

GDP®  **GUHDO**®



2018
CNC TOOLING

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Our Mission Statement:
At GDP | GUHDO, we provide cutting-edge, precision tooling solutions at competitive prices while always meeting or exceeding customer expectations in quality, performance and customer service.

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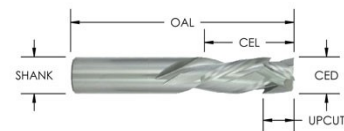
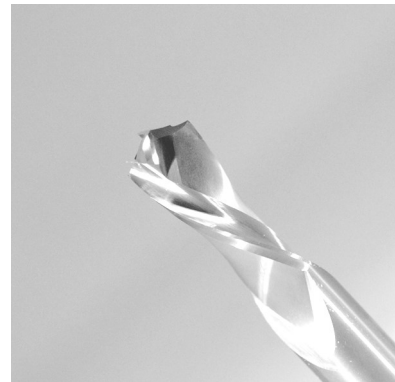
COMPRESSION BIT FOR SOLID WOOD

6229

This compression bit, featuring a carbide grade primarily designed for wood, is a general purpose compression bit that can machine different materials whether wood, MDF or particleboard without being too brittle. It is recommended for cutting wood and the occasional cutting of materials more abrasive.

2 Flute

CED	CEL	OAL	Upcut	Shank	Part-No.
1/4"	1"	2-1/2"	3/16"	1/4"	6229.250.50
3/8"	1-1/4"	3"	3/16"	3/8"	6229.375.16
3/8"	1-1/4"	3"	3/8"	3/8"	6229.375.20
3/8"	1-1/2"	4"	3/8"	3/8"	6229.375.50
3/8"	1"	3"	3/16"	3/8"	6229.376.16
5/16"	1"	3"	3/16"	5/16"	6229.312.16
1/2"	1-1/4"	3"	3/16"	1/2"	6229.500.16
1/2"	2-1/8"	4"	3/8"	1/2"	6229.500.18
1/2"	1-1/4"	3"	5/16"	1/2"	6229.500.20
1/2"	1-5/8"	3-1/2"	3/16"	1/2"	6229.501.16
1/2"	1-5/8"	3-1/2"	5/16"	1/2"	6229.501.20
1/2"	1"	3"	5/16"	1/2"	6229.502.16
1/2"	1-3/8"	3-1/2"	5/16"	1/2"	6229.502.50
1/2"	2"	4"	5/16"	1/2"	6229.503.50
5/8"	2-1/4"	5"	5/16"	5/8"	6229.625.22
5/8"	2-1/4"	5"	5/16"	5/8"	6229.625.40
3/4"	2"	4"	7/8"	3/4"	6229.750.20
3/4"	3"	6"	7/8"	3/4"	6229.750.76
3/4"	3-1/2"	6"	7/8"	3/4"	6229.750.78
3/4"	2-1/2"	5"	7/8"	3/4"	6229.752.75



3 Flute

CED	CEL	OAL	Upcut	Shank	Part-No.
3/8"	1-1/4"	3"	3/16"	3/8"	6229.375.36
1/2"	1-1/4"	3"	3/16"	1/2"	6229.500.26
1/2"	1-1/4"	3"	7/16"	1/2"	6229.500.30
1/2"	1-5/8"	3-1/2"	3/4"	1/2"	6229.501.26
1/2"	2"	4"	7/8"	1/2"	6229.503.26
3/4"	2"	4"	7/8"	3/4"	6229.750.22

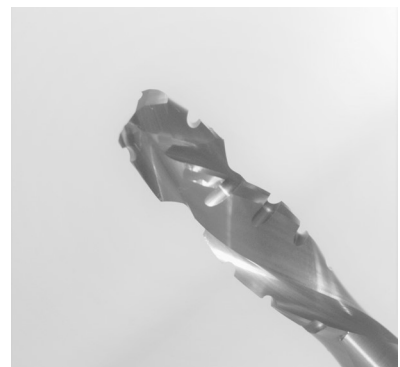
COMPRESSION BIT FOR PLYWOOD

6229C

Compression style solid carbide bit with chip breakers and increased clearance to perform exceptionally well on plywood.

2 Flute

CED	CEL	OAL	Upcut	Shank	Part-No.
3/8"	1-1/4"	3"	3/8"	3/8"	6229C375.20
1/2"	1-1/4"	3"	5/16"	1/2"	6229C500.20
3/4"	2"	4"	5/16"	3/4"	6229C750.20
3/4"	2-1/2"	5"	7/8"	3/4"	6229C751.20



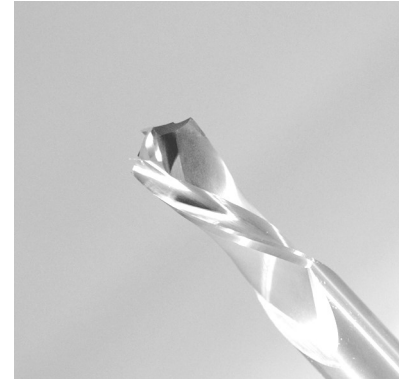
**COMPRESSION BIT FOR COMPOSITES
LONG-LIFE (M SERIES) CARBIDE GRADE**

6229M

Compression bit with special carbide grade most suitable for machining composite material such as MDF and particleboard with HPL, veneer etc. If cutting melamine, please refer to the Xtreme carbide grade on the next page.

2 Flute

CED	CEL	OAL	Upcut	Shank	Part-No.
1/4"	1"	2-1/2"	3/16"	1/4"	6229.250.50M
3/8"	7/8"	3"	3/16"	3/8"	6229.375.27M
3/8"	1-1/4"	3"	3/16"	3/8"	6229.375.16M
3/8"	1-1/4"	3"	3/8"	3/8"	6229.375.20M
1/2"	1-3/8"	3-1/2"	5/16"	1/2"	6229.502.50M
1/2"	2"	4"	5/16"	1/2"	6229.503.20M
1/2"	1-3/4"	3-1/2"	3/4"	1/2"	6229.504.20M
1/2"	1-1/4"	3"	3/16"	1/2"	6229.500.16M
1/2"	1-1/4"	3"	5/16"	1/2"	6229.500.20M
1/2"	1-5/8"	3-1/2"	3/16"	1/2"	6229.501.16M
1/2"	1-5/8"	3-1/2"	5/16"	1/2"	6229.501.20M
3/4"	2"	4"	7/8"	3/4"	6229.750.20M



3 Flute

CED	CEL	OAL	Upcut	Shank	Part-No.
3/8"	1-1/4"	3"	3/16"	3/8"	6229.375.36M
1/2"	1-1/4"	3"	3/16"	1/2"	6229.500.26M
1/2"	1-1/4"	3"	7/16"	1/2"	6229.500.30M
1/2"	1-5/8"	3-1/2"	3/4"	1/2"	6229.501.26M

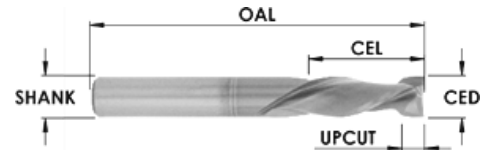
**COMPRESSION BIT FOR COMPOSITES
LONG-LIFE COATED CARBIDE GRADE**

COATED-M

2 Flute

Same carbide grade as the M-Series Long-Life Bits above, but featuring a special coating to maximize tool life. The coating extends tool life even further and protects from premature cutting edge erosion resulting from heat and oxidation during the cutting process.

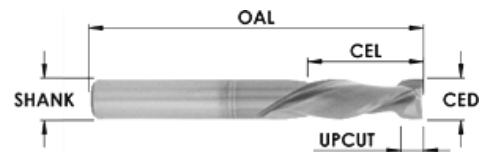
CED	CEL	OAL	Upcut	Shank	Part-No.
1/4"	7/8"	2-1/2"	1/4"	1/4"	6229.250.78MC
3/8"	7/8"	3"	3/16"	3/8"	6229.375.78MC
3/8"	1"	3"	3/16"	3/8"	6229.375.76MC
3/8"	1-1/4"	3"	3/16"	3/8"	6229.375.16MC
3/8"	1-1/4"	3"	3/8"	3/8"	6229.375.20MC
1/2"	1-1/4"	3"	3/16"	1/2"	6229.500.16MC
1/2"	1-1/4"	3"	1/2"	1/2"	6229.500.20MC
1/2"	1-5/8"	3-1/2"	5/16"	1/2"	6229.501.16MC
1/2"	1-5/8"	3-1/2"	5/8"	1/2"	6229.501.20MC



3 Flute

CED	CEL	OAL	Upcut	Shank	Part-No.
3/8"	7/8"	3"	3/16"	3/8"	6229.375.37MC
3/8"	1-1/4"	3"	3/16"	3/8"	6229.375.36MC
1/2"	1-1/4"	3"	3/8"	1/2"	6229.500.30MC
1/2"	1-5/8"	3-1/2"	5/8"	1/2"	6229.501.26MC

COATED-M



**COMPRESSION BIT FOR MELAMINE
XTREME (X SERIES) CARBIDE GRADE**

6229X

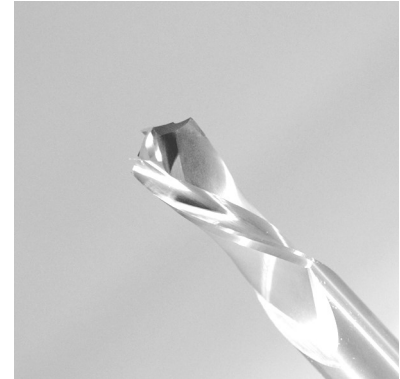
Compression bit with special "Xtreme" performance carbide grade developed specifically for the machining of melamine. Runs multiple times longer on melamine than the long-life "M" series for composite material.

2 Flute

CED	CEL	OAL	Upcut	Shank	Part-No.
3/8"	1"	3"	3/16"	3/8"	6229.376.16X
3/8"	1-1/4"	3"	3/16"	3/8"	6229.375.16X
1/2"	1-1/4"	3"	3/16"	1/2"	6229.500.16X
1/2"	1-1/4"	3"	7/16"	1/2"	6229.500.20X

3 Flute

CED	CEL	OAL	Upcut	Shank	Part-No.
1/2"	1-1/4"	3"	3/16"	1/2"	6229.500.26X



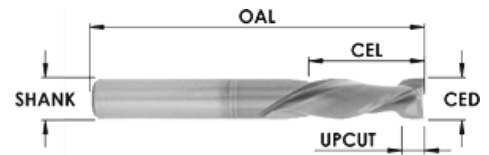
**COMPRESSION BIT FOR MELAMINE
XTREME COATED CARBIDE GRADE**

COATED-X

2 Flute

Same carbide grade as the X-Series Xtreme Bits above, but featuring a special coating to maximize tool life. The coating extends tool life even further and protects from premature cutting edge erosion resulting from heat and oxidation during the cutting process.

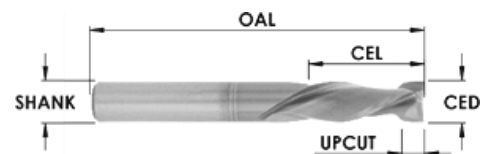
CED	CEL	OAL	Upcut	Shank	Part-No.
3/8"	1"	3"	3/16"	3/8"	6229.376.16XC
3/8"	1-1/4"	3"	3/16"	3/8"	6229.375.16XC
1/2"	1-1/4"	3"	3/16"	1/2"	6229.500.16XC
1/2"	1-1/4"	3"	7/16"	1/2"	6229.500.20XC



3 Flute

CED	CEL	OAL	Upcut	Shank	Part-No.
3/8"	1-1/4"	3"	3/16"	3/8"	6229.375.36XC
1/2"	1-1/4"	3"	3/16"	1/2"	6229.500.26XC
1/2"	1-5/8"	3-1/2"	3/4"	1/2"	6229.501.26XC

COATED-X



DOWNSHEAR BIT FOR MELAMINE

6228X

Down-shear bit with special carbide grade for melamine. Excellent choice for rebates and dado cuts with shorter cut length which reduces risk of breakage due to deflection.

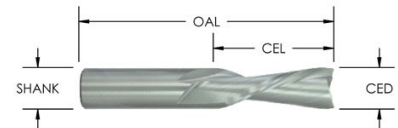
2 Flute

CED	CEL	OAL	Shank	Part-No.
1/2"	1"	3"	1/2"	6228R500D11X

SOLID CARBIDE DOWN CUT BIT - 2 FLUTE

6227 / 6228

CED	CEL	OAL	Shank	Part-No.
3/32"	1/2"	2"	1/4"	6228R094D14
1/8"	1/2"	2"	1/4"	6228R125D14
1/8"	3/4"	2-1/2"	1/4"	6228R125D15
5/32"	3/4"	2"	1/4"	6228R156D14
9/32"	3/4"	3"	1/4"	6228R281D14
3/16"	3/4"	2"	1/4"	6228R187D14
3/16"	7/8"	2"	1/4"	6228R187D16
7/32"	3/4"	2"	1/4"	6228R218D14
1/4"	1"	2-1/2"	1/4"	6228R250D14
1/4"	1"	2-1/2"	1/4"	6228R250D14M*
1/4"	1-1/4"	3"	1/4"	6228R251D14
1/4"	1-1/2"	3-1/2"	1/4"	6228R252D14
1/4"	3/4"	2-1/2"	1/4"	6228R253D14
9/32"	1"	2-1/2"	5/16"	6228R281D38
9/32"	1"	2-1/2"	3/8"	6228R281D40
5/16"	1-1/8"	3"	5/16"	6228R312D12
5/16"	1"	3"	1/2"	6228R312D13
3/8"	1-1/4"	3"	3/8"	6228R375D12
3/8"	1"	3"	3/8"	6228R375D18
3/8"	2"	4"	3/8"	6228R375D28
3/8"	1-1/8"	3"	3/8"	6228R375D37
3/8"	1"	2-1/2"	3/8"	6228R375D38
3/8"	1"	2-1/2"	3/8"	6228R375D38M*
7/16"	1-1/4"	3"	1/2"	6228R437D12
1/2"	1"	2-1/2"	1/2"	6228R500D11
1/2"	1-1/4"	3"	1/2"	6228R500D12
1/2"	1-1/4"	3"	1/2"	6228R500D12M*
1/2"	1-1/2"	3-1/2"	1/2"	6228R500D13
1/2"	2"	4"	1/2"	6228R500D14
1/2"	1-5/8"	3-1/2"	1/2"	6228R500D15
1/2"	1-5/8"	3-1/2"	1/2"	6228R500D15M*
1/2"	1-5/8"	3"	1/2"	6228R531D12
17/32"	1-1/8"	3"	1/2"	6228R531D12
9/16"	1-1/4"	3-1/2"	1/2"	6228R563D12
5/8"	1-5/8"	3-1/2"	5/8"	6228R625D58
5/8"	2"	4"	5/8"	6228R625D60
3/4"	1-1/2"	3-1/2"	3/4"	6228R750D34
3/4"	2"	4"	3/4"	6228R750D60
3/4"	3"	6"	3/4"	6228R751D60
3/4"	3-1/4"	6"	3/4"	6228R752D60
3/4"	3-1/2"	6"	3/4"	6228R753D60
3/4"	2-1/2"	5"	3/4"	6228R755D60



*M = carbide grade best for composites
For melamine, see previous page!

3 Flute

CED	CEL	OAL	Shank	Part-No.
1/4"	1"	2-1/2"	1/4"	6227.250D14
3/8"	1-1/4"	3"	3/8"	6227.375D38
1/2"	1-1/4"	3"	1/2"	6227.500D12
1/2"	2"	4"	1/2"	6227.500D13
1/2"	1-5/8"	3-1/2"	1/2"	6227.500D14
5/8"	2"	4"	5/8"	6227.625D58
3/4"	2"	4"	3/4"	6227.750D75
3/4"	1-5/8"	4"	3/4"	6227.750D76
3/4"	3"	6"	3/4"	6227.750D77

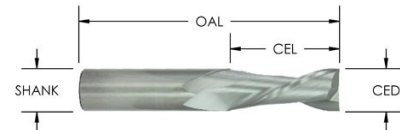
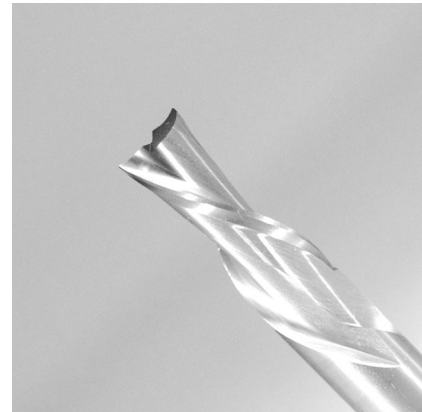
SOLID CARBIDE UP CUT BIT

6227 / 6228

Designed specifically for chip free cutting when machining in a face down position. Also good choice for solid surface materials. LH rotation on request.

