CUTTERS & CUTTER COMBINATIONS

Carbide, Stellite or HSS Tipped

B

CUTTERS AND CUTTER COMBINATIONS

According to Application Made in:

H.S.S.T (High Speed Steel Tipped)
For softwood & hardwood without glue lines.

STELLITE (Stellite Tipped)
For softwood & hardwood without glue lines.

T.C.T (Tungsten Carbide-Tipped)
For hardwood, plywood, chipboard, MDF and other panel materials.

Our cutters are designed to conform with safety regulations, and are dynamically balanced.

To determine min. diameter on profiled cutters the calculation is: bore ("B") + 60mm (2-3/8") + (2 x profile depth) ("P"). As per table below.

"B"	"P"							
	5	10	15	20	25	30	35	40
30	100	110	120	130	140	150	160	170
35	105	115	125	135	145	155	165	175
40	110	120	130	140	150	160	170	180
50	120	130	140	150	160	170	180	190
60	130	140	150	160	170	180	190	200

"B"= Bore Diameter **"P"= Profile Depth**

"B"	"P"				
	3/8"	3/4"	1"	1-1/4"	1-1/2"
3/4"	3-7/8"	4-5/8"	5-1/8"	5-5/8"	6-1/8"
1-1/4"	4-3/8"	5-1/8"	5-5/8"	6-1/8"	6-5/8"
1-13/16"	4-14/16"	5-7/16"	5-11/16"	5-15/16"	6-3/16"
2"	5-1/8"	6-1/8"	6-5/8"	7-1/8"	7-5/8"

"B"= Bore Diameter **"P"= Profile Depth**

Order Details

(1) Type of cutter as numbered.
For softwood & hardwood without glue lines.

(2) Main dimensions in the following order:
(diameter) x (cutting width) x (bore) x
(number of teeth)

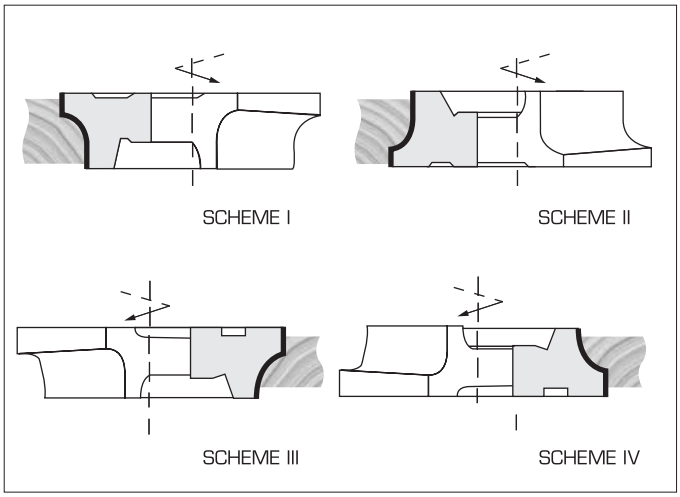
(3) Cutting materials H.S.S.T, STELLITE or T.C.T.

(4) R.P.M. of machine and rate of feed.
Material to be cut, if possible supply sample.

(5) Type of cut: against feed direction or with feed direction.

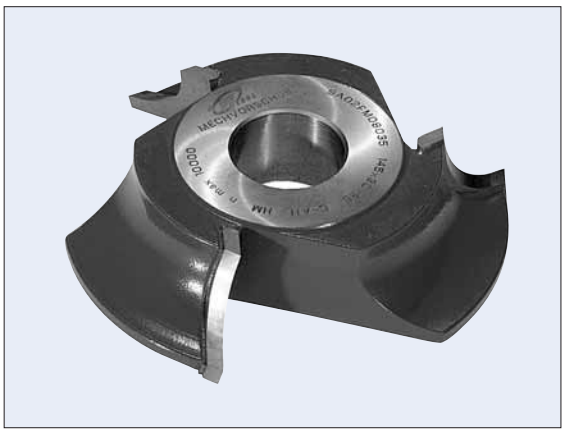
When Ordering Cutters with Profiles

Sketches fully dimensioned, DXF files or samples of profiles should be supplied. Details of side to table, fence side, and direction of feed should be given.



Direction of Rotation:
Scheme I - II = Counter Clock Wise (CCW)
Scheme III - IV = Clock Wise (CW)

PA PROFILE CUTTERS - SIMPLE PROFILES

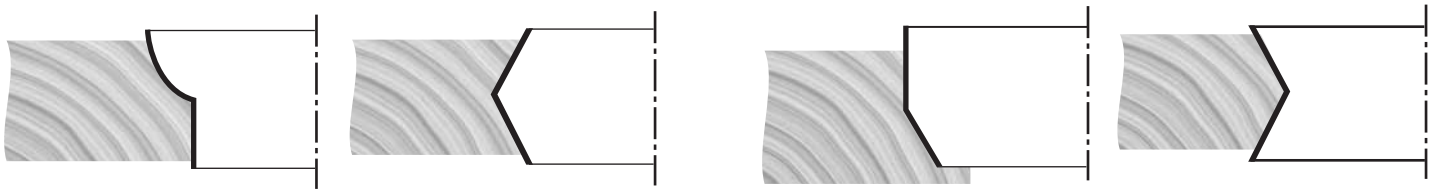


DESIGN:

- With 2-3-4-6 cutting teeth, straight or with shear angle according to profile

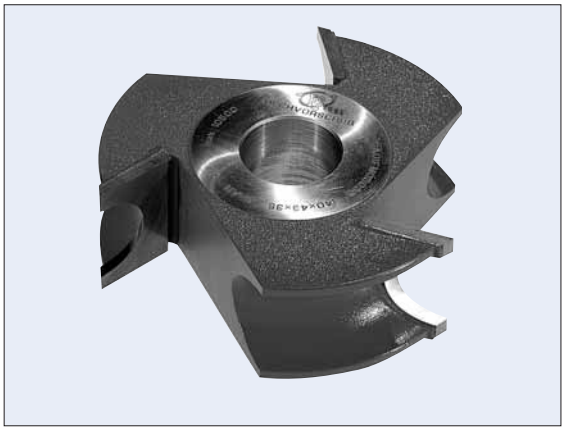
WHEN ORDERING SPECIFY:

- Type of wood or material to be cut
- Rotation
- Details of profile to table, fence side
- R.P.M. of machine
- Rate of feed
- Exact sketch of profile
- Possibly a wood sample or a DXF file
- Bore diameter
- Diameter of cutter



Example of Simple Profile - PA

PB PROFILE CUTTERS - COMPLEX PROFILES

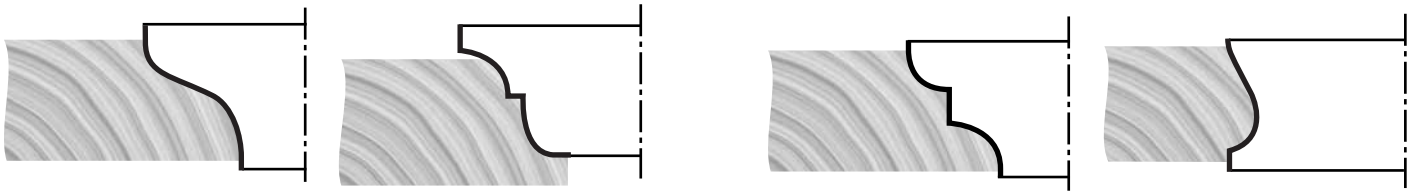


DESIGN:

- With 2-3-4-6 cutting teeth, straight or with shear angle according to profile

WHEN ORDERING SPECIFY:

- Type of wood or material to be cut
- Rotation
- Details of profile to table, fence side
- R.P.M. of machine
- Rate of feed
- Exact sketch of profile
- Possibly a wood sample or a DXF file
- Bore diameter
- Diameter of cutter



Example of Complex Profile - PB

PC PROFILE CUTTERS - VERY COMPLEX PROFILES

DESIGN:

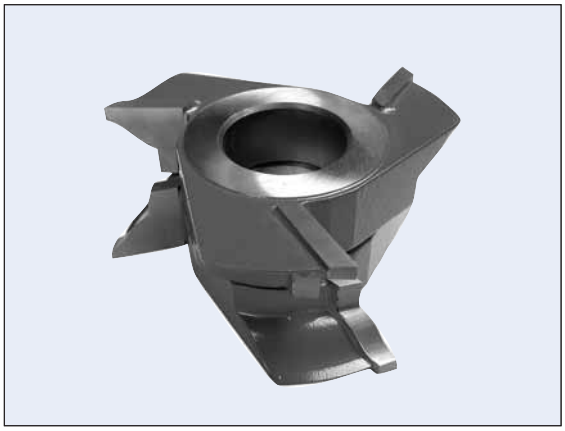
- With 2-3-4-6 cutting teeth, straight or with shear angle according to profile

WHEN ORDERING SPECIFY:

- Type of wood or material to be cut
- Rotation
- Details of profile to table, fence side
- R.P.M. of machine
- Rate of feed
- Exact sketch of profile
- Possibly a wood sample or a DXF file
- Bore diameter
- Diameter of cutter

Example of Very Complex Profiles - PC

PI PROFILE CUTTERS - COMBINED PROFILES

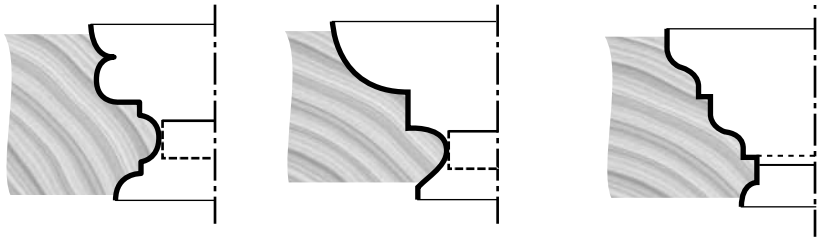


DESIGN:

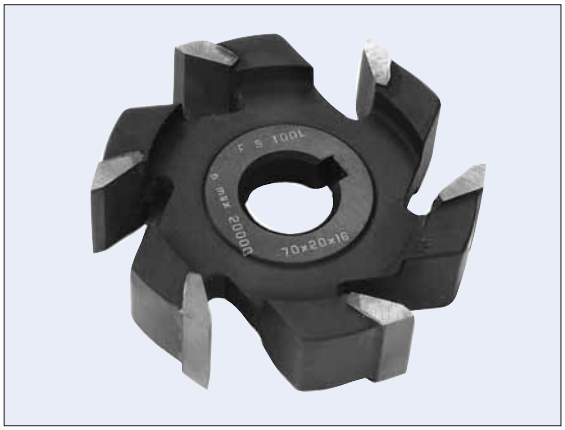
- With 2-3-4 teeth interlocked. For staggered cut and spur action with shearing cut

