






















TOOLS FOR TURNING AND MILLING

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IDENTIFICATION OF TURNING TOOLS FOR EXTERNAL PROCESSING

S	T	G	C	R	16
1	2	3	4	5	6

3 - Type of tool

1 - Locking method

2 - Insert shape

4 - Insert clearance angle

5 - Tool direction

6 - Tool shank size

IDENTIFICATION OF TURNING TOOLS FOR INTERNAL PROCESSING

S	S	S	C	R	16
1	2	3	4	5	6

3 - Type of tool

1 - Locking method

2 - Insert shape

4 - Insert clearance angle

5 - Tool direction

6 - Tool shank diameter

CHOICE OF INSERT SHAPE ACCORDING TO THE TYPE OF PROCESSING TO BE CARRIED OUT

	S	T	C	K	D
External turning					
Axial Turning / Facing 	○	○	●	○	○
Profiling 	-	○	-	○	●
Facing 	●	○	○	○	○
Plunge turning 	-	○	-	-	-

	S	T	C	K	D
Internal turning					
Axial Turning / Facing 	○	●	○	-	○
Profiling 	-	○	-	○	●
Facing 	-	○	●	-	○

Key
 ● Recommended shape
 ○ Possible shape
 - Not usable

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RECOMMENDED VALUES FOR CUTTING SPEED Vc (m/min) FOR TURNING

Materials to be processed		External turning		Internal turning		Shape tool	Truncation	Threading with tool
		Roughing	Finish	Roughing	Finish			
P	Rm Steel < 600 N/mm ²	100*	150*	70*	100*	50*	95*	25*
	Rm steel 600-100 N/mm ²	95*	120*	50*	95*	30*	70*	18*
	Rm steel 1000-1200 N/mm ²	65*	80*	40*	65*	25*	55*	15*
M	Stainless Steel	60*	70*	35*	60*	20*	50*	15*
K	Cast iron HB < 180	90*	100*	65*	90*	30*	80*	15*
	Cast iron HB > 180	60*	70*	40*	60*	20*	55*	12*
N	Brass/Bronze	165*	260*	80*	160*	40*	100*	25*
	Copper	220*	350*	100*	220*	80*	200*	25*
	Aluminium	300*	650*	200*	400*	150*	300*	35*

* Values for brazed tools, for mechanically clamped tools the value can be increased by 15%

RECOMMENDED FEED VALUES (mm/rev) FOR TURNING

MATERIALS TO BE PROCESSED		External turning		Internal turning		Shape tool	Truncation
		Roughing	Finish	Roughing	Finish		
P	Rm Steel < 600 N/mm ²	0.1 – 0.4*	0.05 – 0.2*	0.05 – 0.3*	0.05 – 0.2*	0.02 – 0.05*	0.05 – 0.1*
	Rm steel 600-100 N/mm ²	0.1 – 0.4*	0.05 – 0.15*	0.05 – 0.3*	0.05 – 0.1*	0.02 – 0.05*	0.05 – 0.1*
	Rm steel 1000-1200 N/mm ²	0.1 – 0.4*	0.05 – 0.15*	0.05 – 0.3*	0.05 – 0.1*	0.02 – 0.05*	0.05*
M	Stainless Steel	0.1 – 0.4*	0.05 – 0.15*	0.05 – 0.3*	0.05 – 0.1*	0.02 – 0.05*	0.02 – 0.05*
K	Cast iron HB < 180	0.1 – 0.6*	0.05 – 0.2*	0.05 – 0.6*	0.05 – 0.2*	0.02 – 0.05*	0.05 – 0.1*
	Cast iron HB > 180	0.1 – 0.8*	0.05 – 0.25*	0.05 – 0.5*	0.05 – 0.2*	0.02 – 0.05*	0.02 – 0.05*
N	Brass/Bronze	0.1 – 0.8*	0.05 – 0.25*	0.05 – 0.6*	0.05 – 0.2*	0.02 – 0.1*	0.05 – 0.2*
	Copper	0.1 – 0.6*	0.05 – 0.25*	0.05 – 0.5*	0.05 – 0.25*	0.02 – 0.05*	0.05 – 0.1*
	Aluminium	0.1 – 0.8*	0.05 – 0.25*	0.05 – 0.4*	0.05 – 0.2*	0.02 – 0.2*	0.05 – 0.3*

* Values for brazed tools, for mechanically clamped tools the value can be increased by 15%

THICKNESS OF SURFACE TREATMENT IN THE TURNING (mm)

Thickness of surface treatment		Ø particular					
Roughing	0.5 - 10	Up to 25	25 - 70	50 - 75	75 - 100	100 - 150	150 - 300
Finish	0.2 - 20						
Truncation	Equal to the thickness of the cutter insert						

MAIN TURNING FORMULAS

- $V_c = (n \times \pi \times D) \div 1000$
- $n = (V_t \times 1000) \div (\pi \times D)$
- $V_f = n \times F_z$

Key

Vc : Cutting speed in metres per minute. It is the peripheral speed with which the cutting edge removes material. (m/min)

n : Spindle rotation speed in revolutions per minute (rpm)

D : Workpiece diameter in millimetres (mm)

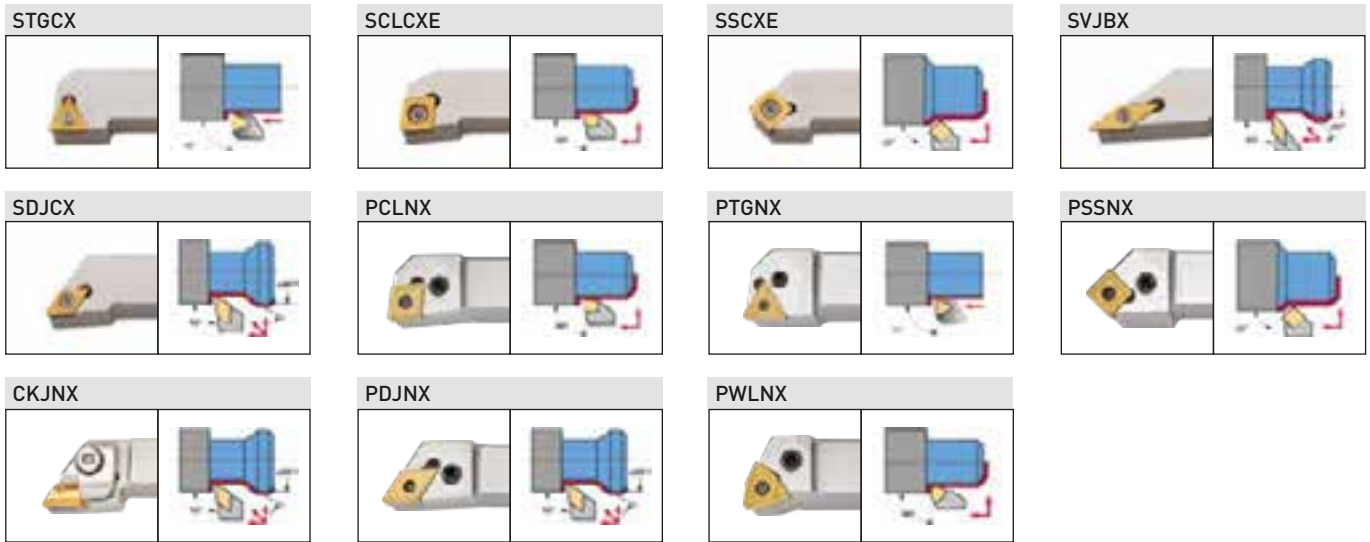
Fz : Tool feed (per tooth) per revolution in millimetres (mm/revolution)

Vf : Tool feed speed in millimetres per minute (mm/min)

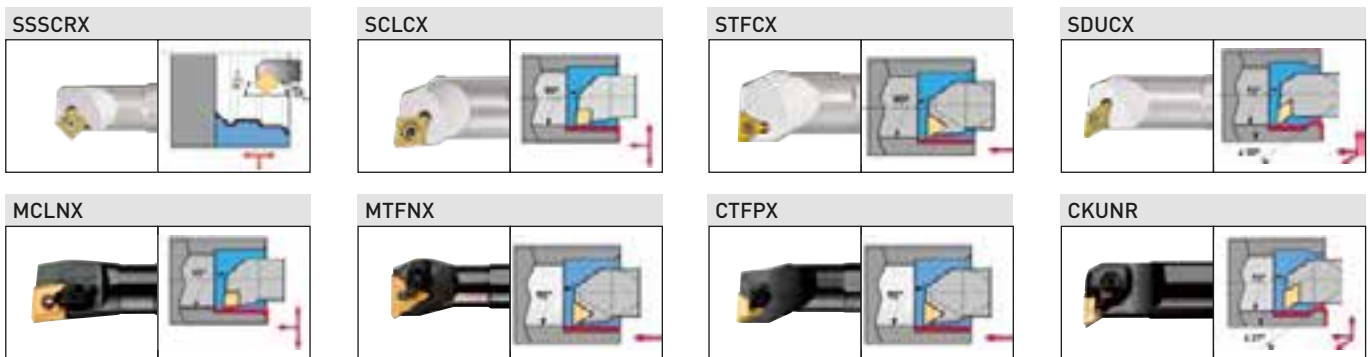
π : its value is 3.14



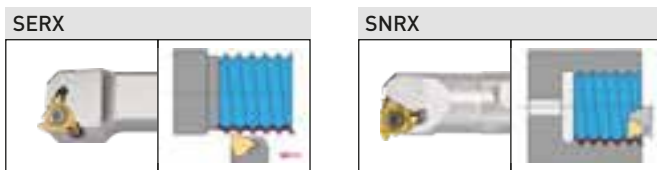
TPOLOGY OF TOOLS FOR EXTERNAL TURNING



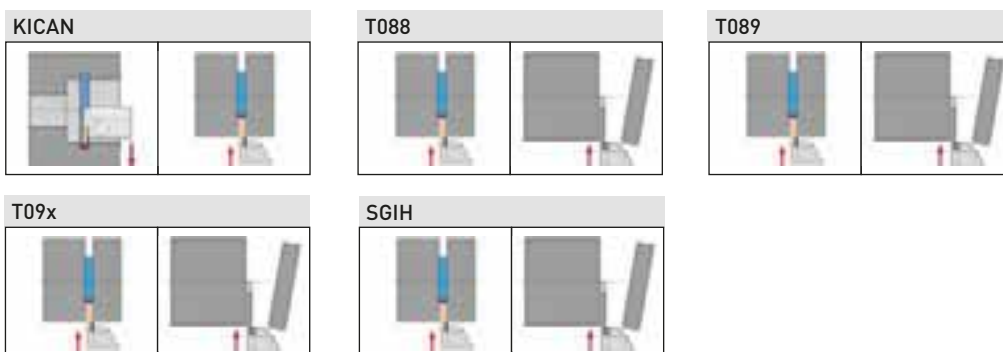
TPOLOGY OF TOOLS FOR INTERNAL TURNING



TPOLOGY OF THREADING TOOLS



TPOLOGY OF TOOLS FOR GROOVING AND PARTING OFF

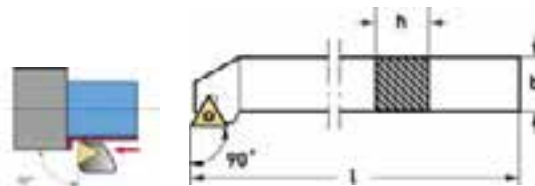



B007-
NEW
INDEXABLE CARBIDE TOOL HOLDER SET

Insert included, useful for having a set that allows you to perform most turning operations with small lathes.



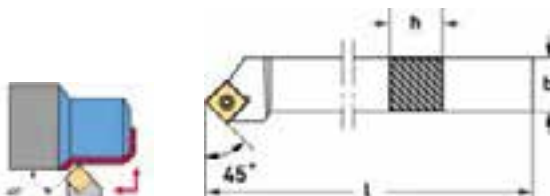
Art.	Ext. shank / Insert	Int. shank / Insert	Length	Screw
B007/10	10 mm / TCMT110204...	8 mm / TCMT090204...	Ext: 63 mm / Int: 100 mm	KV250
B007/12	12 mm / TCMT110204...	10 mm / TCMT110204...	Ext: 88 mm / Int: 125 mm	KV250
B007/16	16 mm / TCMT16T304...	12 mm / TCMT110204...	Ext: 100 mm / Int: 150 mm	Ext: KV400 / Int: KV250
B007/20	20 mm / TCMT16T304...	16 mm / TCMT110204...	Ext: 115 mm / Int: 200 mm	Ext: KV400 / Int: KV250
B007/25	25 mm / TCMT16T304...	20 mm / TCMT110204...	Ext: 150 mm / Int: 250 mm	Ext: KV400 / Int: KV250
B007/32	32 mm / TCMT16T304...	25 mm / TCMT16T304...	Ext: 170 mm / Int: 250 mm	KV400

KITSTGXC
NEW
EXTERNAL TOOL HOLDER WITH INSERTS


Art.	Ext. tool holder	Bits	b	h	l
KITSTGCR16	STGCR16/11	TCMT110204N x 10 Pcs	16 mm	16 mm	100 mm
KITSTGCR20	STGCR20	TCMT16T304N x 10 Pcs	20 mm	20 mm	125 mm
KITSTGCR25	STGCR25	TCMT16T304N x 10 Pcs	25 mm	25 mm	150 mm

KITSCLCXE
NEW
EXTERNAL TOOL HOLDER WITH INSERTS


Art.	Ext. tool holder	Bits	b	h	l
KITSCLCR12E	SCLCR12E	CCMT09T304N x 10 Pcs	12 mm	12 mm	80 mm
KITSCLCR16E	SCLCR16E	CCMT09T304N x 10 Pcs	16 mm	16 mm	100 mm
KITSCLCR20E	SCLCR20E	CCMT120408N x 10 Pcs	20 mm	20 mm	125 mm
KITSCLCR25E	SCLCR25E	CCMT120408N x 10 Pcs	25 mm	25 mm	150 mm

KITSSSCXE
NEW
EXTERNAL TOOL HOLDER WITH INSERTS


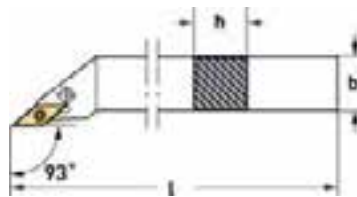
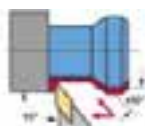
Art.	Ext. tool holder	Bits	b	h	l
KITSSSCR20E	SSSCR20E x 10 Pcs	SCMT120408N	20 mm	20 mm	125 mm
KITSSSCR25E	SSSCR25E x 10 Pcs	SCMT120408N	25 mm	25 mm	150 mm



KITSVJBX

NEW

EXTERNAL TOOL HOLDER WITH INSERTS

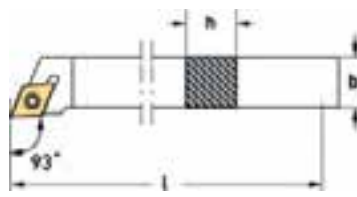


Art.	Ext. tool holder	Bits	b	h	l
KITSVJBR20	SVJBR20	VBMT160404N x 10 Pcs	20 mm	20 mm	125 mm
KITSVJBR25	SVJBR25	VBMT160404N x 10 Pcs	25 mm	25 mm	150 mm

KITSDJCX

NEW

EXTERNAL TOOL HOLDER WITH INSERTS

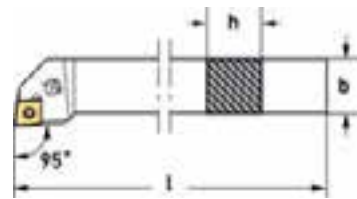
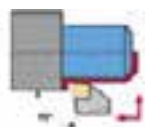


Art.	Ext. tool holder	Bits	b	h	l
KITSDJCR10	SDJCR10	DCMT070204N x 10 Pcs	10 mm	10 mm	70 mm
KITSDJCR12	SDJCR12	DCMT070204N x 10 Pcs	12 mm	12 mm	80 mm
KITSDJCR16	SDJCR16	DCMT070204N x 10 Pcs	16 mm	16 mm	100 mm
KITSDJCR20	SDJCR20	DCMT11T304N x 10 Pcs	20 mm	20 mm	125 mm
KITSDJCR25	SDJCR25	DCMT11T304N x 10 Pcs	25 mm	25 mm	150 mm

KITPCLNX

NEW

EXTERNAL TOOL HOLDER WITH INSERTS

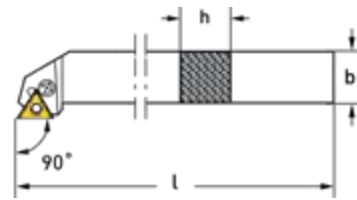


Art.	Ext. tool holder	Bits	b	h	l
KITPCLNR16	PCLNR16	CNMG120404N x 10 Pcs	16 mm	16 mm	100 mm
KITPCLNR20	PCLNR20	CNMG120404N x 10 Pcs	20 mm	20 mm	125 mm
KITPCLNR25	PCLNR25	CNMG120404N x 10 Pcs	25 mm	25 mm	150 mm

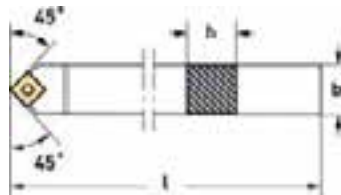
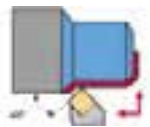
KITPTGNX

NEW

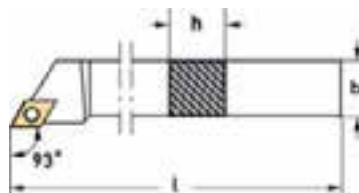
EXTERNAL TOOL HOLDER WITH INSERTS



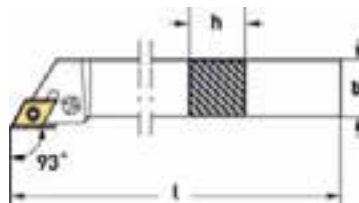
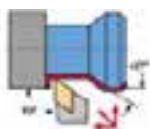
Art.	Ext. tool holder	Bits	b	h	l
KITPTGNR16	PTGNR16	TNMG160404N x 10 Pcs	16 mm	16 mm	100 mm
KITPTGNR20	PTGNR20	TNMG160404N x 10 Pcs	20 mm	20 mm	125 mm
KITPTGNR25	PTGNR25	TNMG160404N x 10 Pcs	25 mm	25 mm	150 mm


KITPSSNX
NEW
EXTERNAL TOOL HOLDER WITH INSERTS


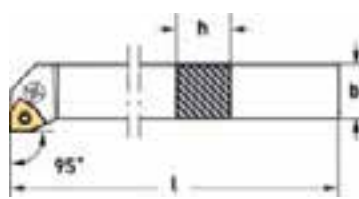
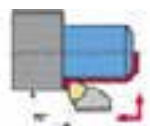
Art.	Ext. tool holder	Bits	b	h	l
KITPSSNR16	PSSNR16	SNMG120404F15 x 10 Pcs	16 mm	16 mm	100 mm
KITPSSNR20	PSSNR20	SNMG120404F15 x 10 Pcs	20 mm	20 mm	125 mm
KITPSSNR25	PSSNR25	SNMG120404F15 x 10 Pcs	25 mm	25 mm	150 mm

KITCKJ
NEW
EXTERNAL TOOL HOLDER WITH INSERTS


Art.	Ext. tool holder	Bits	b	h	l
KITCKJ16	CKJNR16	KNUX160405RN x 10 Pcs	20 mm	16 mm	100 mm
KITCKJ20	CKJNR20	KNUX160405RN x 10 Pcs	20 mm	20 mm	125 mm
KITCKJ25	CKJNR25	KNUX160405RN x 10 Pcs	25 mm	25 mm	150 mm

KITPDJNX
NEW
EXTERNAL TOOL HOLDER WITH INSERTS


Art.	Ext. tool holder	Bits	b	h	l
KITPDJNR20	PDJNR20	DNMG150608N x 10 Pcs	20 mm	20 mm	125 mm
KITPDJNR25	PDJNR25	DNMG150608N x 10 Pcs	25 mm	25 mm	150 mm

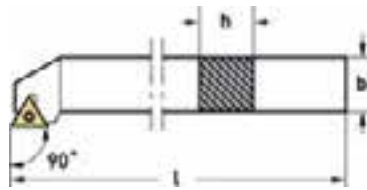
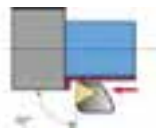
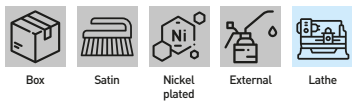
KITPWLNX
NEW
EXTERNAL TOOL HOLDER WITH INSERTS


Art.	Ext. tool holder	Bits	b	h	l
KITPWLNR20	PWLNR20	WNMG080408N x 10 Pcs	20 mm	20 mm	125 mm
KITPWLNR25	PWLNR25	WNMG080408N x 10 Pcs	25 mm	25 mm	150 mm



STGCX

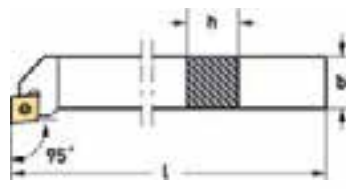
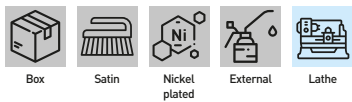
90° EXTERNAL TOOL HOLDER



Art.	Side	b	h	l	Screw	Bushing	Base	Insert (not included)
STGCR16/11	Dx/R	16 mm	16 mm	100 mm	KV250	-----	-----	TCMT1102...
STGCL16/11	Sx/L	16 mm	16 mm	100 mm	KV250	-----	-----	TCMT1102...
STGCR20	Dx/R	20 mm	20 mm	125 mm	KV350	BU3550	BSTG16	TCMT16T3...
STGCL20	Sx/L	20 mm	20 mm	125 mm	KV350	BU3550	BSTG16	TCMT16T3...
STGCR25	Dx/R	25 mm	25 mm	150 mm	KV350	BU3550	BSTG16	TCMT16T3...
STGCL25	Sx/L	25 mm	25 mm	150 mm	KV350	BU3550	BSTG16	TCMT16T3...

SCLCXE

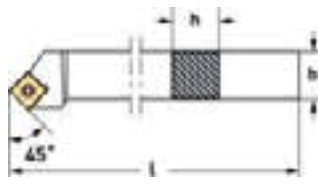
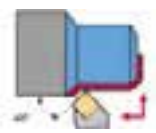
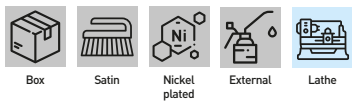
95° EXTERNAL TOOL HOLDER



Art.	Side	b	h	l	Screw	Bushing	Base	Insert (not included)
SCLCR12E	Dx/R	12 mm	12 mm	80 mm	KV350	-----	-----	CCMT09T3...
SCLCL12E	Sx/L	12 mm	12 mm	80 mm	KV350	-----	-----	CCMT09T3...
SCLCR16E	Dx/R	16 mm	16 mm	100 mm	KV350	BU3550	BSCL09	CCMT09T3...
SCLCL16E	Sx/L	16 mm	16 mm	100 mm	KV350	BU3550	BSCL09	CCMT09T3...
SCLCR20E	Dx/R	20 mm	20 mm	125 mm	KV401	BU4560	BSCL12	CCMT1204...
SCLCL20E	Sx/L	20 mm	20 mm	125 mm	KV401	BU4560	BSCL12	CCMT1204...
SCLCR25E	Dx/R	25 mm	25 mm	150 mm	KV401	BU4560	BSCL12	CCMT1204...
SCLCL25E	Sx/L	25 mm	25 mm	150 mm	KV401	BU4560	BSCL12	CCMT1204...

SSSCXE

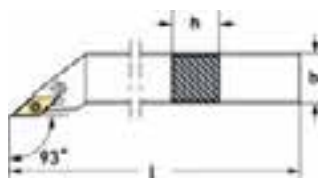
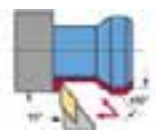
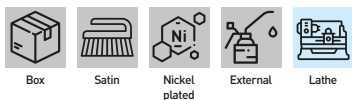
45° EXTERNAL TOOL HOLDER



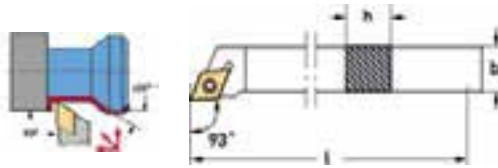
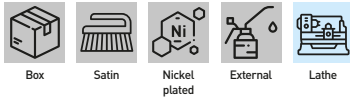
Art.	Side	b	h	l	Screw	Bushing	Base	Insert (not included)
SSSCR20E	Dx/R	20 mm	20 mm	125 mm	KV400	BU4560	BSSS12	SCMT1204...
SSSCL20E	Sx/L	20 mm	20 mm	125 mm	KV400	BU4560	BSSS12	SCMT1204...
SSSCR25E	Dx/R	25 mm	25 mm	150 mm	KV450	BU4560	BSSS12	SCMT1204...
SSSCL25E	Sx/L	25 mm	25 mm	150 mm	KV450	BU4560	BSSS12	SCMT1204...

SVJBX

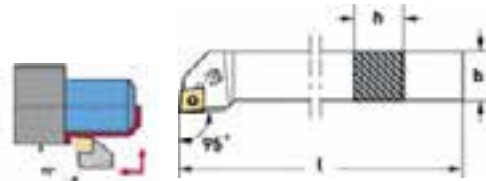
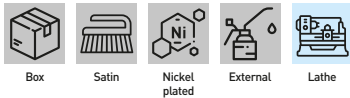
93° EXTERNAL TOOL HOLDER



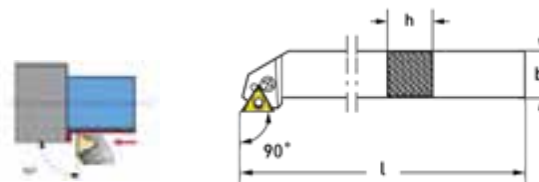
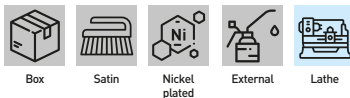
Art.	Side	b	h	l	Screw	Bushing	Base	Insert (not included)
SVJBR20	Dx/R	20 mm	20 mm	125 mm	KV350	BU3550	BSVJ16	VBMT1604...
SVJBL20	Sx/L	20 mm	20 mm	125 mm	KV350	BU3550	BSVJ16	VBMT1604...
SVJBR25	Dx/R	25 mm	25 mm	150 mm	KV350	BU3550	BSVJ16	VBMT1604...
SVJBL25	Sx/L	25 mm	25 mm	150 mm	KV350	BU3550	BSVJ16	VBMT1604...

SDJCX
93° EXTERNAL TOOL HOLDER


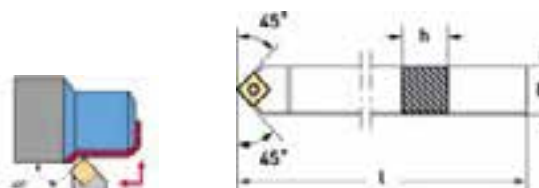
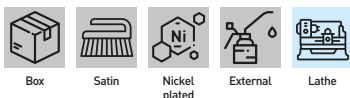
Art.	Side	b	h	l	Screw	Bushing	Base	Insert (not included)
SDJCR10	Dx/R	10 mm	10 mm	70 mm	KV250	-----	-----	DCMT0702...
SDJCR12	Dx/R	12 mm	12 mm	80 mm	KV250	-----	-----	DCMT0702...
SDJCR16	Dx/R	16 mm	16 mm	100 mm	KV250	-----	-----	DCMT0702...
SDJCR20	Dx/R	20 mm	20 mm	125 mm	KV350	BU3550	BSDJ11	DCMT11T3...
SDJCL20	Sx/L	20 mm	20 mm	125 mm	KV350	BU3550	BSDJ11	DCMT11T3...
SDJCR25	Dx/R	25 mm	25 mm	150 mm	KV350	BU3550	BSDJ11	DCMT11T3...
SDJCL25	Sx/L	25 mm	25 mm	150 mm	KV350	BU3550	BSDJ11	DCMT11T3...

PCLNX
95° EXTERNAL TOOL HOLDER


Art.	Side	b	h	l	Spare parts	Insert (not included)
PCLNR16	Dx/R	16 mm	16 mm	100 mm	RICAPCLN	CNMG1204...
PCLNR20	Dx/R	20 mm	20 mm	125 mm	RICAPCLN	CNMG1204...
PCLNL20	Sx/L	20 mm	20 mm	125 mm	RICAPCLN	CNMG1204...
PCLNR25	Dx/R	25 mm	25 mm	150 mm	RICAPCLN	CNMG1204...
PCLNL25	Sx/L	25 mm	25 mm	150 mm	RICAPCLN	CNMG1204...

PTGNX
90° EXTERNAL TOOL HOLDER


Art.	Side	b	h	l	Spare parts	Insert (not included)
PTGNR16	Dx/R	16 mm	16 mm	100 mm	RICAPTGN	TNMG1604...
PTGNR20	Dx/R	20 mm	20 mm	125 mm	RICAPTGN	TNMG1604...
PTGNL20	Sx/L	20 mm	20 mm	125 mm	RICAPTGN	TNMG1604...
PTGNR25	Dx/R	25 mm	25 mm	150 mm	RICAPTGN	TNMG1604...
PTGNL25	Sx/L	25 mm	25 mm	150 mm	RICAPTGN	TNMG1604...

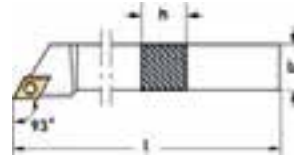
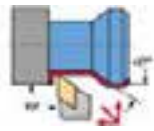
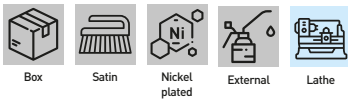
PSSNX
45° EXTERNAL TOOL HOLDER


Art.	Side	b	h	l	Spare parts	Insert (not included)
PSSNR16	Dx/R	16 mm	16 mm	100 mm	RICAPSSN	SNMG1204...
PSSNR20	Dx/R	20 mm	20 mm	125 mm	RICAPSSN	SNMG1204...
PSSNL20	Sx/L	20 mm	20 mm	125 mm	RICAPSSN	SNMG1204...
PSSNR25	Dx/R	25 mm	25 mm	150 mm	RICAPSSN	SNMG1204...
PSSNL25	Sx/L	25 mm	25 mm	150 mm	RICAPSSN	SNMG1204...



CKJNX

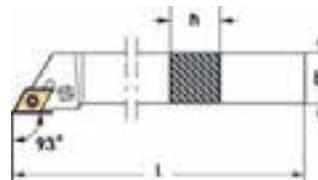
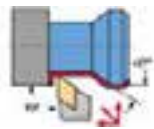
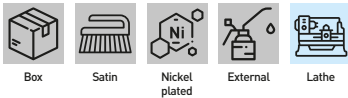
93° EXTERNAL TOOL HOLDER



Art.	Side	b	h	l	Bracket	Screw	Base	Insert (not included)
CKJNL20	Sx/L	20 mm	20 mm	125 mm	STAFCKJNL	VITECKJN	BASECKJNL	KNUX160405L...
CKJNL25	Sx/L	25 mm	25 mm	150 mm	STAFCKJNL	VITECKJN	BASECKJNL	KNUX160405L...
CKJNR16	Dx/R	20 mm	16 mm	100 mm	STAFCKJNR	VITECKJN	BASECKJNR	KNUX160405R...
CKJNR20	Dx/R	20 mm	20 mm	125 mm	STAFCKJNR	VITECKJN	BASECKJNR	KNUX160405R...
CKJNR25	Dx/R	25 mm	25 mm	150 mm	STAFCKJNR	VITECKJN	BASECKJNR	KNUX160405R...

PDJNX

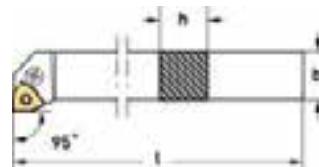
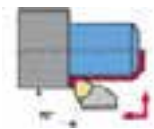
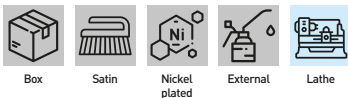
93° EXTERNAL TOOL HOLDER



Art.	Side	b	l	h	Spare parts	Insert (not included)
PDJNR20	Dx/R	20 mm	20 mm	125 mm	PDJNRKIT	DNMG1506...
PDJNR25	Dx/R	25 mm	25 mm	150 mm	PDJNRKIT	DNMG1506...
PDJNL25	Sx/L	25 mm	25 mm	150 mm	PDJNRKIT	DNMG1506...

PWLNx

95° EXTERNAL TOOL HOLDER



Art.	Side	b	h	l	Spare parts	Insert (not included)
PWLN20	Dx/R	20 mm	20 mm	125 mm	PWLNKIT	WNMG0804...
PWLN25	Dx/R	25 mm	25 mm	150 mm	PWLNKIT	WNMG0804...
PWLN25	Sx/L	25 mm	25 mm	150 mm	PWLNKIT	WNMG0804...