2 Flute

CED	CEL	OAL	Shank	Part-No.
3/32"	1/2"	2"	1/4"	6228R094U14
1/8"	1/2"	2"	1/4"	6228R125U14
1/8"	1-1/16"	3"	1/4"	6228R125U18
1/8"	9/16"	2"	1/4"	6228R125U96
5/32"	3/4"	2"	1/4"	6228R156U14
3/16"	3/4"	2"	1/4"	6228R187U14
3/16"	1"	2-1/2"	1/4"	6228R187U15
7/32"	3/4"	2"	1/4"	6228R218U14
1/4"	1"	2-1/2"	1/4"	6228R250U14
1/4"	1-1/4"	3"	1/4"	6228R251U14
5/16"	1"	3"	5/16"	6228R312U12
5/16"	1"	3"	1/2"	6228R312U13
5/16"	1-1/8"	3"	1/2"	6228R312U14
3/8"	2"	4"	3/8"	6228R375U28
3/8"	1"	3"	3/8"	6228R375U38
3/8"	7/8"	2-1/2"	3/8"	6228R375U78
7/16"	1-1/4"	3"	1/2"	6228R437U12
1/2"	1-1/4"	3"	1/2"	6228R500U12
1/2"	1-1/2"	3-1/2"	1/2"	6228R500U13
1/2"	2"	4"	1/2"	6228R500U14
1/2"	1-5/8"	3-1/2"	1/2"	6228R500U15
1/2"	2-1/2"	5"	1/2"	6228R500U16
17/32"	1-1/8"	3"	1/2"	6228R531U12
9/16"	1-1/4"	3-1/2"	1/2"	6228R563U12
5/8"	1-1/2"	3-1/2"	5/8"	6228R625U58
5/8"	2"	4"	5/8"	6228R625U60
3/4"	1-5/8"	4"	3/4"	6228R750U34
3/4"	2"	4"	3/4"	6228R750U60
3/4"	3"	6"	3/4"	6228R751U60
3/4"	2-1/2"	5"	3/4"	6228R751U61
3/4"	3-1/4"	6"	3/4"	6228R752U60
3/4"	3-1/2"	6"	3/4"	6228R753U60



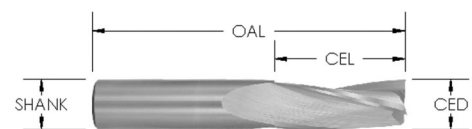
3 Flute

CED	CEL	OAL	Shank	Part-No.
3/8"	1-1/4"	3"	3/8"	6227.375U38
1/2"	1-1/4"	3"	1/2"	6227.500U12
1/2"	2"	4"	1/2"	6227.500U13
1/2"	1-5/8"	3-1/2"	1/2"	6227.500U14
3/4"	2"	4"	3/4"	6227.750U75
3/4"	1-1/2"	4"	3/4"	6227.750U76
3/4"	3"	6"	3/4"	6227.750U77

3 FLUTE LOW HELIX FOR SOLID SURFACE

CED	CEL	OAL	Shank	Part-No.
1/4"	1"	2-1/2"	1/4"	6227S250U14
3/8"	3/4"	3"	3/8"	6227S375U38
3/8"	1-1/4"	3"	3/8"	6227S375U12
1/2"	3/4"	3"	1/2"	6227S500U10
1/2"	1-1/8"	3"	1/2"	6227S500U11
1/2"	1-1/2"	4"	1/2"	6227S500U15
3/4"	2"	4"	3/4"	6227S750U78

6227



SOLID CARBIDE STRAIGHT BIT - 1 FLUTE

6209

CED	CEL	OAL	Shank	Part-No.
1/16"	1/4"	1-1/2"	1/4"	6209.116.00



SOLID CARBIDE STRAIGHT 2-FLUTE BIT

6210

CED	CEL	OAL	Shank	Part-No.
3/32"	5/16"	1-1/2"	1/4"	6210.332.00
1/8"	3/8"	1-1/2"	1/4"	6210.018.00
5/32"	3/8"	2"	1/4"	6210.532.00
3/16"	1/2"	2"	1/4"	6210.316.00
7/32"	3/4"	2"	1/4"	6210.732.00
1/4"	3/4"	2"	1/4"	6210.250.00
1/4"	1"	2-1/2"	1/4"	6210.251.00
5/16"	1"	2-1/2"	3/8"	6210.516.00
3/8"	1"	2-1/2"	3/8"	6210.375.00
1/2"	1-1/4"	3"	1/2"	6210.500.00
1/2"	1-5/8"	3-1/2"	1/2"	6210.501.00



SOLID CARBIDE ENGRAVING BIT

6208

CED	CEL	Angle	OAL	Shank	Part-No.
1/4"	7/32"	60 degree	1-1/2"	1/4"	6208.250.60
1/4"	1/8"	90 degree	1-1/2"	1/4"	6208.250.90



SINGLE FLUTE INSERT ROUTER BIT

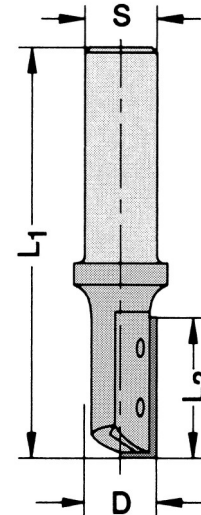
6217

Constant cutting circle, mini reversible insert with abrasion resistant carbide. The insert has a cross-groove to insure perfect position and avoid any slipping during the cutting operation. 14mm diameter and above will ramp-plunge only. Diameters up to 1/2" can plunge straight down.

For general routing operations such as grooving, jointing rebating in hardwood and various wood composite materials. For high-wear applications, please select cutters with high-density body material, designated by "HD" following the part number.

D	L2	S	OAL	Rotation	Part-No.
8mm	20mm	3/8" x 30mm	60mm	RH	6217.080.20
8mm	20mm	10mm x 40mm	70mm	RH	6217.081.20
8mm	20mm	12mm x 40mm	70mm	RH	6217.082.20
8mm	20mm	12mm x 40mm	80mm	RH	6217.082.22HD
9mm	20mm	10mm x 40mm	70mm	RH	6217.090.20
10mm	25mm	3/8" x 30mm	60mm	RH	6217.100.20
10mm	25mm	10mm x 40mm	75mm	RH	6217.101.20
10mm	25mm	12mm x 40mm	80mm	RH	6217.101.22HD
10mm	25mm	12mm x 40mm	75mm	RH	6217.102.20
11mm	25mm	10mm x 40mm	75mm	RH	6217.110.20
12mm	30mm	10mm x 40mm	80mm	RH	6217.120.20
12mm	30mm	12mm x 40mm	80mm	RH	6217.120.30
12mm	30mm	12mm x 40mm	80mm	LH	6217.120.31
12mm	30mm	12mm x 40mm	90mm	RH	6217.120.33HD
12mm	30mm	12mm x 40mm	90mm	LH	6217.120.34HD
12mm	20mm	12mm x 40mm	70mm	RH	6217.121.20
1/2"	30mm	1/2" x 40mm	80mm	RH	6217.127.30
1/2"	30mm	1/2" x 40mm	80mm	LH	6217.127.31
14mm	30mm	10mm x 40mm	80mm	RH	6217.140.20
14mm	30mm	12mm x 40mm	80mm	RH	6217.140.30
14mm	30mm	12mm x 40mm	80mm	LH	6217.140.31
16mm	50mm	12mm x 40mm	100mm	RH	6217.160.50

Replacement inserts:
 Item# 4201.021.11 (for Diameter 8,9mm and 3/8")
 Item# 4201.020.11 (for Diameter 12, 20mm)
 Item# 4201.025.11 (for Diameter 10, 11mm)
 Item# 4201.030.11 (for Diameter 12, 14mm and 1/2")
 Item# 4201.050.11 (for Diameter 16mm)



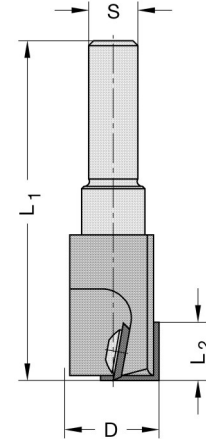
REBATE INSERT ROUTER BIT

6219

Carbide insert rebate cutter designed with one straight 4-sided insert knife cutting on the periphery and one insert tip for plunge cutting. Shear angle to produce a clean cut on laminated or coated surfaces. Z1+1 design.

D	L1	L2	Shank	Rotation	Part-No.
16mm	70mm	12mm	1/4" x 30mm	RH	6219.160.12
16mm	70mm	12mm	1/2" x 30mm	RH	6219.161.12
18mm	70mm	12mm	1/4" x 30mm	RH	6219.180.12
18mm	70mm	12mm	1/2" x 30mm	RH	6219.181.12
20mm	70mm	12mm	1/4" x 30mm	RH	6219.200.12
20mm	70mm	12mm	1/2" x 30mm	RH	6219.201.12
24mm	70mm	12mm	1/4" x 30mm	RH	6219.240.12
24mm	70mm	12mm	1/2" x 30mm	RH	6219.241.12

Replacement Inserts:
 Item# 4200.012.00 (peripheral insert)
 Item# 4200.008.00 (plunge insert for D=16, 18mm)
 Item# 4200.009.00 (plunge insert for D=20mm)
 Item# 4200.012.00 (plunge insert for D=24mm)



STRAIGHT INSERT ROUTER BIT

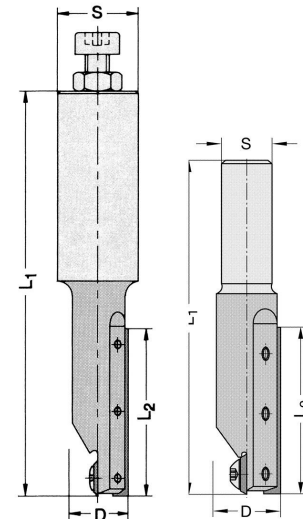
6219

For routing and jointing composite and solid surface materials. With plunging insert. Left-hand rotation is available on request.

D	L2	L1	Shank	Rotation	Part-No.
16mm	30mm	81mm	12x40mm	RH	6219.162.30
18mm	30mm	81mm	12x40mm	RH	6219.181.30
20mm	30mm	81mm	12x40mm	RH	6219.201.30
22mm	30mm	81mm	12x30mm	RH	6219.221.30

D	L2	L1	Shank	Rotation	Part-No.
16mm	50mm	101mm	14x40mm	RH	6219.160.50
18mm	50mm	116mm	25x55mm	RH	6219.180.50
3/4"	50mm	110mm	3/4"x50mm	RH	6219.190.50
20mm	50mm	116mm	25x55mm	RH	6219.200.51

Replacement inserts:
 Item# 4201.030.11 insert knife (for L2=30mm)
 Item# 4201.050.11 insert knife (for L2=50mm)
 Item# 4200.012.00 (plunge insert knife)



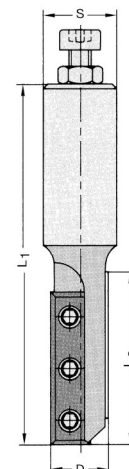
STRAIGHT INSERT ROUTER BIT

6225

For routing, sizing, rebating and jointing wood and composite materials requiring a finish without lines from overlapping inserts. Two offset solid carbide 4-sided inserts. This tool can be used for both mechanical and manual feed.

D	L2	L1	Shank	Rotation	Part-No.
16mm	55mm	125mm	3/4"	RH	6225.160.34
18mm	55mm	125mm	3/4"	RH	6225.180.34
18mm	55mm	125mm	3/4"	LH	6225.180.35
20mm	55mm	125mm	3/4"	RH	6225.200.34
20mm	55mm	125mm	3/4"	LH	6225.200.35

Replacement Parts:
 Item# 6419.050.00 insert knife
 Item# 39076-0-04000-R Torx Screw
 Item# 39077-0-04015-2 t15 Torx Wrench



INSERT COMPRESSION ROUTER BIT

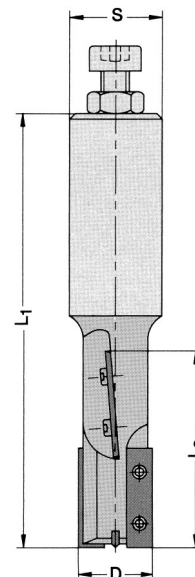
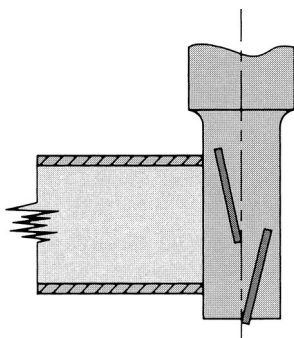
6243

Two flute compression style insert router bit with two solid carbide insert tips shearing downward and 2 inserts shearing upward. 4-sided plunge knife. Inserts are reversible. Bottom/Plunge and peripheral cutting. Right hand rotation.

Provides a chip free surface finish on laminated panel products, but can also be used on solid wood for jointing, trimming and sizing.

D	L2	Shank	OAL	Part-No.
20mm	33mm	3/4"x55	110mm	6243.039.34
20mm	33mm	25x55	110mm	6243.039.25
20mm	53mm	3/4"x55	125mm	6243.029.34
20mm	53mm	25x55	125mm	6243.029.25

Replacement inserts: Item# 6243.195.00 for L2=33mm
Item# 6243.295.00 for L2=53mm



2 FLUTE INSERT ROUTER BIT

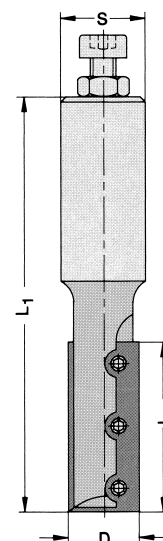
6218

Two Flute router bit with straight, reversible solid carbide insert tips. 3-hole insert design. Bottom cutting for plunge capability.

For jointing, trimming and rebating in solid wood and composite panels.

D	L1	L2	Shank	Turn	Part-No.
25mm	119mm	50mm	3/4"	RH	6218.250.34
30mm	118mm	50mm	3/4"	RH	6218.300.34
25mm	119mm	50mm	25mm	RH	6218.250.50
30mm	118mm	50mm	25mm	RH	6218.300.50

Replacement inserts: Item# 6419.050.00



PCD (DIAMOND) ROUTER BIT

6811-6814

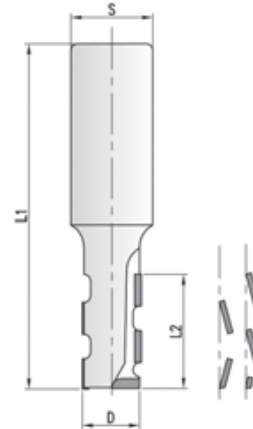
Economical polycrystalline diamond (PCD) router bit designed with a compression style shear and a carbide-tipped plunge point. Ideal for general routing of wood composite materials. Feed rate varies based on number of flutes. Can be sharpened one time.

Single and 2 Flute

D	L2	S	Flutes	OAL	Part-No.
1/2"	1"	1/2"	1+1	3"	6811.127.00
1/2"	27mm	1/2"	2+2	3"	6814.127.00
3/4"	1.5/8"	3/4"	1+1	3-3/4"	6812.190.10

Design	Material	RPM	Feed (meters)	Feed (inches)
Single Flute	MDF	18,000	4-6 m/min	150-230
	Particleboard	18,000	5-7 m/min	200-275
Two Flute	MDF	18,000	11-14 m/min	400-550
		24,000	14-19 m/min	550-750
	Particleboard	18,000	14-18 m/min	550-700
		24,000	19-24 m/min	750-900

The feed rate guidelines above are for peripheral cuts. For parting cuts, the feed speed should be reduced! (25-30%)



PCD (DIAMOND) ROUTER BIT

6815

2 Flute

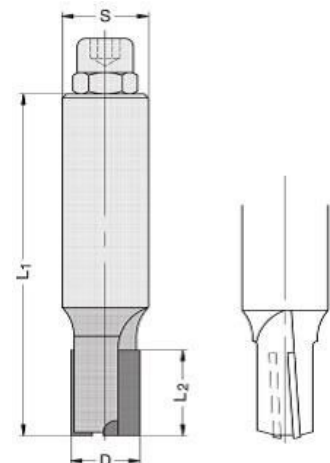
Exceptional performance on a wide array of materials, ranging from solid wood, particleboard, MDF, solid surface material and phenolics. Quiet running and great chip removal properties. Features a solid carbide body and a diamond plunge point. Can be sharpened.

Cutting geometry designed for abrasive and difficult-to-machine materials, for groove, rebate, jointing and sizing of MDF, HDF, HPL, CPL, Trespa, Corian, Duroplastics, Thermoplastics and fiber-reinforced composites. The PCD tips are positioned on opposite shear angles to provide an excellent finish top and bottom. Suitable for both axial and ramp plunging operations.

D	L2	S	Flutes	OAL	Part-No.
1/2"	22mm	1/2"	2	70mm	6815.127.00
1/2"	25mm	1/2"	2	70mm	6815.127.10
8mm	15mm	8mm	2	65mm	6815.080.00
10mm	15mm	10mm	2	75mm	6815.100.00
12mm	20mm	12mm	2	75mm	6815.120.00
16mm	20mm	20mm	2	80mm	6815.160.00
16mm	25mm	16mm	2	85mm	6815.160.10

Material	RPM	Feed (meters)	Feed (inches)
MDF/Particleboard	18-24,000	12-16 m/min	400-600
Plywood Veneer	18-24,000	6-9 m/min	230-350
Thermoplastics/Phenolics	15-18,000	1-5 m/min	40-195
Solid Surface	15-18,000	12-14 m/min	400-550

The feed rate guidelines above are for peripheral cuts. For parting cuts, the feed speed should be reduced! (25-30%)



HIGH SHEAR PCD (DIAMOND) ROUTER BIT

6816

High Shear (PCD) router bit for high feed speeds and excellent finish quality when cutting wood or composite material. Tool has a high quality steel body, 3 flute design. The unique 20° shear angle of the cutting tips delivers superior finish and the durability of polycrystalline diamond results in a very economic tool performance.

3 Flute

D	L2	S	Flutes	OAL	Part-No.
1/2"	1"	1/2"	3+3	3"	6816.127.00



Material	RPM	Feed (meters)	Feed (inches)
MDF/Particleboard	18,000	15-19 m/min	600-750

The feed rate guidelines above are for peripheral cuts. For parting cuts, the feed speed should be reduced! (25-30%)

PCD (DIAMOND) ROUTER BIT

6818

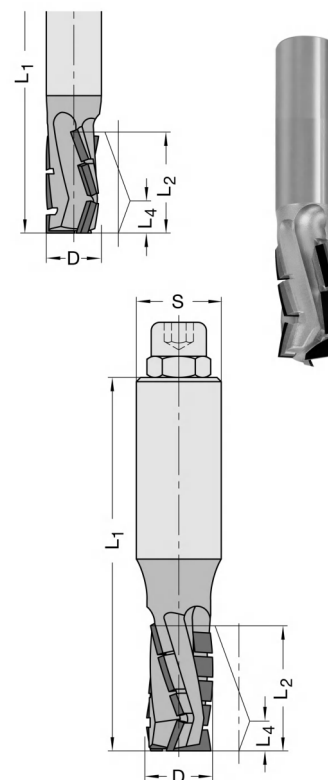
This 3-flute PCD Bit is designed for high speed nesting operations, for jointing, sizing, rebating and grooving in MDF, particleboard and OSB. This tool features a solid carbide tool body for demanding applications. Diamond-tipped plunge point.

