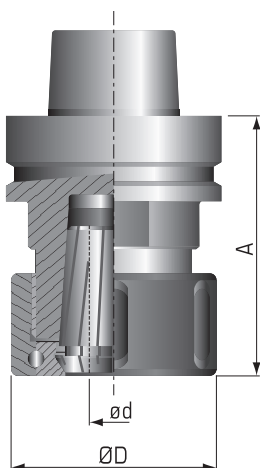


HSK63F

COLLET CHUCKS HSK63F WITH BALL BEARING COLLET NUT



DESIGN:

- Collet chucks with hollow taper shank V DIN 69893-6 FORM F
- Suitable for spring collets manufactured to DIN 6388 or DIN 6499
- Ball bearing collet nut for increased clamping pressure and increased concentricity
- Balanced tool body and collet nut
- Suitable for both left and right hand rotation

APPLICATION:

- Precision collet chuck for clamping shank type tools
- On CNC routers with automatic tool change

PLEASE SPECIFY WHEN ORDERING:

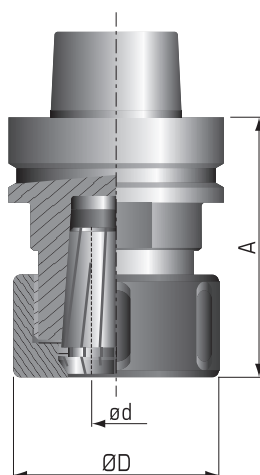
- If your CNC Router requires holes in the HSK Taper

PART NO.	COLLET TYPE	CLAMPING RANGE ød mm	ØD mm	A mm	ROTATION
RC2080	ER32	3-20	50	70	RH/LH
RC2082	ER40	3-26	63	75	RH/LH
RC2084	OZ25	2-25	60	75	RH/LH

Spring collets not included (see page FC8 & FC9).

HSK63F

COLLET CHUCKS HSK63F WITHOUT BALL BEARING COLLET NUT



DESIGN:

- Collet chucks with hollow taper shank V DIN 69893-6 FORM F
- Suitable for spring collets manufactured to DIN 6388 or DIN 6499
- Balanced tool body and collet nut
- Right hand rotation (left hand available upon request)

APPLICATION:

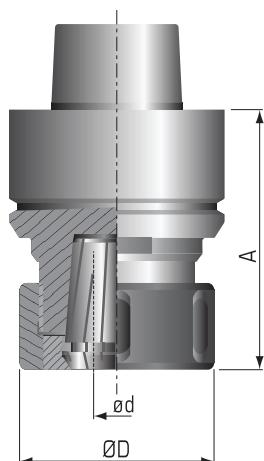
- Precision collet chuck for clamping shank type tools
- On CNC routers with automatic tool change

PLEASE SPECIFY WHEN ORDERING:

- If your CNC Router requires holes in the HSK Taper

PART NO.	COLLET TYPE	CLAMPING RANGE ød mm	ØD mm	A mm	ROTATION
RC2090	ER32	3-20	50	70	RH
RC2092	ER40	3-26	63	75	RH

Spring collets not included (see page FC8 & FC9).



DESIGN:

- Collet chucks with hollow taper shank V DIN 69893-6 FORM F
- Suitable for spring collets manufactured to DIN 6388 or DIN 6499
- Balanced tool body and collet nut

APPLICATION:

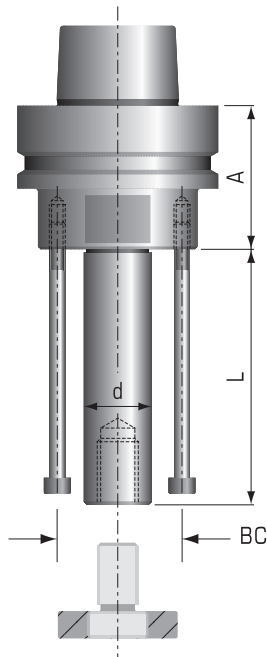
- Precision collet chuck for clamping shank type tools
- On CNC routers with automatic tool change for Thermwood machines

IMPORTANT:

- Part number RC2092TH and RC2094TH are not compatible with Thermwood's "Typewriter" style toolchanger

PART NO.	COLLET TYPE	CLAMPING RANGE ød mm	ØD mm	A mm	ROTATION
RC2090TH	ER32	3-20	50	72.5	RH
RC2092TH	ER40	3-26	63	76.5	RH
RC2094TH	OZ25	2-25	60	76.5	RH

Spring collets not included (see page FC8 & FC9).



DESIGN:

- Cutter arbor with hollow taper shank V DIN 69893-6 FORM F
- Cutter arbor balanced

APPLICATION:

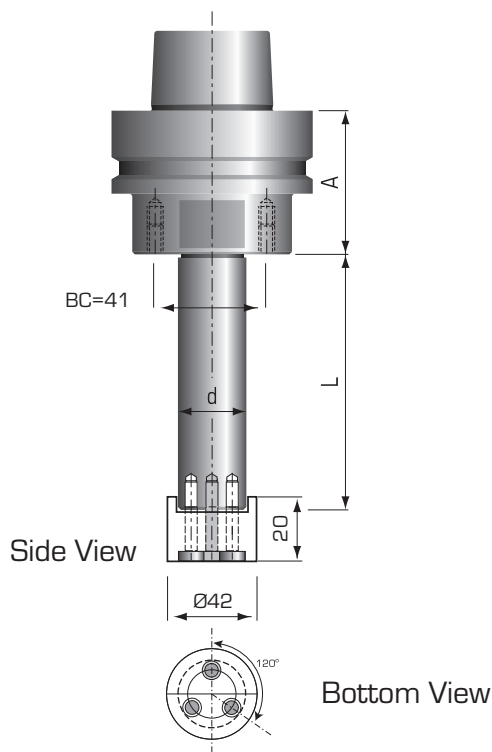
- For mounting bore type tools
- On CNC routers with automatic tool change

PLEASE SPECIFY WHEN ORDERING:

- If your CNC Router requires holes in the HSK Taper

PART NO.	SHAFT DIAM. ød mm	SHAFT LENGTH L mm	A mm	BOLT CIRCLE BC mm
RC3100	20	40	80	32
RC3102	20	70	45	32
RC3104	20	70	80	32
RC3106	30	40	80	48
RC3108	30	80	45	48
RC3109	30	80	80	48

Other shaft sizes available upon request.



DESIGN:

- Cutter arbor with hollow taper shank V DIN 69893-6 FORM F
- Cutter arbor balanced

APPLICATION:

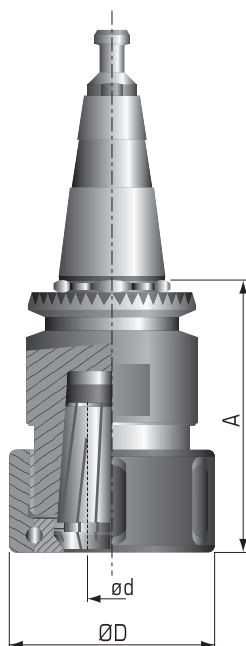
- For mounting bore type tools
- On CNC routers with automatic tool change

PLEASE SPECIFY WHEN ORDERING:

- If your CNC Router requires holes in the HSK Taper

PART NO.	SHAFT DIAM. ød inches	SHAFT LENGTH L mm	A mm	BOLT CIRCLE BC mm
RC3200	1-1/4"	55	45	41
RC3202	1-1/4"	80	45	41

Other shaft sizes available upon request.

**DESIGN:**

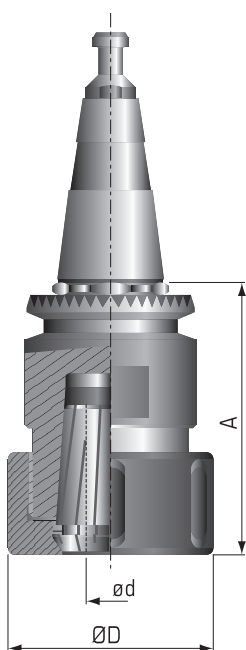
- Collet chucks with steep taper and serrated flange
- Suitable for spring collets manufactured to DIN 6388 or DIN 6499
- Ball bearing collet nut for increased clamping pressure and increased concentricity
- Balanced tool body and collet nut
- Suitable for both left and right hand rotation

APPLICATION:

- Precision collet chuck for clamping shank type tools
- On CNC routers with automatic tool change for SCM and Morbidelli

PART NO.	COLLET TYPE	CLAMPING RANGE ød mm	ØD mm	A mm	ROTATION
RC2020	ER32	3-20	50	55	RH/LH
RC2022	ER40	3-26	63	72	RH/LH
RC2024	OZ25	2-25	60	72	RH/LH

When ordering, specify pull stud type (see page FC10 & FC11).
Spring collets not included (see page FC8 & FC9).

**DESIGN:**

- Collet chucks with steep taper and toolhead flange
- Suitable for spring collets manufactured to DIN 6388 or DIN 6499
- Balanced tool body and collet nut
- Right hand rotation (left hand available upon request)

APPLICATION:

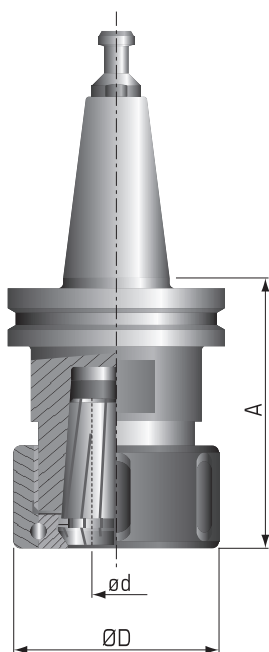
- Precision collet chuck for clamping shank type tools
- On CNC routers with automatic tool change for SCM and Morbidelli

PART NO.	COLLET TYPE	CLAMPING RANGE ød mm	ØD mm	A mm	ROTATION
RC2030	ER32	3-20	50	55	RH
RC2032	ER32	3-20	50	55	LH
RC2034	ER40	3-25	63	72	RH
RC2036	ER40	3-25	63	72	LH
RC2038	OZ25	2-25	60	72	RH
RC2039	OZ25	2-25	60	72	LH

When ordering, specify pull stud type (see page FC10 & FC11).
Spring collets not included (see page FC8 & FC9).

ISO30

COLLET CHUCKS ISO30 WITH BALL BEARING COLLET NUT



DESIGN:

- Collet chucks with steep taper DIN 69871, without grooves or notches
- Suitable for spring collets manufactured to DIN 6388 or DIN 6499
- Ball bearing collet nut for increased clamping pressure and increased concentricity
- Balanced tool body and collet nut
- Suitable for both left and right hand rotation

APPLICATION:

- Precision collet chuck for clamping shank type tools
- On CNC routers with automatic tool change

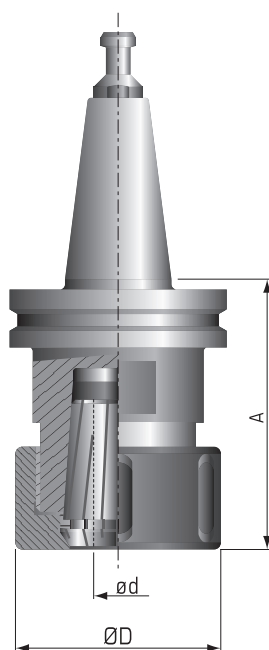
PART NO.	COLLET TYPE	CLAMPING RANGE ød mm	ØD mm	A mm	ROTATION
RC2000 •	ER32	3-20	50	45	RH/LH
RC2002 •	ER32	3-20	50	55	RH/LH
RC2004	ER40	3-26	63	58.5	RH/LH
RC2006	OZ25	2-25	60	58.5	RH/LH

- No collar with flats

When ordering, specify pull stud type (see page FC10 & FC11).
Spring collets not included (see page FC8 & FC9).

ISO30

COLLET CHUCKS ISO30 WITHOUT BALL BEARING COLLET NUT



DESIGN:

- Collet chucks with steep taper DIN 69871, without grooves or notches
- Suitable for spring collets manufactured to DIN 6388 or DIN 6499
- Balanced tool body and collet nut
- Right hand rotation (left hand available upon request)

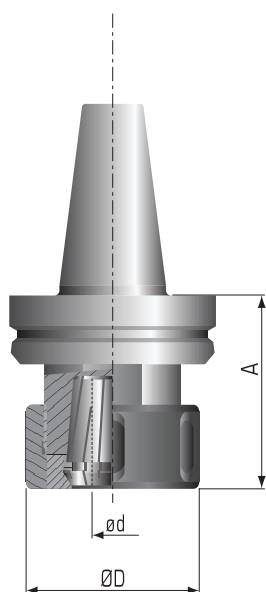
APPLICATION:

- Precision collet chuck for clamping shank type tools
- On CNC routers with automatic tool change

PART NO.	COLLET TYPE	CLAMPING RANGE ød mm	ØD mm	A mm	ROTATION
RC2010 •	ER32	3-20	50	45	RH
RC2012 •	ER32	3-20	50	55	RH
RC2014	ER40	3-26	63	58.5	RH
RC2016	OZ25	2-25	60	58.5	RH

- No collar with flats

When ordering, specify pull stud type (see page FC10 & FC11).
Spring collets not included (see page FC8 & FC9).

**DESIGN:**

- Collet chucks with steep taper and serrated flange
- Suitable for spring collets manufactured to DIN 6388 or DIN 6499
- Balanced tool body and collet nut

APPLICATION:

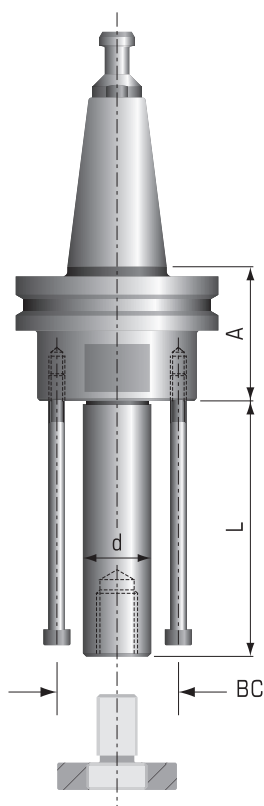
- Precision collet chuck for clamping shank type tools
- On CNC routers with automatic tool change for Thermwood machines

IMPORTANT:

- Part number RC2014TH is not compatible with Thermwood's "Typewriter" style toolchanger

PART NO.	COLLET TYPE	CLAMPING RANGE ød mm	ØD mm	A mm	ROTATION
RC2012TH	ER32	3-20	50	57.5	RH
RC2012THL	ER32	3-20	50	57.5	LH
RC2014TH	ER40	2-25	63	67.5	RH

When ordering, specify pull stud type (see page FC10 & FC11).
Spring collets not included (see page FC8 & FC9).

**DESIGN:**

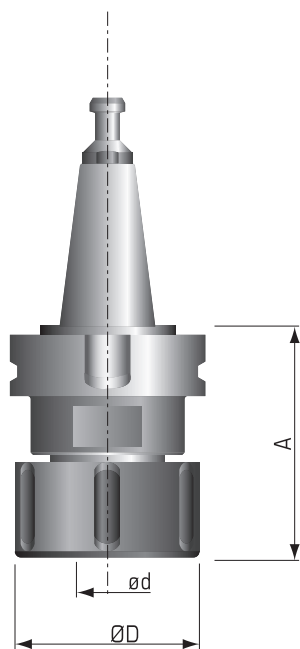
- Cutter arbor with steep taper DIN 69871, without grooves or notches
- Available in 2 designs:
Dimension A = 42mm for short clamping
Dimension A = 63mm for extended clamping, upon request
- Cutter arbor balanced

APPLICATION:

- For mounting bore type tools
- On CNC routers with automatic tool change

PART NO.	SHAFT DIAM. ød mm	SHAFT LENGTH L mm	A mm	BOLT CIRCLE BC mm
RC3050	20	55	42	32
RC3052	20	70	42	32
RC3054	30	55	42	48
RC3056	30	80	42	48
RC3058	30	100	42	48

When ordering, specify pull stud type (see page FC15 – FC16).
Other shaft sizes available upon request.

**DESIGN:**

- Collet chucks with BT - steep taper and with groove and notches
- Suitable for spring collets manufactured to DIN 6388 or DIN 6499
- Balanced tool body and collet nut
- Right hand rotation (left hand available upon request)

APPLICATION:

- Precision collet chuck for clamping shank type tools
- On CNC routers with automatic tool change

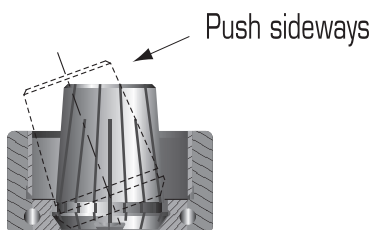
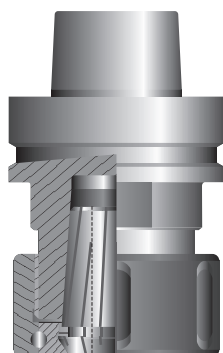
PART NO.	TAPER SIZE	COLLET TYPE	CLAMPING RANGE ød mm	ØD mm	A mm	ROTATION
RC2040 ▲	BT20	ER20	2-13	35	45	RH
RC2042	BT20	ER25	3-16	42	45	RH
RC2044	BT30	ER25	3-16	42	60	RH
RC2046	BT30	ER32	3-20	50	56	RH
RC2047 ▲	BT30	ER32	3-20	50	60	RH
RC2048 •	BT30	ER40	3-26	63	58.5	RH
RC2050	BT35	ER25	3-16	42	65	RH
RC2052 •	BT35	ER32	3-20	50	70	RH
RC2054	BT35	ER40	3-26	63	58.5	RH
RC2055	BT35	ER40	3-26	63	70	RH
RC2056	BT40	ER25	3-16	42	65	RH
RC2058	BT40	ER32	3-20	50	65	RH
RC2059	BT40	ER40	3-26	63	70	RH

- ▲ Special "No Knotch" Collet Chuck for Komo CNC Routers, use pull stud type PS1090
- No collar with flats

When ordering, specify pull stud type (see page FC10 & FC11).
Spring collets not included (see page FC8 & FC9).

COLLETS

PROPER USE AND MAINTENANCE

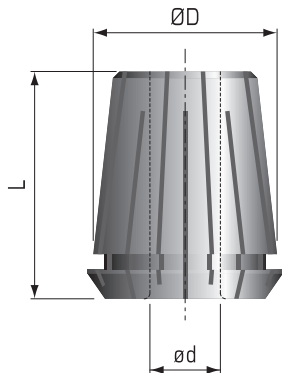
**APPLICATION:**

- Collet chuck and Collet should be cleaned of debris and rust during each tool change
- Collets should be replaced after approximately 600 operating hours
- Inspect, clean and/or replace the collet if the router bit shank exhibits equally spaced marks. These marks are often a result of inadequate clamping of the router bit's shank.

Spring collect connecting system

ER25 DIN 6499

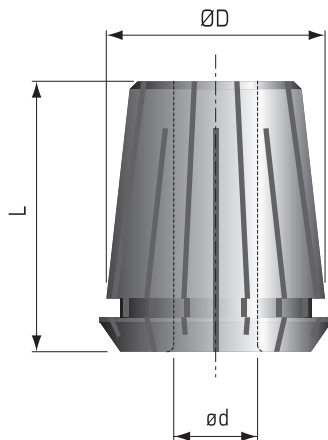
PRECISION SPRING COLLETS TYPE:430E/ER25



PART NO.	ød mm	CLAMPING RANGE mm	DIAM. ØD mm	LENGTH L mm
RCER2506	6	6-5	26	34
RCER2508	8	8-7	26	34
RCER2510	10 (3/8")	10-9	26	34
RCER2512	12	12-11	26	34
RCER2514	14	14-13	26	34
RCER2516	16 (5/8")	16-15	26	34

ER32 DIN 6499

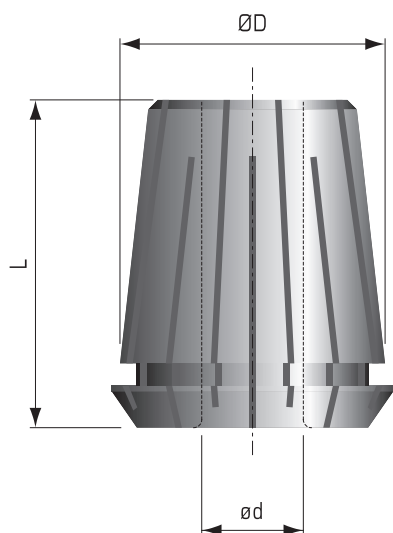
PRECISION SPRING COLLETS TYPE:740E/ER32



PART NO.	ød mm	CLAMPING RANGE mm	DIAM. ØD mm	LENGTH L mm
RCER3203	3	3-2	32.8	40
RCER3204	4	4-3	32.8	40
RCER3205	5	5-4	32.8	40
RCER3206	6	6-5	32.8	40
RCER32-14	1/4"	1/4"	32.8	40
RCER3207	7	7-6	32.8	40
RCER3208	8	8-7	32.8	40
RCER3209	9	9-8	32.8	40
RCER3210	10 (3/8")	10-9	32.8	40
RCER3211	11	11-10	32.8	40
RCER3212	12	12-11	32.8	40
RCER3213	13 (1/2")	13-12	32.8	40
RCER3214	14	14-13	32.8	40
RCER3215	15	15-14	32.8	40
RCER3216	16 (5/8")	16-15	32.8	40
RCER3217	17	17-16	32.8	40
RCER3218	18	18-17	32.8	40
RCER3219	19	19-18	32.8	40
RCER32-34	3/4"	3/4"	32.8	40
RCER3220	20	20-19	32.8	40

ER40 DIN 6499

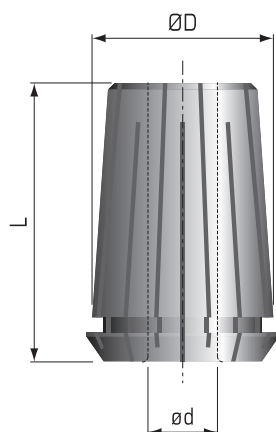
PRECISION SPRING COLLETS TYPE:472E/ER40



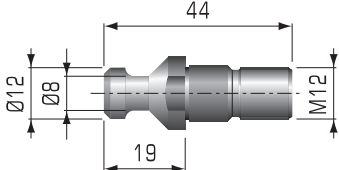
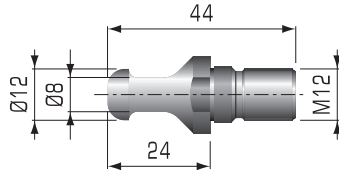
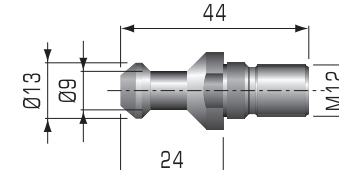
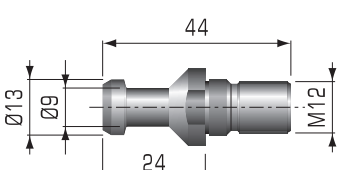
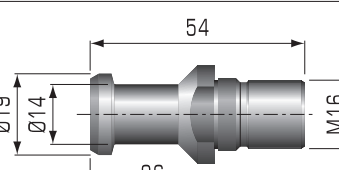
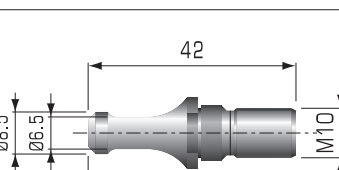
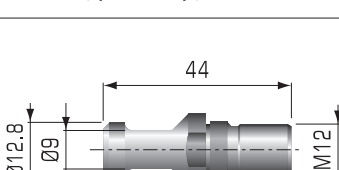
PART NO.	ød mm	CLAMPING RANGE mm	DIAM. ØD mm	LENGTH L mm
RCER4004	4	4-3	40.8	46
RCER4005	5	5-4	40.8	46
RCER4006	6	6-5	40.8	46
RCER40-14	1/4"	1/4"	40.8	46
RCER4007	7	7-6	40.8	46
RCER4008	8	8-7	40.8	46
RCER4009	9	9-8	40.8	46
RCER4010	10 (3/8")	10-9	40.8	46
RCER4011	11	11-10	40.8	46
RCER4012	12	12-11	40.8	46
RCER4013	13 (1/2")	13-12	40.8	46
RCER4014	14	14-13	40.8	46
RCER4015	15	15-14	40.8	46
RCER4016	16 (5/8")	16-15	40.8	46
RCER4017	17	17-16	40.8	46
RCER4018	18	18-17	40.8	46
RCER4019	19	19-18	40.8	46
RCER40-34	3/4"	3/4"	40.8	46
RCER4020	20	20-19	40.8	46
RCER4025	25	25-24	40.8	46
RCER40-1	1"	1"	40.8	46
RCER4026	26	26-25	40.8	46

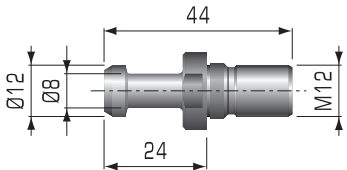
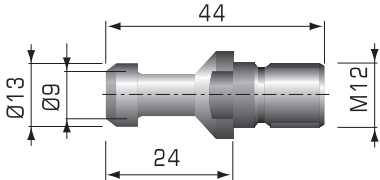
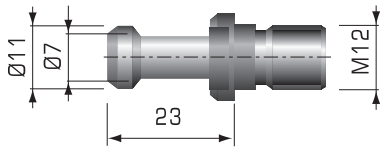
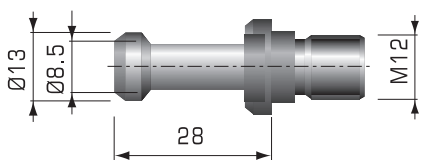
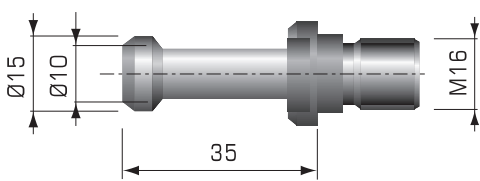
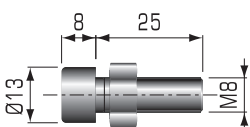
OZ DIN 6388

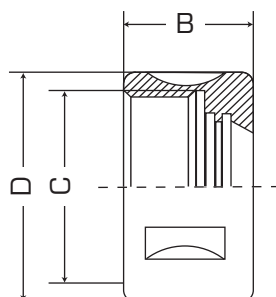
PRECISION SPRING COLLETS TYPE:444E/OZ25



PART NO.	ød	DIAM. ØD mm	LENGTH L mm
RCOZ2504	4mm	33.1	52
RCOZ2506	6mm	33.1	52
RCOZ25-14	1/4"	33.1	52
RCOZ2507	7mm	33.1	52
RCOZ2510	10mm	33.1	52
RCOZ25-12	1/2"	33.1	52
RCOZ2513	13mm	33.1	52
RCOZ2516	16mm	33.1	52
RCOZ2519	19mm	33.1	52
RCOZ25-34	3/4"	33.1	52
RCOZ2520	20mm	33.1	52
RCOZ2525	25mm	33.1	52

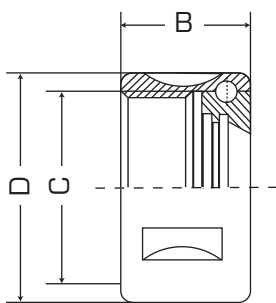
	PART NO.	TOOL HOLDER TYPE	MACHINE
	PS1010	ISO30	BIESSE (Prior to 1992)
	PS1020	ISO30	BIESSE (After 1992) MASTERWOOD
	PS1030	ISO30	ALBERTI, VITAP MASTERWOOD (COLOMBO MOTOR)
	PS1040	ISO30/BT30	IMA, MAKI, WEEKE, BUSELLATO, BULLERI, COSMEC RICHENBACHER
	PS1050	ISO40	IMA, MAKI, WEEKE, BUSELLATO, BULLERI, COSMEC RICHENBACHER
	PS1060	ISO30	SCM - MORBIDELLI
	PS1070	ISO30	CMS

	PART NO.	TOOL HOLDER TYPE	MACHINE
	PS1080	ISO30	THERMWOOD, ESSETEAM
	PS1090	BT30	KOMO
	PS1100	BT30	SHODA
	PS1110	BT35	HEIAN
	PS1120	BT40	SHODA
	PS1130	CYLINDRICAL SHANK	—



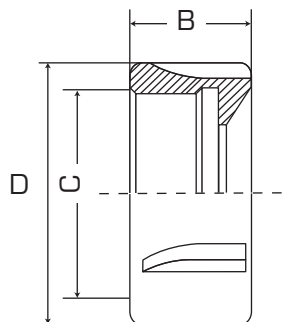
COLLET NUTS WITHOUT BALL BEARING

PART NO.	DIAM. ØD mm	THICKNESS B mm	DIAM. ØC	DIN#	SPRING COLLET TYPE	ROTATION
CN1010	50	23	M40 x 1.5	6499	ER32	RH
CN1020	63	25	M50 x 1.5	6499	ER40	RH
CN1030	60	30	M48 x 2.0	6388	OZ25	RH
CN1040	50	23	M40 x 1.5	6499	ER32	LH
CN1050	63	25	M50 x 1.5	6499	ER40	LH
CN1060	60	30	M48 x 2.0	6388	OZ25	LH



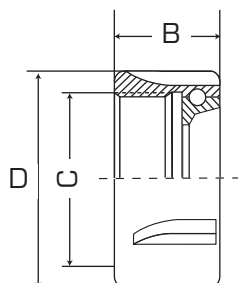
COLLET NUTS WITH BALL BEARING

PART NO.	DIAM. ØD mm	THICKNESS B mm	DIAM. ØC	DIN#	SPRING COLLET TYPE	ROTATION
CN1110	50	23	M40 x 1.5	6499	ER32	RH
CN1120	63	29	M50 x 1.5	6499	ER40	RH
CN1130	60	30	M48 x 2.0	6388	OZ25	RH
CN1140	50	23	M40 x 1.5	6499	ER32	LH
CN1150	63	29	M50 x 1.5	6499	ER40	LH
CN1160	60	30	M48 x 2.0	6388	OZ25	LH



COLLET NUTS WITHOUT BALL BEARING

PART NO.	DIAM. ØDmm	THICKNESS Bmm	DIAM. ØC	TYPE
CN1210	50	22	M40 x 1.5	ETS32
CN1220	63	25	M50 x 1.5	ETS40



COLLET NUTS WITH BALL BEARING

PART NO.	DIAM. ØDmm	THICKNESS Bmm	DIAM. ØC	TYPE
CN1310	50	24	M40 x 1.5	ETS32
CN1320	63	27	M50 x 1.5	ETS40


DIN 6388

PART NO.	COLLET NUT ØD mm	SPRING COLLET TYPE
WR1010	50	ER32
WR1020	63/60	ER40/OZ25

For collet nut specs, see page FC12.


DIN 6499

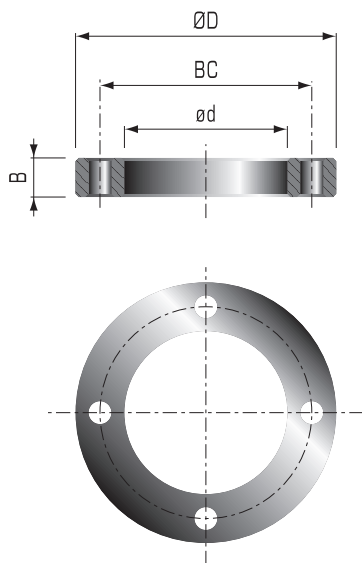
PART NO.	COLLET NUT ØD mm	SPRING COLLET TYPE
WR1030	50	ER32
WR1040	63	ER40

For collet nut specs, see page FC12.


HSK-E40

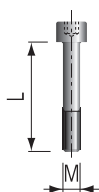
PART NO.	A mm	SPRING COLLET TYPE
WR1050	37	ER32
WR1070	47	ER40
WR1090	40	OZ

For collet nut specs, see page FC12.