G007-

KNURLING TOOL WITH 3 PAIRS OF KNURLING WHEELS, WITH DIAMOND PATTERN

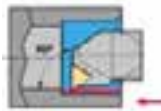
Diamond-shaped 45° for the execution of knurling for deformation in turning. Equipped with 2 spare wheels 0.8 mm pitch.



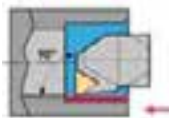
Art.	Spindle	Pitch
G007/16	16 mm	0,8 - 1,2 - 1,8 mm
G007/20	20 mm	0,8 - 1,2 - 1,8 mm

KISCLCR
SOLID BORING BAR SET 95°

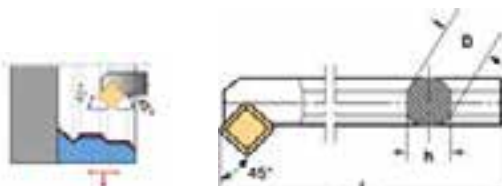
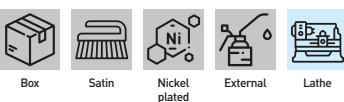

Int. tool holder	SCLCR08; SCLCR10; SCLCR12; SCLCR16
Bits	CCMT060204N x 10 Pcs
Torx key	T7 x 2 Pcs
Screw	T7 x 2,5 mm x 4 Pcs

KISTCMT
SOLID BORING BAR SET 90°


Int. tool holder	STFCR08; STFCR10; STFCR12; STFCR16; STFCR20
Bits	TCMT110204N x 10 Pcs
Torx key	T8 x 2 Pcs
Screw	T8 x 2,5 mm x 2 Pcs

KISTFCR
SOLID BORING BAR SET 90°


Int. tool holder	STFCR08, STFCR10, STFCR12, STFCR16, STFCR20
Insert (not included)	TCMT110204...
Torx key	T8 x 2 Pcs
Screw	T8 x 2,5 mm x 5 Pcs

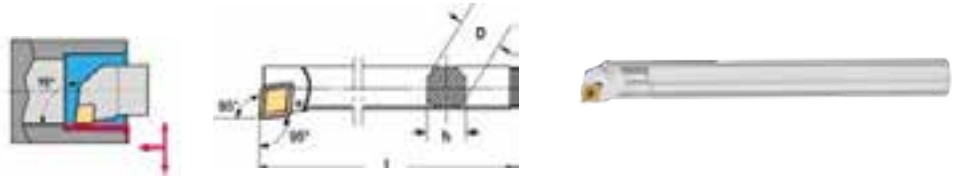
SSSCRX
45° INTERNAL TOOL HOLDER


Art.	D	h	t	Screw	Insert (not included)
SSSCR16	16 mm	15 mm	200 mm	KV400	SCMT09T3...
SSSCR20	20 mm	18 mm	250 mm	KV400	SCMT09T3...
SSSCR25	25 mm	22.5 mm	300 mm	KV400	SCMT09T3...



SCLCX

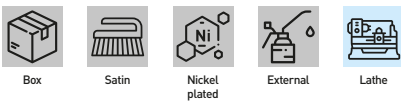
95° SOLID BORING BAR



Art.	Side	D	h	l	Screw	Insert (not included)
SCLCR08	Dx/R	8 mm	7 mm	125 mm	KV250	CCMT0602...
SCLCL08	Sx/L	8 mm	7 mm	125 mm	KV250	CCMT0602...
SCLCR10	Dx/R	10 mm	9 mm	140 mm	KV250	CCMT0602...
SCLCL10	Sx/L	10 mm	9 mm	140 mm	KV250	CCMT0602...
SCLCR12	Dx/R	12 mm	11 mm	160 mm	KV250	CCMT0602...
SCLCL12	Sx/L	12 mm	11 mm	160 mm	KV250	CCMT0602...
SCLCR16	Dx/R	16 mm	14,5 mm	180 mm	KV400	CCMT09T3...
SCLCL16	Sx/L	16 mm	14,5 mm	180 mm	KV400	CCMT09T3...
SCLCR20	Dx/R	20 mm	18 mm	200 mm	KV400	CCMT09T3...
SCLCL20	Sx/L	20 mm	18 mm	200 mm	KV400	CCMT09T3...
SCLCR25	Dx/R	25 mm	22,5 mm	250 mm	KV400	CCMT09T3...
SCLCL25	Sx/L	25 mm	22,5 mm	250 mm	KV400	CCMT09T3...
SCLCR32	Dx/R	32 mm	29 mm	300 mm	KV400	CCMT09T3...
SCLCL32	Sx/L	32 mm	29 mm	300 mm	KV400	CCMT09T3...

STFCX

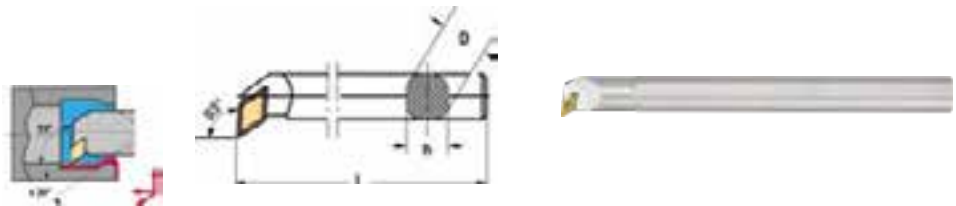
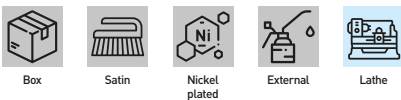
90° SOLID BORING BAR



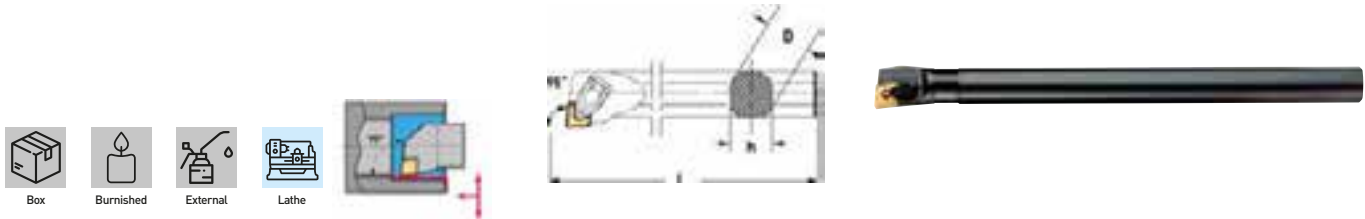
Art.	Side	D	h	l	Screw	Insert (not included)
STFCR08	Dx/R	8 mm	7 mm	125 mm	KV250	TCMT1102...
STFCL08	Sx/L	8 mm	7 mm	125 mm	KV250	TCMT1102...
STFCR10	Dx/R	10 mm	9 mm	150 mm	KV250	TCMT1102...
STFCL10	Sx/L	10 mm	9 mm	150 mm	KV250	TCMT1102...
STFCR12	Dx/R	12 mm	11 mm	150 mm	KV250	TCMT1102...
STFCL12	Sx/L	12 mm	11 mm	150 mm	KV250	TCMT1102...
STFCR16	Dx/R	16 mm	14,5 mm	200 mm	KV250	TCMT1102...
STFCL16	Sx/L	16 mm	14,5 mm	200 mm	KV250	TCMT1102...
STFCR20	Dx/R	20 mm	18,5 mm	250 mm	KV250	TCMT1102...
STFCL20	Sx/L	20 mm	18,5 mm	250 mm	KV250	TCMT1102...
STFCR25	Dx/R	25 mm	22,5 mm	250 mm	KV350	TCMT16T3...
STFCL25	Sx/L	25 mm	22,5 mm	250 mm	KV350	TCMT16T3...
STFCR32	Dx/R	32 mm	29 mm	300 mm	KV350	TCMT16T3...
STFCL32	Sx/L	32 mm	29 mm	300 mm	KV350	TCMT16T3...

SDUCX

93° SOLID BORING BAR



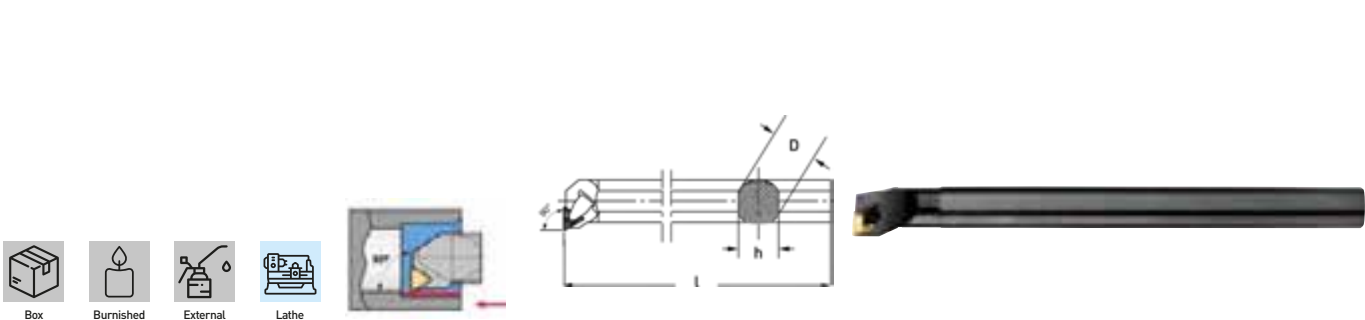
Art.	Side	D	h	l	Screw	Insert (not included)
SDUCR10	Dx/R	10 mm	9 mm	140 mm	KV250	DCMT0702...
SDUCL10	Sx/L	10 mm	9 mm	140 mm	KV250	DCMT0702...
SDUCR12	Dx/R	12 mm	11 mm	160 mm	KV250	DCMT0702...
SDUCL12	Sx/L	12 mm	11 mm	160 mm	KV250	DCMT0702...
SDUCR16	Dx/R	16 mm	15 mm	180 mm	KV250	DCMT0702...
SDUCL16	Sx/L	16 mm	15 mm	180 mm	KV250	DCMT0702...
SDUCR20	Dx/R	20 mm	18 mm	200 mm	KV350	DCMT11T3...
SDUCL20	Sx/L	20 mm	18 mm	200 mm	KV350	DCMT11T3...
SDUCR25	Dx/R	25 mm	23 mm	250 mm	KV350	DCMT11T3...
SDUCL25	Sx/L	25 mm	23 mm	250 mm	KV350	DCMT11T3...
SDUCR32	Dx/R	32 mm	30 mm	300 mm	KV350	DCMT11T3...
SDUCL32	Sx/L	32 mm	30 mm	300 mm	KV350	DCMT11T3...


MCLNX
95° SOLID BORING BAR


Art.	Side	D	h	l	Bracket	Base	Insert (not included)
MCLNR16	Dx/R	16 mm	15 mm	210 mm	CTMTMC16/20	-----	CNMG1204...
MCLNL16	Sx/L	16 mm	15 mm	210 mm	CTMTMC16/20	-----	CNMG1204...
MCLNR20	Dx/R	20 mm	18 mm	255 mm	CTMTMC16/20	-----	CNMG1204...
MCLNL20	Sx/L	20 mm	18 mm	255 mm	CTMTMC16/20	-----	CNMG1204...
MCLNR25	Dx/R	25 mm	23 mm	300 mm	CTMTMC25/32	MCLNBASE25/32	CNMG1204...
MCLNL25	Sx/L	25 mm	23 mm	300 mm	CTMTMC25/32	MCLNBASE25/32	CNMG1204...
MCLNR32	Dx/R	32 mm	30 mm	355 mm	CTMTMC25/32	MCLNBASE25/32	CNMG1204...
MCLNL32	Sx/L	32 mm	30 mm	355 mm	CTMTMC25/32	MCLNBASE25/32	CNMG1204...

MTFNX
90° SOLID BORING BAR


Art.	Side	D	h	l	Bracket	Base	Insert (not included)
MTFNR16	Dx/R	16 mm	15 mm	210 mm	CTMTMC16/20	-----	TNMG1604...
MTFNL16	Sx/L	16 mm	15 mm	210 mm	CTMTMC16/20	-----	TNMG1604...
MTFNR20	Dx/R	20 mm	18 mm	255 mm	CTMTMC16/20	-----	TNMG1604...
MTFNL20	Sx/L	20 mm	18 mm	255 mm	CTMTMC16/20	-----	TNMG1604...
MTFNR25	Dx/R	25 mm	23 mm	300 mm	CTMTMC25/32	MTFNBASE25/32	TNMG1604...
MTFNL25	Sx/L	25 mm	23 mm	300 mm	CTMTMC25/32	MTFNBASE25/32	TNMG1604...
MTFNR32	Dx/R	32 mm	30 mm	355 mm	CTMTMC25/32	MTFNBASE25/32	TNMG1604...
MTFNL32	Sx/L	32 mm	30 mm	355 mm	CTMTMC25/32	MTFNBASE25/32	TNMG1604...

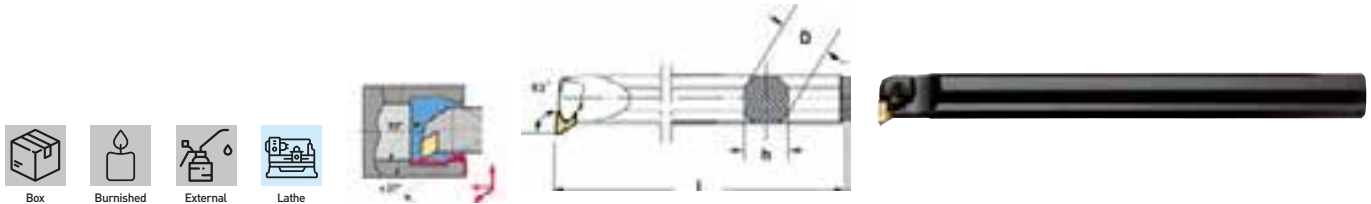
CTFPX
90° SOLID BORING BAR


Art.	Side	D	h	l	Bracket	Base	Insert (not included)
CTFPR12	Dx/R	12 mm	11 mm	150 mm	CTFP10/12	-----	TPMR1103...
CTFPL12	Sx/L	12 mm	11 mm	150 mm	CTFP10/12	-----	TPMR1103...
CTFPR16	Dx/R	16 mm	15 mm	210 mm	CTMTMC16/20	-----	TPMR1103...
CTFPL16	Sx/L	16 mm	15 mm	210 mm	CTMTMC16/20	-----	TPMR1103...
CTFPR20	Dx/R	20 mm	18 mm	255 mm	CTMTMC16/20	-----	TPMR1603...
CTFPL20	Sx/L	20 mm	18 mm	255 mm	CTMTMC16/20	-----	TPMR1603...
CTFPR25	Dx/R	25 mm	23 mm	300 mm	CTMTMC25/32	CTFPBASE25/32	TPMR1603...
CTFPL25	Sx/L	25 mm	23 mm	300 mm	CTMTMC25/32	CTFPBASE25/32	TPMR1603...
CTFPR32	Dx/R	32 mm	30 mm	355 mm	CTMTMC25/32	CTFPBASE25/32	TPMR1603...
CTFPL32	Sx/L	32 mm	30 mm	355 mm	CTMTMC25/32	CTFPBASE25/32	TPMR1603...



CKUNR

93° SOLID BORING BAR

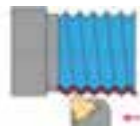


Art.	Side	D	h	l	Bracket	Screw	Base	Insert (not included)
CKUNR25	Dx/R	25 mm	23 mm	300 mm	STAFCKJNR	VITECKJN	BASECKJNR	KNUX1604...
CKUNR32	Dx/R	32 mm	30 mm	350 mm	STAFCKJNR	VITECKJN	BASECKJNR	KNUX1604...
CKUNR40	Dx/R	40 mm	37 mm	400 mm	STAFCKJNR	VITECKJN	BASECKJNR	KNUX1604...

KISER

EXTERNAL THREAD TOOL HOLDER

Consisting of external threading tool (1 Pc), M3.5 X 12 mm spare screw (1 Pc), 2.5 mm hex wrench (1 Pc), T15 torx wrench (1 Pc) and assorted inserts: AG55 - AG60; - ISO 0.8 - 1.00 - 1.25 - 1.50 - 1.75 - 2.00 - 2.50 - 3.00 mm (1 Pc each).

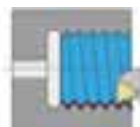


Art.	Ext. tool holder	Insert	Torx key	Screw	b	l	h
KISER	SER20	16ER...	T15	M3,5 x 12 mm	20 mm	20 mm	125 mm
KISER25	SER25	16ER...	T15	M3,5 x 12 mm	25 mm	25 mm	150 mm

KISNR

INTERNAL THREAD TOOL HOLDER

Consisting of internal threading tool (1 Pc), spare M3.5 X 12 mm screw (1 Pc), 2.5 mm hex wrench (1 Pc), T15 torx wrench (1 Pc) and assorted inserts: AG55 - AG60; - ISO 0.8 - 1.00 - 1.25 - 1.50 - 1.75 - 2.00 - 2.50 - 3.00 mm (1 Pc each).

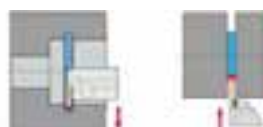


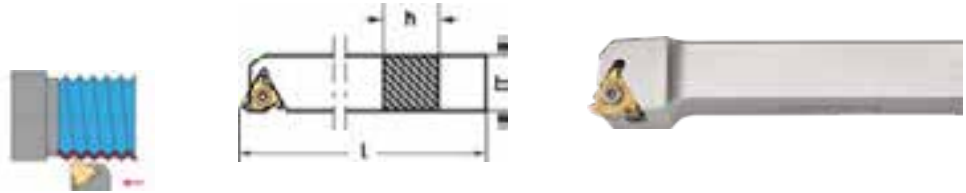
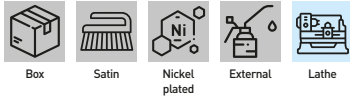
Art.	Int. tool holder	Insert	Torx key	Screw	D	h	l
KISNR	SNR20	16IR...	T15	M3.5 x 12 mm	20 mm	18 mm	200 mm
KISNR25	SNR25	16IR...	T15	M3.5 x 12 mm	25 mm	23 mm	200 mm

KICAN

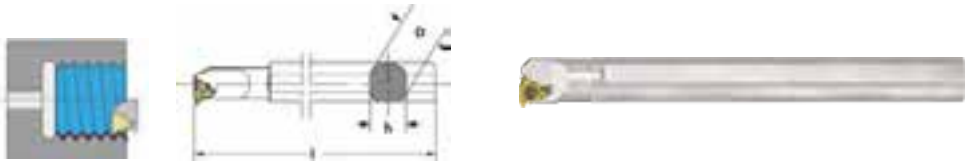
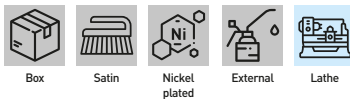
INTERNAL AND EXTERNAL GROOVING TOOL HOLDER SET

Consisting of the tool for external grooves: 20 x 20 mm (1 Pc), the tool for internal grooves: ø 20 mm (1 Pc), spare screw M4 x 12 mm (2 Pcs), torx wrench: T15 (1 Pc) and inserts for 16 mm groove TIN coated: 165110134 (2 Pcs), 165130134 (2 Pcs), 165160134 (2 Pcs), 165185134 (1 Pc), 165215134 (1 Pc), 165265134 (1 Pc), 165315134 (1 Pc).

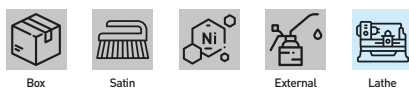
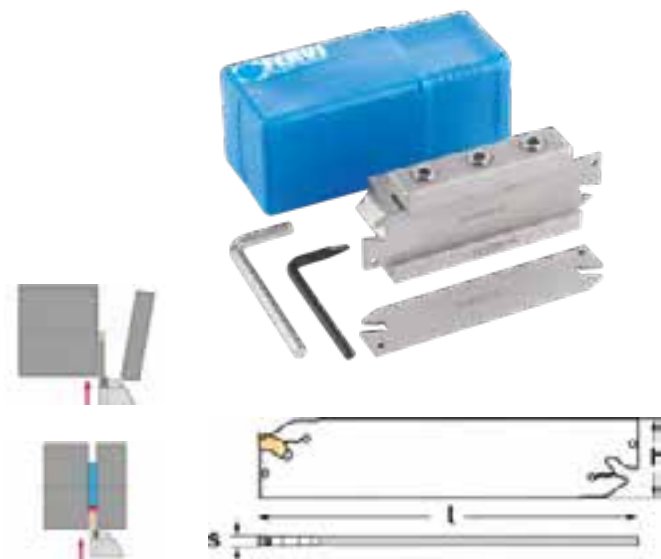



SERX
EXTERNAL THREAD TOOL HOLDER


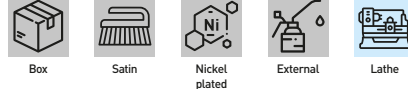
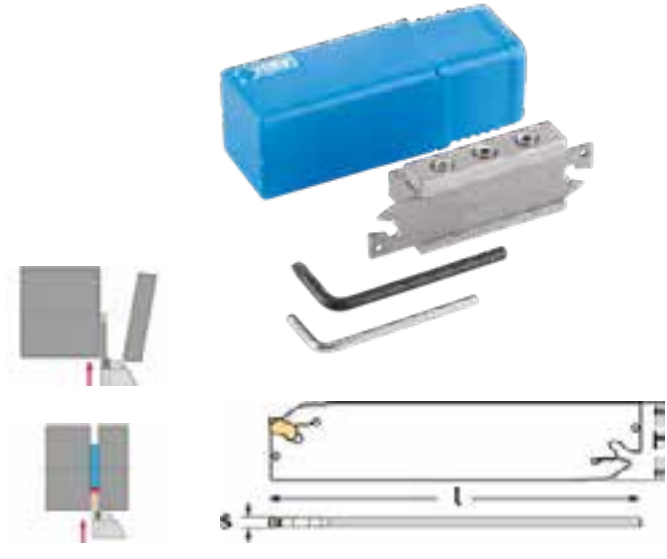
Art.	b	h	l	Base	Bushing	Screw	Insert (not included)
SER16	16 mm	16 mm	100 mm	-----	-----	KV350	16ER...
SER20	20 mm	20 mm	125 mm	BSER16	BU3550	KV350	16ER...
SER25	25 mm	25 mm	150 mm	BSER16	BU3550	KV350	16ER...

SNRX
INTERNAL THREAD TOOL HOLDER


Art.	D	h	l	Base	Screw	Bushing	Insert (not included)
SNR12	12 mm	11 mm	150 mm	-----	KV250	-----	11IR...
SNR16	16 mm	15 mm	170 mm	-----	KV350	-----	16IR...
SNR20	20 mm	18 mm	200 mm	BSNR16	KV350	BU3550	16IR...
SNR25	25 mm	23 mm	300 mm	BSNR16	KV350	BU3550	16IR...

T088
TOOL CUTTING SET


Set composition	1 Pcs SGTBK16 - 1 Pcs SGIH26/2 - 1 Pcs SGIH26/3
S	2 - 3 mm
h	25.75 mm
l	109 mm
Insert (not included)	GCMX2N - GCMX3N

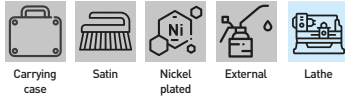
T089
TOOL CUTTING SET


Set composition	1 Pcs SGIH19/2 - 1 Pcs SGTBK10
S	2 mm
h	19.5 mm
l	85 mm
Insert (not included)	GCMX2N



T09X

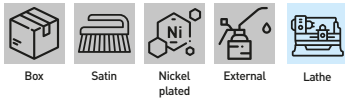
TOOL CUTTING SET



Art.	Set composition	S	h	l	Insert (not included)
T090	1 Pcs SGIH32/3 - 1 Pcs SGIH32/4 - 1 Pcs SGIH32/5 - 1 Pcs SGTBK25	3 - 4 - 5 mm	31,75 mm	150 - 160 mm	GCMX3N - GCMX4N - GCMX5N
T091	1 Pcs SGIH26/2 - 1 Pcs SGIH26/3 - 1 Pcs SGTBK20	2 - 3 mm	25,75 mm	109 mm	GCMX2N - GCMX3N

SGIH

TOOL FOR EXTERNAL CUTTING - BLADE



Art.	S	h	l	Insert (not included)
SGIH26/2	2 mm	25.75 mm	109 mm	GCMX2N...
SGIH26/3	3 mm	25.75 mm	109 mm	GCMX3N...
SGIH32/3	3 mm	31.75 mm	150 mm	GCMX3N...
SGIH32/4	4 mm	31 mm	150 mm	GCMX4N...
SGIH32/5	5 mm	31.75 mm	150 mm	GCMX5N...
SGIH19/2	2 mm	19.5 mm	85 mm	GCMX2N...

SGTBK

TOOL FOR EXTERNAL CUTTING - BLADE TOOL HOLDER



Art.	Spindle	Dimensions	Blade
SGTBK10	10 x 10 mm	56 x 25 x 30 mm	19 mm
SGTBK16	16 x 16 mm	87 x 38 x 33 mm	26 mm
SGTBK20	20 x 20 mm	100 x 38 x 45h mm	26 mm
SGTBK25	25 x 25 mm	110 x 49 x 48h mm	32 mm

MAIN TYPES OF MILLING

Shoulder milling



Milling that generates 2 faces at the same time obtaining a 90° shoulder

Flattening



Milling to make a rough surface flat

High feed milling



Face milling with tools that allow high feed rates (up to 4 mm/tooth)

Copying



Combination of discordant and concordant milling, requires many unfavourable engagements and disengagements in cutting.

Quarry milling



Milling for the execution of a quarry or a seat

Chamfering



Milling for chamfering holes or contours.

MAIN MILLING FORMULAS

- $V_c = (D_{cap} \times n \times n) \div 1000$
- $n = (V_c \times 1000) \div (n \times D_{cap})$
- $F_z = V_f \div (n \times Z_c)$
- $V_f = F_z \times n \times Z_c$

Key

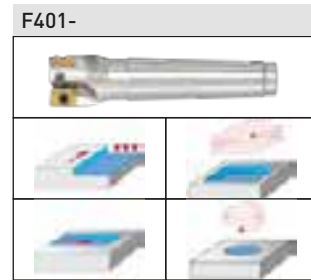
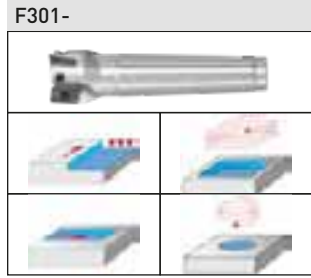
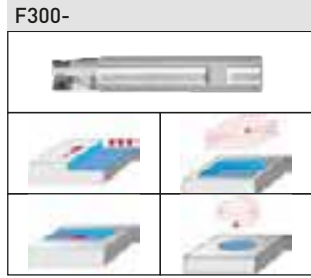
D_{cap} : Cutting diameter at effective cutting depth doc (mm)
 F_z : Feed per tooth (mm/tooth)
 Z_c : Number of effective milling machine teeth
 V_f : Table feed (mm/min)
 F_n : Feed per revolution (mm/tooth)
 doc : Cutting depth (mm)
 V_c : Cutting speed (m/min)
 n : Spindle rotation speed (mm/min)
 π : its value is 3.14



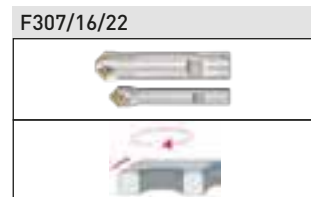
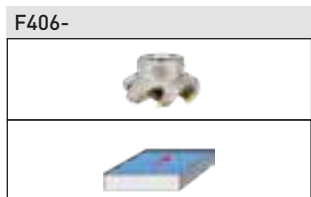


FERVI MILLING TOOLS TYPOLOGY

90° MILLING CUTTER



45° MILLING MACHINE

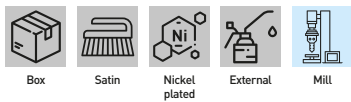


MILLING MACHINE FOR CONTOURING AND FLATTENING ROUND INSERTS

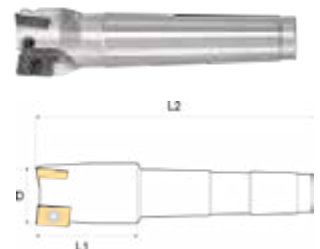
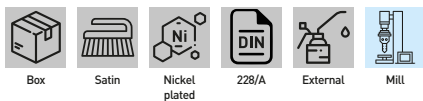



F300-
STRAIGHT SHANK FACE MILLING CUTTER

With cylindrical shank.



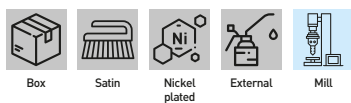
Art.	D	d	Z	L1	L2	Screw	Insert (not included)
F300/12	12 mm	12 mm	1	27 mm	120 mm	KV250	APKT1003...
F300/14	14 mm	12 mm	1	27 mm	120 mm	KV250	APKT1003...
F300/16	16 mm	16 mm	2	27 mm	120 mm	KV250	APKT1003...
F300/18	18 mm	16 mm	2	27 mm	120 mm	KV250	APKT1003...
F300/20	20 mm	20 mm	3	27 mm	120 mm	KV250	APKT1003...
F300/22	22 mm	20 mm	3	27 mm	120 mm	KV250	APKT1003...
F300/25	25 mm	20 mm	4	27 mm	120 mm	KV250	APKT1003...
F300/25/16	25 mm	20 mm	2	44 mm	120 mm	KV400	APKT1604...
F300/25/16L	25 mm	20 mm	2	44 mm	200 mm	KV400	APKT1604...
F300/32/16	32 mm	25 mm	3	50 mm	120 mm	KV400	APKT1604...
F300/32/16L	32 mm	32 mm	3	55 mm	200 mm	KV400	APKT1604...

F301-
STRAIGHT SHANK FACE MILLING CUTTER


Art.	D	MT	Z	L1	L2	Screw	Insert (not included)
F301/25	25 mm	3	2	40 mm	125 mm	KV400	APKT1604...
F301/32	32 mm	3	3	40 mm	125 mm	KV400	APKT1604...
F301/40	40 mm	3	4	35 mm	125 mm	KV400	APKT1604...
F301/32CM4	32 mm	4	3	45 mm	150 mm	KV400	APKT1604...
F301/40CM4	40 mm	4	4	40 mm	150 mm	KV400	APKT1604...

F306-
FACE MILLING CUTTER

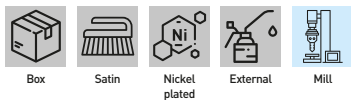
With front perforating cut for making slots, with cylindrical attachment. It allows you to make slots from solid.



Art.	D	d	Z	L1	L2	Screw	Insert (not included)
F306/20	20 mm	20 mm	3	18 mm	90 mm	KV250	APKT1003...
F306/25	25 mm	25 mm	3	18 mm	100 mm	KV250	APKT1003...

F302-
FACE MILLING CUTTER

With sleeve connection.



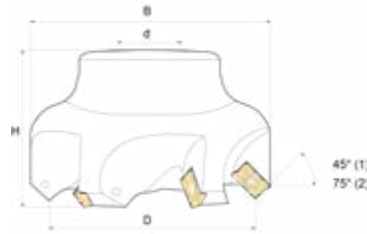
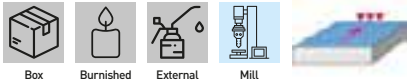
Art.	D	L	d	Z	Screw	Insert (not included)
F302/040	40 mm	40 mm	16 mm	4	KV400	APKT1604...
F302/050	50 mm	45 mm	22 mm	4	KV400	APKT1604...
F302/063	63 mm	50 mm	22 mm	6	KV400	APKT1604...
F302/080	80 mm	50 mm	27 mm	7	KV400	APKT1604...
F302/100	100 mm	50 mm	32 mm	8	KV400	APKT1604...



F304-

FACE MILLING CUTTER FOR BLIND SIDE'S INSERT

With sleeve connection.



Art.	D	H	B	d	Z	Screw	Insert (not included)
F304/063	63 mm	42 mm	71.2 mm	22 mm	6	KV250	APKT1003...
F304/080	80 mm	47 mm	84 mm	27 mm	5	KV400	APKT1604...

F402-

FACE MILLING CUTTER

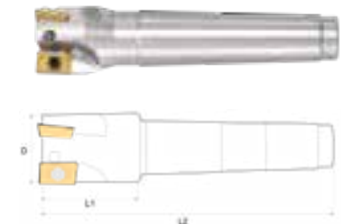
With cylindrical shank.



Art.	D	d	Z	L1	L2	Screw	Insert (not included)
F402/25	25 mm	20 mm	2	35 mm	110 mm	KV400	ADLT1503...
F402/32	32 mm	25 mm	3	35 mm	120 mm	KV400	ADLT1503...
F402/25L	25 mm	25 mm	2	35 mm	200 mm	KV400	ADLT1503...
F402/32L	32 mm	25 mm	3	35 mm	200 mm	KV400	ADLT1503...

F401-

FACE MILLING CUTTER



Art.	D	MT	Z	L1	L2	Screw	Insert (not included)
F401/25	25 mm	3	2	44 mm	130 mm	KV400	ADLT1503...
F401/32	32 mm	3	3	44 mm	130 mm	KV400	ADLT1503...
F401/40	40 mm	3	4	44 mm	130 mm	KV400	ADLT1503...
F401/40CM4	40 mm	4	4	44 mm	153 mm	KV400	ADLT1503...

