



Spiral finishing router cutter

Application:

Router cutter for sizing, grooving and finish cutting. For high demands on finish quality.

Machine:

Stationary routers with/without CNC control, machining centres, milling machines with spindles to mount shank tools.

Workpiece material:

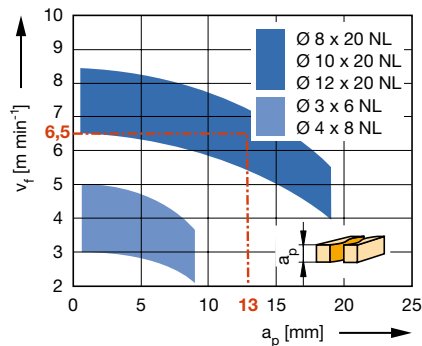
Softwood and hardwood, chipboard and fibre materials (MDF, HDF etc.), uncoated, plastic coated, veneered etc., laminated veneer lumber (plywood, multiplex plywood etc.), duromers, plastomers, solid surface material (Corian, Varicor etc.), decorative laminates (HPL-compact laminate, Trespa etc.), NF-metals (aluminium, copper etc.).



Technical information:

Large twist angle for high shear cut. Check twist direction for good top layer cut quality. Maximum cutting depth 1.0 - 1.5 x D. Short design for increased stability and reduced vibration. Long design for increased cutting depth (recommended in several steps).

Feed speed v_f depending on cutting depth a_p



Workpiece material: Softwood

Operation: Sizing

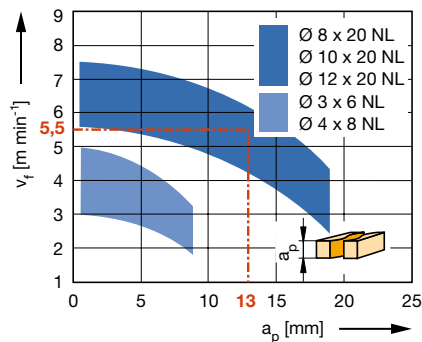
Speed: $n = 18000 - 24000 \text{ min}^{-1}$

Correction factor for v_f :

Hardwood = 0.9;

Machining across grain = 0.8;

Chipboard = 1.1



HW solid, Z 1, short design

WO 160 2 03

D	D	GL	GL	NL	NL	S	S	Z	Twist	DRI	ID
mm	in	mm	in	mm	in	mm	in				
3		50		6		6x30		1	RD	RH	042723 ●
3		50		6		6x30		1	LD	RH	042724 ●
4		50		8		6x30		1	RD	RH	042725 ●
4		50		8		6x30		1	LD	RH	042726 ●
5		50		10		6x30		1	RD	RH	042727 ●
5		50		10		6x30		1	LD	RH	042728 ●
6		50		14		6x30		1	RD	RH	042729 ●
6		50		14		6x30		1	LD	RH	042730 ●
6.35	1/4"	50.8	2"	15.88	5/8"	6.35x30	1/4"x1 1/8"	1	RD	RH	240512 ●
8		65		20		8x40		1	RD	RH	042731 ●
8		65		20		8x40		1	LD	RH	042732 ●
10		70		20		10x40		1	RD	RH	042733 ●

HW solid, Z 1, long design

WO 160 2 03

D	GL	NL	S	Z	Twist	DRI	ID
mm	mm	mm	mm				
4	60	12	6x40	1	RD	RH	042739 ●
4	60	12	6x40	1	LD	RH	042740 ●
5	80	18	6x40	1	RD	RH	042741 ●
5	80	18	6x40	1	LD	RH	042742 ●
6	80	22	6x40	1	RD	RH	042743 ●
6	80	22	6x40	1	LD	RH	042744 ●
8	80	25	8x40	1	RD	RH	042745 ●
8	80	25	8x40	1	LD	RH	042746 ●
10	90	32	10x40	1	RD	RH	042747 ●
10	90	32	10x40	1	LD	RH	042748 ●
12	90	32	12x40	1	RD	RH	042749 ●