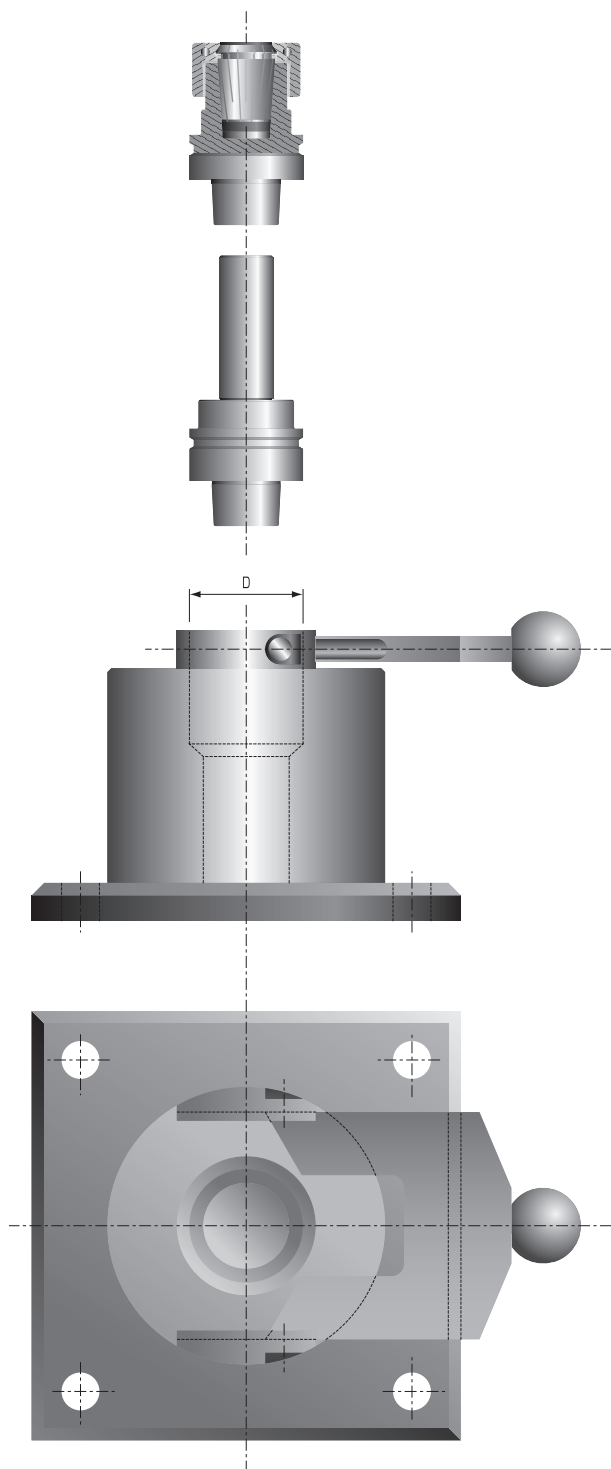
PART NO.	DIAM. ØD mm	THICKNESS B mm	BORE ød mm	BOLT CIRCLE BC mm
W052100	45	0.1	20	32
W052102	45	0.2	20	32
W052104	45	0.5	20	3
W052106	45	1	20	32
W052108	45	2	20	32
W052110	45	5	20	32
W052112	45	6	20	32
W052114	45	7	20	32
W052116	45	10	20	32
W052118	45	15	20	32
W052120	45	20	20	32

PART NO.	DIAM. ØD mm	THICKNESS B mm	BORE ød mm	BOLT CIRCLE BC mm
W052200	60	0.1	30	48
W052202	60	0.2	30	48
W052204	60	0.5	30	48
W052206	60	1	30	48
W052208	60	2	30	48
W052210	60	5	30	48
W052212	60	6	30	48
W052214	60	8	30	48
W052216	60	10	30	48
W052218	60	15	30	48
W052220	60	20	30	48
W052222	60	25	30	48
W052224	60	30	30	48



Hex Screws For Cutter Arbors

PART NO.	DIMENSIONS M x L
W501730	M6 x 60
W501731	M6 x 75
W501732	M6 x 85


DESIGN / APPLICATION:

- Device for safe assembling and disassembling of shank type tools into chucks or bore type tools onto cutter arbors

PART NO.	D mm	TOOL HOLDER TYPE
MD1010	50	ISO30 HSK50E
MD1020	63.5	ISO40 BT40
MD1030	63	HSK63F
MD1040	46	ISO30 (CMS) BT30
MD1050	53	BT35
MD1060	49	SCM MORBIDELLI

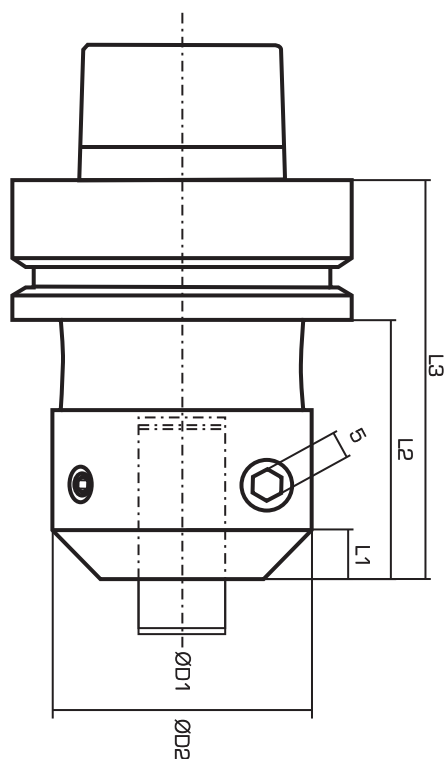
**DESIGN:**

- Precision hydraulic chucks are available in HSK63F connections only
- Hydraulic clamping ensures radial running accuracy for optimum quality of cut and extended tool life
- Safety guard design prevents the tool from falling out even when the chuck is not pressurized
- Suitable for both left and right rotation
- Balanced to G2.5 at 25,000 RPM

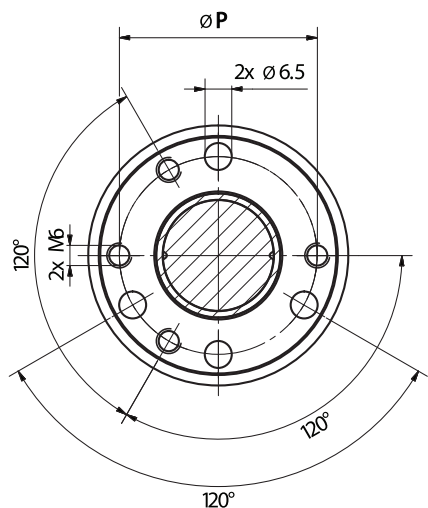
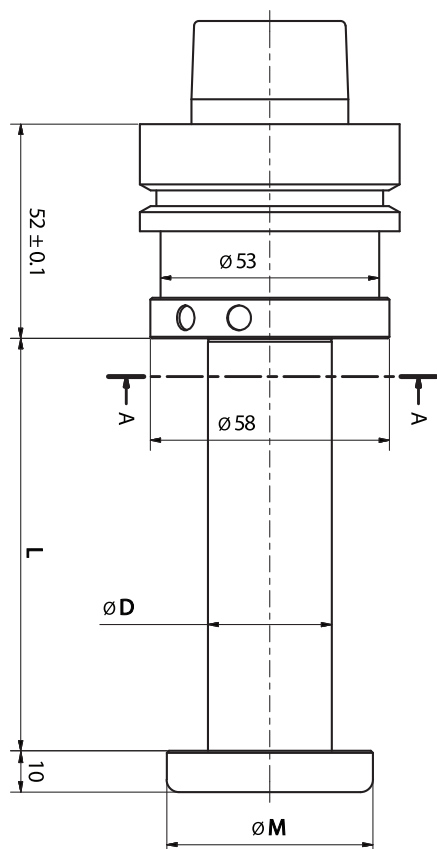
APPLICATION:

- For precise clamping of shank type tools
- On CNC routers with manual or automatic tool change

TYPE	ØD1	ØD2	L1	L2	L3
G3-10/HSK63F	10	45	3	42	68
G3-12/HSK63F	12	45	3	42	68
G3-16/HSK63F	16	48	9	48	74
G3-20/HSK63F	20	52	15	54	80
G3-25/HSK63F	25	59	22.5	61.5	87.5



TYPE	ØD1	ØD2	L1	L2	L3
G3-3/8"/HSK63F	3/8"	45	3	42	68
G3-1/2"/HSK63F	1/2"	45	4.5	43.5	69.5
G3-5/8"/HSK63F	5/8"	48	9	48	74
G3-3/4"/HSK63F	3/4"	52	13.5	52.5	78.5
G3-1"/HSK63F	1"	59	22.5	61.5	87.5

**DESIGN:**

- Precision hydraulic chucks are available in HSK63F connections only
- Hydraulic clamping ensures exact radial running accuracy for optimum quality of cut and extended tool life
- Quick and simple tool changing reduces downtime
- Suitable for both left and right hand rotation

APPLICATION:

- For precision mounting of bore type tools
- On CNC routers with manual or automatic tool change

METRIC SIZES

TYPE	ØD	L	ØM	ØP
GE2-20x40/HSK63F	20	40	45	32
GE2-25x55/HSK63F	25	55	50	40
GE2-30x40/HSK63F	30	40	58	48
GE2-30x55/HSK63F	30	55	58	48
GE2-30x80/HSK63F	30	80	58	48
GE2-30x100/HSK63F	30	100	58	48

IMPERIAL SIZES

TYPE	ØD	L	ØM	ØP
GE2-1"x40/HSK63F	1"	40	50	40
GE2-1"x55/HSK63F	1"	55	50	40
GE2-1"x80/HSK63F	1"	80	53	40
GE2-1-1/4"x40/HSK63F	1-1/4"	40	58	48
GE2-1-1/4"x55/HSK63F	1-1/4"	55	58	48



Dust Free Nesting

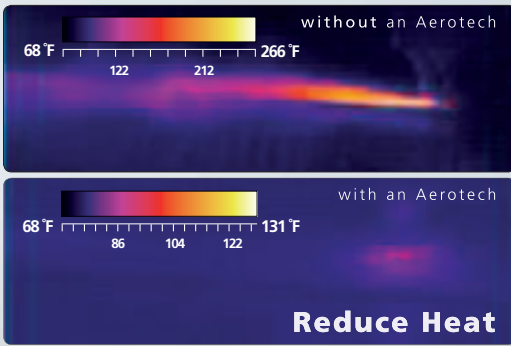


97.4% dust extraction with an Aerotech by FS Cruing will increase your production throughput, extend tool life, reduce operating costs, reduce downtime and significantly improve your nesting cell's air quality. We would like to show you how safe, effective and beneficial an Aerotech will be to you with an on-site demonstration. What you need to do is call us at (800) 461-5319 or request a demonstration online at www.dustfreenesting.com

GO DUST FREE.

Replace your toolholder and eliminate dust, 100% Guaranteed.

LEARN MORE ONLINE :: www.dustfreenesting.com



GO DUST FREE.

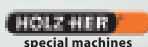
Replace your toolholder and eliminate dust, 100% Guaranteed.



Aerotech

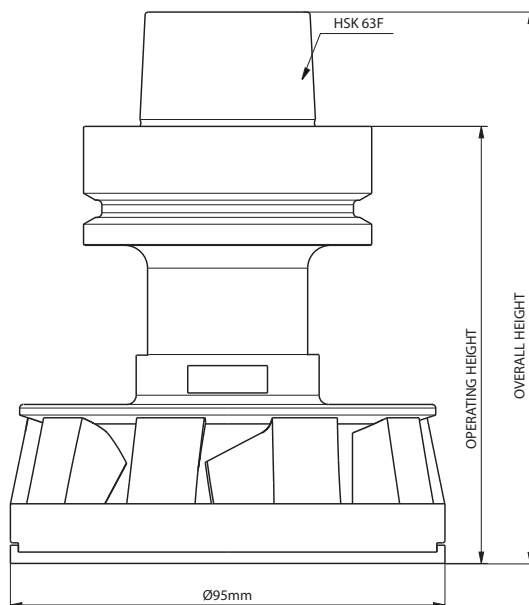
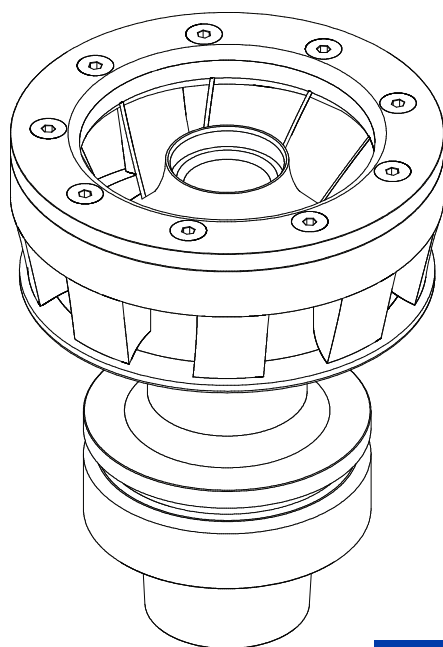


Endorsed by



AER-11

AEROTECH SYSTEM BODY - HSK63F CONNECTION



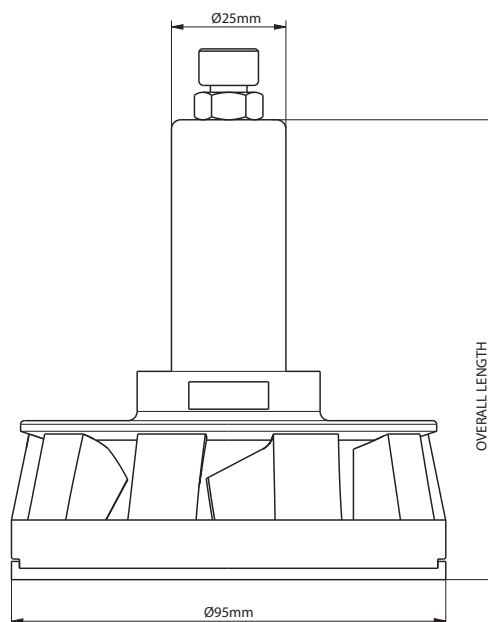
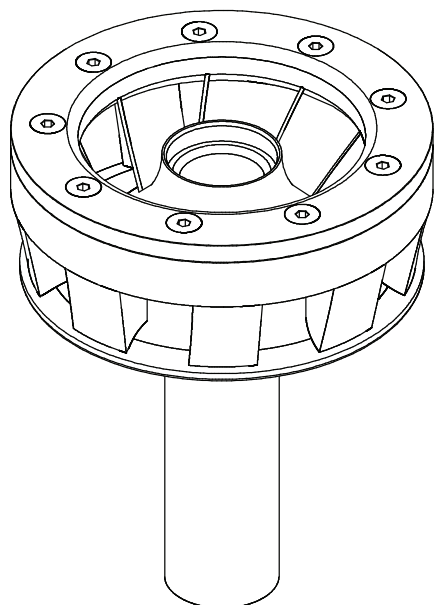
AEROTECH BODY

HSK63F TOOLHOLDER TYPE

PART NO.	SPINDLE CONN.	SERIES NO.	LARGE DIAM.	R.BIT CONN.	OVERALL HEIGHT	OPERATING HEIGHT
AER-11A-HOLDER	HSK63F	1	95mm	HSK20C	121mm	96mm
AER-11W-HOLDER	HSK63F	1	95mm	HSK20C	125mm	100mm
AER-11WU-HOLDER	HSK63F	1	95mm	COLLET	130mm	105mm

AER-12

AEROTECH SYSTEM BODY - 25MM SHANK



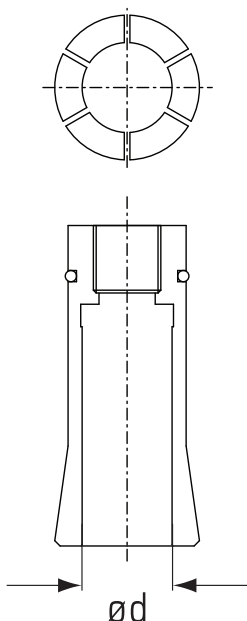
AEROTECH BODY

25MM SHANK TYPE

PART NO.	SPINDLE CONN.	SERIES NO.	LARGE DIAM.	R.BIT CONN.	OVERALL HEIGHT	OPERATING HEIGHT
AER-12A-HOLDER	25mm	1	95mm	HSK20C	121mm	96mm
AER-12W-HOLDER	25mm	1	95mm	HSK20C	125mm	100mm

AER COLLET

AEROTECH UNIVERSAL COLLETS



AEROTECH UNIVERSAL COLLETS

IMPERIAL SIZES

PART NO.	CLAMPING RANGE $\varnothing d$ mm	MAX. SHANK LENGTH	AEROTECH MODEL COMPATIBILITY
AERC-COLLET-1/4	1/4"	42mm	AER-11WU
AERC-COLLET-3/8	3/8"	42mm	AER-11WU
AERC-COLLET-1/2	1/2"	42mm	AER-11WU
AERC-COLLET-5/8	5/8"	42mm	AER-11WU

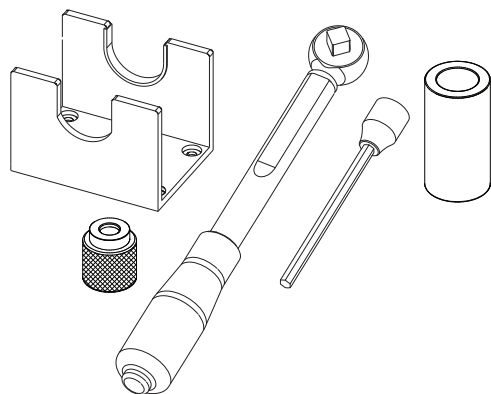
AEROTECH UNIVERSAL COLLETS

METRIC SIZES

PART NO.	CLAMPING RANGE $\varnothing d$ mm	MAX. SHANK LENGTH	AEROTECH MODEL COMPATIBILITY
AERC-COLLET-6MM	6mm	42mm	AER-11WU
AERC-COLLET-10MM	10mm	42mm	AER-11WU
AERC-COLLET-12MM	12mm	42mm	AER-11WU
AERC-COLLET-16MM	16mm	42mm	AER-11WU

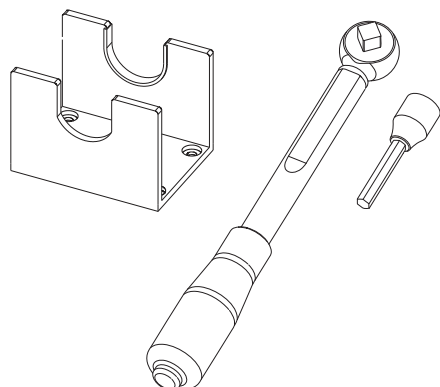
AER-KIT

AEROTECH MOUNTING KITS



AEROTECH HSK20C MOUNTING KIT

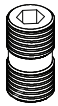
PART NO.	PART DESCRIPTION
AER-KIT	AEROTECH HSK20C MOUNTING KIT INCLUDES: MOUNTING PLATE, BI-SCREW POSITIONER (DEPTH GAUGE), 3/8" DRIVE ADJUSTABLE TORQUE WRENCH (25Nm/18ft-lb), 5MM HEX BIT AND 25MM SHANK ADAPTOR SLEEVE



AEROTECH UNIVERSAL MOUNTING KIT

PART NO.	PART DESCRIPTION
AER-UNI-KIT	AEROTECH UNIVERSAL MOUNTING KIT INCLUDES: MOUNTING PLATE, 3/8" DRIVE FIXED TORQUE WRENCH (45Nm/33ft-lb) AND 6MM HEX BIT

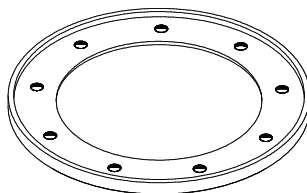
AEROTECH SYSTEM



AER-BISCREW-HSK20C

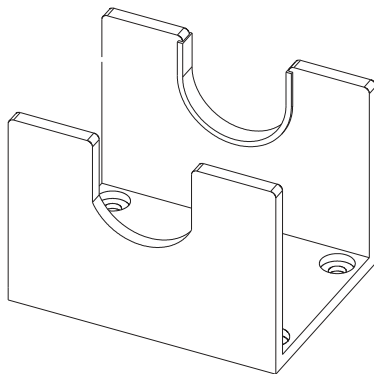
AER-TW-25NM

AER-5MM-HEXBIT



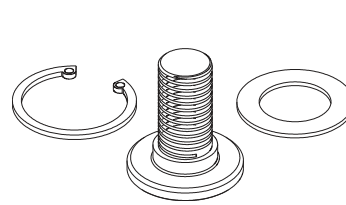
AER-D-RING

AER-C-RING



AER-MPLATE

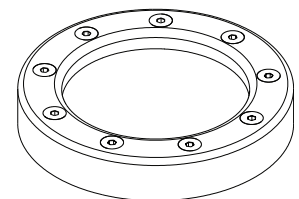
AEROTECH UNIVERSAL



AER-UNI-LOCKSCREW

AER-TW-45NM

AER-6MM-HEXBIT



AER-UNI-RING

REPLACEMENT PARTS

PART NO.	PART DESCRIPTION
AER-5MM-HEXBIT	5MM HEX BIT FOR 3/8" DRIVE FOR THE AEROTECH SYSTEM
AER-6MM-HEXBIT	6MM HEX BIT FOR 3/8" DRIVE FOR THE AEROTECH UNIVERSAL
AER-BISCREW	AEROTECH HSK20C BI-SCREW
AER-C-RING	7MM REMOVABLE FLANGE
AER-D-RING	3MM REMOVABLE FLANGE
AER-MPLATE	AEROTECH MOUNTING PLATE
AER-TW-25NM	AEROTECH SYSTEM 3/8" DRIVE ADJUSTABLE TORQUE WRENCH (25Nm/18ft-lb)
AER-TW-45NM	AEROTECH UNIVERSAL 3/8" DRIVE FIXED TORQUE WRENCH (45Nm/33ft-lb)
AER-UNI-LOCKSCREW	AEROTECH UNIVERSAL LOCK SCREW
AER-UNI-RING	AEROTECH UNIVERSAL FLANGE

MORTISE COMPRESSION WITH REUSABLE HSK20C



DESIGN:

- Router bit is loaded into a reusable HSK20C holder
- Tool design is optimized for highspeed cutting with the Aerotech System
- Excellent surface finish is produced by the 2 precision ground cutting edges
- Excellent chipflow and lower heat retention are provided by the 2 flute design
- Fast feed rates are possible due to the high performance tool geometry
- Submicron, corrosion resistant, extended life carbide provides increased durability and resistance to resin build-up
- 30° Helix design with plunging capability

APPLICATION:

- For smooth finishing cuts
- Excellent finish on hardwoods, softwoods, laminated panels, MDF, chipboard, plywood and solid surface materials
- Increased cutting edge life when frequently accelerating/decelerating or performing multiple passes such as "Onion skinning"
- Eliminates chipping, fuzzing and tear-out when the end of the upcut/downcut cutting edges are further than 1/16" from the top and bottom faces of the board
- This upcut length will prevent tear-out when cutting rebates, dados or pockets with a depth of 0.250" or greater
- If part movement is a concern, using this design may assist material hold down

IMPORTANT:

Dust (Chips) must remain moderately loose and unpacked in the cut for the Aerotech System to provide maximum dust extraction. Typically packed dust is caused by the downshear cutting action. Material type and condition, operating environment and cutting path pattern have an impact as to how densely dust will become packed within the cut.

To overcome packed dust, decrease the amount of downshear within the cut. This can be accomplished by selecting a High Upcut design (see next page for tooling options), reducing the depth of cut per pass and/or performing multiple passes.

FINISHING BITS TWO FLUTE

MORTISE UPCUT COMPRESSION SPIRAL

PART NO.		CUTTING DIAM.	MAX. MTL THICKNESS	UPCUT LENGTH	NO. FLUTES	SHANK TYPE
AF2058-UD2-12.9BH	▲	1/4"	1/2"	0.188"	2+2	HSK20C
AF2058-UD2-19.25BH	▲	1/4"	3/4"	0.188"	2+2	HSK20C
AF2059W-UD2-12.9BH	▲	3/8"	1/2"	0.188"	2+2	HSK20C
AF2059W-UD2-16BH	▲	3/8"	5/8"	0.188"	2+2	HSK20C
AF2059W-UD2-19.25BH	▲	3/8"	3/4"	0.188"	2+2	HSK20C
AF2059W-UD2-22.2BH	▲	3/8"	7/8"	0.188"	2+2	HSK20C
AF2059W-UD2-25.6BH	▲	3/8"	1"	0.188"	2+2	HSK20C
AF2061-UD2-12.9BH	▲	1/2"	1/2"	0.188"	2+2	HSK20C
AF2061-UD2-16BH	▲	1/2"	5/8"	0.188"	2+2	HSK20C
AF2061-UD2-19.25BH	▲	1/2"	3/4"	0.188"	2+2	HSK20C
AF2061-UD2-22.2BH	▲	1/2"	7/8"	0.188"	2+2	HSK20C
AF2061-UD2-25.6BH	▲	1/2"	1"	0.188"	2+2	HSK20C
AF2061-UD2-31.95BH	▲	1/2"	1-1/4"	0.188"	2+2	HSK20C
AF2061-UD2-38.3BH	▲	1/2"	1-1/2"	0.188"	2+2	HSK20C
AF2061-UD2-51BH	▲	1/2"	2"	0.188"	2+2	HSK20C
AF2064-UD2-19.25BH	▲	5/8"	3/4"	0.188"	2+2	HSK20C
AF2066-UD2-19.25BH	▲	3/4"	3/4"	0.188"	2+2	HSK20C

▲ Commonly used for Mortising cuts with a minimum depth of 0.250"

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend its capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
CHIPBREAKER	+CB	Notched	FC46 - FC51
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
ROUGHING	+RS	Scalloped	FC52 - FC57
PASS BY/DEEP MORTISE	+DM	Stepped	FC59

HIGH UPCUT COMPRESSION WITH REUSABLE HSK20C



DESIGN:

- Router bit is loaded into a reusable HSK20C holder
- Tool design is optimized for highspeed cutting with the Aerotech System
- Excellent surface finish is produced by the 2 precision ground cutting edges
- Excellent chipflow and lower heat retention are provided by the 2 flute design
- Fast feed rates are possible due to the high performance tool geometry
- Submicron, corrosion resistant, extended life carbide provides increased durability and resistance to resin build-up
- 30° Helix design with plunging capability

APPLICATION:

- For smooth finishing cuts
- Excellent finish on hardwoods, softwoods, laminated panels, MDF, chipboard, plywood and solid surface materials
- Increased cutting edge life when frequently accelerating/decelerating or performing multiple passes such as "Onion skinning"
- Eliminates chipping, fuzzing and tear-out when the end of the upcut/downcut cutting edges are further than 1/16" from the top and bottom faces of the board

IMPORTANT:

This High Upcut design is recommended for maximum dust extraction.

Dust (Chips) must remain moderately loose and unpacked in the cut for the Aerotech System to provide maximum dust extraction. Typically packed dust is caused by the downshear cutting action. Material type and condition, operating environment and cutting path pattern have an impact as to how densely dust will become packed within the cut.

To overcome packed dust, decrease the amount of downshear within the cut. This can be accomplished by selecting a tool with more Upcut Length, reducing the depth of cut per pass and/or performing multiple passes.

FINISHING BITS TWO FLUTE

PART NO.	CUTTING DIAM.	MAX. MTL THICKNESS	UPCUT LENGTH	NO. FLUTES	SHANK TYPE
AF2058-HUD2-12.9BH	1/4"	1/2"	9.5mm	2+2	HSK20C
AF2058-HUD2-19.25BH	1/4"	3/4"	14.5mm	2+2	HSK20C
AF2059W-HUD2-12.9BH	3/8"	1/2"	9.5mm	2+2	HSK20C
AF2059W-HUD2-16BH	3/8"	5/8"	12.0mm	2+2	HSK20C
AF2059W-HUD2-19.25BH	3/8"	3/4"	14.5mm	2+2	HSK20C
AF2059W-HUD2-22.2BH	3/8"	7/8"	16.5mm	2+2	HSK20C
AF2059W-HUD2-25.6BH	3/8"	1"	19.0mm	2+2	HSK20C
AF2061-HUD2-12.9BH	1/2"	1/2"	8.0mm	2+2	HSK20C
AF2061-HUD2-16BH	1/2"	5/8"	10.0mm	2+2	HSK20C
AF2061-HUD2-19.25BH	1/2"	3/4"	12.0mm	2+2	HSK20C
AF2061-HUD2-22.2BH	1/2"	7/8"	14.0mm	2+2	HSK20C
AF2061-HUD2-25.6BH	1/2"	1"	16.0mm	2+2	HSK20C
AF2061-HUD2-31.95BH	1/2"	1-1/4"	20.0mm	2+2	HSK20C
AF2061-HUD2-38.3BH	1/2"	1-1/2"	24.0mm	2+2	HSK20C
AF2061-HUD2-51BH	1/2"	2"	32.0mm	2+2	HSK20C
AF2064-HUD2-19.25BH	5/8"	3/4"	12.0mm	2+2	HSK20C
AF2066-HUD2-19.25BH	3/4"	3/4"	12.0mm	2+2	HSK20C

HIGH UPCUT COMPRESSION SPIRAL

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend it's capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
CHIPBREAKER	+CB	Notched	FC46 - FC51
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
ROUGHING	+RS	Scalloped	FC52 - FC57
PASS BY/DEEP MORTISE	+DM	Stepped	FC59

MORTISE COMPRESSION WITH REUSABLE HSK20C

DESIGN:

- Router bit is loaded into a reusable HSK20C holder
- Tool design is optimized for highspeed cutting with the Aerotech System
- Superior surface finish is produced by the 3 precision ground cutting edges
- Good chipflow and lower heat retention are provided by the 3 flute design
- Faster feed rates at low spindle speeds are possible due to the high performance tool geometry
- Submicron, corrosion resistant, extended life carbide provides increased durability and resistance to resin build-up
- 30° Helix design with plunging capability

APPLICATION:

- For exceptionally smooth finishing cuts
- Superior finish on hardwoods, softwoods, laminated panels, MDF, chipboard, plywood and solid surface materials
- 3 flute design allows for two cutting edges to be engaged at all times, providing greater stability and reducing run-out
- Increased number of bite marks per inch reduces chip size and provides a smooth finish on the core of plywood and particleboards, especially important when edge-banding without pre-milling operations
- Eliminates chipping, fuzzing and tear-out when the end of the upcut/downcut cutting edges are further than 1/16" from the top and bottom faces of the board
- This upcut length will prevent tear-out when cutting rebates, dados or pockets with a depth of 0.250" or greater
- If part movement is a concern, using this design may assist material hold down

IMPORTANT:

Dust (Chips) must remain moderately loose and unpacked in the cut for the Aerotech System to provide maximum dust extraction. Typically packed dust is caused by the downshear cutting action. Material type and condition, operating environment and cutting path pattern have an impact as to how densely dust will become packed within the cut.

To overcome packed dust, decrease the amount of downshear within the cut. This can be accomplished by selecting a High Upcut design (see next page for tooling options), reducing the depth of cut per pass and/or performing multiple passes.