3 Flute

D	L2	L4	L1	Shank	Part-No.
1/2"	28mm	7mm	85mm	1/2"	6818.127.00
12mm	22mm	7mm	75mm	12mm	6818.120.00
16mm	29mm	6.5mm	100mm	20mm	6818.160.00
18mm	52mm	13mm	130mm	20mm	6818.180.00

Material	RPM	Feed (meters)	Feed (inches)
MDF	18,000	16-21 m/min	600-850
	24000	21-28 m/min	850-1100
Particleboard	18,000	21-27 m/min	850-1100
	24000	28-36 m/min	400-550

The feed rate guidelines above are for peripheral cuts. For parting cuts, the feed speed should be reduced! (25-30%)



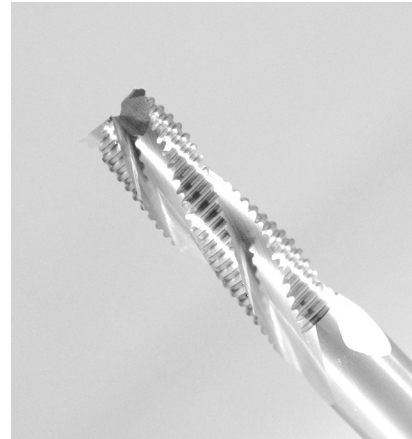
SOLID CARBIDE ROUGHER

6231

Hogging design for very high feed speeds. RH rotation. LH on request.

3-Flute Up Cut

D	CEL	OAL	Flutes	S	Part-No.
3/8"	7/8"	2-1/2"	3	3/8"	6231.375U38*
3/8"	1-1/8"	3"	3	3/8"	6231.375U11
3/8"	1-1/4"	3"	3	3/8"	6231.375U12
1/2"	1-1/4"	3"	3	1/2"	6231.500U12
1/2"	1-1/2"	3-1/2"	3	1/2"	6231.500U13
1/2"	1-5/8"	3-1/2"	3	1/2"	6231.500U15
1/2"	1-3/4"	4"	3	1/2"	6231.500U14
1/2"	2"	4"	3	1/2"	6231.500U16
5/8"	2-1/8"	4"	3	5/8"	6231.625U60
3/4"	2"	4"	3	3/4"	6231.750U34
3/4"	2-1/2"	5"	3	3/4"	6231.754U34
3/4"	3"	6"	3	3/4"	6231.751U34
3/4"	3-1/4"	6"	3	3/4"	6231.752U34
3/4"	3-1/2"	6"	3	3/4"	6231.753U34
3/4"	4"	6"	3	3/4"	6231.755U34
3/4"	4"	6-1/2"	3	3/4"	6231.756U34

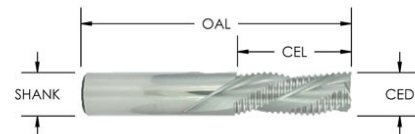


*) for Castle pocket

Low Helix Bits are available on request.

3-Flute Down Cut

D	CEL	OAL	Flutes	S	Part-No.
3/8"	7/8"	2-1/2"	3	3/8"	6231.375D13
3/8"	1-1/4"	3"	3	3/8"	6231.375D12
1/2"	1-1/4"	3"	3	1/2"	6231.500D11
1/2"	1-1/2"	3-1/2"	3	1/2"	6231.500D13
1/2"	1-5/8"	4"	3	1/2"	6231.500D15
1/2"	1-3/4"	4"	3	1/2"	6231.500D14
1/2"	2"	4"	3	1/2"	6231.500D16
5/8"	2"	4"	3	5/8"	6231.625D60
3/4"	2"	4"	3	3/4"	6231.750D34
3/4"	2-1/2"	5"	3	3/4"	6231.754D34
3/4"	3"	6"	3	3/4"	6231.751D34
3/4"	3-1/4"	6"	3	3/4"	6231.752D34
3/4"	3-1/2"	6"	3	3/4"	6231.753D34



SOLID CARBIDE CHIPBREAKER

6230

This bit is designed with offset chip breakers for high feed rates. Chip Breakers are available in 2 and 3 flute. Not recommended for a finish cut. RH rotation. LH on request.

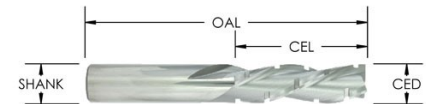
2 and 3-Flute Up Cut

D	CEL	OAL	Flutes	S	Part-No.
3/8"	1-1/4"	3"	3	3/8"	6230.375U38
1/2"	1-1/4"	3"	3	1/2"	6230.501U12
1/2"	1-1/2"	3-1/2"	2	1/2"	6230.500U13
1/2"	1-5/8"	3-1/2"	2	1/2"	6230.500U15
1/2"	1-5/8"	3-1/2"	3	1/2"	6230.501U15
1/2"	2"	4"	3	1/2"	6230.501U14
1/2"	2-1/8"	4"	2	1/2"	6230.500U16
5/8"	2"	4"	2	5/8"	6230.625U60
5/8"	2-1/2"	6"	2	5/8"	6230.625U70
3/4"	1-5/8"	3-1/2"	3	3/4"	6230.751U58
3/4"	2"	4"	3	3/4"	6230.750U60
3/4"	3"	6"	3	3/4"	6230.752U60



2 and 3-Flute Down Cut

D	CEL	OAL	Flutes	S	Part-No.
1/2"	1-1/4"	3"	3	1/2"	6230.501D12
1/2"	1-1/2"	3-1/2"	2	1/2"	6230.500D13
1/2"	1-5/8"	3-1/2"	3	1/2"	6230.501D15
1/2"	2"	4"	3	1/2"	6230.501D14
5/8"	2"	4"	3	5/8"	6230.625D60
3/4"	2"	4"	2	3/4"	6230.751D60
3/4"	2-1/2"	5"	3	3/4"	6230.750D61
3/4"	3"	6"	3	3/4"	6230.752D60



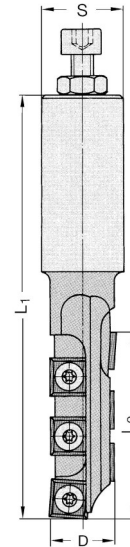
CARBIDE INSERT CHIPBREAKER BIT

6223

This carbide insert bit is designed for faster feed rates and features compression style positioning of the inserts for clean cuts top and bottom of panel. Ideal for rough cutting and cut-outs in solid wood and panel products. This bit features 6 off-set inserts. Suitable for plunge cutting. RH rotation.

D	CEL	OAL	Flutes	S	Part-No.
22mm	60mm	131mm	1+1	3/4"	6223.221.34

Replacement Parts:
 Item# 4200.012.00 (four sided)
 Item# 39076-0-04000-R M4 Torx Screw
 Item# 39077-0-04015-2 Torx Wrench T15



CARBIDE / PCD INSERT ROUGHING BIT

6248

This carbide insert bit is designed for roughing applications sizing, jointing, rebating of wood and a wide variety of composite panel products on CNC machines. High cutting performance and excellent chip removal resulting from helical positioning of the four-sided, special grind inserts. Ramp plunging is recommended when entering material. Solid tool construction and highly accurate and secure insert positioning. RH rotation.

This tool is available with either PCD or solid carbide inserts, and both can be combined on the same tool, such as placing PCD inserts where abrasive laminate line is prevalent. This tool is a two-flute design (Z2), but bears mentioning that the uppermost 4mm toward the shank is Z1.

Both PCD and Tungsten Carbide inserts are 4-sided.
 PCD / Tungsten combination on the same tool is available on request.

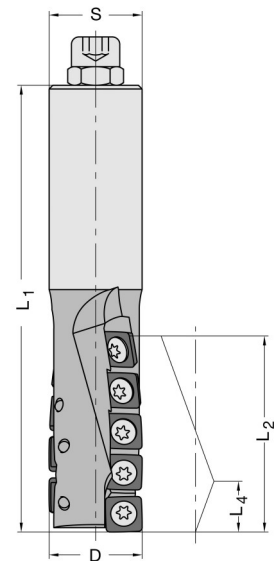
Recommended machining parameters:

RPM 18,000-24,000

Feed rate: 8-15m/min

D	CEL	L4	OAL	S	Inserts	Part-No.
25mm	54mm	13.9mm	120mm	3/4"	10/TC	6248.250.25
25mm	54mm	13.9mm	120mm	3/4"	10/PCD	6248.251.25

Replacement Parts:
 Item# 72014-0-09800-0 4 sided solid carbide insert
 Item# 72014-9-09800-0 4 sided PCD insert
 Item# 39081-0-04070-R M4x7, T15 Torx screw
 Item# 39077-0-04015-2 Torx Wrench T15



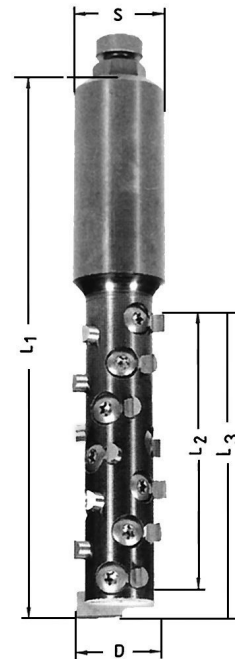
NOVITEC INSERT ROUGHING BIT

6235

This insert router bit is designed for roughing/hogging composite materials and solid wood. Not designed for finish cuts although it does produce a very acceptable finish for many applications. Excellent results machining plywood. Tips are interchangeable as either straight, 8° up shear or 8° down shear cutting action. The Novitec is supplied with straight carbide knives unless otherwise specified. This tool is great for high feed rates!

Maximum rpm is 24,000

D	L ₂ /L ₃	Shank	OAL	Z / tips	Rotation	Part-No.
16mm	42mm/48mm	25mm	110mm	3/9	RH	6235.016.42
16mm	56mm/62mm	25mm	125mm	3/12	RH	6235.016.56
16mm	42mm/48mm	14mm	110mm	3/9	RH	6235.116.42
16mm	42mm/48mm	14mm	110mm	3/9	LH	6235.116.43
16mm	56mm/62mm	14mm	125mm	3/12	RH	6235.116.56
18mm	28mm/34mm	25mm	104mm	3/6	RH	6235.018.28
18mm	42mm/48mm	25mm	118mm	3/9	RH	6235.018.42
18mm	56mm/62mm	25mm	132mm	3/12	RH	6235.018.56
18mm	56mm/62mm	25mm	132mm	3/12	LH	6235.018.57
3/4"	42mm/48mm	3/4"	105mm	3/9	RH	6235.019.42
3/4"	56mm/62mm	3/4"	119mm	3/12	RH	6235.019.56
20mm	42mm/48mm	25mm	118mm	3/9	RH	6235.020.42
20mm	56mm/62mm	25mm	132mm	3/12	RH	6235.020.56
24mm	42mm/48mm	25mm	118mm	3/9	RH	6235.024.42
24mm	56mm/62mm	25mm	126mm	3/12	RH	6235.024.56
24mm	56mm/62mm	25mm	126mm	3/12	LH	6235.024.57
24mm	70mm/76mm	25mm	140mm	3/15	RH	6235.024.70
24mm	70mm/76mm	25mm	140mm	3/15	LH	6235.024.71
24mm	83mm/90mm	25mm	153mm	3/18	RH	6235.024.83



Replacement inserts:

For 16-20mm Diameter:

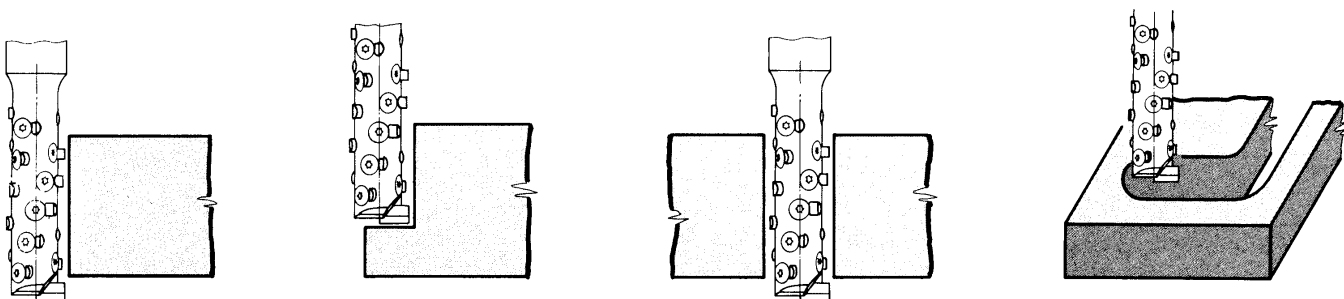
- Item# 6235.055.00 (Straight)
- Item# 6235.055.01 (Up Shear)
- Item# 6235.055.02 (Down Shear)

For 24mm Diameter:

- Item# 6235.070.00 (Straight)
- Item# 6235.070.01 (Up Shear)
- Item# 6235.070.02 (Down Shear)

Plunge Inserts

	RH	LH
For D=16mm	6235.000.16	6235.001.16
For D=18mm	6235.000.18	6235.001.18
For D=3/4"	6235.000.19	-
For D=20mm	6235.000.20	6235.001.20
For D=24mm	6235.000.24	6235.001.24



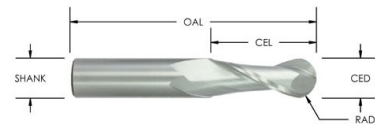
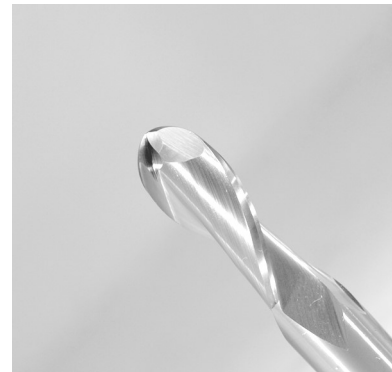
SOLID CARBIDE BALLNOSE BIT

6228B

2 Flute up cut ball-nose / cove bit. Suitable for carving, fluting and shallow concave radius cuts.

2 Flute

CED	CEL	OAL	Radius	Shank	Part-No.
1/8"	1/2"	2"	1/16"	1/4"	6228R125U14B
3/16"	3/4"	2"	3/32"	1/4"	6228R476U14B
1/4"	3/4"	2-1/2"	1/8"	1/4"	6228R250U14B
3/8"	1"	3"	3/16"	3/8"	6228R375U38B
1/2"	1-1/4"	3"	1/4"	1/2"	6228R500U12B
1/2"	2"	4"	1/4"	1/2"	6228R500U14B
3/4"	2"	4"	3/8"	3/4"	6228R750U60B



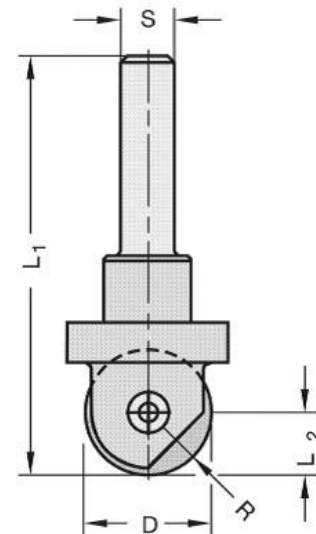
COVE / FLUTING INSERT BIT

4096

Carbide insert router bit suitable for fluting and coves. The carbide insert is reversible and yields two run cycles per insert. Ideal for use in wood and wood composites.

D	L1	L2	Shank (S)	Radius (R)	Part-No.
1/2"	57mm	1/4"	1/4" x 30mm	1/4"	4096.127.63
1/2"	57mm	1/4"	1/2" x 30mm	1/4"	4096.127.12
16mm	60mm	5/16"	1/4" x 30mm	5/16"	4096.160.63
16mm	60mm	5/16"	1/2" x 30mm	5/16"	4096.160.12
19mm	63mm	3/8"	1/4" x 30mm	3/8"	4096.190.63
19mm	63mm	3/8"	1/2" x 30mm	3/8"	4096.190.12

Replacement inserts:
 Item# 4096.635.00 (1/4" R)
 Item# 4096.080.00 (5/16" R)
 Item# 4096.953.00 (3/8" R)

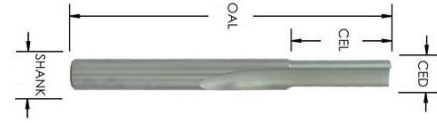


O-FLUTE STRAIGHT (For Soft Plastic)

6201

Single Flute, with polished flute

CED	CEL	Shank	OAL	Cut	Part Number
1/8"	1/2"	1/4"	2"	straight	6201F125.14
1/8"	5/8"	1/4"	4"	straight	6201F126.14
3/16"	5/8"	1/4"	2"	straight	6201F187.14
3/16"	1"	1/4"	4"	straight	6201F188.14
1/4"	3/4"	1/4"	3-1/4"	straight	6201F250.14
1/4"	1-1/4"	1/4"	4"	straight	6201F251.14
3/8"	1-5/8"	3/8"	6"	straight	6201F375.38
1/2"	1"	1/2"	3"	straight	6201F500.50
1/2"	2-1/8"	1/2"	6"	straight	6201F501.50

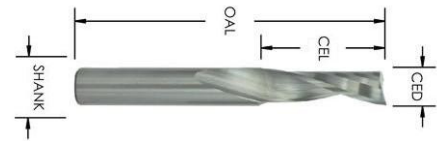


O-FLUTE UPCUT SPIRAL (For Soft Plastic)

6201

Single Flute, with polished flute

CED	CEL	Shank	OAL	Cut	Part Number
1/8"	1/4"	1/4"	2"	up	6201F125U14
1/8"	1/2"	1/4"	2"	up	6201F126U14
3/16"	3/8"	1/4"	2"	up	6201F187U14
3/16"	5/8"	1/4"	2"	up	6201F188U14
1/4"	3/8"	1/4"	2"	up	6201F250U14
1/4"	3/4"	1/4"	2-1/2"	up	6201F251U14
1/4"	1-1/4"	1/4"	3"	up	6201F252U14
3/8"	5/8"	3/8"	2-1/2"	up	6201F375U38
3/8"	1-1/8"	3/8"	3"	up	6201F376U38
3/8"	1-5/8"	3/8"	3-1/2"	up	6201F377U38
1/2"	1-5/8"	1/2"	3-1/2"	up	6201F500U12

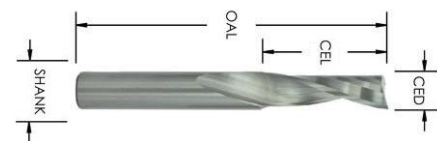


O-FLUTE UPCUT SPIRAL (For Hard Plastic)

6201

Single Flute, with polished flute

CED	CEL	Shank	OAL	Cut	Part Number
1/8"	1/4"	1/4"	2"	Up	6201H125U14
1/8"	1/2"	1/4"	2"	Up	6201H126U14
3/16"	3/8"	1/4"	2"	Up	6201H187U14
3/16"	5/8"	1/4"	2"	Up	6201H188U14
1/4"	3/8"	1/4"	2"	Up	6201H250U14
1/4"	3/4"	1/4"	2-1/2"	Up	6201H251U14
1/4"	1-1/4"	1/4"	3"	Up	6201H252U14
3/8"	5/8"	3/8"	2-1/2"	Up	6201H375U38
3/8"	1-1/8"	3/8"	3"	Up	6201H376U38
3/8"	1-5/8"	3/8"	3-1/2"	Up	6201H377U38
1/2"	1-5/8"	1/2"	3-1/2"	Up	6201H500U12



ROUTER BIT FOR ACRYLIC

93103-96123

German-engineered and produced, these single and multi-flute solid carbide bits feature special cutting geometries that produce highest quality surface finish. With a polished flute and polished clearance for excellent chip removal, these bits provide an exceptionally good end result.

