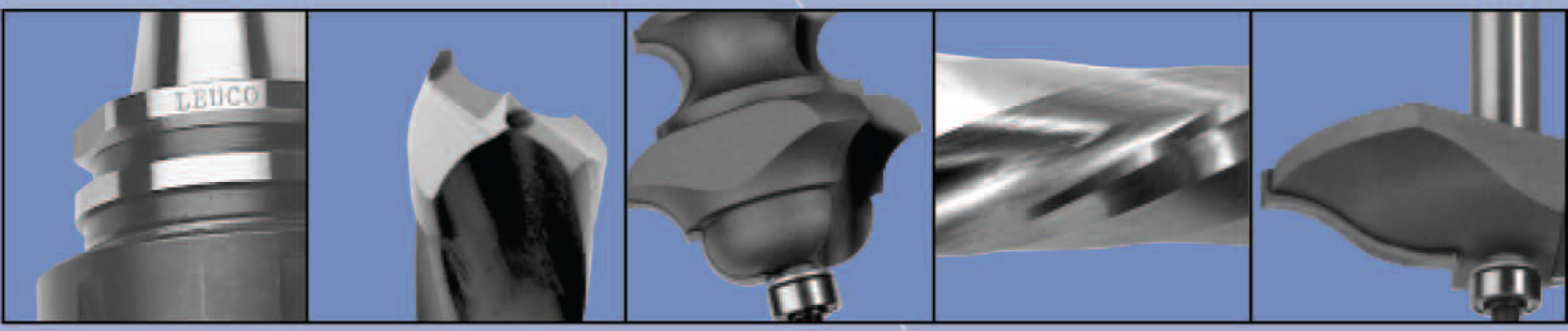
Router Bits and Shank Tools



NAPGLADU

Delivering Productivity

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Cutting Tool Engineering and Supply. NAP GLADU specializes in tooling – specifically cutting tools. We provide quality tools at affordable prices. At some point of the manufacturing process, production materials need to be cut, milled, shaped or profiled. With guidance from our Technical Experts, we can help determine the most cost-effective answer for all of your cutting needs. Our representatives can perform in-plant analysis of machines and the materials you are processing – and provide recommendations for increased productivity levels.

Regardless of the difficulty of the job, our Service Representatives can provide a solution that results in a quality tool at a good price. Exposure gained from nearly 40 years in the business has provided us with the knowledge to aid and improve overall production techniques and ultimately the finished product.

Visit NAP GLADU at www.napgladu.com to check out our monthly specials and to add your name to our mailing list. You can request helpful literature, find related links or view our comprehensive selection of tools. Our address, fax, and phone number are located on the website for your convenience, as well as a toll free number for Canadian and American customers – or contact our Sales Representatives at any time via email. If you have any questions or concerns, please contact our offices in Toronto or Calgary, or visit or showroom at our Toronto Head Office.

Router Bits and Shank Tools: NAP GLADU offers the industry's largest selection of premium grade carbide tipped router bits for trimming, sizing and profiling. We outfit everything from portable routers to multi-head CNC machines. To provide optimum performance and practical solutions for difficult to rout applications, we offer carbide tipped, solid carbide and high speed steel router bits.

Saw Blades: For ripping, cross cutting or sizing, NAP GLADU carries a wide variety of carbide tipped saw blades. The highest quality raw materials combined with state-of-the-art diamond grinding results in precision saw blades which offer superior cutting and durability. Our high speed steel blades are designed for both automatic and manual machines to cut most materials.

Knives: NAP GLADU has cutting knives for every application. From planer knives to lathe knives, we can custom manufacture the knives you require. Knives available include: Tersa, Esta disposable, lathe, sticker, Oertli, planer, corrugated back, notched edge shaper, portable planer, super profiler, turnover, insert, circular and Eco Pro knives. Multiple grades are available, including M2 high speed steel, carbide tipped, stellite and solid carbide.

Bandsaw Blades: NAP GLADU carries a broad range of bandsaw blades including: carbon steel, high speed steel, carbide tipped, millband, pallet band and band knives. Each type of band is available in various widths, gauges, tooth styles, sets and pitches. Applications include metal cutting, woodworking, food processing, resawing, log sawing, plastic, rubber and foam cutting and pallet refurbishing. Contact our sales representatives to discuss your cutting application and determine the appropriate blade for your needs.

Profiling Services: Using sophisticated drafting equipment, our engineers can provide custom profiling of high speed steel, carbide tipped and solid carbide knives — done to your exact specifications. Tool profiles are created from wood samples or drawings using computer-aided drafting to the highest tolerances, ensuring an exact profile tool. NAP GLADU also offers a custom template making services if for those who grind their own knives.

Sharpening Services: NAP GLADU takes pride in offering you the best sharpening service available. Using only the most current technology and equipment available, certified technicians sharpen your saw blades, router bits, cutters, knives, hand tools and metal cutting saw blades to their original specifications.

Other Products and Services: In addition to the products mentioned above, NAP GLADU supplies the manufacturing industry with many other quality items and services. We invite you to come and visit our showroom and speak with our knowledgeable sales staff regarding any product you are interested in or cutting problem you may have.

Carbide Tipped Straight and Form Router Bits

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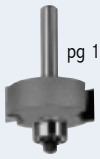
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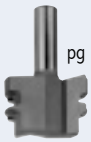
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Carbide Tipped Single Flute Straight Router Bits

Series 21000

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
21400	1/16	1/4	1 7/8	1/4" Shank
21404	1/8	7/16	2 1/2	
21406	5/32	7/16	2 3/4	
21408	3/16	7/16	2 3/4	
21412	1/4	1/2	3	
21414	1/4	3/4	2 7/8	
21418	1/4	1	3	
21422	9/32	3/4	4 1/4	
21428	5/16	1	2 7/8	
21434	3/8	3/4	2 7/8	
21436	3/8	1	2 7/8	
21444	1/2	3/4	3 5/8	
21445	1/2	1	2 7/8	
21458	5/8	3/4	2 7/8	
21468	3/4	3/4	2 7/8	
21214	1/4	3/4	2 1/2	1/2" Shank
21218	1/4	1	2 1/2	
21228	5/16	1	2 3/4	
21236	3/8	1	2 1/2	
21238	3/8	1 1/4	2 3/4	
21245	1/2	1	2 1/2	
21247	1/2	1 1/4	2 7/8	
21249	1/2	1 1/2	3 1/8	
21252	1/2	2	4 1/4	
21256	9/16	1 1/4	2 7/8	
21260	5/8	1 1/4	2 7/8	

These bits are designed for higher feed rates in large production or general usage. They are suitable for normal ramp-in plunge cutting and routing in plywoods, chipboards and plastics as well as laminated material with stationary or portable routers.

Carbide Tipped Single Flute Straight Router Bits

Series 21000SC

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
21469SC	1/8	7/16	2	1/4" Shank
21470SC	5/32	7/16	2	
21471SC	3/16	7/16	2	
21472SC	7/32	3/8	2	
21473SC	1/4	3/4	2	
21474SC	1/4	1	2	
21475SC	3 mm	11 mm	51 mm	
21476SC	4 mm	11 mm	51 mm	
21477SC	5 mm	11 mm	51 mm	
21478SC	6 mm	19 mm	51 mm	
21479SC	6 mm	25 mm	51 mm	

For more solid carbide bits see pages 100-149

Solid carbide, single flute bits, designed to rout difficult to cut material which call for a small diameter. These are best suited for wood, wood composites and abrasive plastics.

Series 22000

Carbide Tipped Double Flute Straight Router Bits - 1/4" Shank

These bits are ideal for routing plywoods, chipboards, plastics and laminated material with stationary or portable routers. Double flute bits provide a smoother finish than single flute bits, yet still maintain high feed rates. Available in 1/4”, 1/2” and 3/4” shanks for versatility and strength. These bits are suitable for normal ramp-in plunging and routing operations. For faster plunging, see straight bits for plunging on page 10.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	22401	1/16	3/16	1 3/8
	22402	3/32	1/4	1 7/8
	22403	1/8	7/16	1 7/8
	22404	1/8	5/16	2
	22406	5/32	7/16	2 3/16
	22408	3/16	7/16	2
	22409	3/16	5/8	2
	22410	7/32	3/4	2 1/8
	22412	1/4	1/2	1 7/8
	22414	1/4	3/4	2
	22418	1/4	1	2 1/4
	22422	9/32	3/4	2
	22424	9/32	1	2 1/4
	22426	5/16	3/4	2
	22428	5/16	1	2 1/4
	22434	3/8	3/4	2
	22436	3/8	1	2 1/4
	22438	3/8	1 1/4	2 1/2
	22441	7/16	3/4	2
	22442	7/16	1	2 1/8
	22444	1/2	3/4	2
	22445	1/2	1	2 1/8
	22447	1/2	1 1/4	2 1/2
	22455	9/16	3/4	2 1/8
	22456	9/16	1	2 1/2
	22458	5/8	3/4	2
	22459	5/8	1	2 1/4
	22465	11/16	3/4	2
	22466	11/16	1	2 1/4
	22468	3/4	3/4	2
	22469	3/4	1	2 1/4
	22474	13/16	3/4	2
	22476	7/8	3/4	2
	22478	15/16	3/4	2
	22479	1	3/4	2

Series 22000SC

Solid Carbide Double Flute Straight Router Bits - 1/4" Shank

Solid carbide, double flute bits, designed to rout difficult to cut material which call for a small diameter. Best suited for use with rigid plastics, such as acrylic, PVC or nylon, thin laminated material and wood composites.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	22480SC	5/32	7/16	2
	22481SC	3/16	7/16	2
	22482SC	3/16	1/2	2
	22483SC	7/32	1/4	2
	22484SC	1/4	1/2	2
	22485SC	1/4	3/4	2
	22486SC	1/4	3/4	2 1/2
	22487SC	1/4	1	2 1/2
	22488SC	3 mm	11 mm	51 mm
	22489SC	4 mm	11 mm	51 mm
	22490SC	5 mm	11 mm	51 mm
	22491SC	6 mm	19 mm	51 mm
	22492SC	6 mm	19 mm	63 mm
	22493SC	6 mm	25 mm	63 mm

For more solid carbide bits see pages 100-149

Carbide Tipped Double Flute Straight Router Bits - 1/2" Shank

Series 22000

1/2" Shank

Carbide tipped double flute straight router bits continued.

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
22210	15/64	3/4	2 1/2
22212	1/4	1/2	2
22214	1/4	3/4	2 1/2
22218	1/4	1	2 1/2
22226	5/16	3/4	2 1/2
22228	5/16	1	2 1/2
22234	3/8	3/4	2 1/2
22236	3/8	1	2 1/2
22238	3/8	1 1/4	2 3/4
22240	13/32	1	2 3/4
22242	7/16	1	2 5/8
22243	7/16	1 1/4	2 3/4
22244	31/64	1	2 5/8
22245	1/2	1	2 5/8
22247	1/2	1 1/4	2 7/8
22249	1/2	1 1/2	4 1/4
22250	1/2	1 1/2	4 3/16
22251	1/2	2	4
22252	1/2	2	4 1/4
22253	1/2	2 1/2	4 1/2
22254	17/32	1 1/4	2 7/8
22256	9/16	1	2 5/8
22257	9/16	1 1/4	2 7/8
22259	5/8	1	2 5/8
22260	5/8	1 1/4	2 7/8
22261	5/8	1 1/2	3
22262	5/8	2	3 5/8
22264	21/32	1 1/4	2 7/8
22267	11/16	1 1/4	2 7/8
22268	23/32	1 1/4	2 7/8
22269	3/4	1	2 5/8
22270	3/4	1 1/4	2 7/8
22271	3/4	1 1/2	3
22272	3/4	2	3 5/8
22273	25/32	1 1/4	2 7/8
22274	13/16	1	2 5/8
22275	13/16	1 1/4	2 7/8
22276	7/8	1	2 5/8
22277	7/8	1 1/4	2 7/8
22278	15/16	1 1/4	2 7/8
22279	1	3/4	2 7/8
22280	1	1	2 5/8
22281	1	1 1/4	2 7/8
22282	1	1 1/2	3
22283	1	2	3 5/8
22284	1 1/16	1 1/4	2 7/8
22285	1 1/8	1 1/4	2 7/8
22287	1 3/16	1 1/4	2 7/8
22288	1 1/4	1 1/4	2 7/8
22290	1 3/8	1 1/4	2 7/8
22291	1 1/2	1 1/4	2 7/8
22293	1 5/8	1 1/4	2 7/8
22294	1 3/4	1 1/4	2 7/8
22295	1 7/8	1 1/4	2 7/8
22296	2	1 1/4	2 7/8

Series 22000

Carbide tipped double flute straight router bits continued.

Carbide Tipped Double Flute Straight Router Bits - 3/4" Shank

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
3/4" Shank	22870	3/4	1 1/4	3
	22871	3/4	1 1/2	3 1/4
	22872	3/4	1 5/8	4
	22873	3/4	2	4
	22874	3/4	2 1/8	4 1/2
	22875	3/4	2 1/2	4 1/2
	22876	3/4	2 5/8	5
	22878	3/4	3	5 3/8
	22879	1	1 1/2	3 1/4
	22880	1	2	4 1/4
	22881	1	2 1/8	4 1/4
	22882	1	3	5 1/8

Series 22000L

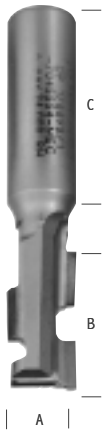
Designed to cut while rotating in a counter-clockwise direction.

Carbide Tipped Double Flute Straight Bits - Left Hand Rotation

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	22418L	1/4	1	2 1/2
1/2" Shank	22226L	5/16	3/4	2 1/2
	22228L	5/16	1	2 3/4
	22236L	3/8	1	2 3/4
	22243L	7/16	1 1/4	3
	22247L	1/2	1 1/4	2 7/8
	22249L	1/2	1 1/2	3
	22252L	1/2	2	4 1/4
	22257L	9/16	1 1/4	2 7/8
	22260L	5/8	1 1/4	2 7/8
	22270L	3/4	1 1/4	2 7/8
	22272L	3/4	2	3 5/8
	22275L	13/16	1 1/4	2 7/8
	22277L	7/8	1 1/4	2 7/8
	22281L	1	1 1/4	2 7/8
3/4" Shank	22873L	3/4	2	5
	22875L	3/4	2 1/2	5
	22876L	3/4	2 1/2	5 1/2

Leuco Diamax Diamond Tipped Router Bit

Series 129



NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	C Shank Length	Overall Length	
178898	1/2	1	1 3/8	2 3/4	1/2" Shank
178900	5/8	1	1 3/8	2 7/8	
178902	3/4	1	1 3/4	3 3/8	5/8" Shank
178904	3/4	1 5/8	1 3/4	3 7/8	

Designed for jointing, rabbeting, grooving and sizing particleboard, MDF, plastics, laminated and veneered panel materials and hard or exotic woods. The large sheer angle provides for long tool life and optimum quality of cut.

Carbide Tipped Double Flute Shear Cut Straight Bits

Series 23000

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
23270	3/8	1	2 3/4	1/2" Shank
23272	1/2	1 1/4	2 7/8	
23274	1/2	1 1/2	3 1/8	
23276	1/2	2	4 1/4	

A downcut shear angle of 3° produces a clean edge on the laminated surface when overhead routing veneered and laminated surfaces.

Series 20000

These bits are designed specifically for high feed rates for large production or general usage. Suitable for normal ramp-in plunge cutting and routing in plywoods, chipboards, plastics and laminated material with stationary or portable routers.

Metric Carbide Tipped Double Flute Straight Bits

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	20410	3 mm	5/16	1 9/16
	20412	4 mm	7/16	2
	20414	5 mm	7/16	2
	20416	6 mm	3/4	2
	20418	7 mm	3/4	2
	20420	8 mm	3/4	2
	20422	8 mm	1	2 1/4
	20424	9 mm	3/4	2
	20426	10 mm	3/4	2
	20428	11 mm	3/4	2
	20430	12 mm	3/4	2
	20432	13 mm	3/4	2
	20434	14 mm	3/4	2
	20436	15 mm	3/4	2
	20438	16 mm	3/4	2
	20440	16 mm	1 1/4	2 1/4
	20442	17 mm	3/4	2
	20444	18 mm	3/4	2
	20446	19 mm	3/4	2
	20448	20 mm	3/4	2
	20450	21 mm	3/4	2
	20452	22 mm	3/4	2
	20454	25 mm	3/4	2
1/2" Shank	20216	6 mm	3/4	2 1/2
	20218	8 mm	1	2 5/8
	20220	10 mm	1	2 1/2
	20222	10 mm	1 1/4	3
	20224	12 mm	1	2 5/8
	20226	12 mm	1 1/4	2 7/8
	20228	12 mm	1 1/2	3
	20230	12 mm	2	4 1/4
	20232	14 mm	1	2 5/8
	20236	16 mm	1	2 5/8
	20238	16 mm	1 1/4	2 7/8
	20240	16 mm	1 1/2	3 1/8
	20242	18 mm	1 1/4	2 7/8
	20244	19 mm	1	2 5/8
	20246	19 mm	1 1/4	2 7/8
	20248	19 mm	1 1/2	3 1/8
	20250	20 mm	1	2 5/8
	20252	20 mm	1 1/4	2 7/8
	20254	22 mm	1	2 5/8
	20256	25 mm	1 1/4	2 7/8
	20258	25 mm	1 1/2	3 1/8
	20260	27 mm	1 1/4	2 7/8
	20262	30 mm	1	2 5/8
	20264	35 mm	1	2 5/8
	20266	40 mm	1 1/4	2 7/8
	20268	51 mm	1 1/4	2 7/8

Carbide Tipped Double Flute Straight Bits for Plunging

Series 22000A

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
22426A	5/16	3/4	2	1/4" Shank
22434A	3/8	3/4	2	
22436A	3/8	1	2 1/4	
22444A	1/2	3/4	2	
22445A	1/2	1	2 1/8	
22458A	5/8	3/4	2	
22476A	7/8	3/4	2	
22479A	1	3/4	2	
22226A	5/16	3/4	2 1/2	1/2" Shank
22238A	3/8	1 1/4	3	
22242A	7/16	1	2 3/4	
22245A	1/2	1	2 5/8	
22247A	1/2	1 1/4	2 7/8	
22249A	1/2	1 1/2	3 1/8	
22252A	1/2	2	4 1/4	
22260A	5/8	1 1/4	2 7/8	
22262A	5/8	2	3 3/4	
22269A	3/4	1	2 5/8	
22277A	7/8	1 1/4	2 7/8	
22280A	1	1	2 5/8	
22292A	1 5/8	1	2 5/8	
22294A	1 3/4	1 1/4	2 7/8	
22295A	1 7/8	1 1/4	2 7/8	

Designed with a special bottom carbide tip for faster straight-in plunging. Ideal for routing most man-made materials on stationary and portable routers.

Carbide Tipped Chipbreaker Bits

Series 22000C

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
22247C	1/2	1 1/4	2 3/4	1/2" Shank
22249C	1/2	1 1/2	3	
22252C	1/2	2	4	
22253C	1/2	2 1/2	4 1/2	
22869C	3/4	2	4	3/4" Shank

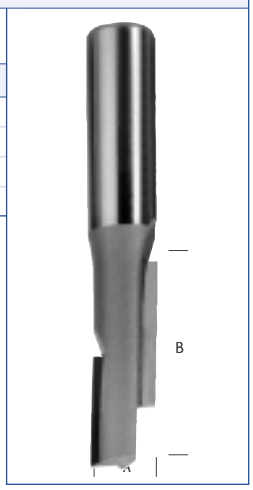
Double flute chipbreakers are ideal for routing of hardwood and chipboard materials where high feed rates are desired. Each flute on the bit is ground so that the chip breakers overlap, resulting in a straight cut.

Series 23000

Carbide Tipped Staggered Tooth Straight Bits

Designed for laminated, veneered or stacked material where high feed rates are essential. Staggered tooth bits provide the balance of a double flute bit with the aggressiveness and high feed rates available in a single flute bit.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	23400	1/4	1	2 1/4
1/2" Shank	23200	3/8	1 1/2	3 1/8
	23201	1/2	1 1/2	3 1/8
	23204	1/2	2	4 1/4
	23206	1/2	2 1/8	4 1/4

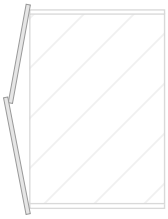


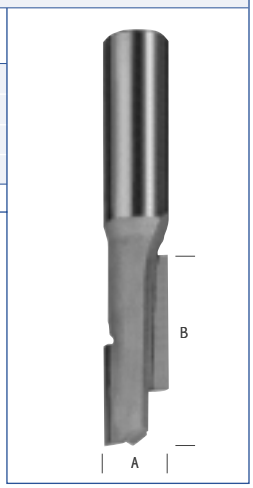
Series 23000

Carbide Tipped Staggered Tooth Shear Bits

An upcut/downcut shearing action produces chip free edges on the top and bottom of melamine or laminated material.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/2" Shank	23220	1/2	1 1/4	3 1/8
	23222	1/2	1 1/2	3
	23224	1/2	2	4 1/4
	23226	1/2	2 1/4	4 1/4
3/4" Shank	23880	3/4	2	4



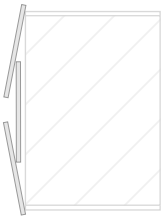


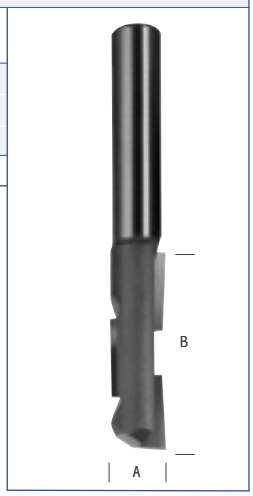
Series 23000

Carbide Tipped Compression Bits

Designed with staggered shear cutting angles for fast chip removal at high feed rates in double sided melamine, laminated material and veneer. Carbide centre tip allows for plunging.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/2" Shank	23280	1/2	1 1/2	3 1/2
	23281	1/2	2	4
	23282	3/4	2	4 1/4
3/4" Shank	23882	3/4	2	4 3/8





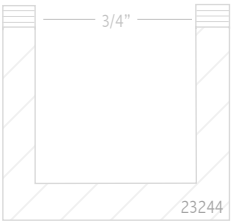
Carbide Tipped Straight Bits with Upper Bearing Guide

Series 23000

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
23430	1/2	1/8	1 3/4	A	1/4" Shank
23432	1/2	1/4	1 7/8	A	
23434	1/2	3/4	2 1/4	A	
23436	1/2	1	2 1/2	A	
23438	1/2	1 1/4	2 3/4	A	
23440	5/8	1/4	1 3/4	B	
23441	5/8	1/2	2 1/4	B	
23442	5/8	3/4	2 1/2	B	
23443	5/8	1	2 1/2	B	
23444	3/4	3/4	2 3/8	C	
23446	3/4	1	2 5/8	C	
23244	3/4	1	3	E	1/2" Shank
23245	3/4	1 1/4	3	E	
23246	3/4	1 1/2	3 1/4	E	
23248	3/4	2	3 5/8	E	
23250	1	1 3/4	3 3/4	F	
23251	1 1/8	1	3	G	
23252	1 1/8	1 1/2	3 5/8	G	
23254	1 1/4	1 3/4	3 1/4	H	
23256	1 1/2	1 3/4	3 1/4	I	

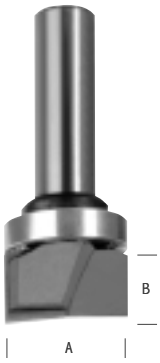
Replacement Parts - pg 92

This bit has a straight carbide tip with an upper ball bearing which creates mar free template work.



Carbide Tipped Bottom Cleaning Straight Bits

Series 23000



NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
23460	3/4	7/16	2 3/16	C	1/4" Shank
23262	1	7/16	2 1/2	F	1/2" Shank
23264	1 1/2	5/8	2 3/4	I	

Replacement Parts - pg 92

An upper ball bearing allows for mar free template work where smooth flat bottom finishes are required.

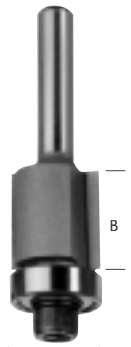
Series 34000

Double Flute Helix Laminate Flush Trim Bits with Bearing

A specially designed downcutting helix angle on this bit forces the laminate down against the backing, preventing chipping and surface flake. The ball bearing guide allows for smooth precise cuts when routing in laminate material.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/4" Shank	34402	5/8	5/8	2 3/16	P
	34404	3/4	5/8	2 3/8	Q
	34406	3/4	1	2 7/8	Q
1/2" Shank	34202	3/4	5/8	2 11/16	Q
	34204	3/4	1	3	Q
	34206	3/4	1 1/2	3 1/2	Q
	34208	3/4	2	4	Q

Replacement Parts - pg 92



Series 31000

Carbide Tipped Double Flute Straight Flush Trim Bits with Bearing

A ball bearing guide assists trimming for a smooth finish on all types of materials including composite boards and laminated material.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/4" Shank	31400	1/4	1/2	2	J
	31401	1/4	1	2 1/2	J
	31402	3/8	1/2	2 1/4	K
	31404	3/8	1	2 5/8	K
	31406	1/2	1/2	2 1/4	L
	31408	1/2	1	2 5/8	L
	31412	5/8	5/8	2 1/4	M
1/2" Shank	31206	1/2	1/2	2 3/4	L
	31208	1/2	1	3 1/4	L
	31210	1/2	1 1/2	3 7/8	L
	31214	1/2	2	4 1/4	L
	31216	3/4	1	3	N

Replacement Parts - pg 92

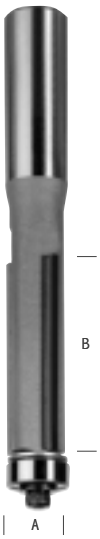
Series 31000

Carbide Tipped Triple Flute Straight Flush Trim Bits with Bearing

Identical to its double flute counterpart, but with three flutes for a smoother finish at slightly slower feed rates.

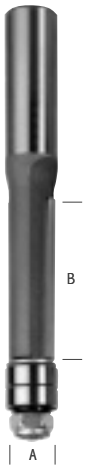
	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/4" Shank	31436	1/2	1/2	2 1/4	L
	31438	1/2	1	2 5/8	L
	31444	7/8	1/2	2 1/4	L
1/2" Shank	31236	1/2	1/2	2 3/4	L
	31238	1/2	1	3 1/4	L
	31240	1/2	1 1/2	3 7/8	L
	31242	1/2	2	4	O

Replacement Parts - pg 92



Multi-Flute Straight Flush Trim Bits with Double Bearing

Series 31000



NAP GLADU Tool Number	Flute Cut	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
31250	Double	1/2	1 1/2	4 1/16	YY
31252	Double	1/2	2	4 1/2	YY
31254	Three	1/2	1 1/2	4 1/16	YY

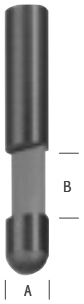
1/2" Shank

Replacement Parts - pg 93

Identical to the router bits on the previous page, but with double bearings to ensure smooth cutting action around a template.

Solid Carbide Flush Trim Bits

Series 27000



NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
27402	1/4	1/4	1 1/2
27406	1/4	3/8	1 1/2

1/4" Shank

Designed to produce flush, square edges on plastic laminates. Built in pilot allows for small intricate cuts to be made easily.

Solid Carbide Flush Trim Bit with Small Pilot for Dado

Series 27000

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
27408	1/4	1/4	1 1/2

1/4" Shank

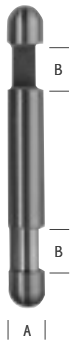
The built in 1/8” pilot allows for shallow dados in plastic laminates.

Series 27000

Solid Carbide Double End Flush Trim Bit

This double ended trim bit has two cutters in one tool at a reasonable, cost efficient price.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	27410	1/4	1/4	2



Series 27000

Solid Carbide Flush Trim Bits with Boring Point

This bit is designed to drill its own starting hole then leave a clean, flush edge on plastic laminates.

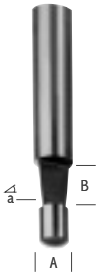
	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	27412	1/4	1/4	1 1/2
	27414	1/4	3/8	1 1/2

Series 27000

Solid Carbide Bevel Trim Bits

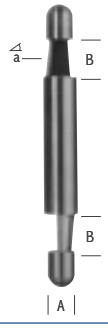
Designed to produce a slight bevel on sides of plastic laminated material.

	NAP GLADU Tool Number	a Bevel Angle	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	27422	7°	5/16	1/4	1 1/2
	27424	7°	5/16	1/4	2 1/2



Solid Carbide Double End Bevel Trim Bit

Series 27000

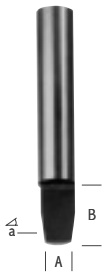


NAP GLADU Tool Number	a Bevel Angle	A Cutting Diameter	B Cutting Height	Overall Length	
27430	7°	1/4	1/4	2	1/4" Shank

This double ended trim bit allows for two cutters in one tool, at a cost efficient price.

Solid Carbide Flush and Bevel Trim Bit

Series 27000



NAP GLADU Tool Number	a Bevel Angle	A Cutting Diameter	B Cutting Height	Overall Length	
27434	0° or 7°	1/4	3/8	1 1/2	1/4" Shank

This bit is designed to either flush trim or place a slight bevel on plastic laminated material.

Solid Carbide Rip and Slotter Bits

Series 27000

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
27442	1/4	1/4	1 1/2	1/4" Shank
27444	1/4	3/8	1 1/2	

For chip free ripping and slotting of plastic laminates. Primarily used to cut laminate strips for counter drops and back splashes.

Series 27000

Solid Carbide Flat Bottom Veining Bits

This straight carbide bit has an upper ball bearing which can be used for mar-free template work.

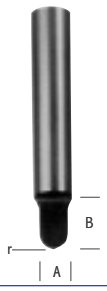
	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	27480	1/8	1/4	2
	27482	3/16	3/8	2
	27484	1/4	1/2	2

Series 27000

Solid Carbide Round Bottom Veining Bits

This double flute bit produces a flat bottom groove for decorative routing of cabinet doors and plastic laminates among other materials.

	NAP GLADU Tool Number	Flute Cut	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	27464	Single	1/16	1/8	1/4	1 1/2
	27466	Single	3/32	3/16	1/4	1 1/2
	27468	Single	1/8	1/4	11/32	1 1/2
	27470	Double	1/16	1/8	1/4	2
	27472	Double	3/32	3/16	3/8	2
	27474	Double	1/8	1/4	1/2	2



Series 27000

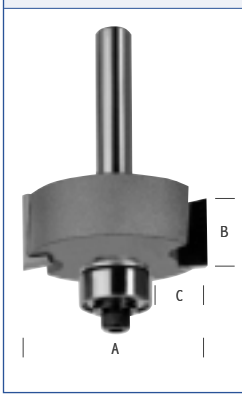
Solid Carbide V-Grooving and Scorer Bits

Designed to make a decorative “V” groove or to score plastic laminate.

	NAP GLADU Tool Number	a Bevel Angle	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	27452	45°	1/8	1/4	1 1/2
	27454	45°	3/16	1/4	1 1/2
	27455	45°	1/4	1/8	1 1/2
	27456	45°	1/4	1/4	1 1/2
	27460	60°	1/4	7/32	1 1/2
	27462	60°	1/4	7/32	2

Carbide Tipped Double Flute Rabbeting Bits

Series 24000



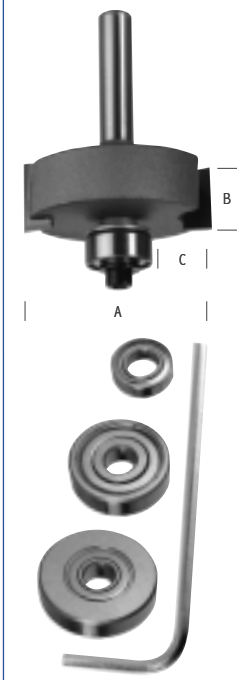
NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	C Rabbeting Depth	Overall Length	Index Code	
24402	1 1/4	1/8	3/8	2	L	1/4" Shank
24404	1 1/2	5/32	1/2	1 3/4	L	
24406	1 1/4	1/4	3/8	2	L	
24408	1 1/4	3/8	3/8	2	L	
24410	1 1/4	1/2	3/8	2	L	
24412	1 3/8	1/2	7/16	2	L	
24414	1 1/4	1/2	7/16	2	T	
24416	1 3/8	1/2	1/2	2	T	
24418	1 1/2	1/2	1/2	2	L	
24202	1 1/4	1/8	3/8	2	L	1/2" Shank
24204	1 1/2	5/32	1/2	2	L	
24206	1 1/4	1/4	3/8	2	L	
24208	1 1/4	3/8	3/8	2 1/8	L	
24210	1 1/4	1/2	3/8	2 3/8	L	
24212	1 3/8	1/2	7/16	2 3/8	L	
24214	1 1/4	1/2	7/16	2 3/8	T	
24216	1 3/8	1/2	1/2	2 3/8	T	
24218	1 1/2	1/2	1/2	2 1/4	L	
24220	1 1/4	3/4	3/8	2 1/2	L	

Replacement Parts - pg 92

Designed to cut an edge step into solid woods and composite materials. Made with a ball bearing guide to allow for mar free cutting. The top and bottom is carbide relieved for easy, chip free cutting.

Carbide Tipped Double Flute Rabbeting Sets

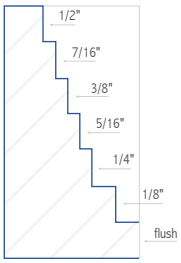
Series 24000



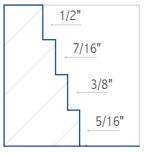
NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	C Rabbeting Depth	Index Code	
24422	1 3/8	1/2	2	5/16	X	1/4" Shank
				3/8	Y	
				7/16	Z	
				1/2	AA	
24424	1 3/8	1/2	2	flush	U	
				1/8	V	
				1/4	W	
				5/16	X	
				3/8	Y	
				7/16	Z	
				1/2	AA	
24222	1 3/8	1/2	2 3/8	5/16	X	1/2" Shank
				3/8	Y	
				7/16	Z	
				1/2	AA	
24224	1 3/8	1/2	2 3/8	flush	U	
				1/8	V	
				1/4	W	
				5/16	X	
				3/8	Y	
				7/16	Z	
				1/2	AA	

Replacement Parts - pg 92|93

Rabbeting sets are supplied in a styrofoam box which includes one assembled cutter and a variety of different sized ball bearings to provide multiple rabbeting depths. The appropriate washers and allen key are also supplied.



24424 (1/4" Shank)
24224 (1/2" Shank)



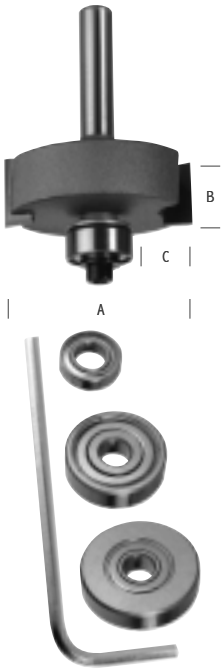
24422 (1/4" Shank)
24222 (1/2" Shank)

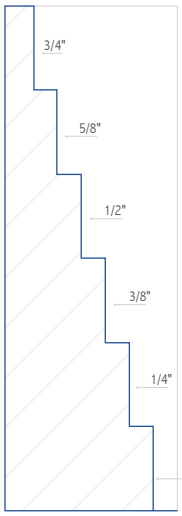
*Cutting Height is not to scale, actual Cutting Height = 1/2"

Super Carbide Tipped Double Flute Rabbeting Bits

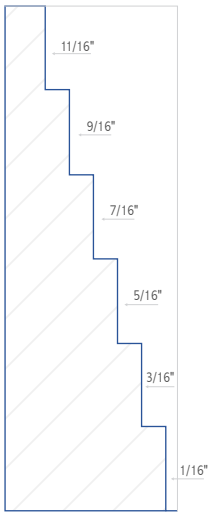
There are three rabbeting sets available, the largest (Set C) includes 17 different rabbet cuts from 1/16” through 3/4”. Also sold separately for specific cuts, the rabbeting bit (BC Tool 1386), a ball bearing, washer, spacer and individual collars, which change the depth of cut.

	NAP GLADU Tool Number	Rabbet Set	A1 Cutting Diameter	A2 Collar Diameter	B Cutting Height	C Rabbeting Depth	Overall Length
1/2" Shank	1370	A, B, C	2	44.4 mm	7/8	1/8	1 7/8
	1371	A, B, C	2	38.1 mm	7/8	1/4	1 7/8
	1372	A, B, C	2	31.7 mm	7/8	3/8	1 7/8
	1373	A, B, C	2	25.4 mm	7/8	1/2	1 7/8
	1374	A, B, C	2	19.0 mm	7/8	5/8	1 7/8
	1375	B, C	2	47.6 mm	7/8	1/16	1 7/8
	1376	B, C	2	41.3 mm	7/8	3/16	1 7/8
	1377	B, C	2	34.9 mm	7/8	5/16	1 7/8
	1378	B, C	2	28.6 mm	7/8	7/16	1 7/8
	1379	B, C	2	22.2 mm	7/8	9/16	1 7/8
	1380	B, C	2	15.9 mm	7/8	11/16	1 7/8
	1381	C	2	38.9 mm	7/8	15/64	1 7/8
	1382	C	2	32.5 mm	7/8	23/64	1 7/8
	1383	C	2	27.0 mm	7/8	15/32	1 7/8
	1384	C	2	20.6 mm	7/8	19/32	1 7/8
	1385	C	2	14.3 mm	7/8	23/32	1 7/8
Rabbeting Sets	24244A	6 Piece Rabbeting Set	(Set A)				
	24242B	12 Piece Rabbeting Set	(Set B)				
	24240C	17 Piece Rabbeting Set	(Set C)				
Replacement Parts	1386	Rabbeting Bit	2 x 1/2 x 7/8 x 3 5/64	without collar, will produce a 3/4" cut			
	1304	Ball Bearing	1/2 x 1/4 x 3/16				
	00804	Spacer	2.2 mm				
	00812	Washer					
	00512	Screw					

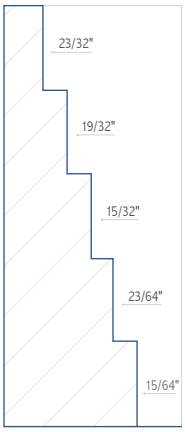




Set A



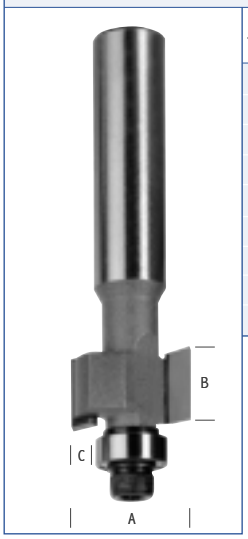
Set B
(includes Set A plus 6 additional depths)



Set C
(includes Set A and B plus 5 additional depths)

Carbide Tipped Double Flute Face Inlay Bits

Series 46000



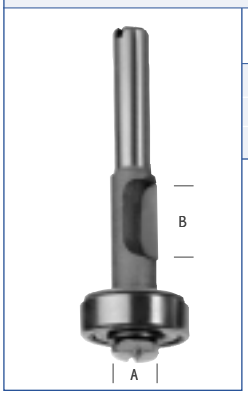
NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	C Cutting Depth	Overall Length	Index Code	
46290	7/8	1/4	1/16	3 1/16	Q	1/2" Shank
46291	7/8	1/4	1/8	3	R	
46292	7/8	1/4	3/16	3	S	
46293	7/8	1/2	1/16	3 1/4	Q	
46294	7/8	1/2	1/8	3 1/4	R	
46295	7/8	1/2	3/16	3 1/4	S	
46296	7/8	3/4	1/16	3 7/16	Q	
46297	7/8	3/4	1/8	3 1/2	R	
46298	7/8	3/4	3/16	3 1/2	S	

Replacement Parts - pg 92

Designed to leave a mortise type lip in solid plastic countertop materials.