F400-

FACE MILLING CUTTER

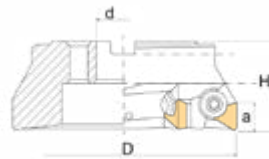
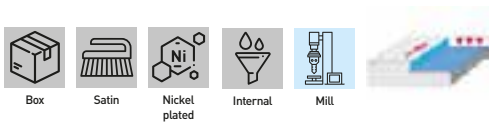
With sleeve connection, recommended for use on machines with medium power



Art.	D	H	a	d	Z	Screw	Insert (not included)
F400/040	40 mm	40 mm	8,4 mm	16 mm	4	KV400	ADLT1503...
F400/050	50 mm	40 mm	10,4 mm	22 mm	5	KV400	ADLT1503...
F400/063	63 mm	40 mm	10,4 mm	22 mm	6	KV400	ADLT1503...
F400/080	80 mm	50 mm	12,4 mm	27 mm	7	KV400	ADLT1503...
F400/100	100 mm	50 mm	14,4 mm	32 mm	8	KV400	ADLT1503...


F256-
FACE MILLING

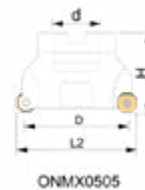
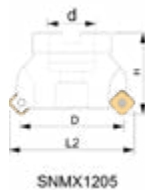
With sleeve connection, recommended for use on machines with medium power.



Art.	D	H	a	d	Z	Screw	Insert (not included)
F256/040	40 mm	40 mm	16 mm	16 mm	3	F256/644	TPKN1603...
F256/050	50 mm	40 mm	16 mm	22 mm	3	F256/644	TPKN1603...
F256/063	63 mm	40 mm	16 mm	22 mm	3	F256/644	TPKN1603...
F256/080	80 mm	50 mm	22 mm	27 mm	4	F256/648	TPKN2204...
F256/100	100 mm	50 mm	22 mm	32 mm	5	F256/648	TPKN2204...

F407-
MILLING CUTTER WITH NEGATIVE INSERTS FOR FACE MILLING

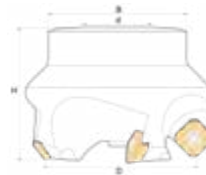
With sleeve connection, recommended for use on machines with medium/high power.



Art.	D	H	L2	d	Z	Screw	Insert (not included)
F407/050	50	40	63	22	4	KV401	ONMX1205... - SNMX1205...
F407/100	100	50	113	32	8	KV401	ONMX1205... - SNMX1205...

F303-
FACE MILLING CUTTER

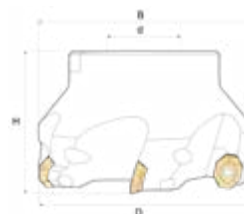
With sleeve connection, recommended for use on machines with medium power.



Art.	D	H	B	d	Z	Screw	Insert (not included)
F303/040	40 mm	45 mm	53 mm	16 mm	3	KV500	SEHX1204... / SEHT1204...
F303/050	50 mm	48 mm	60 mm	22 mm	4	KV500	SEHX1204... / SEHT1204...
F303/063	63 mm	50 mm	76 mm	22 mm	5	KV500	SEHX1204... / SEHT1204...
F303/080	80 mm	50 mm	93 mm	27 mm	5	KV500	SEHX1204... / SEHT1204...
F303/100	100 mm	50 mm	113 mm	32 mm	6	KV500	SEHX1204... / SEHT1204...
F303/125	125 mm	60 mm	138 mm	40 mm	7	KV500	SEHX1204... / SEHT1204...

F308-
FACE MILLING CUTTERS

With sleeve connection, thanks to the very positive geometry, excellent machined surfaces are obtained.



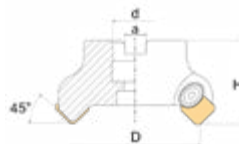
Art.	D	H	L2	d	Z	Screw	Insert (not included)
F308/063	63 mm	40 mm	68 mm	22 mm	5	KV400	OFEX05T3...
F308/080	80 mm	50 mm	86 mm	27 mm	6	KV400	OFEX05T3...
F308/100	100 mm	50 mm	106 mm	32 mm	7	KV400	OFEX05T3...



F406-

FACE MILLING CUTTER

With sleeve connection, recommended for use on machines with reduced power.



Art.	D	H	a	d	Z	Screw	Insert base	Insert (not included)
F406/40	40 mm	48 mm	8,4 mm	16 mm	3	VT00440	WSSP	SEKN1203...
F406/50	50 mm	48 mm	10,4 mm	22 mm	4	VT00440	WSSP	SEKN1203...
F406/63	63 mm	48 mm	12,4 mm	22 mm	5	VT00440	WSSP	SEKN1203...
F406/80	80 mm	50 mm	14,4 mm	27 mm	5	VT00440	WSSP	SEKN1203...
F406/100	100 mm	50 mm	16,4 mm	32 mm	6	VT00440	WSSP	SEKN1203...

F307/16/22

INSERTS COUNTER SINKS SET

With cylindrical shank, for deburring of holes, slots and pockets, for milling plate edges.



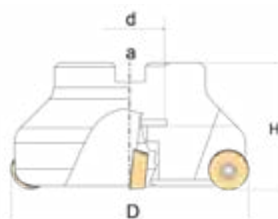
D	16 / 22 mm
d	12 / 20 mm
L1	7 mm
L2	90 / 100 mm
Z	1 / 2
Screw	KV250
Insert (not included)	TCMT1102



F403-

FACE MILLING CUTTER

With sleeve connection.



Art.	D	H	a	d	Z	Screw	Insert (not included)
F403/40	40 mm	40 mm	8,4 mm	16 mm	3	KV400	RPMT1204...
F403/50	50 mm	40 mm	10,4 mm	22 mm	4	KV400	RPMT1204...
F403/63	63 mm	40 mm	10,4 mm	22 mm	5	KV400	RPMT1204...
F403/80	80 mm	50 mm	12,4 mm	27 mm	6	KV400	RPMT1204...
F403/100	100 mm	50 mm	14,4 mm	32 mm	6	KV400	RPMT1204...



BSTG16

SET 5 BASES
16 MM



BU3550

5 BUSHING
SET



BSCL09

SET 5 BASES
9 MM



BSCL12

SET 5 BASES
12 MM



BU4560

5 BUSHING
SET



BSSS12

5 SQUARE
BASES 12 MM



BSVJ16

SET 5 BASES
16 MM



BSDJ11

5 RHOMBIC
BASES 11MM



BU4050

5 BUSHING
SET



RICAPCLN

BASE
BRACKET
SCREW KIT



RICAPTGN

BASE
BRACKET
SCREW KIT



RICAPSSN

BASE
BRACKET
SCREW KIT



STAFCKJNR

RIGHT TOOL
BRACKET



STAFCKJNL

LEFT TOOL
BRACKET



BASECKJNR

CARBIDE BASE
RIGHT TOOL



BASECKJNL

CARBIDE BASE
LEFT TOOL



VITECKJN

TOOL SCREW



PDJNRKIT

KIT PARTS



PWLNRRKIT

BASE
BRACKET
SCREW KIT



MCLNBASE25/32

BASE



CTMTMC16/20

TOOL
BRACKET 16
- 20



CTMTMC25/32

TOOL
BRACKET 25
- 32



MTFNBASE25/32

BASE



CTFP10/12

TOOL
BRACKET



CTFPBASE25/32

BASE
For 25 - 32.



BSER16

5 CARBIDE
BASE 16 MM



VT00440

5 PCS MILL
SCREWS



BSNR16

5 CARBIDES
16 mm.



F256/648

MILL SCREW
080/125



KVX

SCREWS 10 PCS



F256/644

MILL SCREW
040/063



WSSP

BASE



Art.	Screw
KV200	T8 / M2
KV250	T8 / M2,5
KV300	T15 / M3
KV350	T15 / M3,5
KV400	T15 / M4
KV401	T20 / M4
KV450	T15 / M4,5
KV500	T20 / M5



IDENTIFICATION OF TURNING AND MILLING INSERTS

C	N	M	G	12	04	08
1	2	3	4	5	6	7

1 - Shape of insert

2 - Relief angle

4 - Type of insert

5 - Cutting edge length

7 - Radius

	04	r 0,4
	08	r 0,8
	12	r 1,2
	10	r 1,0

3 - Tolerance

	m	s	d
E	0,025	0,025	0,025
H	0,013	0,025	0,013
L	0,025	0,025	0,05 - 0,13
K	0,013	0,025	0,05 - 0,13
M	0,08	0,13	0,05 - 0,13
U	0,13 - 0,38	0,13 - 0,13	0,08 - 0,25

6 - Thickness

02	2,38 mm		
03	3,18 mm		
T3	3,97 mm		
04	4,76 mm		
05	5,56 mm		
06	6,35 mm		

ISO MATERIAL CLASSIFICATION

P	M	K
Lead and case-hardening steels, tempering and construction steels	Ferritic, austenitic, martensitic, duplex steels	Gray, hardened, spheroidal cast iron, CGI cast iron, sintered iron

CHARACTERISTICS OF INSERT GRADES

Grade	Coating	Work condition	Coolant	
N	CVD	Stable/Normal	X	
134	PVD	Stable/Normal		X
234	PVD	Stable/Normal		X
25	PVD	Stable		X
20A	PVD	Stable/Normal	X	X
F15	CVD	Stable	X	X
F25	CVD	Stable/Normal	X	X
M25	CVD	Stable/Normal	X	X
M35	CVD	Normal/Interrupted	X	X

	Description
	Coating
CVD	They are characterised by high wear resistance and excellent adhesion to carbide. In general turning they are applied in stainless steels and in the ISO P,M,K ranges.
PVD	They increase wear resistance due to their hardness. Their compressive stresses contribute to increased cutting edge toughness and resistance to comb crack formation.
	Work condition
Stable	Type of cut in which the insert has a homogeneous working condition.
Normal	Type of cut in which the insert may have an interrupted/repeated cutting condition.
Interrupted	Type of cut in which the insert will have several interruptions/restarts during processing.

IDENTIFICATION OF THREADING INSERTS

16	E	R	175	ISO
A1	A2	A3	A4	A5

A3 - Cutting direction	
R	Right
L	Left

A5 - Thread profile	
ISO	60° Metric Thread
W	Thread Whitworth 55°
AG60	60° Profile (Free Thread) 0,5 - 3 mm
AG55	55° Profile (Free Thread) 28 - 11 TPI

A1 - Cutting edge length	
l	d
11	6,35
16	9,525
22	12,7

A2 - Threading	
E	I
External	Internal

A4 - Thread pitch	
mm	Threads/Inch
$\frac{A4}{100}$ (0,5 - 3 mm)	(28 - 11 TPI)

GUIDE TO CHOOSING THE INSERT

Type of insert	Materials			Field of use			Type of processing	
	P	M	K	Finish	Medium	Roughing	Turning	Milling
CCMTx	●	○	○	✓			✓	
CCMTxA	●	○	○	✓			✓	
CNMGx	●	○	○	✓	✓		✓	
CNMGxF15	●	○	○	✓			✓	
CNMGxF25	○	○	○	✓			✓	
CNMGxM25	●	○	○		✓		✓	
CNMGxM35	○	○	○		✓		✓	
DCMTx	●	○	○	✓			✓	
DCMTxA	●	●	○	✓			✓	
DNMGx	●	○	○		✓		✓	
DNMGxM25	●	○	○		✓		✓	
DNMGxM35	○	○	○		✓		✓	
KNUx	●	○	○	✓			✓	
SCMTx	●	●	○	✓			✓	
SCMTxA1	●	○	○	✓			✓	
SCMTxA2	●	●	○	✓	✓		✓	
SCMTxA3	●	●	○	✓	✓		✓	
SNMGxF15	●	○	○	✓			✓	
SNMGxF25	○	○	○	✓			✓	
SNMGxM25	●	○	○		✓		✓	
SNMGxM35	○	○	○		✓		✓	
SPMRx	●	○	○	✓			✓	
TCMTx	●	●	○	✓	✓		✓	
TCMTxA	●	○	○	✓			✓	
WNMGx	●	○	○		✓		✓	
WNMGxM25	●	○	○		✓		✓	
WNMGxM35	○	○	○		✓		✓	



Type of insert	Materials			Field of use			Type of processing	
	P	M	K	Finish	Medium	Roughing	Turning	Milling
TNMGx	●	●	○	✓			✓	
TNMGxF15	●	●	○	✓			✓	
TNMGxF25	●	●	○	✓			✓	
TNMGxM25	●	●	○		✓		✓	
TNMGxM35	○	●	○		✓		✓	
TPMRx	●	●	○	✓			✓	
VBMTx	○	●	○	✓			✓	
VBMTxA	●	●	○	✓	✓		✓	
ADLTx	●	●	○		✓	✓		✓
ADLTxA	●	●	○		✓	✓		✓
ADLTxA1	●	●	○		✓	✓		✓
APKTx	○	●	○		✓			✓
OFEXx	●	●	○	✓	✓			✓
OFEXxA	●	●	○	✓	✓			✓
ONMXxA	●	●	○	✓	✓			✓
RDHTx	●	●	○		✓	✓		✓
RPMTx	●	●	○		✓	✓		✓
SEHTx	●	●	○	✓	✓			✓
SEHTxA	○	●	○	✓	✓			✓
SEKNx	●	●	○		✓	✓		✓
SEHXx	○	●	○		✓	✓		✓
SEHXxA	●	○	○		✓	✓		✓
SNMXx	●	●	○	✓	✓			✓
SPKNx	●	○	○		✓	✓		✓
TPKNx	●	○	○		✓	✓		✓
GCMX	●	●	○				✓	
GCMXA	●	●	○				✓	

Key

- Recommended Application
- Possible Application
- ✓ Recommended field of application

CCMTX
TURNING INSERTS

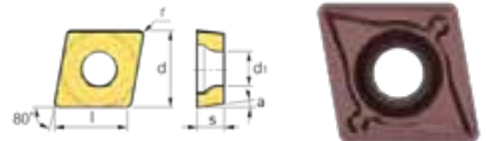
Positive.



Art.	Dimensions	d	l	S	r	d1	a°	Pack
CCMT060204N	6 mm	6.35 mm	6.30 mm	2.38 mm	0.40 mm	2.80 mm	7°	10
CCMT09T304N	9 mm	9.52 mm	9.70 mm	3.97 mm	0.40 mm	4.40 mm	7°	10
CCMT09T308N	9 mm	9.52 mm	9.70 mm	3.97 mm	0.80 mm	4.40 mm	7°	10
CCMT120408N	12 mm	12.70 mm	12.90 mm	4.76 mm	0.80 mm	5.50 mm	7°	10

CCMTXA
TURNING INSERTS

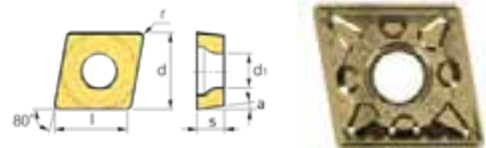
Positive.



Art.	Dimensions	d	l	S	r	d1	a°	Pack
CCMT06020420A	6 mm	6.35 mm	6.30 mm	2.38 mm	0.40 mm	2.80 mm	7°	10
CCMT09T30420A	9 mm	9.52 mm	9.70 mm	3.97 mm	0.40 mm	4.40 mm	7°	10
CCMT09T30820A	9 mm	9.52 mm	9.70 mm	3.97 mm	0.80 mm	4.40 mm	7°	10
CCMT12040820A	12 mm	12.70 mm	12.90 mm	4.76 mm	0.80 mm	5.50 mm	7°	10

CNMGX
TURNING INSERTS

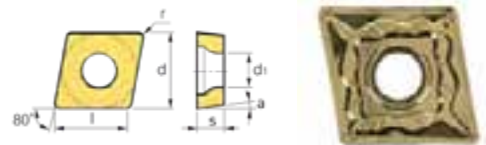
Negative.



Art.	Dimensions	d	l	S	r	d1	a°	Pack
CNMG120404N	12 mm	12.70 mm	12.90 mm	4.76 mm	0.40 mm	5.16 mm	-	10
CNMG120408N	12 mm	12.70 mm	12.90 mm	4.76 mm	0.80 mm	5.16 mm	-	10

CNMGXF15
TURNING INSERTS

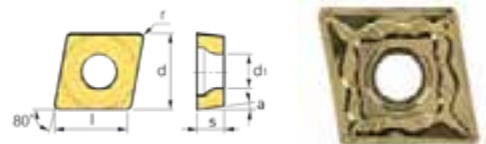
Negative.



Art.	Dimensions	d	l	S	r	d1	a°	Pack
CNMG120404F15	12 mm	12.70 mm	12.90 mm	4.76 mm	0.40 mm	5.16 mm	-	10

CNMGXF25
TURNING INSERTS

Negative.



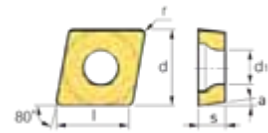
Art.	Dimensions	d	l	S	r	d1	a°	Pack
CNMG120404F25	12 mm	12.70 mm	12.90 mm	4.76 mm	0.40 mm	5.16 mm	-	10



CNMGXM25

TURNING INSERTS

Negative.

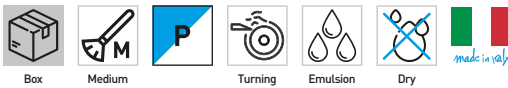
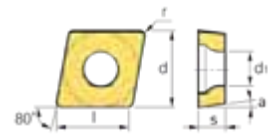


Art.	Dimensions	d	l	S	r	d1	a°	Pack
CNMG120408M25	12 mm	12.70 mm	12.90 mm	4.76 mm	0.80 mm	5.16 mm	-	10

CNMGXM35

TURNING INSERTS

Negative.

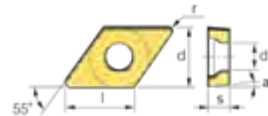


Art.	Dimensions	d	l	S	r	d1	a°	Pack
CNMG120408M35	12 mm	12.70 mm	12.90 mm	4.76 mm	0.80 mm	5.16 mm	-	10

DCMTX

TURNING INSERTS

Positive.

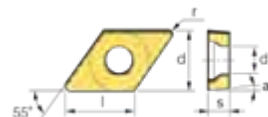


Art.	Dimensions	d	l	S	r	d1	a°	Pack
DCMT070204N	7 mm	6.35 mm	7.70 mm	2.38 mm	0.40 mm	2.80 mm	7°	10
DCMT11T304N	11 mm	9.52 mm	11.60 mm	3.97 mm	0.40 mm	2.20 mm	7°	10

DCMTXA

TURNING INSERTS

Positive.

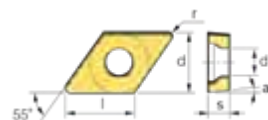


Art.	Dimensions	d	l	S	r	d1	a°	Pack
DCMT07020420A	7 mm	6.35 mm	7.70 mm	2.38 mm	0.40 mm	2.80 mm	7°	10
DCMT11T30420A	11 mm	9.52 mm	11.60 mm	3.97 mm	0.40 mm	2.20 mm	7°	10

DNMGX

TURNING INSERTS

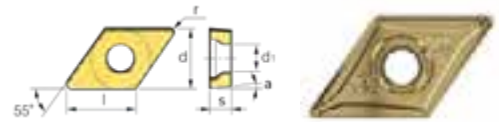
Negative.



Art.	Dimensions	d	l	S	r	d1	a°	Pack
DNMG150608N	15 mm	12.70 mm	15.50 mm	6.35 mm	0.80 mm	5.20 mm	-	10

DNMGXM25
TURNING INSERTS

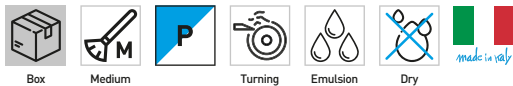
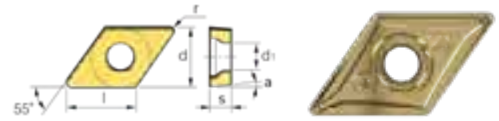
Negative.



Art.	Dimensions	d	l	S	r	d1	a°	Pack
DNMG150608M25	15 mm	12.70 mm	15.50 mm	6.35 mm	0.80 mm	5.20 mm	-	10

DNMGXM35
TURNING INSERTS

Negative.



Art.	Dimensions	d	l	S	r	d1	a°	Pack
DNMG150608M35	15 mm	12.70 mm	15.50 mm	6.35 mm	0.80 mm	5.20 mm	-	10

KNUX
TURNING INSERTS

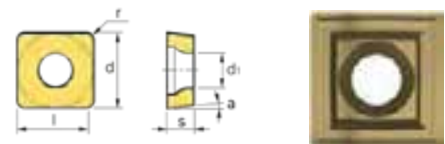
Positive.



Art.	Dimensions	d	l	S	r	a°	Pack
KNUX160405RN	16 mm	9.52 mm	19.72 mm	4.76 mm	0.50 mm	-	10
KNUX160410RN	16 mm	9.52 mm	19.72 mm	4.76 mm	1.00 mm	-	10
KNUX160405LN	16 mm	9.52 mm	19.72 mm	4.76 mm	0.50 mm	-	10
KNUX160410LN	16 mm	9.52 mm	19.72 mm	4.76 mm	1.00 mm	-	10

SCMTX
TURNING INSERTS

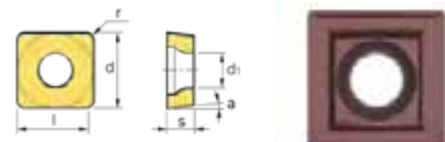
Positive.



Art.	Dimensions	d	l	S	r	d1	a°	Pack
SCMT09T304N	9 mm	9.52 mm	9.52 mm	3.97 mm	0.40 mm	4.40 mm	7°	10
SCMT09T308N	9 mm	9.52 mm	9.52 mm	3.97 mm	0.80 mm	4.40 mm	7°	10
SCMT120408N	12 mm	12.70 mm	12.70 mm	4.76 mm	0.80 mm	5.50 mm	7°	10

SCMTXA1
TURNING INSERTS

Positive.



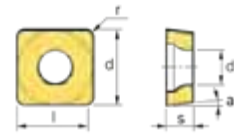
Art.	Dimensions	d	l	S	r	d1	a°	Pack
SCMT09T30420A	9 mm	9.52 mm	9.52 mm	3.97 mm	0.40 mm	4.40 mm	7°	10



SCMTXA2

TURNING INSERTS

Positive.

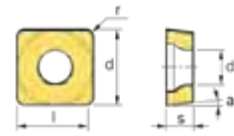


Art.	Dimensions	d	l	S	r	d1	a°	Pack
SCMT09T30820A	9 mm	9.52 mm	9.52 mm	3.97 mm	0.80 mm	4.40 mm	7°	10

SCMTXA3

TURNING INSERTS

Positive.

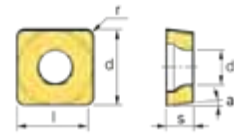


Art.	Dimensions	d	l	S	r	d1	a°	Pack
SCMT12040820A	12 mm	12.70 mm	12.70 mm	4.76 mm	0.80 mm	5.50 mm	7°	10

SNMGXF15

TURNING INSERTS

Negative.

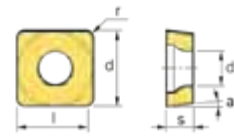


Art.	Dimensions	d	l	S	r	d1	a°	Pack
SNMG120404F15	12 mm	12.70 mm	12.70 mm	4.76 mm	0.40 mm	5.16 mm	-	10

SNMGXF25

TURNING INSERTS

Negative.

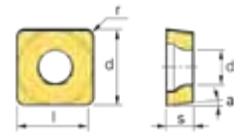


Art.	Dimensions	d	l	S	r	d1	a°	Pack
SNMG120404F25	12 mm	12.70 mm	12.70 mm	4.76 mm	0.40 mm	5.16 mm	-	10

SNMGXM25

TURNING INSERTS

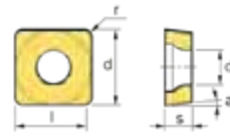
Negative.



Art.	Dimensions	d	l	S	r	d1	a°	Pack
SNMG120408M25	12 mm	12.70 mm	12.70 mm	4.76 mm	0.80 mm	5.16 mm	-	10

SNMGXM35
TURNING INSERTS

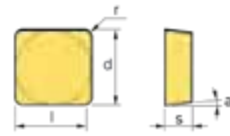
Negative.



Art.	Dimensions	d	l	S	r	d1	a°	Pack
SNMG120408M35	12 mm	12.70 mm	12.70 mm	4.76 mm	0.80 mm	5.16 mm	-	10

SPMRX
TURNING INSERTS

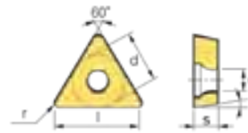
Positive.



Art.	Dimensions	d	l	S	r	a°	Pack
SPMR120304N	12 mm	12.70 mm	12.70 mm	3.18 mm	0.40 mm	11°	10
SPMR120308N	12 mm	12.70 mm	12.70 mm	3.18 mm	0.80 mm	11°	10

TCMTX
TURNING INSERTS

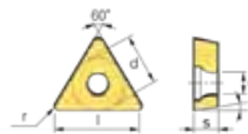
Positive.



Art.	Dimensions	d	l	S	r	d1	a°	Pack
TCMT090204N	9 mm	3.40 mm	9.63 mm	2.38 mm	0.40 mm	2.50 mm	7°	10
TCMT110204N	11 mm	6.35 mm	11.00 mm	2.38 mm	0.40 mm	2.80 mm	7°	10
TCMT16T304N	16 mm	9.52 mm	16.50 mm	3.97 mm	0.40 mm	4.40 mm	7°	10
TCMT16T308N	16 mm	9.52 mm	16.50 mm	3.97 mm	0.80 mm	4.40 mm	7°	10

TCMTXA
TURNING INSERTS

Positive.



Art.	Dimensions	d	l	S	r	d1	a°	Pack
TCMT09020420A	9 mm	3.40 mm	9.63 mm	2.38 mm	0.40 mm	2.50 mm	7°	10
TCMT11020420A	11 mm	6.35 mm	11.00 mm	2.38 mm	0.40 mm	2.80 mm	7°	10
TCMT16T30420A	16 mm	9.52 mm	16.50 mm	3.97 mm	0.40 mm	4.40 mm	7°	10
TCMT16T30820A	16 mm	9.52 mm	16.50 mm	3.97 mm	0.80 mm	4.40 mm	7°	10

WNMGX
TURNING INSERTS

Negative.



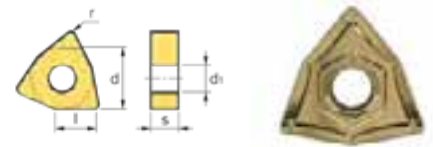
Art.	Dimensions	d	l	S	r	d1	a°	Pack
WNMG080408N	8 mm	12.70 mm	8.70 mm	4.76 mm	0.80 mm	5.10 mm	-	10



WNMGXM25

TURNING INSERTS

Negative.

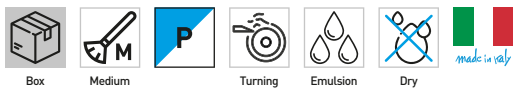
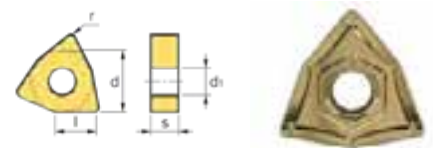


Art.	Dimensions	d	l	S	r	d1	a°	Pack
WNMG080408M25	8 mm	12.70 mm	8.70 mm	4.76 mm	0.80 mm	5.10 mm	-	10

WNMGXM35

TURNING INSERTS

Negative.

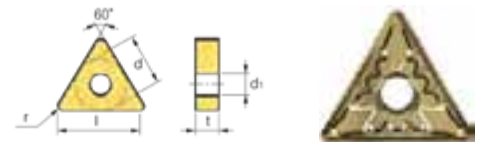


Art.	Dimensions	d	l	S	r	d1	a°	Pack
WNMG080408M35	8 mm	12.70 mm	8.70 mm	4.76 mm	0.80 mm	5.10 mm	-	10

TNMGX

TURNING INSERTS

Negative.

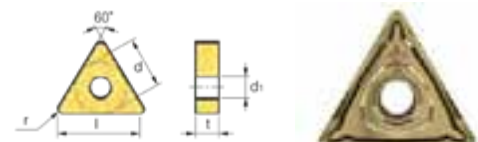


Art.	Dimensions	d	l	S	r	d1	a°	Pack
TNMG160404N	16 mm	9.52 mm	16.50 mm	4.76 mm	0.40 mm	3.81 mm	-	10
TNMG160408N	16 mm	9.52 mm	16.50 mm	4.76 mm	0.80 mm	3.81 mm	-	10
TNMG220408N	22 mm	12.70 mm	18.25 mm	4.76 mm	0.80 mm	5.16 mm	-	10

TNMGXF15

TURNING INSERTS

Negative.

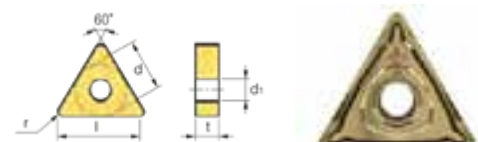


Art.	Dimensions	d	l	S	r	d1	a°	Pack
TNMG160404F15	16 mm	9.52 mm	16.50 mm	4.76 mm	0.40 mm	3.81 mm	-	10

TNMGXF25

TURNING INSERTS

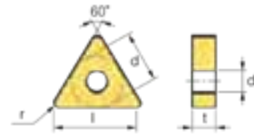
Negative.



Art.	Dimensions	d	l	S	r	d1	a°	Pack
TNMG160404F25	16 mm	9.52 mm	16.50 mm	4.76 mm	0.40 mm	3.81 mm	-	10

TNMGXM25
TURNING INSERTS

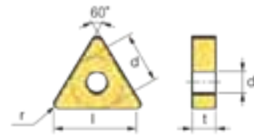
Negative.



Art.	Dimensions	d	l	S	r	d1	a°	Pack
TNMG160408M25	16 mm	9.52 mm	16.50 mm	4.76 mm	0.80 mm	3.81 mm	-	10

TNMGXM35
TURNING INSERTS

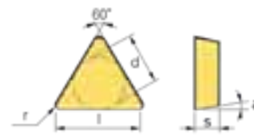
Negative.



Art.	Dimensions	d	l	S	r	d1	a°	Pack
TNMG160408M35	16 mm	9.52 mm	16.50 mm	4.76 mm	0.80 mm	3.81 mm	-	10

TPMRX
TURNING INSERTS

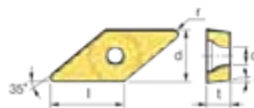
Positive.



Art.	Dimensions	d	l	S	r	a°	Pack
TPMR110304N	11 mm	5.98 mm	10.37 mm	3.18 mm	0.40 mm	11°	10
TPMR110308N	11 mm	5.98 mm	10.37 mm	3.18 mm	0.80 mm	11°	10
TPMR160304N	16 mm	9.23 mm	16 mm	3.18 mm	0.40 mm	11°	10
TPMR160308N	16 mm	9.23 mm	16 mm	3.18 mm	0.80 mm	11°	10

VBMTX
TURNING INSERTS

Positive.



Art.	Dimensions	d	l	S	r	d1	a°	Pack
VBMT160404N	16 mm	9.52 mm	16.60 mm	4.76 mm	0.40 mm	4.40 mm	5°	10

VBMTXA

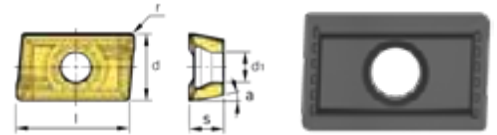

Art.	Dimensions	d	l	S	r	d1	a°	Pack
VBMT16040420A	16 mm	9.52 mm	16.60 mm	4.76 mm	0.40 mm	4.40 mm	5°	10



ADLTXA

MILLING INSERTS

90°.

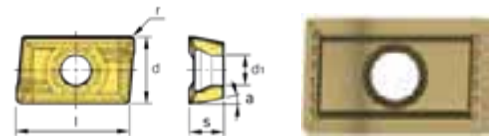


Art.	Dimensions	d	l	S	r	d1	a°	Pack
ADLT150308R20A	15 mm	9.52 mm	14.5 mm	3.18 mm	0.80 mm	4.50 mm	15°	10

ADLTX

MILLING INSERTS

90°.

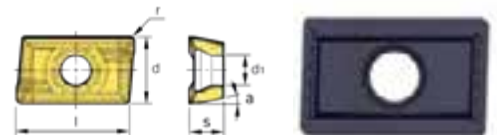


Art.	Dimensions	d	l	S	r	d1	a°	Pack
ADLT1503ZZR234	15 mm	9.52 mm	14.50 mm	3.18 mm	0.80 mm	4.50 mm	15°	10

ADLTXA1

MILLING INSERTS

90°.

