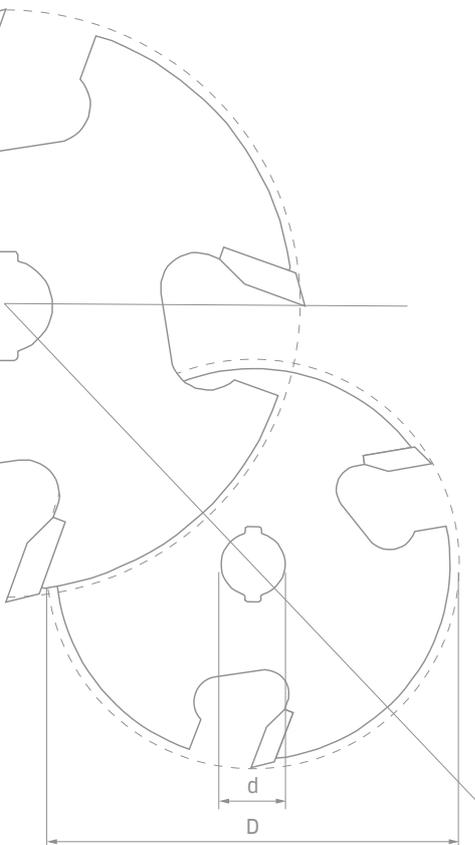
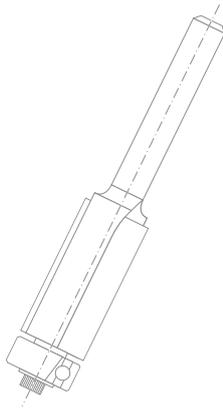
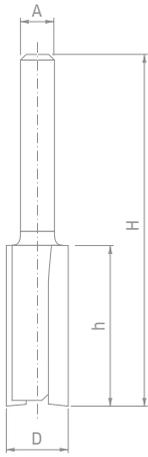


# Routing tools for portable machines

Freud's wide range of superior quality router bits are the result of outstanding technical expertise and know-how, advanced manufacturing processes and finest quality materials. Designed to perform precise and burn free cuts, these tools deliver flawless finishing, unmatched precision and long-lasting performance. All router bits feature Freud's unique and industry-first attributes.





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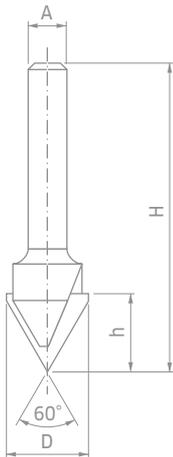
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# LEADING TECHNOLOGY

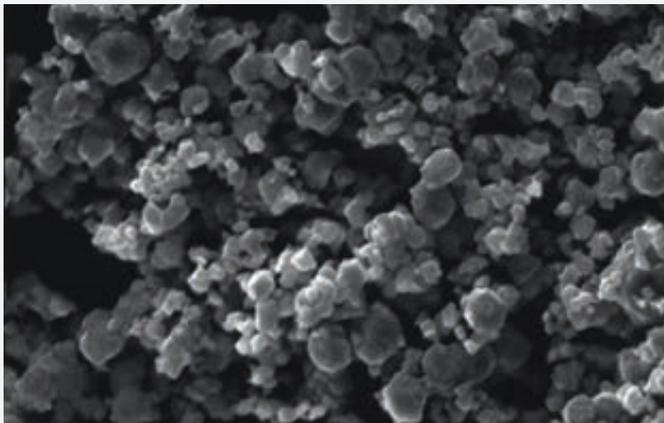
## TiCo CARBIDE TECHNOLOGY



Freud's ownership and control of the entire Carbide production cycle ensures that the correct formula is used for the specific application needs, to constantly maximise the router bit performance.

### TiCo Carbide

A specially formulated, highly compact Titanium Cobalt Carbide, engineered and manufactured by Freud. It provides a sharper edge and a flawless finish with a dramatically longer cutting life.



## DESIGN INNOVATION

Freud's special tip designs and geometries are engineered to perform perfect cuts and deliver extraordinary durability.



### Shear Angle Technology

Freud's Carbide tips are angled to slice through the wood fibers similar in principle to using a hand plane at an angle to the direction of the motion.

Freud's high shear angle bits leave a cross grain cut that requires virtually no sanding.

## EXTREME SHOCK RESISTANCE



Freud's innovative **Tri-Metal Brazing** process bonds the Carbide tips to the cutter body.

This special method consists of copper alloy sandwiched between layers of silver alloy, for extra flexibility and maximum impact resistance.





## COATING TECHNOLOGY

Freud's router bits feature an exclusive industry-first coating that secures a superior protection from heat, pitch build-up and corrosion.



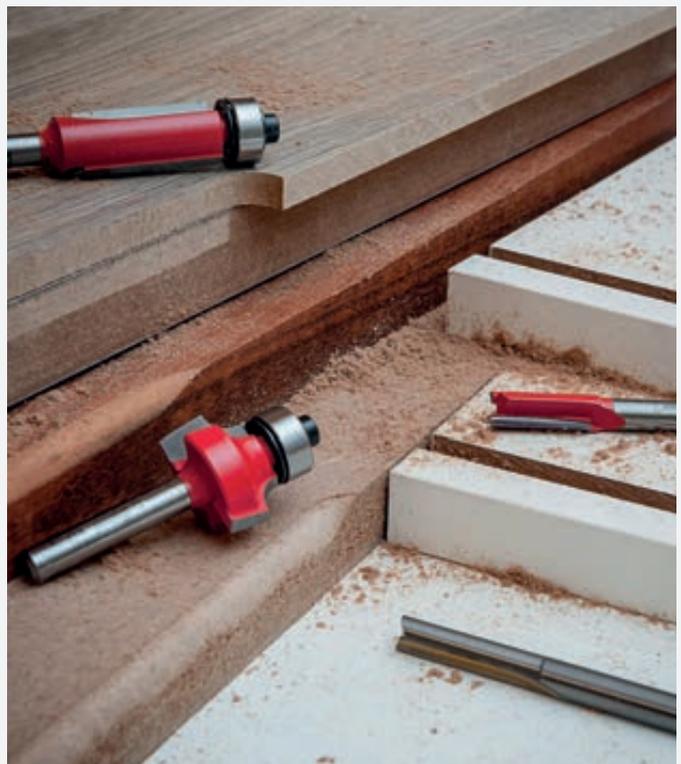
### Perma-SHIELD Coating

- A non-stick coating formulation that withstands the toughest applications.
- It provides thermal insulation, protects from corrosion and eliminates resin build-up, reducing downtime for cleaning.



## EXTENSIVE RANGE

Freud offers different solutions for specific application needs. The wide variety of router bits includes premium straight bits, trimming bits, edge forming bits, joinery bits, surface forming bits as well as mixed sets and spare parts. Each delivers flawless results and extraordinary lifetime.



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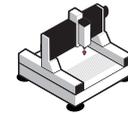
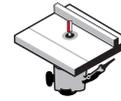
	Application picture	Description	Page reference
<b>Straight bits</b>		Freud's straight router bits in all relevant shank diameter 6 mm, 8 mm, 12 mm, 1/4", 1/2". Cutting diameters from 2 mm up to 25 mm. Freud Straight bits are designed to deliver clean, precise, splinter free results in hardwood and softwood and in almost any composite material they cover many applications such as grooving, rebating, slots, planning and hinge cut outs.	243-249
<b>Trimming bits</b>		Freud's trimming bits range includes bits for any trimming application. Use these bits for precise trim work on laminate or veneered counter tops, to follow patterns, to create or duplicate intricate shapes or for any task requiring a clean cut-off along a flush edge with a smooth, burn free cut. Hardwood, softwood, plywood, composites and laminates on hand-held or table-mounted routers.	250-254
<b>Edge forming bits</b>		Freud's edge forming bits are designed to cover every edge profiling application, such as rounding, chamfer, ogee, cove profiles and many more.	255-275
<b>Joinery bits</b>		Freud's joinery router bits are designed to create perfect wood joints. It is possible to choose a selection ranging from slotting cutters to dovetail router bits and many more.	276-302
<b>Surface forming bits</b>		All Freud's surface forming router bits are available without ball bearing for a perfect profile grooving on wooden surfaces.	303-313
<b>Mixed sets</b>		Freud offers several different router bit sets. Mixed router bit sets are available in the most common shank diameters, along with our classical cabinet door sets.	314-326

# Straight Bits



# DOUBLE FLUTE STRAIGHT BITS

04- 12-  
MM- R006M



Hand-held Routers

Table Routers

CNC Machines

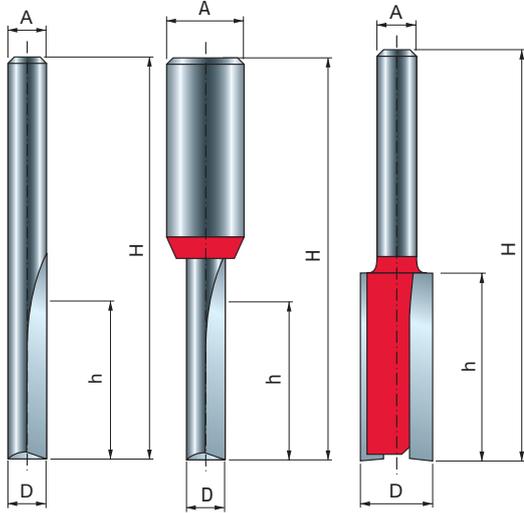


Softwood

Hardwood

Plywood

Wood Based Panels



Type A  
Solid Carbide  
bits

Type B  
Solid Carbide  
cutting parts

Type C  
HW tipped bits



**Machines:**

Hand-held routers, table routers and CNC machines.

**Materials:**

Softwood, hardwood, plywood and wood based panels.

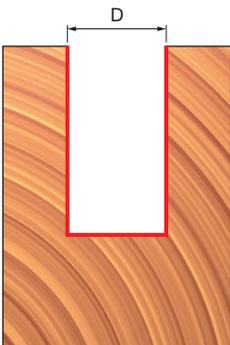
**Applications:**

**Type A:** Small cutting diameter solid Carbide double flute straight bits.

Ideal for grooving, edge-routing, plunge cuts and other general purpose routing tasks.

**Type B:** Small cutting diameter double flute straight bits, steel shank with integrated solid Carbide cutting part.

**Type C:** Ideal for grooving, edge-routing and other general purpose routing tasks.



**Type A - Solid Carbide bits**

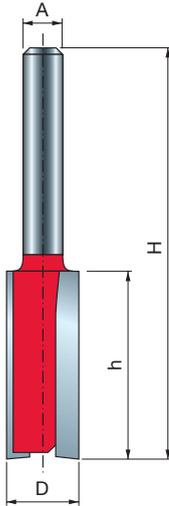
D mm	h mm	H mm	A mm	A inch	Z	Max RPM 1/min.	Freud Code	Art. No.
2	6,3	44,5	6		2	24.000	04-09706P	F03FR01413
3	9,5	44,5	6		2	24.000	04-09906P	F03FR01415
3	11	50,8	6		2	24.000	04-10006P	F03FR01418
3	12	50	6		2	24.000	R006M03006	F03FR01355
4	12	50,3	6		2	24.000	R006M05006	F03FR01356
4	12	50,8	6		2	24.000	04-10206P	F03FR01423
4	15,8	50,7	6		2	24.000	04-10106P	F03FR01420
5	12	50,3	6		2	24.000	R006M07006	F03FR01357
5	12,7	50,8	6		2	24.000	04-11306P	F03FR01437
5	16	51	6		2	24.000	R006M07406	F03FR01358
6	16	50,8	6		2	24.000	04-11406P	F03FR01440
6	16	57	6		2	24.000	R006M09406	F03FR01359
6	25	63	6		2	24.000	R006M10206	F03FR01360
6	25,4	76,2	6		2	24.000	04-11006P	F03FR01431
3	9,5	44,5	8		2	24.000	04-09908P	F03FR01416
4	15,8	50,7	8		2	24.000	04-10108P	F03FR01421
5	12,7	50,8	8		2	24.000	04-11308P	F03FR01438
6	16	50,8	8		2	24.000	04-11408P	F03FR01441
6	25,4	76,2	8		2	24.000	04-11008P	F03FR01432
1,58	6,4	44,5		1/4	2	24.000	04-09625P	F03FR01412
2	4	38,1		1/4	2	24.000	04-50225P	F03FR01502
2,38	9,5	38,1		1/4	2	24.000	04-09825P	F03FR01414
3	8	44,5		1/4	2	24.000	04-50825P	F03FR01503
3,18	9,5	44,5		1/4	2	24.000	04-10025P	F03FR01419
4	15,77	50,8		1/4	2	24.000	04-10125P	F03FR01422
4,76	12,7	49,2		1/4	2	24.000	04-10225P	F03FR01424
5	11,9	50,8		1/4	2	24.000	04-51225P	F03FR01504
6,35	12,7	50,5		1/4	2	24.000	04-10425P	F03FR01426
6,35	15,9	50,8		1/4	2	24.000	04-10525P	F03FR01427
6,35	19	57,1		1/4	2	24.000	04-10625P	F03FR01428
6,35	22,2	57,1		1/4	2	24.000	04-10725P	F03FR01429
6,35	25,4	63,5		1/4	2	24.000	04-10825P	F03FR01430
6,35	25,4	76,2		1/4	2	24.000	04-11025P	F03FR01433
6,35	19	61		1/2	2	24.000	12-10050P	F03FR01521
6,35	23	73		1/2	2	24.000	12-10250P	F03FR01522

**Type B - Solid Carbide cutting parts**

D mm	h mm	H mm	A mm	Z	Max RPM 1/min.	Freud Code	Art. No.
3	8	58	12	2	24.000	12-09612P	F03FR01517
4	10	58	12	2	24.000	12-09712P	F03FR01518
5	12,7	57	12	2	24.000	12-09812P	F03FR01519
6	19	64	12	2	24.000	12-09912P	F03FR01520

# DOUBLE FLUTE STRAIGHT BITS

04- 12-  
MM- R006M



Type C  
HW tipped bits

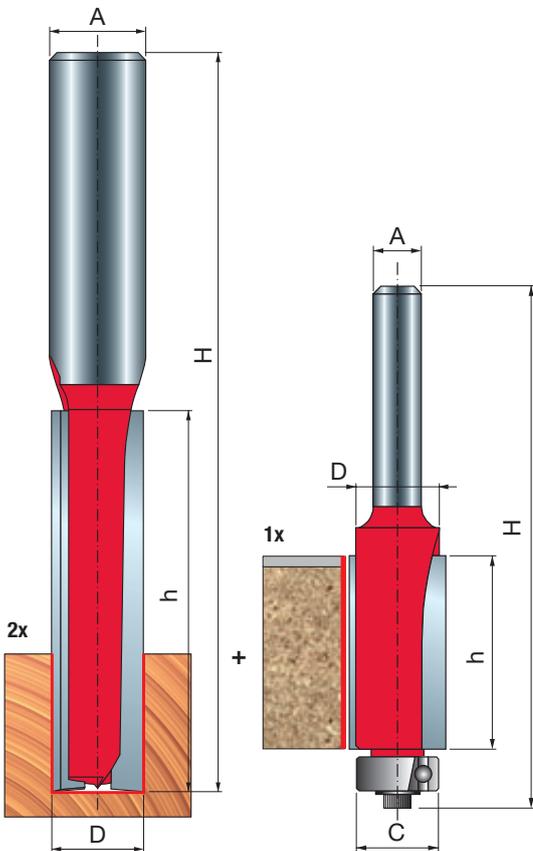
## Type C - HW tipped bits

D	h	H	A	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm inch		1/min.		
7	25,4	63,5	6	2	24.000	04-11206P	F03FR01434
8	19,1	52	6	2	24.000	04-11506P	F03FR01443
8	31,8	70	6	2	24.000	04-11906P	F03FR01447
9	25	63	6	2	24.000	04-12406P	F03FR01450
10	25,4	62,4	6	2	24.000	MM-01006P	F03FR00330
10	31,8	69	6	2	24.000	MM-11006P	F03FR00333
11	25,4	62	6	2	24.000	04-13306P	F03FR01458
12	19	55,5	6	2	24.000	04-13506P	F03FR01460
12	31,8	68	6	2	24.000	04-13706P	F03FR01464
13	25,4	62,4	6	2	24.000	04-14206P	F03FR01470
14	19	56	6	2	24.000	04-14306P	F03FR01472
14	31,8	68,2	6	2	24.000	04-14506P	F03FR01475
15	20	57,2	6	2	24.000	04-14606P	F03FR01478
15	31,8	68,2	6	2	24.000	04-14706P	F03FR01480
16	19	51	6	2	24.000	04-14906P	F03FR01483
16	31,8	66	6	2	24.000	04-15006P	F03FR01486
18	20	52	6	2	24.000	04-15106P	F03FR01488
19	19	54	6	2	24.000	04-14006P	F03FR01468
20	19	56	6	2	24.000	04-15506P	F03FR01492
22	19	51	6	2	24.000	04-15706P	F03FR01495
24	20	52	6	2	24.000	04-15806P	F03FR01498
25	19	56	6	2	24.000	04-15906P	F03FR01500
7	25,4	63,5	8	2	24.000	04-11208P	F03FR01435
8	19	52	8	2	24.000	04-11508P	F03FR01444
8	31,8	70	8	2	24.000	04-11908P	F03FR01448
9	25	63	8	2	24.000	04-12408P	F03FR01451
10	25,4	62,4	8	2	24.000	MM-01008P	F03FR00331
10	31,8	69	8	2	24.000	MM-11008P	F03FR00334
12	19	55,5	8	2	24.000	04-13508P	F03FR01461
12	31,8	63,8	8	2	24.000	04-13708P	F03FR01465
14	19	56	8	2	24.000	04-14308P	F03FR01473
14	31,8	68,2	8	2	24.000	04-14508P	F03FR01476
15	20	57,2	8	2	24.000	04-14608P	F03FR01479
15	31,8	68,2	8	2	24.000	04-14708P	F03FR01481
16	19	51	8	2	24.000	04-14908P	F03FR01484
16	31,8	66	8	2	24.000	04-15008P	F03FR01487
18	20	52	8	2	24.000	04-15108P	F03FR01489
20	19	56	8	2	24.000	04-15508P	F03FR01493
22	19	51	8	2	24.000	04-15708P	F03FR01496
24	20	52	8	2	24.000	04-15808P	F03FR01499
25	19	56	8	2	24.000	04-15908P	F03FR01501
7	18	67	12	2	24.000	12-10312P	F03FR01523
8	31,8	76	12	2	24.000	12-10712P	F03FR01525
9	31,8	76	12	2	24.000	12-11012P	F03FR01528
10	31,8	76	12	2	24.000	12-11212P	F03FR01530
12	38,1	80	12	2	24.000	12-12212P	F03FR01534
12	50,5	98	12	2	24.000	12-12812P	F03FR01537
13	25,4	66,7	12	2	24.000	12-11612P	F03FR01531
14	31,8	73	12	2	24.000	12-13412P	F03FR01540
15	31,8	69,8	12	2	24.000	12-13512P	F03FR01541
16	38,1	76,1	12	2	24.000	12-14012P	F03FR01544
18	38,1	80	12	2	24.000	12-14312P	F03FR01547
19	25,4	63,4	12	2	24.000	12-15212P	F03FR01548
20	38,1	80	12	2	24.000	12-15912P	F03FR01553
22	38,1	80	12	2	24.000	12-16912P	F03FR01556
7,14	25,4	65,4	1/4	2	24.000	04-11225P	F03FR01436
7,94	25,4	71,4	1/4	2	24.000	04-11825P	F03FR01446
9,53	22,2	59,2	1/4	2	24.000	04-12025P	F03FR01449
9,53	25,4	62,4	1/4	2	24.000	04-12425P	F03FR01452
9,53	31,8	68,7	1/4	2	24.000	04-12625P	F03FR01453
10	25,4	62,4	1/4	2	24.000	MM-01025P	F03FR00332
10	31,8	63,8	1/4	2	24.000	04-52025P	F03FR01505
11,11	25,4	62,4	1/4	2	24.000	04-12925P	F03FR01454
12	31,8	63,8	1/4	2	24.000	04-52825P	F03FR01506

# DOUBLE FLUTE STRAIGHT BITS

04- 12-  
MM- R006M

D	h	H	A	Z	Obr./min (maks.)	Kod Freud	Nr art.
mm	mm	mm	mm	cale	1/min		
12,7	19	55,5	1/4	2	24.000	04-13025P	F03FR01455
12,7	22,2	59,2	1/4	2	24.000	04-13125P	F03FR01456
12,7	25,4	62,4	1/4	2	24.000	04-13225P	F03FR01457
12,7	31,8	69,9	1/4	2	24.000	04-13325P	F03FR01459
15	31,8	66,7	1/4	2	24.000	04-53625P	F03FR01507
15,88	19	51	1/4	2	24.000	04-13625P	F03FR01463
15,88	31,8	69,9	1/4	2	24.000	04-13725P	F03FR01466
16	31,8	66,7	1/4	2	24.000	04-54425P	F03FR01508
17,46	19,1	56,1	1/4	2	24.000	04-13825P	F03FR01467
18	19,1	51,1	1/4	2	24.000	04-54825P	F03FR01509
19	19	57	1/4	2	24.000	04-14025P	F03FR01469
20	19,1	51,1	1/4	2	24.000	04-55225P	F03FR01510
22,23	19,1	56,1	1/4	2	24.000	04-14825P	F03FR01482
25,4	19,1	56,1	1/4	2	24.000	04-15225P	F03FR01491
7,94	25,4	78,9	1/2	2	24.000	12-10650P	F03FR01524
9,53	25,4	73,6	1/2	2	24.000	12-10850P	F03FR01526
9,53	31,8	82	1/2	2	24.000	12-11050P	F03FR01529
10	31,8	75	1/2	2	24.000	12-52050P	F03FR01558
12	31,8	75	1/2	2	24.000	12-53050P	F03FR01559
12,7	25,4	66,7	1/2	2	24.000	12-11650P	F03FR01532
12,7	31,8	77	1/2	2	24.000	12-11850P	F03FR01533
12,7	38,1	80,4	1/2	2	24.000	12-12250P	F03FR01535
12,7	38,1	108	1/2	2	24.000	12-12450P	F03FR01536
12,7	50,5	98	1/2	2	24.000	12-12850P	F03FR01538
12,7	63,2	110,7	1/2	2	24.000	12-13050P	F03FR01539
15,88	25,4	62,4	1/2	2	24.000	12-13650P	F03FR01542
15,88	31,8	71,8	1/2	2	24.000	12-13850P	F03FR01543
15,88	38,1	76,1	1/2	2	24.000	12-14050P	F03FR01545
15,88	50,8	103	1/2	2	24.000	12-14250P	F03FR01546
16	31,8	69,8	1/2	2	24.000	12-54450P	F03FR01560
19	25,4	63,4	1/2	2	24.000	12-15250P	F03FR01549
19	31,8	69,8	1/2	2	24.000	12-15450P	F03FR01550
19	38,1	76,1	1/2	2	24.000	12-15650P	F03FR01551
19,05	50,8	88,8	1/2	2	24.000	12-15850P	F03FR01552
20,63	31,8	76	1/2	2	24.000	12-16250P	F03FR01554
22,23	31,8	76	1/2	2	24.000	12-16850P	F03FR01555
25,4	31,8	69,8	1/2	2	24.000	12-17250P	F03FR01557



## KITCHEN FITTER SET

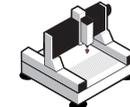
88-



Hand-held Routers



Table Routers



CNC Machines



Softwood



Hardwood



Plywood



Wood Based Panels



Wood Based Panels



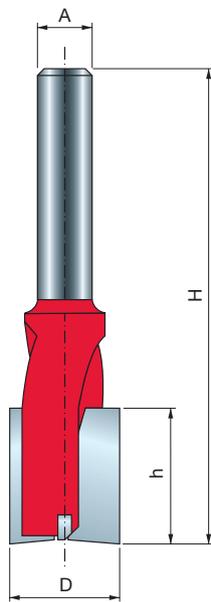
Wood Based Panels



	A	Max RPM	Freud Code	Art. No.
	inch	1/min.		
2x Straight bit and 1x flush trim bit set	1/2 1/4	24.000	88-20075P	F03FR04370

# DOUBLE FLUTE STRAIGHT BITS WITH BOTTOM TIP

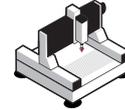
17-



Hand-held Routers



Table Routers



CNC Machines



Softwood



Hardwood



Plywood



Wood Based Panels



D mm	h mm	H mm	A mm	Z	Max RPM 1/min.	Freud Code	Art. No.
16	45	85	8	2+1	24.000	17-10008P	F03FR01577
18	18	70	8	2+1	24.000	17-10208P	F03FR01578
20	18	70	8	2+1	24.000	17-10408P	F03FR01579
22	25	70	8	2+1	24.000	17-10608P	F03FR01580
16	60	110	12	2+1	24.000	17-10112P	F03FA13994



**Machines:**

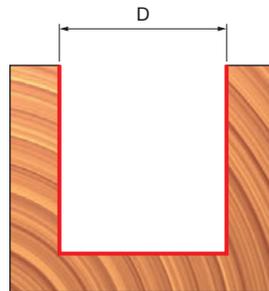
Hand-held routers, table routers and CNC machines.

**Materials:**

Softwood, hardwood, plywood and wood based panels.

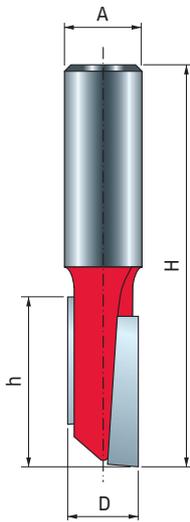
**Applications:**

Ideal for grooving, edge-routing, plunge cuts and other general purpose routing tasks. The additional centred tip provides a smoother plunge cut with a clean bottom finish.



# STAGGER BITS

14-



Hand-held Routers

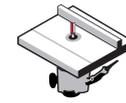
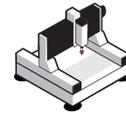


Table Routers



CNC Machines



Softwood



Hardwood



Plywood



Wood Based Panels



Wood Based Panels



Wood Based Panels

D mm	h mm	H mm	A mm	Z	Max RPM 1/min.	Freud Code	Art. No.
9,53	37,8	82	12	2	24.000	14-10212P	F03FR01561
12,7	38,1	82	12	2	24.000	14-10412P	F03FR01562
12,7	37,8	79	12	2	24.000	14-20412P	F03FR01564
12,7	54	98,3	12	2	24.000	14-10612P	F03FR01563



**Machines:**

Hand-held routers, table routers and CNC machines.

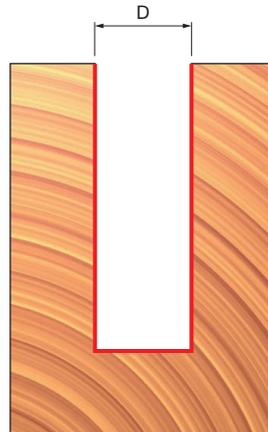
**Materials:**

Softwood, hardwood, plywood and wood based panels.

**Applications:**

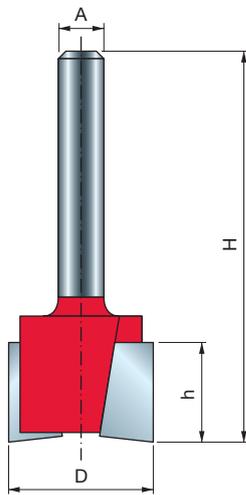
Stagger bits combine the balance of a double fluted bit with the speed and versatility of a single flute bit.

Ideal for grooving, edge-routing, plunge cuts and other general purpose routing tasks.



# MORTISING BITS

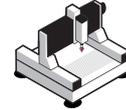
16-



Hand-held Routers



Table Routers



CNC Machines



Softwood



Hardwood



Plywood



Wood Based Panels



Wood Based Panels



Wood Based Panels



**Machines:**

Hand-held routers, table routers and CNC machines.

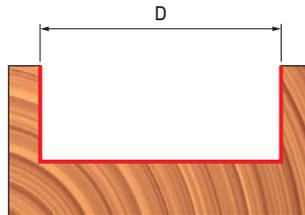
**Materials:**

Softwood, hardwood, plywood and wood based panels.

**Applications:**

Down shear design for clean top surfaces.

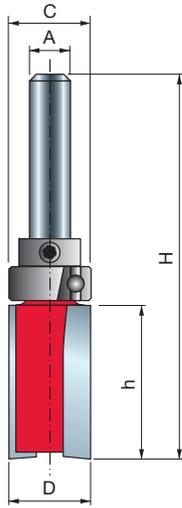
D	h	H	A	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	inch	1/min.		
12,7	12,5	51	6	2	24.000	<b>16-10006P</b>	F03FR01565
19	12,5	51	6	2	24.000	<b>16-10406P</b>	F03FR01568
19	19	62,15	6	2	24.000	<b>16-50406P</b>	F03FR01576
12,7	12,5	50,8	8	2	24.000	<b>16-10008P</b>	F03FR01566
19	12,5	50,8	8	2	24.000	<b>16-10408P</b>	F03FR01569
12,7	12,5	60,5	12	2	24.000	<b>16-11012P</b>	F03FR01573
31,75	12,1	56,2	12	2	24.000	<b>16-11812P</b>	F03FR01575
12,7	12,5	51	1/4	2	24.000	<b>16-10025P</b>	F03FR01567
19	12,5	51	1/4	2	24.000	<b>16-10425P</b>	F03FR01570
12,7	12,5	60,5	1/2	2	24.000	<b>16-11050P</b>	F03FR01574
31,75	12,7	56,2	1/2	2	18.000	<b>16-10850P</b>	F03FR01572



# Trimming Bits



# TOP BEARING FLUSH TRIM BITS 50-



**Machines:**

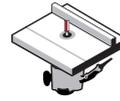
Hand-held routers and table routers.

**Materials:**

Softwood, hardwood, plywood and wood based panels.

**Applications:**

Ideal for following templates and for other tasks where the pattern is placed on top of the workpiece.



Hand-held Routers

Table Routers



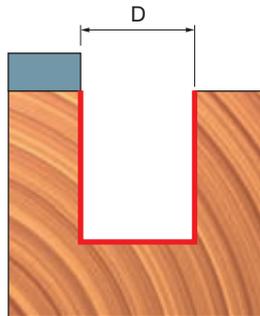
Softwood

Hardwood

Plywood

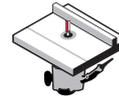
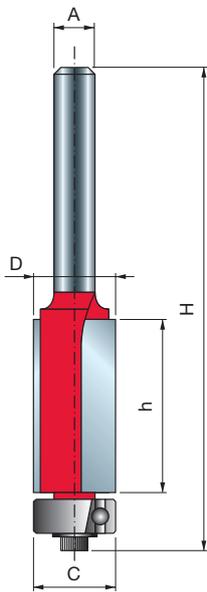
Wood Based Panels

D	h	H	A	C	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	inch	mm	1/min.		
13	20	60	6		13	24.000	50-10206P	F03FR02003
15	20	60	6		15	24.000	50-10406P	F03FR02006
19	25,4	67,5	6		19	24.000	50-10606P	F03FR02008
16	20	60	8		16	24.000	50-10308P	F03FR02005
22	20	60	8		22	24.000	50-10808P	F03FR02010
12,7	25,4	65,4		1/4	12,7	24.000	50-10225P	F03FR02004
15,88	25,4	65,4		1/4	15,88	24.000	50-10425P	F03FR02007
19	25,4	68,5		1/4	19	24.000	50-10625P	F03FR02009



# FLUSH TRIM BITS

42- 44-



Hand-held Routers

Table Routers



Softwood

Hardwood

Plywood

Wood Based Panels



**Machines:**

Hand-held routers and table routers.

**Materials:**

Softwood, hardwood, plywood and wood based panels.

**Applications:**

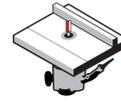
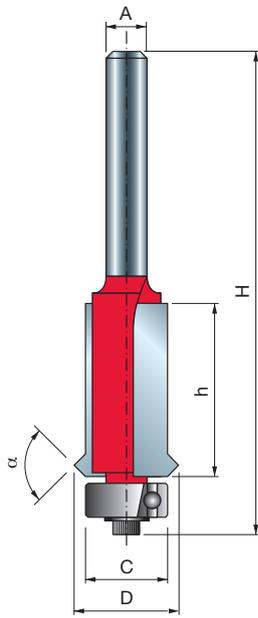
Use these bits for precise trim work on laminated counter tops, to follow patterns and to create or duplicate complex shapes.

D mm	h mm	H mm	mm	A inch	C mm	Z	Max RPM 1/min.	Freud Code	Art. No.
9,53	12,7	60,9	6		9,53	2	24.000	42-10206P	F03FR01935
9,53	25,8	72,4	6		9,53	2	24.000	42-10006P	F03FR01932
12,7	25,7	72,9	6		12,7	2	24.000	42-10406P	F03FR01938
9,53	12,7	60,9	8		9,53	2	24.000	42-10208P	F03FR01936
9,53	25,8	72,4	8		9,53	2	24.000	42-10008P	F03FR01933
12,7	25,7	72,9	8		12,7	2	24.000	42-10408P	F03FR01939
12,7	40	84	8		12,7	2	24.000	42-11508P	F03FR02771
12,7	25,4	82,5	12		12,7	2	24.000	42-11012P	F03FR01942
12,7	38,5	94,1	12		12,7	2	24.000	42-11412P	F03FR01944
12,7	50,8	106,8	12		12,7	2	24.000	42-11612P	F03FR01946
9,53	12,7	60,9		1/4	9,53	2	24.000	42-10225P	F03FR01937
9,53	25,8	72,4		1/4	9,53	2	24.000	42-10025P	F03FR01934
12,7	12,7	60,2		1/4	12,7	2	24.000	42-10625P	F03FR01941
12,7	25,7	72,9		1/4	12,7	2	24.000	42-10425P	F03FR01940
12,7	25,7	82,5		1/2	12,7	2	24.000	42-11050P	F03FR01943
12,7	38,5	94,1		1/2	12,7	2	24.000	42-11450P	F03FR01945
12,7	50,8	109,8		1/2	12,7	2	24.000	42-11650P	F03FR01947
12,7	38,5	94,1		1/2	12,7	3	24.000	44-10850P	F03FR01952



# FLUSH TRIM "V" GROOVE BITS

48-



Hand-held Routers

Table Routers



Softwood

Hardwood

Plywood

Wood Based Panels

D mm	h mm	H mm	A mm	C mm	$\alpha$	Z	Max RPM 1/min.	Freud Code	Art. No.
15,88	25,4	76,2	6	12,7	90°	2	20.000	48-10206P	F03FR02000
15,88	25,4	76,2	8	12,7	90°	2	24.000	48-10208P	F03FR02001
15,88	25,4	87,2	12	12,7	90°	2	24.000	48-11212P	F03FR02002



**Machines:**  
Hand-held routers and table routers.

**Materials:**  
Softwood, hardwood, plywood and wood based panels.

**Applications:**  
Flush trimming bits rout a small, decorative "V" groove on the workpiece.



# PANEL PILOT BITS

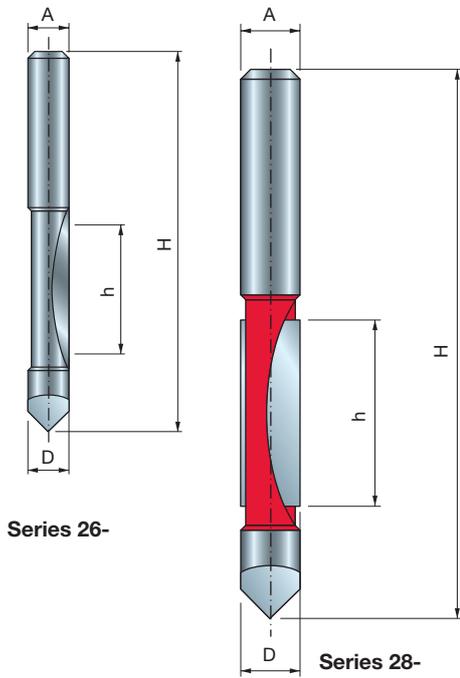
26- 28-



Hand-held Routers



Softwood    Hardwood    Plywood    Wood Based Panels



Series 26-

Series 28-

D mm	h mm	H mm	A mm	A inch	Z	Max RPM 1/min.	Freud Code	Art. No.
6	19	57	6		1	24.000	<b>26-10006P</b>	F03FR01664
8	19	75	8		1	24.000	<b>26-10008P</b>	F03FR01665
12,7	31,75	96,2	12		2	24.000	<b>28-10412P</b>	F03FR01692
6,35	19	57		1/4	1	24.000	<b>26-10025P</b>	F03FR01666
12,7	31,75	96,2		1/2	2	24.000	<b>28-10450P</b>	F03FR01693

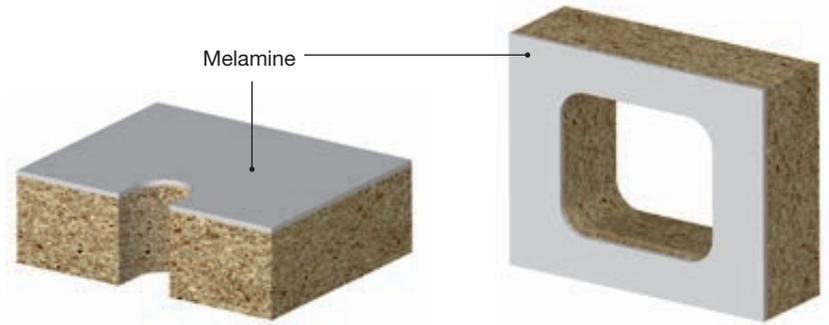
- Solid Carbide Bits



**Machines:**  
Hand-held routers.

**Materials:**  
Softwood, hardwood, plywood and wood based panels.

**Applications:**  
Panel pilot bits are a fast, efficient solution for cutting openings and trimming in panelling and other applications.



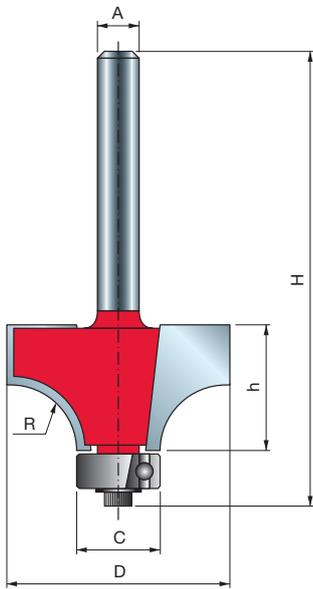
# Edge Forming Bits



0.713.0°

# ROUNDING OVER BITS

34- 36-



**Machines:**

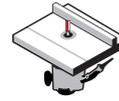
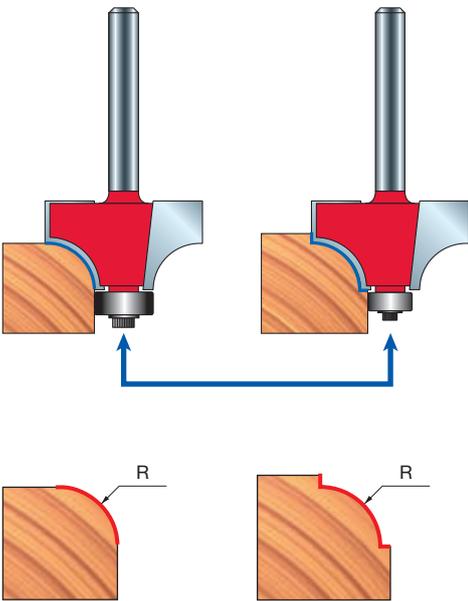
Hand-held routers and table routers.