Carbide Tipped Double Flute Laminate Overhang Bit

Series 34000



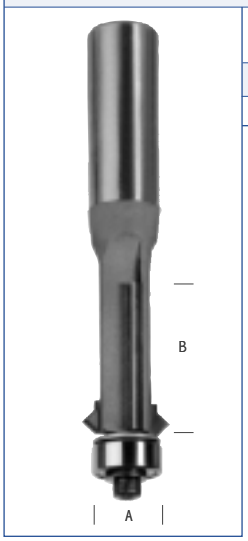
NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	C Laminate Overhang	Overall Length	Index Code	
34408	3/8	1/2	1/16	2 11/16	C	1/4" Shank
34410	3/8	1/2	1/8	2 13/16	C	
34412	3/8	1/2	3/16	2 13/16	C	

Replacement Parts - pg 92

This bit will leave 3/16” of material for later finish cutting to help eliminate chipping on the final cut.

Carbide Tipped Double Flute Face Frame Bits

Series 30000



NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
30402	1/2	1	2 5/8	L	1/4" Shank
30202	1/2	1	3 1/4	L	1/2" Shank

Replacement Parts - pg 92

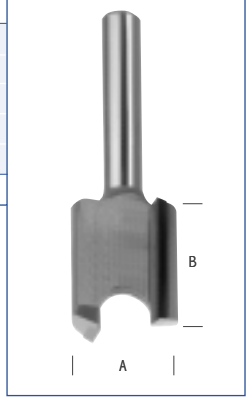
This bit is designed for the removal of any excess overhang while making a decorative “V” where the frame and cabinet join.

Series 29000

This bit is made to be used in all hinge butt templates. A deep centre gullet allows for the maximum chip removal.

Carbide Tipped Double Flute Mortise Bits

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	29400	1/2	3/4	2
	29402	5/8	3/4	2
	29404	3/4	3/4	2
	29408	1	3/4	2
	29410	1 1/4	9/16	2
1/2" Shank	29210	1 1/4	1 1/4	2 7/8



Series 29000 | 00000

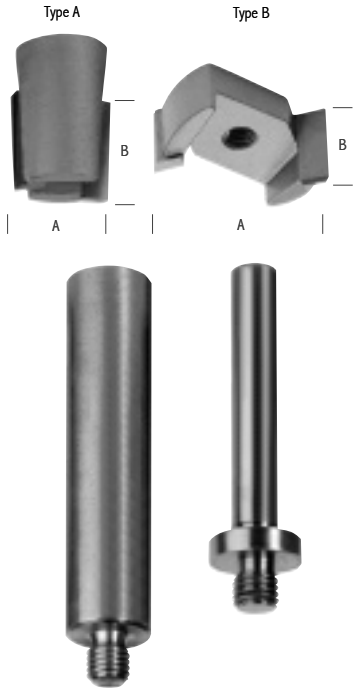
These mortise replacement cutters are made to fit on 1/4" shanks, number 00412 or 1/2" shanks, numbers 00212 or 00213.

Carbide Tipped Double Flute Mortise Bits

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Screw Type
1/4 - 28 Thread	12400	1/2	5/8	A
	12401	33/64	5/8	A
	12402	17/32	5/8	A
	12403	9/16	5/8	A
	12404	5/8	5/8	A
	12405	41/64	5/8	A
	12406	21/32	5/8	A
	12407	11/16	5/8	A
	12408	23/32	5/8	A
	12409	3/4	1/2	A, B
	12410	49/64	5/8	A
	12411	25/32	5/8	A
	12412	13/16	5/8	A
	12413	7/8	1/2	A, B
	12414	15/16	5/8	A
	12415	1	1/2	A, B
	12416	1 1/8	9/16	A, B
	12417	1 1/4	5/8	A, B

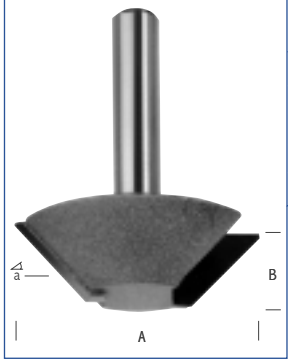
Arbors

BC Saw Tool Number	Thread Count	Overall Length	
00412	1/4-28	1 3/4	1/4" Shank
00212	1/4-28	1 3/4	1/2" Shank
00213	1/4-28	2 3/8	



Carbide Tipped Double Flute Bevel Bits

Series 32000



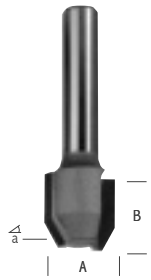
NAP GLADU Tool Number	a Bevel Angle	A Cutting Diameter	B Cutting Height	Overall Length
32490	10°	9/16	5/8	1 3/4
32492	15°	1/2	1/2	2
32494	23°	7/8	3/8	1 5/8
32496	30°	1	3/8	1 5/8
32498	45°	1 3/8	3/8	1 5/8

1/4" Shank

These are designed to plunge and rout a bevel groove in the stock material.

Carbide Tipped Double Flute Combination Bevel and Flush Trim Bits

Series 33000



NAP GLADU Tool Number	a Bevel Angle	A Cutting Diameter	B Cutting Height	Overall Length
33402	23°	3/8	1/2	1 5/8
33404*	23°	1/2	1/2	1 5/8
33406	23°	1/2	1/2	1 5/8
33408	30°	1/2	1/2	1 5/8
33410	35°	1/2	1/2	1 5/8
33412	45°	1/2	1/2	1 5/8

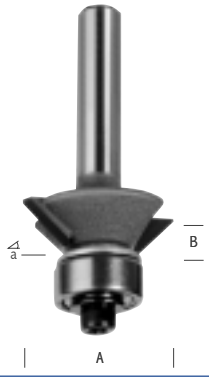
1/4" Shank

*Single Flute Tool

This versatile bit allows for both beveling and straight trimming of materials. By raising or lowering the bit, the function changes.

Carbide Tipped Double Flute Bevel Trim Bits with Bearing

Series 32000



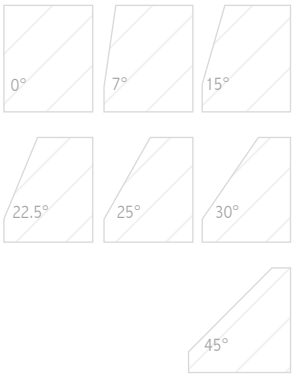
NAP GLADU Tool Number	a Bevel Angle	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
32422	0°	1/2	1/4	2 1/8	L
32423	7°	5/8	3/8	2 1/8	L
32424	15°	5/8	1/4	2 1/8	L
32426	15°	1	3/8	2	N
32427	15°	13/16	1/2	2	L
32428	15°	5/8	1/2	2	BB
32429	25°	3/4	1/4	2 1/8	L
32430	25°	1	1/2	2	L
32431	30°	1 1/2	3/4	2 3/4	L
32432	45°	1	1/4	2 1/8	L
32227	15°	1 1/16	15/16	2 3/4	L
32229	22.5°	1 5/16	7/8	2 3/4	L
32231	30°	1 1/2	3/4	2 3/4	L

1/4" Shank

1/2" Shank

Replacement Parts - pg 92 | 93

These are designed to remove the square look of the material by leaving a slight beveled edge, angles available from 7° to 45°.



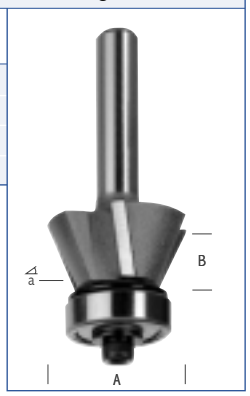
Series 32000

Carbide Tipped Triple Flute Bevel Trim Bits with Bearing

An extra cutting edge on this bit leaves the material slightly smoother than the double flute counterpart.

	NAP GLADU Tool Number	a Bevel Angle	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/4" Shank	32463	10°	3/4	3/8	1 7/8	M
	32464	15°	13/16	3/8	1 7/8	M
	32467	25°	15/16	3/8	1 7/8	M
	32468	45°	1 7/16	3/8	1 7/8	M

Replacement Parts - pg 92

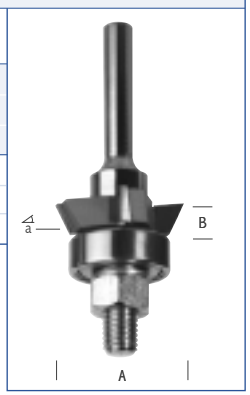


Series 32000

Carbide Tipped Four Flute Bevel Trim Cutter Assemblies

Designed specifically for trimming high pressure plastic laminates, the four flute design allows for smooth trimming. The complete assembly includes a cutter, bearing 1314 and either arbor 00212 or arbor 00412.

	NAP GLADU Tool Number	a Bevel Angle	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	32472	0°	7/8	1/4	2 3/4
	32474	15°	1	1/4	2 3/4
	32476	25°	1 1/16	1/4	2 3/4
1/2" Shank	32272	0°	7/8	1/4	2 3/8
	32274	15°	1	1/4	2 3/8
	32276	25°	1 1/16	1/4	2 3/8

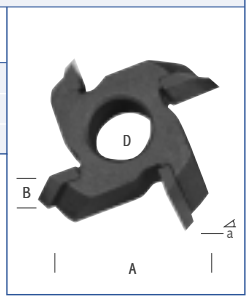


Series 32000

Carbide Tipped Four Flute Bevel Trim Cutter Assemblies

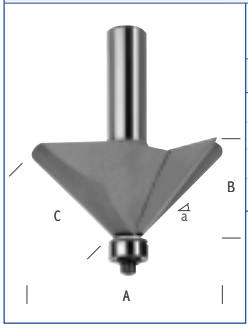
These are replacement cutters for the above four flute trim cutter assemblies.

NAP GLADU Tool Number	a Bevel Angle	A Cutting Diameter	B Cutting Height	D Cutter Bore
32482	0°	7/8	1/4	5/16
32484	15°	1	1/4	5/16
32486	25°	1 1/16	1/4	5/16



Carbide Tipped Double Flute Chamfer Bits

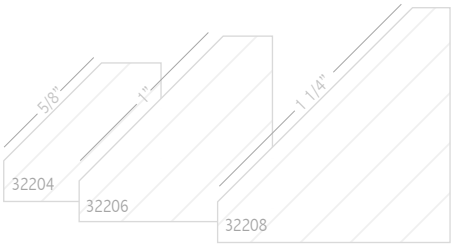
Series 32000



NAP GLADU Tool Number	a Bevel Angle	A Cutting Diameter	B Cutting Height	C Cutting Depth	Overall Length	Index Code	
32408	45°	1 1/4	1/2	5/8	2	BB	1/4" Shank
32204	45°	1 1/4	1/2	5/8	2 3/8	BB	1/2" Shank
32206	45°	2	3/4	1	2 5/8	L	
32208	45°	2 1/2	1	1 1/4	2 13/16	L	
32210	45°	2 5/8	1 1/16	1 1/2	3	L	

Replacement Parts - pg 92|93

Designed to place a 45° chamfer on the edge of the material; ball bearing guide provides mar free work.



Carbide Tipped Double Flute V-Grooving Bits

Series 26000

NAP GLADU Tool Number	a Bevel Angle	A Cutting Diameter	B Cutting Height	C Groove Depth	Overall Length	
26402	45°	1/4	5/16	3/16	2	1/4" Shank
26404	45°	3/8	3/4	3/16	1 3/4	
26406	45°	1/2	1/2	1/4	1 3/4	
26408	45°	5/8	1/2	5/16	1 3/4	
26410	45°	3/4	1/2	7/16	1 3/4	
26412	45°	7/8	5/8	7/16	2	
26414	45°	1	5/8	1/2	1 3/4	
26460	30°	1/2	9/16	7/16	2	
26462	30°	1/2	1/2	7/16	1 3/4	
26470	35°	1/2	1/2	3/8	1 3/4	
26204	45°	3/8	1/2	3/16	1 3/4	1/2" Shank
26202	45°	1/2	1/2	9/32	2 1/8	
26208	45°	5/8	1/2	5/16	2 1/8	
26210	45°	3/4	5/8	3/8	2 1/4	
26212	45°	7/8	5/8	7/16	2 1/4	
26214	45°	1	3/4	1/2	2 3/8	
26216	45°	1 1/4	1	5/8	2 1/2	
26218	45°	1 1/2	1 1/4	3/4	2 7/8	
26220	45°	1 3/4	1 1/2	7/8	3	
26222	45°	2	1 3/4	7/8	3	
26260	30°	1/2	9/16	7/16	2 1/4	

Designed for shallow and deep grooves in all types of woods. Good for general decorative cuts, simulated plank design, etc. Can also be used for chamfering.

Carbide Tipped Double Flute V-Groove Bits with Upper Bearing

Series 26000B

NAP GLADU Tool Number	a Bevel Angle	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
26406B	45°	1/2	1/2	2	A	1/4" Shank

Replacement Parts - pg 92

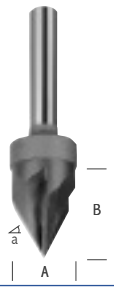
Designed to leave a “V” shaped groove in the material. The upper ball bearing aids in template work.

Series 26000

Solid Carbide Triple Flute Engraving Bit

This solid carbide three flute design is for engraving and sign making in a variety of materials.

	NAP GLADU Tool Number	a Bevel Angle	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	26490	30°	9/16	7/8	2 1/4



Series 25000

Solid Carbide Double Flute Dovetail Bits

These bits are designed for all solid woods, plywoods, composite boards and laminates. Made for all dovetail operations including dovetailing and dovetail jointing.

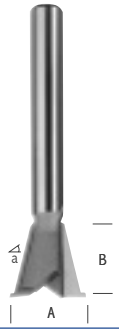
	NAP GLADU Tool Number	a Cutting Angle	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	25480	7.5°	1/4	5/16	2 1/2
	25482	8°	1/4	1/4	2 1/2

Series 25000

Carbide Tipped Double Flute Dovetail Bit with Spurs

Designed to rout solid woods, plywoods, composite boards and laminates. Spurs allow room for gluing.

	NAP GLADU Tool Number	a Cutting Angle	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	25460	13°	9/16	17/32	2 3/16



Series 25000

Carbide Tipped Double Flute Dovetail Bit with Upper Bearing

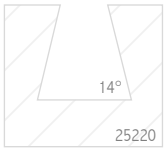
Designed for all dovetail operations where an upper ball bearing is needed for template work.

	NAP GLADU Tool Number	a Cutting Angle	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/4" Shank	25450	14°	1/2	1/2	2 1/4	A

Replacement Parts - pg 92

Carbide Tipped Double Flute Dovetail Bits

Series 25000



NAP GLADU Tool Number	a Cutting Angle	A Cutting Diameter	B Cutting Height	Overall Length	
25400	25°	13/64	5/32	2 3/8	1/4" Shank
25405	7.5°	1/4	5/16	2 1/2	
25406	8°	5/16	3/8	2 1/4	
25408	8°	3/8	1/2	2 3/8	
25410	8°	7/16	5/8	2 3/8	
25412	8°	1/2	13/16	2 3/4	
25415	9°	5/16	3/8	2 1/2	
25416	9°	3/8	3/8	1 5/8	
25418	10°	1/2	5/8	2 1/2	
25420	14°	1/2	1/2	1 3/4	
25422	14°	1/2	1/2	2 3/8	
25424	14°	17/32	1/2	1 3/4	
25430	18°	1/2	3/8	2 1/4	
25316	9°	3/8	3/8	2	3/8" Shank
25200	7°	5/8	5/8	2 3/8	1/2" Shank
25201	7°	5/8	7/8	2 1/16	
25202	7°	3/4	7/8	2 1/2	
25203	7°	7/8	7/8	2 5/8	
25204	7°	1 1/8	3/4	2 3/8	
25213	8°	11/16	1	3	
25214	8°	13/16	1 1/4	3 1/4	
25215	9°	5/16	3/8	2 1/2	
25216	9°	3/8	3/8	1 5/8	
25217	9°	3/8	3/8	2 1/2	
25218	10°	1/2	5/8	2 5/8	
25220	14°	1/2	1/2	2 3/16	
25226	14°	3/4	3/4	2 1/2	
25227	14°	7/8	7/8	2 5/8	
25228	14°	1	1	2 5/8	
25229	14°	1 1/4	1	2 5/16	

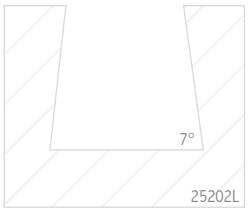
Designed for solid woods, plywoods, composite boards and laminates in all dovetail operations including french dovetailing and dovetail joining.

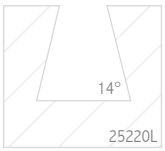
Carbide Tipped Double Flute Dovetail Bits - Left Hand Rotation

Series 25000L

NAP GLADU Tool Number	a Cutting Angle	A Cutting Diameter	B Cutting Height	Overall Length	
25415L	9°	5/16	3/8	2 1/2	1/4" Shank
25420L	14°	1/2	1/2	1 3/4	
25201L	7°	5/8	7/8	2 1/16	1/2" Shank
25202L	7°	3/4	3/4	2 5/16	
25203L	7°	7/8	7/8	2 5/8	
25204L	7°	1 1/8	3/4	2 3/8	
25216L	9°	3/8	3/8	1 5/8	
25217L	9°	3/8	3/8	2 1/2	
25220L	14°	1/2	1/2	2 1/4	
25227L	14°	7/8	7/8	2 5/8	
25228L	14°	1	1	2 5/8	

Same qualities as the dovetail bits above, but cuts in a counter-clockwise rotation.





Series 25000

These bits are threaded shank bits for automatic and semi-automatic dovetail machines including: Dodds, Wysong-Miles, Bell and Brookman.

Carbide Tipped Double Flute Automatic Dovetail Bits

Machine	NAP GLADU Tool Number	Rotation Direction	Thread Count	A Cutting Diameter
Bell	25502 25502L	Right Left	3/8 - 24	5/16
	25504 25504L	Right Left	3/8 - 24	3/8
Wysong Miles	25512 25512L	Right Left	3/8 - 20	5/16
	25514 25514L	Right Left	3/8 - 20	3/8
Dodds	25520 25520L	Right Left	5/16 - 24	1/4
	25522 25522L	Right Left	5/16 - 24	5/16
	25524 25524L	Right Left	5/16 - 24	3/8
	25532 25532L	Right Left	3/8 - 20	5/16
	25534 25534L	Right Left	3/8 - 20	3/8

Series 25000 | 00000

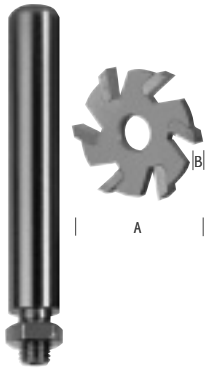
The Series 25000 cutters, may be used on French Dovetail machines for producing slots on drawer bottoms. Needs to be run on arbors from Series 00000.

Carbide Tipped Dovetail Slot Cutters

NAP GLADU Tool Number	Wing Count	A Cutting Diameter	B Dovetail Kerf
25600	4	1 1/4	3/16
25602	6	1 1/4	3/16

Arbors

BC Saw Tool Number	Overall Length	
00350	3 7/16	3/8" Shank
00250	3 7/16	1/2" Shank



Double Flute Cove Bits with Upper Bearing - Plunge Type

Series 39000

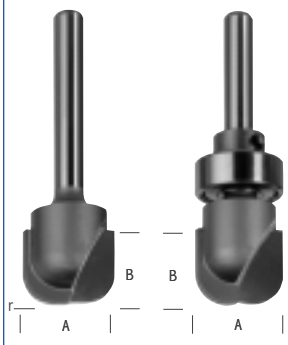
NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
39450	1/8	1/2	1/2	2 1/8	A	1/4" Shank
39452	1/4	3/4	5/8	2 5/16	C	
39252	1/4	3/4	5/8	2 5/16	E	1/2" Shank
39254	1/4	1 1/8	5/8	2 5/8	G	

Replacement Parts - pg 92

These are designed for decorative edging on moulding and furniture. Best for use on natural woods, wood composites and plastics.

Carbide Tipped Double Flute Bowl and Tray Bits

Series 42000



NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
42465	1/8	7/16	5/16	2 1/8	–	1/4" Shank
42466	1/4	3/4	5/8	2 3/8	–	
42466B	1/4	3/4	5/8	2 3/8	C	
42266	1/4	3/4	5/8	2 3/8	–	1/2" Shank
42268	1/4	1 1/4	1/2	2 1/4	–	
42268B	1/4	1 1/4	1/2	2 1/4	H	

Replacement Parts - pg 92

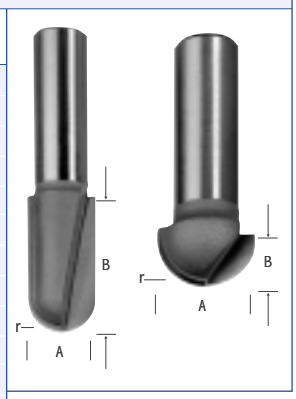
Designed to rout a rounded bottom groove or channel in solid wood, composites, etc. The router bit numbers which are followed by “B” have an upper ball bearing guide for template work.

Series 42000

Carbide Tipped Double Flute Roundnose Bits

Designed with a constant radius for general routing, grooving and ornamentation.

	NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	42402	1/16	1/8	3/8	1 3/4
	42404	3/32	3/16	1/8	1 3/8
	42406	3/32	3/16	1/2	1 3/4
	42410	1/8	1/4	1/2	1 3/4
	42412	5/32	5/16	1/2	1 1/2
	42414	3/16	3/8	1/4	1 1/2
	42416	7/32	7/16	5/8	1 3/4
	42418	1/4	1/2	5/16	1 1/2
	42424	5/16	5/8	3/8	1 1/2
	42426	3/8	3/4	1/2	1 1/2
	42432	7/16	7/8	5/8	1 3/4
	42436	1/2	1	5/8	1 3/4
1/2" Shank	42214	3/16	3/8	1/4	1 7/8
	42215	3/16	3/8	1	2 3/4
	42216	7/32	7/16	5/8	2 3/8
	42218	1/4	1/2	5/16	2
	42220	1/4	1/2	1 1/4	2 3/4
	42222	9/32	9/16	1 1/4	2 3/4
	42224	5/16	5/8	3/8	2
	42225	5/16	5/8	1 1/4	2 3/4
	42226	3/8	3/4	1/2	2
	42228	3/8	3/4	1 1/4	2 3/4
	42232	7/16	7/8	5/8	2
	42234	7/16	7/8	1 1/4	2 3/4
	42236	1/2	1	5/8	2 3/16
	42238	1/2	1	1 1/4	2 3/4
	42240	5/8	1 1/4	3/4	2 3/16
	42242	5/8	1 1/4	1 1/4	2 3/4
	42244	3/4	1 1/2	1 1/4	2 3/4
	42246	1	2	1 1/4	2 3/4



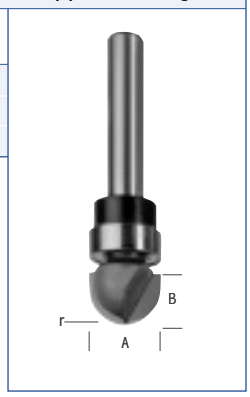
Series 42000B

Carbide Tipped Double Flute Roundnose Bit with Upper Bearing

This bit is designed with a constant radius for general routing, grooving and ornamentation. An upper ball bearing guide allows for trimming and template work.

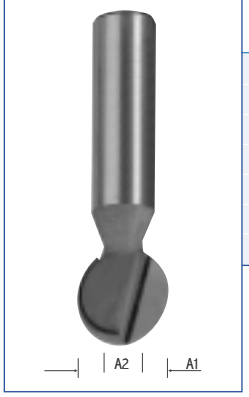
	NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/4" Shank	42418B	1/4	1/2	1/2	2	A
	42424B	5/16	5/8	3/8	2	B
	42426B	3/8	3/4	7/16	2	C

Replacement Parts - pg 92



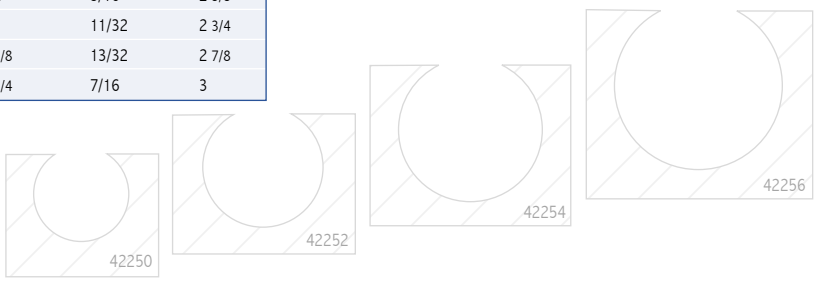
Carbide Tipped Double Flute Ball Grooving Bits

Series 42000



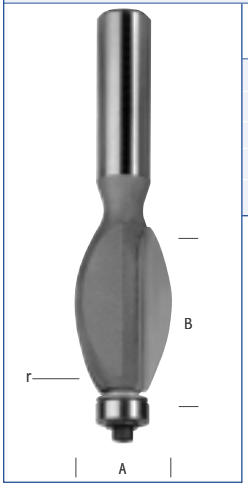
NAP GLADU Tool Number	A1 Ball Diameter	A2 Neck Diameter	Overall Length	
42250	1/2	1/4	2 1/4	1/2" Shank
42252	5/8	9/32	2 7/16	
42254	3/4	5/16	2 1/2	
42256	7/8	5/16	2 5/8	
42258	1	11/32	2 3/4	
42260	1 1/8	13/32	2 7/8	
42262	1 3/4	7/16	3	

Designed with a constant radius for general routing, grooving and ornamentation. A near full circular ball cutting edge leaves a circular groove for channeling or ornamentation.



Carbide Tipped Double Flute Convex Beading Bits with Bearing

Series 42000



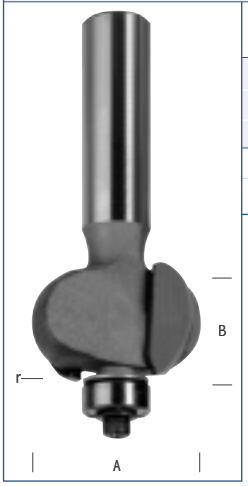
NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
42270	3/16	3/4	3/8	2 5/8	L	1/2" Shank
42272	5/16	3/4	1/2	2 3/4	L	
42274	15/32	7/8	3/4	3 1/16	L	
42276	3/4	7/8	1	3 3/8	L	
42278	1 1/4	1	1 1/2	3 7/8	L	

Replacement Parts - pg 92

These bits are designed to rout a convex curve in the working material. A ball bearing guide allows for mar free work.

Carbide Tipped Double Flute Full Radius Beading Bits with Bearing

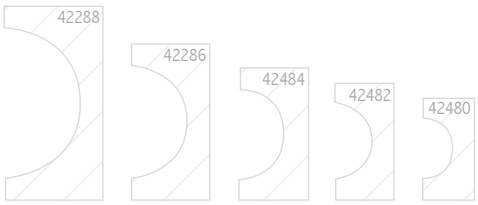
Series 42000



NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
42480	5/32	13/16	5/16	1 7/8	L	1/4" Shank
42482	3/16	7/8	3/8	2	L	
42484	15/64	31/32	15/32	2	L	
42286	19/64	1 3/32	19/32	2 3/4	L	1/2" Shank
42288	25/64	1 1/4	25/32	3	L	

Replacement Parts - pg 92

These are designed to rout a half circle in the working material. An added ball bearing guide allows for mar free work.



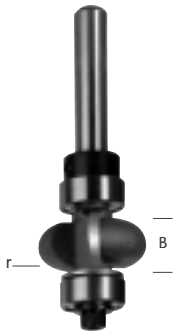
Series 42000

Carbide Tipped Double Flute Convex Beading Bits with Bearings

These straight carbide bits with an upper ball bearing allow for mar-free template work.

	NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/4" Shank	42490	1/8	3/4	1/4	2 1/4	ZZ
	42492	13/64	7/8	25/64	2 3/8	ZZ

Replacement Parts - pg 93



Series 47000

Carbide Tipped Double Flute True Bull Nose Bits

This bit is designed to make round edges on furniture, countertops and stair threads.

	NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	C Cutter Opening	Overall Length
1/4" Shank	47452	23/32	13/16	1 1/4	7/8	2 1/2
1/2" Shank	47250	11/32	3/4	1	1/2	2 5/8
	47252	23/32	13/16	1 1/4	7/8	2 3/4
	47254	1/2	1	1 1/4	3/4	2 7/8
	47256	3/4	1	1 1/4	1	2 3/4
	47258	1 1/4	1 1/4	1 3/4	1 1/2	3 1/4

Note: 'r' is not exact radius

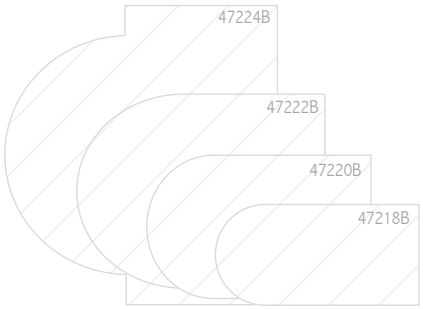
Series 47000B

Carbide Tipped Double Flute Half Round Bits with Bearing

These bits can accomplish complete edge rounding on both sides of the material, produced by a continuous radius throughout the opening. Flared ends allow for clean cuts at the top and bottom of the material.

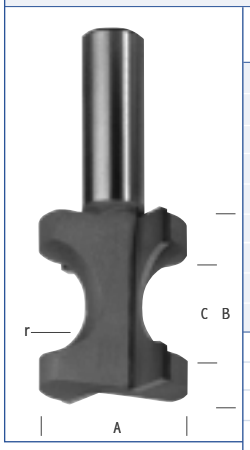
	NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	C Cutter Opening	Overall Length	Index Code
1/2" Shank	47210B	9/64	25/32	3/4	17/64	2 5/8	L
	47214B	13/64	29/32	3/4	25/64	2 5/8	L
	47218B	17/64	1 1/32	1	35/64	3	L
	47220B	3/8	1 3/8	1 1/4	3/4	3 5/16	DD
	47222B	1/2	1 3/4	1 9/16	1	3 5/8	EE
	47224B	5/8	2	2	1 1/4	4	EE

Replacement Parts - pg 92|93



Carbide Tipped Double Flute Half Round Bits

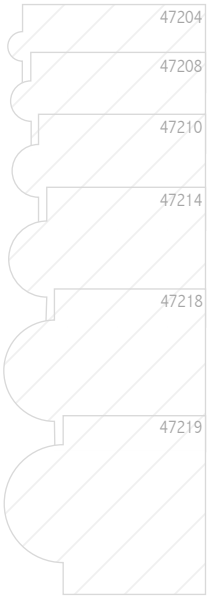
Series 47000



NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	C Cutter Opening	Overall Length	
47402	5/64	17/32	1/2	5/32	1 5/8	1/4" Shank
47404	3/32	3/4	1/2	3/16	1 13/16	
47406	7/64	19/32	1/2	7/32	1 5/8	
47408	1/8	7/8	9/16	1/4	1 29/32	
47410	9/64	21/32	3/4	9/32	1 7/8	
47412	3/16	1	7/8	3/8	2 1/4	
47414	13/64	7/8	3/4	13/32	1 7/8	
47416	1/4	1 1/8	1	1/2	2 7/16	
47418	17/64	1 1/32	1	35/64	2 1/8	
47202	5/64	17/32	1/2	5/32	2 3/16	1/2" Shank
47204	3/32	3/4	1/2	3/16	1 7/8	
47206	7/64	19/32	1/2	7/32	2	
47208	1/8	7/8	9/16	1/4	2 1/32	
47210	9/64	21/32	3/4	9/32	2 1/4	
47212	3/16	1	7/8	3/8	2 11/32	
47214	13/64	7/8	3/4	13/32	2 1/4	
47216	1/4	1 1/8	1	1/2	2 1/2	
47218	17/64	1 1/32	1	35/64	2 1/2	
47219	5/16	1 1/16	1 1/8	5/8	2 1/2	
47220	3/8	1 5/16	1 3/8	3/4	2 7/8	
47221	7/16	1 7/8	1 1/2	7/8	3	
47222	1/2	1 11/16	1 9/16	1	3 1/16	
47223	9/16	1 15/16	1 1/2	1 1/8	3 1/4	
47224	5/8	2	2	1 1/4	3 1/2	
47226*	3/4	2 3/8	2	1 1/2	3 1/2	

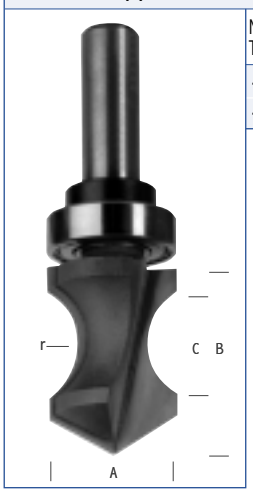
*Three flute bit suitable for Corian and Woods

Complete edge rounding on both sides of the material, produced by a continuous radius through the opening. The flared ends allow for clean cuts at the top and bottom of the material.



Carbide Tipped Double Flute Half Round Bit - Plunge Type

Series 47000



NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	C Cutter Opening	Overall Length	Index Code	
47260	1/2	1 1/8	1 9/16	7/8	3 5/8	–	1/2" Shank
47260B	1/2	1 1/8	1 9/16	7/8	3 5/8	G	

B Upper Bearing Included

Replacement Parts - pg 92

This bit is designed with a boring point to penetrate stock and rout a half round radius in a single pass. The upper ball bearing guide allows for template work.

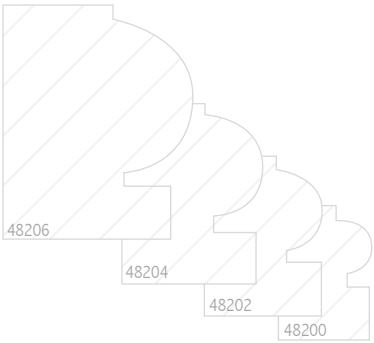
Series 48000

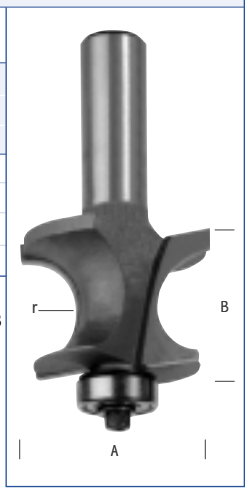
Carbide Tipped Double Flute Corner Beading Bits with Bearing

Designed for decorative edging on moulding and furniture. Best for use on natural woods, wood composites and plastics.

	NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/4" Shank	48400	1/8	7/8	9/16	2 1/8	L
	48402	3/16	1 1/16	5/8	2 1/4	FF
	48404	1/4	1 1/4	3/4	2 3/8	FF
1/2" Shank	48200	1/8	7/8	9/16	2 1/2	L
	48202	3/16	1 1/16	5/8	2 5/8	FF
	48204	1/4	1 1/4	3/4	2 5/8	FF
	48206	3/8	1 1/2	1	3	FF

Replacement Parts - pg 92|93





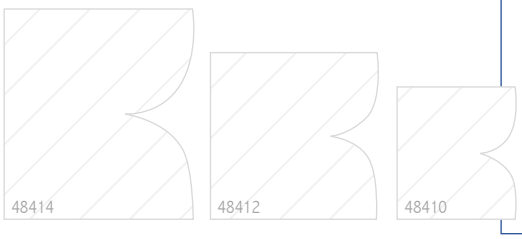
Series 48000

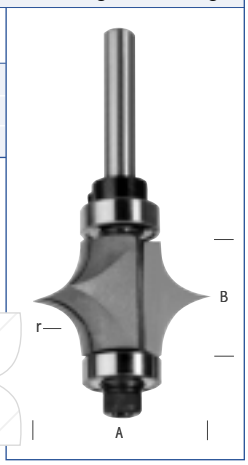
Double Flute Beading Bits with Upper and Lower Bearing - Leaf Edge

Designed for decorative edging on moulding and furniture. Best for use on natural woods, wood composites and plastics.

	NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/4" Shank	48410	3/16	1	1/2	2 1/2	D
	48412	1/4	1 1/8	5/8	2 5/8	D
	48414	3/8	1 3/8	7/8	2 7/8	D

Replacement Parts - pg 92





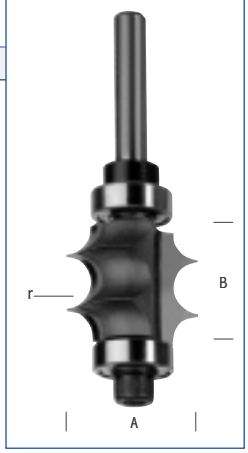
Series 48000

Double Flute Beading Bit with Upper and Lower Bearing - Double Leaf

Designed for decorative edging on moulding and furniture. Best for use on natural woods, wood composites and plastics.

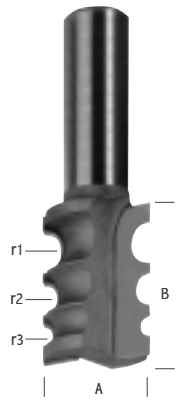
	NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/4" Shank	48416	3/16	1	7/8	3	D

Replacement Parts - pg 92



Carbide Tipped Double Flute Variable Beading Bits

Series 48000

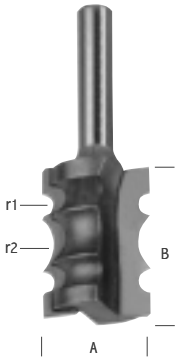


NAP GLADU Tool Number	r1 r2 r3 Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	
48420	r1 5/32 r2 1/8 r3 5/64	7/8	1 1/8	2 1/4	1/4" Shank
48220	r1 5/32 r2 1/8 r3 5/64	7/8	1 1/8	2 5/8	1/2" Shank

Designed for decorative edging on moulding and furniture. Best for use on natural woods, wood composites and plastics.

Carbide Tipped Double Flute Triple Beading Bit

Series 48000

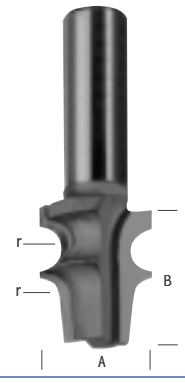


NAP GLADU Tool Number	r1 r2 Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	
48422	r1 5/64 r2 1/4	3/4	1	2 1/8	1/4" Shank

Designed for decorative edging on moulding and furniture. Best for use on natural woods, wood composites and plastics.

Carbide Tipped Double Flute Edge Beading Bits

Series 48000



NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	
48424	5/32	7/8	1 1/32	2 5/16	1/4" Shank
48224	5/32	7/8	1 1/32	2 1/2	1/2" Shank

Designed for decorative edging on moulding and furniture. Best for use on natural woods, wood composites and plastics.

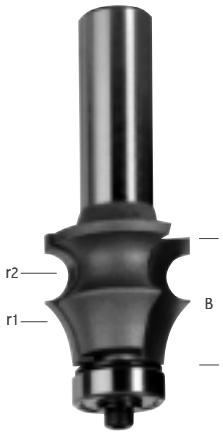
Series 48000

Carbide Tipped Double Flute Edge Beading Bits with Bearing

Designed for decorative edging on moulding and furniture. Best for use on natural woods, wood composites and plastics.

	NAP GLADU Tool Number	r1 r2 Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/2" Shank	48230	r1 1 r2 3/32	1	7/8	2 3/4	FF
	48232	r1 3/4 r2 1/8	1	7/8	2 3/4	FF
	48234	r1 9/16 r2 5/32	1	7/8	2 3/4	FF
	48236	r1 3/8 r2 3/16	1	7/8	2 3/4	FF

Replacement Parts - pg 93



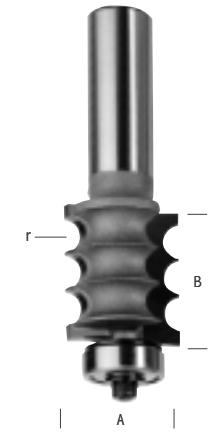
Series 48000

Carbide Tipped Double Flute Triple Beading Bits with Bearing

Designed for decorative edging on moulding and furniture. Best for use on natural woods, wood composites and plastics.

	NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/4" Shank	48440	1/8	7/8	1	2 1/2	FF
1/2" Shank	48240	1/8	7/8	1	2 7/8	FF

Replacement Parts - pg 93



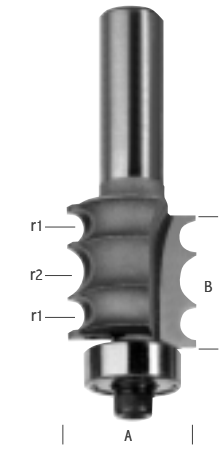
Series 48000

Carbide Tipped Double Flute Triple Beading Bits with Bearing

Designed for decorative edging on moulding and furniture. Best for use on natural woods, wood composites and plastics.