Suitable for machining (polishing, grooving, sizing) of Thermoplastics, such as PMMA (acrylic glass), PC (Polycarbonate), PE (Polyethylene), PP (Polypropylene) PS (Polystyrol), ABS and PVC.

Achieve an almost glass-clear finish by pre-routing in conventional cut mode and then making a final pass (with minimal material removal) in climb-cut mode.

Single Flute

CED	CEL	OAL	Shank	Part-No.
2mm	2mm	50mm	6mm	93103-020
4mm	15mm	50mm	6mm	93103-040
6mm	20mm	60mm	6mm	93103-060
8mm	25mm	70mm	8mm	93103-080
10mm	30mm	70mm	10mm	93103-100

Recommended machining parameters:

Pre-cut (roughing) - conventional cut 18-24,000 rpm 2-6 m/min feed rate

Finish cut - climb-cut! 18-24,000 rpm , 0.1-0.4 m/min feed rate (.004-.012" material removal)

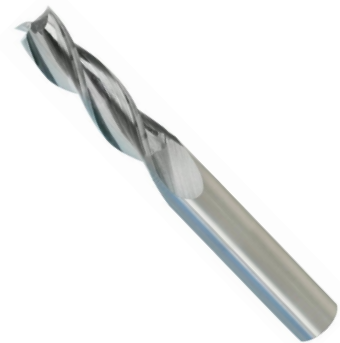
3-Flute

CED	CEL	OAL	Shank	Part-No.
6mm	20mm	50mm	6mm	93303-060

Recommended machining parameters:

Pre-cut (roughing) - conventional cut 18-24,000 rpm 6-10m/min feed rate (Z3)

Finish cut - climb cut! 18-24,000 rpm , 0.3-0.8 m/min feed rate (.004-.012" material removal)



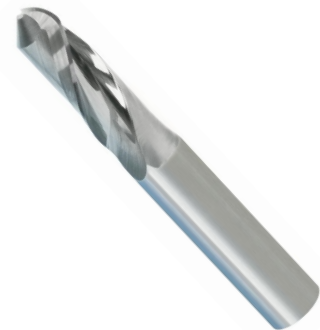
BALLNOSE BIT FOR ACRYLIC

CED	CEL	OAL	R	Shank	Part-No.
2mm	5mm	50mm	1	6mm	96113-020
4mm	15mm	50mm	2	6mm	96113-040
6mm	20mm	60mm	3	6mm	96113-060
8mm	25mm	70mm	4	8mm	96113-080
10mm	30mm	70mm	5	10mm	96113-100

Recommended machining parameters:

Pre-cut (roughing) - conventional cut 16-24,000 rpm 2-6 m/min feed rate

Finish cut - climb-cut! 16-24,000 rpm , 0.3-0.6 m/min feed rate (.005-.010" material removal)



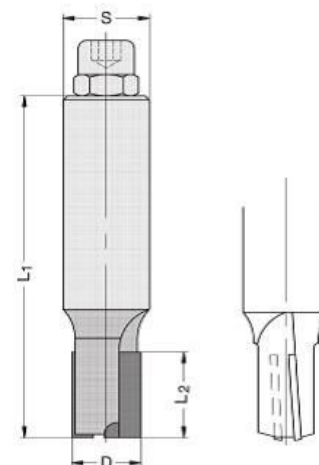
PCD ROUTER BIT FOR THERMOPLASTICS

6815

Exceptional performance on a wide array of materials, ranging from solid wood, particleboard, MDF, solid surface material, thermoplastics/phenolics to fiber reinforced (carbon and glass fiber) composites. Quiet running and great chip removal properties. Features a solid carbide body and a diamond plunge point. Can be sharpened.

Cutting geometry designed for abrasive and difficult-to-machine materials, for groove, rebate, jointing and sizing of MDF, HDF, HPL, CPL, Trespa, Corian, Duroplastics, Thermoplastics and fiber-reinforced composites. The PCD tips are positioned on opposite shear angles to provide an excellent finish top and bottom. Suitable for both axial and ramp plunging

2 Flute



D	L2	S	Flutes	OAL	Part-No.
1/2"	22mm	1/2"	2	70mm	6815.127.00
1/2"	25mm	1/2"	2	70mm	6815.127.10
8mm	15mm	8mm	2	65mm	6815.080.00
10mm	15mm	10mm	2	75mm	6815.100.00
12mm	20mm	12mm	2	75mm	6815.120.00
16mm	20mm	20mm	2	80mm	6815.160.00
16mm	25mm	16mm	2	85mm	6815.160.10

Material	RPM	Feed (meters)	Feed (inches)
Thermoplastics/Phenolics	15-18,000	1-5 m/min	40-195
Solid Surface	15-18,000	12-14 m/min	400-550

The feed rate guidelines above are for peripheral cuts. For parting cuts, the feed speed should be reduced! (25-30%)



INSERT ROUTER BIT FOR THERMOPLASTICS

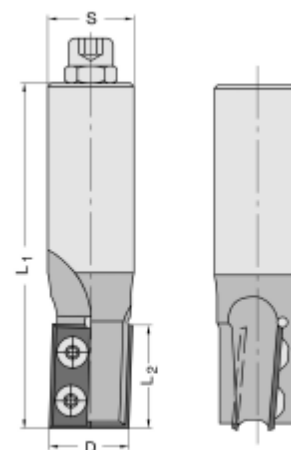
6233

For grooving, jointing, sizing and rebating Acrylic Glass (PMMA), Thermoplastics, Polyethylene (PE), Polycarbonate (PC), Polypropylene (PP). Tool body features two special carbide grade insert knives that are positioned on opposing shear angles to provide an excellent finish.

2 Flute

D	L2	S	Flutes	L1	Part-No.
25mm	30mm	25mm	2	100mm	6233.250.00

Replacement Parts: Item# 72014-6-03008-0 4-sided solid carbide insert

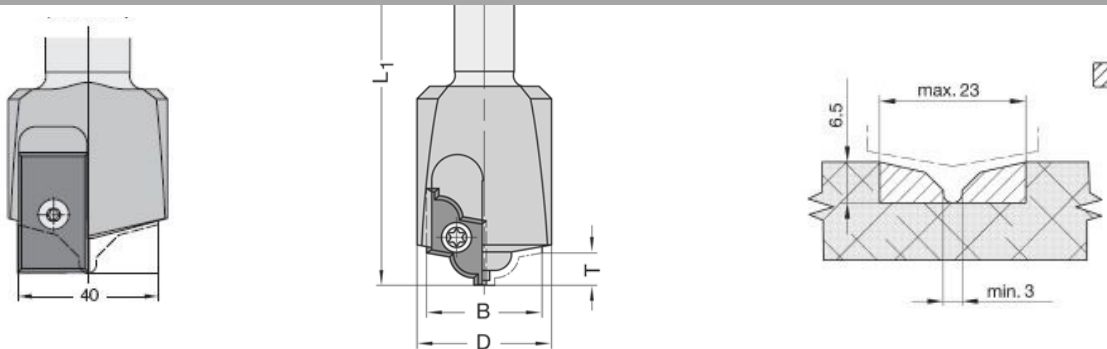


CUSTOM PROFILE TOOLING

Our custom router tooling program is one of the most comprehensive and economical solutions in the industry! Our program includes an extensive selection of stock bodies that can be quickly customized to specific profile needs. The following pages show some examples of stock body blanks that can be transformed into edge profiles, raised panel, cope and stick, angled profiles, corner cut-outs, carving, engraving, rosettes, MDF Door profiles and much more! The process is very simple. We need a wood sample, a dimensioned sketch or a CAD drawing of the profile and we do the rest. After the tool is designed, a dimensioned drawing is provided for verification of tool detail, rotation and machine connection and two weeks later, the custom tooling is ready! It really is that simple!

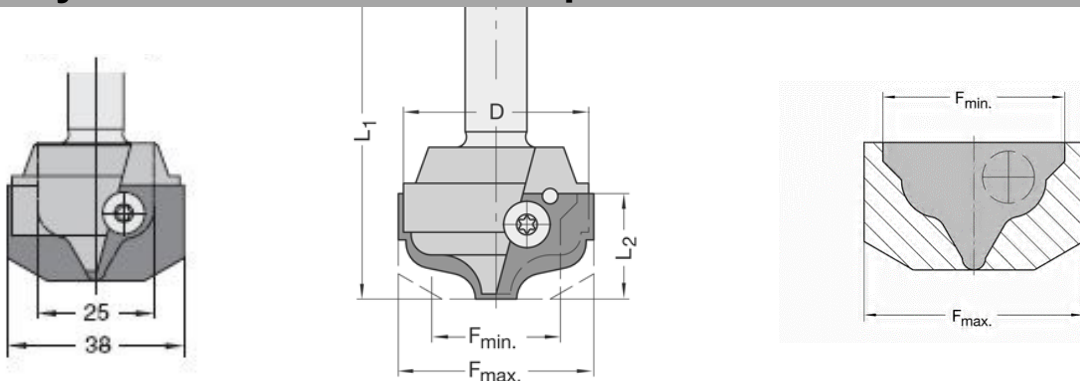


Tool Body Blank Profile Example 22451



D	B	L1	S	Part-No.
27mm	23mm	69mm	12mm	22451

Tool Body Blank Profile Example 22543

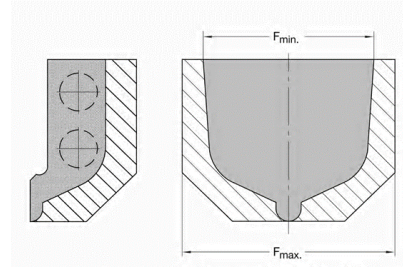
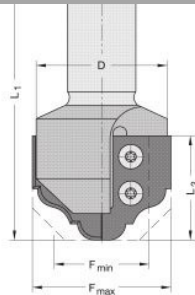
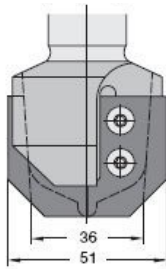


Fmax	D	L2	Fmin	L1	Shank	Part-No.
38mm	36mm	20.5mm	31.5mm	70mm	1/2"	22543

Tool Body Blank

Profile Example

22545

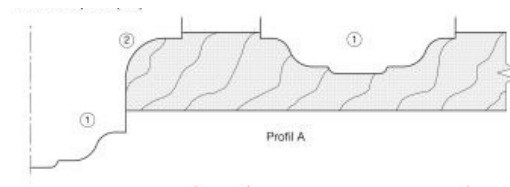
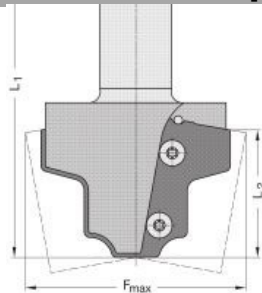
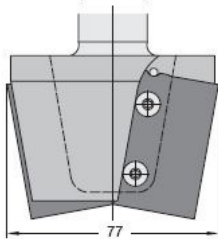


Fmax	D	L2	Fmin	L1	Shank	Part-No.
51mm	48mm	38.5mm	41mm	105mm	3/4" or 25mm	22545

Tool Body Blank

Profile Example

22546

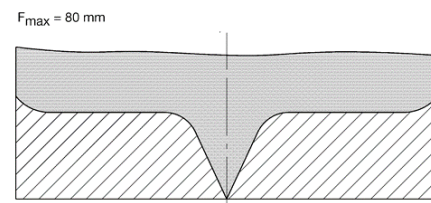
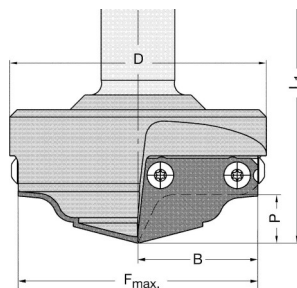
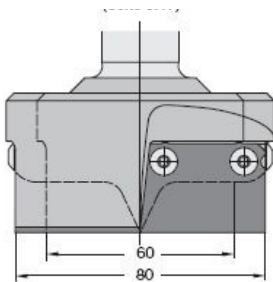


Fmax	D	L2	L1	Shank	Part-No.
77mm	74mm	43mm	115mm	3/4" or 25mm	22546

Tool Body Blank

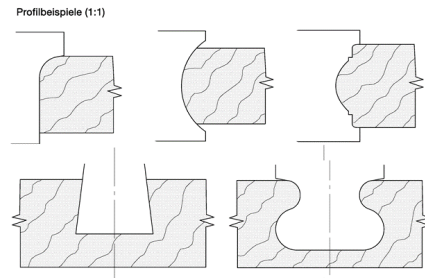
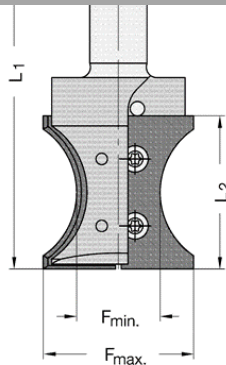
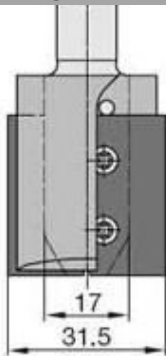
Profile Example

22547



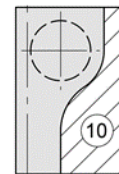
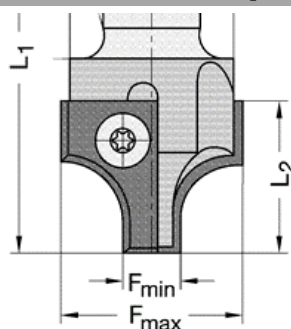
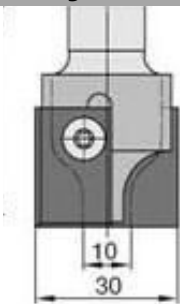
Fmax	D	B	P	L1	Shank	Part-No.
60mm	70mm	30mm	16mm	100mm	3/4" or 25mm	22547-1
80mm	90mm	40mm	16mm	105mm	3/4" or 25mm	22547-2

Tool Body Blank **Profile Example** **22529**



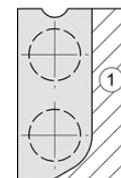
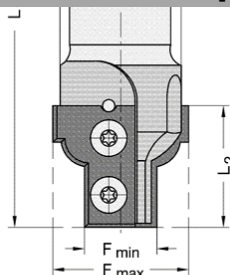
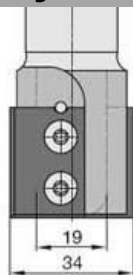
Fmax	L2	Fmin	L1	Shank	Part-No.
31.5mm	32mm	17mm	80mm	1/2" or 12mm	22529

Tool Body Blank **Profile Example** **22534**



Fmax	D	L2	L1	Shank	Part-No.
30mm	28mm	25mm	86mm	3/4" or 25mm	22534

Tool Body Blank **Profile Example** **22532-1**

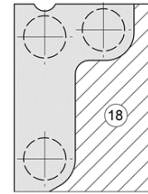
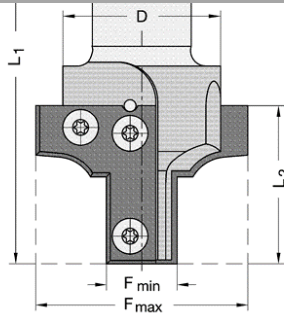
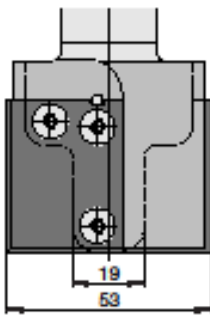


Fmax	D	L2	L1	Shank	Part-No.
34mm	31mm	30mm	96mm	3/4" or 25mm	22532-1

Tool Body Blank

Profile Example

22532-2

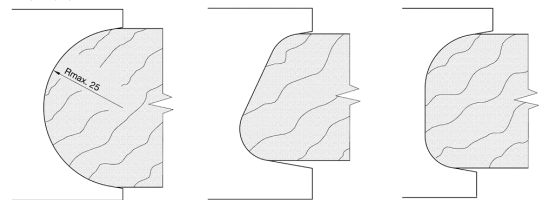
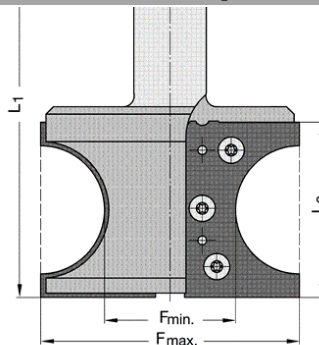
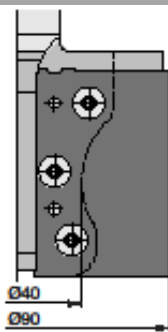


Fmax	D	L2	L1	Shank	Part-No.
53mm	50mm	40mm	80mm	1/2" or 12mm	22532-2

Tool Body Blank

Profile Example

22530-90

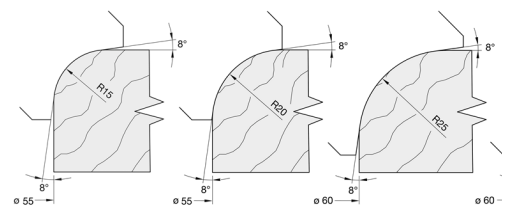
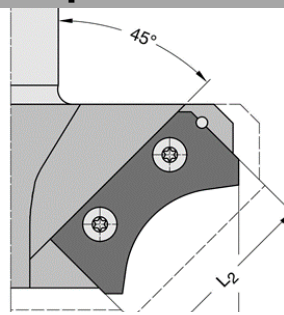
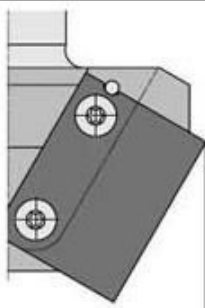