WHEN ORDERING SPECIFY:

- Type of wood or material to be cut
- Rotation
- Details of profile to table, fence side
- R.P.M. of machine
- Rate of feed
- Exact sketch of profile
- Possibly a wood sample or a DXF file
- Bore diameter
- Diameter of cutter



Example of Combined Profiles - PI



DESIGN:

- Straight teeth, bevelled teeth, 4 or 6 teeth cutters
- Tungsten carbide cutting edges

APPLICATION:

- On edgebanding machines
- For flush trimming, chamfering and profiling of wood-veneer and plastic edge bands

FOR MACHINES:

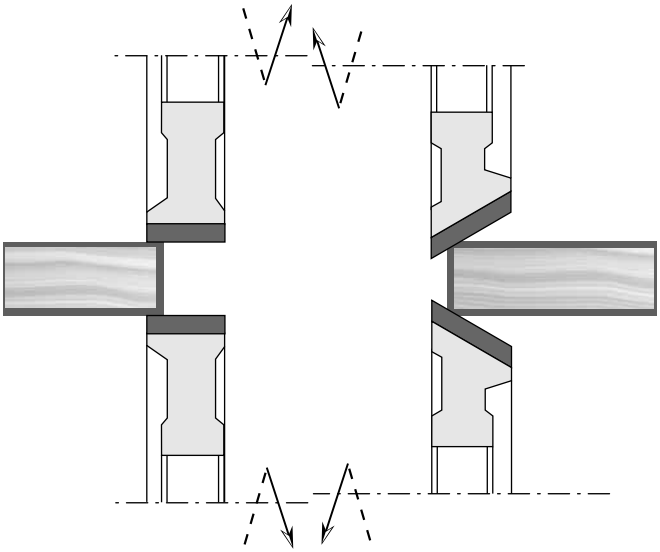
- Brandt, Egurco, Franke, Homag, Homburg, IDM, IMA, IMEF, Manea, Ocmac, Olympic, Raiman, Salgo, Stefani.

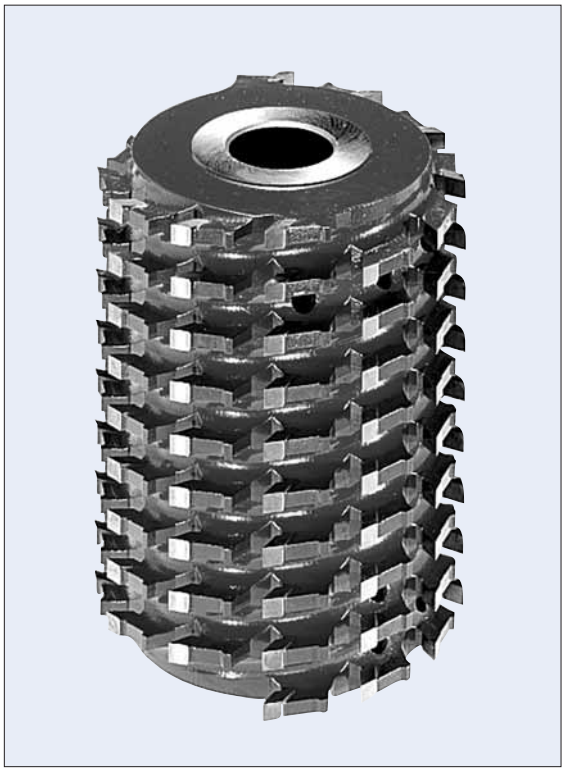
WHEN ORDERING SPECIFY:

- For which machine, and if bevelled, cutting edge degrees required.

SPECIAL PRODUCTION

UNIT OF MEASURE	DIAMETER	KERF	NO. TEETH
INCH	2-3/4" to 4"	5/8" to 1-3/8"	4 or 6
MM	70 to 100	15 to 35	4 or 6





DESIGN:

- High tensile steel body with 8 or 12 rows of carbide teeth. Straight - staggered on a spiral progression
- Tungsten carbide cutting edges

APPLICATION:

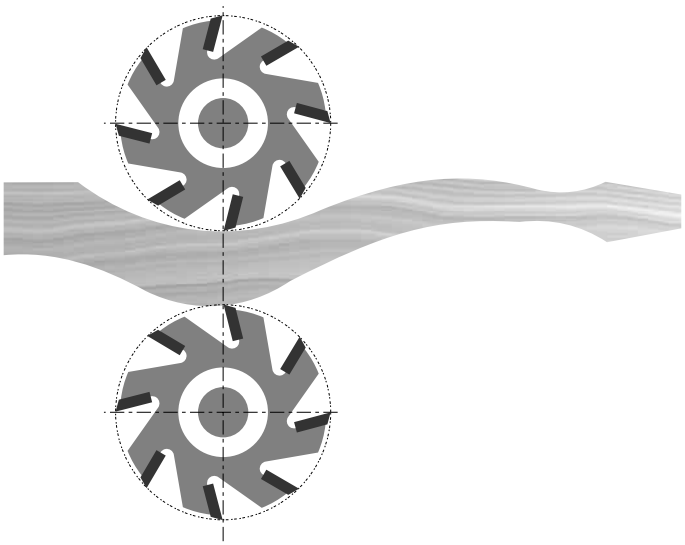
- Ideal for "easy chip flow" with fast feeding on solid wood and composite materials. Mainly used for roughing-out furniture components
- On shapers and copying machines

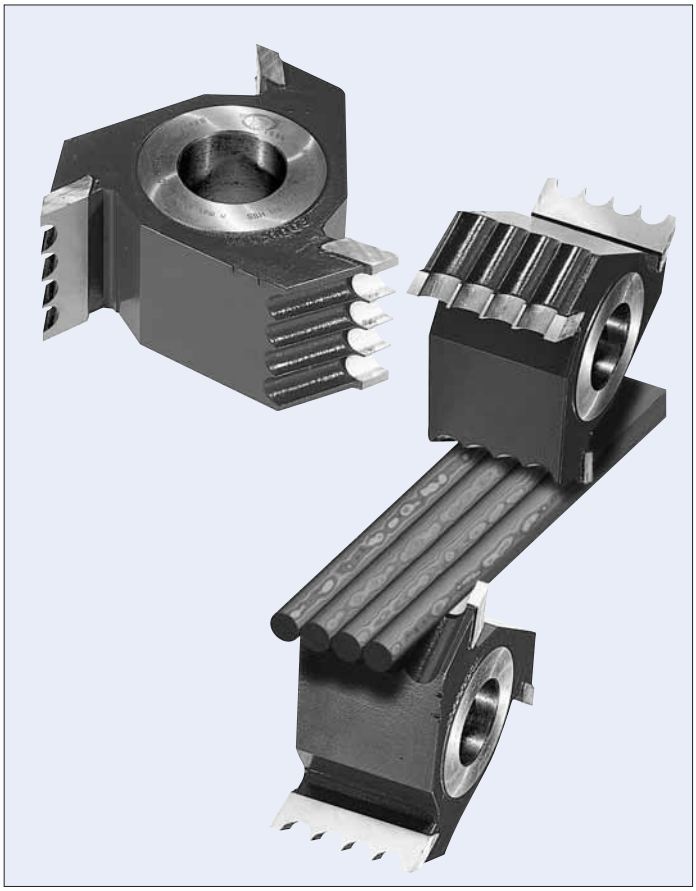
WHEN ORDERING SPECIFY:

- Cutter diameter
- Bore diameter
- Number of teeth
- Type of wood to cut
- Usable length of spindle

SPECIAL PRODUCTION

UNIT OF MEASURE	DIAMETER				KERF	NO. TEETH
INCH	3-1/8"	4"	4-3/4"	5-1/2"	2-3/8" to 9"	8 or 12
MM	80	100	120	140	60 to 230	8 or 12



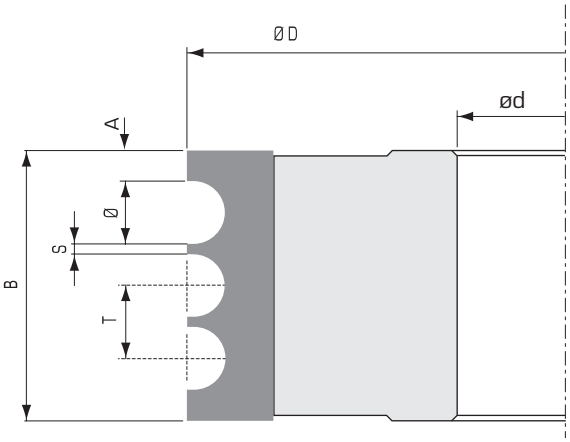


DESIGN:

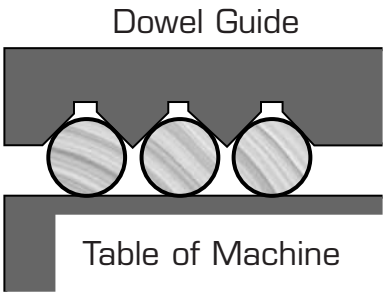
- 2 or 3 teeth, straight cut. Cutters work in pairs to produce single or multiple dowels
- H.S.S. Tipped cutting edges

APPLICATION:

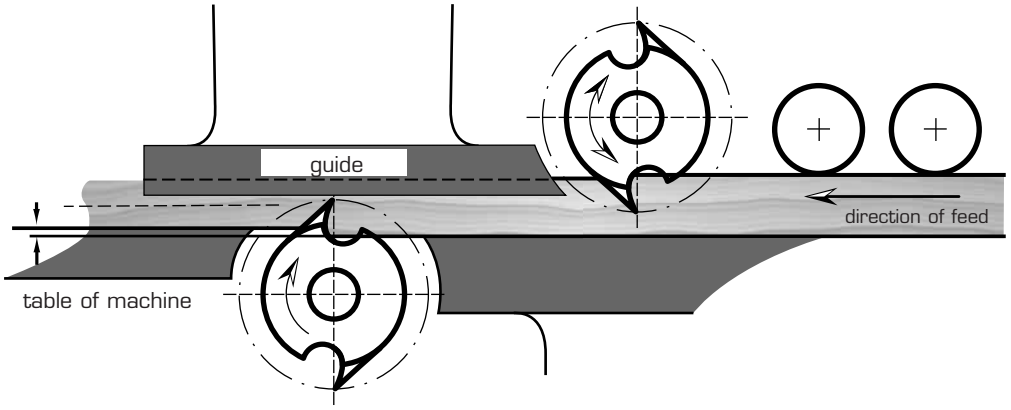
- To produce single or multiple dowels
- On moulders
- All dowells produced must be guided at three points all the way (ILL.2). Guide must take hold of dowels immediately after leaving cutting edge area. (ILL.3)