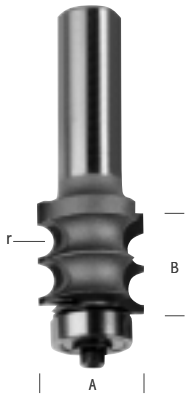
	NAP GLADU Tool Number	r1 r2 Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/4" Shank	48442	r1 1/8 r2 3/16	1	1	2 1/4	GG
1/2" Shank	48242	r1 1/8 r2 3/16	1	1	2 1/4	GG

Replacement Parts - pg 93



Carbide Tipped Double Flute Double Beading Bit with Bearing

Series 48000



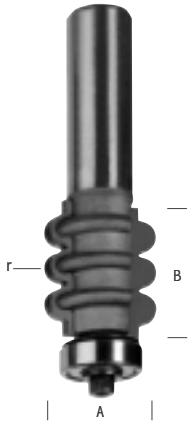
NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
48246	1/8	7/8	3/4	2 5/8	M	1/2" Shank

Replacement Parts - pg 92

Designed for decorative edging on moulding and furniture. Best for use on natural woods, wood composites and plastics.

Carbide Tipped Double Flute Convex Beading Bits with Bearing

Series 48000



NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
48444	1/8	7/8	1	2 1/2	M	1/4" Shank
48244	1/8	7/8	1	2 7/8	M	1/2" Shank

Replacement Parts - pg 92

Designed for decorative edging on moulding and furniture. Best for use on natural woods, wood composites and plastics.

Carbide Tipped Double Flute 25° Tee-Bumper Moulding Bits

Series 25000

NAP GLADU Tool Number	a Cutting Angle	A Cutting Diameter	B Cutting Height	Overall Length	
25440	25°	13/64	5/32	2 3/8	1/4" Shank

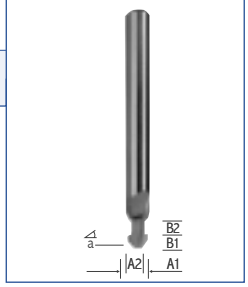
These are designed to rout a small groove for the insertion of weather stripping, etc.

Series 26000

Carbide Tipped Double Flute 38° Tee-Bumper Moulding Bits

These bits are designed to rout a small groove for the insertion of weather stripping, etc.

	NAP GLADU Tool Number	a Cutting Angle	A1 Cutting Diameter	A2 Cutting Diameter	B1 Cutting Height	B2 Cutting Height	Overall Length
1/4" Shank	26450	38°	A1 7/32	A2 5/64	B1 5/32	B2 5/16	2 9/16



Series 40000B

Double Flute Rounding Over Bits with Upper Bearing - Plunge Type

Designed to produce decorative rounded edges. Best for use on natural woods, wood composites and plastics. Upper bearing guide aids in template work.

	NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/4" Shank	40400B	1/8	1/2	3/8	1 7/8	A
	40401B	1/8	3/4	3/8	2	C
	40402B	3/16	7/8	1/2	2 1/8	CC
1/2" Shank	40206B	5/16	1 1/8	9/16	2 1/8	G

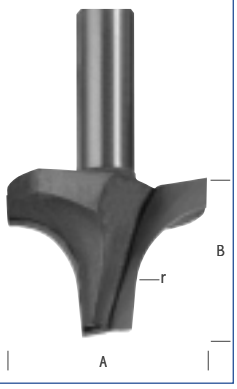
Replacement Parts - pg 92|93

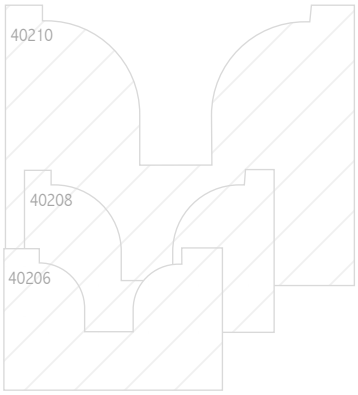
Series 40000

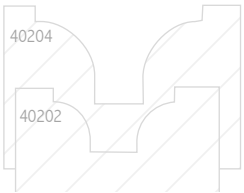
Carbide Tipped Double Flute Rounding Over Bits - Plunge Type

Designed for decorative rounded edges. Best for use on natural woods, wood composites and plastics.

	NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	40400	1/8	3/8	5/16	2
	40402	3/16	5/8	3/8	1 3/4
	40404	1/4	3/4	1/2	1 5/8
	40406	5/16	7/8	9/16	1 11/16
	40408	3/8	1	5/8	1 3/4
1/2" Shank	40202	3/16	5/8	5/16	1 1/2
	40204	1/4	3/4	1/2	2
	40206	5/16	7/8	9/16	2 1/16
	40208	3/8	1	5/8	2 1/8
	40210	1/2	1 3/8	1	2 3/4
	40211	9/16	1 5/8	1 1/4	2 3/4
	40212	5/8	1 3/4	1 1/4	2 3/4
	40214	3/4	2	1 7/16	2 15/16

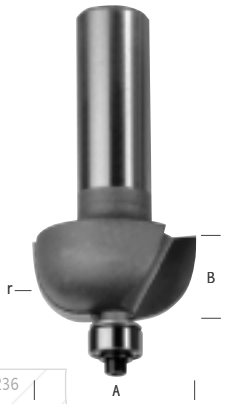


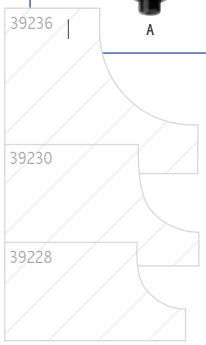




Carbide Tipped Double Flute Cove Bits with Bearing

Series 39000

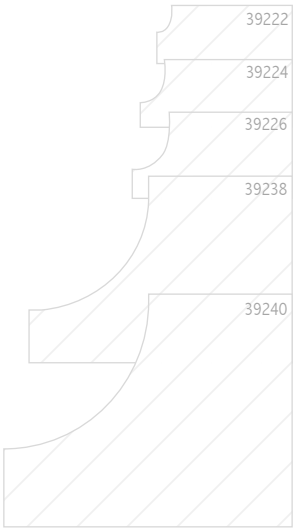




NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
39422	1/16	1/2	1/2	2	BB	1/4" Shank
39424	1/8	5/8	1/2	2	BB	
39426	3/16	3/4	9/16	2 1/16	BB	
39428	1/4	7/8	9/16	2 1/16	BB	
39430	5/16	1	9/16	2 1/16	BB	
39432	3/8	1 1/8	9/16	2 1/16	BB	
39436	1/2	1 3/8	3/4	2 1/4	BB	
39437	1/2	1 1/2	5/8	2 1/2	BB	
39222	1/16	1/2	1/2	2 3/8	BB	1/2" Shank
39224	1/8	5/8	1/2	2 3/8	BB	
39226	3/16	3/4	9/16	2 7/16	BB	
39228	1/4	7/8	9/16	2 7/16	BB	
39230	5/16	1	9/16	2 7/16	BB	
39232	3/8	1 1/8	9/16	2 7/16	BB	
39236	1/2	1 3/8	3/4	2 7/16	BB	
39237	1/2	1 1/2	5/8	2 11/16	BB	
39238	5/8	1 5/8	3/4	2 5/8	BB	
39240	3/4	1 7/8	1	3	L	
39242	7/8	2 3/8	1 1/4	3 3/8	L	
39244	1	2 3/8	1 1/4	3 3/8	L	
39248	1 1/2	3	1 1/4	3 3/8	L	

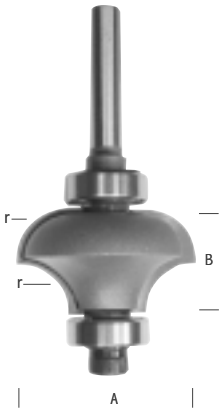
Replacement Parts - pg 92|93

Designed for decorative inverted radii edge. For use on natural woods, wood composites and plastics.



Carbide Tipped Double Flute Matching Corner Round|Cove Bits

Series 41000



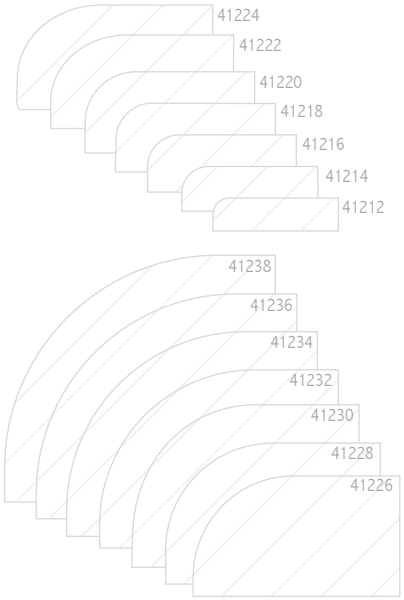
NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	
41480	1/4	1 1/8	35/64	2 19/32	1/4" Shank
41482	5/16	1 1/4	43/64	2 23/32	
41484	3/8	1 3/8	51/64	2 27/32	

These bits are designed to perform two functions with one tool – matching round over and cove cuts.

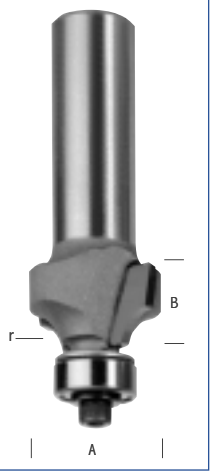
Series 41000

Carbide Tipped Double Flute Corner Rounding Bits with Bearing

Designed to rout decorative rounded edges. This bit is best for use on natural woods, wood composites and plastics.



	NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/4" Shank	41412	1/16	5/8	5/16	1 3/4	L
	41414	1/8	3/4	3/8	1 15/16	L
	41416	5/32	3/4	3/8	1 15/16	L
	41418	3/16	7/8	1/2	1 15/16	L
	41420	1/4	1	1/2	1 15/16	L
	41422	5/16	1 1/8	1/2	1 15/16	L
	41424	3/8	1 1/4	5/8	2 1/4	L
	41426	1/2	1 1/2	3/4	2 3/16	L
1/2" Shank	41212	1/16	5/8	5/16	2 3/16	L
	41214	1/8	3/4	3/8	2 5/16	L
	41216	5/32	3/4	3/8	2 5/16	L
	41218	3/16	7/8	1/2	2 5/16	L
	41220	1/4	1	1/2	2 5/16	L
	41222	5/16	1 1/8	1/2	2 5/16	L
	41224	3/8	1 1/4	5/8	2 7/16	L
	41225	7/16	1 3/8	5/8	2 1/2	L
	41226	1/2	1 1/2	3/4	2 9/16	L
	41228	5/8	1 3/4	7/8	2 5/8	L
	41229	9/16	1 5/8	3/4	2 3/4	L
	41230	3/4	2	1	2 3/4	L
	41232	7/8	2 1/2	1 1/4	2 7/8	L
	41234	1	2 1/2	1 1/4	3	L
	41236	1 1/8	2 3/4	1 3/8	3 1/4	L
	41238	1 1/4	3	1 1/2	3 1/4	L
	41240	1 3/8	3 1/4	1 9/16	3 1/2	L
	41242	1 1/2	3 1/2	1 3/4	3 3/4	L



Replace standard bearings with a smaller size to attain a decorative bead on wood

Replacement Parts - pg 92

Series 41000

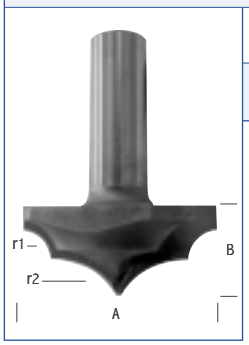
Carbide Tipped Double Flute Beading Bit - Plunge Type

Designed to produce decorative edges or mid-stock decorative grooves. This bit is best suited for natural woods, wood composites and plastics.

	NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	41490	1/8	3/8	5/16	2

Carbide Tipped Double Flute Rounding Over Bit - Plunge Type

Series 44000

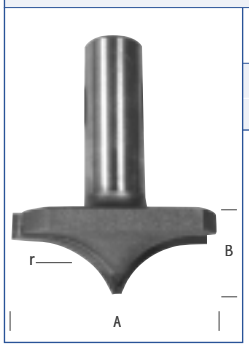


NAP GLADU Tool Number	r1 Cutting r2 Radius	A Cutting Diameter	B Cutting Height	Overall Length	
44262	r1 1/4 r2 19/32	1 5/8	23/32	2 7/32	1/2" Shank

Designed to produce decorative edges or mid-stock decorative grooves. Best for use on natural woods, wood composites and plastics.

Carbide Tipped Double Flute Rounding Over Bits - Plunge Type

Series 44000

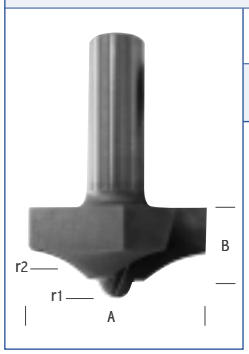


NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	
44266	23/32	1 3/4	23/32	2 7/32	1/2" Shank
44268	1	1 5/8	23/32	2 7/32	

Designed to produce decorative edges or mid-stock decorative grooves. Best for use on natural woods, wood composites and plastics.

Carbide Tipped Double Flute Round and Ogee Bit - Plunge Type

Series 44000



NAP GLADU Tool Number	r1 Cutting r2 Radius	A Cutting Diameter	B Cutting Height	Overall Length	
44272	r1 5/32 r2 7/8	1 9/16	25/32	2 9/32	1/2" Shank

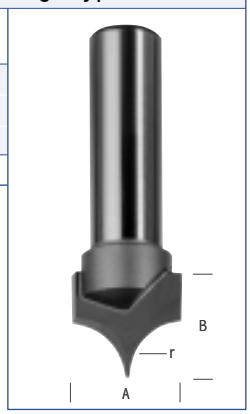
Designed to produce decorative edges or mid-stock decorative grooves. Best for use on natural woods, wood composites and plastics.

Series 40000

Double Flute Point Cutting Roundover Bits - Plunge Type

These bits are designed for decorative trimming and lettering where rounded edges are required. Best for use on natural woods, wood composites and plastics.

	NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	40420	3/16	3/8	3/8	2
	40422	1/4	1/2	1/2	2
	40424	3/8	3/4	5/8	2
1/2" Shank	40224	3/8	3/4	5/8	2 1/4

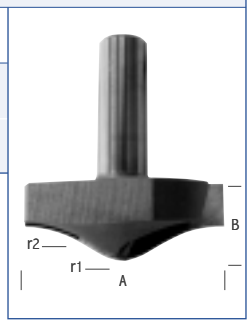


Series 44000

Carbide Tipped Double Flute Round and Ogee Bits - Plunge Type

Designed to produce decorative edges or mid-stock decorative grooves. This bit is best for use on natural woods, wood composites and plastics.

	NAP GLADU Tool Number	r1 r2 Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length
1/2" Shank	44250	r1 3/8 r2 3/4	1 5/8	23/32	2 13/64
	44252	r1 5/8 r2 1 3/16	1 31/32	23/32	2 13/64

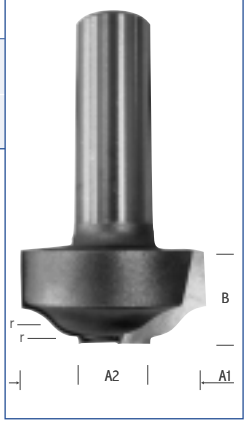


Series 44000

Carbide Tipped Double Flute Step Flat Ogee - Plunge Type

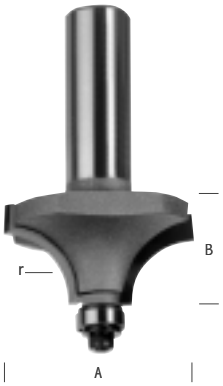
Designed to produce decorative edges or mid-stock decorative grooves. This bit is best for use on natural woods, wood composites and plastics.

	NAP GLADU Tool Number	r Cutting Radius	A1 A2 Cutting Diameter	B Cutting Height	Overall Length
1/2" Shank	44256	3/16	A1 1 A2 3/8	19/32	2 3/32
	44258	15/64	A1 1 3/64 A2 15/32	19/32	2 3/32



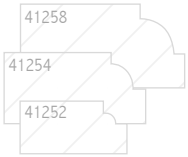
Carbide Tipped Double Flute Beading Bits with Bearing

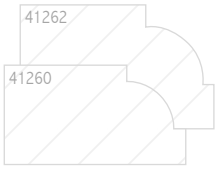
Series 41000



NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
41452	1/16	5/8	5/16	1 3/4	T	1/4" Shank
41454	1/8	3/4	3/8	1 15/16	T	
41456	5/32	3/4	3/8	1 15/16	T	
41458	3/16	7/8	1/2	1 15/16	T	
41460	1/4	1	1/2	1 15/16	T	
41462	5/16	1 1/8	1/2	1 15/16	T	
41464	3/8	1 1/4	5/8	2 1/4	T	
41466	1/2	1 1/2	3/4	2 3/16	T	
41252	1/16	5/8	5/16	2 3/16	T	1/2" Shank
41254	1/8	3/4	3/8	2 3/16	T	
41256	5/32	3/4	3/8	2 1/4	T	
41258	3/16	7/8	1/2	2 5/16	T	
41260	1/4	1	1/2	2 5/16	T	
41262	5/16	1 1/8	1/2	2 5/16	T	
41264	3/8	1 1/4	5/8	2 7/16	T	
41266	1/2	1 1/2	3/4	2 9/16	T	
41268	5/8	1 3/4	7/8	2 5/8	T	
41270	3/4	2	1	2 3/4	T	
41272	7/8	2 1/4	1 1/4	2 7/8	T	
41274	1	2 1/2	1 1/4	3	T	
41276	1 1/8	2 3/4	1 3/8	3 1/4	T	
41278	1 1/4	3	1 1/2	3 1/4	T	
41280	1 3/8	3 1/4	1 9/16	3 1/2	T	
41282	1 1/2	3 1/2	1 3/4	3 3/4	T	

Replacement Parts - pg 92





These bits are made to rout decorative rounded edges where a combined corner round and edge bead are required. For use on natural woods, wood composites and plastics.

Carbide Tipped Double Flute Classical Bits - Plunge Type

Series 43000

NAP GLADU Tool Number	r1 r2 Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	
43430	r1 1/8 r2 5/32	1/2	3/8	2	1/4" Shank
43432	r1 3/16 r2 1/4	3/4	1/2	2 1/16	
43232	r1 3/16 r2 1/4	3/4	1/2	2 3/4	1/2" Shank
43234	r1 1/4 r2 5/16	1	5/8	2 7/8	

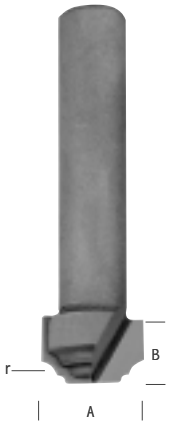
Designed to produce decorative edges or mid-stock decorative grooves. Best for use on natural woods, wood composites and plastics.

Series 43000

Carbide Tipped Double Flute Traditional Bits - Plunge Type

Designed to produce decorative edges or mid-stock decorative grooves. This bit is best suited for on natural woods, wood composites and plastics.

	NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	43440	3/64	1/2	3/8	2
	43442	1/16	3/4	7/16	2 1/16
1/2" Shank	43242	1/16	3/4	7/16	2 5/8



Series 43000

Carbide Tipped Double Flute Round Bottom Ogee Bits - Plunge Type

Designed to produce decorative edges or mid-stock decorative grooves. This bit is best suited for on natural woods, wood composites and plastics.

	NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	43428	15/64	1 1/16	7/16	2
1/2" Shank	43228	15/64	1 1/16	7/16	2 1/4

Series 43000

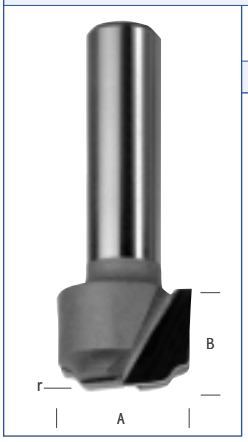
Carbide Tipped Double Flute Flat Bottom Ogee Bits - Plunge Type

Designed to produce decorative edges or mid-stock decorative grooves. This bit is best suited for on natural woods, wood composites and plastics.

	NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	43420	1/16	3/8	5/16	1 7/8
	43422	5/64	1/2	3/8	2
	43424	1/8	3/4	7/16	2 1/8
1/2" Shank	43224	1/8	3/4	7/16	2 3/4

Carbide Tipped Double Flute Corner Ogee Bit - Plunge Type

Series 43000

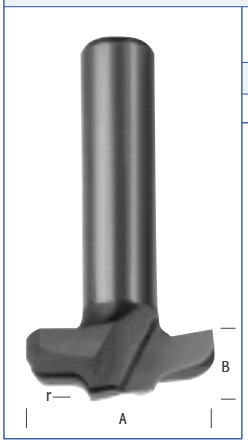


NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	
43230	3/32	15/16	19/32	2 1/4	1/2" Shank

Designed to produce decorative edges or mid-stock decorative grooves. Best for use on natural woods, wood composites and plastics.

Carbide Tipped Double Flute Flat Ogee Bits - Plunge Type

Series 43000

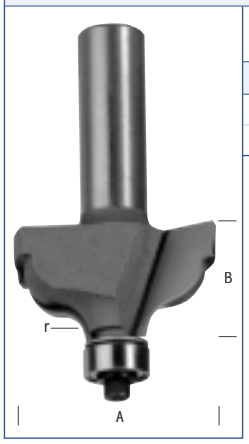


NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	
43426	1/8	1	3/8	2	1/4" Shank
43226	1/8	1 3/8	3/8	2 1/4	1/2" Shank

Designed to produce decorative edges or mid-stock decorative grooves. Best for use on natural woods, wood composites and plastics.

Carbide Tipped Double Flute Ogee Fillet Bits with Bearing

Series 43000A



NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
43460	5/32	1 3/8	9/16	2 1/16	L	1/4" Shank
43260	5/32	1 3/8	9/16	2 1/2	L	1/2" Shank
43262	1/4	1 5/8	3/4	2 5/8	L	

Replacement Parts - pg 92

This bit is designed to rout a decorative edge where an ogee style is required. This bit is best for use on natural woods, wood composites and plastics.

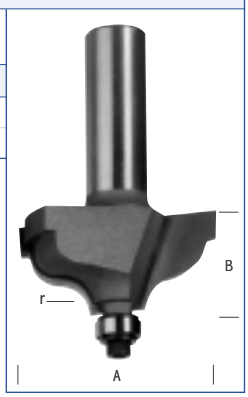
Series 43000B

Carbide Tipped Double Flute Ogee Fillet Bits with Bearing

Designed to rout a decorative edge where an ogee style is required. This bit is best for use on natural woods, wood composites and plastics.

	NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/4" Shank	43466	5/32	1 3/8	9/16	2 1/16	T
1/2" Shank	43266	5/32	1 3/8	9/16	2 1/2	T
	43268	1/4	1 5/8	3/4	2 5/8	T

Replacement Parts - pg 92



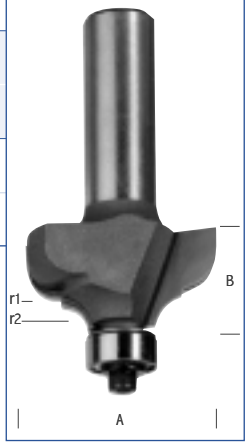
Series 43000C

Carbide Tipped Double Flute Ogee Fillet Bits with Bearing

Designed to rout a decorative edge where an ogee style is required. This bit is best for use on natural woods, wood composites and plastics.

	NAP GLADU Tool Number	r1 r2 Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/4" Shank	43470	r1 5/32 r2 5/32	1 1/8	1/2	2	L
	43472	r1 1/4 r2 3/16	1 3/8	11/16	2 3/16	L
1/2" Shank	43270	r1 5/32 r2 5/32	1 1/8	1/2	2 3/8	L
	43272	r1 1/4 r2 3/16	1 3/8	11/16	2 9/16	L

Replacement Parts - pg 92



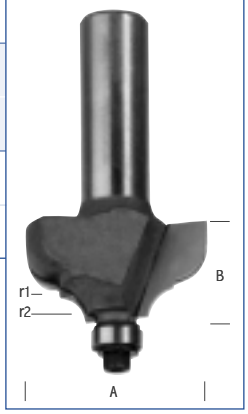
Series 43000D

Carbide Tipped Double Flute Ogee Fillet Bits with Bearing

Designed to rout a decorative edge where an ogee style is required. This bit is best for use on natural woods, wood composites and plastics.

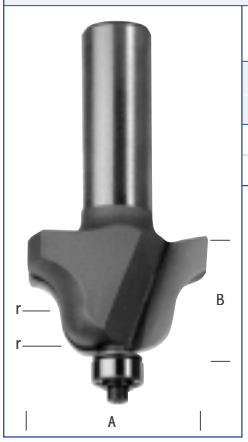
	NAP GLADU Tool Number	r1 r2 Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/4" Shank	43476	r1 5/32 r2 5/32	1 1/8	1/2	2	T
	43478	r1 1/4 r2 3/16	1 3/8	11/16	2 3/16	T
1/2" Shank	43276	r1 5/32 r2 5/32	1 1/8	1/2	2 3/8	T
	43278	r1 1/4 r2 3/16	1 3/8	11/16	2 9/16	T

Replacement Parts - pg 92



Carbide Tipped Double Flute Roman Ogee Fillet Bits with Bearing

Series 43000E



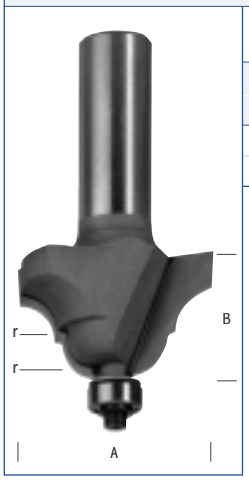
NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
43456	5/32	1	5/8	2 1/16	BB	1/4" Shank
43458	1/4	1 3/8	3/4	2 1/4	BB	
43256	5/32	1	5/8	2 7/16	BB	1/2" Shank
43258	1/4	1 3/8	3/4	2 5/8	BB	

Replacement Parts - pg 93

This bit is designed to rout a decorative edge where an ogee style is required. This bit is best for use on natural woods, wood composites and plastics.

Carbide Tipped Double Flute Roman Ogee Fillet Bits with Bearing

Series 43000F



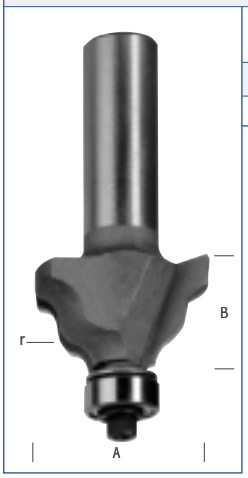
NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
43480	5/32	1	5/8	2 1/16	BB	1/4" Shank
43482	1/4	1 3/8	3/4	2 1/4	BB	
43280	5/32	1	5/8	2 7/16	BB	1/2" Shank
43282	1/4	1 3/8	3/4	2 5/8	BB	

Replacement Parts - pg 93

This bit is designed to rout a decorative edge where an ogee style is required. This bit is best for use on natural woods, wood composites and plastics.

Carbide Tipped Double Flute Wavy Ogee Bits with Bearing

Series 43000G



NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
43484	5/32	1 1/4	11/16	2 3/16	L	1/4" Shank
43284	5/32	1 1/4	11/16	2 9/16	L	1/2" Shank

Replacement Parts - pg 92

This bit is designed to rout a decorative edge where an ogee style is required. This bit is best for use on natural woods, wood composites and plastics.

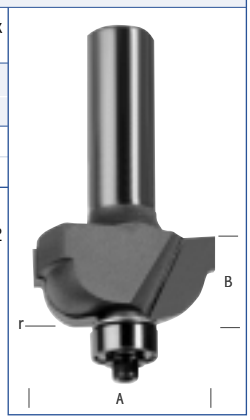
Series 43000H

Carbide Tipped Double Flute Flat Cove Bits with Bearing

Designed to rout a decorative edge where an ogee style is required. This bit is best for use on natural woods, wood composites and plastics.

	NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/4" Shank	43486	3/16	1 1/8	1/2	2	L
	43488	5/16	1 3/8	5/8	2 1/8	L
1/2" Shank	43286	3/16	1 1/8	1/2	2 3/8	L
	43288	5/16	1 3/8	5/8	2 1/2	L

Replacement Parts - pg 92



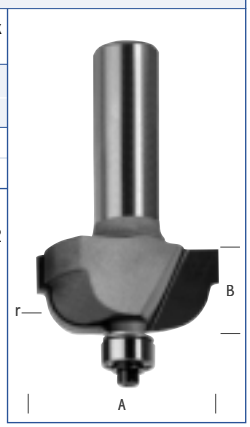
Series 43000I

Carbide Tipped Double Flute Flat Cove Bits with Bearing

Designed to rout a decorative edge where an ogee style is required. This bit is best for use on natural woods, wood composites and plastics.

	NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/4" Shank	43490	3/16	1 1/8	1/2	2	T
	43492	5/16	1 3/8	5/8	2 1/8	T
1/2" Shank	43290	3/16	1 1/8	1/2	2 3/8	T
	43292	5/16	1 3/8	5/8	2 1/2	T

Replacement Parts - pg 92



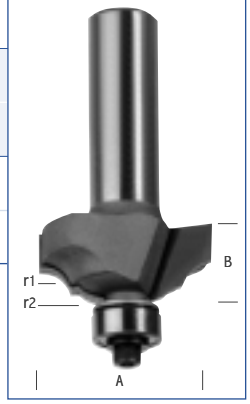
Series 43000J

Carbide Tipped Double Flute Classical Bits with Bearing

Designed to rout a decorative edge where an ogee style is required. This bit is best for use on natural woods, wood composites and plastics.

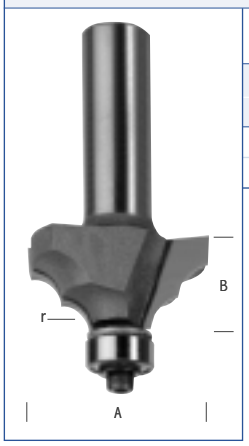
	NAP GLADU Tool Number	r1 r2 Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/4" Shank	43400	r1 3/16 r2 1/16	1 1/4	1/2	2 1/16	L
	43402	r1 15/64 r2 9/64	1 1/2	5/8	2 3/32	L
1/2" Shank	43200	r1 3/16 r2 1/16	1 1/4	1/2	2 3/8	L
	43202	r1 15/64 r2 9/64	1 1/2	5/8	2 1/2	L

Replacement Parts - pg 92



Carbide Tipped Double Flute Classical Bits with Bearing

Series 43000K



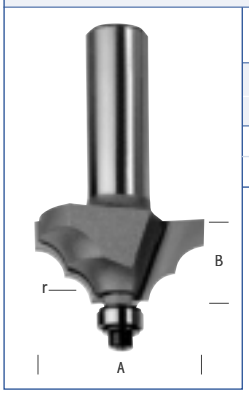
NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
43410	5/32	1 1/8	1/2	2	L	1/4" Shank
43412	7/32	1 3/8	11/16	2 3/16	L	
43210	5/32	1 1/8	1/2	2 3/8	L	1/2" Shank
43212	7/32	1 3/8	11/16	2 9/16	L	

Replacement Parts - pg 92

These are designed to rout a decorative edge where a classical style is required. Best for use on natural woods, composite woods and plastics.

Carbide Tipped Double Flute Classical Bits with Bearing

Series 43000L



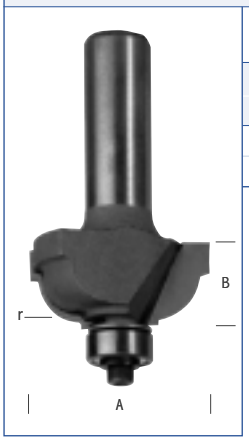
NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
43416	5/32	1 1/8	1/2	2	T	1/4" Shank
43418	7/32	1 3/8	11/16	2 3/16	T	
43216	5/32	1 1/8	1/2	2 3/8	T	1/2" Shank
43218	7/32	1 3/8	11/16	2 9/16	T	

Replacement Parts - pg 92

These are designed to rout a decorative edge where a classical style is required. Best for use on natural woods, composite woods and plastics.

Carbide Tipped Double Flute Classic Panel Bits with Bearing

Series 43000M



NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
43450	3/16	1 1/8	1/2	2	L	1/4" Shank
43452	5/16	1 3/8	5/8	2 1/8	L	
43250	3/16	1 1/8	1/2	2 3/8	L	1/2" Shank
43252	5/16	1 3/8	5/8	2 1/2	L	

Replacement Parts - pg 92

These are designed to rout a decorative edge where a classical style is required. Best for use on natural woods, composite woods and plastics.

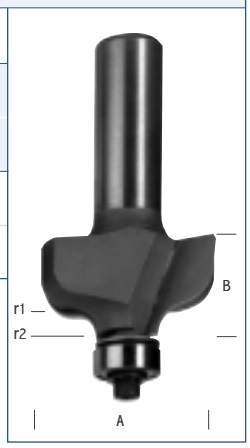
Series 43000N

These are designed to rout a decorative edge. Best for use on natural woods, composite woods and plastics.

Carbide Tipped Double Flute Paneling Bits with Bearing

	NAP GLADU Tool Number	r1 r2 Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/4" Shank	43494	r1 5/32 r2 5/32	1 1/8	1/2	2	L
	43496	r1 1/4 r2 3/16	1 3/8	11/16	2 3/16	L
1/2" Shank	43294	r1 5/32 r2 5/32	1 1/8	1/2	2 3/8	L
	43296	r1 1/4 r2 3/16	1 3/8	11/16	2 9/16	L

Replacement Parts - pg 92



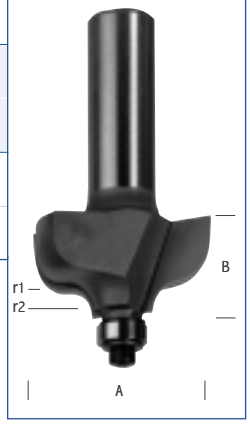
Series 43000P

These are designed to rout a decorative edge. Best for use on natural woods, composite woods and plastics

Carbide Tipped Double Flute Paneling Bits with Bearing

	NAP GLADU Tool Number	r1 r2 Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/4" Shank	43498	r1 5/32 r2 5/32	1 1/8	1/2	2	T
	43499	r1 1/4 r2 3/16	1 3/8	11/16	2 3/16	T
1/2" Shank	43298	r1 5/32 r2 5/32	1 1/8	1/2	2 3/8	T
	43299	r1 1/4 r2 3/16	1 3/8	11/16	2 9/16	T

Replacement Parts - pg 92



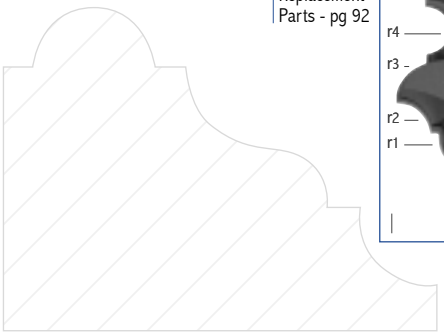
Series 43000Q

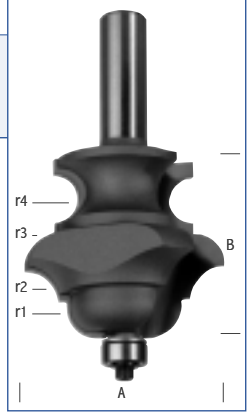
Designed with special shear cut angles and perfect tool balance to ensure safe, clean routing. Numerous profiles can be routed using various profiles of the tool.

Carbide Tipped Double Flute Multi-Profile Bit with Bearing

	NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/2" Shank	43295	r1 23/64 r2 21/64 r3 21/64 r4 1/4	2 1/8	1 7/8	3 3/4	L

Replacement Parts - pg 92





Double Flute Flat Bottom Paneling Groover Bits with Upper Bearing

Series 43000R

NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
43438	9/64	7/8	3/8	2	HH	1/4" Shank
43238	13/64	1 3/8	9/16	2 5/8	II	1/2" Shank

Replacement Parts - pg 93

Made with an upper ban bearing for smooth routing through the centre of natural woods. Leaves a decorative flat bottom design.

Double Flute Rounded Paneling Groover Bits with Upper Bearing

Series 43000S

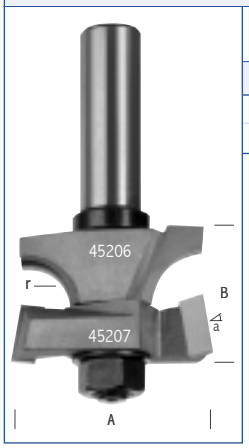
NAP GLADU Tool Number	r1 r2 Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
43436	r1 7/32 r2 5/32	7/8	1/2	2	HH	1/4" Shank
43236	r1 13/32 r2 1/4	1 3/8	9/16	2 5/8	II	1/2" Shank

Replacement Parts - pg 93

Made with an upper ban bearing for smooth routing through the centre of natural woods. Leaves a decorative flat bottom design.

Carbide Tipped Double Flute Door Lip Assembly Bit

Series 45000



NAP GLADU Tool Number	a Bevel Angle	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	
45204	10°	3/8	1 5/8	1	3	1/2" Shank
45206 (upper)	–	3/8	1 9/16	3/8	3/8	5/16" Shank
45207 (lower)	10°	–	1 5/8	7/16	7/16	

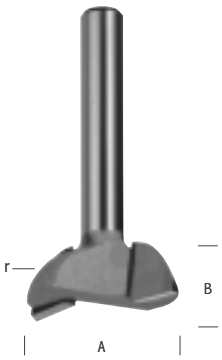
This two piece set rounds countertop edges and creates the recess for a cabinet door in one convenient pass. Upper and lower bits can be purchased separately, tool 45204 is the complete assembly.

Series 46000A

Designed to rout finger grip recesses in cabinet doors and drawers.

Carbide Tipped Double Flute Finger Grip Bits

	NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	46420	1/4	3/4	1/4	1 3/4
	46422	3/8	1	3/8	1 3/4

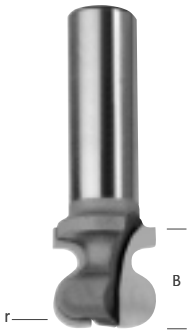


Series 46000B

Designed to rout finger grip recesses in cabinet doors and drawers.

Carbide Tipped Double Flute Finger Grip Bit

	NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length
1/2" Shank	46222	3/16	3/4	3/4	2 3/16

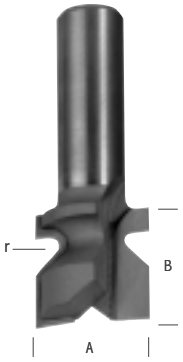


Series 46000C

Designed to rout finger grip recesses in cabinet doors and drawers.

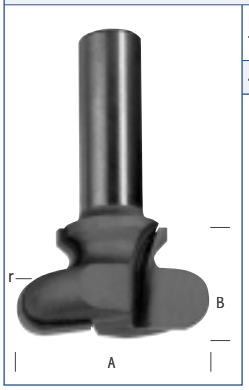
Carbide Tipped Double Flute Finger Grip Bit

	NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length
1/2" Shank	46220	1/16	7/8	13/16	2 5/16



Carbide Tipped Double Flute Finger Grip Bit

Series 46000D

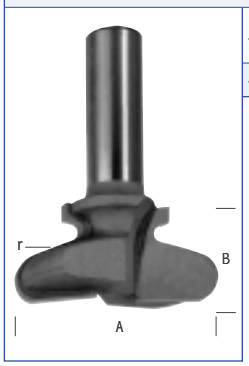


NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	
46224	15/64	1 1/2	13/16	2 5/16	1/2" Shank

Designed to rout finger grip recesses in cabinet doors and drawers.

