining Allows high feed rates in HPT Suitable for finish machining of GCI	
WH	Wiper geometry optimized for HPT Low cutting forces for superior surface finish Designed for peak performance at HPT finishing feed rates	
Xcel	Allows the use of higher feed rates than other wiper geometries	
XA	Maintains surface finish	

CoroTurn® TR



Profile turning operations place extreme demands on the insert and tool holder through variations in forces. This can cause problems of reduced component quality in medium to finish machining.

The new design ensures quality requirements are met in external machining and is well suited to medium and finish profile turning, in a wide range of materials.

The CoroTurn TR provides a unique design solution in this area, with an innovative clamping interface to enable highly secure and stable positioning of the insert in the insert seat. This firm location will improve quality and productivity in turning operations for V (35°) and D (55°) style inserts.

Code key for insert

TR	-	D	C	13	04	-	F
1		2	3	4	5		6

1 Family name CoroTurn TR

2 Insert shape

D=55° , V=35°

3 Insert clearance angle

C=7° , B=5°

Code key for shank holder

Metric

TR	-	D	13	J	C	R	-	20	20	K
1		2	3	4	5	6		7	8	9

Inch

TR	-	D	13	J	C	R	-	12	B
1		2	3	4	5	6		13	9

2 Insert shape

D=55° , V=35°

3 Insert size

4 Holder style, entering angle

J=93° , N=63°

5 Insert clearance angle

C=7° , B=5°

4 Insert size

Cutting edge length, 13 mm (.512 inch)

5 Nose radius, RE

04 = 0.4 mm (.016 inch)

08 = 0.8 mm (.031 inch)

12 = 1.2 mm (.047 inch)

6 Holder style

R = Right hand

L = Left hand

N = Neutral

7 Shank size height, Hmm

8 Shank size width, B mm

9 Shank tool length, LF mm/ inch

K = 125 mm

M = 150 mm

P = 170 mm

B = 4.5 inch

D = 6 inch

2. Insert shape



3/ 5. Insert clearance angle



6 Insert geometry

F = Finishing

M = Medium machining

Coromant Capto

TR	-	C4	-	D	13	J	C	R	-	27	050
1		10		2	3	4	5	6		11	12

10 Coromant Capto coupling size

11 Coromant Capto WF dimension mm

12 Coromant Capto tool length, mm

13 Shank size inch width and height

12 = ¾x¾

16 = 1x1

CoroTurn® XS

Insert for turning

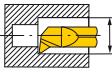
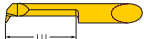
CXS	04	T	098	A	10	-	22	06	R
1	2	3	4	13	5		9	10	12

Insert for grooving

CXS	06	F	100	-	62	15	A	R
1	2	3	6		9	10	11	12

Insert for threading

CXS	04	TH	050	VM	-	42	15	R
1	2	3	7	8		9	10	12

1 Main code CXS = CoroTurn® XS	2 Insert size mm  04 = 4 mm (.157 inch) 05 = 5 mm (.197 inch) 06 = 6 mm (.236 inch) 07 = 7 mm (.276 inch)	3 Type of operation T = Turning TE = Turning copying, extended f_1 -dimension F = Face grooving G = Grooving GX = Pre-parting R = Profiling full radius TH = Threading B = Back boring
4 Entering angle (Turning) E.g.: 098 = 98° Entering angle 98° Lead angle -8°		
5 Nose radius, RE mm (Turning)  E.g.: 10 = 0.1 mm (.004 inch) 15 = 0.15 mm (.006 inch) 20 = 0.2 mm (.008 inch)	6 Insert width, CW mm (Grooving)  CW E.g.: 100 = 1.00 mm	7 Pitch, mm (Threading) mm: pitch x 100 inch: No. of threads per inch x 10
8 Thread profile (Threading) VM = V-Profile 60° WH = Whitworth 55° NT = NPT 60° UN = UN 60° MM = MM 60° TR = Trapezoidal 30°	9 Min bore diameter, DMIN.  min. hole E.g.: 22 = 2.2 mm (.087 inch)	10 Penetration depth, LU  E.g.: 06 = 6 mm (.236 inch)
11 Type of curve (Face grooving) A = A-curved	13 Geometry - = Without chip forming geometry A = Chip forming geometry	
12 Hand of insert R = Right hand style L = Left hand style		

CoroTurn® XS

Boring bars

CXS	A	10	-	04
1	2	3		4

Double ended boring bars

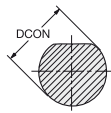
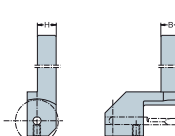
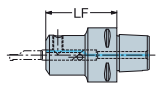
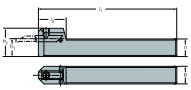
CXS	A	10	-	04	-	04
1	2	3		4		5

Shank tool

CXS	-	1010	-	04	F	N
1		6		4	10	7

Coromant Capto® holder

C4	-	CXS	-	47	-	04
8		1		9		4

1 Main code CXS = CoroTurn® XS	2 Type of bar A = Steel bar with internal coolant supply	3 Bar diameter, DCON  Metric 10 = 10 mm Inch 0500 = 1/2"
4 Insert size  04 = 4 mm (.157 inch) 05 = 5 mm (.197 inch) 06 = 6 mm (.236 inch) 07 = 7 mm (.276 inch)	5 Insert size for sub-spindle For double ended boring bars, same as 4.	6 Shank size (width and height), mm  H = 10 mm (.394 inch) B = 10 mm (.394 inch)
7 Hand of tool L = Left hand style R = Right hand style N = Neutral	9 Coromant Capto® length LF = 47 mm (1.850 inch) 	10 Shank style F = 0° 
8 Coromant Capto® size C3: DCON = 32 mm (1.260 inch) C4: DCON = 40 mm (1.575 inch) C5: DCON = 50 mm (1.968 inch) C6: DCON = 63 mm (2.480 inch)		

Shank tools and Coromant Capto® cutting units

Coromant Capto®

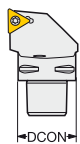
C3	-	D	C	L	N	R	22	040	-	09	-	
1		2	3	4	5	6	9	10		11		12

Shank tool, metric

D	C	L	N	R	25	25	M	12	-	2
2	3	4	5	6	7	8	10	11		13

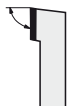
Shank tool, inch

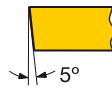
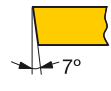
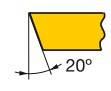
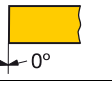
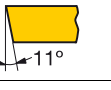
D	C	L	N	R	16	4	D	-	
2	3	4	5	6	7-8	11	10		12

