HIGH PERFORMANCE
DIAMOND ROUTER BITS
FOR CNC APPLICATIONS

New innovations in hard surface materials such as Melamine, Formica, OSB, paper, and natural wood veneers can cause traditional tools to chip and/or cause performance problems. They can also result in poor edge finish quality on the material.

By using high quality PCD tooling, manufacturers can lower their reject rates and improve their productivity. Surrey provides top quality diamond router bits that produce pristine edges (top and bottom) and will increase tool life far longer than traditional carbide tools.

We offer innovative staggered and spiral tooth designs that reduce both horsepower requirements and cutting pressures, thus allowing operation at higher feed rates. Our standard PCD router bits can be sharpened multiple times, which means more utilization for the end-user.

Our router bits are excellent for use on hardwoods, composite materials, and synthetic materials An anti-rust and non-stick finish improves performance and life of the tool.



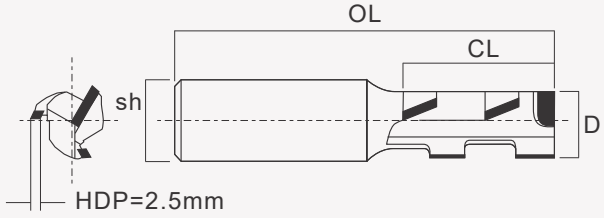
Many of our high performance PCD tools are also available as disposables. We would be happy to provide a quote, at your request.



PCD ROUTER BITS 1+1 WING

D mm	CL mm	sh mm	OL mm	ID Nr RH
12	25	12	75	20101
12	35	12	85	20102
16	25	16	85	20103
16	35	16	95	20104
16	43	16	103	20105
16	25	20	85	20106
16	35	20	95	20107
16	43	20	103	20108
18	25	16	85	20109
18	35	16	96	20110
18	43	16	103	20111
18	25	20	85	20112
18	35	20	96	20113
18	43	20	103	20114
18	25	25	90	20115
18	35	25	100	20116
18	43	25	108	20117
20	25	20	85	20118
20	35	20	95	20119
20	43	20	103	20120
20	25	25	90	20121
20	35	25	100	20122
20	43	25	108	20123

Left hand tools and custom dimensions available on request.



IMPERIAL SIZES 1+1 WING

D inch	CL inch	sh inch	OL inch	ID Nr RH
1/2	7/8	1/2	2-3/4	20124
1/2	1	1/2	3-3/8	20130
1/2	1	1/2	3	20133
1/2	1-1/4	1/2	3-1/2	20131
1/2	1-1/2	1/2	3-3/8	20132
1/2	1-3/8	1/2	2-3/4	20125
1/2	1-5/8	1/2	3-1/2	20134
5/8	1-1/8	5/8	3-5/8	20126
5/8	1-1/2	5/8	3-3/4	20127
3/4	1-3/8	3/4	4	20128
3/4	1-7/8	3/4	4-3/8	20129

Left hand tools and custom dimensions available on request.

TECHNICAL INFORMATION FOR NESTING ROUTERS:

- Three full PCD cutting edges distributed across six helical wings.
- Tool body manufactured from specially hardened steel or Densimet.
- PCD tip height: 2.5 mm.
- Available in positive- or negative configurations.
- Equipped with a PCD plunge tip.
- Designed for high feed rates, excellent edge quality, and quiet operation
- Recommended for chipboard, MDF, and plywood



PCD NESTING ROUTER BITS 3+3+1 WING

Positive tip pattern

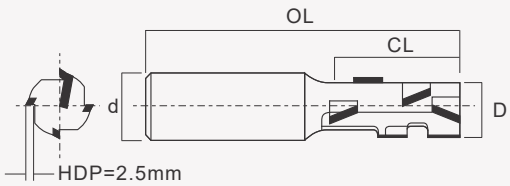
Negative tip pattern

D mm	CL mm	sh mm	ID Nr RH
POSITIVE:			
12	19	12	00200
12	24	12	00201
12.7	19.05	12.7	00202
12.7	25.4	12.7	00203
NEGATIVE:			
12	19	12	00204
12	24	12	00205
12.7	19.05	12.7	00206
12.7	25.4	12.7	00207
16	35	16	00208

Custom dimensions available on request.