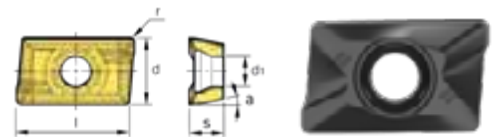


Art.	Dimensions	d	l	S	r	d1	a°	Pack
ADLT1503ZZR20A	15 mm	9.52 mm	14.50 mm	3.18 mm	0.80 mm	4.50 mm	15°	10

APKTX

MILLING INSERTS

90°.



Art.	Dimensions	d	l	S	r	d1	a°	Pack
APKT1003PDER20A	10 mm	6.70 mm	10.00 mm	3.18 mm	0.50 mm	3.20 mm	11°	10
APKT1604PDER20A	16 mm	9.50 mm	16.30 mm	4.76 mm	0.90 mm	4.40 mm	11°	10

OFEXX

MILLING INSERTS

45°.



Art.	Dimensions	d	l	S	r	d1	a°	Pack
OFEX05T305234	5 mm	12.80 mm	3.70 mm	3.97 mm	0.50 mm	4.56 mm	25°	10

OFEXXA
MILLING INSERTS

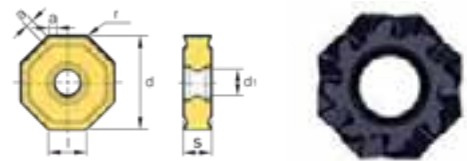
45°.



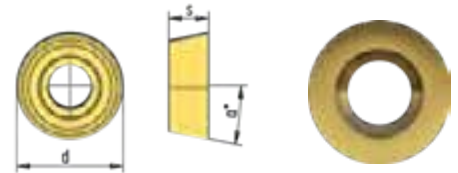
Art.	Dimensions	d	l	S	r	d1	a°	Pack
OFEX05T30520A	5 mm	12.80 mm	3.70 mm	3.97 mm	0.50 mm	4.56 mm	25°	10

ONMXXA
MILLING INSERTS

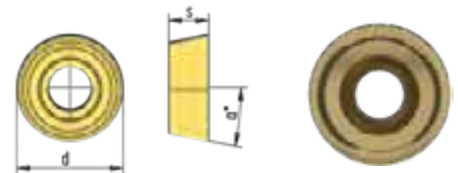
45°.



Art.	Dimensions	d	l	S	d1	a°	Pack
ONMX120520A	12 mm	12.70 mm	1.50 mm	5.56 mm	6.00 mm	-	10

RDHTX
MILLING INSERTS


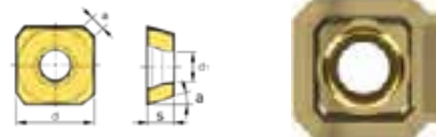
Art.	Dimensions	d	S	a°	Pack
RDHT10T3M0-N	10 mm	10 mm	3.97 mm	15°	10

RPMTX
MILLING INSERTS


Art.	Dimensions	d	S	a°	Pack
RPMT1204N	12 mm	12 mm	4.76 mm	11°	10

SEHTX
MILLING INSERTS

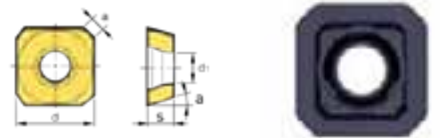
45°.



Art.	Dimensions	d	a	S	d1	a°	Pack
SEHT1204AFN234	12 mm	12.70 mm	1.80 mm	4.76 mm	5.50 mm	20°	10

SEHTXA
MILLING INSERTS

45°.



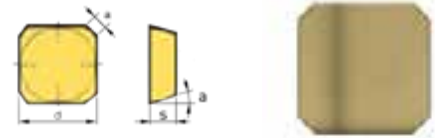
Art.	Dimensions	d	a	S	d1	a°	Pack
SEHT1204AFN20A	12 mm	12.70 mm	1.80 mm	4.76 mm	5.50 mm	20°	10



SEKNX

MILLING INSERTS

45°.

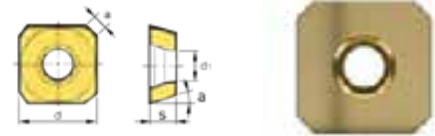


Art.	Dimensions	d	a	S	a°	Pack
SEKN1203AFN25	12 mm	12.70 mm	1.80 mm	3.18 mm	20°	10

SEHXX

MILLING INSERTS

45°.

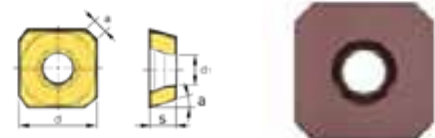


Art.	Dimensions	d	a	S	d1	a°	Pack
SEHX1204234	12 mm	12.70 mm	1.80 mm	4.76 mm	5.50 mm	20°	10

SEHXXA

MILLING INSERTS

45°.



Art.	Dimensions	d	a	S	d1	a°	Pack
SEHX120420A	12 mm	12.70 mm	1.80 mm	4.76 mm	5.50 mm	20°	10

SNMXX

MILLING INSERTS

45°



Art.	Dimensions	d	a	S	d1	a°	Pack
SNMX120520A	12 mm	12.70 mm	1.80 mm	5.56 mm	6.00 mm	-	10

SPKNX

MILLING INSERTS



Art.	Dimensions	l	a	S	a°	Pack
SPKN1203R25	12 mm	12.7 mm	1.40 mm	3.18 mm	11°	10

TPKNX

MILLING INSERTS



Art.	Dimensions	d	l	a	S	a°	Pack
TPKN1603R25	16 mm	9.52 mm	16.50 mm	1.47 mm	3.18 mm	11°	10
TPKN2204R25	22 mm	12.70 mm	22.00 mm	1.47 mm	4.76 mm	11°	10

16IRX
INTERNAL THREAD INSERTS

ISO 9



Art.	Thread	Pack
11IRA55134	Whitworth 28 - 11 TPI	10
11IRA60134	Metric 0.2 - 3 mm	10
16IR100ISO134	P. Metric 1 mm	10
16IR125ISO134	P. Metric 1.25 mm	10
16IR150ISO134	P. Metric 1.50 mm	10
16IR175ISO134	P. Metric 1.75 mm	10
16IR200ISO134	P. Metric 2.00 mm	10
16IR250ISO134	P. Metric 2.50 mm	10
16IR300ISO134	P. Metric 3.00 mm	10
16IRAG60134	Metric 0.2 - 3 mm	10
16IR14W134	Whitworth 14 TPI	10
16IR11W134	Whitworth 11 TPI	10
16IRAG55134	Whitworth 28 - 11 TPI	10

GCMX
CUTTING INSERTS

ISO 6



Art.	d	r	Pack
GCMX2N134	2.20 mm	0.20 mm	10
GCMX3N134	3.10 mm	0.20 mm	10
GCMX4N134	4.10 mm	0.20 mm	10
GCMX5N134	5.10 mm	0.30 mm	10

165X
GROOVE INSERTS


Art.	Thickness	Pack
165110134	1.10 mm	10
165130134	1.30 mm	10
165160134	1.60 mm	10
165185134	1.85 mm	10
165215134	2.15 mm	10
165265134	2.65 mm	10
165315134	3.15 mm	10

16ERX
EXTERNAL THREAD INSERTS


Art.	Thread	Pack
16ER100ISO134	P. Metric 1 mm	10
16ER125ISO134	P. Metric 1.25 mm	10
16ER150ISO134	P. Metric 1.50 mm	10
16ER175ISO134	P. Metric 1.75 mm	10
16ER200ISO134	P. Metric 2.00 mm	10
16ER250ISO134	P. Metric 2.50 mm	10
16ER300ISO134	P. Metric 3.00 mm	10
16ERAG60134	Metric 0.2 - 3 mm	10
16ER14W134	Whitworth 14 TPI	10
16ER11W134	Whitworth 11 TPI	10
16ERAG55134	Whitworth 28 - 11 TPI	10

GCMXA
CUTTING INSERTS

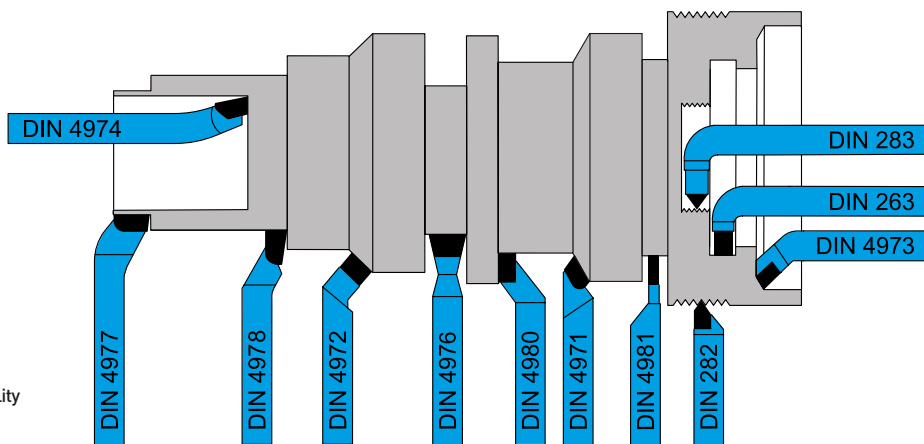
ISO 2



Art.	d	r	Pack
GCMX2N20A	2.20 mm	0.20 mm	10
GCMX3N20A	3.10 mm	0.20 mm	10
GCMX4N20A	4.10 mm	0.20 mm	10
GCMX5N20A	5.10 mm	0.30 mm	10

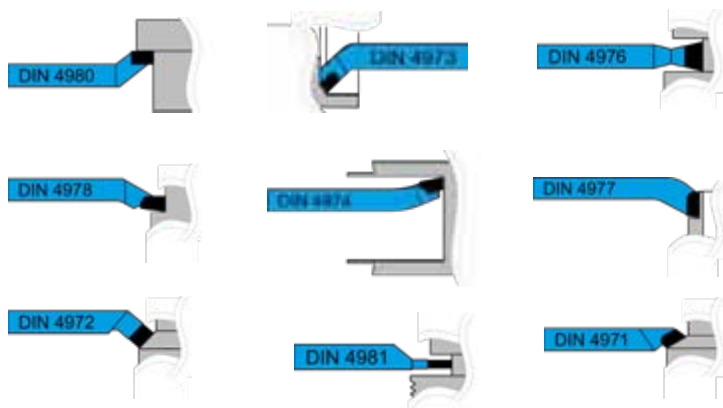


FERVI CARBIDE TIPPED LATHE IDENTIFICATION



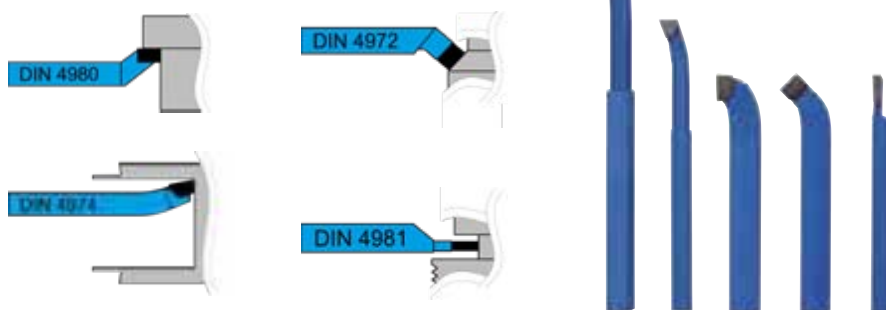
Explore our wide selection of brazed with heat-welded inserts and select the most suitable model based on the specific processing you need to perform. With our comprehensive range, we guarantee versatile, high-quality solutions to meet your needs.

BR10- CARBIDE TIPPED LATHE TOOL SET NEW



Art.	Dimensions
BR10/10	10 x 10 x L150 mm (ISO 8 DIN 4973, ISO 9 DIN 4974) 10 x 10 x L90 mm (ISO 1 DIN 4971, ISO 2 DIN 4972, ISO 6R DIN 4980, ISO 6L DIN 4980, ISO 7 DIN 4981) 6 x 10 x L90 mm (ISO 3R DIN 4978, ISO 4 DIN 4976, ISO 5 DIN 4977)
BR10/12	12 x 12 x L180 mm (ISO 8 DIN 4973, ISO 9 DIN 4974) 12 x 12 x L100 mm (ISO 1 DIN 4971, ISO 2 DIN 4972, ISO 6R DIN 4980, ISO 6L DIN 4980) 8 x 12 x L100 mm (ISO 3R DIN 4978, ISO 4 DIN 4976, ISO 5 DIN 4977, ISO 7 DIN 4981)

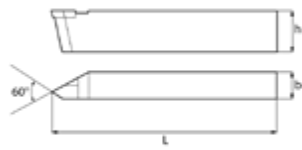
B005- CARBIDE TIPPED LATHE TOOL SET



Art.	Kit
B005	1BRAS411108RP - 1BRAS411110RP - 1BRAS410312RP - 1BRAS410412RP - 1BRAS410912RP
B005/16	1BRAS411110RP - 1BRAS411112RP - 1BRAS410316RP - 1BRAS410416RP - 1BRAS410916RP
B005/20	1BRAS411112RP - 1BRAS411116RP - 1BRAS410320RP - 1BRAS410420RP - 1BRAS410920RP

BRFEX
CARBIDE TIPPED TOOL FOR EXTERNAL THREAD

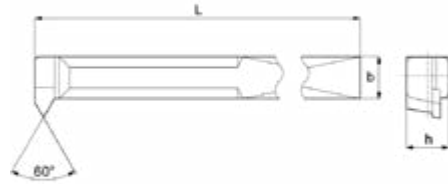
For the execution of all external 60° threads.



Art.	L	b	h
BRFE12RP	90 mm	12 mm	12 mm
BRFE16RP	100 mm	16 mm	16 mm
BRFE20RP	125 mm	20 mm	20 mm
BRFE25RP	140 mm	25 mm	25 mm

BRFIX
CARBIDE TIPPED TOOL FOR INTERNAL THREAD

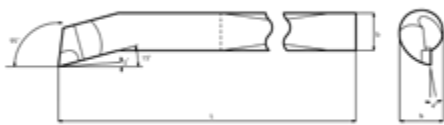
For the execution of all internal 60° threads.



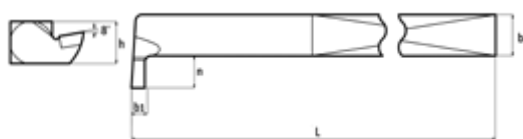
Art.	L	b	h
BRFI10RP	150 mm	10 mm	10 mm
BRFI12RP	180 mm	12 mm	12 mm
BRFI16RP	210 mm	16 mm	16 mm
BRFI20RP	250 mm	20 mm	20 mm
BRFI25RP	300 mm	25 mm	25 mm

BRAS4111X
CARBIDE TIPPED TOOL FOR BLIND HOLES

ISO 9



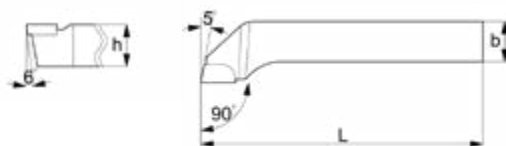
Art.	L	b	h
BRAS411108RP	125 mm	8 mm	8 mm
BRAS411110RP	150 mm	10 mm	10 mm
BRAS411112RP	180 mm	12 mm	12 mm
BRAS411116RP	210 mm	16 mm	16 mm
BRAS411120RP	250 mm	20 mm	20 mm
BRAS411125RP	300 mm	25 mm	25 mm
BRAS411132RP	355 mm	32 mm	32 mm

BRCIX
CARBIDE TIPPED TOOL FOR INTERNAL SLOTS


Art.	L	b	h	b1	N
BRCI10RP	150 mm	10 mm	10 mm	3 mm	8 mm
BRCI12RP	180 mm	12 mm	12 mm	4 mm	10 mm
BRCI16RP	210 mm	16 mm	16 mm	5 mm	12 mm
BRCI20RP	210 mm	20 mm	20 mm	6 mm	16 mm
BRCI25RP	300 mm	25 mm	25 mm	8 mm	20 mm

BRAS4104X
CARBIDE TIPPED TOOL FOR FACING

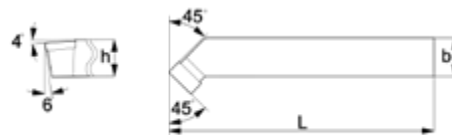
ISO 6



Art.	L	b	h
BRAS410410LP	90 mm	10 mm	10 mm
BRAS410410RP	90 mm	10 mm	10 mm
BRAS410412LP	100 mm	12 mm	12 mm
BRAS410412RP	100 mm	12 mm	12 mm
BRAS410416LP	110 mm	16 mm	16 mm
BRAS410416RP	110 mm	16 mm	16 mm
BRAS410420LP	125 mm	20 mm	20 mm
BRAS410420RP	125 mm	20 mm	20 mm
BRAS410425RP	140 mm	25 mm	25 mm

BRAS4103X
CARBIDE TIPPED TOOL FOR OUTSIDE ROUGHING

ISO 2



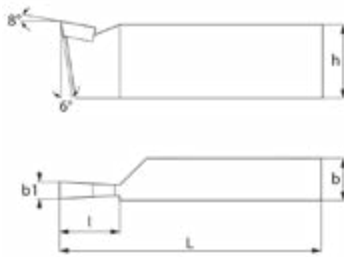
Art.	L	b	h
BRAS410310RP	90 mm	10 mm	10 mm
BRAS410312LP	100 mm	12 mm	12 mm
BRAS410312RP	100 mm	12 mm	12 mm
BRAS410316LP	110 mm	16 mm	16 mm
BRAS410316RP	110 mm	16 mm	16 mm
BRAS410320LP	125 mm	20 mm	20 mm
BRAS410320RP	125 mm	20 mm	20 mm
BRAS410325RP	140 mm	25 mm	25 mm



BRAS4109X

CARBIDE TIPPED TOOL FOR CUTTING OFF

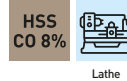
ISO 7



Art.	L	l	b	h	b1
BRAS410912RP	100 mm	12 mm	8 mm	12 mm	3 mm
BRAS410916RP	110 mm	14 mm	10 mm	16 mm	3,5 mm
BRAS410920RP	125 mm	16 mm	12 mm	20 mm	5 mm
BRAS410925RP	140 mm	20 mm	16 mm	25 mm	6 mm

B012-

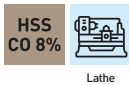
HARDENED AND GROUNDED TOOL BITS



Art.	ø	Length	Tolerance
B012/04	4 mm	200 mm	h9
B012/05	5 mm	200 mm	h9
B012/06	6 mm	200 mm	h9
B012/08	8 mm	200 mm	h9
B012/10	10 mm	200 mm	h9
B012/12	12 mm	200 mm	h9
B012/13	13 mm	135 mm	h9
B012/16	16 mm	200 mm	h9
B012/20	20 mm	200 mm	h9

B013-

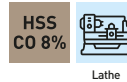
HARDENED AND GROUNDED TOOL BITS



Art.	Sides dimension	Length	Tolerance
B013/04X04	4 x 4 mm	200 mm	h13
B013/05X05	5 x 5 mm	200 mm	h13
B013/06X06	6 x 6 mm	200 mm	h13
B013/08X08	8 x 8 mm	200 mm	h13
B013/10X10	10 x 10 mm	200 mm	h13
B013/12X12	12 x 12 mm	200 mm	h13
B013/14X14	14 x 14 mm	200 mm	h13
B013/16X16	16 x 16 mm	200 mm	h13
B013/20X20	20 x 20 mm	200 mm	h13

B014-







HARDENED AND GROUNDED TOOL BITS



Art.	Sides dimension	Length	Tolerance
B014/20X04	20 x 04 mm	200 mm	h13
B014/20X05	20 x 05 mm	200 mm	h13
B014/20X06	20 x 06 mm	200 mm	h13
B014/20X08	20 x 08 mm	200 mm	h13
B014/20X10	20 x 10 mm	200 mm	h13
B014/20X12	20 x 12 mm	200 mm	h13
B014/25X06	25 x 06 mm	200 mm	h13



TYPES OF MATERIAL USED IN THE CONSTRUCTION OF HELICAL TIPS

	Type	Description	Duration	Processable metals
HSS	 ST1Ax	HSS, High Speed Steel, is the most common of all metal tool steels. A tool made of HSS has high hardness and good strength.	**	Alloy and non-alloy steels, non-ferrous metals, grey and malleable cast iron, sintered iron
	 P023-			
	 ST2Ax			
HSS-TiN	 P058-	The titanium coating, carried out to a HSS tool forms a harder and stronger alloy. This leads to a drill capable of machining the same materials as HSS but with much reduced cutting edge wear.	****	Alloy and non-alloy steels, non-ferrous metals, malleable cast iron, sintered iron
HSS-Co5%	 P065-	Cobalt, added to a steel tool such as HSS - in this case 5% - gives strength and resistance and increases the hardness of the tool itself. Cobalt retains its properties at a higher temperature than titanium, which makes it possible to drill at a higher speed and under more critical conditions.	*****	Hard and treated steels, stainless steels, chrome-nickel, cast iron and bronze
HSS-Co8%	 P064-	Cobalt, added to a steel tool such as HSS - in this case 8% - gives strength and resistance and increases the hardness of the tool itself. Cobalt retains its properties at a higher temperature than titanium, which makes it possible to drill at a higher speed and under more critical conditions.	*****	Hard and treated steels, stainless steels, chrome-nickel, cast iron and bronze

DRILLING PARAMETERS BY MATERIAL TYPE HSS, HSS-CO5% AND HSS-CO8% DRILL TIPS

Materials to be processed	Tip type	Peripheral speed Vc (m/min)	Tip diameter				Coolant
			2	5	8	12	
			Feed (mm/revolution)				
Non-alloy structural steel R<600N/mm ²	HSS	20 - 25	0,05	0,12	0,20	0,25	Emulsion
	HSS-Tin	25 - 30					
Low alloy construction steel R< 700÷900N/mm ²	HSS	10 - 12	0,03	0,07	0,10	0,16	Emulsion
	HSS-Tin	15 - 18					
Alloy steel R< 1100÷1300N/mm ²	HSS	6 - 8	0,02	0,05	0,08	0,12	Emulsion
	HSS-Tin	8 - 10					
Stainless steel	Hss-Co5%	6 - 8	0,02	0,05	0,08	0,12	Emulsion
	Hss-Co8%	8 - 10					
Grey Cast Iron 200HB	HSS	15 - 20	0,02	0,12	0,20	0,25	No refriger.
	HSS-Tin	20 - 25					
Grey Cast Iron 350HB	HSS	5 - 10	0,03	0,07	0,10	0,16	No refriger.
	HSS-Tin	20 - 25					
Bronze	HSS	20 - 30	0,05	0,08	0,14	0,20	Emulsion or Oil
Brass	HSS	40 - 70	0,06	0,16	0,22	0,32	
Aluminium	HSS	40 - 80	0,05	0,14	0,18	0,22	Emulsion
Aluminium alloys	HSS	30 - 60	0,05	0,14	0,18	0,22	



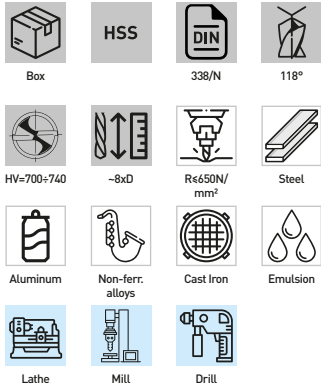
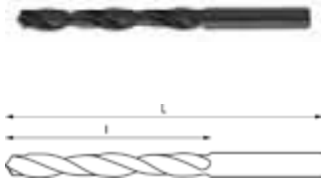
THEORETICAL NUMBER OF RPM FOR THE USE OF HELICAL TIPS ACCORDING TO THE CHOSEN V_c

∅	Cutting speed V_c (mt/min)																	
	3	4	5	6	8	10	12	15	18	20	25	30	35	40	50	60	70	80
(mm)	Number of revolutions per minute (rpm)																	
2	478	637	796	955	1274	1592	1911	2389	2866	3185	3981	4777	5573	6369	7962	9554	11146	12739
3	318	425	531	637	849	1062	1274	1592	1911	2123	2654	3185	3715	4246	5308	6369	7431	8493
4	239	318	398	478	637	796	955	1194	1433	1592	1990	2389	2787	3185	3981	4777	5573	6369
5	191	255	318	382	510	637	764	955	1146	1274	1592	1911	2229	2548	3185	3822	4459	5096
6	159	212	265	318	425	531	637	796	955	1062	1327	1592	1858	2123	2654	3185	3715	4246
8	119	159	199	239	318	398	478	597	717	796	995	1194	1393	1592	1990	2389	2787	3185
10	96	127	159	191	255	318	382	478	573	637	796	955	1115	1274	1592	1911	2229	2548
12	80	106	133	159	212	265	318	398	478	531	663	796	929	1062	1327	1592	1858	2123



ST1AX
STRAIGHT SHANK TWIST DRILL

10 mm reduced shank rolled twist drill, right hand, black finish.



Art.	∅	L	l	Pack
ST1A01	1,00 mm	34 mm	12 mm	10
ST1A01.25	1,25 mm	38 mm	16 mm	10
ST1A01.50	1,50 mm	40 mm	18 mm	10
ST1A01.75	1,75 mm	46 mm	22 mm	10
ST1A02	2,00 mm	49 mm	24 mm	10
ST1A02.25	2,25 mm	53 mm	27 mm	10
ST1A02.50	2,50 mm	57 mm	30 mm	10
ST1A02.75	2,75 mm	61 mm	33 mm	10
ST1A03	3,00 mm	61 mm	33 mm	10
ST1A03.25	3,25 mm	65 mm	36 mm	10
ST1A03.50	3,50 mm	70 mm	39 mm	10
ST1A03.75	3,75 mm	70 mm	39 mm	10
ST1A04	4,00 mm	75 mm	43 mm	10
ST1A04.25	4,25 mm	75 mm	43 mm	10
ST1A04.50	4,50 mm	80 mm	47 mm	10
ST1A04.75	4,75 mm	80 mm	47 mm	10
ST1A05	5,00 mm	86 mm	52 mm	10
ST1A05.25	5,25 mm	86 mm	52 mm	10
ST1A05.50	5,50 mm	93 mm	57 mm	10
ST1A05.75	5,75 mm	93 mm	57 mm	10
ST1A06	6,00 mm	93 mm	57 mm	10
ST1A06.25	6,25 mm	101 mm	63 mm	10
ST1A06.50	6,50 mm	101 mm	63 mm	10
ST1A06.75	6,75 mm	109 mm	69 mm	10
ST1A07	7,00 mm	109 mm	69 mm	10
ST1A07.25	7,25 mm	109 mm	69 mm	10
ST1A07.50	7,50 mm	109 mm	69 mm	10
ST1A07.75	7,75 mm	117 mm	75 mm	10
ST1A08	8,00 mm	117 mm	75 mm	10
ST1A08.25	8,25 mm	117 mm	75 mm	5
ST1A08.50	8,50 mm	117 mm	75 mm	5
ST1A08.75	8,75 mm	125 mm	81 mm	5
ST1A09	9,00 mm	125 mm	81 mm	5
ST1A09.25	9,25 mm	125 mm	81 mm	5
ST1A09.50	9,50 mm	125 mm	81 mm	5
ST1A09.75	9,75 mm	133 mm	87 mm	5
ST1A10	10,00 mm	133 mm	87 mm	5
ST1A10.25	10,25 mm	133 mm	87 mm	5
ST1A10.50	10,50 mm	133 mm	87 mm	5
ST1A10.75	10,75 mm	142 mm	94 mm	5
ST1A11	11,00 mm	142 mm	94 mm	5
ST1A11.25	11,25 mm	142 mm	94 mm	5
ST1A11.50	11,50 mm	142 mm	94 mm	5
ST1A11.75	11,75 mm	142 mm	94 mm	5
ST1A12	12,00 mm	151 mm	101 mm	5
ST1A12.25	12,25 mm	151 mm	101 mm	5
ST1A12.50	12,50 mm	151 mm	101 mm	5
ST1A12.75	12,75 mm	151 mm	101 mm	5
ST1A13	13,00 mm	151 mm	101 mm	5

P046
TWIST DRILL SET

Right hand, black finish.



Size (step 0,5 mm) 1 ÷ 13 mm

P045
TWIST DRILL SET

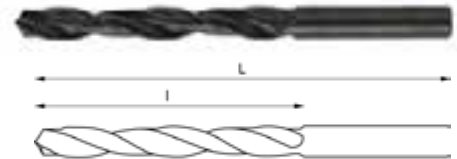
Right hand, black finish.



Size (step 0,5 mm) 1÷10 mm

ST1AXC
STRAIGHT SHANK TWIST DRILL

Rolled, right hand, short length, black finish.



Art.	∅	L	l	Pack
ST1A02.00C	2,00 mm	38 mm	12 mm	10
ST1A02.50C	2,50 mm	43 mm	14 mm	10
ST1A03.00C	3,00 mm	46 mm	16 mm	10
ST1A03.25C	3,25 mm	49 mm	18 mm	10
ST1A03.50C	3,50 mm	52 mm	20 mm	10
ST1A03.75C	3,75 mm	52 mm	20 mm	10
ST1A04.00C	4,00 mm	55 mm	22 mm	10
ST1A04.25C	4,25 mm	55 mm	22 mm	10
ST1A04.50C	4,50 mm	58 mm	24 mm	10
ST1A05.00C	5,00 mm	62 mm	26 mm	10
ST1A05.50C	5,50 mm	66 mm	28 mm	10
ST1A06.00C	6,00 mm	66 mm	28 mm	10



ST1AXR10

STRAIGHT SHANK TWIST DRILL

10 mm reduced shank rolled twist drill, right hand, black finish.



Art.	ϕ	L	l	Pack
ST1A10.25R10	10,25 mm	133 mm	87 mm	5
ST1A10.50R10	10,5 mm	133 mm	87 mm	5
ST1A10.75R10	10,75 mm	142 mm	94 mm	5
ST1A11.00R10	11,00 mm	142 mm	94 mm	5
ST1A11.25R10	11,25 mm	142 mm	94 mm	5
ST1A11.50R10	11,5 mm	142 mm	94 mm	5
ST1A11.75R10	11,75 mm	142 mm	94 mm	5
ST1A12.00R10	12 mm	151 mm	101 mm	5
ST1A12.25R10	12,25 mm	151 mm	101 mm	5
ST1A12.50R10	12,50 mm	151 mm	101 mm	5
ST1A12.75R10	12,75 mm	151 mm	101 mm	5
ST1A13.00R10	13 mm	151 mm	101 mm	5
ST1A13.25R10	13,25 mm	160 mm	108 mm	5
ST1A13.50R10	13,5 mm	160 mm	108 mm	5
ST1A13.75R10	13,75 mm	160 mm	108 mm	5
ST1A14.00R10	14,00 mm	160 mm	108 mm	5
ST1A14.25R10	14,25 mm	169 mm	114 mm	5
ST1A14.50R10	14,5 mm	169 mm	114 mm	5
ST1A14.75R10	14,75 mm	169 mm	114 mm	5
ST1A15.00R10	15 mm	169 mm	114 mm	5
ST1A15.25R10	15,25 mm	178 mm	120 mm	5
ST1A15.50R10	15,50 mm	178 mm	120 mm	5
ST1A15.75R10	15,75 mm	178 mm	120 mm	5
ST1A16.00R10	16 mm	178 mm	120 mm	5

ST1AXR13

STRAIGHT SHANK TWIST DRILL

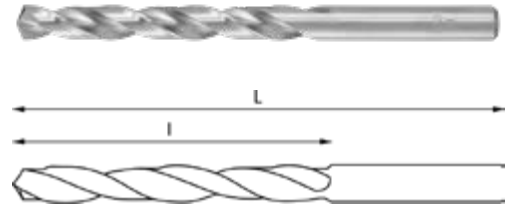
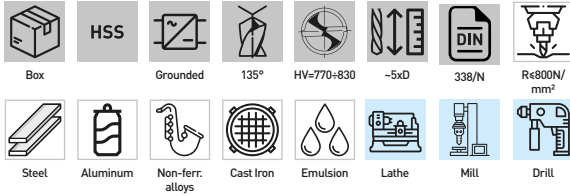
13 mm reduced shank rolled twist drill, right hand, black finish.