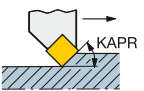
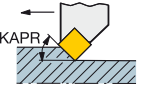
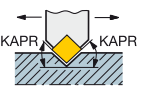
1 Coupling size, mm	2 Clamping system				
C = Coromant Capto® DCON = Coupling size					
					
CZC _{MS}					
C3					
C4					
C5					
C6					
C8					
Coromant Capto®					

C  Top clamping	D  Top and hole clamping (RC)	M, W  Top and hole clamping	P  Hole clamping	S  Screw clamping
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3 Insert shape	
C 	D 
K 	R 
S 	T 
V 	W 

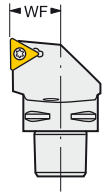
4 Holder style entering angle (lead angle)						
A 90° (0°) 	B 75° (15°) 	D 45° (45°) 	E 60° (30°) 	F 91° (-1°) 	G 91° (-1°) 	H 107.5° (-17.5°) 
J 93° (-3°) 	K 75° (15°) 	L 95° (-5°) 	M 50° (40°) 	N 62.5° (27.5°) 	R 75° (15°) 	
S 45° (45°) 	T 60° (30°) 	U 93° (-3°) 	V 72.5° (17.5°) 	Y(X) 85° (5°) 	Y(Z) 85° (5°) 	

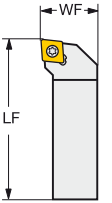
5 Insert clearance angle	
B 	C 
D 	E 
N 	P 
O Specific description	

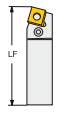
6 Hand of tool	
R 	L 
N 	

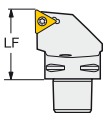
7 & 8 Shank size (B, width and H, height) inch	
05 = 5/16 X 5/16	85 = 1 X 1 1/4
06 = 3/8 X 3/8	86 = 1 X 1 1/2
08 = 1/2 X 1/2	20 = 1 1/4 X 1 1/4
10 = 5/8 X 5/8	24 = 1 1/2 X 1 1/2
12 = 3/4 X 3/4	32 = 2 X 2
16 = 1 X 1	
The seventh and eight position shall be a single significant two digit number which indicates the holders cross section. For shanks 5/8" square and over the number will represent the number of sixteenths inch of width and height.	
For shanks under 5/8" square the number of sixteenths inch of cross section will be preceded by a zero.	
For rectangular holders the first digit represents the number of eighths inch width, and the second digit the number of quarters inch of height.	

7 & 8 Shank size (B, width and H, height) metric	
7 Shank height	* Integers to be preceded by 0, e.g. H = 8 mm indicated by 08
8 Shank width	* Integers to be preceded by 0, e.g. B = 8 mm indicated by 08

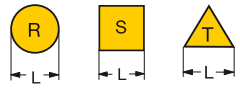
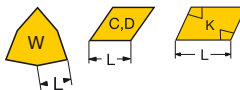
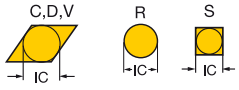
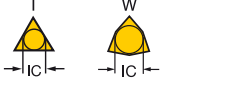
9 WF dimension, Coromant Capto®

WF-dimension in mm (2 digits)

10 Tool length and width, inch	
	A LF = 4" B LF = 4.5" C LF = 5" D LF = 6" E LF = 7" F LF = 8" M LF = 4" N LF = 4.5" P LF = 5" R LF = 6" S LF = 7" T LF = 8"

10 Shank tool length, metric	
	A = 32 mm N = 150 mm B = 40 mm P = 170 mm C = 50 mm Q = 180 mm D = 60 mm R = 200 mm E = 70 mm S = 250 mm G = 80 mm T = 300 mm H = 100 mm U = 350 mm J = 110 mm V = 400 mm K = 125 mm W = 400 mm L = 140 mm M = 150 mm X = Special

10 Coromant Capto® tool length, metric

LF-dimension in mm (3 digits)

SANDVIK standard	
G	LF = 5.5"
U	LF = 5.5"
V	LF = 3.5"
K	LF = 14"

11 Insert size	
Metric Cutting edge length  Cutting edge length is indicated in mm.  Integer (not rounded off).	Inch Inscribed circle is indicated in 1/8".  C,D,V R S  T W
	1.2 = 5/32 1.5 = 3/16 1.8 = 7/32 2 = 1/4 2.5 = 5/8 3 = 3/8 4 = 1/2 5 = 5/8 6 = 3/4 8 = 1 10 = 1 1/4

12 Manufacturer's option
When required a supplementary symbol of max 3 letters may be added to the ISO code, separated by a dash, e g W for wedge design.
13 Clamping system ceramics
-2 = CoroTurn® RC holders for inserts with hole
-4 = CoroTurn® RC holders for inserts without hole

Shank tools and Coromant Capto® boring bars

Coromant Capto®

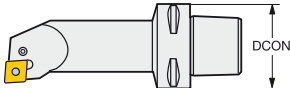
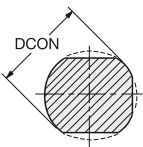
C3	-	S	C	L	C	R	-	11065	-	09	
1		5	6	7	8	9		13		10	11

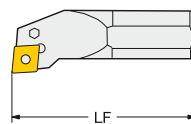
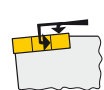
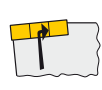
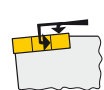
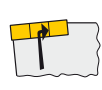
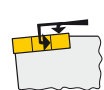
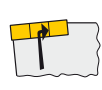
Shank tools, metric

S	40	V	-	S	C	L	C	R	12		-	ID
2	3	4		5	6	7	8	9	10	11		12

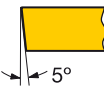
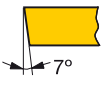
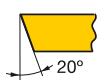
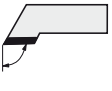
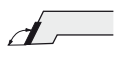
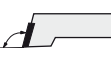
Shank tools, inch

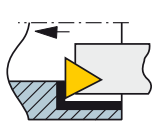
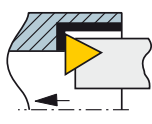
S	24	V	-	S	C	L	C	R	4	-	
2	3	4		5	6	7	8	9	10		11