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PCD ROUTER BITS 2+2 WING

D mm	CL mm	d mm	OL mm	ID Nr RH
18	28	20	85	20150
18	35	20	95	20151
20	28	20	100	20152
20	35	20	110	20153
20	43	20	120	20154
20	28	25	100	20155
20	35	25	110	20156
20	43	25	120	20157
25	28	25	100	20158
25	35	25	110	20159
25	43	25	120	20160

IMPERIAL SIZES

D inch	CL inch	d inch	OL inch	ID Nr RH
1/2	1	1/2	2-3/4	20161
5/8	1	5/8	3-1/2	20162
3/4	1	3/4	3-1/2	20163
3/4	1-1/4	3/4	3-5/8	20176
3/4	1-3/4	3/4	4	20164
3/4	1-3/4	3/4	4-3/4	20165

Left hand tools and custom dimensions available on request.

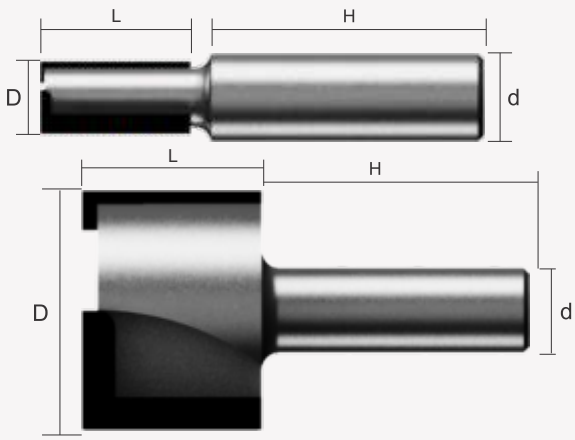
Straight router tools with segmented, alternate shear tip arrangement and PCD-plunge tip for chip-free panel processing. The economical tip design allows for multiple re-sharpenings under normal conditions.

Material: Particle board and MDF boards, both raw or with melamine, veneer and foil laminated, hardwoods etc.

PCD STRAIGHT PLUNGE ROUTER BITS 2 WING

D mm	CL mm	d mm	H mm	ID Nr RH
8	10-20	12.7	45	00300
10	10-25	12.7	45	00301
12	10-30	12.7	45	00302
12.7	10-30	12.7	45	00303
15	10-18	12.7	45	00330
20	14-22	12.7	45	00331
25	22-30	12.7	45	00332
30	7-30	12.7	45	00333
35	7-35	12.7	45	00334
40	7-40	12.7	45	00335

- For boring and edging
- Diameters 12.7-25 -PCD boring tip
- Low noise emission due to positioning of the cutting tips
- Optimum wood chip ejection for diameter ¦ 25 mm
- Excellent panel-edge finish
- Routers supplied with adjustment screw if requested
- Variation Plunge points available in carbide or PCD



EXTREME DURABILITY

PCD cutting edges deliver exceptional wear resistance for long too life and reduced downtime.

PRECISION PERFORMANCE

Engineered for superior accuracy and clean edges on every cut, even in demanding applications

LONG LASTING VALUE

Re-sharpenable PCD tips provide 6-8 sharpenings, maximizing tool life and lowering cost per cut.

CONSISTENT QUALITY

Maintains sharpness longer for consistent results and excellent surface finish on every panel.

Routers featuring a 3+3 tip configuration are engineered for high-speed, high-production applications. The segmented, alternating shear-tip design delivers efficient cutting performance, while the integrated PCD plunge tip supports clean, chip-free panel processing

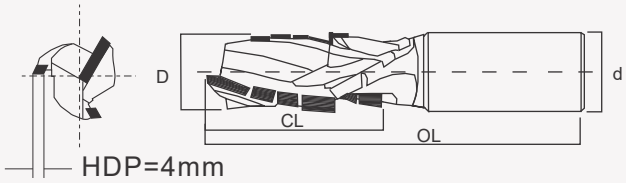


PCD ROUTER BITS 3 WING, UP-CUT

D mm	CL mm	d mm	OL mm	ID Nr RH
20	28	20	90	20266
20	37	20	96	20267
20	45	20	105	20268
20	28	25	96	20269
20	37	25	105	20270
20	45	25	105	20271
25	28	25	96	20272
25	37	25	105	20273
25	45	25	113	20274
25	55	25	123	20275