Art.	ϕ	L	l	Pack
ST1A13.25R13	13,25 mm	160 mm	108 mm	5
ST1A13.50R13	13,50 mm	160 mm	108 mm	5
ST1A13.75R13	13,75 mm	160 mm	108 mm	5
ST1A14.00R13	14,00 mm	160 mm	108 mm	5
ST1A14.25R13	14,25 mm	169 mm	114 mm	5
ST1A14.50R13	14,50 mm	169 mm	114 mm	5
ST1A14.75R13	14,75 mm	169 mm	114 mm	5
ST1A15.00R13	15,00 mm	169 mm	114 mm	5
ST1A15.25R13	15,25 mm	178 mm	120 mm	5
ST1A15.50R13	15,50 mm	178 mm	120 mm	5
ST1A15.75R13	15,75 mm	178 mm	120 mm	5
ST1A16.00R13	16,00 mm	178 mm	120 mm	5

P023-
STRAIGHT SHANK TWIST DRILL

Right hand, rectified



Art.	ø	L	l	Pack	Art.	ø	L	l	Pack	Art.	ø	L	l	Pack
P023/00.30	0.30 mm	19 mm	3 mm	10	P023/03.80	3.80 mm	75 mm	43 mm	10	P023/07.80	7.80 mm	117 mm	75 mm	10
P023/00.35	0.35 mm	19 mm	4 mm	10	P023/03.90	3.90 mm	75 mm	43 mm	10	P023/07.90	7.90 mm	117 mm	75 mm	10
P023/00.40	0.40 mm	20 mm	5 mm	10	P023/04.00	4.00 mm	75 mm	43 mm	10	P023/08.00	8.00 mm	117 mm	75 mm	5
P023/00.45	0.45 mm	20 mm	5 mm	10	P023/04.10	4.10 mm	75 mm	43 mm	10	P023/08.10	8.10 mm	117 mm	75 mm	5
P023/00.50	0.50 mm	22 mm	6 mm	10	P023/04.20	4.20 mm	75 mm	43 mm	10	P023/08.20	8.20 mm	117 mm	75 mm	5
P023/00.55	0.55 mm	24 mm	7 mm	10	P023/04.25	4.25 mm	75 mm	43 mm	10	P023/08.25	8.25 mm	117 mm	75 mm	5
P023/00.60	0.60 mm	24 mm	7 mm	10	P023/04.30	4.30 mm	80 mm	47 mm	10	P023/08.30	8.30 mm	117 mm	75 mm	5
P023/00.65	0.65 mm	26 mm	8 mm	10	P023/04.40	4.40 mm	80 mm	47 mm	10	P023/08.40	8.40 mm	117 mm	75 mm	5
P023/00.70	0.70 mm	28 mm	9 mm	10	P023/04.50	4.50 mm	80 mm	47 mm	10	P023/08.50	8.50 mm	117 mm	75 mm	5
P023/00.75	0.75 mm	28 mm	9 mm	10	P023/04.60	4.60 mm	80 mm	47 mm	10	P023/08.60	8.60 mm	125 mm	81 mm	5
P023/00.80	0.80 mm	30 mm	10 mm	10	P023/04.70	4.70 mm	80 mm	47 mm	10	P023/08.70	8.70 mm	125 mm	81 mm	5
P023/00.85	0.85 mm	30 mm	10 mm	10	P023/04.75	4.75 mm	80 mm	47 mm	10	P023/08.75	8.75 mm	125 mm	81 mm	5
P023/00.90	0.90 mm	32 mm	11 mm	10	P023/04.80	4.80 mm	86 mm	52 mm	10	P023/08.80	8.80 mm	125 mm	81 mm	5
P023/00.95	0.95 mm	32 mm	11 mm	10	P023/04.90	4.90 mm	86 mm	52 mm	10	P023/08.90	8.90 mm	125 mm	81 mm	5
P023/01.00	1.00 mm	34 mm	12 mm	10	P023/05.00	5.00 mm	86 mm	52 mm	10	P023/09.00	9.00 mm	125 mm	81 mm	5
P023/01.10	1.10 mm	36 mm	14 mm	10	P023/05.10	5.10 mm	86 mm	52 mm	10	P023/09.10	9.10 mm	125 mm	81 mm	5
P023/01.20	1.20 mm	38 mm	16 mm	10	P023/05.20	5.20 mm	86 mm	52 mm	10	P023/09.20	9.20 mm	125 mm	81 mm	5
P023/01.25	1.25 mm	38 mm	16 mm	10	P023/05.25	5.25 mm	86 mm	52 mm	10	P023/09.25	9.25 mm	125 mm	81 mm	5
P023/01.30	1.30 mm	38 mm	16 mm	10	P023/05.30	5.30 mm	86 mm	52 mm	10	P023/09.30	9.30 mm	125 mm	81 mm	5
P023/01.40	1.40 mm	40 mm	18 mm	10	P023/05.40	5.40 mm	93 mm	57 mm	10	P023/09.40	9.40 mm	125 mm	81 mm	5
P023/01.50	1.50 mm	40 mm	18 mm	10	P023/05.50	5.50 mm	93 mm	57 mm	10	P023/09.50	9.50 mm	125 mm	81 mm	5
P023/01.60	1.60 mm	43 mm	20 mm	10	P023/05.60	5.60 mm	93 mm	57 mm	10	P023/09.60	9.60 mm	133 mm	87 mm	5
P023/01.70	1.70 mm	43 mm	20 mm	10	P023/05.70	5.70 mm	93 mm	57 mm	10	P023/09.70	9.70 mm	133 mm	87 mm	5
P023/01.75	1.75 mm	46 mm	22 mm	10	P023/05.75	5.75 mm	93 mm	57 mm	10	P023/09.75	9.75 mm	133 mm	87 mm	5
P023/01.80	1.80 mm	46 mm	22 mm	10	P023/05.80	5.80 mm	93 mm	57 mm	10	P023/09.80	9.80 mm	133 mm	87 mm	5
P023/01.90	1.90 mm	46 mm	22 mm	10	P023/05.90	5.90 mm	93 mm	57 mm	10	P023/09.90	9.90 mm	133 mm	87 mm	5
P023/02.00	2.00 mm	49 mm	24 mm	10	P023/06.00	6.00 mm	93 mm	57 mm	10	P023/10.00	10.00 mm	133 mm	87 mm	5
P023/02.10	2.10 mm	49 mm	24 mm	10	P023/06.10	6.10 mm	101 mm	63 mm	10	P023/10.25	10.25 mm	133 mm	87 mm	5
P023/02.20	2.20 mm	53 mm	27 mm	10	P023/06.20	6.20 mm	101 mm	63 mm	10	P023/10.30	10.30 mm	133 mm	87 mm	5
P023/02.25	2.25 mm	53 mm	27 mm	10	P023/06.25	6.25 mm	101 mm	63 mm	10	P023/10.40	10.40 mm	133 mm	87 mm	5
P023/02.30	2.30 mm	53 mm	27 mm	10	P023/06.30	6.30 mm	101 mm	63 mm	10	P023/10.50	10.50 mm	133 mm	87 mm	5
P023/02.40	2.40 mm	57 mm	30 mm	10	P023/06.40	6.40 mm	101 mm	63 mm	10	P023/10.75	10.75 mm	142 mm	94 mm	5
P023/02.50	2.50 mm	57 mm	30 mm	10	P023/06.50	6.50 mm	101 mm	63 mm	10	P023/11.00	11.00 mm	142 mm	94 mm	5
P023/02.60	2.60 mm	57 mm	30 mm	10	P023/06.60	6.60 mm	101 mm	63 mm	10	P023/11.25	11.25 mm	142 mm	94 mm	5
P023/02.70	2.70 mm	61 mm	33 mm	10	P023/06.70	6.70 mm	101 mm	63 mm	10	P023/11.40	11.40 mm	142 mm	94 mm	5
P023/02.75	2.75 mm	61 mm	33 mm	10	P023/06.75	6.75 mm	109 mm	69 mm	10	P023/11.50	11.50 mm	142 mm	94 mm	5
P023/02.80	2.80 mm	61 mm	33 mm	10	P023/06.80	6.80 mm	109 mm	69 mm	10	P023/11.75	11.75 mm	142 mm	94 mm	5
P023/02.90	2.90 mm	61 mm	33 mm	10	P023/06.90	6.90 mm	109 mm	69 mm	10	P023/12.00	12.00 mm	151 mm	101 mm	5
P023/03.00	3.00 mm	61 mm	33 mm	10	P023/07.00	7.00 mm	109 mm	69 mm	10	P023/12.25	12.25 mm	151 mm	101 mm	5
P023/03.10	3.10 mm	65 mm	36 mm	10	P023/07.10	7.10 mm	109 mm	69 mm	10	P023/12.30	12.30 mm	151 mm	101 mm	5
P023/03.20	3.20 mm	65 mm	36 mm	10	P023/07.20	7.20 mm	109 mm	69 mm	10	P023/12.40	12.40 mm	151 mm	101 mm	5
P023/03.25	3.25 mm	65 mm	36 mm	10	P023/07.25	7.25 mm	109 mm	69 mm	10	P023/12.50	12.50 mm	151 mm	101 mm	5
P023/03.30	3.30 mm	65 mm	36 mm	10	P023/07.30	7.30 mm	109 mm	69 mm	10	P023/12.75	12.75 mm	151 mm	101 mm	5
P023/03.40	3.40 mm	70 mm	39 mm	10	P023/07.40	7.40 mm	109 mm	69 mm	10	P023/13.00	13.00 mm	151 mm	101 mm	5
P023/03.50	3.50 mm	70 mm	39 mm	10	P023/07.50	7.50 mm	109 mm	69 mm	10	P023/14.30	14.30 mm	165 mm	115 mm	5
P023/03.60	3.60 mm	70 mm	39 mm	10	P023/07.60	7.60 mm	117 mm	75 mm	10	P023/14.40	14.40 mm	165 mm	115 mm	5
P023/03.70	3.70 mm	70 mm	39 mm	10	P023/07.70	7.70 mm	117 mm	75 mm	10	P023/16.40	16.40 mm	170 mm	115 mm	5
P023/03.75	3.75 mm	70 mm	39 mm	10	P023/07.75	7.75 mm	117 mm	75 mm	10					

P023/19
STRAIGHT SHANK TWIST DRILL SET

Right hand, rectified.



19 Pcs

Size (step 0,5 mm) 1 ÷ 10 mm


P023/25
STRAIGHT SHANK TWIST DRILL SET

Right hand, rectified.



25 Pcs

Size (step 0,5 mm) 1 ÷ 13 mm

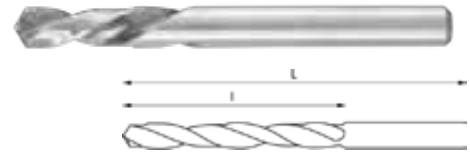




P023-XC

DRILL BIT CYLINDRICAL SHORT SERIES

Right hand, rectified.



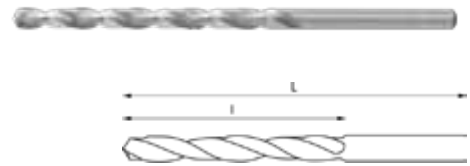
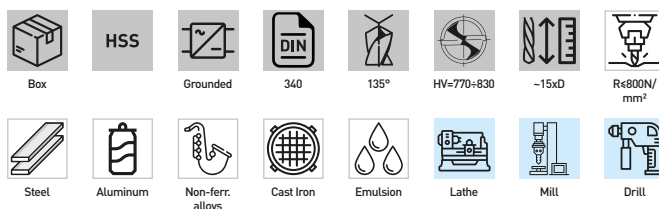
Art.	∅	L	l	Pack
P023/03.00C	3,00 mm	46 mm	16 mm	10
P023/03.25C	3,25 mm	49 mm	18 mm	10
P023/03.50C	3,50 mm	52 mm	20 mm	10
P023/03.75C	3,75 mm	52 mm	20 mm	10
P023/04.00C	4,00 mm	55 mm	22 mm	10

Art.	∅	L	l	Pack
P023/04.25C	4,25 mm	55 mm	22 mm	10
P023/04.50C	4,50 mm	58 mm	24 mm	10
P023/05.00C	5,00 mm	62 mm	26 mm	10
P023/05.50C	5,50 mm	66 mm	28 mm	10
P023/06.00C	6,00 mm	66 mm	28 mm	10

P023-XL

LONG TYPE STRAIGHT SHANK TWIST DRILL

Right hand, rectified.



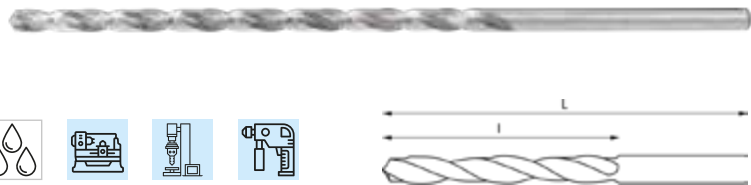
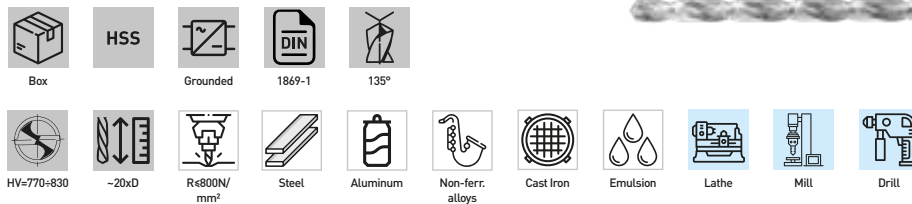
Art.	∅	L	l	Pack
P023/01.00L	1,00 mm	56 mm	33 mm	10
P023/01.25L	1,25 mm	65 mm	40 mm	10
P023/01.50L	1,50 mm	70 mm	45 mm	10
P023/01.75L	1,75 mm	80 mm	53 mm	10
P023/02.00L	2,00 mm	85 mm	56 mm	10
P023/02.25L	2,25 mm	90 mm	59 mm	10
P023/02.50L	2,50 mm	95 mm	62 mm	10
P023/02.75L	2,75 mm	100 mm	66 mm	10
P023/03.00L	3,00 mm	100 mm	66 mm	10
P023/03.25L	3,25 mm	106 mm	69 mm	10
P023/03.50L	3,50 mm	112 mm	73 mm	10
P023/03.75L	3,75 mm	112 mm	73 mm	10
P023/04.00L	4,00 mm	119 mm	78 mm	10
P023/04.25L	4,25 mm	119 mm	78 mm	10
P023/04.50L	4,50 mm	126 mm	82 mm	10
P023/04.75L	4,75 mm	126 mm	82 mm	10
P023/05.00L	5,00 mm	132 mm	87 mm	10
P023/05.25L	5,25 mm	132 mm	87 mm	10
P023/05.50L	5,50 mm	139 mm	91 mm	10
P023/05.75L	5,75 mm	139 mm	91 mm	10
P023/06.00L	6,00 mm	139 mm	91 mm	10
P023/06.25L	6,25 mm	148 mm	97 mm	10

Art.	∅	L	l	Pack
P023/06.50L	6,50 mm	148 mm	97 mm	10
P023/06.75L	6,75 mm	148 mm	97 mm	10
P023/07.00L	7,00 mm	156 mm	102 mm	10
P023/07.25L	7,25 mm	156 mm	102 mm	10
P023/07.50L	7,25 mm	156 mm	102 mm	10
P023/07.75L	7,75 mm	165 mm	109 mm	10
P023/08.00L	8,00 mm	165 mm	109 mm	5
P023/08.25L	8,25 mm	165 mm	109 mm	5
P023/08.50L	8,50 mm	165 mm	109 mm	5
P023/08.75L	8,75 mm	175 mm	115 mm	5
P023/09.00L	9,00 mm	175 mm	115 mm	5
P023/09.25L	9,25 mm	175 mm	115 mm	5
P023/09.50L	9,50 mm	175 mm	115 mm	5
P023/09.75L	9,75 mm	184 mm	121 mm	5
P023/10.00L	10,00 mm	184 mm	121 mm	5
P023/10.25L	10,25 mm	184 mm	121 mm	5
P023/10.50L	10,50 mm	184 mm	121 mm	5
P023/11.00L	11,00 mm	195 mm	128 mm	5
P023/11.50L	11,50 mm	195 mm	128 mm	5
P023/12.00L	12,00 mm	205 mm	134 mm	5
P023/12.50L	12,50 mm	205 mm	134 mm	5
P023/13.00L	13,00 mm	205 mm	134 mm	5

P023-XL1

EXTRA LONG SERIES CYLINDRICAL DRILL BIT

Right hand, rectified.



Art.	∅	L	l
P023/02.00L1	2,00 mm	125 mm	85 mm
P023/02.50L1	2,50 mm	140 mm	95 mm
P023/03.00L1	3,00 mm	150 mm	100 mm
P023/03.50L1	3,50 mm	165 mm	115 mm
P023/04.00L1	4,00 mm	175 mm	120 mm
P023/04.50L1	4,50 mm	185 mm	125 mm
P023/05.00L1	5,00 mm	195 mm	135 mm
P023/05.50L1	5,50 mm	205 mm	140 mm
P023/06.00L1	6,00 mm	205 mm	140 mm
P023/06.50L1	6,50 mm	215 mm	150 mm
P023/07.00L1	7,00 mm	225 mm	155 mm
P023/07.50L1	7,50 mm	225 mm	155 mm

Art.	∅	L	l
P023/08.00L1	8,00 mm	240 mm	165 mm
P023/08.50L1	8,50 mm	240 mm	165 mm
P023/09.00L1	9,00 mm	250 mm	175 mm
P023/09.50L1	9,50 mm	250 mm	175 mm
P023/10.00L1	10,00 mm	265 mm	185 mm
P023/10.50L1	10,50 mm	265 mm	185 mm
P023/11.00L1	11,00 mm	280 mm	195 mm
P023/11.50L1	11,50 mm	280 mm	195 mm
P023/12.00L1	12,00 mm	295 mm	205 mm
P023/12.50L1	12,50 mm	295 mm	205 mm
P023/13.00L1	13,00 mm	295 mm	205 mm

P023-XL2
EXTRA LONG SERIES CYLINDRICAL DRILL BIT

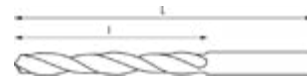
Right hand, rectified.



Art.	∅	L	l
P023/02.00L2	2,00 mm	160 mm	110 mm
P023/02.50L2	2,50 mm	180 mm	120 mm
P023/03.00L2	3,00 mm	190 mm	130 mm
P023/03.50L2	3,50 mm	210 mm	145 mm
P023/04.00L2	4,00 mm	220 mm	150 mm
P023/04.50L2	4,50 mm	235 mm	160 mm
P023/05.00L2	5,00 mm	245 mm	170 mm
P023/05.50L2	5,50 mm	260 mm	180 mm
P023/06.00L2	6,00 mm	260 mm	180 mm
P023/06.50L2	6,50 mm	275 mm	190 mm
P023/07.00L2	7,00 mm	290 mm	200 mm
P023/07.50L2	7,50 mm	290 mm	200 mm
P023/08.00L2	8,00 mm	305 mm	210 mm
P023/08.50L2	8,50 mm	305 mm	210 mm
P023/09.00L2	9,00 mm	320 mm	220 mm
P023/09.50L2	9,50 mm	320 mm	220 mm
P023/10.00L2	10,00 mm	340 mm	235 mm
P023/10.50L2	10,50 mm	340 mm	235 mm
P023/11.00L2	11,00 mm	365 mm	250 mm
P023/11.50L2	11,50 mm	365 mm	250 mm
P023/12.00L2	12,00 mm	375 mm	260 mm
P023/12.50L2	12,50 mm	375 mm	260 mm
P023/13.00L2	13,00 mm	375 mm	260 mm

P023-XL3
EXTRA LONG SERIES CYLINDRICAL DRILL BIT

Right hand, rectified.



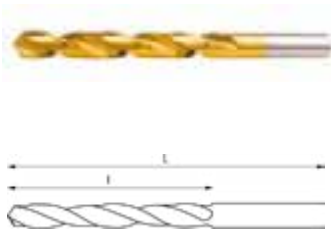
Art.	∅	L	l
P023/02.00L3	02,00 mm	200 mm	135 mm
P023/02.50L3	02,50 mm	225 mm	150 mm
P023/03.00L3	03,00 mm	240 mm	160 mm
P023/03.50L3	03,50 mm	265 mm	180 mm
P023/04.00L3	04,00 mm	280 mm	190 mm
P023/04.50L3	04,50 mm	295 mm	200 mm
P023/05.00L3	05,00 mm	315 mm	210 mm
P023/05.50L3	05,50 mm	330 mm	225 mm
P023/06.00L3	06,00 mm	330 mm	225 mm
P023/06.50L3	06,50 mm	350 mm	235 mm
P023/07.00L3	07,00 mm	370 mm	250 mm
P023/07.50L3	07,50 mm	370 mm	250 mm
P023/08.00L3	08,00 mm	390 mm	265 mm
P023/08.50L3	08,50 mm	390 mm	265 mm
P023/09.00L3	09,00 mm	410 mm	280 mm
P023/09.50L3	09,50 mm	410 mm	280 mm
P023/10.00L3	10,00 mm	430 mm	295 mm
P023/10.50L3	10,50 mm	430 mm	295 mm
P023/11.00L3	11,00 mm	455 mm	310 mm
P023/11.50L3	11,50 mm	455 mm	310 mm
P023/12.00L3	12,00 mm	480 mm	330 mm
P023/12.50L3	12,50 mm	480 mm	330 mm
P023/13.00L3	13,00 mm	480 mm	330 mm



P058-

STRAIGHT SHANK TWIST DRILL

Right hand, long durability thanks to the titanium coating.



Art.	Ø	L	l	Pack
P058/01.00	1 mm	34 mm	12 mm	10
P058/01.25	1,25 mm	38 mm	16 mm	10
P058/01.50	1,50 mm	40 mm	18 mm	10
P058/01.75	1,75 mm	46 mm	22 mm	10
P058/02.00	2 mm	49 mm	24 mm	10
P058/02.25	2,25 mm	53 mm	27 mm	10
P058/02.50	2,50 mm	57 mm	30 mm	10
P058/02.75	2,75 mm	61 mm	33 mm	10
P058/03.00	3 mm	61 mm	33 mm	10
P058/03.25	3,25 mm	65 mm	36 mm	10
P058/03.50	3,50 mm	70 mm	39 mm	10
P058/03.75	3,75 mm	70 mm	39 mm	10
P058/04.00	4 mm	75 mm	43 mm	10
P058/04.25	4,25 mm	75 mm	43 mm	10
P058/04.50	4,50 mm	80 mm	47 mm	10
P058/04.75	4,75 mm	80 mm	47 mm	10
P058/05.00	5 mm	86 mm	52 mm	10
P058/05.25	5,25 mm	86 mm	52 mm	10
P058/05.50	5,50 mm	93 mm	57 mm	10
P058/05.75	5,75 mm	93 mm	57 mm	10
P058/06.00	6 mm	93 mm	57 mm	10
P058/06.25	6,25 mm	101 mm	63 mm	10
P058/06.50	6,50 mm	101 mm	63 mm	10
P058/06.75	6,75 mm	109 mm	69 mm	10
P058/07.00	7 mm	109 mm	69 mm	10
P058/07.25	7,25 mm	109 mm	69 mm	10
P058/07.50	7,50 mm	109 mm	69 mm	10
P058/07.75	7,75 mm	117 mm	75 mm	10
P058/08.00	8 mm	117 mm	75 mm	10
P058/08.25	8,25 mm	117 mm	75 mm	5
P058/08.50	8,50 mm	117 mm	75 mm	5
P058/08.75	8,75 mm	125 mm	81 mm	5
P058/09.00	9 mm	125 mm	81 mm	5
P058/09.25	9,25 mm	125 mm	81 mm	5
P058/09.50	9,50 mm	125 mm	81 mm	5
P058/09.75	9,75 mm	133 mm	87 mm	5
P058/10.00	10 mm	133 mm	87 mm	5
P058/10.25	10,25 mm	133 mm	87 mm	5
P058/10.50	10,50 mm	133 mm	87 mm	5
P058/10.75	10,75 mm	142 mm	94 mm	5
P058/11.00	11 mm	142 mm	94 mm	5
P058/11.25	11,25 mm	142 mm	94 mm	5
P058/11.50	11,50 mm	142 mm	94 mm	5
P058/11.75	11,75 mm	142 mm	94 mm	5
P058/12.00	12 mm	151 mm	101 mm	5
P058/12.25	12,25 mm	151 mm	101 mm	5
P058/12.50	12,50 mm	151 mm	101 mm	5
P058/12.75	12,75 mm	151 mm	101 mm	5
P058/13.00	13 mm	151 mm	101 mm	5

	HSS		TiN
Box		Grounded	
338/N	135°	HV=740-780	-8xD
Rc700N/mm²	Steel	Aluminum	Non-ferr. alloys
Cast Iron	Emulsion	Lathe	Mill

P058/170

TWIST DRILL SET

Right hand, long durability thanks to the titanium coating.



170 Pcs
150 (10x) Pcs (step 0,5 mm) Ø 1 ÷ 8 mm
20 (5x) Pcs (step 0,5 mm) Ø 8,5 ÷ 10 mm

P010/51

SERIES OF CYLINDRICAL TIPS TO THE TENTH

Right hand, long durability thanks to the titanium coating.



51 Pcs
Size (step 0,1 mm) 1 ÷ 6 mm

P010/41

SERIES OF CYLINDRICAL TIPS TO THE TENTH

Right hand, long durability thanks to the titanium coating.



41 Pcs
Size (step 0,1 mm) 6 ÷ 10 mm

P062

TWIST DRILL SET

Right hand, long durability thanks to the titanium coating.



25 Pcs
Size (step 0,5 mm) 1 ÷ 13 mm

P061

STRAIGHT SHANK TWIST DRILL SET

Right hand, long durability thanks to the titanium coating.



19 Pcs
Size (step 0,5 mm) 1 ÷ 10 mm

P068

TWIST DRILL SET

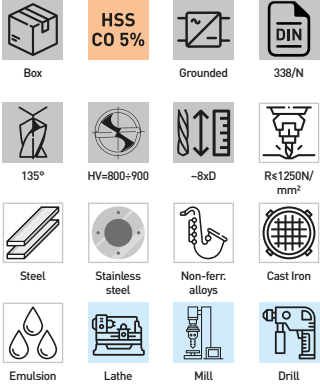
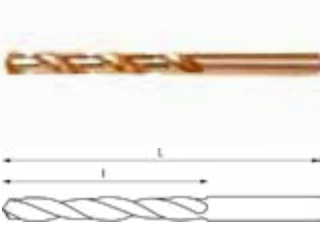
Right hand, long durability thanks to the titanium coating.



20 Pcs
Sizes x 1 Pc 0.25 - 0.30 - 0.35 - 0.40 - 0.45 - 0.55 - 0.65 - 0.70 - 0.75 - 0.85 - 0.90 - 0.95 mm
Sizes x Pcs 0.50 - 0.60 - 0.80 - 1.00 mm

P065-
COBALT CYLINDRICAL TWIST DRILL

Self-centering, right, with great thermal resistance.



Art.	Ø	Total length	Flute length	Pack
P065/01.00	1 mm	34 mm	12 mm	10
P065/01.25	1,25 mm	38 mm	16 mm	10
P065/01.50	1,50 mm	40 mm	18 mm	10
P065/01.75	1,75 mm	46 mm	22 mm	10
P065/02.00	2 mm	49 mm	24 mm	10
P065/02.25	2,25 mm	53 mm	27 mm	10
P065/02.50	2,50 mm	57 mm	30 mm	10
P065/02.75	2,75 mm	61 mm	33 mm	10
P065/03.00	3 mm	61 mm	33 mm	10
P065/03.25	3,25 mm	69 mm	39 mm	10
P065/03.50	3,50 mm	70 mm	39 mm	10
P065/03.75	3,75 mm	70 mm	39 mm	10
P065/04.00	4 mm	75 mm	43 mm	10
P065/04.25	4,25 mm	75 mm	43 mm	10
P065/04.50	4,50 mm	80 mm	47 mm	10
P065/04.75	4,75 mm	80 mm	47 mm	10
P065/05.00	5 mm	86 mm	52 mm	10
P065/05.25	5,25 mm	86 mm	52 mm	10
P065/05.50	5,50 mm	93 mm	57 mm	10
P065/05.75	5,75 mm	93 mm	57 mm	10
P065/06.00	6 mm	93 mm	57 mm	10
P065/06.25	6,25 mm	101 mm	63 mm	10
P065/06.50	6,50 mm	101 mm	63 mm	10
P065/06.75	6,75 mm	109 mm	69 mm	10
P065/07.00	7 mm	109 mm	69 mm	10
P065/07.25	7,25 mm	109 mm	69 mm	10
P065/07.50	7,50 mm	109 mm	69 mm	10
P065/07.75	7,75 mm	117 mm	75 mm	10
P065/08.00	8 mm	117 mm	75 mm	5
P065/08.25	8,25 mm	117 mm	75 mm	5
P065/08.50	8,50 mm	117 mm	75 mm	5
P065/08.75	8,75 mm	125 mm	81 mm	5
P065/09.00	9 mm	125 mm	81 mm	5
P065/09.25	9,25 mm	125 mm	81 mm	5
P065/09.50	9,50 mm	125 mm	81 mm	5
P065/09.75	9,75 mm	133 mm	87 mm	5
P065/10.00	10 mm	133 mm	87 mm	5
P065/10.25	10,25 mm	133 mm	87 mm	5
P065/10.50	10,50 mm	133 mm	87 mm	5
P065/10.75	10,75 mm	142 mm	94 mm	5
P065/11.00	11 mm	142 mm	94 mm	5
P065/11.25	11,25 mm	142 mm	94 mm	5
P065/11.50	11,50 mm	142 mm	94 mm	5
P065/11.75	11,75 mm	142 mm	94 mm	5
P065/12.00	12 mm	151 mm	101 mm	5
P065/12.25	12,25 mm	151 mm	101 mm	5
P065/12.50	12,50 mm	151 mm	101 mm	5
P065/12.75	12,75 mm	151 mm	101 mm	5
P065/13.00	13 mm	151 mm	101 mm	5

P067
COBALT TWIST DRILL SET

Self-centering, right, with great thermal resistance.



19 Pcs

Size (step 0,5 mm)

1 ÷ 10 mm

P069
COBALT TWIST DRILL SET

Self-centering, right, with great thermal resistance.



25 Pcs

Size (step 0,5 mm)

1 ÷ 13 mm

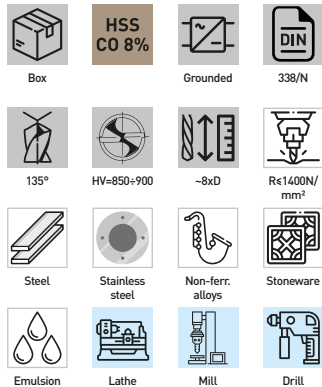
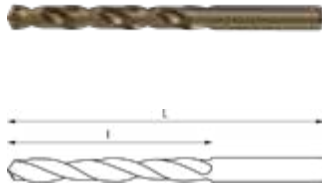




P064-

FULLY GROUND FROM THE SOLID TWIST DRILL

Self-centering, right, with great thermal resistance.



Art.	ø	L	l	Pack
P064/01.00	01.00 mm	34 mm	12 mm	10
P064/01.25	01.25 mm	38 mm	16 mm	10
P064/01.50	01.50 mm	40 mm	18 mm	10
P064/01.75	01.75 mm	46 mm	22 mm	10
P064/02.00	02.00 mm	49 mm	24 mm	10
P064/02.25	02.25 mm	53 mm	27 mm	10
P064/02.50	02.50 mm	57 mm	30 mm	10
P064/02.75	02.75 mm	61 mm	33 mm	10
P064/03.00	03.00 mm	61 mm	33 mm	10
P064/03.25	03.25 mm	69 mm	39 mm	10
P064/03.50	03.50 mm	70 mm	39 mm	10
P064/03.75	03.75 mm	70 mm	39 mm	10
P064/04.00	04.00 mm	75 mm	43 mm	10
P064/04.25	04.25 mm	75 mm	43 mm	10
P064/04.50	04.50 mm	80 mm	47 mm	10
P064/04.75	04.75 mm	80 mm	47 mm	10
P064/05.00	05.00 mm	86 mm	52 mm	10
P064/05.25	05.25 mm	86 mm	52 mm	10
P064/05.50	05.50 mm	93 mm	57 mm	10
P064/05.75	05.75 mm	93 mm	57 mm	10
P064/06.00	06.00 mm	93 mm	57 mm	10
P064/06.25	06.25 mm	101 mm	63 mm	10
P064/06.50	06.50 mm	101 mm	63 mm	10
P064/06.75	06.75 mm	109 mm	69 mm	10
P064/07.00	07.00 mm	109 mm	69 mm	10
P064/07.25	07.25 mm	109 mm	69 mm	10
P064/07.50	07.50 mm	109 mm	69 mm	10
P064/07.75	07.75 mm	117 mm	75 mm	10
P064/08.00	08.00 mm	117 mm	75 mm	5
P064/08.25	08.25 mm	117 mm	75 mm	5
P064/08.50	08.50 mm	117 mm	75 mm	5
P064/08.75	08.75 mm	125 mm	81 mm	5
P064/09.00	09.00 mm	125 mm	81 mm	5
P064/09.25	09.25 mm	125 mm	81 mm	5
P064/09.50	09.50 mm	125 mm	81 mm	5
P064/09.75	09.75 mm	133 mm	87 mm	5
P064/10.00	10.00 mm	133 mm	87 mm	5
P064/10.25	10.25 mm	133 mm	87 mm	5
P064/10.50	10.50 mm	133 mm	87 mm	5
P064/10.75	10.75 mm	142 mm	94 mm	5
P064/11.00	11.00 mm	142 mm	94 mm	5
P064/11.25	11.25 mm	142 mm	94 mm	5
P064/11.50	11.50 mm	142 mm	94 mm	5
P064/11.75	11.75 mm	142 mm	94 mm	5
P064/12.00	12.00 mm	151 mm	101 mm	5
P064/12.25	12.25 mm	151 mm	101 mm	5
P064/12.50	12.50 mm	151 mm	101 mm	5
P064/12.75	12.75 mm	151 mm	101 mm	5
P064/13.00	13.00 mm	151 mm	101 mm	5

P064/19A

COBALT TWIST DRILL SET

Self-centering, right, with great thermal resistance.