Fmax	Fmin	L2	L1	Shank	Part-No.
90mm	40mm	60mm	125mm	3/4" or 25mm	22530-90

Tool Body Blank

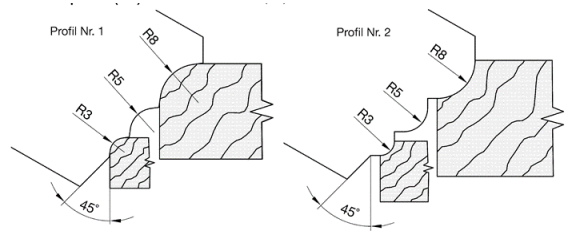
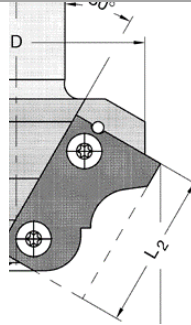
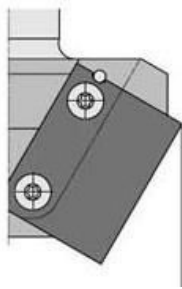
Profile Example

22538-45



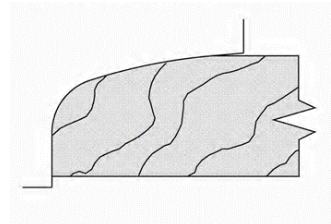
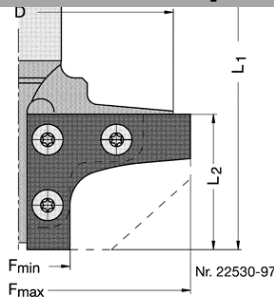
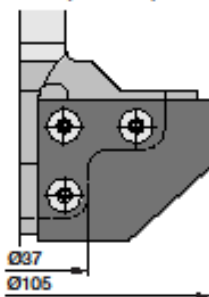
Fmax	D	L2	L1	Shank	Part-No.
34mm	31mm	30mm	96mm	3/4" or 25mm	22532-1

Tool Body Blank Profile Example 22538-30



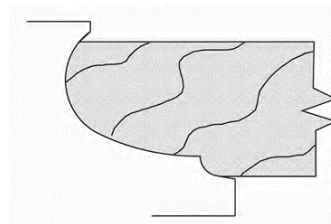
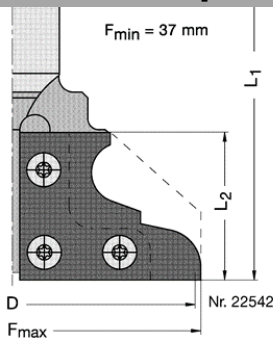
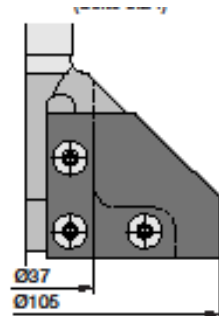
Fmax	L2	L1	Shank	Part-No.
82/87mm	40mm	104mm	3/4" or 25mm	22538-30

Tool Body Blank Profile Example 22530-97



Fmax	D	F min	L2	L1	Shank	Part-No.
105mm	102mm	37mm	36mm	104mm	3/4" or 25mm	22530-97

Tool Body Blank Profile Example 22542



Fmax	D	F min	L2	L1	Shank	Part-No.
105mm	102mm	37mm	36mm	104mm	3/4" or 25mm	22542

CUSTOM TOOLING IN A SNAP!

Custom tooling is an easy process when partnering with GDP | GUHDO. From concept to design, production and delivery, the process takes no longer than 4 weeks. With a sample profile, a CAD file or a dimensioned sketch, we design precision profile tooling with safety, accuracy, exceptional performance and our customer's complete satisfaction in mind. Below are some examples of the end result.....from drawing to tooling completion.



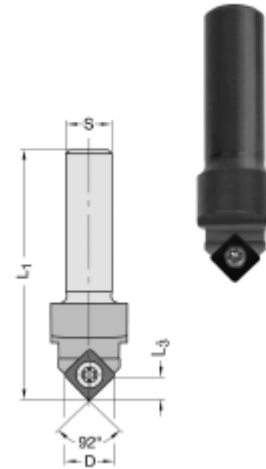
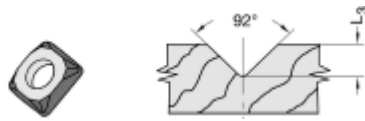
PCD (DIAMOND) INSERT GROOVING BIT

4389

Diamond Insert decorative grooving, lettering, beveling and edge chamfering bit. Extremely economical when machining abrasive materials. This tool is designed with a shear effect, pulling inward and down for excellent finish.

D	L3	Shank	OAL	Part-No.
12.9	5.6	12mm	65mm	4389.176.00

Replacement inserts:
Item# 4389.098.00



PCD (DIAMOND) CUSTOM PROFILE ROUTER TOOLING



Profiled diamond tools are made to order per exact customer needs and specifications. All tools are designed with consideration of preferred machining parameters in mind. The process is simple. With either a wood sample, a dimensioned sketch or a dxf file, we prepare a detailed tool drawing for approval. Once any revisions are noted and final drawing is approved, the lead time for the new tool to be shipped is generally 4 weeks.

CORRUGATED KNIFE HOLDER

4524

This corrugated head tool holder features a steel body design and offers a great option for short production runs and proto-type needs. It comes on an HSK heat shrink tool holder (sold separately). Maximum knife length is 80mm. RH rotation. (LH on request)
 For safety reasons, maximum profile depth should not exceed 16mm and maximum Knife height should not exceed 40mm. Due to weight limitations, this holder is only available for 5/16" knives up to 60mm length.

CED	CEL	OAL	Knife thickness	Shank	Part-No.
100mm	40mm	110mm	1/4"	25mm	4524.040.63
100mm	40mm	110mm	5/16"	25mm	4524.040.79
100mm	60mm	130mm	1/4"	25mm	4524.060.63
100mm	60mm	130mm	5/16"	25mm	4524.060.79
100mm	80mm	150mm	1/4"	25mm	4524.080.63



VARI-ANGLE INSERT ROUTER BIT

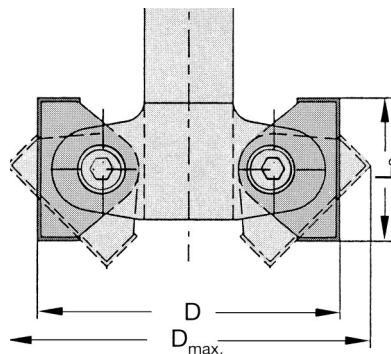
4099

For jointing and for producing angled cuts in solid wood or composite materials. Adjustable 0 to 45° up or 0—90

D	L2	Shank	OAL	Part-No.
85mm-102mm max	40mm	20mm	95mm	4099.085.20
110mm-135mm max	50mm	25mm	114mm	4099.110.25

Replacement inserts:

- Item# 4200.040.00 (beveled 2 sides) for L2=40mm
- Item# 6419.040.00 (beveled 4 sides) for L2=40mm
- Item# 4200.050.00 (beveled 2 sides) for L2=50mm
- Item# 6419.051.00 (beveled 2 sides) for L2=50mm



FOURCUT SURFACING FINISH BIT

6247

Best solution for surface cleanout on MDF shaker-style cabinet doors. Provides an excellent finish, reduces machining time and is extremely economical due to 4 sided inserts edges. Replacement inserts are available either in solid carbide, or polycrystalline diamond.

Diameter	Cut Length	OAL	Shank	Rotation	Part-No.
40mm	9.2mm	90mm	3/4"	RH	6247.400.34

Replacement inserts: Item# 72014-0-09800-0 4-sided solid carbide
Item# 72014-9-09800-4 4-sided PCD-tipped insert



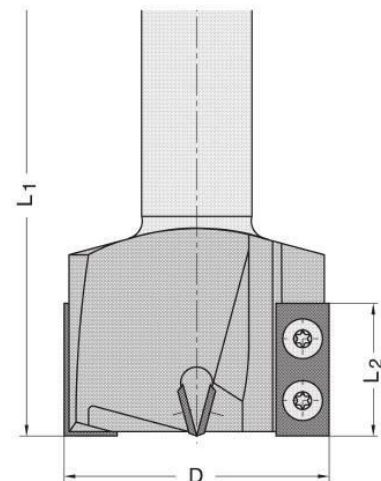
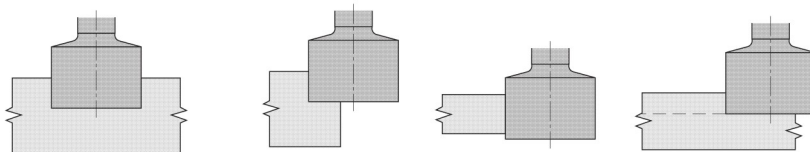
SURFACING / REBATE / JOINTING BIT

6245

Multi-use router bit for boring, grooving, rebating, jointing and surface planing. When boring over 10mm depth, RPM must be 12,000. Great tool for clean surfacing finish due to design and geometry of bottom cutting inserts. For applications requiring more than just surface planing, this tool has much versatility and provides excellent finish! Maximum rpm: 12,000

D	L2	L1	Shank	Rotation	Part-No.
35mm	30mm	90mm	3/4" x 55mm	RH	6245.350.34
35mm	30mm	90mm	25 x 55mm	RH	6245.350.30
40mm	30mm	90mm	3/4" x 55mm	RH	6245.400.34
40mm	30mm	90mm	25 x 55mm	RH	6245.400.30
60mm	30mm	105mm	3/4" x 55mm	RH	6245.600.34
60mm	30mm	105mm	25 x 55mm	RH	6245.600.30
80mm	12mm	78mm	3/4" x 55mm	RH	6245.800.34
80mm	12mm	78mm	25 x 55mm	RH	6245.800.30

Replacement inserts: Item# 4200.012.00 peripheral insert D=80mm
Item# 6419.030.00 peripheral insert for D=35, 40, 60mm
Item# 4200.012.00 plunge insert for D=35 and 40mm
Item# 4200.020.00 plunge insert for D=60mm
Item# 4200.030.00 plunge insert for D=80mm



SPOIL BOARD / FLY CUTTER

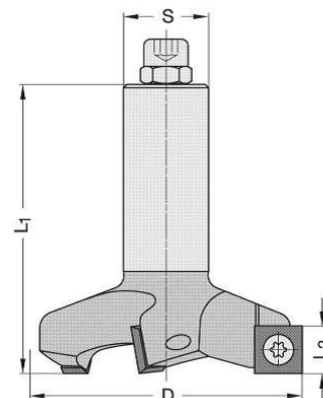
6246

3-wing Insert router bit for planing and CNC spoil board surfacing.

D	Z	L2	Shank	Part-No.
45mm	3	12mm	1/2"	6246.450.12
80mm	3	12mm	3/4"	6246.800.34
100mm	3	12mm	25mm	6246.100.25*

Replacement inserts: Item# 4200.012.00

*) D=100mm is supplied on an HSK63F Heat Shrink tool holder



V-GROOVE MITER FOLD INSERT BIT

4320

Insert miter-fold bit for V-grooving, beveling and folding. A true 90 degree is used for solid surface and phenolic material, a 91 degree for wood and wood composites which allows for natural expansion of the wood and glue space.

Degree	D	Shank	L1	L2	L3	Part-No.
45°	43mm	3/4"	115mm	36.4mm	25mm	4320.043.34
60°	41.5mm	3/4"	118mm	41.5mm	35mm	4320.415.34
90°	50mm	3/4"	93mm	36.4mm	25mm	4320.050.34S
91°	50mm	3/4"	93mm	36.4mm	25mm	4320.050.34
91°	71mm	20mm	105mm	50mm	35mm	4320.071.20

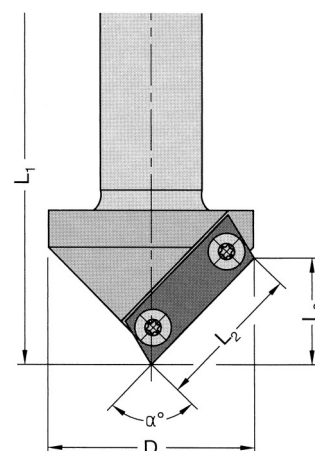
Replacement inserts: Item# 4320.040.00 (90/91deg.) (for wood, plywood, solid surface)

Item# 4320.041.00 (90/91deg.) (for MDF, particleboard)

Item# 4320.495.00 (91deg x 71mm)

Item# 4320.050.00 (60deg.)

Item# 4320.060.00 (45deg.)



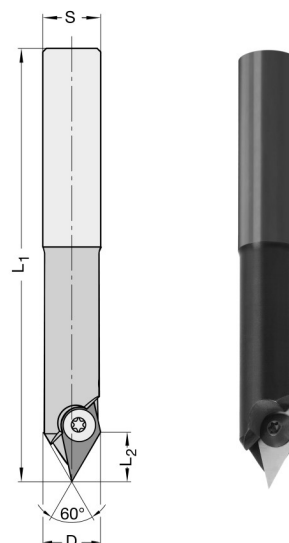
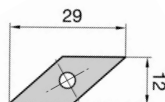
60 DEGREE V-GROOVE INSERT BIT

4321

Insert V-grooving bit with 2-sided insert, excellent for corner cleanup in door production and is also suitable for decorative grooving and lettering applications.

Degree	D	Shank	L1	L2	Rot.	Part-No.
60°	16mm	16mm	120mm	13.7mm	RH	4321.060.16
60°	16mm	16mm	120mm	13.7mm	LH	4321.061.16

Replacement inserts: Item# 4321.029.00 (60°) 2-sided

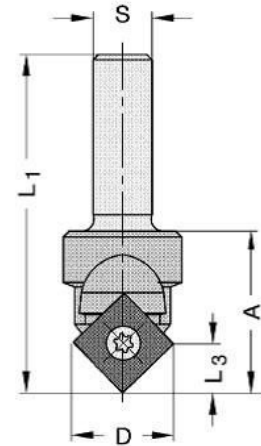


DECORATIVE INSERT ROUTER BIT

4319

A multi-use decorative insert router bit designed for versatility in grooving, lettering, round-over and engraving. This tool can also be supplied with small custom profiles that fit within the profiling parameters of the insert blank (shown below, right). Great tool for inside edge bevel on MDF shaker doors.

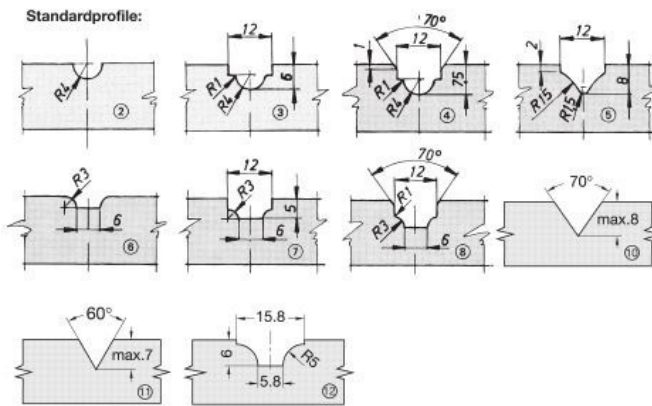
D	L3	A	L1	Shank	Part-No.
17mm	8.5mm	27mm	57.5mm	10x30mm	4319.012.00



Insert blank is 12x12mm
 Profilable Area (lines)
 Scale 1:1

Replacement inserts:

- Item# 4200.012.00 (V-Groove)
- Item# 4319.012.02 (Profile 2,3 and 4)
- Item# 4319.012.05 (Profile 5)
- Item# 4319.012.06 (Profile 6,7 and 8)
- Item# 4319.012.09 (Profile 9)
- Item# 4319.012.10 (Profile 10)
- Item# 4319.012.11 (Profile 11)
- Item# 4319.012.12 (Profile 12)



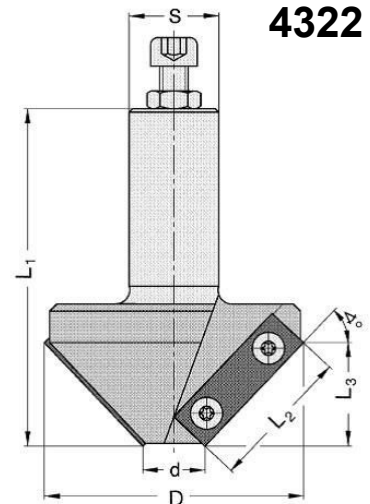
45 DEGREE BEVEL INSERT ROUTER BIT

4322

Insert Router Bit to produce 45 degree angled cuts. **Maximum RPM 12,000**

Degree	D	Shank	L1	L2	L3	Part-No.
45	74mm	3/4"	95mm	40mm	28mm	4322.074.34
45	74mm	20mm	95mm	40mm	28mm	4322.074.20
45	74mm	25mm	95mm	40mm	28mm	4322.074.25

Replacement inserts: Item# 4200.040.00



MORTISE BITS

6107

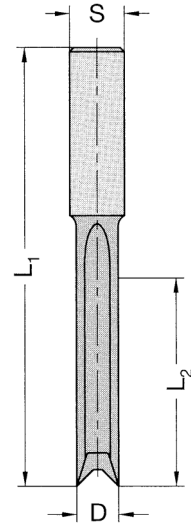
Carbide tipped slot mortise bit for hardwood and exotic wood.