PCD ROUTER BITS 3+3 WING COMPRESSION

D mm	CL mm	d mm	OL mm	ID Nr RH
20	28	20	90	20166
20	37	20	96	20167
20	45	20	105	20168
20	28	25	96	20169
20	37	25	105	20170
20	45	25	105	20171
25	28	25	96	20172
25	37	25	105	20173
25	45	25	113	20174
25	55	25	123	20175

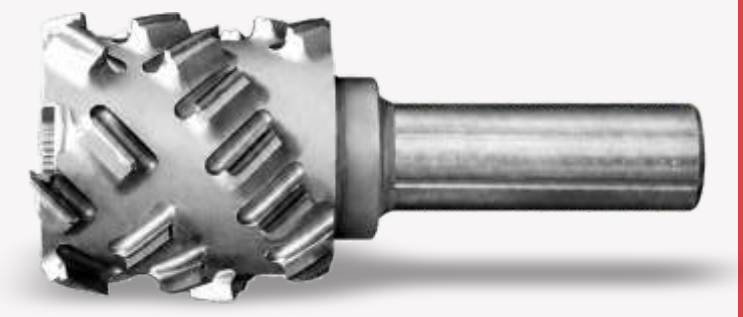


PCD ROUTER BITS 3 WING, DOWN-CUT

D inch	CL inch	d inch	OL inch	ID Nr RH
1/2	7/8	1/2	2-3/4	20181
3/4	7/8	3/4	3-1/2	20176
3/4	1-3/8	3/4	3-3/4	20177
1	1-3/4	3/4	4-1/8	20178
1	7/8	1	3-1/2	20179
1	1-3/8	1	3-3/4	20180

PCD ROUTER BITS 4+2+4 WING COMPRESSION

D mm	CL mm	d mm	Teeth	ID Nr
48	22	19.05/20	4+2+4	40101
48	28	19.05/20	4+2+4	40102
48	35	19.05/20	4+2+4	40103
48	48	19.05/20	4+2+4	40104



Left hand tools and custom dimensions available on request.

IDEAL FOR HARD MATERIALS

Perfect for MDF, melamine particle board, laminates veneer, and other abrasive panel products.

LOW NOISE CUTTING

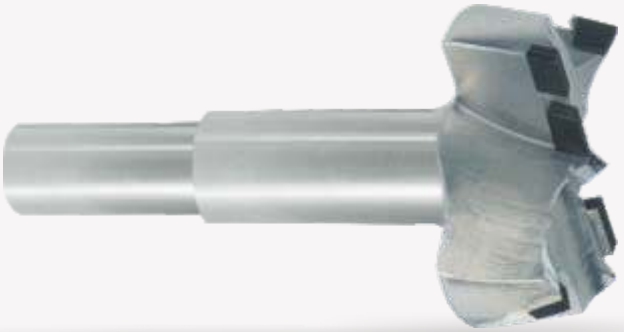
Optimized tip geometry reduces noise and vibration for smoother, quieter machining.

SUPERIOR CHIP EJECTION

Designed for efficient chip clearance, reducing heat build-up and improving cutting performance

HIGH PRODUCTIVITY

High-feed, high-speed performance for faster machining and increased turnout



PCD HINGE BORING BITS

D mm	CL mm	d mm	OL mm	Z	ID Nr
15	32	10	57	2+2	01700R/L
26	32	10	57	2+2	01701R/L
30	32	10	57	2+2	01702R/L
35	32	10	57	2+2	01703R/L
40	32	10	57	2+2	01704R/L
30	45	10	70	2+2	01705R/L
35	45	10	70	2+2	01706R/L
40	45	10	70	2+2	01707R/L

Custom dimensions available on request.



PCD V-POINT BORING BITS

D mm	CL mm	d mm	OL mm	Z	ID Nr
5	32	10	57	1	01600R/L
6	32	10	57	1	01602R/L
6	45	10	70	1	01603R/L
7	32	10	57	1	01604R/L
7	45	10	70	1	01605R/L
8	32	10	57	1	01606R/L
8	45	10	70	1	01607R/L
9	32	10	57	1	01608R/L
10	45	10	70	1	01611R/L
12	32	10	57	1	01612R/L
12.7	45	10	70	1	01613R/L

Custom dimensions available on request.