RPM: Wood/wood derived material: $n = 16000 - 24000 \text{ min}^{-1}$

Plastics: $n = 12000 - 18000 \text{ min}^{-1}$

Workpiece material: Duromers, plastomers, glulam (HPL), compound materials

Operation: Sizing

Speed: $n = 16000 - 18000 \text{ min}^{-1}$

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5. Routing

5.1 Sizing and grooving

5.1.2 Shank cutters HW-solid spiral design



Spiral finishing router cutter

Application:

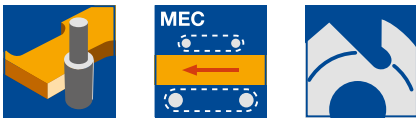
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Machine:

Stationary routers with/without CNC control, machining centres, milling machines with spindles to mount shank tools.

Workpiece material:

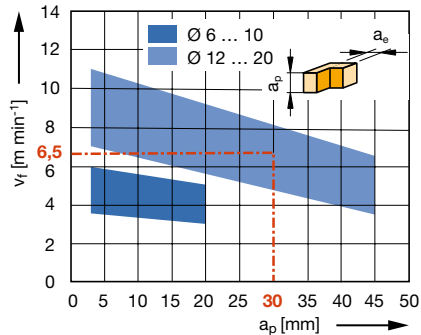
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Technical information:

Ideally used after roughing cutters, finish cut allowance approx. 1-2 mm. Check twist direction for good top layer quality. Short design for increased stability and low vibration. Long design for larger material thickness at reduced feed speeds.

Feed speed v_f depending on cutting depth a_p



Workpiece material: Softwood

Operation: Jointing

Speed: $n = 18000 \text{ min}^{-1}$

Correction factor for v_f :

Hardwood = 0.9;

Machining across grain = 0.7

HW solid, Z 2, short design

WO 160 2 05

D	GL	NL	S	Z	Twist	DRI	ID
mm	mm	mm	mm				
6	60	12	6x30	2	LD	RH	042457 ●
8	65	20	8x30	2	RD	RH	042472 ●
10	70	25	10x40	2	RD	RH	042458 ●
10	70	25	10x40	2	LD	RH	042459 ●
12	70	25	12x40	2	RD	RH	042758 ●
12	70	25	12x40	2	LD	RH	042760 ●
16	100	40	16x50	2	RD	RH	042761 ●
16	100	40	16x50	2	LD	RH	042763 ●

HW solid, Z 2, long design

WO 160 2 05

D	D	GL	GL	NL	NL	S	S	Z	Twist	DRI	ID
mm	in	mm	in	mm	in	mm	in				
12		80		35		12x40		2	RD	RH	042765 ●
12.7	1/2"	76.2	3"	31.8	1 1/4"	12.7x40	1/2"x1 1/2"	2	LD	RH	240510 ●
12.7	1/2"	88.9	3 1/2"	31.8	1 1/4"	12.7x40	1/2"x1 1/2"	2	LD	RH	240511 ●

RPM: $n = 16000 - 24000 \text{ min}^{-1}$

5. Routing

5.1 Sizing and grooving

5.1.2 Shank cutters HW-solid spiral design

Spiral finishing router cutter



Application:

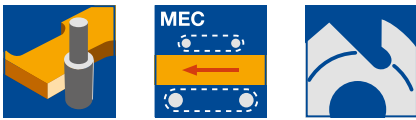
Router cutter for sizing, grooving and finish cutting. For high demands on finish quality. Z 3 design for high feed speeds.

Machine:

Stationary routers with/without CNC control, machining centres, milling machines with spindles to mount shank tools.

Workpiece material:

Softwood and hardwood, chipboard and fibre materials (MDF, HDF etc.), uncoated, plastic coated, veneered etc., laminated veneer lumber (plywood, multiplex plywood etc.), duromers, plastomers, solid surface material (Corian, Varicor etc.), decorative laminates (HPL-compact laminate, Trespa etc.).

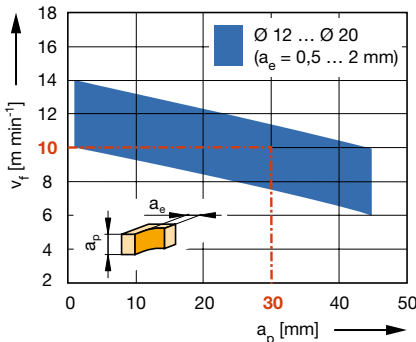


Technical information:

Ideally used after roughing cutters, finish cut allowance approx. 1-2 mm. Check twist direction for good top layer quality. Short design for increased stability and low vibration. Long design for larger material thickness at reduced feed speeds.