19 Pcs

Size (step 0,5 mm)

1 ± 10 mm

P064/25A

COBALT TWIST DRILL SET

Self-centering, right, with great thermal resistance.



25 Pcs

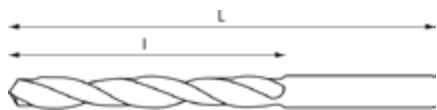
Size (step 0,5 mm)

1 ± 13 mm





P081- NC SPOTTING DRILL



Box	HSS CO 5%	TiAlN	90°	External	Steel	Stainless steel	Aluminum
Non-ferr. alloys	Cast Iron	Emulsion	Lathe	Mill	Drill		

Art.	ø	l	L
P081/03	3 mm	17 mm	46 mm
P081/04	4 mm	20 mm	55 mm
P081/05	5 mm	25 mm	60 mm
P081/06	6 mm	27 mm	66 mm
P081/08	8 mm	30 mm	79 mm
P081/10	10 mm	35 mm	89 mm
P081/12	12 mm	30 mm	102 mm
P081/16	16 mm	35 mm	115 mm
P081/20	20 mm	40 mm	131 mm

P056- CENTER DRILL

Ground, with vaporized grooves. Taper angle 60°.



Box	HSS	333	118°	Steel	Aluminum	Non-ferr. alloys	Cast Iron
Emulsion	Lathe	Mill	Magnetic Drill	Drill press			

Art.	ø	Stem	Length
P056/1	1 mm	ø 3 mm	30,5 mm
P056/1.6	1,6 mm	ø 4 mm	35,5 mm
P056/2	2 mm	ø 5 mm	40 mm
P056/2.5	2,5 mm	ø 6,3 mm	45 mm
P056/3.15	3,15 mm	ø 8 mm	50 mm
P056/4	4 mm	ø 10 mm	56 mm
P056/5	5 mm	ø 12,5 mm	63 mm

P056/10S CENTER DRILL SET

Ground, with vaporized grooves. Taper angle 60°.



10 Pcs	Box	HSS	333	118°	Steel
Aluminum	Non-ferr. alloys	Cast Iron	Emulsion	Lathe	Mill

Sizes	0.75 - 1.00 - 1.5 - 1.6 - 2.0 - 2.5 - 3.0 - 3.15 - 4.0 - 5.0 mm
Type	A
Tolerance	K12



CORE SAWS

Tools designed for drilling and processing metal materials. These are cylindrical tips with a toothed circular section. They are mounted on the spindle of special tools such as drilling machines, magnetic base drills, and column drills. Unlike cup milling machines, which have a crown that holds the material to be removed inside, these milling machines process the material by chip removal through the side cutters of the tool.



THEORETICAL RPM FOR CORE SAWS DEPENDING ON THE MATERIAL TO BE PROCESSED

Materials to be processed	Saw Type	Saw diameter							Coolant
		12 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 49	50 - 60	
		no. of revolutions (rpm)							
Low alloy construction steel R < 700÷900N/mm ²	HSS	700	530	420	340	290	240	170	Emulsion
	HSS-Co5%	875	663	525	425	363	300	213	Emulsion
Alloy steel R < 1100÷1300N/mm ²	HSS	470	350	270	230	190	160	120	Emulsion
	HSS-Co5%	588	438	338	288	238	200	150	Emulsion
Stainless steel	HSS	470	350	270	230	190	160	120	Emulsion
	HSS-Co5%	588	438	338	288	238	200	150	Emulsion
Cast iron	HSS	240	180	140	120	100	80	60	No refriger.
Light Alloys	HSS	700	530	420	340	290	240	170	No refriger.
Plastic	HSS	830	620	480	400	340	280	200	No refriger.

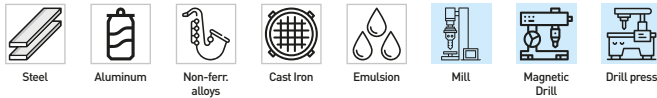
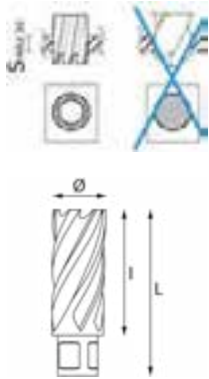




F011-

CORE DRILL WITH WELDON SHANK

Allows a very fast cut, does not require pre-drilling and does not create any burr formation thanks to the lower effort of the cutting edge during processing.

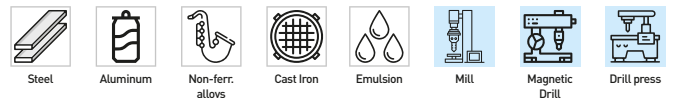
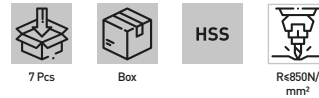


Art.	Cutting capacity	Ø	Total length
F011/12	30 mm	12 mm	62 mm
F011/13	30 mm	13 mm	62 mm
F011/14	30 mm	14 mm	62 mm
F011/15	30 mm	15 mm	62 mm
F011/16	30 mm	16 mm	62 mm
F011/17	30 mm	17 mm	62 mm
F011/18	30 mm	18 mm	62 mm
F011/19	30 mm	19 mm	62 mm
F011/20	30 mm	20 mm	62 mm
F011/21	30 mm	21 mm	62 mm
F011/22	30 mm	22 mm	62 mm
F011/23	30 mm	23 mm	62 mm
F011/24	30 mm	24 mm	62 mm
F011/25	30 mm	25 mm	62 mm
F011/26	30 mm	26 mm	62 mm
F011/27	30 mm	27 mm	62 mm
F011/28	30 mm	28 mm	62 mm
F011/29	30 mm	29 mm	62 mm
F011/30	30 mm	30 mm	62 mm
F011/31	30 mm	31 mm	62 mm
F011/32	30 mm	32 mm	62 mm
F011/33	30 mm	33 mm	62 mm
F011/34	30 mm	34 mm	62 mm
F011/35	30 mm	35 mm	62 mm
F011/36	30 mm	36 mm	62 mm
F011/37	30 mm	37 mm	62 mm
F011/38	30 mm	38 mm	62 mm
F011/39	30 mm	39 mm	62 mm
F011/40	30 mm	40 mm	62 mm
F011/41	30 mm	41 mm	62 mm
F011/42	30 mm	42 mm	62 mm
F011/43	30 mm	43 mm	62 mm
F011/44	30 mm	44 mm	62 mm
F011/45	30 mm	45 mm	62 mm
F011/46	30 mm	46 mm	62 mm
F011/47	30 mm	47 mm	62 mm
F011/48	30 mm	48 mm	62 mm
F011/49	30 mm	49 mm	62 mm
F011/50	30 mm	50 mm	62 mm
F011/51	30 mm	51 mm	62 mm
F011/52	30 mm	52 mm	62 mm
F011/53	30 mm	53 mm	62 mm
F011/54	30 mm	54 mm	62 mm
F011/55	30 mm	55 mm	62 mm
F011/60	30 mm	60 mm	62 mm

F011/6

WELDON SHANK CORE DRILL SET

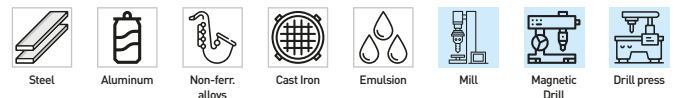
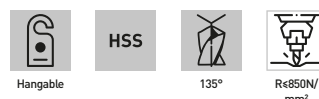
Allows a very fast cut, does not require pre-drilling and does not create any burr formation thanks to the lower effort of the cutting edge during processing.



Sizes	12 x 62 - 14 x 62 - 16 x 62 - 18 x 62 - 20 x 62 - 22 x 62 mm
Cutting capacity	30 mm
Shank	Weldon 19,05 mm

F011-XP

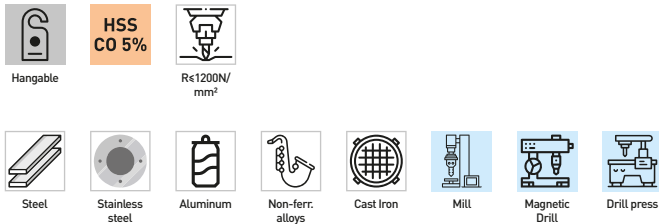
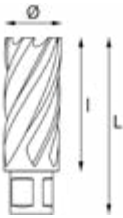
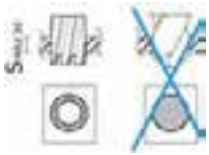
TWIST DRILLS WELDON SHANK



Art.	Ø	L	L
F011/006P	6 mm	30 mm	62 mm
F011/007P	7 mm	30 mm	62 mm
F011/008P	8 mm	30 mm	62 mm
F011/009P	9 mm	30 mm	62 mm
F011/010P	10 mm	30 mm	62 mm
F011/011P	11 mm	30 mm	62 mm

F002-
CORE DRILL WITH WELDON SHANK

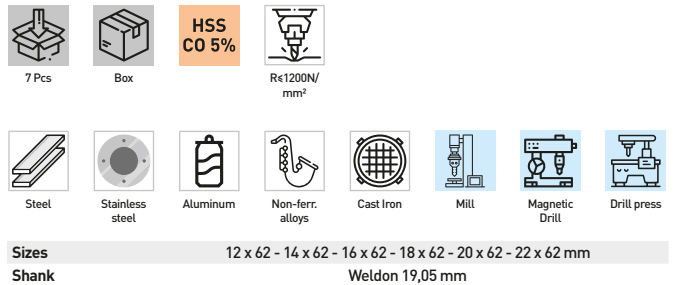
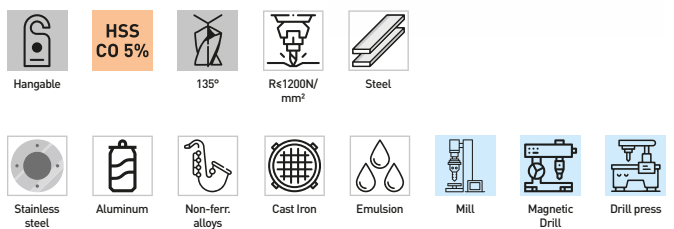
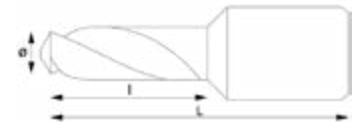
Allows a very fast cut, does not require pre-drilling and does not create any burr formation thanks to the lower effort of the cutting edge during processing.



Art.	Ø	Cutting capacity	Total length
F002/12	12 mm	30 mm	62 mm
F002/13	13 mm	30 mm	62 mm
F002/14	14 mm	30 mm	62 mm
F002/15	15 mm	30 mm	62 mm
F002/16	16 mm	30 mm	62 mm
F002/17	17 mm	30 mm	62 mm
F002/18	18 mm	30 mm	62 mm
F002/19	19 mm	30 mm	62 mm
F002/20	20 mm	30 mm	62 mm
F002/21	21 mm	30 mm	62 mm
F002/22	22 mm	30 mm	62 mm
F002/23	23 mm	30 mm	62 mm
F002/24	24 mm	30 mm	62 mm
F002/25	25 mm	30 mm	62 mm
F002/26	26 mm	30 mm	62 mm
F002/27	27 mm	30 mm	62 mm
F002/28	28 mm	30 mm	62 mm
F002/29	29 mm	30 mm	62 mm
F002/30	30 mm	30 mm	62 mm
F002/31	31 mm	30 mm	62 mm
F002/32	32 mm	30 mm	62 mm
F002/33	33 mm	30 mm	62 mm
F002/34	34 mm	30 mm	62 mm
F002/35	35 mm	30 mm	62 mm
F002/36	36 mm	30 mm	62 mm
F002/37	37 mm	30 mm	62 mm
F002/38	38 mm	30 mm	62 mm
F002/39	39 mm	30 mm	62 mm
F002/40	40 mm	30 mm	62 mm
F002/41	41 mm	30 mm	62 mm
F002/42	42 mm	30 mm	62 mm
F002/43	43 mm	30 mm	62 mm
F002/44	44 mm	30 mm	62 mm
F002/45	45 mm	30 mm	62 mm
F002/46	46 mm	30 mm	62 mm
F002/47	47 mm	30 mm	62 mm
F002/48	48 mm	30 mm	62 mm
F002/49	49 mm	30 mm	62 mm
F002/50	50 mm	30 mm	62 mm
F002/55	55 mm	30 mm	62 mm
F002/60	60 mm	30 mm	62 mm

F002/6
WELDON SHANK CORE DRILL SET

Allows a very fast cut, does not require pre-drilling and does not create any burr formation thanks to the lower effort of the cutting edge during processing.


F002-XP
TWIST DRILLS WELDON SHANK


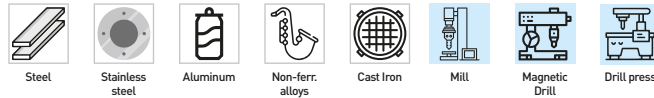
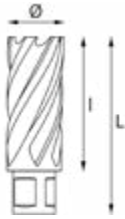
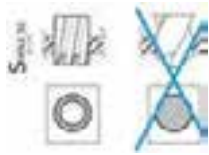
Art.	Ø	l	L
F002/006P	6 mm	30 mm	62.50 mm
F002/007P	7 mm	30 mm	62.50 mm
F002/008P	8 mm	30 mm	62.50 mm
F002/009P	9 mm	30 mm	62.50 mm
F002/010P	10 mm	30 mm	62.50 mm
F002/011P	11 mm	30 mm	62.50 mm



F002-XL

LONG TYPE CORE DRILL WITH WELDON SHANK

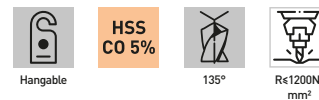
Allows a very fast cut, does not require pre-drilling and does not create any burr formation thanks to the lower effort of the cutting edge during processing.



Art.	ø	Cutting capacity	Total length
F002/12L	12 mm	50 mm	85 mm
F002/13L	13 mm	50 mm	85 mm
F002/14L	14 mm	50 mm	85 mm
F002/15L	15 mm	50 mm	85 mm
F002/16L	16 mm	50 mm	85 mm
F002/17L	17 mm	50 mm	85 mm
F002/18L	18 mm	50 mm	85 mm
F002/19L	19 mm	50 mm	85 mm
F002/20L	20 mm	50 mm	85 mm
F002/21L	21 mm	50 mm	85 mm
F002/22L	22 mm	50 mm	85 mm
F002/23L	23 mm	50 mm	85 mm
F002/24L	24 mm	50 mm	85 mm
F002/25L	25 mm	50 mm	85 mm
F002/26L	26 mm	50 mm	85 mm
F002/27L	27 mm	50 mm	85 mm
F002/28L	28 mm	50 mm	85 mm
F002/29L	29 mm	50 mm	85 mm
F002/30L	30 mm	50 mm	85 mm
F002/31L	31 mm	50 mm	85 mm
F002/32L	32 mm	50 mm	85 mm
F002/33L	33 mm	50 mm	85 mm
F002/34L	34 mm	50 mm	85 mm
F002/35L	35 mm	50 mm	85 mm
F002/36L	36 mm	50 mm	85 mm
F002/37L	37 mm	50 mm	85 mm
F002/38L	38 mm	50 mm	85 mm
F002/39L	39 mm	50 mm	85 mm
F002/40L	40 mm	50 mm	85 mm
F002/41L	41 mm	50 mm	85 mm
F002/42L	42 mm	50 mm	85 mm
F002/43L	43 mm	50 mm	85 mm
F002/44L	44 mm	50 mm	85 mm
F002/45L	45 mm	50 mm	85 mm
F002/46L	46 mm	50 mm	85 mm
F002/47L	47 mm	50 mm	85 mm
F002/48L	48 mm	50 mm	85 mm
F002/49L	49 mm	50 mm	85 mm
F002/50L	50 mm	50 mm	85 mm
F002/55L	55 mm	50 mm	85 mm
F002/60L	60 mm	50 mm	85 mm

F002-XPL

LONG TWIST DRILLS WELDON SHANK



Art.	ø	L	L
F002/006PL	6 mm	55 mm	86.50 mm
F002/007PL	7 mm	55 mm	86.50 mm
F002/008PL	8 mm	55 mm	86.50 mm
F002/009PL	9 mm	55 mm	86.50 mm
F002/010PL	10 mm	55 mm	86.50 mm
F002/011PL	11 mm	55 mm	86.50 mm

F002/P

PILOT PIN

For weldon shank core drills.

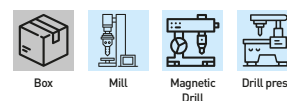


Dimensions 6,35 x 77 mm

F002/PL

PILOT PIN

For weldon shank long type core drills.



Dimensions 6,35 x 102 mm

CUP SAWS WITH HARD METAL INSERTS



The variable hard metal tooth geometry enables cutting of pipes, profiles and sheets made of stainless steel, high-alloy steel. Max cut thickness: 5 mm

THEORETICAL RPM FOR CUP SAWS WITH HARD METAL INSERTS DEPENDING ON THE MATERIAL TO BE PROCESSED

Materials to be processed	Saw diameter							Coolant
	15 - 20	21 - 25	26 - 30	31 - 40	41 - 50	51 - 70	71 - 100	
	no. of revolutions (rpm)							
Alloy steel R< 1100÷1300N/mm ²	530	420	340	270	210	160	100	Emulsion
Stainless steel	530	420	340	270	210	160	100	Emulsion
Aluminium	880	690	570	450	350	270	190	Emulsion

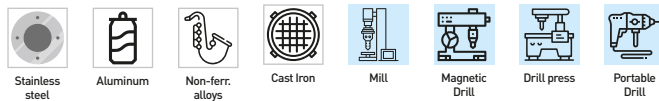
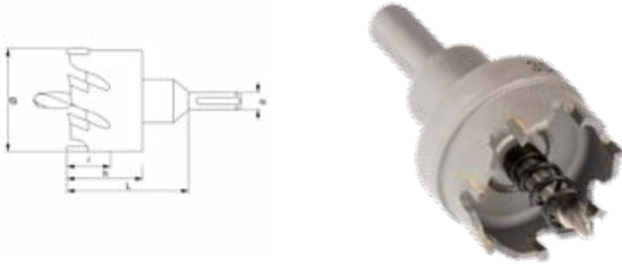




F019-

TCT CORE DRILL

With lateral chip and center drill. Maximum cutting depth 5 mm.



Art.	ø	h	d	L	Cutting Depth	Thread
F019/015	15 mm	28 mm	10 mm	50 mm	5 mm	-
F019/016	16 mm	28 mm	10 mm	50 mm	5 mm	-
F019/017	17 mm	28 mm	10 mm	50 mm	5 mm	-
F019/018	18 mm	28 mm	10 mm	50 mm	5 mm	-
F019/019	19 mm	28 mm	10 mm	50 mm	5 mm	-
F019/020	20 mm	28 mm	10 mm	50 mm	5 mm	-
F019/021	21 mm	28 mm	10 mm	50 mm	5 mm	-
F019/022	22 mm	28 mm	10 mm	50 mm	5 mm	M12 x 1,25
F019/023	23 mm	28 mm	10 mm	50 mm	5 mm	M12 x 1,25
F019/024	24 mm	28 mm	10 mm	50 mm	5 mm	M12 x 1,25
F019/025	25 mm	28 mm	10 mm	50 mm	5 mm	M12 x 1,25
F019/026	26 mm	28 mm	10 mm	50 mm	5 mm	M12 x 1,25
F019/027	27 mm	28 mm	10 mm	50 mm	5 mm	M12 x 1,25
F019/028	28 mm	28 mm	10 mm	50 mm	5 mm	M12 x 1,25
F019/029	29 mm	28 mm	10 mm	50 mm	5 mm	M12 x 1,25
F019/030	30 mm	28 mm	10 mm	50 mm	5 mm	M12 x 1,25
F019/031	31 mm	28 mm	10 mm	50 mm	5 mm	M12 x 1,25
F019/032	32 mm	28 mm	10 mm	50 mm	5 mm	M12 x 1,25
F019/033	33 mm	28 mm	10 mm	50 mm	5 mm	M12 x 1,25
F019/034	34 mm	28 mm	10 mm	50 mm	5 mm	M12 x 1,25
F019/035	35 mm	28 mm	10 mm	50 mm	5 mm	M14 x 1,5
F019/036	36 mm	28 mm	10 mm	50 mm	5 mm	M14 x 1,5
F019/037	37 mm	28 mm	10 mm	50 mm	5 mm	M14 x 1,5
F019/038	38 mm	28 mm	10 mm	50 mm	5 mm	M14 x 1,5
F019/039	39 mm	28 mm	10 mm	50 mm	5 mm	M14 x 1,5
F019/040	40 mm	28 mm	10 mm	50 mm	5 mm	M14 x 1,5
F019/041	41 mm	28 mm	10 mm	50 mm	5 mm	M14 x 1,5
F019/042	42 mm	28 mm	10 mm	50 mm	5 mm	M14 x 1,5
F019/043	43 mm	28 mm	10 mm	50 mm	5 mm	M14 x 1,5
F019/044	44 mm	28 mm	10 mm	50 mm	5 mm	M14 x 1,5
F019/045	45 mm	28 mm	10 mm	50 mm	5 mm	M14 x 1,5
F019/046	46 mm	28 mm	10 mm	50 mm	5 mm	M14 x 1,5
F019/047	47 mm	28 mm	10 mm	50 mm	5 mm	M14 x 1,5
F019/048	48 mm	28 mm	10 mm	50 mm	5 mm	M14 x 1,5
F019/049	49 mm	28 mm	10 mm	50 mm	5 mm	M14 x 1,5
F019/050	50 mm	28 mm	10 mm	50 mm	5 mm	M14 x 1,5
F019/051	51 mm	28 mm	12 mm	50 mm	5 mm	M16 x 1,5
F019/052	52 mm	28 mm	12 mm	50 mm	5 mm	M16 x 1,5
F019/053	53 mm	28 mm	12 mm	50 mm	5 mm	M16 x 1,5
F019/054	54 mm	28 mm	12 mm	50 mm	5 mm	M16 x 1,5
F019/055	55 mm	28 mm	12 mm	50 mm	5 mm	M16 x 1,5
F019/056	56 mm	28 mm	12 mm	50 mm	5 mm	M16 x 1,5
F019/057	57 mm	28 mm	12 mm	50 mm	5 mm	M16 x 1,5
F019/058	58 mm	28 mm	12 mm	50 mm	5 mm	M16 x 1,5
F019/059	59 mm	28 mm	12 mm	50 mm	5 mm	M16 x 1,5
F019/060	60 mm	28 mm	12 mm	50 mm	5 mm	M16 x 1,5
F019/065	65 mm	28 mm	12 mm	50 mm	5 mm	M16 x 1,5
F019/070	70 mm	28 mm	12 mm	50 mm	5 mm	M16 x 1,5
F019/075	75 mm	28 mm	12 mm	50 mm	5 mm	M16 x 1,5
F019/080	80 mm	28 mm	12 mm	50 mm	5 mm	M16 x 1,5
F019/085	85 mm	28 mm	12 mm	50 mm	5 mm	M16 x 1,5
F019/090	90 mm	28 mm	12 mm	50 mm	5 mm	M16 x 1,5
F019/095	95 mm	28 mm	12 mm	50 mm	5 mm	M16 x 1,5
F019/100	100 mm	28 mm	12 mm	50 mm	5 mm	M16 x 1,5

F019/006

TCT CORE DRILL SET

With lateral chip and center drill.



Sizes	16 mm, 18 mm, 20 mm, 22 mm, 25 mm, 30 mm
Cutting Depth	5 mm

F019/008

TCT CORE DRILL SET

With lateral chip and center drill.

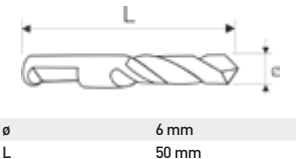


Sizes	16 mm, 18 mm, 20 mm, 22 mm, 25 mm, 30 mm, 32 mm, 35 mm
Cutting Depth	5 mm

F019/005

CENTER DRILL

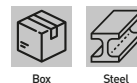
For item F019-.



F019/007

SPRING

For item F019-.



HSS CUP SAWS

Equipped with chip breaker side cut. Precision drilling of steel sheets, light alloys and metal materials in general. Drilling depth up to 5 mm.



THEORETICAL RPM FOR CORE SAWS DEPENDING ON THE MATERIAL TO BE PROCESSED

Materials to be processed	Saw diameter												Coolant
	12-17	18-24	25-32	33-38	39-44	45-51	52-57	58-64	65-70	71-80	81-90	91-100	
	no. of revolutions (rpm)												
Low alloy construction steel R< 700÷900N/mm ²	550	380	300	240	200	170	150	130	120	110	100	90	Emulsion
Alloy steel R< 1100÷1300N/mm ²	230	160	130	100	80	70	60	60	50	50	40	40	Emulsion
Stainless steel	230	160	130	100	80	70	60	60	50	50	40	40	Emulsion
Cast iron	280	190	150	120	100	90	80	70	60	60	50	40	No refriger.
Light Alloys	870	590	470	370	310	270	240	210	190	170	150	140	Emulsion
Aluminium	870	590	470	370	310	270	240	210	190	170	150	140	Emulsion
Plastic	660	450	350	280	240	210	180	160	150	130	120	100	Water No refrigeration





F015-

DRILL BIT HOLE SAW

With lateral chip and center drill.

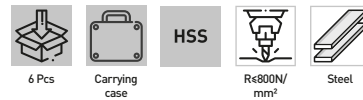


Art.	ϕ	h	d	L	Thread
F015/012	12 mm	23 mm	8 mm	56 mm	M10 x 1,25
F015/013	13 mm	23 mm	8 mm	56 mm	M10 x 1,25
F015/014	14 mm	23 mm	8 mm	56 mm	M10 x 1,25
F015/015	15 mm	23 mm	10 mm	56 mm	M12 x 1,25
F015/016	16 mm	23 mm	10 mm	56 mm	M12 x 1,25
F015/017	17 mm	23 mm	10 mm	56 mm	M12 x 1,25
F015/018	18 mm	23 mm	10 mm	56 mm	M12 x 1,25
F015/019	19 mm	23 mm	10 mm	56 mm	M12 x 1,25
F015/020	20 mm	23 mm	10 mm	56 mm	M12 x 1,25
F015/021	21 mm	23 mm	10 mm	56 mm	M12 x 1,25
F015/022	22 mm	23 mm	10 mm	56 mm	M12 x 1,25
F015/023	23 mm	23 mm	10 mm	56 mm	M12 x 1,25
F015/024	24 mm	23 mm	10 mm	56 mm	M12 x 1,25
F015/025	25 mm	23 mm	10 mm	56 mm	M12 x 1,25
F015/026	26 mm	23 mm	10 mm	56 mm	M12 x 1,25
F015/027	27 mm	23 mm	10 mm	56 mm	M12 x 1,25
F015/028	28 mm	23 mm	10 mm	56 mm	M12 x 1,25
F015/029	29 mm	23 mm	10 mm	56 mm	M12 x 1,25
F015/030	30 mm	23 mm	10 mm	56 mm	M12 x 1,25
F015/031	31 mm	23 mm	10 mm	56 mm	M12 x 1,25
F015/032	32 mm	23 mm	10 mm	56 mm	M12 x 1,25
F015/033	33 mm	23 mm	10 mm	56 mm	M12 x 1,25
F015/034	34 mm	23 mm	10 mm	56 mm	M12 x 1,25
F015/035	35 mm	23 mm	10 mm	56 mm	M14 x 1,5
F015/036	36 mm	23 mm	10 mm	56 mm	M14 x 1,5
F015/037	37 mm	23 mm	10 mm	56 mm	M14 x 1,5
F015/038	38 mm	23 mm	10 mm	56 mm	M14 x 1,5
F015/039	39 mm	23 mm	10 mm	56 mm	M14 x 1,5
F015/040	40 mm	23 mm	10 mm	56 mm	M14 x 1,5
F015/041	41 mm	23 mm	10 mm	56 mm	M14 x 1,5
F015/042	42 mm	23 mm	10 mm	56 mm	M14 x 1,5
F015/043	43 mm	23 mm	10 mm	56 mm	M14 x 1,5
F015/044	44 mm	23 mm	10 mm	56 mm	M14 x 1,5
F015/045	45 mm	23 mm	10 mm	56 mm	M14 x 1,5
F015/046	46 mm	23 mm	10 mm	56 mm	M14 x 1,5
F015/047	47 mm	23 mm	10 mm	56 mm	M14 x 1,5
F015/048	48 mm	23 mm	10 mm	56 mm	M14 x 1,5
F015/049	49 mm	23 mm	10 mm	56 mm	M14 x 1,5
F015/050	50 mm	23 mm	10 mm	56 mm	M14 x 1,5
F015/051	51 mm	23 mm	12 mm	56 mm	M16 x 1,5
F015/052	52 mm	23 mm	12 mm	56 mm	M16 x 1,5
F015/053	53 mm	23 mm	12 mm	56 mm	M16 x 1,5
F015/054	54 mm	23 mm	12 mm	56 mm	M16 x 1,5
F015/055	55 mm	23 mm	12 mm	56 mm	M16 x 1,5
F015/056	56 mm	23 mm	12 mm	56 mm	M16 x 1,5
F015/057	57 mm	23 mm	12 mm	56 mm	M16 x 1,5
F015/058	58 mm	23 mm	12 mm	56 mm	M16 x 1,5
F015/059	59 mm	23 mm	12 mm	56 mm	M16 x 1,5
F015/060	60 mm	23 mm	12 mm	56 mm	M16 x 1,5
F015/065	65 mm	23 mm	12 mm	56 mm	M16 x 1,5
F015/070	70 mm	23 mm	12 mm	56 mm	M16 x 1,5
F015/075	75 mm	23 mm	12 mm	56 mm	M16 x 1,5
F015/080	80 mm	23 mm	12 mm	56 mm	M16 x 1,5
F015/085	85 mm	23 mm	12 mm	56 mm	M16 x 1,5
F015/090	90 mm	23 mm	12 mm	56 mm	M16 x 1,5
F015/095	95 mm	23 mm	12 mm	56 mm	M16 x 1,5
F015/100	100 mm	23 mm	12 mm	56 mm	M16 x 1,5

F015/006S

DRILL BIT HOLE SAW SET

With lateral chip and center drill.

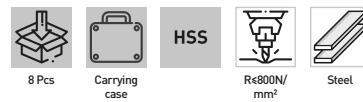


Sizes 16 mm, 18 mm, 20 mm, 22 mm, 25 mm, 30 mm

F015/008S

DRILL BIT HOLE SAW SET

With lateral chip and center drill.

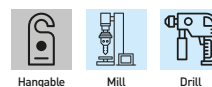
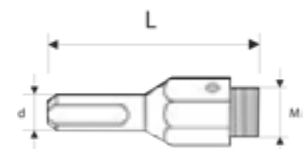


Sizes 16 mm, 18 mm, 20 mm, 22 mm, 25 mm, 30 mm, 32 mm, 35 mm

F015-A

DRILL BIT HOLE SAW ARBOR

For item F015-.

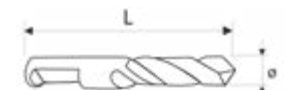


Art.	ϕ	d	L	Thread
F015/001	12 - 14 mm	8 mm	56 mm	M10 x 1,25
F015/002	15-34 mm	10 mm	56 mm	M12 x 1,25
F015/003	35-50 mm	10 mm	56 mm	M14 x 1,5
F015/004	51-100 mm	12 mm	60 mm	M16 x 1,5

F015/005

CENTER DRILL

For item F015-



ϕ 6 mm
L 50 mm

F015/007

SPRING

For item F015-.



BI-METAL CUP SAW

Equipped with variable toothting for cutting thin material such as steel, cast iron, aluminium, copper, bronze, brass, wood, plastic, fibreglass and plasterboard.



THEORETICAL RPM FOR CORE SAWS DEPENDING ON THE MATERIAL TO BE PROCESSED

Materials to be processed	Saw diameter																Coolant
	14 - 17	19 - 24	25 - 32	33 - 38	40 - 44	46 - 51	52 - 57	59 - 64	65 - 70	73 - 79	83 - 89	92 - 98	102 - 108	111 - 121	127 - 140	146 - 152	
	no. of revolutions (rpm)																
Low alloy construction steel R< 700÷900N/mm2	530	360	280	230	190	170	140	130	120	110	90	80	80	70	60	50	Emulsion
Alloy steel R< 1100÷1300N/mm2	210	140	110	90	80	70	60	50	50	40	40	30	30	30	20	20	Emulsion
Stainless steel	210	140	110	90	80	70	60	50	50	40	40	30	30	30	20	20	Emulsion
Cast iron	250	180	170	140	110	90	70	60	60	50	40	40	40	30	30	30	No refriger.
Brass	740	510	400	320	270	230	200	180	170	150	130	120	110	100	80	70	"Emulsion Oil"
Aluminium and light alloys	850	580	450	360	300	270	230	210	190	170	150	130	120	110	100	80	Emulsion
Wood	960	650	510	410	340	300	260	230	210	190	170	150	140	120	110	100	No refriger.
Plastic	640	430	340	270	230	200	170	150	140	130	110	100	90	80	70	60	No refriger.
Plasterboard	960	650	510	410	340	300	260	230	210	190	170	150	140	120	110	100	No refriger.