Carbide Tipped Double Flute Finger Grip Bit

Series 46000E

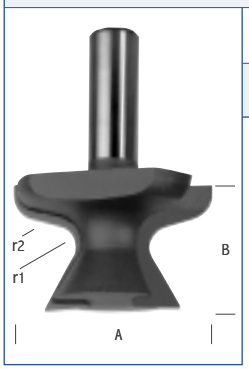


NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	
46226	3/16	1 3/4	13/16	2 5/16	1/2" Shank

Designed to rout finger grip recesses in cabinet doors and drawers.

Carbide Tipped Double Flute Finger Grip Bit

Series 46000F



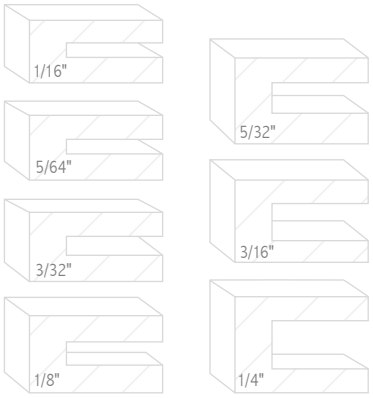
NAP GLADU Tool Number	r1 r2 Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	
46228	r1 3/16 r2 1/4	2	1 1/4	2 3/4	1/2" Shank

Designed to rout finger grip recesses in cabinet doors and drawers.

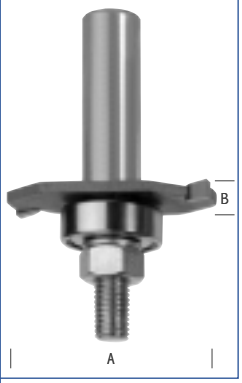
Series 11000

Carbide Tipped Two Wing Slot Cutter Assemblies

Two wing cutter assemblies come complete with cutter, bearing 1314 and arbor 00210 or arbor 00410, excess threads can be removed if necessary. Uses nut 00110 and washer 00100. All replacement parts can be found on pages 94-97. The slot cutter assemblies cut a 1/2" deep slot in all types of wood.



	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	11406	1 7/8	.062 1/16	2 3/4
	11408	1 7/8	.065	2 3/4
	11412	1 7/8	.075	2 3/4
	11414	1 7/8	.078 5/64	2 3/4
	11420	1 7/8	.093	2 3/4
	11422	1 7/8	.11	2 3/4
	11424	1 7/8	.125 1/8	2 3/4
	11428	1 7/8	.156 5/32	2 3/4
	11430	1 7/8	.187 3/16	2 3/4
	11432	1 7/8	.25 1/4	2 3/4
1/2" Shank	11206	1 7/8	.062 1/16	2 3/8
	11208	1 7/8	.065	2 3/8
	11212	1 7/8	.075	2 3/8
	11214	1 7/8	.078 5/64	2 3/8
	11220	1 7/8	.093 3/32	2 3/8
	11222	1 7/8	.11	2 3/8
	11224	1 7/8	.125 1/8	2 3/8
	11228	1 7/8	.156 5/32	2 3/8
	11230	1 7/8	.187 3/16	2 3/8
	11232	1 7/8	.25 1/4	2 3/8

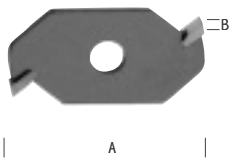


Series 10000

Carbide Tipped Two Wing Slot Cutters

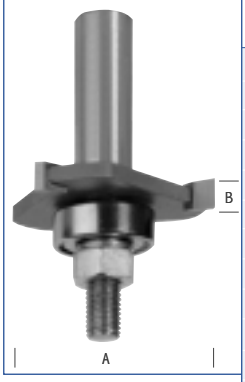
Two wing carbide tipped replacement cutter for the above assemblies.

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Bore Diameter
10206	1 7/8	.062 1/16	5/16
10208	1 7/8	.065	5/16
10212	1 7/8	.075	5/16
10214	1 7/8	.078 5/64	5/16
10220	1 7/8	.093 3/32	5/16
10222	1 7/8	.11	5/16
10224	1 7/8	.125 1/8	5/16
10228	1 7/8	.156 5/32	5/16
10230	1 7/8	.187 3/16	5/16
10232	1 7/8	.25 1/4	5/16



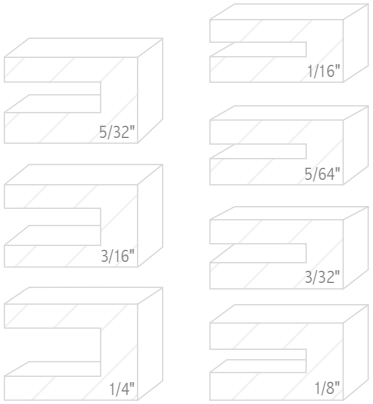
Carbide Tipped Three Wing Slot Cutter Assemblies

Series 11000



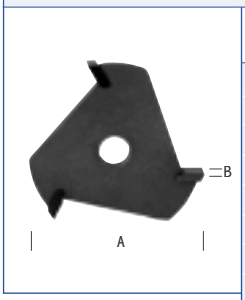
NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
11444	1 7/8	.062 1/16	2 3/4	1/4" Shank
11446	1 7/8	.065	2 3/4	
11448	1 7/8	.07	2 3/4	
11450	1 7/8	.075	2 3/4	
11452	1 7/8	.078 5/64	2 3/4	
11454	1 7/8	.085	2 3/4	
11458	1 7/8	.093 3/32	2 3/4	
11460	1 7/8	.11	2 3/4	
11462	1 7/8	.125 1/8	2 3/4	
11464	1 7/8	.14	2 3/4	
11466	1 7/8	.156 5/32	2 3/4	
11468	1 7/8	.187 3/16	2 3/4	
11470	1 7/8	.25 1/4	2 3/4	
11244	1 7/8	.062 1/16	2 3/8	1/2" Shank
11246	1 7/8	.065	2 3/8	
11248	1 7/8	.07	2 3/8	
11250	1 7/8	.075	2 3/8	
11252	1 7/8	.078 5/64	2 3/8	
11254	1 7/8	.085	2 3/8	
11258	1 7/8	.093 3/32	2 3/8	
11260	1 7/8	.11	2 3/8	
11262	1 7/8	.125 1/8	2 3/8	
11264	1 7/8	.14	2 3/8	
11266	1 7/8	.156 5/32	2 3/8	
11268	1 7/8	.187 3/16	2 3/8	
11270	1 7/8	.25 1/4	2 3/8	

Three wing cutter assemblies come complete with cutter, bearing 1314 and arbor 00210 or arbor 00410 – excess threads can be removed if necessary. Uses nut 00110 and washer 00100. All replacement parts can be found on pages 94-97. The slot cutter assemblies cut a 1/2" deep slot in all types of wood.



Carbide Tipped Three Wing Slot Cutters

Series 10000



NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Bore Diameter
10306	1 7/8	.062 1/16	5/16
10308	1 7/8	.065	5/16
10310	1 7/8	.07	5/16
10312	1 7/8	.075	5/16
10314	1 7/8	.078 5/64	5/16
10316	1 7/8	.085	5/16
10320	1 7/8	.093 3/32	5/16
10322	1 7/8	.11	5/16
10324	1 7/8	.125 1/8	5/16
10326	1 7/8	.14	5/16
10328	1 7/8	.156 5/32	5/16
10330	1 7/8	.187 3/16	5/16
10332	1 7/8	.25 1/4	5/16

Three wing carbide tipped replacement cutters for the above assemblies.

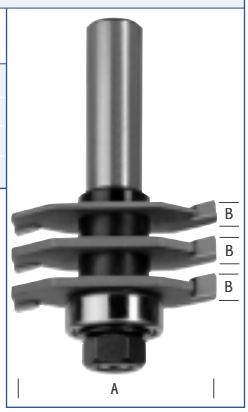
Series 11000

Quadriset - Multipurpose Slot Cutter Set

This two wing multi-slot cutter assembly is supplied with four single cutters of various widths.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/2" Shank	11290	1 7/8	3.2 mm 1/8"	3	KK
			4.0 mm 5/32"		
			4.8 mm 3/16"		
			6.3 mm 1/4"		

Replacement Parts - pg 93



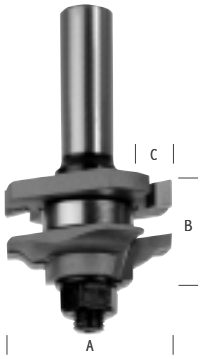
Series 45000A

Carbide Tipped 2-Wing Rail and Stile Assembly - 1 Piece Reversible

This is a convenient tool that routs both the rail and the stile in cabinet door manufacturing. Cutters on the arbor can be flipped to produce the opposite profile.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	C Groove Depth	Overall Length	Index Code
1/2" Shank	45224	1 5/8	1 1/16	3/8	3	JJ

Replacement Parts - pg 93



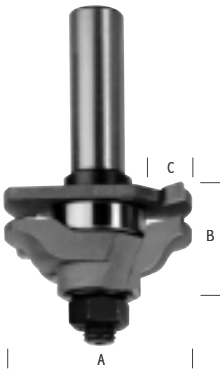
Series 45000B

Carbide Tipped 2-Wing Rail and Stile Assembly - 1 Piece Reversible

This is a convenient tool that routs both the rail and the stile in cabinet door manufacturing. Cutters on the arbor can be flipped to produce the opposite profile.

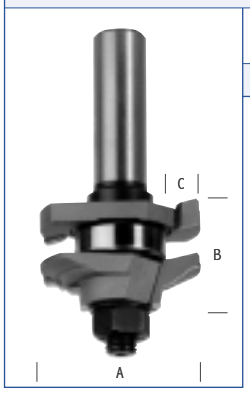
	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	C Groove Depth	Overall Length	Index Code
1/2" Shank	45222	1 13/16	1 1/16	1/2	3	JJ

Replacement Parts - pg 93



Carbide Tipped 2-Wing Rail and Stile Assembly - 1 Piece Reversible

Series 45000C



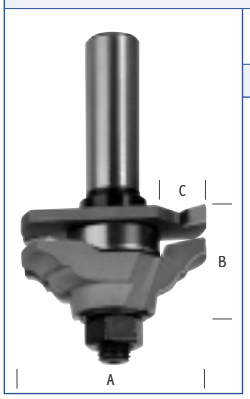
NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	C Groove Depth	Overall Length	Index Code	
45226	1 5/8	1 1/16	3/8	3	JJ	1/2" Shank

Replacement Parts - pg 93

This is a convenient tool that routs both the rail and the stile in cabinet door manufacturing. Cutters on the arbor can be flipped to produce the opposite profile.

Carbide Tipped 2-Wing Rail and Stile Assembly - 1 Piece Reversible

Series 45000D



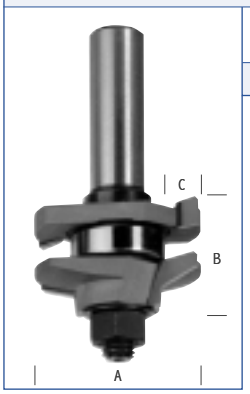
NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	C Groove Depth	Overall Length	Index Code	
45220	1 13/16	1 1/16	1/2	3	JJ	1/2" Shank

Replacement Parts - pg 93

This is a convenient tool that routs both the rail and the stile in cabinet door manufacturing. Cutters on the arbor can be flipped to produce the opposite profile.

Carbide Tipped 2-Wing Rail and Stile Assembly - 1 Piece Reversible

Series 45000E



NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	C Groove Depth	Overall Length	Index Code	
45228	1 5/8	1 1/16	3/8	3	JJ	1/2" Shank

Replacement Parts - pg 93

This is a convenient tool that routs both the rail and the stile in cabinet door manufacturing. Cutters on the arbor can be flipped to produce the opposite profile.

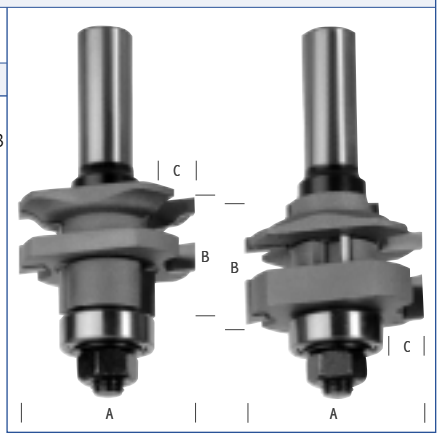
Series 45000F

Carbide Tipped 2-Wing Rail and Stile Assembly - 2 Piece Reversible

A two piece tool that routs both the rail and stile in cabinet door manufacturing.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	C Groove Depth	Overall Length	Index Code
1/2" Shank	45230	1 5/8	1 1/16	3/8	3 5/16	QQ

Replacement Parts - pg 93



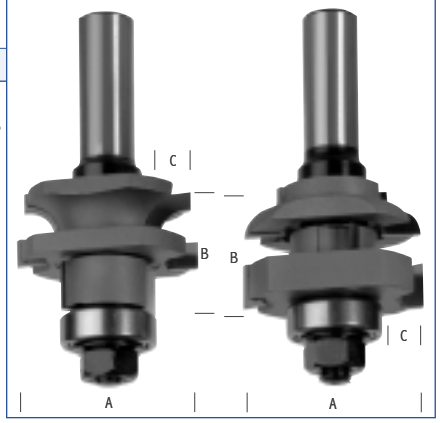
Series 45000G

Carbide Tipped 2-Wing Rail and Stile Assembly - 2 Piece Reversible

A two piece tool that routs both the rail and stile in cabinet door manufacturing.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	C Groove Depth	Overall Length	Index Code
1/2" Shank	45232	1 5/8	1 1/16	3/8	3 5/16	QQ

Replacement Parts - pg 93



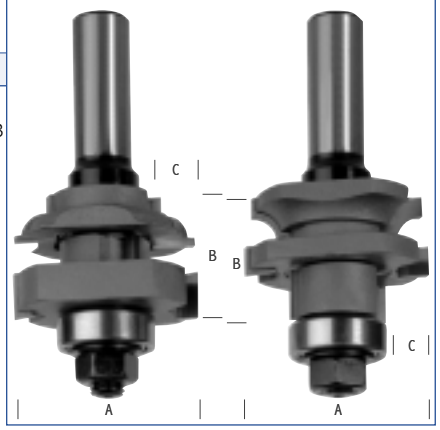
Series 45000H

Carbide Tipped 2-Wing Rail and Stile Assembly - 2 Piece Reversible

A two piece tool that routs both the rail and stile in cabinet door manufacturing.

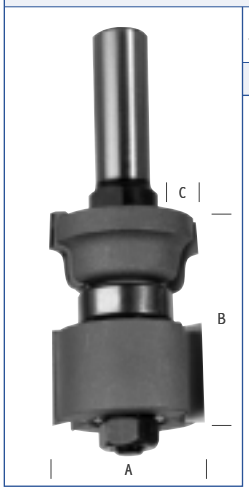
	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	C Groove Depth	Overall Length	Index Code
1/2" Shank	45234	1 5/8	1 1/16	3/8	3 5/16	QQ

Replacement Parts - pg 93



Carbide Tipped 2-Wing Sash and Rail Assembly - 1 Piece Reversible

Series 45000



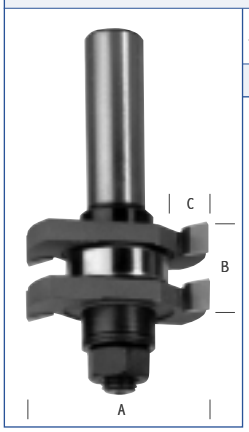
NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	C Groove Depth	Overall Length	Index Code	
45240	1 3/8	1 7/8	1/4	3 3/4	RR	1/2" Shank

Replacement Parts - pg 93

This is a convenient tool that routs both the sash and the rail in cabinet door manufacturing. Cutters on the arbor can be flipped to produce the opposite profile.

Carbide Tipped 2-Wing Angular Tongue and Groove Cutter

Series 46000



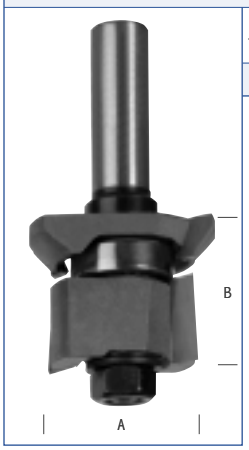
NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	C Groove Depth	Overall Length	Index Code	
46240	1 5/8	3/4	3/8	3	KK	1/2" Shank

Replacement Parts - pg 93

Designed to allow for perfect tongue and groove in stock up to 18 mm. The groove is 1/4” wide and 3/8” deep. Changing arrangement of the assembly produces the counterpart groove or tongue without adjustment of the router height.

Carbide Tipped 2-Wing “V” Panel Set - 1 Piece

Series 45000



NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
45250	1 13/16	1 3/16	3	SS	1/2" Shank

Replacement Parts - pg 93

Designed to create a decorative inter-locking groove for wallboard, hardwood flooring and raised panel applications.

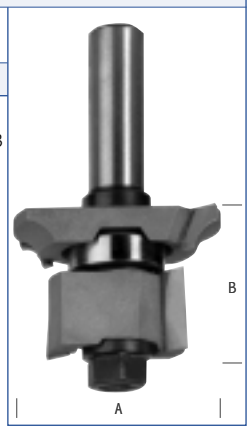
Series 45000

Carbide Tipped 2-Wing “C” Panel Set - 1 Piece

This bit is designed to provide a decorative interlocking groove for wallboard, hardwood flooring and raised panel applications.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/2" Shank	45260	1 13/16	1 3/16	3	SS

Replacement Parts - pg 93



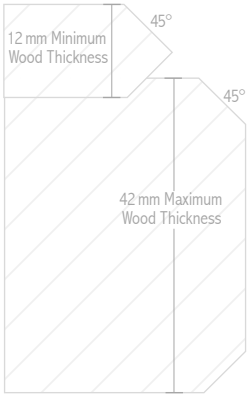
Series 45000

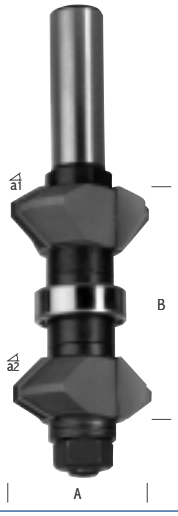
Carbide Tipped 3-Wing Multi-Angle Adjustable Chamfering Set

Fully adjustable set for corner beveling top and bottom in just one pass. Two different corner bevel angles of 30° and 45° rout maximum wood thicknesses of 35 mm for a 30° bevel and 42 mm for a 45° bevel.

	NAP GLADU Tool Number	A Cutting Diameter	a1 a2 Bevel Angle	Cutting Height min	Cutting Height max	Overall Length	Index Code
1/2" Shank	45290	1 3/8	a1 30° a2 45°	7 mm 12 mm	35 mm 42 mm	4 1/4	TT

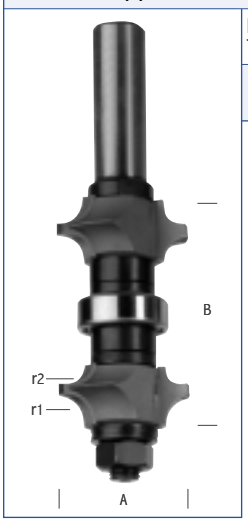
Replacement Parts - pg 93





Carbide Tipped 3-Wing Multi-Radius Adjustable Rounding Over Set

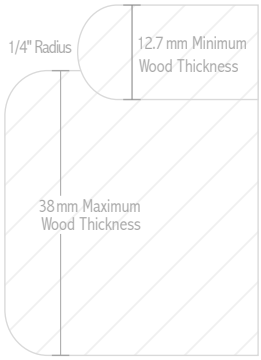
Series 45000



NAP GLADU Tool Number	A Cutting Diameter	r1 r2 Cutting Radius	Cutting Height min | max	Overall Length	Index Code
45280	1 3/8	r1 1/4 r2 3/16	12.7 mm | 38 mm 9.5 mm | 35 mm	4 1/4	TT

1/2" Shank

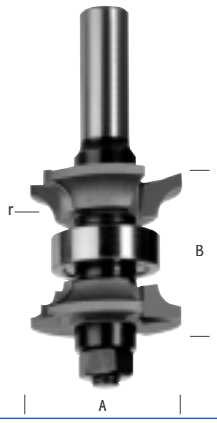
Replacement Parts - pg 93



A fully adjustable set for corner rounding top and bottom simultaneously. Two different corner radii of 1/4” and 3/16” rout a maximum wood thickness of 35 mm for 3/16” radius and 38 mm for 1/4” radius.

Carbide Tipped 3-Wing Adjustable Rounding Over Set

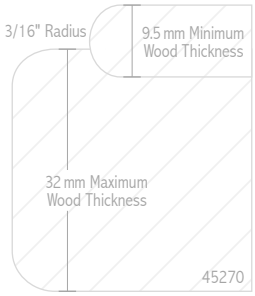
Series 45000

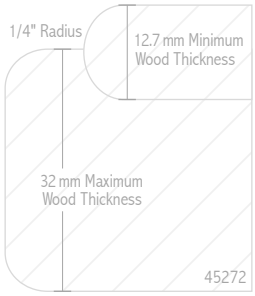


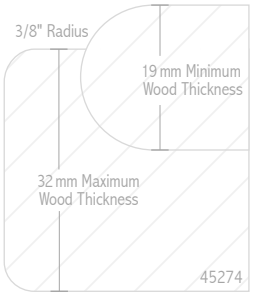
NAP GLADU Tool Number	A Cutting Diameter	r Cutting Radius	Cutting Height min | max	Overall Length	Index Code
45270	1 1/2	3/16	9.5 mm | 32 mm	3 5/8	UU
45272	1 5/8	1/4	12.7 mm | 32 mm	3 5/8	UU
45274	1 7/8	3/8	12.7 mm | 32 mm	3 5/8	UU

1/2" Shank

Replacement Parts - pg 93







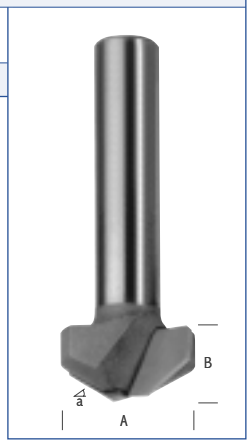
Adjustable sets for corner rounding the top and bottom simultaneously. Wood stock can be routed between the maximum and minimum measurements listed for each bit.

Series 44000

Carbide Tipped Double Flute Raised Panel Bit - Plunge Type

Produces a raised panel effect in the middle of the material.

	NAP GLADU Tool Number	a Bevel Angle	A Cutting Diameter	B Cutting Height	Overall Length
1/2" Shank	44200	30°	1 1/8	1/2	2 3/4



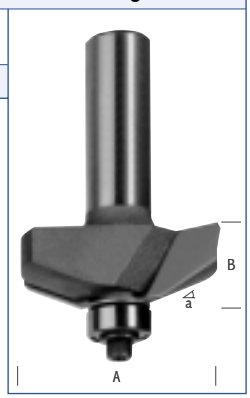
Series 44000

Carbide Tipped Double Flute Raised Panel Bit with Bearing

Produces a raised panel in cabinet door manufacturing. Bearing guide provides mar-free routing.

	NAP GLADU Tool Number	a Bevel Angle	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/2" Shank	44210	25°	1 5/8	3/4	2 1/2	L

Replacement Parts - pg 92

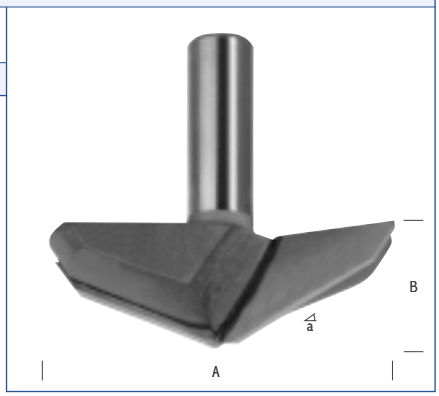


Series 44000

Carbide Tipped Double Flute Raised Panel Bit (French Provincial) - Plunge Type

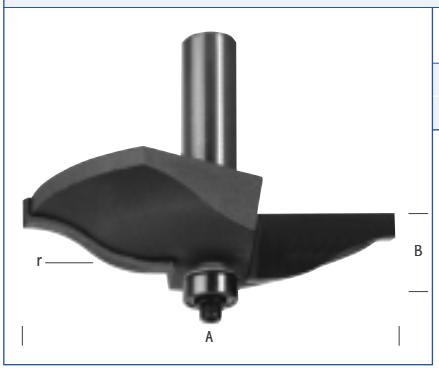
This bit produces a raised panel effect in the middle of the material.

	NAP GLADU Tool Number	a Bevel Angle	A Cutting Diameter	B Cutting Height	Overall Length
1/2" Shank	44202	25°	2 3/4	3/4	2 1/4



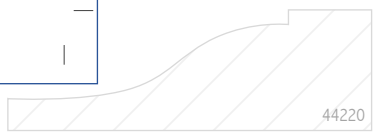
Carbide Tipped Double Flute Ogee Fillet Raised Panel Bits with Bearing

Series 44000



NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
44218	3/4	2 5/8	11/16	2 9/16	L	1/2" Shank
44220	7/8	3 3/8	5/8	2 1/2	L	

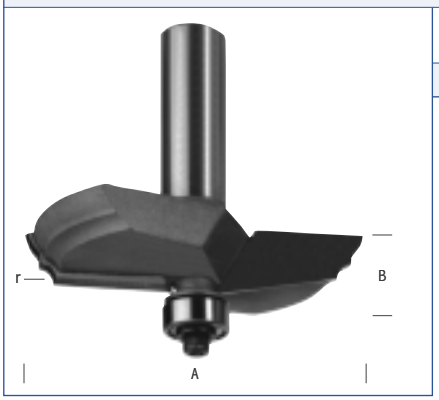
Replacement Parts - pg 92



To produce a raised panel in cabinet door manufacturing. The bearing provides mar-free routing.

Carbide Tipped Double Flute Classical Raised Panel Bit with Bearing

Series 44000



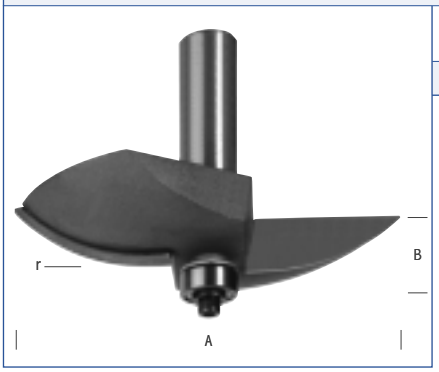
NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
44222	1/8	2 1/2	1/2	2 3/8	L	1/2" Shank

Replacement Parts - pg 92

To produce a raised panel in cabinet door manufacturing. The bearing provides mar-free routing.

Carbide Tipped Double Flute Cove Raised Panel Bit with Bearing

Series 44000



NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
44226	1 9/16	3 3/8	1/2	2 3/8	L	1/2" Shank

Replacement Parts - pg 92

To produce a raised panel in cabinet door manufacturing. The bearing provides mar-free routing.

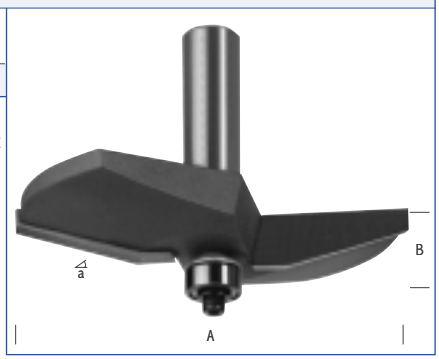
Series 44000

Carbide Tipped Double Flute Provincial Raised Panel Bit with Bearing

To produce a raised panel in cabinet door manufacturing. The bearing provides mar-free routing.

	NAP GLADU Tool Number	a Bevel Angle	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/2" Shank	44228	15°	3 3/8	1/2	2 3/8	L

Replacement Parts - pg 92

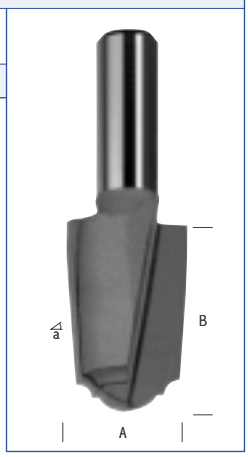


Series 44000A

Carbide Tipped Double Flute Vertical Raised Panel Bit

Produces a raised panel in cabinet door manufacturing.

	NAP GLADU Tool Number	a Bevel Angle	A Cutting Diameter	B Cutting Height	Overall Length
1/2" Shank	44230	5°	1	1 1/2	2 7/8

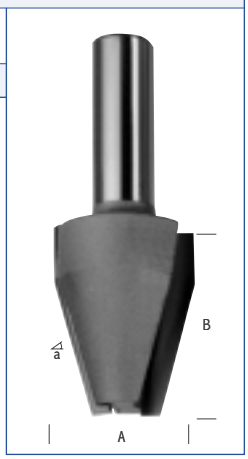


Series 44000B

Carbide Tipped Double Flute Vertical Raised Panel Bit

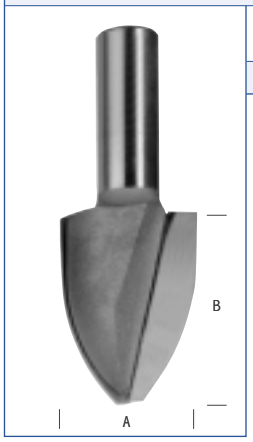
Produces a raised panel in cabinet door manufacturing.

	NAP GLADU Tool Number	a Bevel Angle	A Cutting Diameter	B Cutting Height	Overall Length
1/2" Shank	44232	15°	1 1/8	1 1/2	2 7/8



Carbide Tipped Double Flute Vertical Raised Panel Bit

Series 44000C

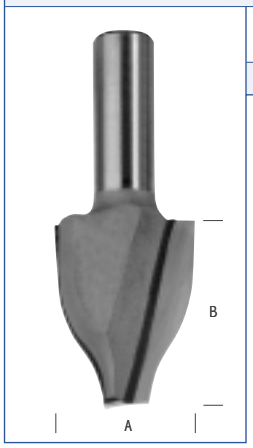


NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
44234	1 1/8	1 1/2	2 7/8	1/2" Shank

This bit can be used to produce a raised panel when manufacturing cabinet doors.

Carbide Tipped Double Flute Vertical Raised Panel Bit

Series 44000D

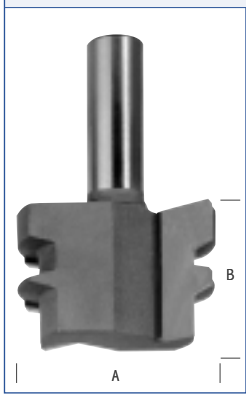


NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
44236	1 3/16	1 1/2	2 7/8	1/2" Shank

This bit can be used to produce a raised panel when manufacturing cabinet doors.

Carbide Tipped Double Flute Glue Joint Bit

Series 46000



NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
46230	1 29/64	1 1/8	2 5/8	1/2" Shank

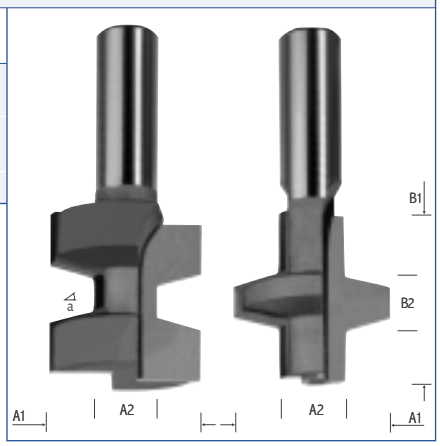
Designed to rout a lock and key effect in the edge of two pieces of material. This cut provides added strength to the joint when the pieces are glued together.

Series 46000

Carbide Tipped Double Flute Bevel Glue Joint Set

A two piece set that will rout both sides of a bevel glue joint.

	NAP GLADU Tool Number	a Bevel Angle	A1 Cutting A2 Diameter	B1 Cutting B2 Height	Overall Length
1/2" Shank	46238	15°	A1 1 1/4 A2 9/16	B1 1 1/4 B2 1/4	2 3/4
	46239	15°	A1 1 1/4 A2 9/16	B1 1 1/4 B2 1/4	2 3/4
	46237	complete set of both bits			

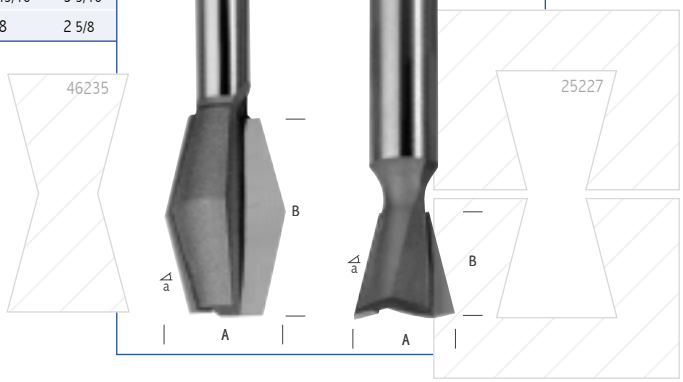


Series 46000 | 25000

Carbide Tipped Double Flute Spline Glue Joint Set

Two router bits that will rout both components of a spline glue joint for added strength when joining two pieces of material.

	NAP GLADU Tool Number	a Bevel Angle	A Cutting Diameter	B Cutting Height	Overall Length
1/2" Shank	46235	14°	1 7/64	1 13/16	3 5/16
	25227	14°	7/8	7/8	2 5/8

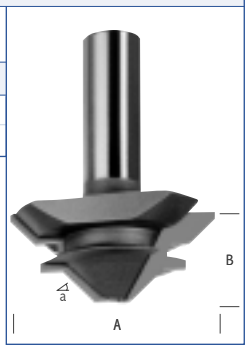


Series 46000

Carbide Tipped Double Flute Miter Lock Bits

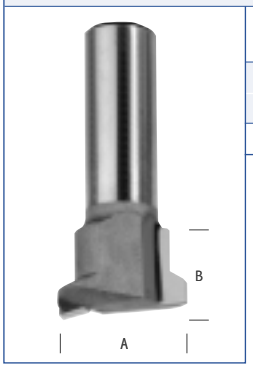
Designed to rout a staggered lock and key form to the edge of the material. A staggering effect provides added strength to the joint when pieces are joined in a 90° mitre joint.

	NAP GLADU Tool Number	a Bevel Angle	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	46432	45°	1 1/2	1/2	1 5/8
1/2" Shank	46232	45°	1 3/4	3/4	2 1/4
	46234	45°	2 23/32	1 3/16	2 11/16



Carbide Tipped Double Flute Locking Joint Bits

Series 46000

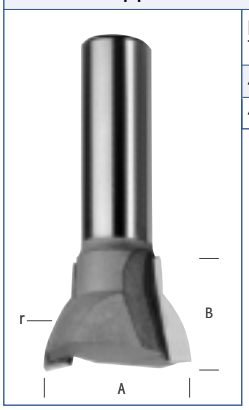


NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
46460	3/4	1/2	1 7/8	1/4" Shank
46462	1	1/2	1 7/8	
46262	1	1/2	1 7/8	1/2" Shank

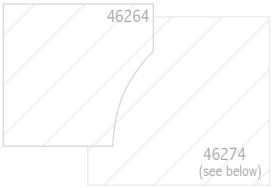
This is designed to create a locking joint for added strength in gluing drawers, table tops and panels.

Carbide Tipped Double Flute Sash Bar Bits

Series 46000



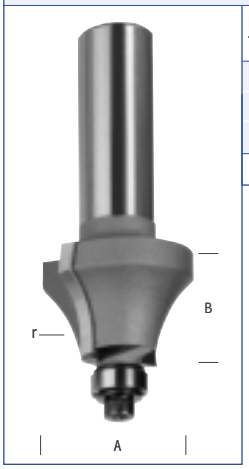
NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	
46464	1 1/8	21/32	3/4	1 7/8	1/4" Shank
46264	1 1/8	21/32	3/4	2 1/2	1/2" Shank



This bit is designed to create a decorative locking joint for window grills.

Carbide Tipped Double Flute Ovolo Bits with Bearing

Series 46000



NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
46474	21/32	1 1/16	11/16	1 7/8	T	1/4" Shank
46475	43/64	1 1/16	43/64	2 1/4	T	
46476	11/32	1 5/16	19/32	2 1/4	T	
46274	21/32	1 1/16	11/16	2 1/4	T	1/2" Shank

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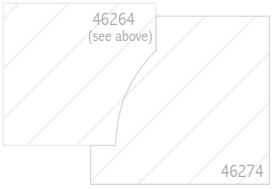
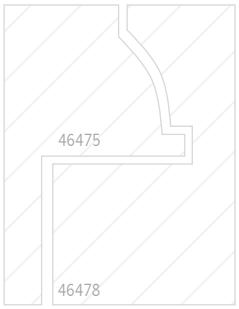


This bit is designed to create a decorative locking joint for window grills

Series 46000

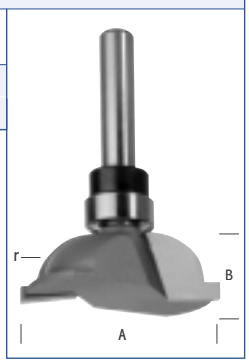
Carbide Tipped Double Flute Ovolo Bits with Upper Bearing

Designed to create a decorative locking joint for window grills, etc.



	NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/4" Shank	46478	1 3/16	43/64	5/8	2 1/16	A
	46480	1 7/16	11/32	15/32	2 1/16	A

Replacement Parts - pg 92



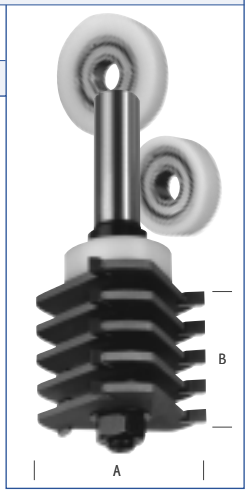
Series 46000

Carbide Tipped Three Wing Jointing Set

This bit is comprised of a set of five 4 mm kerf and three wing groovers on an arbor. Various super guide bearings allow alternative cutting depths. This bit works on material with a maximum material thickness of 1 9/16”.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/2" Shank	46288	1 7/8	1 3/8	3 3/4	V V

Replacement Parts - pg 93



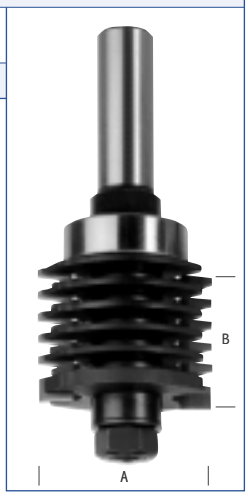
Series 46000

Carbide Tipped Two Wing Finger Joint Set

Designed to create a strong joint by tripling the surface area for gluing. This assembly profiles finger joints in wood thicknesses from 7/16” to 1 3/8”. Used for making furniture, board edging, stairs etc.

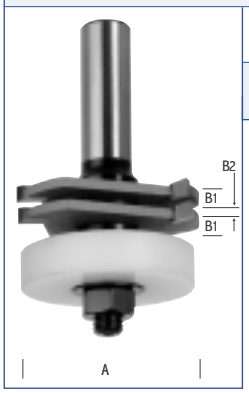
	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/2" Shank	46286	1 9/16	1 3/16	3 3/4	W W

Replacement Parts - pg 93



Carbide Tipped 3-Wing Tongue and Groove Jointing Set

Series 46000



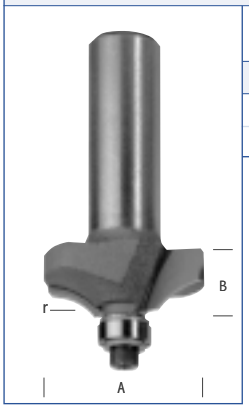
NAP GLADU Tool Number	A Cutting Diameter	B1 B2 Cutting Height	Overall Length	Index Code	
46284	1 7/8	B1 5/32 B2 5/64	3	XX	1/2" Shank

Replacement Parts - pg 93

Designed to rout a tongue and groove in wood material using two sizes of groovers and super guide bearings to provide smooth joints. Two 5/32” groovers are used to make one half while one 5/64” groover is used to make the other.