(ILL.2)



(ILL.3)



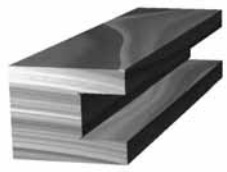
DIMENSIONS

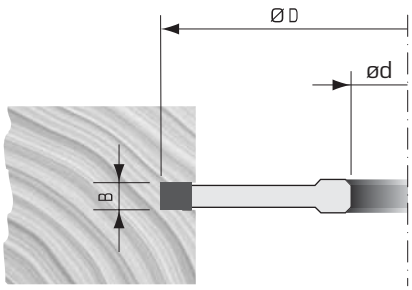
Diam. of dowel Ø mm		3	4	5	6	7	8	9	10	11	12	13	14	15	16
Splitting point S mm		1	1	1	1	1	1	1	1	1.5	1.5	1.5	1.5	1.5	1.5
Pitch T	mm	4	5	6	7	8	9	10	11	12.5	13.5	14.5	15.5	16.5	17.5
Square end A	mm	4	4	4	4	4	4	4	5	5	5	5	5	5	5
Diam. ØD	mm	120	120	120	120	120	120	120	120	120	120	120	120	120	140
Kerf B	1	11	12	13	14	15	16	17	20	21	22	23	23	25	26
No. of dowels	2	15	17	19	21	23	25	27	31	33.5	35.5	37.5	39.5	41.5	43.5
	3	19	22	25	28	31	34	37	42	46	49	52	55	58	61
	4	23	27	31	35	39	43	47	53	58.5	62.5	66.5	70.5	74.5	78.5
	5	27	32	37	42	47	52	57	64	71	76	81	86	91	96
	6	31	37	43	49	55	61	67	75	83.5	89.5	95.5	101.5	107.5	113.5
	7	35	42	49	56	63	70	77	86	96	103	110	117	124	131
	8	39	47	55	63	71	79	87	97	108.5	116.5	124.5	132.5	140.5	148.5
	9	43	52	61	70	79	88	97	108	121	130	139	148		
	10	47	57	67	77	87	97	107	119	133.5	143.5				
	11	51	62	73	84	95	106	117	130	146					
Diam. of dowel Ø mm		17	18	19	20	21	22	23	24	25	26	27	28	29	30
Splitting point S mm		1.5	1.5	1.5	2	2	2	2	2	2	2	2	2	2	2
Pitch T	mm	18.5	19.5	20.5	22	23	24	25	26	27	28	29	30	31	32
Square end A	mm	5	5	5	5	7	7	7	7	7	7	7	7	7	7
Diam. ØD	mm	140	140	140	140	140	140	140	140	160	160	160	160	160	160
Kerf B	mm1	27	28	29	30	35	36	37	38	39	40	41	42	43	44
No. of dowels	2	45.5	47.5	49.5	52	58	60	62	64	66	68	70	72	74	76
	3	64	67	70	74	81	84	87	90	93	96	99	102	105	108
	4	82.5	86.5	90.5	96	104	108	112	116	120	124	128	132	136	140
	5	101	106	111	118	127	132	137	142	147					
	6	119.5	125.5	131.5	140										

The minimum diameter indicated allows for centre bore of 40mm max.
Other sizes available upon request.

DESIGN:
- With straight teeth. If required with alternating teeth or left-right + raker
- Tungsten carbide cutting edges

APPLICATION:
- To make grooves in solid wood, with the grain and in uncoated panels
- Can be used in laminated materials if cutting with feed
- On shapers, double-end tenoners and moulders





IMPERIAL

DIAMETER ØD 4-3/4"	DIAMETER ØD 5-1/2"	DIAMETER ØD 6-1/4"	KERF B	NO. TEETH
PART NO.	**PART NO.**	**PART NO.**		
1121IC	**1127IC**	**11213IC**	3/16"	6
1122IC	**1128IC**	**11214IC**	1/4"	6
1123IC	**1129IC**	**11215IC**	5/16"	6
1124IC	**11210IC**	**11216IC**	3/8"	6
1125IC	**11211IC**	**11217IC**	1/2"	6
1126IC	**11212IC**	**11218IC**	5/8"	6

ød Bore: 1-1/4" Bore can be opened or bushed to spindle size of your machine. Maximum Bore size 50mm (2")

Other sizes available upon request

METRIC

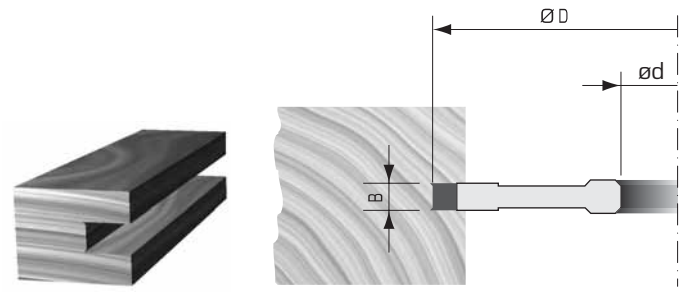
DIAMETER ØD 120	DIAMETER ØD 140	DIAMETER ØD 160	KERF Bmm	NO. TEETH
PART NO.	**PART NO.**	**PART NO.**		
1121MC	**1128MC**	**11215MC**	5	6
1122MC	**1129MC**	**11216MC**	6	6
1123MC	**11210MC**	**11217MC**	8	6
1124MC	**11211MC**	**11218MC**	10	6
1125MC	**11212MC**	**11219MC**	12	6
1126MC	**11213MC**	**11220MC**	14	6
1127MC	**11214MC**	**11221MC**	16	6

ød Bore: 1-1/4" Bore can be opened or bushed to spindle size of your machine. Maximum Bore size 50mm (2")

Other sizes available upon request

DESIGN:
- With 4 teeth + 4 spurs
- Tungsten carbide cutting edges

APPLICATION:
- For grooving solid wood, plywood, and laminated panels
- On Shapers, double-end tenoners, and moulders



IMPERIAL

DIAMETER ØD 4-3/4"	DIAMETER ØD 5-1/2"	DIAMETER ØD 6-1/4"	KERF B	NO. TEETH AND SPURS
PART NO.	**PART NO.**	**PART NO.**		
1131IC	**1137IC**	**11313IC**	3/16"	4+4
1132IC	**1138IC**	**11314IC**	1/4"	4+4
1133IC	**1139IC**	**11315IC**	5/16"	4+4
1134IC	**11310IC**	**11316IC**	3/8"	4+4
1135IC	**11311IC**	**11317IC**	1/2"	4+4
1136IC	**11312IC**	**11318IC**	5/8"	4+4

ød Bore: 1-1/4" Bore can be opened or bushed to spindle size of your machine. Maximum Bore size 50mm (2")

Other sizes available upon request

METRIC

DIAMETER ØD 120	DIAMETER ØD 140	DIAMETER ØD 160	KERF Bmm	NO. TEETH AND SPURS
PART NO.	**PART NO.**	**PART NO.**		
1131MC	**1138MC**	**11315MC**	5	4+4
1132MC	**1139MC**	**11316MC**	6	4+4
1133MC	**11310MC**	**11317MC**	8	4+4
1134MC	**11311MC**	**11318MC**	10	4+4
1135MC	**11312MC**	**11319MC**	12	4+4
1136MC	**11313MC**	**11320MC**	14	4+4
1137MC	**11314MC**	**11321MC**	16	4+4

ød Bore: 1-1/4" Bore can be opened or bushed to spindle size of your machine. Maximum Bore size 50mm (2")

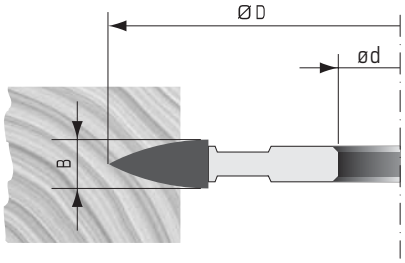
Other sizes available upon request

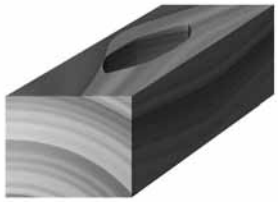
113B LAMELLO - GROOVE CUTTER

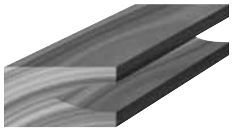
DESIGN:
- With 4 teeth, alternating shear angle
- Tungsten carbide cutting edges

APPLICATION:
- For cutting out defects in solid woods
- For use on mini-spot machines
- For patch sizes 1-4

PART NO.	DIAM. ØD mm	KERF B mm	BORE ød mm	NO. TEETH	RPM MIN.-MAX.
113B	100	8	22	4	7600-13400



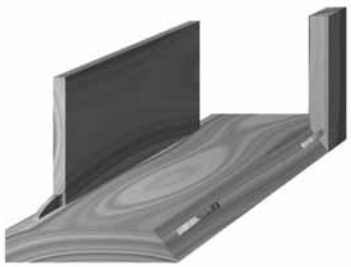


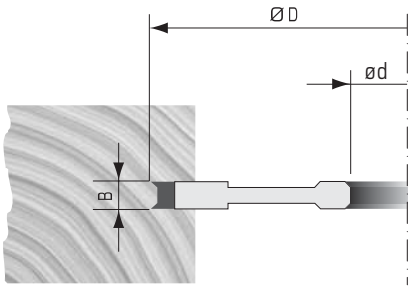


113L LAMELLO - GROOVE CUTTER

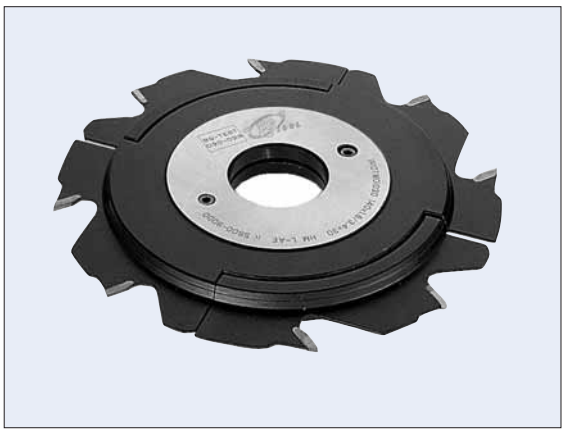
DESIGN:
- With 2 teeth and 4 spurs
- Tungsten carbide cutting edges