PCD T-SLOT ROUTER BITS

D mm	CL mm	d mm	OL mm	ID Nr RH	ID Nr LH
35	22	12	90	RX-I-010	RX-I-013
35	22	12.7	80	RX-I-020	RX-I-023
35	22	16	80	RX-I-030	RX-I-033
35	22	20	70	RX-I-040	RX-I-043

Custom dimensions available on request.



ADVANCED CNC OPERATIONS

- State-of-the-art CNC equipment
- Precision grinding technology
- Quality control at every step
- Custom Tooling Solutions



PCD Service Department at Surrey Precision Tools



PCD MDF DOOR PROFILE ROUTER BITS

D inch	sh inch	OL inch	Z	PS	ID Nr RH
1/2	1/2	2-1/8	2	E1	90001
1/2	1/2	2-1/8	2	E2	90002
1/2	1/2	2-1/8	2	E3	90003
1/2	1/2	2-1/8	2	E4	90004
1/2	1/2	2-1/8	2	E5	90005
1/2	1/2	2-1/8	2	S1	90006
1/2	1/2	2-1/8	2	S2	90007
1/2	1/2	2-1/8	2	S3	90008
1/4	1/2	2-1/8	2	S1F	90009
1/4	1/2	2-1/8	2	S2F	90010
1/4	1/2	2-1/8	2	S3F	90011
3/8	1/2	2-1/8	2	RP1	90012
3/8	1/2	2-1/8	2	RP2	90013
3/8	1/2	2-1/8	2	RP3	90014

Left hand tools and custom dimensions available on request.

Material: MDF, chip board or solid wood board

Technical Information:

Cutting material: PCD

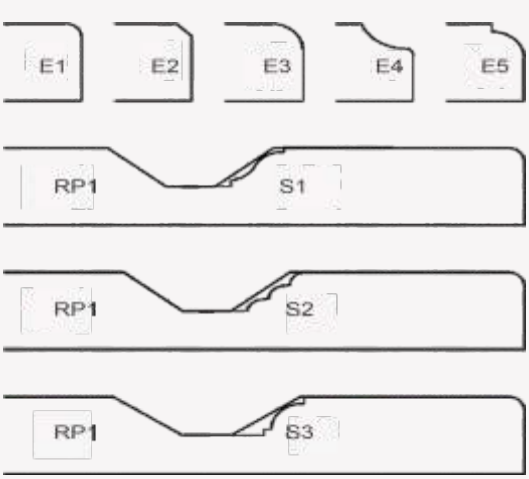
Cutting geometry: POSITIVE

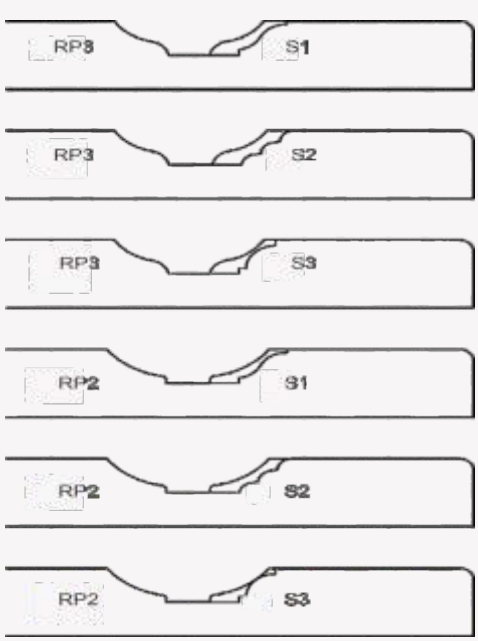
Tooth seating: STRAIGHT

With a broad selection of standard profiles for 3/4" MDF door manufacturing, you'll be able to combine profiles for a unique look. Or send us drawings or samples of specific profiles and we will be glad to offer a quote for custom tooling.

STANDARD PROFILE SERIES

Standard edge profile router bits, E1-E5, are designed for nesting applications, with the cutting edge extending 0.006" into the spoil board.





SUPERIOR EDGE FINISH

Clean, accurate cuts with excellent edge quality.

PRODUCTION EFFICIENCY

High performance tools engineered for maximum throughput.