**Materials:**

Softwood, hardwood, plywood and wood based panels.

**Applications:**

Rounding over bits soften sharp edges of any workpiece.



Hand-held Routers

Table Routers



Softwood

Hardwood

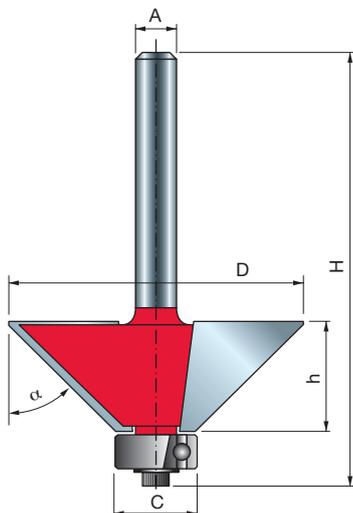
Plywood

Wood Based Panels

D	h	H	A	C	R	Z	Max RPM	Freud Code	Art. No.	
mm	mm	mm	mm	inch	mm	mm	1/min.			
15,88	12,7	54,9	6		12,7	1,59	2	24.000	34-10006P	F03FR01763
16,7	12,7	54,9	6		12,7	2	2	24.000	34-10106P	F03FR02766
19,05	12,7	55,2	6		12,7	3,18	2	24.000	34-10406P	F03FR01768
22,22	12,7	54,9	6		12,7	4,8	2	24.000	34-10806P	F03FR01771
25,4	12,7	54,7	6		9,53	6,35	2	24.000	36-11006P	F03FR01803
25,4	12,7	55,2	6		12,7	6,35	2	24.000	34-11006P	F03FR01774
28,58	12,7	55,2	6		12,7	8	2	18.000	34-11206P	F03FR01777
31,75	18	59,7	6		12,7	9,53	2	18.000	34-11406P	F03FR01780
31,75	18	59,2	6		9,53	9,53	2	18.000	36-11406P	F03FR01804
38,1	19,1	61,25	6		12,7	12,7	2	16.000	34-11606P	F03FR01783
15,88	12,7	54,9	8		12,7	1,59	2	24.000	34-10008P	F03FR01764
16,7	12,7	54,9	8		12,7	2	2	24.000	34-10108P	F03FR01766
18,7	12,7	54,9	8		12,7	3	2	24.000	34-10308P	F03FR01767
19,05	12,7	55,2	8		12,7	3,18	2	24.000	34-10408P	F03FR01769
22,22	13,2	54,9	8		12,7	4,75	2	24.000	34-10808P	F03FR01772
25,4	12,7	55,2	8		12,7	6,35	2	24.000	34-11008P	F03FR01775
28,58	12,7	55,2	8		12,7	7,94	2	18.000	34-11208P	F03FR01778
31,75	18	59,7	8		12,7	9,5	2	18.000	34-11408P	F03FR01781
38,1	19,1	61,25	8		12,7	12,7	2	16.000	34-11608P	F03FR01784
44,44	22,2	64,72	8		12,7	15,8	2	16.000	34-12708P	F03FR01793
25,4	12,7	61,2	12		12,7	6,35	2	24.000	34-12012P	F03FR01786
31,75	18	65,7	12		12,7	9,53	2	18.000	34-12412P	F03FR01788
38,1	19,05	67,25	12		12,7	12,7	2	16.000	34-12612P	F03FR01791
44,44	22,22	70,72	12		12,7	15,8	2	16.000	34-12712P	F03FR01794
50,8	25,4	73,9	12		12,7	19	2	16.000	34-12812P	F03FR01796
57,15	31,4	79,85	12		12,7	22,2	2	16.000	34-13012P	F03FR01798
63,5	31,3	79,75	12		12,7	25,4	2	12.000	34-13212P	F03FR01799
69,85	34,9	83,3	12		12,7	28,6	2	12.000	34-13412P	F03FR01801
76,2	38,1	86,6	12		12,7	31,8	2	12.000	34-13612P	F03FR01802
15,88	12,7	54,9		1/4	12,7	1,59	2	24.000	34-10025P	F03FR01765
19,05	12,7	55,2		1/4	12,7	3,18	2	24.000	34-10425P	F03FR01770
22,22	13,2	54,9		1/4	12,7	4,25	2	24.000	34-10825P	F03FR01773
25,4	12,7	55,2		1/4	12,7	6,35	2	24.000	34-11025P	F03FR01776
28,58	12,7	55,2		1/4	12,7	7,94	2	18.000	34-11225P	F03FR01779
31,75	18	59,7		1/4	12,7	9,53	2	18.000	34-11425P	F03FR01782
38,1	19,1	61,25		1/4	12,7	12,7	2	16.000	34-11625P	F03FR01785
25,4	12,7	61,2		1/2	12,7	6,35	2	24.000	34-12050P	F03FR01787
31,75	18	65,7		1/2	12,7	9,53	2	18.000	34-12450P	F03FR01790
38,1	19,1	67,25		1/2	12,7	12,7	2	16.000	34-12650P	F03FR01792
44,44	22,2	70,7		1/2	12,7	15,87	2	16.000	34-12750P	F03FR01795
50,8	25,4	73,9		1/2	12,7	19,05	2	16.000	34-12850P	F03FR01797
63,5	31,25	79,8		1/2	12,7	25,4	2	12.000	34-13250P	F03FR01800

By ordering a smaller ball bearing and step washer you will be able to obtain a different profile:

- The Ball bearing **3102M AA9** (Ø 9,53 mm) and the Step washer **FX07M AA9** for series 34-
- The Ball bearing **3102M AB9** (Ø 12,7 mm) and the Step washer **FX07M AB9** for series 36-



**Machines:**

Hand-held routers, table routers and CNC machines.

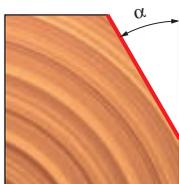
Bits with ball bearing are not recommended to be used on CNC machines.

**Materials:**

Softwood, hardwood, plywood and wood based panels.

**Applications:**

Easing edges, chamfer bits create a uniform chamfer on the edge of any workpiece.



# CHAMFER BITS

40-



Hand-held Routers

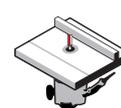
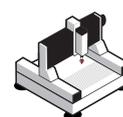


Table Routers



CNC Machines



Softwood



Hardwood



Plywood



Wood Based Panels



Wood Based Panels



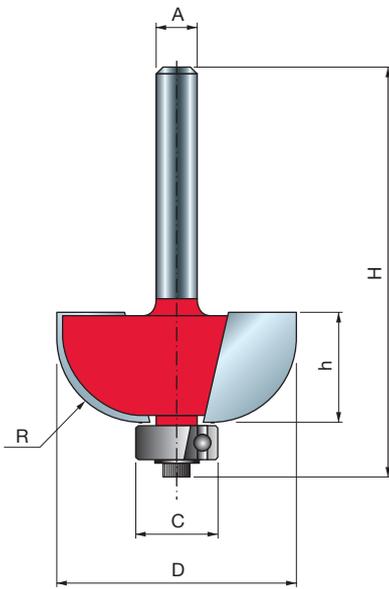
Wood Based Panels

D	h	H	A	C	α	Z	Max RPM	Freud Code	Art. No.	
mm	mm	mm	mm	inch	mm		1/min.			
18,15	12,7	54,9	6		12,7	15°	2	24.000	40-10006P	F03FR01906
21,77	25	67,3	6		12,7	11.3°	2	24.000	40-09406P	F03FR01900
23,6	12,7	54,9	6		12,7	25°	2	24.000	40-10206P	F03FR01912
24	12	44	6		•	30°	2	24.000	40-90206P	F03FR01929
24	14	46	6		•	15°	2	24.000	40-90006P	F03FR01927
25	8	40,3	6		•	45°	2	24.000	40-90406P	F03FR01931
25,4	25,1	67,25	6		12,7	15°	2	24.000	40-09806P	F03FR01903
30,1	22,5	64,7	6		12,7	22.5°	2	18.000	40-10106P	F03FR01909
31	9,5	52,3	6		12,7	45°	2	18.000	40-10506P	F03FR01917
33	11,5	54	6		12,7	45°	2	16.000	40-10406P	F03FR01914
33	19	61,6	6		12,7	30°	2	16.000	40-20206P	F03FR01925
44	18,5	61	6		12,7	45°	2	16.000	40-10606P	F03FR01919
18,15	12,7	54,9	8		12,7	15°	2	24.000	40-10008P	F03FR01907
21,77	25	67,3	8		12,7	11.3°	2	24.000	40-09408P	F03FR01901
23,6	12,7	54,9	8		12,7	25°	2	24.000	40-10208P	F03FR01913
24	12	44	8		•	30°	2	24.000	40-90208P	F03FR01930
24	14	46	8		•	15°	2	24.000	40-90008P	F03FR01928
25	8	40,3	8		•	45°	2	24.000	40-90408P	F03FR03255
25,4	25,1	67,25	8		12,7	15°	2	24.000	40-09808P	F03FR01904
30,1	22,5	64,7	8		12,7	22.5°	2	18.000	40-10108P	F03FR01910
31	9,5	52,3	8		12,7	45°	2	18.000	40-10508P	F03FR01918
33	11,5	54	8		12,7	45°	2	16.000	40-10408P	F03FR01915
33	19	61,6	8		12,7	30°	2	16.000	40-20208P	F03FR01926
44	18,5	61	8		12,7	45°	2	16.000	40-10608P	F03FR01920
21,77	25	73,3	12		12,7	11.3°	2	24.000	40-09412P	F03FR01902
25,4	25,1	73,25	12		12,7	15°	2	24.000	40-09812P	F03FR01905
30,1	22,5	70,7	12		12,7	22.5°	2	18.000	40-10112P	F03FR01911
44	18,5	67	12		12,7	45°	2	16.000	40-11412P	F03FR01922
62,1	25,5	74	12		12,7	45°	2	12.000	40-11812P	F03FR01924
18,15	12,7	54,9		1/4	12,7	15°	2	24.000	40-10025P	F03FR01908
33	11,5	53,9		1/4	12,7	45°	2	24.000	40-10425P	F03FR01916
41,5	15,9	58,4		1/4	12,7	45°	2	16.000	40-10625P	F03FR01921
43	18,5	67		1/2	12,7	45°	2	16.000	40-11450P	F03FR01923

- Without ball bearing.

# COVE BITS

30-



**Machines:**

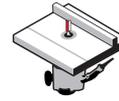
Hand-held routers and table routers.

**Materials:**

Softwood, hardwood, plywood and wood based panels.

**Applications:**

Decorative concave edge for traditional furniture.



Hand-held Routers

Table Routers



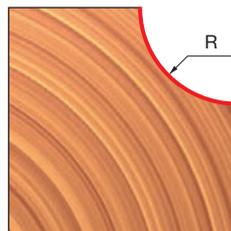
Softwood

Hardwood

Plywood

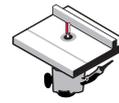
Wood Based Panels

D	h	H	A	C	R	Z	Max RPM	Freud Code	Art. No.	
mm	mm	mm	mm	inch	mm	mm	1/min.			
19,05	14	56	6		9,53	4,76	2	24.000	30-10006P	F03FR01694
22,23	13,2	54,7	6		9,53	6,35	2	24.000	30-10206P	F03FR01697
25,4	12,7	54,7	6		9,53	8	2	24.000	30-10306P	F03FR01700
31,75	12,7	55,2	6		12,7	9,53	2	18.000	30-10406P	F03FR01703
38,1	16,4	58,9	6		12,7	12,7	2	16.000	30-10606P	F03FR01706
19,05	14	56	8		9,53	4,75	2	24.000	30-10008P	F03FR01695
22,23	13,2	54,7	8		9,53	6,35	2	24.000	30-10208P	F03FR01698
25,4	12,7	54,7	8		9,53	8	2	24.000	30-10308P	F03FR01701
31,75	12,7	55,2	8		12,7	9,53	2	18.000	30-10408P	F03FR01704
38,1	16,4	58,9	8		12,7	12,7	2	16.000	30-10608P	F03FR01707
19,05	14	62,4	12		9,53	4,75	2	24.000	30-10012P	F03FR01696
22,23	12,7	60,7	12		9,53	6,35	2	24.000	30-11012P	F03FR01709
25,4	12,7	60,7	12		9,53	8	2	24.000	30-11112P	F03FR01710
31,75	12,7	61,2	12		12,7	9,5	2	18.000	30-11212P	F03FR01711
38,1	16,4	64,9	12		12,7	12,7	2	16.000	30-11412P	F03FR01713
22,23	13,2	54,7		1/4	9,53	6,35	2	24.000	30-10225P	F03FR01699
25,4	12,7	54,7		1/4	9,53	7,94	2	24.000	30-10325P	F03FR01702
31,75	12,7	55,2		1/4	12,7	9,5	2	18.000	30-10425P	F03FR01705
38,1	16,4	58,9		1/4	12,7	12,7	2	16.000	30-10625P	F03FR01708
31,75	12,7	61,2		1/2	12,7	9,53	2	18.000	30-11250P	F03FR01712
38,1	16,4	64,9		1/2	12,7	12,7	2	16.000	30-11450P	F03FR01714



# CLASSICAL COVE BITS

30-



Hand-held Routers

Table Routers



Softwood

Hardwood

Plywood

Wood Based Panels

D mm	h mm	H mm	A mm	C mm	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
28,58	13	54,2	6	9,53	4,8	2	18.000	<b>30-30406P</b>	F03FR01719
31,75	15,1	56,8	6	9,53	4,8	2	18.000	<b>30-20206P</b>	F03FR01715
28,58	13	54,2	8	9,53	4,8	2	18.000	<b>30-30408P</b>	F03FR01720
31,75	15,1	56,8	8	9,53	8	2	18.000	<b>30-20208P</b>	F03FR01716
28,58	13	60,2	12	9,53	4,8	2	18.000	<b>30-32412P</b>	F03FR01722
31,75	15,1	62,8	12	9,53	8	2	18.000	<b>30-22212P</b>	F03FR01718



**Machines:**

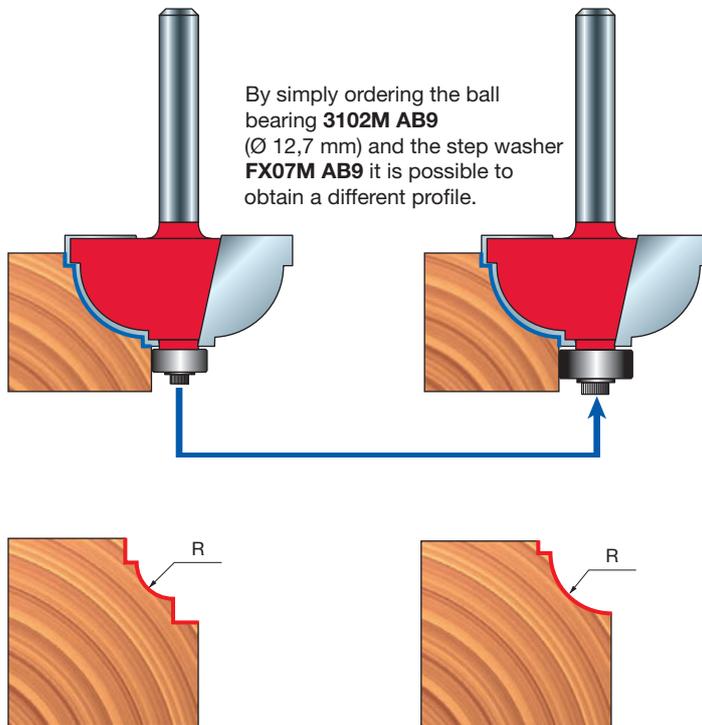
Hand-held routers and table routers.

**Materials:**

Softwood, hardwood, plywood and wood based panels.

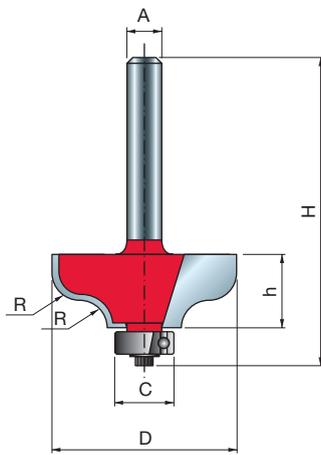
**Applications:**

Enhance edges and corners by adding an attractive cove profile, with a small fillet at the top and bottom.



# OGEE FILLET BITS

38- 99-



Hand-held Routers

Table Routers



Softwood    Hardwood    Plywood    Wood Based Panels



**Machines:**

Hand-held routers and table routers.

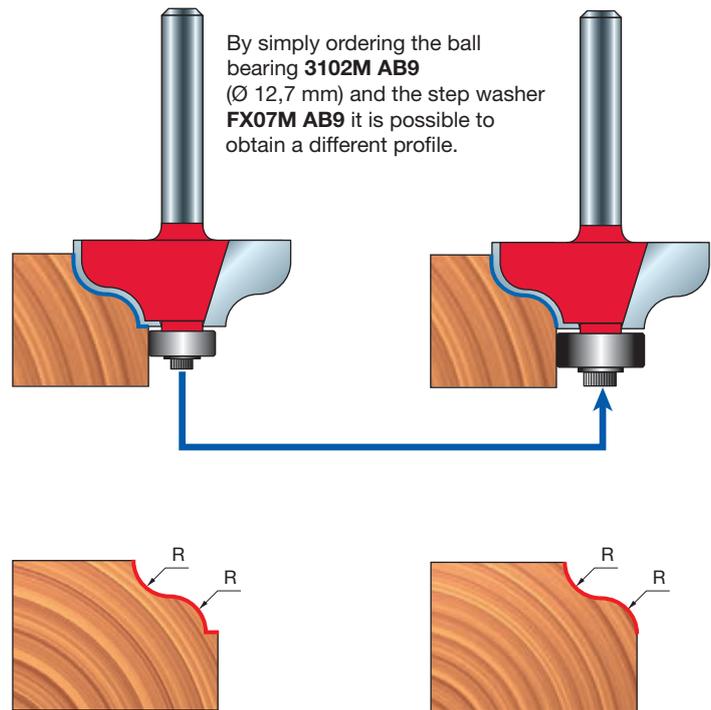
**Materials:**

Softwood, hardwood, plywood and wood based panels.

**Applications:**

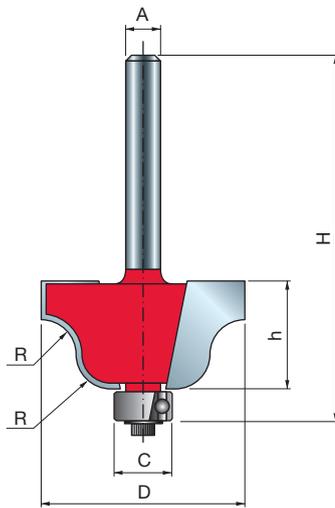
Decorative edge detail on any workpiece.

D	h	H	A	C	R	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	inch	mm	mm	1/min.		
31,75	12,2	53,9	6	9,53	4,8	2	18.000	<b>38-20206P</b>	F03FR01815
38,1	16,2	57,4	6	9,53	6,35	2	16.000	<b>38-20406P</b>	F03FR01818
31,75	12,2	53,9	8	9,53	4,8	2	18.000	<b>38-20208P</b>	F03FR01816
38,1	16,2	57,4	8	9,53	6,35	2	16.000	<b>38-20408P</b>	F03FR01819
31,75	12,2	59,9	12	9,53	4,8	2	18.000	<b>38-21212P</b>	F03FR01821
38,1	16,2	63,4	12	9,53	6,35	2	16.000	<b>38-21412P</b>	F03FR01822
31,75	12,2	53,9	1/4	9,53	4,76	2	18.000	<b>38-20225P</b>	F03FR01817
31,75	12,2	54,4	1/4	12,7	4,76	2	18.000	<b>38-15225P</b>	F03FR01814
38,1	16,2	57,4	1/4	9,53	6,35	2	16.000	<b>38-20425P</b>	F03FR01820
38,1	16,5	64,7	1/2	12,7	8,25	2	16.000	<b>99-00650P</b>	F03FR02412



## ROMAN OGEE BITS

38-



**Machines:**

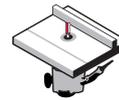
Hand-held routers and table routers.

**Material:**

Softwood, hardwood, plywood and wood based panels.

**Applications:**

Decorative edge detail on any workpiece.



Hand-held Routers

Table Routers



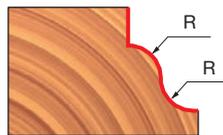
Softwood

Hardwood

Plywood

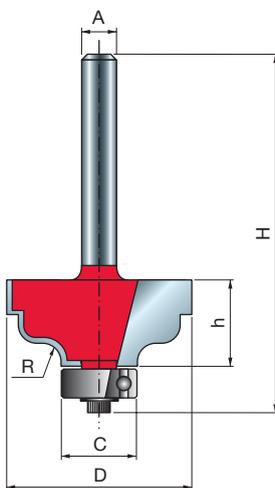
Wood Based Panels

D	h	H	A	C	R	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	inch	mm	mm	1/min.		
27	13,3	55,3	6	9,53	4	2	18.000	<b>38-10006P</b>	F03FR01805
35	18,5	60,5	6	9,53	6,35	2	16.000	<b>38-10206P</b>	F03FR01808
27	13,3	55,3	8	9,53	4	2	18.000	<b>38-10008P</b>	F03FR01806
35	18,5	60,5	8	9,53	6,35	2	16.000	<b>38-10208P</b>	F03FR01809
27	13,3	61,31	12	9,53	4	2	18.000	<b>38-10412P</b>	F03FR01811
35	18,5	66,5	12	9,53	6,35	2	16.000	<b>38-10612P</b>	F03FR01812
27	13,3	55,3	1/4	9,53	4	2	18.000	<b>38-10025P</b>	F03FR01807
35	18,5	66,5	1/4	9,53	6,35	2	16.000	<b>38-10225P</b>	F03FR01810
35	18,5	66,5	1/2	9,53	6,35	2	16.000	<b>38-10650P</b>	F03FR01813



## CLASSICAL ROMAN OGEE BITS

38- 99-



**Machines:**

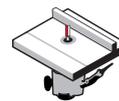
Hand-held routers and table routers.

**Materials:**

Softwood, hardwood, plywood and wood based panels.

**Applications:**

Decorative edge detail on any workpiece.



Hand-held Routers

Table Routers



Softwood

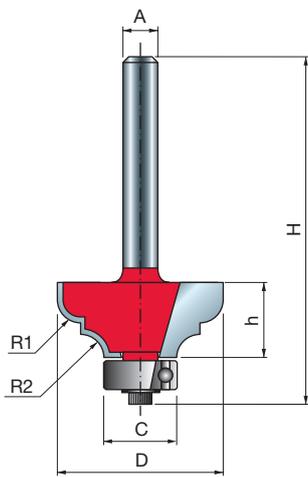
Hardwood

Plywood

Wood Based Panels

D	h	H	A	C	R	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	inch	mm	mm	1/min.		
31,75	15	56,7	6	12,7	3,18	2	18.000	<b>38-40206P</b>	F03FR01832
31,75	15	56,7	8	12,7	3,18	2	18.000	<b>38-40208P</b>	F03FR01833
34,92	14,3	62,8	12	12,7	4,8	2	16.000	<b>99-00512P</b>	F03FR02411
31,75	15	56,7	1/4	12,7	3,18	2	18.000	<b>38-40225P</b>	F03FR01834





**Machines:**  
Hand-held routers and table routers.

**Materials:**  
Softwood, hardwood, plywood and wood based panels.

**Applications:**  
Decorative edge detail on any workpiece.

## CLASSICAL OGEE BITS

38- 99-



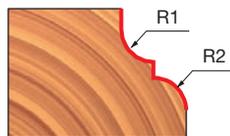
Hand-held Routers

Table Routers



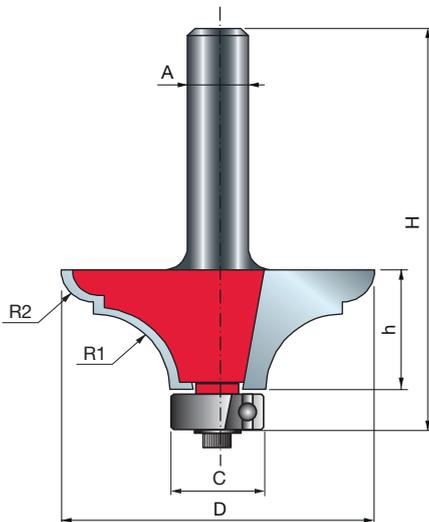
Softwood    Hardwood    Plywood    Wood Based Panels

D	h	H	A	C	R1	R2	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	inch	mm	mm		1/min.		
28,58	12,7	54,9	6	12,7	4	4	2	18.000	<b>38-60206P</b>	F03FR01838
34,92	18,3	60	6	12,7	6,35	4,76	2	16.000	<b>38-60406P</b>	F03FR01841
28,58	12,7	54,9	8	12,7	4	4	2	18.000	<b>38-60208P</b>	F03FR01839
34,92	18,3	60	8	12,7	6,35	4,76	2	16.000	<b>38-60408P</b>	F03FR01842
28,58	12,7	61,2	12	12,7	4	4	2	18.000	<b>38-61212P</b>	F03FR01843
34,92	17,5	65,7	12	12,7	6,35	4,76	2	16.000	<b>38-61412P</b>	F03FR01844
28,58	12,7	54,9		1/4	12,7	3,97	2	18.000	<b>38-60225P</b>	F03FR01840
34,93	14,7	62,4		1/2	9,53	5,35	2	16.000	<b>99-00950P</b>	F03FR02415
34,92	17,5	65,7		1/2	12,7	6,35	2	16.000	<b>38-61450P</b>	F03FR01845



## TABLE TOP CLASSICAL BOLD BITS

99-



**Machines:**  
Hand-held routers and table routers.

**Materials:**  
Softwood, hardwood, plywood and wood based panels.

**Applications:**  
Create a bold effect on furniture of all types.



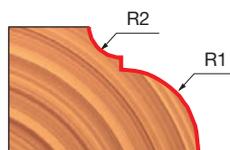
Hand-held Routers

Table Routers



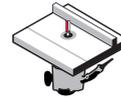
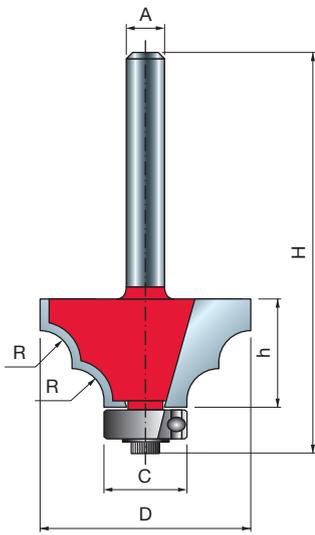
Softwood    Hardwood    Plywood    Wood Based Panels

D	h	H	A	C	R1	R2	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	mm	mm	mm		1/min.		
41,3	15,9	58,4	8	12,7	10	4,3	2	16.000	<b>99-01108P</b>	F03FR02416
41,3	15,9	64,4	12	12,7	10	4,3	2	16.000	<b>99-01112P</b>	F03FR02417



# DOUBLE BEAD BITS

38-



Hand-held Routers

Table Routers



Softwood

Hardwood

Plywood

Wood Based Panels



D	h	H	A	C	R	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	mm	mm		1/min.		
32,7	15	57,2	6	12,7	5	2	16.000	38-90006P	F03FR01852
32,7	15	57,2	8	12,7	5	2	16.000	38-90008P	F03FR01853

**Machines:**

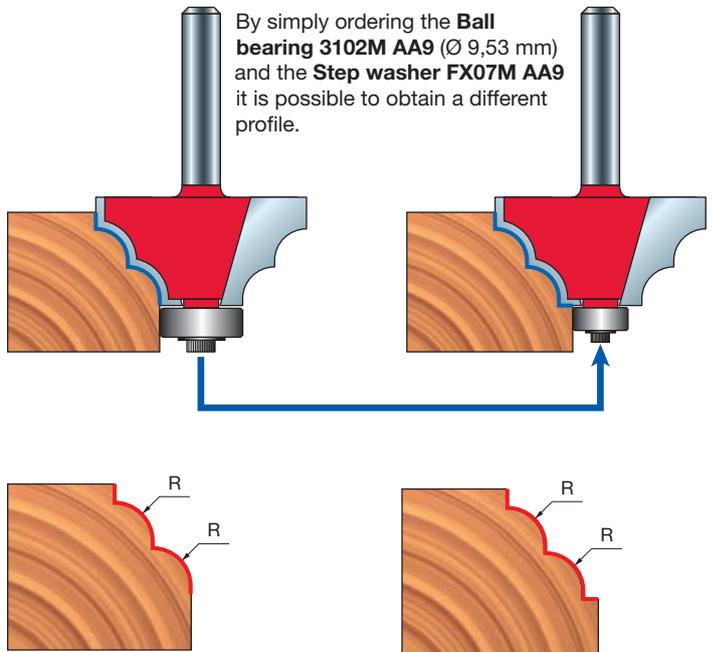
Hand-held routers and table routers.

**Materials:**

Softwood, hardwood, plywood and wood based panels.

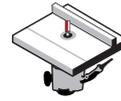
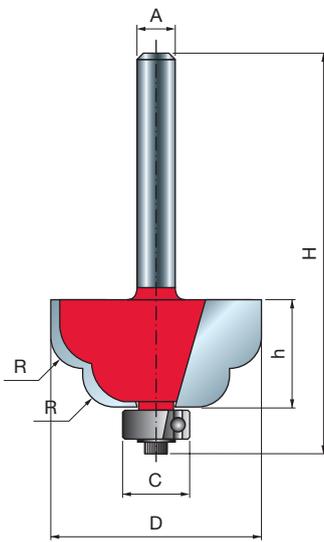
**Applications:**

Create two beads in one pass in the surface of the workpiece.



# DOUBLE COVE BITS

38-



Hand-held Routers

Table Routers



Softwood

Hardwood

Plywood

Wood Based Panels



D mm	h mm	H mm	A mm	C mm	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
32,7	15	57,2	6	12,7	5	2	16.000	38-95006P	F03FR01854
32,7	15	57,2	8	12,7	5	2	16.000	38-95008P	F03FR01855

**Machines:**

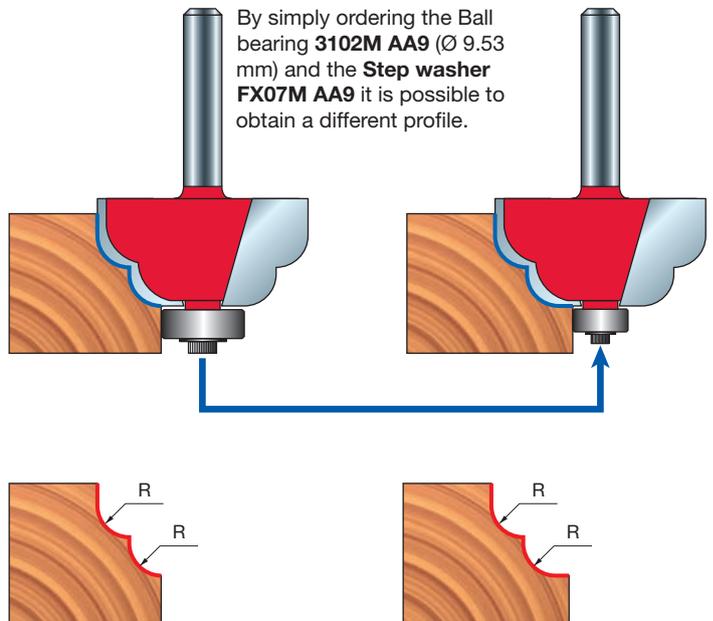
Hand-held routers and table routers.

**Materials:**

Softwood, hardwood, plywood and wood based panels.

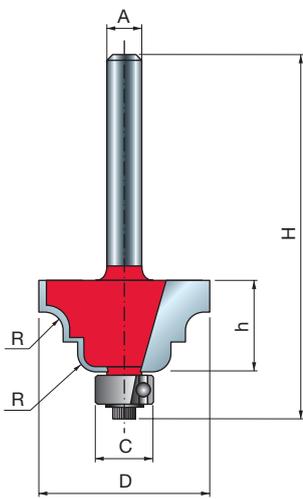
**Applications:**

Create two graceful curves to add character to the workpiece.



## COVE AND BEAD BITS

38-



### Machines:

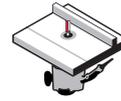
Hand-held routers and table routers.

### Materials:

Softwood, hardwood, plywood and wood based panels.

### Applications:

Decorative edge detail on any workpiece.



Hand-held Routers

Table Routers



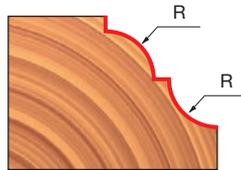
Softwood

Hardwood

Plywood

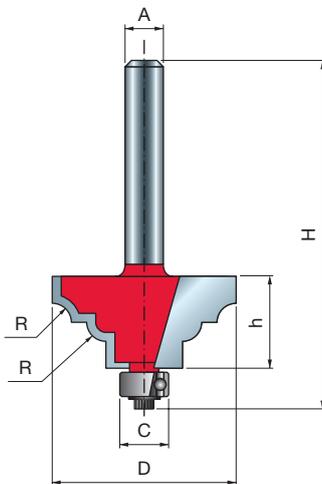
Wood Based Panels

D mm	h mm	H mm	A mm inch	C mm	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
29,38	13,5	55,5	6	9,53	3,97	2	18.000	<b>38-30606P</b>	F03FR01826
38,9	18,3	60	6	9,53	6,35	2	16.000	<b>38-30406P</b>	F03FR01823
29,38	13,5	55,5	8	9,53	3,97	2	18.000	<b>38-30608P</b>	F03FR01827
38,9	18,3	60	8	9,53	6,35	2	16.000	<b>38-30408P</b>	F03FR01824
29,38	13,5	61,2	12	9,53	3,97	2	18.000	<b>38-31212P</b>	F03FR01829
38,92	18,3	66	12	9,53	6,35	2	16.000	<b>38-31412P</b>	F03FR01831
38,9	18,3	60,8	1/4	9,53	6,35	2	16.000	<b>38-30425P</b>	F03FR01825



## FILLET COVE AND BEAD BITS

38-



### Machines:

Hand-held routers and table routers.

### Materials:

Softwood, hardwood, plywood and wood based panels.

### Applications:

Decorative edge detail on any workpiece.



Hand-held Routers

Table Routers



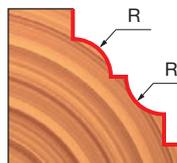
Softwood

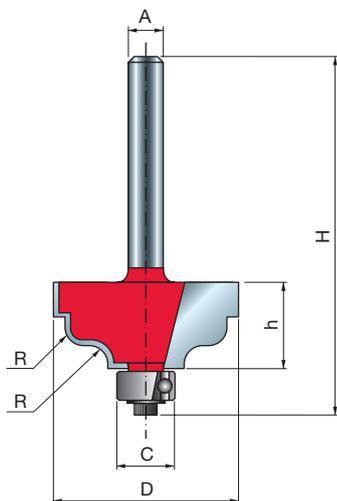
Hardwood

Plywood

Wood Based Panels

D mm	h mm	H mm	A mm	C mm	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
32,7	14,5	56,7	6	12,7	3	2	16.000	<b>38-80006P</b>	F03FR01846
36,7	16,5	58,7	6	12,7	4	2	16.000	<b>38-80206P</b>	F03FR01848
40,7	18	60,2	6	12,7	5	2	16.000	<b>38-80406P</b>	F03FR01850
32,7	14,5	56,7	8	12,7	3	2	16.000	<b>38-80008P</b>	F03FR01847
36,7	16,5	58,7	8	12,7	4	2	16.000	<b>38-80208P</b>	F03FR01849
40,7	18	60,2	8	12,7	5	2	16.000	<b>38-80408P</b>	F03FR01851





**Machines:**

Hand-held routers and table routers.

**Materials:**

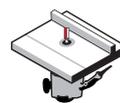
Softwood, hardwood, plywood and wood based panels.

**Applications:**

Decorative edge detail on any workpiece.

## DOUBLE FILLET OGEE BITS

38-



Hand-held Routers

Table Routers



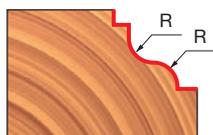
Softwood

Hardwood

Plywood

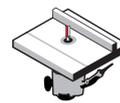
Wood Based Panels

D mm	h mm	H mm	A mm	A inch	C mm	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
31,75	15	56,2	6		9,53	3,18	2	18.000	38-45206P	F03FR01835
31,75	15	56,2	8		9,53	3,18	2	18.000	38-45208P	F03FR01836
31,75	15	56,2		1/4	9,53	3,18	2	18.000	38-45225P	F03FR01837



## TRADITIONAL BEADING BITS

80-



Hand-held Routers

Table Routers



Softwood

Hardwood

Plywood

Wood Based Panels

D mm	h mm	H mm	A mm	C mm	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
22,23	14,3	56,9	6	12,7	3,18	2	24.000	80-10206P	F03FR02192
25,4	17,5	60	6	12,7	4,76	2	24.000	80-10406P	F03FR02195
30,17	22,2	64,2	6	12,7	7,14	2	18.000	80-10806P	F03FR02198
22,23	14,3	57,1	8	12,7	3,18	2	24.000	80-10208P	F03FR02193
25,4	17,5	60	8	12,7	4,76	2	24.000	80-10408P	F03FR02196
30,17	22,2	64,2	8	12,7	7,14	2	18.000	80-10808P	F03FR02199
22,23	14,3	62,9	12	12,7	3,18	2	24.000	80-12212P	F03FR02201
25,4	17,5	66,4	12	12,7	4,76	2	24.000	80-12412P	F03FR02203
30,17	22,2	70,6	12	12,7	7,14	2	18.000	80-12812P	F03FR02204



**Machines:**

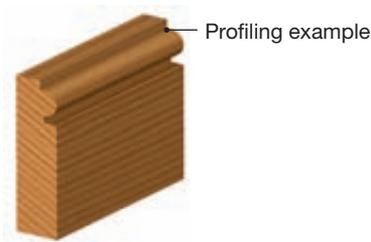
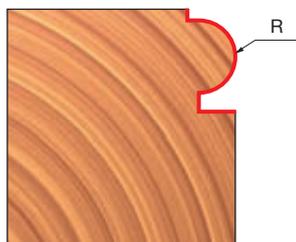
Hand-held routers and table routers.

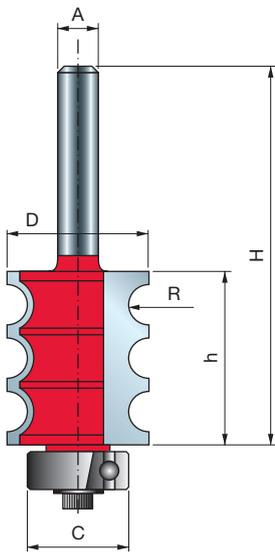
**Materials:**

Softwood, hardwood, plywood and wood based panels.

**Applications:**

Create single beads in one pass in the surface of the workpiece.





**Machines:**

Hand-held routers and table routers.