Carbide Tipped Double Flute Thumb Nail Bits with Bearing

Series 46000



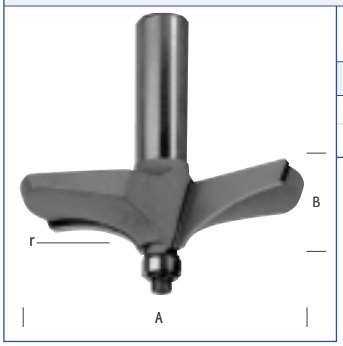
NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
46402	15/32	1 3/16	3/8	2 1/16	L	1/4" Shank
46202	15/32	1 3/16	3/8	2 1/16	L	1/2" Shank
46204	1 7/8	2 1/2	11/16	2 1/2	L	

Replacement Parts - pg 92

This is made to rout a large decorative radius on the edge of material. Used when a standard corner rounding bit routs a smaller radius than desired.

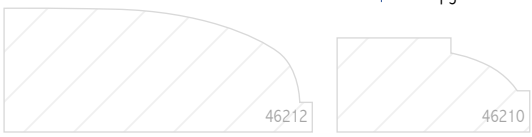
Carbide Tipped Double Flute Thumb Nail Bits - Beading Type

Series 46000



NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
46410	15/32	1 3/16	3/8	2 1/16	T	1/4" Shank
46210	15/32	1 3/16	3/8	2 1/16	T	1/2" Shank
46212	1 7/8	2 1/2	11/16	2 1/2	T	

Replacement Parts - pg 92



Designed for the same effect as a standard thumbnail bit, but with a slight bead in the material.

Series 47000D

Carbide Tipped Double Flute Handrail Bit with Bearing

This bit is designed to rout a decorative edge on handrails, banisters, etc.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/2" Shank	47270	2 5/8	3/4	2 5/8	L

Replacement Parts - pg 92

Series 47000E

Carbide Tipped Double Flute Handrail Bit with Bearing

This bit is designed to rout a decorative edge on handrails, banisters, etc.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/2" Shank	47272	2 1/2	25/32	2 3/4	L

Replacement Parts - pg 92

Series 47000F

Carbide Tipped Double Flute Handrail Bit with Bearing

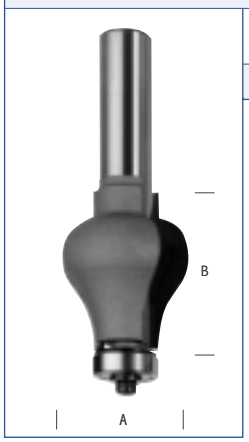
This bit is designed to rout a decorative edge on handrails, banisters, etc.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/2" Shank	47274	2 1/2	25/32	2 3/4	L

Replacement Parts - pg 92

Carbide Tipped Double Flute Handrail Bit with Bearing

Series 47000G



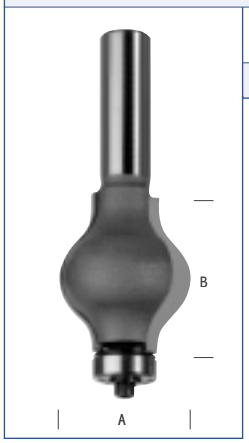
NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
47280	1 1/4	1 1/2	3 3/8	M	1/2" Shank

Replacement Parts - pg 93

This bit is designed to rout a decorative edge on handrails, banisters, etc.

Carbide Tipped Double Flute Handrail Bit with Bearing

Series 47000H



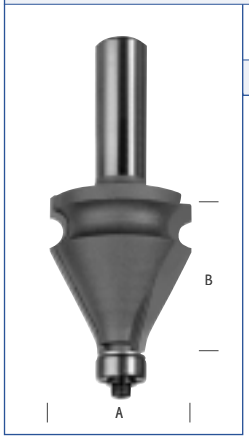
NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
47282	1 1/4	1 1/2	3 3/8	M	1/2" Shank

Replacement Parts - pg 93

This bit is designed to rout a decorative edge on handrails, banisters, etc.

Carbide Tipped Double Flute Handrail Bit with Bearing

Series 47000I



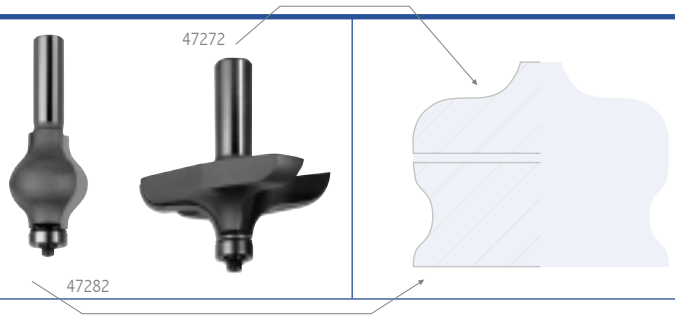
NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
47284	1 3/8	1 1/2	3 3/8	L	1/2" Shank

Replacement Parts - pg 93

This bit is designed to rout a decorative edge on handrails, banisters, etc.

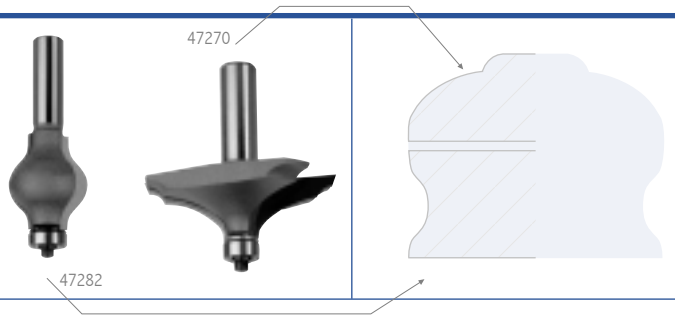
Sample Profile One

To create this sample profile, use router bit 47282 from page 70 and bit 47272 found on page 69.



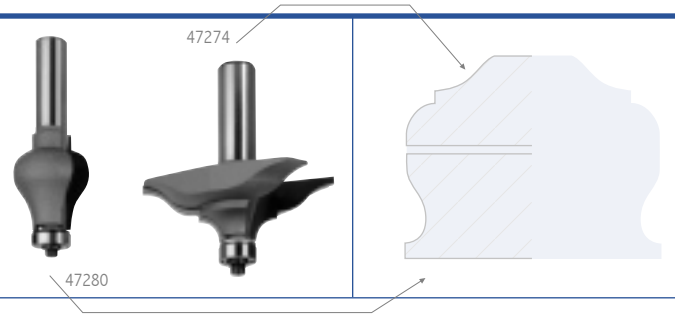
Sample Profile Two

To create this sample profile, use router bit 47282 from page 70 and bit 47270 found on page 69.



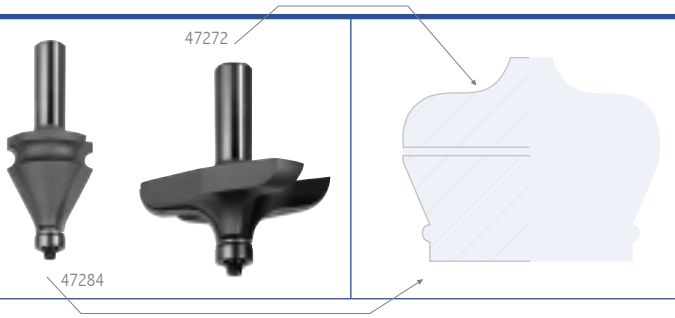
Sample Profile Three

To create this sample profile, use router bit 47280 from page 70 and bit 47274 found on page 69.



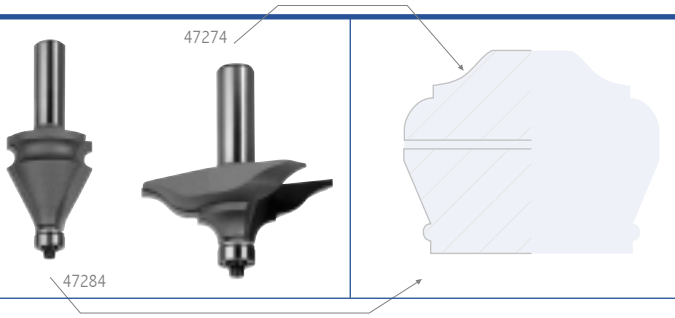
Sample Profile Four

To create this sample profile, use router bit 47284 from page 70 and bit 47272 found on page 69.



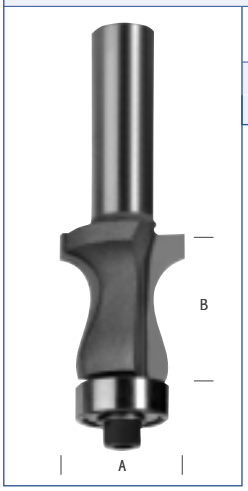
Sample Profile Five

To create this sample profile, use router bit 47284 from page 70 and bit 47274 found on page 69.



Carbide Tipped Double Flute Counter Top Bits

Series 46000



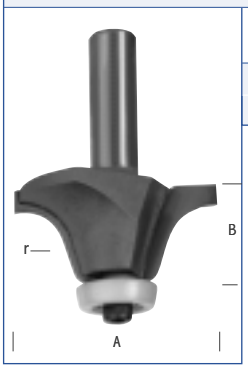
NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
46250	1	7/8	2 7/8	LL	1/2" Shank
46252	1	1 1/8	3 1/16	LL	

Replacement Parts - pg 93

This bit is designed to rout solid plastic countertop materials and laminates.

Carbide Tipped Double Flute Rounding Over Undermount Bowl Bits

Series 46000



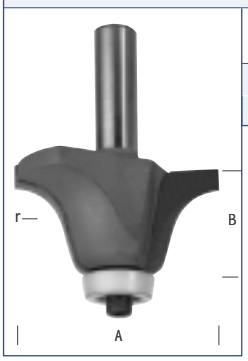
NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
46280	1/2	2 1/8	1	3 1/16	MM	1/2" Shank
46282	9/16	2 1/4	1 1/4	3 15/16	MM	

Replacement Parts - pg 93

This bit is designed to rout solid plastic countertop materials and laminates

Carbide Tipped Double Flute Roman Ogee Undermount Bowl Bits

Series 46000



NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
46270	1/2	2 1/8	1	3	MM	1/2" Shank
46272	9/16	2 3/8	1 1/4	3 3/8	MM	

Replacement Parts - pg 93

This bit is designed to rout solid plastic countertop materials and laminates

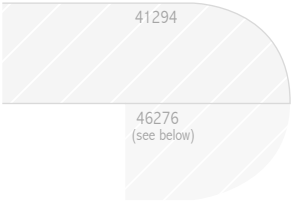
Series 41000

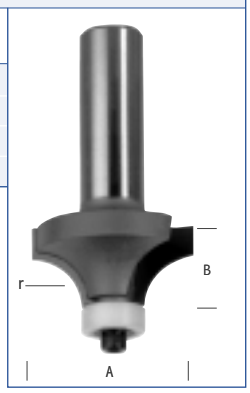
This bit is designed to rout solid plastic countertop materials and laminates. A super guide bearing provides a smooth finish in the countertop production.

Carbide Tipped Double Flute Rounding Over Bits

	NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/2" Shank	41290	5/16	1 1/8	1/2	2 15/16	NN
	41292	3/8	1 1/4	5/8	2 7/16	NN
	41294	1/2	1 1/2	3/4	2 9/16	NN
	41296	3/4	2	1	2 3/4	NN

Replacement Parts - pg 93





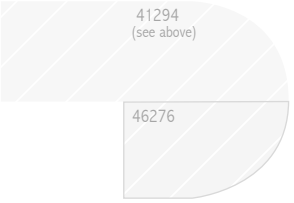
Series 46000

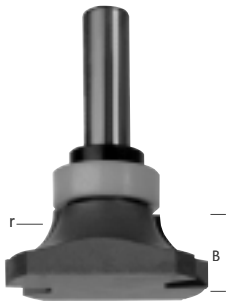
This bit is designed to rout solid plastic countertop materials and laminates. A super guide bearing provides a smooth finish in the countertop production. When used with the roundover bits above, a complete half circle on countertop edges can be achieved.

Carbide Tipped Double Flute Inverted Rounding Over Bits

	NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/2" Shank	46276	1/2	2 1/8	3/4	2 1/8	00
	46278	3/4	2 5/8	1	2 5/8	00

Replacement Parts - pg 93





Series 46000

This bit is designed to rout solid plastic countertop materials and laminates. A super guide bearing provides a smooth finish in the countertop production.

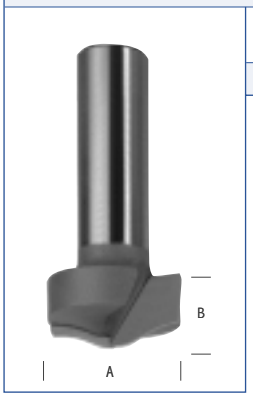
Carbide Tipped Double Flute Bevel Undermount Bowl Bit

	NAP GLADU Tool Number	a Bevel Angle	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/2" Shank	46260	12°	1 1/4	1	3 3/16	MM

Replacement Parts - pg 93

Carbide Tipped Double Flute Corner Top Bit - No Drip

Series 46000



NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
46265	1	1/2	2 1/8	1/2" Shank

Designed for routing solid plastic countertop materials and laminates.

Carbide Tipped Double Flute Topmounted Bowl Bit with Upper Bearing

Series 46000

NAP GLADU Tool Number	a Bevel Angle	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
46266	12°	1 1/8	1	3 1/8	G	1/2" Shank

Replacement Parts - pg 92

This bit is designed to rout solid plastic countertop materials and laminates. The guide bearing provides smooth finish in countertop production.

Carbide Tipped Double Flute Countertop Bit with Upper Bearing

Series 46000

NAP GLADU Tool Number	a Bevel Angle	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
46267	12°	1 1/8	1	3 1/8	G	1/2" Shank

Replacement Parts - pg 92

This bit is designed to rout solid plastic countertop materials and laminates. The guide bearing provides smooth finish in countertop production.

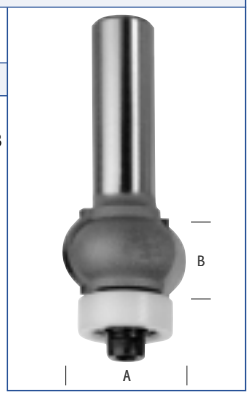
Series 46000

These bits are designed to rout solid plastic countertop materials and laminates. The super guide bearing provides a smooth finish in countertop production.

Carbide Tipped Double Flute Edge Cove Bit with Bearing

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/2" Shank	46268	1	5/8	2 5/8	LL

Replacement Parts - pg 93



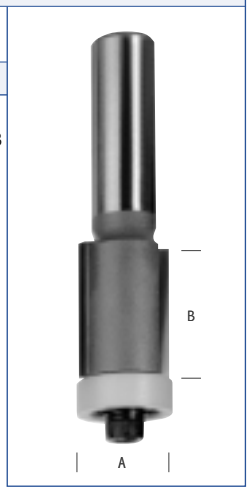
Series 31000

These bits are designed to rout solid plastic countertop materials and laminates. The super guide bearing provides a smooth finish in countertop production.

Carbide Tipped Double Flute Inlay Trimming Bit with Bearing

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/2" Shank	31256	3/4	1	3	LL

Replacement Parts - pg 93



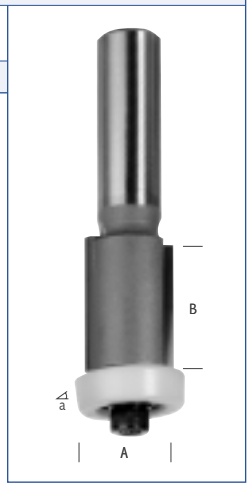
Series 31000

These bits are designed to rout solid plastic countertop materials and laminates. The super guide bearing provides a smooth finish in countertop production.

Carbide Tipped Double Flute Inlay Overhang Trimming Bit with Bearing

	NAP GLADU Tool Number	a Bevel Angle	A Cutting Diameter	B Cutting Height	C Laminate Overhang	Overall Length	Index Code
1/2" Shank	31258	5°	3/4	1	1/16	3	PP

Replacement Parts - pg 93



Carbide Tipped 6-Wing Bowl and Countertop Trim Bit

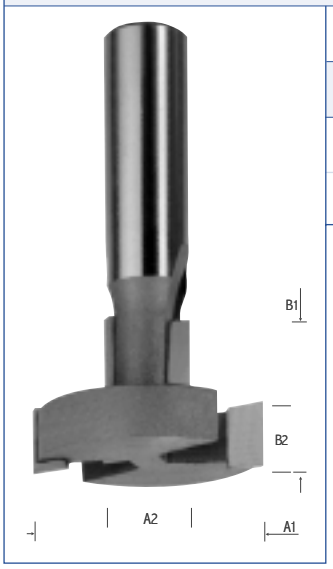
Series 46000

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
46269	2 1/16	1/4	3 5/16	1/2" Shank

These are designed to rout solid plastic countertop materials and laminates.

Carbide Tipped Double Flute T-Slot Bits

Series 70000A



NAP GLADU Tool Number	A1 A2 Cutting Diameter	B1 B2 Cutting Height	Overall Length	
70300	A1 1 3/32 A2 3/8	B1 13/16 B2 5/16	2 3/8	3/8" Shank
70200	A1 1 3/32 A2 3/8	B1 13/16 B2 5/16	2 5/8	1/2" Shank
70202	A1 1 3/8 A2 1/2	B1 7/8 B2 3/8	2 9/16	

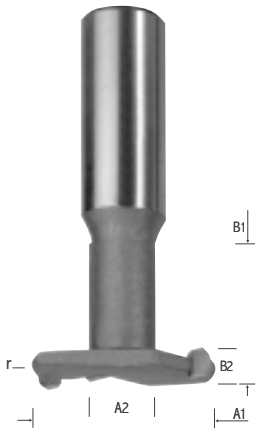
These are designed to rout a “T” shaped slot in the material.

Series 70000B

Carbide Tipped Double Flute Rounded T-Slot Bits

These bits are designed to rout a "T" shaped slot in the material.

	NAP GLADU Tool Number	r Cutting Radius	A1 Cutting A2 Diameter	B1 Cutting B2 Height	Overall Length
3/8" Shank	70310	5/64	A1 1 1/8 A2 7/16	B1 13/16 B2 5/32	2 1/16
	70312	5/64	A1 1 39/64 A2 3/8	B1 13/16 B2 5/32	2 1/16
1/2" Shank	70210	5/64	A1 1 1/8 A2 7/16	B1 13/16 B2 5/32	2 5/32

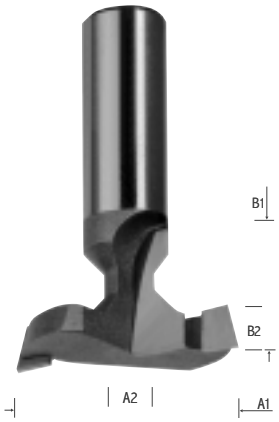


Series 70000C

Carbide Tipped Double Flute T-Slot Bits

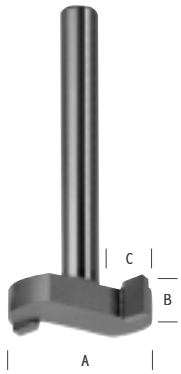
These bits are designed to rout a "T" shaped slot in the material.

	NAP GLADU Tool Number	A1 Cutting A2 Diameter	B1 Cutting B2 Height	Overall Length
1/2" Shank	70220	A1 1 3/8 A2 11/32	B1 1/4 B2 17/32	2



Carbide Tipped Double Flute Undercut Bits

Series 72000

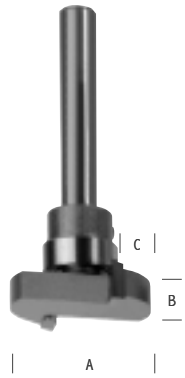


NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	C Cutting Depth	Overall Length	
72004	3/4	1/8	1/4	1 7/8	1/4" Shank
72008	1	1/4	3/8	2	

These bits are designed to undercut the bottom of a blind pocket or cavity. Ideal for undercutting decorative patterns to give them a bold appearance.

Carbide Tipped Double Flute Undercut Bits with Upper Bearing

Series 72000B



NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	C Cutting Depth	Overall Length	Index Code	
72004B	3/4	1/8	1/8	1 7/8	A	1/4" Shank
72008B	1	1/4	1/4	2	A	

Replacement Parts - pg 92

These bits are designed to undercut the bottom of a blind pocket or cavity. Ideal for undercutting decorative patterns to give them a bold appearance.

Series 63000

High Speed Steel Double Flute Keyhole Bits

Designed to bore a hole and rout a “T” shaped slot for built in wall mounting capabilities in plaques and frames.

	NAP GLADU Tool Number	A1 A2 Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	63410	A1 3/8 A2 3/16	5/16	1 13/16
1/2" Shank	63210	A1 3/8 A2 3/16	5/16	2

Series 63000

Carbide Tipped Single Flute Keyhole Bits

Designed to bore a hole and rout a “T” shaped slot for built in wall mounting capabilities in plaques and frames.

	NAP GLADU Tool Number	A1 A2 Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	63420	A1 3/8 A2 3/16	3/8	1 1/2
	63422	A1 1/2 A2 5/16	3/8	1 1/2
1/2" Shank	63220	A1 3/8 A2 3/16	7/16	2 1/8
	63222	A1 1/2 A2 5/16	7/16	2 1/8

Series 63000

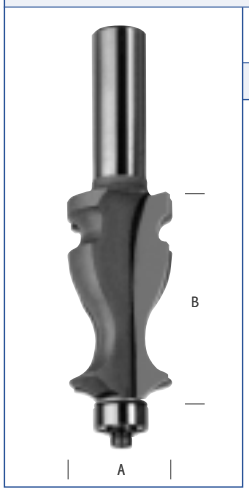
Solid Carbide Double Flute Keyhole Bit

Designed to bore a hole and rout a “T” shaped slot for built in wall mounting capabilities in plaques and frames.

	NAP GLADU Tool Number	A1 A2 Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	63430	A1 3/8 A2 3/16	3/8	1 5/8

Carbide Tipped Double Flute Fancy Moulding Bit with Bearing

Series 75000A



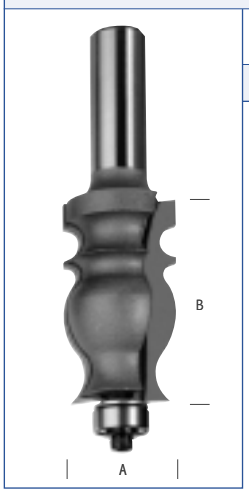
NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
75236	1 1/16	1 3/4	3 1/2	L	1/2" Shank

Replacement Parts - pg 92

This bit is made to rout a decorative edge in moulding.

Carbide Tipped Double Flute Fancy Moulding Bit with Bearing

Series 75000B



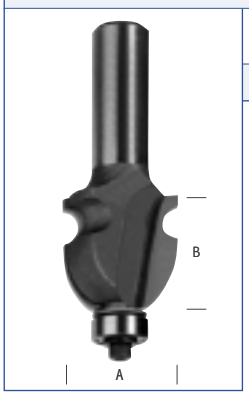
NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
75238	1	1 3/4	3 3/4	L	1/2" Shank

Replacement Parts - pg 92

This bit is made to rout a decorative edge in moulding.

Carbide Tipped Double Flute Fancy Moulding Bit with Bearing

Series 75000C



NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
75240	1	1	2 7/8	L	1/2" Shank

Replacement Parts - pg 92

This bit is made to rout a decorative edge in moulding.

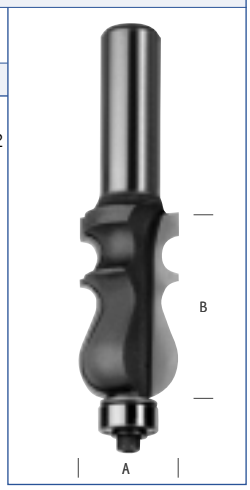
Series 75000D

Carbide Tipped Double Flute Fancy Moulding Bit with Bearing

This bit is made to rout a decorative edge in moulding.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/2" Shank	75230	7/8	1 1/2	3 3/8	L

Replacement Parts - pg 92



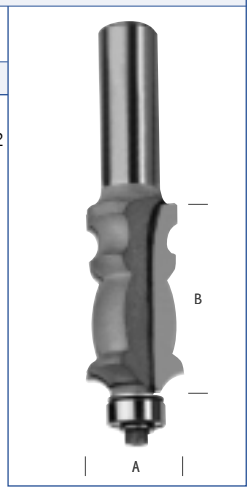
Series 75000E

Carbide Tipped Double Flute Fancy Moulding Bit with Bearing

This bit is made to rout a decorative edge in moulding.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/2" Shank	75232	1	1 1/2	3 1/2	L

Replacement Parts - pg 92



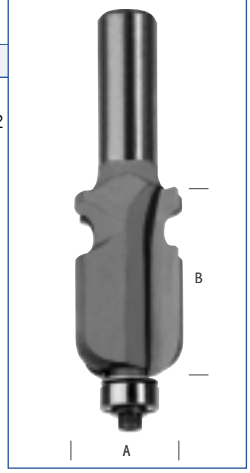
Series 75000F

Carbide Tipped Double Flute Fancy Moulding Bit with Bearing

This bit is made to rout a decorative edge in moulding.

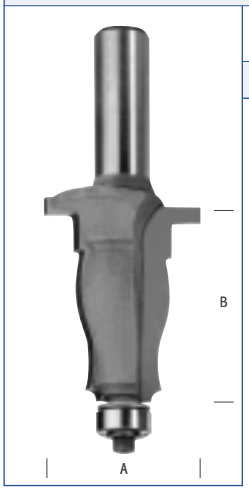
	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/2" Shank	75234	1	1 1/2	3 3/8	L

Replacement Parts - pg 92



Carbide Tipped Double Flute Edge Forming Bit with Bearing

Series 76000A



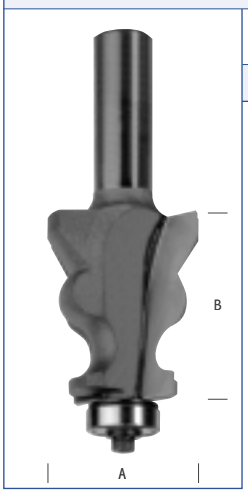
NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
76206	1 3/8	1 3/4	3 5/8	L	1/2" Shank

Replacement Parts - pg 92

This bit is made to rout a decorative edge in moulding.

Carbide Tipped Double Flute Edge Forming Bit with Bearing

Series 76000B



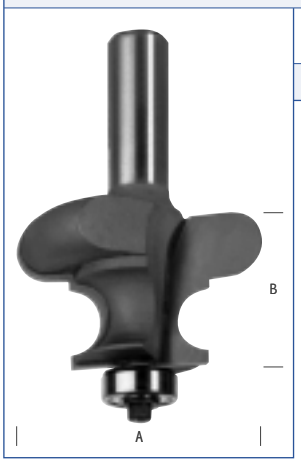
NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
76208	1 3/8	1 1/2	3 3/8	M	1/2" Shank

Replacement Parts - pg 92

This bit is made to rout a decorative edge in moulding.

Carbide Tipped Double Flute Edge Forming Bit with Bearing

Series 76000C



NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
76210	2	1 1/4	3 1/8	M	1/2" Shank

Replacement Parts - pg 92

This bit is designed to rout a decorative edge in moulding.

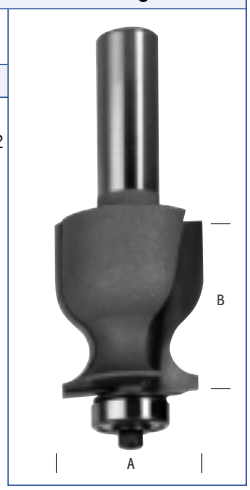
Series 76000D

Carbide Tipped Double Flute Edge Forming Bit with Bearing

This bit is made to rout a decorative edge in moulding.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/2" Shank	76212	1 3/16	1 3/8	3 1/4	M

Replacement Parts - pg 92



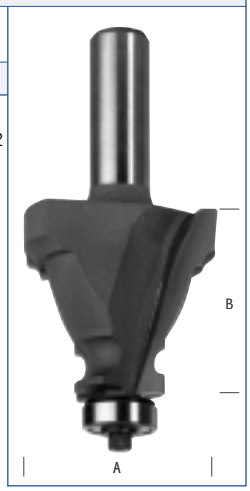
Series 76000E

Carbide Tipped Double Flute Edge Forming Bit with Bearing

This bit is made to rout a decorative edge in moulding.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/2" Shank	76214	1 3/4	1 1/2	3 7/16	M

Replacement Parts - pg 92



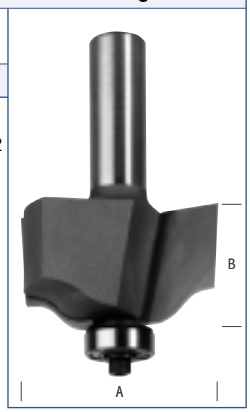
Series 76000F

Carbide Tipped Double Flute Edge Forming Bit with Bearing

This bit is made to rout a decorative edge in moulding.

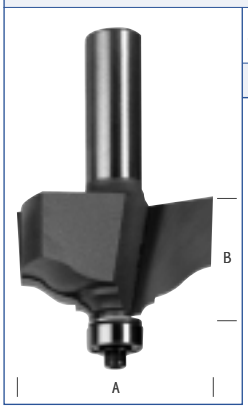
	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/2" Shank	76216	1 3/4	1	3	Y

Replacement Parts - pg 92



Carbide Tipped Double Flute Edge Forming Bit with Bearing

Series 76000G



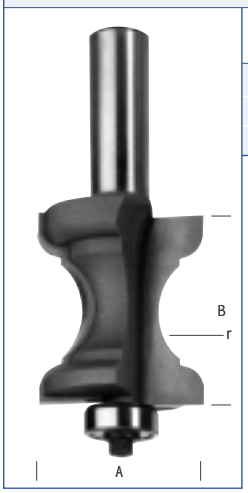
NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
76218	1 3/4	1	3	L	1/2" Shank

Replacement Parts - pg 92

This bit is made to rout a decorative edge in moulding.

Carbide Tipped Double Flute Edge Forming Bits with Bearing

Series 76000H



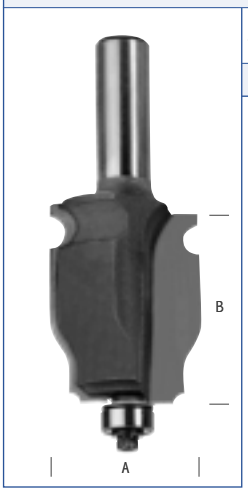
NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
76220	15/64	1 1/8	1	2 7/8	M	1/2" Shank
76222	5/16	1 1/4	1 3/16	3 1/8	M	
76224	33/64	1 3/8	1 9/16	3 1/2	M	

Replacement Parts - pg 92

This bit is made to rout a decorative edge in moulding.

Carbide Tipped Double Flute Edge Forming Bit with Bearing

Series 76000I



NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
76204	1 3/8	1 3/4	3 5/8	L	1/2" Shank

Replacement Parts - pg 92

This bit is made to rout a decorative edge in moulding.

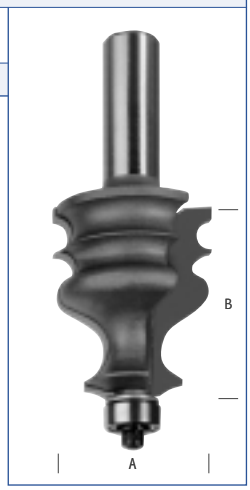
Series 76000J

Carbide Tipped Double Flute Edge Forming Bit with Bearing

This bit is made to rout a decorative edge in moulding.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/2" Shank	76200	1 3/8	1 5/8	3 1/2	L

Replacement Parts - pg 92



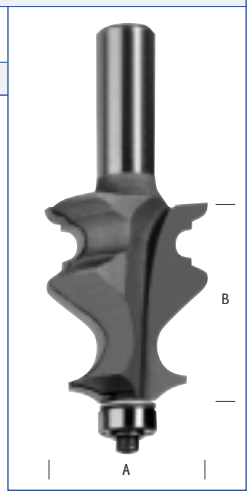
Series 76000K

Carbide Tipped Double Flute Edge Forming Bit with Bearing

This bit is made to rout a decorative edge in moulding.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/2" Shank	76202	1 3/8	1 5/8	3 1/2	L

Replacement Parts - pg 92



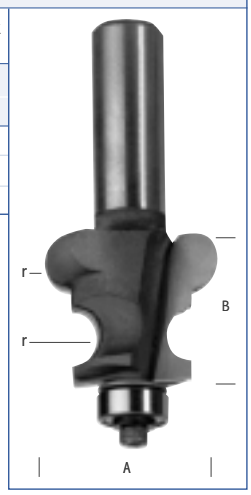
Series 77000

Carbide Tipped Double Flute Canoe Bits with Bearing

This bit is made to rout a decorative edge in moulding.

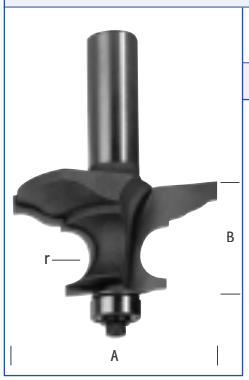
	NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/4" Shank	77490	1/8	1	5/8	2 1/4	L
	77492	3/16	1 1/4	1	2 5/8	L
1/2" Shank	77290	1/8	1	5/8	2 5/8	L
	77292	3/16	1 1/4	1	2 7/8	L
	77294	1/4	2	1 1/4	3 1/8	M

Replacement Parts - pg 92



Carbide Tipped Double Flute Moulding Bit with Bearing

Series 78000A



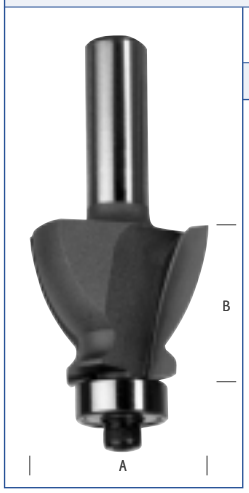
NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
78260	1/4	2	1	2 7/8	L	1/2" Shank

Replacement Parts - pg 92

This bit is made to rout a decorative edge in moulding.

Carbide Tipped Double Flute Moulding Bit with Bearing

Series 78000B



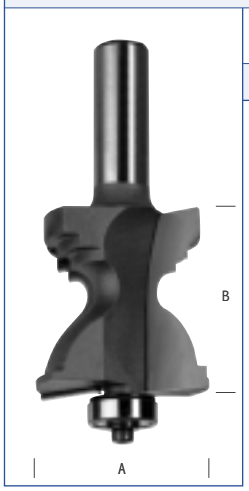
NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
78262	1 1/2	1 3/16	3 1/4	Q	1/2" Shank

Replacement Parts - pg 92

This bit is made to rout a decorative edge in moulding.

Carbide Tipped Double Flute Moulding Bit with Bearing

Series 78000C



NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
78264	1 5/8	1 9/16	3 1/2	M	1/2" Shank

Replacement Parts - pg 92

This bit is made to rout a decorative edge in moulding.

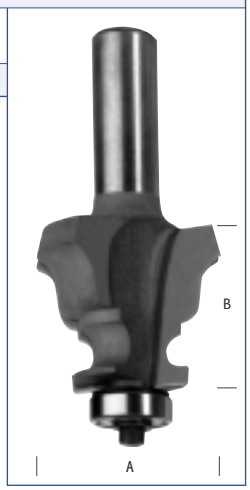
Series 78000D

Carbide Tipped Double Flute Moulding Bit with Bearing

This bit is made to rout a decorative edge in moulding.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/2" Shank	78266	1 1/2	1 3/16	3 1/8	M

Replacement Parts - pg 92



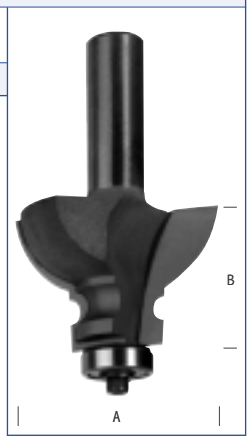
Series 78000E

Carbide Tipped Double Flute Moulding Bit with Bearing

This bit is made to rout a decorative edge in moulding.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/2" Shank	78268	1 3/4	1 3/16	3 3/8	M

Replacement Parts - pg 92



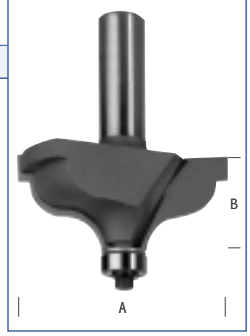
Series 78000F

Carbide Tipped Double Flute Moulding Bit with Bearing

This bit is made to rout a decorative edge in moulding.

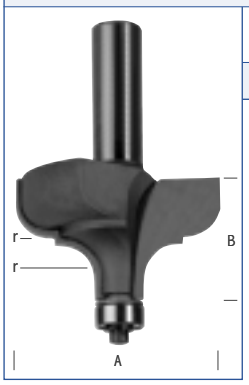
	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/2" Shank	78270	2 1/4	1	2 7/8	L

Replacement Parts - pg 92



Carbide Tipped Double Flute Moulding Bit with Bearing

Series 78000G



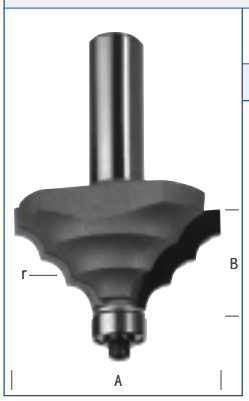
NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
78272	21/64	2	1 7/32	3 1/8	L	1/2" Shank

Replacement Parts - pg 92

This bit is made to rout a decorative edge in moulding.

Carbide Tipped Double Flute Moulding Bit with Bearing

Series 78000H



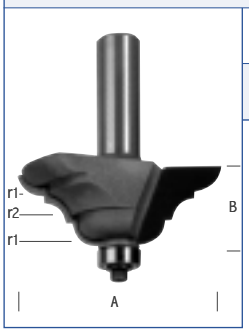
NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
78274	15/64	1 7/8	15/16	2 7/8	L	1/2" Shank

Replacement Parts - pg 92

This bit is made to rout a decorative edge in moulding.

Carbide Tipped Double Flute Moulding Bit with Bearing

Series 78000I



NAP GLADU Tool Number	r1 Cutting r2 Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code	
78276	r1 1/4 r2 19/64	2 5/16	7/8	2 3/4	L	1/2" Shank

Replacement Parts - pg 92

This bit is made to rout a decorative edge in moulding.

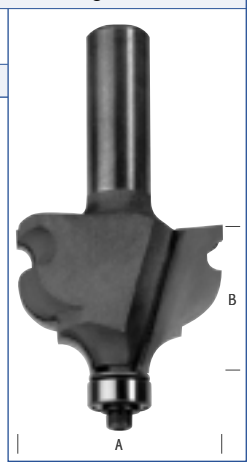
Series 78000J

This bit is made to rout a decorative edge in moulding.

Carbide Tipped Double Flute Moulding Bit with Bearing

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/2" Shank	78250	1 5/8	1 1/8	3	L

Replacement Parts - pg 92



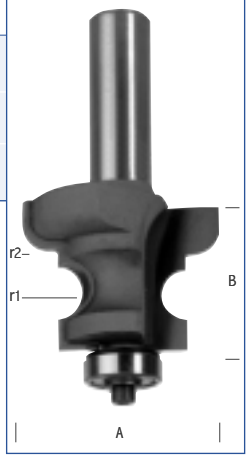
Series 78000K

This bit is made to rout a decorative edge in moulding.

Carbide Tipped Double Flute Moulding Bits with Bearing

	NAP GLADU Tool Number	r1 r2 Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/2" Shank	78252	r1 5/64 r2 5/64	13/16	19/32	2 1/2	M
	78254	r1 5/32 r2 5/32	1 1/4	7/8	2 3/4	M
	78256	r1 7/32 r2 15/64	1 9/16	1 3/16	3 1/16	M

Replacement Parts - pg 92



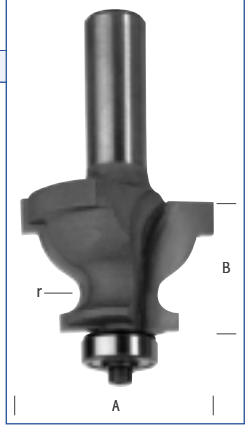
Series 78000L

This bit is made to rout a decorative edge in moulding.

