

Advanced Materials **INDEX**

Advanced Materials

Offering a comprehensive range of circular saws, cutters and router bits for processing solid surface materials, aluminum, composites, high-pressure laminates, plastics and sandwich panels.

- Tools for sizing, carved routing and surface engraving in plasitcs
- Sizing and carve-routing in aluminum
- Tools for cutting and routing solid surface materials
- Special tools engineered for long life and accuracy in machining composite materials (reinforcing fibers and polymer matrix)

Important factors such as carbide-type, tool geometry, grinding process and cutting edge finish, greatly influence the success of working with advanced materials. Dimar provides a superior solution featuring longer tool life and excellent cutting quality. Plastic Solid Surface Ma Aluminum ACM Composites









Solid Surface Materials



Aluminum



Composites

	320	-	328
aterials	329	-	338
	339	-	343
	342	-	343
	344	-	349



Plastic

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Saw Blades	#SCPL	#1927	#G185	#SC	#SCR	
321 - 322	323	323	324 - 327	328	328	

Generic name for materials made from Polymer chains

There is enormous variety of plastics. Various coombinations of Polymer structures & sizes could create new mechanical properties. Those different materials are spread over the complete scale of each property (very soft to very hard, clear to blank, heat sensitivity to heat resistance, e.g.). No doubt it is difficult to define the exact cutting condition of rotation speed in related to the cutting feed.

Kindly, refer to a couple guidelines to optimize cutting process:

- The larger the chip size, the larger the tool lifetime.
- For "elastic/soft" material, we highly recommend to work with a minimal number of cutting edges; For Instance, it is preferable to work with 1 flute, not with 2 flutes.
- For "hard/ breakable" material, it is preferable to use with additional cutting edges; for instance: Using 300 diameter saw with 96 teeth, not 60 teeth.
- Tools for use in plastics are characterized by extremely sharp cutting angles. Carbide tips is required to support an angle in order not to crumble during cutting.

In order to define the material it is recommended to use the table below:

	Polymer	Tensile Strength MPa	(%) Elongation	Tensile Modulus MPa
	HDPE	21-35	15-100	700-1400
•	LDPE	7-21	50-800	100-250
	PP	30-40	150-600	1150-1550
	PS	33-35	1-4	2400-3350
ace Is	PVC	35-63	2-30	2000-4200
	ABS	35-48	15-80	1750-2500
	PA 6/6	84	60-100	2070-3245
	PA 6/12	62	150-340	2100
m	PC	63	110	2400
	PMMA	55-75	5	2400-3100
	Polyester	56	300	2400
	Polysulfones	70.3	5-6	2482
m	PEEK	100	40	3900
	PET	45-145		2300-10300
	PVDC	19	350	345-552
	Cellulosics	14-15	6-60	690-2100
////	PAI	125-185	5-12	710-4900
	Polyacrylates	69	50	2400-16600
In	PPO	55	50	2484-2622
tor	Polyimides	69	50	3588

The property of the tensile modulus and the elongation can give a good idea where the material belongs: is itmore breakable or is it considered to be soft?

As the tensile modulus gets bigger and the elongation gets smaller, the material becomes harder and more cutting edges can be used.



This table can also give a perspective of a new material regarding a material that is already known.

	NEC	G 6°	ØD	
Tool no.	Dia.	Teeth	Kerf	Bore
220-42 HGN	220mm	42	.130" (3.3mm)	30mm
*220-64 TCG	220mm	64	.118" (3.0mm)	30mm+2 PH
253-48 HGN	253mm	48	.130" (3.3mm)	30mm
304-60 HGN	304mm	60	.130" (3.3mm)	30mm



Tool no.	Dia.	Teeth	Kerf	Bo
7 1/4-36 HG	7 1/4"	36	.126" (3.2mm)	5/
8-40 HG	8"	40	.126" (3.2mm)	5/
9-40 HG	9"	40	.126" (3.2mm)	5/
10-48 HG	10"	48	.126" (3.2mm)	5/
12-60 HG	12"	60	.126" (3.2mm)	1
14-72 HG	14"	72	.126" (3.2mm)	1



Tool no.	Dia.	Teeth	Kerf	В
10-80 PL	10"	80	.098" (2.5mm)	5
12-96 PL	12"	96	.130" (3.3mm)	
14-108 PL	14"	108	.145" (3.7mm)	

Plastic

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Materia

DIMAR CANADA DIMAR USA 320

DIMAR GROUP

Plastic

Carbide Tipped Thin Saw Blades (ATB)



Tool no.	Dia.	Teeth	Kerf	Bore
8-34 THIN-A	8"	34	.090" (2.3mm)	5/8"
8-64 THIN-A	8"	64	.094" (2.4mm)	5/8"
10-40 THIN-A	10"	40	.090" (2.3mm)	5/8"
10-80 THIN-A	10"	80	.094" (2.4mm)	5/8"
12-48 THIN-A	12"	48	.090" (2.3mm)	1"
12-96 THIN-A	12"	96	.094" (2.4mm)	1"
14-54 THIN-A	14"	54	.090" (2.3mm)	1"
14-108 THIN-A	14"	108	.090" (2.3mm)	1"



Thin kerf saw designed for finish work on expensive wood where stock loss must be kept to a minimum. Recommended for use with large flange and stock thickness of a maximum of 3/4

Manufacturing Technology:



Carbide Tipped Combination Saw Blades (COM)



Advanced Materials

ØD 15°

Teeth

40

40

50

50

60

70

80

Dia.

8"

9"

10"

* Chip Limitation for Radial Arm Saw



Materials



Aluminum

Trimming and Cross Cut for Hard & Exotic Wood Saw Blade

Kerf

.126" (3.2mm)

.126" (3.2mm)

.134" (3.4mm)

.126" (3.2mm)

.149" (3.8mm)

.149" (3.8mm)

.157" (4.0mm)

Bore

5/8"

5/8"

5/8"

5/8"

1"

1"

1"



0D 0D 15°	
- 15°	

Tool no.	Dia.	Teeth	Kerf	Bore	Manufacturing Technol	ogy:
10-100 ATB-R	10"	100	.118" (3.0mm)	30mm		(
10-120 ATB-R	10"	120	.118" (3.0mm)	30mm		(





All purpose blade designed for ripping, cutting along and across the grain for easy feed in softwood, hardwood, plywood, chipboard and particle board. The fifth raker tooth is designed to give a clean medium quality cut. For radial arm and table saws.