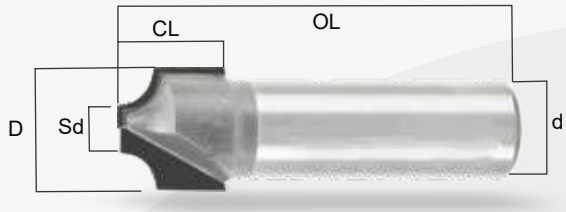
APPLICATION FLEXIBILITY

Versatile solutions for a wide range of materials and applications.

Engineered for Your Application

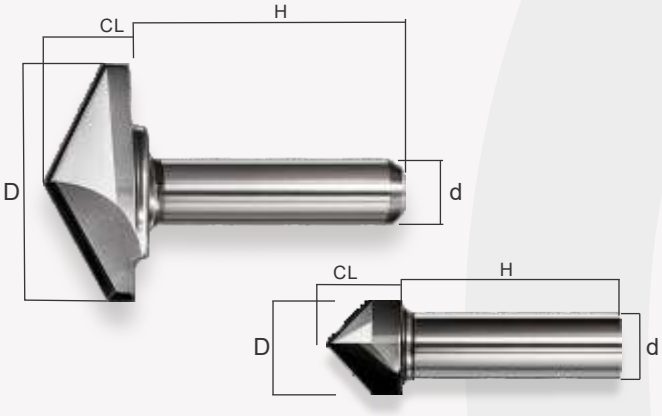
Standard & Custom Dimensions Available

Surrey Precision Tools can design and manufacture a wide range of custom PCD profile tooling tailored to your specific machining requirements. Whether you need standard profiles or fully custom geometries, our precision-engineered tooling delivers superior edge quality, extended tool life, and consistent high-performance results across a variety of material and applications.



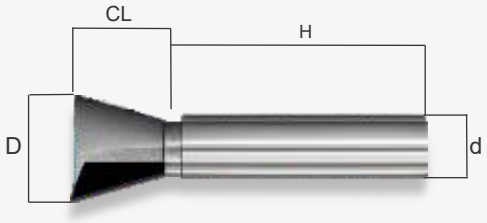
PCD ROUNDOVER ROUTER BITS

R mm	D mm	d mm	Sd mm	CL mm	OL mm	Z	ID Nr
2	28	12.7	8	13	38	2	RX-F-010
2.5	28	12.7	8	13	38	2	RX-F-020
3	28	12.7	8	13	38	2	RX-F-030
4	28	12.7	8	13	38	2	RX-F-040
5	28	12.7	8	13	38	2	RX-F-050
6.35	28	12.7	8	13	38	2	RX-F-060



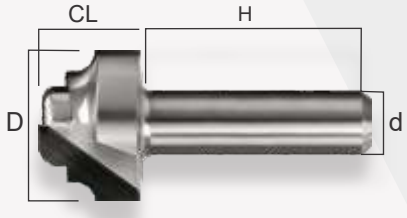
PCD GROOVE ROUTER BITS

D mm	CL mm	d mm	H mm	Angle	ID Nr
16	15/20	12.7	45	60°-90°	00350
20	20/25	12.7	45	60°-90°	00351
24	12/16	12.7	45	90°-120°	00352
30	12/16	12.7	45	90°-150°	00353
36	20/25	12.7	45	90°-150°	00354
40	15/25	12.7	45	90°-150°	00400
46	15/25	12.7	45	90°-150°	00401
50	20/30	12.7	45	90°-130°	00402
56	20/30	12.7	45	90°-130°	00403
60	20/35	12.7	45	90°-160°	00404



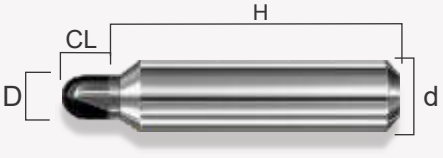
PCD DOVETAIL ROUTER BITS

D mm	CL mm	d mm	H mm	ID Nr
12.7	12	12.7	80	00450
12.7	12	12.7	80	00451



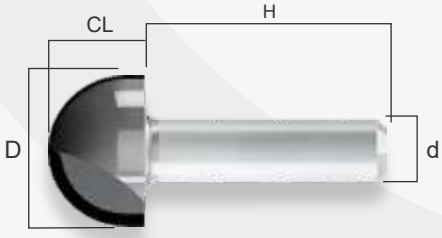
PCD CLASSIC ROUND BOTTOM ROUTER BITS

D mm	CL mm	d mm	H mm	ID Nr
12-50	10-30	12.7	50-80	00500
12-50	10-30	12	50-80	00501