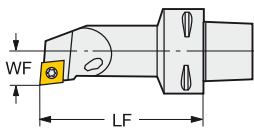
1 Coupling size	2 Type of bar	3 Bar diameter												
C = Coromant Capto® DCON = Coupling size  <table><tr><td>CZC_{MS}</td><td>DCON</td></tr><tr><td>C3</td><td>32</td></tr><tr><td>C4</td><td>40</td></tr><tr><td>C5</td><td>50</td></tr><tr><td>C6</td><td>63</td></tr><tr><td>C8</td><td>80</td></tr></table>	CZC _{MS}	DCON	C3	32	C4	40	C5	50	C6	63	C8	80	A = Solid steel bar with internal coolant supply. E = Carbide shank bar F = Dampened, carbide shank bar S = Solid steel bar without coolant	mm¹⁾ inch 03 = .1875 04 = .250 05 = .3125 06 = .375 08 = .500 10 = .625 12 = .750 16 = 1.000 20 = 1.250 24 = 1.500 28 = 1.750 32 = 2.000 36 = 2.250 40 = 2.500 
CZC _{MS}	DCON													
C3	32													
C4	40													
C5	50													
C6	63													
C8	80													

4 Tool length, LF mm, inch	5 Clamping system																																																					
Shank tool  <table><tr><td></td><td>Metric</td><td>Inch</td><td></td><td>Metric</td><td>Inch</td></tr><tr><td>F =</td><td>80</td><td>3.250</td><td>S =</td><td>250</td><td>10.000</td></tr><tr><td>H =</td><td>100</td><td>4.000</td><td>T =</td><td>300</td><td>12.000</td></tr><tr><td>K =</td><td>125</td><td>5.000</td><td>U =</td><td>350</td><td>14.000</td></tr><tr><td>M =</td><td>150</td><td>6.000</td><td>V =</td><td>400</td><td>15.750</td></tr><tr><td>P =</td><td>170</td><td>6.250</td><td>W =</td><td>450</td><td>17.750</td></tr><tr><td>Q =</td><td>180</td><td>7.250</td><td>Y =</td><td>500</td><td>20.000</td></tr><tr><td>R =</td><td>200</td><td>8.000</td><td>X =</td><td>Special</td><td></td></tr></table>		Metric	Inch		Metric	Inch	F =	80	3.250	S =	250	10.000	H =	100	4.000	T =	300	12.000	K =	125	5.000	U =	350	14.000	M =	150	6.000	V =	400	15.750	P =	170	6.250	W =	450	17.750	Q =	180	7.250	Y =	500	20.000	R =	200	8.000	X =	Special		<table><tr><td> C  Top clamping </td><td> D  Top and hole clamping (RC) </td><td> M,W  Top and hole clamping </td><td> P  Hole clamping </td><td> S  Screw clamping </td></tr></table>	C  Top clamping	D  Top and hole clamping (RC)	M,W  Top and hole clamping	P  Hole clamping	S  Screw clamping
	Metric	Inch		Metric	Inch																																																	
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C  Top clamping	D  Top and hole clamping (RC)	M,W  Top and hole clamping	P  Hole clamping	S  Screw clamping																																																		

1) For metric bars DCON in mm.

6 Insert shape		7 Bar style, lead angle (entering angle)		8 Clearance angle on major cutting edge	
C		D		B	
K		R		C	
S		T		D	
V		U		E	
		J		N	
		K		O	Specific description
		L		P	
		P			
		Q			
		U-X			

9 Hand of tool		10 Cutting edge length		11 Manufacturer's option	
R		Metric  		When required a supplementary symbol of max. 3 letters may be added to the ISO code, separated by a dash, e.g.	
L		Inch  		C = Coolant thru capabilities.	
		Cutting edge length is indicated in mm.		D = Extended WF dimension, + 1.0mm (.04")	
		Integer (not rounded off).		E = Extended WF dimension, + 2.0mm (.08")	
		Metric  		F = Extended WF dimension, + 3mm (.12")	
		Inch  		G = Altered dimensions	
		Metric  		L = Extended LF-dimension	
		Inch 		R = Cylindrical with groove for EasyFix	

12 Clamping system Ceramics		13 Coromant Capto cutting unit size, mm	
ID = Clamp with pressure plate		WF x LF 	
		Example C4-SCLOR 11065-09 WF = 11 mm (2 digits) LF = 065 mm (3 digits)	

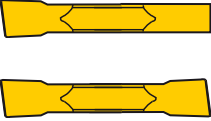
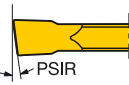
11 Manufacturer's option	
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F = Extended WF dimension, + 3mm (.12")	
G = Altered dimensions	
L = Extended LF-dimension	
R = Cylindrical with groove for EasyFix	
W = Wedge design	
X = Back boring	
B1 = B1 = For insert with thickness 03 = 3.18 mm (2 = 1/8").	

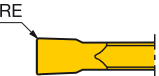
CoroCut® 1-2-3 edge inserts

N	123	H	2	-	0400	-	00	04	-	TF
1	2	3	4		5		6	7		8

1 Hand of insert	2 Main code	3 Seat size												
R  N  L 	123	CoroCut® 1-2 <table> <tr><td>D</td><td>G</td><td>K</td></tr> <tr><td>E</td><td>H</td><td>L</td></tr> <tr><td>F</td><td>J</td><td>M</td></tr> <tr><td></td><td></td><td>R</td></tr> </table> CoroCut® 3 T = Right hand cutting U = Left hand cutting To correspond with seat size on holder.	D	G	K	E	H	L	F	J	M			R
D	G	K												
E	H	L												
F	J	M												
		R												

Insert seat interchangeability:					
Insert seat size	Size, mm	Holder	Insert seat size	Size, mm	Holder
D	1.5	D	H	4.0	H
E	2.0	E	J	5.0	J, H
F	2.5	F, E	K	6.0	K, J, H
G	3.0	G, F, E	L	8.0	L
			M	9.0	M
			R	15.0	R

4 Number of edges	5 Insert width	6 Front angle
1 or 2  3 	E.g.: 0400 = .157 inch (4 mm) 	E.g.: 00 = 0° 05 = 5° 

7 Corner radius	8 Geometry designation																
E.g.: 04 = .016 inch (0.4 mm) 08 = .031 inch (0.8 mm) 	<table> <tr> <th>First digit: Type of operation</th><th>Second digit:</th></tr> <tr> <td>A = Aluminium/profiling</td><td>E = ER treated cutting edge</td></tr> <tr> <td>C = Cut off</td><td>F = Low feed</td></tr> <tr> <td>T = Turning</td><td>M = Medium feed</td></tr> <tr> <td>G = Grooving</td><td>R = High feed</td></tr> <tr> <td>R = Profiling</td><td>O = Optimized for special areas</td></tr> <tr> <td>B = Blank</td><td>S = Sharp cutting edge</td></tr> <tr> <td></td><td>G = Blank</td></tr> </table>	First digit: Type of operation	Second digit:	A = Aluminium/profiling	E = ER treated cutting edge	C = Cut off	F = Low feed	T = Turning	M = Medium feed	G = Grooving	R = High feed	R = Profiling	O = Optimized for special areas	B = Blank	S = Sharp cutting edge		G = Blank
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	G = Blank																