**Materials:**

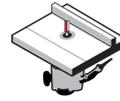
Softwood, hardwood, plywood and wood based panels.

**Applications:**

Create three beads in one pass in the surface of the workpiece.

## TRIPLE BEADING BITS

80-



Hand-held Routers

Table Routers



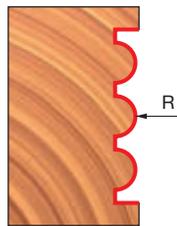
Softwood

Hardwood

Plywood

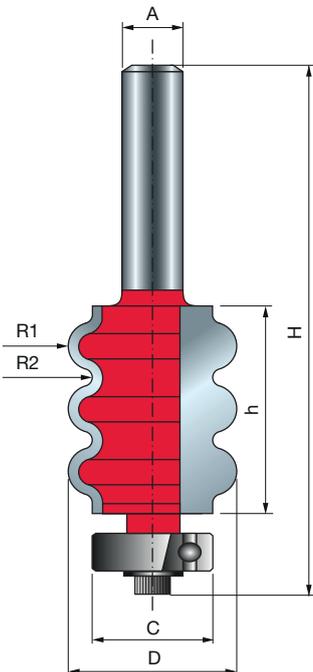
Wood Based Panels

D mm	h mm	H mm	A mm	C mm	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
22,24	27,4	70,9	6	15,88	3,18	2	18.000	80-55206P	F03FR02205
22,24	27,4	70,9	8	15,88	3,18	2	24.000	80-55208P	F03FR02206
22,24	27,4	76,9	12	15,88	3,18	2	24.000	80-57212P	F03FR02207



## TRIPLE FLUTING BITS

84-



**Machines:**

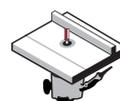
Hand-held routers and table routers.

**Materials:**

Softwood, hardwood, plywood and wood based panels.

**Applications:**

Produce multiple flutes on the workpiece.



Hand-held Routers

Table Routers



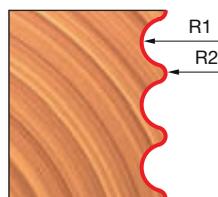
Softwood

Hardwood

Plywood

Wood Based Panels

D mm	h mm	H mm	A mm	C mm	R1 mm	R2 mm	Z	Max RPM 1/min.	Freud Code	Art. No.
22,24	27,4	70,9	6	15,88	3,18	1,16	2	24.000	84-10606P	F03FR02220
22,24	27,4	70,9	8	15,88	3,18	1,16	2	24.000	84-10608P	F03FR02221
22,24	27,4	76,9	12	15,88	3,18	1,16	2	24.000	84-12612P	F03FR02222





# TOP BEARING OGEE AND COVE MOULDING BITS

23-

**Machines:**  
Table routers.

**Materials:**  
Softwood, hardwood, plywood and wood based panels.

**Applications:**  
Decorative edge detail on any workpiece.

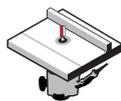
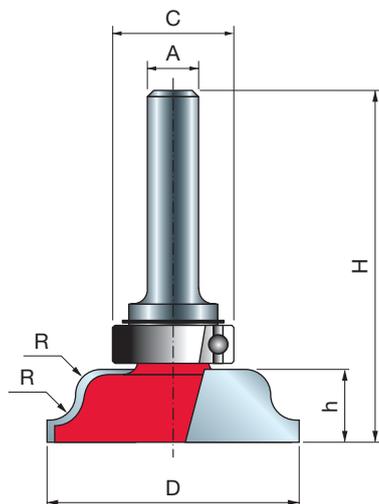


Table Routers

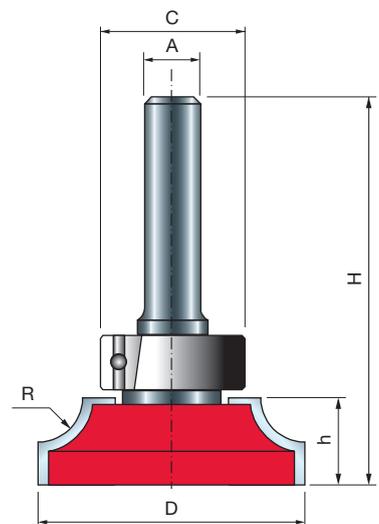
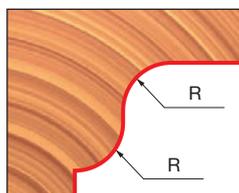


Softwood    Hardwood    Plywood    Wood Based Panels



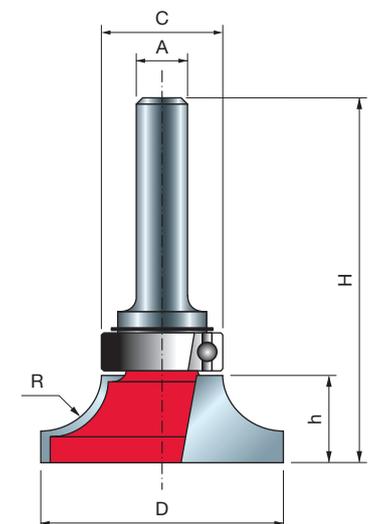
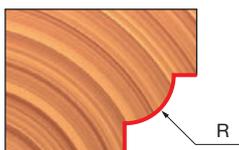
Type A

D mm	h mm	H mm	A mm	C mm	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
39,5	11,5	54,6	8	19	4	2	16.000	23-10008P	F03FR01654
39,5	11,5	58	12	19	4	2	16.000	23-10012P	F03FR01655
54	11,5	58	12	19	4	2	16.000	23-10212P	F03FR01656
60,5	17,3	63,8	12	19	6,35	2	12.000	23-10412P	F03FR01657



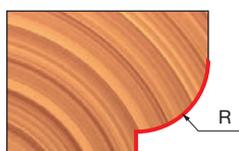
Type B

D mm	h mm	H mm	A mm	C mm	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
38	12,5	55,6	8	19	6,35	2	16.000	23-20008P	F03FR01658
38	12,5	59	12	19	6,35	2	16.000	23-20012P	F03FR01659



Type C

D mm	h mm	H mm	A mm	C mm	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
35	13,2	56,3	8	19	8	2	16.000	23-20208P	F03FR01660
38	14,5	57,6	8	19	9,53	2	16.000	23-20408P	F03FR01662
35	13,2	59,7	12	19	8	2	16.000	23-20212P	F03FR01661
38	14,5	61	12	19	9,53	2	16.000	23-20412P	F03FR01663





# TABLE EDGE AND HAND RAIL BITS

99-

**Machines:**  
Table routers.

**Materials:**  
Softwood, hardwood, plywood and wood based panels.

**Applications:**  
Rout elegant table and furniture detail, hand rail shapes and much more.



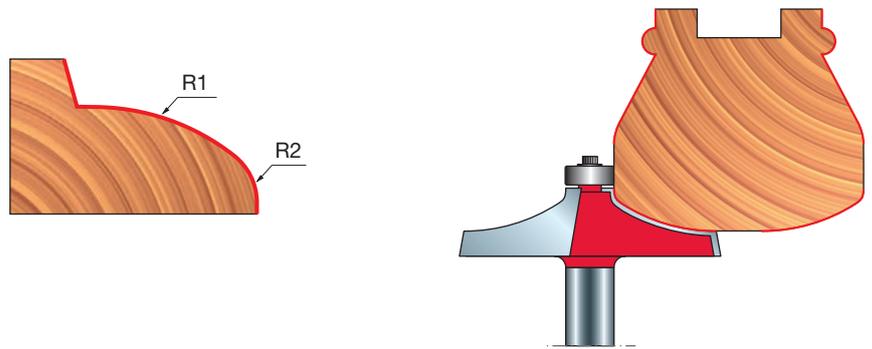
Table Routers



Softwood    Hardwood    Plywood    Wood Based Panels

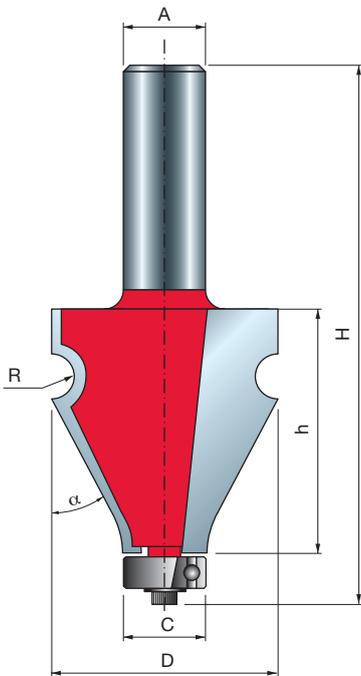
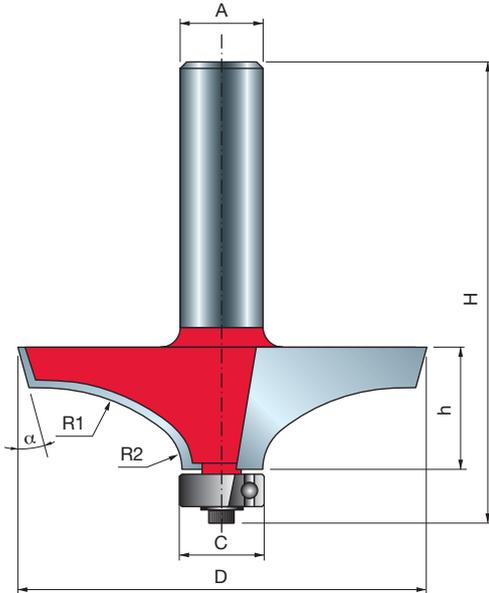
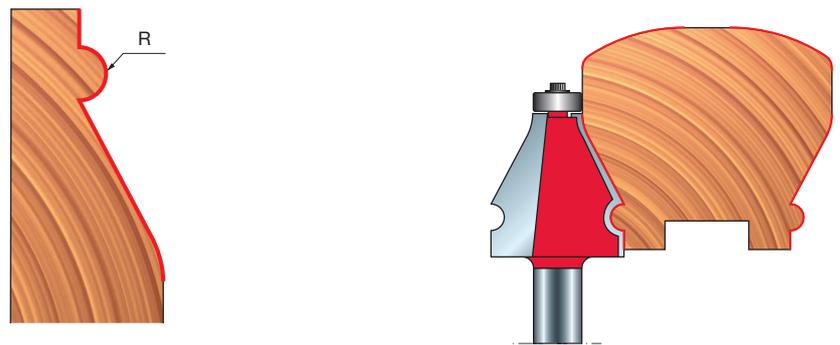
Type A

D mm	h mm	H mm	A mm	C mm	R1 mm	R2 mm	$\alpha$	Z	Max RPM 1/min.	Freud Code	Art. No.
63,5	18	66,2	12	12,7	30	8	15°	2	12.000	99-02712P	F03FR02421



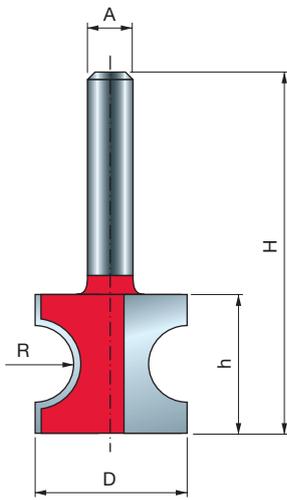
Type B

D mm	h mm	H mm	A mm	C mm	R mm	$\alpha$	Z	Max RPM 1/min.	Freud Code	Art. No.
35	38,5	86,6	12	12,7	3,18	25°	2	16.000	99-07212P	F03FR02456



# HALF ROUND BITS

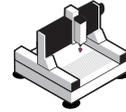
82-



Hand-held Routers



Table Routers



CNC Machines



Softwood



Hardwood



Plywood



Wood Based Panels



**Machines:**

Hand-held routers, table routers and CNC machines.

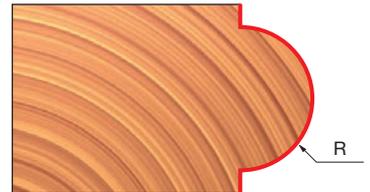
**Materials:**

Softwood, hardwood, plywood and wood based panels.

**Applications:**

Perform fully rounded semicircular edge on any workpiece.

D	h	H	A	R	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	inch		1/min.		
19	12,4	44,4	6	3,18	2	24.000	<b>82-10206P</b>	F03FR02208
22,22	19,5	51,5	6	4,8	2	24.000	<b>82-10406P</b>	F03FR02210
25,4	22,9	54,9	6	6,35	2	24.000	<b>82-10606P</b>	F03FR02213
19	12,4	44,4	8	3,18	2	24.000	<b>82-10208P</b>	F03FR02209
22,22	19,5	51,5	8	4,76	2	24.000	<b>82-10408P</b>	F03FR02211
25,4	22,9	54,9	8	6,35	2	24.000	<b>82-10608P</b>	F03FR02214
19	12,4	53,4	12	3,2	2	24.000	<b>82-11012P</b>	F03FR02215
22,22	19,5	60,5	12	4,76	2	24.000	<b>82-11212P</b>	F03FR02216
25,4	22,9	64,9	12	6,35	2	24.000	<b>82-11412P</b>	F03FR02217
37	29,05	71,05	12	9,5	2	16.000	<b>82-11612P</b>	F03FR02218
45,9	35,4	73,4	12	12,7	2	16.000	<b>82-11812P</b>	F03FR02219
22	19,5	51,5		1/4		24.000	<b>82-10425P</b>	F03FR02212





# MULTI-PROFILE BITS

99-

**Machines:**  
Table routers.

**Materials:**  
Softwood, hardwood, plywood and wood based panels.

**Applications:**  
Produce an endless number of profile designs by varying the height and fence settings and making multiple passes.

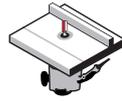
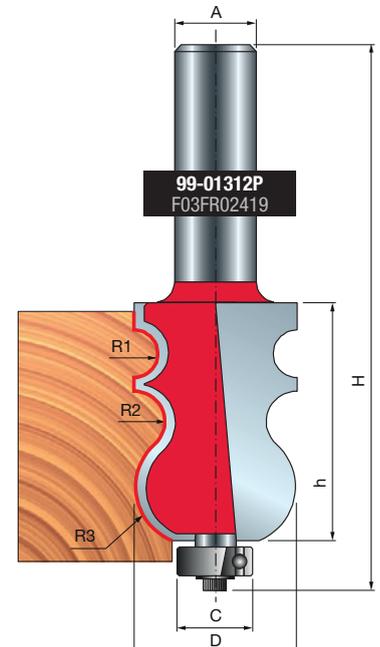
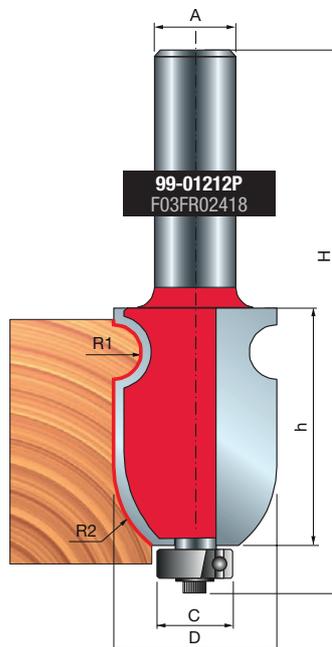
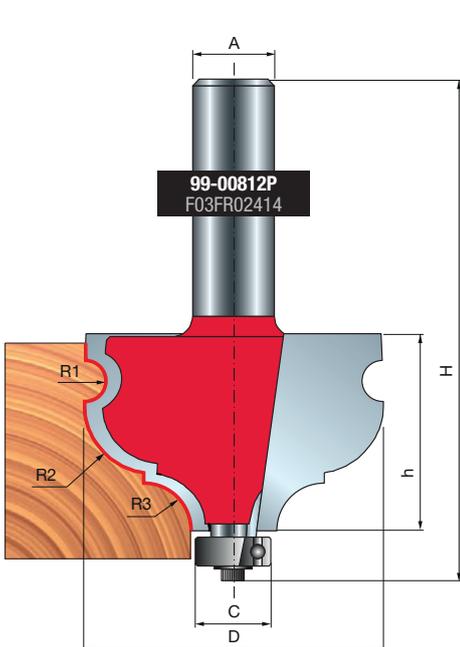
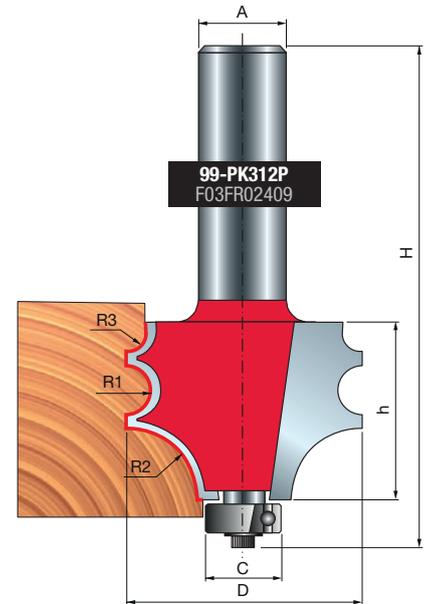
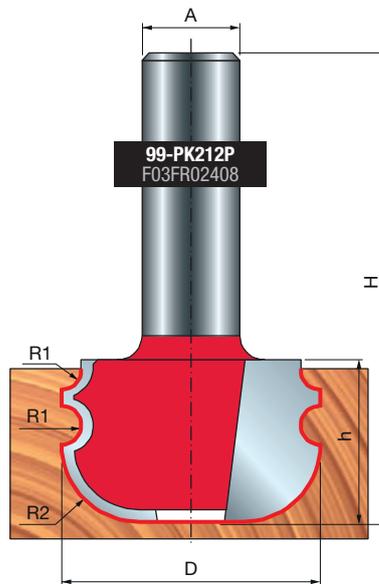
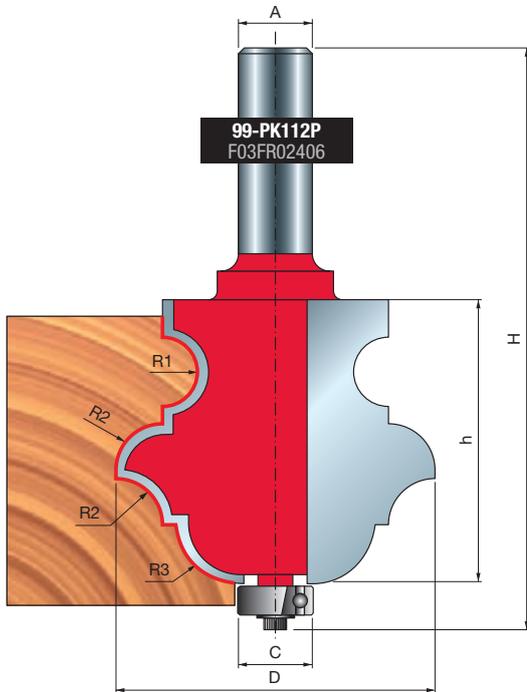


Table Routers



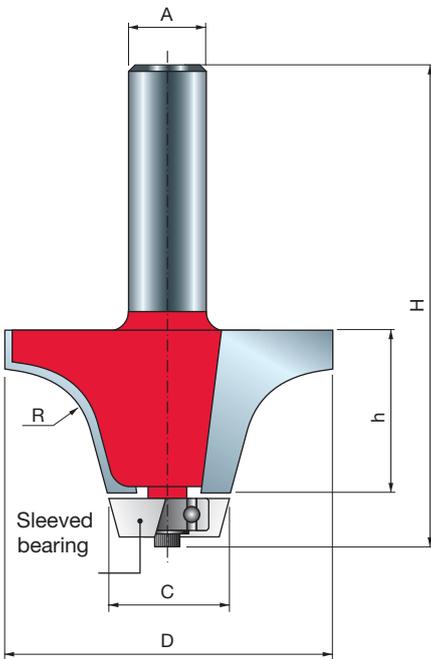
Softwood    Hardwood    Plywood    Wood Based Panels

D	h	H	A	C	R1	R2	R3	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	mm	mm	mm	mm		1/min.		
54,7	49	102	12	12,7	6	8	10	2	10.000	99-PK112P	F03FR02406
31,75	20	58	12	-	2,4	9,53	-	2	18.000	99-PK212P	F03FR02408
31,75	23,8	72	12	12,7	3,2	9,53	2,4	2	18.000	99-PK312P	F03FR02409
44,44	29	77,1	12	12,7	3	10,5	7	2	16.000	99-00812P	F03FR02414
23,8	35	83,5	12	12,7	4	15	-	2	24.000	99-01212P	F03FR02418
23,8	35	83,5	12	12,7	3,5	4,5	8,5	2	24.000	99-01312P	F03FR02419



# ROUND OVER BOWL BITS

85-



Hand-held Routers



Table Routers



Softwood



Hardwood



Plywood



Wood Based Panels



Wood Based Panels



Solid Surfaces

D	h	H	A	C	R	Z	Max RPM	Freud Code	Art. No.	
mm	mm	mm	mm	inch	mm		1/min.			
54	25,4	74,6	12		22,2	12,7	2	16.000	85-00112P	F03FR02223
57,2	31,8	81	12		22,2	12,7	2	12.000	85-00312P	F03FR02225
50,8	25,4	73,6		1/2	19,1	12,7	2	16.000	85-00150P	F03FR02224



**Machines:**

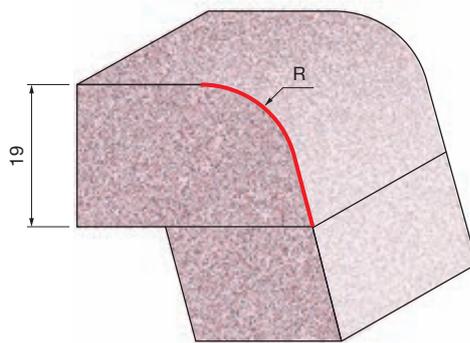
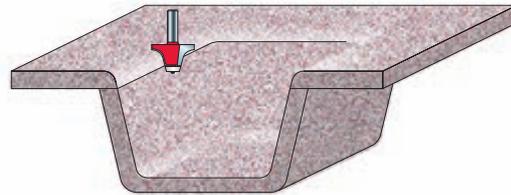
Hand-held routers and table routers.

**Materials:**

Softwood, hardwood, plywood, wood composites and all solid surface materials.

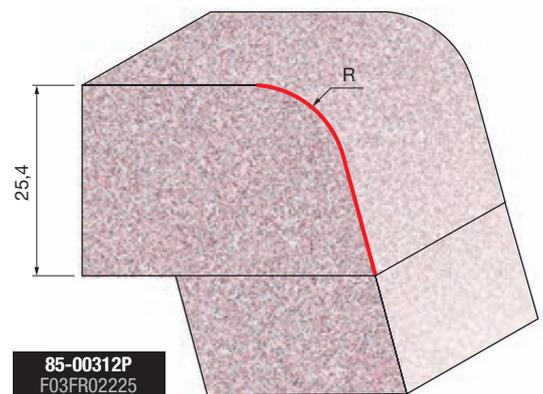
**Applications:**

Designed to trim the joint between solid surface countertops and solid surface sink bowls, in order to create a smooth, rounded edge.



85-00112P  
F03FR02223

85-00150P  
F03FR02224



85-00312P  
F03FR02225

# OGEE BOWL BITS

85-



Hand-held Routers

Table Routers



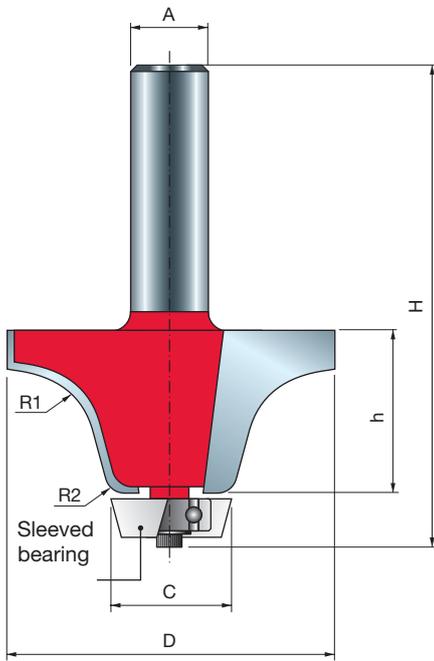
Softwood

Hardwood

Plywood

Wood Based Panels

Solid Surfaces



D mm	h mm	H mm	A mm	C mm	R1 mm	R2 mm	Z	Max RPM 1/min.	Freud Code	Art. No.
54	25,4	74,6	12	19,2	12,7	6,35	2	16.000	85-00512P	F03FR02226
57,2	31,8	80,9	12	19,2	12,7	6,35	2	12.000	85-00712P	F03FR02227



**Machines:**

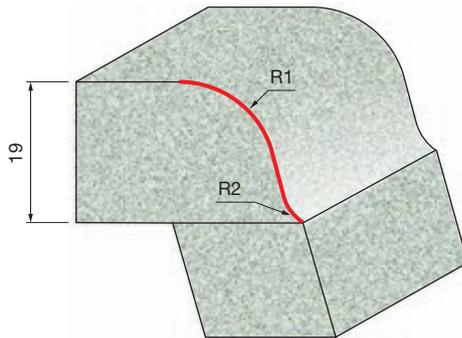
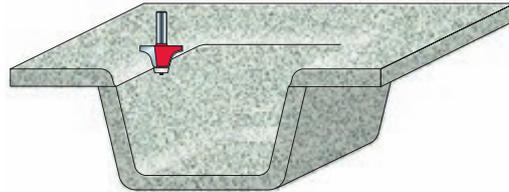
Hand-held routers and table routers.

**Materials:**

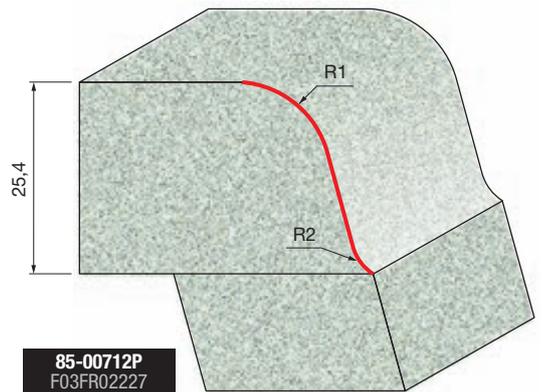
Softwood, hardwood, plywood, wood based panels and all solid surface materials.

**Applications:**

Trim the counter flush with the bowl while creating an ogee edge.



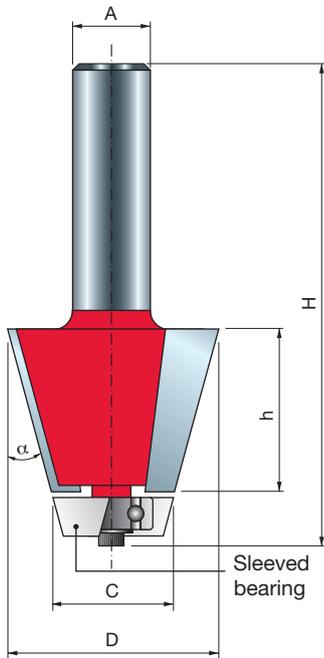
85-00512P  
F03FR02226



85-00712P  
F03FR02227

# BEVEL BOWL BIT

85-



Hand-held Routers

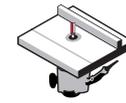


Table Routers



Softwood



Hardwood



Plywood



Wood Based Panels



Solid Surfaces

D	h	H	A	C	α	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	mm			1/min.		
35,6	25,4	78,1	12	22,2	15°	2	16.000	85-00912P	F03FR02228



**Machines:**

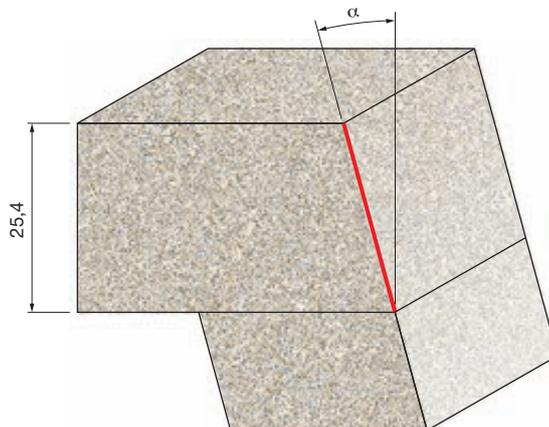
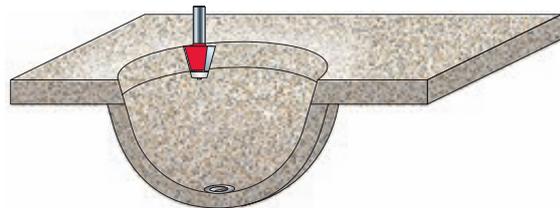
Hand-held routers and table routers.

**Materials:**

Softwood, hardwood, plywood, wood based panels and all solid surface materials.

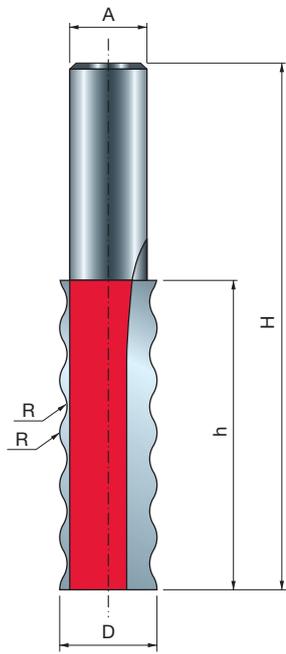
**Applications:**

Designed to trim the joint between solid surface countertops and solid surface sink bowls to create a smooth, chamfered edge.



# WAVY JOINT BIT

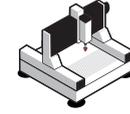
85-



Hand-held Routers



Table Routers



CNC Machines



Softwood



Hardwood



Plywood



Wood Based Panels



Wood Based Panels



Solid Surfaces

D	h	H	A	R	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	mm		1/min.		
16	51,3	88	12	4	2	24.000	85-03312P	F03FR02229



**Machines:**

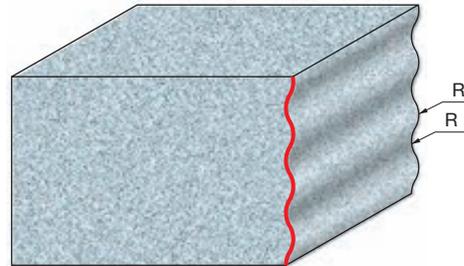
Hand-held routers, table routers and CNC machines.

**Materials:**

Softwood, hardwood, plywood, wood based panels and all solid surface materials.

**Applications:**

Increase gluing area for a stronger joint.

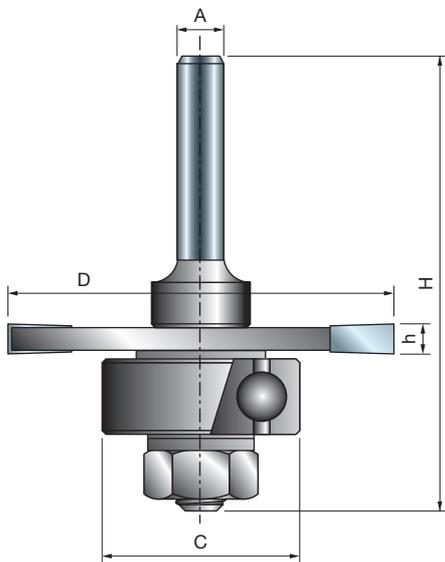


# Joinery Bits



# WING SLOTTING CUTTERS

63-



**Machines:**

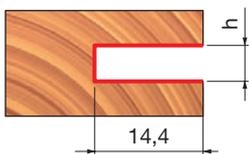
Hand-held routers and table routers.

**Materials:**

Softwood, hardwood, plywood and wood based panels.

**Applications:**

A great choice to mill slots and grooves for T-moldings, spline joints, tongue and groove joints and many other applications.



Hand-held Routers

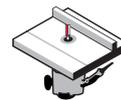


Table Routers



Softwood



Hardwood



Plywood



Wood Based Panels



Wood Based Panels



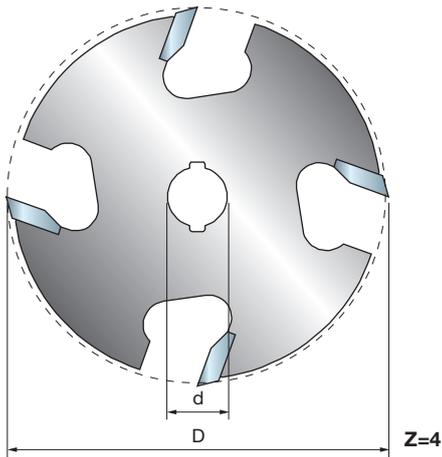
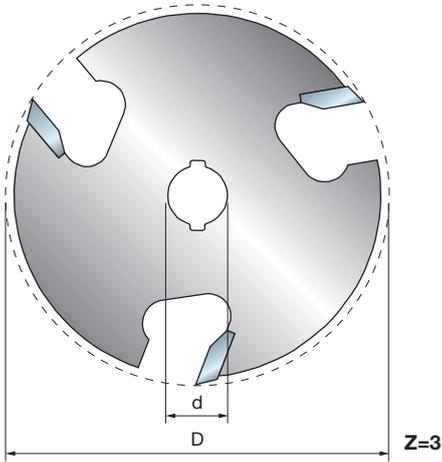
Wood Based Panels

D mm	h mm	H mm	A mm	C mm	Z	Max RPM 1/min.	Freud Code	Art. No.
50,8	1,5	60,3	6	22	3	24.000	63-09906P	F03FR02049
50,8	1,6	60,3	6	22	3	24.000	63-10006P	F03FR02055
50,8	2	60,3	6	22	3	24.000	63-10406P	F03FR02058
50,8	2,4	60,3	6	22	3	24.000	63-10606P	F03FR02061
50,8	2,5	60,3	6	22	3	24.000	63-11306P	F03FR02079
50,8	3	60,3	6	22	3	24.000	63-11406P	F03FR02085
50,8	3,2	60,3	6	22	3	24.000	63-10806P	F03FR02064
50,8	3,5	60,3	6	22	3	24.000	63-11506P	F03FR02091
50,8	4	60,3	6	22	3	24.000	63-10906P	F03FR02067
50,8	4,8	60,3	6	22	3	24.000	63-11006P	F03FR02070
50,8	5	60,3	6	22	3	24.000	63-11606P	F03FR02097
50,8	6	60,3	6	22	3	24.000	63-11106P	F03FR02073
50,8	6,4	60,3	6	22	3	24.000	63-11206P	F03FR02076
50,8	1,5	60,3	8	22	3	24.000	63-09908P	F03FR02052
50,8	2,5	60,3	8	22	3	24.000	63-11308P	F03FR02082
50,8	3	60,3	8	22	3	24.000	63-11408P	F03FR02088
50,8	3,5	60,3	8	22	3	24.000	63-11508P	F03FR02094
50,8	5	60,3	8	22	3	24.000	63-11608P	F03FR02100
50,8	1,5	60,3	12	22	3	24.000	63-14912P	F03FR02105
50,8	1,6	60,3	12	22	3	24.000	63-15012P	F03FR02108
50,8	2	60,3	12	22	3	24.000	63-15412P	F03FR02111
50,8	2,4	60,3	12	22	3	24.000	63-15612P	F03FR02114
50,8	2,5	60,3	12	22	3	24.000	63-16312P	F03FR02132
50,8	3	60,3	12	22	3	24.000	63-16412P	F03FR03241
50,8	3,2	60,3	12	22	3	24.000	63-15812P	F03FR02117
50,8	3,5	60,3	12	22	3	24.000	63-16512P	F03FR02137
50,8	4	60,3	12	22	3	24.000	63-15912P	F03FR02120
50,8	4,8	60,3	12	22	3	24.000	63-16012P	F03FR02123
50,8	5	60,3	12	22	3	24.000	63-16612P	F03FR02140
50,8	6	60,3	12	22	3	24.000	63-16112P	F03FR02126
50,8	6,4	60,3	12	22	3	24.000	63-16212P	F03FR02129

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Washer	17 x 8,4 x 1,6	2617M AG9	F03F010005
	Hex nut	7,94 x 6,75	2610M BB9	F03F010003
	Ball bearing	22 x 8 x 7,1	3102M AC9	F03F010008

# SLOTING CUTTERS

56- 58-



**Machines:**

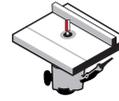
Hand-held routers and table routers.

**Materials:**

Softwood, hardwood, plywood and wood based panels.

**Applications:**

Produce slots and grooves on the workpiece. Slotting cutters are to be used with Freud's arbors series 60 (page 279) which come separately.



Hand-held Routers

Table Routers



Softwood

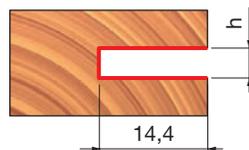
Hardwood

Plywood

Wood Based Panels

D mm	h mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
50,8	1,5	8	3	24.000	56-09908P	F03FR02014
50,8	1,6	8	3	16.000	56-10008P	F03FR02015
50,8	2	8	3	24.000	56-10408P	F03FR02016
50,8	2,4	8	3	16.000	56-10608P	F03FR02017
50,8	2,5	8	3	24.000	56-11308P	F03FR02028
50,8	3	8	3	24.000	56-11408P	F03FR02029
50,8	3,2	8	3	24.000	56-10808P	F03FR02019
50,8	3,5	8	3	24.000	56-11508P	F03FR02030
50,8	4	8	3	24.000	56-10908P	F03FR02021
50,8	4,8	8	3	24.000	56-11008P	F03FR02023
50,8	5	8	3	24.000	56-11608P	F03FR02031
50,8	6	8	3	24.000	56-11108P	F03FR02025
50,8	6,4	8	3	24.000	56-11208P	F03FR02026

D mm	h mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
50,8	1,5	8	4	16.000	58-09908P	F03FR02032
50,8	2	8	4	16.000	58-10408P	F03FR02033
50,8	2,5	8	4	16.000	58-11308P	F03FR02036
50,8	3	8	4	16.000	58-11408P	F03FR02037
50,8	5	8	4	24.000	58-11608P	F03FR02038
50,8	6	8	4	16.000	58-11108P	F03FR02034



# SLOTING CUTTER ARBORS

60-



Hand-held Routers

Table Routers

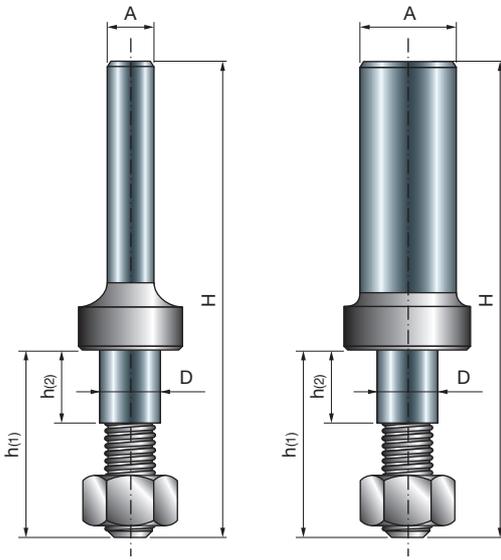


Softwood

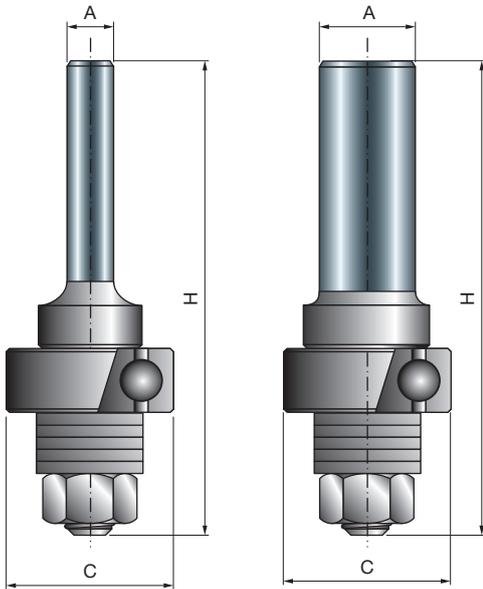
Hardwood

Plywood

Wood Based Panels



Type A



Type B

D mm	h1 mm	h2 mm	H mm	C mm	A mm	A inch	Max RPM 1/min.	Freud Code	Art. No.
7,94	24,6	10	60,3	-	6		24.000	60-10006P	F03FR02039
7,94	24,6	10	60,3	22	6		24.000	60-12006P	F03FR02044
7,94	24,6	10	60,3	-	8		24.000	60-10008P	F03FR02040
7,94	24,6	10	60,3	22	8		24.000	60-12008P	F03FR02045
7,94	24,6	10	60,3	-	12		24.000	60-10212P	F03FR02042
7,94	24,6	10	60,3	22	12		24.000	60-12212P	F03FR02046
7,94	24,6	10	60,3	-		1/4	24.000	60-10025P	F03FR02041
7,94	24,6	10	60,3	-		1/2	24.000	60-10250P	F03FR02043

## Type A

60-10006P - 60-10008P - 60-10212P - 60-10025P - 60-10250P

	Quantity	Spare parts	Dimensions mm	Freud Code	Art. No.
	7	Washer	17 x 8,4 x 1,6	2617M AG9	F03F010005
	1	Hex nut	7,94 x 6,75	2610M BB9	F03F010003

## Type B

60-12006P - 60-12008P - 60-12212P

	Quantity	Spare parts	Dimensions mm	Freud Code	Art. No.
	5	Washer	17 x 8,4 x 1,6	2617M AG9	F03F010005
	1	Hex nut	7,94 x 6,75	2610M BB9	F03F010003
	1	Ball bearing	22 x 8 x 7	3102M AC9	F03F010008

### Machines:

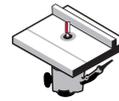
Hand-held routers and table routers.