Manufacturing Technology:

MAX

Balance

Straight

Tension





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Dimar's plastic cutting solid carbide spiral O'Flute router bits are designed for use in various plastic materials such as Plexiglas, and Lucite, nylon, ABS, PE, Acetal, PET, HDPE, UHMW, polycarbonates, polypropylene, wood and solid surfaces.

Dimar's O'Flute design allows the cutting chips to form naturally and follow the natural flow of the cutting geometry without hitting sharp corners that would otherwise slow their exit from the cutting passage. These special bits feature a mirror finish that will guarantee you a clean, smooth cut in the most difficult acrylic materials. Designed for use in most CNC machines.

Great For Cutting:

- Plastic / Acrylic
- Solid Surface
- Wood
- Polycarbonate
- Foam Board
- Corrugated Polypropylene
- PE/Aceta/Nylon



Single Spiral "O" Flute Upcut Shear Angle Mirror Finish, 1 Flute

Upcut spiral for optimum chip flow and improved finish on the bottom of the board. Suitable for fine 'finishing' cuts in soft and hard plastic with upward chip removal.

Tool no	Dia.	Shank	В	Length
SCPL43	1/8"	1/8"	1/2"	2"
SCPL45	3/16"	3/16"	5/8"	2"
SCPL45X	3/16"	1/4"	5/8"	2 1/2"
SCPL463	1/4"	1/4"	3/4"	2"
SCPL46	1/4"	1/4"	1"	2 1/2"

Single Spiral "O" Flute, Downcut Shear Angle, Mirror Finish, 1 Flute

Downcut spiral for improved finish on the top of the board. Suitable for fine 'finishing' cuts in soft and hard plastic with downward chip removal.

Tool no	Dia.	Shank	В	Length
SCPL43DC	1/8"	1/8"	1/2"	2"
SCPL45DC	3/16"	3/16"	5/8"	2"
SCPL463DC	1/4"	1/4"	3/4"	2"
SCPL46DC	1/4"	1/4"	1"	2 1/2"

Adapter for 1/8" Shank Bits

A unique adapter specifically designed to accept 1/8" diameter bits. The easy-grip adapter will ensure that bits are fixed firmly and properly inserted into the collet. We recommend that you opt for a "unified" shank and cutting diameter as this will ensure optimum strength during the routing operation.

Tool no	d	D	В	Length
1927124	1/8"	1/4"	7/8"	1 1/4"







9-40 COM

10-50 COM

Solid Surface



DIMAR GROUP

ø1/2" Drills sold separately

Solid Carbide "O" Flute Spiral Router Bits for Plastic

6.300 D=ø1/4

5,000 D=ø3/16

3,800

2.500

R.P.M. = 18,000

O Flut design

Z=1

D=ø1/8 1.300





Aluminun



Composites



В

A



Plastic

NEW

RPM. 18000











Solid Surface Materials





Plastic

Advanced Mate

"V" Groove 30°

D

0.12mm

Code No.

* 3185005

Engraving System Insert Knives

Scale -1:1





*Only for use with controlable feed rate machines.







Solid Surface Material



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The versatile Engraving Insert System features one tool body with 40 unique insert knives of the highest industrial quality, to ensure cleaner cuts and longer life than most other standard solid router bits.

Designed for a wide variety of applications including straight cut, core box, round corner, V-groves and cutting & chamfering. Ideal for cutting laminated materials, veneers, MDF, plastics, wood and solid surfaces.

The system was specially engineered to enable a quick, easy exchange of inserts while mounted in CNC machines; eliminating setup-time while maintaining consistent cutting accuracy. The balanced design minimizes vibration resulting in superior cutting.





Allen screw

1938070

M4x6

Allen key

1940030

S3



324

Aluminun

	COUE NO.	D	L	ØU
]	G1853X04*	12mm	1/4"	65mm
	G1853X08*	12mm	1/2"	65mm
	*Body only.			



Straight Code No. D В 3185032 3.2mm 5mm 3185033 4.76mm 6mm 3185034 6.35mm 7mm В 3185035 7.94mm 8mm









Code N

ri	al	S

Plastic

SOLID CARBIDE

"V" Groove 60°

	Code No.	D
*	3185018	0.12mm
*	3185019	0.25mm
	3185020	0.5mm
	3185021	0.75mm
	3185022	1.0mm
	3185023	1.5mm
	3185024	2.25mm



"V" Groove 90°					
Code No.	D				
3185014	0.12mm				
3185015	0.24mm				
3185016	0.5mm				
3185017	1.0mm				



Core Box

No.	R	В
)28	1.6mm	5mm
029	2.4mm	6mm
030	3.2mm	7mm
031	4.0mm	8mm

	Corner Round								
	Code No.	R	В						
	3185025	1.6mm	8mm						
	3185026	2.4mm	8mm						
\int	3185027	3.2mm	8mm						
J									



В





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Aluminum



Composites

Cutting and Chamfering

В	Code No.	В
0.5mm	3185043	4.3mm
1.0mm	3185013	4.6mm
1.5mm	* 3185003	5mm
1.8mm	* 3185044	5.5mm
2.3mm	* 3185038	6.3mm
3.3mm	* 3185039	8.3mm
3.6mm	* Only for Chan	nfer
	operation.	