D	L2	L1	S	Flutes	Part-No.
10mm	50mm	105mm	13x40mm	2	6107.300.20

High quality steel slot mortise bit

D	L2	L1	S	Flutes	Part-No.
6mm	50mm	73mm	10mm	4	6107.060.10
1/4"	50mm	73mm	10mm	4	6107.635.10
7mm	50mm	73mm	10mm	4	6107.070.10
5/16"	50mm	73mm	10mm	4	6107.793.10
8mm	50mm	73mm	10mm	4	6107.080.10
3/8"	50mm	73mm	10mm	4	6107.953.10
6mm	50mm	90mm	13mm	4	6107.060.13
8mm	55mm	95mm	13mm	4	6107.080.13
10mm	65mm	105mm	13mm	4	6107.100.13
12mm	75mm	115mm	13mm	4	6107.120.13
14mm	85mm	125mm	13mm	4	6107.140.13
16mm	90mm	130mm	13mm	4	6107.160.13
6mm	45mm	90mm	13mm	2	6107.062.13
8mm	50mm	95mm	13mm	2	6107.082.13
10mm	60mm	105mm	13mm	2	6107.102.13
12mm	70mm	115mm	13mm	2	6107.121.13
1/4"	50mm	73mm	1/2"	4	6107.635.12
3/8"	6mm	100mm	1/2"	4	6107.953.12

Custom Sizes Available On Request. Minimum Order Quantity = 10 pieces



DEEP POCKET MORTISE BIT

6236

Insert tool for use when drilling/routing deep mortise pockets in composite and solid wood. This tool is primarily used for cutting lock pockets. Tool requires one Form A insert and one Form B insert (see below) per setup. The tool body is made of a special, high-density material that provides rigidity and reduces the risk of breakage. Provides vibration-free machining.

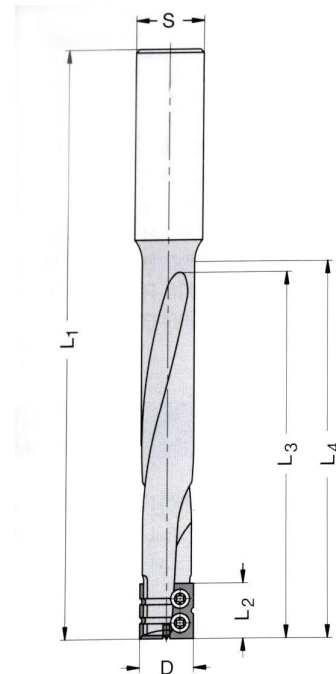
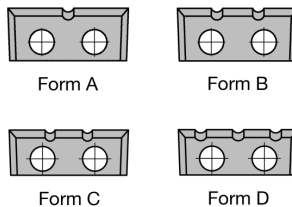
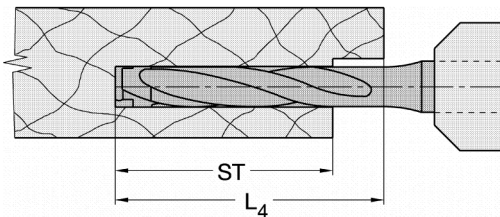
Recommended RPM: 12,000-18,000

Gradual Plunge Feed: 12m/minute (up/down)

Max. Cut Progression: 8-10mm solid wood, 15mm composites

D	L2	Shank	L1	L3	L4	Part-No.
14mm	16mm	16mm x 60mm	170mm	96mm	96mm	6236.140.16
16mm	16mm	16mm x 45mm	150mm	105mm	105mm	6236.160.16
16mm	16mm	16mm x 55mm	170mm	105mm	113mm	6236.161.16
16mm	16mm	20mm x 55mm	170mm	105mm	110mm	6236.161.20
16mm	16mm	16mm x 55mm	180mm	105mm	123mm	6236.162.16
16mm	16mm	25mm x 65mm	210mm	105mm	134mm	6236.160.25
18mm	16mm	20mm x 55mm	150mm	95mm	98mm	6236.180.20
18mm	16mm	20mm x 55mm	170mm	105mm	110mm	6236.181.20

Replacement inserts:
 Item# 6236.000.10 (Form A)
 Item# 6236.000.20 (Form B)
 Item# 6236.000.11 for 14mm Diameter (Form C)
 Item# 6236.000.21 for 14mm Diameter (Form D)



HELICAL PLANING CUTTER

4339

Ideal for trimming, jointing, rebating, hogging and copying operations on solid wood and wood composite materials. For use on all CNC machining centers, this cutter has a maximum rpm of 18,000. Inserts knives are 4-sided to yield 4 cycles per tool-up. The bottom of the cutter features 2 reversible spurs for clean corners and rebate cuts. Cutter cuts flush on the bottom. Cutter head mounted on HSK-F 63 arbor adapter sold as one unit.

D	Cut Length	Bore	Inserts	Part-No.
80mm	80mm	30mm*	2/16	4339.800.30

Replacement inserts:
 Item# 72023-6-01500-0 (peripheral inserts)
 Item# 72020-6-01420-0 (spurs on bottom)

Special Advantages:

- High performance and better chip removal through helical positioned inserts
- Optimum division of cut and shear angles for high feed rates
- Perfect finish, no visible marks due to convex ground tips, precisely positioned
- Reduced noise level
- Perfect tool for pre-cutting arches in window production and other millwork tasks



HSK-F 63 TOOL HOLDER

6375

Manufactured of high quality, polished, anti-corrosive steel. All tool holders come with ball bearing collet nut. Balanced to ISO G2.5 specification.

D	A	Collet Style	Part-No.
50mm	70mm	ER32	6375.630.10
50mm	70mm	ER32	6375.632.10*
50mm	100mm	ER32	6375.630.87
60mm	75mm	RDO35/SYOZ25	6375.630.00
60mm	115mm	RDO35/SYOZ25	6375.630.18
63mm	76mm	ER40	6375.630.40
63mm	90mm	ER40	6375.630.90
63mm	115mm	ER40	6375.630.41

*) w/o hole in cone



PREZISO HSK-F 63 HIGH PRECISION CHUCK

6675

This **highest precision** tool holder is used in combination with high precision collets which together provide a repeat accuracy of **0.003mm (0.0001")** Metric size collets are available from 3-25mm, and inch dimension collets available as shown below. Special sizes can be ordered with 25pc minimum quantity. **Increase tool life by 30% and more!**

A1	A	Item No.
18mm	75mm	6675.630.00
Collets:		
Diameter	Length	Item No.
1/4"	52mm	21049-635
3/8"	52mm	21049-953
1/2"	52mm	21049-127
3/4"	52mm	21049-195
Spanner Wrench	Length	Item No.
C-Spanner	50x5mm	39155-0-50000-0



HYDRO HSK-F 63 TOOL HOLDER

6390

Compact design hydro tool holders. Built-in safety device prevents the tool from falling out when tool holder is not pressurized. Safe and easy tool changes with perfect accuracy and repeatability. Balanced to G2.5 at 25.000 rpm.

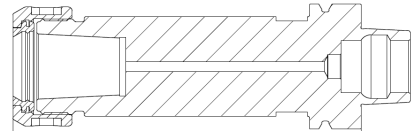
D (i.d)	A	Part-No.
12mm	68mm	6390.120.00
16mm	74mm	6390.160.00
20mm	80mm	6390.200.00
25mm	87.5mm	6390.250.00
3/8"	68mm	6390.953.00
1/2"	69.5mm	6390.130.00
3/4"	78.5mm	6390.190.00
1"	87.5mm	6390.254.00



HSK-F 63 TOOL HOLDERS FOR 5-AXIS USE

6379

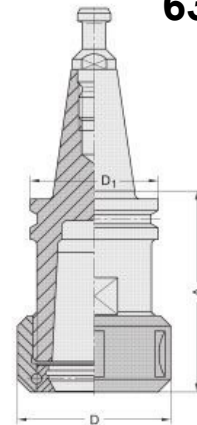
D	A	Collet Style	Part-No.
60mm	150mm	RDO35/SYOZ25	6379.630.15
60mm	200mm	EDO35/SYOZ25	6379.630.20
60mm	250mm	RDO35/SYOZ25	6379.630.25



ISO / BT / SK TOOL HOLDER

6369 / 6370

D	A	Collet Style	Part-No.
50mm	50mm	ER32	6369.350.00***
50mm	60mm	ER32	6369.351.00**
70mm	60mm	RDO35/SYOZ25	6369.364.00
70mm	70mm	RDO35/SYOZ25	6369.371.00
50mm	65mm	ER32	6369.400.00
50mm	55mm	ER32	6370.355.00*
70mm	115mm	RDO35/SYOZ25	6370.370.00*



*) for SCM Routech/Morbidelli
 **) for Colombo Spindle
 ***) for HSD Spindle

COLLET NUTS

6369 / 6370

Nut Size	Nut Type	Collet Style	Slots	Part-No.
M40x1.5 (50)	Bearing	ER32	Closed	6366.020.00
M40x1.5 (50)	Bearing	ER32	Open	6366.021.00
M48x1.5 (60)	Bearing	RDO35/SYOZ25	Closed	6366.025.00
M50x1.5 (63)	Bearing	ER40	Open	6366.023.00
M50x1.5 (63)	Bearing	ER40	Closed	6366.024.00
M40x1.5 (50)	Static	ER32	Open	6366.015.00



Static Nut

Ball Bearing Nut

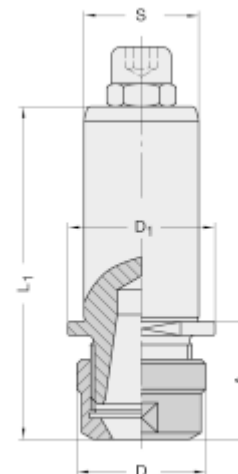
TOOL HOLDER FOR WEEKE BHX

6365

Hardened, ground and precision balanced, this tool holder accepts ER16 collets (available up to 10mm diameter) and is designed for use with Weeke BHX machines that have a hydro clamping system.

It has also found popularity for clamping extremely small diameter drills (less than 1mm) since ER16 collets are available as small as 1/32" and this tool holder can be used on an HSK Heat shrink chuck on any machine using HSK holders.

D	D1	L1	A	Shank	For Collet Style	Part-No.
28mm	32mm	75mm	28,5mm	25mm	ER16	6365.020.25



HSK-F 63 HEAT SHRINK TOOL HOLDER

6378

Heat shrink tool holders provide the most accurate, high precision clamping option for CNC machining. Improved surface quality through exact concentricity. (0.0002" / .003mm). HSK-E and HSK-A available on request.

Highly recommended for use with PCD (Diamond) and Insert Tooling!

D	A	Part-No.
1/4"	75mm	6378.635F63
3/8"	75mm	6378.953F63
1/2"	75mm	6378.127F63
5/8"	75mm	6378.160F63
3/4"	75mm	6378.195F63
20mm	75mm	6378.200F63
25mm	75mm	6378.250F63



LONG REACH FOR 5-AXIS MACHINING

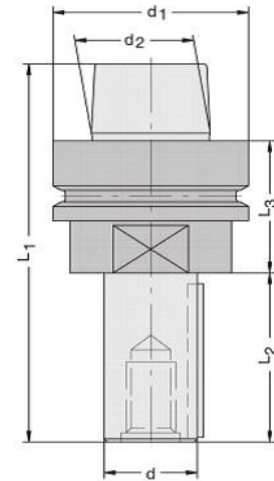
D	A	Part-No.
20mm	108mm	6378.201F63
25mm	108mm	6378.251F63

HSK-F 63 ARBOR ADAPTER

Tempered steel arbor adapter, for mounting single or multi-piece cutters on a CNC machine. Higher clamping power and safety due to double-threaded end retaining screw. Can be used for CW or CCW rotation. Always consult your machine handbook to assure that total weight of arbor and cutters does not exceed spindle limit.

D	L1	L2	L3	Keyway	Part-No.
20mm	110mm	40mm	45mm	6x1.5	6377.721.40
20mm	125mm	55mm	45mm	6x1.5	6377.721.55
20mm	140mm	70mm	45mm	6x1.5	6377.721.70
30mm	125mm	55mm	45mm	8x2	6377.730.55
30mm	150mm	70mm	45mm	8x2	6377.731.80
1-1/4"	160mm	80mm	45mm	drive holes	6377.730.76
1-1/4"	135mm	55mm	45mm	drive holes	6377.731.76
1-1/4"	180mm	100mm	45mm	drive holes	6377.735.10

Custom sizes and styles are available on request!



6377

TORQUE WRENCH

Correct torque is important to maximize tool life and prevent tool slippage and breakage. ER32 Torque = 100 ft/lbs, ER40 Torque = 130 ft/lbs, RDO35/SYOZ Torque = 90 ft/lbs.

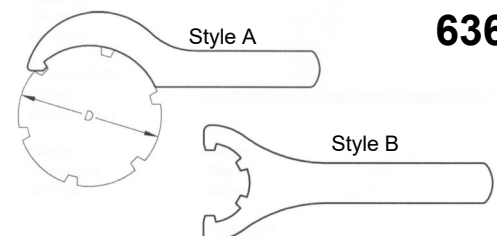
Description	Part-No.
200 TH Torque Wrench	6367.200.00
Collet Key for ER16 collet style	6367.016.00
Collet Key for ER 32 collet style	6367.032.00
Collet Key for ER40 collet style	6367.040.00
Collet Key for RDO35 / SYOZ 25 collet style	6367.035.00



6367

COLLET NUT WRENCH

Nut Size	Collet Style	Slots/Style	Part-No.
M40x1.5	ER32	Closed (A)	6366.000.20
M40x1.5	ER32	Open (B)	6366.000.21
M48x1.5	RDO35/SYOZ25	Closed (A)	6366.000.25
M50x1.5	ER40	Open (B)	6366.000.22

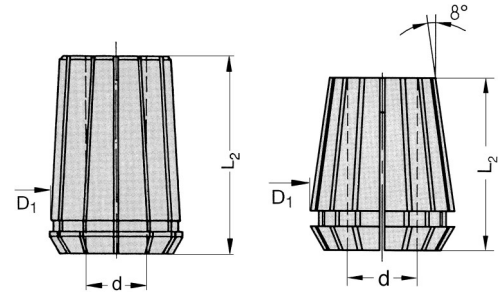


6366

PRECISION COLLET NUT

6360/6363

L2	40mm	46mm	52mm
D	ER32	ER40	RDO35/SYOZ25
1/16"	6363.158.00	-	-
3mm	6363.030.00	-	-
1/8"	6363.032.00	6363.032.10	6360.032.10
4mm (5/32")	6363.040.00	6363.040.10	6360.040.10
3/16"	6363.476.00	6363.187.10	6360.187.10
1/4"	6363.635.00	6363.635.10	6360.635.10
8mm (5/16")	6363.080.00	6363.080.10	6360.080.10
3/8"	6363.953.00	6363.953.10	6360.953.10
10mm	6363.100.00	6363.100.10	6360.100.10
7/16"	6363.437.00	6363.111.10	6360.111.10
12mm	6363.120.00	6363.120.10	6360.120.10
1/2"	6363.130.00	6363.130.10	6360.130.10
14mm	6363.140.00	6363.140.10	6360.140.10
16mm (5/8")	6363.160.00	6363.160.10	6360.160.10
3/4"	6363.190.00	6363.190.10	6360.195.10
20mm	6363.200.00	6363.200.10	6360.200.10
25mm	-	6363.250.10	6360.250.10
1"	-	6363.254.10	6360.254.10



CYCLONE DUST CONTROL COLLET NUT

6363

The Cyclone Dust Extraction Nut is designed to more efficiently remove dust chips in nested router operations. Manufactured from lightweight alloy, balanced to G2.5 and rated for up to 20,000 RPM. When using the Cyclone dust nut, the cutting edge should not be any longer than necessary for optimum results. This keeps the shroud as close to the work surface as possible, thereby creating the best vacuum.

The Cyclone is designed to work with any tool holder that accepts standard ER32, ER40 or RDO35 (SYOZ25) collets and comes complete with tightening wrench.

Collet Style	Part-No.
ER32	6363.001.32
ER40	6363.001.40
RDO35	6363.001.25



HSK 63F CALIBRATION BAR / TEST BAR

6375

This maintenance tool offers a quick and easy way to test your CNC machine for accuracy and alignment after a crash, machine installation, relocation or simply as a periodic performance test.

It helps identify excessive runout or axial play early on, a factor that will greatly reduce machine performance and contribute to rapid tool wear and breakage. Regular spindle inspection and calibration will ultimately reduce down time and prevent costly repairs of spindle and bearings in the long term.

Style	Part-No.
HSK63F	6375.300.00



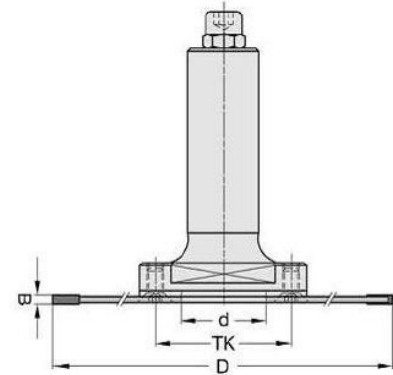
SAW BLADE ADAPTER

6374

Arbor for mounting groovers and saw blades for horizontal grooving and sawing. Maximum kerf width to 10mm. Kerf width of 3.5mm and below require an additional clamping ring (included). Maximum blade diameter is 200mm (8"). It is recommended that this adapter be purchased with a heat shrink tool holder where possible for maximum accuracy. **Saw blade sold separately!**

d	L1	L2	TK	Shank	Part-No.
22mm	90mm	4mm	36mm	3/4"x65mm	6374.022.34
22mm	90mm	4mm	36mm	25x65mm	6374.022.04
30mm	90mm	4mm	48mm	3/4"x65mm	6374.030.34
30mm	90mm	4mm	48mm	25x65mm	6374.030.04

Additional Parts: Item# 39541-0-04000-3 Clamping Ring 60x4x30 (d=30mm)
 Item# 39541-0-04022-3 Clamping Ring 50x4x22 (d=22mm)
 Item# 39125-0-06016-R M6x16 screw
 Item# 39140-0-00302-0 Wrench SW3



SAW BLADE FLANGE ASSEMBLY

6373

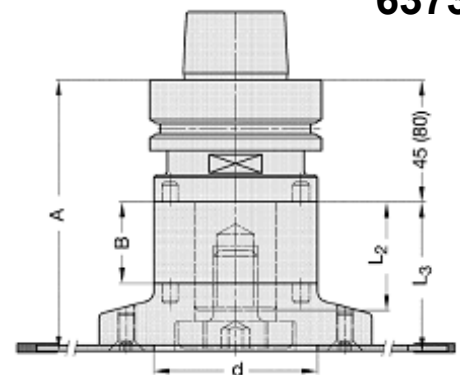
Two-piece saw blade arbor/flange assembly for mounting saw blades for horizontal sawing on CNC machines.

Maximum blade diameter is 350mm.