FINISHING BITS THREE FLUTE

MORTISE UPCUT COMPRESSION SPIRAL

PART NO.		CUTTING DIAM.	MAX. MTL THICKNESS	UPCUT LENGTH	NO. FLUTES	SHANK TYPE
AF2059A-UD3-12.9BH	▲	3/8"	1/2"	0.188"	3+3	HSK20C
AF2059A-UD3-16BH	▲	3/8"	5/8"	0.188"	3+3	HSK20C
AF2059A-UD3-19.25BH	▲	3/8"	3/4"	0.188"	3+3	HSK20C
AF2059A-UD3-25.6BH	▲	3/8"	1"	0.188"	3+3	HSK20C
AF2061-UD3-12.9BH	▲	1/2"	1/2"	0.188"	3+3	HSK20C
AF2061-UD3-16BH	▲	1/2"	5/8"	0.188"	3+3	HSK20C
AF2061-UD3-19.25BH	▲	1/2"	3/4"	0.188"	3+3	HSK20C
AF2061-UD3-25.6BH	▲	1/2"	1"	0.188"	3+3	HSK20C

▲ Commonly used for Mortising cuts with a minimum depth of 0.250"

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend its capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
CHIPBREAKER	+CB	Notched	FC46 - FC51
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
ROUGHING	+RS	Scalloped	FC52 - FC57
PASS BY/DEEP MORTISE	+DM	Stepped	FC59

HIGH UPCUT COMPRESSION WITH REUSABLE HSK20C



IMPORTANT:

This High Upcut design is recommended for maximum dust extraction.

Dust (Chips) must remain moderately loose and unpacked in the cut for the Aerotech System to provide maximum dust extraction. Typically packed dust is caused by the downshear cutting action. Material type and condition, operating environment and cutting path pattern have an impact as to how densely dust will become packed within the cut.

To overcome packed dust, decrease the amount of downshear within the cut. This can be accomplished by selecting a tool with more Upcut Length, reducing the depth of cut per pass and/or performing multiple passes.

DESIGN:

- Router bit is loaded into a reusable HSK20C holder
- Tool design is optimized for highspeed cutting with the Aerotech System
- Superior surface finish is produced by the 3 precision ground cutting edges
- Good chipflow and lower heat retention are provided by the 3 flute design
- Faster feed rates at low spindle speeds are possible due to the high performance tool geometry
- Submicron, corrosion resistant, extended life carbide provides increased durability and resistance to resin build-up
- 30° Helix design with plunging capability

APPLICATION:

- For exceptionally smooth finishing cuts
- Superior finish on hardwoods, softwoods, laminated panels, MDF, chipboard, plywood and solid surface materials
- 3 flute design allows for two cutting edges to be engaged at all times, providing greater stability and reducing run-out
- Increased number of bite marks per inch reduces chip size and provides a smooth finish on the core of plywood and particleboards, especially important when edge-banding without pre-milling operations
- Eliminates chipping, fuzzing and tear-out when the end of the upcut/downcut cutting edges are further than 1/16" from the top and bottom faces of the board

FINISHING BITS THREE FLUTE

PART NO.	CUTTING DIAM.	MAX. MTL THICKNESS	UPCUT LENGTH	NO. FLUTES	SHANK TYPE
AF2059A-HUD3-12.9BH	3/8"	1/2"	9.5mm	3+3	HSK20C
AF2059A-HUD3-16BH	3/8"	5/8"	12.0mm	3+3	HSK20C
AF2059A-HUD3-19.25BH	3/8"	3/4"	14.5mm	3+3	HSK20C
AF2059A-HUD3-25.6BH	3/8"	1"	19.0mm	3+3	HSK20C
AF2061-HUD3-12.9BH	1/2"	1/2"	8.0mm	3+3	HSK20C
AF2061-HUD3-16BH	1/2"	5/8"	10.0mm	3+3	HSK20C
AF2061-HUD3-19.25BH	1/2"	3/4"	12.0mm	3+3	HSK20C
AF2061-HUD3-25.6BH	1/2"	1"	16.0mm	3+3	HSK20C

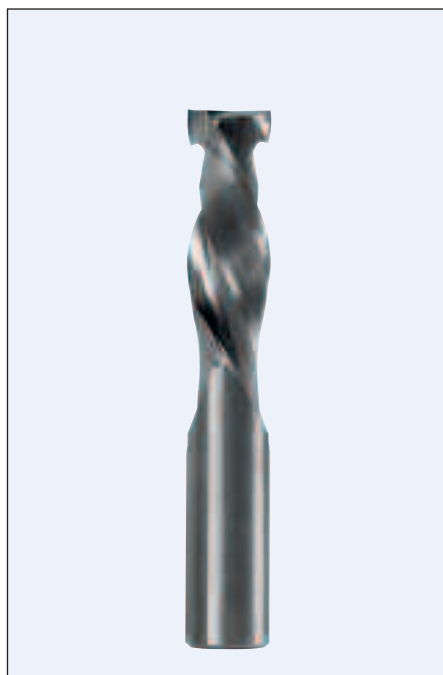
HIGH UPCUT COMPRESSION SPIRAL

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend it's capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
CHIPBREAKER	+CB	Notched	FC46 - FC51
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
ROUGHING	+RS	Scalloped	FC52 - FC57
PASS BY/DEEP MORTISE	+DM	Stepped	FC59

**DESIGN:**

- Tool design is optimized for highspeed cutting with the Aerotech System
- Excellent surface finish is produced by the 2 precision ground cutting edges
- Excellent chipflow and lower heat retention are provided by the 2 flute design
- Fast feed rates are possible due to the high performance tool geometry
- Submicron, corrosion resistant, extended life carbide provides increased durability and resistance to resin build-up
- 30° Helix design with plunging capability

APPLICATION:

- For smooth finishing cuts
- Excellent finish on hardwoods, softwoods, laminated panels, MDF, chipboard, plywood and solid surface materials
- Increased cutting edge life when frequently accelerating/decelerating or performing multiple passes such as "Onion skinning"
- Eliminates chipping, fuzzing and tear-out when the end of the upcut/downcut cutting edges are further than 1/16" from the top and bottom faces of the board
- This upcut length will prevent tear-out when cutting rebates, dados or pockets with a depth of 0.250" or greater
- If part movement is a concern, using this design may assist material hold down

IMPORTANT:

Dust (Chips) must remain moderately loose and unpacked in the cut for the Aerotech Universal to provide maximum dust extraction. Typically packed dust is caused by the downshear cutting action. Material type and condition, operating environment and cutting path pattern have an impact as to how densely dust will become packed within the cut.

To overcome packed dust, decrease the amount of downshear within the cut. This can be accomplished by selecting a High Upcut design (see next page for tooling options), reducing the depth of cut per pass and/or performing multiple passes.

FINISHING BITS TWO FLUTE**MORTISE UPCUT COMPRESSION SPIRAL**

PART NO.		CUTTING DIAM.	MAX. MTL THICKNESS	UPCUT LENGTH	NO. FLUTES	SHANK TYPE
RSF2058-UD2-12.9	▲	1/4"	1/2"	0.188"	2+2	CYL.
RSF2058-UD2-19.25	▲	1/4"	3/4"	0.188"	2+2	CYL.
RSF2059W-UD2-12.9	▲	3/8"	1/2"	0.188"	2+2	CYL.
RSF2059W-UD2-16	▲	3/8"	5/8"	0.188"	2+2	CYL.
RSF2059W-UD2-19.25	▲	3/8"	3/4"	0.188"	2+2	CYL.
RSF2059W-UD2-25.6	▲	3/8"	1"	0.188"	2+2	CYL.
RSF2061-UD2-12.9	▲	1/2"	1/2"	0.188"	2+2	CYL.
RSF2061-UD2-16	▲	1/2"	5/8"	0.188"	2+2	CYL.
RSF2061-UD2-19.25	▲	1/2"	3/4"	0.188"	2+2	CYL.
RSF2061-UD2-25.6	▲	1/2"	1"	0.188"	2+2	CYL.
RSF2061-UD2-31.95	▲	1/2"	1-1/4"	0.188"	2+2	CYL.
RSF2061-UD2-38.3	▲	1/2"	1-1/2"	0.188"	2+2	CYL.
RSF2061-UD2-51	▲	1/2"	2"	0.188"	2+2	CYL.
RSF2064-UD2-19.25	▲	5/8"	3/4"	0.188"	2+2	CYL.
RSF2066-UD2-19.25	▲	3/4"	3/4"	0.188"	2+2	CYL.

CYL. refers to a Cylindrical Shank

▲ Commonly used for Mortising cuts with a minimum depth of 0.250"

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend its capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
CHIPBREAKER	+CB	Notched	FC46 - FC51
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
ROUGHING	+RS	Scalloped	FC52 - FC57
PASS BY/DEEP MORTISE	+DM	Stepped	FC59

**IMPORTANT:**

This High Upcut design is recommended for maximum dust extraction.

Dust (Chips) must remain moderately loose and unpacked in the cut for the Aerotech Universal to provide maximum dust extraction. Typically packed dust is caused by the downshear cutting action. Material type and condition, operating environment and cutting path pattern have an impact as to how densely dust will become packed within the cut.

To overcome packed dust, decrease the amount of downshear within the cut. This can be accomplished by selecting a tool with more Upcut Length, reducing the depth of cut per pass and/or performing multiple passes.

DESIGN:

- Tool design is optimized for highspeed cutting with the Aerotech System
- Excellent surface finish is produced by the 2 precision ground cutting edges
- Excellent chipflow and lower heat retention are provided by the 2 flute design
- Fast feed rates are possible due to the high performance tool geometry
- Submicron, corrosion resistant, extended life carbide provides increased durability and resistance to resin build-up
- 30° Helix design with plunging capability

APPLICATION:

- For smooth finishing cuts
- Excellent finish on hardwoods, softwoods, laminated panels, MDF, chipboard, plywood and solid surface materials
- Increased cutting edge life when frequently accelerating/decelerating or performing multiple passes such as "Onion skinning"
- Eliminates chipping, fuzzing and tear-out when the end of the upcut/downcut cutting edges are further than 1/16" from the top and bottom faces of the board

FINISHING BITS TWO FLUTE**HIGH UPCUT COMPRESSION SPIRAL**

PART NO.	CUTTING DIAM.	MAX. MTL THICKNESS	UPCUT LENGTH	NO. FLUTES	SHANK TYPE
RSF2058-HUD2-12.9	1/4"	1/2"	9.5mm	2+2	CYL.
RSF2058-HUD2-19.25	1/4"	3/4"	14.5mm	2+2	CYL.
RSF2059W-HUD2-12.9	3/8"	1/2"	9.5mm	2+2	CYL.
RSF2059W-HUD2-16	3/8"	5/8"	12.0mm	2+2	CYL.
RSF2059W-HUD2-19.25	3/8"	3/4"	14.5mm	2+2	CYL.
RSF2059W-HUD2-22.2	3/8"	7/8"	16.5mm	2+2	CYL.
RSF2059W-HUD2-25.6	3/8"	1"	19.0mm	2+2	CYL.
RSF2061-HUD2-12.9	1/2"	1/2"	8.0mm	2+2	CYL.
RSF2061-HUD2-16	1/2"	5/8"	10.0mm	2+2	CYL.
RSF2061-HUD2-19.25	1/2"	3/4"	12.0mm	2+2	CYL.
RSF2061-HUD2-22.2	1/2"	7/8"	14.0mm	2+2	CYL.
RSF2061-HUD2-25.6	1/2"	1"	16.0mm	2+2	CYL.
RSF2061-HUD2-31.95	1/2"	1-1/4"	20.0mm	2+2	CYL.
RSF2061-HUD2-38.3	1/2"	1-1/2"	24.0mm	2+2	CYL.
RSF2061-HUD2-51	1/2"	2"	32.0mm	2+2	CYL.
RSF2064-HUD2-19.25	5/8"	3/4"	12.0mm	2+2	CYL.
RSF2066-HUD2-19.25	3/4"	3/4"	12.0mm	2+2	CYL.

CYL. refers to a Cylindrical Shank

Mortise Upcut Length is less than 0.250"

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend it's capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
CHIPBREAKER	+CB	Notched	FC46 - FC51
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
ROUGHING	+RS	Scalloped	FC52 - FC57
PASS BY/DEEP MORTISE	+DM	Stepped	FC59

DESIGN:

- Tool design is optimized for highspeed cutting with the Aerotech System
- Superior surface finish is produced by the 3 precision ground cutting edges
- Good chipflow and lower heat retention are provided by the 3 flute design
- Faster feed rates at low spindle speeds are possible due to the high performance tool geometry
- Submicron, corrosion resistant, extended life carbide provides increased durability and resistance to resin build-up
- 30° Helix design with plunging capability

APPLICATION:

- For exceptionally smooth finishing cuts
- Superior finish on hardwoods, softwoods, laminated panels, MDF, chipboard, plywood and solid surface materials
- 3 flute design allows for two cutting edges to be engaged at all times, providing greater stability and reducing run-out
- Increased number of bite marks per inch reduces chip size and provides a smooth finish on the core of plywood and particleboards, especially important when edge-banding without pre-milling operations
- Eliminates chipping, fuzzing and tear-out when the end of the upcut/downcut cutting edges are further than 1/16" from the top and bottom faces of the board
- This upcut length will prevent tear-out when cutting rebates, dados or pockets with a depth of 0.250" or greater
- If part movement is a concern, using this design may assist material hold down

**IMPORTANT:**

Dust (Chips) must remain moderately loose and unpacked in the cut for the Aerotech Universal to provide maximum dust extraction. Typically packed dust is caused by the downshear cutting action. Material type and condition, operating environment and cutting path pattern have an impact as to how densely dust will become packed within the cut.

To overcome packed dust, decrease the amount of downshear within the cut. This can be accomplished by selecting a High Upcut design (see next page for tooling options), reducing the depth of cut per pass and/or performing multiple passes.

FINISHING BITS THREE FLUTE**MORTISE UPCUT COMPRESSION SPIRAL**

PART NO.		CUTTING DIAM.	MAX. MTL THICKNESS	UPCUT LENGTH	NO. FLUTES	SHANK TYPE
RSF2059A-UD3-12.9	▲	3/8"	1/2"	0.188"	3+3	CYL.
RSF2059A-UD3-16	▲	3/8"	5/8"	0.188"	3+3	CYL.
RSF2059A-UD3-19.25	▲	3/8"	3/4"	0.188"	3+3	CYL.
RSF2059A-UD3-25.6	▲	3/8"	1"	0.188"	3+3	CYL.
RSF2061-UD3-12.9	▲	1/2"	1/2"	0.188"	3+3	CYL.
RSF2061-UD3-16	▲	1/2"	5/8"	0.188"	3+3	CYL.
RSF2061-UD3-19.25	▲	1/2"	3/4"	0.188"	3+3	CYL.
RSF2061-UD3-25.6	▲	1/2"	1"	0.188"	3+3	CYL.

CYL. refers to a Cylindrical Shank

▲ Commonly used for Mortising cuts with a minimum depth of 0.250"

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend its capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
CHIPBREAKER	+CB	Notched	FC46 - FC51
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
ROUGHING	+RS	Scalloped	FC52 - FC57
PASS BY/DEEP MORTISE	+DM	Stepped	FC59

**DESIGN:**

- Tool design is optimized to improve the dust extraction and highspeed cutting with the Aerotech System
- Superior surface finish is produced by the 3 precision ground cutting edges
- Good chipflow and lower heat retention are provided by the 3 flute design
- Faster feed rates at low spindle speeds are possible due to the high performance tool geometry
- Submicron, corrosion resistant, extended life carbide provides increased durability and resistance to resin build-up
- 30° Helix design with plunging capability

APPLICATION:

- For exceptionally smooth finishing cuts
- Superior finish on hardwoods, softwoods, laminated panels, MDF, chipboard, plywood and solid surface materials
- 3 flute design allows for two cutting edges to be engaged at all times, providing greater stability and reducing run-out
- Increased number of bite marks per inch reduces chip size and provides a smooth finish on the core of plywood and particleboards, especially important when edge-banding without pre-milling operations
- Eliminates chipping, fuzzing and tear-out when the end of the upcut/downcut cutting edges are further than 1/16" from the top and bottom faces of the board

IMPORTANT:

This High Upcut design is recommended for maximum dust extraction.

Dust (Chips) must remain moderately loose and unpacked in the cut for the Aerotech Universal to provide maximum dust extraction. Typically packed dust is caused by the downshear cutting action. Material type and condition, operating environment and cutting path pattern have an impact as to how densely dust will become packed within the cut.

To overcome packed dust, decrease the amount of downshear within the cut. This can be accomplished by selecting a tool with more Upcut Length, reducing the depth of cut per pass and/or performing multiple passes.

FINISHING BITS THREE FLUTE**HIGH UPCUT COMPRESSION SPIRAL**

PART NO.	CUTTING DIAM.	MAX. MTL THICKNESS	UPCUT LENGTH	NO. FLUTES	SHANK TYPE
RSF2059A-HUD3-12.9	3/8"	1/2"	9.5mm	3+3	CYL.
RSF2059A-HUD3-16	3/8"	5/8"	12.0mm	3+3	CYL.
RSF2059A-HUD3-19.25	3/8"	3/4"	14.5mm	3+3	CYL.
RSF2059A-HUD3-25.6	3/8"	1"	19.0mm	3+3	CYL.
RSF2061-HUD3-12.9	1/2"	1/2"	8.0mm	3+3	CYL.
RSF2061-HUD3-16	1/2"	5/8"	10.0mm	3+3	CYL.
RSF2061-HUD3-19.25	1/2"	3/4"	12.0mm	3+3	CYL.
RSF2061-HUD3-25.6	1/2"	1"	16.0mm	3+3	CYL.

CYL. refers to a Cylindrical Shank
Mortise Upcut Length is less than 0.250"

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend it's capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
CHIPBREAKER	+CB	Notched	FC46 - FC51
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
ROUGHING	+RS	Scalloped	FC52 - FC57
PASS BY/DEEP MORTISE	+DM	Stepped	FC59

**DESIGN:**

- Excellent surface finish is produced by the 2 precision ground cutting edges
- Better chipflow and lower heat retention are provided by the 2 flute design
- Submicron, corrosion resistant, extended life carbide provides increased durability and resistance to resin build-up
- 30° Helix design with plunging capability

APPLICATION:

- Commonly used for rebates, dadoes/grooving and pocketing operations on raw panels, one side laminated with face down or solid wood
- Excellent finish on hardwoods, softwoods, laminated panels, MDF, chipboard, plywood and solid surface materials
- Increased cutting edge life when frequently accelerating/decelerating or performing multiple passes such as "Onion skinning"
- Eliminates chipping, fuzzing and tear-out along the bottom face of the board
- Upcut spiral improves chip ejection from the cutting path
- For improved dust extraction use with an Aerotech (page FC21)

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend its capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

FINISHING BITS TWO FLUTE**UPCUT SPIRAL**

PART NO.	CUTTING DIAM.	FLUTE LENGTH	SHANK DIAM.	NO. FLUTES	OVERALL LENGTH
RSFM03012-U2	3mm	12mm	3mm	2	50mm
RSF2000A-U2	1/8"	1/2"	1/8"	2	2"
RSF2000-U2	1/8"	1/2"	1/4"	2	2"
RSF2002-U2	5/32"	1/2"	1/4"	2	2"
RSFM04012-U2	4mm	12mm	4mm	2	50mm
RSF2004-U2	3/16"	3/4"	1/4"	2	2"
RSF2005-U2	3/16"	3/4"	1/4"	2	2-1/2"
RSFM05017-U2	5mm	17mm	5mm	2	50mm
RSFM06027-U2	6mm	27mm	6mm	2	60mm
RSF2006-U2	1/4"	3/4"	1/4"	2	2-1/2"
RSF2008-U2	1/4"	1"	1/4"	2	2-1/2"
RSF2009-U2	1/4"	1"	1/4"	2	3"
RSF2010-U2	5/16"	1"	5/16"	2	2-1/2"
RSFM08035-U2	8mm	35mm	8mm	2	80mm
RSF2012-U2	3/8"	3/4"	3/8"	2	2-1/2"
RSF2014-U2	3/8"	1"	3/8"	2	2-1/2"
RSF2015-U2	3/8"	1-1/4"	3/8"	2	3"
RSF2016-U2	3/8"	1-1/4"	1/2"	2	3"
RSFM10035-U2	10mm	35mm	10mm	2	80mm
RSFM12035-U2	12mm	35mm	12mm	2	80mm
RSF2019S-U2	1/2"	5/8"	1/2"	2	3"
RSF2020S-U2	1/2"	7/8"	1/2"	2	3"
RSF2020-U2	1/2"	1-1/4"	1/2"	2	3"
RSF2024-U2	1/2"	1-1/2"	1/2"	2	3-1/2"
RSF2028-U2	1/2"	2"	1/2"	2	4"
RSF2032-U2	1/2"	2-1/4"	1/2"	2	4-1/2"
RSF2034-U2	1/2"	2-1/2"	1/2"	2	5-1/2"
RSFM14055-U2	14mm	55mm	14mm	2	100mm
RSF2036-U2	5/8"	1-1/2"	5/8"	2	4"
RSF2038-U2	5/8"	2"	5/8"	2	4"
RSFM16055-U2	16mm	55mm	16mm	2	100mm
RSFM18055-U2	18mm	55mm	18mm	2	100mm
RSF2042-U2	3/4"	1-1/2"	3/4"	2	4"
RSF2044-U2	3/4"	2"	3/4"	2	4"
RSF2048-U2	3/4"	2-1/2"	3/4"	2	5"
RSFM20055-U2	20mm	55mm	20mm	2	100mm

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
BALLNOSE	+BN	Radius Tip	FC61 - FC63
CHIPBREAKER	+CB	Notched	FC46 - FC51
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
ROUGHING	+RS	Scalloped	FC52 - FC57
PASS BY/DEEP MORTISE	+DM	Stepped	FC59

**DESIGN:**

- Excellent surface finish is produced by the 2 precision ground cutting edges
- Better chipflow and lower heat retention are provided by the 2 flute design
- Submicron, corrosion resistant, extended life carbide provides increased durability and resistance to resin build-up
- 30° Helix design with plunging capability

APPLICATION:

- Commonly used for rebates, dadoes/grooving and pocketing operations on raw panels, one side laminated with face up or solid wood
- Excellent finish on hardwoods, softwoods, laminated panels, MDF, chipboard, plywood and solid surface materials
- Increased cutting edge life when frequently accelerating/decelerating or performing multiple passes such as "Onion skinning"
- Eliminates chipping, fuzzing and tear-out along the top face of the board
- Downward cutting action helps hold down material
- For improved dust extraction use with an Aerotech (page FC21)

EXPANDED CAPABILITIES

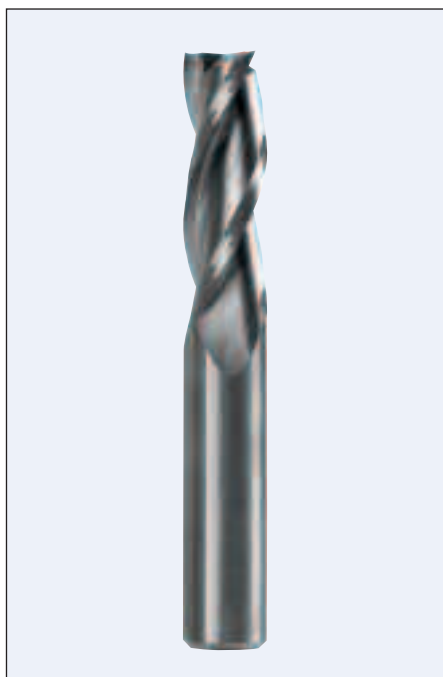
Each spiral router bit listed can be ordered with modifications that will extend it's capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

FINISHING BITS TWO FLUTE**DOWNCUT SPIRAL**

PART NO.	CUTTING DIAM.	FLUTE LENGTH	SHANK DIAM.	NO. FLUTES	OVERALL LENGTH
RSFM03012-D2	3mm	12mm	3mm	2	50mm
RSF2000A-D2	1/8"	1/2"	1/8"	2	2"
RSF2000-D2	1/8"	1/2"	1/4"	2	2"
RSF2002-D2	5/32"	1/2"	1/4"	2	2"
RSFM04012-D2	4mm	12mm	4mm	2	50mm
RSF2004-D2	3/16"	3/4"	1/4"	2	2"
RSF2005-D2	3/16"	3/4"	1/4"	2	2-1/2"
RSFM05017-D2	5mm	17mm	5mm	2	50mm
RSFM06027-D2	6mm	27mm	6mm	2	60mm
RSF2006-D2	1/4"	3/4"	1/4"	2	2-1/2"
RSF2008-D2	1/4"	1"	1/4"	2	2-1/2"
RSF2009-D2	1/4"	1"	1/4"	2	3"
RSF2010-D2	5/16"	1"	5/16"	2	2-1/2"
RSFM08035-D2	8mm	35mm	8mm	2	80mm
RSF2012-D2	3/8"	3/4"	3/8"	2	2-1/2"
RSF2014-D2	3/8"	1"	3/8"	2	2-1/2"
RSF2015-D2	3/8"	1-1/4"	3/8"	2	3"
RSF2016-D2	3/8"	1-1/4"	1/2"	2	3"
RSFM10035-D2	10mm	35mm	10mm	2	80mm
RSFM12035-D2	12mm	35mm	12mm	2	80mm
RSF2019S-D2	1/2"	5/8"	1/2"	2	3"
RSF2020S-D2	1/2"	7/8"	1/2"	2	3"
RSF2020-D2	1/2"	1-1/4"	1/2"	2	3"
RSF2024-D2	1/2"	1-1/2"	1/2"	2	3-1/2"
RSF2028-D2	1/2"	2"	1/2"	2	4"
RSF2032-D2	1/2"	2-1/4"	1/2"	2	4-1/2"
RSF2034-D2	1/2"	2-1/2"	1/2"	2	5-1/2"
RSFM14055-D2	14mm	55mm	14mm	2	100mm
RSF2036-D2	5/8"	1-1/2"	5/8"	2	4"
RSF2038-D2	5/8"	2"	5/8"	2	4"
RSFM16055-D2	16mm	55mm	16mm	2	100mm
RSFM18055-D2	18mm	55mm	18mm	2	100mm
RSF2042-D2	3/4"	1-1/2"	3/4"	2	4"
RSF2044-D2	3/4"	2"	3/4"	2	4"
RSF2048-D2	3/4"	2-1/2"	3/4"	2	5"
RSFM20055-D2	20mm	55mm	20mm	2	100mm

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
BALLNOSE	+BN	Radius Tip	FC61 - FC63
CHIPBREAKER	+CB	Notched	FC46 - FC51
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
ROUGHING	+RS	Scalloped	FC52 - FC57
PASS BY/DEEP MORTISE	+DM	Stepped	FC59

**DESIGN:**

- Superior surface finish is produced by the 3 precision ground cutting edges
- Good chipflow and lower heat retention are provided by the 3 flute design
- Submicron, corrosion resistant, extended life carbide provides increased durability and resistance to resin build-up
- 30° Helix design with plunging capability

APPLICATION:

- Commonly used for rebates, dadoes/grooving and pocketing operations on raw panels, one side laminated with face down or solid wood
- Superior finish on hardwoods, softwoods, laminated panels, MDF, chipboard, plywood and solid surface materials
- Faster feed rates at low spindle speeds
- 3 flute design allows for two cutting edges to be engaged at all times, providing greater stability and reducing run-out
- Increased number of bite marks per inch reduces chip size and provides a smooth finish on the core of plywood and particleboards, especially important when edge-banding without pre-miling operations
- Eliminates chipping, fuzzing and tear-out along the bottom face of the board
- Upcut spiral improves chip ejection from the cutting path
- For improved dust extraction use with an Aerotech (page FC21)

FINISHING BITS THREE FLUTE**UPCUT SPIRAL**

PART NO.	CUTTING DIAM.	FLUTE LENGTH	SHANK DIAM.	NO. FLUTES	OVERALL LENGTH
RSFM08035-U3	8mm	35mm	8mm	3	80mm
RSF2011S-U3	3/8"	5/8"	3/8"	3	2-1/2"
RSF2013S-U3	3/8"	7/8"	3/8"	3	2-1/2"
RSF2018-U3	3/8"	1-1/4"	1/2"	3	3"
RSFM10035-U3	10mm	35mm	10mm	3	80mm
RSFM12035-U3	12mm	35mm	12mm	3	80mm
RSF2019S-U3	1/2"	5/8"	1/2"	3	3"
RSF2020S-U3	1/2"	7/8"	1/2"	3	3"
RSF2022-U3	1/2"	1-1/4"	1/2"	3	3"
RSF2026-U3	1/2"	1-1/2"	1/2"	3	3-1/2"
RSF2030-U3	1/2"	2"	1/2"	3	4"
RSFM14055-U3	14mm	55mm	14mm	3	100mm
RSF2040-U3	5/8"	2"	5/8"	3	4"
RSFM16055-U3	16mm	55mm	16mm	3	100mm
RSFM18055-U3	18mm	55mm	18mm	3	100mm
RSF2046-U3	3/4"	2"	3/4"	3	4"
RSF2050-U3	3/4"	2-1/2"	3/4"	3	5"
RSFM20055-U3	20mm	55mm	20mm	3	100mm

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend it's capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
BALLNOSE	+BN	Radius Tip	FC61 - FC63
CHIPBREAKER	+CB	Notched	FC46 - FC51
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
ROUGHING	+RS	Scalloped	FC52 - FC57
PASS BY / DEEP MORTISE	+DM	Stepped	FC59

**DESIGN:**

- Superior surface finish is produced by the 3 precision ground cutting edges
- Good chipflow and lower heat retention are provided by the 3 flute design
- Submicron, corrosion resistant, extended life carbide provides increased durability and resistance to resin build-up
- 30° Helix design with plunging capability

APPLICATION:

- Commonly used for rebates, dadoes/grooving and pocketing operations on raw panels, one side laminated with face up or solid wood
- Superior finish on hardwoods, softwoods, laminated panels, MDF, chipboard, plywood and solid surface materials
- Faster feed rates at low spindle speeds
- 3 flute design allows for two cutting edges to be engaged at all times, providing greater stability and reducing run-out
- Increased number of bite marks per inch reduces chip size and provides a smooth finish on the core of plywood and particleboards, especially important when edge-banding without pre-miling operations
- Eliminates chipping, fuzzing and tear-out along the top face of the board
- Downward cutting action helps hold down material
- For improved dust extraction use with an Aerotech (page FC21)

FINISHING BITS THREE FLUTE**DOWNCUT SPIRAL**

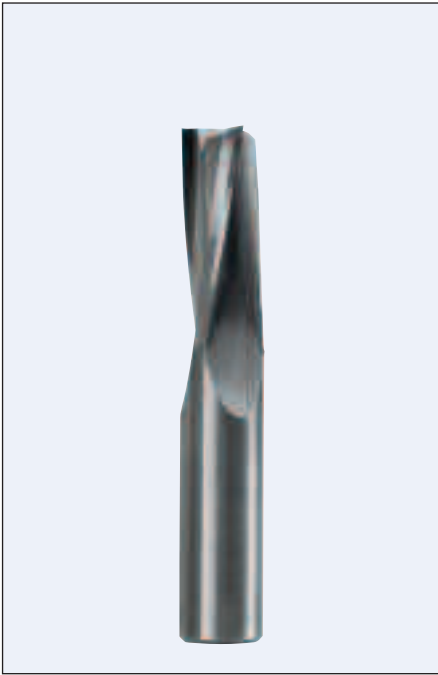
PART NO.	CUTTING DIAM.	FLUTE LENGTH	SHANK DIAM.	NO. FLUTES	OVERALL LENGTH
RSFM08035-D3	8mm	35mm	8mm	3	80mm
RSF2011S-D3	3/8"	5/8"	3/8"	3	2-1/2"
RSF2013S-D3	3/8"	7/8"	3/8"	3	2-1/2"
RSF2018-D3	3/8"	1-1/4"	1/2"	3	3"
RSFM10035-D3	10mm	35mm	10mm	3	80mm
RSFM12035-D3	12mm	35mm	12mm	3	80mm
RSF2019S-D3	1/2"	5/8"	1/2"	3	3"
RSF2020S-D3	1/2"	7/8"	1/2"	3	3"
RSF2022-D3	1/2"	1-1/4"	1/2"	3	3"
RSF2026-D3	1/2"	1-1/2"	1/2"	3	3-1/2"
RSF2030-D3	1/2"	2"	1/2"	3	4"
RSFM14055-D3	14mm	55mm	14mm	3	100mm
RSF2040-D3	5/8"	2"	5/8"	3	4"
RSFM16055-D3	16mm	55mm	16mm	3	100mm
RSFM18055-D3	18mm	55mm	18mm	3	100mm
RSF2046-D3	3/4"	2"	3/4"	3	4"
RSF2050-D3	3/4"	2-1/2"	3/4"	3	5"
RSFM20055-D3	20mm	55mm	20mm	3	100mm