Feed speed v_f depending on cutting depth a_p



Workpiece material: Softwood

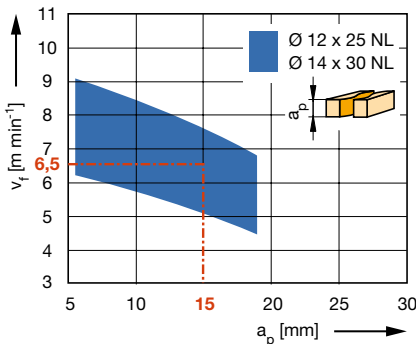
Operation: Jointing

Speed: $n = 18000 \text{ min}^{-1}$

Correction factor for v_f :

Hardwood = 0.9;

Machining across grain = 0.7



Workpiece material: Duromers, laminated materials (HPL, CPL)

Operation: Sizing

Speed: $n = 14000 - 18000 \text{ min}^{-1}$

HW solid, Z 3, short design

WO 160 2 05

D	GL	NL	S	Z	Twist	ID	ID
mm	mm	mm	mm			LH	RH
12	70	25	12x40	3	LD		042486 ●
12	70	25	12x40	3	RD	042534 ●	042487 ●
16	100	40	16x50	3	RD		042488 ●
16	100	40	16x50	3	LD		042489 ●

HW solid, Z 3, long design

WO 160 2 05

D	GL	NL	S	Z	Twist	ID	ID
mm	mm	mm	mm			LH	RH
8	65	25	8x30	3	LD		042490 ●
12	80	35	12x40	3	RD		042460 ●
14	110	50	14x55	3	RD		042462 ●
16	110	55	16x55	3	RD		042464 ●
16	110	55	16x55	3	LD	042473 ●	042465 ●
20	120	60	20x55	3	RD		042466 ●
20	120	60	20x55	3	LD	042468 ●	042467 ●
20	130	75	20x50	3	RD		042549 ●

RPM: $n = 16000 - 24000 \text{ min}^{-1}$



Spiral grooving cutter

Application:

Router for sizing and grooving.

Machine:

Portable routers.

Workpiece material:

Solid surface material (Corian, Varicor etc.).

Technical information:

Solid tungsten carbide design, spiral-shaped edges, ground plunging edge.

HW, Z 2, spiral roughing/finishing cutter

WO 160 2 04

D	GL	NL	S	Twist	DRI	ID
mm	mm	mm	mm			
12	87	42	12x40	LD	RH	072707 □



HW, Z 2, spiral finishing cutter

WO 160 2 05

D	GL	NL	S	Twist	DRI	ID
mm	mm	mm	mm			
10	70	25	10x40	RD	RH	042458 ●
12	70	25	12x40	RD	RH	042758 ●
12	87	42	12x40	RD	RH	072705 □

RPM: $n = 18000 - 27000 \text{ min}^{-1}$



Turnblade grooving cutter

Application:

Router cutter for sizing and grooving.

Machine:

Portable routers.

Workpiece material:

Solid surface material (Corian, Varicor etc.).

Technical information:

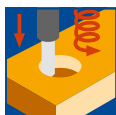
Straight cut. Design with plunging tip limited suitable for axial plunging.

HW, Z 1, with plunging tip

WL 100 1

D	GL	NL	S	DRI	ID
mm	mm	mm	mm		
14	107	45	12x40	RH	041722 ●

RPM: $n = 16000 - 24000 \text{ min}^{-1}$



Spare knives:

BEZ	ABM	NL	QAL	VE	ID
	mm	mm		PCS	
Turnblade knife	50x5.5x1.1	50	HW-05	10	005191 ●

Spare parts:

BEZ	ABM	ID
	mm	
Clamping wedge with plunging tip	45x3.7x7.35	009749 ●
Countersink screw, Torx® 8	M3x7.6	006233 ●

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