CoroCut® QD

Q	D	-	N	G	-	0300	00	02	-	CM
1	2		3	4		5	6	7		8

1 System	2 Application	3 Hand of insert
Q = CoroCut® QD	D = Deep parting and grooving	N/R/L N = Neutral, R = Right hand, L = Left hand

4 Seat size		
Insert seat size		Holder seat size
SSC	mm (inch)	SSC
B	1.00 - 1.19 (.039 - .047)	B
C	1.20 - 1.49 (.047 - .059)	C (B)
D	1.50 - 1.99 (.059 - .078)	D
E	2.00 - 2.30 (.079 - .091)	E
F	2.31 - 2.99 (.091 - .118)	F (E)
G	3.00 - 3.99 (.118 - .157)	G (F, E)
H	4.00 - 4.99 (.157 - .196)	H
J	5.00 - 5.99 (.197 - .236)	J
K	6.00 - 7.80 (.236 - .307)	K (J)
L	7.81 - 8.99 (.307 - .354)	L

5 Insert width	6 Insert front angle	7 Insert corner radius
CW 0400 = 4 mm (.157 inch)	PSIRL, PSIRR E.g.: 00 = 0°	RE 04 = 0.40 mm (.016 inch)

8 Insert geometry	
First letter	Second letter
C = Cut off	F = Low feed
T = Turning	M = Medium feed
B = Blank	R = High feed
	O = Optimizer
	L = Low carbon
	G = Blank

CoroCut® QD

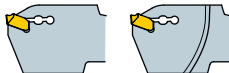
Q D - N N 2 G 60 C 25 A

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

1 System Q = CoroCut® QD	2 Application D = Deep parting and grooving	3 Tool coupling in hand N R L N = Neutral, R = Right hand, L = Left hand																																				
4 Tool in hand - insert side N/R/L N = Neutral, R = Right hand, L = Left hand	5 Number of insert seats 1 = One insert 2 = Two inserts	6 Seat size <table> <tr> <th>Insert seat size</th><th></th><th>Holder seat size</th></tr> <tr> <td>SSC</td><td>mm (inch)</td><td>SSC</td></tr> <tr> <td>B</td><td>1.00 - 1.19 (.039 - .047)</td><td>B</td></tr> <tr> <td>C</td><td>1.20 - 1.49 (.047 - .059)</td><td>C (B)</td></tr> <tr> <td>D</td><td>1.50 - 1.99 (.059 - .078)</td><td>D</td></tr> <tr> <td>E</td><td>2.00 - 2.30 (.079 - .091)</td><td>E</td></tr> <tr> <td>F</td><td>2.31 - 2.99 (.091 - .118)</td><td>F (E)</td></tr> <tr> <td>G</td><td>3.00 - 3.99 (.118 - .157)</td><td>G (F, E)</td></tr> <tr> <td>H</td><td>4.00 - 4.99 (.157 - .196)</td><td>H</td></tr> <tr> <td>J</td><td>5.00 - 5.99 (.197 - .236)</td><td>J</td></tr> <tr> <td>K</td><td>6.00 - 7.80 (.236 - .307)</td><td>K (J)</td></tr> <tr> <td>L</td><td>7.81 - 8.90 (.307 - .354)</td><td>L</td></tr> </table>	Insert seat size		Holder seat size	SSC	mm (inch)	SSC	B	1.00 - 1.19 (.039 - .047)	B	C	1.20 - 1.49 (.047 - .059)	C (B)	D	1.50 - 1.99 (.059 - .078)	D	E	2.00 - 2.30 (.079 - .091)	E	F	2.31 - 2.99 (.091 - .118)	F (E)	G	3.00 - 3.99 (.118 - .157)	G (F, E)	H	4.00 - 4.99 (.157 - .196)	H	J	5.00 - 5.99 (.197 - .236)	J	K	6.00 - 7.80 (.236 - .307)	K (J)	L	7.81 - 8.90 (.307 - .354)	L
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7 Cutting depth tool Max cutting depth, CDX Metric 60 = 60 mm Inch 1250 = 1.250 inch	8 Through coolant C = Coolant - = No coolant																																					
9 Blade height Cutting edge height, mm	10 Front end A = No or straight reinforcement D = 1 reinforcement curve D2 = 2 reinforcement curves A D D2																																					

CoroCut® QD

QS	-	Q	D	-	R	F	G	26	C	2525	D
1		2	3		4	5	6	7	8	9	10

1 Coupling	2 System	3 Application
SL QS Coromant Capto® C3-C8	Q = CoroCut® QD	D = Deep parting and grooving
4 Tool in hand	5 Holder style	6 Seat size
N/R/L N = Neutral, R = Right hand, L = Left hand	F = 0° G = 90° X = Other	Holder seat size SSC Size mm Insert seat size SSC B1.00 - 1.19B C (B)1.20 - 1.49C D1.50 - 1.99D E2.00 - 2.30E F (E)2.31 - 2.99F G (F, E)3.00 - 3.99G H4.00 - 4.99H J5.00 - 5.99J K (J)6.00 - 7.80K L7.81 - 8.99L
7 Cutting depth tool	8 Through coolant	
Max cutting depth, CDX Metric 60 = 60 mm Inch 1250 = 1.250 inch	C = Coolant - = No coolant	
9 Shank or coupling size/dia	10 Front end (reinforcement)	
Shank Metric 4 digits Inch 2 digits QS 4 digits 2 digits SL 2 digits	S = Swiss Designed for sliding head machines A = No reinforcement D = Reinforced curve 	

CoroCut® XS

Insert for parting

M	A	C	R	3	070	-	N
1	2	3	4	5	6		7

Insert for turning/grooving

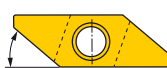
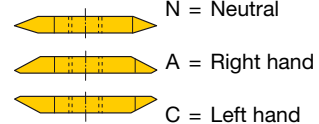
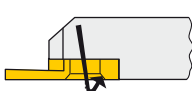
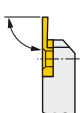
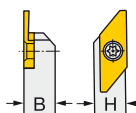
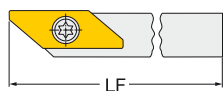
M	A	G	R	3	125
1	2	3	4	5	6