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend it's capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
BALLNOSE	+BN	Radius Tip	FC61 - FC63
CHIPBREAKER	+CB	Notched	FC46 - FC51
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
ROUGHING	+RS	Scalloped	FC52 - FC57
PASS BY / DEEP MORTISE	+DM	Stepped	FC59

**DESIGN:**

- Excellent chipflow, lower heat retention and increased tool rigidity are provided by the 3 flute low helix design
- Low helix design reduces lifting force and deflection of work pieces
- Submicron, corrosion resistant, extended life carbide provides increased durability and resistance to resin build-up
- 10° Helix design with plunging capability

APPLICATION:

- Superior finish on hardwoods, softwoods, MDF and solid surface materials
- Faster feed rates at low spindle speeds
- 3 flute design allows for two cutting edges to be engaged at all times, providing greater stability and reducing run-out
- Improved cutting edge life when cutting hard materials and deep cuts
- Noise levels during cutting operations of hard materials will be reduced due to lower cutting pressure required
- Eliminates chipping, fuzzing and tear-out along the bottom face of the board
- Upcut spiral improves chip ejection from the cutting path
- For improved dust extraction use with an Aerotech (page FC21)

LOW HELIX FINISHING THREE FLUTE**UPCUT SPIRAL**

PART NO.	CUTTING DIAM.	FLUTE LENGTH	SHANK DIAM.	NO. FLUTES	OVERALL LENGTH
RSFL2006-U3	1/4"	3/4"	1/4"	3	3"
RSFL2010-U3	5/16"	1"	5/16"	3	3"
RSFL2018-U3	3/8"	1-1/4"	1/2"	3	4"
RSFL2022-U3	1/2"	1-1/4"	1/2"	3	4"
RSFL2030-U3	1/2"	2-1/8"	1/2"	3	4-1/2"
RSFL2046-U3	3/4"	2"	3/4"	3	5"
RSFL2052-U3	3/4"	2-1/2"	3/4"	3	5"

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend it's capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
BALLNOSE	+BN	Radius Tip	FC61 - FC63
CHIPBREAKER	+CB	Notched	FC46 - FC51
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
ROUGHING	+RS	Scalloped	FC52 - FC57
PASS BY / DEEP MORTISE	+DM	Stepped	FC59

**DESIGN:**

- Excellent chipflow, lower heat retention and increased tool rigidity are provided by the 3 flute low helix design
- Low helix design reduces lifting force and deflection of work pieces
- Submicron, corrosion resistant, extended life carbide provides increased durability and resistance to resin build-up
- 10° Helix design with plunging capability

APPLICATION:

- Superior finish on hardwoods, softwoods, MDF and solid surface materials
- Faster feed rates at low spindle speeds
- 3 flute design allows for two cutting edges to be engaged at all times, providing greater stability and reducing run-out
- Improved cutting edge life when cutting hard materials and deep cuts
- Noise levels during cutting operations of hard materials will be reduced due to lower cutting pressure required
- Eliminates chipping, fuzzing and tear-out along the top face of the board
- Downward cutting action helps hold down material
- For improved dust extraction use with an Aerotech (page FC21)

LOW HELIX FINISHING THREE FLUTE**DOWNCUT SPIRAL**

PART NO.	CUTTING DIAM.	FLUTE LENGTH	SHANK DIAM.	NO. FLUTES	OVERALL LENGTH
RSFL2006-D3	1/4"	3/4"	1/4"	3	3"
RSFL2010-D3	5/16"	1"	5/16"	3	3"
RSFL2018-D3	3/8"	1-1/4"	1/2"	3	4"
RSFL2022-D3	1/2"	1-1/4"	1/2"	3	4"
RSFL2030-D3	1/2"	2-1/8"	1/2"	3	4-1/2"
RSFL2046-D3	3/4"	2"	3/4"	3	5"
RSFL2052-D3	3/4"	2-1/2"	3/4"	3	5"

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend it's capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
BALLNOSE	+BN	Radius Tip	FC61 - FC63
CHIPBREAKER	+CB	Notched	FC46 - FC51
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
ROUGHING	+RS	Scalloped	FC52 - FC57
PASS BY / DEEP MORTISE	+DM	Stepped	FC59



FINISHING BITS ONE FLUTE

COMPRESSION SPIRAL

PART NO.	CUTTING DIAM.	FLUTE LENGTH	SHANK DIAM.	UPCUT LENGTH	NO. FLUTES	OVERALL LENGTH
RSF2058-UD1 ▲	1/4"	7/8"	1/4"	0.188"	1+1	2-1/2"
RSF2060-UD1	3/8"	1-1/8"	3/8"	0.400"	1+1	3"
RSF2061-UD1	1/2"	1-1/4"	1/2"	0.390"	1+1	3"
RSF2062-UD1	1/2"	1-1/2"	1/2"	0.390"	1+1	3-1/2"
RSF2063-UD1	1/2"	2"	1/2"	0.390"	1+1	4"
RSF2064-UD1	5/8"	1-1/2"	5/8"	0.465"	1+1	4"
RSF2066-UD1	3/4"	2"	3/4"	0.625"	1+1	4"

▲ Commonly used for Mortising cuts with a minimum depth of 0.250"

DESIGN:

- Excellent surface finish is produced by the single precision ground cutting edge
- Excellent chipflow and lower heat retention are provided by the single flute design
- Submicron, corrosion resistant, extended life carbide provides increased durability and resistance to resin build-up
- 30° Helix design with plunging capability

APPLICATION:

- Ideal multi-purpose tool for single tool CNC routers
- For smooth finishing cuts
- Excellent finish on hardwoods, softwoods, laminated panels, MDF, chipboard, plywood and solid surface materials
- Superior cutting edge life when frequently accelerating/decelerating or performing multiple passes such as "Onion skinning"
- Eliminates chipping, fuzzing and tear-out when the end of the upcut/downcut cutting edges are further than 1/16" from the top and bottom faces of the board
- Use a "Mortise" upcut length of 0.188" when cutting rebates, dados or pockets
- If part movement is a concern, use a "Mortise" Upcut Length of 0.188"
- When possible select a router bit with a longer upcut length to improve chip ejection from the cutting path
- For improved dust extraction use with an Aerotech (page FC21)

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend it's capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
CHIPBREAKER	+CB	Notched	FC46 - FC51
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
ROUGHING	+RS	Scalloped	FC52 - FC57
PASS BY / DEEP MORTISE	+DM	Stepped	FC59

**DESIGN:**

- Excellent surface finish is produced by the 2 precision ground cutting edges
- Excellent chipflow and lower heat retention are provided by the 2 flute design
- Fast feed rates are possible due to the high performance tool geometry
- Submicron, corrosion resistant, extended life carbide provides increased durability and resistance to resin build-up
- 30° Helix design with plunging capability

APPLICATION:

- For smooth finishing cuts
- Excellent finish on hardwoods, softwoods, laminated panels, MDF, chipboard, plywood and solid surface materials
- Increased cutting edge life when frequently accelerating/decelerating or performing multiple passes such as "Onion skinning"
- Eliminates chipping, fuzzing and tear-out when the end of the upcut/downcut cutting edges are further than 1/16" from the top and bottom faces of the board
- Use a "Mortise" upcut length of 0.188" when cutting rebates, dados or pockets
- If part movement is a concern, use a "Mortise" Upcut Length of 0.188"
- When possible select a router bit with a longer upcut length to improve chip ejection from the cutting path
- For improved dust extraction use with an Aerotech (page FC21)

FINISHING BITS TWO FLUTE**COMPRESSION SPIRAL**

PART NO.	CUTTING DIAM.	FLUTE LENGTH	SHANK DIAM.	UPCUT LENGTH	NO. FLUTES	OVERALL LENGTH
RSF2058M-UD2 ▲	1/4"	7/8"	1/4"	0.188"	2+2	2-1/2"
RSF2059MS-UD2 ▲	3/8"	7/8"	3/8"	0.188"	2+2	3"
RSF2060-UD2	3/8"	1-1/8"	3/8"	0.290"	2+2	3"
RSF2059M-UD2 ▲	3/8"	1-1/4"	3/8"	0.188"	2+2	3"
RSF2059-UD2	3/8"	1-1/4"	3/8"	0.275"	2+2	3"
RSF2061MS-UD2 ▲	1/2"	7/8"	1/2"	0.188"	2+2	3"
RSF2061M-UD2 ▲	1/2"	1-1/4"	1/2"	0.188"	2+2	3"
RSF2061-UD2	1/2"	1-1/4"	1/2"	0.390"	2+2	3"
RSF2061A-UD2	1/2"	1-3/8"	1/2"	0.390"	2+2	3-1/2"
RSF2062M-UD2 ▲	1/2"	1-5/8"	1/2"	0.188"	2+2	3-1/2"
RSF2062-UD2	1/2"	1-5/8"	1/2"	0.570"	2+2	3-1/2"
RSF2063-UD2	1/2"	2"	1/2"	0.625"	2+2	4"
RSF2064-UD2	5/8"	1-1/2"	5/8"	0.625"	2+2	4"
RSF2065-UD2	5/8"	2"	5/8"	0.625"	2+2	4"
RSF2066M-UD2 ▲	3/4"	2"	3/4"	0.188"	2+2	4"
RSF2066-UD2	3/4"	2"	3/4"	0.625"	2+2	4"
RSF2068-UD2	3/4"	2-1/2"	3/4"	0.625"	2+2	4"

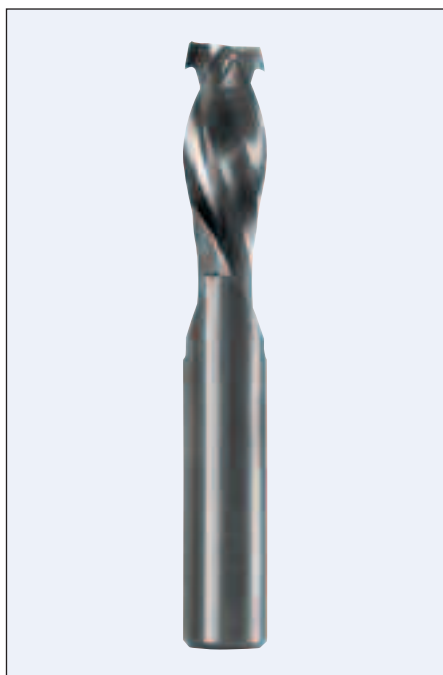
▲ Commonly used for Mortising cuts with a minimum depth of 0.250"

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend it's capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
CHIPBREAKER	+CB	Notched	FC46 - FC51
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
ROUGHING	+RS	Scalloped	FC52 - FC57
PASS BY /	+DM	Stepped	FC59
DEEP MORTISE			



FINISHING BITS - SPEEDMASTER				COMPRESSION SPIRAL		
PART NO.	CUTTING DIAM.	FLUTE LENGTH	SHANK DIAM.	UPCUT LENGTH	NO. FLUTES	OVERALL LENGTH
RSF2059W-UD2 ▲	3/8"	1"	3/8"	0.188"	2+2	2-1/2"
RSF2060W-UD2 ▲	3/8"	1-1/4"	3/8"	0.188"	2+2	2-1/2"
RSFM2061W-UD2▲	12mm	35mm	12mm	4.7mm	2+2	75mm
RSF2061WS-UD2 ▲	1/2"	7/8"	1/2"	0.188"	2+2	3"
RSF2061W-UD2 ▲	1/2"	1-3/8"	1/2"	0.188"	2+2	3-1/2"
RSF2061WP-UD2	1/2"	1-3/8"	1/2"	0.500"	2+2	3-1/2"
RSF2064W-UD2 ▲	5/8"	1-3/8"	5/8"	0.188"	2+2	4"
RSF2066W-UD2 ▲	3/4"	2"	3/4"	0.188"	2+2	4"

▲ Commonly used for Mortising cuts with a minimum depth of 0.250"

DESIGN:

- Excellent surface finish is produced by the aggressive cutting edge design and 2 precision ground cutting edges
- Superior chipflow and lower heat retention are provided by the special 2 flute design
- Exceptionally high feed rates are possible due to the unique HIGHSPEED tool geometry and surface finish
- Special submicron, corrosion resistant, extended life carbide provides increased sharpness of the cutting edge, durability and resistance to resin build-up
- 30° Helix design with plunging capability

APPLICATION:

- For smooth finishing cuts at exceptionally high feed rates
- Longer tool life when cutting chipboard, plywood and veneered or laminated materials
- Excellent finish on hardwoods, softwoods, laminated panels, MDF, chipboard, plywood and solid surface materials
- Increased cutting edge life when frequently accelerating/decelerating or performing multiple passes such as "Onion skinning"
- Eliminates chipping, fuzzing and tear-out when the end of the upcut/downcut cutting edges are further than 1/16" from the top and bottom faces of the board
- Use a "Mortise" upcut length of 0.188" when cutting rebates, dados or pockets
- If part movement is a concern, use a "Mortise" Upcut Length of 0.188"
- When possible select a router bit with a longer upcut length to improve chip ejection from the cutting path
- For improved dust extraction use with an Aerotech (page FC21)

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend it's capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
CHIPBREAKER	+CB	Notched	FC46 - FC51
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
ROUGHING	+RS	Scalloped	FC52 - FC57
PASS BY / DEEP MORTISE	+DM	Stepped	FC59

SPEEDMASTER

Extreme Highspeed Compression Router Bit

Try it... and see your CNC production improve dramatically. Ask for a trial tool to immediately capture the production you're losing every hour of every day.

50 metres /min

**NESTING
& ROUTING**



Why bother?

Your CNC router is designed for feed-rates and production volumes that cannot be achieved with conventional tooling. Only with the unique geometries, cutting edge materials and core tensile strength of our SpeedMaster Series can you begin to realize your lost potential and maximize production throughput!

What to expect?

Serviced once or six times, the performance of our SpeedMaster Series continues to provide production feed-rates more than double what you currently experience

TRUE HIGH SPEED

when cutting engineered wood products such as MDF, Plywood,

Particleboard and HPL, all the while never sacrificing cut quality or tool life.

More than G-Code, RPM and feed-rate parameters represent the most determining factors in your tooling's performance and product quality. We maximize your parameters based on several key factors such as material, # of expected service cycles and your required quality of cut.

A little research goes a long way.

We take the time to do it right because our passion is high performance tooling.



Engineered to outperform

LEFT HAND

FINISHING BITS TWO FLUTE

COMPRESSION SPIRAL

PART NO.	CUTTING DIAM.	FLUTE LENGTH	SHANK DIAM.	UPCUT LENGTH	NO. FLUTES	OVERALL LENGTH
RSF2058M-UD2L ▲	1/4"	7/8"	1/4"	0.188"	2+2	2-1/2"
RSF2059-UD2L	3/8"	1-1/4"	3/8"	0.275"	2+2	3"
RSF2061-UD2L	1/2"	1-1/4"	1/2"	0.390"	2+2	3"
RSF2061A-UD2L	1/2"	1-3/8"	1/2"	0.390"	2+2	3-1/2"
RSF2062-UD2L	1/2"	1-5/8"	1/2"	0.570"	2+2	3-1/2"
RSF2065-UD2L	5/8"	2"	5/8"	0.625"	2+2	4"
RSF2066-UD2L	3/4"	2"	3/4"	0.625"	2+2	4"

▲ Commonly used for Mortising cuts with a minimum depth of 0.250"

DESIGN:

- Excellent surface finish is produced by the 2 precision ground cutting edges
- Excellent chipflow and lower heat retention are provided by the 2 flute design
- Fast feed rates are possible due to the high performance tool geometry
- Submicron, corrosion resistant, extended life carbide provides increased durability and resistance to resin build-up
- 30° Helix design with plunging capability

APPLICATION:

- For smooth finishing cuts
- Excellent finish on hardwoods, softwoods, laminated panels, MDF, chipboard, plywood and solid surface materials
- Increased cutting edge life when frequently accelerating/decelerating or performing multiple passes such as "Onion skinning"
- Eliminates chipping, fuzzing and tear-out when the end of the upcut/downcut cutting edges are further than 1/16" from the top and bottom faces of the board
- Use a "Mortise" upcut length of 0.188" when cutting rebates, dados or pockets
- If part movement is a concern, use a "Mortise" Upcut Length of 0.188"
- When possible select a router bit with a longer upcut length to improve chip ejection from the cutting path
- For improved dust extraction use with an Aerotech (page FC21)

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend it's capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
CHIPBREAKER	+CB	Notched	FC46 - FC51
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
ROUGHING	+RS	Scalloped	FC52 - FC57
PASS BY / DEEP MORTISE	+DM	Stepped	FC59



FINISHING BITS THREE FLUTE

COMPRESSION SPIRAL

PART NO.	CUTTING DIAM.	FLUTE LENGTH	SHANK DIAM.	UPCUT LENGTH	NO. FLUTES	OVERALL LENGTH
RSF2059AS-UD3 ▲	3/8"	7/8"	3/8"	0.188"	3+3	2-1/2"
RSF2059S-UD3	3/8"	1"	3/8"	0.275"	3+3	2-1/2"
RSF2059A-UD3 ▲	3/8"	1"	3/8"	0.188"	3+3	2-1/2"
RSF2059M-UD3 ▲	3/8"	1-1/4"	3/8"	0.188"	3+3	3"
RSF2059-UD3	3/8"	1-1/4"	3/8"	0.275"	3+3	3"
RSF2061MS-UD3 ▲	1/2"	7/8"	1/2"	0.188"	3+3	3"
RSF2061-UD3 ▲	1/2"	1-1/4"	1/2"	0.188"	3+3	3"
RSF2062-UD3	1/2"	1-5/8"	1/2"	0.525"	3+3	3-1/2"
RSF2062M-UD3 ▲	1/2"	1-5/8"	1/2"	0.188"	3+3	3-1/2"
RSF2065-UD3	5/8"	2"	5/8"	0.625"	3+3	4"
RSF2066-UD3	3/4"	2"	3/4"	0.625"	3+3	4"

▲ Commonly used for Mortising cuts with a minimum depth of 0.250"

DESIGN:

- Superior surface finish is produced by the 3 precision ground cutting edges
- Good chipflow and lower heat retention is provided by the 3 flute design
- Fast feed rates are possible due to the high performance tool geometry
- Submicron, corrosion resistant, extended life carbide provides increased durability and resistance to resin build-up
- 30° Helix design with plunging capability

APPLICATION:

- For exceptionally smooth finishing cuts
- Superior finish on hardwoods, softwoods, laminated panels, MDF, chipboard, plywood and solid surface materials
- 3 flute design allows for two cutting edges to be engaged at all times, providing greater stability and reducing run-out
- Increased number of bite marks per inch reduces chip size and provides a smooth finish on the core of plywood and particleboards, especially important when edge-banding without pre-miling operations
- Eliminates chipping, fuzzing and tear-out when the end of the upcut/downcut cutting edges are further than 1/16" from the top and bottom faces of the board
- Use a "Mortise" upcut length of 0.188" when cutting rebates, dados or pockets
- If part movement is a concern, use a "Mortise" Upcut Length of 0.188"
- When possible select a router bit with a longer upcut length to improve chip ejection from the cutting path
- For improved dust extraction use with an Aerotech (page FC21)

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend it's capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
CHIPBREAKER	+CB	Notched	FC46 - FC51
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
ROUGHING	+RS	Scalloped	FC52 - FC57
PASS BY /	+DM	Stepped	FC59
DEEP MORTISE			



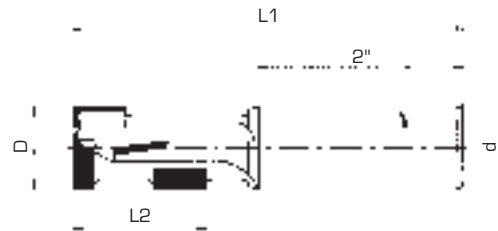
DIAMOND COMPRESSION BITS					CARBIDE PLUNGE POINT	
PART NO.	CUTTING DIAM. [D]	CUTTING LENGTH [L2]	SHANK DIAM. [d]	UPCUT LENGTH	NO. TEETH	OVERALL LENGTH [L1]
RPCD2066	1/2"	1"	1/2"	0.375"	1+1	3-3/8"
RPCD2068	1/2"	1-3/8"	1/2"	0.375"	1+1	3-3/8"
RPCD2070	1/2"	1-5/8"	1/2"	0.375"	1+1	4"
RPCD2076	5/8"	1"	5/8"	0.375"	1+1	3-3/8"
RPCD2078	5/8"	1-5/8"	5/8"	0.375"	1+1	4"
RPCD2148	3/4"	1"	3/4"	0.375"	1+1	3-3/8"
RPCD2076	3/4"	1-3/8"	3/4"	0.375"	1+1	3-3/4"
RPCD2152	3/4"	1-5/8"	3/4"	0.375"	1+1	4"
RPCD2160	3/4"	2-1/16"	3/4"	0.375"	1+1	4-1/2"

DESIGN:

- Excellent surface finish and exceptionally long run-time are provided by the Microfinish erosion process of each PCD diamond cutting edge
- Excellent chipflow and low heat retention is provided by the staggered 1+1 tooth configuration
- Carbide Plunge Point provides clean entry cuts
- Re-sharpenable

APPLICATION:

- PCD Diamond tools are recommended for operations that require maximum tool life
- For smooth finishing cuts
- Excellent finish on laminated panels, MDF, chipboard, solid surface and hardwood materials
- Increased cutting edge life when frequently accelerating/decelerating or performing multiple passes such as "Onion skinning"
- Eliminates chipping, fuzzing and tear-out when the end of the upcut/downcut cutting edges are further than 1/16" from the top and bottom faces of the board
- For improved dust extraction use with an Aerotech (page FC21)

**ADDITIONAL SIZES/DESIGNS**

PCD Diamond router bits are available in a variety of dimensions and cutting angles beyond those listed here.

For more information on a PCD Diamond router bit that matches your application, please contact your FS Tool representative.

**DIAMOND T-SLOT BIT**

PART NO.	CUTTING DIAM.	KERF	SHANK DIAM.	MAX. DEPTH OF CUT	NO. TEETH	OVERALL LENGTH
RPCD138	1-3/8"	1/4"	1/2"	3/4"	2+1	2-3/8"
RPCD138-LH	1-3/8"	1/4"	1/2"	3/4"	2+1	2-3/8"

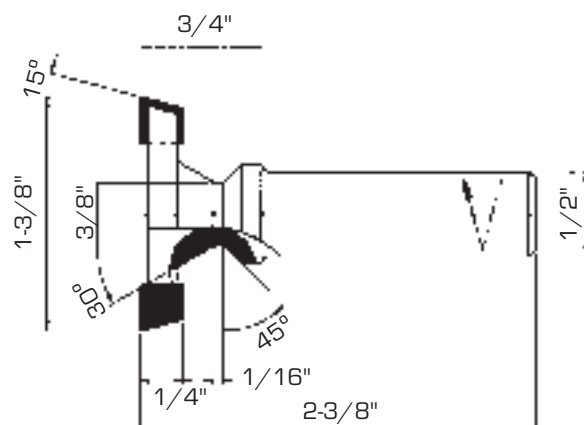
RPCD138-LH is Left Hand Rotation

DESIGN:

- Excellent surface finish and exceptionally long run-time are provided by the Microfinish erosion process of each PCD diamond cutting edge
- Fast feed rates are possible due to the high performance tool geometry
- More service cycles are possible due to the large PCD Diamond cutting edges
- Re-sharpenable

APPLICATION:

- PCD Diamond tools are recommended for operations that require maximum tool life
- For smooth finishing cuts
- Excellent finish on laminated panels, MDF, and other composite materials
- For improved dust extraction use with an Aerotech (page FC21)

**ADDITIONAL SIZES**

PCD Diamond T-Slot bits are available in a variety of dimensions and cutting angles beyond those listed here.

For more information on a PCD T-Slot router bit that matches your application, please contact your FS Tool representative.

**DESIGN:**

- Good surface finish is produced by the 2 precision ground cutting edges with Chipbreakers
- Chipbreakers reduce cutting pressure and noise levels
- Excellent chipflow and lower heat retention is provided by the 2 flute design with Chipbreakers
- Submicron, corrosion resistant, extended life carbide provides increased durability and resistance to resin build-up
- 30° Helix design with plunging capability

APPLICATION:

- Chipbreakers reduce the size of chips and improve chipflow, allowing for higher feed rates and tool life in plywood, chipboard and solid wood
- Chipbreakers reduce tear-out in plywood, solid wood and loose core materials
- Good finish on hardwoods, softwoods, chipboard and plywood materials
- Commonly used for rebates, dadoes/grooving and pocketing operations on raw panels, plywood and solid wood
- Reduces fuzzing and tear-out along the bottom face of the board
- Increased cutting edge life when frequently accelerating/decelerating or performing multiple passes such as "Onion skinning"
- Upcut spiral improves chip ejection from the cutting path
- For improved dust extraction use with an Aerotech (page FC21)

CHIPBREAKER BITS TWO FLUTE**UPCUT SPIRAL**

PART NO.	CUTTING DIAM.	FLUTE LENGTH	SHANK DIAM.	NO. FLUTES	OVERALL LENGTH
RSC2116-U2	3/8"	1-1/4"	3/8"	2	3"
RSC2120-U2	1/2"	1-1/4"	1/2"	2	3"
RSC2124-U2	1/2"	1-5/8"	1/2"	2	3-1/2"
RSC2130-U2	1/2"	2-1/8"	1/2"	2	4"
RSC2138-U2	5/8"	2-1/4"	5/8"	2	4"
RSC2144-U2	3/4"	2-1/4"	3/4"	2	4"

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend it's capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
BALLNOSE	+BN	Round Tip	FC61 - FC63
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
PASS BY / DEEP MORTISE	+DM	Stepped	FC59

**DESIGN:**

- Good surface finish is produced by the 2 precision ground cutting edges with Chipbreakers
- Chipbreakers reduce cutting pressure and noise levels
- Excellent chipflow and lower heat retention are provided by the 2 flute design with Chipbreakers
- Submicron, corrosion resistant, extended life carbide provides increased durability and resistance to resin build-up
- 30° Helix design with plunging capability

APPLICATION:

- Chipbreakers reduce the size of chips and improve chipflow, allowing for higher feed rates and tool life in plywood, chipboard and solid wood
- Chipbreakers reduce tear-out in plywood, solid wood and loose core materials
- Good finish on hardwoods, softwoods, chipboard and plywood materials
- Commonly used for rebates, dadoes/grooving and pocketing operations on raw panels, plywood and solid wood
- Increased cutting edge life when frequently accelerating/decelerating or performing multiple passes such as "Onion skinning"
- Reduces fuzzing and tear-out along the top face of the board
- Downward cutting action helps hold down material
- For improved dust extraction use with an Aerotech (page FC21)

CHIPBREAKER BITS TWO FLUTE**DOWNCUT SPIRAL**

PART NO.	CUTTING DIAM.	FLUTE LENGTH	SHANK DIAM.	NO. FLUTES	OVERALL LENGTH
RSC2116-D2	3/8"	1-1/4"	3/8"	2	3"
RSC2120-D2	1/2"	1-1/4"	1/2"	2	3"
RSC2124-D2	1/2"	1-5/8"	1/2"	2	3-1/2"
RSC2130-D2	1/2"	2-1/8"	1/2"	2	4"
RSC2138-D2	5/8"	2-1/4"	5/8"	2	4"
RSC2144-D2	3/4"	2-1/4"	3/4"	2	4"

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend it's capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
BALLNOSE	+BN	Round Tip	FC61 - FC63
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
PASS BY / DEEP MORTISE	+DM	Stepped	FC59

**DESIGN:**

- Good surface finish is produced by the 3 precision ground cutting edges with Chipbreakers
- Chipbreakers reduce cutting pressure and noise levels
- Good chipflow and lower heat retention are provided by the 3 flute design with Chipbreakers
- Submicron, corrosion resistant, extended life carbide provides increased durability and resistance to resin build-up
- 30° Helix design with plunging capability

APPLICATION:

- Chipbreakers reduce the size of chips and improve chipflow, allowing for higher feed rates and tool life in plywood, chipboard and solid wood
- Faster feed rates at low spindle speeds
- Chipbreakers reduce tear-out in plywood, solid wood and loose core materials
- Good finish on hardwoods, softwoods, chipboard and plywood materials
- Commonly used for rebates, dadoes/grooving and pocketing operations on raw panels, plywood and solid wood
- 3 flute design allows for two cutting edges to be engaged at all times, providing greater stability and reducing run-out
- Reduces fuzzing and tear-out along the bottom face of the board
- Upcut spiral improves chip ejection from the cutting path
- For improved dust extraction use with an Aerotech (page FC21)

CHIPBREAKER BITS THREE FLUTE**UPCUT SPIRAL**

PART NO.	CUTTING DIAM.	FLUTE LENGTH	SHANK DIAM.	NO. FLUTES	OVERALL LENGTH
RSC2118-U3	1/2"	1-1/8"	1/2"	3	3"
RSC2146-U3	3/4"	2-1/4"	3/4"	3	4"

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend it's capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
BALLNOSE	+BN	Round Tip	FC61 - FC63
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
PASS BY / DEEP MORTISE	+DM	Stepped	FC59

**DESIGN:**

- Good surface finish is produced by the 3 precision ground cutting edges with Chipbreakers
- Chipbreakers reduce cutting pressure and noise levels
- Good chipflow and lower heat retention are provided by the 3 flute design with Chipbreakers
- Submicron, corrosion resistant, extended life carbide provides increased durability and resistance to resin build-up
- 30° Helix design with plunging capability

APPLICATION:

- Chipbreakers reduce the size of chips and improve chipflow, allowing for higher feed rates and tool life in plywood, chipboard and solid wood
- Faster feed rates at low spindle speeds
- Chipbreakers reduce tear-out in plywood, solid wood and loose core materials
- Good finish on hardwoods, softwoods, chipboard and plywood materials
- Commonly used for rebates, dadoes/grooving and pocketing operations on raw panels, plywood and solid wood
- 3 flute design allows for two cutting edges to be engaged at all times, providing greater stability and reducing run-out
- Reduces fuzzing and tear-out along the top face of the board
- Downward cutting action helps hold down material
- For improved dust extraction use with an Aerotech (page FC21)

CHIPBREAKER BITS THREE FLUTE**DOWNCUT SPIRAL**

PART NO.	CUTTING DIAM.	FLUTE LENGTH	SHANK DIAM.	NO. FLUTES	OVERALL LENGTH
RSC2118-D3	1/2"	1-1/8"	1/2"	3	3"
RSC2146-D3	3/4"	2-1/4"	3/4"	3	4"

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend it's capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
BALLNOSE	+BN	Round Tip	FC61 - FC63
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
PASS BY / DEEP MORTISE	+DM	Stepped	FC59