Plastic

Engraving System Feed rates

Straigth and core box max feed Vars. RPM (cutting depth 1D) mm/min

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Plastic



Solid Surface Materials





Head diameter (mm)	3.2	4.76	6.35	7.93
Rotation speed (RPM)	Red	comended f	feed rate (mr	m/min)
6000	600	780	900	1080
7000	700	910	1050	1260
8000	800	1040	1200	1440
9000	900	1170	1350	1620
10000	1000	1300	1500	1800
11000	1100	1430	1650	1980
12000	1200	1560	1800	2160
13000	1300	1690	1950	2340
14000	1400	1820	2100	2520
15000	1500	1950	2250	2700
16000	1600	2080	2400	2880
17000	1700	2210	2550	3060
18000	1800	2340	2700	3240
19000	1900	2470	2850	3420
20000	2000	2600	3000	3600
21000	2100	2730	3150	3780
22000	2200	2860	3300	3960
23000	2300	2990	3450	4140
24000	2400	3120	3600	4320
25000	2500	3250	3750	4500
26000	2600	3380	3900	4680
27000	2700	3510	4050	4860
28000	2800	3640	4200	5040

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Engraving System Feed rates

V- groove routing recommended max feed vars. RPM (inch/min)

Head diameter (D) mm	0.1	0.25	0.5	0.75	1	1.5	
Rotation speed (RPM)			Max. fee				
6000	480	1200	2400	3600			
7000	560	1400	2800				
8000	640	1600	3200				
9000	720	1800	3600				
10000	800	2000	4000				
11000	880	2200					
12000	960	2400					
13000	1040	2600					
14000	1120	2800					
15000	1200	3000					
16000	1280	3200					
17000	1360	3400					
18000	1440	3600					
19000	1520	3800			NO E II	MIT	
20000	1600				10 L.	••••	
21000	1680						
22000	1760						
23000							
24000	1920						
25000	2000						
26000	2080						
27000	2160						
28000	2240						

Sizing and chamfering recommended feed Vars. RPM mm/min Chamfering only

Material thickness (mm)	2	3	4.6	5
Rotation speed (RPM)	Recon	nended fee	d rate (mn	n/mi
6000	1500	1320	1200	1(
7000	1750	1540	1400	12
8000	2000	1760	1600	14
9000	2250	1980	1800	16
10000	2500	2200	2000	18
11000	2750	2420	2200	19
12000	3000	2640	2400	2
13000	3250	2860	2600	2
14000	3500	3080	2800	25
15000	3750	3300	3000	27
16000	4000	3520	3200	28
17000	4250	3740	3400	3(
18000	4500	3960	3600	32
19000	4750	4180	3800	34
20000	5000	4400	4000	36
21000	5250	4620	4200	37
22000	5500	4840	4400	39
23000	5750	5060	4600	4
24000	6000	5280	4800	4
25000	6250	5500	5000	4
26000	6500	5720	5200	4
27000	6750	5940	5400	4
28000	7000	6160	5600	5

Composites

Round corner reccomended feed Vars. RPM mm/min

7000	1750	1540	1400	
8000	2000	1760	1600	
9000	2250	1980	1800	
10000	2500	2200	2000	
11000	2750	2420	2200	
12000	3000	2640	2400	
13000	3250	2860	2600	
14000	3500	3080	2800	
15000	3750	3300	3000	
16000	4000	3520	3200	
17000	4250	3740	3400	
18000	4500	3960	3600	
19000	4750	4180	3800	
20000	5000	4400	4000	
21000	5250	4620	4200	
22000	5500	4840	4400	
23000	5750	5060	4600	
24000	6000	5280	4800	
25000	6250	5500	5000	
26000	6500	5720	5200	
27000	6750	5940	5400	
28000	7000	6160	5600	

1.6

1500

Knife radius (mm)

Rotation speed (RPM)

6000

2.4

1320

3.2

1200

Recomended feed rate (mm/min)

Plastic





Advanced Materials

Plastic



Solid Surface Materials



Aluminum



Composites

5.6	6	7.2	8
n)			
080	1500	1320	12
200	1750	1 = 10	

1080	1500	1320	1200
1260	1750	1540	1400
1440	2000	1760	1600
1620	2250	1980	1800
1800	2500	2200	2000
1980	2750	2420	2200
2160	3000	2640	2400
2340	3250	2860	2600
2520	3500	3080	2800
2700	3750	3300	3000
2880	4000	3520	3200
3060	4250	3740	3400
3240	4500	3960	3600
3420	4750	4180	3800
3600	5000	4400	4000
3780	5250	4620	4200
3960	5500	4840	4400
4140	5750	5060	4600
4320	6000	5280	4800
4500	6250	5500	5000
4680	6500	5720	5200
4860	6750	5940	5400
5040	7000	6160	5600





Plastic

2 Flute Spiral-Solid Carbide - For Man-made material

Used primarily with abrasive laminated boards, particle boards, MDF, laminates and in plastic material to achieve an excellent finish. Upcut spirals are used when you need good chip removal, and/or when the finished or laminated surface is on the underside. The flute design assists in dust collection and therefore is the best choice when grooving. To eliminate the lifting effect of the upcut flute design, clamp the material properly.







d

	SC463
	SC46
	SC87
	SC88
-	SC610
Plastic	SC610B
i lustic	SC810

SC919

UPCUT Tool No Dia. Shank В Length SC43 1/8" 1/4" 1/2" 2" SC44 5/32" 1/4" 5/8" 2 1/2" SC45 3/16" 1/4" 3/4" 2 1/2" SC455 7/32" 1/4" 1" 2 1/2" 1/4" 1/4" 3/4" 2 1/2" 1/4" 1/4" 1" 2 1/2" 9/32" 1/2" 1" 3" 5/16" 1/2" 1 1/8" 3" 1" 3/8" 3/8" 2 1/2" 3/8" 3/8" 1 1/4" 3" 3/8" 1/2" 1 1/4" 3" SUBIL 1/2" 3" SC811 7/16" 1 1/4" SC812 1/2" 1/2" 1 1/4" 3 1/2" SC812B 1/2" 1/2" 1 5/8" 3 1/2"

3/4"

DOWNCUT		•	_	
Tool No	Dia.	Shank	В	Length
SC43DC	1/8"	1/4"	1/2"	2"
SC44DC	5/32"	1/4"	5/8"	2 1/2"
SC45DC	3/16"	1/4"	3/4"	2"
SC455DC	7/32"	1/4"	1"	2 1/2"
SC463DC	1/4"	1/4"	3/4"	2 1/2"
SC46DC	1/4"	1/4"	1"	2 1/2"
SC87DC	9/32"	1/2"	1"	3"
SC88DC	5/16"	1/2"	1 1/8"	3"
SC610DC	3/8"	3/8"	1"	2 1/2"
SC810DC	3/8"	1/2"	1 1/4"	3"
SC811DC	7/16"	1/2"	1 1/4"	3"
SC812DC	1/2"	1/2"	1 1/4"	3 1/2"
SC812BDC	1/2"	1/2"	1 5/8"	3 1/2"
SC919DC	3/4"	3/4"	1 5/8"	4"

Straight Bit - Solid Carbide Newly developed line of superior quality solid carbide bits to rout difficult to cut materials particularly in small diameter.