APPLICATION:
- For chip free grooving of LAMELLO wood joints
- For solid woods with and against the grain
- On LAMELLO and ELU machines for buscuit joints





PART NO.	DIAM. ØD mm	KERF B mm	BORE ød mm	NO. TEETH	NO. SPURS	RPM MIN.-MAX
113L	100	3.95	22	2	2 + 2	7600-13400

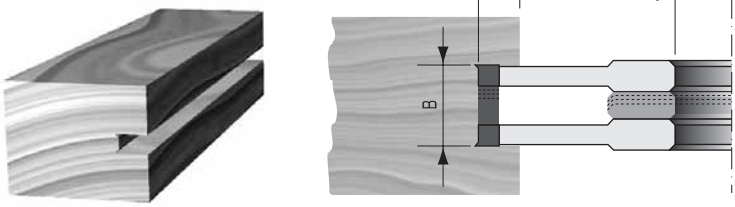


DESIGN:

- Set of cutters with 4 teeth + 4 spurs, each adjustable by a set of spacers
- Tungsten carbide cutting edges

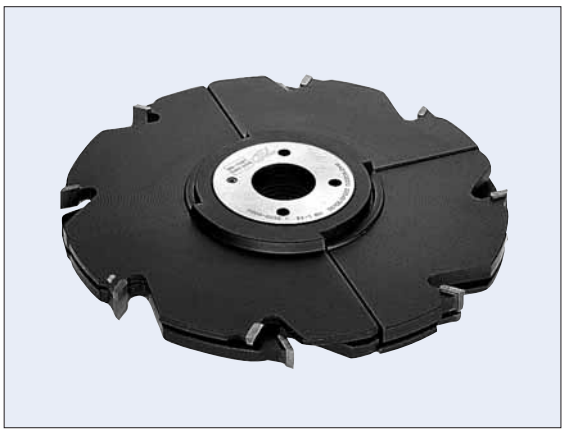
APPLICATION:

- For chip-free grooving of plywood, chipboard and solid wood with and across the grain
- In uncoated and laminated panel materials with feed
- On shapers, moulders and double-end tenoners



PART NO.	DIAM. ØD	KERF B	BORE ød	TEETH/SPURS	GROOVE DEPTH t max	RPM MIN.-MAX.
1141MC	140mm 5-1/2"	1.8 to 3.4mm 5/64" to 9/64"	31.75mm 1-1/4"	4T + 4S	15mm 19/32"	5500-9500
1142MC	140mm 5-1/2"	2.5 to 4.8mm 3/32" to 3/16"	31.75mm 1-1/4"	4T + 4S	15mm 19/32"	5500-9500
1143MC	160mm 6-1/4"	4.0 to 7.5mm 5/32" to 19/64"	31.75mm 1-1/4"	4T + 4S	35mm 1-3/8"	5100-9000
1144MC	160mm 6-1/4"	7.5 to 14mm 19/64" to 9/16"	31.75mm 1-1/4"	4T + 4S	35mm 1-3/8"	5100-9000
1145MC	160mm 6-1/4"	10 to 19mm 13/32" to 3/4"	31.75mm 1-1/4"	4T + 4S	40mm 1-9/16"	4800-8300
1146MC	180mm 7-3/32"	4.0 to 7.5mm 5/32" to 19/64"	31.75mm 1-1/4"	4T + 4S	50mm 2"	4200-7400
1147MC	180mm 7-3/32"	7.5 to 14mm 19/64" to 9/16"	31.75mm 1-1/4"	4T + 4S	50mm 2"	4200-7400
1148MC	180mm 7-3/32"	10 to 19mm 13/32" to 3/4"	31.75mm 1-1/4"	4T + 4S	50mm 2"	4200-7400

Bore can be opened or bushed to spindle size of your machine. Maximum Bore size 50mm (2")

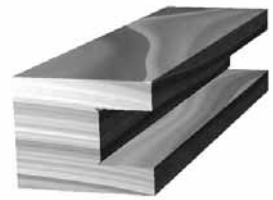


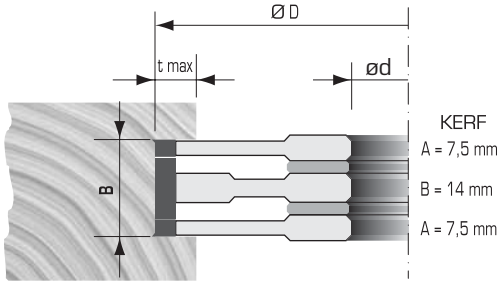
DESIGN:

- Set of 3 or 4 interlocked cutters adjustable by spacers and shims. Outside cutters each with 2 raker teeth and 2 spurs on outside at negative rake. Middle cutters with 4 raker teeth. Chip limiter for manual feed. Cuts grooves sharp and clean, no tear-outs
- Tungsten carbide cutting edges

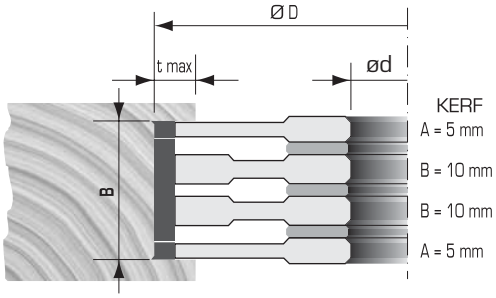
APPLICATION:

- For chip-free grooving of plywood, chipboard and solid wood with and against the grain
- In uncoated and laminated panel materials with feed
- On shapers, moulders and double-end tenoners





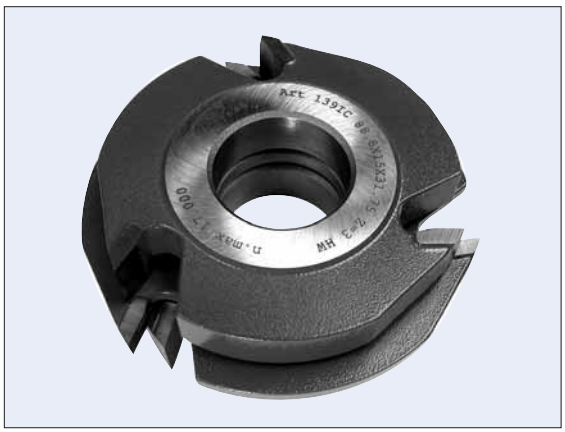
1151MC



1152MC

PART NO.	DIAM. ØD	KERF B	BORE ød	TEETH/SPURS	GROOVE DEPTH t max	RPM MIN.-MAX.
1151MC	150mm 6"	7.5 to 28mm 19/64" to 1-7/64"	31.75mm 1-1/4"	4T + 4T + 4S	30mm 1-3/16"	5100–8900
1152MC	220mm 8-5/8"	5 to 30mm 3/16" to 1-3/16"	31.75mm 1-1/4"	4T + 4T + 4S	40mm 1-9/16"	3500–6000

Bore can be opened or bushed to spindle size of your machine. Maximum Bore size 50mm (2")



DESIGN:

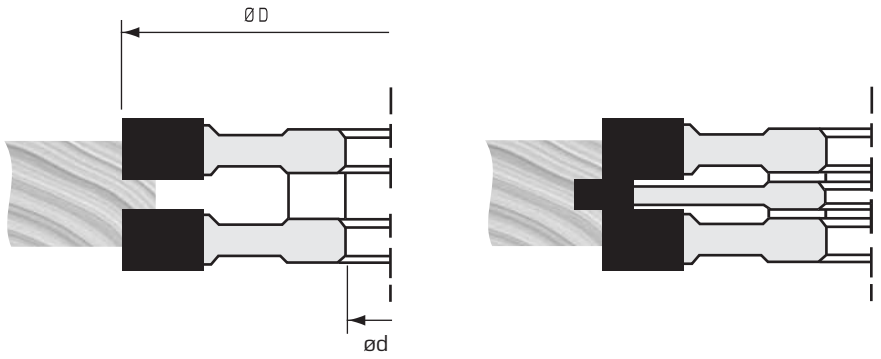
- Set of 3 cutters (1 groover + 2 cutters). Each with 3 teeth,and spacers to obtain profiles
- Tungsten carbide cutting edges

APPLICATION:

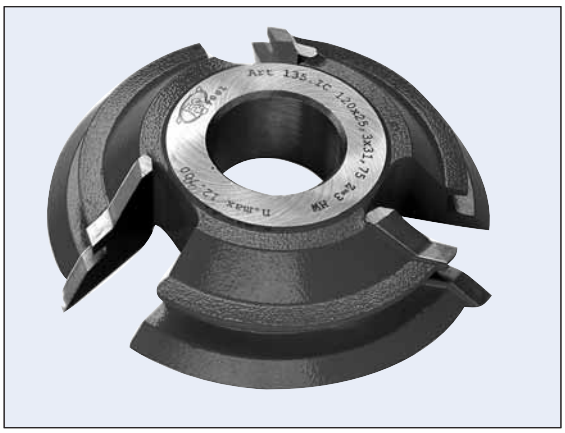
- For producing tongue and groove shapes on plywood and solid wood
- On shapers

PART NO.	DIAM. ØD	WOOD THICKNESS	BORE ød	NO. TEETH
139IC	4"	3/4" to 1-1/8"	1-1/4"	3+3+3

Bore can be opened or bushed to spindle size of your machine.



135 REVERSIBLE MITRE JOINT CUTTER

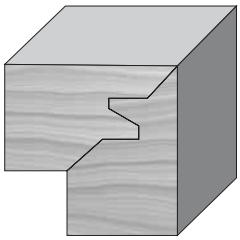


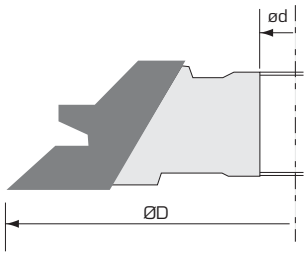
DESIGN:
- With 3 teeth, straight
- Tungsten carbide cutting edges

APPLICATION:
- For cutting mitre lock joints in solid wood and panel materials
- On shapers

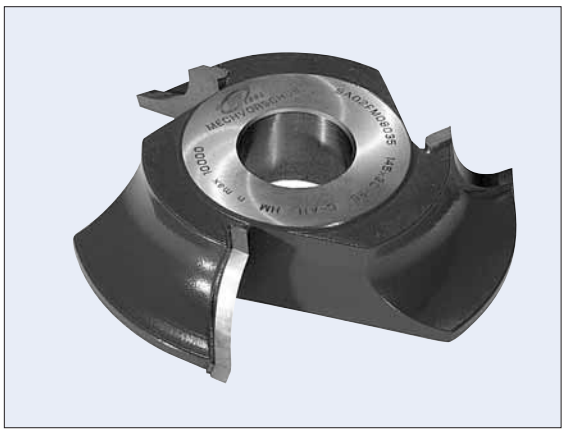
PART NO.	DIAM. ØD	WOOD THICKNESS	BORE ød	NO. TEETH
135IC	4-3/4"	3/8" to 3/4"	1-1/4"	3

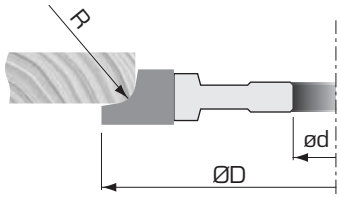
Bore can be opened or bushed to spindle size of your machine.