Also available for machines utilizing SK30, SK40, or HSK-E

Saw blade sold separately.

A	L2	B	L3	Style	Part-No.
100mm	40mm	30mm	55mm	HSK63-F	6373.100.00
115mm	55mm	45mm	70mm	HSK63-F	6373.115.00
140mm	80mm	75mm	95mm	HSK63-F	6373.140.00

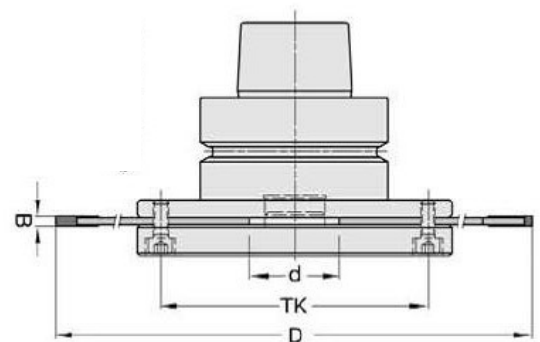


Tempered saw blade clamping flange consisting of flange shank HSK63F and 8 counter-sunk screws. Optional counter flange with 8 socket head cap screws available. For precise mounting of saw blades on CNC machines.

For use with saw blades up to 400mm diameter!

Saw blade sold separately.

D	d	A	TK	Style	Part-No.
106mm	30mm	40mm	90mm	with counter flange	6373.106.00
106mm	30mm	40mm	90mm	without counter flange	6373.106.10
106mm	30mm	50mm	90mm	with counter flange	6373.107.00
106mm	30mm	50mm	90mm	without counter flange	6373.107.10

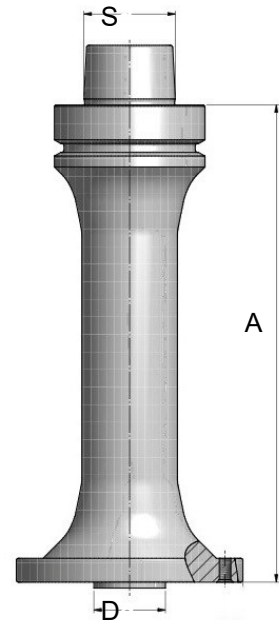


SAW BLADE TOOL HOLDER FOR 5-AXIS MACHINING

6372

5 Axis machining can present special requirements when the standard length of a tool holder is too short. We offer solutions to this problem, with both longer length collet chucks, long length heat shrink chucks, which feature a narrow design that doesn't obstruct reach, and our long reach saw blade tool adapter.

D	S	A	Max. Blade Dia.	Part-No.
30mm	HSK 63F	200mm	240mm	6372.240.00
30mm	HSK 63F	200mm	350mm	6372.350.00



UNIVERSAL BORING CHUCK

6380

This Universal CNC Boring Chuck is the optimum solution for drilling with high precision concentricity on a CNC machining center. Tempered jaws provide special protection from wood chips and dust entering into the unit. Variable adjustment of chucking capacity. With extremely high clamping and retention strength, this holder can be used in CW or CCW rotation.

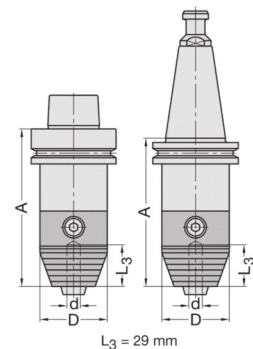
Note: Drills and boring bit used in this item must have a minimum clamping length of 20mm. (0.78")

For SK30 HSD Spindles use 6380.200.00

For SK30 Colombo Spindles use 6380.300.00

For HSK 63 F use 6380.700.00 or 6380.800.00

D	S	A	d	Part-No.
50mm	HSK 63F	97	1-13mm	6380.700.00
57mm	HSK 63F	97	3-16mm	6380.800.00
50mm	SK 30	90	1-13mm	6380.200.00
50mm	SK 30	90	1-13mm	6380.300.00



CNC TOOL SET-UP FIXTURE

Make tool setup a snap! When firmly clamped to a work bench, our set up fixtures offer a safe and effective way to check and prepare tooling for use.

Setup fixtures are also available for HSK-E 40, SK30 / HSK-F 50 / HSK-E 50, SK40 / BT40, SK30 with serrated collar (Morbidelli), ISO30 / BT30 and HSK-W 85 (Weinig) on request.

Chuck Style	Type	Part-No.
HSK 63F	Basic	6355.630.01
HSK 63F	Plus	6355.630.00

The "Plus" tool setup fixture can be turned into a complete measuring system by purchasing the optional Digitec measuring gauges below. (sold separately)



Basic

Plus

MEASURING GAUGE

Chuck Style	Measuring Type	Part-No.
HSK 63F	Height Gauge	21175-0-13500-M
HSK 63F	Height and Diameter Gauge	21175-0-00000-M



TOOL PRESETTER

For measuring length and radius (diameter) of reference points on profiled and straight tools. For precise measurement and set up of tool sets. Interchangeable tool mounts available for HSK-F 63, HSK-E 63, ISO30, SK30, 40 & 50.

Technical Features:

- Alpha-numeric keys
- Backlit Display
- Memory of 100 machine origins
- Metric to Inch conversion
- Absolute incremental measurement
- Hold Function

Machine Specifics:

- Measuring capabilities: Diameter: 250mm (9.850")
Height: 300mm (11.8")
- Slide Guide: Ball re-circulating guide with preloaded side blocks
- Measuring Sensor: Precision optical lines
- Resolution: 0.01mm (0.0003")
- Dimensions: 520mm (20.5") x 280mm (11.0") x 73mm (2.875")
- Weight: 130lbs
- Electrical Supply: 220V

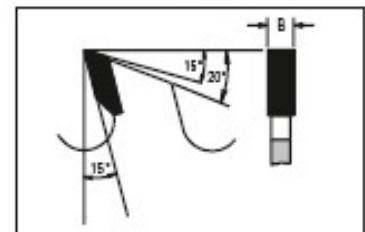


GROOVING SAW BLADE

3008

Carbide-tipped, flat top grind, for grooving wood or panel products. Use in conjunction with arbors on Page 40. **Also available in polycrystalline diamond for longer tool life.**

D	B	d	# of Teeth	Part-No.
100mm	2mm	20mm	6	3008.100.20
100mm	3mm	20mm	6	3008.100.30
100mm	4mm	20mm	6	3008.100.40
100mm	5mm	20mm	6	3008.100.50
100mm	6mm	20mm	6	3008.100.60
100mm	7mm	20mm	6	3008.100.70
100mm	7mm	30mm	6	3008.101.70
100mm	8mm	20mm	6	3008.100.80
100mm	10mm	20mm	6	3008.100.10
100mm	12mm	20mm	6	3008.100.12
120mm	4.0mm	35mm (2/6/46+4/5.5-10/50)	30	3008.120.40*
125mm	2mm	30mm	12	3008.125.20
125mm	2.5mm	30mm	12	3008.125.25
125mm	3mm	30mm	12	3008.125.30
125mm	4mm	30mm	12	3008.125.40
125mm	5mm	30mm	12	3008.125.50
125mm	6mm	30mm	12	3008.125.60
125mm	7mm	30mm	12	3008.125.70
125mm	8mm	30mm	12	3008.125.80
125mm	10mm	30mm	12	3008.125.10
150mm	2.5mm	30mm	12	3008.150.25
150mm	3mm	30mm	12	3008.150.30
150mm	3.5mm	30mm	12	3008.150.35
150mm	4mm	30mm	12	3008.150.40
150mm	5mm	30mm	12	3008.150.50
150mm	6mm	30mm	12	3008.150.60
150mm	8mm	30mm	12	3008.150.80
150mm	10mm	30mm	12	3008.150.10
180mm	4.0mm	30mm (2/6/42+4/5.5-10/50)	42	3008.180.40**



Maximum RPM: 12,000 (100mm diameter)
10,000 (125mm diameter)
8,000 (150mm diameter)

*) for Biesse, Felder
)*) for Felder

Other sizes are available on request.

SAW BLADES FOR AGGREGATE HEADS

2062

Carbide-tipped saw blades for use with aggregate heads. Note the standard configuration of pinholes specific to the brand/model aggregate. Can be modified as needed.

D	B	d	Pinholes	# of Teeth	Grind	Machine	Part-No.
100mm	3.2mm	30mm	-	20	F	Weeke	2062.100.30
120mm	3.2mm	30mm	4/6/48	24	ATB		2062.120.24
120mm	3.2mm	20mm	3/4.5/35	24	ATB	SCM	2062.121.24
125mm	3.2mm	30mm	4+4/6/48	36	ATB	Weeke	2062.125.32
150mm	3.2mm	30mm	4/6/48	36	ATB		2062.150.36
180mm	3.2mm	30mm	4/6/52	30	ATB	Homag, Weeke	2062.180.30
180mm	3.2mm	30mm	4/6/52	42	ATB	Homag, Weeke	2062.180.42
180mm	3.2mm	30mm	4/6/52	56	ATB	Homag, Weeke	2062.180.56
180mm	3.2mm	35mm	1/6/50	30	ATB	Biesse	2062.181.35
220mm	2.8mm	30mm	4/6.5/60	36	ATB	IMA	2062.220.36
250mm	3.2mm	30mm	2/6/42	60	ATB	Homag	2062.250.60
250mm	3.2mm	30mm	2/6/42	60	TCG	Homag	2062.251.60



TCG = Triple Chip Grind, ATB = Alternate Top Grind, F = Flat Top Grind

Other sizes are available on request.

AGGREGATE HEADS

CNC aggregate heads can transform a 3-axis machine to 5-axis capability. Available for drilling, routing, grooving, sawing and planing, these precision machine adapters make difficult to machine challenges a breeze. Made in Germany. Other special configurations on request.

Tool Output	Style
Single Output	Mono
Dual Output	Duo
Four Outputs	Quattro
Vari-Angle	Vario



Special Application Examples:

- Multi-head Boring Block
- Oscillating Lock Recess Head
- Floating Head Aggregate
- Cutter Head Aggregate
- Custom Aggregates for difficult jobs!

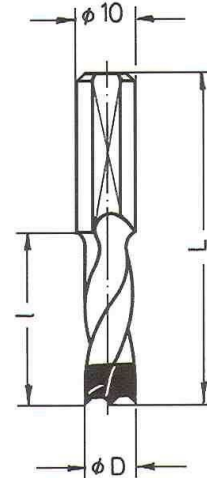
BRAD POINT BITS - CARBIDE TIPPED

6024

Carbide tipped drill bits for blind holes. 10mm shank with height adjustment set screw.
Flat landing on shank.

57mm Overall Length

D	L1	L2	Shank	RH	LH
4mm	57mm	27mm	10x30	6024.040.00	6024.040.01
4.76mm (3/16")	57mm	27mm	10x30	6024.476.00	6024.476.01
5mm	57mm	27mm	10 x 30	6024.050.00	6024.050.01
5.1mm	57mm	27mm	10 x 30	6024.051.00	6024.051.01
5.2mm	57mm	27mm	10 x 30	6024.052.00	6024.052.01
5.5mm (7/32")	57mm	27mm	10 x 30	6024.555.00	6024.555.01
6mm	57mm	27mm	10 x 30	6024.060.00	6024.060.01
6.35mm (1/4")	57mm	27mm	10 x 30	6024.635.00	6024.635.01
7mm	57mm	27mm	10 x 30	6024.070.00	6024.070.01
7.14mm (9/32")	57mm	27mm	10 x 30	6024.714.00	6024.714.01
7.5mm	57mm	27mm	10 x 30	6024.075.00	6024.075.01
8mm	57mm	27mm	10 x 30	6024.080.00	6024.080.01
8.2mm	57mm	27mm	10 x 30	6024.082.00	6024.082.01
8.5mm	57mm	27mm	10 x 30	6024.085.00	6024.085.01
9mm	57mm	27mm	10 x 30	6024.090.00	6024.090.01
9.5mm (3/8")	57mm	27mm	10 x 30	6024.953.00	6024.953.01
10mm	57mm	27mm	10 x 30	6024.100.00	6024.100.01
11mm	57mm	27mm	10 x 30	6024.110.00	6024.110.01
11.1mm (7/16")	57mm	27mm	10 x 30	6024.111.00	6024.111.01
12mm	57mm	27mm	10 x 30	6024.120.00	6024.120.01
12.7mm (1/2")	57mm	27mm	10 x 30	6024.127.00	6024.127.01
13mm	57mm	27mm	10 x 30	6024.130.00	6024.130.01
14mm	57mm	27mm	10 x 20	6024.140.00	6024.140.01
15mm	57mm	27mm	10 x 20	6024.150.00	6024.150.01
15.8mm (5/8")	57mm	27mm	10 x 20	6024.158.00	6024.158.01
16mm	57mm	27mm	10 x 20	6024.160.00	6024.160.01

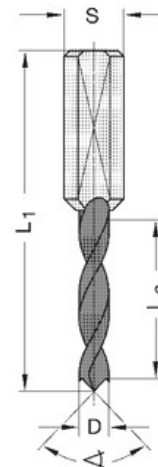


BRAD POINT BITS - SOLID CARBIDE

6024

57mm Overall Length

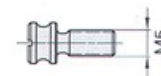
D	L1	L2	Shank	RH	LH
3mm	57mm	25mm	10 x 30	6024.030.00SC	6024.030.01SC
4mm	57mm	25mm	10 x 30	6024.040.00SC	6024.040.01SC
5mm	57mm	25mm	10 x 30	6024.050.00SC	6024.050.01SC
6mm	57mm	25mm	10 x 30	6024.060.00SC	6024.060.01SC
6.35mm (1/4")	57mm	25mm	10 x 30	6024.635.00SC	6024.635.01SC
7mm	57mm	25mm	10 x 30	6024.070.00SC	6024.070.01SC
8mm	57mm	25mm	10 x 30	6024.080.00SC	6024.080.01SC
10mm	57mm	25mm	10 x 30	6024.100.00SC	6024.100.01SC



LEITZ QUICK CHANGE ADAPTER SCREW*

Description	Dimensions	Item#
Length Adjusting Screw	M5x17	39075-0-05017-R

*for Weeke



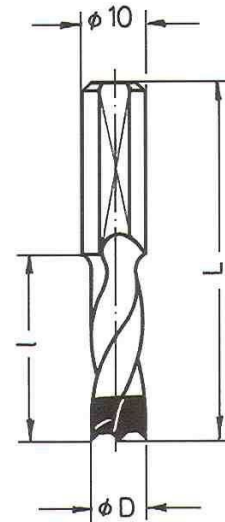
BRAD POINT BITS - CARBIDE TIPPED

6024

Carbide tipped drill bits for blind holes. 10mm shank with height adjustment set screw. Flat landing on shank.

70mm Overall Length

D	L1	L2	Shank	RH	LH
4mm	70mm	35mm	10 x 30	6024.040.10	6024.040.11
4.5mm	70mm	35mm	10 x 30	6024.045.10	6024.045.11
4.76mm (3/16")	70mm	35mm	10 x 30	6024.476.10	6024.476.11
5mm	70mm	35mm	10 x 30	6024.050.10	6024.050.11
5.1mm	70mm	35mm	10 x 30	6024.051.10	6024.051.11
5.2mm	70mm	35mm	10 x 30	6024.052.10	6024.052.11
5.5mm (7/32")	70mm	35mm	10 x 30	6024.055.10	6024.055.11
6mm	70mm	35mm	10 x 30	6024.060.10	6024.060.11
6.35mm (1/4")	70mm	35mm	10 x 30	6024.635.10	6024.635.11
6.5mm	70mm	35mm	10 x 30	6024.065.10	6024.065.11
6.7mm	70mm	35mm	10 x 30	6024.067.10	6024.067.11
7mm	70mm	35mm	10 x 30	6024.070.10	6024.070.11
7.14mm (9/32")	70mm	35mm	10 x 30	6024.714.10	6024.714.11
7.5mm	70mm	35mm	10 x 30	6024.075.10	6024.075.11
8mm	70mm	35mm	10 x 30	6024.080.10	6024.080.11
8.1mm	70mm	35mm	10 x 30	6024.081.10	6024.081.11
8.2mm	70mm	35mm	10 x 30	6024.082.10	6024.082.11
8.5mm	70mm	35mm	10 x 30	6024.085.10	6024.085.11
8.7mm	70mm	35mm	10 x 30	6024.087.10	6024.087.11
9mm	70mm	35mm	10 x 30	6024.090.10	6024.090.11
9.52mm (3/8")	70mm	35mm	10 x 30	6024.953.10	6024.953.11
10mm	70mm	35mm	10 x 30	6024.100.10	6024.100.11
10.4mm	70mm	35mm	10 x 30	6024.104.10	6024.104.11
11mm	70mm	35mm	10 x 30	6024.110.10	6024.110.11
11.1mm (7/16")	70mm	35mm	10 x 30	6024.111.10	6024.111.11
12mm	70mm	35mm	10 x 30	6024.120.10	6024.120.11
12.7mm (1/2")	70mm	35mm	10 x 30	6024.127.10	6024.127.11
13mm	70mm	35mm	10 x 20	6024.130.10	6024.130.11
14mm	70mm	35mm	10 x 20	6024.140.10	6024.140.11
15mm	70mm	35mm	10 x 20	6024.150.10	6024.150.11
15.8 (5/8")	70mm	35mm	10 x 20	6024.158.10	6024.158.11
16mm	70mm	35mm	10 x 20	6024.160.10	6024.160.11
19mm	70mm	35mm	10 x 20	6024.190.10	6024.190.11
20mm	70mm	35mm	10 x 20	6024.200.10	6024.200.11



Recommended feed rate for drill bits:

RPM	Feedrate m/min
3000	1-2
4500	1.5-2.5
6000	2-3.5
9000	2.5-5.5

Depending on the material, the feed speed should be fine-tuned within the above parameters.