3/4"

Solid Surface Materials

Aluminum





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		d
		♥

1 5/8"

Suitable for wood composites and thin laminated materials, rigid plastics such as acrylic, PVC and nylon.

4"

2 Flutes					2 Flutes				
Tool No	Dia.	Shank	В	Length	Tool No	Dia.	Shank	В	Length
SCR4-4	5/32"	1/4"	7/16"	2"	SCR4-3M	3mm	1/4"	11mm	51mm
SCR4-5	3/16"	1/4"	7/16"	2"	SCR4-4M	4mm	1/4"	11mm	51mm
SCRL4-5	3/16"	1/4"	1/2"	2"	SCR4-5M	5mm	1/4"	11mm	51mm
SCR4-5.5	7/32"	1/4"	3/4"	2"	SCR4-6M	6mm	1/4"	19mm	51mm
SCR4-6A	1/4"	1/4"	1/2"	2"	SCR4-6MB	6mm	1/4"	19mm	63mm
SCR4-6	1/4"	1/4"	3/4"	2"	SCRL4-6M	6mm	1/4"	25mm	63mm
SCR4-6B	1/4"	1/4"	3/4"	2 1/2"					
SCRL4-6	1/4"	1/4"	1"	2 1/2"					
SCRL6-10	3/8"	3/8"	1 1/4"	3"					

Up	

1 Flute

Tool No	Dia.	Shank	В	Length
SCR4-3MS	3mm	1/4"	11mm	51mm
SCR4-4MS	4mm	1/4"	11mm	51mm
SCR4-5MS	5mm	1/4"	11mm	51mm
SCR4-6MS	6mm	1/4"	19mm	51mm
SCRL4-6MS	6mm	1/4"	25mm	51mm

1 Flute

Tool No	Dia.	Shank	В	Length
SCR4-3S	1/8"	1/4"	7/16"	2"
SCR4-4S	5/32"	1/4"	7/16"	2"
SCR4-5S	3/16"	1/4"	7/16"	2"
SCR4-5.5S	7/32"	1/4"	3/8"	2"
SCR4-6S	1/4"	1/4"	3/4"	2"
SCRL4-6S	1/4"	1/4"	1"	2"

Advanced Materials



		Ļ										
#113	#159	#130	#155	#155	#106	#155	#155	#163	#143	#SCB		
334	334	334	335	335	335	336	336	337	337	338		

Corian, Fountainhead Avonite, etc.

Dimar has developed a world class line of router bits for solid surface materials.

Tools profile produced for such materials provide a complete solution for all applications & profiles in this category.

Tooling's shape & measurements shall comply with the particular processing stages.

Working with a bearing guide: In order to protect the product from harm, the bearings are wrapped in reinforced plastic material, which is molded to the bearing and eliminates a split from the bearing while operating. The bearing shape is determined according to the existing profile of the product.







Solid Surface Materials



Aluminun



Composites





Solid Surface Materials

Plunge Bits,1 Flute







Tool no	Dia.	Shank	В	Length
107R6-6S/F	1/4"	3/8"	3/4"	2 1/4"
107R6-10S/F	3/8"	3/8"	1"	2 11/16"
107RL6-10S/F	3/8"	3/8"	1 1/4"	2 5/8"



Face Inlay Bits, 2 Flutes

DIMAR CANADA



DIMARUSA

Advanced Materials

Tool no	Dia	Shank
101RK8-22	3/4"	1/2"

Over-Hang 1/16",



Tool no	Dia	Shank
101RK8-19	3/4"	1/2"

Flush Trim 0 Degrees





2 Flutes.

Tool no	Dia.	Shank
101RCL8-19	3/4"	1/2"
101RCLS8-19	3/4"	1/2"
* 101RCLSW8-19	3/4"	1/2"

For tear free finish on laminated boards.



Used for flushing double sided laminated boards

0			
Fool no	Dia.	Shank	В
101RCD4-12	1/2"	1/4"	1 3/3
101RCD8-12	1/2"	1/2"	1 3/3
Replacement Pa Ball Bearing BB-12A 1/2x1/4x3/16	arts:		

330

Plastic

DIMAR GROUP

0 0

1

Solid Surface Materials

Spline Glue Joint Bits, 2 Flutes



Topmounted Bowl & Countertop Bits, 2 Flutes



	Tool no	Dia	Shank	В	а	Length
T	104RCR8-28	1 1/8"	1/2"	1"	12º	3 1/8"
		Replace Ball Bea BB-2 1 1/8 x	cement Parts: aring Lock ring To $\frac{1970200}{1/2}$ 11	x Screw 930210		

Shank

1/2"

 \bigcirc

Spring Washer

1950800

3/8 x 3/16

Replacement Parts:

Ball Bearing

SG-22A 7/8 x 1/4

В

1"

P

Torx Screw

1930080

а

12°

Length

3 3/16"



Bevel Undermount Bowl Bit, 2 Flutes Dia Tool no → d ⊢







	• ··· • • ·· • =							
	Tool no	Dia	Shank	В	R	R1	а	Length
ľ	153R8-57B	2 1/4"	1/2"	15/16"	13/64"	5/32"	13°	2 51/64"
			Replacement Ball Bearing SG-25 25mm x 1/4"	Approximation of the second se	Torx Screw 1930085			-

Advanced Materials

Rounding Over Undermount Bowl Bits, 2 Flutes

Tool no	Dia.	Shank	В
153R8-54	2 1/8"	1/2"	1"
153R8-57	2 1/4"	1/2"	1 1/4"



Round Over Bit, 2 Flutes

Tool no	Dia.	Shank	В
109RC8-8	1 1/8"	1/2"	1/2"
109RC8-10	1 1/4"	1/2"	5/8"
109RC8-12	1 1/2"	1/2"	3/4"
109RC8-19	2"	1/2"	1"