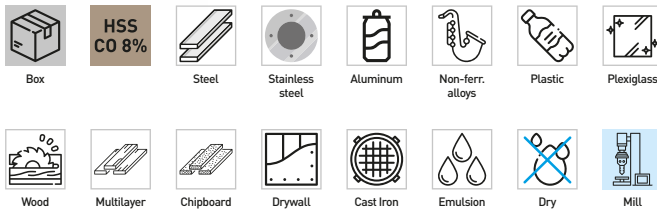




0278-

BIMETAL HOLE SAWS WITH VARIABLE TEETH

Thanks to the geometry of the variable tothing, it is possible to perform rapid and precise cuts as well as greater heat dispersion during cutting for less wear of the teeth. Furthermore, there is a considerable reduction of seizure

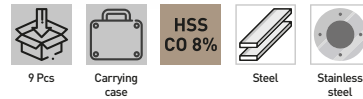


Art.	ø	ø inch
0278/014	14 mm	9/16
0278/016	16 mm	5/8
0278/017	17 mm	11/16
0278/019	19 mm	3/4
0278/020	20 mm	25/32
0278/021	21 mm	13/16
0278/022	22 mm	7/8
0278/024	24 mm	15/16
0278/025	25 mm	1
0278/027	27 mm	1-1/16
0278/029	29 mm	1-1/8
0278/030	30 mm	1-3/16
0278/032	32 mm	1-1/4
0278/033	33 mm	1-5/16
0278/035	35 mm	1-3/8
0278/037	37 mm	1-7/16
0278/038	38 mm	1-1/2
0278/040	40 mm	1-9/16
0278/041	41 mm	1-5/8
0278/043	43 mm	1-11/16
0278/044	44 mm	1-3/4
0278/046	46 mm	1-13/16
0278/048	48 mm	1-7/8
0278/051	51 mm	2
0278/052	52 mm	2-1/16
0278/054	54 mm	2-1/8
0278/057	57 mm	2-1/4
0278/059	59 mm	2-5/16
0278/060	60 mm	2-3/8
0278/064	64 mm	2-1/2
0278/065	65 mm	2-9/16
0278/067	67 mm	2-5/8
0278/068	68 mm	2-11/16
0278/070	70 mm	2-3/4
0278/073	73 mm	2-7/8
0278/076	76 mm	3
0278/079	79 mm	3-1/8
0278/083	83 mm	3-1/4
0278/085	85 mm	3-3/8
0278/089	89 mm	3-1/2
0278/092	92 mm	3-5/8
0278/095	95 mm	3-3/4
0278/098	98 mm	3-7/8
0278/102	102 mm	4
0278/105	105 mm	4-1/8
0278/108	108 mm	4-1/4
0278/111	111 mm	4-3/8
0278/114	114 mm	4-1/2
0278/121	121 mm	4-3/4
0278/127	127 mm	5
0278/140	140 mm	5-1/2
0278/152	152 mm	6

0278/002S

HOLE SAW SET

Electrician kit.



Hole saw	22 - 29 mm
Corresponding arbors, adapter, bits	0712/600
Hole saw	35 - 44 mm
Corresponding arbors, adapter, bits	0712/800
Hole saw	51 - 64 mm
Corresponding arbors, adapter, bits	0712/900

0278/005S

HOLE SAW SET

Repairman set

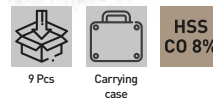


Hole saw	22 - 25 - 29 mm
Corresponding arbors, adapter, bits	0712/600
Hole saw	32 - 38 mm
Corresponding arbors, adapter, bits	0712/900

0278/008S

HOLE SAW SET

Plumber set

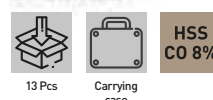


Hole saw	19 - 22 - 29 mm
Corresponding arbors, adapter, bits	0712/600
Hole saw	38 - 44 - 57 mm
Corresponding arbors, adapter, bits	0712/800 - 0712/900

0278/009S

HOLE SAW SET

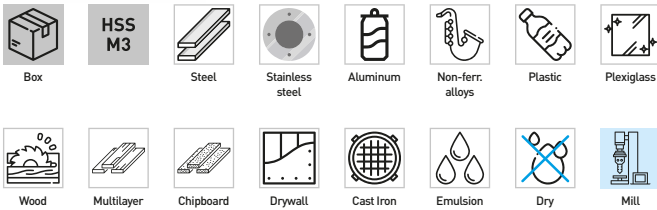
Installer set



Hole saw	19 - 22 - 29 mm
Corresponding arbors, adapter, bits	0712/600 - 0712/900 - 0712/300
Hole saw	35 - 38 - 44 - 51 - 57 - 64 mm
Corresponding arbors, adapter, bits	0712/800

0712-
BIMETAL HOLE SAWS WITH VARIABLE TEETH

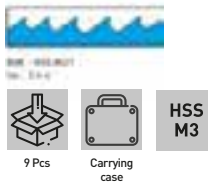
Thanks to the geometry of the variable toothting, it is possible to perform rapid and precise cuts as well as greater heat dispersion during cutting for less wear of the teeth. Furthermore, there is a considerable reduction of seizure



Art.	Ø	Ø inch
0712/014	14 mm	9/16
0712/016	16 mm	5/8
0712/017	17 mm	11/16
0712/019	19 mm	3/4
0712/020	20 mm	25/32
0712/021	21 mm	13/16
0712/022	22 mm	7/8
0712/024	24 mm	15/16
0712/025	25 mm	1
0712/027	27 mm	1-1/16
0712/029	29 mm	1-1/8
0712/030	30 mm	1-3/16
0712/032	32 mm	1-1/4
0712/033	33 mm	1-5/16
0712/035	35 mm	1-3/8
0712/037	37 mm	1-7/16
0712/038	38 mm	1-1/2
0712/040	40 mm	1-9/16
0712/041	41 mm	1-5/8
0712/043	43 mm	1-11/16
0712/044	44 mm	1-3/4
0712/046	46 mm	1-13/16
0712/048	48 mm	1-7/8
0712/051	51 mm	2
0712/052	52 mm	2-1/16
0712/054	54 mm	2-1/8
0712/057	57 mm	2-1/4
0712/059	59 mm	2-5/16
0712/060	60 mm	2-3/8
0712/064	64 mm	2-1/2
0712/065	65 mm	2-9/16
0712/067	67 mm	2-5/8
0712/068	68 mm	2-11/16
0712/070	70 mm	2-3/4
0712/073	73 mm	2-7/8
0712/076	76 mm	3
0712/079	79 mm	3-1/8
0712/083	83 mm	3-1/4
0712/085	85 mm	3-3/8
0712/089	89 mm	3-1/2
0712/092	92 mm	3-5/8
0712/095	95 mm	3-3/4
0712/098	98 mm	3-7/8
0712/102	102 mm	4
0712/105	105 mm	4-1/8
0712/108	108 mm	4-1/4
0712/111	111 mm	4-3/8
0712/114	114 mm	4-1/2
0712/121	121 mm	4-3/4
0712/127	127 mm	5
0712/140	140 mm	5-1/2
0712/152	152 mm	6

0712/002
HOLE SAW SET

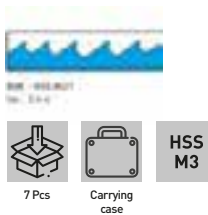
Electrician kit.



Hole saw	22 - 29 mm
Corresponding arbors, adapter, bits	0712/600
Hole saw	35 - 44 mm
Corresponding arbors, adapter, bits	0712/800
Hole saw	51 - 64 mm
Corresponding arbors, adapter, bits	0712/900

0712/005
HOLE SAW SET

Repairman set.



Hole saw	22 - 25 - 29 mm
Corresponding arbors, adapter, bits	0712/600
Hole saw	32 - 38 mm
Corresponding arbors, adapter, bits	0712/900

0712/008
HOLE SAW SET

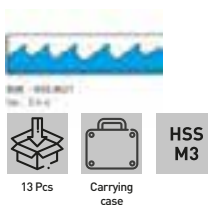
Plumber set



Hole saw	19 - 22 - 29 mm
Corresponding arbors, adapter, bits	0712/600
Hole saw	38 - 44 - 57 mm
Corresponding arbors, adapter, bits	0712/800 - 0712/900

0712/009
HOLE SAW SET

Installer set.



Hole saw	19 - 22 - 29 mm
Corresponding arbors, adapter, bits	0712/600 - 0712/900 - 0712/300
Hole saw	35 - 38 - 44 - 51 - 57 - 64 mm
Corresponding arbors, adapter, bits	0712/800



0712/010

HOLE SAW SET

Industry kit.



21 Pcs



HSS
M3

Hole saw	19 - 22 - 29 mm
Corresponding arbors, adapter, bits	0712/600
Hole saw	35 - 38 - 44 - 51 - 57 - 64 - 76 - 83 - 92 - 95 - 105 - 114 mm
Corresponding arbors, adapter, bits	0712/600 - 0712/900 - 0712/300
Extension	300 mm

0712-X00

DRILL BIT

Suitable for all brands.



HSS

Box

Art.	Stem	For arbor	Length	Pack
0712/300	Ø 6,35 mm	0712/600	105 mm	10
0712/200	Ø 6,35 mm	0712/700 - 800	75 mm	10

0712/900

ARBOR ADAPTER FOR HOLE SAWS



Box

Gear Reduction ratio	1/2" - 5/8"
For arbor	0712/600 - 0712/700

0712-X0

HOLE SAW ARBOR WITH DRILL BIT

Hexagonal connection, suitable for all brands.



Box

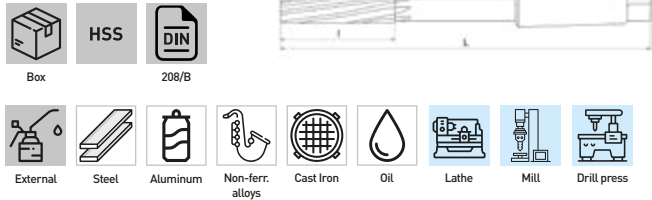
HSS

Art.	Shank	Stem	Hole saw	Thread
0712/600	Shank Round	Ø 6,35 mm	Ø 14÷30 mm	1/2"
0712/700	Shank Hexagonal	Ø 9,5 mm	Ø 14÷30 mm	1/2"
0712/800	Shank Hexagonal	Ø 11 mm	Ø 32÷152 mm	5/8"



A208B-
MACHINE REAMER

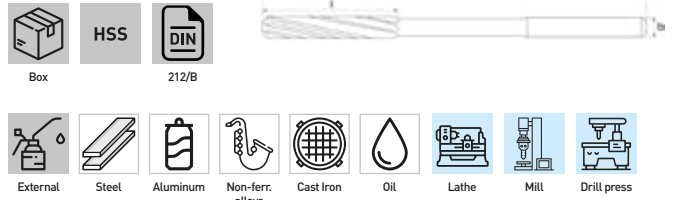
Ground for H7 couplings. Right-hand cut, left-hand helical cutting edges, morse taper attachment. They can be used mainly for through holes but thanks to the short mouth it is also possible to bore blind holes.



Art.	øH7	L	I	MT
A208B/05	5 mm	133 mm	23 mm	1
A208B/06	6 mm	138 mm	26 mm	1
A208B/07	7 mm	150 mm	31 mm	1
A208B/08	8 mm	156 mm	33 mm	1
A208B/09	9 mm	162 mm	36 mm	1
A208B/10	10 mm	168 mm	38 mm	1
A208B/11	11 mm	175 mm	41 mm	1
A208B/12	12 mm	182 mm	44 mm	1
A208B/13	13 mm	182 mm	44 mm	1
A208B/14	14 mm	189 mm	47 mm	1
A208B/15	15 mm	204 mm	50 mm	2
A208B/16	16 mm	210 mm	52 mm	2
A208B/17	17 mm	214 mm	54 mm	2
A208B/18	18 mm	219 mm	56 mm	2
A208B/19	19 mm	223 mm	58 mm	2
A208B/20	20 mm	228 mm	60 mm	2
A208B/21	21 mm	232 mm	62 mm	2
A208B/22	22 mm	237 mm	64 mm	2
A208B/23	23 mm	241 mm	66 mm	2
A208B/24	24 mm	268 mm	68 mm	3
A208B/25	25 mm	268 mm	68 mm	3
A208B/26	26 mm	273 mm	70 mm	3
A208B/27	27 mm	277 mm	71 mm	3
A208B/28	28 mm	277 mm	71 mm	3
A208B/29	29 mm	281 mm	73 mm	3
A208B/30	30 mm	281 mm	73 mm	3
A208B/31	31 mm	285 mm	75 mm	3
A208B/32	32 mm	317 mm	77 mm	4
A208B/34	34 mm	321 mm	78 mm	4
A208B/35	35 mm	321 mm	78 mm	4
A208B/36	36 mm	325 mm	79 mm	4
A208B/38	38 mm	329 mm	81 mm	4
A208B/40	40 mm	329 mm	81 mm	4

A212-
MACHINE REAMER

Ground for H7 couplings. Right-hand cut, left-hand helical cutting edges, cylindrical attachment. They can be used mainly for through holes but thanks to the short mouth it is also possible to bore blind holes.



Art.	øH7	L	I	d h9	Z
A212/02.00	2 mm	49 mm	11 mm	2 mm	4
A212/02.50	2,5 mm	57 mm	14 mm	2,5 mm	4
A212/03.00	3 mm	61 mm	15 mm	3 mm	4
A212/03.50	3,5 mm	70 mm	18 mm	3,5 mm	6
A212/04.50	4,5 mm	80 mm	21 mm	4,5 mm	6
A212/05.00	5 mm	86 mm	23 mm	5 mm	6
A212/05.50	5,5 mm	93 mm	26 mm	5,5 mm	6
A212/06.00	6 mm	93 mm	26 mm	6 mm	6
A212/06.50	6,5 mm	101 mm	28 mm	6,5 mm	6
A212/07.00	7 mm	109 mm	31 mm	7 mm	6
A212/07.50	7,5 mm	109 mm	31 mm	7 mm	6
A212/08.00	8 mm	117 mm	33 mm	8 mm	6
A212/08.50	8,5 mm	117 mm	33 mm	8 mm	6
A212/09.00	9 mm	125 mm	36 mm	9 mm	6
A212/09.50	9,5 mm	125 mm	36 mm	9 mm	6
A212/10.00	10 mm	133 mm	38 mm	10 mm	6
A212/11.00	11 mm	142 mm	41 mm	10 mm	6
A212/12.00	12 mm	151 mm	44 mm	10 mm	6
A212/13.00	13 mm	151 mm	44 mm	10 mm	6
A212/14.00	14 mm	160 mm	47 mm	12 mm	6
A212/15.00	15 mm	162 mm	50 mm	12 mm	8
A212/16.00	16 mm	170 mm	52 mm	12 mm	8

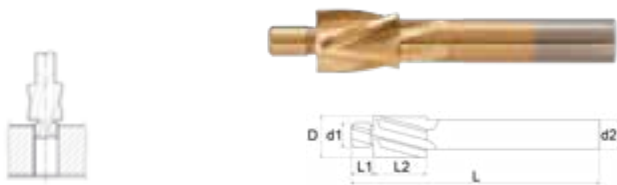




L018-

SOLID CAP SCREW COUNTER BORE BEFORE THREAD GRADE

For pre-drilled threads.

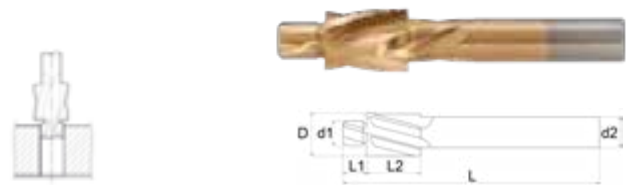


Art.	Screw	D	d1	d2	L1	L2	L
L018/03	M3	6 mm	2,5 mm	5 mm	4 mm	14 mm	71 mm
L018/04	M4	8 mm	3,3 mm	5 mm	5 mm	14 mm	71 mm
L018/05	M5	10 mm	4,2 mm	8 mm	6 mm	18 mm	80 mm
L018/06	M6	11 mm	5,0 mm	8 mm	7 mm	18 mm	80 mm
L018/08	M8	15 mm	6,8 mm	12,5 mm	9 mm	22 mm	100 mm
L018/10	M10	18 mm	8,5 mm	12,5 mm	14 mm	22 mm	100 mm
L018/12	M12	20 mm	10,2 mm	12,5 mm	14 mm	22 mm	100 mm

L019-

SOLID CAP SCREW COUNTER BORE FINE GRADE

For through holes for the execution of precision screws or bolts.

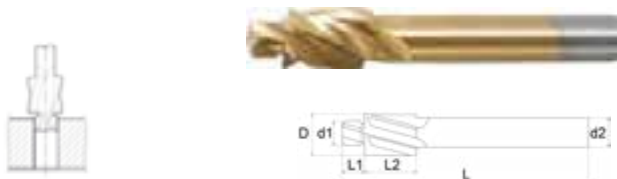


Art.	Screw	D	d1	d2	L1	L2	L
L019/03	M3	6 mm	3,2 mm	5 mm	4 mm	14 mm	71 mm
L019/04	M4	8 mm	4,3 mm	5 mm	5 mm	14 mm	71 mm
L019/05	M5	10 mm	5,3 mm	8 mm	6 mm	18 mm	80 mm
L019/06	M6	11 mm	6,4 mm	8 mm	7 mm	18 mm	80 mm
L019/08	M8	15 mm	8,4 mm	12,5 mm	9 mm	22 mm	100 mm
L019/10	M10	18 mm	10,5 mm	12,5 mm	14 mm	22 mm	100 mm
L019/12	M12	20 mm	13,0 mm	12,5 mm	14 mm	22 mm	100 mm

L020-

COUNTERBORER WITH SOLID PILOT STRAIGHT SHANK MEDIUM TYPE

For through holes.

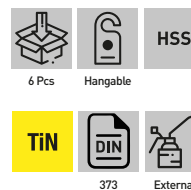
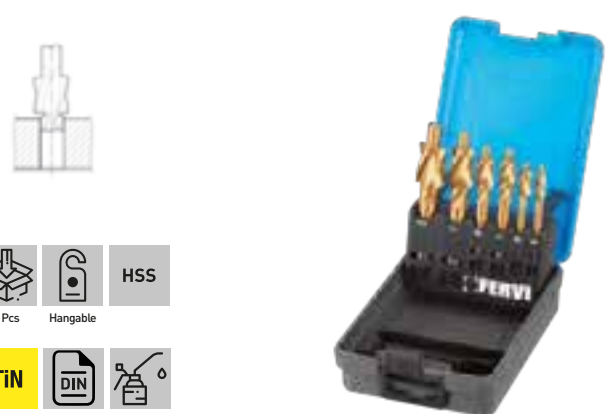


Art.	Screw	D	d1	d2	L1	L2	L
L020/03	M 3	6 mm	3,4 mm	5 mm	4 mm	14 mm	71 mm
L020/04	M 4	8 mm	4,5 mm	5 mm	5 mm	14 mm	71 mm
L020/05	M 5	10 mm	5,5 mm	8 mm	6 mm	18 mm	80 mm
L020/06	M 6	11 mm	6,6 mm	8 mm	7 mm	18 mm	80 mm
L020/08	M 8	15 mm	9 mm	12,5 mm	9 mm	22 mm	100 mm
L020/10	M 10	18 mm	11 mm	12,5 mm	14 mm	22 mm	100 mm
L020/12	M 12	20 mm	13,5 mm	12,5 mm	14 mm	22 mm	100 mm

L018S

SOLID CAP SCREW COUNTER BORE SET BEFORE THREAD

For pre-drilled threads.

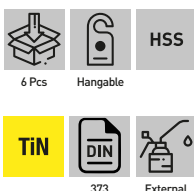


For screws M3, M4, M5, M6, M8, M10

L019S

SOLID CAP SCREW COUNTER BORE SET FINE GRADE

For through holes for the execution of precision screws or bolts.

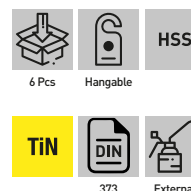


For screws M3, M4, M5, M6, M8, M10

L020S

SOLID CAP SCREW COUNTER BORE SET MEDIUM GRADE

For through holes.



For screws M3, M4, M5, M6, M8, M10

L020
7 PCS COUNTERBORER WITH SOLID PILOT STRAIGHT SHANK

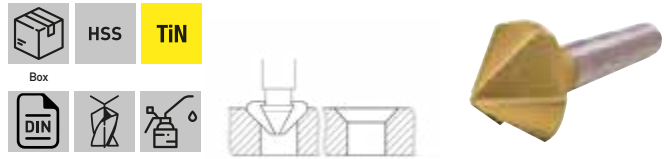
For through holes.



For screws M3, M4, M5, M6, M8, M10, M12

S0X
NEW
90° THREE FLUTES COUNTERSINK

With ground edges and grooves machined from solid, to perform conical countersinks without vibrations.



Art.	∅ max	Screws M	Stem
S006	6,3 mm	3	∅ 5 mm
S006/A	6 mm	3 - DIN 74 AF	∅ 5 mm
S008	8 mm	4 - DIN 74 AF	∅ 6 mm
S010	10,4 mm	5	∅ 6 mm
S010/A	10 mm	5- DIN 74 AF	∅ 6 mm
S012	12,4 mm	6	∅ 8 mm
S016	16,5 mm	8	∅ 10 mm
S020	20,5 mm	10	∅ 10 mm
S025	25 mm	12	∅ 10 mm
S028	28 mm	14	∅ 12 mm
S031	31 mm	16	∅ 12 mm
S040	40 mm	--	∅ 15 mm

S001
90° THREE FLUTES COUNTERSINK SET

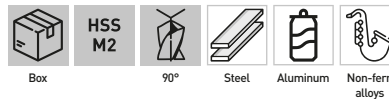
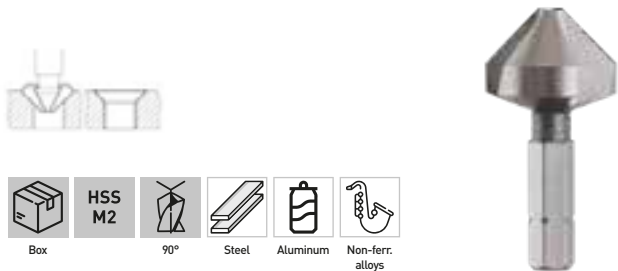
With ground edges and grooves machined from solid, to perform conical countersinks without vibrations.



∅ max 6 - 8 - 10 - 12,4 - 16,5 - 20,5 mm

S026-
COUNTERSINK WITH HEX SHANK

To perform conical countersinks without vibrations.



Art.	∅	Total length	Shank dimensions
S026/06	6,3 mm	31 mm	1/4" HEX x 25 mm
S026/08	8,3 mm	31 mm	1/4" HEX x 25 mm
S026/10	10,4 mm	34 mm	1/4" HEX x 25 mm
S026/12	12,4 mm	35 mm	1/4" HEX x 25 mm
S026/16	16,5 mm	40 mm	1/4" HEX x 25 mm
S026/20	20,5 mm	41 mm	1/4" HEX x 25 mm

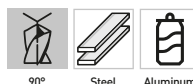
S026/06-20S
COUNTERSINK SET WITH HEX SHANK

To perform conical countersinks without vibrations.


 Sizes 6,3 - 8,3 - 10,4 - 12,4 - 16,5 - 20,5 mm
 Shank dimensions 1/4" HEX x 25 mm

S026/06-20SM
COUNTERSINK SET WITH HEX SHANK

To perform conical countersinks without vibrations. With handle and magnetic extension.


 Sizes 6,3 - 8,3 - 10,4 - 12,4 - 16,5 - 20,5 mm
 Shank dimensions 1/4" HEX x 25 mm



S1-

NEW

60° THREE FLUTES COUNTERSINK

With ground edges and grooves machined from solid, to perform conical countersinks without vibrations.



Art.	ø max	Length	Stem
S1/06	6.3 mm	45 mm	5 mm
S1/08	8 mm	50 mm	6 mm
S1/10	10 mm	53 mm	6 mm
S1/12	12,5 mm	56 mm	8 mm
S1/16	16 mm	63 mm	10 mm
S1/20	20 mm	67 mm	10 mm
S1/25	25 mm	71 mm	10 mm

A014-

TAPER DRILL

With cylindrical shank.



Art.	ø	Total length
A014/03-14	3 - 14 mm	58 mm
A014/06-20	6 - 20 mm	63 mm
A014/16-30	16 - 30,5 mm	72 mm
A014/26-40	26 - 40 mm	86 mm
A014/36-50	36 - 50 mm	89 mm
A014/40-61	40 - 61 mm	94 mm
A014/03-31	3 - 31 mm	104 mm
A014/03-22	3 - 22,5 mm	76 mm

F639

STEP DRILL BITS

For creating and enlarging holes in sheet metal.



Stem	ø
	6 + 39 (6-9-12-15-18-21-24-27-30-33-36-39) mm

S001/60

NEW

60° THREE FLUTES COUNTERSINK SET

With ground edges and grooves machined from solid, to perform conical countersinks without vibrations.



ø max	6-8-10-12,5-16-20 mm
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A014/03-30S

TAPER DRILLS SET

With cylindrical shank.



Sizes	3-14 - 6-20 - 16-30,5 mm
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F430

STEP DRILL BITS SET

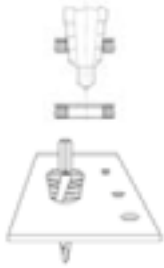
For creating and enlarging holes in sheet metal



Stem	ø
	6 - 8 - 10 mm 4 + 12 - 6 + 20 - 6 + 30 mm

F23X
STEP DRILL BITS

For creating and enlarging holes in sheet metal, with interchangeable point.



Art.	Stem	Ø
F232	10 mm	2,5 ÷ 32 (2,5-6,3-11,2-14,5-18,2-22,3-27,9-32) mm
F238	10 mm	2,5 ÷ 38 (2,5-6,3-13-16-19-21-23-26-29-32-35-38) mm

P037-
MILLING DRILLS

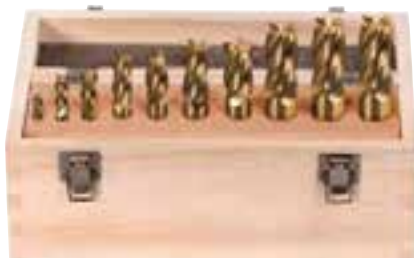
For drilling and milling of thin materials.



Art.	Ø	Stem	Total length
P037/6	6 mm	6 mm	90 mm
P037/8	8 mm	8 mm	90 mm

F001/10
SET FRONTAL ROUGHING END MILLS

regular length, center cutting, weldon shank.



Mill	Ø 6 8 10 12 14 16 18 20 22 25 mm
Stem	Ø 6 10 10 12 12 16 16 20 20 25 mm

F025
SPARE PART POINT

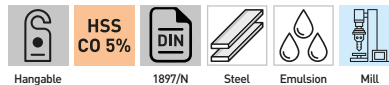
Suitable with F232 F238.



Stem	4 mm
Spare part point	Ø 2,5 mm

P036-
SPOT DRILLS

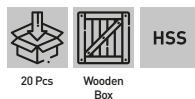
To remove welding spots and to drill metal sheets in general.



Art.	Ø	Total length
P036/06	6 mm	66 mm
P036/07	7 mm	74 mm
P036/08	8 mm	79 mm
P036/10	10 mm	89 mm

F001/20
SET END MILLS

Two and four flute, regular length, weldon shank, center cutting.



2 Flute mill	Ø 3 - 4 - 5 - 6 - 8 - 10 - 12 - 14 - 18 - 20 mm
Stem	Ø 6 - 6 - 6 - 6 - 10 - 10 - 12 - 12 - 16 - 20 mm
4 Flute mill	Ø 3 - 4 - 5 - 6 - 8 - 10 - 12 - 14 - 18 - 20 mm
Stem	Ø 6 - 6 - 6 - 6 - 10 - 10 - 12 - 12 - 16 - 20 mm



F005-

2 FLUTE STRAIGHT SHANK END MILL

For finish, cylindrical shank, weldon connection, normal series.



Art.	D	d	l	Z	L
F005/03	3 mm	6 mm	5 mm	2	49 mm
F005/04	4 mm	6 mm	7 mm	2	51 mm
F005/05	5 mm	6 mm	8 mm	2	52 mm
F005/06	6 mm	6 mm	8 mm	2	52 mm
F005/08	8 mm	10 mm	11 mm	2	61 mm
F005/10	10 mm	10 mm	13 mm	2	63 mm
F005/12	12 mm	12 mm	16 mm	2	73 mm



Art.	D	d	l	Z	L
F005/14	14 mm	12 mm	16 mm	2	73 mm
F005/16	16 mm	16 mm	19 mm	2	79 mm
F005/18	18 mm	16 mm	19 mm	2	79 mm
F005/20	20 mm	20 mm	22 mm	2	88 mm
F005/22	22 mm	20 mm	22 mm	2	88 mm
F005/24	24 mm	20 mm	26 mm	2	92 mm
F005/25	25 mm	20 mm	26 mm	2	92 mm

F006-

4 FLUTE STRAIGHT SHANK END MILL

For finish, cylindrical shank, weldon connection, normal series.



Art.	D	d	l	Z	L
F006/03	3 mm	6 mm	8 mm	4	52 mm
F006/04	4 mm	6 mm	11 mm	4	55 mm
F006/05	5 mm	6 mm	13 mm	4	57 mm
F006/06	6 mm	6 mm	13 mm	4	57 mm
F006/08	8 mm	10 mm	19 mm	4	69 mm
F006/10	10 mm	10 mm	22 mm	4	72 mm



Art.	D	d	l	Z	L
F006/12	12 mm	12 mm	26 mm	4	83 mm
F006/14	14 mm	12 mm	26 mm	4	83 mm
F006/16	16 mm	16 mm	32 mm	4	92 mm
F006/18	18 mm	16 mm	32 mm	4	92 mm
F006/20	20 mm	20 mm	38 mm	4	104 mm

F007-

4 FLUTE STRAIGHT SHANK ROUGHING END MILL

Regular length weldon shank center cutting.



Art.	D	d	l	Z	L
F007/06	6 mm	6 mm	13 mm	4	57 mm
F007/07	7 mm	10 mm	16 mm	4	66 mm
F007/08	8 mm	10 mm	19 mm	4	69 mm
F007/09	9 mm	10 mm	19 mm	4	69 mm
F007/10	10 mm	10 mm	22 mm	4	72 mm
F007/11	11 mm	12 mm	22 mm	4	76 mm
F007/12	12 mm	12 mm	26 mm	4	83 mm
F007/13	13 mm	12 mm	26 mm	4	83 mm



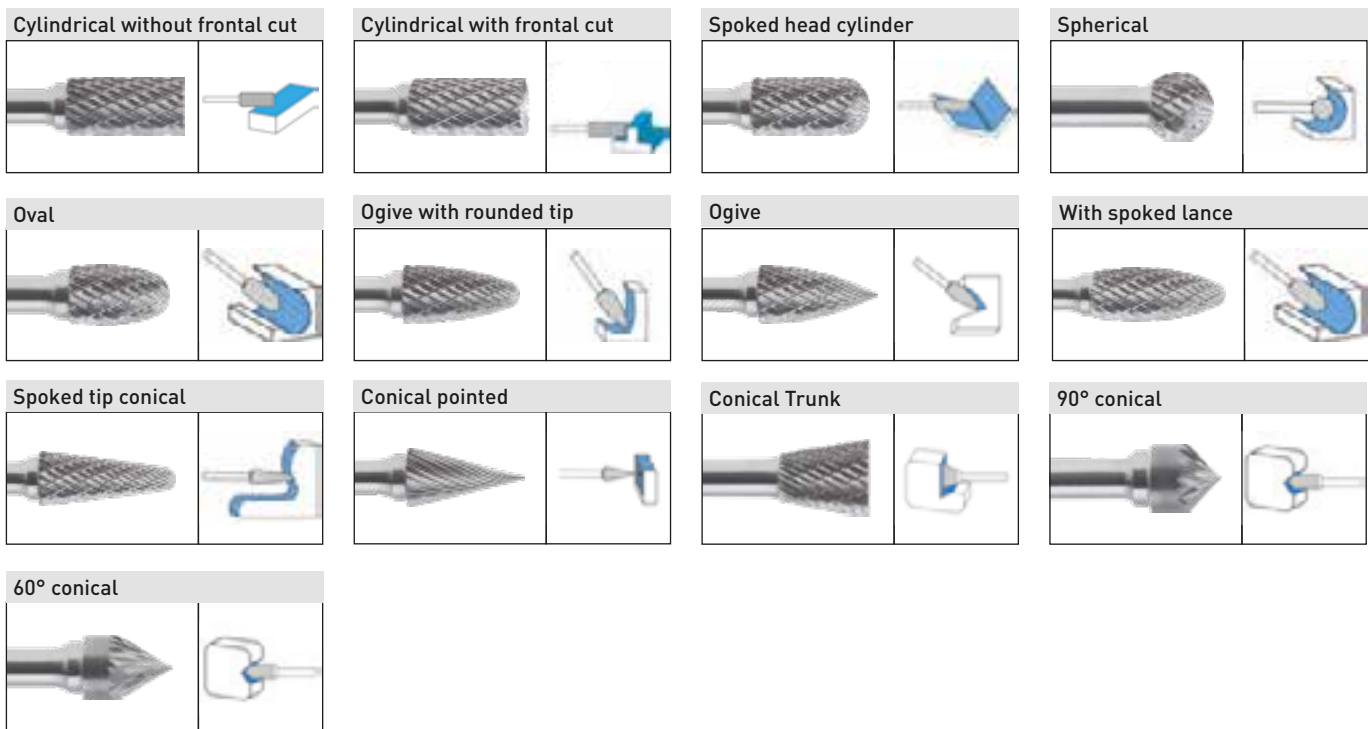
Art.	D	d	l	Z	L
F007/14	14 mm	12 mm	26 mm	4	83 mm
F007/15	15 mm	12 mm	26 mm	4	83 mm
F007/16	16 mm	16 mm	32 mm	4	92 mm
F007/18	18 mm	16 mm	32 mm	4	92 mm
F007/20	20 mm	20 mm	38 mm	4	104 mm
F007/22	22 mm	20 mm	38 mm	4	104 mm
F007/25	25 mm	25 mm	45 mm	4	121 mm



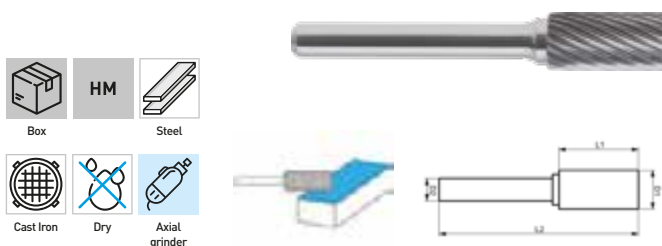
HARD METAL ROTARY MILLING MACHINES

Cut type	Representation	Description
Standard Cut		Suitable for cutting steel, hardened steel, cast iron, weld seams and metal materials in general.
Cross cut		Suitable for treated steel, stainless steel, metal materials in general. Thanks to this type of cut, vibrations are considerably reduced.
Aluminium cutting		Suitable for aluminium, magnesium, plastics and hard rubber.