PCD BEADING ROUTER BITS

D mm	CL mm	d mm	H mm	R mm	ID Nr
6	5-10	12.7	45	3-3.5	00550
8	5-10	12.7	45	3-4	00551
10	5-10	12.7	45	4-5	00552
12	7-15	12.7	45	6-10	00553



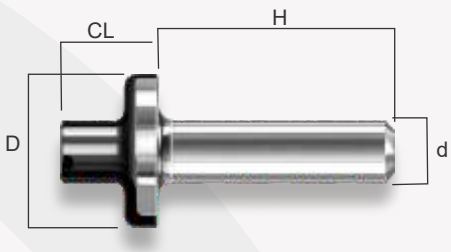
PCD COVE ROUTER BITS

D mm	CL mm	d mm	H mm	R mm	ID Nr
16	10-15	12.7	45	8-10	00600
20	10-15	12.7	45	8-10	00601
30	15-20	12.7	45	15-20	00602
38	20-25	12.7	45	15-20	00603

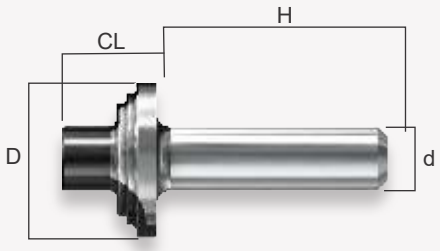
PCD PROFILE ROUTER BITS

CUSTOM PROFILES AVAILABLE

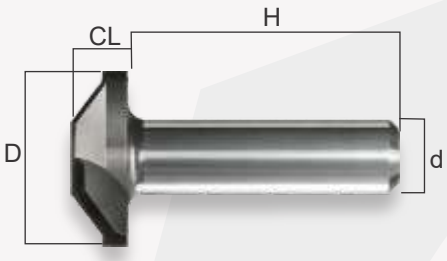
- Standard Profiles
- Custom Profiles
- PCD & Carbide Options
- Application-Specific Designs
- Fast Lead Times



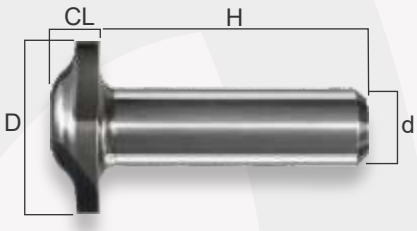
D mm	CL mm	d mm	H mm	ID Nr
20	23	12.7	45	00700
25	23	12.7	45	00701
30	23	12.7	45	00702



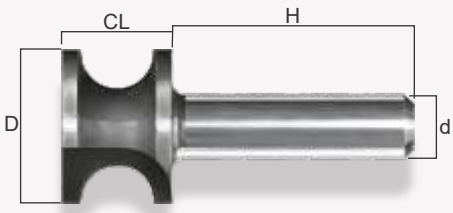
D mm	CL mm	d mm	H mm	ID Nr
35	28	12.7	45	00800
45	28	12.7	45	00801
50	28	12.7	45	00802



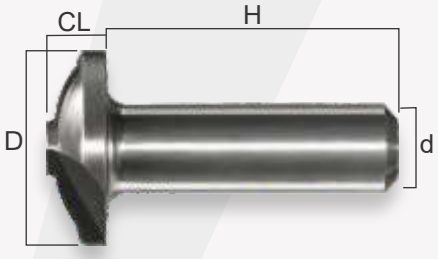
D mm	CL mm	d mm	H mm	ID Nr
30	15	12.7	45	00850
35	15	12.7	45	00851
40	15	12.7	45	00852



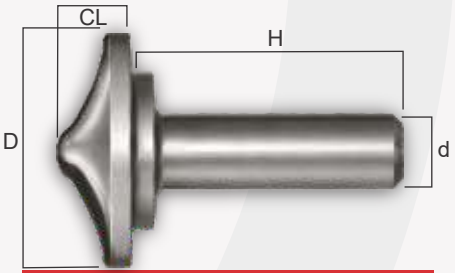
D mm	CL mm	d mm	H mm	ID Nr
45	11	12.7	45	00900
50	11	12.7	45	00901
55	11	12.7	45	00902