 \bigcirc





Ball Bearing Washer SG-12 1/2 x 3/16 1920040 5/16 x 3/16

Corner Rounding Bits with Radius Bearing, 2 Flutes

Tool no	Dia.	Shank	В	R	Length	Parts
109RD8-12	1 5/8"	1/2"	47/64"	1/2"	2 1/16"	А
109RD8-19	2 1/8"	1/2"	63/64"	3/4"	2 29/32"	В
109RD8-25	2 5/8"	1/2"	1 15/64"	1"	2 1/16"	С



Re	Replacement Parts:						
	0	\bigcirc					
	Ball Bearing	Washer					
A	SG-22C 21.4mm x 1/4	<u>1920040</u> 5/16 x 3/16					
в	SG-22D 19.4mm x 1/4	<u>1920040</u> 5/16 x 3/16					
С	SG-22E 18.5mm x 1/4	1920040 5/16 x 3/16					

DIMAR CANADA DIMAR USA

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Solid Surface Materials











Advanced Materials





Solid Surface Materials



Aluminum



Composites





1930080

1930080







Solid Surface Materials

Roman Ogee Undermount Bowl Bits, 2 Flutes



Roman Ogee Bit, 2 Flutes



Dia.

2 1/8"

2 5/8"

Inverted (Under-Cut) Round Over Bits, 2 Flutes

Tool no

159R8-12



Plastic



ы сы



Shank

1/2"

1/2"

В

3/4"

1"



Length

2 7/8"

3"

R

1/2"

3/4"

Aluminum

Corner Top Bit - No Drip



334



Advanced Materials

Corner Top Bit - No Drip

Тс	ool no	Dia.	Shank	В
15	55R8-25	1"	1/2"	7/8"
15	55R8-26	1"	1/2"	1 1/8"



Upstand / Corner Cove Bits, 2 Flutes

Tool no	Dia.	Shank	В	B1
155R8-39A	1 17/32"	1/2"	1 37/64"	1 3/16'
155R8-39B	1 17/32"	1/2"	2 5/32"	1 25/32



Coving / Core Box Bit, 2 Flutes

Tool no	Dia.	Shank	В
106RC8-10	1 1/8"	1/2"	1/2"





DIMAR CANADA DIMARUSA

Solid Surface Materials

















Solid Surface Materials



Aluminum



Composites





Solid Surface Materials

Bevel Hob Bit



Under Mount Profile Bowl Bit, 2 Flutes

Tool no

155R8-42

Dia.

1 3/8"

D1

7/8"







-D-





Shank

1/2"

В

1 5/16"



R

15/64"

а

10°

Length

3 5/16"

Six Wing Trimmer

Tool no	Dia.	Shank
163R8-52	2 1/16"	1/2"



Tongue & Groove - Jointing Set

Tool no	Dia.	Shank	В	
143R8-48	1 7/8"	1/2"	3/8"	

Replaceme	ent Parts:			
	0			
Arbour & Nut	Super Guide Bearing	Super Guide Bearing	2 Groovers	Groover
1900048 Dia 5/16"	SG-40 40mm x 5/16"	SG-43 43mm x 5/16"	<u>108R3-4</u> B = 5/32"	<u>108R3-2</u> B = 5/64"
0	0	0	0	0
Shim	Shim	2 Shims	Shim	Shim
<u>1920160</u> 6mm	<u>1920400</u> 3.15mm	<u>1920110</u> 1mm	<u>1921000</u> 0.1mm	<u>1920500</u> 0.05mm



Aluminum



Advanced Materials





Solid Surface Materials



Aluminum



Composites



H D H





В

1/4"





- d |-





Solid Surface Materials

2 Flute Spiral - Upcut & Downcut Solid Carbide Router Bits with Ball Bearing Guides

Spiral bits have a cutting edge that is constantly in contact with the material. The load on the work piece and the bit is constant, uniform and draws less power than the conventional straight bit. As a result more stock can be removed and faster feed rates can be applied. The cut is a "peeling" action rather than a "chipping" action. Spiral bits perform best at higher feed rates in a straight line and require more hold-down pressure.



В

1 1/4"

2"

Length

3 3/4"

4 3/4"

2 Flute Spiral - Upcut Solid Carbide Router Bits



Advanced Materials

For the ultimate, chip-free finish in laminate, melamine, solid surface and fragile veneers, and for template work of all kinds.

The twin ball-bearing pilot enhances the stability of the tool. Upcut spiral for optimum chip flow and improved finish on the bottom of the board.

Shank

1/2"

1/2"

For use on routers with or without CNC control.

	Tool no		Dia.		
	SCB812		1/2"		
	SCB812B	SCB812B		1/2"	
	Replaceme	nt Parts:			
20070 BB-12	0	O		\bigcirc	
50800	Ball Bearing	Washer	Lock Nut	Washer	
<u>981210</u> → D →	BB-12	1920070	1981210	1950800	
	1/2 x 3/16	1/2 x 3/16	NC8-32	3/8 x 3/16	

2 Flute Spiral - Downcut Solid Carbide Router Bits



Composite

338

For the ultimate, chip-free finish in laminate, melamine, solid surface and fragile veneers, and for template work of all kinds.

0

Washer

1950800

3/8 x 3/16

The twin ball-bearing pilot enhances the stability of the tool. Downcut for better clamping when machining small work pieces and improved finish on the top of the board.

For use on routers with or without CNC control.

Tool no	Dia.	Shank	В	Length
SCB812DC	1/2"	1/2"	1 1/4"	3 3/4"
SCB812BDC	1/2"	1/2"	2"	4 3/4"

Replacement Parts:





Carbide Tipped Saws for Non Ferrous Metal



Tool No.	Dia.	Teeth	Kerf	Body Kerf
6 1/4-48 N/F	6 1/4"	48	.110" (2.8mm)	5/8"
◆ 7 1/4-48 N/F	7 1/4"	48	.110" (2.8mm)	5/8"
7 1/4-58 N/F	7 1/4"	58	.110" (2.8mm)	5/8"
8-48 N/F	8"	48	.110" (2.8mm)	5/8"
8-64 N/F	8"	64	.110" (2.8mm)	5/8"
8.5-64 N/F	8 1/2"	64	.110" (2.8mm)	5/8"
9-60 N/F	9"	60	.110" (2.8mm)	5/8"
10-60 N/F	10"	60	.126" (3.2mm)	5/8"
10-80 N/F	10"	80	.126" (3.2mm)	5/8"
10-100 N/F	10"	100	.126" (3.2mm)	5/8"
12-72 N/F	12"	72	.126" (3.2mm)	1"
12-96 N/F	12"	96	.126" (3.2mm)	1"
* 12-96 N/F-40	12"	96	.126" (3.2mm)	40mm + 4PH 12mm x 64CC
13-80 N/F-32	13"	80	.126" (3.2mm)	32mm +2PH
13-102 N/F	13"	102	.126" (3.2mm)	1"
13-102 N/F-32	13"	102	.126" (3.2mm)	32mm
14-84 N/F	14"	84	.126" (3.2mm)	1"
14-108 N/F	14"	108	.126" (3.2mm)	1"
15-100 N/F	15"	100	.110" (2.8mm)	1"
15-100 N/F-32	15"	100	.110" (2.8mm)	32mm + 2 PH
16-96 N/F	16"	96	.149" (3.8mm)	1"
16-120 N/F	16"	120	.149" (3.8mm)	1"
18-108 N/F	18"	108	.157" (4.0mm)	1"
18-120 N/F	18"	120	.157" (4.0mm)	1"
20-120 N/F	20" (500mm)	120	.173" (4.4mm)	1"
20-120 N/F-32	20" (500mm)	120	.157" (4.0mm)	32mm
20-120 N/FTHIN	20" (500mm)	120	.142" (3.6mm)	1"

* For Scotchman model: CPO 315 HPA NF

Solid Surface Materials





erials

Aluminum

0			
Cutting/ I/ PVC/ inum	"O" Flute Spiral Router Bits		
340	341	1)







For cutting aluminum sheets, tubing extrusions and other non ferrous metals such as copper, brass, lead and magnesium. For smooth cutting, use lots of lubricant and a clamping device.

> Note: The material must be clamped firmly to the table on both sides during cutting operation. The use of coolant is very important.









Solid Surface Material





Diamond Knockout

Manufacturing Technology:











Balance

Dynamic

Balance











Aluminum

Aluminum Bars Saw Blade



Tool no.	Dia.	Style	Teeth	Kerf
22-120 N/F-30	22" (550mm)	120	.173" (4.4mm)	30mm

Note: The material must be clamped firmly to the table on both sides during cutting operation. The use of coolant is very important.

Carbide Tipped Saws for Miter Saw Machines



Carbide Tipped Metal Cutting/Wood/PVC/Aluminum Saw Blades



Plasti

minum	J	0°
	Taal na	Dia
((((((((())))))))))))))))))))))))))))))	1001110.	Dia.
	8-40 MET	8"
	10-48 MET	10"
DOSILES	* 12-60 MET	12"

Tool no.		Dia.	Teeth	Kerf	Bore
8-40 MET	-	8"	40	.086" (2.2mm)	5/8"
10-48 ME	T	10"	48	.094" (2.4mm)	5/8"
★ 12-60 ME	Т	12"	60	.094" (2.4mm)	1"
★ 12-80 ME	Т	12"	80	.094" (2.4mm)	1"
★ 14-90 ME	Т	14"	90	.094" (2.4mm)	1"
Tool no.	Descrip	otion			
TIPS-MET	premium	n carbide	e tips for n	netal cutting saw b	lades

★ 6000[°] 🖌 7000[°] 🖌

Straight

Multi purpose metal cutting saw blades.For cutting ferrous metals (up to 25 Hrc), Aluminum, wood and composite material. Used with Cut Off machines at high RPM

Suitable for above metal cutting saw blades.









Dimar's aluminum cutting solid carbide spiral O Flute router bits are designed for use in various nonferrous materials such as aluminum, brass and copper. Dimar's O'Flute design allows the cutting chips to form naturally and follow the natural flow of the cutting geometry without hitting sharp corners that would otherwise slow their exit from the cutting passage. These special bits feature a mirror finish that will guarantee you a clean, smooth cut in the most difficult non-ferrous materials. Designed for use in most CNC machines.

Great For Cutting:

- Aluminum
- Brass
- Copper
- Non-Ferrous Metals



"O" Flute Spiral-Upcut Solid Carbidefor Aluminum, Mirror Finish, 1 Flute

Upcut spiral for optimum chip flow and improved finish on the bottom of the board. Suitable for fine 'finishing' cuts in aluminum with upward chip removal.

Tool no	Dia.	Shank	В	Length
SCNF43	1/8"	1/8"	5/16"	1 1/2"
SCNF45	3/16"	1/4"	1/2"	2"
SCNF463	1/4"	1/4"	5/8"	2"

"O" Flute Spiral - Downcut Solid Carbide for Aluminum, Mirror Finish, 1 Flute

Downcut spiral for improved finish on the top of the board. Suitable for fine 'finishing' cuts in aluminum with downward chip removal.

Tool no	Dia.	Shank	В	Length
SCNF43DC	1/8"	1/8"	5/16"	1 1/2"
SCNF45DC	3/16"	1/4"	1/2"	2"
SCNF463DC	1/4"	1/4"	5/8"	2"

Adapter for 1/8" Shank Bits

A unique adapter specifically designed to accept 1/8" diameter bits. The easy-grip adapter will ensure that bits are fixed firmly and properly inserted into the collet. We recommend that you opt for a "unified" shank and cutting diameter as this will ensure optimum strength during the routing operation.

Tool no	d	D	В	Length
1927124	1/8"	1/4"	7/8"	1 1/4"

Aluminum

Solid Carbide "O" Flute Spiral Router Bits for Aluminum

6.300 1

3,800

2 500 D=ø1/8

1.300

B.P.M. = 18.000

D=ø1/4 5.000

D=ø3/16

O Flut design

Z=1









Solid Surface Material





Composites











RPM, 18000

Cutting depth (mm)

-d H



ACM

ACM Aluminum Composite Materials



Advanced Materials

Folding Routers, Cutters & Saws for **Aluminum Combined with Plastics**

A complete set of tools for folding applications in sandwich board consisting of aluminum and plastics, such as Alucobond or Dibond. To be used with a variety of machines and power tools: Table saws, manual circular saws, CNC machines and routers.