TYOLOGIES OF SHAPES AND THEIR USE

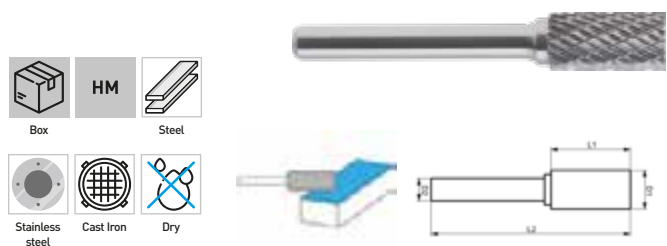


AXSC CYLINDRICAL ROTARY CUTTERS WITHOUT FACE CUT



Art.	D1	L1	D2	L2
A02SC3	ø2 mm	10 mm	3 mm	38 mm
A06SC6	ø6 mm	16 mm	6 mm	61 mm
A08SC6	ø8 mm	20 mm	6 mm	65 mm
A10SC6	ø10 mm	20 mm	6 mm	65 mm
A12SC6	ø12 mm	25 mm	6 mm	70 mm
A16SC6	ø16 mm	25 mm	6 mm	70 mm

AXDC ROTARY BURRS Diamond cut

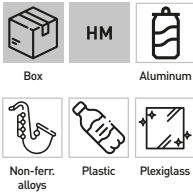


Art.	D1	L1	D2	L2
A02DC3	ø2 mm	10 mm	3 mm	38 mm
A06DC6	ø6 mm	16 mm	6 mm	61 mm
A08DC6	ø8 mm	20 mm	6 mm	65 mm
A10DC6	ø10 mm	20 mm	6 mm	65 mm
A12DC6	ø12 mm	25 mm	6 mm	70 mm
A16DC6	ø16 mm	25 mm	6 mm	70 mm



A12AL6

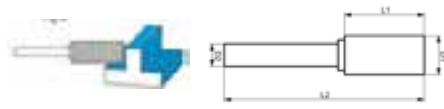
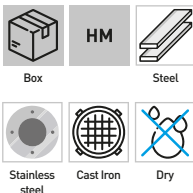
ROTARY BURRS FOR ALUMINIUM



D1	ø12 mm
L1	25 mm
D2	6 mm
L2	70 mm

BXDC

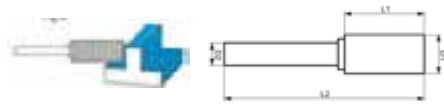
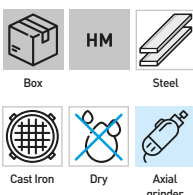
DIAMOND CUT ROTARY BURRS



Art.	D1	L1	D2	L2
B02DC3	ø2 mm	10 mm	3 mm	38 mm
B03DC3	ø3 mm	13 mm	3 mm	38 mm
B04DC3	ø4 mm	13 mm	3 mm	41 mm
B04DC6	ø4 mm	13 mm	6 mm	58 mm
B06DC6	ø6 mm	16 mm	6 mm	61 mm
B08DC6	ø8 mm	20 mm	6 mm	65 mm
B10DC6	ø10 mm	20 mm	6 mm	65 mm
B12DC6	ø12 mm	25 mm	6 mm	70 mm
B16DC6	ø16 mm	25 mm	6 mm	70 mm
B19DC6	ø19 mm	25 mm	6 mm	70 mm
B22DC6	ø22 mm	25 mm	6 mm	70 mm
B25DC6	ø25 mm	25 mm	6 mm	70 mm

BXSCXL

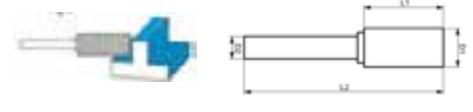
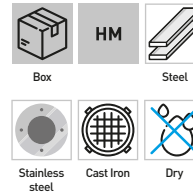
SINGLE CUT LONG ROTARY BURRS



Art.	D1	L1	D2	L2
B02SC3L	ø2 mm	10 mm	3 mm	65 mm
B03SC3L	ø3 mm	13 mm	3 mm	65 mm
B08SC6L	ø8 mm	20 mm	6 mm	120 mm
B10SC6L	ø10 mm	20 mm	6 mm	120 mm
B12SC6L	ø12 mm	25 mm	6 mm	120 mm

BXSC

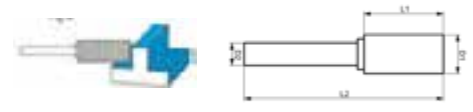
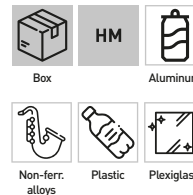
SINGLE CUT ROTARY BURRS



Art.	D1	L1	D2	L2
B02SC3	ø2 mm	10 mm	3 mm	38 mm
B03SC3	ø3 mm	13 mm	3 mm	38 mm
B04SC3	ø4 mm	13 mm	3 mm	41 mm
B04SC6	ø4 mm	13 mm	6 mm	58 mm
B06SC6	ø6 mm	16 mm	6 mm	61 mm
B08SC6	ø8 mm	20 mm	6 mm	65 mm
B10SC6	ø10 mm	20 mm	6 mm	65 mm
B12SC6	ø12 mm	25 mm	6 mm	70 mm
B16SC6	ø16 mm	25 mm	6 mm	70 mm

BXAL

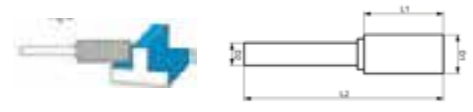
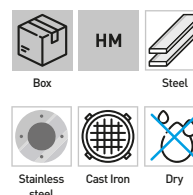
ROTARY BURRS FOR ALUMINIUM



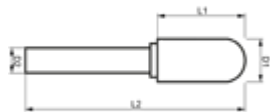
Art.	D1	L1	D2	L2
B06AL6	ø6 mm	16 mm	6 mm	61 mm
B08AL6	ø8 mm	20 mm	6 mm	65 mm
B10AL6	ø10 mm	20 mm	6 mm	65 mm
B12AL6	ø12 mm	25 mm	6 mm	70 mm

BXDCXL

CARBIDE ROTARY BURRS



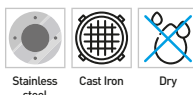
Art.	D1	L1	D2	L2
B02DC3L	ø2 mm	10 mm	3 mm	65 mm
B03DC3L	ø3 mm	13 mm	3 mm	65 mm
B08DC6L	ø8 mm	20 mm	6 mm	120 mm
B10DC6L	ø10 mm	20 mm	6 mm	120 mm
B12DC6L	ø12 mm	25 mm	6 mm	120 mm

CXSC
SINGLE CUT ROTARY BURRS


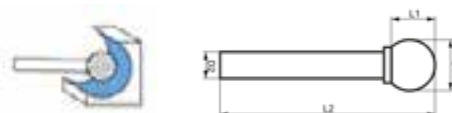
Art.	D1	L1	D2	L2
C02SC3	ø2 mm	10 mm	3 mm	38 mm
C03SC3	ø3 mm	13 mm	3 mm	38 mm
C04SC3	ø4 mm	13 mm	3 mm	58 mm
C04SC6	ø4 mm	13 mm	6 mm	58 mm
C06SC6	ø6 mm	16 mm	6 mm	61 mm
C08SC6	ø8 mm	20 mm	6 mm	65 mm
C10SC6	ø10 mm	20 mm	6 mm	65 mm
C12SC6	ø12 mm	25 mm	6 mm	70 mm
C16SC6	ø16 mm	25 mm	6 mm	70 mm

CXAL
ROTARY BURRS FOR ALUMINIUM

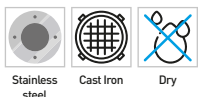

Art.	D1	L1	D2	L2
C06AL6	ø6 mm	16 mm	6 mm	61 mm
C08AL6	ø8 mm	20 mm	6 mm	65 mm
C10AL6	ø10 mm	20 mm	6 mm	65 mm
C12AL6	ø12 mm	25 mm	6 mm	70 mm

CXDC
DIAMOND CUT ROTARY BURRS


Art.	D1	L1	D2	L2
C02DC3	ø2 mm	10 mm	3 mm	38 mm
C03DC3	ø3 mm	13 mm	3 mm	38 mm
C04DC3	ø4 mm	13 mm	3 mm	38 mm
C04DC6	ø4 mm	13 mm	6 mm	38 mm
C06DC6	ø6 mm	16 mm	6 mm	61 mm
C08DC6	ø8 mm	20 mm	6 mm	65 mm
C10DC6	ø10 mm	20 mm	6 mm	65 mm
C12DC6	ø12 mm	25 mm	6 mm	70 mm
C16DC6	ø16 mm	25 mm	6 mm	70 mm
C19DC6	ø19 mm	25 mm	6 mm	70 mm
C22DC6	ø22 mm	25 mm	6 mm	70 mm
C25DC6	ø25 mm	25 mm	6 mm	70 mm

DXSC
SINGLE CUT ROTARY BURRS


Art.	D1	L1	D2	L2
D03SC3	ø3 mm	2.7 mm	3 mm	38 mm
D04SC6	ø4 mm	3.6 mm	6 mm	38 mm
D06SC6	ø6 mm	5.4 mm	6 mm	50 mm
D08SC6	ø8 mm	7.2 mm	6 mm	52 mm
D10SC6	ø10 mm	9 mm	6 mm	54 mm
D12SC6	ø12 mm	10.8 mm	6 mm	56 mm
D16SC6	ø16 mm	14.4 mm	6 mm	60 mm

DXDC
DIAMOND CUT ROTARY BURRS


Art.	D1	L1	D2	L2
D03DC3	ø3 mm	2.7 mm	3 mm	38 mm
D04DC6	ø4 mm	3.6 mm	6 mm	38 mm
D06DC6	ø6 mm	5.4 mm	6 mm	50 mm
D08DC6	ø8 mm	7.2 mm	6 mm	52 mm
D10DC6	ø10 mm	9 mm	6 mm	54 mm
D12DC6	ø12 mm	10.8 mm	6 mm	56 mm
D16DC6	ø16 mm	14.4 mm	6 mm	60 mm
D19DC6	ø19 mm	17.4 mm	6 mm	64 mm

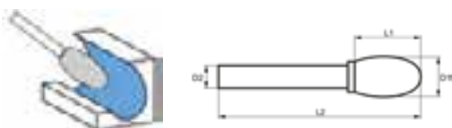
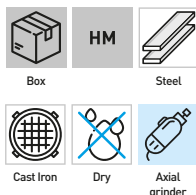
DXAL
ROTARY BURRS FOR ALUMINIUM


Art.	D1	L1	D2	L2
D06AL6	ø6 mm	5.4 mm	6 mm	50 mm
D08AL6	ø8 mm	7.2 mm	6 mm	52 mm
D10AL6	ø10 mm	9 mm	6 mm	54 mm



EXSC

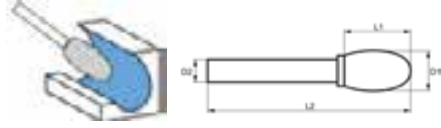
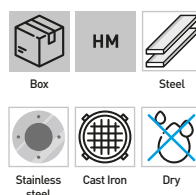
SINGLE CUT ROTARY BURRS



Art.	D1	L1	D2	L2
E08SC6	ø8 mm	13 mm	6 mm	58 mm
E10SC6	ø10 mm	16 mm	6 mm	61 mm
E12SC6	ø12 mm	20 mm	6 mm	65 mm
E16SC6	ø16 mm	25 mm	6 mm	70 mm

EXDC

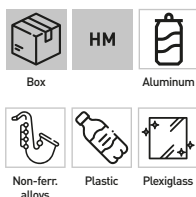
DIAMOND CUT ROTARY BURRS



Art.	D1	L1	D2	L2
E08DC6	ø8 mm	13 mm	6 mm	58 mm
E10DC6	ø10 mm	16 mm	6 mm	61 mm
E12DC6	ø12 mm	20 mm	6 mm	65 mm
E16DC6	ø16 mm	25 mm	6 mm	70 mm

EXAL

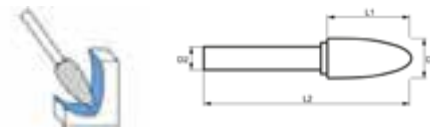
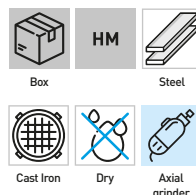
ROTARY BURRS FOR ALUMINIUM



Art.	D1	L1	D2	L2
E10AL6	10 mm	16 mm	6 mm	61 mm
E12AL6	12 mm	20 mm	6 mm	65 mm

FXSC

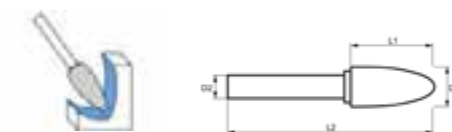
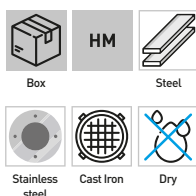
SINGLE CUT ROTARY BURRS



Art.	D1	D2	L1	L2
F03SC3	ø3 mm	13 mm	3 mm	38 mm
F06SC6	ø6 mm	18 mm	6 mm	63 mm
F08SC6	ø8 mm	20 mm	6 mm	65 mm
F10SC6	ø10 mm	20 mm	6 mm	65 mm
F12SC6	ø12 mm	25 mm	6 mm	70 mm

FXDC

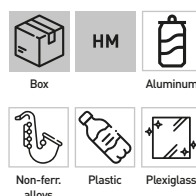
DIAMOND CUT ROTARY BURRS



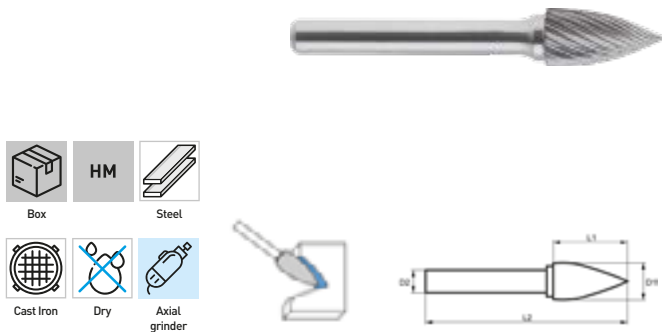
Art.	D1	D2	L1	L2
F03DC3	ø3 mm	13 mm	3 mm	38 mm
F06DC6	ø6 mm	18 mm	6 mm	63 mm
F08DC6	ø8 mm	20 mm	6 mm	65 mm
F10DC6	ø10 mm	20 mm	6 mm	65 mm
F12DC6	ø12 mm	25 mm	6 mm	70 mm
F16DC6	ø16 mm	25 mm	6 mm	70 mm
F19DC6	ø19 mm	25 mm	6 mm	70 mm

FXAL

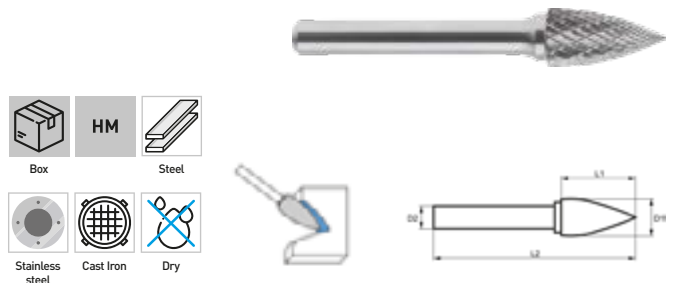
ROTARY BURRS FOR ALUMINIUM



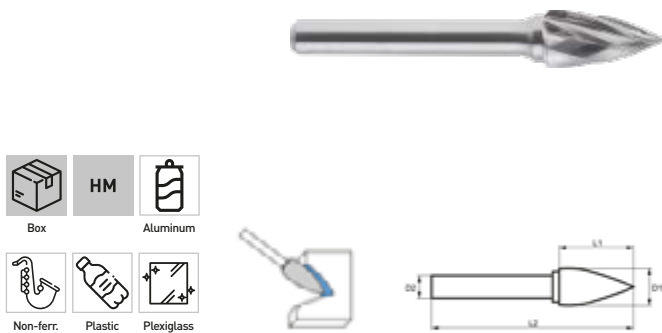
Art.	D1	L1	D2	L2
F10AL6	ø10 mm	20 mm	6 mm	65 mm
F12AL6	ø12 mm	25 mm	6 mm	70 mm

GXSC
SINGLE CUT ROTARY BURRS


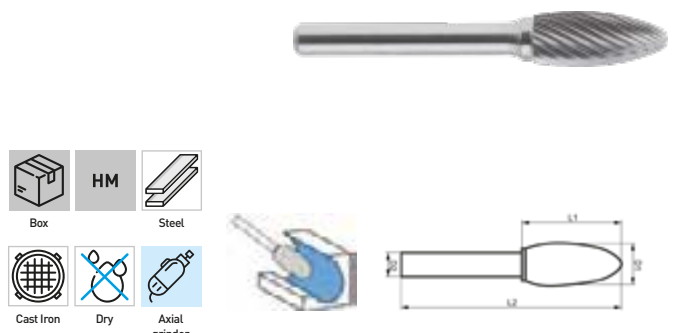
Art.	D1	L1	D2	L2
G03SC3	ø3 mm	13 mm	3 mm	38 mm
G06SC6	ø6 mm	18 mm	6 mm	65 mm
G10SC6	ø10 mm	20 mm	6 mm	65 mm
G12SC6	ø12 mm	25 mm	6 mm	70 mm

GXDC
DIAMOND CUT ROTARY BURRS


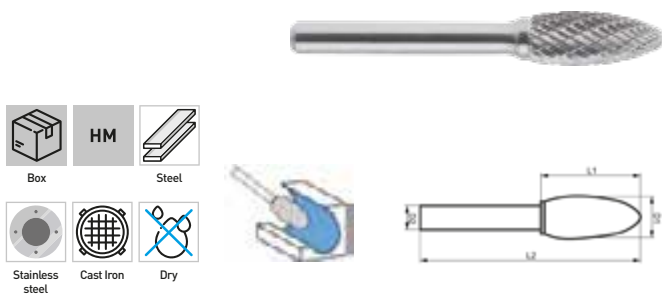
Art.	D1	L1	D2	L2
G03DC3	ø3 mm	13 mm	3 mm	38 mm
G06DC6	ø6 mm	18 mm	6 mm	65 mm
G10DC6	ø10 mm	20 mm	6 mm	65 mm
G12DC6	ø12 mm	25 mm	6 mm	70 mm
G16DC6	ø16 mm	25 mm	6 mm	70 mm
G19DC6	ø19 mm	25 mm	6 mm	70 mm

GXAL
ROTARY BURRS FOR ALUMINIUM


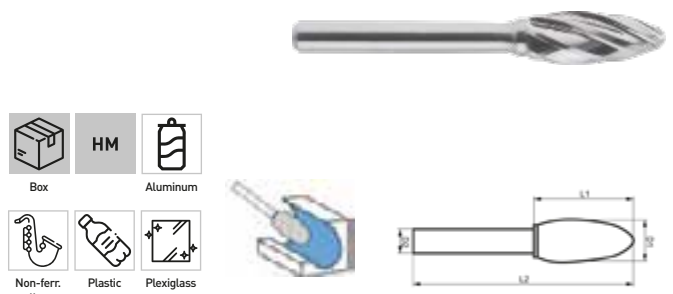
Art.	D1	L1	D2	L2
G10AL6	ø10 mm	20 mm	6 mm	65 mm
G12AL6	ø12 mm	25 mm	6 mm	70 mm

HXSC
SINGLE CUT ROTARY BURRS


Art.	D1	L1	D2	L2
H08SC6	ø8 mm	20 mm	6 mm	65 mm
H10SC6	ø10 mm	25 mm	6 mm	70 mm
H12SC6	ø12 mm	32 mm	6 mm	77 mm

HXDC
DIAMOND CUT ROTARY BURRS


Art.	D1	D2	L1	L2
H06DC6	ø6 mm	16 mm	6 mm	61 mm
H08DC6	ø8 mm	20 mm	6 mm	65 mm
H10DC6	ø10 mm	25 mm	6 mm	70 mm
H12DC6	ø12 mm	32 mm	6 mm	77 mm

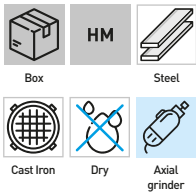
HXAL
ROTARY BURRS FOR ALUMINIUM


Art.	D1	D2	L1	L2
H08AL6	ø8 mm	20 mm	6 mm	65 mm
H10AL6	ø10 mm	25 mm	6 mm	70 mm
H12AL6	ø12 mm	32 mm	6 mm	77 mm



LXSC

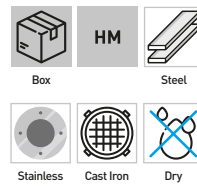
SINGLE CUT ROTARY BURRS



Art.	D1	L1	D2	L2
L03SC3	ø3 mm	13 mm	3 mm	38 mm
L06SC6	ø6 mm	16 mm	6 mm	61 mm

LXDC

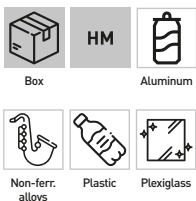
DIAMOND CUT ROTARY BURRS



Art.	D1	L1	D2	L2
L03DC3	ø3 mm	13 mm	3 mm	38 mm
L06DC6	ø6 mm	16 mm	6 mm	61 mm
L08DC6	ø8 mm	22 mm	6 mm	65 mm
L10DC6	ø10 mm	25 mm	6 mm	70 mm
L12DC6	ø12 mm	25 mm	6 mm	70 mm

L10AL6

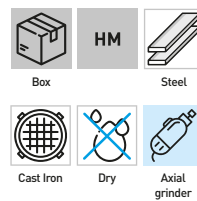
ROTARY BURRS FOR ALUMINIUM



D1	ø10 mm
L1	25 mm
D2	6 mm
L2	70 mm

MXSC

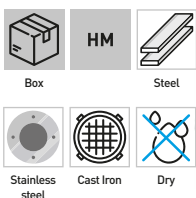
SINGLE CUT ROTARY BURRS



Art.	D1	L1	D2	L2
M08SC6	ø8 mm	20 mm	6 mm	65 mm
M10SC6	ø10 mm	20 mm	6 mm	65 mm
M12SC6	ø12 mm	25 mm	6 mm	70 mm

MXDC

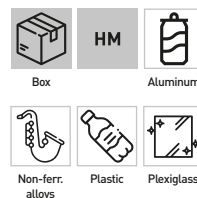
DIAMOND CUT ROTARY BURRS



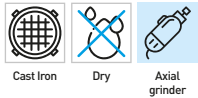
Art.	D1	L1	D2	L2
M03DC3	ø3 mm	11 mm	3 mm	38 mm
M03DC6	ø3 mm	11 mm	6 mm	38 mm
M06DC6	ø6 mm	18 mm	6 mm	60 mm
M08DC6	ø8 mm	20 mm	6 mm	65 mm
M10DC6	ø10 mm	20 mm	6 mm	65 mm
M12DC6	ø12 mm	25 mm	6 mm	70 mm
M16DC6	ø16 mm	25 mm	6 mm	70 mm

M10AL6

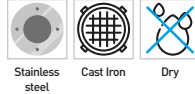
ROTARY BURRS FOR ALUMINIUM



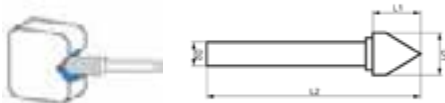
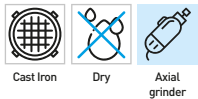
D1	ø10 mm
L1	20 mm
D2	6 mm
L2	65 mm

NXSC
SINGLE CUT ROTARY BURRS


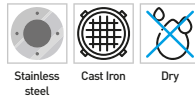
Art.	D1	L1	D2	L2
N12SC6	ø12 mm	13 mm	6 mm	58 mm
N16SC6	ø16 mm	16 mm	6 mm	58 mm

N12DC6
DIAMOND CUT ROTARY BURRS


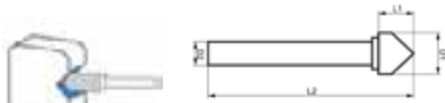
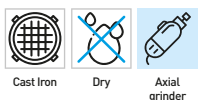
D1	ø12 mm
L1	13 mm
D2	6 mm
L2	58 mm

JXSC
SINGLE CUT ROTARY BURRS


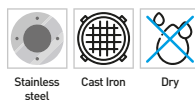
Art.	D1	L1	D2	L2
J03SC3	ø3 mm	2.5 mm	3 mm	38 mm
J06SC6	ø6 mm	5.2 mm	6 mm	54 mm
J10SC6	ø10 mm	8 mm	6 mm	58 mm
J16SC6	ø16 mm	13 mm	6 mm	62 mm

JXDC
DIAMOND CUT ROTARY BURRS


Art.	D1	L1	D2	L2
J03DC3	ø3 mm	2.5 mm	3 mm	38 mm
J06DC6	ø6 mm	5.2 mm	6 mm	54 mm
J10DC6	ø10 mm	8 mm	6 mm	58 mm
J16DC6	ø16 mm	13 mm	6 mm	62 mm

KXSC
SINGLE CUT ROTARY BURRS


Art.	D1	L1	D2	L2
K10SC6	ø10 mm	5 mm	6 mm	54 mm
K16SC6	ø16 mm	8 mm	6 mm	58 mm

KXDC
DIAMOND CUT ROTARY BURRS


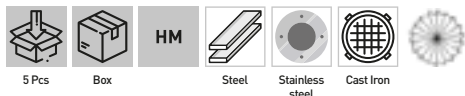
Art.	D1	L1	D2	L2
K10DC6	ø10 mm	5 mm	6 mm	54 mm
K16DC6	ø16 mm	8 mm	6 mm	58 mm



F008DC

HARD METAL ROTARY BURR SET

With diamond cut.

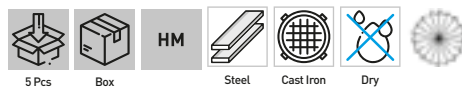


Sizes	10 x 20 mm
Type	B, C, D, G, M
Stem	6 mm

F008SC

HARD METAL ROTARY BURR SET

With single cut.

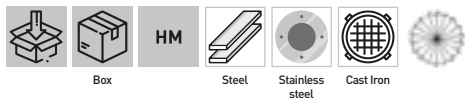
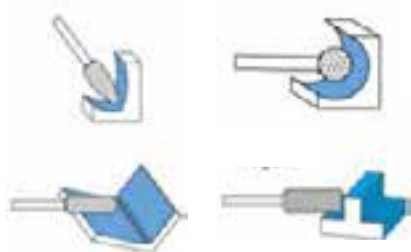


Sizes	10 x 20 mm
Type	B, C, D, G, M
Stem	6 mm

F008-

CARBIDE ROTARY FILE SET

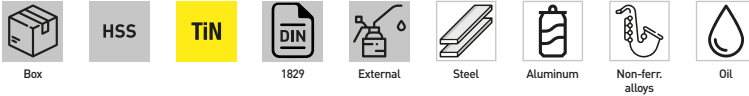
Cross cut.



Art.	Stem
F008/3	Ø 3 mm
F008/6	Ø 6 mm



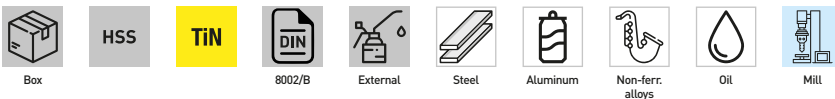
C003-
DISC TYPE GEAR SHAPER CUTTER

 Nominal ϕ 100 mm hole 44,45 mm 20° angle pressure class A.


Art.	Module	ϕ max	ϕ d0	Height b1	Teeth
C003/1	1,00	102 mm	100 mm	16 mm	100
C003/1.25	1,25	105 mm	100 mm	16 mm	80
C003/1.50	1,50	107 mm	102 mm	18 mm	68
C003/1.75	1,75	107,4 mm	101,5 mm	20 mm	58
C003/2	2,00	107,31 mm	100 mm	20 mm	50
C003/2.25	2,25	109,29 mm	101,25 mm	20 mm	45
C003/2.50	2,50	108,46 mm	100 mm	20 mm	40
C003/2.75	2,75	108,36 mm	99 mm	24 mm	36
C003/3	3,00	111,82 mm	99 mm	24 mm	33
C003/3.25	3,25	110,99 mm	99 mm	24 mm	31
C003/3.50	3,50	108,72 mm	101,5 mm	24 mm	29
C003/3.75	3,75	112,35 mm	101,5 mm	24 mm	27
C003/4	4,00	111,75 mm	100 mm	24 mm	25
C003/4.25	4,25	114,12 mm	102 mm	24 mm	24
C003/4.50	4,50	111,65 mm	99 mm	24 mm	22
C003/5	5,00	114,05 mm	100 mm	24 mm	20
C003/5.50	5,50	119,96 mm	99 mm	24 mm	18
C003/6	6,00	118,86 mm	102 mm	24 mm	17
C003/6.50	6,50	122,5 mm	112 mm	24 mm	16
C003/7	7,00	127 mm	105 mm	24 mm	15
C003/8	8,00	135 mm	112 mm	24 mm	14
C003/10	10,00	168 mm	140 mm	24 mm	14

C001-
GEAR HOB 20° PRESSURE ANGLE

Ground profile class A.



Art.	Module	Diameter ϕ	Length	Hole
C001/1	1,00	50 mm	31 mm	22 mm
C001/1.25	1,25	50 mm	31 mm	22 mm
C001/1.50	1,50	53 mm	50 mm	22 mm
C001/1.75	1,75	56 mm	38 mm	22 mm
C001/2	2,00	63 mm	46 mm	27 mm
C001/2.25	2,25	70 mm	56 mm	27 mm
C001/2.50	2,50	71 mm	63 mm	27 mm
C001/2.75	2,75	70 mm	56 mm	27 mm
C001/3	3,00	80 mm	71 mm	32 mm
C001/3.25	3,25	80 mm	69 mm	32 mm
C001/3.50	3,50	80 mm	71 mm	32 mm
C001/3.75	3,75	90 mm	78 mm	32 mm
C001/4	4,00	90 mm	78 mm	32 mm
C001/4.25	4,25	90 mm	78 mm	32 mm
C001/4.50	4,50	90 mm	78 mm	32 mm
C001/5	5,00	100 mm	88 mm	32 mm
C001/5.50	5,50	100 mm	88 mm	32 mm
C001/6	6,00	110 mm	108 mm	40 mm
C001/6.50	6,50	110 mm	109 mm	40 mm
C001/7	7,00	110 mm	110 mm	40 mm
C001/8	8,00	125 mm	130 mm	40 mm
C001/9	9,00	125 mm	140 mm	40 mm
C001/10	10,00	140 mm	160 mm	40 mm
C001/12	12,00	170 mm	195 mm	50 mm
C001/13	13,00	180 mm	210 mm	50 mm