### Applications:

The perfect complement to Freud's slotting cutters. Compatible with any 8 mm bore hole slotting cutter.

# BISCUIT JOINT SLOT CUTTER

63-



Hand-held Routers

Table Routers



Softwood

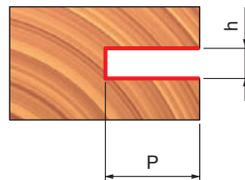
Hardwood

Plywood

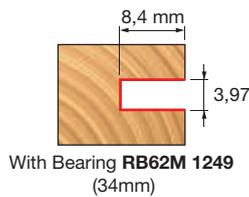
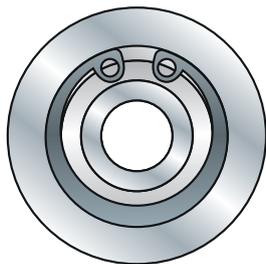
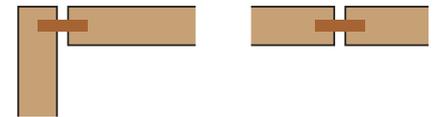
Wood Based Panels

D mm	h mm	H mm	C mm	P mm	A mm inch	Z	Max RPM 1/min.	Freud Code	Art. No.
50,8	3,97	60,3	26-30-34	12,4-10,4-8,4	6	3	24.000	<b>63-60906P</b>	F03FR02143
50,8	3,97	60,3	26-30-34	12,4-10,4-8,4	8	3	24.000	<b>63-60908P</b>	F03FR02146
50,8	3,97	60,3	26-30-34	12,4-10,4-8,4	12	3	24.000	<b>63-60912P</b>	F03FR02149
50,8	3,97	60,3	26-30-34	12,4-10,4-8,4	1/4	3	24.000	<b>63-60925P</b>	F03FR02152
50,8	3,97	60,3	26-30-34	12,4-10,4-8,4	1/2	3	24.000	<b>63-60950P</b>	F03FR02155

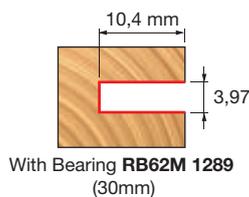
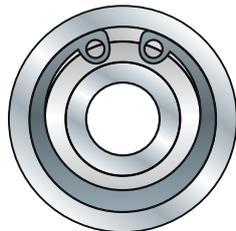
Spare parts	Dimensions mm	Freud Code	Art. No.
Hex nut	7,94 x 6,75	<b>2610M BB9</b>	F03F010003
Washer	17 x 8,4 x 1,6	<b>2617M AG9</b>	F03F010005
Washer	14 x 8,4 x 1,6	<b>2617M BG9</b>	F03FR01668
Ball bearing	26 x 10 x 8	<b>RB62M 1249</b>	F03F011417
Ball bearing	30 x 10 x 8	<b>RB62M 1289</b>	F03F011418
Ball bearing	34 x 10 x 8	<b>RB62ME DA9</b>	F03FR01146



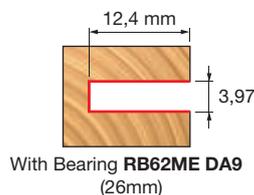
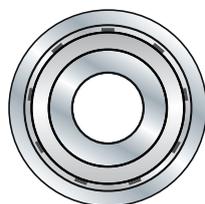
C mm	P mm
Ø 26	12,4
Ø 30	10,4
Ø 34	8,4



Biscuit Size-00  
47mm x 15mm



Biscuit Size-10  
54mm x 19mm



Biscuit Size-20  
59mm x 22mm



**Machines:**

Hand-held routers and table routers.

**Materials:**

Softwood, hardwood, plywood and wood based panels.

**Applications:**

Biscuit joining is one of the easiest and most economical methods of wood joinery. Each biscuit joint slot cutter is delivered with 3 different diameter ball bearings.

# ADJUSTABLE TONGUE AND GROOVE CUTTER SET

99-



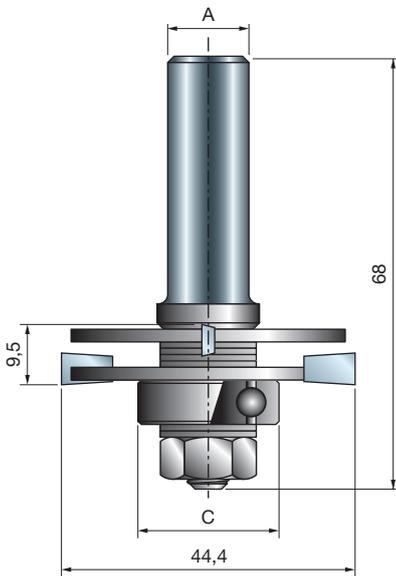
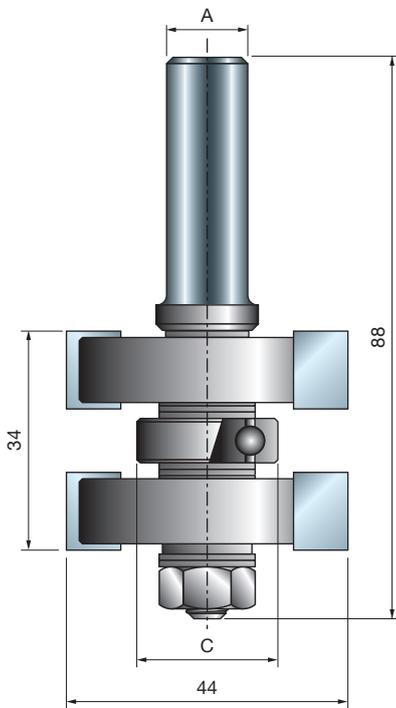
Table Routers



Softwood    Hardwood    Plywood    Wood Based Panels

D mm	h mm	H mm	A mm	C mm	Z	Max RPM 1/min.	Freud Code	Art. No.
44	34	88	12	22	2	16.000	99-03612P	F03FR02432
44,4	9,5	68	12	22	2			

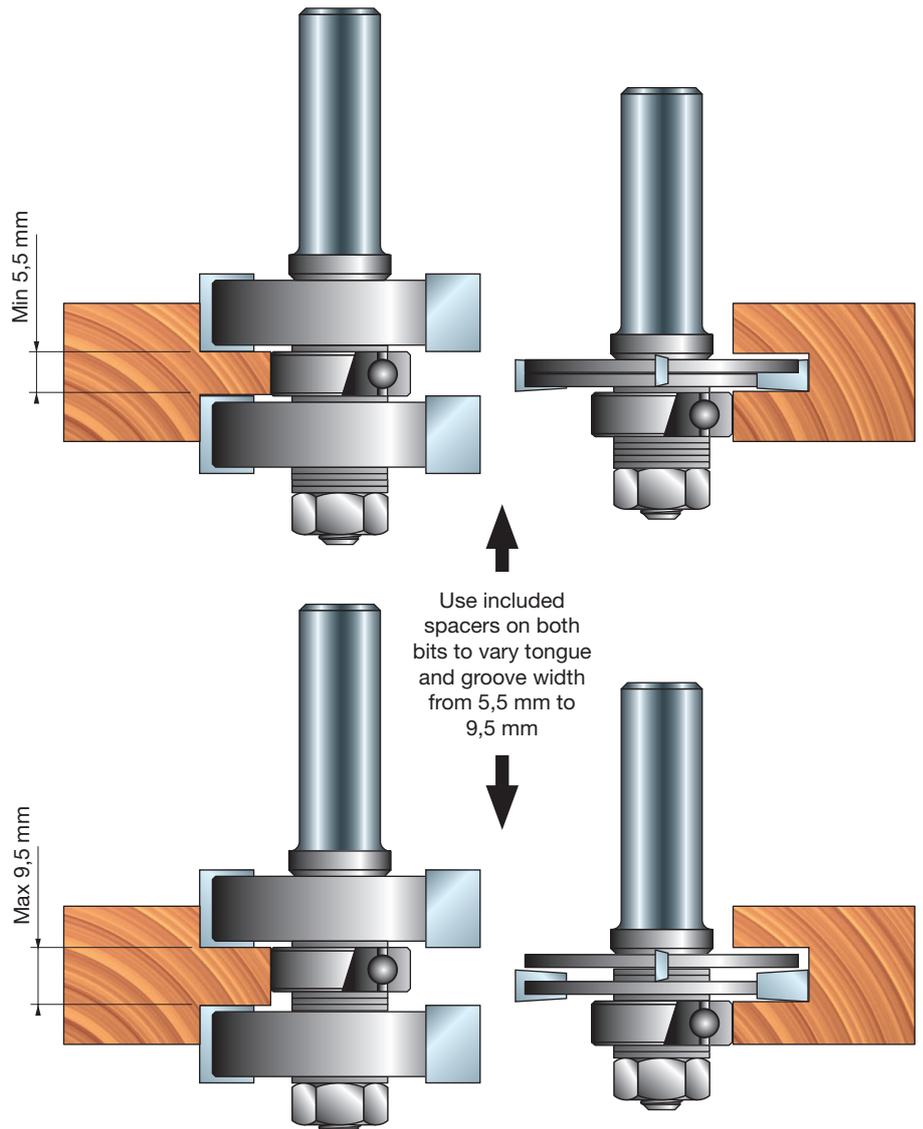
Qty	Spare parts	Dimensions mm	Freud Code	Art. No.
2	Hex nut	7,94 x 6,75	2610M BB9	F03F010003
2	Washer	14 x 8,4 x 1,6	2617M BG9	F03FR01668
2	Ball bearing	22 x 8 x 7,1	3102M AC9	F03F010008
4	Spacer	18 x 0,1 x 8	AN01MP0019	F03FC00392
4	Spacer	18 x 0,2 x 8	AN01MP0029	F03FC00393
2	Spacer	18 x 0,5 x 8	AN01MP0059	F03FC00395
8	Spacer	18 x 1 x 8	AN01MP0109	F03FC00396
4	Spacer	18 x 0,15 x 8	AN01MPAA99	F03FC00391

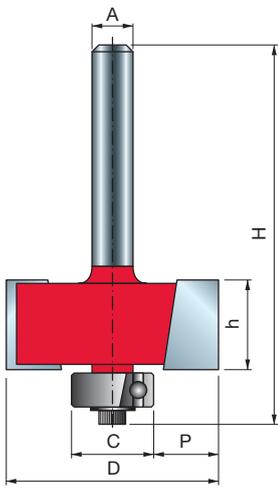


**Machines:**  
Table routers.

**Materials:**  
Softwood, hardwood, plywood and wood based panels.

**Applications:**  
Suitable for any project requiring precise tongue and groove joints with perfectly finished surfaces.  
The set includes one tongue and one grooving bit.





**Machines:**

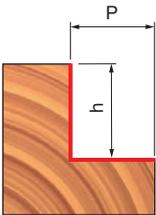
Hand-held routers and table routers.

**Material:**

Softwood, hardwood, plywood and wood based panels.

**Applications:**

Use to make strong lap joints, cut recesses to let in the back panels of cabinets or create an interesting detail on built-up moulding.

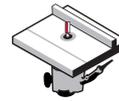


Set of 4 ball bearings	
C	P
mm	mm
9,53	12,7
12,7	11,1
15,88	9,53
19,05	7,94

Set of 7 ball bearings	
C	P
mm	mm
9,53	12,7
12,7	11,1
15,88	9,53
19,05	7,94
22,22	6,35
28,58	3,18
34,92	0

# RABBETING BITS

32-



Hand-held Routers

Table Routers



Softwood

Hardwood

Plywood

Wood Based Panels

D	h	H	A	C	P	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	mm	mm		1/min.		
31,75	13,2	55,7	6	12,7	9,52	2	18.000	32-10006P	F03FR01745
34,92	12,7	54,4	6	12,7	11,1	2	16.000	32-50006P	F03FR01750
31,75	13,2	55,7	8	12,7	9,52	2	18.000	32-10008P	F03FR01746
34,92	12,7	54,7	8	12,7	11,1	2	16.000	32-50008P	F03FR01751
31,75	13,2	61,7	12	12,7	9,52	2	18.000	32-10212P	F03FR01748
34,92	12,7	60,7	12	12,7	11,1	2	16.000	32-52012P	F03FR01758
31,75	13,2	55,7	1/4	12,7	9,52	2	18.000	32-10025P	F03FR01747
31,75	13,2	61,7	1/2	12,7	9,52	2	18.000	32-10250P	F03FR01749

# RABBETING BITS WITH BEARING SET

32-

**Rabbeting bits with a set of 4 ball bearings**

D	h	H	A	C	P	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	mm	mm		1/min.		
34,92	12,7	54,4	6	9,53-19,05	7,94-12,7	2	16.000	32-50206P	F03FR01752
34,92	12,7	54,4	8	9,53-19,05	7,94-12,7	2	16.000	32-50208P	F03FR01753
34,92	12,7	60,7	12	9,53-19,05	7,94-12,7	2	16.000	32-52212P	F03FR01759
34,92	12,7	60,7	1/2	9,53-15,88	9,53-12,7	2	16.000	32-52250P	F03FR01760

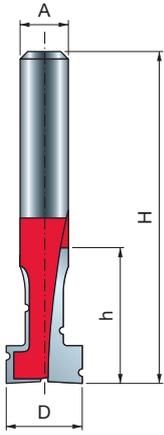
**Rabbeting bits with a set of 7 ball bearings**

D	h	H	A	C	P	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	mm	mm		1/min.		
34,92	12,7	54,7	6	9,53-34,92	0-12,7	2	16.000	32-50406P	F03FR01755
34,92	12,7	54,4	8	9,53-34,92	0-12,7	2	16.000	32-50408P	F03FR01756
34,92	12,7	60,7	12	9,53-34,92	0-12,7	2	16.000	32-52412P	F03FR01761

	Spare parts	Dimensions	Freud Code	Art. No.
		mm		
	Screw	M3 x 7,6	2607M 001	F03F010000
	Allen key	2,5	2619M CA9	F03FA07432
	Washer	9 x 2 x 6	FX07M AA9	F03F010158
	Washer	12 x 1,1 x 4,8	FX07M AB9	F03F010159
32-5206P 32-5208P 32-52212P	Ball bearing	9,53 x 3,2 x 4,76	3102M AA9	F03F010006
	Ball bearing	12,7 x 4,98 x 4,76	3102M AB9	F03F010007
	Ball bearing	15,88 x 4,97 x 4,76	3102M AJ9	F03F010014
32-50406P 32-50408P 32-52412P	Ball bearing	9,53 x 3,2 x 4,76	3102M AA9	F03F010006
	Ball bearing	12,7 x 4,98 x 4,76	3102M AB9	F03F010007
	Ball bearing	15,88 x 4,97 x 4,76	3102M AJ9	F03F010014
	Ball bearing	19,05 x 8 x 4,76	RB62M 1509	F03F011422
	Ball bearing	9,53 x 3,2 x 4,76	3102M AA9	F03F010006
	Ball bearing	12,7 x 4,98 x 4,76	3102M AB9	F03F010007
	Ball bearing	15,88 x 4,97 x 4,76	3102M AJ9	F03F010014
	Ball bearing	19,05 x 8 x 4,76	RB62M 1509	F03F011422
	Ball bearing	22,22 x 8 x 4,76	RB62M 1529	F03F011423
	Ball bearing	28,58 x 8 x 4,76	RB62M 1549	F03F011424
	Ball bearing	34,92 x 8 x 4,76	RB62M 1569	F03F011425

# KEYHOLE BIT

70-



Hand-held Routers

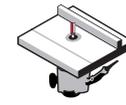
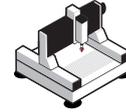


Table Routers



CNC Machines



Softwood



Hardwood



Plywood



Wood Based Panels



**Machines:**

Hand-held routers, table routers and CNC machines.

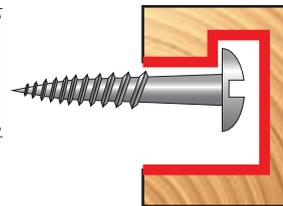
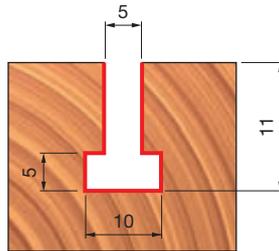
**Materials:**

Softwood, hardwood, plywood and wood based panels.

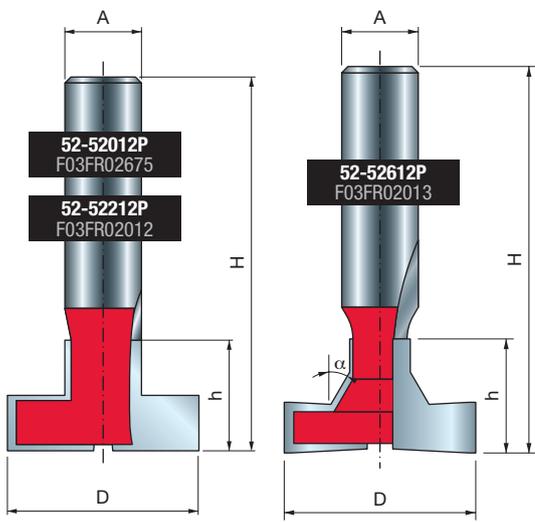
**Applications:**

The perfect way to hang flat workpieces. The large diameter bore hole allows nail or screw heads to enter the slot and the smaller diameter groove gives space for the shank of the nail or screw.

D mm	h mm	H mm	A mm	Z	Max RPM 1/min.	Freud Code	Art. No.
10	17	48,2	6	2	24.000	70-10406P	F03FR02159



Example of keyhole



# T - SLOTTING BITS

52-



Hand-held Routers

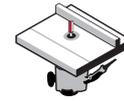
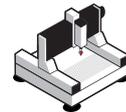


Table Routers



CNC Machines



Softwood



Hardwood



Plywood



Wood Based Panels



Wood Based Panels



D mm	h mm	H mm	A mm	$\alpha$	Z	Max RPM 1/min.	Freud Code	Art. No.
28	16	59	12	-	2	22.000	52-52012P	F03FR02675
28,58	20,6	63,5	12	-	2	18.000	52-52212P	F03FR02012
30	18	61	12	30°	2	18.000	52-52612P	F03FR02013

**Machines:**

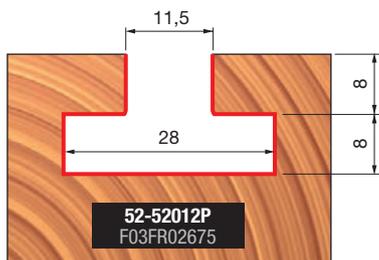
Hand-held routers, table routers and CNC machines.

**Materials:**

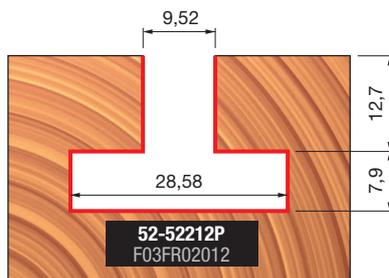
Softwood, hardwood, plywood and wood based panels.

**Applications:**

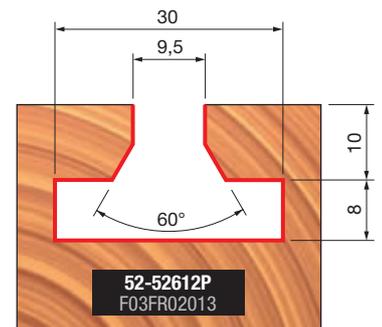
Cut T shaped slots, used for many purposes.



52-52012P  
F03FR02675



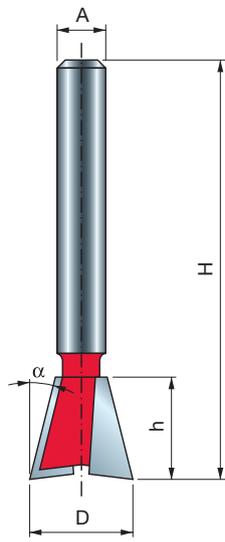
52-52212P  
F03FR02012



52-52612P  
F03FR02013

# DOVETAIL BITS

22-



Hand-held Routers

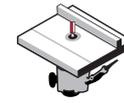
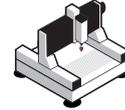


Table Routers



CNC Machines



Softwood



Hardwood



Plywood



Wood Based Panels



**Machines:**

Hand-held routers, table routers and CNC machines.

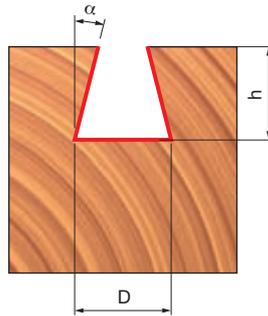
**Materials:**

Softwood, hardwood, plywood and wood based panels.

**Applications:**

Dovetail joints are the traditional choice for strong, attractive joints for drawers, boxes and exposed furniture joints.

D	h	H	A	$\alpha$	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	inch		1/min.		
9,52	10,5	47,5	6		2	24.000	<b>22-10206P</b>	F03FR01640
12,7	12,7	50,7	6		2	24.000	<b>22-10406P</b>	F03FR01643
15,88	22,2	54,2	6		2	24.000	<b>22-10506P</b>	F03FR01646
19,05	22,2	54,2	6		2	24.000	<b>22-10606P</b>	F03FR01648
9,52	10,5	47,5	8		2	24.000	<b>22-10208P</b>	F03FR01641
12,7	12,7	50,7	8		2	24.000	<b>22-10408P</b>	F03FR01644
15,88	22,2	54,2	8		2	24.000	<b>22-10508P</b>	F03FR01647
19,05	22,2	54,2	8		2	24.000	<b>22-10608P</b>	F03FR01649
12,7	12,7	59,7	12		2	24.000	<b>22-11212P</b>	F03FR01650
19,05	22,2	66,7	12		2	24.000	<b>22-11412P</b>	F03FR01653
9,52	9,9	44,9		1/4	2	24.000	<b>22-10225P</b>	F03FR01642
12,7	12,7	50,7		1/4	2	24.000	<b>22-10425P</b>	F03FR01645
12,7	12,7	59,7		1/2	2	24.000	<b>22-11250P</b>	F03FR01651



# LOCK MITRE BITS 45°

99-

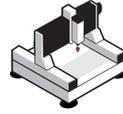


Table Routers

CNC Machines



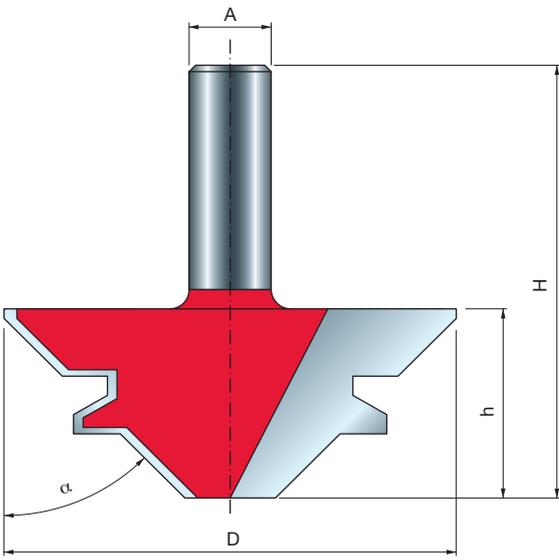
Softwood

Hardwood

Plywood

Wood Based Panels

D mm	h mm	H mm	A mm	$\alpha$	Z	Max RPM 1/min.	Freud Code	Art. No.
55	23	61	12	45°	2	16.000	99-03512P	F03FR02425
70	29,5	67,5	12	45°	2	12.000	99-03412P	F03FR02424



**Machines:**

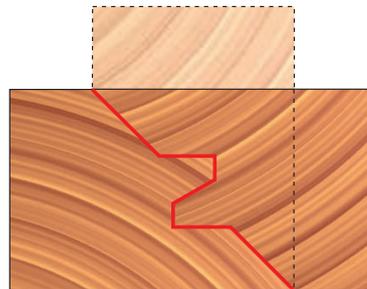
Table routers and CNC machines.

**Materials:**

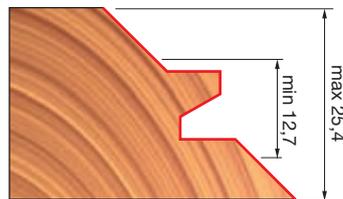
Softwood, hardwood, plywood and wood based panels.

**Applications:**

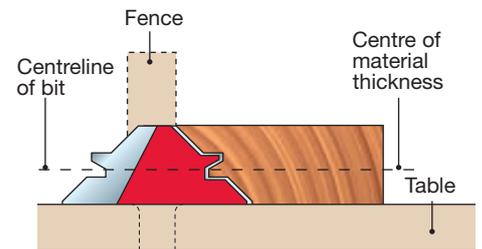
Create remarkably strong interlocking joints.



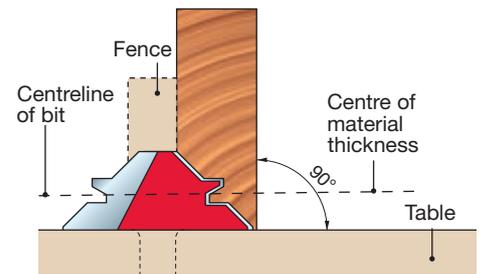
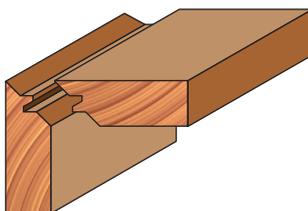
99-03412P  
F03FR02424



**Simple Joint**



**45° Mitre Join**



# 2 PIECE LOCK MITRE BIT SET 22,5°

99-

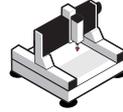


Table Routers

CNC Machines



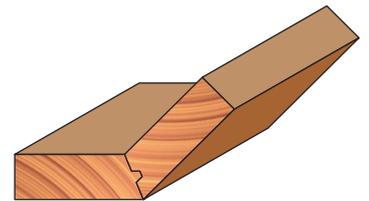
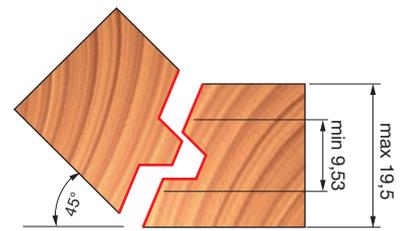
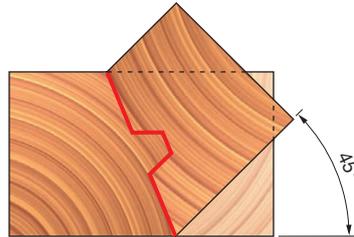
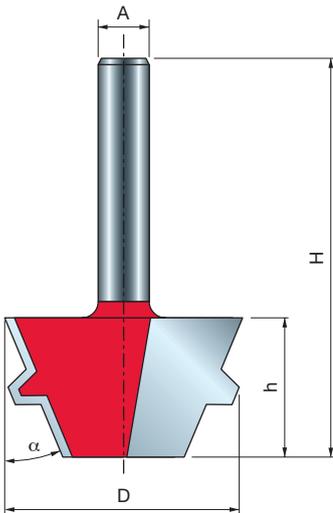
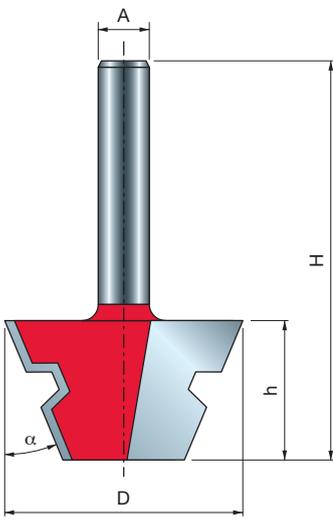
Softwood

Hardwood

Plywood

Wood Based Panels

D	h	H	A	$\alpha$	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm			1/min.		
37,3	22,2	54,2	8	22,5°	2	24.000	99-04308P	F03FR02450



**Machines:**

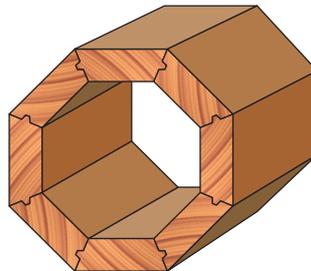
Table routers and CNC machines.

**Materials:**

Softwood, hardwood, plywood and wood based panels.

**Applications:**

Create remarkably strong interlocking joints.



# REVERSIBLE GLUE JOINT BITS

99-

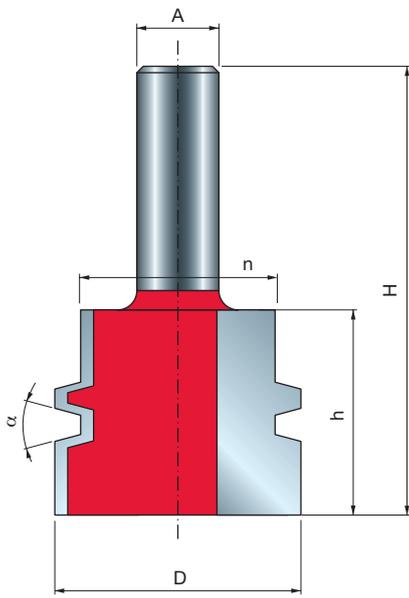
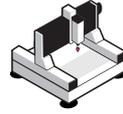


Table Routers



CNC Machines



Softwood



Hardwood



Plywood



Wood Based Panels



**Machines:**

Table routers and CNC machines.

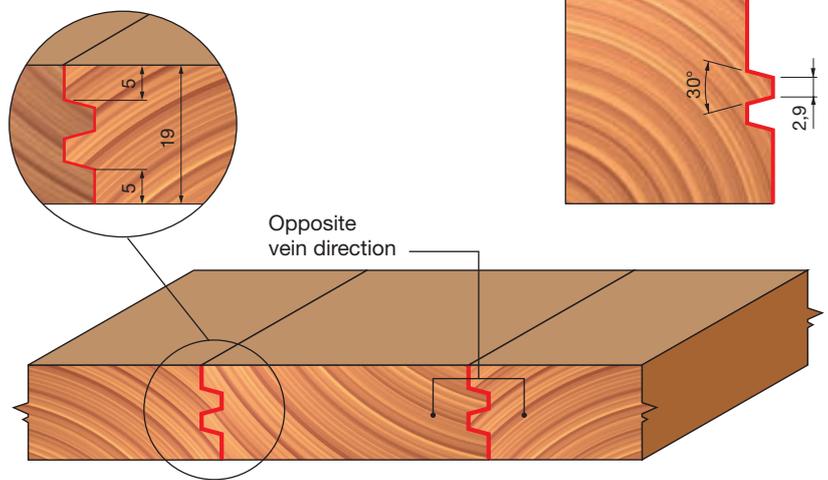
**Materials:**

Softwood, hardwood, plywood and wood based panels.

**Applications:**

Provide a stronger joint by increasing the gluing area.

D	h	H	n	A	$\alpha$	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	mm	inch		1/min.		
38	32	70	30,2	12	15°	2	16.000	99-03112P	F03FR02422
38	32	70	30,2		15°	2	16.000	99-03150P	F03FR02423



# FINGER JOINT BIT

99-

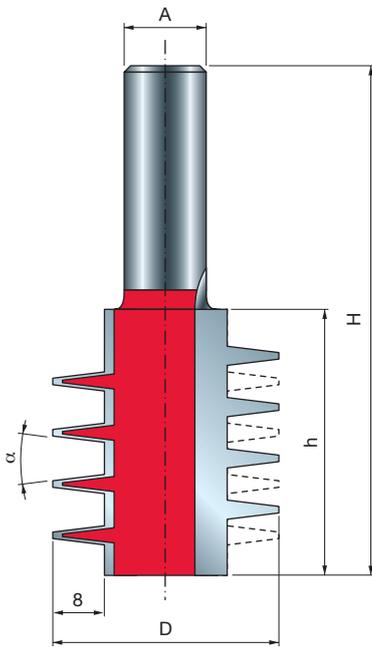
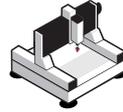


Table Routers



CNC Machines



Softwood



Hardwood



Plywood



Wood Based Panels

D	h	H	A	$\alpha$	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm			1/min.		
35	41,5	79,5	12	14°	2	16.000	99-03712P	F03FR02440



**Machines:**

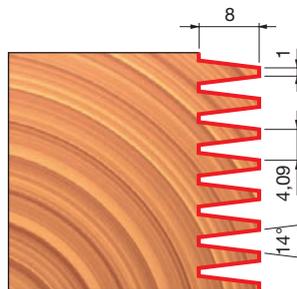
Table routers and CNC machines.

**Materials:**

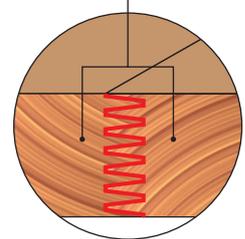
Softwood, hardwood, plywood and wood based panels.

**Applications:**

Create perfectly flat even surface and increase gluing area for a stronger joint.



Opposite vein direction



# TOP BEARING FINGER JOINT BIT - TYPE A

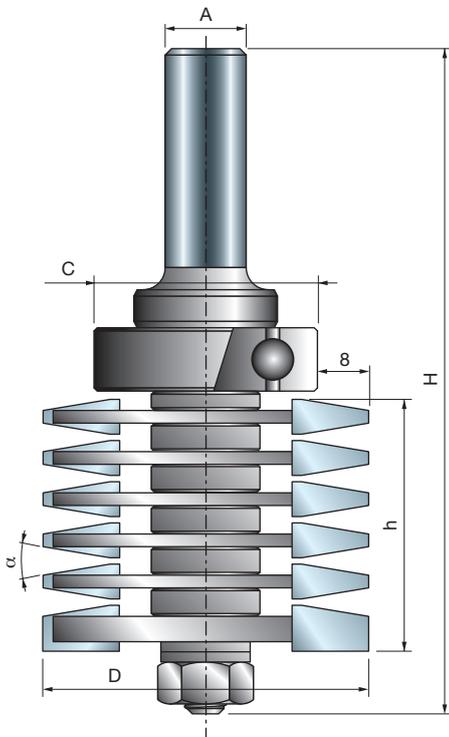
99-



Table Routers



Softwood    Hardwood    Plywood    Wood Based Panels



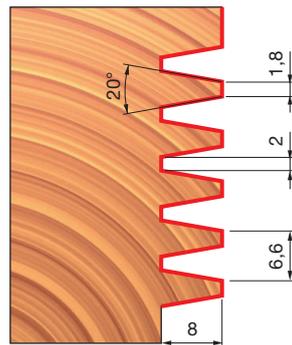
**Machines:**  
Table routers.

**Materials:**  
Softwood, hardwood, plywood and wood based panels.

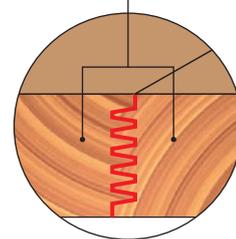
**Applications:**  
Provide a stronger joint by increasing the surface area for gluing.