CHIPBREAKER BITS TWO FLUTE

COMPRESSION SPIRAL

PART NO.	CUTTING DIAM.	FLUTE LENGTH	SHANK DIAM.	UPCUT LENGTH	NO. FLUTES	OVERALL LENGTH
RSC2159W-UD2 ▲	3/8"	1"	3/8"	0.188"	2+2	2-1/2"
RSC2159-UD2	3/8"	1-1/4"	3/8"	0.275"	2+2	2-1/2"
RSC2161WS-UD2▲	1/2"	7/8"	1/2"	0.188"	2+2	3"
RSC2161W-UD2 ▲	1/2"	1-3/8"	1/2"	0.188"	2+2	3"
RSC2161M-UD2 ▲	1/2"	1-1/4"	1/2"	0.188"	2+2	3"
RSC2161-UD2	1/2"	1-1/4"	1/2"	0.390"	2+2	3"
RSC2162-UD2	1/2"	1-5/8"	1/2"	0.570"	2+2	3-1/2"
RSC2164-UD2	5/8"	1-5/8"	5/8"	0.625"	2+2	4"
RSC2166-UD2	3/4"	2-1/4"	3/4"	0.625"	2+2	4"

▲ Commonly used for Mortising cuts with a minimum depth of 0.250"

DESIGN:

- Good surface finish is produced by the 2 precision ground cutting edges with Chipbreakers
- Chipbreakers reduce cutting pressure and noise levels
- Excellent chipflow and lower heat retention are provided by the 2 flute design with Chipbreakers
- Fast feed rates are possible due to the high performance tool geometry
- Submicron, corrosion resistant, extended life carbide provides increased durability and resistance to resin build-up
- 30° Helix design with plunging capability

APPLICATION:

- Chipbreakers reduce the size of chips and improve chipflow, allowing for higher feed rates and tool life in plywood, chipboard and solid wood
- Chipbreakers reduce tear-out in plywood, solid wood and loose core materials
- Good finish on hardwoods, softwoods, chipboard and plywood materials
- Increased cutting edge life when frequently accelerating/decelerating or performing multiple passes such as "Onion skinning"
- Eliminates chipping, fuzzing and tear-out when the end of the upcut/downcut cutting edges are further than 1/16" from the top and bottom faces of the board
- Use a "Mortise" upcut length of 0.188" when cutting rebates, dados or pockets
- If part movement is a concern, use a "Mortise" Upcut Length of 0.188"
- When possible select a router bit with a longer upcut length to improve chip ejection from the cutting path
- For improved dust extraction use with an Aerotech (page FC21)

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend it's capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
BALLNOSE	+BN	Round Tip	FC61 - FC63
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
PASS BY / DEEP MORTISE	+DM	Stepped	FC59



CHIPBREAKER BITS THREE FLUTE

COMPRESSION SPIRAL

PART NO.	CUTTING DIAM.	FLUTE LENGTH	SHANK DIAM.	UPCUT LENGTH	NO. FLUTES	OVERALL LENGTH
RSC2159A-UD3 ▲	3/8"	1"	3/8"	0.188"	3+3	3"
RSC2161-UD3 ▲	1/2"	1-1/4"	1/2"	0.188"	3+3	3"
RSC2162-UD3	1/2"	1-5/8"	1/2"	0.525"	3+3	3-1/2"

▲ Commonly used for Mortising cuts with a minimum depth of 0.250"

DESIGN:

- Good surface finish is produced by the 3 precision ground cutting edges with Chipbreakers
- Chipbreakers reduce cutting pressure and noise levels
- Good chipflow and lower heat retention are provided by the 3 flute design with Chipbreakers
- Faster feed rates at low spindle speeds are possible due to the high performance tool geometry
- Submicron, corrosion resistant, extended life carbide provides increased durability and resistance to resin build-up
- 30° Helix design with plunging capability

APPLICATION:

- Chipbreakers reduce the size of chips and improve chipflow, allowing for higher feed rates and tool life in plywood, chipboard and solid wood
- Chipbreakers reduce tear-out in plywood, solid wood and loose core materials
- Good finish on hardwoods, softwoods, chipboard and plywood materials
- 3 flute design allows for two cutting edges to be engaged at all times, providing greater stability and reducing run-out
- Eliminates chipping, fuzzing and tear-out when the end of the upcut/downcut cutting edges are further than 1/16" from the top and bottom faces of the board
- Use a "Mortise" upcut length of 0.188" when cutting rebates, dados or pockets
- If part movement is a concern, use a "Mortise" Upcut Length of 0.188"
- When possible select a router bit with a longer upcut length to improve chip ejection from the cutting path
- For improved dust extraction use with an Aerotech (page FC21)

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend it's capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
BALLNOSE	+BN	Round Tip	FC61 - FC63
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
PASS BY / DEEP MORTISE	+DM	Stepped	FC59

**DESIGN:**

- Clean but uneven surface finish is produced by the aggressive scalloped cutting edge design, otherwise known as "Knuckles"
- Knuckles reduce cutting pressure by creating multiple cuts or chips along a single cutting edge
- Good chipflow and lower heat retention in solid wood are provided by the 2 flute design with Knuckles
- Fast feed rates in solid wood are possible due to the 2 precision ground scalloped cutting edges
- Special submicron, corrosion resistant, extended life carbide provides increased cutting edge durability and resistance to resin build-up when cutting solid wood and materials of inconsistent density
- 30° Helix design with plunging capability

APPLICATION:

- Knuckles reduce cutting pressure and produce smaller chips that in turn improve chipflow, allowing for higher feed rates and increased tool life in hard materials, solid wood and material hogging applications
- Commonly used for rebates, dadoes/grooving and pocketing operations on raw panels, plywood and solid wood
- Increased cutting edge life when frequently accelerating/decelerating or performing multiple passes such as "Onion skinning"
- Upcut spiral provides excellent chip ejection from the cutting path

ROUGHING BITS TWO FLUTE**UPCUT SPIRAL**

PART NO.	CUTTING DIAM.	FLUTE LENGTH	SHANK DIAM.	NO. FLUTES	OVERALL LENGTH
RSCM0835-U2	8mm	35mm	8mm	2	80mm
RSC2015-U2	3/8"	1-1/4"	3/8"	2	3"
RSC2016-U2	3/8"	1-1/4"	1/2"	2	3"
RSCM1035-U2	10mm	35mm	10mm	2	80mm
RSCM1235-U2	12mm	35mm	12mm	2	80mm
RSC2020-U2	1/2"	1-1/4"	1/2"	2	3"
RSC2024-U2	1/2"	1-1/2"	1/2"	2	3-1/2"
RSC2028-U2	1/2"	2"	1/2"	2	4"
RSC2036-U2	5/8"	1-1/2"	5/8"	2	4"
RSC2038-U2	5/8"	2"	5/8"	2	4"
RSC2042-U2	3/4"	1-1/2"	3/4"	2	4"
RSC2044-U2	3/4"	2"	3/4"	2	4"

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend it's capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
BALLNOSE	+BN	Round Tip	FC61 - FC63
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
PASS BY / DEEP MORTISE	+DM	Stepped	FC59

**DESIGN:**

- Clean but uneven surface finish is produced by the aggressive scalloped cutting edge design, otherwise known as "Knuckles"
- Knuckles reduce cutting pressure by creating multiple cuts or chips along a single cutting edge
- Good chipflow and lower heat retention in solid wood are provided by the 2 flute design with Knuckles
- Fast feed rates in solid wood are possible due to the 2 precision ground scalloped cutting edges
- Special submicron, corrosion resistant, extended life carbide provides increased cutting edge durability and resistance to resin build-up when cutting solid wood and materials of inconsistent density
- 30° Helix design with plunging capability

APPLICATION:

- Knuckles reduce cutting pressure and produce smaller chips that in turn improve chipflow, allowing for higher feed rates and increased tool life in hard materials, solid wood and material hogging applications
- Commonly used for rebates, dadoes/grooving and pocketing operations on raw panels, plywood and solid wood
- Increased cutting edge life when frequently accelerating/decelerating or performing multiple passes such as "Onion skinning"
- Downward cutting action helps hold down material

ROUGHING BITS TWO FLUTE**DOWNCUT SPIRAL**

PART NO.	CUTTING DIAM.	FLUTE LENGTH	SHANK DIAM.	NO. FLUTES	OVERALL LENGTH
RSCM0835-D2	8mm	35mm	8mm	2	80mm
RSC2015-D2	3/8"	1-1/4"	3/8"	2	3"
RSC2016-D2	3/8"	1-1/4"	1/2"	2	3"
RSCM1035-D2	10mm	35mm	10mm	2	80mm
RSCM1235-D2	12mm	35mm	12mm	2	80mm
RSC2020-D2	1/2"	1-1/4"	1/2"	2	3"
RSC2024-D2	1/2"	1-1/2"	1/2"	2	3-1/2"
RSC2028-D2	1/2"	2"	1/2"	2	4"
RSC2036-D2	5/8"	1-1/2"	5/8"	2	4"
RSC2038-D2	5/8"	2"	5/8"	2	4"
RSC2042-D2	3/4"	1-1/2"	3/4"	2	4"
RSC2044-D2	3/4"	2"	3/4"	2	4"

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend it's capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
BALLNOSE	+BN	Round Tip	FC61 - FC63
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
PASS BY / DEEP MORTISE	+DM	Stepped	FC59

**DESIGN:**

- Clean but uneven surface finish is produced by the aggressive scalloped cutting edge design, otherwise known as "Knuckles"
- Knuckles reduce cutting pressure by creating multiple cuts or chips along a single cutting edge
- Good chipflow and lower heat retention in solid wood are provided by the 3 flute design with Knuckles
- Faster feed rates at lower spindle speeds in solid wood are possible due to the 3 precision ground scalloped cutting edges
- Special submicron, corrosion resistant, extended life carbide provides increased cutting edge durability and resistance to resin build-up when cutting solid wood and materials of inconsistent density
- 30° Helix design with plunging capability

APPLICATION:

- Knuckles reduce cutting pressure and produce smaller chips that in turn improve chipflow, allowing for higher feed rates and increased tool life in hard materials, solid wood and material hogging applications
- Commonly used for rebates, dadoes/grooving and pocketing operations on raw panels, plywood and solid wood
- 3 flute design allows for two cutting edges to be engaged at all times, providing greater stability and reducing run-out
- Upcut spiral provides excellent chip ejection from the cutting path

ROUGHING BITS THREE FLUTE**UPCUT SPIRAL**

PART NO.	CUTTING DIAM.	FLUTE LENGTH	SHANK DIAM.	NO. FLUTES	OVERALL LENGTH
RSCM0835-U3	8mm	35mm	8mm	3	80mm
RSC2017-U3	3/8"	1-1/4"	3/8"	3	3"
RSC2018-U3	3/8"	1-1/4"	1/2"	3	3"
RSCM1035-U3	10mm	35mm	10mm	3	80mm
RSCM1235-U3	12mm	35mm	12mm	3	80mm
RSC2022-U3	1/2"	1-1/4"	1/2"	3	3"
RSC2026-U3	1/2"	1-1/2"	1/2"	3	3-1/2"
RSC2030-U3	1/2"	2"	1/2"	3	4"
RSCM1455-U3	14mm	55mm	14mm	3	100mm
RSC2040-U3	5/8"	2"	5/8"	3	4"
RSCM1655-U3	16mm	55mm	16mm	3	100mm
RSCM1855-U3	18mm	55mm	18mm	3	100mm
RSC2046-U3	3/4"	2"	3/4"	3	4"
RSCM2055-U3	20mm	55mm	20mm	3	100mm

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend it's capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
BALLNOSE	+BN	Round Tip	FC61 - FC63
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
PASS BY / DEEP MORTISE	+DM	Stepped	FC59

**DESIGN:**

- Clean but uneven surface finish is produced by the aggressive scalloped cutting edge design, otherwise known as "Knuckles"
- Knuckles reduce cutting pressure by creating multiple cuts or chips along a single cutting edge
- Good chipflow and lower heat retention in solid wood are provided by the 3 flute design with Knuckles
- Faster feed rates at lower spindle speeds in solid wood are possible due to the 3 precision ground scalloped cutting edges
- Special submicron, corrosion resistant, extended life carbide provides increased cutting edge durability and resistance to resin build-up when cutting solid wood and materials of inconsistent density
- 30° Helix design with plunging capability

APPLICATION:

- Knuckles reduce cutting pressure and produce smaller chips that in turn improve chipflow, allowing for higher feed rates and increased tool life in hard materials, solid wood and material hogging applications
- Commonly used for rebates, dadoes/grooving and pocketing operations on raw panels, plywood and solid wood
- 3 flute design allows for two cutting edges to be engaged at all times, providing greater stability and reducing run-out
- Downward cutting action helps hold down material

ROUGHING BITS THREE FLUTE**DOWNCUT SPIRAL**

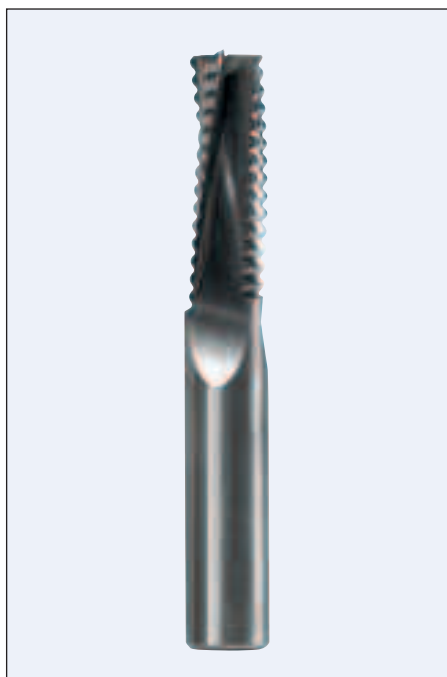
PART NO.	CUTTING DIAM.	FLUTE LENGTH	SHANK DIAM.	NO. FLUTES	OVERALL LENGTH
RSCM0835-D3	8mm	35mm	8mm	3	80mm
RSC2017-D3	3/8"	1-1/4"	3/8"	3	3"
RSC2018-D3	3/8"	1-1/4"	1/2"	3	3"
RSCM1035-D3	10mm	35mm	10mm	3	80mm
RSCM1235-D3	12mm	35mm	12mm	3	80mm
RSC2022-D3	1/2"	1-1/4"	1/2"	3	3"
RSC2026-D3	1/2"	1-1/2"	1/2"	3	3-1/2"
RSC2030-D3	1/2"	2"	1/2"	3	4"
RSCM1455-D3	14mm	55mm	14mm	3	100mm
RSC2040-D3	5/8"	2"	5/8"	3	4"
RSCM1655-D3	16mm	55mm	16mm	3	100mm
RSCM1855-D3	18mm	55mm	18mm	3	100mm
RSC2046-D3	3/4"	2"	3/4"	3	4"
RSCM2055-D3	20mm	55mm	20mm	3	100mm

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend it's capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
BALLNOSE	+BN	Round Tip	FC61 - FC63
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
PASS BY / DEEP MORTISE	+DM	Stepped	FC59

**DESIGN:**

- Clean but uneven surface finish is produced by the aggressive scalloped cutting edge design, otherwise known as "Knuckles"
- Significantly reduced cutting pressure is required due to the less aggressive scalloped cutting edge design
- Excellent chipflow, lower heat retention and increased tool rigidity are provided by the 3 flute, low helix design with Knuckles
- Faster feed rates at low spindle speeds in hard materials is possible due to the high performance tool geometry and 3 precision ground scalloped cutting edges
- Special submicron, corrosion resistant, extended life carbide provides increased cutting edge durability and resistance to resin build-up when cutting solid wood and materials of inconsistent density
- 10° Helix design with plunging capability

APPLICATION:

- Knuckles reduce cutting pressure and produce smaller chips that in turn improve chipflow, allowing for higher feed rates and increased tool life in hard materials, solid wood and material hogging applications
- 3 flute design allows for two cutting edges to be engaged at all times, providing greater stability and reducing run-out
- Improved cutting edge life when cutting hard materials and deep cuts
- Noise levels during cutting operations of hard materials will be reduced due to lower cutting pressure required
- Upcut spiral provides excellent chip ejection from the cutting path

ROUGHING LOW HELIX BITS**UPCUT SPIRAL**

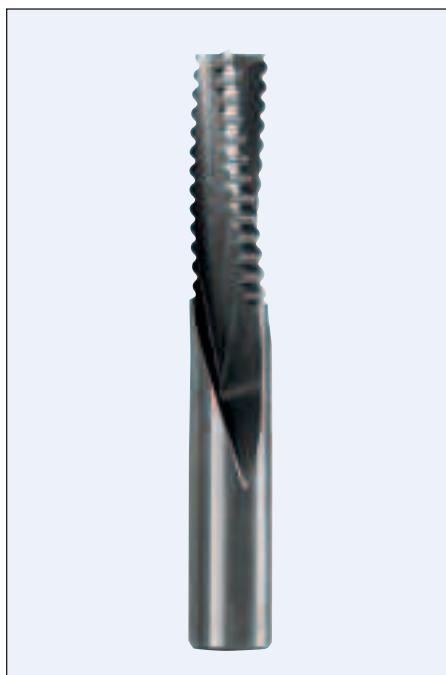
PART NO.	CUTTING DIAM.	FLUTE LENGTH	SHANK DIAM.	NO. FLUTES	OVERALL LENGTH
RSCL2018-U3	3/8"	1-1/4"	3/8"	3	4"
RSCL2026-U3	1/2"	1-1/2"	1/2"	3	4"
RSCL2030-U3	1/2"	2"	1/2"	3	4-1/2"
RSCL2040-U3	5/8"	2"	5/8"	3	5"
RSCL2046-U3	3/4"	2"	3/4"	3	5"

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend it's capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
BALLNOSE	+BN	Round Tip	FC61 - FC63
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
PASS BY / DEEP MORTISE	+DM	Stepped	FC59

**DESIGN:**

- Clean but uneven surface finish is produced by the aggressive scalloped cutting edge design, otherwise known as "Knuckles"
- Significantly reduced cutting pressure is required due to the less aggressive scalloped cutting edge design
- Excellent chipflow, lower heat retention and increased tool rigidity are provided by the 3 flute, low helix design with Knuckles
- Faster feed rates at low spindle speeds in hard materials is possible due to the high performance tool geometry and 3 precision ground scalloped cutting edges
- Special submicron, corrosion resistant, extended life carbide provides increased cutting edge durability and resistance to resin build-up when cutting solid wood and materials of inconsistent density
- 10° Helix design with plunging capability

APPLICATION:

- Knuckles reduce cutting pressure and produce smaller chips that in turn improve chipflow, allowing for higher feed rates and increased tool life in hard materials, solid wood and material hogging applications
- 3 flute design allows for two cutting edges to be engaged at all times, providing greater stability and reducing run-out
- Improved cutting edge life when cutting hard materials and deep cuts
- Noise levels during cutting operations of hard materials will be reduced due to lower cutting pressure required
- Downward cutting action helps hold down material

ROUGHING LOW HELIX BITS**DOWNCUT SPIRAL**

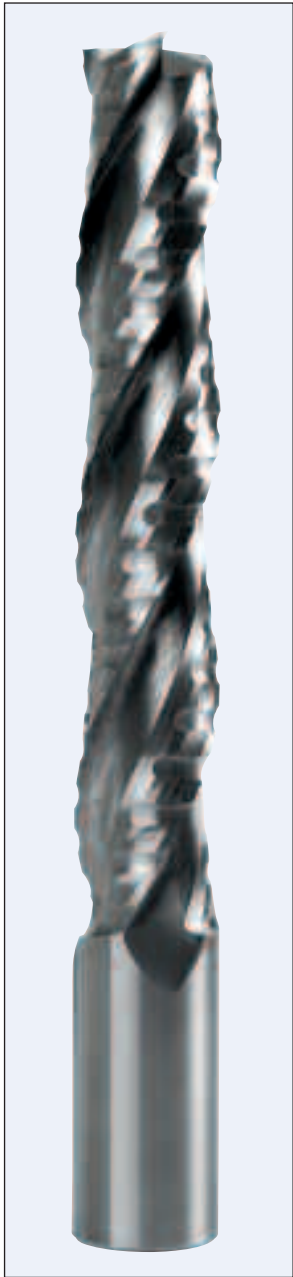
PART NO.	CUTTING DIAM.	FLUTE LENGTH	SHANK DIAM.	NO. FLUTES	OVERALL LENGTH
RSCL2018-D3	3/8"	1-1/4"	3/8"	3	4"
RSCL2026-D3	1/2"	1-1/2"	1/2"	3	4"
RSCL2030-D3	1/2"	2"	1/2"	3	4-1/2"
RSCL2040-D3	5/8"	2"	5/8"	3	5"
RSCL2046-D3	3/4"	2"	3/4"	3	5"

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend it's capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
BALLNOSE	+BN	Round Tip	FC61 - FC63
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
PASS BY / DEEP MORTISE	+DM	Stepped	FC59

**DESIGN:**

- Special secondary chamfered clearance improves chipflow
- Unique scalloped cutting edges produce a clean cut and extend tool life
- Knuckles reduce cutting pressure by creating multiple cuts or chips along a single cutting edge
- Faster feed rates at lower spindle speeds in hard materials are possible due to the 3 precision ground scalloped cutting edges
- Special submicron, corrosion resistant, extended life carbide provides increased cutting edge durability and resistance to resin build-up when cutting solid wood and materials of inconsistent density
- 30° Helix design with plunging capability, also available in Low Helix designs
- **[RSCH2046-U3]** Upcut spiral provides excellent chip ejection from the cutting path
- **[RSCH2046-D3]** Downward cutting action helps hold down material

APPLICATION:

- Recommended for Entry Doors, Stairways and other deep cuts in hard materials
- 3 flute design allows for two cutting edges to be engaged at all times, providing greater stability and reducing run-out

ROUGHING HOGGER BITS

PART NO.	SHEAR DIRECTION	CUTTING DIAM.	MAX. DEPTH OF CUT	SHANK DIAM.	SHANK LENGTH	NO. FLUTES	OVERALL LENGTH
RSCH2046-U3	UPCUT	1"	4"	1"	2"	3	7"
RSCH2046-D3	DOWNCUT	1"	4"	1"	2"	3	7"

ADDITIONAL SIZES

Roughing Hogger bits are available in a variety of dimensions and cutting angles beyond those listed here.

For more information on a Roughing Hogger router bit that matches your application, please contact your FS Tool representative.



Any of our in-stock solid carbide spiral router bits can be ordered in a Pass By/Deep Pocket Mortise style. To request information about a Pass-By/Deep Pocket Mortise modification or custom router bit, please provide the information below.

DESIGN:

- Typical design utilizes a roughing upcut spiral such as the RSF2030-U3 OR RSCH2046-U3
The design will include a reduced diameter of 1/8" for the area between B and B1, shown on the illustration below
- Reduced diameter on non-cutting flutes reduces lateral pressure allowing for a longer more stable cutting tool and improved chipflow when performing deep cutting operations

APPLICATION:

- Recommended for deep cuts

Part # to Modify: _____

[Optional]

Material Type: _____

Quantity to Order: _____

Cutting Diameter: D = _____

Maximum Depth of Channel: B = _____

Maximum Depth of Cut: B1 = _____

Reduced Diameter: _____

[Optional]

Shank Diameter: d = _____

Shank Length: _____

[Optional]

of Flutes (Cutting Edges): _____

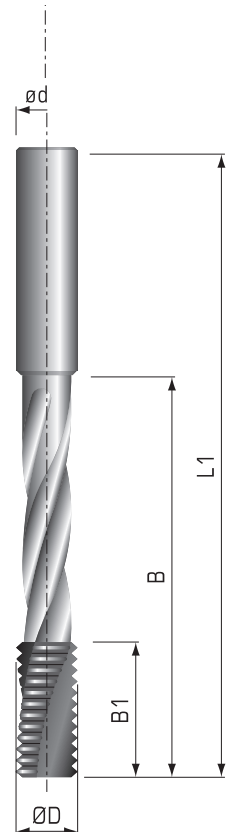
[Optional]

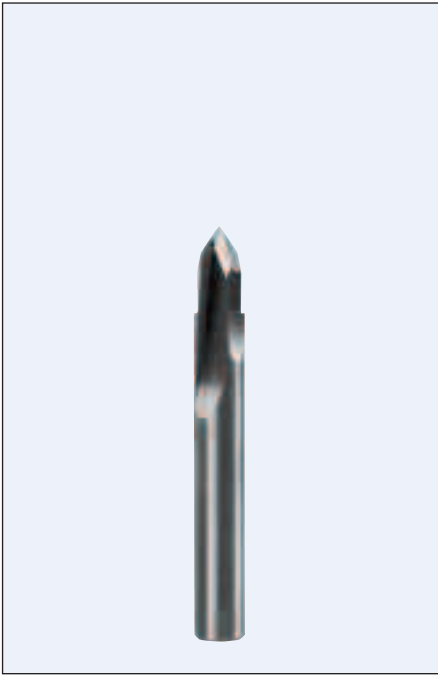
Helix Angle: Standard Helix or Low Helix

[Optional]

Overall Length: _____

[Optional]



**60°V-POINT BITS**

PART NO.	TIP ANGLE	CUTTING DIAM.	FLUTE LENGTH	SHANK DIAM.	NO. FLUTES	OVERALL LENGTH
RSFV6014/78	60°	1/4"	7/8"	1/4"	2	3"
RSFV6038/1	60°	3/8"	1"	3/8"	2	3"
RSFV6012/114	60°	1/2"	1-1/4"	1/2"	2	3"

90°V-POINT BITS

PART NO.	TIP ANGLE	CUTTING DIAM.	FLUTE LENGTH	SHANK DIAM.	NO. FLUTES	OVERALL LENGTH
RSFV9014/78	90°	1/4"	7/8"	1/4"	2	3"
RSFV9038/1	90°	3/8"	1"	3/8"	2	3"
RSFV9012/114	90°	1/2"	1-1/4"	1/2"	2	3"

DESIGN:

- Good to Excellent surface finish is produced by the 2 precision ground cutting edges
- Good chipflow is provided by the 2 flute low upshear design with steep back clearances
- Submicron, corrosion resistant, extended life carbide provides increased durability and resistance to resin build-up

APPLICATION:

- For smooth finishing V-Groove or Bevel cuts
- Good finish on hardwoods, softwoods, composite materials, solid surface and plastic materials
- For improved dust extraction, use with an Aerotech (page FC21)

ADDITIONAL SIZES

V-Point bits are available in a variety of dimensions and cutting angles beyond those listed here.

For more information on a V-Point router bit that matches your application, please contact your FS Tool representative.

**DESIGN:**

- Large clearance areas prevent re-welding of debris by allowing chips to quickly flow away from the cutting edges
- Knuckles reduce cutting pressure by creating multiple cuts or chips along a single cutting edge
- Good chipflow and lower heat retention in hard materials are provided by the 3 flute design with Knuckles
- Faster feed rates in solid wood are possible due to the precision ground scalloped cutting edges
- Special submicron, corrosion resistant, extended life carbide provides increased cutting edge durability and resistance to resin build-up when cutting solid wood and materials of inconsistent density
- 30° Helix design with plunging capability

APPLICATION:

- Knuckles produce small chips and improve chipflow, allowing for higher feed rates, lower cutting pressure and tool life in hard materials and hogging applications
- For an exceptionally smooth finish on 3 dimensional machining operations such as mouldings and sculpted parts
- Exceptional finish on hardwoods, softwoods, MDF, chipboard, plywood, solid surface, plastics and composite materials
- 3 flute design allows for two cutting edges to be engaged at all times, providing greater stability and reducing run-out
- Upcut spiral improves chip ejection from the cutting path

ROUGHING BALLNOSE BITS**UPCUT SPIRAL**

PART NO.	CUTTING DIAM.	FLUTE LENGTH	SHANK DIAM.	NO. FLUTES	OVERALL LENGTH
RSCBN2018-U3	3/8"	1-1/4"	3/8"	3	4"
RSCBN2030-U3	1/2"	2-1/4"	1/2"	3	4"
RSCBN2040-U3	5/8"	2-1/4"	5/8"	3	4"
RSCBN2050-U3	3/4"	3-1/2"	3/4"	3	6"

ADDITIONAL SIZES

Spiral Ballnose bits are available in a variety of dimensions and cutting angles beyond those listed here.

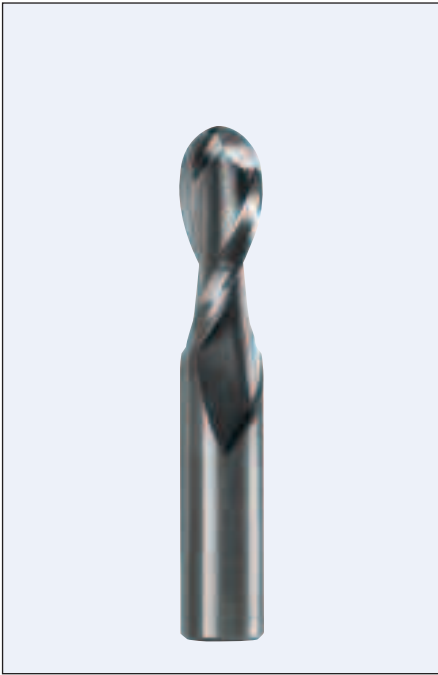
For more information on a Ballnose router bit that matches your application, please contact your FS Tool representative.

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend it's capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
PASS BY / DEEP MORTISE	+DM	Stepped	FC59

**DESIGN:**

- Superior surface finish is produced by the precision ground cutting edges
- Large clearance areas prevent re-welding of debris by allowing chips to quickly flow away from the cutting edges
- Submicron, corrosion resistant, extended life carbide provides increased durability and resistance to resin build-up
- 30° Helix design with plunging capability

APPLICATION:

- For an exceptionally smooth finish on 3 dimensional machining operations such as mouldings and sculpted parts
- Exceptional finish on hardwoods, softwoods, MDF, chipboard, plywood, solid surface, plastics and composite materials
- 3 flute models allow for two cutting edges to be engaged at all times, providing greater stability and reducing run-out
- Upcut spiral improves chip ejection from the cutting path

ADDITIONAL SIZES

Spiral Ballnose bits are available in a variety of dimensions and cutting angles beyond those listed here.

For more information on a Ballnose router bit that matches your application, please contact your FS Tool representative.

FINISHING BALLNOSE BITS**UPCUT SPIRAL**

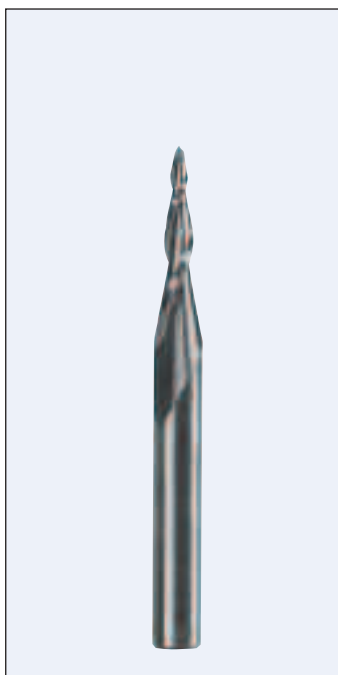
PART NO.	CUTTING DIAM.	FLUTE LENGTH	SHANK DIAM.	NO. FLUTES	OVERALL LENGTH
RSFBN2000A-U2	1/8"	1/2"	1/8"	2	2"
RSFBN2000-U2	1/8"	1/2"	1/4"	2	2"
RSFBN2006-U2	1/4"	7/8"	1/4"	2	2-1/2"
RSFBN2009-U2	1/4"	1-1/2"	1/4"	2	4"
RSFBN2018-U3	3/8"	1-1/4"	3/8"	3	4"
RSFBN2019-U2	1/2"	1/2"	1/2"	2	3"
RSFBN2020-U2	1/2"	1-1/4"	1/2"	2	3"
RSFBN2030-U3	1/2"	2-1/4"	1/2"	3	4"
RSFBN2040-U3	5/8"	2-1/4"	5/8"	3	4"
RSFBN2046-U3	3/4"	1-1/2"	3/4"	3	4"
RSFBN2050-U3	3/4"	3-1/2"	3/4"	3	4"

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend it's capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
CHIPBREAKER	+CB	Notched	FC46 - FC51
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
ROUGHING	+RS	Scalloped	FC52 - FC57
PASS BY /	+DM	Stepped	FC59
DEEP MORTISE			



TAPERED BALLNOSE FINISHING BITS

PART NO.	BALLNOSE DIAM.	TAPER INCL. ANGLE	FLUTE LENGTH	SHANK DIAM.	NO. FLUTES	OVERALL LENGTH
RSFBNT1160514/1-U2	1/16"	5°	1"	1/4"	2	2-1/2"
RSFBNT1160314/34-U3	1/16"	3°	3/4"	1/4"	3	3"
RSFBNT180514/34-U3	1/8"	5°	3/4"	1/4"	3	3"
RSFBNT180114/112-U3	1/8"	1°	1-1/2"	1/4"	3	3"
RSFBNT140512/138-U3	1/4"	5°	1-3/8"	1/2"	3	4"
RSFBNT380512/112-U3	3/8"	5°	1-1/2"	1/2"	3	4"

DESIGN:

- Tapered design provides increased strength and rigidity for small ballnose diameters and long flute lengths
- Superior surface finish is produced by the precision ground cutting edges
- Large clearance areas prevent re-welding of debris by allowing chips to quickly flow away from the cutting edges
- Submicron, corrosion resistant, extended life carbide provides increased durability and resistance to resin build-up
- 30° Helix design with plunging capability

APPLICATION:

- For an exceptionally smooth finish on 3 dimensional machining operations such as mouldings and sculpted parts
- Exceptional finish on hardwoods, softwoods, MDF, chipboard, plywood, solid surface, plastics and composite materials
- 3 flute models allow for two cutting edges to be engaged at all times, providing greater stability and reducing run-out
- Upcut spiral improves chip ejection from the cutting path

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend it's capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
CHIPBREAKER	+CB	Notched	FC46 - FC51
ROUGHING	+RS	Scalloped	FC52 - FC57
PASS BY / DEEP MORTISE	+DM	Stepped	FC59

ADDITIONAL SIZES

Spiral Ballnose bits are available in a variety of dimensions and cutting angles beyond those listed here.