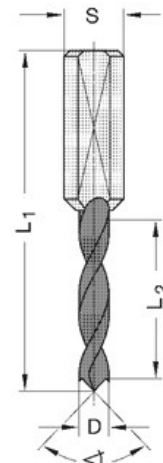
BRAD POINT BITS - SOLID CARBIDE

6024

70mm Overall Length

D	L1	L2	Shank	RH	LH
3mm	70mm	35mm	10 x 30	6024.030.10SC	6024.030.11SC
4mm	70mm	35mm	10 x 30	6024.040.10SC	6024.040.11SC
5mm	70mm	35mm	10 x 30	6024.050.10SC	6024.050.11SC
6mm	70mm	35mm	10 x 30	6024.060.10SC	6024.060.11SC
6.35mm (1/4")	70mm	35mm	10 x 20	6024.635.10SC	6024.635.11SC
7mm	70mm	35mm	10 x 20	6024.070.10SC	6024.070.11SC
8mm	70mm	35mm	10 x 20	6024.080.10SC	6024.080.11SC
10mm	70mm	35mm	10 x 20	6024.100.10SC	6024.100.11SC

Special sizes are available (10 pc minimum quantity).



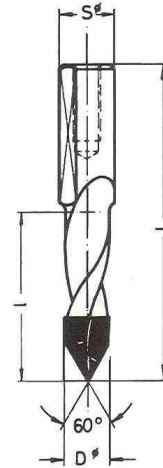
V-POINT DRILLS - CARBIDE TIPPED

6028

Carbide tipped drill bits for blind holes. 10mm shank with height adjustment set screw.
Flat landing on shank.

57mm Overall Length

D	L1	L2	Shank	RH	LH
4mm	57mm	27mm	10 x 24	6028.040.20	6028.040.21
4.76mm (3/16")	57mm	27mm	10 x 24	6028.476.20	6028.476.21
5mm	57mm	27mm	10 x 24	6028.050.20	6028.050.21
5.1mm	57mm	27mm	10 x 24	6028.051.20	6028.051.21
5.55mm (7/32")	57mm	27mm	10 x 24	6028.555.20	6028.555.21
6mm	57mm	27mm	10 x 24	6028.060.20	6028.060.21
6.35mm (1/4")	57mm	27mm	10 x 24	6028.635.20	6028.635.21
8mm	57mm	27mm	10 x 24	6028.080.20	6028.080.21
9.53mm (3/8")	57mm	27mm	10 x 24	6028.953.20	6028.953.21
11.1mm (7/16")	57mm	27mm	10 x 24	6028.111.20	6028.111.21
12mm	57mm	27mm	10 x 24	6028.120.20	6028.120.21
12.7mm (1/2")	57mm	27mm	10 x 24	6028.127.20	6028.127.21



70mm Overall Length

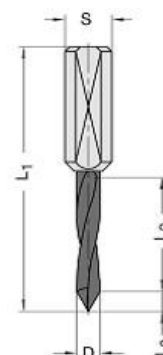
D	L1	L2	Shank	RH	LH
4mm	70mm	35mm	10 x 24	6028.040.30	6028.040.31
4.76mm (3/16")	70mm	35mm	10 x 24	6028.476.30	6028.476.31
5mm	70mm	35mm	10 x 24	6028.050.30	6028.050.31
5.1mm	70mm	35mm	10 x 24	6028.051.30	6028.051.31
5.2mm	70mm	35mm	10 x 24	6028.052.30	6028.052.31
5.5mm	70mm	35mm	10 x 24	6028.055.30	6028.055.31
6mm	70mm	35mm	10 x 24	6028.060.30	6028.060.31
6.5mm	70mm	35mm	10 x 24	6028.065.30	6028.065.31
6.35mm (1/4")	70mm	35mm	10 x 24	6028.635.30	6028.635.31
7mm	70mm	35mm	10 x 24	6028.070.30	6028.070.31
7.14mm (9/32")	70mm	35mm	10 x 24	6028.714.30	6028.714.31
8mm	70mm	35mm	10 x 24	6028.080.30	6028.080.31
8.2mm	70mm	35mm	10 x 24	6028.082.30	6028.082.31
8.5mm	70mm	35mm	10 x 24	6028.085.30	6028.085.31
9mm	70mm	35mm	10 x 24	6028.090.30	6028.090.31
9.53mm (3/8")	70mm	35mm	10 x 24	6028.953.30	6028.953.31
10mm	70mm	35mm	10 x 24	6028.100.30	6028.100.31
10.2mm	70mm	35mm	10 x 24	6028.102.30	6028.102.31
11.1mm (7/16")	70mm	35mm	10 x 24	6028.111.30	6028.111.31
12mm	70mm	35mm	10 x 24	6028.120.30	6028.120.31
12.7mm (1/2")	70mm	35mm	10 x 24	6028.127.30	6028.127.31
15mm	70mm	35mm	10 x 24	6028.150.30	6028.150.31
15.8 (5/8")	70mm	35mm	10 x 24	6028.158.30	6028.158.31

V-POINT DRILL BITS - SOLID CARBIDE

6028

57mm and 70mm Overall Length

D	L1	L2	Shank	RH	LH
3mm	57mm	27mm	10 x 24	6028.030.20SC	6028.030.21SC
4mm	57mm	27mm	10 x 24	6028.040.20SC	6028.040.21SC
5mm	57mm	27mm	10 x 24	6028.050.20SC	6028.050.21SC
3mm	70mm	35mm	10 x 24	6028.030.30SC	6028.030.31SC
4mm	70mm	35mm	10 x 24	6028.040.30SC	6028.040.31SC
5mm	70mm	35mm	10 x 24	6028.050.30SC	6028.050.31SC



Special sizes are available (10 pc minimum quantity).

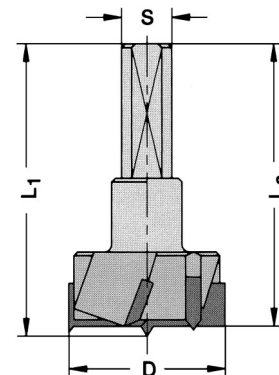
HINGE BORING BITS - CARBIDE TIPPED

6017

Carbide tipped hinge boring bits for hinge hardware. 10mm shank with flat and height adjustment screw. RPM: 3000-8000

57mm Overall Length

CED	OAL	Shank	RH	LH
15mm	57mm	10 x 26	6017.150.00	6017.150.01
16mm	57mm	10 x 26	6017.160.00	6017.160.01
18mm	57mm	10 x 26	6017.180.00	6017.180.01
19mm	57mm	10 x 26	6017.190.00	6017.190.01
19.7mm	57mm	10 x 26	6017.197.00	6017.197.01
20mm	57mm	10 x 26	6017.200.00	6017.200.01
22mm	57mm	10 x 26	6017.220.00	6017.220.01
24mm	57mm	10 x 26	6017.240.00	6017.240.01
25mm	57mm	10 x 26	6017.250.00	6017.250.01
26mm	57mm	10 x 26	6017.260.00	6017.260.01
28mm	57mm	10 x 26	6017.280.00	6017.280.01
30mm	57mm	10 x 26	6017.300.00	6017.300.01
32mm	57mm	10 x 26	6017.320.00	6017.320.01
35mm	57mm	10 x 26	6017.350.00	6017.350.01
38mm	57mm	10 x 26	6017.380.00	6017.380.01
40mm	57mm	10 x 26	6017.400.00	6017.400.01



70mm Overall Length

CED	OAL	Shank	RH	LH
15mm	70mm	10 x 26	6017.150.10	6017.150.11
16mm	70mm	10 x 26	6017.160.10	6017.160.11
16.5mm	70mm	10 x 26	6017.165.10	6017.165.11
19mm	70mm	10 x 26	6017.190.10	6017.190.11
19.7mm	70mm	10 x 26	6017.197.10	6017.197.11
20mm	70mm	10 x 26	6017.200.10	6017.200.11
22mm	70mm	10 x 26	6017.220.10	6017.220.11
25mm	70mm	10 x 26	6017.250.10	6017.250.11
26mm	70mm	10 x 26	6017.260.10	6017.260.11
30mm	70mm	10 x 26	6017.300.10	6017.300.11
35mm	70mm	10 x 26	6017.350.10	6017.350.11
40mm	70mm	10 x 26	6017.400.10	6017.400.11

77mm Overall Length

CED	OAL	Shank	RH	LH
20mm	77mm	10 x 26	6017.200.40	6017.200.41
25mm	77mm	10 x 26	6017.250.40	6017.250.41
30mm	77mm	10 x 26	6017.300.40	6017.300.41
35mm	77mm	10 x 26	6017.350.40	6017.350.41

LEITZ QUICK CHANGE ADAPTER SCREW*

Description	Dimensions	Item#
Length Adjusting Screw	M5x17	39075-0-05017-R

*for Weeke

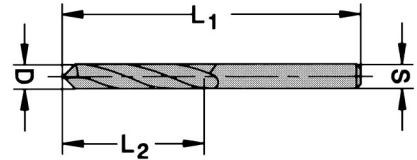


SOLID CARBIDE DRILL BITS

6001

Solid carbide twist drill with parallel shank and "v" point. For use with drill holder 6003 below.

D	L1	L2	RH	LH
2mm	49mm	18mm	6001.020.00	6001.020.01
2.4mm	55mm	22mm	6001.024.00	6001.024.01
2.5mm	55mm	22mm	6001.025.00	6001.025.01
2.8mm	55mm	22mm	6001.028.00	6001.028.01
3mm	55mm	22mm	6001.030.00	6001.030.01
1/8"	55mm	22mm	6001.032.00	6001.032.01
3.5mm	55mm	25mm	6001.035.00	6001.035.01

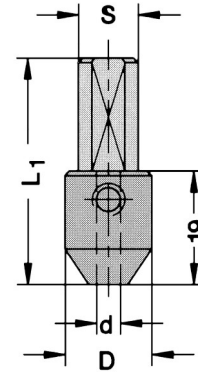


DRILL HOLDER

Holder for solid carbide drills. Shank with flat for use in quick release adapters and reducing chucks. Overall length with drill holder is equivalent to dowel drills of 56/57mm.

d	L1	S	Item#
2mm	40mm	10mm	6003.020.00
2.4mm	40mm	10mm	6003.024.00
2.5mm	40mm	10mm	6003.025.00
2.8mm	40mm	10mm	6003.028.00
3mm	40mm	10mm	6003.030.00
1/8"	40mm	10mm	6003.032.00
3.5mm	40mm	10mm	6003.035.00

6003

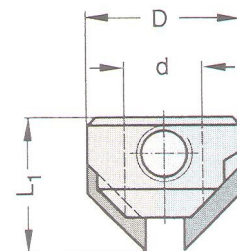


TCT COUNTERSINK

For use with dowel and v-point drills. Countersink clamps on the spiral portion of the drill bit.

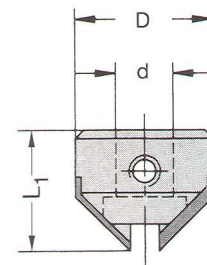
6030 / 6034

d	D	RH	LH
4mm	20mm	6030.040.00	6030.040.01
5mm	20mm	6030.050.00	6030.050.01
6mm	20mm	6030.060.00	6030.060.01
1/4"	20mm	6030.635.00	6030.635.01
7mm	20mm	6030.070.00	6030.070.01
8mm	25mm	6030.080.00	6030.080.01
9mm	25mm	6030.090.00	6030.090.01
10mm	25mm	6030.100.00	6030.100.01
12mm	25mm	6030.120.00	6030.120.01



For use with dowel and v-point drills. Countersink clamps on the shank of the drill bit.

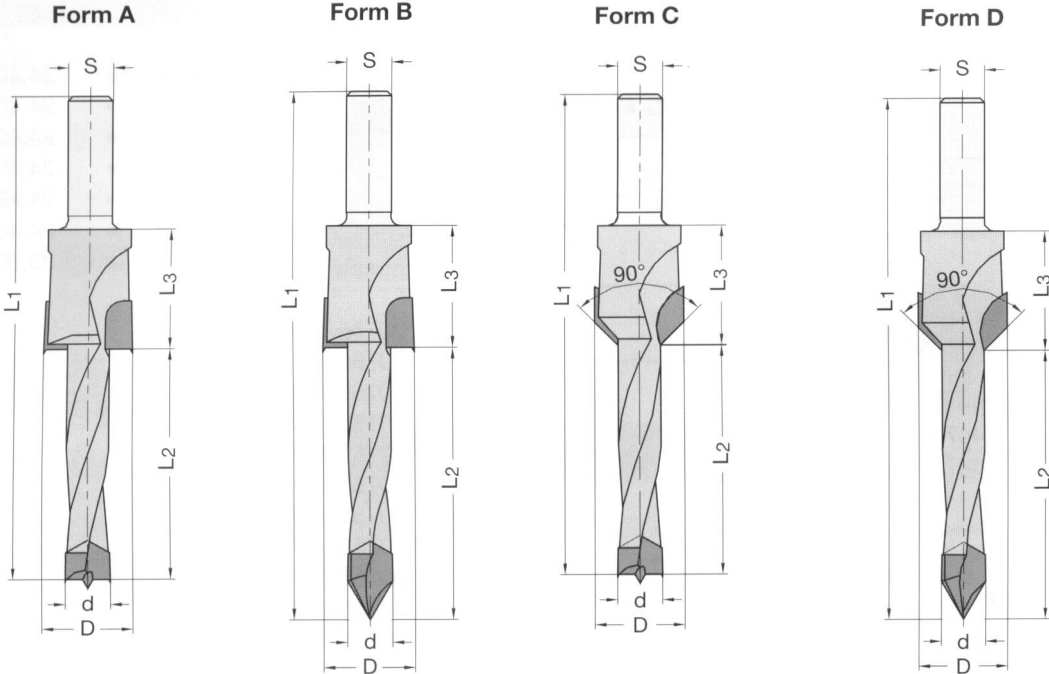
d	D	For Drills	RH	LH
5-10mm	20mm	5-10mm	6034.010.00	6034.010.01
11-12mm	22mm	11 and 12mm	6034.020.00	6034.020.01



CUSTOM COUNTERBORE / COUNTERSINK BITS

6012

Custom Counterbore and Countersink bits are manufactured to customer specification. A minimum quantity of 6 pcs (same size) is required. To request a quotation simply provide quantity, style (Form A, B, C or D) and L1, L2, L3, d, D and S dimensions required and indicate whether carbide tipped or polycrystalline diamond tipped is required.



QUICK CHANGE ADAPTER

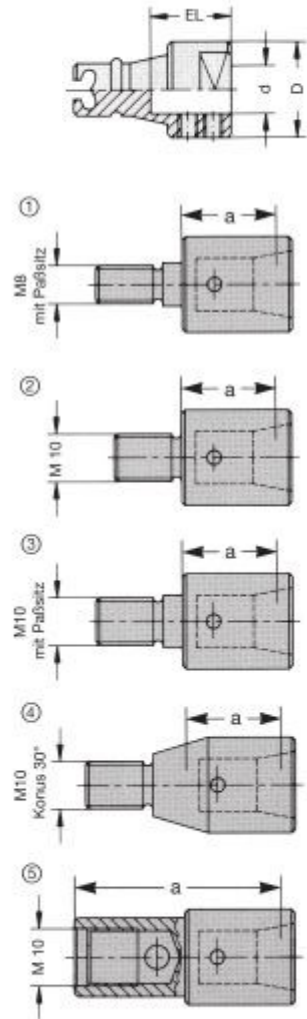
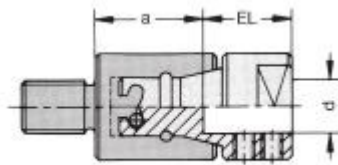
6042 / 6043

For converting multi-spindle boring machines from using threaded-shank boring bits to standard boring bits with 10mm shanks. Consisting of two parts, the machine adapter and the drill holder offers quick and easy tool changes.

Drill Holder	Part#
Fits all adapters below	6042.000.10

Machine Adapter	Style	RH	LH
Nottmeyer (new) Breda	1	6043.010.10	6043.010.11
Ayen, Holzma, Mayer, Torwegge etc	2	6043.002.10	6043.002.11
Biesse, Morbidelli, Torwegge, Weeke	3	6043.009.10	6043.009.11
Alberti, Balestrini, Bilek, Schleicher, Vitap	4	6043.004.10	6043.004.11
Scheer	5	6043.100.10	6043.100.11

This two-piece design, consisting of machine adapter and drill holder which are both coned for increased concentricity and improved quality of drill holes. Quick release design. Includes two clamping screws for drill bits. This system accepts the standard metric drill bits that have a 10mm shank with a flat land for set screw positioning.



QUICK CHANGE ADAPTER

6050



Biesse
6050.003.10 (37mm)
6050.003.30 (30mm)

Maggi/Griggio/Masterwood
6050.012.10

Vitap
6050.011.10

Morbidelli
6050.008.10

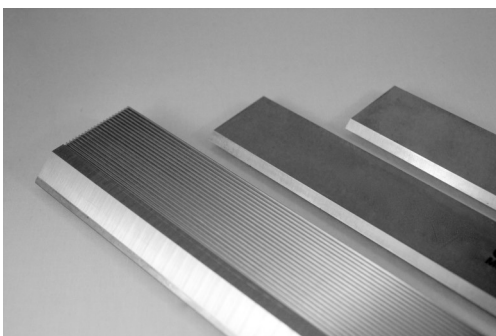
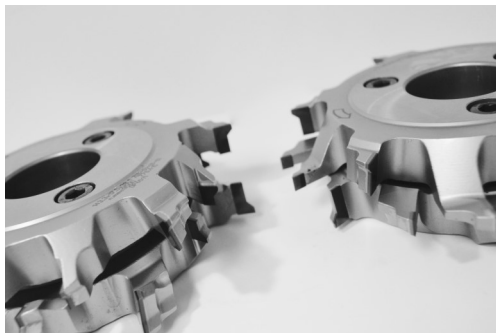
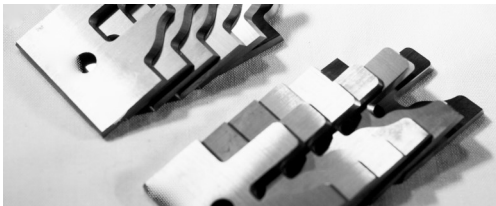
Busellato
6050.007.10

Weeke
6050.006.10

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- Non-stock items will have a 25% restocking charge if approved for return
- Custom tooling is not returnable, neither are discontinued items.
- No merchandise may be returned after 6 months from the date of purchase.
- All return merchandise must be shipped freight prepaid.

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Non-stock items can be cancelled providing no cost has been incurred when the order is cancelled. Otherwise, a 25% restocking charge applies.

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All prices are FOB Marietta, GA.

All prices are subject to change without notice.



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