149 QUARTER ROUND CUTTERS





DESIGN:
- With 3 teeth sheer cut for optimum quality of cut
- Tungsten carbide cutting edges

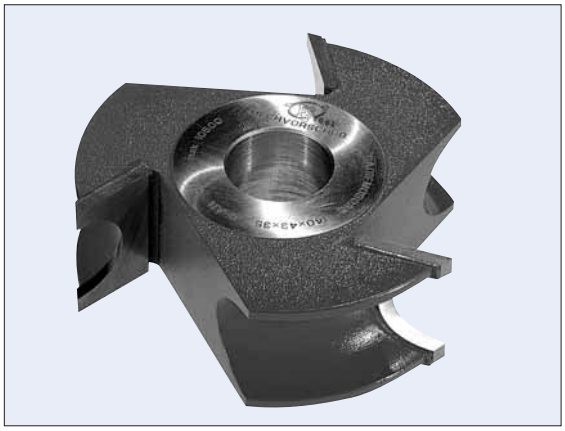
APPLICATION:
- To cut quarter round shapes in solid wood and panel materials
- On shapers

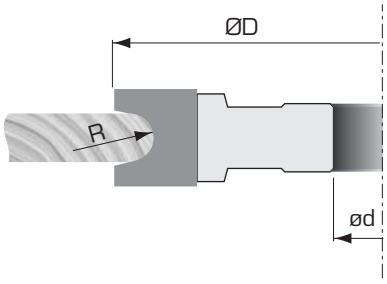
PART NO.	DIAM. ØD	RADIUS R	BORE ød	NO. TEETH
1491IC	4"	1/4"	1-1/4"	3
1492IC	4"	3/8"	1-1/4"	3
1493IC	4"	1/2"	1-1/4"	3
1494IC	4-3/4"	3/4"	1-1/4"	3

Bore can be opened or bushed to spindle size of your machine.

SPECIAL PRODUCTION:
- For all other sizes see Cutters Special Profiles "PA" on page B2

150 HALF ROUND CUTTERS





DESIGN:
- With 3 straight teeth
- Tungsten carbide cutting edges

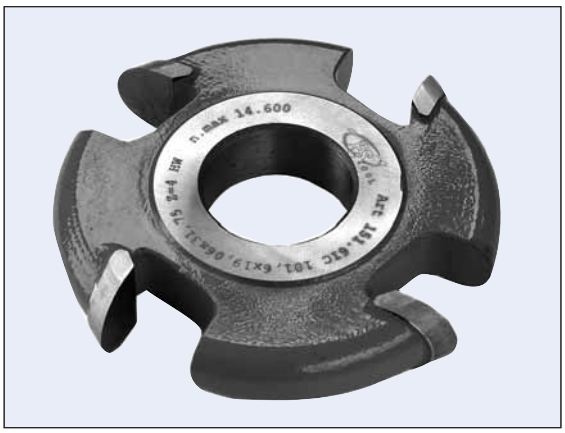
APPLICATION:
- To cut half round shapes in solid wood and panel materials
- On shapers

PART NO.	DIAM. ØD	RADIUS R	OPENING	BORE ød	NO. TEETH
1501IC	4"	1/8"	1/4"	1-1/4"	3
1502IC	4"	1/4"	1/2"	1-1/4"	3
1503IC	4-1/2"	3/8"	3/4"	1-1/4"	3
1504IC	4-1/2"	1/2"	1"	1-1/4"	3

Bore can be opened or bushed to spindle size of your machine.

SPECIAL PRODUCTION:
- For all other sizes see Cutters Special Profiles "PB" on page B2

151 CONVEX RADIUS CUTTERS



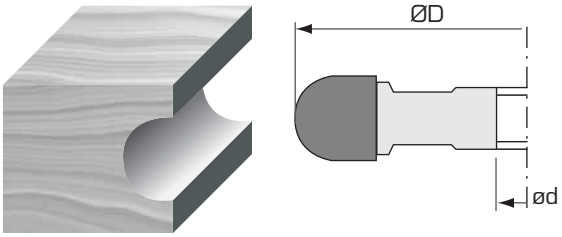
DESIGN:
- With 4 teeth, straight
- Tungsten carbide cutting edges

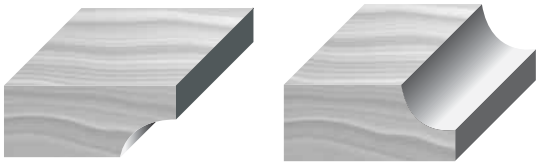
APPLICATION:
- For cutting coves in solid wood and panel materials
- On shapers

PART NO.	DIAM. ØD	RADIUS	KERF B	BORE ød	NO. TEETH
1516IC	4"	3/8"	3/4"	1-1/4"	4
1518IC	4"	1/2"	1"	1-1/4"	4

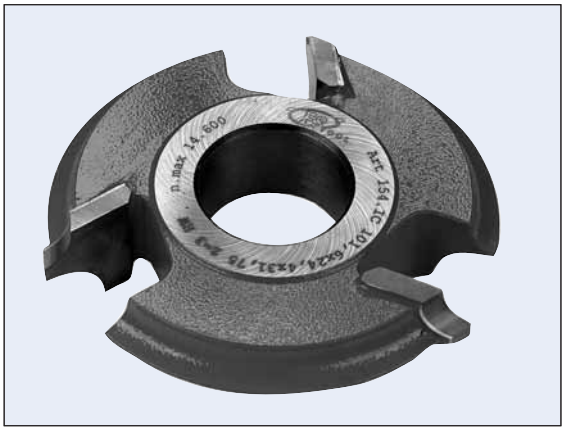
Bore can be opened or bushed to spindle size of your machine.

SPECIAL PRODUCTION:
- For all other sizes see Cutters Special Profiles "PA" on page B2





154 1/4" AND 1/2" QUARTER ROUND CUTTER



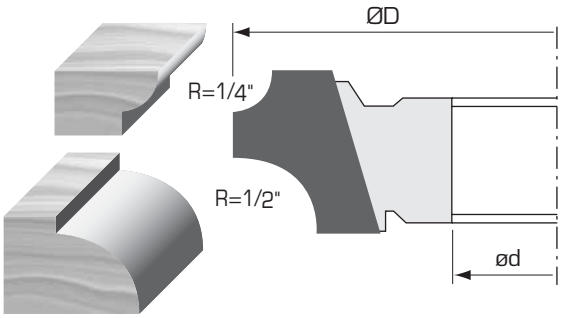
DESIGN:
- With 3 teeth, straight
- Tungsten carbide cutting edges

APPLICATION:
- To make 1/4" or 1/2" quarter round shapes in solid wood and panel materials
- On shapers

PART NO.	DIAM. ØD	KERF B	BORE ød	NO. TEETH
154IC	4"	1"	1-1/4"	3

Bore can be opened or bushed to spindle size of your machine.

SPECIAL PRODUCTION:
- For all other sizes see Cutters Special Profiles "PB" on page B2

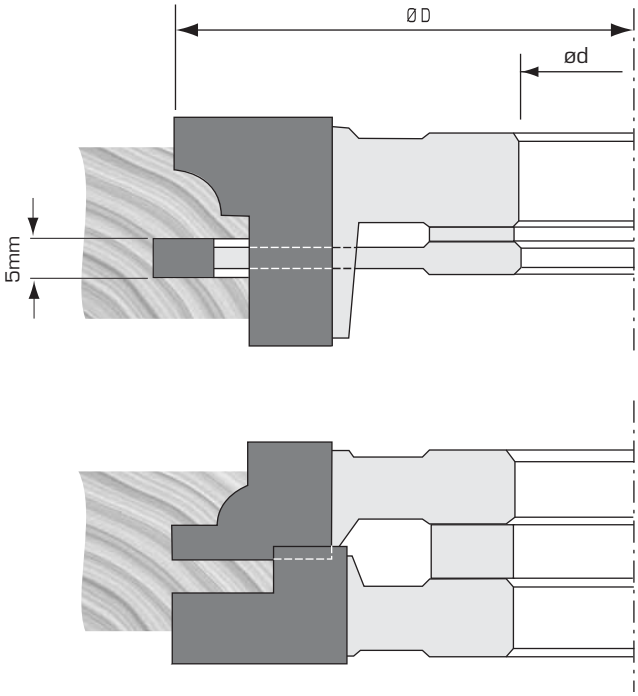


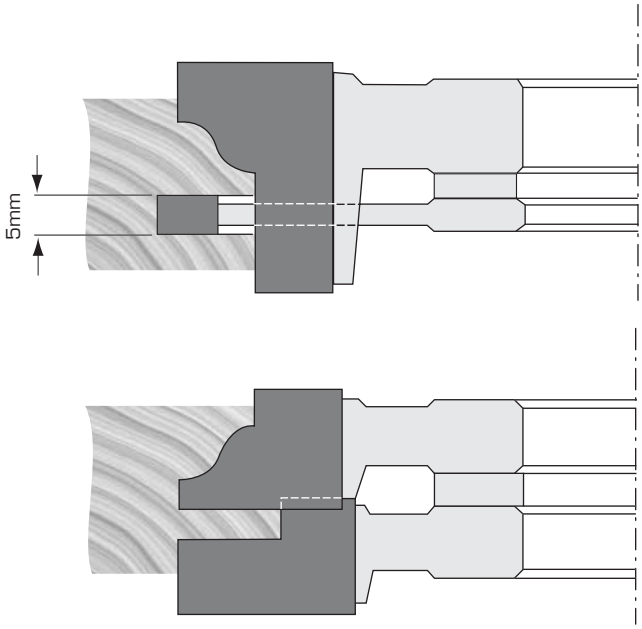
DESIGN:
- Set of 4 cutters and spacers
- With 3 teeth
- Tungsten carbide cutting edges

APPLICATION:
- To cut stile and rail for producing solid wood cabinet doors.
- On shapers

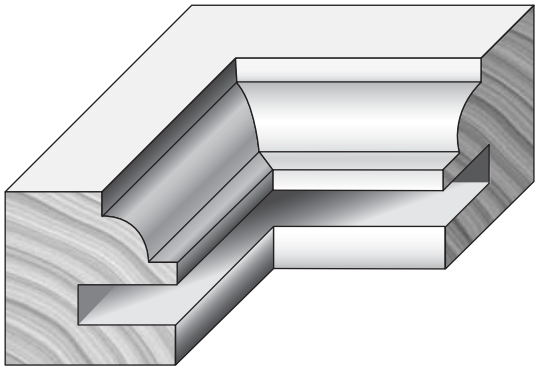
PART NO.	DIAM. ØD	WOOD THICKNESS	BORE ød	NO. TEETH	PROFILE
177AI	4"	3/4" TO 1	1-1/4"	3+3	A
177BI	4"	3/4" TO 1	1-1/4"	3+3	B

Bore can be opened or bushed to spindle size of your machine.