Carbide Tipped Double Flute Moulding Bit with Bearing

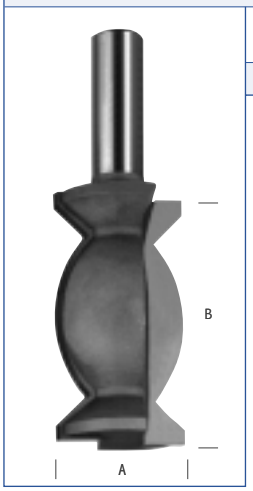
	NAP GLADU Tool Number	r Cutting Radius	A Cutting Diameter	B Cutting Height	Overall Length	Index Code
1/2" Shank	78258	5/32	1 9/16	1 1/16	3	M

Replacement Parts - pg 92



Carbide Tipped Double Flute Crown Moulding Bit

Series 79000A

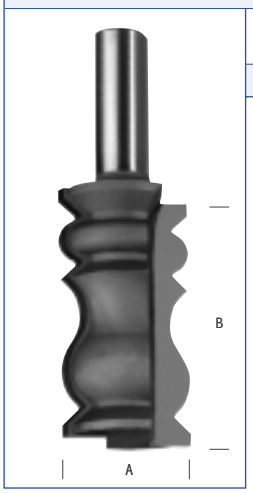


NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
79286	1 1/4	2 1/4	3 3/4	1/2" Shank

This bit is made to rout a decorative edge in moulding.

Carbide Tipped Double Flute Crown Moulding Bit

Series 79000B

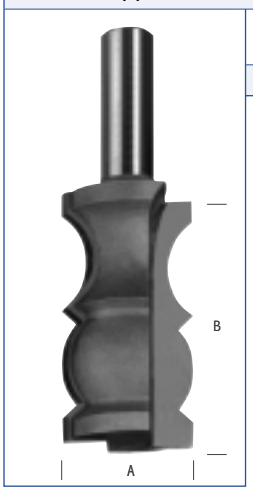


NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
79288	1 1/4	2 1/4	3 3/4	1/2" Shank

This bit is made to rout a decorative edge in moulding.

Carbide Tipped Double Flute Crown Moulding Bit

Series 79000C



NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
79284	1 1/4	2 1/4	3 3/4	1/2" Shank

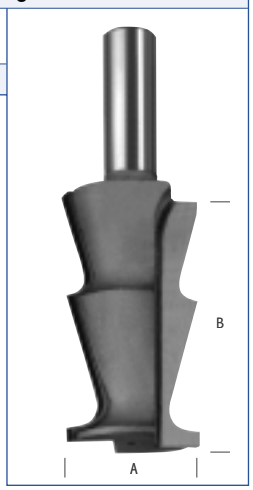
This bit is made to rout a decorative edge in moulding.

Series 79000D

Carbide Tipped Double Flute Crown Moulding Bit

This bit is made to rout a decorative edge in moulding.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/2" Shank	79280	1 1/4	2 1/4	3 3/4

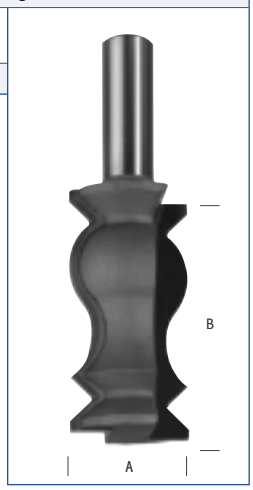


Series 79000E

Carbide Tipped Double Flute Crown Moulding Bit

This bit is made to rout a decorative edge in moulding.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/2" Shank	79282	1 1/4	2 1/4	3 3/4



Router Bit Accessory Index

Parts Listed on Pages 94-97

Index Code	Bearing Number	Screw Number	Lock Ring Number	Washer Number(s)	Arbor Number	Spacer Number(s)	Nut Number
A	1304	00504	00640	–	–	–	–
B	1307	00504	00640	–	–	–	–
C	1310	00504	00640	–	–	–	–
D	1307 (upper) 1307 (lower)	00504 (upper) 00514 (lower)	00640 (upper) –	– 00810 (lower)	– –	– –	– –
E	1312	00504	00610	–	–	–	–
F	1318	00504	00610	–	–	–	–
G	1319	00504	00620	–	–	–	–
H	1322	00504	00620	–	–	–	–
I	1326	00504	00620	–	–	–	–
J	1300	00502	–	–	–	–	–
K	1302	00508	–	00810 00816	–	–	–
L	1303	00510	–	00804 00816	–	–	–
M	1309	00510	–	00806 00816	–	–	–
N	1310	00514	–	00818	–	–	–
O	1316	–	–	–	–	–	–
P	1307	00516	–	–	–	–	–
Q	1310	00514	–	00810	–	–	–
R	1307	00514	–	00810	–	–	–
S	1304	00514	–	00810	–	–	–
T	1302	00510	–	00810 00816	–	–	–
U	1324	00512	–	00806 00816	–	–	–
V	1320	00512	–	00806 00816	–	–	–
W	1315	00512	–	00806 00816	–	–	–
X	1311	00512	–	00806 00816	–	–	–
Y	1308	00512	–	00806 00816	–	–	–
Z	1303	00512	–	00804 00816	–	–	–

Router Bit Accessory Index

Parts Listed on Pages 94-97

Index Code	Bearing Number(s)	Screw Number	Lock Ring Number	Washer Number(s)	Arbor Number	Spacer Number(s)	Nut Number
AA	1302	00512	–	00810 00816	–	–	–
BB	1301	00508	–	00802 00814	–	–	–
CC	1314	00504	00640	–	–	–	–
DD	1309	00512	–	00806 00816	–	–	–
EE	1310	00514	–	00806 00818	–	–	–
FF	1309	00510	–	00802 00816	–	–	–
GG	1309	00510	–	00810 00816	–	–	–
HH	1314	–	–	00820	–	–	–
II	1325	–	–	00822	–	–	–
JJ	1314	–	–	–	00214	00702 00704 00708	–
KK	1314	–	–	–	00214	00704 00706 00708 00716	–
LL	1351	00514	–	00818	–	–	–
MM	1352	00514	–	00818	–	–	–
NN	1350	00510	–	00816	–	–	–
OO	1356	00504	00620	–	–	–	–
PP	1353	00514	–	00818	–	–	–
QQ	1314	–	–	–	00220	00702 00704 00708	–
RR	1314	–	–	–	00216	00702 00704 00706 00708 00710 00716	–
SS	1314 1323	–	–	–	00216	00702 00704 00706 00708 00710 00716	–
TT	1314	–	–	–	00222	00704 00706 00708 00710 00716	–
UU	1321	–	–	–	00218	00704 00706 00708 00710 00716	–
VV	1355 1357 1358	–	–	–	00218	00706 00708 00715	–
WW	1321	–	–	–	00218	00704 00706 00708 00712	–
XX	1359 1360	–	–	–	00218	00702 00704 00708 00711 00716	–
YY	1303	–	–	00804 00818	–	–	00112
ZZ	1304 (upper) 1303 (lower) –	00504 (upper) 00510 (lower) –	00640 (upper) – –	– 00804 (lower) 00816 (lower)	– – –	– – –	– – –

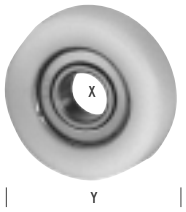
Precision Ball Bearings

Series 1300

NAP GLADU Tool Number	X Inside Diameter	Y Outside Diameter	Bearing Thickness
1300	1/8	1/4	7/64
1301	1/8	3/8	5/32
1302	3/16	3/8	1/8
1303	3/16	1/2	5 mm
1304	1/4	1/2	3/16
1305	1/8	1/2	11/64
1306	7 mm	14 mm	5 mm
1306A	8 mm	14 mm	4 mm
1307	1/4	5/8	5 mm
1308	3/16	5/8	5 mm
1309	5 mm	16 mm	5 mm
1309A	8 mm	16 mm	5 mm
1310	1/4	3/4	9/32
1311	3/16	3/4	3/16
1312	1/2	3/4	5/32
1313	6 mm	19 mm	6 mm
1314	5/16	7/8	7 mm
1315	3/16	7/8	6.6 mm
1316	7 mm	22 mm	7 mm
1317	10 mm	1	8 mm
1318	15 mm	1	5.5 mm
1319	1/2	1 1/8	5/16
1320	3/16	1 1/8	6.6 mm
1321	5/16	28 mm	9 mm
1321A	5/16	1 7/32	8.6 mm
1322	15 mm	1 1/4	8.5 mm
1322A	8 mm	1 1/4	5 mm
1323	5/16	1 5/16	8.6 mm
1324	3/16	1 3/8	6.6 mm
1325	15 mm	35 mm	11 mm
1326	15 mm	1 1/2	8.5 mm
1327	15 mm	2	12.5 mm

Super-Guide Precision Ball Bearing Assemblies

Series 1300



NAP GLADU Tool Number	a Bearing Taper	X Inside Diameter	Y Outside Diameter
1350	0°	3/16	1/2
1351	0°	1/4	3/4
1352	10°	1/4	7/8
1353	5°	1/4	7/8
1353A	1/2" radius	1/4	21.4 mm
1353B	3/4" radius	1/4	19.4 mm
1353C	1" radius	1/4	18.5 mm
1353D	5°	1/4	25 mm
1354	0°	1/4	27 mm
1355	0°	5/16	28 mm
1356	0°	15 mm	1 1/8
1357	0°	5/16	29 mm
1358	0°	5/16	34 mm
1359	0°	8 mm	40.8 mm
1360	0°	8 mm	43 mm

These ball bearings are designed with non-marring *Delrin* sleeve for routing solid surface materials.

Series 00500

Screws

	NAP GLADU Tool Number	A Screw Diameter	Overall Length	Use With Allen Key
56 Thread	00502	11/128	7/32	–
48 Thread	00508	2.5 mm	3/8	00906
40 Thread	00504 (headless)	1/8	1/8	00904
	00506 (headless)	1/8	2.5 mm	00904
	00510	1/8	3/8	00908
	00512	1/8	1/2	00908
32 Thread	00514	3/16	1/2	00910
	00516	3/16	1/4	–
	00520 (headless)	3/16	3/16	00908
No Thread	00518	5/32	3/16	00902
	00522	1/4	3/4	00912

Series 00600

Lock Rings

NAP GLADU Tool Number	X Inside Diameter	Use With Screw	Use With Allen Key
00610	1/2	00504	00904
00620	1/2	00504	00904
00630	3/8	00504	00904
00640	1/4	00504	00904

Series 00900

Allen Keys

NAP GLADU Tool Number	A Key Size	Use With Screw	Use With Lock Ring
00902	3 mm	00518	–
00904	1/16	00504	00610 00620 00630 00640
00906	5/64	00508	–
00908	3/32	00512 00510	–
00910	5/32	00514	–
00912	3/16	00522	–

Raised Washers

Series 00800

NAP GLADU Tool Number	X Inside Diameter	Y Outside Diameter	Washer Thickness
00802	1/8	3/8	.7 mm
00804	3/16	1/2	.7 mm
00806	5 mm	16 mm	.8 mm

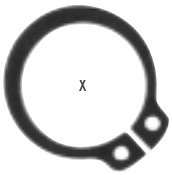
Flat | Spring Washers

Series 00800

NAP GLADU Tool Number	X Inside Diameter	Y Outside Diameter	Washer Thickness
00810	3/16	5/16	1.2 mm
00812	1/4	3/8	1.4 mm
00814	7/64	3/16	1/64
00816	1/8	1/4	1/64
00818	3/16	3/8	1.0 mm

Lock Washers

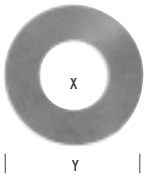
Series 00800



NAP GLADU Tool Number	X Inside Diameter	Outside Diameter	Washer Thickness
00820	3/8	–	.8 mm
00822	1/2	–	1 mm

Flat Spacers

Series 00700

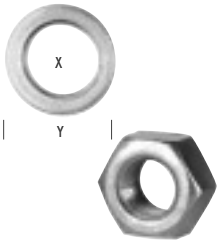


NAP GLADU Tool Number	X Inside Diameter	Y Outside Diameter	Spacer Thickness
00702	5/16	5/8	.05 mm
00704	5/16	5/8	.1 mm
00706	5/16	5/8	.5 mm
00708	5/16	5/8	1 mm
00710	5/16	5/8	3 mm
00711	5/16	5/8	3.15 mm
00712	5/16	16 mm	3.4 mm
00714	1/4	1/2	5 mm
00715	5/16	5/8	5.5 mm
00716	5/16	5/8	6 mm

Series 00100

Nuts and Washers

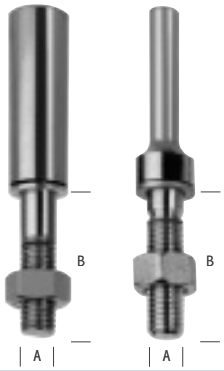
	NAP GLADU Tool Number	X Inside Diameter	Y Outside Diameter	Thread Count	Use With Arbor or Router
Washer	00100	1/2	5/16	–	00210 00214 00216 00218 00410
Nuts	00110	–	–	–	00210 00214 00216 00218 00410
	00112	–	–	10-24	31250 31252 31254



Series 00000

Router Arbors with Nuts and Washers

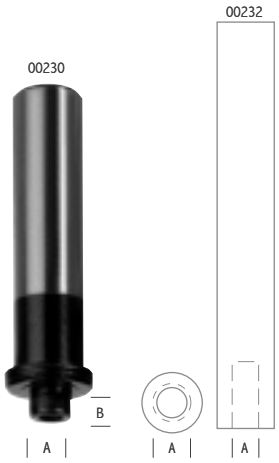
	NAP GLADU Tool Number	A Shaft Diameter	B Shaft Height	Overall Length
1/4" Shank	00410	5/16	1 5/16	2 5/8
1/2" Shank	00210	5/16	1	2 3/8
	00214	5/16	1 3/8	3
	00216	5/16	1 1/2	3 1/8
	00218	5/16	2 1/8	3 3/4
	00220	5/16	1 3/4	3 5/16
	00222	5/16	2 5/8	4 1/4



Series 00000

CNC Router Arbors

	NAP GLADU Tool Number	A Shaft Diameter	B Shaft Height	Overall Length
1/2" Shank	00230	5/16	3/16	2
	00232	5/16	–	6



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High Speed Steel and Solid Carbide - Straight and Spiral Router Bits

Router Bit Selection Guide - By Material to be Cut

	Tool Material	Straight, Single Edge	Straight, Double Edge	Sprial, Single Edge	Spiral, Double Edge	Straight | Spiral, Multi-Edge	Shape, Edge Bottom Finish
Softwood Cedar, Cottonwood, Pine, Redwood	High Speed Steel	BC10-00		BC14-00 BC15-00 BC40-000	BC41-00 BC43-00	BC38-00 BC90-00	
	Solid Carbide	BC61-200 BC61-200	BC56-200	BC62-200 BC63-200	BC52-200 BC52-400 BC52-900 BC57-200 BC57-400 BC57-900	BC60-000 BC60-200 BC60-500M BC60-600 BC60-700 BC60-900	BC16-50 BC37-50 BC38-50 BC52-200B BC90-00 BC52-200BL
Hardwood Ash, Beech, Birch Cherry, Mahogany, Maple, Oak, Poplar, Teak, Walnut	High Speed Steel		BC12-00 BC12-80	BC40-000	BC41-00 BC43-00	BC38-00 BC90-00	
	Solid Carbide	BC61-200	BC56-200	BC60-100M BC62-200 BC60-100SE BC63200	BC52-200 BC52-400 BC52-900 BC57-200 BC57-400 BC57-900 BC60-300 BC60-400 BC60-100C BC60-950 BC60-100DE	BC60-000 BC60-200 BC60-350 BC60-430 BC60-450 BC60-470 BC60-500 BC60-600 BC60-700 BC60-900 BC60-500M BC60-100TE	BC16-50 BC37-50 BC38-50 BC52-200B BC90-00 BC52-200BL
Composite Wood MDF, Particle Board, Plywood	Solid Carbide	BC61-200	BC56-200	BC60-100M BC62-200 BC60-100SE BC63-200	BC52-200 BC52-400 BC52-900 BC57-200 BC57-400 BC57-900 BC60-300 BC60-400 BC60-100C BC60-950 BC60-100DE	BC60-000 BC60-350 BC60-430 BC60-450 BC60-470 BC60-500 BC60-600 BC60-700 BC60-900 BC60-500M BC60-100TE	BC16-50 BC37-50 BC38-50 BC52-200B BC90-00 BC52-200BL
Soft Plastic ABS, Polycarbonate, Polyethylene, PVC, Polypropylene, HDPE, Polystyrene, UHMW, Extruded Acrylic	High Speed Steel	BC10-00 BC11-00	BC11-00			BC70-500	
	Solid Carbide	BC61-00P BC61-400	BC56-430 BC56-600	BC62-750 BC62-850 BC63-750 BC63-850	BC28-20 BC52-200S BC52-400 BC52-600 BC57-600	BC28-20	BC16-50 BC37-50 BC38-50 BC52-200B BC60-000 BC52-200BL BC66-200 BC66-250 BC66-300 BC66-350 BC70-200
Hard Plastic Cast Acrylic, Melamine, Nylon, PVC, Vinyl	High Speed Steel	BC11-00				BC70-500	
	Solid Carbide	BC61-00P BC61-400	BC56-430 BC56-600 BC56-00P BC56-450	BC62-700 BC62-750 BC62-800 BC62-850 BC63-700 BC63-750 BC63-800 BC63-850	BC28-20 BC52-600 BC57-600	BC60-200 BC60-470	BC16-50 BC37-50 BC38-50 BC52-200B BC60-000 BC52-200BL BC66-200 BC66-250 BC66-300 BC66-350 BC70-200
Composite Plastic Fiberglass, Phenolic, Reinforced Acetal	Solid Carbide		BC54-000 BC56-000 BC56-000P BC56-450	BC62-000 BC63-000 BC62-400 BC63-400	BC52-000 BC57-000	BC53-000 BC54-000 BC54-300 BC55-000 BC55-300 BC58-000 BC59-000 BC60-200 BC60-470 BC67-000 BC67-200	
Aluminum	High Speed Steel			BC14-00 BC15-00 BC40-000	BC40-100 BC40-300		
	Solid Carbide			BC62-000 BC62-400 BC62-600 BC62-900 BC63-000 BC63-400 BC63-600 BC63-900	BC52-000 BC57-000		BC66-300 BC52-200B BC66-350 BC52-200BL
Construction Material	High Speed Steel	BC18-00	BC20-00 BC20-10				
Metal Doors	High Speed Steel		BC15-50			BC15-75	
Solid Surface	Solid Carbide		BC56-000P	BC62-700 BC62-750 BC62-800 BC62-850 BC63-700 BC63-750 BC63-800 BC63-850	BC52-000 BC52-200 BC52-400 BC52-600 BC57-200 BC57-400 BC57-600	BC60-200 BC60-470	BC37-50 BC52-200B BC38-50 BC52-200BL BC66-000
Mortising and Dovetailing	High Speed Steel	BC18-000	BC35-00 BC24-000 BC35-50	BC20-00 BC20-10	BC24-400	BC24-300	
	Solid Carbide		BC60-100M	BC60-100M	BC60-100M	BC60-090 BC60-500M	
Foam	High Speed Steel		BC12-00			BC40-550	
	Solid Carbide		BC56-000P BC56-450				
Laminated and Veneered	Solid Carbide			BC60-100M BC60-100SE	BC60-100C BC60-100DE BC60-100M BC60-100MV	BC60-100M BC60-100TE BC60-500M BC60-100MW BC60-500 BC60-600	BC27-00 BC27-50 BC37-50 BC38-50

Series BC10-00

High Speed Steel Single Edge “O” Flute Straight Bits

Designed with an open flute design and single edge geometry to provide optimum chip removal at fast feed rates. Best for routing natural woods of soft to medium density and hardness, as well as flexible non-abrasive plastics.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	BC10-00	1/16	3/16	2
	BC10-01	3/32	3/8	2
	BC10-02	1/8	3/8	2
	BC10-20	1/8	1/2	2
	BC10-03	5/32	1/2	2
	BC10-04	3/16	5/8	2
	BC10-22	3/16	3/4	2
	BC10-05	7/32	5/8	2 1/8
	BC10-24	1/4	5/8	2 1/8
	BC10-06	1/4	3/4	2 1/8
	BC10-07	1/4	1	2 3/8
	BC10-78	1/4	1 1/4	2 5/8
5/16" Shank	BC10-18	5/16	1	2 3/8
3/8" Shank	BC10-09	5/16	1	3
	BC10-10	3/8	1	2 1/2
1/2" Shank	BC10-11	3/8	1	2 1/2
	BC10-13	1/2	1 1/4	2 3/4

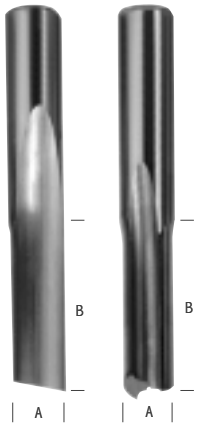
Series BC11-00

High Speed Steel Plastic “O” Flute Straight Bits

Designed with “O” flute geometry for cutting softer, more flexible plastics. Use the single edge for faster feed rates and double edge for a smoother finish. Best for routing ABS, polycarbonate, polystyrene and PVC plastics.

	NAP GLADU Tool Number	Edge Count	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	BC11-01	Single	1/8	1/2	2
	BC11-75*	Single	1/8	5/8	3 1/4
	BC11-03	Single	3/16	5/8	2
	BC11-77*	Single	3/16	3/4	3 1/4
	BC11-05	Single	1/4	3/4	2 1/8
	BC11-71*	Single	1/4	3/4	3 1/4
	BC11-07	Single	1/4	1	2 3/8
	BC11-00	Double	3/16	5/8	2
	BC11-02	Double	1/4	3/4	2 1/8
	BC11-72*	Double	1/4	3/4	3 1/4
	BC11-76	Double	1/4	3/4	3 3/4
	BC11-04	Double	1/4	1	2 3/8
	BC11-78*	Double	1/4	2	3 1/4
3/8" Shank	BC11-09	Single	3/8	1	2 1/2
	BC11-73*	Single	3/8	1	3 1/2
	BC11-06	Double	3/8	1	2 1/2
	BC11-74*	Double	3/8	1	3 1/2
1/2" Shank	BC11-11	Single	1/2	1 1/4	2 3/4
	BC11-10	Double	1/2	1 1/4	2 3/4

*These tools are designed and toleranced for air routers with guide bushings



Single Edge

Double Edge

High Speed Steel Double Edge "V" Flute Straight Bits

Series BC12-00

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC12-30	1/8	3/8	2	1/4" Shank
BC12-31	5/32	1/2	2	
BC12-32	3/16	3/4	2	
BC12-33	7/32	3/4	2	
BC12-00	1/4	3/4	2 1/8	
BC12-01	1/4	1	2 3/8	
BC12-79*	1/4	1	3 1/4	
BC12-37*	1/4	1 1/4	3 1/4	
BC12-24	3/8	1	2 1/4	
BC12-09	1/2	1	2 1/4	
BC12-25	5/8	3/4	2 1/8	
BC12-27	3/4	1	2 1/4	
BC12-03	5/16	1	3	3/8" Shank
BC12-05	3/8	1	2 1/2	
BC12-55*	3/8	1	3 1/2	
BC12-35	1/4	1	2 1/2	1/2" Shank
BC12-36	5/16	1	2 1/2	
BC12-06	3/8	1	2 1/2	
BC12-26	3/8	1 1/4	3 1/4	
BC12-08	7/16	1 1/4	2 3/4	
BC12-10	1/2	1 1/4	2 3/4	
BC12-11	1/2	1 1/2	3 1/2	
BC12-51	1/2	2	4	
BC12-12	9/16	1 1/4	2 3/4	
BC12-13	5/8	1 1/4	2 3/4	
BC12-14	3/4	1 1/4	2 3/4	
BC12-16	7/8	1 1/4	2 3/4	
BC12-17	1	1 1/4	2 3/4	
BC12-18	1 1/8	1 1/4	2 3/4	
BC12-19	1 1/4	1 1/4	2 3/4	

*These tools are designed and toleranced for air routers with guide bushings

These bits are designed with "V" flute geometry for smooth finishes in many environments. Best for routing natural woods of medium to high density and hardness, as well as rigid, non-abrasive plastics.

High Speed Steel Double Edge On|Sheer Straight Bits

Series BC12-80

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC12-86	1/8	3/8	2	1/4" Shank
BC12-87	3/16	3/4	2	
BC12-80	1/4	3/4	2 1/8	
BC12-88	1/4	1	2 3/8	
BC12-84	3/8	1	2 1/2	3/8" Shank
BC12-81	5/16	1	2 1/2	1/2" Shank
BC12-82	3/8	1	2 1/2	
BC12-83	1/2	1 1/4	2 3/4	

Shear Angle 3°

Designed with "V" flute geometry and shearing action to promote longer tool life with desired finish. Best for routing natural woods of medium to hard density and hardness, as well as rigid non-abrasive plastics.

Series BC14-00

High Speed Steel Single Edge Upcut Spiral Bits

Designed for deep slotting where the upcut action facilitates chip removal or for routing thick stock where the use of a downcut is not practical. Best for routing aluminum and natural woods of soft to medium density and hardness.

1/2" Shank

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
BC14-00	1/2	2	4 1/4
BC14-03	1/2	2 1/4	5 1/4
BC14-04	1/2	2 1/2	4 1/4
BC14-05	1/2	2 1/2	5 1/2

Helix Angle 32°

Series BC15-00

High Speed Steel Single Edge Downcut Spiral Bits

These bits are designed to rout thick laminated aluminum and wood in construction. These tools can also be used to make straight through cuts in thick stock of either material. Best for routing aluminum, softer materials and metal clad doors.

1/2" Shank

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
BC15-00	1/2	2	4 1/4
BC15-02	1/2	2 1/4	4 1/4
BC15-03	1/2	2 1/4	5 1/4
BC15-05	1/2	2 1/2	5 1/2

Helix Angle 18°- 32°

Series BC15-50

High Speed Steel Single Edge Dor-Bits

Designed specifically for metal clad doors. Tool geometry facilitates piercing steel and producing superior cuts for dor lites and hardware openings. These bits are also available in a titanium coated version for longer life.

1/2" Shank

NAP GLADU Tool Number	Door Machine	A Cutting Diameter	B Cutting Height	Overall Length
BC15-52	Ruvo	1/2	2 1/4	5 1/4
BC15-53	Ruvo	1/2	2 1/2	5 1/2
BC15-54	Ace	1/2	2 1/2	5
BC15-55*	Falcon	1/2	2 1/2	5 1/2
BC15-57*	Norfield	1/2	2 1/2	5 1/2
BC15-60	Ruvo	1/2	2 1/2	5 1/2
BC15-61*	–	1/2	2 1/2	5 1/2

*Flat edge on shank for locking screws

Helix Angle 18°- 32°

High Speed Steel Three Edge CNC Dor-Bits

Series BC15-75

NAP GLADU Tool Number	Door Machine	A Cutting Diameter	B Cutting Height	Overall Length	
BC15-75	Kval	1/2	3	6	1/2" Shank

Helix Angle 18°

Designed specifically for machining metal clad doors in a CNC environment. This bit is good for piercing steel and produces a superior cut for door lites and hardware openings. A titanium coated version of this tool is available that will yield a longer life.

Solid Carbide Single Edge Veining Bits

Series BC16-50

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC16-50	1/16	1/4	1 1/2	1/4" Shank
BC16-51	3/32	1/4	1 1/2	
BC16-52	1/8	1/4	1 1/2	

The tapered edge on these bits allows them to create decorative in natural woods, wood composites, and laminated or veneered plastic.

High Speed Steel Single Edge Straight Pilot Bits

Series BC18-00

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC18-00	1/4	3/4	2 3/4	1/4" Shank
BC18-02	3/8	7/8	2 7/8	3/8" Shank
BC18-03	1/2	1	3 1/2	1/2" Shank

Designed for cutting out openings in a diverse combination of materials. Best for routing wood panels, vinyl coated panels, wall board and aluminum layered materials.

Series BC20-00

High Speed Steel Single Edge Downcut Pilot Bits

Designed with a boring point and spiral flutes to bore through a variety of materials and push chips away from the operator. Best for routing aluminum and plywood sandwich panels, vinyl coated panels, wall board and other layered construction materials.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	BC20-00	1/4	3/4	3
3/8" Shank	BC20-02	3/8	1	3 7/16
1/2" Shank	BC20-03	1/2	1 1/4	4

Helix Angle 21°-38°

Series BC20-10

High Speed Steel Single Edge Drywall Bits

These bits are designed specifically to make cut-outs in drywall. This tool is mainly used in manufactured housing and other onsite construction projects.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/8" Shank	BC20-11	1/8	3/4	2 1/2
1/4" Shank	BC20-10	3/16	1	3 1/4

Helix Angle 30°- 41°

Series BC28-20

Solid Carbide Double Bearing Plastic Trim Bits

Designed to trim stacked sheets of plastic and laminates. A double bearing guide ensures smooth cutting action around a template.

	NAP GLADU Tool Number	Edge Count	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	BC28-20	Double	1/4	3/4	3
1/2" Shank	BC28-25	Double	1/2	1 1/8	4
	BC28-30*	Three	1/2	1 1/8	4

*Upcut|Downcut Compression

Helix Angle 11°-30°

Double Edge

Three Edge

Right Hand

Left Hand

High Speed Steel Double Edge Dovetail Bits

Series BC35-00 | BC35-50

NAP GLADU Tool Number	Rotation Direction	a Cutting Angle	A1 Cutting A2 Diameter	B Cutting Height	Overall Length	
BC35-03	Right	14°2'	A1 3/8 A2 3/16	3/8	1 3/4	1/4" Shank
BC35-04	Right	9°28'	A1 3/8 A2 1/4	13/32	1 3/4	
BC35-51	Left	14°2'	A1 3/8 A2 3/16	3/8	1 3/4	
BC35-52	Left	9°28'	A1 3/8 A2 1/4	13/32	1 3/4	
BC35-02	Right	17°21'	A1 5/16 A2 5/32	1/4	1 3/4	3/8" Shank
BC35-06	Right	7°8'	A1 1/2 A2 3/8	9/16	2	
BC35-50	Left	17°21'	A1 5/16 A2 5/32	1/4	1 3/4	
BC35-05	Right	9°28'	A1 3/8 A2 1/4	13/32	1 7/8	1/2" Shank
BC35-11	Right	5°43'	A1 5/8 A2 1/2	5/8	2 1/8	
BC35-12	Right	9°28'	A1 3/4 A2 1/2	3/4	2 1/4	
BC35-13	Right	12°6'	A1 7/8 A2 1/2	7/8	2 3/8	
BC35-15	Right	14°2'	A1 1 A2 1/2	1	2 1/2	
BC35-53	Left	9°28'	A1 3/8 A2 1/4	13/32	1 7/8	

Helix Angle 4°- 8° Shear

Designed for creating right angle dovetail joints. Best for use with natural wood.

BC35-02

BC35-04

BC35-03

BC35-06

BC35-11

Solid Carbide Double Edge "V" Bottom Bits

Series BC37-50

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC37-50	3/16	5/8	2	1/4" Shank
BC37-51	1/4	3/4	2	
BC37-52	3/8	3/4	2 1/2	3/8" Shank

Helix Angle 3°- 5° Shear

This bit is designed for "V" grooving or beveling. Best for use with wood, wood composites, laminated and veneered plastics and solid surfaces. Ideal for decorative detailing.

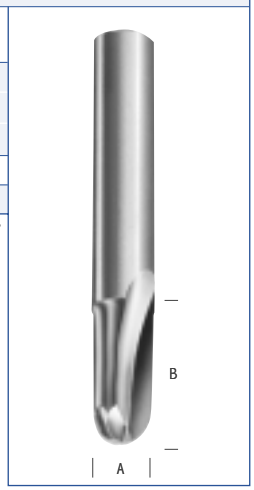
Series BC38-00

High Speed Steel Double Edge Round Bottom Bits

These round bottom bits are designed with an upshear action for grooving and decorative face cutting. For use on natural wood.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	BC38-01	1/8	3/8	2
	BC38-02	3/16	5/8	2
	BC38-03	1/4	3/4	2 1/8
3/8" Shank	BC38-05	3/8	3/4	2 1/2
1/2" Shank	BC38-06	1/2	3/4	2 1/4

Helix Angle 3°- 7°



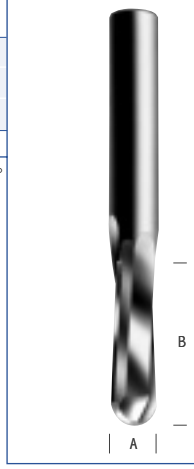
Series BC38-50

Solid Carbide Double Edge Round Bottom Bits

These round bottom bits are designed with an upshear action for grooving and decorative face cutting. For use on natural wood, wood composites, laminated or veneered plastic and solid surfaces.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	BC38-50	1/8	3/8	2
	BC38-51	3/16	5/8	2
	BC38-52	1/4	3/4	2
3/8" Shank	BC38-53	3/8	3/4	2 1/4

Helix Angle 2°- 4°



High Speed Steel Single Edge Upcut Spiral Bits

Series BC40-000U

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC40-001	1/8	3/8	2 5/8	1/4" Shank
BC40-051	5/32	5/8	2 7/8	
BC40-003	3/16	5/8	2 7/8	
BC40-053	7/32	7/8	3	
BC40-005	1/4	5/8	2 3/4	
BC40-007	1/4	3/4	2 3/4	
BC40-011*	1/4	1	3	
BC40-015	5/16	1	3	5/16" Shank
BC40-019	5/16	1	3	3/8" Shank
BC40-031	3/8	1	3	
BC40-009	1/4	3/4	3 1/4	1/2" Shank
BC40-021	5/16	3/4	3 1/4	
BC40-023	5/16	1	3 1/2	
BC40-033	3/8	1	3 1/2	
BC40-035	3/8	1 1/4	3 3/4	
BC40-043	1/2	1	3	
BC40-037	1/2	1 1/4	3 1/4	
BC40-039	1/2	1 1/2	3 1/2	
BC40-041	1/2	1 1/2	4 1/2	

*These tools are designed and toleranced for air routers with guide bushings
Helix Angle 19°-32°

These bits are made for routing applications where speed and chip removal are important considerations. Also recommended when grooving, slotting, or blind routing. Best for routing aluminum, natural woods and non-abrasive plastics.

High Speed Steel Single Edge Downcut Spiral Bits

Series BC40-000D

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC40-002	1/8	3/8	2 5/8	1/4" Shank
BC40-052	5/32	5/8	2 7/8	
BC40-004	3/16	5/8	2 7/8	
BC40-054	7/32	7/8	3	
BC40-006	1/4	5/8	2 3/4	
BC40-008	1/4	3/4	2 3/4	
BC40-012	1/4	1	3	
BC40-058	1/4	1	3 1/4	
BC40-016	5/16	1	3	5/16" Shank
BC40-032*	3/8	1	3	3/8" Shank
BC40-030*	3/8	1	3 1/2	
BC40-010	1/4	3/4	3 1/4	1/2" Shank
BC40-022	5/16	3/4	3 1/4	
BC40-024	5/16	1	3 1/2	
BC40-034	3/8	1	3 1/2	
BC40-036	3/8	1 1/4	3 3/4	
BC40-044	1/2	1	3	
BC40-038	1/2	1 1/4	3 1/4	
BC40-040	1/2	1 1/2	3 1/2	
BC40-042	1/2	1 1/2	4 1/2	

*These tools are designed and toleranced for air routers with guide bushings
Helix Angle 19°-32°

Designed for through cut routing operations where speed is the primary concern and fixturing is such that both chips and material must be forced down. Best for routing aluminum, natural woods and non-abrasive plastics.

Series BC40-100U

High Speed Steel Double Edge Upcut Spiral Bits

Designed to provide a smoother finish than single edge tools when grooving, slotting or blind routing. Recommended for through cuts when fixturing requires upward chip removal. Best for aluminum, natural woods and non-abrasive plastics.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	BC40-101	1/8	3/8	2 5/8
	BC40-103	3/16	5/8	2 7/8
	BC40-153	7/32	7/8	3
	BC40-105	1/4	5/8	2 3/4
	BC40-107	1/4	3/4	2 3/4
	BC40-111*	1/4	1	3
5/16" Shank	BC40-113	5/16	3/4	3
	BC40-115	5/16	1	3
3/8" Shank	BC40-117	5/16	3/4	3
	BC40-119	5/16	1	3
	BC40-131*	3/8	1	3
1/2" Shank	BC40-109	1/4	3/4	3 1/4
	BC40-121	5/16	3/4	3 1/4
	BC40-123	5/16	1	3 1/2
	BC40-133	3/8	1	3 1/2
	BC40-135	3/8	1 1/4	3 3/4
	BC40-143	1/2	1	3
	BC40-137	1/2	1 1/4	3 1/4
	BC40-139	1/2	1 1/2	3 1/2
	BC40-141	3/4	1 1/4	3 1/4

*These tools are designed and toleranced for air routers with guide bushings
Helix Angle 19°-32°

Series BC40-100D

High Speed Steel Double Edge Downcut Spiral Bits

Designed to provide a smoother finished cut than single edge tools in trimming, sizing and plunging operations. These are recommended when chip flow should be directed down to protect the material's top finish. Best for routing in aluminum, natural woods and non-abrasive plastics.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	BC40-102	1/8	5/16	2 5/8
	BC40-104	3/16	5/8	2 7/8
	BC40-106	1/4	5/8	2 3/4
	BC40-108	1/4	3/4	2 3/4
	BC40-112	1/4	1	3
	BC40-158	1/4	1	3 1/4
5/16" Shank	BC40-114	5/16	3/4	3
	BC40-116	5/16	1	3
3/8" Shank	BC40-132	3/8	1	3
	BC40-130	3/8	1	3 1/2
1/2" Shank	BC40-110	1/4	3/4	3 1/4
	BC40-122	5/16	3/4	3 1/4
	BC40-124	5/16	1	3 1/2
	BC40-134	3/8	1	3 1/2
	BC40-136	3/8	1 1/4	3 3/4
	BC40-144	1/2	1	3
	BC40-138	1/2	1 1/4	3 1/4
	BC40-140	1/2	1 1/2	3 1/2
	BC40-142	3/4	1 1/4	3 1/4

*These tools are designed and toleranced for air routers with guide bushings
Helix Angle 19°-32°

High Speed Steel Double Edge Spiral Wood Rout Bits

Series BC40-300

NAP GLADU Tool Number	Flute Cut	A Cutting Diameter	B Cutting Height	Overall Length	
BC40-301S	Upcut	1/8	1/2	2 5/8	1/4" Shank
BC40-303S	Upcut	3/16	3/4	2 7/8	
BC40-307H	Upcut	1/4	7/8	2 3/4	
BC40-307S	Upcut	1/4	7/8	2 3/4	
BC40-311S	Upcut	1/4	1 1/8	3	
BC40-302S	Downcut	1/8	1/2	2 5/8	
BC40-304S	Downcut	3/16	3/4	2 7/8	
BC40-308H	Downcut	1/4	7/8	2 3/4	
BC40-308S	Downcut	1/4	7/8	2 3/4	
BC40-312S	Downcut	1/4	1 1/8	3	
BC40-333H	Upcut	3/8	1 1/8	3	3/8" Shank
BC40-333S	Upcut	3/8	1 1/8	3	
BC40-334H	Downcut	3/8	1 1/8	3	
BC40-334S	Downcut	3/8	1 1/8	3	
BC40-335H	Upcut	3/8	1 1/4	3 1/4	1/2" Shank
BC40-335S	Upcut	3/8	1 1/4	3 1/4	
BC40-343H	Upcut	1/2	1 1/8	3	
BC40-343S	Upcut	1/2	1 1/8	3	
BC40-339H	Upcut	1/2	1 5/8	3 1/2	
BC40-339H	Upcut	1/2	1 5/8	3 1/2	
BC40-336H	Downcut	3/8	1 1/4	3 1/4	
BC40-336S	Downcut	3/8	1 1/4	3 1/4	
BC40-344H	Downcut	1/2	1 1/8	3	
BC40-344S	Downcut	1/2	1 1/8	3	
BC40-340H	Downcut	1/2	1 5/8	3 1/2	
BC40-340S	Downcut	1/2	1 5/8	3 1/2	

*Special Point

Helix Angle 21°-32°

S Soft Wood
H Hard Wood

These are designed with double edge geometry for cutting either hard or soft woods. This bit has an improved tool life and an excellent finish. Best for routing natural woods, plastics and aluminum.