Insert for threading

M	A	T	R	3	60	-	A
1	2	3	4	5	8		9

Shank holder

S	M	A	L	R	1010	K	3	-	X
10	1	11	4	12	13	5			14

1 Family description  M =	2 Insert clearance angle A = 50° 	3 Type of operation C = Cut off/parting G = Grooving T = Threading F = Turning B = Back turning X = Semi-finishing blanks
4 Hand of insert/holder R = Right hand L = Left hand	5 Insert seat size 3	6 Insert thickness/corner radius, mm For parting insert width (CW) 070 = 0.70 mm (.028 inch) For back turning insert corner radius (RE) 005 = 0.05 mm (.002 inch)
7 For cut off inserts (C in third position) N = Neutral with geometry T = Neutral without geometry L = Left handed with geometry R = Right handed with geometry	8 For threading inserts (T in third position) 60 = V-profile 60°	9 For threading inserts Hand of thread point  N = Neutral A = Right hand C = Left hand
10 Clamping system S = Screw clamping 	11 Holder style AL = 90° 	12 Shank dimensions ex. 1010 = 10 x 10 (Metric version) ex. 08 = 1/2" x 1/2" (Inch version) 
13 Shank tool length, mm C : LF = 5" K : LF = 125 mm 	14 Additional information X = Special designed for working with sub-spindle 	

CoroCut® MB

Insert for turning/back boring

MB	-	07	T	093	A	-	02	-	10	R
1		2	3	4	16		5		9	12

Insert for grooving/pre-parting

MB	-	07	G	070	-	00	-	10	R
1		2	3	6		5		9	12

Insert for threading

MB	-	07	TH	050	VM	-	10	R
1		2	3	7	8		9	12

Boring bars

MB	-	A	16	-	16	-	07	R
1		13	14		10		2	15

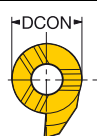
1 Main code

MB = CoroCut® MB

4 Entering angle (Turning)

E.g.: 093 = 93°

2 Insert size, mm

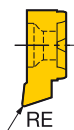


07 = 7 mm (.276 inch)
09 = 9 mm (.354 inch)

3 Type of operation

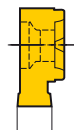
B = Back boring
G = Grooving
GX = Pre-parting
R = Profiling full radius
T = Turning
TE = Turning copying, extended f_1 -dimension
TH = Threading
FA = Face grooving A-curve
FB = Face grooving B-curve

5 Nose radius, RE mm (Turning)



E.g.: 00 = Sharp
02 = 0.2 mm (.008 inch)

6 Insert width, CW mm (Grooving)



E.g.: 100 = 1.00 mm (.039 inch)

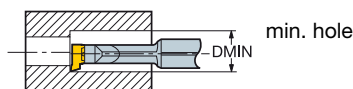
7 Pitch (Threading)

mm: pitch x 100
inch: No. of threads per inch x 10 (TPI)

8 Thread profile (Threading)

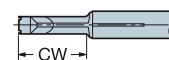
V = V profile 60°
M = Metric 60°
W = Whitworth 55°
U = UN 60°
NT = NPT 60°
AC = ACME 29°
SA = STUB-ACME

9 Min bore diameter, DMIN (Insert)



E.g.: 10 = 10 mm (.394 inch)

10 Penetration depth, CW (boring bar)

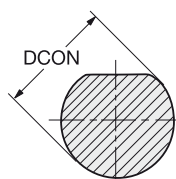


Inch E.g.:
06 = 0.630 inch
08 = 0.787 inch
12 = 1.260 inch
Metric E.g.:
16 = 16 mm

12 Hand of insert

R = Right hand style
L = Left hand style

14 Bar dia, DCON inch



Inch
0625 = .625 inch
Metric
16 = 16 mm

15 Shank type

R = Cylindrical
No symbol = With flats

13 Type of bar

A = Steel bar with internal coolant supply
E = Carbide shank bar

16 Geometry

- = Without chip forming geometry
A = Chip forming geometry

CoroCut® holders

Coromant Capto®

C4	-	R	F	123	E	15	-	27055	B
1		2	3	4	5	6		7	8

Shank holder

Metric

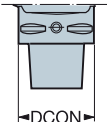
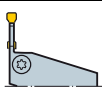
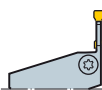
R	F	123	E	08	-	1616	B	-	007	064	B
2	3	4	5	6		7	8		10	12	13

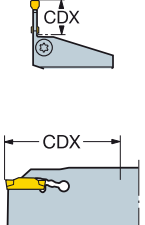
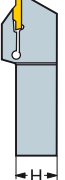
Inch

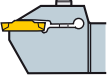
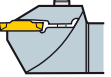
R	F	123	E	059	-	08	B	-	S
2	3	4	5	6		7	8		11

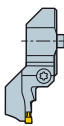
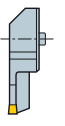
Blade

N	123	F	55	-	25	A	2
2	4	5	6		7	8	9

1 Coupling size			2 Hand of tool		3 Holder style			
C = Coromant Capto® DCON = Coupling size			R		F	G	X	
		DCON			0°	90°	1-70°	
	C3	mm 32						Inch (1.260)
	C4	40						(1.575)
	C5	50						(1.968)
	C6	63						(2.480)
C8	80	(3.150)						
			N					
			L					
					4 Main code			
					123			

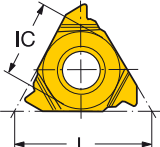
5 Insert seat size CoroCut® 1-2 D G K E H L F J M R CoroCut® 3 T = Right hand cutting U = Left hand cutting To correspond with seat size on insert.	6 Machining limitations  Max cutting depth, CDX in mm Metric 08 = 8 mm Inch 059 = .590 inch	7 Shank/cutting unit dimension Coromant Capto®  Shank tool  Inch Shank size in 1/16 inch eg. 08 = 8/16 = 1/2 H x B 08 Metric Integers to be preceded by 0, e.g. b = 8 mm indicated by 08 H B 16 16 Blade  Dimensions in mm.
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8 Clamping system A Spring clamp  B Screw clamp  C Shallow grooving  D Screw clamp reinforced 	9 Number of insert seats 1 One insert seat 2 Two insert seats	10 Holder angle 007 = 7° 045 = 45° 070 = 70° Valid for holder style = X
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11 Special application S = Holder for small part machines	12 Min. diameter for first cut, for face grooving Min. diameter for first cut in mm.	13 Type of curve, for face grooving  B = B curve  A = A curve
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CoroThread® 266