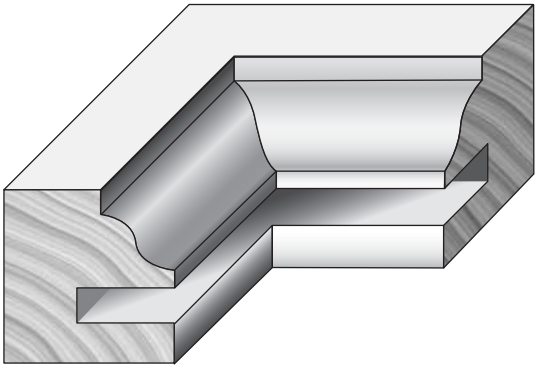




PROFILE A



PROFILE B



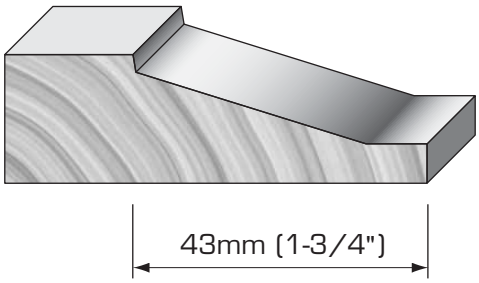
DESIGN:
- With 3 teeth and shear angle for optimum quality of cut
- Tungsten carbide cutting edges

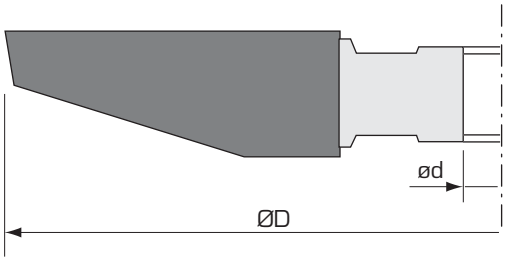
APPLICATION:
- For raised panel cutting in solid wood and MDF panels
- On shapers

PART NO.	PROFILE NO.	DIAM. ØD	KERF B	BORE ød	NO. TEETH
1681IC	Profile No. 1	6"	5/8"	1-1/4"	3
1682IC	Profile No. 2	6"	5/8"	1-1/4"	3
1693IC	Profile No. 3	5-3/4"	5/8"	1-1/4"	3
1694IC	Profile No. 4	5-3/4"	5/8"	1-1/4"	3
1695IC	Profile No. 5	5-3/4"	5/8"	1-1/4"	3
1696IC	Profile No. 6	5-3/4"	5/8"	1-1/4"	3

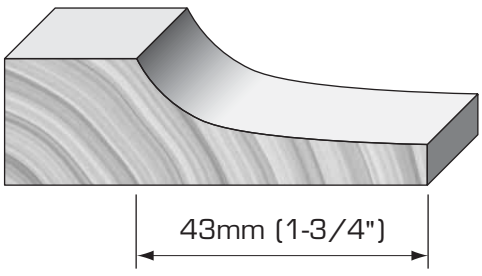
Bore can be opened or bushed to spindle size of your machine.

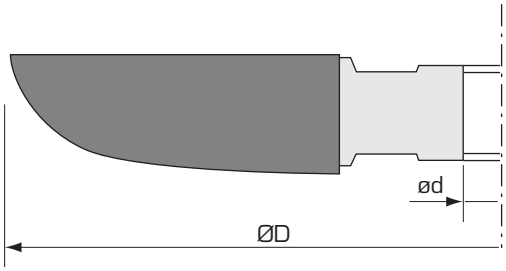
PROFILE No. 1





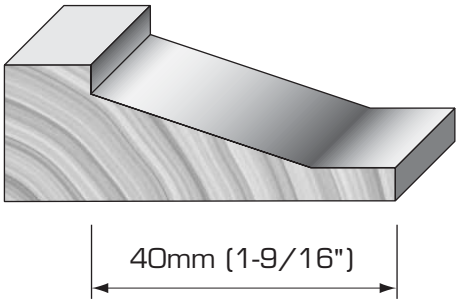
PROFILE No. 2

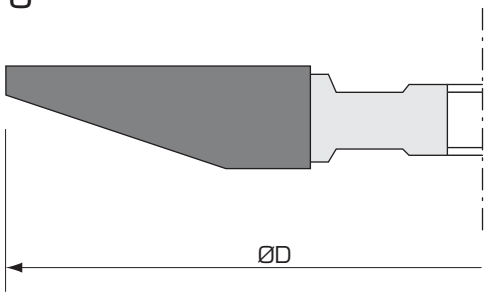




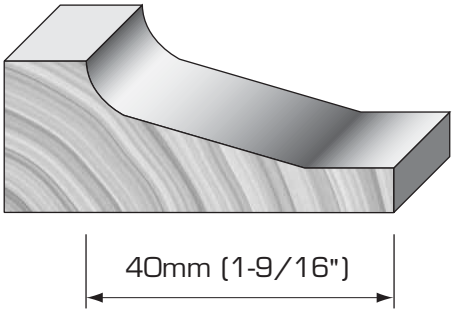
scale 1:1

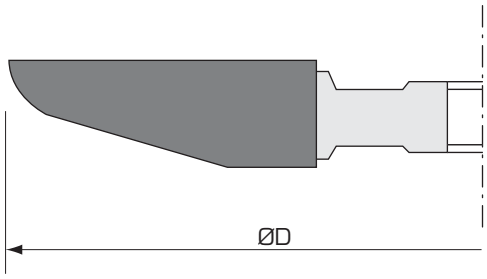
PROFILE No. 3



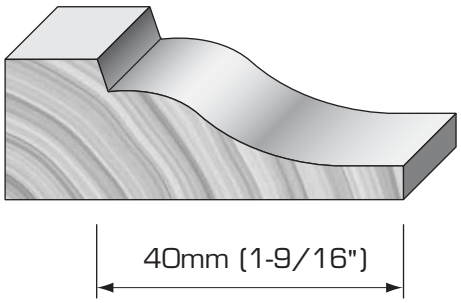


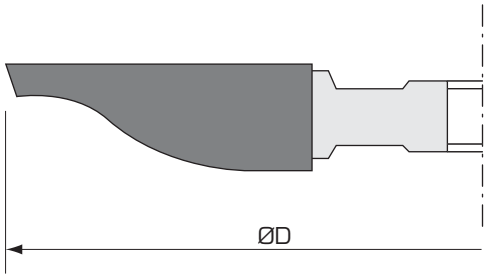
PROFILE No. 4



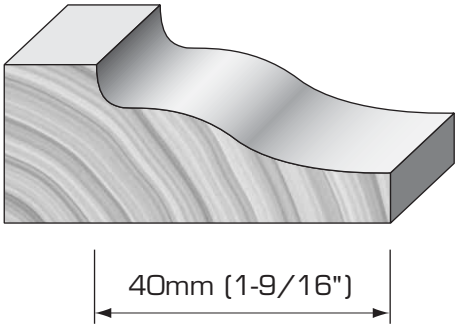


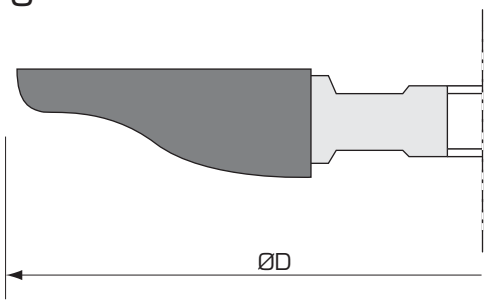
PROFILE No. 5





PROFILE No. 6



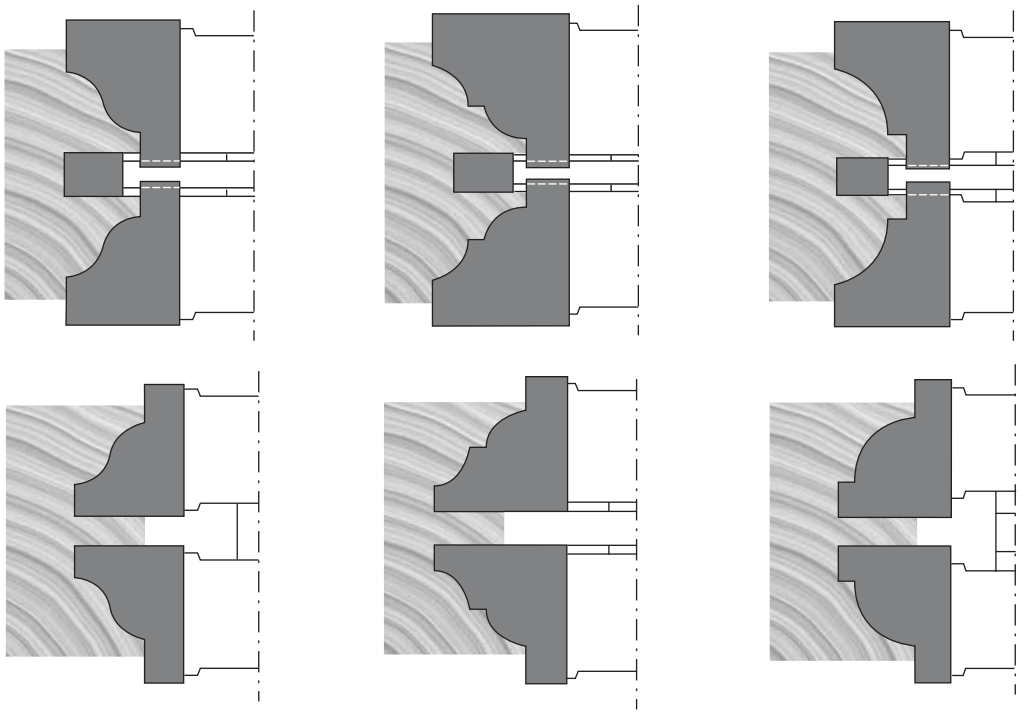


scale 1:1

178 ENTRY AND PASSAGE DOOR CUTTER SET

DESIGN:
- Set of 5 cutters with 3 teeth interlocked and set of spacers
- Tungsten carbide cutting edges