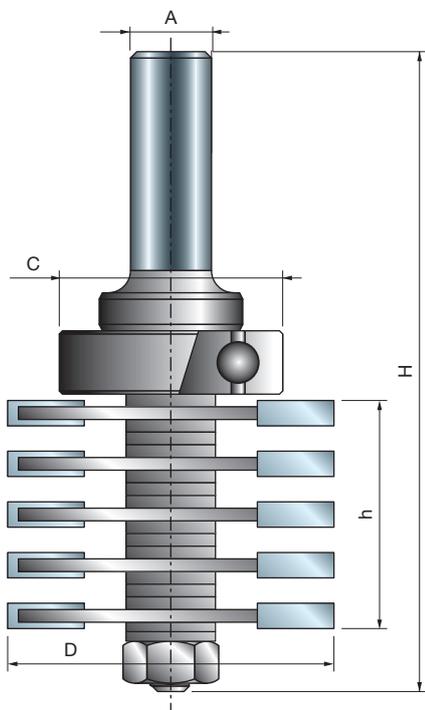
D	h	H	A	C	$\alpha$	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	mm			1/min.		
50,8	45,2	108	12	35	20°	2	24.000	99-03912P	F03FR02444

Spare parts		Dimensions	Freud Code	Art. No.
		mm		
	Hex nut	7,94 x 6,75	2610M BB9	F03F010003
	Washer	14 x 8,4 x 1,6	2617M BG9	F03FR01668
	Ball bearing	35 x 15 x 11	3102M AI9	F03F012285
	Spacer	18 x 0,1 x 8	AN01MP0019	F03FC00392
	Spacer	18 x 1 x 8	AN01MP0109	F03FC00396
	Spacer	18 x 2,5 x 8	AN01MP0259	F03FC00398
	Spacer	18 x 4,4 x 8	AN01MP0449	F03FC00399



Opposite vein direction





**Machines:**  
Table routers.

**Materials:**  
Softwood, hardwood, plywood and wood based panels.

**Applications:**  
Create perfectly flat even surface and increase gluing area for a stronger joint.

## TOP BEARING FINGER JOINT BIT - TYPE B

99-



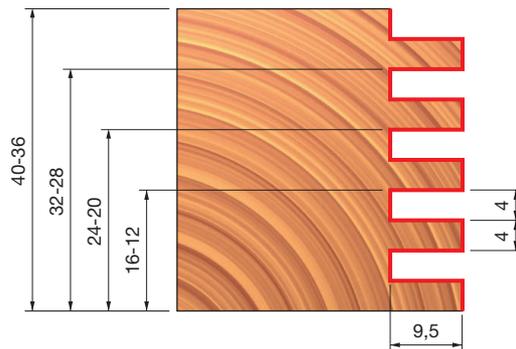
Table Routers



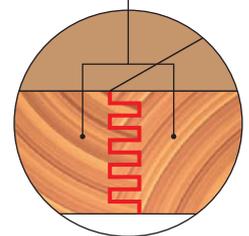
Softwood    Hardwood    Plywood    Wood Based Panels

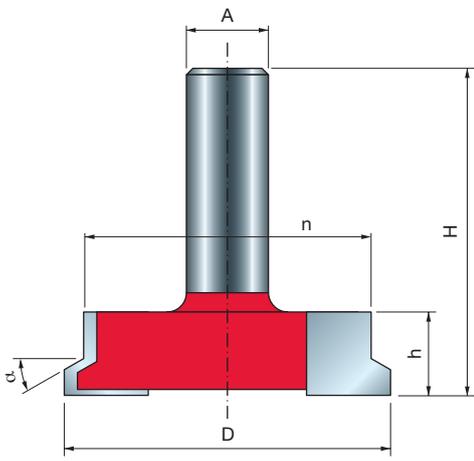
D mm	h mm	H mm	A mm	C mm	Z	Max RPM 1/min.	Freud Code	Art. No.
47	36	101	12	28	2	24.000	99-04212P	F03FR02447

Spare parts	Dimensions mm	Freud Code	Art. No.
Hex nut	7,94 x 6,75	2610M BB9	F03F010003
Washer	14 x 8,4 x 1,6	2617M BG9	F03FR01668
Ball bearing	28 x 12 x 8	3102M AH9	F03F010013
Spacer	18 x 0,2 x 8	AN01MP0029	F03FC00393
Spacer	18 x 1 x 8	AN01MP0109	F03FC00396
Spacer	18 x 0,5 x 8	AN01MP0059	F03FC00395
Spacer	18 x 4,4 x 8	AN01MP0449	F03FC00399



Opposite vein direction





# DRAWER LOCK BIT

99-



Table Routers



Softwood    Hardwood    Plywood    Wood Based Panels



D mm	h mm	H mm	A mm	n mm	$\alpha$	Z	Max RPM 1/min.	Freud Code	Art. No.
50,5	13	49	12	44,5	30°	2	16.000	99-24012P	F03FR02463

**Machines:**

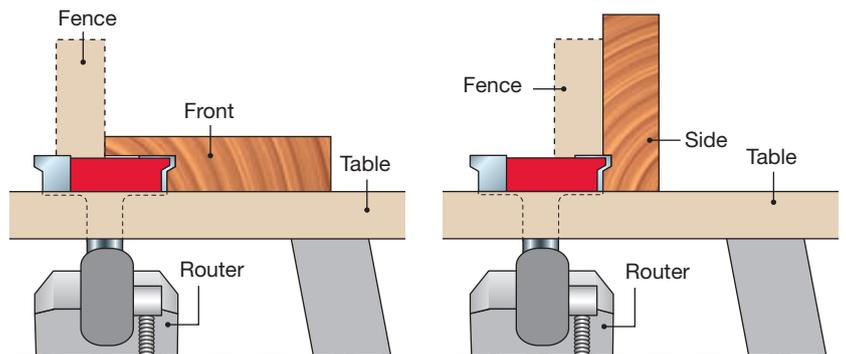
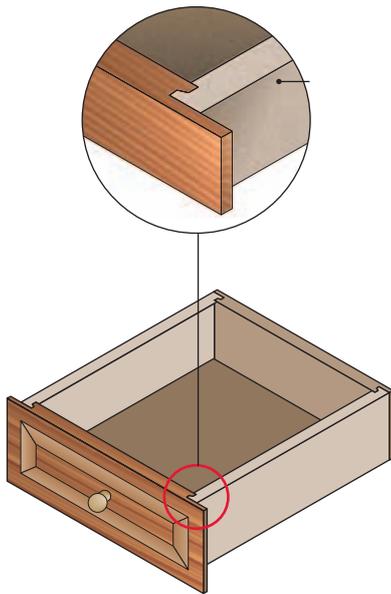
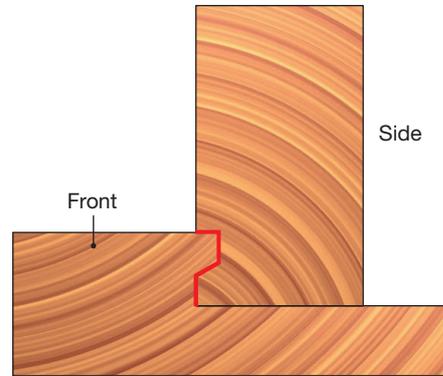
Table routers.

**Materials:**

Softwood, hardwood, plywood and wood based panels.

**Applications:**

One bit produces both the front and side drawer joints.



# DOOR PULL BIT

99-

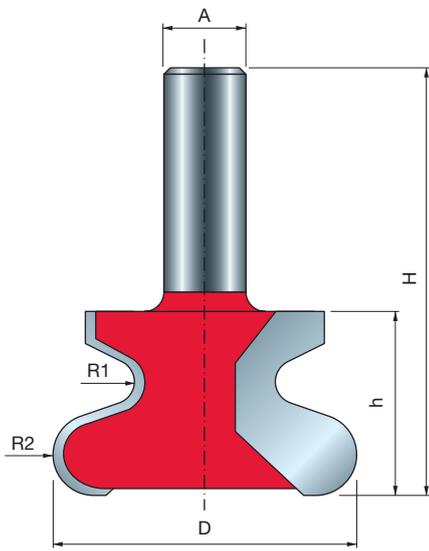


Table Routers



Softwood    Hardwood    Plywood    Wood Based Panels

D	h	H	A	R1	R2	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	mm	mm		1/min.		
47	28,7	66,7	12	3,2	6,35	2	16.000	99-00712P	F03FR02413



**Machines:**

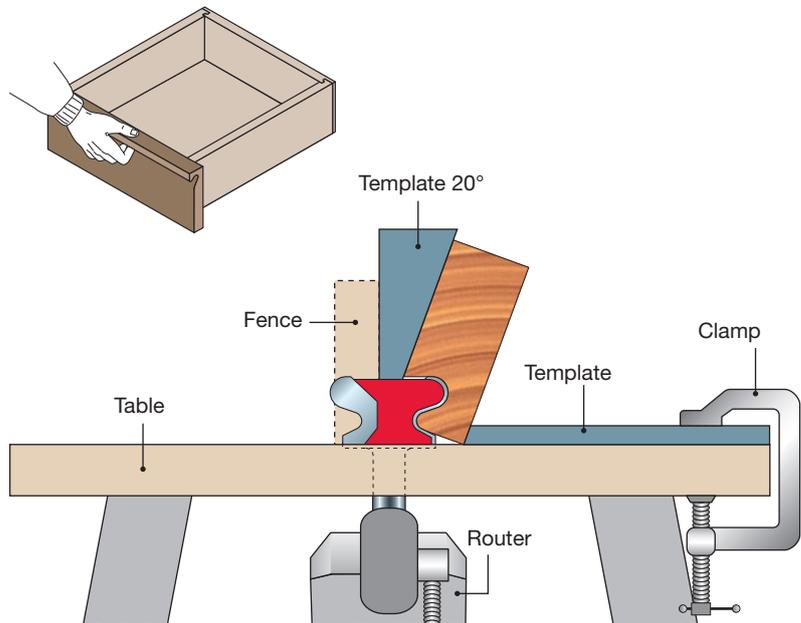
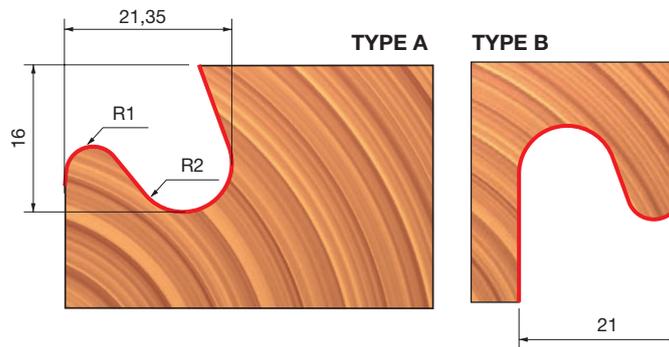
Table routers.

**Materials:**

Softwood, hardwood, plywood and wood based panels.

**Applications:**

Produce the finger pull groove found on popular contemporary cabinet doors.



# MATCHED PROFILE AND SCRIBE BITS

99-



Table Routers



Softwood    Hardwood    Plywood    Wood Based Panels



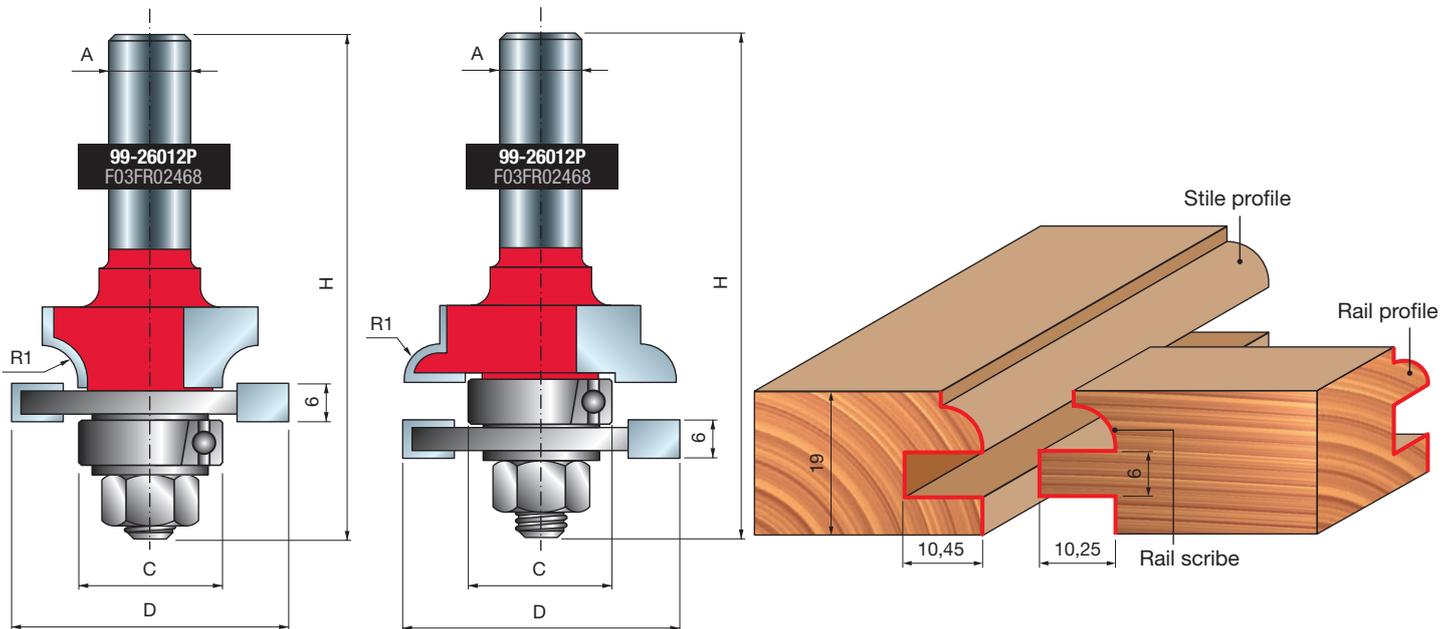
**Machines:**  
Table routers.

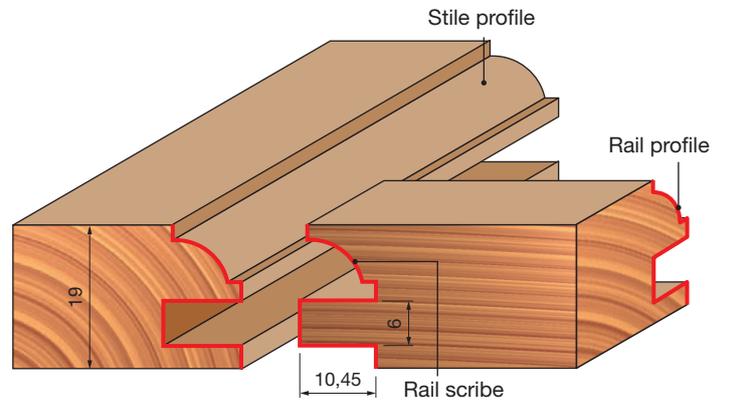
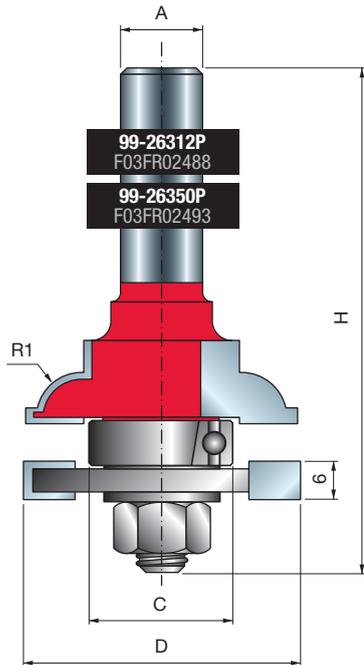
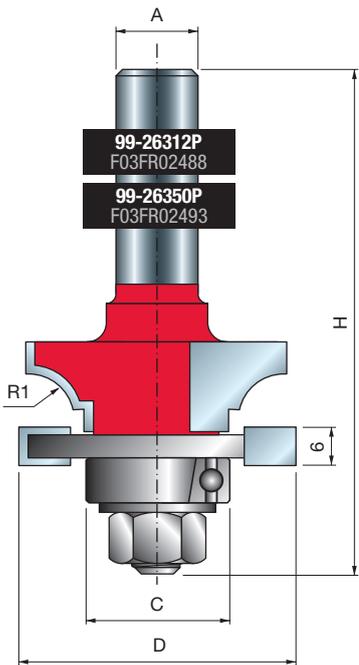
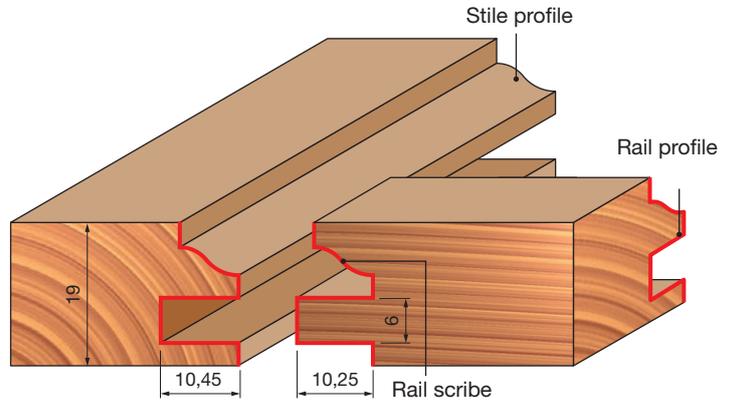
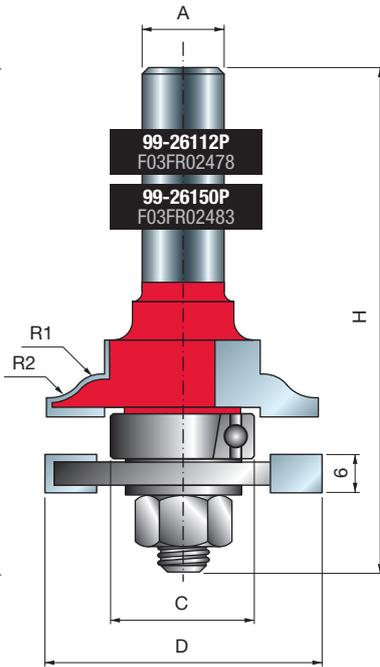
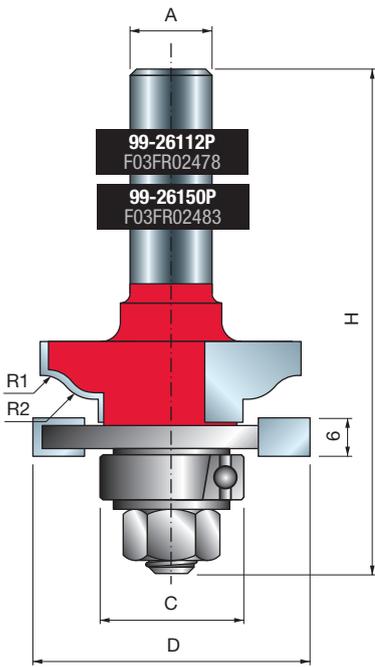
**Materials:**  
Softwood, hardwood, plywood and wood based panels.

**Applications:**  
These sets include rail and stile bits that are perfectly matched to produce perfect joints out of the box.  
Each article number contains two items.

D	H	A	R1	R2	C	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	inch	mm	mm		1/min.		
42,9	77	12	5,5	-	22	2	24.000	<b>99-26012P</b>	F03FR02468
42,9	77	12	4,5	5,5	22	2	24.000	<b>99-26112P</b>	F03FR02478
42,9	77	12	7	-	22	2	24.000	<b>99-26312P</b>	F03FR02488
42,9	77	1/2	4,5	5,5	22	2	24.000	<b>99-26150P</b>	F03FR02483
42,9	77	1/2	7	-	22	2	24.000	<b>99-26350P</b>	F03FR02493

Spare parts	Dimensions	Freud Code	Art. No.
	mm		
Hex nut	7,94 x 6,75	<b>2610M BB9</b>	F03F010003
Spacer	18 x 0,1 x 8	<b>AN01MP0019</b>	F03FC00392
Spacer	18 x 0,2 x 8	<b>AN01MP0029</b>	F03FC00393
Spacer	18 x 0,5 x 8	<b>AN01MP0059</b>	F03FC00395
Spacer	18 x 1 x 8	<b>AN01MP0109</b>	F03FC00396
Ball bearing	22 x 8 x 7,1	<b>3102M AC9</b>	F03F010008





# MATCHED PROFILE AND SCRIBE BITS

99-



Table Routers



Softwood    Hardwood    Plywood    Wood Based Panels



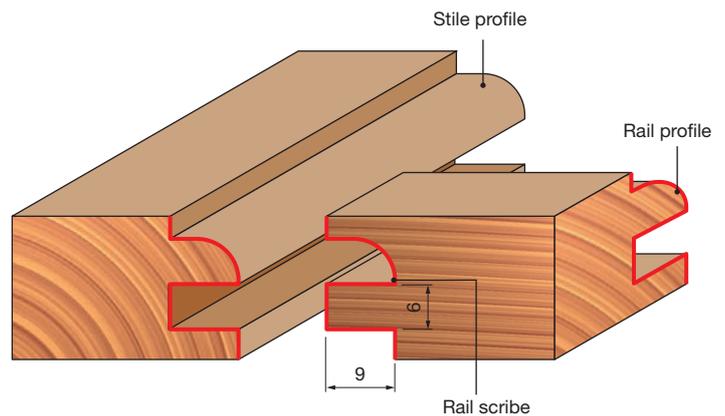
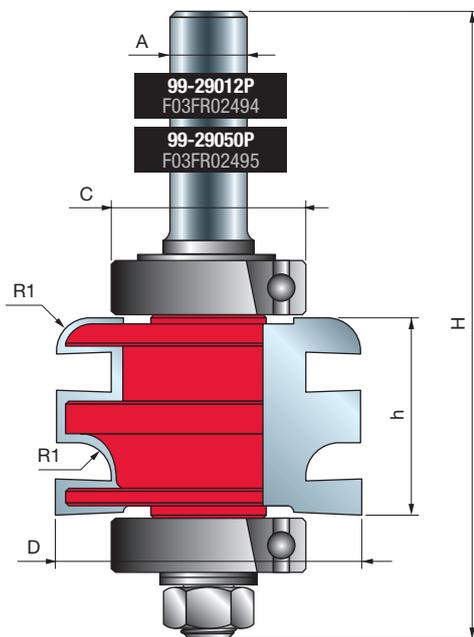
**Machines:**  
Table routers.

**Materials:**  
Softwood, hardwood, plywood and wood based panels.

**Applications:**  
A simple, efficient method to create beautiful cabinet doors without having to reconfigure or change cutters or fence settings.

D	h	H	A	R1	R2	C	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	inch	mm	mm	mm	1/min.		
50,4	32,7	104	12	5,5	-	32	2	14.000	<b>99-29012P</b>	F03FR02494
50,4	32,7	104	12	5,5	4,5	32	2	14.000	<b>99-29112P</b>	F03FR02496
50,4	32,7	104	12	7	-	32	2	14.000	<b>99-29312P</b>	F03FR02498
50,4	32,7	104	1/2	5,5	-	32	2	14.000	<b>99-29050P</b>	F03FR02495
50,4	32,7	104	1/2	7	-	32	2	14.000	<b>99-29350P</b>	F03FR02499

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Hex nut	7,94 x 6,75	<b>2610M BB9</b>	F03F010003
	Retaining ring	15 x 13,9	<b>2621ME 015</b>	F03FA07444
	Ball bearing	32 x 15 x 9	<b>3102M AN9</b>	F03F010016
	Spacer	18 x 1 x 8	<b>AN01MP0109</b>	F03FC00396



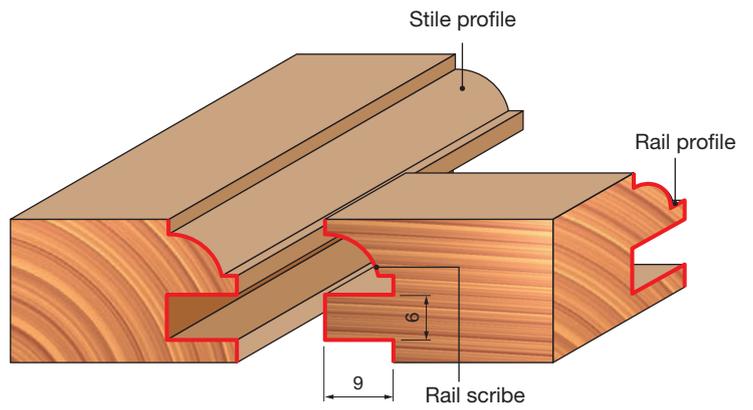
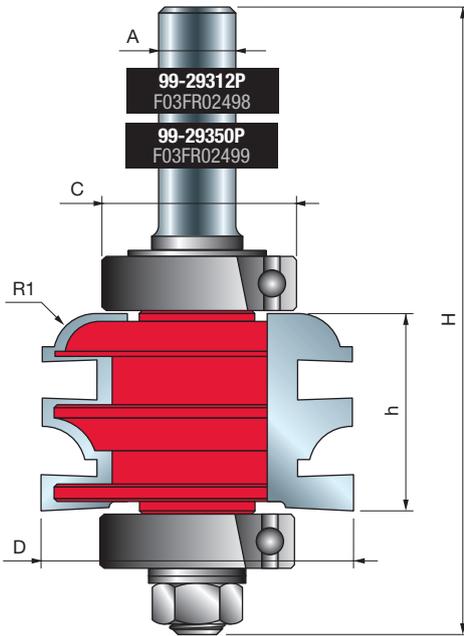
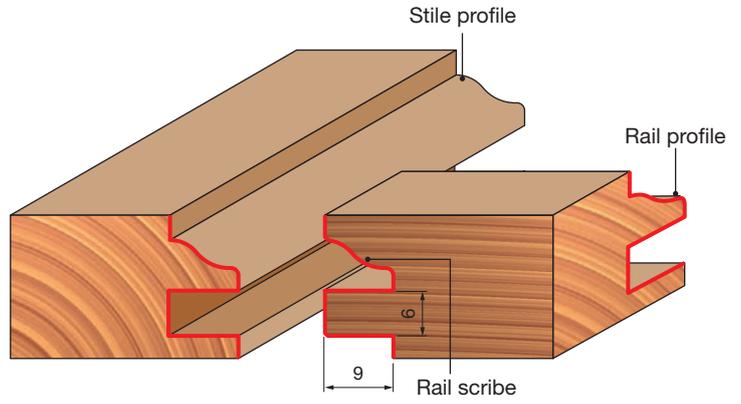
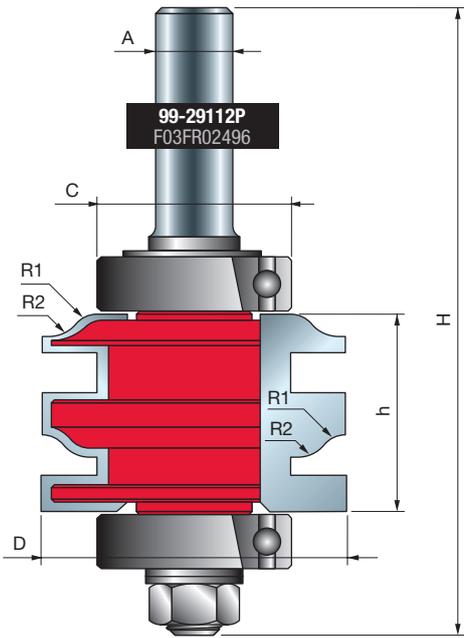




Table Routers



Softwood    Hardwood    Plywood    Wood Based Panels



**Machines:**

Table routers.

**Materials:**

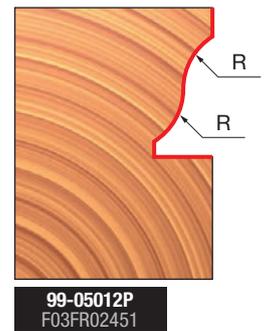
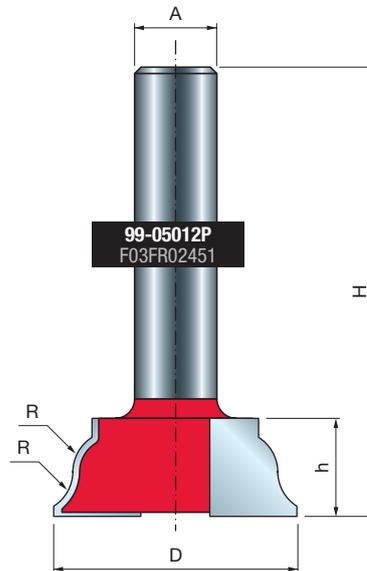
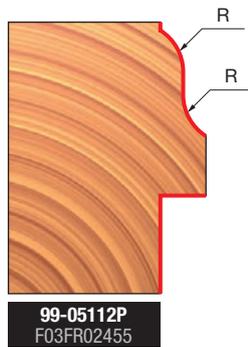
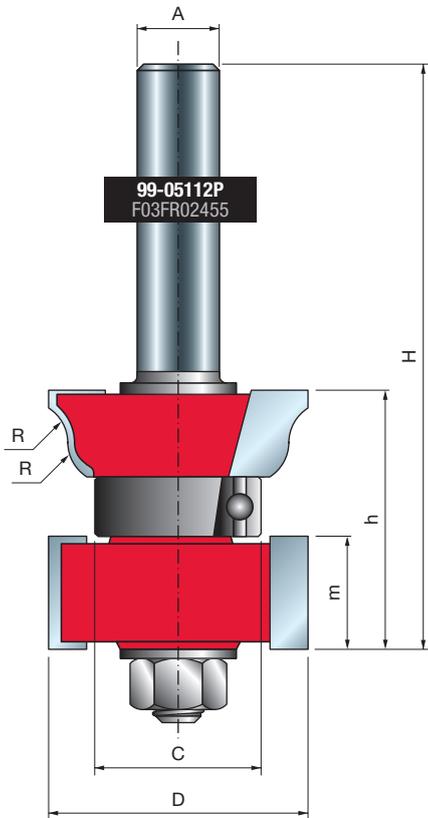
Softwood, hardwood, plywood and wood based panels.

**Applications:**

The two bits work together to produce a completely divided lite sash.

D	h	H	A	m	C	R	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	mm	mm	mm		1/min.		
34	35,9	78,4	12	14,5	22	6	2	16.000	99-05112P	F03FR02455
38	15,5	53,5	12	-	-	6	2	16.000	99-05012P	F03FR02451

Spare parts	Dimensions	Freud Code	Art. No.
	mm		
Hex nut	7,94 x 6,75	2610M BB9	F03F010003
Washer	14 x 8,4 x 1,6	2617M BG9	F03FR01668
Ball bearing	22 x 8 x 7,1	3102M AC9	F03F010008
Spacer	18 x 0,1 x 8	AN01MP0019	F03FC00392





# RAISED PANEL BITS

99-

**Machines:**

Table routers.

**Materials:**

Softwood, hardwood, plywood and wood based panels.

**Applications:**

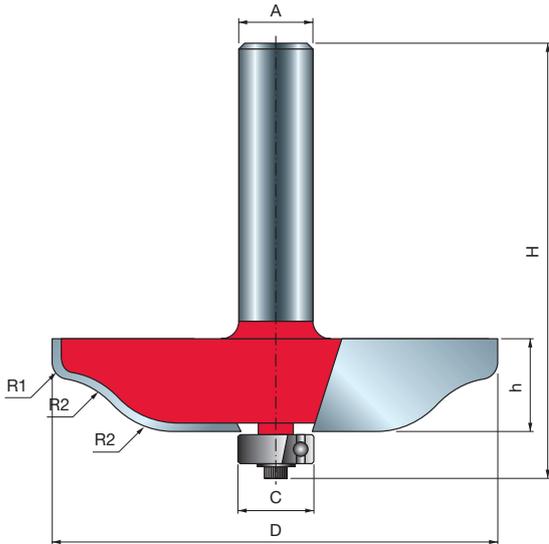
Create beautiful raised panels for cabinet doors or wall panelling.



Table Routers



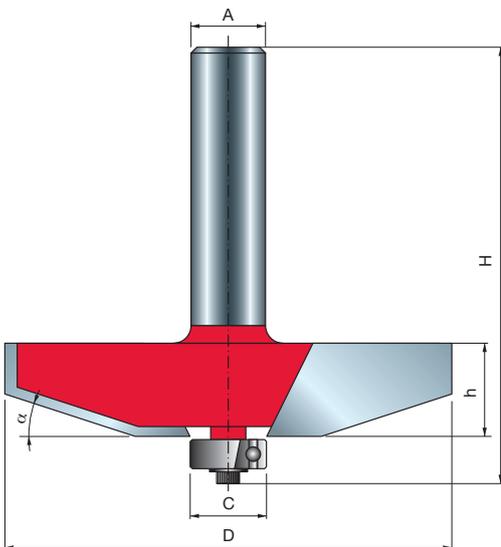
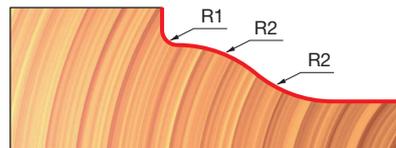
Softwood    Hardwood    Plywood    Wood Based Panels



**Type A**

D	h	H	A	C	R1	R2	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	inch	mm	mm		1/min.		
76,2	16	64,7	12	12,7	2	16	2	12.000	<b>99-22112P</b>	F03FR02458
70	16	64,5	1/2	12,7	14	3	4	12.000	<b>99-51050P</b>	F03FR02504
89	16	64,5	1/2	12,7	20	4	4	10.000	<b>99-52050P</b>	F03FR02512

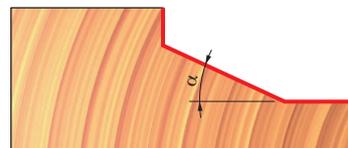
Spare parts		Dimensions	Freud Code	Art. No.
		mm		
	Screw	M3 x 7,6	<b>2607M 001</b>	F03F010000
	Ball bearing	12,7 x 4,98 x 4,76	<b>3102M AB9</b>	F03F010007
	Washer	12 x 1,1 x 4,8	<b>FX07M AB9</b>	F03F010159

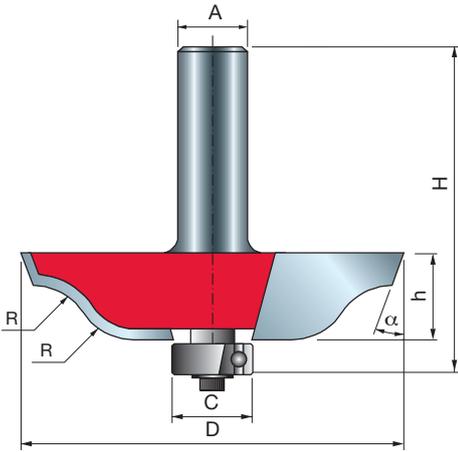


**Type B**

D	h	H	A	C	α	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	inch	mm		1/min.		
63,5	16	60	12	12,7	25°	2	12.000	<b>99-22212P</b>	F03FR02459
76,2	16	60	12	12,7	18°	2	12.000	<b>99-22312P</b>	F03FR02460
89	16,1	64,5	1/2	12,7	16,5°	4	10.000	<b>99-51550P</b>	F03FR02508

Spare parts		Dimensions	Freud Code	Art. No.
		mm		
	Screw	M3 x 7,6	<b>2607M 001</b>	F03F010000
	Ball bearing	12,7 x 4,98 x 4,76	<b>3102M AB9</b>	F03F010007
	Washer	12 x 1,1 x 4,8	<b>FX07M AB9</b>	F03F010159

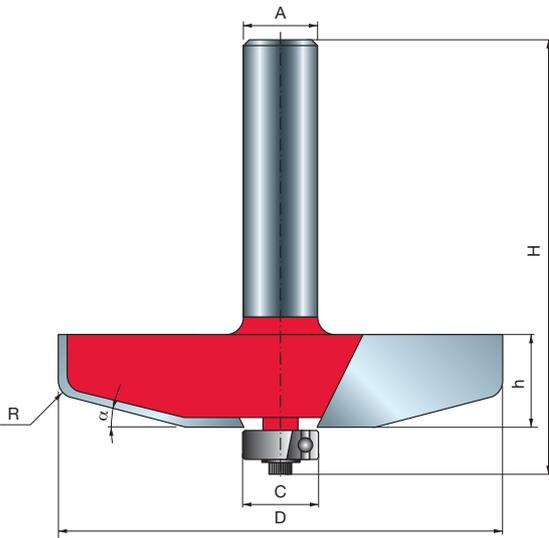
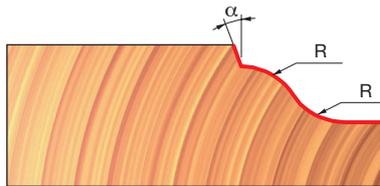




Type C

D	h	H	A	C	$\alpha$	R	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	inch	mm		mm		1/min.		
70	16	64,5	1/2	12,7	20°	11	4	12.000	99-51350P	F03FR02507

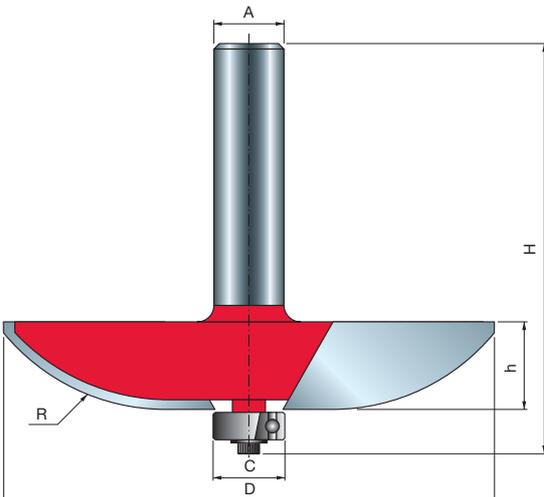
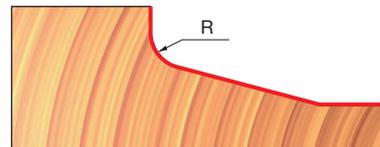
Spare parts	Dimensions	Freud Code	Art. No.
	mm		
Screw	M3 x 7,6	2607M 001	F03F010000
Ball bearing	12,7 x 4,98 x 4,76	3102M AB9	F03F010007
Washer	12 x 1,1 x 4,8	FX07M AB9	F03F010159



Type D

D	h	H	A	C	$\alpha$	R	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	mm		mm		1/min.		
76,2	16	60	12	12,7	15°	4,8	2	12.000	99-22412P	F03FR02461

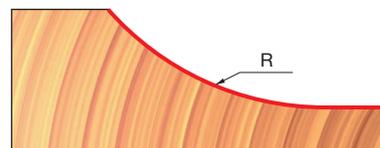
Spare parts	Dimensions	Freud Code	Art. No.
	mm		
Screw	M3 x 7,6	2607M 001	F03F010000
Ball bearing	12,7 x 4,98 x 4,76	3102M AB9	F03F010007
Washer	12 x 1,1 x 4,8	FX07M AB9	F03F010159



Type E

D	h	H	A	C	R	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	inch	mm	mm		1/min.		
89	16	64,7	12	12,7	38,1	2	10.000	99-22512P	F03FR02462
89	16	64,5	1/2	12,7	38	4	10.000	99-51850P	F03FR02510

Spare parts	Dimensions	Freud Code	Art. No.
	mm		
Screw	M3 x 7,6	2607M 001	F03F010000
Ball bearing	12,7 x 4,98 x 4,76	3102M AB9	F03F010007
Washer	12 x 1,1 x 4,8	FX07M AB9	F03F010159





# RAISED PANEL BITS WITH BACK CUTTERS

99-

**Machines:**

Table routers.

**Materials:**

Softwood, hardwood, plywood and wood based panels.

**Applications:**

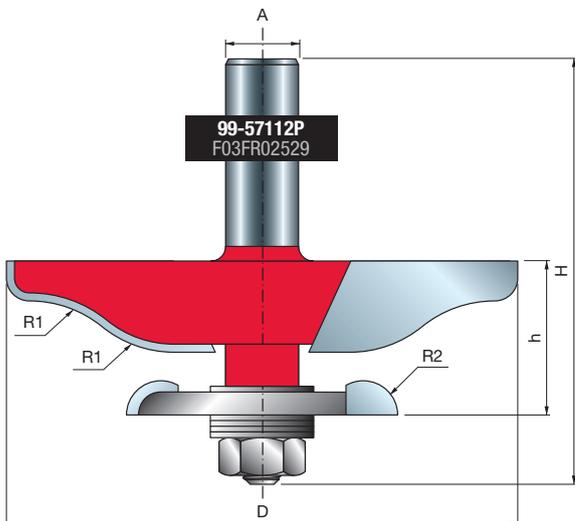
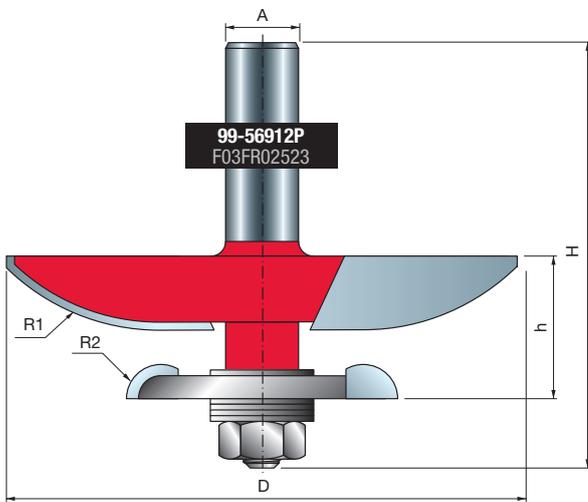
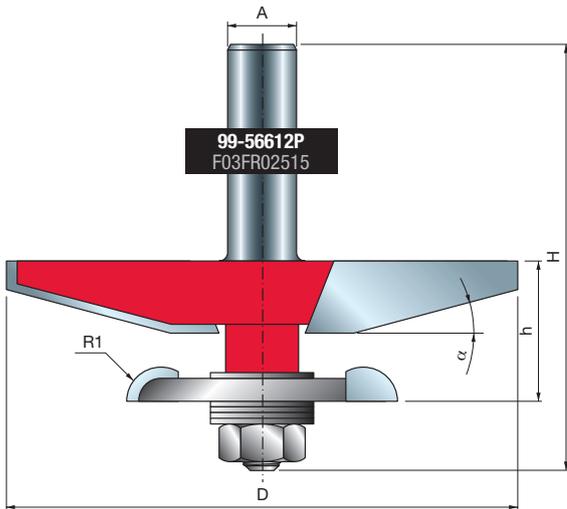
Create beautiful raised panels for cabinet doors or wall panelling. These raised panel bits include a backcutter that routs a rabbet on the back of the door panel.