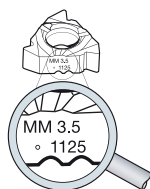
266	R	G	-	22	TR0	1	F	600		E	
1	2	3		4	5	6	7	8	9	10	11

1 Main code	2 Hand of tool	3 Type of machining	4 Insert size/dimension
266 = CoroThread 266	R = Right hand style L = Left hand style	G = Inserts for external threading L = Inserts for internal threading	16 = $iC 3/8'' = 9.52 \text{ mm}$ 22 = $iC 1/2'' = 12.70 \text{ mm}$ 27 = $iC 5/8'' = 15.88 \text{ mm}$ 

5 Thread profile	6 Number of points per cutting edge
VM0 = V-profile 60° VW0 = V-Profile 55° MM0 = Metric 60°? UN0 = UN 60° WH0 = Whitworth 55° NT0 = NPT 60°? RN0 = Round 30°? PT0 = BSPT 55° TR0 = Trapezoidal 30° AB0 = Butress 45°-7°	Varies from 1 to 3 points. 1 = 1 point 2 = 2 points 3 = 3 points

7 Cutting edge condition	8 Pitch	9 Supplementary code
A = Edge rounded (ER) F = Sharp cutting edge C = Chip forming geometry	mm: pitch x 100 Inch: number of threads per inch x 10	Taper on diameter/inch per foot (i.p.f.) 1 = 1 i.p.f. 2 = 2 i.p.f. 3 = 3 i.p.f.

10 Tolerance of cutting edge position
M = $\pm 0.05 \text{ mm}$ (.002 inch) axial E = $\pm 0.01 \text{ mm}$ (.0004 inch) axial



1) Marking:
All inserts are marked with the profile, grade and pitch:
internal inserts being identified with a circle. To prevent erasure, the marking is laser cut on the side of the inserts.

11 Cubic boron nitride inserts
E = Edge rounded (ER)

External right hand inserts
Internal left hand inserts

External left hand inserts
Internal right hand inserts

CoroThread® 266

Shank holders, inch

266	R	FG	Z	16	4	D
1	2	4	5	6	3	11

Boring bar, inch

266	R	KF	Z	D 20	- 4
1	2	4	5	6	3

Coromant Capto cutting unit

C5	-	266	R	FG	Z	35	060	-	22
9		1	2	4	5	10	11		3

Shank holders, metric

266	R	FG	Z	3232	-	22
1	2	4	5	6		3

Boring bar, metric

266	R	KF	Z	32	-	22	-	R	E
1	2	4	5	6		3		7	8

CoroThread® 266 SL cutting head

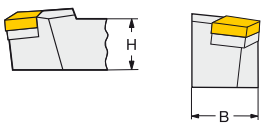
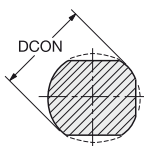
SL	-	266	R	KF	-	40	32	27	-	22
12		1	2	4		13	11	10		3

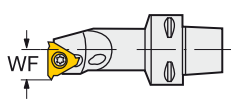
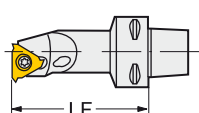
Cartridge

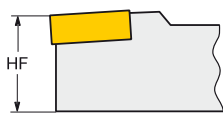
266	R	KF	-	20	C	A	-	22
1	2	4		14	15	16		3

1 Main code 266 = CoroThread 266 254 = CoroThread 254	2 Hand of tool R = Right hand style L = Left hand style	3 Insert size/dimension Shank holders Inch 3 = 3/8" = iC 4 = 1/2" = iC 5 = 5/8" = iC Metric 16 = iC 3/8" = 9.52 mm 22 = iC 1/2" = 12.70 mm 27 = iC 5/8" = 15.88 mm
--	--	--

4 Type of tool and holder style External  FA FG Internal  KF	5 Holder for upside down mounting Z = Drop head design for upside down mounting 
--	--

6 Shank dimension External Inch Shank size 16 = 1 x 1" 20 = 1 1/4 x 1 1/4" 24 = 1 1/2 x 1 1/2" Metric Shank size H x B 	Internal Inch Shank diameter D12 = .750" D16 = 1.000" D20 = 1.250" D24 = 1.500" D32 = 2.000" Metric Shank diameter, DCON 	7 Type of shank R = Round shank
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8 Type of bar E = Carbide shank bar	9 Coromant Capto® size C = Coromant Capto DCON = size code C3 DCON = 32 mm C4 DCON = 40 mm C5 DCON = 50 mm C6 DCON = 63 mm C8 DCON = 80 mm	10 WF dimension, mm 	11 Tool length, LF-dimension, mm  Metric LF-dimension in mm
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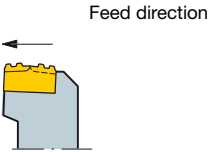
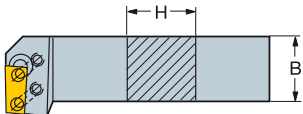
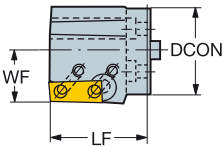
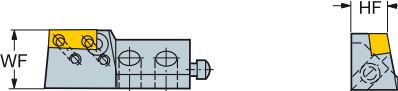
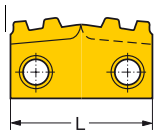
12 Cutting unit SL-System	13 SL coupling size DCON - dimension (coupling dia.)	14 Cutting edge height, HF mm 	15 Type of tool C = Cartridge 16 Type of design A = letter for alternative designs according to ISO 5611.
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T-Max® Twin-Lock

T-Max Twin-Lock® holders

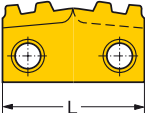
R	166.39	FG	-	3232	-	24
1	2	3		4		5

1 Hand of tool	2 Main code
R = Right hand style	166.39 = Twin-Lock® shank holder 466.39 = Twin-Lock® cartridge 566.39 = Twin-Lock® SL cutting head

3 Type of tool and holder style	4 Tool holder dimensions, mm	5 Insert dimension, mm
External  Feed direction FG Internal  Feed direction KF	Shank tool H x B  T-Max Twin-Lock® SL cutting head DCON x LF x WF  Cartridge HF x WF 	Insert size L, in mm L = 24.0 mm (.945 inch) 