For more information on a Ballnose router bit that matches your application, please contact your FS Tool representative.

**APPLICATION:**

- For exceptionally smooth finishing cuts
- Significantly increased tool life and cut quality compared to a brazed dovetail router bits
- Upcut spiral improves chip ejection from the cutting path and provides a smooth bottom cut

10° DOVETAIL BITS**UPCUT SPIRAL**

PART NO.	DOVETAIL ANGLE	CUTTING DIAM.	DOVETAIL LENGTH	SHANK DIAM.	NO. FLUTES	OVERALL LENGTH
RSFDLM1014/9-U2	10°	14mm	9mm	14mm	2	60mm
RSFDLM1014/10-U2	10°	14mm	10mm	14mm	2	60mm
RSFDL1014/450-U2	10°	14mm	0.450"	14mm	2	60mm
RSFDL1014/622-U2	10°	14mm	0.622"	14mm	2	60mm

LEFT HAND ROTATION**10° DOVETAIL BITS****UPCUT SPIRAL**

PART NO.	DOVETAIL ANGLE	CUTTING DIAM.	DOVETAIL LENGTH	SHANK DIAM.	NO. FLUTES	OVERALL LENGTH
RSFDLM1014/9-U2L	10°	14mm	9mm	14mm	2	60mm
RSFDLM1014/10-U2L	10°	14mm	10mm	14mm	2	60mm
RSFDL1014/450-U2L	10°	14mm	0.450"	14mm	2	60mm
RSFDL1014/622-U2L	10°	14mm	0.622"	14mm	2	60mm

DESIGN:

- Unique offset cutting edge design eliminates burring of the workpiece's top edge
- Excellent chipflow and lower heat retention is provided by the 2 spiral flute design
- Special submicron, corrosion resistant, extended life carbide provides increased cutting edge durability and resistance to resin build-up when cutting solid wood and materials of inconsistent density
- Designed for OMEC Dovetail Machines

WHEN ORDERING SPECIFY

- If your machine has an Eccentric Spindle, router bits will be custom manufactured

SPIRAL 10° DOVETAIL DOWNCUT, Z=2**APPLICATION:**

- For exceptionally smooth finishing cuts
- Significantly increased tool life and cut quality compared to a brazed dovetail router bits
- Downcut spiral provides a smooth finish along the top edge

10° DOVETAIL BITS**DOWNCUT SPIRAL**

PART NO.	DOVETAIL ANGLE	CUTTING DIAM.	DOVETAIL LENGTH	SHANK DIAM.	NO. FLUTES	OVERALL LENGTH
RSFDLM1014/9-D2	10°	14mm	9mm	14mm	2	60mm
RSFDLM1014/10-D2	10°	14mm	10mm	14mm	2	60mm
RSFDL1014/450-D2	10°	14mm	0.450"	14mm	2	60mm
RSFDL1014/622-D2	10°	14mm	0.622"	14mm	2	60mm

LEFT HAND ROTATION**10° DOVETAIL BITS****DOWNCUT SPIRAL**

PART NO.	DOVETAIL ANGLE	CUTTING DIAM.	DOVETAIL LENGTH	SHANK DIAM.	NO. FLUTES	OVERALL LENGTH
RSFDLM1014/9-D2L	10°	14mm	9mm	14mm	2	60mm
RSFDLM1014/10-D2L	10°	14mm	10mm	14mm	2	60mm
RSFDL1014450-D2L	10°	14mm	0.450"	14mm	2	60mm
RSFDL1014622-D2L	10°	14mm	0.622"	14mm	2	60mm

ADDITIONAL SIZES

Spiral Dovetails are available in a variety of dimensions and cutting angles beyond those listed here.

For more information on a Dovetail router bit that matches your application, please contact your FS Tool representative.

**APPLICATION:**

- For exceptionally smooth finishing cuts
- Significantly increased tool life and cut quality compared to a brazed dovetail router bits
- Upcut spiral improves chip ejection from the cutting path and provides a smooth bottom cut

10° DOVETAIL BITS				UPCUT SPIRAL		
PART NO.	DOVETAIL ANGLE	CUTTING DIAM.	DOVETAIL LENGTH	SHANK DIAM.	NO. FLUTES	OVERALL LENGTH
RSFD1012/625-U2	10°	1/2"	0.625"	14mm	2	2-1/2"
RSFDM1014/450-U2	10°	14mm	0.450"	14mm	2	60mm

LEFT HAND ROTATION

10° DOVETAIL BITS				UPCUT SPIRAL		
PART NO.	DOVETAIL ANGLE	CUTTING DIAM.	DOVETAIL LENGTH	SHANK DIAM.	NO. FLUTES	OVERALL LENGTH
RSFD1012/625-U2L	10°	1/2"	0.625"	14mm	2	2-1/2"
RSFDM1014/450-U2L	10°	14mm	0.450"	14mm	2	60mm

DESIGN:

- Excellent chipflow and lower heat retention is provided by the 2 spiral flute design
- Special submicron, corrosion resistant, extended life carbide provides increased cutting edge durability and resistance to resin build-up when cutting solid wood and materials of inconsistent density

WHEN ORDERING SPECIFY:

- Specify if flat is required on shank, for more information see photo on page FC64
- If your machines has an Eccentric Spindle, router bits will be custom manufactured

ADDITIONAL SIZES

Spiral Dovetails are available in a variety of dimensions and cutting angles beyond those listed here.

For more information on a Dovetail router bit that matches your application, please contact your FS Tool representative.

SPIRAL 10° DOVETAIL DOWNCUT, Z=2

APPLICATION:

- For exceptionally smooth finishing cuts
- Significantly increased tool life and cut quality compared to a brazed dovetail router bits
- Downcut spiral provides a smooth finish along the top edge

10° DOVETAIL BITS				DOWNCUT SPIRAL		
PART NO.	DOVETAIL ANGLE	CUTTING DIAM.	DOVETAIL LENGTH	SHANK DIAM.	NO. FLUTES	OVERALL LENGTH
RSFD1012/625-D2	10°	1/2"	0.625"	14mm	2	2-1/2"
RSFDM1014/450-D2	10°	14mm	0.450"	14mm	2	60mm

LEFT HAND ROTATION

10° DOVETAIL BITS				DOWNCUT SPIRAL		
PART NO.	DOVETAIL ANGLE	CUTTING DIAM.	DOVETAIL LENGTH	SHANK DIAM.	NO. FLUTES	OVERALL LENGTH
RSFD1012/625-D2L	10°	1/2"	0.625"	14mm	2	2-1/2"
RSFDM1014/450-D2L	10°	14mm	0.450"	14mm	2	60mm

**DESIGN:**

- Excellent chipflow, lower heat retention and increased tool rigidity are provided by the 3 flute, low helix design
- Special Chipbreakers for Phenolic reduce cutting pressure and noise levels
- Excellent chipflow and lower heat retention are provided by the 3 flute design with Phenolic Chipbreakers
- Submicron, corrosion resistant, extended life carbide provides increased durability and resistance to resin build-up
- 10° Helix design with plunging capability

APPLICATION:

- Specifically designed to provide an excellent finish and reduced noise levels when cutting Phenolic
- Faster feed rates at low spindle speeds
- 3 flute design allows for two cutting edges to be engaged at all times, providing greater stability and reducing run-out
- Improved cutting edge life when cutting Phenolic
- Eliminates chipping along the bottom face
- Upcut spiral improves chip ejection from the cutting path
- For improved dust extraction use with an Aerotech (page FC21)

PHENOLIC BITS THREE FLUTE**UPCUT SPIRAL**

PART NO.	CUTTING DIAM.	FLUTE LENGTH	SHANK DIAM.	NO. FLUTES	OVERALL LENGTH
RSCP2108-U3	1/4"	5/8"	1/4"	3	2-1/2"
RSCP2118-U3	3/8"	7/8"	3/8"	3	3"
RSCP2121-U3	1/2"	7/8"	1/2"	3	3"
RSCP2122-U3	1/2"	1-1/4"	1/2"	3	4"
RSCP2131-U3	1/2"	2-1/8"	2/2"	3	4-1/2"

ADDITIONAL SIZES

Phenolic Roughing bits are available in a variety of dimensions and cutting angles beyond those listed here.

For more information on a Phenolic Roughing router bit that matches your application, please contact your FS Tool representative.

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend it's capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
BALLNOSE	+BN	Round Tip	FC61 - FC63
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
PASS BY / DEEP MORTISE	+DM	Stepped	FC59

**DESIGN:**

- Excellent chipflow, lower heat retention and increased tool rigidity are provided by the 3 flute, low helix design
- Special Chipbreakers for Phenolic reduce cutting pressure and noise levels
- Excellent chipflow and lower heat retention are provided by the 3 flute design with Phenolic Chipbreakers
- Submicron, corrosion resistant, extended life carbide provides increased durability and resistance to resin build-up
- 10° Helix design with plunging capability

APPLICATION:

- Specifically designed to provide a excellent finish and reduced noise levels when cutting Phenolic
- Faster feed rates at low spindle speeds
- 3 flute design allows for two cutting edges to be engaged at all times, providing greater stability and reducing run-out
- Improved cutting edge life when cutting Phenolic
- Downward cutting action helps hold down material
- For improved dust extraction use with an Aerotech (page FC21)

PHENOLIC BITS THREE FLUTE**DOWNCUT SPIRAL**

PART NO.	CUTTING DIAM.	FLUTE LENGTH	SHANK DIAM.	NO. FLUTES	OVERALL LENGTH
RSCP2108-D3	1/4"	5/8"	1/4"	3	2-1/2"
RSCP2118-D3	3/8"	7/8"	3/8"	3	3"
RSCP2121-D3	1/2"	7/8"	1/2"	3	3"
RSCP2122-D3	1/2"	1-1/4"	1/2"	3	4"
RSCP2131-D3	1/2"	2-1/8"	2/2"	3	4-1/2"

ADDITIONAL SIZES

Phenolic Roughing bits are available in a variety of dimensions and cutting angles beyond those listed here.

For more information on a Phenolic Roughing router bit that matches your application, please contact your FS Tool representative.

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend it's capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
BALLNOSE	+BN	Round Tip	FC61 - FC63
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
PASS BY / DEEP MORTISE	+DM	Stepped	FC59

**DESIGN:**

- Excellent surface finish is produced by the single precision ground cutting edge
- Good chipflow is provided by the single flute design at low speeds
- Straight cutting edge with plunging capability

APPLICATION:

- For smooth finishing cuts
- Superior finish on hardwoods, softwoods, MDF, solid surface materials that are not veneered or laminated
- Superior cutting edge life when frequently accelerating/decelerating or performing multiple passes such as "Onion skinning"
- For improved dust extraction use with an Aerotech (page FC21)

ADDITIONAL SIZES

Straight Finishing bits are available in a variety of dimensions and cutting angles beyond those listed here.

For more information on a Straight Finishing router bit that matches your application, please contact your FS Tool representative.

STRAIGHT FINISHING BITS SINGLE FLUTE

PART NO.	CUTTING DIAM.	FLUTE LENGTH	SHANK DIAM.	NO. FLUTES	OVERALL LENGTH
R1000	1/8"	3/8"	1/4"	1	1-1/2"
R1008	7/32"	3/4"	1/4"	1	2"

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend it's capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
CHIPBREAKER	+CB	Notched	FC46 - FC51
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
ROUGHING	+RS	Scalloped	FC52 - FC57
PASS BY / DEEP MORTISE	+DM	Stepped	FC59

**DESIGN:**

- Excellent surface finish is produced by the 2 precision ground cutting edges
- Good chipflow is provided by the 2 straight flute design at moderate feed rates
- Faster feed-rates due to 2 cutting edges
- Straight cutting edge with plunging capability

APPLICATION:

- For smooth finishing cuts
- Superior finish on hardwoods, softwoods, MDF, solid surface materials that are not veneered or laminated
- Increased cutting edge life when frequently accelerating/decelerating or performing multiple passes such as "Onion skinning"
- For improved dust extraction use with an Aerotech (page FC21)

ADDITIONAL SIZES

Straight Finishing bits are available in a variety of dimensions and cutting angles beyond those listed here.

For more information on a Straight Finishing router bit that matches your application, please contact your FS Tool representative.

STRAIGHT FINISHING BITS TWO FLUTE

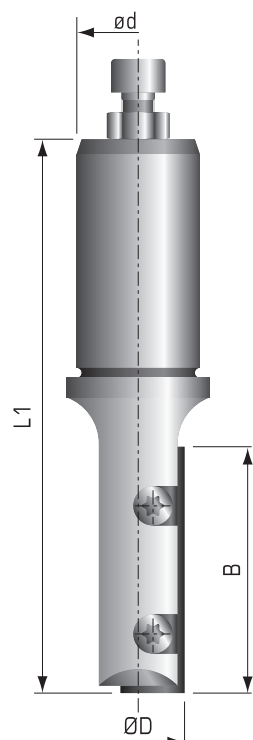
PART NO.	CUTTING DIAM.	FLUTE LENGTH	SHANK DIAM.	NO. FLUTES	OVERALL LENGTH
R1100	1/8"	3/8"	1/4"	2	1-1/2"
R1104	5/32"	5/8"	1/4"	2	1-1/2"
R1106	3/16"	5/8"	1/4"	2	2"
R1108	7/32"	3/4"	1/4"	2	2"
R1110	1/4"	3/4"	1/4"	2	2"
R1112	1/4"	1"	1/4"	2	2-1/2"
R1304	1/4"	3/4"	1/2"	2	3"
R1306	1/4"	1"	1/2"	2	3"
R1308	5/16"	1"	1/2"	2	3"
R1302	3/8"	1"	3/8"	2	3"
R1310	1/2"	1-1/4"	1/2"	2	3"

EXPANDED CAPABILITIES

Each spiral router bit listed can be ordered with modifications that will extend it's capabilities. Please reference the appropriate product page(s) for more information on each modification's specific applications and benefits.

EXTENDED CAPABILITY OPTIONS

MODIFICATION TYPE	ORDER CODE	MOD. SHAPE	MODIFICATION INFORMATION
CHIPBREAKER	+CB	Notched	FC46 - FC51
REDUCED DIAMETER	+RD	-	-
REDUCED LENGTH	+RL	-	-
ROUGHING	+RS	Scalloped	FC52 - FC57
PASS BY /	+DM	Stepped	FC59
DEEP MORTISE			

**DESIGN:**

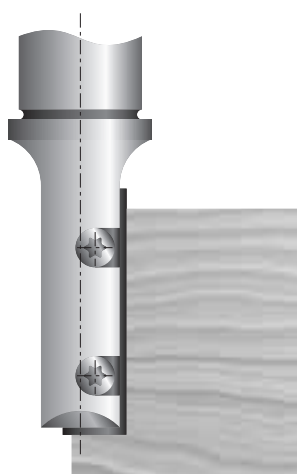
- High tensile steel body with 1 straight insert
- Reversible tungsten carbide insert with 4 cutting edges

APPLICATION:

- For Jointing, rabbeting and grooving in solid wood and panel materials
- Suitable for ramp-in plunge cuts using Z and X or Y axis
- On stationary and CNC routers

PART NO.	CUTTING DIAM. ØD	FLUTE LENGTH Bmm	SHANK DIAM. ød	NO. FLUTES	OVERALL LENGTH L1	MAX. RPM
RD2167	1/2"	30	1/2"	1	3-1/8"	24000
RD2177	5/8"	30	5/8"	1	3-1/8"	24000
RD2180	5/8"	50	5/8"	1	4-3/4"	20000
RD2185	3/4"	30	3/4"	1	3-1/8"	24000
RD2187	3/4"	50	3/4"	1	4-3/4"	20000

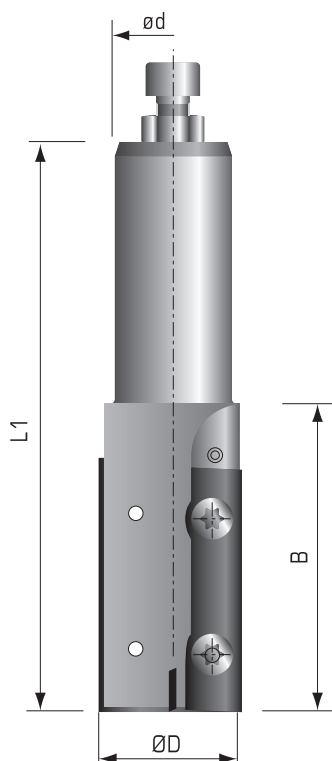
Other sizes available upon request.

**Replacement Parts**

TOOL NO.	DESCRIPTION	KNIFE	GIB	TORX SCREW
RD2167	PART NO.	303011S	W300803	W501314
	DIMENSIONS	30x5.5x1.1	28x5x2	M3x4
RD2177	PART NO.	303022	W300805	W501314
	DIMENSIONS	30x9x1.5	26x9.5x2.5	M3x7
RD2180	PART NO.	305022	W300806	W502302
	DIMENSIONS	50x9x1.5	46x9.5x2.5	M4x10
RD2185	PART NO.	303022	W300905	W502303
	DIMENSIONS	30x12x1.5	26x9.5x3.5	M4x12
RD2187	PART NO.	305022	W300906	W502303
	DIMENSIONS	50x12x1.5	46x9.5x3.5	M4x12



TORX WRENCH
PART NO. W400405 T15
PART NO. W400406 T8

**DESIGN:**

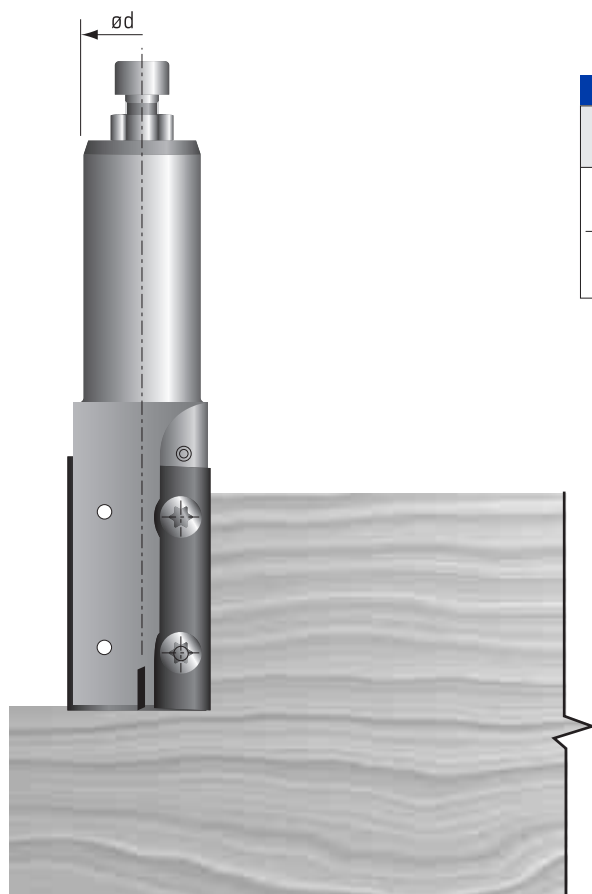
- High tensile steel body with 2 straight inserts and 1 plunge insert
- Reversible tungsten carbide insert with 2 cutting edges

APPLICATION:

- For Jointing, rabbeting and grooving in solid wood and panel materials
- Suitable for straight down plunge cuts and ramp-in plunge cuts using Z and X or Y axis
- On stationary and CNC routers

PART NO.	CUTTING DIAM. ØD	CUTTING LENGTH Bmm	SHANK DIAM. ød	NO. FLUTES	OVERALL LENGTH L1	MAX. RPM
RD2520	1"	30	3/4"	2+1	3-1/2"	20000
RD2522	1-3/8"	30	3/4"	2+1	3-1/2"	20000

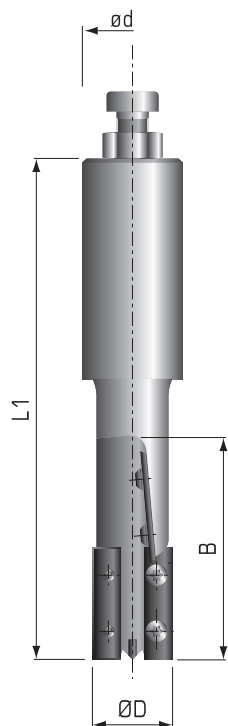
Other sizes available upon request.

**Replacement Parts**

TOOL NO.	DESCRIPTION	KNIFE	SCREW FOR KNIFE	PLUNGE KNIFE	SCREW FOR PLUNGE
RD2520	PART NO.	303009	WM356	RD2510P	WM420
	DIMENSIONS	30 x 9 x 1.5	W 3.5X6	24x10x1.5	M4X2
RD2522	PART NO.	303022	WM356	RD2512P	WM420
	DIMENSIONS	30 x 12 x 1.5	W 3.5X6	33.6x10x1.5	M4X2



TORX WRENCH
PART NO. W400401 T9
PART NO. W400405 T15

**DESIGN:**

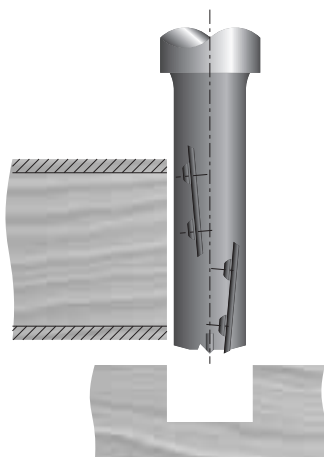
- High tensile steel body with 2+2 inserts in opposing shear angle and 1 brazed on carbide plunge point
- Reversible tungsten carbide insert with 2 cutting edges

APPLICATION:

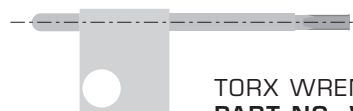
- For machining double sided laminated panels, solid wood and wood composites
- Suitable for straight down plunge cuts and ramp-in plunge cuts using Z and X or Y axis
- On stationary and CNC routers

PART NO.	CUTTING DIAM. ØD mm	CUTTING LENGTH Bmm	SHANK DIAM. ød mm	NO. FLUTES	OVERALL LENGTH L1 mm	ROTATION	MAX. RPM
RD2530	20	53	20	2+2+1	125	RIGHT HAND	20000
RD2532	20	53	20	2+2+1	125	LEFT HAND	20000

Other sizes available upon request.
Supplied with brazed plunge point.

**Replacement Parts**

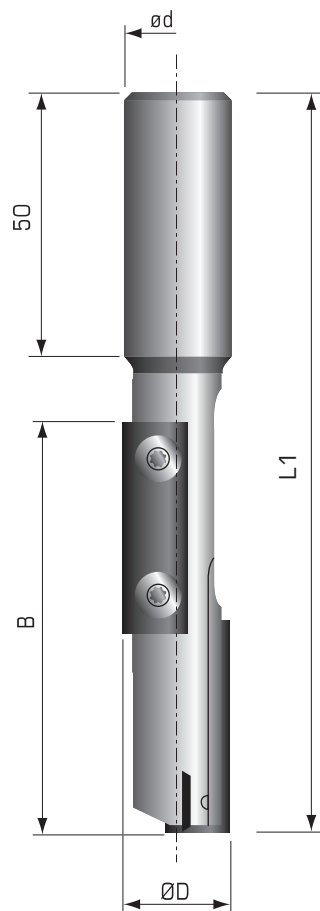
DESCRIPTION	KNIFE	SCREW FOR KNIFE
PART NO.	302810	W502331
DIMENSIONS	28x7x1.5	M3x4



TORX WRENCH
PART NO. W400401 T9

RD2535

PLUNGING AND SIZING INSERT ROUTER BITS WITH COMPRESSION SHEAR 1+1+1



DESIGN:

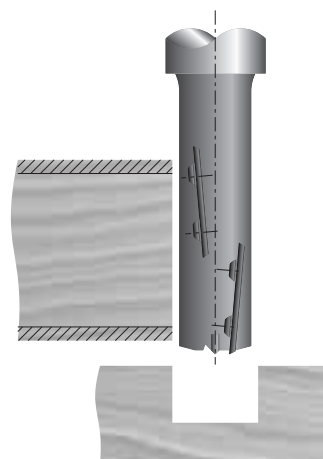
- High tensile steel body with 1+1 inserts in opposing shear angle and 1 insert plunge point
- Reversible tungsten carbide inserts with 2 cutting edges

APPLICATION:

- For machining double sided laminated panels, solid wood and wood composites
- Suitable for straight down plunge cuts and ramp-in plunge cuts using Z and X or Y axis
- On stationary and CNC routers

PART NO.	CUTTING DIAM. ØD	CUTTING LENGTH Bmm	SHANK DIAM. ød	NO. FLUTES	OVERALL LENGTH L1mm	MAX. RPM
RD2535	3/4"	58	3/4"	1+1+1	120	20000
RD2537	3/4"	78	3/4"	1+1+1	140	20000

Other sizes available upon request.

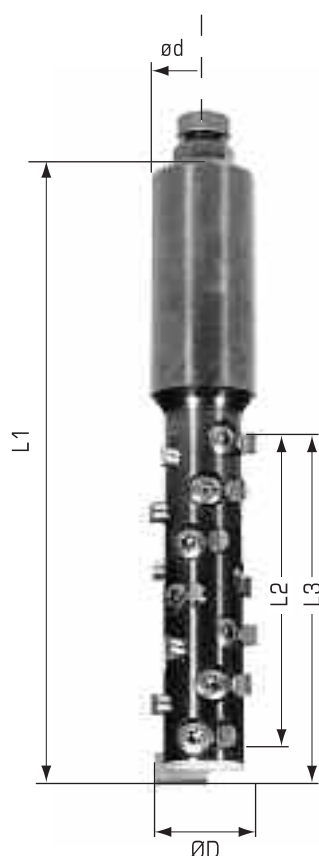


Replacement Parts

TOOL NO.	DESCRIPTION	TOP KNIFE	BOTTOM KNIFE	PLUNGE KNIFE	SCREW FOR KNIFE & PLUNGE
RD2535	PART NO.	303000	303022	300960	WM356
	DIMENSIONS	30x12x1.5	30x12x1.5	9.6x12x1.5	M3.5X6
RD2537	PART NO.	304000	304022	300960	WM356
	DIMENSIONS	40x12x1.5	40x12x1.5	9.6x12x1.5	M3.5X6



TORX WRENCH
PART NO. W400405 T15

**DESIGN:**

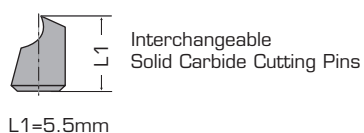
- High tensile steel body with 3 series of cutting pins and 1 tungsten carbide plunge point
- Standard version with straight cutting pins, optional with shear angle cutting pins, up-cut or down-cut can be inserted at any height upon request
- High quality of cut achieved by helically positioned cutting pins
- Fast exchange of cutting pins without adjustment through the patented pin clamping system
- Solid tungsten carbide cutting pins

APPLICATION:

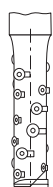
- For shaping, panel sizing, rabbeting and nesting applications
- In solid wood and panel materials
- Suitable for ramp-in plunge cuts using Z and X or Y axis
- On stationary and CNC routers

PART NO.	DIAM ØD	CUTTING LENGTH L2mm	CUTTING LENGTH L3mm	SHANK DIAM. ød	NO. PINS	OVERALL LENGTH L1 mm	MAX. RPM
RD2540	16mm	42	48	14mm	27	110	24000
RD2542	16mm	56	62	14mm	36	125	24000
RD2543	3/4"	42	48	3/4"	27	105	24000
RD2544	3/4"	56	62	3/4"	36	119	24000

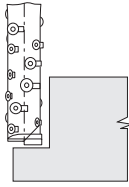
Other sizes available upon request.