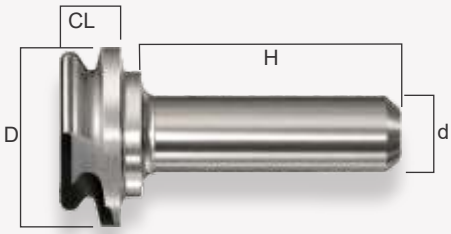
D mm	CL mm	d mm	H mm	ID Nr
30	28	12.7	45	00950
36	28	12.7	45	00951
40	28	12.7	45	00952



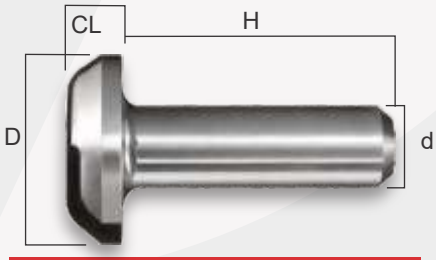
D mm	CL mm	d mm	H mm	ID Nr
35	12	12.7	45	01000
40	12	12.7	45	01001
45	12	12.7	45	01002



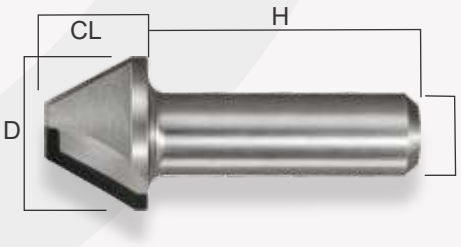
D mm	CL mm	d mm	H mm	ID Nr
50	15	12.7	45	01050
55	15	12.7	45	01051
60	15	12.7	45	01052



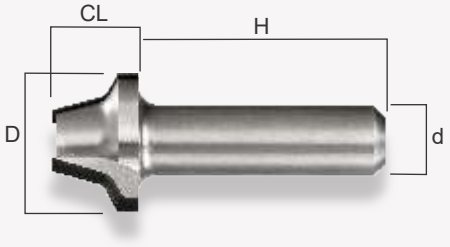
D mm	CL mm	d mm	H mm	ID Nr
30	20	12.7	45	01100
35	20	12.7	45	01101
40	20	12.7	45	01102



D mm	CL mm	d mm	H mm	ID Nr
35	12	12.7	45	01200
40	12	12.7	45	01201
45	12	12.7	45	01202



D mm	CL mm	d mm	H mm	ID Nr
10	14	12.7	45	01250
16	14	12.7	45	01251
20	14	12.7	45	01252



D mm	CL mm	d mm	H mm	ID Nr
25	24	12.7	45	01300
30	24	12.7	45	01301
35	24	12.7	45	01302

6466 Virginia Avenue, Bassett, Virginia 24055 | (276) 627-1321 | sptiinfo@surreytooling.com

SURREY Tungsten Carbide ROUTER BITS

Surrey offers a complete line of solid carbide router bits, engineered for performance, precision, and long tool life. Ideal for routing, profiling, slotting, and finishing in a wide range of materials and applications.



Additional sizes and custom dimensions are available upon request.

SOLID CARBIDE ROUTER BITS

D inch	CL inch	OL inch	Z	Desc.	ID Nr
1/4	1	2-1/2	2	CT STRAIGHT CUT	LD-4522
3/8	1-1/8	3	3	SC DOWN CUT EXTRA HEAVY DUTY	LD-4526
1/2	7/8	3	2	SC DOWN CUT ENDURANCE COATING	LD-4525
1/2	1-1/8	3	2+2	SC ENDURANCE COATING	LD-4529
1/2	1-3/8	3-1/2	2+2	SC MORTISE ENDURANCE COATING	LD-4524
1/2	1-3/8	3-1/2	2+2	SC MORTISE COMPRESSION ENDURANCE COATING	LD-4444
1/2	1-5/8	4	2+2	SC ENDURANCE COATING	LD-4528C
1/2	1-5/8	4	2+2	SC EXTENDED RUN	LD-4528
1/2	1-5/8	3-1/2	2+2	SC MORTISE COMPRESSION	LD-4523
3/4	2-1/8	5	3	SC DOWN CUT LOW HELIX HOGGER	LD-4530
3/4	2-1/4	5	2+2	SC EXTENDED LIFE	LD-4531