Table Routers

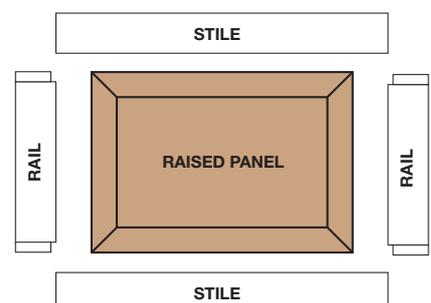
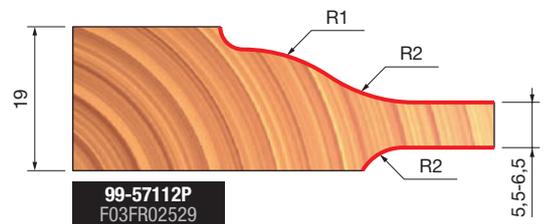
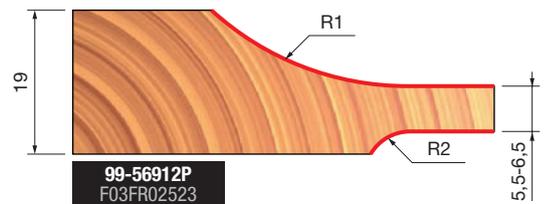
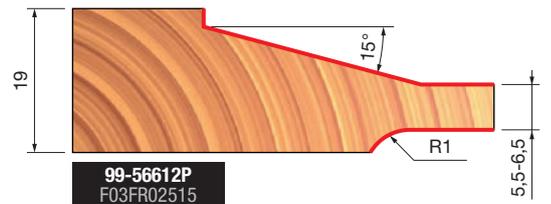


Softwood    Hardwood    Plywood    Wood Based Panels



D mm	h mm	H mm	A mm	$\alpha$	R1 mm	R2 mm	Z	Max RPM 1/min.	Freud Code	Art. No.
89	25	75	12	15°	6	-	2	14.000	<b>99-56612P</b>	F03FR02515
89	25	75	12	15°	38	6	2	14.000	<b>99-56912P</b>	F03FR02523
89	25	75	12	15°	30	6	2	14.000	<b>99-57112P</b>	F03FR02529

Spare parts	Dimensions mm	Freud Code	Art. No.
	Hex nut	7,94 x 6,75	<b>2610M BB9</b> F03F010003
	Spacer	18 x 0,1 x 8	<b>AN01MP0019</b> F03FC00392
	Spacer	18 x 0,2 x 8	<b>AN01MP0029</b> F03FC00393
	Spacer	18 x 0,5 x 8	<b>AN01MP0059</b> F03FC00395
	Spacer	18 x 1 x 8	<b>AN01MP0109</b> F03FC00396
	Spacer	18 x 0,15 x 8	<b>AN01MPAA99</b> F03FC00391



# VERTICAL RAISED PANEL BITS

99-

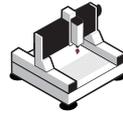
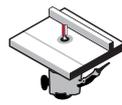


Table Routers

CNC Machines



Softwood

Hardwood

Plywood

Wood Based Panels

**Machines:**

Table routers and CNC machines.

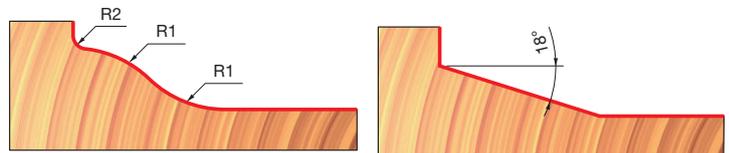
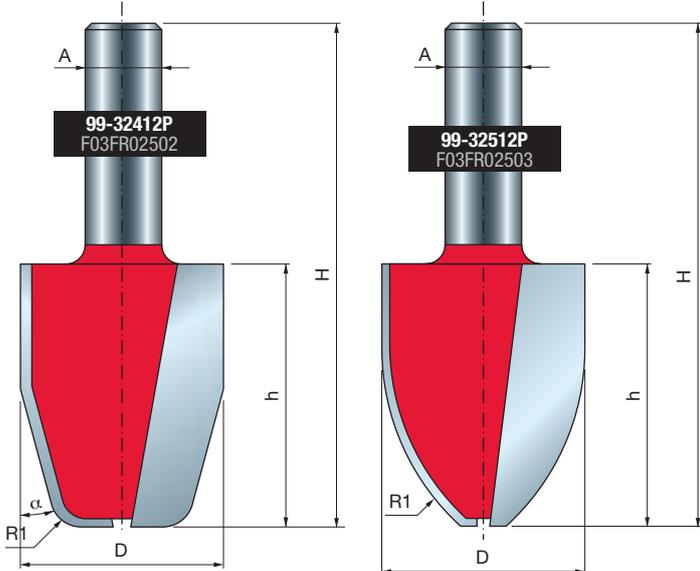
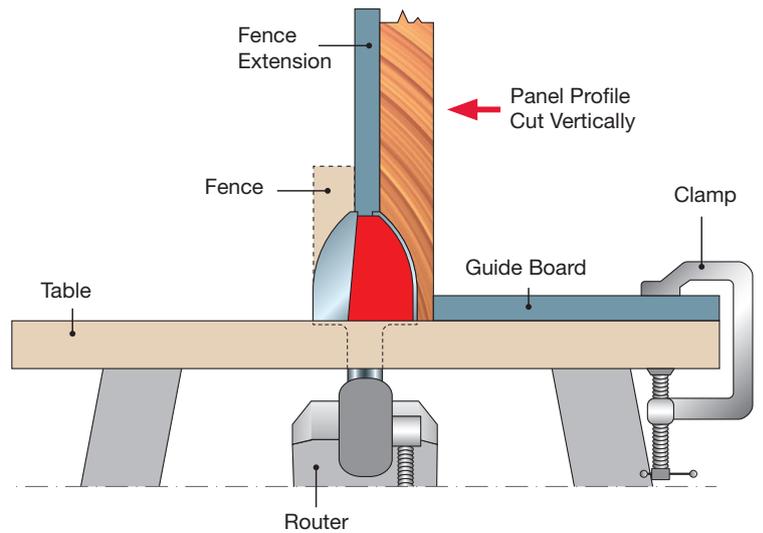
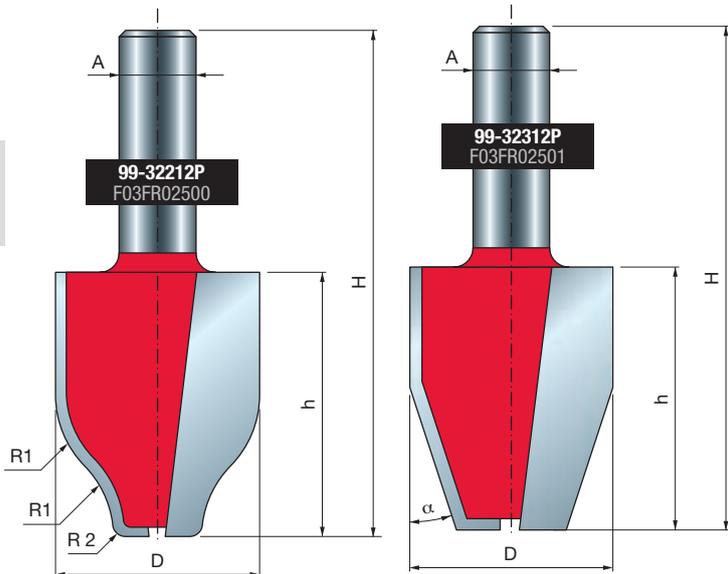
**Materials:**

Softwood, hardwood, plywood and wood based panels.

**Applications:**

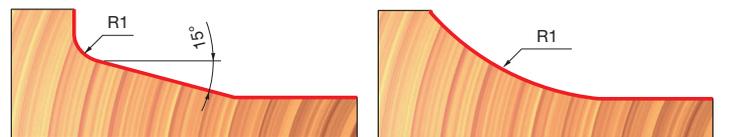
Create beautiful raised panels for cabinet doors or wall panelling.

D mm	h mm	H mm	A	$\alpha$	R1 mm	R2 mm	Z	Max RPM 1/min.	Freud Code	Art. No.
31,8	41,5	79,5	12	-	2	16	2	16.000	99-32212P	F03FR02500
31,8	41,5	79,5	12	18°	-	-	2	16.000	99-32312P	F03FR02501
31,8	41,5	79,5	12	15°	4,8	-	2	16.000	99-32412P	F03FR02502
31,8	41,5	79,5	12	-	38,1	-	2	16.000	99-32512P	F03FR02503



99-32212P  
F03FR02500

99-32312P  
F03FR02501



99-32412P  
F03FR02502

99-32512P  
F03FR02503

# Surface Forming Bits





# V-GROOVE BITS

20- PI01

**Machines:**

Hand-held routers, table routers and CNC machines.

**Materials:**

Softwood, hardwood, plywood and wood based panels.

**Applications:**

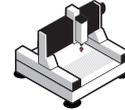
Perfect for V shaped grooves, signmaking, engraving and decorative details.



Hand-held Routers



Table Routers



CNC Machines



Softwood



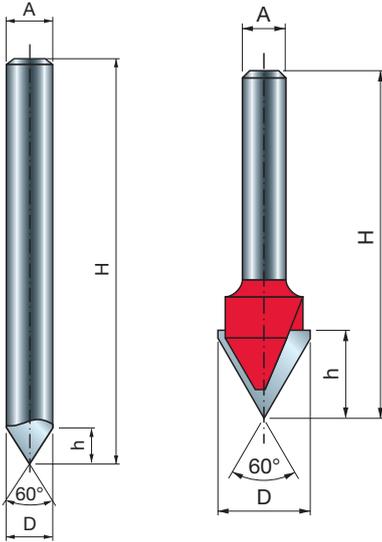
Hardwood



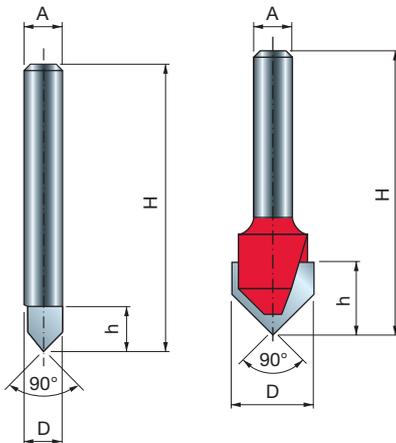
Plywood



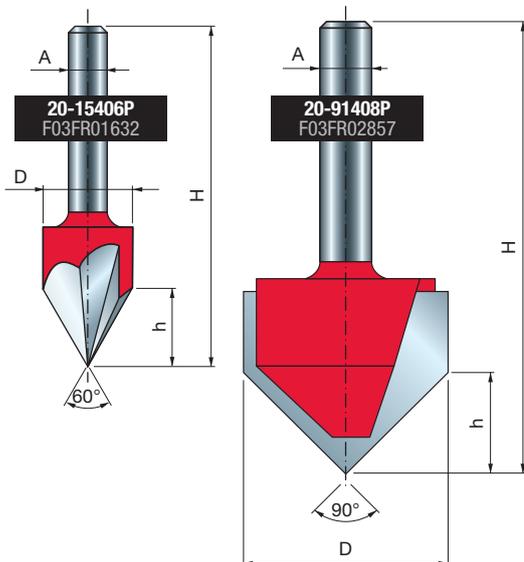
Wood Based Panels



• Solid Carbide Bit

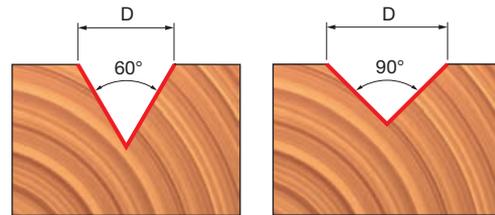


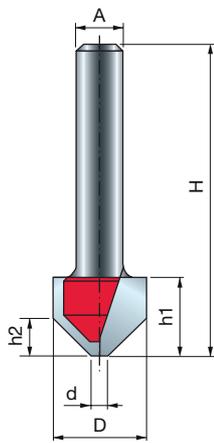
• Solid Carbide Bit



D	h	H	A	$\alpha$	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	inch		1/min.		
6	6	38,1	6	90°	1	24.000	20-10006P	F03FR01617
9,5	10	44,4	6	90°	2	24.000	20-10206P	F03FR01619
12,7	10	44,4	6	90°	2	24.000	20-10406P	F03FR01622
12,7	12,7	49,2	6	60°	2	24.000	20-15206P	F03FR01629
12,7	11	57,3	6	60°	3	24.000	20-15406P	F03FR01632
6	6	38,1	8	90°	1	24.000	20-10008P	F03FR01618
8	6	70	8	60°	1	30.000	PI01MD6083	F03FR00382
8	8	70	8	60°	1	24.000	20-16008P	F03FR01634
9,5	10	44,4	8	90°	2	24.000	20-10208P	F03FR01620
12,7	10	44,4	8	90°	2	24.000	20-10408P	F03FR01623
12,7	12,7	50,8	8	60°	2	24.000	20-15208P	F03FR01630
12,7	11	54	8	60°	3	24.000	20-15408P	F03FR01633
31,75	16	51	8	90°	2	24.000	20-91408P	F03FR02857
15,88	12,5	56,5	12	90°	2	24.000	20-10612P	F03FR01625
19,05	12,5	57,2	12	90°	2	24.000	20-10812P	F03FR01626
9,53	10	44,4	1/4	90°	2	24.000	20-10225P	F03FR01621
12,7	10	44,4	1/4	90°	2	24.000	20-10425P	F03FR01624
12,7	12,7	47,5	1/4	60°	2	24.000	20-15225P	F03FR01631
12,7	12,7	54,7	1/2	90°	2	24.000	20-10950P	F03FR01628

• Solid Carbide Bit





**Machines:**

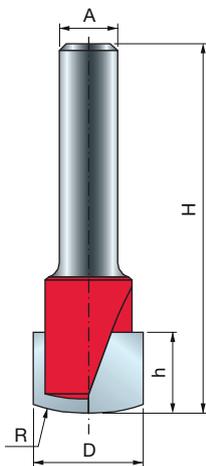
Hand-held routers, table routers and CNC machines.

**Materials:**

ACM (Aluminium Composite Material) panels, softwood, hardwood, plywood and wood based panels.

**Applications:**

Designed to create a V groove on ACM panels, ensuring an easy bending of the panel without fractures.



**Machines:**

Hand-held routers, table routers and CNC machines.

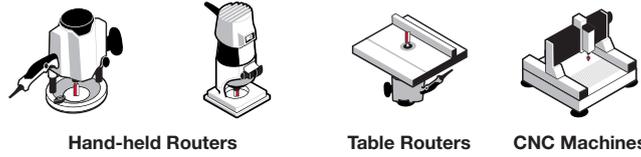
**Materials:**

ACM (Aluminium Composite Material) panels, softwood, hardwood, plywood and wood based panels.

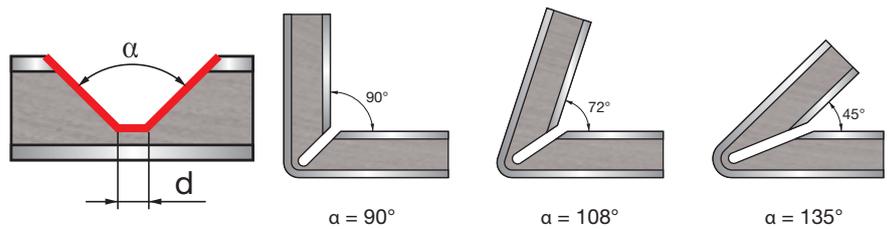
**Applications:**

Designed to create a rectangular groove on thick ACM panels, ensuring an easy bending of the panel without fractures.

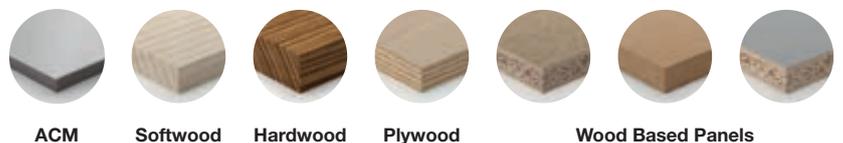
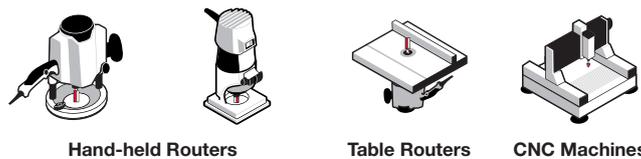
## V-GROOVE BITS FOR ACM PANEL FOLDING 21-



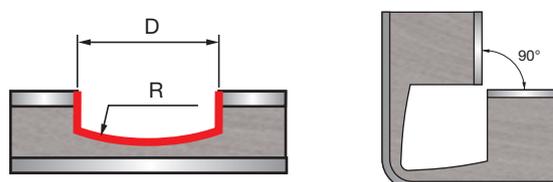
D	h1	h2	H	A	d	$\alpha$	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	mm	inch	mm		1/min.		
16	12,5	6,8	50,8	6	2,5	90°	2	24.000	21-11206P	F03FR04018
19,05	12,5	6	50,8	6	2,5	108°	2	24.000	21-14606P	F03FR04021
22,23	12,5	4,2	50,8	6	2,29	135°	2	24.000	21-18206P	F03FR04024
16	12,5	6,8	50,8	8	2,5	90°	2	24.000	21-11208P	F03FR04019
19,05	12,5	6	50,8	8	2,5	108°	2	24.000	21-14608P	F03FR04022
22,23	12,5	4,2	50,8	8	2,29	135°	2	24.000	21-18208P	F03FR04025
12,7	10,8	5,2	50,8	1/4	2,29	90°	2	24.000	21-11025P	F03FR04017
16	12,7	6,8	50,8	1/4	2,5	90°	2	24.000	21-11225P	F03FR04020
19,05	12,7	6	50,8	1/4	2,5	108°	2	24.000	21-14625P	F03FR04023
22,23	12,7	4,2	50,8	1/4	2,29	135°	2	24.000	21-18225P	F03FR04026



## RECTANGULAR GROOVE BITS FOR ACM PANEL FOLDING 21-

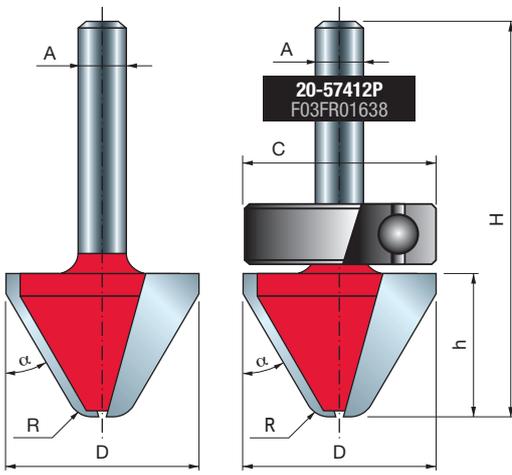


D	h	H	A	R	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	inch	mm	1/min.		
15,88	11	50	8	23,8	2	24.000	21-20008P	F03FR03967
15,88	11	50,8	1/4	23,8	2	24.000	21-20025P	F03FR03963



# LETTERING BITS

20-



**Machines:**

Hand-held routers, table routers and CNC machines.  
Bits with ball bearing are not recommended to be used on CNC machines.

**Materials:**

Softwood, hardwood, plywood and wood based panels.

**Applications:**

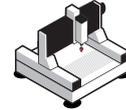
Produce a 60° angle V shape groove with a flat bottom for highly readable relief lettering.



Hand-held Routers



Table Routers



CNC Machines



Softwood



Hardwood



Plywood



Wood Based Panels

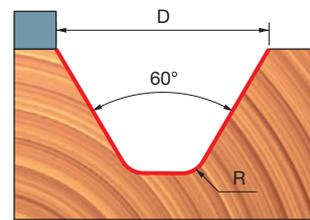
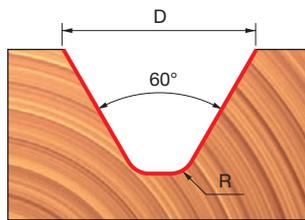


Wood Based Panels



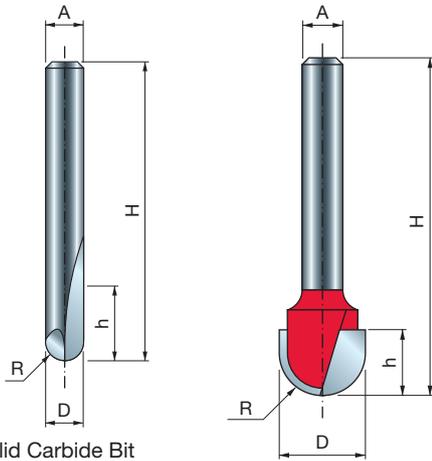
Wood Based Panels

D mm	h mm	H mm	A mm	C mm	R mm	α	Z	Max RPM 1/min.	Freud Code	Art. No.
25,4	19	51,05	6	-	3	60°	2	24.000	20-17206P	F03FR01635
25,4	19	51,05	8	-	3	60°	2	24.000	20-17208P	F03FR01636
28,57	19	57	12	-	3	60°	2	18.000	20-17412P	F03FR01637
28	19	67,15	12	28	3	60°	2	18.000	20-57412P	F03FR01638



# ROUND NOSE BITS

18-



• Solid Carbide Bit



**Machines:**

Hand-held routers, table routers and CNC machines.

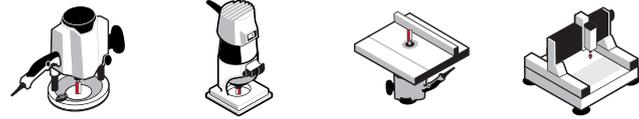
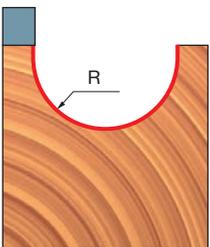
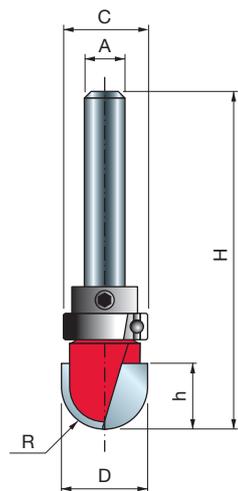
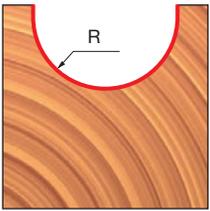
Bits with ball bearing are not recommended to be used on CNC machines.

**Materials:**

Softwood, hardwood, plywood and wood based panels.

**Applications:**

Perform beautiful semicircular engraved grooves in the workpiece.



Softwood    Hardwood    Plywood    Wood Based Panels

D	h	H	A	R	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	inch	mm	1/min.		
• 3,2	9,5	50,5	6		1,6	2	24.000	18-10006P F03FR01581
• 4,8	9,5	50,5	6		2,4	2	24.000	18-10206P F03FR01584
• 6	12,7	50,8	6		3	2	24.000	18-10406P F03FR01587
• 9,52	9	46	6		4,8	2	24.000	18-10606P F03FR01590
• 12	9	46	6		6	2	24.000	18-10806P F03FR01593
• 15,88	11	50,8	6		8	2	24.000	18-11006P F03FR01596
• 19,05	11	50,8	6		9,5	2	24.000	18-11206P F03FR01599
• 3,2	9,5	50,5	8		1,6	2	24.000	18-10008P F03FR01582
• 4,8	9,5	50,5	8		2,4	2	24.000	18-10208P F03FR01585
• 6	12,7	50,8	8		3	2	24.000	18-10408P F03FR01588
• 9,52	9	46	8		4,8	2	24.000	18-10608P F03FR01591
• 12	9	46	8		6	2	24.000	18-10808P F03FR01594
• 15,88	11	50,8	8		8	2	24.000	18-11008P F03FR01597
• 19,05	11	50,8	8		9,5	2	24.000	18-11208P F03FR01600
• 6	9,5	57	12		3	2	24.000	18-11412P F03FR01602
• 12,7	31,7	71,5	12		6,35	2	24.000	18-11612P F03FR01604
• 19,05	31,7	73	12		9,5	2	24.000	18-12212P F03FR01606
• 25,4	31,7	73	12		12,7	2	24.000	18-12612P F03FR01608
• 3,18	9,5	50,5		1/4	1,59	2	24.000	18-10025P F03FR01583
• 4,76	6,4	50,5		1/4	2,38	2	24.000	18-10225P F03FR01586
• 6,35	12,7	50,5		1/4	3,18	2	24.000	18-10425P F03FR01589
• 9,52	9	45		1/4	4,77	2	24.000	18-10625P F03FR01592
• 12,7	9	45,5		1/4	6,35	2	24.000	18-10825P F03FR01595
• 15,88	11	48		1/4	7,94	2	24.000	18-11025P F03FR01598
• 19,05	11	48		1/4	9,53	2	24.000	18-11225P F03FR01601
• 6,35	12,7	61		1/2	3,18	2	24.000	18-11450P F03FR01603
• 12,7	31,7	72,7		1/2	6,35	2	24.000	18-11650P F03FR01605
• 19	31,7	73		1/2	9,5	2	24.000	18-12250P F03FR01607

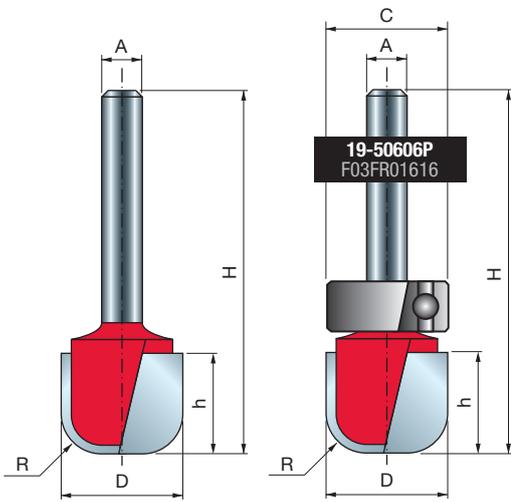
• Solid Carbide Bits

**Bits with ball bearing (not suitable for CNC machines)**

D	h	H	A	R	C	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	mm	mm		1/min.		
15,88	11	59,5	6	8	15,8	2	24.000	18-51006P	F03FR01609
19,05	11,1	59,5	6	9,5	19	2	24.000	18-51206P	F03FR01611
15,88	11	59,5	8	8	15,8	2	24.000	18-51008P	F03FR01610
19,05	11	59,5	8	9,5	19,05	2	24.000	18-51208P	F03FR01612

# WOOD BOWL BITS

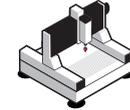
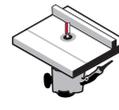
19- 99-



Hand-held Routers



Table Routers



CNC Machines



Softwood



Hardwood



Plywood



Wood Based Panels



Wood Based Panels



Wood Based Panels

D mm	h mm	H mm	A mm	R mm	C mm	Z	Max RPM 1/min.	Freud Code	Art. No.
19	15,9	64,1	6	6,35	19	2	24.000	<b>19-5060P</b>	F03FR01616
19,05	15,9	47,5	6	6,35	-	2	24.000	<b>19-10606P</b>	F03FR01613
19,05	15,9	47,5	8	6,35	-	2	24.000	<b>19-10608P</b>	F03FR01614
19,05	15,9	67	12	6,35	-	2	24.000	<b>19-12612P</b>	F03FR01615
31,75	15,8	53	12	6,35	-	2	18.000	<b>99-02612P</b>	F03FR02420

### Machines:

Hand-held routers, table routers and CNC machines.

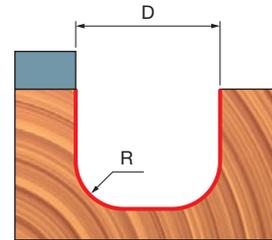
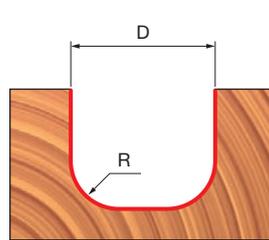
Bits with ball bearing are not recommended to be used on CNC machines.

### Materials:

Softwood, hardwood, plywood and wood based panels.

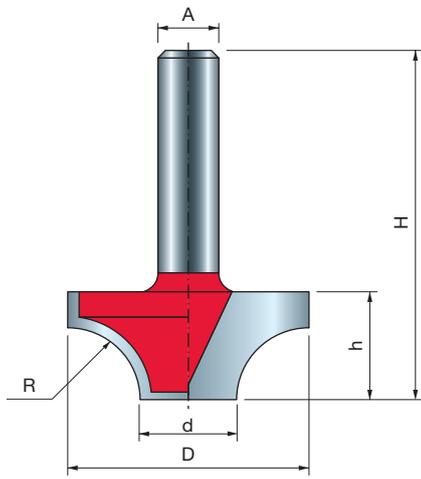
### Applications:

Perform beautiful bowl shaped engraved grooves with a flat bottom in the workpiece.



# OVOLO BITS

39-



Hand-held Routers

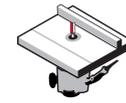
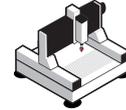


Table Routers



CNC Machines



Softwood



Hardwood



Plywood



Wood Based Panels



**Machines:**

Hand-held routers, table routers and CNC machines.

**Material:**

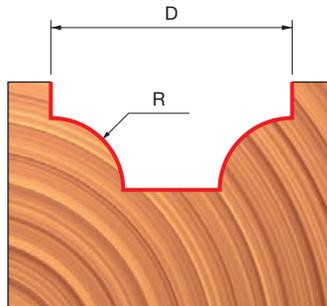
Softwood, hardwood, plywood and wood based panels.

**Applications:**

Create decorative grooves in moulding and furniture.

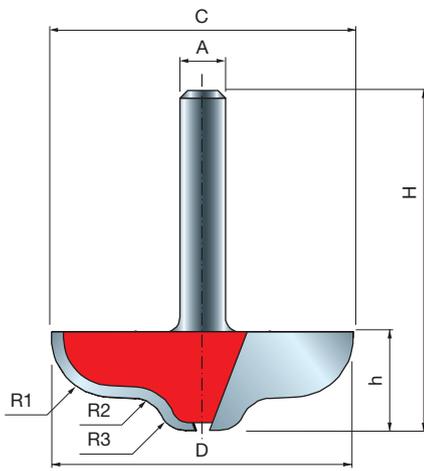
D mm	h mm	H mm	A mm	R mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
12,7	8	40	6	3,2	6,35	2	24.000	39-20206P	F03FR01871
24,7	12,7	44,7	8	6	12,7	2	24.000	39-20908P	F03FR01873
31,75	14,3	46,3	8	9,53	12,7	2	18.000	39-20808P	F03FR01872
63,5	33,3	71,3	12	25,4	12,7	2	12.000	39-23812P*	F03FR01874

\* Not suitable for hand-held machines



# DOUBLE COVE AND BEAD GROOVE BITS

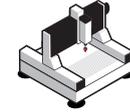
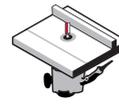
39-



Hand-held Routers



Table Routers



CNC Machines



Softwood



Hardwood



Plywood



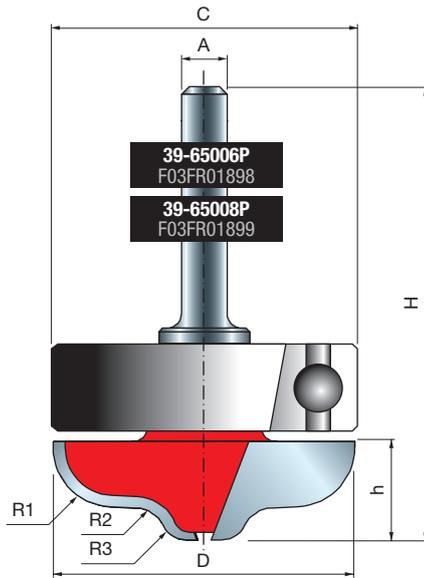
Wood Based Panels



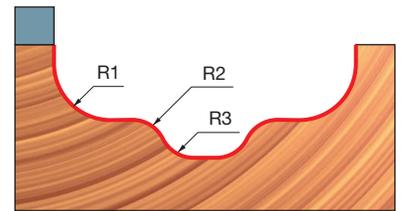
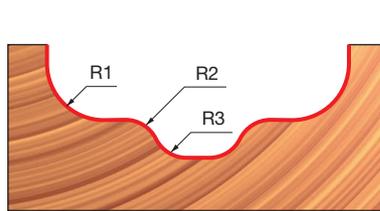
Wood Based Panels



Wood Based Panels



D mm	h mm	H mm	A mm	C mm	R1 mm	R2 mm	R3 mm	Z	Max RPM 1/min.	Freud Code	Art. No.
39,6	13	45	6	-	7,9	4,2	3,4	2	16.000	39-60006P	F03FR01896
39,6	13	60,1	6	39,6	7,9	4,2	3,4	2	16.000	39-65006P	F03FR01898
39,6	13	45	8	-	7,9	4,2	3,4	2	16.000	39-60008P	F03FR01897
39,6	13	60,1	8	39,6	7,9	4,2	3,4	2	16.000	39-65008P	F03FR01899



**Machines:**

Hand-held routers, table routers and CNC machines.

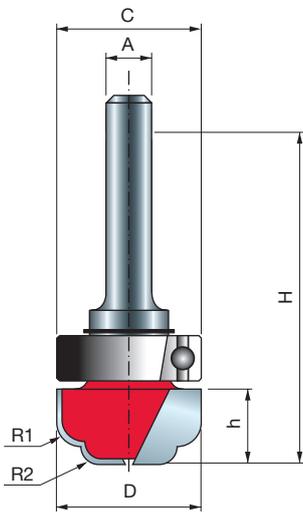
Bits with ball bearing are not recommended to be used on CNC machines.

**Materials:**

Softwood, hardwood, plywood and wood based panels.

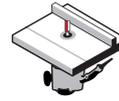
**Applications:**

Create decorative grooves in moulding and furniture.



## TOP BEARING DOUBLE COVE GROOVE BIT

39-



Hand-held Routers

Table Routers



Softwood

Hardwood

Plywood

Wood Based Panels

D	h	H	A	C	R1	R2	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	mm	mm	mm		1/min.		
19	9,6	53	6	19	3,2	2,4	2	24.000	39-51206P	F03FR01887

### Machines:

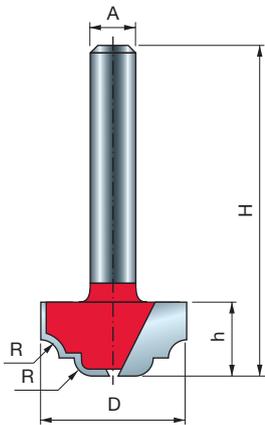
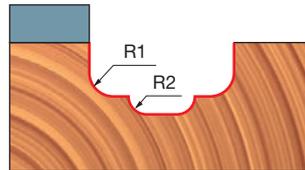
Hand-held routers and table routers.

### Materials:

Softwood, hardwood, plywood and wood based panels.

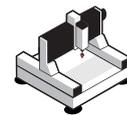
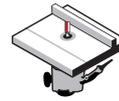
### Applications:

Use with templates to create decorative grooves in moulding and furniture.



## COVE AND BEAD GROOVE BITS

39-



Hand-held Routers

Table Routers

CNC Machines



Softwood

Hardwood

Plywood

Wood Based Panels

D	h	H	A	R	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	inch	mm	1/min.		
19,05	9,8	41,8	6		2,38	2	24.000	39-10006P F03FR01856
25,4	12,7	44,7	6		3,18	2	24.000	39-10206P F03FR01860
19,05	9,8	41,8	8		2,38	2	24.000	39-10008P F03FR01857
19	12,7	44,7	8		4	2	24.000	39-10108P F03FR01859
25,4	12,7	44,7	8		3,18	2	24.000	39-10208P F03FR01861
31,75	12,7	44,7	8		4	2	18.000	39-11408P F03FR01863
31,75	12,7	50,7	12		4	2	18.000	39-11412P F03FR01864
19,05	9,8	41,8		1/4	2,38	2	24.000	39-10025P F03FR01858
25,4	12,7	44,7		1/4	3,18	2	24.000	39-10225P F03FR01862

### Machines:

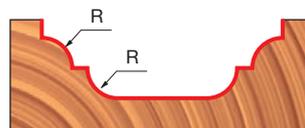
Hand-held routers, table routers and CNC machines.

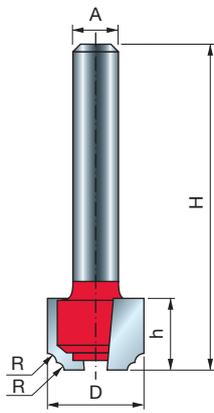
### Materials:

Softwood, hardwood, plywood and wood based panels.

### Applications:

Create decorative grooves in moulding and furniture.





## CLASSICAL BEADING GROOVE BITS

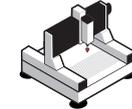
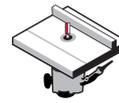
39-



Hand-held Routers



Table Routers



CNC Machines



Softwood



Hardwood



Plywood



Wood Based Panels



Wood Based Panels



Wood Based Panels



### Machines:

Hand-held routers, table routers and CNC machines.

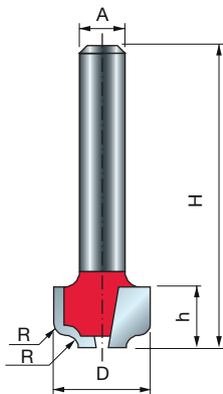
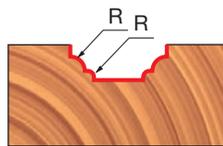
### Materials:

Softwood, hardwood, plywood and wood based panels.

### Applications:

Create decorative grooves in moulding and furniture.