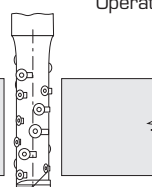
- Jointing
- Contour cutting



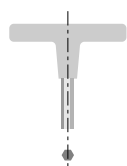
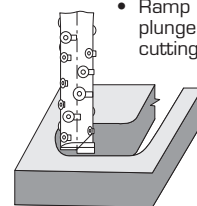
- Rabbeting



- Nesting Operations



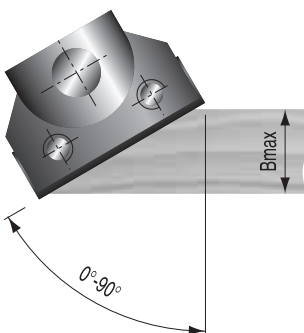
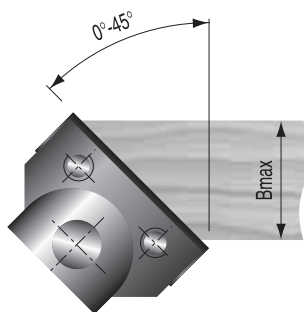
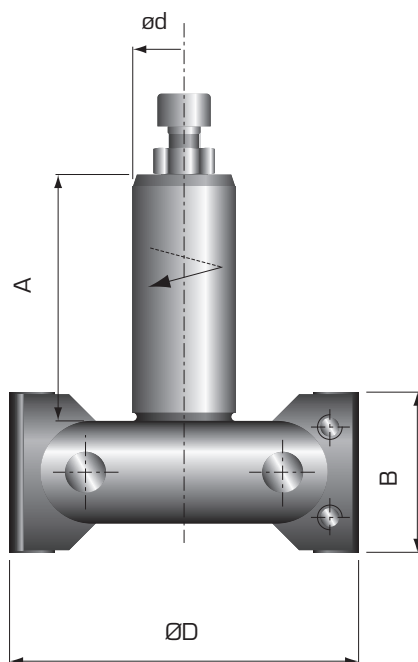
- Ramp plunge cutting



TORX WRENCH
PART NO. W400401 T9

Replacement Parts

TOOL NO.	DESCRIPTION	STRAIGHT PIN	DOWN CUT PIN	UP CUT PIN	PLUNGING INSERT KNIFE	SCREW FOR PIN	SCREW FOR PLUNGING
RD2540	PART NO.	RD2540S	RD2540D	RD2540U	RD2540P	WM355	WM380
RD2542	DIMENSIONS	5.5mm	5.5mm	5.5mm	14mm	M3x5.5	M3x8
RD2543	PART NO.	RD2540S	RD2540D	RD2540U	RD2544P	WM355	WM380
RD2544	DIMENSIONS	5.5mm	5.5mm	5.5mm	17mm	M3x5.5	M3x8

**DESIGN:**

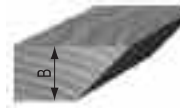
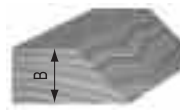
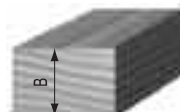
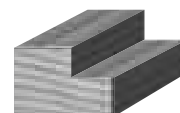
- High tensile steel body with 2 inserts knives adjustable from 0° to 90° (see chart below) using the high-precision scale
- Reversible tungsten carbide inserts with 4 cutting edges

APPLICATION:

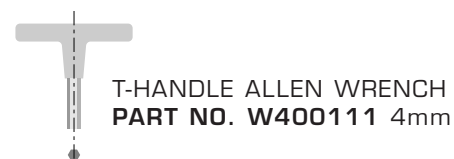
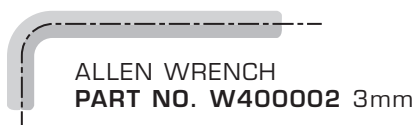
- For chamfering, rabbeting and jointing in solid woods
- On stationary and CNC routers

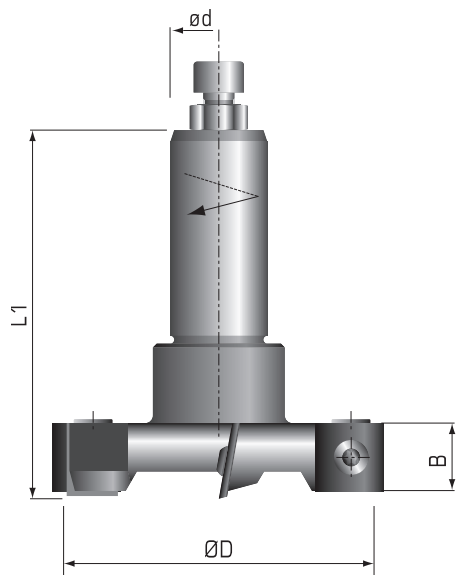
PART NO.	CUTTING DIAM. ØD mm	CUTTING LENGTH Bmm	SHANK DIAM. Ød mm	NO. TEETH	SHANK LENGTH A mm	MAX. RPM
RD2550	85	39.5	25	2	60	12000

0° - B max= 37
5° - B max= 37
10° - B max= 36
15° - B max= 36
20° - B max= 35
25° - B max= 33
30° - B max= 32
35° - B max= 30
40° - B max= 28
45° - B max= 26
50° - B max= 24
55° - B max= 21
60° - B max= 18
65° - B max= 15
70° - B max= 12
75° - B max= 9
80° - B max= 6
85° - B max= 2
90° - B max= 0



Replacement Parts			
DESCRIPTION	KNIFE	WEDGE	SCREW FOR GIB
PART NO.	304012	W341099	W501414
DIMENSIONS	39.5x12x1.5	38	M6x8



**DESIGN:**

- High tensile steel body with up shear or no shear
- Reversible tungsten carbide inserts with 4 cutting edges

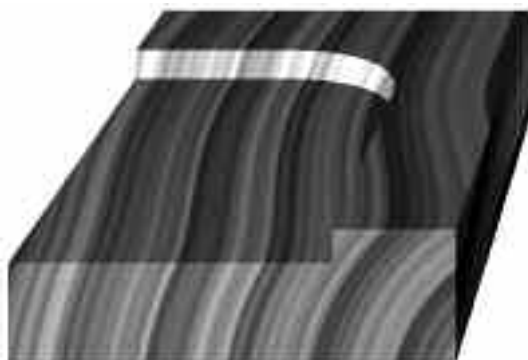
APPLICATION:

- For surface cutting in workpieces with large areas and for producing large rabbeting cuts with a single pass
- On CNC routers

PART NO.	CUTTING DIAM. ØD mm	CUTTING LENGTH Bmm	SHANK DIAM. Ød	NO. TEETH	OVERALL LENGTH L1 mm	MAX. RPM
RD2560	80	12	3/4"	3	90	16000
RD2562 ▲	80	14	1/2"	3	90	14000
RD2565 ▲	100	14	3/4"	3	90	12000
RD2567	4-1/2"	12	3/4"	4	90	9000

▲ No shear angle

Other sizes available upon request.

**Replacement Parts**

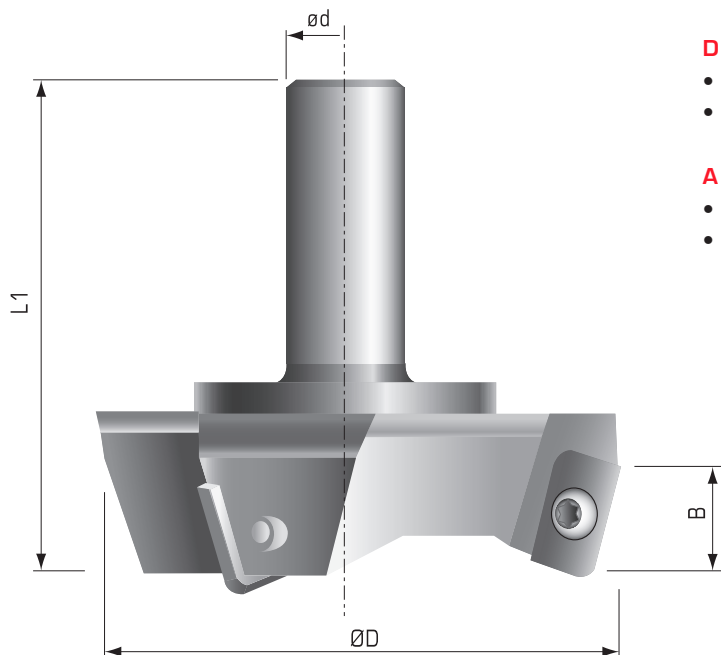
ROUTER BIT	DESCRIPTION	KNIFE	SCREW FOR KNIFE
RD2560	PART NO.	301200	WM350-PL
RD2567	DIMENSIONS	12x12x1.5	M3.5x6
RD2562	PART NO.	301404	W500002
RD2565	DIMENSIONS	14x14x2.0	M5x6.5



TORX WRENCH
PART NO. W400405 T15

RD2570

SURFACING INSERT ROUTER CUTTER



DESIGN:

- High tensile steel body with 3 teeth, up-shear
- Reversible tungsten carbide inserts with 2 cutting edges

APPLICATION:

- For surface cutting in workpieces with large areas
- On CNC routers

PART NO.	CUTTING DIAM. ØD mm	FLUTE LENGTH Bmm	SHANK DIAM. ød mm	NO.OF TEETH	OVERALL LENGTH L1mm	MAX. RPM
RD2570	90	19	3/4"	3	82	12000

Replacement Parts



DESCRIPTION	KNIFE	SCREW FOR KNIFE
PART NO.	RD2570A	WM350-P
DIMENSIONS	19x12x1.5	M3.5x7.5



TORX WRENCH
PART NO. W400405 T15

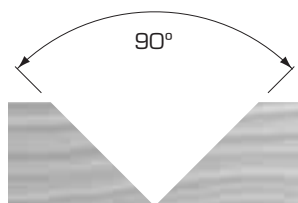
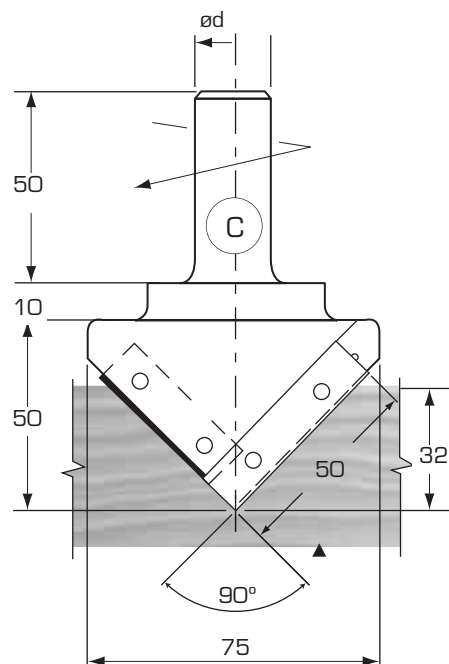
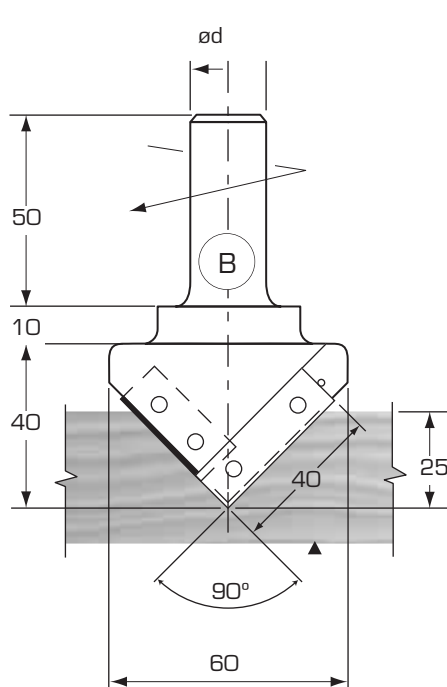
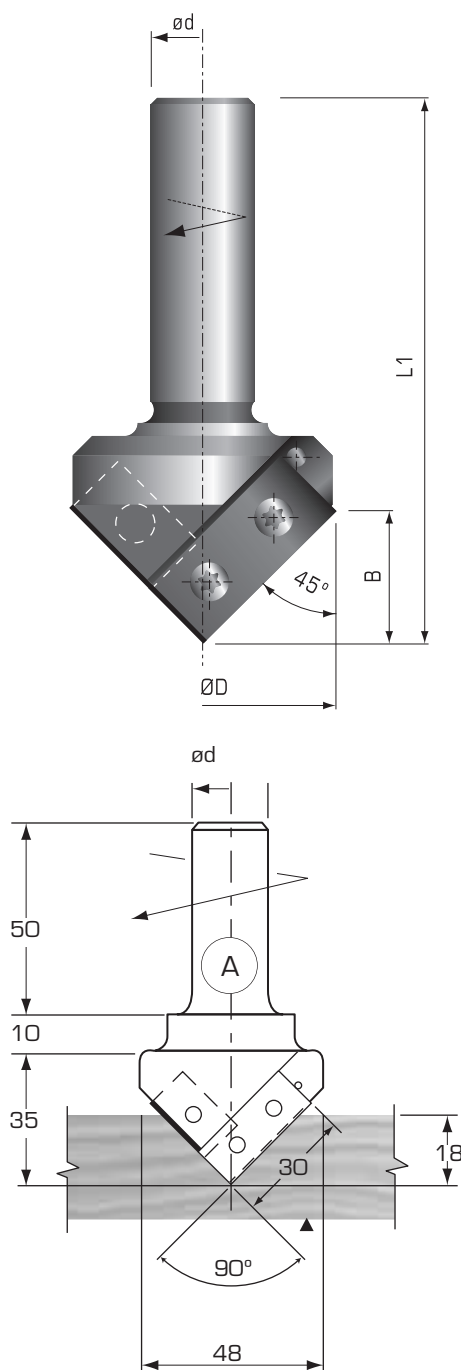
DESIGN:

- High tensile steel body with 1+1 insert knives
- Tool body with positioning pins for easy and accurate replacement of inserts
- Precise center point on bottom
- Reversible tungsten carbide inserts with 2 cutting edges

APPLICATION:

- For chamfering, decorative grooving and for mitre folds in solid wood and panel materials
- On stationary and CNC routers

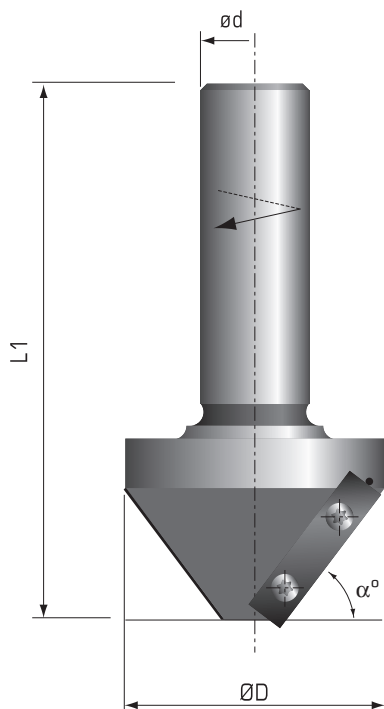
PART NO.	TOOL TYPE	CUTTING DIAM. ØD mm	CUTTING DEPTH Bmm	SHANK DIAM. ød	NO. TEETH	OVERALL LENGTH L1 mm	MAX. RPM
RD2580	A	48	18	3/4"	1+1	95	18000
RD2582	B	60	25	3/4"	1+1	100	18000
RD2584	C	75	32	3/4"	1+1	110	14000



TORX WRENCH
PART NO. W400405 T15

Replacement Parts

TOOL NO.	DESCRIPTION	KNIFE	KNIFE	SCREW FOR KNIFE
RD2580	PART NO.	302000	303023	WM350-PL
	DIMENSIONS	20x12x1.5	30X12X1.5	M3.5x6
RD2582	PART NO.	303000	304023	WM350-PL
	DIMENSIONS	30x12x1.5	40X12X1.5	M3.5x6
RD2584	PART NO.	304000	305023	WM350-PL
	DIMENSIONS	40x12x1.5	50X12X1.5	M3.5x6

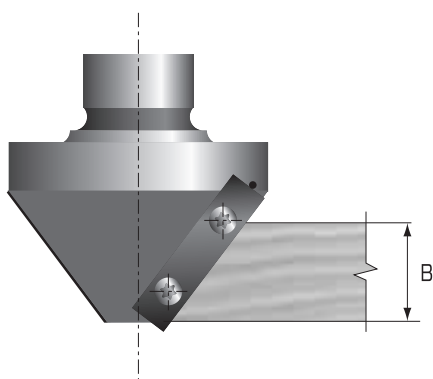
**DESIGN:**

- High tensile steel body with 2 insert knives
- Tool body with positioning pins for easy and accurate replacement of inserts
- Reversible tungsten carbide insert with 2 cutting edges

APPLICATION:

- For chamfering solid wood and panel materials
- On stationary and CNC routers

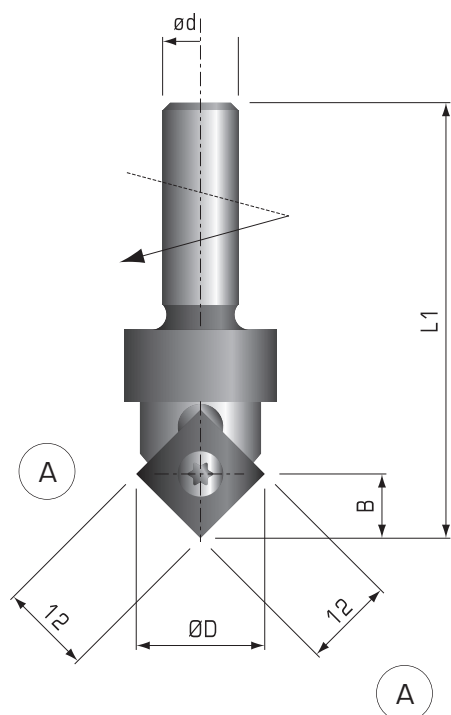
PART NO.	ANGLE α°	CUTTING DIAM. ØDmm	CUTTING DEPTH B mm	SHANK DIAM. ød	NO. TEETH	OVERALL LENGTH L1 mm	MAX. RPM
RD2590	60°	60	23	3/4"	2	95	18000
RD2592	45°	60	19	3/4"	2	95	18000
RD2594	30°	70	13	3/4"	2	90	18000
RD2595	60°	70	40	3/4"	2	115	14000
RD2596	45°	90	33	3/4"	2	110	14000
RD2598	30°	100	23	3/4"	2	100	12000

**Replacement Parts**

TOOL NO.	DESCRIPTION	KNIFE	SCREW FOR KNIFE
RD2590 RD2592 RD2594	PART NO.	303000	WM350-PL
	DIMENSIONS	30x12x1.5	M3.5X6
RD2595 RD2596 RD2598	PART NO.	305000	WM350-PL
	DIMENSIONS	50x12x1.5	M3.5X6



TORX WRENCH
PART NO. W400405 T15

**DESIGN:**

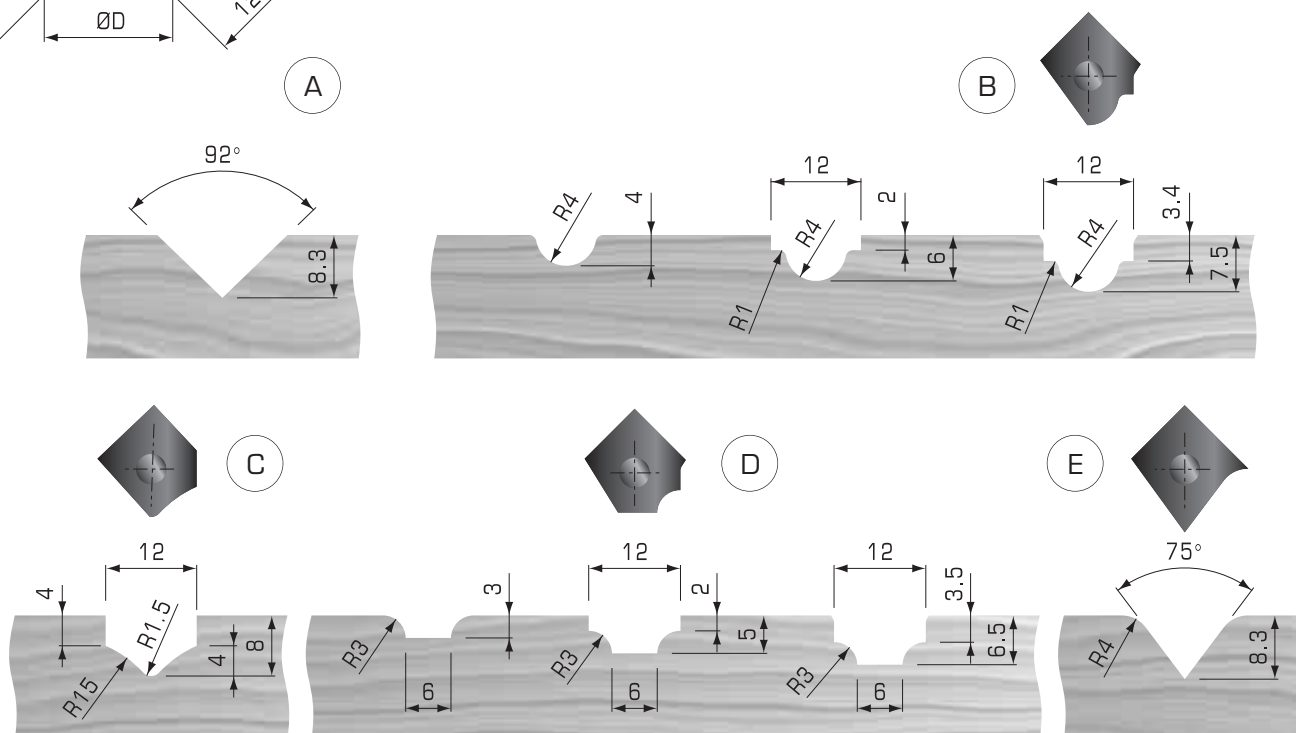
- High tensile steel body with 1 insert knife
- Tungsten carbide insert knife
- Tool body supplied with square insert for profile A. For other profiles, knives ordered separately (refer to chart at the bottom of this page)

APPLICATION:

- For decorative routing in solid wood and panel materials
- On stationary and CNC routers

PART NO.	CUTTING DIAM. $\varnothing D$ mm	CUTTING DEPTH Bmm	SHANK DIAM. $\varnothing d$ mm	NO. TEETH	OVERALL LENGTH L1mm	MAX. RPM
RD2600	17	8.5	10	1	58	20000

Other profiles available upon request.



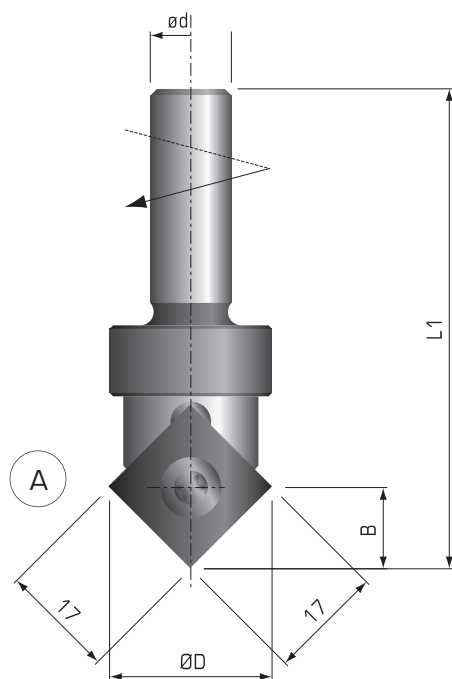
KNIFE	DIMENSIONS	PART NO.
A	12x12x1.5	301200
B	12x12x1.5	RD2600B
C	12x12x1.5	RD2600C
D	12x12x1.5	RD2600D
E	12x12x1.5	RD2600E



REPLACEMENT TORX SCREW
PART NO. W502310
M3.5x4.8



TORX WRENCH
PART NO. W400405 T15

**DESIGN:**

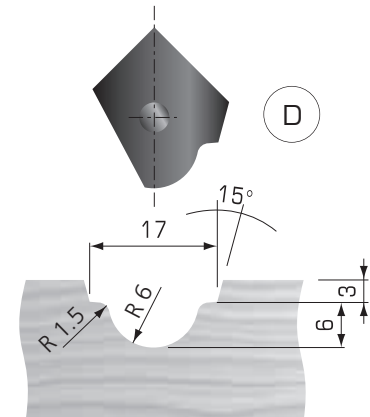
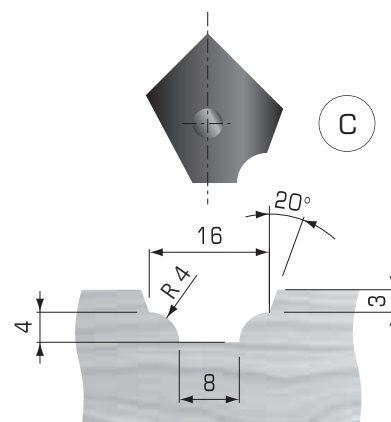
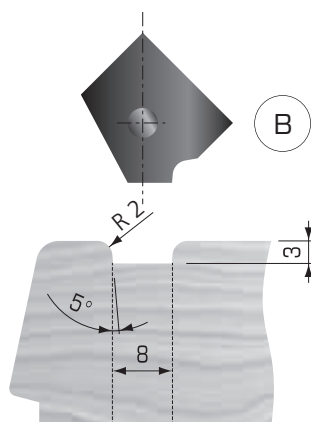
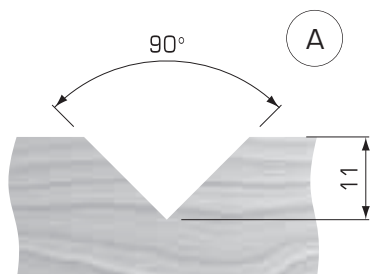
- High tensile steel body with 1 insert knife
- Tungsten carbide insert knife
- Tool body supplied with square insert for profile A. For other profiles, knives ordered separately (refer to chart at the bottom of this page)

APPLICATION:

- For decorative routing in solid wood and panel materials
- On stationary and CNC routers

PART NO.	CUTTING DIAM. ϕD mm	CUTTING DEPTH Bmm	SHANK DIAM. ϕd mm	NO. TEETH	OVERALL LENGTH $L1$ mm	MAX. RPM
RD2610	24	12	12	1	76	20000

Other profiles available upon request.

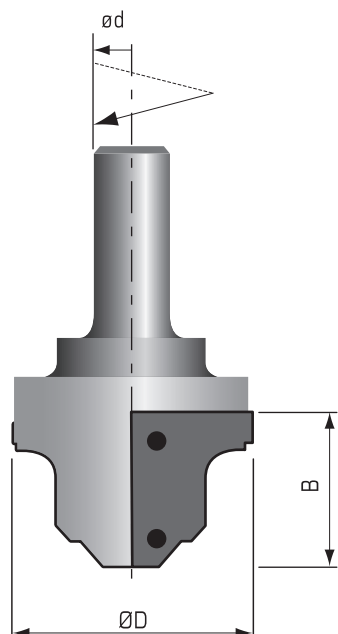


REPLACEMENT TORX SCREW
PART NO. W502306
M4x6



TORX WRENCH
PART NO. W400405 T15

KNIFE	DIMENSIONS	PART NO.
A	17x17x2	301701
B	17x17x2	RD2610B
C	17x17x2	RD2610C
D	17x17x2	RD2610D

**DESIGN:**

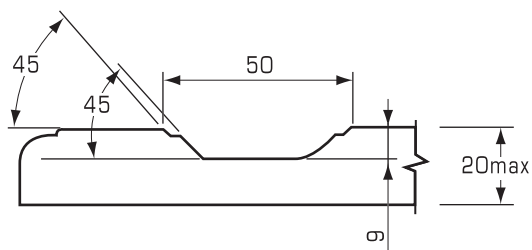
- High tensile steel body with 1 or 2 insert knives
- Tool body with positioning pins for easy and accurate replacement of inserts
- Profiled tungsten carbide inserts with 1 cutting edge

APPLICATION:

- For machining MDF cabinet doors
- On CNC routers

PART NO.	CUTTING DIAM. $\varnothing D$ mm	CUTTING DEPTH B mm	SHANK DIAM, $\varnothing d$	NO. TEETH	REPLACEMENT KNIVES PART NO.	MAX. RPM
RD2620	65	40	3/4"	2	RD2620A	16000
RD2622	50	25	3/4"	2	RD2622B	18000
RD2624	24	25	3/4"	1	RD2624C	20000
RD2626	24	25	3/4"	1	RD2626D	20000

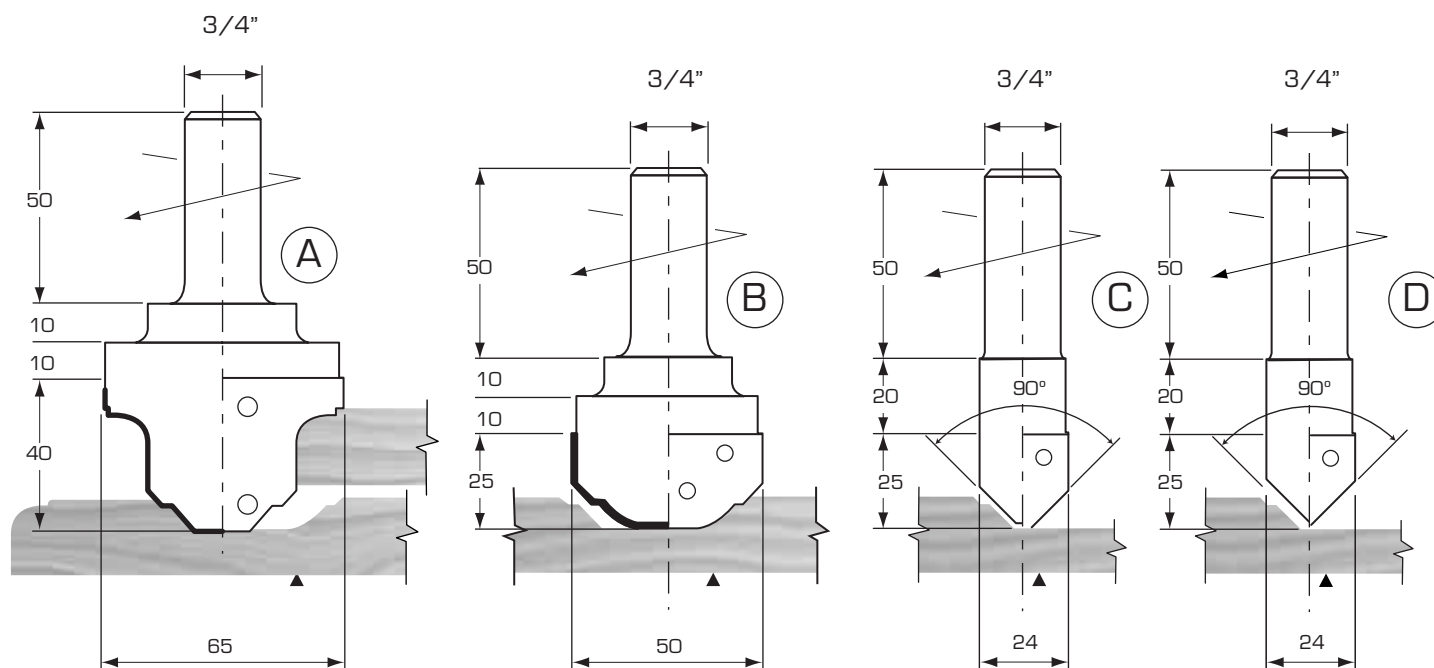
Other profiles available upon request.