High Speed Steel Four Edge Upcut Spiral Bits

Series BC40-550

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC40-562	1/2	3 5/8	6	1/2" Shank
BC40-564	1/2	4 1/8	6 1/2	

Helix Angle 25°

This bit is designed to cut thick foam with an upward chipflow.

Series BC52-200

Solid Carbide Double Edge Upcut Spiral Wood Rout Bits

Designed to rout wood and wood composites where upward chip removal, long life and quality finish are desired. Best for routing wood, wood composites and plastics.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/8" Shank	BC52-244	1/8	1/2	2
3/16" Shank	BC52-264	3/16	3/4	2
1/4" Shank	BC52-240	1/8	1/2	2
	BC52-240L	1/8	1/2	2
	BC52-251	5/32	1/2	2 1/2
	BC52-250	5/32	5/8	2
	BC52-260	3/16	3/4	2
	BC52-260L	3/16	3/4	2
	BC52-261	3/16	3/4	2 1/2
	BC52-270	7/32	3/4	2 1/2
	BC52-271	7/32	1	2 1/2
	BC52-280	1/4	7/8	2 1/2
	BC52-281S	1/4	7/8	2 1/2
	BC52-285	1/4	1	2 1/2
	BC52-285L	1/4	1	2 1/2
	BC52-287	1/4	1 1/8	3
5/16" Shank	BC52-290	9/32	1	2 1/2
	BC52-300	5/16	1 1/8	3
3/8" Shank	BC52-318*	3/8	1	3
	BC52-320	3/8	1 1/8	3
	BC52-321S	3/8	1 1/8	3
	BC52-325	3/8	1 1/4	3
	BC52-325L	3/8	1 1/4	3
1/2" Shank	BC52-310	5/16	1 1/8	3
	BC52-310L	5/16	1 1/8	3
	BC52-330	3/8	1 1/4	3
	BC52-340	7/16	1	3
	BC52-360	1/2	1 1/8	3
	BC52-361S	1/2	1 1/8	3
	BC52-362	1/2	1 1/4	3 1/2
	BC52-365	1/2	1 5/8	3 1/2
	BC52-365L	1/2	1 5/8	3 1/2
	BC52-366S	1/2	1 5/8	3 1/2
	BC52-367	1/2	2 1/8	4
	BC52-370	17/32	1 1/8	3
5/8" Shank	BC52-380	5/8	1 5/8	3 1/2
	BC52-385	5/8	2 1/8	4
	BC52-385L	5/8	2 1/8	4
3/4" Shank	BC52-390	3/4	1 5/8	4
	BC52-395	3/4	2 1/8	4
	BC52-395L	3/4	2 1/8	4

*Special Point

Helix Angle 30°

L Left Hand Rotation
S Soft Wood

Solid Carbide Double Edge Upcut Spiral Bits

Series BC52-000

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC52-040	1/8	1/2	2	1/4" Shank
BC52-050	5/32	9/16	2	
BC52-060	3/16	5/8	2	
BC52-060L	3/16	5/8	2	
BC52-070	7/32	5/8	2 1/2	
BC52-080	1/4	3/4	2 1/2	
BC52-080L	1/4	3/4	2 1/2	
BC52-090	9/32	3/4	2 1/2	3/8" Shank
BC52-100	5/16	13/16	2 1/2	
BC52-120	3/8	7/8	2 1/2	
BC52-140	7/16	1	3	1/2" Shank
BC52-160	1/2	1	3	

L Left Hand Rotation

This bit is designed as a general purpose tool with upward chip flow. Solid carbide gives this bit a longer tool life than high speed steel. Best for sign-making and cutting as well as routing wood, non-ferrous, abrasive materials and aluminum.

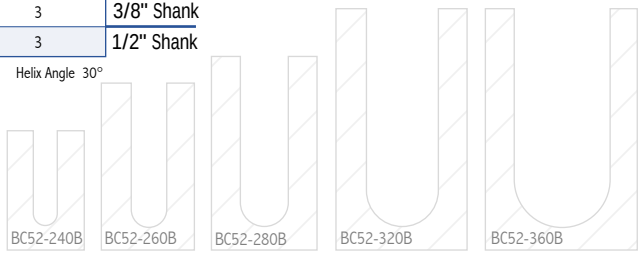
Solid Carbide Double Edge Upcut Spiral Ball Nose Bits

Series BC52-200B

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC52-240B	1/8	1/2	2	1/4" Shank
BC52-260B	3/16	3/4	2	
BC52-280B	1/4	7/8	2 1/2	
BC52-320B	3/8	1 1/8	3	3/8" Shank
BC52-360B	1/2	1 1/8	3	1/2" Shank

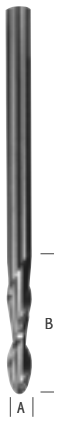
Helix Angle 30°

This bit is designed for accurate, smooth three-dimensional carving or routing on CNC routers. Best for routing natural wood and plastics.



Solid Carbide Double Edge Upcut Extended Length Ball Nose Bits

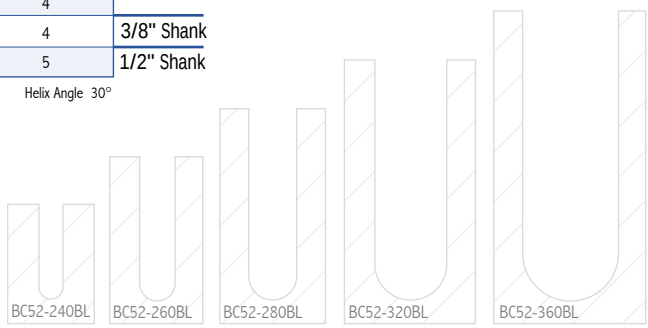
Series BC52-200BL



NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC52-240BL	1/8	1/2	3	1/4" Shank
BC52-260BL	3/16	3/4	3	
BC52-280BL	1/4	1	4	
BC52-320BL	3/8	1 1/4	4	3/8" Shank
BC52-360BL	1/2	1 1/2	5	1/2" Shank

Helix Angle 30°

This bit is designed for accurate, smooth three-dimensional carving or routing on CNC routers. Best for routing natural wood and plastics.



Series BC52-400

Solid Carbide Double Edge Upcut Spiral Wood Rout

These bits are designed to rout wood and wood composites where upward chip removal, long life and quality finish are desired. Best for routing wood, wood composites and plastics.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
6 mm Shank	BC52-410	4 mm	16 mm	64 mm
	BC52-411	5 mm	20 mm	64 mm
	BC52-412	6mm	25 mm	64 mm
8 mm Shank	BC52-414	8 mm	25 mm	64 mm
10 mm Shank	BC52-416	10 mm	35 mm	76 mm
12 mm Shank	BC52-418	12 mm	35 mm	76 mm
14 mm Shank	BC52-420	14 mm	50 mm	88 mm
16 mm Shank	BC52-422	16 mm	55 mm	100 mm
18 mm Shank	BC52-424	18 mm	60 mm	120 mm
20 mm Shank	BC52-426	20 mm	60 mm	120 mm

Helix Angle 30°

Series BC52-600

Solid Carbide Double Edge Upcut Spiral Bits - Plastic

Designed to cut acrylic with a smooth finish and upward chip flow. Best for routing acrylic and rigid plastics.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	BC52-622	1/4	3/8	2 1/2
	BC52-624	1/4	3/4	2 1/2
3/8" Shank	BC52-638	3/8	1	3
1/2" Shank	BC52-650	1/2	1 1/8	3 1/2
6 mm Shank	BC52-626	6 mm	25 mm	64 mm
8 mm Shank	BC52-640	8 mm	25 mm	76 mm
10 mm Shank	BC52-642	10 mm	25 mm	76 mm
12 mm Shank	BC52-644	12 mm	35 mm	88 mm

Helix Angle 30°

Series BC52-900

Solid Carbide Double Edge Upcut Extreme Heavy Duty Standard

Designed for demanding applications where upward chip removal, tool rigidity and long life are required.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	BC52-910	1/4	7/8	2 1/2
3/8" Shank	BC52-923	3/8	1 1/8	3
	BC52-924	3/8	1 1/4	3
1/2" Shank	BC52-936	1/2	1 1/4	3

Helix Angle 30°

Solid Carbide Three Edge Straight Bits

Series BC53-000

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC53-040	1/8	1/2	2	1/4" Shank
BC53-080	1/4	3/4	2 1/2	

Designed to rout extremely hard materials. Also recommended to be used when the spindle RPM is lower than normal for routing. This bit is best for routing titanium or hard metal, plastic composites and other composite materials.

Solid Carbide Four Edge Downcut Spiral Bits

Series BC54-300

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC54-320	3/8	5/8	3	3/8" Shank
BC54-325	3/8	1 1/8	3	
BC54-360	1/2	5/8	3 1/2	1/2" Shank
BC54-365	1/2	1 1/8	3 1/2	

Helix Angle 30°

Designed to work with either low or high speed spindle applications in any CNC machining environment. Free cutting action provides better finishes; best for use on fiberglass.

Solid Carbide Four Edge Upcut Spiral Bits

Series BC55-300

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC55-320	3/8	5/8	3	3/8" Shank
BC55-325	3/8	1 1/8	3	
BC55-360	1/2	5/8	3 1/2	1/2" Shank
BC55-365	1/2	1 1/8	3 1/2	

Helix Angle 30°

Designed to work with either low or high speed spindle applications in any CNC machining environment. Free cutting action provides better finishes; best for use on fiberglass.

Series BC56-000G

Solid Carbide Double Edge Straight Bits - General Purpose

These are designed as a general purpose tool for routing difficult to cut materials, particularly in small diameters. Best for routing wood composites, thin laminated materials and other composite materials.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	BC56-040	1/8	1/2	2
	BC56-050	5/32	9/16	2
	BC56-060	3/16	5/8	2
	BC56-070	7/32	5/8	2 1/2
	BC56-080	1/4	3/4	2 1/2
	BC56-084*	1/4	3/4	3 1/4
3/8" Shank	BC56-090	9/32	3/4	2 1/2
	BC56-100	5/16	13/16	2 1/2
	BC56-120	3/8	7/8	2 1/2
1/2" Shank	BC56-140	7/16	1	3
	BC56-160	1/2	1	3

*These tools are designed and toleranced for air routers with guide bushings

Series BC56-000P

Solid Carbide Double Edge Straight Bits - Plastics

Designed to rout harder, more rigid plastics. Best for routing plastics in the acrylic, nylon, melamine and rigid PVC formulations.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	BC56-041	1/8	1/4	2
	BC56-061	3/16	3/8	2
	BC56-062	3/16	5/8	2
	BC56-062L	3/16	5/8	2
	BC56-063*	3/16	5/8	4
	BC56-081	1/4	3/8	2 1/2
	BC56-082	1/4	3/4	2 1/2
	BC56-082L	1/4	3/4	2 1/2
	BC56-086*	1/4	1 1/4	4
3/8" Shank	BC56-121	3/8	5/8	2 1/2
	BC56-122	3/8	7/8	2 1/2
	BC56-122L	3/8	7/8	2 1/2
	BC56-124*	3/8	1 5/8	6
1/2" Shank	BC56-162	1/2	1	3
	BC56-162L	1/2	1	3
	BC56-164	1/2	2 1/8	6

*These tools are designed and toleranced for air routers with guide bushings
L Left Hand Rotation

Solid Carbide Double Edge Straight Wood Rout Bits

Series BC56-200

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC56-240	1/8	1/2	2	1/4" Shank
BC56-250	5/32	5/8	2	
BC56-260	3/16	3/4	2	
BC56-270	7/32	3/4	2 1/2	
BC56-280	1/4	7/8	2 1/2	
BC56-281S	1/4	7/8	2 1/2	
BC56-285	1/4	1	2 1/2	
BC56-287	1/4	1 1/8	3	
BC56-290	9/32	1	2 1/2	5/16" Shank
BC56-300	5/16	1 1/8	3	
BC56-320	3/8	1 1/8	3	3/8" Shank
BC56-321S	3/8	1 1/8	3	
BC56-325	3/8	1 1/4	3	
BC56-310	5/16	1 1/8	3	1/2" Shank
BC56-330	3/8	1 1/4	3	
BC56-340	7/16	1	3	
BC56-360	1/2	1 1/8	3	
BC56-361S	1/2	1 1/8	3	
BC56-362	1/2	1 1/4	3 1/2	
BC56-365	1/2	1 5/8	3 1/2	
BC56-366S	1/2	1 5/8	3 1/2	
BC56-370	17/32	1 1/8	3	
BC56-385	5/8	2 1/8	4	5/8" Shank
BC56-390	3/4	1 5/8	4	3/4" Shank
BC56-395	3/4	2 1/8	4	

S Soft Wood

Designed to provide a superior finish in a variety of materials and provide optimum cutter life. Best for routing wood and wood composites, as well as, abrasive plastics and composites.

Solid Carbide Double Edge Straight "V" Flute Bits

Series BC56-400

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC56-410	4 mm	16 mm	64 mm	6 mm Shank
BC56-411	5 mm	20 mm	64 mm	
BC56-412	6 mm	25 mm	64 mm	
BC56-414	8 mm	25 mm	64 mm	8 mm Shank
BC56-416	10 mm	35 mm	76 mm	10 mm Shank
BC56-418	12 mm	35 mm	76 mm	12 mm Shank

Designed to rout harder, more rigid plastics. Best for routing wood composites, thin laminated materials, plastics in the acrylic, nylon, melamine and rigid PVC families and other composite materials.

Series BC56-430

Solid Carbide Double Edge Straight “O” Flute Bits

Designed with free cutting “O” flute geometry and a double flute design for smooth finishes.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
6 mm Shank	BC56-430	4 mm	16 mm	64 mm
	BC56-431	5 mm	20 mm	64 mm
	BC56-432	6 mm	25 mm	64 mm
8 mm Shank	BC56-434	8 mm	25 mm	76 mm
10 mm Shank	BC56-436	10 mm	35 mm	88 mm
12 mm Shank	BC56-438	12 mm	35 mm	88 mm

Series BC56-450

Solid Carbide Double Edge Straight Bits

Designed specifically to rout harder, more rigid plastics. Best for use on phenolic, acrylic, nylon, PVC, ABS, acetal and solid surface.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
6 mm Shank	BC56-450	4 mm	16 mm	64 mm
	BC56-451	5 mm	20 mm	64 mm
	BC56-452	6 mm	25 mm	64 mm
8 mm Shank	BC56-454	8 mm	25 mm	76 mm
10 mm Shank	BC56-456	10 mm	35 mm	88 mm
12 mm Shank	BC56-458	12 mm	35 mm	88 mm

Series BC57-000

Solid Carbide Double Edge Downcut Spiral Bits

Designed as a general purpose tool with downward chip flow. Solid carbide gives this bit a longer tool life than high speed steel. Best for routing hard or abrasive materials and aluminum.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	BC57-040	1/8	1/2	2
	BC57-050	5/32	9/16	2
	BC57-060	3/16	5/8	2
	BC57-070	7/32	5/8	2 1/2
	BC57-080	1/4	3/4	2 1/2
3/8" Shank	BC57-090	9/32	3/4	2 1/2
	BC57-100	5/16	13/16	2 1/2
	BC57-120	3/8	7/8	2 1/2
1/2" Shank	BC57-140	7/16	1	3
	BC57-160	1/2	1	3

Helix Angle 30°

Solid Carbide Double Edge "O" Flute Straight Bits

Series BC56-600

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC56-610	1/8	5/16	2	1/4" Shank
BC56-612	1/8	1/2	2	
BC56-614	1/8	5/8	4	
BC56-616	3/16	3/8	2	
BC56-618	3/16	5/8	2	
BC56-620	3/16	1	4	
BC56-624	1/4	3/8	2 1/2	
BC56-625	1/4	1	2 1/2	
BC56-625L	1/4	1	2 1/2	
BC56-626	1/4	1	3 1/4	
BC56-628	1/4	1 1/4	4	
BC56-638	3/8	7/8	2 1/2	3/8" Shank
BC56-639	3/8	1	4	
BC56-650	1/2	1	3	1/2" Shank
BC56-652	1/2	1	4	
BC56-654	1/2	1 3/4	4	
BC56-655	1/2	2 1/8	6	

L Left Hand Rotation

These are designed with free cutting "O" flute geometry and a double flute for a smooth finish in soft flexible plastics. Best for routing plastics in the ABS, polycarbonate, polystyrene and ductile PVC formulations.

Solid Carbide Downcut Spiral Wood Rout Bits for Upholstery

Series BC57-300

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC57-324	3/8	3/4	2 1/2	3/8" Shank
BC57-322	3/8	7/8	3	
BC57-326	3/8	1	2 1/2	
BC57-323	3/8	1 1/4	3	

Designed with free cutting "O" flute geometry along with a double flute design for a smooth finish.

Series BC57-200

Solid Carbide Double Edge Downcut Spiral Wood Rout Bits

These are designed to rout wood and wood composites where downward chip removal, long life and quality finish are desired. These are best for routing wood, wood composites and plastics.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/8" Shank	BC57-244	1/8	1/2	2
3/16" Shank	BC57-264	3/16	3/4	2
1/4" Shank	BC57-240	1/8	1/2	2
	BC57-240L	1/8	1/2	2
	BC57-251	5/32	1/2	2 1/2
	BC57-250	5/32	5/8	2
	BC57-260	3/16	3/4	2
	BC57-260L	3/16	3/4	2
	BC57-261	3/16	3/4	2 1/2
	BC57-270	7/32	3/4	2 1/2
	BC57-271	7/32	1	2 1/2
	BC57-280	1/4	7/8	2 1/2
	BC57-281S	1/4	7/8	2 1/2
	BC57-285	1/4	1	2 1/2
	BC57-285L	1/4	1	2 1/2
	BC57-287	1/4	1 1/8	3
5/16" Shank	BC57-290	9/32	1	2 1/2
	BC57-300	5/16	1 1/8	3
3/8" Shank	BC57-318*	3/8	1	3
	BC57-320	3/8	1 1/8	3
	BC57-321S	3/8	1 1/8	3
	BC57-325	3/8	1 1/4	3
	BC57-325L	3/8	1 1/4	3
1/2" Shank	BC57-310	5/16	1 1/8	3
	BC57-310L	5/16	1 1/8	3
	BC57-330	3/8	1 1/4	3
	BC57-340	7/16	1	3
	BC57-360	1/2	1 1/8	3
	BC57-361S	1/2	1 1/8	3
	BC57-362	1/2	1 1/4	3 1/2
	BC57-365	1/2	1 5/8	3 1/2
	BC57-365L	1/2	1 5/8	3 1/2
	BC57-366S	1/2	1 5/8	3 1/2
	BC57-367	1/2	2 1/8	4
	BC57-370	17/32	1 1/8	3
5/8" Shank	BC57-380	5/8	1 5/8	3 1/2
	BC57-385	5/8	2 1/8	4
	BC57-385L	5/8	2 1/8	4
3/4" Shank	BC57-390	3/4	1 5/8	4
	BC57-395	3/4	2 1/8	4
	BC57-395L	3/4	2 1/8	4

* Special Point

Helix Angle 30°

L Left Hand Rotation
S Soft Wood

Solid Carbide Double Edge Downcut Spiral Wood Rout Bits

Series BC57-400

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC57-410	4 mm	16 mm	64 mm	6 mm Shank
BC57-411	5 mm	20 mm	64 mm	
BC57-412	6 mm	25 mm	64 mm	
BC57-414	8 mm	25 mm	64 mm	8 mm Shank
BC57-416	10 mm	35 mm	76 mm	10 mm Shank
BC57-418	12 mm	35 mm	76 mm	12 mm Shank
BC57-420	14 mm	50 mm	88 mm	14 mm Shank
BC57-422	16 mm	55 mm	100 mm	16 mm Shank
BC57-424	18 mm	60 mm	120 mm	18 mm Shank
BC57-426	20 mm	60 mm	120 mm	20 mm Shank

Designed to rout wood and wood composites where downward chip removal, long life and quality finish are desired. Best for routing wood, wood composites and plastics.

Solid Carbide Double Edge Downcut Spiral Bits - Plastic

Series BC57-600

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC57-623	1/4	3/8	2 1/2	1/4" Shank
BC57-625	1/4	3/4	2 1/2	
BC57-637	3/8	1	3	3/8" Shank
BC57-651	1/2	1 1/8	3 1/2	1/2" Shank
BC57-627	6 mm	25 mm	64 mm	6 mm Shank
BC57-639	8 mm	25 mm	76 mm	8 mm Shank
BC57-643	10 mm	25 mm	76 mm	10 mm Shank
BC57-645	12 mm	35 mm	88 mm	12 mm Shank

Helix Angle 11°

Designed to cut acrylic with a smooth finish and downward chip flow. Best for routing acrylic and rigid plastics.

Solid Carbide Double Edge Downcut Extreme Heavy Duty Standard

Series BC57-900

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC57-910	1/4	7/8	2 1/2	1/4" Shank
BC57-921	3/8	7/8	3	3/8" Shank
BC57-923	3/8	1 1/8	3	
BC57-924	3/8	1 1/4	3	
BC57-936	1/2	1 1/4	3	1/2" Shank

Helix Angle 30°

Designed for routing where extreme loads are placed upon the cutting tools and when extra part hold down is required.

Series BC58-000 | BC55-000

Solid Carbide Multi-Edge Upcut Spiral Bits

Designed to rout difficult to cut materials when horsepower or spindle speed may be a problem. Best for routing fiberglass, composite materials, laminates and other man-made abrasive materials.

	NAP GLADU Tool Number	Edge Count	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	BC58-040	Three	1/8	1/2	2
	BC58-060	Three	3/16	5/8	2
	BC58-080	Three	1/4	3/4	2 1/2
	BC55-040	Four	1/8	1/2	2
	BC55-050	Four	5/32	9/16	2
	BC55-060	Four	3/16	5/8	2
	BC55-080	Four	1/4	3/4	2 1/2

Series BC58-000, Helix Angle 30°
Series BC55-000, Helix Angle 15°

Three Edge

Four Edge

Series BC59-000 | BC54-000

Solid Carbide Multi-Edge Downcut Spiral Bits

Designed to rout difficult to cut materials when horsepower or spindle speed may be a problem. Best for routing fiberglass, composite materials and other man-made abrasive materials.

	NAP GLADU Tool Number	Edge Count	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	BC59-040	Three	1/8	1/2	2
	BC59-060	Three	3/16	5/8	2
	BC59-080	Three	1/4	3/4	2 1/2
	BC54-040	Four	1/8	1/2	2
	BC54-050	Four	5/32	9/16	2
	BC54-060	Four	3/16	5/8	2
	BC54-080	Four	1/4	3/4	2 1/2
6 mm Shank	BC59-440	Three	3 mm	12 mm	64 mm
	BC59-460	Three	5 mm	16 mm	64 mm
	BC59-480	Three	6 mm	19 mm	76 mm
	BC54-440	Four	3 mm	12 mm	64 mm
	BC54-460	Four	5 mm	16 mm	64 mm
	BC54-480	Four	6 mm	19 mm	76 mm

Helix Angle 30°

Three Edge

Four Edge

Solid Carbide Three Edge High Helix Chipbreaker Bits

Series BC60-000

NAP GLADU Tool Number	Flute Cut	A Cutting Diameter	B Cutting Height	Overall Length	
BC60-001	Upcut	3/8	1 1/8	3 1/2	3/8" Shank
BC60-002	Downcut	3/8	1 1/8	3 1/2	
BC60-005	Upcut	1/2	1 1/8	3 1/2	1/2" Shank
BC60-007	Upcut	1/2	1 5/8	4	
BC60-006	Downcut	1/2	1 1/8	3 1/2	
BC60-008	Downcut	1/2	1 5/8	4	
BC60-009	Upcut	5/8	1 5/8	4	5/8" Shank
BC60-011	Upcut	5/8	2 1/8	5	
BC60-010	Downcut	5/8	1 5/8	4	
BC60-012	Downcut	5/8	2 1/8	5	
BC60-017	Upcut	3/4	1 5/8	4	3/4" Shank
BC60-019	Upcut	3/4	2 1/8	5	
BC60-018	Downcut	3/4	1 5/8	4	
BC60-020	Downcut	3/4	2 1/8	5	
BC60-003	Upcut	12 mm	25 mm	76 mm	12 mm Shank
BC60-004	Downcut	12 mm	25 mm	76 mm	
BC60-013	Upcut	16 mm	55 mm	120 mm	16 mm Shank
BC60-014	Downcut	16 mm	55 mm	120 mm	
BC60-015	Upcut	18 mm	60 mm	120 mm	18 mm Shank
BC60-016	Downcut	18 mm	60 mm	120 mm	

Helix Angle 30°

Designed with a unique scalloped cutting edge design for extremely fast routing or hogging. Best for routing in plywoods and hardwoods.

Solid Carbide Three Edge Low Helix Chipbreaker Bits

Series BC60-000

NAP GLADU Tool Number	Flute Cut	A Cutting Diameter	B Cutting Height	Overall Length	
BC60-037	Upcut	3/8	1 1/8	3 1/2	3/8" Shank
BC60-038	Downcut	3/8	1 1/8	3 1/2	
BC60-053	Upcut	1/2	1 1/8	3 1/2	1/2" Shank
BC60-051	Upcut	1/2	1 5/8	4	
BC60-054	Downcut	1/2	1 1/8	3 1/2	
BC60-052	Downcut	1/2	1 5/8	4	
BC60-065	Upcut	5/8	1 5/8	4	5/8" Shank
BC60-061	Upcut	5/8	2 1/8	5	
BC60-066	Downcut	5/8	1 5/8	4	
BC60-062	Downcut	5/8	2 1/8	5	
BC60-073	Upcut	3/4	1 5/8	4	3/4" Shank
BC60-071	Upcut	3/4	2 1/8	5	
BC60-074	Downcut	3/4	1 5/8	4	
BC60-072	Downcut	3/4	2 1/8	5	
BC60-055	Upcut	12 mm	25 mm	76 mm	12 mm Shank
BC60-056	Downcut	12 mm	25 mm	76 mm	
BC60-063	Upcut	16 mm	55 mm	120 mm	16 mm Shank
BC60-064	Downcut	16 mm	55 mm	120 mm	
BC60-075	Upcut	18 mm	60 mm	120 mm	18 mm Shank
BC60-076	Downcut	18 mm	60 mm	120 mm	

Helix Angle 10°

Designed with a unique scalloped cutting edge design for extremely fast routing or hogging of hardwoods and wood composites.

Series BC60-100SE

Designed for fast feed rates and optimum edge finishes on both sides of laminated material. Best for routing double sided laminated materials, hardwoods and wood composites.

Solid Carbide Single Edge Compression Spiral Bits

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	BC60-102	1/8	3/8	2 1/2
	BC20-106	3/16	5/8	2 1/2
	BC60-110	1/4	7/8	2 1/2
3/8" Shank	BC60-122HS	3/8	1	3
	BC60-120	3/8	1 1/8	3
	BC60-120L	3/8	1 1/8	3
1/2" Shank	BC60-160	1/2	1	3
	BC60-162HS*	1/2	1	3
	BC60-167	1/2	1 1/8	3
	BC60-168HW	1/2	1 1/8	3
	BC60-170	1/2	1 3/8	3 1/2
	BC60-165	1/2	1 5/8	3 1/2
	BC60-165L	1/2	1 5/8	3 1/2
5/8" Shank	BC60-185	5/8	2 1/4	4
3/4" Shank	BC60-195	3/4	2	4
6 mm Shank	BC60-132	6 mm	25 mm	64 mm
8 mm Shank	BC60-134	8 mm	25 mm	64 mm
10 mm Shank	BC60-136	10 mm	35 mm	76 mm
12 mm Shank	BC60-138	12 mm	35 mm	76 mm
16 mm Shank	BC60-142	16 mm	55 mm	100 mm

HS Hard Surface Double Laminate Geometry
HW Hardwood geometry
L Left Hand Rotation

Helix Angle 30°
*Helix Angle 20°

Solid Carbide Double Edge Compression Spiral Bits

Series BC60-100DE

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC60-112	1/4	7/8	2 1/2	1/4" Shank
BC60-124	3/8	1 1/8	3	3/8" Shank
BC60-164	1/2	1	3	1/2" Shank
BC60-171	1/2	1 3/8	3 1/2	
BC60-169	1/2	1 1/8	3	
BC60-172	1/2	1 5/8	4	
BC60-172L	1/2	1 5/8	4	
BC60-186	5/8	2 1/4	5	5/8" Shank
BC60-186L	5/8	2 1/4	5	
BC60-196	3/4	1 7/8	4	3/4" Shank
BC60-198	3/4	2 1/2	5	
BC60-198L	3/4	2 1/2	5	
BC60-133	6 mm	25 mm	64 mm	6 mm Shank
BC60-135	8 mm	25 mm	64 mm	8 mm Shank
BC60-137	10 mm	35 mm	76 mm	10 mm Shank
BC60-139	12 mm	35 mm	76 mm	12 mm Shank
BC60-140	20 mm	50 mm	100 mm	20 mm Shank

L Left Hand Rotation

Helix Angle 30°

Designed for fast feed rates and optimum edge finishes on both sides of laminated material. These are best for routing double sided laminated materials, hardwoods and wood composites.

Solid Carbide Double Edge Compression Spiral Chipbreaker Bits

Series BC60-100C

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC60-123C	3/8	7/8	3	3/8" Shank
BC60-124C	3/8	1 1/8	3	
BC60-163C	1/2	7/8	3	1/2" Shank
BC60-164C	1/2	1	3	
BC60-169C	1/2	1 1/8	3	
BC60-171C	1/2	1 3/8	3 1/2	
BC60-172C	1/2	1 5/8	4	
BC60-186C	5/8	2 1/4	5	5/8" Shank
BC60-196C	3/4	1 7/8	4	3/4" Shank
BC60-135C	8 mm	25 mm	64 mm	8 mm Shank
BC60-137C	10 mm	35 mm	76 mm	10 mm Shank
BC60-139C	12 mm	35 mm	76 mm	12 mm Shank
BC60-140C	20 mm	50 mm	100 mm	20 mm Shank

Helix Angle 30°

Designed to give the optimum edge finish of the compression spiral along with the increased feed rates of the chipbreaker/finisher design. This is best for routing double sided laminated materials, hardwoods and wood composites.

Series BC60-100TE

Solid Carbide Three Edge Compression Up|Down Spiral Bits

Designed with upcut/downcut design for ultra high feed rates and optimum edge finishes on both sides of laminated material. Best for routing double sided laminated materials, hardwoods and wood composites.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
3/8" Shank	BC60-125	3/8	1 1/8	3
1/2" Shank	BC60-174	1/2	1 1/8	3
	BC60-175	1/2	1 5/8	3 1/2
3/4" Shank	BC60-197	3/4	2	4

Helix Angle 30°

Series BC60-100M

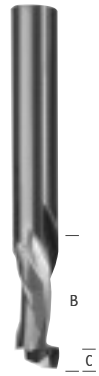
Solid Carbide Multi-Edge Mortise Compression Up|Down Spiral Bits

Designed for fast feed rates with an excellent finish. The short upcut allows a mortise cut with downcut action. Best for mortising and routing of double sided laminates and hardwoods.

	NAP GLADU Tool Number	Edge Count	A Cutting Diameter	B Cutting Height	C Upcut Height	Overall Length
1/4" Shank	BC60-111	Single	1/4	7/8	.175	2 1/2
	BC60-113	Double	1/4	7/8	.188	2 1/2
3/8" Shank	BC60-121	Single	3/8	7/8	.188	3
	BC60-123	Double	3/8	7/8	.188	3
	BC60-127L	Double	3/8	1 1/8	.188	3
	BC60-126	Three	3/8	7/8	.200	3
1/2" Shank	BC60-161	Single	1/2	7/8	.200	3
	BC60-161L	Single	1/2	7/8	.200	3
	BC60-166	Single	1/2	1 5/8	.200	3 1/2
	BC60-163	Double	1/2	7/8	.200	3
	BC60-173	Double	1/2	1 3/8	.200	3 1/2
	BC60-173L	Double	1/2	1 3/8	.200	3 1/2
	BC60-176	Three	1/2	7/8	.200	3
	BC60-177	Three	1/2	1 3/8	.200	3 1/2
3/4" Shank	BC60-199	Three	3/4	2	.200	4
6 mm Shank	BC60-152	Single	6 mm	22 mm	4 mm	64 mm
8 mm Shank	BC60-154	Single	8 mm	22 mm	4 mm	64 mm
10 mm Shank	BC60-156	Single	10 mm	22 mm	4 mm	76 mm
	BC60-155	Double	10 mm	22 mm	4 mm	76 mm
12 mm Shank	BC60-158	Single	12 mm	22 mm	4 mm	76 mm
	BC60-157	Double	12 mm	22 mm	4 mm	76 mm

L Left Hand Rotation

Helix Angle 30°



Single Edge

Double Edge

Three Edge

Double Edge

Three Edge

Solid Carbide Multi-Edge Max Life Compression Spiral Bits

Series BC60-100MW

NAP GLADU Tool Number	Edge Count	A Cutting Diameter	B Cutting Height	Overall Length	
BC60-123MW*	Double	3/8	7/8	3	3/8" Shank
BC60-126MW*	Three	3/8	7/8	3	
BC60-163MW*	Double	1/2	7/8	3	1/2" Shank
BC60-169MW	Double	1/2	1 1/8	3	
BC60-171MW	Double	1/2	1 3/8	3 1/2	
BC60-172MW	Double	1/2	1 5/8	3 1/2	

*Mortisse Compression

Helix Angle 30°

Designed for maximum life when cutting in high-wear applications. Best for double sided laminates and veneered materials.

Solid Carbide Three Edge Low Helix Finisher Bits

Series BC60-200

NAP GLADU Tool Number	Flute Cut	A Cutting Diameter	B Cutting Height	Overall Length	
BC60-239	Upcut	1/4	3/8	3	1/4" Shank
BC60-241	Upcut	1/4	7/8	3	
BC60-240	Downcut	1/4	3/8	3	
BC60-242	Downcut	1/4	7/8	3	
BC60-243	Upcut	3/8	5/8	3	3/8" Shank
BC60-245	Upcut	3/8	1 1/8	3	
BC60-244	Downcut	3/8	5/8	3	
BC60-246	Downcut	3/8	1 1/8	3	
BC60-249	Upcut	1/2	1 1/8	3 1/2	1/2" Shank
BC60-253	Upcut	1/2	1 5/8	4	
BC60-251	Upcut	1/2	2 1/8	4 1/2	
BC60-250	Downcut	1/2	1 1/8	3 1/2	
BC60-254	Downcut	1/2	1 5/8	4	
BC60-252	Downcut	1/2	2 1/8	4 1/2	
BC60-269	Upcut	3/4	1 5/8	4	3/4" Shank
BC60-271	Upcut	3/4	2 1/8	5	
BC60-270	Downcut	3/4	1 5/8	4	
BC60-272	Downcut	3/4	2 1/8	5	

Helix Angle 10°

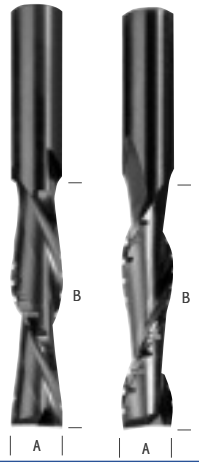
Designed with a fast helix for perfect balance and smooth finish over a wide speed range. Best for routing hardwoods, wood composites and acrylic.

Series BC60-300

Solid Carbide Double Edge Chipbreaker | Finisher Bits

This bit is designed for faster feed rates and smoother finishes than conventional two flute bits. Best for routing hardwoods, MDF and plywood.

	NAP GLADU Tool Number	Flute Cut	A Cutting Diameter	B Cutting Height	Overall Length
3/8" Shank	BC60-307	Upcut	3/8	1 1/8	3
	BC60-308	Downcut	3/8	1 1/8	3
1/2" Shank	BC60-311	Upcut	1/2	1 1/8	3
	BC60-313	Upcut	1/2	1 5/8	3 1/2
	BC60-317	Upcut	1/2	1 7/8	3 1/2
	BC60-315	Upcut	1/2	2 1/8	4
	BC60-312	Downcut	1/2	1 1/8	3
	BC60-314	Downcut	1/2	1 5/8	3 1/2
	BC60-318	Downcut	1/2	1 7/8	3 1/2
	BC60-316	Downcut	1/2	2 1/8	4
5/8" Shank	BC60-321	Upcut	5/8	2 1/8	4
	BC60-322	Downcut	5/8	2 1/8	4
3/4" Shank	BC60-325	Upcut	3/4	2 1/8	4
	BC60-326	Downcut	3/4	2 1/8	4



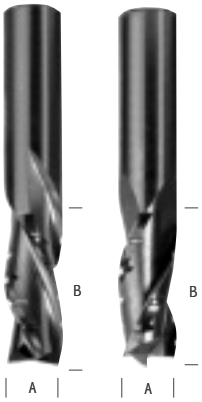
Helix Angle 30°

Series BC60-350

Solid Carbide Three Edge Chipbreaker | Finisher Bits

Designed for additional balance at fast feed rates with a smooth finish. Best for routing hardwoods, wood composites and plywood.

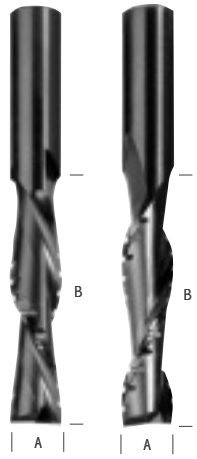
	NAP GLADU Tool Number	Flute Cut	A Cutting Diameter	B Cutting Height	Overall Length
3/8" Shank	BC60-337	Upcut	3/8	1 1/8	3
	BC60-338	Downcut	3/8	1 1/8	3
1/2" Shank	BC60-351	Upcut	1/2	1 1/8	3
	BC60-355	Upcut	1/2	1 3/8	3 1/2
	BC60-353	Upcut	1/2	1 5/8	3 1/2
	BC60-350	Downcut	1/2	1 1/8	3
	BC60-354	Downcut	1/2	1 3/8	3 1/2
	BC60-352	Downcut	1/2	1 5/8	3 1/2
5/8" Shank	BC60-361	Upcut	5/8	1 5/8	4
	BC60-360	Downcut	5/8	1 5/8	4
3/4" Shank	BC60-371	Upcut	3/4	1 5/8	4
	BC60-373	Upcut	3/4	2 1/4	4
	BC60-375	Upcut	3/4	3 1/8	6
	BC60-370	Downcut	3/4	1 5/8	4
	BC60-372	Downcut	3/4	2 1/4	5
	BC60-374	Downcut	3/4	3 1/8	6



Helix Angle 30°

Solid Carbide Double Edge Chipbreaker | Finisher Bits

Series BC60-400



NAP GLADU Tool Number	Flute Cut	A Cutting Diameter	B Cutting Height	Overall Length	
BC60-411	Upcut	8 mm	25 mm	64 mm	8 mm Shank
BC60-412	Downcut	8 mm	25 mm	64 mm	
BC60-413	Upcut	10 mm	35 mm	76 mm	10 mm Shank
BC60-414	Downcut	10 mm	35 mm	76 mm	
BC60-415	Upcut	12 mm	35 mm	76 mm	12 mm Shank
BC60-416	Downcut	12 mm	35 mm	76 mm	
BC60-417	Upcut	16 mm	55 mm	100 mm	16 mm Shank
BC60-418	Downcut	16 mm	55 mm	100 mm	
BC60-419	Upcut	18 mm	60 mm	120 mm	18 mm Shank
BC60-420	Downcut	18 mm	60 mm	120 mm	

Helix Angle 30°

This bit is designed for faster feed rates and smoother finishes than the conventional two flute bits. Best for routing hardwoods, MDF and plywood.