D mm	h mm	H mm	A mm	A inch	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
12,7	9,5	41,2	6		1,2	2	24.000	39-30206P	F03FR01878
15,88	9,5	41,2	6		2,38	2	24.000	39-30406P	F03FR01881
22,22	12	43,7	6		3,18	2	24.000	39-30606P	F03FR01884
12,7	9,5	41,2	8		1,2	2	24.000	39-30208P	F03FR01879
15,88	9,5	41,2	8		2,38	2	24.000	39-30408P	F03FR01882
22,22	12	43,7	8		3,2	2	24.000	39-30608P	F03FR01885
12,7	9,5	41,2		1/4	1,2	2	24.000	39-30225P	F03FR01880
15,88	9,5	41,2		1/4	2,38	2	24.000	39-30425P	F03FR01883
22,22	12	43,7		1/4	3,18	2	24.000	39-30625P	F03FR01886



## OGEE GROOVE BITS

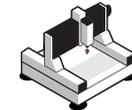
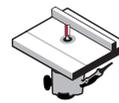
39-



Hand-held Routers



Table Routers



CNC Machines



Softwood



Hardwood



Plywood



Wood Based Panels



Wood Based Panels



Wood Based Panels



### Machines:

Hand-held routers, table and CNC machines.

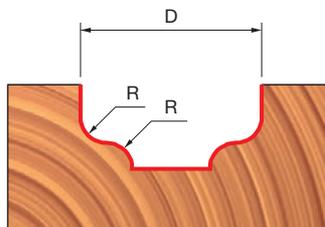
### Materials:

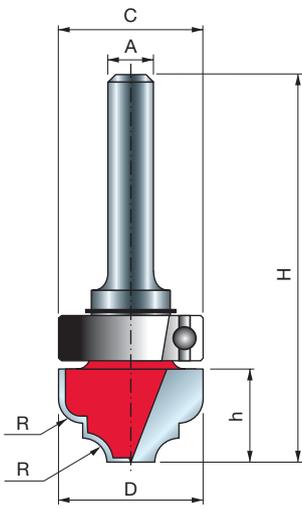
Softwood, hardwood, plywood and wood based panels.

### Applications:

Create decorative grooves in moulding and furniture.

D mm	h mm	H mm	A mm	A inch	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
12,7	8	40	6		1,59	2	24.000	39-15206P	F03FR01865
19,05	12,7	44,7	6		6,35	2	24.000	39-24006P	F03FR01875
22,23	10,36	42,4	6		3,18	2	24.000	39-15406P	F03FR01868
12,7	8	40	8		1,6	2	24.000	39-15208P	F03FR01866
19,05	12,7	44,7	8		6,4	2	24.000	39-24008P	F03FR01876
22,23	10,36	42,4	8		3,2	2	24.000	39-15408P	F03FR01869
19,05	12,7	50,7	12		6,4	2	24.000	39-24012P	F03FR01877
12,7	8	40		1/4	1,59	2	24.000	39-15225P	F03FR01867
22,23	10,4	42,4		1/4	3,18	2	24.000	39-15425P	F03FR01870





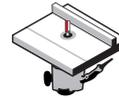
**Machines:**  
Hand-held routers and table routers.

**Materials:**  
Softwood, hardwood, plywood and wood based panels.

**Applications:**  
Use with templates to create decorative grooves in moulding and furniture.

## TOP BEARING COVE AND BEAD GROOVE BITS

39-



Hand-held Routers

Table Routers



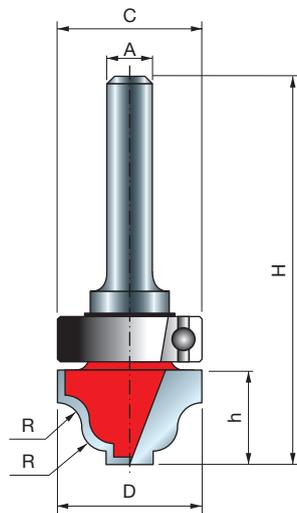
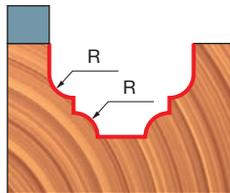
Softwood

Hardwood

Plywood

Wood Based Panels

D	h	H	A	C	R	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	inch	mm		1/min.		
19	12,7	55,5	6		19	3,18	24.000	39-53206P	F03FR01892
28	14	58,1	8		28	3,18	18.000	39-53808P	F03FR01894
28	14	64,1	12		28	3,18	18.000	39-53812P	F03FR01895
19	12,7	55,5		1/4	19	3,18	24.000	39-53225P	F03FR01893



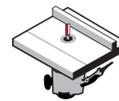
**Machines:**  
Hand-held routers and table routers.

**Materials:**  
Softwood, hardwood, plywood and wood based panels.

**Applications:**  
Use with templates to create decorative grooves in moulding and furniture.

## TOP BEARING FILLET OGEE GROOVE BITS

39-



Hand-held Routers

Table Routers



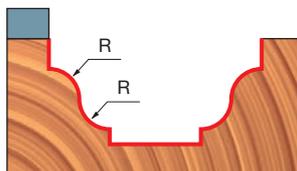
Softwood

Hardwood

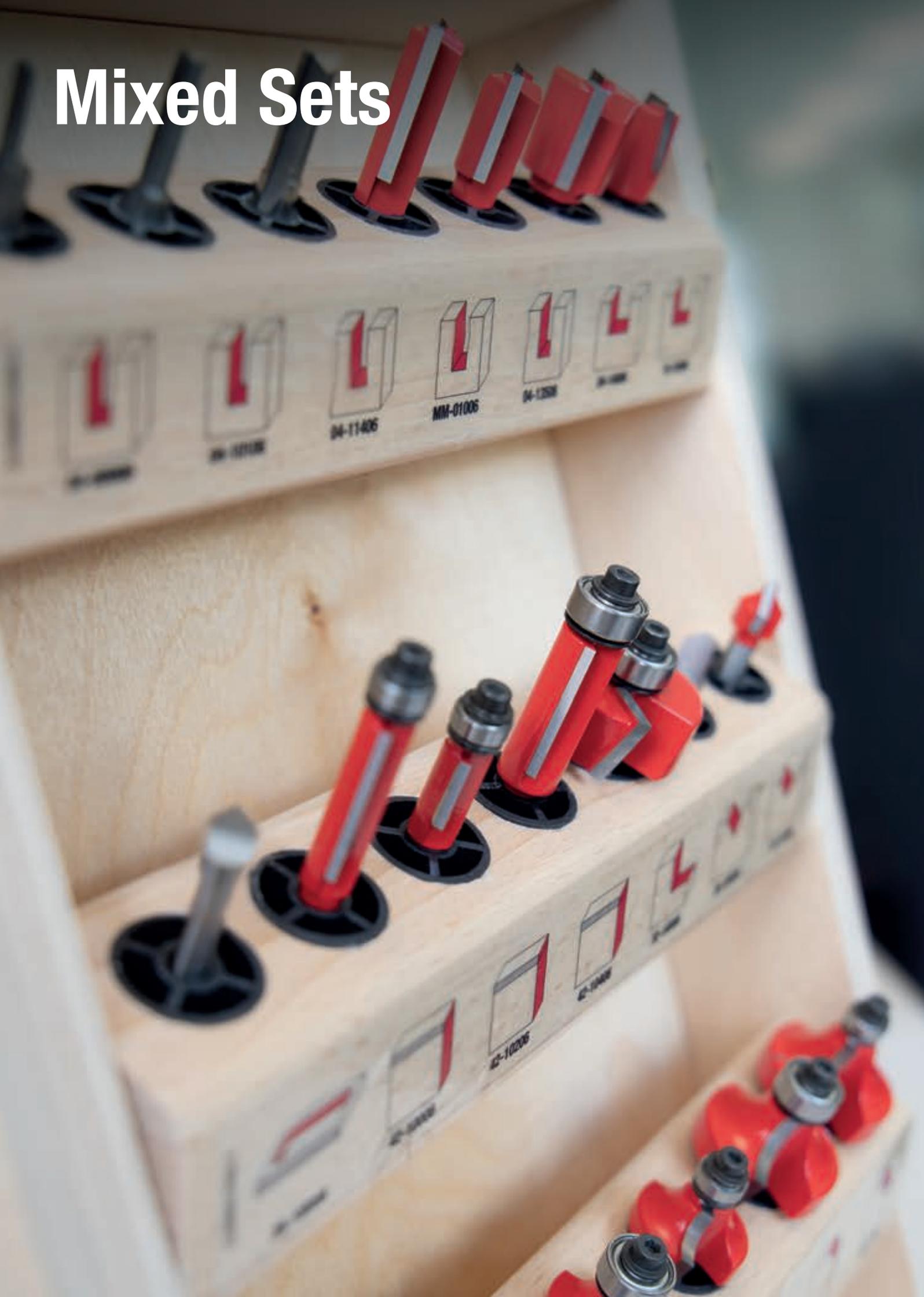
Plywood

Wood Based Panels

D	h	H	A	C	R	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	inch	mm		1/min.		
19	12,5	55,5	6		19	3,18	24.000	39-52206P	F03FR01888
28	14,4	58,1	8		28	4	18.000	39-52808P	F03FR01890
28	14,4	64,1	12		28	4	18.000	39-52812P	F03FR01891
19	12,5	55,5		1/4	19	3,18	24.000	39-52225P	F03FR01889



# Mixed Sets





# BASIC SET 4 ROUTER BITS

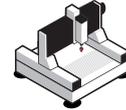
88-10606P (F03FR02255)



Hand-held Routers



Table Routers



CNC Machines\*



Softwood



Hardwood



Plywood



Wood Based Panels



Set code 88-10606P (F03FR02255)

Bit type	Page reference	D mm	h mm	H mm	A mm	C mm	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
• Double flute straight bit	244	6	16	50,8	6	-	-	2	24.000	04-11406P	F03FR01440
Flush trim bit	252	12,7	25,7	72,9	6	12,7	-	2	24.000	42-10406P	F03FR01938
Roman ogee bit	261	27	13,3	55,3	6	9,53	4	2	18.000	38-10006P	F03FR01805
Rounding over bit	256	31,75	18	59,7	6	12,7	9,53	2	18.000	34-11406P	F03FR01780

• Solid Carbide Bit



### Additional spare parts included

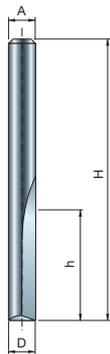
Spare parts	Dimensions mm	Freud Code	Art. No.
 Allen key	2,5	2619M CA9	F03FA07432
 Ball bearing	9,53 x 3,2 x 4,76	3102M AA9P	F03F010006
 Washer	9 x 2 x 6	FX07M AA9P	F03F010158

### Machines:

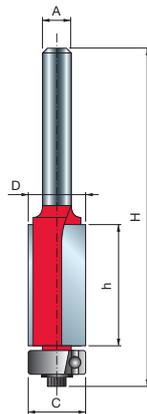
To identify the correct machine for each router bit, refer to the corresponding page reference of each router bit.

### Materials:

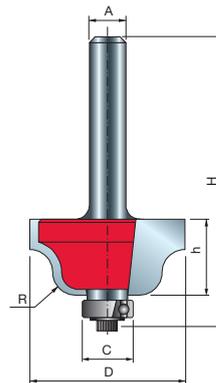
Softwood, hardwood, plywood and wood based panels.



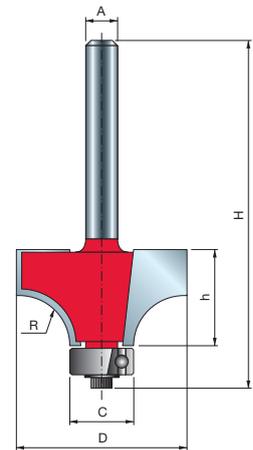
04-11406P  
F03FR01440



42-10406P  
F03FR01938



38-10006P  
F03FR01805

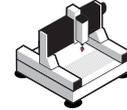


34-11406P  
F03FR01780



# STARTER 6 PIECE ROUTER BIT SET

**91-10408P** (F03FR02293)  
**91-10412P** (F03FR02294)



Hand-held Routers

Table Routers

CNC Machines\*



Softwood

Hardwood

Plywood

Wood Based Panels

## Set code 91-10408P (F03FR02293)

Bit type	Page reference	D mm	h mm	H mm	A mm	C mm	P mm	$\alpha$	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
Rabbeting bit	282	31,75	13,2	55,7	8	12,7	9,52	-	-	2	18.000	<b>32-10008P</b>	F03FR01746
Chamfer bit	257	44	18,5	61	8	12,7	-	45°	-	2	16.000	<b>40-10608P</b>	F03FR01920
Rounding over bit	256	31,75	18	59,7	8	12,7	-	-	9,5	2	18.000	<b>34-11408P</b>	F03FR01781
Round nose bit	307	12	9	46	8	-	-	-	6	2	24.000	<b>18-10808P</b>	F03FR01594
Cove bit	258	38,1	16,4	58,9	8	12,7	-	-	12,7	2	16.000	<b>30-10608P</b>	F03FR01707
Roman ogee bit	261	35	18,5	60,5	8	9,53	-	-	6,35	2	16.000	<b>38-10208P</b>	F03FR01809

## Set code 91-10412P (F03FR02294)

Bit type	Page reference	D mm	h mm	H mm	A mm	C mm	P mm	$\alpha$	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
Rabbeting bit	282	31,75	13,2	61,7	12	12,7	9,52	-	-	2	18.000	<b>32-10212P</b>	F03FR01748
Chamfer bit	257	44	18,5	67	12	12,7	-	45°	-	2	16.000	<b>40-11412P</b>	F03FR01922
Rounding over bit	256	31,75	18	65,7	12	12,7	-	-	9,53	2	18.000	<b>34-12412P</b>	F03FR01788
Round nose bit	307	12,7	31,7	71,5	12	-	-	-	6,35	2	24.000	<b>18-11612P</b>	F03FR01604
Cove bit	258	38,1	16,4	64,9	12	12,7	-	-	12,7	2	16.000	<b>30-11412P</b>	F03FR01713
Roman ogee bit	261	35	18,5	66,5	12	9,53	-	-	6,35	2	16.000	<b>38-10612P</b>	F03FR01812

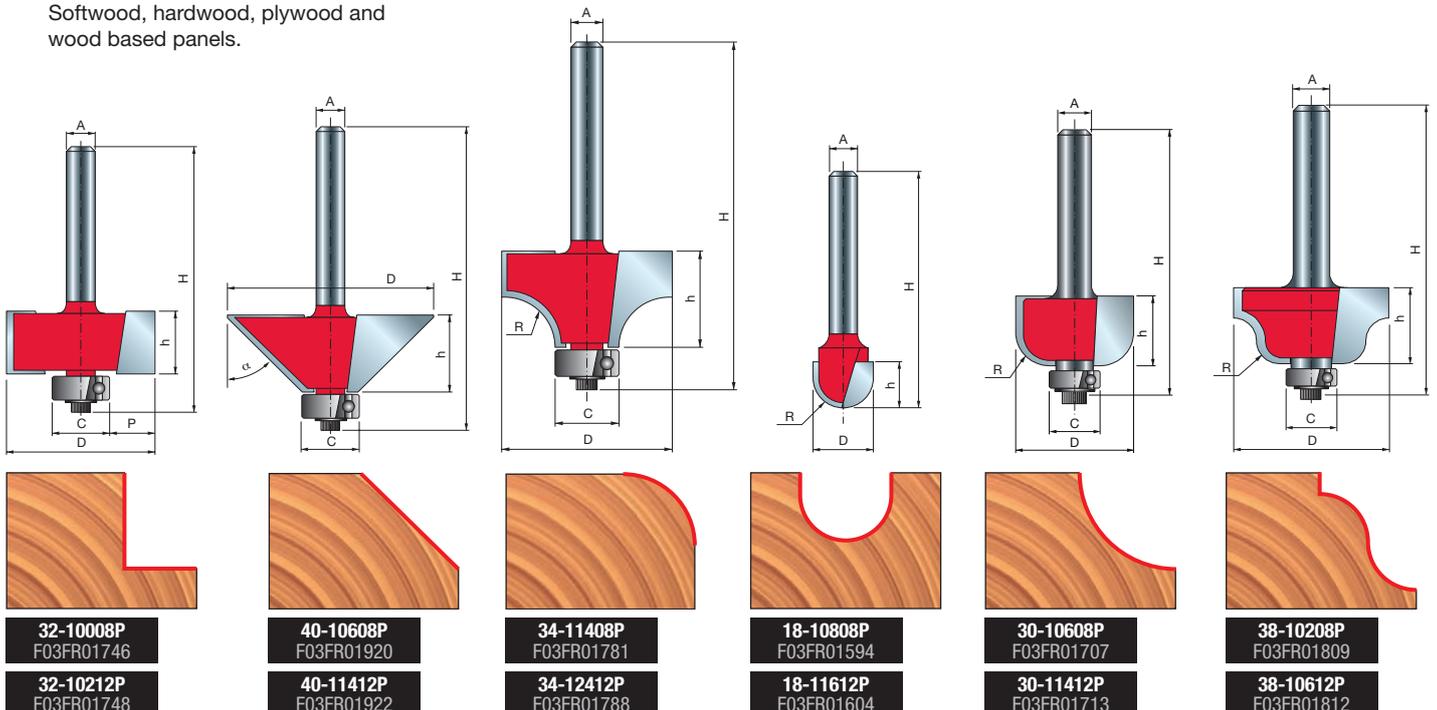


### Machines:

To identify the correct machine for each router bit, refer to the corresponding page reference of each router bit.

### Materials:

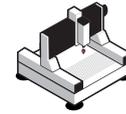
Softwood, hardwood, plywood and wood based panels.





# INTERMEDIATE 9 PIECE ROUTER BIT SET

**88-10206P**  
(F03FR02250)



Hand-held Routers

Table Routers

CNC Machines\*



Softwood

Hardwood

Plywood

Wood Based Panels

Set code 88-10206P (F03FR02250)

Bit type	Page reference	D mm	h mm	H mm	A mm	C mm	S mm	R mm	P mm	$\alpha$	Z	Max RPM 1/min.	Freud Code	Art. No.
• Double flute straight bit	244	6	16	50,8	6	-	-	-	-	-	2	24.000	04-11406P	F03FR01440
Double flute straight bit	244	9	25	63	6	-	-	-	-	-	2	24.000	04-12406P	F03FR01450
Flush trim bit	252	12,7	25,7	72,9	6	12,7	25,4	-	-	-	2	24.000	42-10406P	F03FR01938
Mortising bit	249	12,7	12,5	51	6	-	-	-	-	-	2	24.000	16-10006P	F03FR01565
Rabbeting bit	282	31,75	13,2	55,7	6	12,7	-	-	9,52	-	2	18.000	32-10006P	F03FR01745
Dovetail bit	285	12,7	12,7	50,7	6	-	-	-	-	14°	2	24.000	22-10406P	F03FR01643
Rounding over bit	256	31,75	18	59,7	6	12,7	-	9,53	-	-	2	18.000	34-11406P	F03FR01780
• Round nose bit	307	6	12,7	50,8	6	-	-	3	-	-	2	24.000	18-10406P	F03FR01587
Roman ogee bit	261	27	13,3	54,7	6	9,53	-	4	-	-	2	18.000	38-10006P	F03FR01805

• Solid Carbide Bit

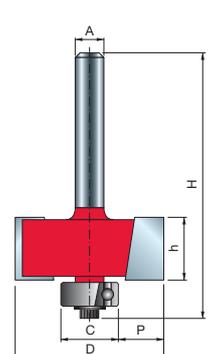
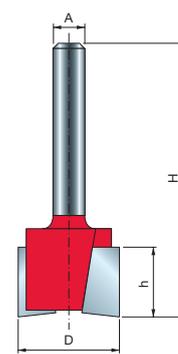
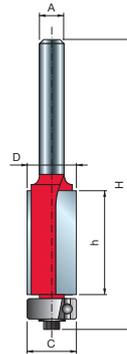
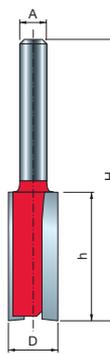
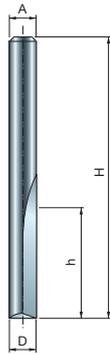


**Machines:**

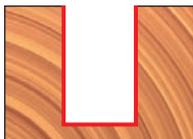
To identify the correct machine for each router bit, refer to the corresponding page reference of each router bit.

**Materials:**

Softwood, hardwood, plywood and wood based panels.



04-11406P  
F03FR01440



04-12406P  
F03FR01450



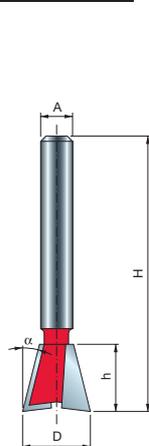
42-10406P  
F03FR01938



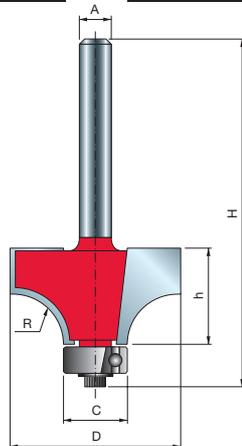
16-10006P  
F03FR01565



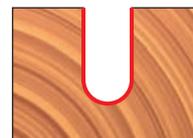
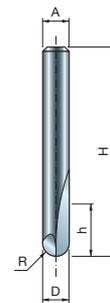
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F03FR01745



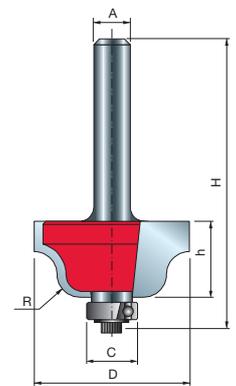
22-10406P  
F03FR01643



34-11006P  
F03FR01774



18-10406P  
F03FR01587



38-10006P  
F03FR01805



## SUPER 13 PIECE ROUTER BIT SET

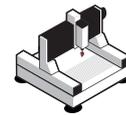
**91-10008P** (F03FR02275)  
**91-10012P** (F03FR02277)



Hand-held Routers



Table Routers



CNC Machines\*



Softwood



Hardwood



Plywood



Wood Based Panels



Wood Based Panels



Wood Based Panels

### Set code 91-10008P (F03FR02275)

Bit type	Page reference	D mm	h mm	H mm	A mm	C mm	R mm	P mm	$\alpha$	Z	Max RPM 1/min.	Freud Code	Art. No.
• Double flute straight bit	244	6	16	50,8	8	-	-	-	-	2	24.000	<b>04-11408P</b>	F03FR01441
Double flute straight bit	245	12	31,8	63,8	8	-	-	-	-	2	24.000	<b>04-13708P</b>	F03FR01465
Double flute straight bit	245	20	19	56	8	-	-	-	-	2	24.000	<b>04-15508P</b>	F03FR01493
Flush trim bit	252	12,7	25,7	72,9	8	12,7	-	-	-	2	24.000	<b>42-10408P</b>	F03FR01939
Mortising bit	249	12,7	12,5	50,8	8	-	-	-	-	2	24.000	<b>16-10008P</b>	F03FR01566
Rabbeting bit	282	31,75	12,7	55,2	8	12,7	-	9,52	-	2	18.000	<b>32-10008P</b>	F03FR01746
V-groove bit	304	12,7	10	44,4	8	-	-	-	90°	2	24.000	<b>20-10408P</b>	F03FR01623
Chamfer bit	257	44	18,5	61	8	12,7	-	-	45°	2	16.000	<b>40-10608P</b>	F03FR01920
Dovetail bit	285	12,7	12,7	50,7	8	-	-	-	14°	2	24.000	<b>22-10408P</b>	F03FR01644
Rounding over bit	256	31,75	18	59,7	8	12,7	9,53	-	-	2	18.000	<b>34-11408P</b>	F03FR01781
• Round nose bit	307	6	12,7	50,8	8	-	3	-	-	2	24.000	<b>18-10408P</b>	F03FR01588
Cove bit	258	38,1	16,4	58,9	8	12,7	12,7	-	-	2	16.000	<b>30-10608P</b>	F03FR01707
Roman ogee bit	261	35	18,5	60,5	8	9,53	6,35	-	2	2	16.000	<b>38-10208P</b>	F03FR01809

### Set code 91-10012P (F03FR02277)

Bit type	Page reference	D mm	h mm	H mm	A mm	C mm	R mm	P mm	$\alpha$	Z	Max RPM 1/min.	Freud Code	Art. No.
• Double flute straight bit	244	6	19	64	12	-	-	-	-	2	24.000	<b>12-09912P</b>	F03FR01520
Double flute straight bit	245	13	25,4	66,7	12	-	-	-	-	2	24.000	<b>12-11612P</b>	F03FR01531
Double flute straight bit	245	19	25,4	63,4	12	-	-	-	-	2	24.000	<b>12-15212P</b>	F03FR01548
Flush trim bit	252	12,7	25,4	82,5	12	12,7	-	-	-	2	24.000	<b>42-11012P</b>	F03FR01942
Mortising bit	249	12,7	12,5	60,5	12	-	-	-	-	2	24.000	<b>16-11012P</b>	F03FR01573
Rabbeting bit	282	31,75	13,2	61,7	12	12,7	-	9,53	-	2	18.000	<b>32-10212P</b>	F03FR01748
V-groove bit	304	19,05	12,5	57,2	12	-	-	-	90°	2	24.000	<b>20-10812P</b>	F03FR01626
Chamfer bit	257	44	18,5	67	12	12,7	-	-	45°	2	16.000	<b>40-11412P</b>	F03FR01922
Dovetail bit	285	12,7	12,7	59,7	12	-	-	-	14°	2	24.000	<b>22-11212P</b>	F03FR01650
Rounding over bit	156	31,75	18	65,7	12	12,7	9,53	-	-	2	18.000	<b>34-12412P</b>	F03FR01788
• Round nose bit	307	6	9,5	57	12	-	3	-	-	2	24.000	<b>18-11412P</b>	F03FR01602
Cove bit	258	38,1	16,4	64,9	12	12,7	12,7	-	-	2	16.000	<b>30-11412P</b>	F03FR01713
Roman ogee bit	261	35	18,5	66	12	9,53	6,35	-	-	2	16.000	<b>38-10612P</b>	F03FR01812

### • Solid Carbide Bit



### Machines:

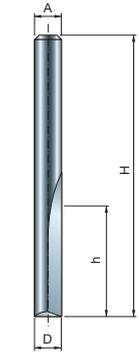
To identify the correct machine for each router bit, refer to the corresponding page reference of each router bit.

### Materials:

Softwood, hardwood, plywood and wood based panels.

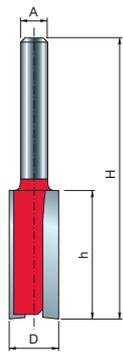
# SUPER 13 PIECE ROUTER BIT SET

91-10008P (F03FR02275)  
91-10012P (F03FR02277)



**04-11408P**  
F03FR01441

**12-09912P**  
F03FR01520

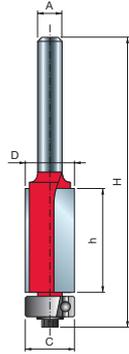


**04-13708P**  
F03FR01465

**12-11612P**  
F03FR01531

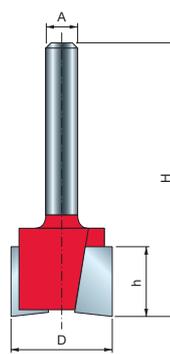
**04-15508P**  
F03FR01493

**12-15212P**  
F03FR01548



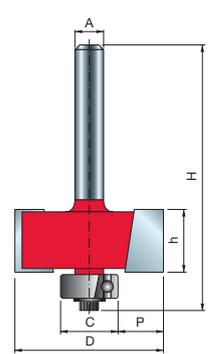
**42-10408P**  
F03FR01939

**42-11012P**  
F03FR01942



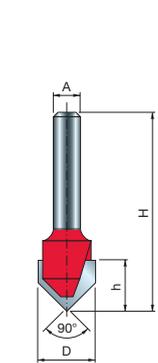
**16-10008P**  
F03FR01566

**16-11012P**  
F03FR01573



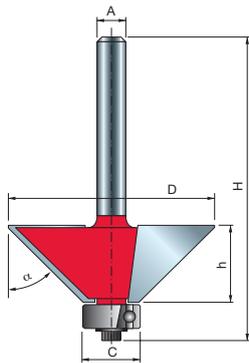
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F03FR01746

**32-10212P**  
F03FR01748



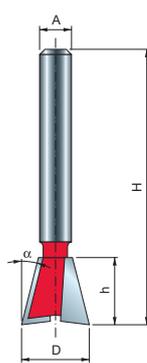
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F03FR01626

**20-10408P**  
F03FR01623



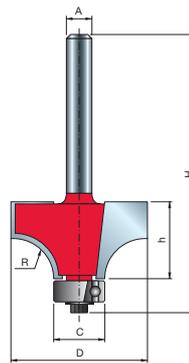
**40-10608P**  
F03FR01920

**40-11412P**  
F03FR01922



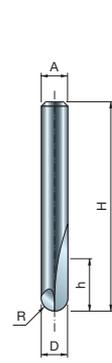
**22-10408P**  
F03FR01644

**22-11212P**  
F03FR01650



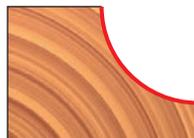
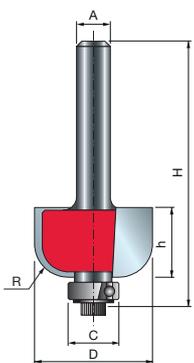
**34-11408P**  
F03FR01781

**34-12412P**  
F03FR01788



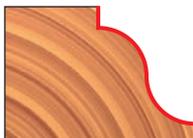
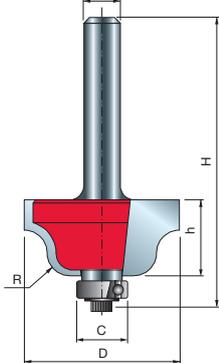
**18-10408P**  
F03FR01588

**18-11412P**  
F03FR01602



**30-10608P**  
F03FR01707

**30-11412P**  
F03FR01713



**38-10208P**  
F03FR01809

**38-10612P**  
F03FR01812



# ADVANCED 15 PIECE ROUTER BIT SET

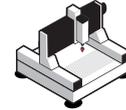
**90-10006P**  
(F03FR02256)



Hand-held Routers



Table Routers



CNC Machines\*



Softwood



Hardwood



Plywood



Wood Based Panels



Set code 90-10006P (F03FR02256)

Bit type	Page reference	D mm	h mm	H mm	A mm	C mm	R mm	P mm	$\alpha$	Z	Max RPM 1/min.	Freud Code	Art. No.
• Double flute straight bit	244	4	15,8	50,7	6	-	-	-	-	2	24.000	<b>04-10106P</b>	F03FR01420
• Double flute straight bit	244	6	16	50,8	6	-	-	-	-	2	24.000	<b>04-11406P</b>	F03FR01440
• Double flute straight bit	245	12	19	55,5	6	-	-	-	-	2	24.000	<b>04-13506P</b>	F03FR01460
• Double flute straight bit	245	19	19	54	6	-	-	-	-	2	24.000	<b>04-14006P</b>	F03FR01468
• Panel pilot bit	254	6	19	57	6	-	-	-	-	1	24.000	<b>26-10006P</b>	F03FR01664
• Flush trim bit	252	9,53	12,7	60,9	6	9,53	-	-	-	2	24.000	<b>42-10206P</b>	F03FR01935
• Mortising bit	249	12,7	12,5	51	6	-	-	-	-	2	24.000	<b>16-10006P</b>	F03FR01565
• Rabbeting bit	282	31,75	13,2	55,7	6	12,7	-	9,52	-	2	18.000	<b>32-10006P</b>	F03FR01745
• V-groove bit	304	12,7	10	44,4	6	-	-	-	90°	2	24.000	<b>20-10406P</b>	F03FR01622
• Chamfer bit	257	44	18,5	61	6	12,7	-	-	45°	2	16.000	<b>40-10606P</b>	F03FR01919
• Dovetail bit	285	12,7	12,7	47,5	6	-	-	-	14°	2	24.000	<b>22-10406P</b>	F03FR01643
• Rounding over bit	256	31,75	18	59,7	6	12,7	9,53	-	-	2	18.000	<b>34-11406P</b>	F03FR01780
• Round nose bit	307	6	12,7	50,8	6	-	3	-	-	2	24.000	<b>18-10406P</b>	F03FR01587
• Cove bit	258	38,1	16,4	58,9	6	12,7	12,7	-	-	2	16.000	<b>30-10606P</b>	F03FR01706
• Roman ogee bit	261	27	13,3	54,7	6	9,53	4	-	-	2	18.000	<b>38-10006P</b>	F03FR01805

• Solid Carbide Bit



### Machines:

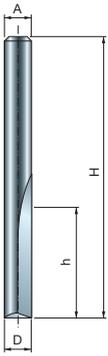
To identify the correct machine for each router bit, refer to the corresponding page reference of each router bit.

### Materials:

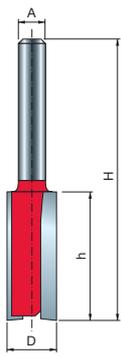
Softwood, hardwood, plywood and wood based panels.

# ADVANCED 15 PIECE ROUTER BIT SET

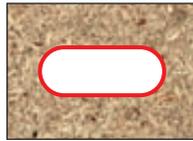
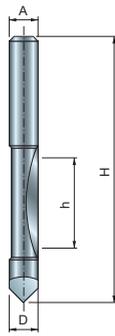
**90-10006P**  
(F03FR02256)



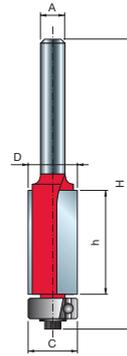
**04-10106P**  
F03FR01420



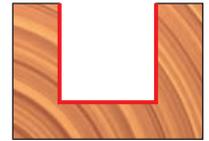
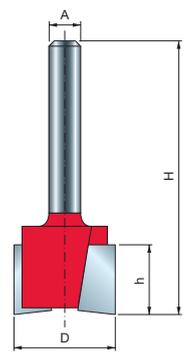
**04-11406P**  
F03FR01440



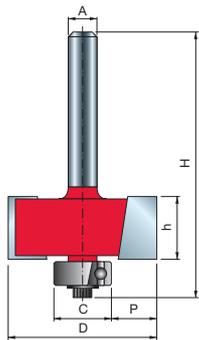
**26-10006P**  
F03FR01664



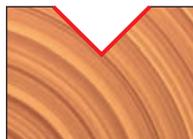
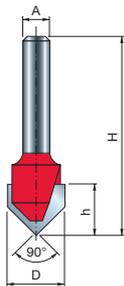
**42-10206P**  
F03FR01935



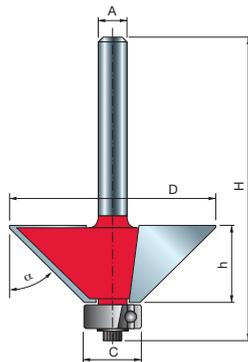
**16-10006P**  
F03FR01565



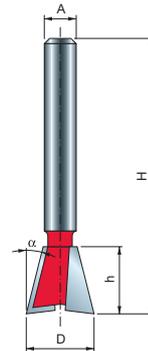
**32-10006P**  
F03FR01745



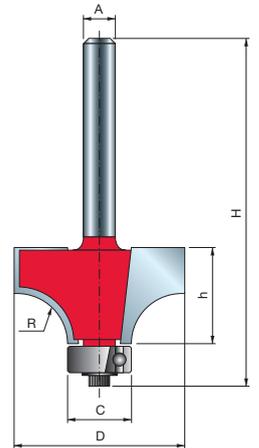
**20-10406P**  
F03FR01622



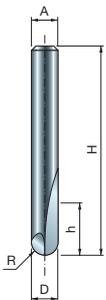
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F03FR01919



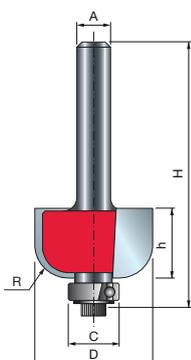
**22-10406P**  
F03FR01643



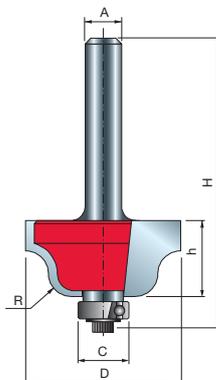
**34-11406P**  
F03FR01780



**18-10406P**  
F03FR01587



**30-10606P**  
F03FR01706



**38-10006P**  
F03FR01805



# PROFESSIONAL 26 PIECE ROUTER BIT SET

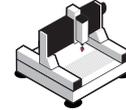
**92-10006P**  
(F03FR02308)



Hand-held Routers



Table Routers



CNC Machines\*



Softwood



Hardwood



Plywood



Wood Based Panels



Set code 92-10006P (F03FR02308)

Bit type	Page reference	D mm	h mm	H mm	A mm	C mm	R mm	P mm	$\alpha$	Z	Max RPM 1/min.	Freud Code	Art. No.
• Double flute straight bit	244	3	9,5	44,5	6	-	-	-	-	2	24.000	04-09906P	F03FR01415
• Double flute straight bit	244	4	15,8	50,7	6	-	-	-	-	2	24.000	04-10106P	F03FR01420
• Double flute straight bit	244	6	16	50,8	6	-	-	-	-	2	24.000	04-11406P	F03FR01440
• Double flute straight bit	244	10	25,4	62,4	6	-	-	-	-	2	24.000	MM-01006P	F03FR00330
• Double flute straight bit	245	12	19	55,5	6	-	-	-	-	2	24.000	04-13506P	F03FR01460
• Double flute straight bit	245	19	19	54	6	-	-	-	-	2	24.000	04-14006P	F03FR01468
• Panel pilot bit	254	6	19	57	6	-	-	-	-	1	24.000	26-10006P	F03FR01664
• Flush trim bit	252	9,53	25,8	72,4	6	9,53	-	-	-	2	24.000	42-10006P	F03FR01932
• Flush trim bit	252	9,53	12,7	60,9	6	9,53	-	-	-	2	24.000	42-10206P	F03FR01935
• Flush trim bit	252	12,7	25,7	72,9	6	12,7	-	-	-	2	24.000	42-10406P	F03FR01938
• Mortising bit	249	12,7	12,5	51	6	-	-	-	-	2	24.000	16-10006P	F03FR01565
• Rabbeting bit	282	31,75	13,2	55,7	6	12,7	-	9,5	-	2	18.000	32-10006P	F03FR01745
• V-groove bit	304	6	6	38,1	6	-	-	-	90°	1	24.000	20-10006P	F03FR01617
• V-groove bit	304	12,7	10	44,4	6	-	-	-	90°	2	24.000	20-10406P	F03FR01622
• Chamfer bit	257	44	18,5	61	6	12,7	-	-	45°	2	16.000	40-10606P	F03FR01919
• Dovetail bits	285	12,7	12,7	47,5	6	-	-	-	14°	2	24.000	22-10406P	F03FR01643
• Rounding over bit	256	25,4	12,7	55,2	6	12,7	6,35	-	-	2	24.000	34-11006P	F03FR01774
• Rounding over bit	256	31,75	18	59,7	6	12,7	9,53	-	-	2	18.000	34-11406P	F03FR01780
• Rounding over bit	256	25,4	12,7	54,7	6	9,53	6,35	-	-	2	24.000	36-11006P	F03FR01803
• Rounding over bit	256	31,75	18	59,2	6	9,53	9,53	-	-	2	18.000	36-11406P	F03FR01804
• Round nose bit	307	6	12,7	50,8	6	-	3	-	-	2	24.000	18-10406P	F03FR01587
• Round nose bit	307	9,52	9	46	6	-	4,8	-	-	2	24.000	18-10606P	F03FR01590
• Cove bit	258	22,23	13,2	54,7	6	9,53	6,35	-	-	2	24.000	30-10206P	F03FR01697
• Cove bit	258	38,1	16,4	58,9	6	12,7	12,7	-	-	2	16.000	30-10606P	F03FR01706
• Roman ogee bit	261	27	13,3	54,7	6	9,53	4	-	-	2	18.000	38-10006P	F03FR01805
• Roman ogee bit	261	35	18,5	60,5	6	9,53	6,4	-	-	2	16.000	38-10206P	F03FR01808

-- Solid Carbide Bit



### Machines:

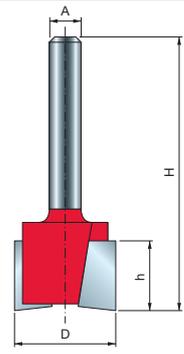
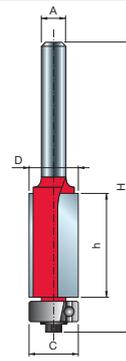
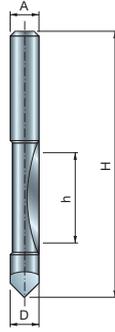
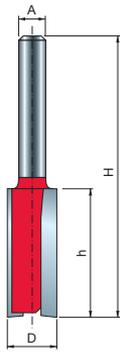
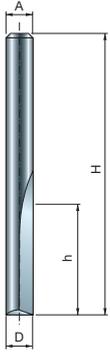
To identify the correct machine for each router bit, refer to the corresponding page reference of each router bit.