Material

















"V" Groove

Advanced Materials

Carbide Tipped Double Edge Folding V Groove: 90° & 108°

These bits are widely used as cladding for many diverse applications such as office buildings, hospitals, convention centers, airports, hotels. Routing V-shaped grooves, whereby the aluminum cover and a part of the polyethylene core is removed, allows folding/creasing the remaining material by hand. Specially designed router bits are used to route V-grooves in the above materials to allow easy bending without cracking the bent area. Route within 0.8mm from the bottom of the composite panel to achieve a clean bend/radius. Routing V-shaped grooves, whereby the aluminum cover and a part of the polyethylene core is removed, allows folding the remaining material by hand. Ideal for wall panel fabrication.

Designed for cutting and scoring aluminum sandwich materials including:

- Aluminum, Clay, Zinc & Wood Composite Panels
- Aluminum Composite Materials (ACM)
- Aluminum Composite Panel (ACP)*
- ALPOLIC[®] Copper Composite Material (CCM)
- Alucobond[®]
- Alupanel[®]
- Dibond®



Tool no	Dia.	D1	В	B1	а
105R412AL	1/2"	3/32"	3/8"	13/64"	90
105R812AL	1/2"	3/32"	3/8"	13/64"	90

Specially designed router bits are used to route V-grooves in the above materials to allow easy bending without cracking the bent area. Route within 0.8mm from the bottom of the composite panel to achieve a clean bend/radius. Routing V-shaped grooves, whereby the aluminum cover and a part of the polyethylene core is removed, allows folding the remaining material by hand. Ideal for wall panel fabrication.

Designed for cutting and scoring aluminum sandwich materials including:

- Industrial quality, carbide tipped
- For use on routers and CNC machines
- ACM panels may be used both indoors and outdoors



Tool no	Dia.	D1	В	B1	6
105R412BAL	1/2"	3/32"	3/8"	5/32"	10
105R812BAL	1/2"	3/32"	3/8"	5/32"	10

- Durabond
- e-panel[™]
- Etalbond®
- Phenolics
- Plastic/Acrylic
- Plexiglas®
- Titanium Composite

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CNC



DIMAR GROUP

18,000-24,000

Solid Surface Material





Composite













Composites

NEW

Composites



	NEW							
ŝ	#7301	#7300	#7300	#7301	#7301	#SO10	#7301	#7301
Ş	344	345	346	346	347	347	348	349

Straight Shear Multi Flute

Solid carbide straight router suitable for sizing and pocket milling of honeycomb parts, combined with AFRP layers. Nano grain carbide with super finish grinding for maximum durability against wear.





Solid Surface Materials

	Tool No.					
ι	Jncoated	Dia	В	Shank	Flutes	Length
7	73011013	6mm	16mm	6mm	2 + 2	60mm
7	73011027	22mm	80mm	22mm	2 + 2 +2	80mm

Tool No.					
Uncoated	Dia	В	Shank	Flutes	Length
73011034	1/4"	5/8"	1/4"	2 + 2	2 1/2"
7301105Z	3/16"	5/8"	3/16"	2 + 2	2 1/2"
73011046	7/8"	7/8"	7/8"	2 + 2 + 2	3 1/4"

Aluminum



	Withou	ut Coating	CA Coating		
Type of composite materials	VC (m/Min)	Feed (mm/REV)	VC (m/Min)	Feed (mm/REV)	
AFRP Aramid Fiber Reinforced Thermosetting Plastics	80-100	0.1-0.2	-	-	

Advanced Materials

Burrs Tools

Solid tungsten carbide endmill suitable for sizing ,pockets and milling holes, rough finish. For use on routers and machining centers with or without CNC systems.



	Tool No).				
Plane End	"Fish Tail" End	"Multi utes" End+CA	Dia	В	Shank	Length
73001013	73001093	CA73001173	3	9	6	50
73001023	73001103	CA73001183	4	12	6	50
73001033	73001113	CA73001193	5	15	6	50
73001043	73001123	CA73001203	6	25	6	75
73001055	73001135	CA73001215	8	32	8	76
73001067	73001147	CA73001227	10	28	10	80
73001077	73001157	CA73001237	10	40	10	90
73001089	73001169	CA73001249	12	50	12	100

	Tool No.					
Plane End	"Fish Tail" End	"Multi utes" End+CA	Dia	В	Shank	Length
73001254	73001334	CA73001414	З	9	6	50
73001264	73001344	CA73001424	4	12	6	50
73001274	73001354	CA73001434	5	15	6	50
73001284	73001364	CA73001444	6	25	6	75
7300129Z	7300137Z	CA7300145Z	8	32	8	76
73001306	73001386	CA73001466	10	28	10	80
73001316	73001396	CA73001476	10	40	10	90
73001328	73001408	CA73001488	12	50	12	100

Time of composite posterials	Withou	ut Coating	CA Coating		
Type of composite materials	VC (m/Min)	Feed (mm/REV)	VC (m/Min)	Feed (mm/REV)	
GFRP Glass Fiber Reinforced Thermosetting Plastics	9-130	0.1-0.4	200-350	0.2-0.6	
CFRP Carbon Fiber Reinforced Thermosetting Plastics	100-120	0.1-0.4	200-400	0.2-0.6	

Composites



NEW



Fish tail end





Advanced Materials





Solid Surface Materials



Aluminum



Composites

		-
Multi	flutes	end





Composites

Multi Flutes Endmill - Up Shear

NEW

Solid tungsten carbide endmill suitable for sizing ,pockets and milling holes, finefinish. Upcut spiral for optimum chip flow and improved finish on the bottom of the FRP parts. For use on routers and machining centers with or without CNC systems.