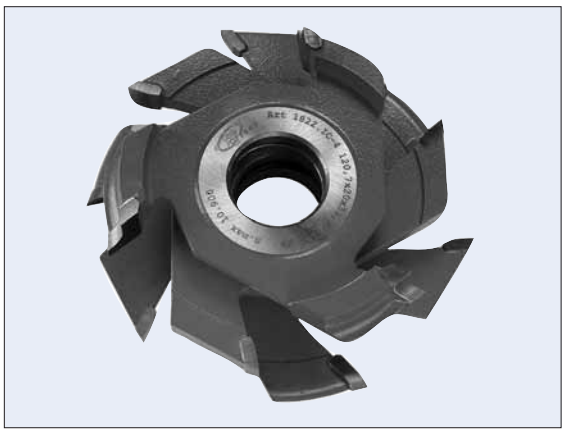
APPLICATION:
- To cut stile and rail in solid wood for producing entry and passage doors
- On shapers



Profile A Profile B Profile C

PART NO.	DIAM. ØD	WOOD THICKNESS	BORE ød	NO. TEETH	PROFILE	RPM MIN.–MAX.
178AI	4"	1-3/8" (1/4" Tenon)	1-1/4"	3	A	7500–12500
178BI	4"	1-3/8" (1/4" Tenon)	1-1/4"	3	B	7500–12500
178CI	4"	1-3/8" (1/4" Tenon)	1-1/4"	3	C	7500–12500

PART NO.	DIAM. ØD	WOOD THICKNESS	BORE ød	NO. TEETH	PROFILE	RPM MIN.–MAX.
179AI	4"	1-3/4" (3/8" Tenon)	1-1/4"	3	A	7500–12500
179BI	4"	1-3/4" (3/8" Tenon)	1-1/4"	3	B	7500–12500
179CI	4"	1-3/4" (3/8" Tenon)	1-1/4"	3	C	7500–12500



DESIGN:

- Each set consists of 4 cutters with 3 teeth and 3 spacers engraved with no.'s 1,2,3
- Tungsten carbide cutting edges

APPLICATION:

- To cut all standard moulding profiles, 4 different interlocking joints and anything else you can think of
- On shapers

	PART NO.	DIAM. ØD	BORE ød	NO. TEETH
Small Set	**1821IC**	4-1/8"	3/4"	3
Large Set	**1822IC**	5-1/2"	1-1/4"	3

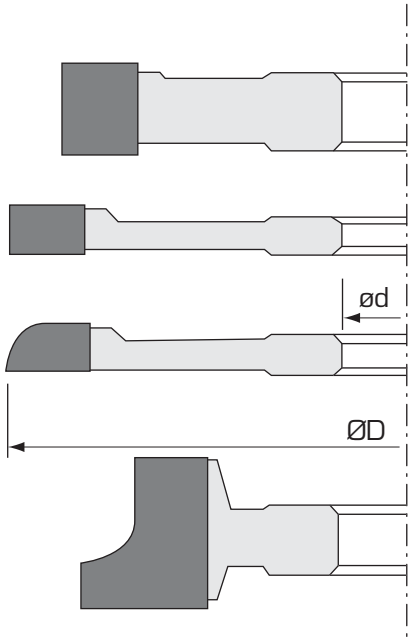
Bore can be opened or bushed to spindle size of your machine.

Tool No. 1

Tool No. 2

Tool No. 3

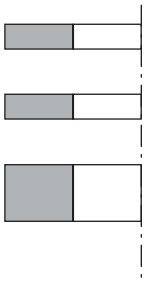
Tool No. 4

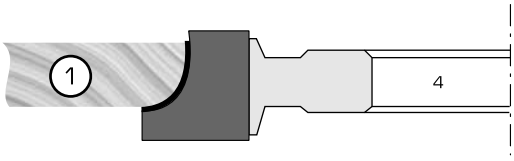


Spacer No. 5

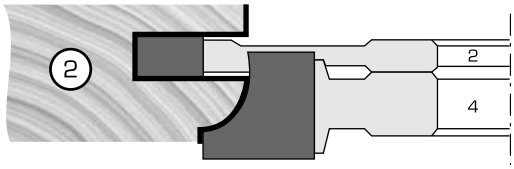
Spacer No. 6

Spacer No. 7

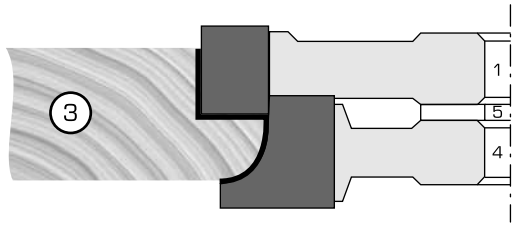




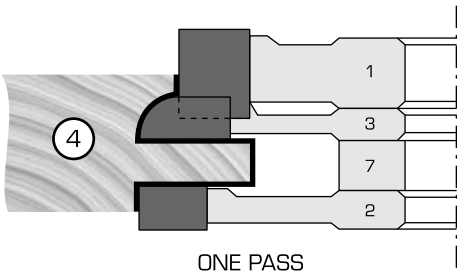
ONE PASS



ONE PASS



ONE PASS



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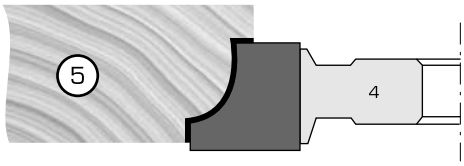

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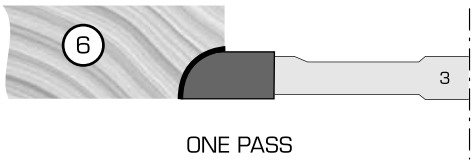

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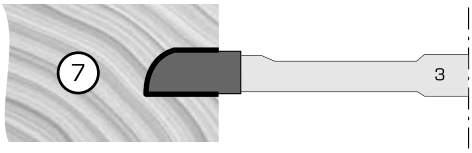

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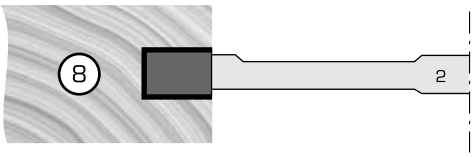

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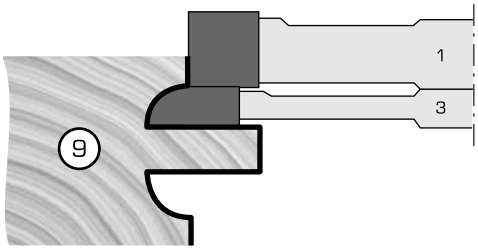

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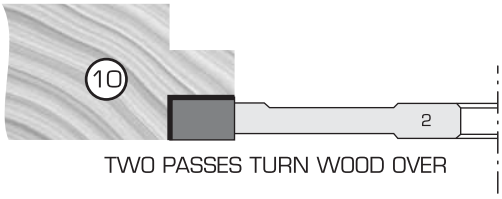

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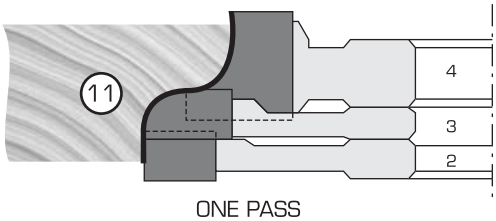

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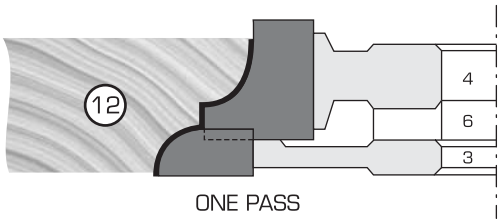

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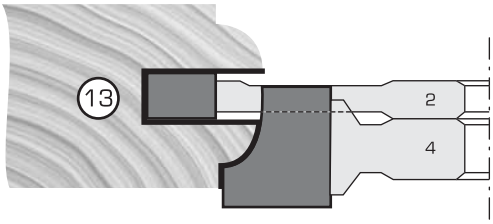

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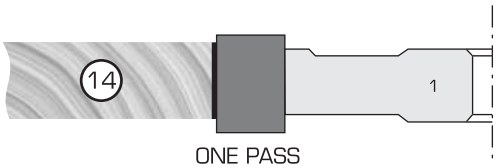

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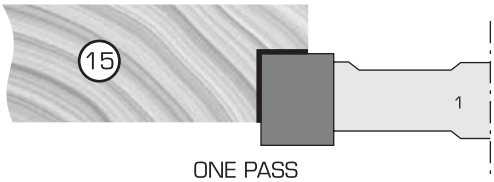

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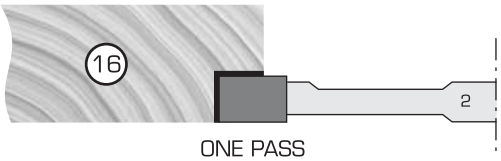

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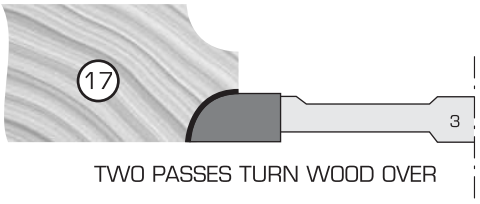

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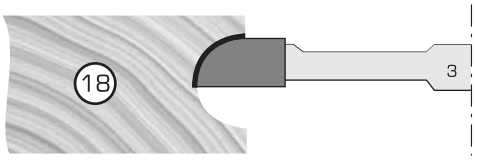

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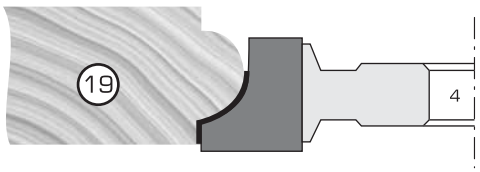