T-Max Twin-Lock® inserts

R	166.39	G	-	24	RD1	3	-	080
1	2	3		4	5	6		7

1 Hand of insert	2 Main code	3 Type of machining	4 Insert dimension
R = Right hand style insert	166.39 = T-Max® Twin-Lock	G = Inserts for external threading L = Inserts for internal threading	Length L, in mm L = 24.0 mm (.945 inch) 
5 Thread profile	6 Number of points per cutting edge	7 Pitch	
RD0 = API Round Vee tubing and casing RD1 = API Round Vee tubing and casing BU1 = API Buttress =13 3/8" (3/4" i.p.f) BU2 = API Buttress= 16" (1"i.p.f)	Varies from 2 to 4 points.	Number of threads per inch x 10	

CoroPlex™ TT

C6	-	T	-	D	C	M	12	D	D	M	15	L	130
1		2		3	4	5	6	7	8	9	10	11	12

1 Coupling size mm, inch
C = Coromant Capto® DCON = Coupling size C3 DCON = 32 (1.260) C4 DCON = 40 (1.575) C5 DCON = 50 (1.969) C6 DCON = 63 (2.480) C8 DCON = 80 (3.150)

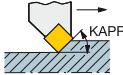
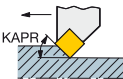
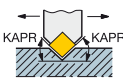
2 Type of tool T = Twin tool
--

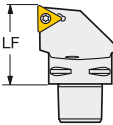
3 and 7 Clamping system
D  Top and hole clamping (RC) CoroTurn® RC

4 and 8 Insert shape
C 
D 

5 and 9 Holder style
L 95° (-5°)  M 50° (40°)  Entering angle (Lead angle)

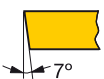
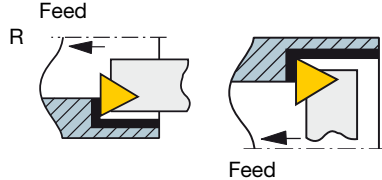
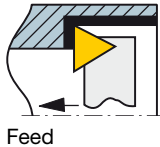
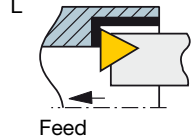
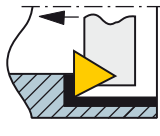
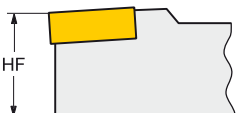
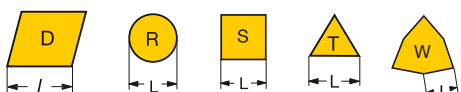
6 and 10 Cutting edge length,L mm


11 Hand of tool
R  Feed
L  Feed
N  Feed Feed

12 Tool length, LF mm


Cartridges

D	C	L	N	R	25	C	A	-	12
1	2	3	4	5	6	7	8	9	10

1 Clamping system D Top and hole clamping (RC)  P Hole clamping  S Screw clamping  M Top and hole clamping 		2 Insert shape C  T  R  W  S 		3 Cartridge style, entering angle (lead angle) F 90° (0°)  G 90° (0°)  K 75° (15°)  L 95° (-5°)  R 75° (15°)  S 45° (45°)  T 60° (30°)  W 60° (30°) 		4 Clearance angle on major cutting edge C  N 		5 Hand of tool R   L  		6 Cutting edge height, HF mm 		7 Type of tool C = cartridge		8 Type of design A = letter for alternative designs according to ISO 5611.		9 Tool length The dash means tool length according to ISO 5611.		10 Cutting edge length, L mm 	
---	--	--	--	---	--	---	--	---	--	--	--	--	--	--	--	---	--	--	--

Machine adapted clamping units

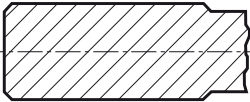
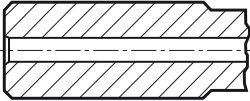
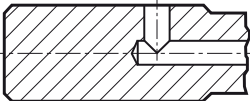
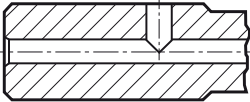
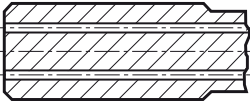
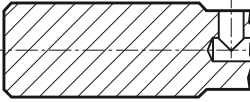
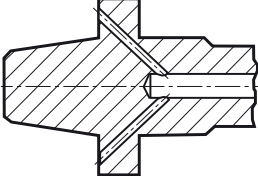
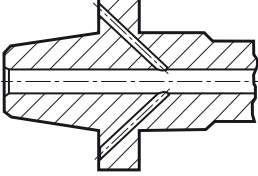
C5	-	D	N	I	-	MZ	68	A	-	DT	I
1		2	3	4		5	6	7		8	9

1 Coromant Capto® size C4-40mm, C5-50mm	6 Turret hole dia (mm) 40, 50, 55, 60, 65, 68, 75, 85, 110
2 Application T-Turning D-Driven	7 Turret interface version A, B, C V = VDI style
3 Hand of clamping units L - Left R - Right N - Neutral	8 Configuration = for normal single clamping unit DT = for main spindle and subspindle (two clamping units in one holder) ET = extended DE = extended for main spindle and subspindle (two clamping units in one holder) TT = for machine with half index turret (two clamping units in one holder) YT = for machines with "Y" axis (two clamping units in one holder) DY = for machines with "Y" axis (four clamping units in one holder) SS = for subspindle SP = short projection XT = two clamping units in one holder (change tools with X axis)
4 Type of operation E - External (OD) I - Internal (face/ID)	
5 Machine MZ - Mazak MS - Mori Seiki NA - Nakamura OK - Okuma BT - Bolt on turret (Doosan) GM - Gildemeister MA - Murata	9 Coolant supply (driven tools only) I - Internal and external (80bars) E - External only

CNSC

Coolant entry style code

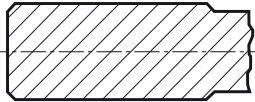
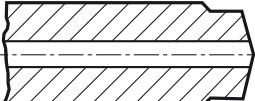
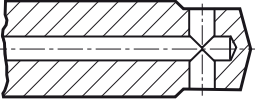
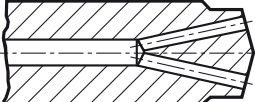
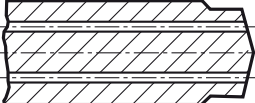
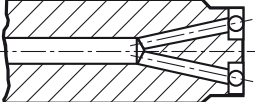
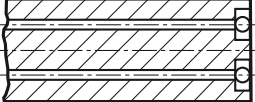
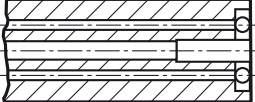
Identifier for the arrangement for the entry of the coolant supply