ROUGHER/FINISHER ROUTER BITS

D mm	CL mm	OL mm	Z	d mm	ID Nr
10	22	112	2+2	10	01800
10	28	118	2+2	10	01801
10	22	112	3+3	10	01802
10	28	118	3+3	10	01803
12	28	118	3+3	12	01804
12	38	128	3+3	12	01805
16	40	130	3+3	16	01806
16	45	135	3+3	16	01807



SPIRAL ROUTER BITS 1-WING DOWN-CUT

D mm	CL mm	OL mm	d mm	ID Nr
6	22	72	6	01900R/L
6	28	78	6	01901R/L
8	22	72	8	01902R/L
8	28	78	8	01903R/L
10	28	78	10	01904R/L
10	38	88	10	01905R/L
12.7	28	78	12.7	01906R/L
12.7	38	88	12.7	01907R/L



SPIRAL ROUTER BITS 2-WING UP-CUT

D mm	CL mm	OL mm	d mm	ID Nr
4	10	52	4	02000R/L
6	22	72	6	02001R/L
8	28	78	8	02004R/L
10	28	78	10	02005R/L
12.7	28	78	12.7	02007R/L
12.7	38	88	12.7	02008R/L
16	30	80	16	02009R/L
20	45	95	20	01261R/L



SPIRAL ROUTER BITS 3-3-WING COMPRESSION

D mm	CL mm	OL mm	d mm	ID Nr
10	22	72	10	02100R/L
10	28	78	10	02101R/L
12.7	28	78	12.7	02102R/L
12.7	38	88	12.7	02103R/L
16	30	80	16	02104R/L
16	40	90	16	02105R/L
20	40	90	20	02106R/L
20	50	100	20	02107R/L



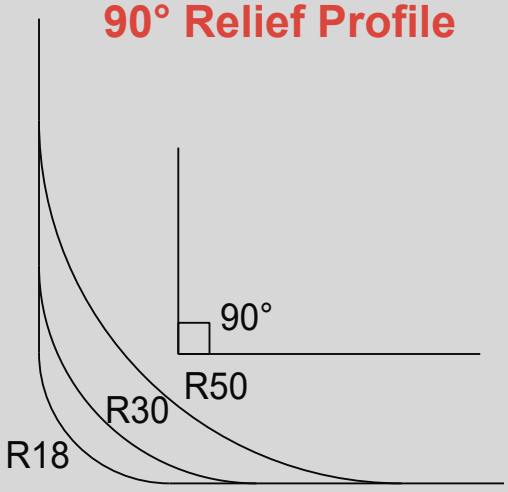


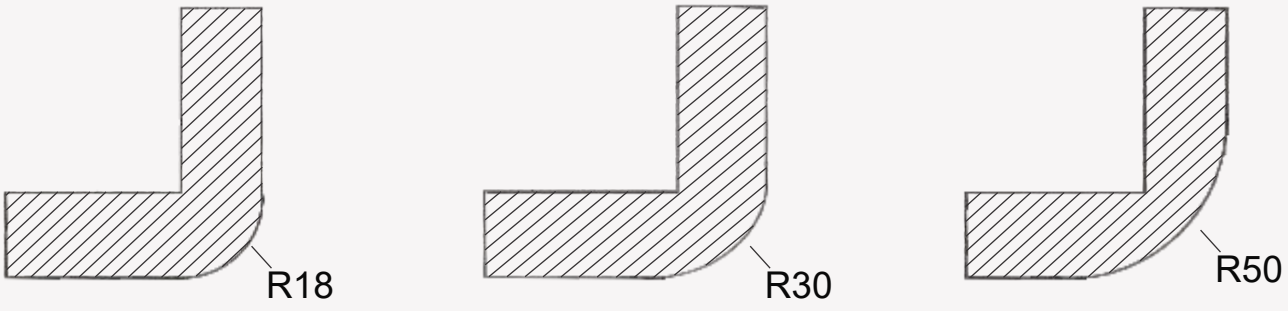
PCD Radius-Bending Router



Designed to machine precision relief profiles for seamless 90° panel bending. Available in R18, R30 and R50 radii for producing smooth, consistent curved corners in furniture, cabinetry and architectural panel applications.

90° Relief Profile





CONTACT US FOR DETAILS
A full range of sizes and custom configurations are available.

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