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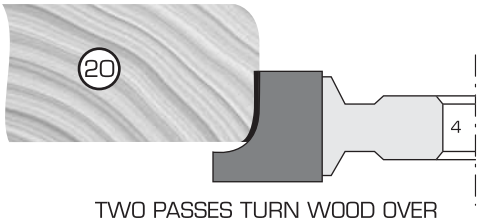

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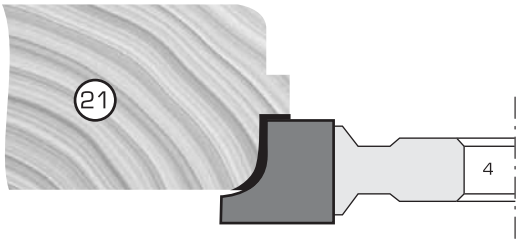

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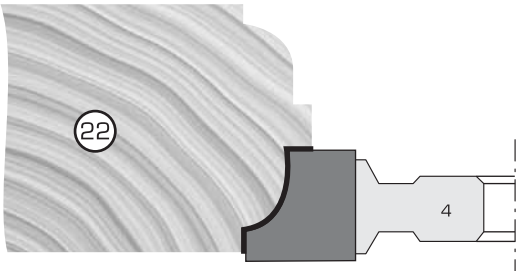

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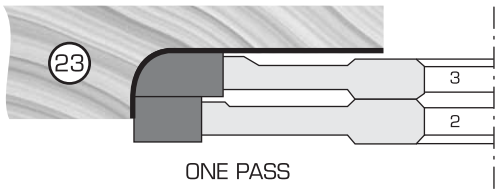

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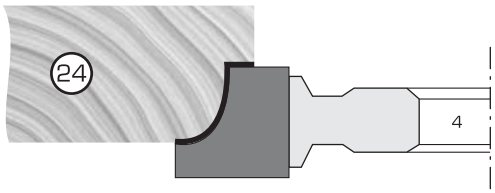

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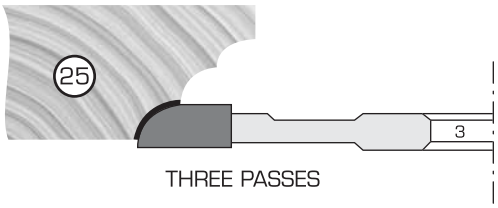

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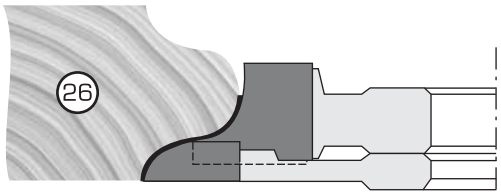

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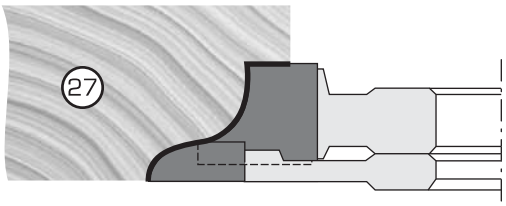

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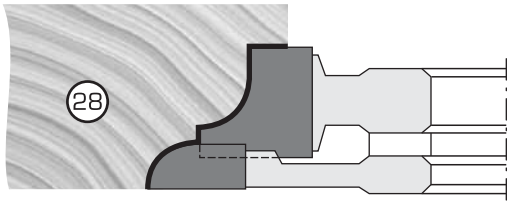

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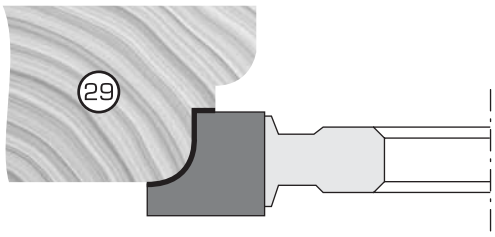

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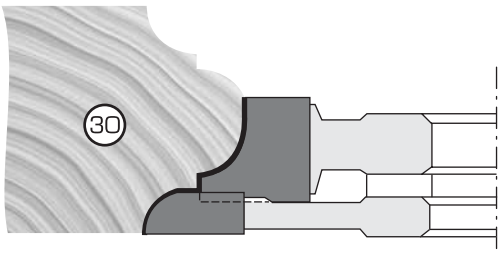

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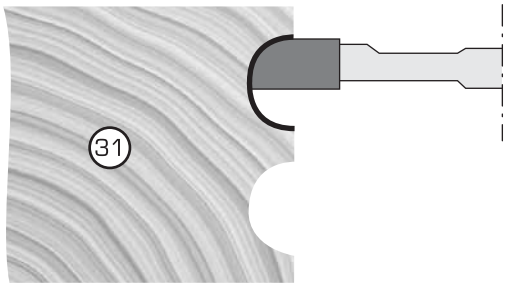

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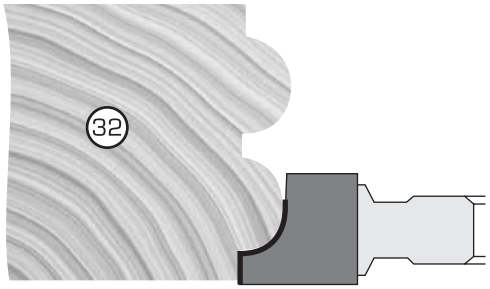

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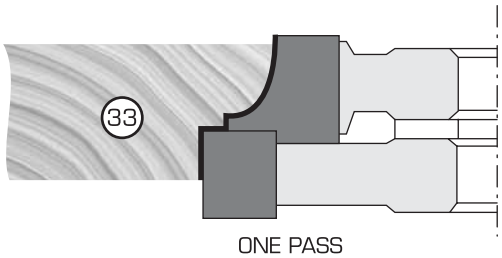

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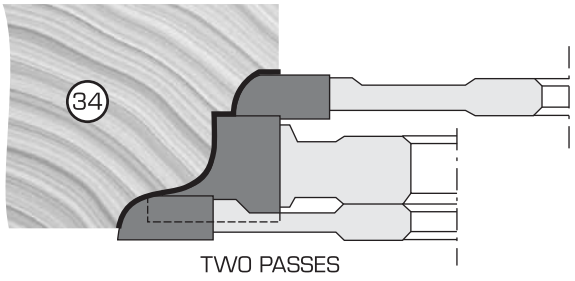

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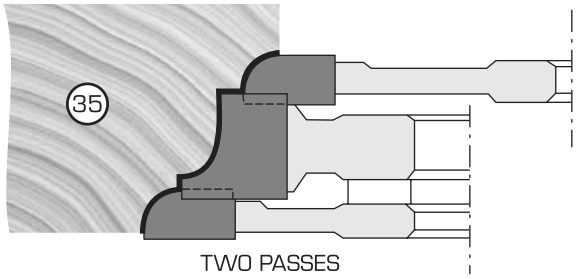

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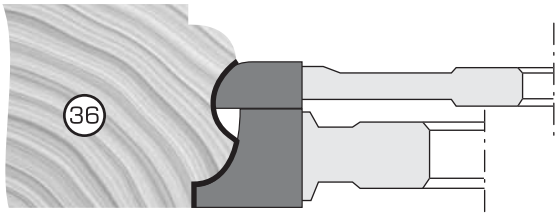

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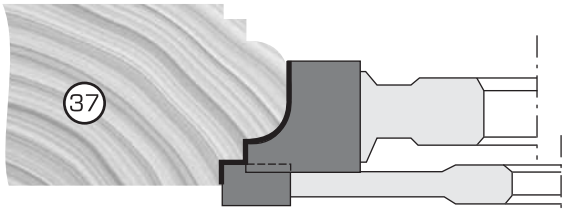

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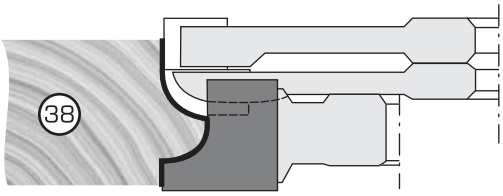

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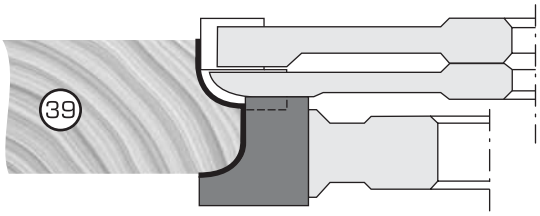

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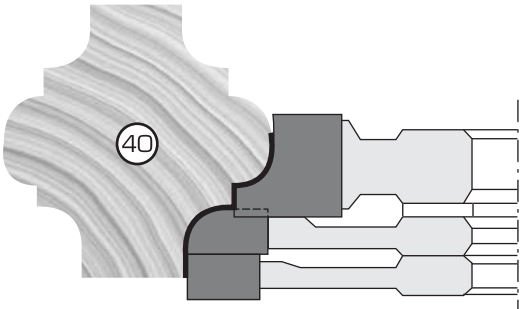

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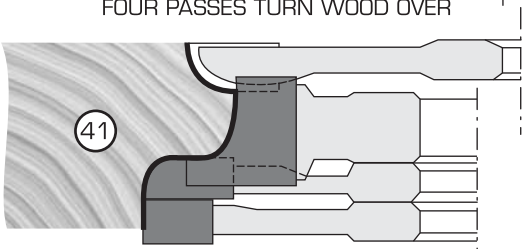

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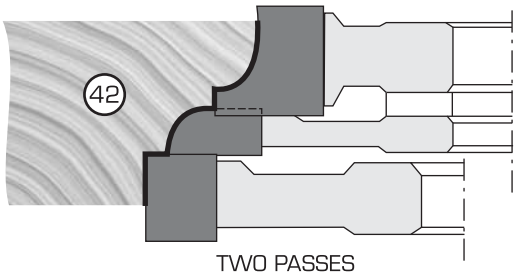

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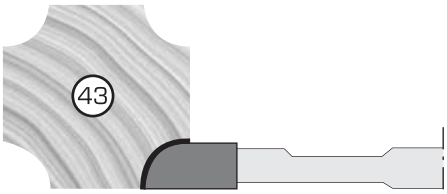

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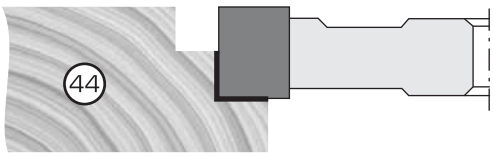

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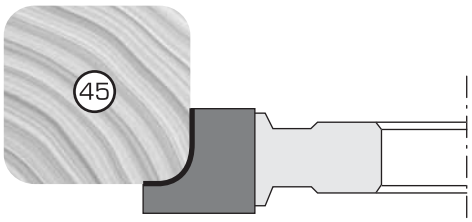

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