Code	Description	Image
0	Without coolant	
1	Axial concentric entry	
2	Radial entry	
3	Axial concentric and radial entry	
4	Axial concentric entry on circle	
5	Radial entry before adapter	
6	Decentral over flange	
7	Decentral over flange and axial	
8	Decentral over slots on the shank	

CXSC

Coolant exit style code

Identifier for the arrangement for the exit of the coolant supply

Code	Description	Image
0	No coolant exit	
1	Axial concentric exit	
2	Radial exit	
3	Axial inclined exit	
4	Axial concentric on circle	
5	Axial inclined exit with nozzle, adjustable	
6	Decentral exit with nozzle, adjustable	
7	Decentral over slots on the shank	
8	Axial or decentral with nozzle, adjustable	

Code	Page	Code	Page	Code	Page
131...-B	H9	5692	H17	A..SDUCR/L..HP	A405-A406
131-A...-B	H9	5693	H16	A..SDUCR/L...X	A436-A440
132L...-B	H3-H4	570 (RED)	G89	A..SDUPR/L	A492-A494
132N	H7	570...580-80	G98	A..SDUPR/L...X	A499-A500
132P...-B	H5	570-2C	G65-G66	A..SDXCR/L	A412-A415
132W...-B	H6	570-2C..CR	G67	A..SDXPR/L	A493-A494
151.2	F27	570-3C	G69-G70	A..SRDDN	A416
175.32	A94	570-3C (QC)	G74	A..SRXDR/L	A416
190.1	A98	570-3C..CR	G71-G72	A..SSKCR/L	A417
254R/LG	B152	570-3C..CR (QC)	G77	A..STFCR/L	A420-A422
254R/LKF	B153	570-3C..R/L (QC)	G75-G76	A..STFCR/L..HP	A418-A419
266LG...AC..F	C33	570-4	G95	A..STFPR/L	A495-A496
266LG...MJ..A	C29	570-4C	G73	A..STUCR/L	A423
266LG...MM..A	C12	570-80 (QC - RED)	G92	A..SVPBR/L	A434
266LG...NT..A	C22	570-80	G97	A..SVPBR/L..HP	A428-A429
266LG...PT..A	C24	570-80 200R/L	G88	A..SVQBR/L	A432-A435
266LG...RN..A	C27	570-80 23-40R/L	G91	A..SVQBR/L..HP	A426-A427
266LG...SA..F	C35	570C-SVUBR/L	A472	A..SVQCR/L	A430-A431
266LG...TR..F	C31	570-DCLNR/L	A227	A..SVUBR/L	A432-A433
266LG...UN..A	C16	570-DCLNR/L-80	A228	A..SVUBR/L (SPM)	A390
266LG...VM..A	C6	570-DDUNR/L	A230	A..SVUBR/L..HP	A424-A425
266LG...VW..A	C8	570-DDUNR/L..X	A241	A..SVUCR/L	A430-A431
266LG...WH..A	C20	570-DDUNR/L-80	A232	A..SWLPR/L	A497-A498
266LL...AC..F	C34	570-DDUNR/L-80..X	A242	A393.SBB	H8
266LL...MM..A	C14	570-DDXNR/L	A231	A-393.SBB..MZ	F69
266LL...NT..A	C23	570-DDXNR/L-80	A233	A570-2C	G65-G67
266LL...PT..A	C25	570-DSKNR/L	A234	A570-3C	G69-G72
266LL...RN..A	C28	570-DSKNR/L-80	A235	A570-3C (QC)	G74-G76
266LL...SA..A	C36	570-DTFNR/L	A237	A570-4C	G73
266LL...TR..F	C32	570-DTFNR/L-80	A238	ABB-TNI-CDI80	F41
266LL...UN..A	C18	570-DVUNR/L	A239	APBA-R/L-VDI..HP	F24
266LL...VM..A	C7	570-DVUNR/L..X	A243	APBR/L-VDI..HP	F23
266LL...VW..A	C9	570-DVUNR/L-80..X	A244	APB-TNE-BT65A	F46
266LL...WH..A	C21	570-DWLNR/L	A240	APB-TNE-CDI80	F39
266R/LFA	C48	570-M	G96	APB-TNE-MS40A	F80
266R/LFG	C46-C47	570-SCLCR/L	A455	APB-TNE-MS60A	F80
266R/LG-BG	C40	570-SCLPR/L	A512	APB-TNE-MZ68A	F63
266R/LKF	C52	570-SDUCR/L	A461	APB-TNE-OK60A	F98
266R/LKF..CA	E23	570-SDUCR/L..X	A479	ASHA-R/L-VDI..HP	F22
266R/LKF-R	C53	570-SDUCR/L-80	A464	ASHR/L-VDI..HP	F21
266RG..AC	C33	570-SDUPR/L	A513	ASH-TNE-CDI80	F38
266RG..BU	C39	570-SDUPR/L..X	A517		
266RG..MJ	C29	570-SDXCR/L	A460	B	
266RG..MM	C10-C11	570-SDXPR/L	A514	BA-R/LGC	F26
266RG..NF	C26	570-STFCR/L	A468	BP	B149
266RG..NJ	C30	570-STFPR/L	A515	BPGN	B151
266RG..NT	C22	570-SVLBR/L	A471	BPGR/L	B151
266RG..PT	C24	570-SVLBR/L-80	A476	BPR/L	B150
266RG..RD	C38	570-SVPBR/L	A471		
266RG..RN	C27	570-SVQCR/L	A474	C	
266RG..SA	C35	570-SVUCR/L	A473	C10-APBA	G47
266RG..TR	C31	570-SVUCR/L..X	A480	C10-APBR/L	G48
266RG..UN	C15	570-SWLPR/L	A516	C10-R/LC2095	F34
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QD-N..-TF	B88	R123x2-CF	B10	SL-QC	G90
QD-N/R/L2..A	B101	R123x2-CM	B12	SL-QD-R/LG..C	B110
QD-N/R/L2..C..A	B91	R123x2-CR	B14	SL-SCLCR/L..HP	A454
QD-NN1..A	B100	R123x2-CS	B15	SL-SCLCR/L-QC	A456
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QD-NN2..A	B100	R166.0L..NT	C61	SL-SDUCR/L..XHP	A477-A478
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QD-NR..C..A	B99	R166.0L..VW	C57	SL-SDXCR/L..HP	A457-A458
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