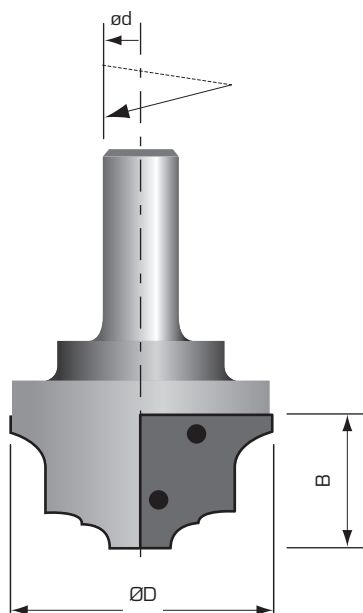
REPLACEMENT TORX SCREW
PART NO. WM350-PL



TORX WRENCH
PART NO. W400405 T15



SCALE 0.5:1



DESIGN:

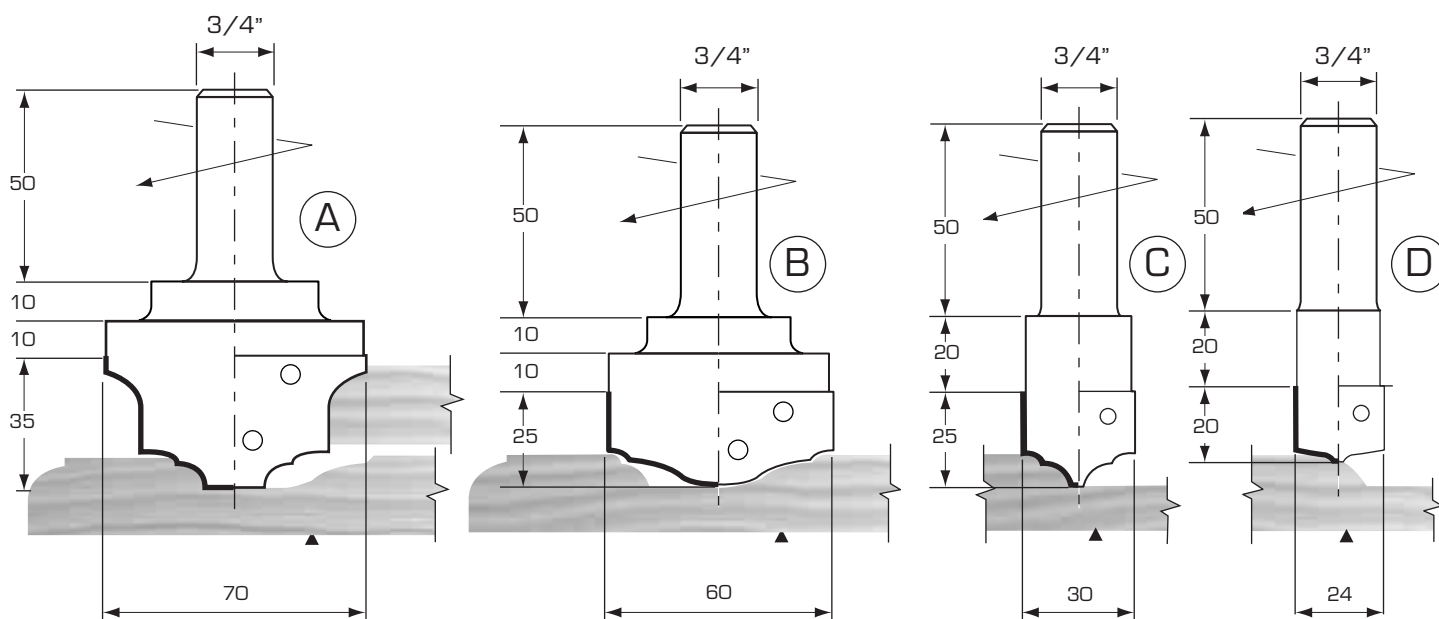
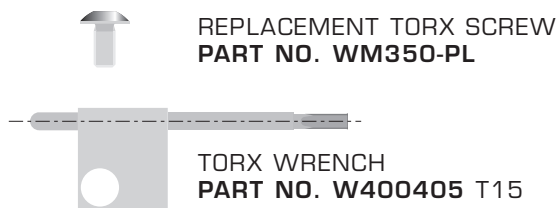
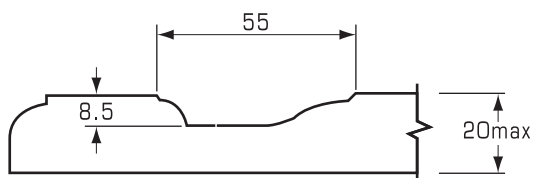
- High tensile steel body with 2 insert knives
- Tool body with positioning pins for easy and accurate replacement of inserts
- Profiled tungsten carbide inserts with 1 cutting edge

APPLICATION:

- For machining MDF cabinet doors
- On CNC routers

PART NO.	CUTTING DIAM. ØD mm	CUTTING DEPTH B mm	SHANK DIAM. ød	NO. TEETH	REPLACEMENT KNIVES PART NO.	MAX. RPM
RD2630	70	35	3/4"	2	RD2630A	16000
RD2632	60	25	3/4"	2	RD2632B	18000
RD2634	30	25	3/4"	2	RD2634C	20000
RD2636	24	20	3/4"	2	RD2636D	20000

Other profiles available upon request.



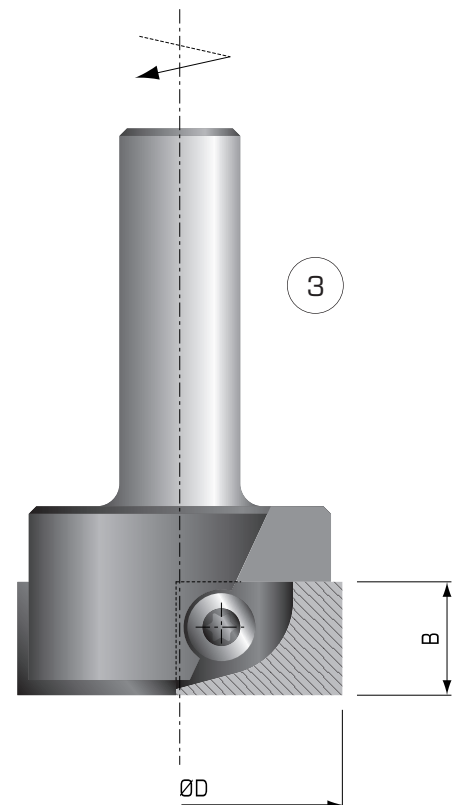
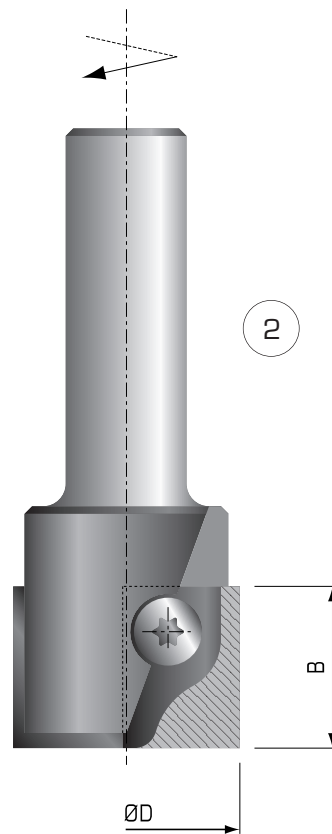
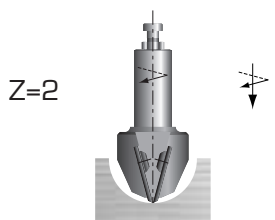
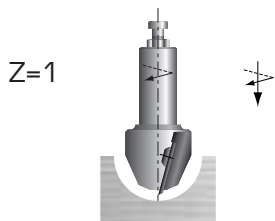
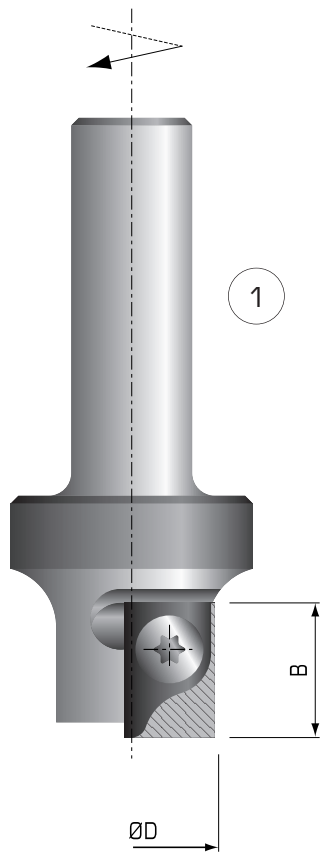
SCALE 0.5:1

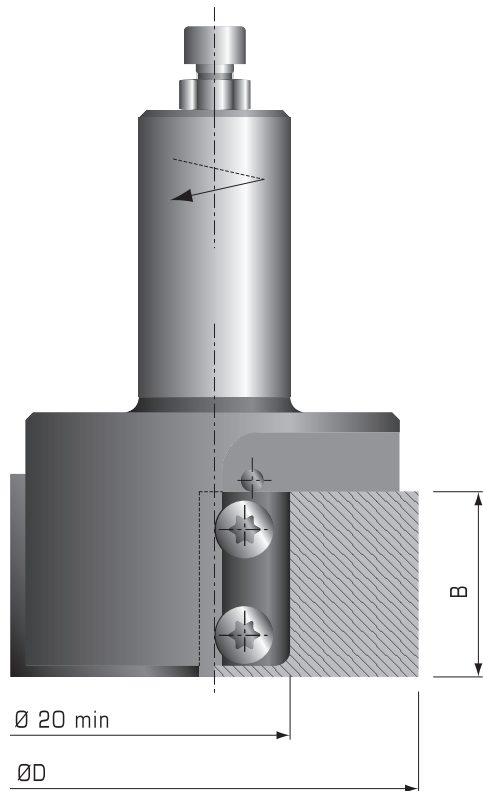
DESIGN:

- High tensile steel body with 1 or 2 profiled inserts, up-shear angle
- Profiles produced to customer's specifications
- Light shaded section of insert indicates profiling area
- Tungsten carbide insert knives

APPLICATION:

- To produce decorative profiles for furniture and cabinet door production
- On stationary and CNC routers

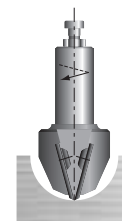


**DESIGN:**

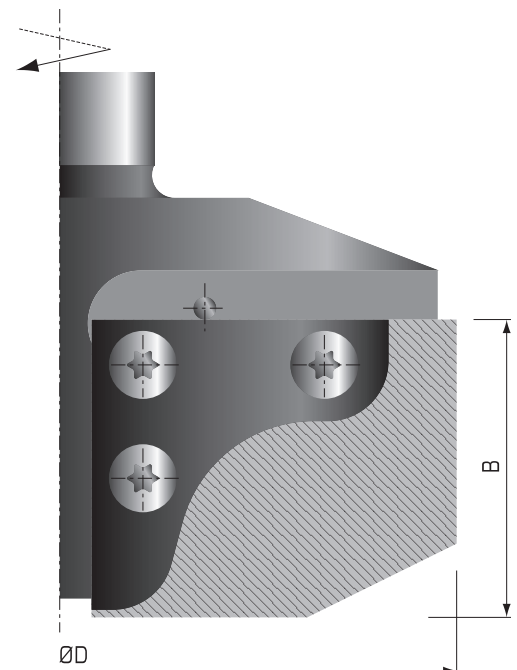
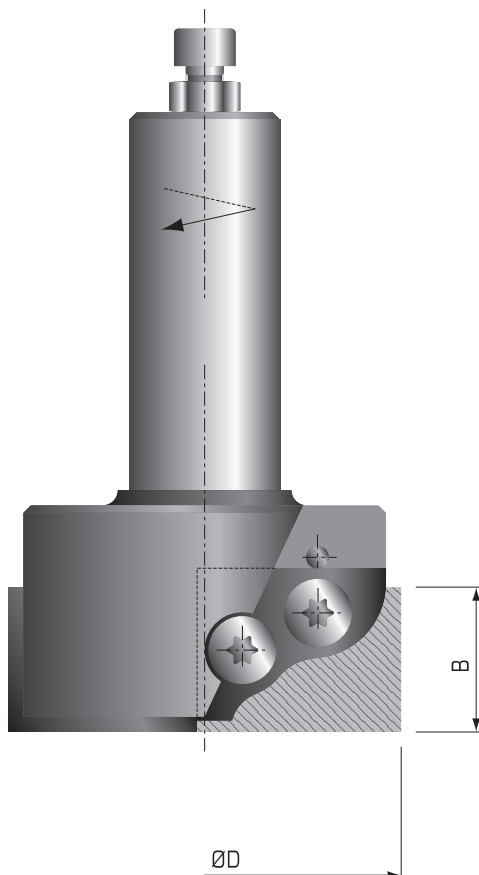
- High tensile steel body with 2 inserts, up-shear angle
- Profiles produced to customer's specifications
- Light shaded section of insert indicates profiling area
- Tungsten carbide insert knives

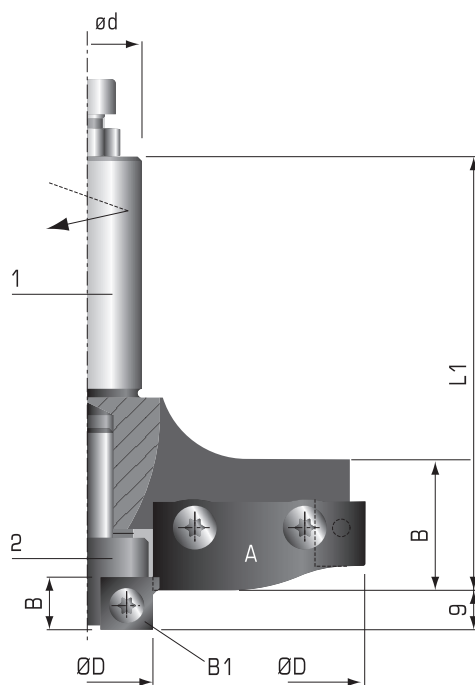
APPLICATION:

- To produce decorative profiles for furniture and cabinet door production
- On stationary and CNC routers



Z=2



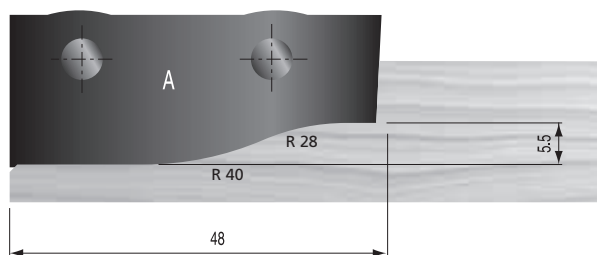
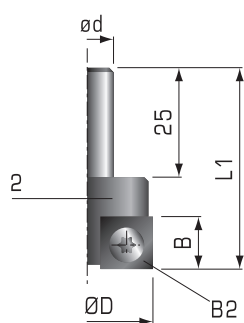
**DESIGN:**

- High tensile steel body with 2+2 inserts knives, up-shear angle
- Two piece design allows for optional use of jointing cutter
- Tool body with positioning pins for easy and accurate replacement of inserts
- Tungsten carbide inserts

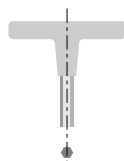
APPLICATION:

- For panel raising in solid wood and panel materials
- On stationary and CNC routers

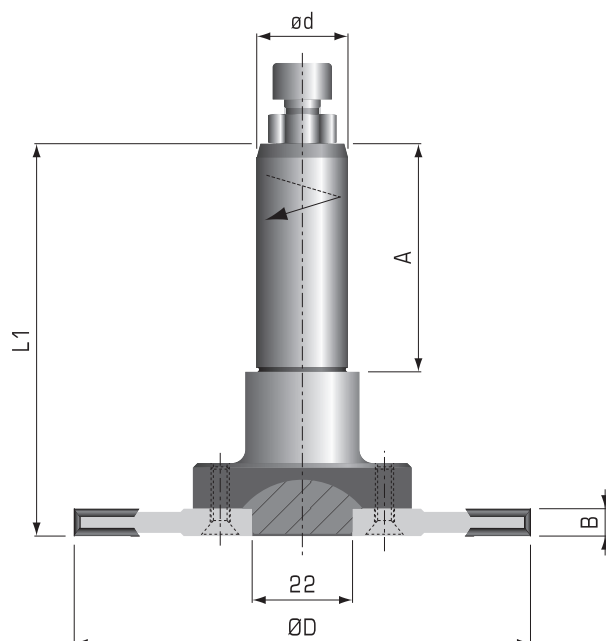
PART NO.	CUTTING DIAM. ϕD mm	CUTTING DEPTH B mm	SHANK DIAM. ϕd	NO. TEETH	OVERALL LENGTH L1 mm	MAX. RPM
RD2720	140	25	3/4"	2	99	12000
RD2722	30	12	10mm	2	46	12000

**Replacement Parts**

TOOL NO.	DESCRIPTION	KNIFE	KNIFE	SCREW FOR KNIFE
RD2720	PART NO.	RD2720A	-	W502315
	DIMENSIONS	50x21.5x2.0	-	M5x8
RD2722	PART NO.	RD2722B1	301200(B2)	W502306
	DIMENSIONS	12x13x1.5	12x12x1.5	M4x6



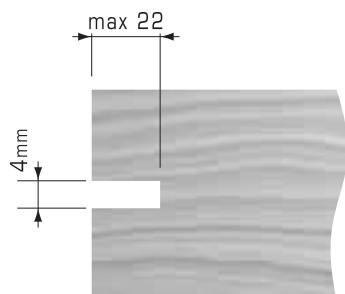
T-HANDLE TORX WRENCH
PART NO. W400405 T15
PART NO. W400420 T20

**DESIGN:**

- High tensile steel body with 4 teeth + 4 spurs
- Reversible tungsten carbide inserts with 4 cutting edges

APPLICATION:

- For grooving in solid wood and panel materials
- On stationary and CNC routers



PART NO.	CUTTING DIAM. ØDmm	KERF B mm	SHANK DIAM. ød	NO. TEETH	NO. SPURS	OVERALL LENGTH L1mm	MAX. RPM
RD2760	100	4	3/4"	4	4	84	13200

Other sizes available upon request.

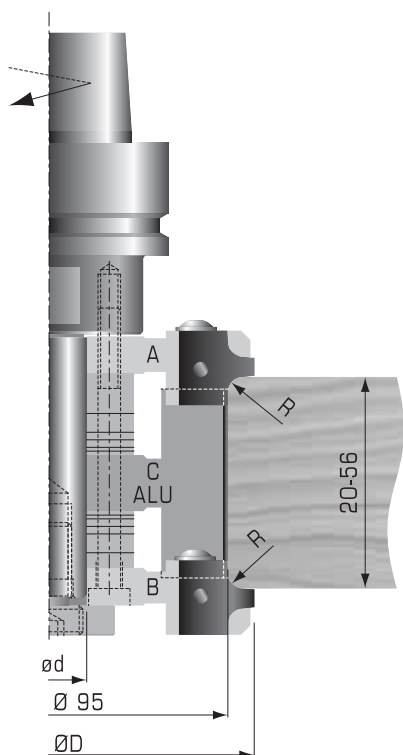
Replacement Parts

DESCRIPTION	KNIFE	KNIFE SCREW SPUR SCREW	THREADED RING FOR KNIFE	SPUR	THREADED RING FOR SPUR
PART NO.	320301	W500401	W501101	301414	W501001
DIMENSIONS	18x18x1.95	M4x3.2	12x1.7	14x14x1.2	10x1.65

Screw for mounting groover (**Part No. IT13L**) on the shaft **W500603 M4x12**



TORX WRENCH
PART NO. W400401 T9

**DESIGN:**

- High tensile steel body with 2 teeth, for cutter A & B
- Aluminum body with 2 teeth, for cutter C
- Cutter set supplied with toolholder as indicated
- Cutters adjustable with spacers and shims
- Tungsten carbide inserts

APPLICATION:

- For corner rounding and chamfering in solid wood and panel materials
- On stationary and CNC routers

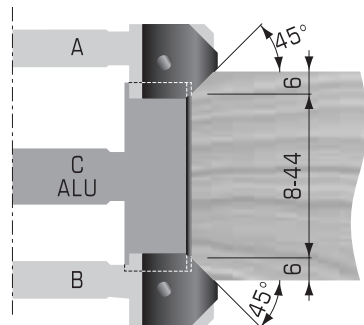
PART NO.	DIAM. ØD mm	KERF B mm	BORE ød mm	NO. TEETH	TOOL HOLDER TYPE	RPM MIN.-MAX.
RD2770	109	20	20	2	ISO30	10000
RD2772	109	20	20	2	BT30	10000
RD2774	109	20	20	2	HSK63F	10000

Cutters (A+B) excluding knives.

Replacement Cutters

CUTTER TYPE	PART NO.	ØD mm	B mm	ød mm	NO. TEETH
A	RD2770A	109	20	20	2
C	RD2770C	95	50	20	2
B	RD2770B	109	20	20	2

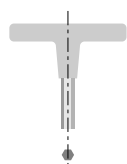
Cutters (A+B) excluding knives.

**Replacement Knives**

CUTTER TYPE	PART NO.	RADIUS/CHAMFER Rmm	DIMENSIONS mm
A-B	RD2770R2	2	20x21x2
A-B	RD2770R3	3	20x21x2
A-B	RD2770R4	4	20x21x2
A-B	RD2770R5	5	20x21x2
A-B	RD2770R6	6	20x21x2
A-B	RD2770-45	45°	20x21x2
C	305000	-	50x12x1.5

Replacement Parts

TOOL NO.	DESCRIPTION	GIB	SCREW FOR GIB
RD2770A	PART NO.	W341001	W501403
RD2770B	DIMENSIONS	16	M8x16
RD2770C	PART NO.	W341002	W501403
	DIMENSIONS	46	M8x16



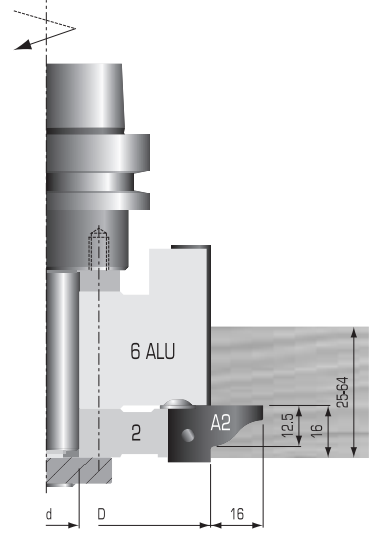
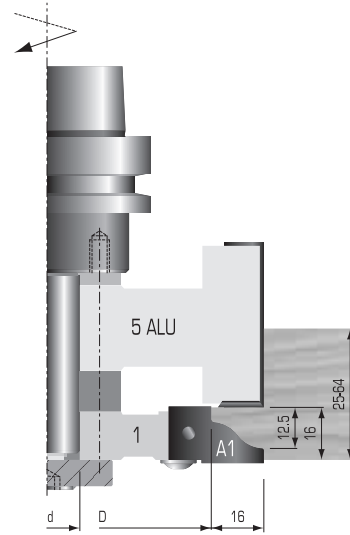
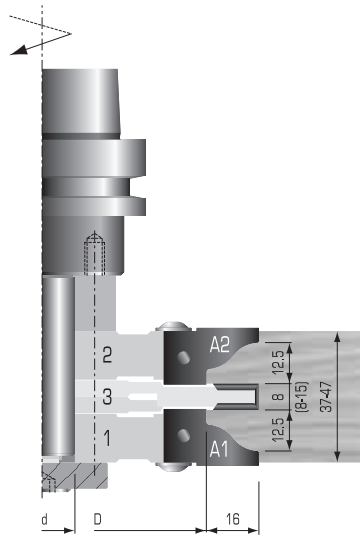
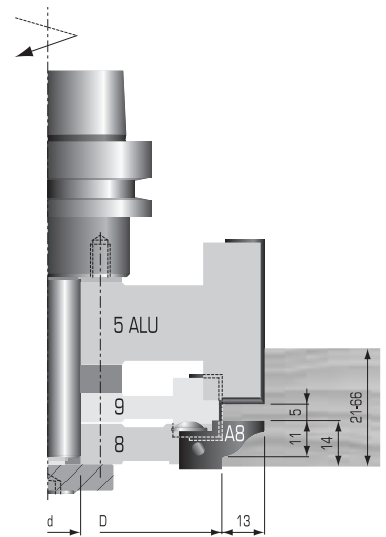
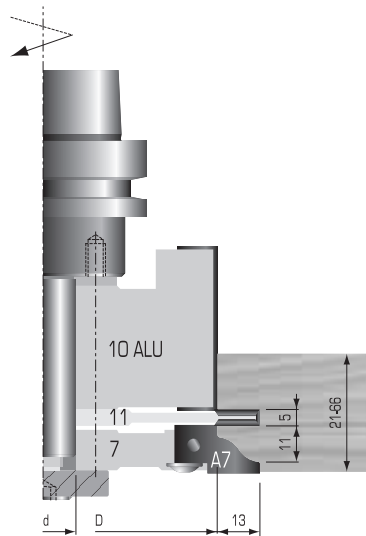
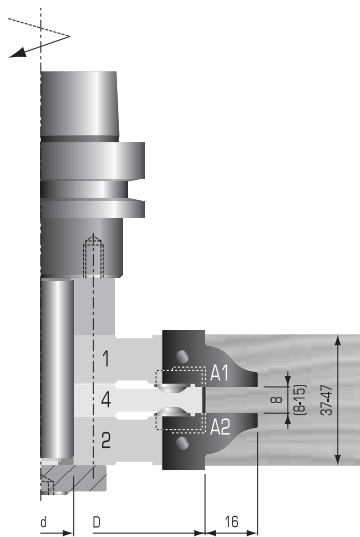
T-HANDLE ALLEN WRENCH
PART NO. W400114 4mm

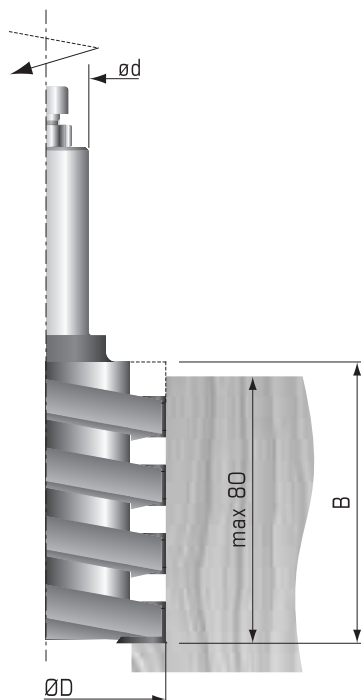
DESIGN:

- Router cutters custom manufactured to customer's specifications
- Tungsten carbide inserts

APPLICATION:

- To produce stile and rails in solid wood
- On stationary and CNC routers



**DESIGN:**

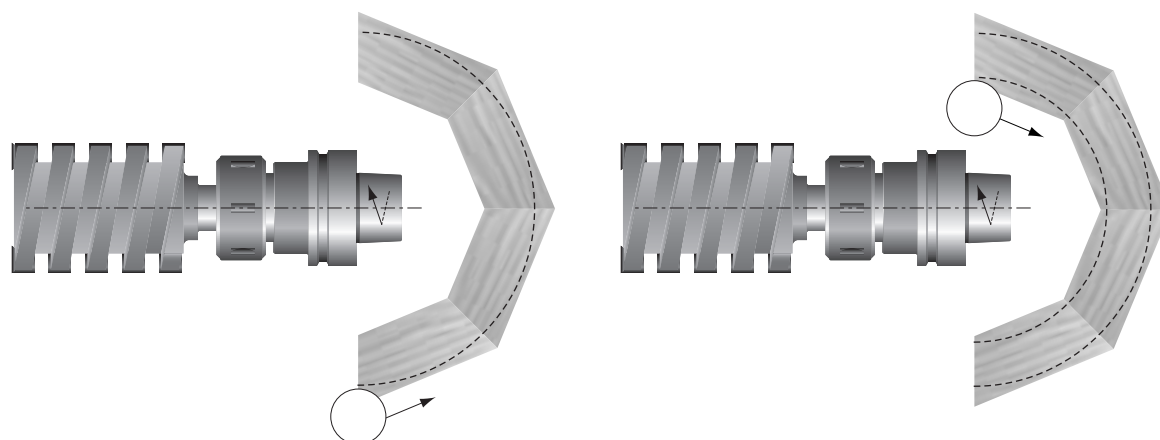
- High tensile steel body with spiral and staggered teeth
- Reversible tungsten carbide inserts with 4 cutting edges






APPLICATION:

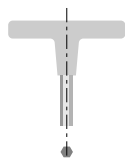
- For jointing and shaping solid wood components
- Ideal for arched window frame manufacturing
- On stationary and CNC routers

PART NO.	CUTTING DIAM. ØD mm	CUTTING LENGTH B mm	SHANK DIAM. ød	NO. TEETH	NO. SPURS	OVERALL LENGTH mm	MAX. RPM
RD2810	70	82	3/4"	4/16	2	140	14000

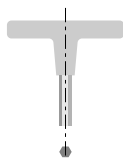
Other sizes available upon request.



Replacement Parts					
DESCRIPTION	KNIFE	WEDGE	WEDGE SCREW	SPUR	SPUR SCREW
PART NO.	301200	W340033	W501414	301404	W500002
DIMENSIONS	12x12x1.5	9	M6x8	14x14x2	M5x6.5



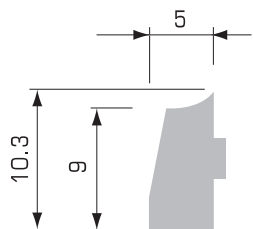
T-HANDLE
TORX WRENCH
PART NO. W400405 T15



T-HANDLE
ALLEN WRENCH
PART NO. W400113 3MM

W302411

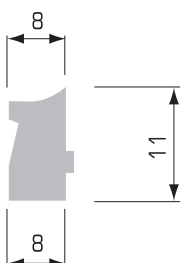
REPLACEMENT PARTS



WEDGES	
PART NO.	DIMENSIONS mm
W302411	32
W302410	54



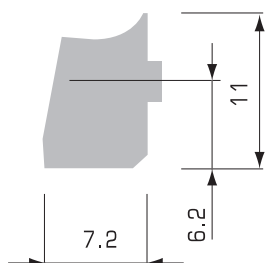
WEDGES	
PART NO.	DIMENSIONS mm
W300805	26 x 9.5 x 2.5
W300806	46 x 9.5 x 2.5
W300905	26 x 9.5 x 3.5
W300906	46 x 9.5 x 3.5



WEDGES	
PART NO.	DIMENSIONS mm
W303017	37
W303016	47
W303015	57



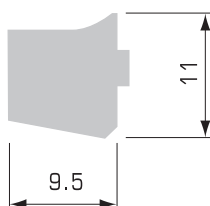
WEDGE SCREWS	
PART NO.	DIMENSIONS mm
W501306	M6x10



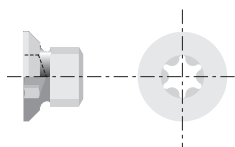
WEDGES	
PART NO.	DIMENSIONS mm
W340033	9
W340034	27



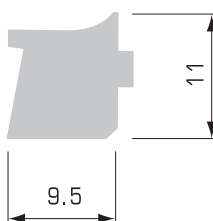
WEDGE SCREWS	
PART NO.	DIMENSIONS mm
W501414	M6x8
W501402	M6x10
W501412	M8x14
W501403	M8x16



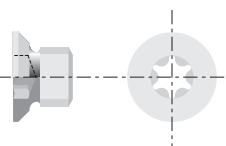
WEDGES	
PART NO.	DIMENSIONS mm
W340032	42
W340035	47



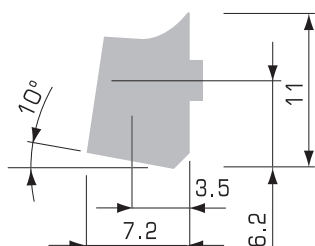
TORX SCREWS	
PART NO.	DIMENSIONS mm
W500002	M5x7



WEDGES	
PART NO.	DIMENSIONS mm
W341001	16
W341099	38
W341002	46



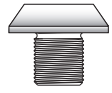
TORX SCREWS	
PART NO.	DIMENSIONS mm
W500401	M4x3.2



WEDGES	
PART NO.	DIMENSIONS mm
W340037	9



TORX SCREWS	
PART NO.	DIMENSIONS mm
WM350-P	M3.5 x 7.5
WM336	M6 x 10

**TORX SCREWS**

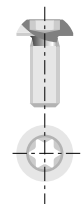
PART NO.	DIMENSIONS mm
WM350	3.5x6.0

**TORX SCREWS**

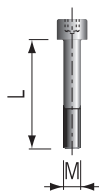
PART NO.	DIMENSIONS mm
WM350-PL	3.5x6.0

**TORX SCREWS**

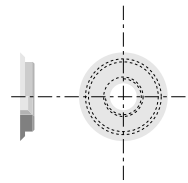
PART NO.	DIMENSIONS mm
WM355	M3x5.5
WM356	M3.5x6.0
WM380	M3x8.0
WM420	M4x2.0

**TORX SCREWS**

PART NO.	DIMENSIONS mm
W502301	M4x6.0
W502302	M4x10
W502303	M4x12
W502306	M4x6
W502307	M3x7
W502310	M3.5x4.8
W502315	M5x8
W502331	M3x4

**HEX SCREWS**

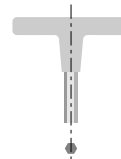
PART NO.	DIMENSIONS mm
W501730	M6x60
W501731	M6x75
W501732	M6x85

**THREADED RINGS**

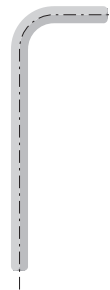
PART NO.	DIMENSIONS mm
W501001	10x1.65
W501101	12x1.7

**TORX WRENCHES**

PART NO.	DIMENSIONS mm
W400406	T8
W400401	T9
W400405	T15

**T-HANDLE TORX WRENCHES**

PART NO.	DIMENSIONS mm
W400420	T20

**ALLEN WRENCHES**

PART NO.	DIMENSIONS mm
W400002	3
W400003	4

**T-HANDLE ALLEN WRENCHES**

PART NO.	DIMENSIONS mm
W400113	3
W400111	4 (LONG)
W400114	4