### Materials:

Softwood, hardwood, plywood and wood based panels.

# PROFESSIONAL 26 PIECE ROUTER BIT SET

**92-10006P**  
(F03FR02308)



**04-09906P**  
F03FR01415

**04-09906P**  
F03FR01415

**26-10006P**  
F03FR01664

**42-10006P**  
F03FR01932

**16-10006P**  
F03FR01565

**04-10106P**  
F03FR01420

**MM-01006P**  
F03FR00330

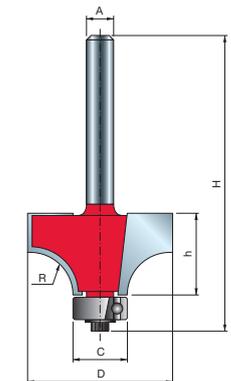
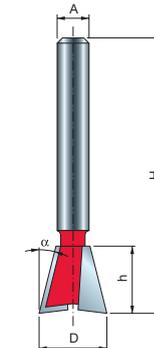
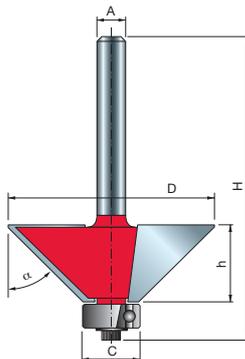
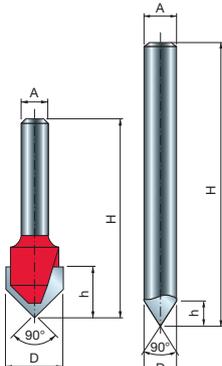
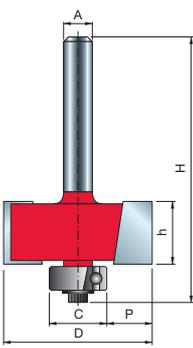
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**04-11406P**  
F03FR01420

**MM-13506P**  
F03FR01460

**42-10406P**  
F03FR01938

**MM-14006P**  
F03FR01468



**32-10006P**  
F03FR01745

**20-10006P**  
F03FR01617

**40-10606P**  
F03FR01919

**22-10406P**  
F03FR01643

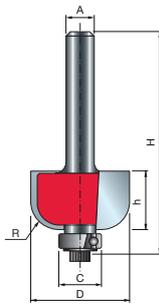
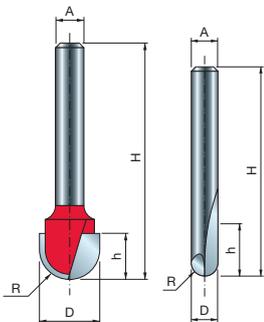
**34-11006P**  
F03FR01774

**20-10406P**  
F03FR01622

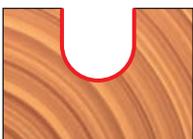
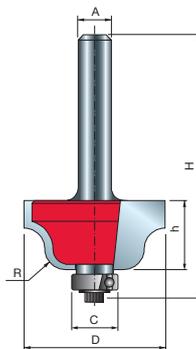
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**36-11006P**  
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**36-11406P**  
F03FR01804



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**18-10406P**  
F03FR01587

**30-10206P**  
F03FR01697

**38-10006P**  
F03FR01805

**18-10606P\***  
F03FR01590

**30-10606P**  
F03FR01706

**38-10206P**  
F03FR01808



# CABINET DOOR SET 3 ROUTER BITS

**97-10212P**  
(F03FR02382)

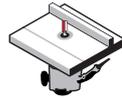


Table Routers



Softwood    Hardwood    Plywood    Wood Based Panels

Set Freud Code 97-10212P (F03FR02382)

Bit type	Page reference	D mm	h mm	H mm	A mm	C mm	R1 mm	Z	Max RPM 1/min.	Freud Code	Art. No.
Raised panel bit	300	89	16	64,7	12	12,7	38,1	2	10.000	99-22512P	F03FR02462
Matched profile and scribe bits	294	42,9	-	77	12	22	5,5	2	24.000	99-26012P	F03FR02468

The set includes one raised panel bit and two matched profile and scribe bits.

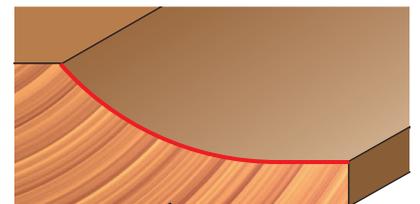
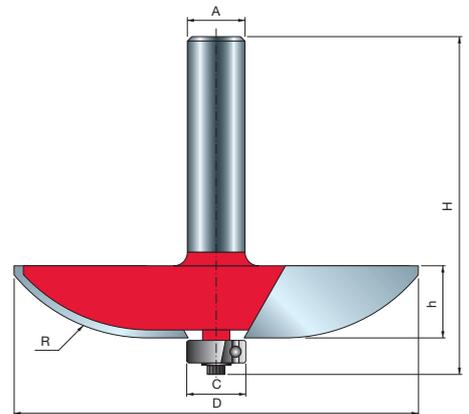
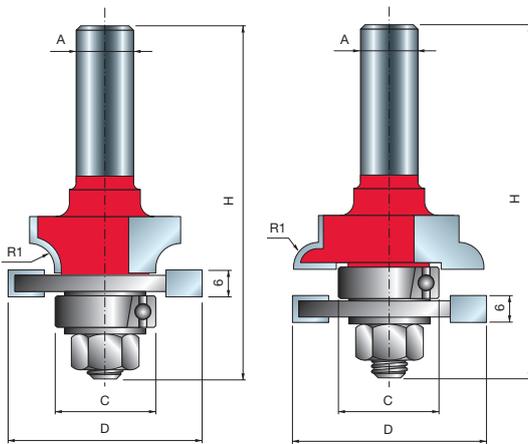


**Machines:**

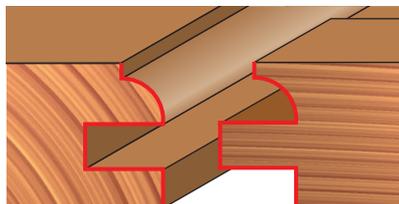
Table mounted routers.

**Materials:**

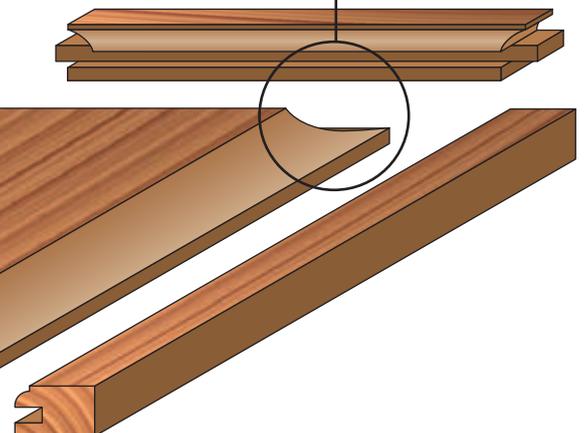
Softwood, hardwood, plywood and wood based panels.



99-22512P  
F03FR02462



99-26012P  
F03FR02468





# CABINET DOOR SET 3 ROUTER BITS

**97-10412P**  
(F03FR02396)



Table Routers



Softwood    Hardwood    Plywood    Wood Based Panels

Set code 97-10412P (F03FR02396)

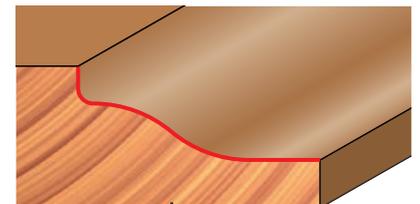
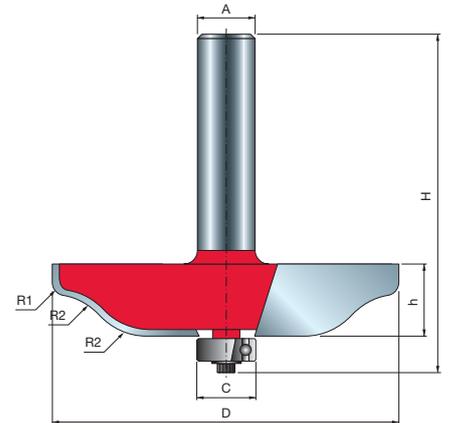
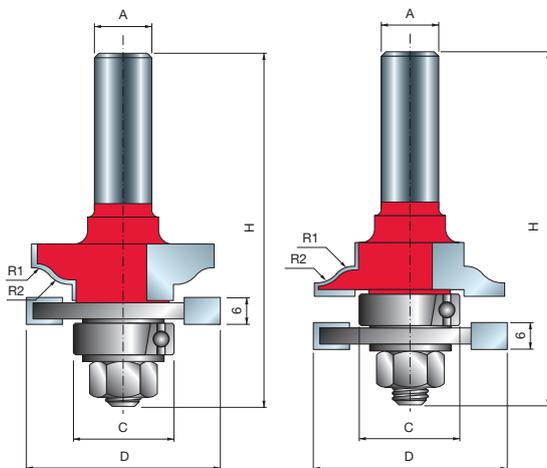
Bit type	Page reference	D mm	h mm	H mm	A mm	C mm	R1 mm	R2 mm	Z	Max RPM 1/min.	Freud Code	Art. No.
Raised panel bit	299	76,2	16	64,7	12	12,7	2	16	2	12.000	99-22112P	F03FR02458
Matched profile and scribe bits	294	42,9	-	77	12	22	4,5	5,5	2	24.000	99-26112P	F03FR02478

The set includes one raised panel bit and two matched profile and scribe bits.

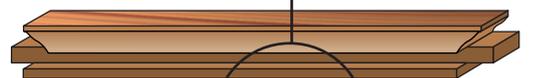


**Machines:**  
Table mounted routers.

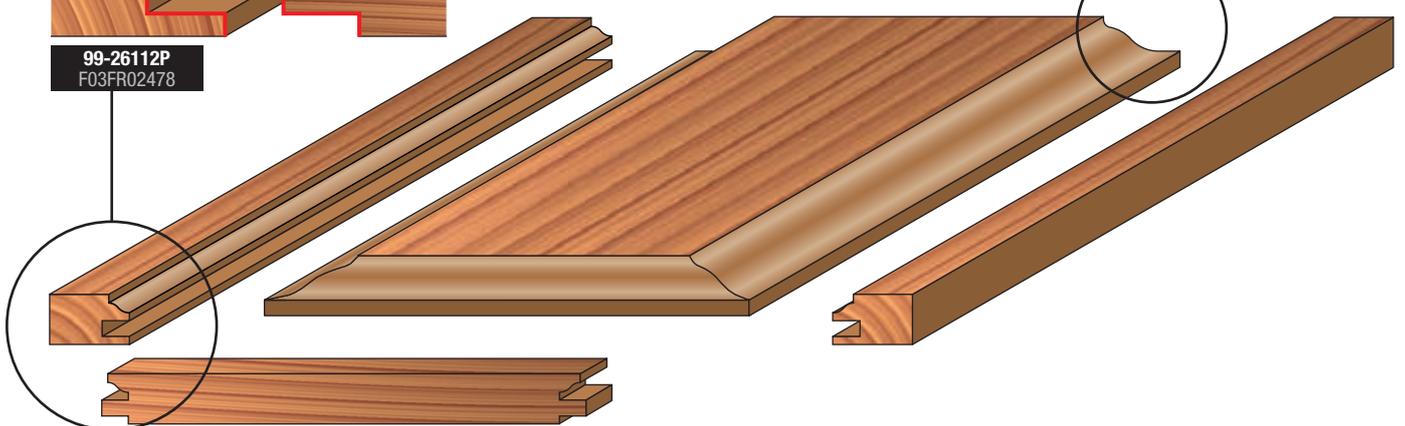
**Materials:**  
Softwood, hardwood, plywood and wood based panels.

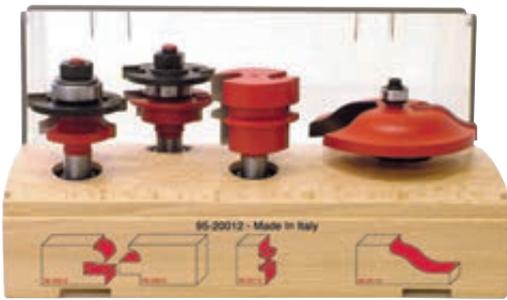


99-22112P  
F03FR02458



99-26112P  
F03FR02478





# CABINET DOOR SET 4 ROUTER BITS

**95-20012P**  
(F03FR02368)

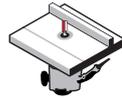


Table Routers



Softwood    Hardwood    Plywood    Wood Based Panels

Set code 95-20012P (F03FR02368)

Bit type	Page reference	D mm	h mm	H mm	A mm	C mm	R1 mm	R2 mm	$\alpha$	Z	Max RPM 1/min.	Freud Code	Art. No.
Reversible glue joint bit	288	38	32	70	12	-	-	-	15°	2	16.000	99-03112P	F03FR02422
Raised panel bit	299	76,2	16	64,7	12	12,7	2	16	-	2	12.000	99-22112P	F03FR02458
Matched profile and scribe bits	294	42,9	-	77	12	22	5,5	-	-	2	24.000	99-26012P	F03FR02468

The set includes one reversible glue joint bit, one raised panel bit and two matched profile and scribe bits.

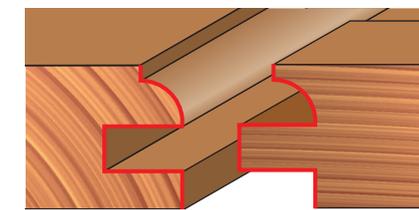


**Machines:**

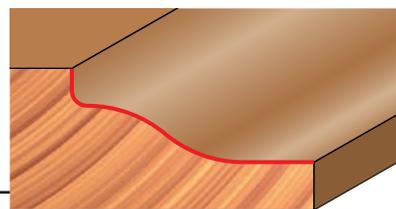
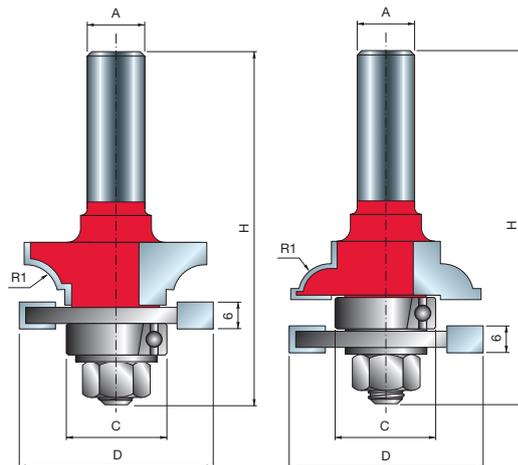
Hand-held routers and table routers.

**Materials:**

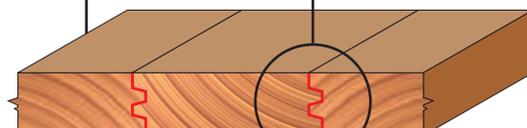
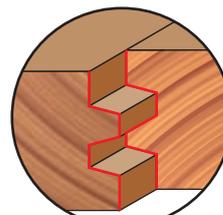
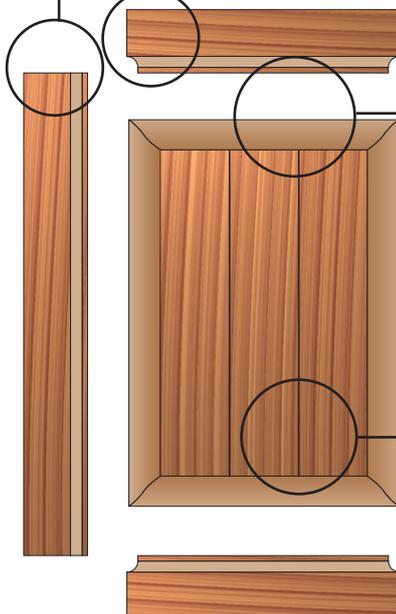
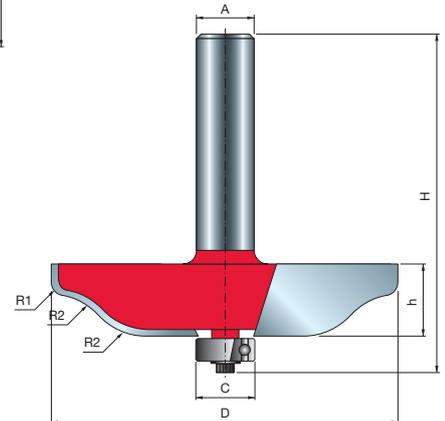
Softwood, hardwood, plywood and wood based panels.



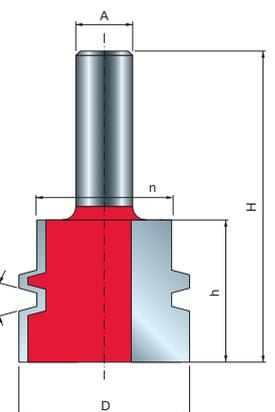
99-26012P  
F03FR02468

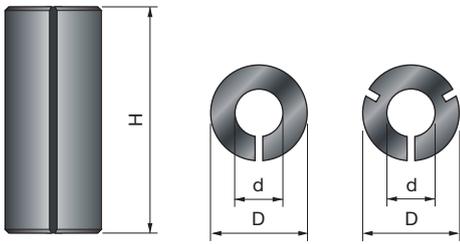


99-22112P  
F03FR02458



99-03112P  
F03FR02422

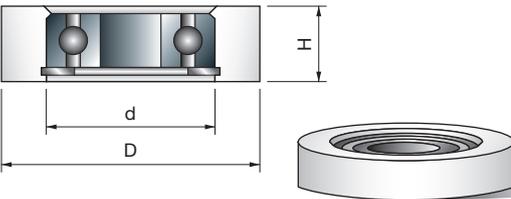




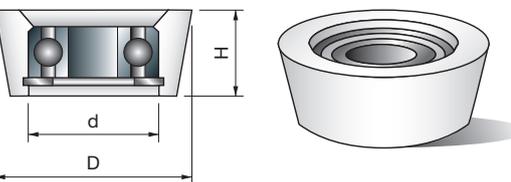
Reducing bushes for router bits.



Ball bearing for router bits.



Cylindrical rub collars for ball bearing.



Conical rub collars for ball bearing.

## 3105M

## Reducing bushes

D mm	H mm	d mm	Freud Code	Art. No.
8	25	6	3105MVY250	F03FA10588
8	25	6,35	3105MVX250	F03FA10587
9,5	25	6	3105MUY250	F03FA10586
9,5	25	6,35	3105MUX250	F03FA10585
9,5	25	8	3105MUV250	F03FA10584
10	25	8	3105MTV250	F03FA10582
12	25	6	3105MSY250	F03FA10581
12	25	8	3105MSV250	F03FA10580
12	25	10	3105MST250	F03FA10579
12,7	25	6	3105MRY250	F03FA10578
12,7	25	6,35	3105MRX250	F03FA10577
12,7	25	8	3105MRV250	F03FA10576
12,7	25	9,53	3105MRU250	F03FA10575
16	25	13	3105MOQ250	F03FA10574

## 3102M

## Ball bearings

D mm	H mm	d mm	Freud Code	Art. No.
9,53	3,2	4,76	3102M AA9	F03F010006
12	4	6,05	3102M BB9	F03FA10568
12,7	4,98	4,76	3102M AB9	F03F010007
13	5	4	3102M CD9	F03FA14096
13	5	6	3102M AP9	F03FA10558
14	4	8,05	3102M BC9	F03FA10569
15	5	6	3102M AQ9	F03FA10559
15,88	4,98	4,76	3102M AJ9	F03F010014
16	5	5	3102M CC9	F03FA14095
16	5	8	3102M AS9	F03FA10561
19	6	6	3102M CA9	F03FA14097
19	7	10	3102M AG9	F03F010012
19,05	3,97	12,7	3102M CB9	F03FA14098
19,05	6,35	12,7	3102M AV9	F03F012286
22	7	8	3102M AC9	F03F010008
28	8	12	3102M AH9	F03F010013
32	9	15	3102M AN9	F03F010016
35	11	15	3102M AI9	F03F012285

## RB62M

## Sleeved bearings

D mm	H mm	d mm	Freud Code	Art. No.
19,05	8	4,76	RB62M 1509	F03F011422
22,22	8	4,76	RB62M 1529	F03F011423
26	10	8	RB62M 1249	F03F011417
28,58	8	4,76	RB62M 1549	F03F011424
30	10	8	RB62M 1289	F03F011418
34	10	8	RB62ME DA9	F03FR01146
34,92	8	4,76	RB62M 1569	F03F011425
39,6	11,2	12	RB62ME FB9	F03FR01147

## 3103MC

## Sleeved bearings with angle

D mm	H mm	d mm	$\alpha$	Freud Code	Art. No.
19,05	6,35	4,8	10°	3103MC HB9	F03F010019
22,2	9	12,7	15°	3103MC HC9	F03FR01724

## TOOLS

Tools shall be used only by persons of training and experience who have knowledge of how to use and handle tools.

The maximum rotational speed marked on the tool shall not be exceeded.

One piece tools with visible cracks shall not be used.

Clamping surfaces shall be cleaned to remove dirt, grease, oil and water.

Resin shall only be removed from light alloys with solvents that do not affect the mechanical characteristics of these materials.

Tools and tool bodies shall be clamped in such a way, that they shall not loosen during operation.

Tools with cylindrical shank must be clamped in a way that the mark of the maximum free shank length shall be covered, at least partially, by the clamping device or by the locking collet.

Care shall be taken of mounting tools to ensure that the clamping is by the hub respectively by the clamping surface of the tool and that the cutting edges are not in contact with each other or with the clamping elements.

Fastening screws and nuts shall be tightened using the appropriate spanners etc. and to the torque value provided by the manufacturer. Extension of the spanner or tightening using hammer blows shall not be permitted.

Clamping screws shall be tightened according to instructions provided by the manufacturer. Where instructions are not provided clamping screws shall be tightened in sequence from the centre outwards.

Use of fixed rings, e. g. pressed or held by adhesive fixing, in flanged sleeves, shall be permitted if made to the manufacturers specifications.

Repair and regrinding of tools shall only be allowed according to the tool manufacturer's instructions.

After repair and regrinding of tools it shall be ensured that the tools observe balancing requirements.

The design of composite (tipped) tools shall not be changed in the process of repair.

Composite tools shall be repaired by a competent person, i.e. a person of training and experience, who has knowledge of the design requirements and understands the level of safety to be achieved. Repair shall therefore include, e.g. use of spare parts which are in accordance with the specification of the original parts provided by the manufacturer.

Tolerances which ensure correct clamping shall be maintained.

For one piece tools care shall be taken that regrinding of the cutting edge will not cause weakening of the hub and the connection of the cutting edge to the hub.

To avoid injuries, tools shall be handled in accordance with the guidance provided by the manufacturer. Typically, safe handling involves the use of devices such as carrying hooks, proprietary handles, frames (e. g. for circular saw blades), boxes, trolleys etc.

The wearing of protective gloves improves the grip on the tool and further reduces the risk of injury.

Maintenance and modification of milling tools and related components and circular saw blades should always be in accordance with the design requirements/the manufacturer's instructions.

Maintenance and modification of milling tools and circular saw blades should only be carried out by a competent person, i. e. a person of training and experience, who has knowledge of the design requirements and understand levels of safety to be achieved.

When regrinding milling tools and circular saw blades, the minimum requirements of cutting blade thickness and cutting blade projection should be observed.

Composite tools should be repaired by persons experienced in and with understanding of design and use of milling tools for processing wood and similar materials, e.g. an expert with a relevant education and knowledge of the brazing process, including in particular the influence of the brazing process on tension in tool body and cutting material.

When brazing off worn tips and subsequently brazing on new tips it should be made sure that the tip is correctly mounted in the tool body and that the process does not result in critical tension in the tool body. After any type of maintenance, milling tools marked with MAN should

continue to observe the requirements of the standards related to tools for hand feed.

When modifying milling tools, e. g. modification of bore diameter, modification of shank, retipping of composite tools and similar, it should be ensured that the requirements of the standard relating to balancing are still observed.

After being modified and/or retipped, milling tools and circular saw blades should be marked according to the rules applying to new tools. However, the name/logo of the company making the modification/retipping should be added.

To avoid injuries, tools shall be handled in accordance with the guidance provided by the manufacturer.

Tools which weigh more than 15 kg may require the use of special handling devices or attachments, these will depend on the features that the manufacturer has designed into the tool to allow easy handling. The manufacturer can advise on the availability of necessary devices.

## CLAMPING DEVICES

The speeds indicated on the clamping device and the tool to be clamped should be compared. For adjusting the speed on the machine the lower speed should be applied.

Screws and nuts should be tightened using the appropriate spanners; Clamping surfaces should be cleaned to remove dirt, grease, oil and water.

Clamping devices and tools should be mounted or clamped according to given torques, pressures and wrenches to be used; extension of spanners or tightening or loosening by means of hammer blows should not be permitted.

Maximum tool diameters and tool lengths should not be exceeded.

Shank diameters must be in accordance with the clamping range of the clamping devices.

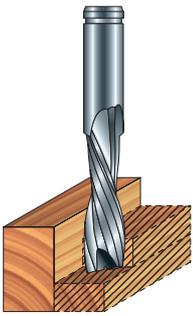
The minimum required clamping length must be kept.

Care should be taken that the data relevant to the safety of the clamped tool are always stored in the data medium.

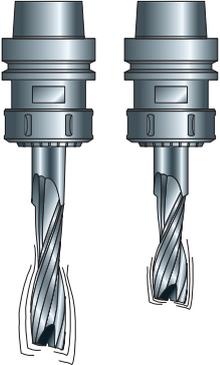
Repairs should only be carried out by a competent person, i.e. a person with professional training and experience, who has knowledge of the design, construction and safety requirements.

Repair should therefore include the use of spare parts which are in compliance with the specifications of the original parts.

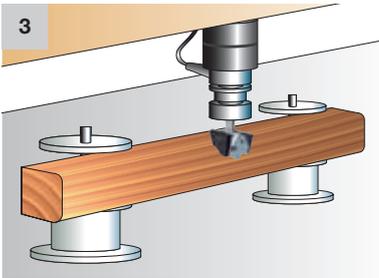
1



2



3

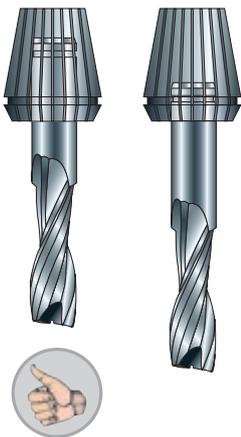


## ADVICE FOR CORRECT USE

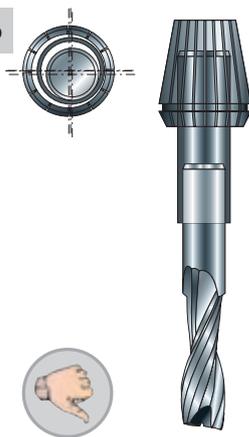
To reduce vibrations from the router bit, which can compromise the finish and cause damages to both the tool and the workpiece, it is necessary to respect the following conditions:

- For large removals, carry out more passes or proceed with a feedrate and RPM rate in proportion to the depth of cut (Fig. 1).
- A router bit with a shorter cutting height vibrates less than a router bit with the same diameter but with a longer cutting height (Fig. 2).
- Control your machine regularly (especially guides and ball bearings), making sure that there are no eccentricity problems, so as to avoid the arbor from vibrating hazardously.
- Accurately block the workpiece to the work table surface (Fig. 3).
- Respect the minimum fixing length of the shank with a preference to short chucks, with the aim of reducing eccentricity errors (Fig. 4a).
- For the same reason the use of extensions are generally avoided (Fig. 4b).
- Router bits with staggered cutters tend to leave marks caused by small eccentricity tolerances (Fig. 5).
- To identify eccentricity issues in a router bit or a chuck: make a milling on the workpiece, rotate the tool 90° on the chuck and repeat the operation. If the marks left on the wood are unvaried between the 2 processes then the tool is defective, if there's a difference the issue is probably on the chuck/collet.
- Do not exceed the maximum RPM limit marked on the tool. Higher RPM, extreme feedrate as well as an excessive cutting depth can cause the tool breakage.
- To avoid damaging router bits, we suggest controlling if the fixing surface of the chuck and the router bit are clean and that there are no imperfections (Fig. 6).
- Always choose router bits with the appropriate dimensions for the kind of work to carry out.
- Make sure that the workpiece is properly fixed to a support with appropriate dimensions. Place the locking devices (as suckers) sufficiently far from the tool path (Fig. 7).
- To avoid dangerous kick backs, we suggest fixing a spare piece of material and milling small parts of waste which have accumulated during the working process, by carrying out more passes (Fig. 8).

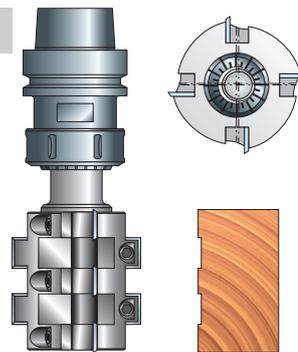
4a



4b



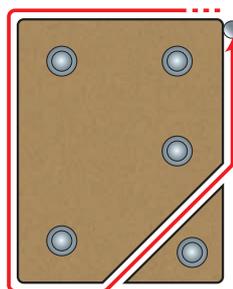
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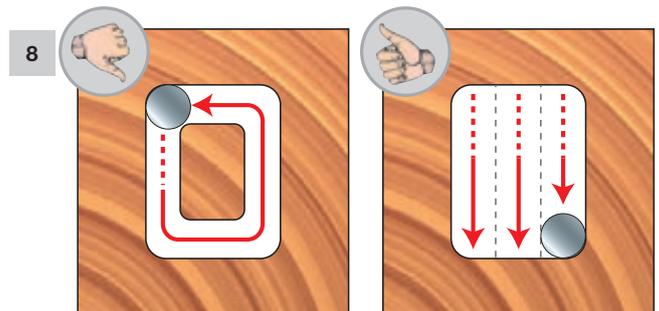
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7



8



# ROUTER BIT FEED AND SPEED FOR CNC

## GET THE MOST OUT OF YOUR FREUD BITS BY ROUTING AT IDEAL FEED RATES AND SPEEDS

**Read all safety warnings and all instructions provided with the router bit and in the machine manual.** Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

**To reduce the risk of injury, always check to ensure the rated speed of the router bit is higher than or equal to the maximum speed marked on the CNC machine.** Router bits running faster than their RATED SPEED can break and fly apart.

To get the longest life and the best cut quality from your bits, you need to match the feed rate of your CNC and the speed (RPM) of your router spindle to the material you are routing and the bit you are using. Routing at the best combination of feed rate and RPM is critical to quality of your work and the durability of your Freud router bits.

**1)** There is no hard-and-fast rule for precisely what feed rate and speed will be best for your project and your CNC. The formulas and chip load values in the chart below provide a good range of feeds and speeds for you to start with, but you should always make some test cuts with your bits in scrap material to be sure you get the best possible results. As you make your test cuts, observe the following best practices:

- Always consult your machine's operation manual for bit capacities and recommended feed rates.
- Always start with shallow passes in your test cuts to reduce strain on your bit and your CNC.
- You should start your tests with the lower feed rates yielded by our formulas to reduce the chance of bit breakage. (Freud's chart contains recommended starting points, and does not warranty against tool breakage).
- Carbide tipped bits should not be used to drill directly into the workpiece.

**2)** Second, you need to consider the design of the bit you are using:

- **Number of flutes, or cutting edges:** more flutes on a bit may produce a finer finish on the workpiece than a bit with fewer cutting edges, but only if your feed and speed are set correctly. Our formulas include a variable where you will enter the number of flutes of your bit so you can consider this factor.
- **Cutting depth:** this is the depth that will be routed in a single pass. Our feed and speed recommendations are based on a depth of cut that is no greater than the bit diameter, such as a 12 mm diameter bit routing a 12 mm deep pass. If you plan to rout deeper than this in a single pass, you must reduce your feed rate.
- If cut depth is 2X the bit diameter, reduce the chip load by at least 25%.
- If cut depth is 3X the bit diameter, reduce the chip load by at least 50%.

Please see example 3 on next page for more information.

**Never exceed the recommended cutting depth listed on the router bit package or the bit's safety instructions!**

**3)** Next, use the formulas below to calculate starting points for your test cuts. You will notice that our formulas use values called "**chip loads**" to determine the feed rates and speeds. The chip load is the size (thickness) of the chip produced as your bit cuts. Why does this matter? If your chip is very small, or just sawdust, then it will not carry enough heat away from the edge of the bit. Excessive heat will prematurely dull the edge of the solid Carbide or Carbide tipped router bit. If the chip is too large, it will leave a rough surface or edge on your workpiece.

# ROUTER BIT FEED AND SPEED FOR CNC

## \* RECOMMENDED CHIP LOADS FOR FREUD CARBIDE TIPPED STRAIGHT AND PROFILE BITS

Tool Diameter	MDF / Particle Board	Laminated Particle Board	Hardwood	Softwood	Acrylics / Plastics	Solid Surface / Hard Plastic	Plywood	Aluminum
mm	mm	mm	mm	mm	mm	mm	mm	mm
3	0.05 - 0.10	0.08 - 0.15	0.05 - 0.10	0.08 - 0.13	0.08 - 0.15	0.05 - 0.10	0.08 - 0.13	N/A
3,18	0.05 - 0.10	0.08 - 0.15	0.05 - 0.10	0.08 - 0.13	0.08 - 0.15	0.05 - 0.10	0.08 - 0.13	N/A
6	0.10 - 0.15	0.15 - 0.20	0.13 - 0.18	0.15 - 0.20	0.15 - 0.20	0.10 - 0.15	0.13 - 0.15	N/A
6,35	0.10 - 0.15	0.15 - 0.20	0.13 - 0.18	0.15 - 0.20	0.15 - 0.20	0.10 - 0.15	0.13 - 0.15	N/A
8	0.12 - 0.17	0.17 - 0.22	0.14 - 0.19	0.18 - 0.22	0.17 - 0.22	0.12 - 0.17	0.14 - 0.18	N/A
9,53	0.13 - 0.18	0.18 - 0.23	0.15 - 0.20	0.20 - 0.25	0.18 - 0.23	0.13 - 0.18	0.15 - 0.20	N/A
10	0.13 - 0.18	0.18 - 0.23	0.15 - 0.20	0.20 - 0.25	0.18 - 0.23	0.13 - 0.18	0.15 - 0.20	N/A
12	0.14 - 0.18	0.20 - 0.25	0.20 - 0.25	0.20 - 0.30	0.20 - 0.25	0.15 - 0.18	0.18 - 0.23	N/A
12,7	0.15 - 0.18	0.20 - 0.25	0.20 - 0.25	0.20 - 0.30	0.20 - 0.25	0.15 - 0.18	0.18 - 0.23	N/A
14	0.15 - 0.18	0.22 - 0.27	0.20 - 0.28	0.20 - 0.30	0.22 - 0.27	0.15 - 0.18	0.18 - 0.23	N/A
15,88	0.15 - 0.18	0.23 - 0.28	0.20 - 0.30	0.23 - 0.33	0.23 - 0.28	0.15 - 0.18	0.20 - 0.25	N/A
16	0.15 - 0.18	0.23 - 0.28	0.20 - 0.30	0.23 - 0.33	0.23 - 0.28	0.15 - 0.18	0.20 - 0.25	N/A
18	0.17 - 0.22	0.25 - 0.30	0.22 - 0.32	0.23 - 0.35	0.24 - 0.30	0.16 - 0.20	0.22 - 0.28	N/A
19,05	0.18 - 0.23	0.25 - 0.30	0.23 - 0.33	0.25 - 0.30	0.25 - 0.30	0.18 - 0.23	0.23 - 0.28	N/A
20	0.20 - 0.25	0.27 - 0.33	0.22 - 0.35	0.23 - 0.40	0.25 - 0.35	0.16 - 0.20	0.25 - 0.30	N/A

\*This chart is a recommended starting point and does not warranty against tool breakage. Consult your machine's owners manual for bit capacities and recommended feed rates. Always make test cuts with shallow passes in scrap material to verify your feed & speed rates and cutting depths. Start your tests with the lower feed rates yielded by our formulas.

Here are the formulas to make feed and speed calculations using these values:

$$\text{Chip load} = \text{Feed rate} \div (\text{RPM} \times \text{number of flutes})$$

$$\text{Feed rate} = \text{RPM} \times \text{number of flutes} \times \text{chip load}$$

$$\text{RPM} = \text{Feed rate} \div (\text{number of flutes} \times \text{chip load})$$

### Note:

Feed rate will be expressed in meters per minute.

Here are some examples:

- You decide to test a chip load of 0,20 mm for your cut. Your CNC spins the bit at 18,000 RPM, and the bit has 2 flutes (cutting edges). To determine the feed rate:  
**Feed Rate = 18.000 x 2 x 0,20 mm.** Therefore, your feed rate should be 7,2 meters per minute.
- You already know that you want to use a feed rate of 7,2 meters per minute, and a speed of 18,000 RPM. Your bit has 2 flutes. To verify that the chip load will be within the recommended range:  
**chip load = 7,2 meters per minute ÷ (18.000 RPM x 2 flutes).** Therefore, your chip load is 0,20 mm.
- Adjusting feed and speed for bit diameter: the chip loads in the table above are based a cutting depth that is equal to or less than the bit diameter. For deeper cuts, you need to adjust the chip load as follows:  
If cut depth is 2X the bit diameter, reduce the chip load by at least 25%  
If cut depth is 3X the bit diameter, reduce the chip load by at least 50%  
For example, let's say that our chart calls for a chip load of 0,20 mm for your application, BUT you decide to use a 12 mm diameter bit routing 24 mm deep. Since your cutting depth is now 2X the bit diameter, you must reduce the chip load as follows: **0,2 mm x 0,75 = 0,15 mm chip load.**