Metric

Тос	ol No.				
Uncoated	CA Coating	Dia	В	Shank	Length
73003054	CA73003054	1/4"	1"	1/4"	2 1/2"
7300306Z	CA7300306Z	5/16"	1 1/4"	5/16"	3"
73003076	CA73003076	3/8"	1 1/2"	3/8"	3 1/4"
73003088	CA73003088	1/2"	2"	1/2"	4"

Imperial Tool No. Uncoated CA Coating Dia В Shank Length 73003013 CA73003013 6mm 25mm 6mm 73003025 CA73003025 8mm 32mm 8mm

73005025 CA73005025 8mm

73005037 CA73005037 10mm 40mm 10mm

73005049 CA73005049 12mm 35mm 12mm 100mm

73003037 CA73003037 10mm 40mm 10mm

73003049 CA73003049 12mm 35mm 12mm 100mm

Plastic

Multi Flutes Endmill - Down Shear

NEW

60mm

76mm

90mm

8mm

32mm

60mm

76mm

90mm

Solid tungsten carbide endmill suitable for sizing ,pockets and milling holes, fine finish. Upcut spiral for optimum chip flow and improved finish on the bottom of the FRP parts. For use on routers and machining centers with or without CNC systems.





3"

3 1/4"

4"

5/16"

3/8"

1/2"

2"

WWWWWWW	

Aluminum



- - - - - - - - - -	Withou	ut Coating	CA Coating		
Type of composite materials	VC (m/Min)	Feed (mm/REV)	VC (m/Min)	Feed (mm/REV)	
GFRP Glass Fiber Reinforced Thermosetting Plastics	90-130	0.08-0.25	200-350	0.15-0.4	
CFRP Carbon Fiber Reinforced Thermosetting Plastics	100-120	0.08-0.25	200-400	0.15-0.4	

Advanced Materials

Hogger end Mill

Solid tungsten carbide endmill, suitable for sizing and flatness of honey comb parts. Carbide will offer maximum durability. For



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use on routers and machining centers with or without CNC systems.										
	$\frac{1}{1}$									
etric					Imp	perial				
ol No.					Тс	ool No.				
coated	Dia	В	Shank	Length	Ur	licoated	Dia	В	Shank	Length
17026	3/8"	7/8"	3/8"	3"	73	017017	10mm	40mm	10mm	80mm
Type of c	composite	materials			Witho	ut Coating		CA	Coating	
AFRP Aramid Fi	ber Reinfor	ced Thermose	etting Plastics		40-100	0.0	3-1	-	- Feed (mi	

Solid Carbide Radius Grooving / Ball Nose Endmill

Solid tungsten carbide router, suitable for round corner, edges, pockets and 3D curving. For use in all types of materials such as MDF, plastics and aluminium. All tools made with neck clearance for deep cuts.



Imperial					
Tool No.					
Uncoated	Dia	В	Shank	Flutes	Length
73034064	1/4"	3/8"	1/4"	3	3"
7303407Z	5/16"	1/2"	5/16"	3	3 1/2"
73034086	3/8"	5/8"	3/8"	3	4"
73034098	1/2"	3/4"	1/2"	3	5"
7303410Z	5/8"	1"	5/8"	4	6 1/2"

7300506Z CA7300506Z 5/16" 1 1/4"

73005088 CA73005088 1/2"

73005076 CA73005076 3/8" 1 1/2"

Metric

Tool No.					
Uncoated	Dia	В	Shank	Flutes	Length
73034013	6mm	6mm	6mm	3	80mm
73034025	8mm	8mm	8mm	3	85mm
73034037	10mm	10mm	10mm	3	100mm
73034049	12mm	12mm	12mm	3	100mm
7303405E	16mm	16mm	16mm	4	150mm

Advanced Materials

Composites

NEW

NEW





Solid Surface Materials



Aluminun



Composite





Advanced Materials

Electro-Plated Diamond Disk

Electro-plated diamond disk. Suitable for straight, fast cutting of edges at variable heights. Can be used on 5-axis CNC machines. Ideal doe GFRP- Glass Fiber Reinforced Thermosetting Plastics and CFRP- Carbon Fiber Reinforced Thermosetting Plastics. Diamond grain size can be adapted to the cutting quality required.



Tool No.			
Uncoated	Dia	С	Bore
73033043	60mm	1.4mm	6mm
73033034	100mm	1.8mm	22mm
73033064	125mm	1.8mm	22mm
7303305Z	180mm	1.8mm	16mm
73033026	250mm	2.8mm	30mm
73033016	300mm	2.8mm	30mm

Electro-Plated Diamond Disk Set

Electro-plated diamond disk mounted on an arbor. Suitable for straight, fast cutting of edges at variable heights. Can be used on 5-axis CNC machines. Ideal doe GFRP- Glass Fiber Reinforced Thermosetting Plastics and CFRP- Carbon Fiber Reinforced Thermosetting Plastics. Diamond grain size can be adapted to the cutting quality required.

В

1.4mm

1.4mm

1.4mm







Length

50mm

50mm

100mm

Shank

6mm

6.35mm

12.7mm

348

Aluminum

Tool No.

Dia

60mm

60mm

60mm

Composites

Replacement Parts:						
Dimond Disk	73033043					
Arbour 6mm	1900263					
Arbour 6.35mm	1900264					
Arbour 12.7mm	1900268					
Screw	1930401					
Key	1940200					

Uncoated

73033053

73033054

73033058





Plastic

CNC Arbor

Tool No Dia. d 1900250 71mm m 190025H 71mm 1900252 71mm → D → →

Replacement Parts:



NEW

Saw blades for Cutting & Grooving

Tungsten carbide tipped alternate bevel saw blades for cutting and grooving along and across the grain on softwoods, hardwoods and man-made boards (with or without coating). For use on routers and machining centers with CNC Control.



Tool No	Dia.	Teeth	Kerf = B	С	RPM	Max t.	Bore
125243	125mm	24	3mm	2.0mm	19,000	25mm	30
125244	125mm	24	4mm	2.8mm	19,000	25mm	30
125245	125mm	24	5mm	3.5mm	19,000	25mm	30
150243	150mm	24	3mm	2.0mm	9,000	38mm	30
150244	150mm	24	4mm	2.8mm	9,000	38mm	30
150245	150mm	24	5mm	3.5mm	9,000	38mm	30
180303	180mm	30	3mm	2.0mm	7,000	54mm	30
180304	180mm	30	4mm	2.8mm	7,000	54mm	30
180305	180mm	30	5mm	3.5mm	7,000	54mm	30



Composites

d	L	°0°
20mm	90mm	4 x M5 x ø52
25mm	90mm	4 x M5 x ø52
3/4"	90mm	4 x M5 x ø52
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C	ţ.	
V	R	









Solid Surface Materials



Aluminum



Composites