Solid Carbide Three Edge Chipbreaker | Finisher Bits

Series BC60-430

NAP GLADU Tool Number	Flute Cut	A Cutting Diameter	B Cutting Height	Overall Length	
BC60-431	Upcut	8 mm	25 mm	64 mm	8 mm Shank
BC60-432	Downcut	8 mm	25 mm	64 mm	
BC60-433	Upcut	10 mm	35 mm	76 mm	10 mm Shank
BC60-434	Downcut	10 mm	35 mm	76 mm	
BC60-435	Upcut	12 mm	35 mm	76 mm	12 mm Shank
BC60-436	Downcut	12 mm	35 mm	76 mm	
BC60-437	Upcut	16 mm	55 mm	100 mm	16 mm Shank
BC60-438	Downcut	16 mm	55 mm	100 mm	
BC60-439	Upcut	18 mm	60 mm	120 mm	18 mm Shank
BC60-440	Downcut	18 mm	60 mm	120 mm	

Helix Angle 30°

Designed for additional balance at fast feed rates with a smooth finish. Best for routing hardwoods, wood composites and plywood.

Series BC60-450

Solid Carbide Three Edge High Helix Finisher Bits

Designed for additional balance at fast feed rates with a smooth finish. Best for routing natural wood, plastic, plastic composites and solid surfaces.

	NAP GLADU Tool Number	Flute Cut	A Cutting Diameter	B Cutting Height	Overall Length
6 mm Shank	BC60-461	Upcut	6 mm	25 mm	76 mm
	BC60-462	Downcut	6 mm	25 mm	76 mm
8 mm Shank	BC60-451	Upcut	8 mm	25 mm	76 mm
	BC60-452	Downcut	8 mm	25 mm	76 mm
10 mm Shank	BC60-453	Upcut	10 mm	35 mm	76 mm
	BC60-454	Downcut	10 mm	35 mm	76 mm
12 mm Shank	BC60-455	Upcut	12 mm	35 mm	88 mm
	BC60-456	Downcut	12 mm	35 mm	88 mm
16 mm Shank	BC60-457	Upcut	16 mm	55 mm	120 mm
	BC60-458	Downcut	16 mm	55 mm	120 mm
18 mm Shank	BC60-459	Upcut	18 mm	60 mm	120 mm
	BC60-460	Downcut	18 mm	60 mm	120 mm

Helix Angle 30°

Series BC60-470

Solid Carbide Three Edge Low Helix Finisher Bits

Designed for additional balance at fast feed rates with a smooth finish. Best for routing hardwoods, wood composites and plywood.

	NAP GLADU Tool Number	Flute Cut	A Cutting Diameter	B Cutting Height	Overall Length
6 mm Shank	BC60-481	Upcut	6 mm	25 mm	76 mm
	BC60-482	Downcut	6 mm	25 mm	76 mm
8 mm Shank	BC60-471	Upcut	8 mm	25 mm	76 mm
	BC60-472	Downcut	8 mm	25 mm	76 mm
10 mm Shank	BC60-473	Upcut	10 mm	35 mm	76 mm
	BC60-474	Downcut	10 mm	35 mm	76 mm
12 mm Shank	BC60-475	Upcut	12 mm	35 mm	88 mm
	BC60-476	Downcut	12 mm	35 mm	88 mm
14 mm Shank	BC60-483	Upcut	14 mm	45 mm	110 mm
	BC60-484	Downcut	14 mm	45 mm	110 mm
16 mm Shank	BC60-477	Upcut	16 mm	55 mm	120 mm
	BC60-478	Downcut	16 mm	55 mm	120 mm
18 mm Shank	BC60-479	Upcut	18 mm	60 mm	120 mm
	BC60-480	Downcut	18 mm	60 mm	120 mm

Helix Angle 30°

Solid Carbide Four Edge Compression Spiral Bits

Series BC60-500

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC60-564	1/2	1	3	1/2" Shank
BC60-569	1/2	1 1/8	3	
BC60-571	1/2	1 3/8	3 1/2	
BC60-572	1/2	1 5/8	4	
BC60-586	5/8	2 1/4	5	5/8" Shank
BC60-596	3/4	1 7/8	4	3/4" Shank
BC60-598	3/4	2 1/2	5	

Helix Angle 30°

The ultimate in compression spiral tooling, these tools produce extremely fine finishes on CNC routers. Best for use with double sided laminate and veneer, natural wood and wood composites.

Solid Carbide Four Edge Mortise Compression Spiral Bits

Series BC60-500M

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	C Upcut Height	Overall Length	
BC60-563	1/2	7/8	.200	3	1/2" Shank
BC60-573	1/2	1 3/8	.200	3 1/2	

Helix Angle 30°

A compression design that allows for fast feed and excellent finish with a short upcut to allow mortise cuts with downcut action.

Solid Carbide Four Edge High Velocity Compression Spiral Bits

Series BC60-600

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC60-664	1/2	1	3	1/2" Shank
BC60-669	1/2	1 1/8	3	
BC60-671	1/2	1 3/8	3 1/2	
BC60-672	1/2	1 5/8	4	
BC60-686	5/8	2 1/4	5	5/8" Shank
BC60-696	3/4	1 7/8	4	3/4" Shank
BC60-698	3/4	2 1/2	5	

Helix Angle 30°

This bit is designed to combine a roughing and finishing cut in one tool for rapid feed rates with good finish. These are best for use when routing a high velocity of double sided laminate and veneer, natural wood and wood composites.

Series BC60-700

Solid Carbide Four Edge High Velocity Spiral Bits

Designed to combine a roughing and finishing cut in one tool for rapid feed rates with good finish. Best for use when routing a high velocity of natural wood and wood composites.

	NAP GLADU Tool Number	Flute Cut	A Cutting Diameter	B Cutting Height	Overall Length
1/2" Shank	BC60-711	Upcut	1/2	1 1/8	3 1/2
	BC60-715	Upcut	1/2	1 5/8	4
	BC60-719	Upcut	1/2	2 1/8	4 1/2
	BC60-710	Downcut	1/2	1 1/8	3 1/2
	BC60-714	Downcut	1/2	1 5/8	4
	BC60-718	Downcut	1/2	2 1/8	4 1/2
5/8" Shank	BC60-721	Upcut	5/8	2 1/8	5
	BC60-720	Downcut	5/8	2 1/8	5
3/4" Shank	BC60-731	Upcut	3/4	2 1/8	5
	BC60-730	Downcut	3/4	2 1/8	5

Helix Angle 30°

Series BC60-900

Solid Carbide Three Edge Extreme Heavy Duty Hogger

Designed for heavy material removal operations where the bit is subjected to excessive cutting forces and finish is not a primary concern. Best for use with natural wood and wood composites.

	NAP GLADU Tool Number	Flute Cut	A Cutting Diameter	B Cutting Height	Overall Length
3/8" Shank	BC60-901	Upcut	3/8	1 1/8	3
	BC60-902	Downcut	3/8	1 1/8	3
1/2" Shank	BC60-905	Upcut	1/2	1 1/8	3
	BC60-907	Upcut	1/2	1 5/8	3 1/2
	BC60-909	Upcut	1/2	2 1/8	4
	BC60-906	Downcut	1/2	1 1/8	3
	BC60-908	Downcut	1/2	1 5/8	3 1/2
	BC60-910	Downcut	1/2	2 1/8	4

Helix Angle 30°

SC Double Edge Extreme Heavy Duty Chipbreaker | Finisher Bits

Series BC60-950

NAP GLADU Tool Number	Flute Cut	A Cutting Diameter	B Cutting Height	Overall Length	
BC60-951	Upcut	3/8	1 1/8	3	3/8" Shank
BC60-950	Downcut	3/8	1 1/8	3	
BC60-955	Upcut	1/2	1 1/8	3	1/2" Shank
BC60-957	Upcut	1/2	1 5/8	3 1/2	
BC60-959	Upcut	1/2	2 1/8	4	
BC60-954	Downcut	1/2	1 1/8	3	
BC60-956	Downcut	1/2	1 5/8	3 1/2	
BC60-958	Downcut	1/2	2 1/8	4	

Helix Angle 30°

This bit is designed to be fed very fast while withstanding excessive cutting forces and at the same time leaving a smooth finish. For use with natural wood and wood composites.

Solid Carbide Single Edge Straight Wood Rout Bits

Series BC61-200

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC61-240	1/8	1/2	2	1/4" Shank
BC61-260	3/16	3/4	2	
BC61-280	1/4	7/8	2 1/2	
BC61-285	1/4	1	2 1/2	
BC61-300	5/16	1 1/8	3	5/16" Shank
BC61-320	3/8	1 1/8	3	3/8" Shank
BC61-360	1/2	1 1/8	3	1/2" Shank

These are designed to enhance operations where the benefits of spiral action are not needed. The single edge provides fast, free cutting with an optimum cutter life. Best for routing natural wood, wood composites and abrasive plastics.

Metric Solid Carbide Single Edge Straight Bits

Series BC61-400

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC61-410	4 mm	16 mm	64 mm	6 mm Shank
BC61-411	5 mm	20 mm	64 mm	
BC61-412	6 mm	25 mm	64 mm	
BC61-414	8 mm	25 mm	64 mm	8 mm Shank
BC61-416	10 mm	35 mm	88 mm	10 mm Shank
BC61-418	12 mm	35 mm	88 mm	12 mm Shank

This bit is designed with fast, free cutting “O” flute geometry made from solid carbide to rout softer, ductile plastics. Best for routing wood composites, plastics in the ABS, polycarbonate, polystyrene and ductile PVC formulations and other composite materials.

Series BC61-000

Solid Carbide Single Edge Straight Bits - General Purpose

Designed with fast, free cutting “O” flute geometry and solid carbide body to rout wood composites and other composite materials.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	BC61-040	1/8	1/2	2
	BC61-050	5/32	9/16	2
	BC61-060	3/16	5/8	2
	BC61-070	7/32	5/8	2 1/2
	BC61-080	1/4	3/4	2 1/2
3/8" Shank	BC61-090	9/32	3/4	2 1/2
	BC61-100	5/16	13/16	2 1/2
	BC61-120	3/8	7/8	2 1/2
1/2" Shank	BC61-140	7/16	1	3
	BC61-160	1/2	1	3

Series BC61-000P

Solid Carbide Single Edge Straight Bits - Plastics

This bit is designed with fast, free cutting “O” flute geometry and a solid carbide body to rout softer, ductile plastics. Best for routing plastics in the ABS, polycarbonate and ductile PVC formulations.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/8" Shank	BC61-044	1/8	1/2	2
	BC61-045	1/8	5/8	3
3/16" Shank	BC61-064	3/16	5/8	2 1/2
1/4" Shank	BC61-041	1/8	5/16	2
	BC61-042	1/8	1/2	2
	BC61-042L	1/8	1/2	2
	BC61-043	1/8	5/8	4
	BC61-052	5/32	9/16	2
	BC61-061	3/16	3/8	2
	BC61-062	3/16	5/8	2
	BC61-062L	3/16	5/8	2
	BC61-063*	3/16	1	4
	BC61-072	7/32	5/8	2 1/2
	BC61-081	1/4	3/8	2 1/2
	BC61-082	1/4	3/4	2 1/2
	BC61-082L	1/4	3/4	2 1/2
	BC61-083*	1/4	3/4	3 1/4
	BC61-083L*	1/4	3/4	3 1/4
	BC61-085*	1/4	1	3 1/4
	BC61-084*	1/4	1 1/4	4
3/8" Shank	BC61-121	3/8	5/8	2 1/2
	BC61-122	3/8	7/8	2 1/2
	BC61-123*	3/8	1 5/8	6
1/2" Shank	BC61-162	1/2	1	3
	BC61-164	1/2	1 5/8	4
	BC61-166	1/2	2 1/8	6

*These tools are designed and toleranced for air routers with guide bushings
L Left Hand Rotation

Solid Carbide Single Edge Downcut Spiral Bits

Series BC62-000 | BC62-400

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC62-040	1/8	1/2	2	1/4" Shank
BC62-080	1/4	3/4	2 1/2	
BC62-100	5/16	13/16	2 1/2	3/8" Shank
BC62-120	3/8	7/8	2 1/2	
BC62-410	4 mm	16 mm	64 mm	6 mm Shank
BC62-411	5 mm	20 mm	64 mm	
BC62-412	6 mm	25 mm	64 mm	
BC62-414	8 mm	25 mm	64 mm	8 mm Shank

Helix Angle 30°

These bits are designed for routing abrasive materials at extremely fast feed rates when small diameters are a priority. Best for routing hard or abrasive materials and aluminum.

Solid Carbide Single Edge Downcut Spiral Wood Rout Bits

Series BC62-200

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC62-240	1/8	1/2	2	1/4" Shank
BC62-260	3/16	3/4	2	
BC62-280	1/4	5/8	2 1/2	
BC62-285	1/4	1	2 1/2	
BC62-300	5/16	1 1/8	3	5/16" Shank
BC62-320	3/8	1 1/8	3	3/8" Shank
BC62-360	1/2	1 1/8	3	1/2" Shank

Helix Angle 30°

These are designed for routing wood and wood composites where aggressive downward chip removal is necessary in hand-fed or CNC applications. These tools are characterized by long life, rigidity and high quality finish. Best for routing wood, wood composites and plastics.

Solid Carbide Single Edge Downcut Spiral "O" Bits

Series BC62-700

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC62-713	1/8	1/2	2	1/8" Shank
BC62-719	3/16	5/8	2	3/16" Shank
BC62-712	1/8	1/2	2	1/4" Shank
BC62-715	5/32	9/16	2	
BC62-718	3/16	5/8	2	
BC62-720	7/32	3/4	2 1/2	
BC62-725	1/4	3/4	2 1/2	
BC62-726	1/4	1 1/4	3	
BC62-733	3/8	1 1/8	3	3/8 Shank

Helix Angle 21°

Designed to provide a smooth finish in rigid plastics with downward chip removal. Best for routing hard, rigid plastics, and may be used for soft flexible plastics.

Series BC62-600

Solid Carbide Single Edge Downcut Spiral “O” Flute Bits

These are designed to provide a smooth finish in hard plastics with downward chip removal. Best for use on acrylic, nylon, PVC, polycarbonate and solid surfaces.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/8" Shank	BC62-604	1/8	1/4	1 1/2
3/16" Shank	BC62-612	3/16	3/8	1 1/2
1/4" Shank	BC62-606	1/8	1/4	2
	BC62-610	1/8	1/2	2
	BC62-614	3/16	3/8	2
	BC62-618	3/16	5/8	2
	BC62-620	1/4	3/8	2
	BC62-622	1/4	3/4	2 1/2
	BC62-624	1/4	1 1/4	3
3/8" Shank	BC62-625	3/8	3/4	3
	BC62-626	3/8	1 1/8	3
1/2" Shank	BC62-630	5/16	3/4	3
	BC62-634	21/64	3/4	3

Helix Angle 22°

Series BC62-750

Solid Carbide Single Edge Downcut Spiral “O” Flute Bits

Designed to provide a smooth finish in soft plastics with downward chip removal. Best for routing soft, flexible plastics, may be used for hard, rigid plastics.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/8" Shank	BC62-763	1/8	1/2	2
3/16" Shank	BC62-769	3/16	5/8	2
1/4" Shank	BC62-762	1/8	1/2	2
	BC62-768	3/16	5/8	2
	BC62-775	1/4	3/4	2 1/2
	BC62-776	1/4	1 1/4	3
3/8" Shank	BC62-783	3/8	1 1/8	3

Helix Angle 21°

Solid Carbide Single Edge Downcut Spiral "O" Flute Bits

Series BC62-900

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC62-902	2 mm	6 mm	50 mm	2 mm Shank
BC62-906	2.5 mm	6 mm	50 mm	2.5 mm Shank
BC62-910	3 mm	8 mm	50 mm	3 mm Shank
BC62-914	3 mm	12 mm	64 mm	
BC62-918	4 mm	8 mm	64 mm	4 mm Shank
BC62-920	4 mm	12 mm	64 mm	
BC62-922	4 mm	20 mm	64 mm	
BC62-926	4 mm	30 mm	64 mm	
BC62-928	5 mm	16 mm	64 mm	5 mm Shank
BC62-932	5 mm	30 mm	64 mm	
BC62-904	2 mm	6 mm	64 mm	6 mm Shank
BC62-908	2.5 mm	6 mm	64 mm	
BC62-912	3 mm	8 mm	64 mm	
BC62-916	3 mm	12 mm	64 mm	
BC62-924	4 mm	20 mm	64 mm	
BC62-930	5 mm	16 mm	64 mm	
BC62-934	6 mm	8 mm	64 mm	
BC62-936	6 mm	12 mm	64 mm	
BC62-938	6 mm	20 mm	64 mm	
BC62-940	6 mm	30 mm	76 mm	
BC62-942	6 mm	38 mm	76 mm	
BC62-944	8 mm	25 mm	64 mm	8 mm Shank
BC62-946	8 mm	38 mm	76 mm	
BC62-948	10 mm	30 mm	76 mm	10 mm Shank

Designed as high speed cutters for machining aluminum sheet metal. For use on high speed CNC mills, high speed machining centres and CNC routers.

SC Single Edge Downcut Spiral "O" Flute Bits - Hard Plastic

Series BC62-800

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC62-802	2 mm	8 mm	50 mm	2 mm Shank
BC62-806	2.5 mm	8 mm	50 mm	2.5 mm Shank
BC62-810	3 mm	8 mm	50 mm	3 mm Shank
BC62-814	3 mm	12 mm	64 mm	
BC62-818	4 mm	8 mm	64 mm	4 mm Shank
BC62-820	4 mm	12 mm	64 mm	
BC62-822	4 mm	20 mm	64 mm	
BC62-826	4 mm	30 mm	64 mm	
BC62-828	5 mm	16 mm	64 mm	5 mm Shank
BC62-832	5 mm	30 mm	64 mm	
BC62-804	2 mm	8 mm	64 mm	6 mm Shank
BC62-808	2.5 mm	8 mm	64 mm	
BC62-812	3 mm	8 mm	64 mm	
BC62-816	3 mm	12 mm	64 mm	
BC62-824	4 mm	20 mm	64 mm	
BC62-830	5 mm	16 mm	64 mm	
BC62-834	6 mm	8 mm	64 mm	
BC62-836	6 mm	12 mm	64 mm	
BC62-838	6 mm	20 mm	64 mm	
BC62-840	6 mm	30 mm	76 mm	
BC62-842	6 mm	38 mm	76 mm	
BC62-844	8 mm	25 mm	64 mm	8 mm Shank
BC62-846	8 mm	38 mm	76 mm	
BC62-848	10 mm	30 mm	76 mm	10 mm Shank
BC62-849	10 mm	35 mm	76 mm	

Designed to provide a smooth finish in hard plastics with downward chip removal. Best for use on acrylic, nylon, PVC, polycarbonate and solid surfaces.

Series BC62-850

SC Single Edge Downcut Spiral "O" Flute Bits - Soft Plastic

Designed to provide a smooth finish in soft plastics with downward chip removal. Best for use on HDPE, HIPS, UHMW, ABS, polycarbonate, PE, polystyrene, polypropylene, acetal, acrylic, PET and solid surfaces.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
2 mm Shank	BC62-852	2 mm	8 mm	50 mm
2.5 mm Shank	BC62-856	2.5 mm	8 mm	50 mm
3 mm Shank	BC62-860	3 mm	8 mm	50 mm
	BC62-864	3 mm	12 mm	64 mm
4 mm Shank	BC62-868	4 mm	8 mm	64 mm
	BC62-870	4 mm	12 mm	64 mm
	BC62-872	4 mm	20 mm	64 mm
	BC62-876	4 mm	30 mm	64 mm
5 mm Shank	BC62-878	5 mm	16 mm	64 mm
	BC62-882	5 mm	30 mm	64 mm
6 mm Shank	BC62-854	2 mm	8 mm	64 mm
	BC62-858	2.5 mm	8 mm	64 mm
	BC62-862	3 mm	8 mm	64 mm
	BC62-866	3 mm	12 mm	64 mm
	BC62-874	4 mm	20 mm	64 mm
	BC62-880	5 mm	16 mm	64 mm
	BC62-884	6 mm	8 mm	64 mm
	BC62-886	6 mm	12 mm	64 mm
	BC62-888	6 mm	20 mm	64 mm
	BC62-890	6 mm	30 mm	76 mm
	BC62-892	6 mm	38 mm	76 mm
8 mm Shank	BC62-894	8 mm	25 mm	64 mm
	BC62-896	8 mm	38 mm	76 mm
10 mm Shank	BC62-898	10 mm	30 mm	76 mm
	BC62-899	10 mm	35 mm	76 mm

Helix Angle 22°

Series BC63-000 | BC63-400

Solid Carbide Single Edge Upcut Spiral Bits

Designed to replace high speed steel bits when the material to be cut is too abrasive or the feed rates too high for steel. Best for routing in hard or abrasive materials in wood, wood composites and aluminum.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/4" Shank	BC63-040	1/8	1/2	2
	BC63-050	5/32	9/16	2
	BC63-060	3/16	5/8	2
	BC63-070	7/32	5/8	2 1/2
	BC63-080	1/4	3/4	2 1/2
3/8" Shank	BC63-090	9/32	3/4	2 1/2
	BC63-100	5/16	13/16	2 1/2
	BC63-120	3/8	7/8	2 1/2
1/2" Shank	BC63-140	7/16	1	3
	BC63-160	1/2	1	3
6 mm Shank	BC63-410	4 mm	16 mm	64 mm
	BC63-411	5 mm	20 mm	64 mm
	BC63-412	6 mm	25 mm	64 mm
8 mm Shank	BC63-414	8 mm	25 mm	64 mm

Helix Angle 30°

Solid Carbide Single Edge Upcut Spiral Wood Rout Bits

Series BC63-200

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC63-240	1/8	1/2	2	1/4" Shank
BC63-260	3/16	3/4	2	
BC63-280	1/4	7/8	2 1/2	
BC63-285	1/4	1	2 1/2	
BC63-300	5/16	1 1/8	3	5/16" Shank
BC63-320	3/8	1 1/8	3	3/8" Shank
BC63-360	1/2	1 1/8	3	1/2" Shank

Helix Angle 30°

These are designed for routing wood and wood composites where aggressive chip removal is necessary in hand-fed or CNC applications. For use when long life, rigidity and high quality finish are desired from tool. Best for routing wood, wood composites and plastics.

Solid Carbide Single Edge Upcut Spiral "O" Flute Bits

Series BC63-600

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC63-604	1/8	1/4	1 1/2	1/8" Shank
BC63-612	3/16	3/8	1 1/2	3/16" Shank
BC63-606	1/8	1/4	2	1/4" Shank
BC63-610	1/8	1/2	2	
BC63-614	3/16	3/8	2	
BC63-618	3/16	5/8	2	
BC63-620	1/4	3/8	2	
BC63-622	1/4	3/4	2 1/2	
BC63-624	1/4	1 1/4	3	
BC63-625	3/8	3/4	3	3/8" Shank
BC63-626	3/8	1 1/8	3	
BC63-630	5/16	3/4	3	1/2" Shank
BC63-634	21/64	3/4	3	

These high speed cutters are designed for machining aluminum sheet and block material. These tools are optimized for use on high-speed CNC mills, CNC routers and high speed machining centres.

Solid Carbide Single Edge Upcut Spiral "O" Flute Bits

Series BC63-700

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC63-701	1/16	1/4	2	1/8" Shank
BC63-711	1/8	1/4	2	
BC63-713	1/8	1/2	2	
BC63-716	3/16	3/8	2	3/16" Shank
BC63-719	3/16	5/8	2	
BC63-700	1/16	1/4	2	1/4" Shank
BC63-710	1/8	1/4	2	
BC63-712	1/8	1/2	2	
BC63-715	5/32	9/16	2	
BC63-717	3/16	3/8	2	
BC63-718	3/16	5/8	2	
BC63-720	7/32	3/4	2 1/2	
BC63-724	1/4	3/8	2	
BC63-725	1/4	3/4	2 1/2	
BC63-726	1/4	1 1/4	3	
BC63-733	3/8	1 1/8	3	3/8" Shank

Designed to provide a smooth finish in rigid plastics with upward chip removal. Best for routing hard, rigid plastics, but can be used for soft, flexible plastics as well.

Series BC63-750

Solid Carbide Single Edge Upcut Spiral "O" Flute Bits

Designed to provide a smooth finish in soft plastics with upward chip removal. Best for routing soft, flexible plastics, but can be used for hard, rigid plastics as well.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/8" Shank	BC63-751	1/16	1/4	2
	BC63-761	1/8	1/4	2
	BC63-763	1/8	1/2	2
3/16" Shank	BC63-766	3/16	3/8	2
	BC63-769	3/16	5/8	2
1/4" Shank	BC63-750	1/16	1/4	2
	BC63-760	1/8	1/4	2
	BC63-762	1/8	1/2	2
	BC63-767	3/16	3/8	2
	BC63-768	3/16	5/8	2
	BC63-774	1/4	3/8	2
	BC63-775	1/4	3/4	2 1/2
	BC63-776	1/4	1 1/4	3
3/8" Shank	BC63-783	3/8	1 1/8	3

Helix Angle 21°

Series BC63-800

Solid Carbide Single Edge Upcut Spiral "O" Flute Bits

Designed to provide a smooth finish in hard plastics with upward chip removal. Best for use on acrylic, nylon, PVC, polycarbonate and solid surfaces.

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
2 mm Shank	BC63-802	2 mm	8 mm	50 mm
2.5 mm Shank	BC63-806	2.5 mm	8 mm	50 mm
3 mm Shank	BC63-810	3 mm	8 mm	50 mm
	BC63-814	3 mm	12 mm	64 mm
4 mm Shank	BC63-818	4 mm	8 mm	64 mm
	BC63-820	4 mm	12 mm	64 mm
	BC63-822	4 mm	20 mm	64 mm
	BC63-826	4 mm	30 mm	64 mm
5 mm Shank	BC63-828	5 mm	16 mm	64 mm
	BC63-832	5 mm	30 mm	64 mm
6 mm Shank	BC63-804	2 mm	8 mm	64 mm
	BC63-808	2.5 mm	8 mm	64 mm
	BC63-812	3 mm	8 mm	64 mm
	BC63-816	3 mm	12 mm	64 mm
	BC63-824	4 mm	20 mm	64 mm
	BC63-830	5 mm	16 mm	64 mm
	BC63-834	6 mm	8 mm	64 mm
	BC63-836	6 mm	12 mm	64 mm
	BC63-838	6 mm	20 mm	64 mm
	BC63-840	6 mm	30 mm	76 mm
	BC63-842	6 mm	38 mm	76 mm
8 mm Shank	BC63-844	8 mm	25 mm	64 mm
	BC63-846	8 mm	38 mm	76 mm
10 mm Shank	BC63-848	10 mm	30 mm	76 mm
	BC63-849	10 mm	35 mm	76 mm

Helix Angle 30°

Solid Carbide Single Edge Upcut Spiral "O" Flute Bits

Series BC63-850

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC63-852	2 mm	8 mm	50 mm	2 mm Shank
BC63-856	2.5 mm	8 mm	50 mm	2.5 mm Shank
BC63-860	3 mm	8 mm	50 mm	3 mm Shank
BC63-864	3 mm	12 mm	64 mm	
BC63-868	4 mm	8 mm	64 mm	4 mm Shank
BC63-870	4 mm	12 mm	64 mm	
BC63-872	4 mm	20 mm	64 mm	
BC63-876	4 mm	30 mm	64 mm	
BC63-878	5 mm	16 mm	64 mm	5 mm Shank
BC63-882	5 mm	30 mm	64 mm	
BC63-854	2 mm	8 mm	64 mm	6 mm Shank
BC63-858	2.5 mm	8 mm	64 mm	
BC63-862	3 mm	8 mm	64 mm	
BC63-866	3 mm	12 mm	64 mm	
BC63-874	4 mm	20 mm	64 mm	
BC63-880	5 mm	16 mm	64 mm	
BC63-884	6 mm	8 mm	64 mm	
BC63-886	6 mm	12 mm	64 mm	
BC63-888	6 mm	20 mm	64 mm	
BC63-890	6 mm	30 mm	76 mm	
BC63-892	6 mm	38 mm	76 mm	
BC63-894	8 mm	25 mm	64 mm	8 mm Shank
BC63-896	8 mm	38 mm	76 mm	
BC63-898	10 mm	30 mm	76 mm	10 mm Shank
BC63-899	10 mm	35 mm	76 mm	

Helix Angle 21°

Designed to provide a smooth finish in soft plastic with upward chip removal. Best for use on HDPE, HIPS, UHMW, ABS, polycarbonate, polystyrene, PE, polypropylene, acetal, acrylic, PET and solid surfaces.

Solid Carbide Single Edge Upcut Spiral "O" Flute Bits

Series BC63-900

NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length	
BC63-902	2 mm	6 mm	50 mm	2 mm Shank
BC63-906	2.5 mm	6 mm	50 mm	2.5 mm Shank
BC63-910	3 mm	8 mm	50 mm	3 mm Shank
BC63-914	3 mm	12 mm	64 mm	
BC63-918	4 mm	8 mm	64 mm	4 mm Shank
BC63-920	4 mm	12 mm	64 mm	
BC63-922	4 mm	20 mm	64 mm	
BC63-926	4 mm	30 mm	64 mm	
BC63-928	5 mm	16 mm	64 mm	5 mm Shank
BC63-932	5 mm	30 mm	64 mm	
BC63-904	2 mm	6 mm	64 mm	6 mm Shank
BC63-908	2.5 mm	6 mm	64 mm	
BC63-912	3 mm	8 mm	64 mm	
BC63-916	3 mm	12 mm	64 mm	
BC63-924	4 mm	20 mm	64 mm	
BC63-930	5 mm	16 mm	64 mm	
BC63-934	6 mm	8 mm	64 mm	
BC63-936	6 mm	12 mm	64 mm	
BC63-938	6 mm	20 mm	64 mm	
BC63-940	6 mm	30 mm	76 mm	
BC63-942	6 mm	38 mm	76 mm	
BC63-944	8 mm	25 mm	64 mm	8 mm Shank
BC63-946	8 mm	38 mm	76 mm	
BC63-948	10 mm	30 mm	76 mm	10 mm Shank

Helix Angle 22°

These bits are high speed cutters designed for machining aluminum sheet and block material, best for use on high speed CNC mills, high speed machining centres and CNC routers.

Series BC66-200 | BC66-250

Solid Carbide Double Edge Rout and Chamfer Bits

Designed to provide up to a 1/16” top face chamfer and a finished side edge on plastic sheets or parts.

BC66-208

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Material Thickness	Overall Length
3/8" Shank	BC66-200	1/4	3/16	1/8	2 1/4
	BC66-204	1/4	1/4	3/16	2 1/4
	BC66-208	1/4	5/16	1/4	2 1/4
1/2" Shank	BC66-202	3/8	3/16	1/8	3
	BC66-206	3/8	1/4	3/16	3
	BC66-210	3/8	5/16	1/4	3
10 mm Shank	BC66-250	6 mm	5 mm	3 mm	70 mm
	BC66-254	6 mm	6 mm	4 mm	70 mm
	BC66-258	6 mm	8 mm	6 mm	70 mm
12 mm Shank	BC66-252	8 mm	5 mm	3 mm	76 mm
	BC66-256	8 mm	6 mm	4 mm	76 mm
	BC66-260	8 mm	8 mm	6 mm	76 mm

Series BC66-300 | BC66-350

Solid Carbide Double Edge Upcut Bottom Surfacing Bits

Designed for pocketing applications where the bottom of the pocket must be smooth. Best for use on plastic and aluminum.

	NAP GLADU Tool Number	r Corner Radius	A Cutting Diameter	B Cutting Height	Overall Length
1/8" Shank	BC66-306	.04	1/8	1/4	2
1/4" Shank	BC66-308	.04	1/8	1/4	2
	BC66-314	.05	1/4	3/8	2
3/8" Shank	BC66-320	.05	3/8	5/8	2 1/2
1/2" Shank	BC66-326	.05	1/2	7/8	3
3 mm Shank	BC66-356	1 mm	3 mm	6 mm	40 mm
6 mm Shank	BC66-358	1 mm	3 mm	6 mm	51 mm
	BC66-364	1.25 mm	6 mm	10 mm	51 mm
8 mm Shank	BC66-370	1.25 mm	8 mm	12 mm	64 mm
12 mm Shank	BC66-376	1.25 mm	12 mm	20 mm	76 mm

Helix Angle 30°

Solid Carbide Single Edge Straight "O" Rounding Bits

Series BC66-000

NAP GLADU Tool Number	Cutting Radius	A1 A2 Cutting Diameter	B Cutting Height	C Tip to Radius	O Cutter Opening	Plastic Size	Overall Length	
BC66-082	1/8	A1 1/4 A2 .195	3/8	1/16	5/32	1/8	2 1/2	1/4" Shank
BC66-083	3/16	A1 1/4 A2 .18	3/8	1/16	7/32	3/16	2 1/2	
BC66-084	1/4	A1 1/4 A2 .163	3/8	1/16	9/32	1/4	2 1/2	

Designed for rounding the edge of plastic sheets or parts.

Solid Carbide Double Edge Straight "O" Rounding Bits

Series BC66-000

NAP GLADU Tool Number	Cutting Radius	A1 A2 Cutting Diameter	B Cutting Height	C Tip to Radius	O Cutter Opening	Plastic Size	Overall Length	
BC66-092	1/8	A1 1/4 A2 .195	3/8	1/16	5/32	1/8	2 1/2	1/4" Shank
BC66-093	3/16	A1 1/4 A2 .18	3/8	1/16	7/32	3/16	2 1/2	
BC66-094	1/4	A1 1/4 A2 .163	3/8	1/16	9/32	1/4	2 1/2	
BC66-073	3 mm	A1 6 mm A2 4.47 mm	10 mm	1.5 mm	4 mm	3 mm	64 mm	6 mm Shank
BC66-074	4 mm	A1 6 mm A2 4.24 mm	10 mm	1.5 mm	5 mm	4 mm	64 mm	
BC66-075	5 mm	A1 6 mm A2 3.96 mm	10 mm	1.5 mm	6 mm	5 mm	64 mm	
BC66-076	6 mm	A1 6 mm A2 3.73 mm	10 mm	1.5 mm	7 mm	6 mm	64 mm	

Designed for rounding the edge of plastic sheets or parts.

Series BC66-000

Solid Carbide Single Edge Spiral "O" Rounding Bits

Designed for rounding the edge of plastic sheets or parts.

	NAP GLADU Tool Number	Cutting Radius	A1 A2 Cutting Diameter	B Cutting Height	C Tip to Radius	O Cutter Opening	Plastic Size	Overall Length
1/4" Shank	BC66-085	1/8	A1 1/4 A2 .195	3/8	1/16	5/32	1/8	2 1/2
	BC66-086	3/16	A1 1/4 A2 .18	3/8	1/16	7/32	3/16	2 1/2
	BC66-087	1/4	A1 1/4 A2 .163	3/8	1/16	9/32	1/4	2 1/2

Helix Angle 21°

Series BC66-000

Solid Carbide Double Edge Straight "V" Rounding Bits

Designed for rounding the edge of plastic sheets or parts.

	NAP GLADU Tool Number	Cutting Radius	A1 A2 Cutting Diameter	B Cutting Height	C Tip to Radius	O Cutter Opening	Plastic Size	Overall Length
3/8" Shank	BC66-120	1/8	A1 3/8 A2 .32	3/8	1/16	5/32	1/8	2 1/2
	BC66-121	3/16	A1 3/8 A2 .305	3/8	1/16	7/32	3/16	2 1/2
	BC66-122	1/4	A1 3/8 A2 .288	3/8	1/16	9/32	1/4	2 1/2
	BC66-123	3/8	A1 3/8 A2 .255	1/2	1/16	13/32	3/8	2 1/2
1/2" Shank	BC66-160	1/8	A1 1/2 A2 .445	3/8	1/16	5/32	1/8	3
	BC66-161	3/16	A1 1/2 A2 .43	3/8	1/16	7/32	3/16	3
	BC66-162	1/4	A1 1/2 A2 .413	3/8	1/16	9/32	1/4	3
	BC66-163	1/2	A1 1/2 A2 .347	5/8	1/16	17/32	1/2	3
8 mm Shank	BC66-077	8 mm	A1 8 mm A2 5.21 mm	12 mm	1.5 mm	9 mm	8 mm	64 mm
10 mm Shank	BC66-078	10 mm	A1 10 mm A2 6.68 mm	14 mm	1.5 mm	11mm	10 mm	70 mm
12 mm Shank	BC66-079	12 mm	A1 12 mm A2 8.18 mm	16 mm	1.5 mm	13 mm	12 mm	76 mm

Solid Carbide Fiberglass Router Bits

Series BC67-000

NAP GLADU Tool Number	Router Machine	A Cutting Diameter	B Cutting Height	Overall Length	
BC67-080	Burr	1/4	3/4	2 1/2	1/4" Shank
BC67-082	2 Flutes	1/4	3/4	2 1/2	
BC67-084	Aramid Tool	1/4	3/4	2 1/2	
BC67-120	Burr	3/8	7/8	2 1/2	3/8" Shank
BC67-122	2 Flutes	3/8	7/8	2 1/2	
BC67-124	Aramid Tool	3/8	7/8	2 1/2	
BC67-160	Burr	1/2	1	3	1/2" Shank
BC67-162	2 Flutes	1/2	1	3	
BC67-164	Aramid Tool	1/2	1	3	
BC67-090	Burr	4 mm	16 mm	50 mm	6 mm Shank
BC67-091	Burr	6 mm	19 mm	63 mm	
BC67-092	Burr	6 mm	25 mm	75 mm	
BC67-093	Burr	8 mm	25 mm	63 mm	8 mm Shank
BC67-094	Burr	10 mm	25 mm	75 mm	10 mm Shank
BC67-095	Burr	12 mm	25 mm	75 mm	12 mm Shank

Designed to rout fiberglass, however the upcut/ downcut design which effectively shears fibrous materials makes this tool suitable for cutting aramid fiber composites. Best for routing fibrous reinforcements and epoxies made with glass, carbon and aramid fibres as well as other composite materials.

Solid Carbide Three Edge Phenolic|Composite Cutter Bits

Series BC67-200

NAP GLADU Tool Number	Flute Cut	A Cutting Diameter	B Cutting Height	Overall Length	
BC67-205	Upcut	3/8	7/8	3	3/8" Shank
BC67-206	Downcut	3/8	7/8	3	
BC67-211	Upcut	1/2	1 1/8	3	1/2" Shank
BC67-215	Upcut	1/2	2 1/8	4	
BC67-212	Downcut	1/2	1 1/8	3 1/2	
BC67-216	Downcut	1/2	2 1/8	4 1/2	

Helix Angle 10°

This bit is designed for low or high spindle speed applications in any CNC machining environment. Free cutting action provides a better finish and a lower noise level. Best for use in phenolic.

Series BC70-200

Designed for trimming and slotting plastics. The saws are permanently attached to the arbors and are not reversible.

Solid Carbide Flush Mounted Saws

	NAP GLADU Tool Number	Rotation Direction	A Cutting Diameter	Collar Diameter	K Blade Kerf	Overall Length
1/2" Shank	BC70-204	Right	1	9/16	.062	4
	BC70-224	Right	1 1/4	5/8	.062	4

Saw Blade Speed and Feed Chart, Page 146

Series BC70-100

These saw blades are designed to trim and groove both hard and soft plastics. The saws are reversible for right and left hand rotation cutting. Blades are specifically designed to be used with arbors in Series BC70-100.

Carbide Tipped Saw Blades

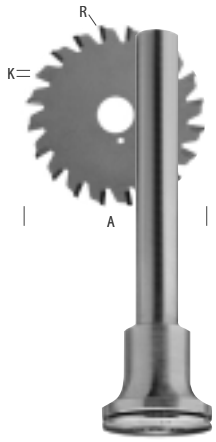
	NAP GLADU Tool Number	A Cutting Diameter	Teeth Count	R Tooth Rake	K Blade Kerf	Grind Type
Soft Plastic Slow Feed	BC70-100	2	10	0°	.095	TCG
	BC70-102	2 1/2	10	0°	.095	TCG
	BC70-104	3	10	0°	.095	TCG
	BC70-106	3 1/2	10	0°	.095	TCG
	BC70-108	4	10	0°	.095	TCG
Soft Plastic Fast Feed	BC70-120	2	16	0°	.095	TCG
	BC70-122	2 1/2	20	0°	.095	TCG
	BC70-124	3	20	0°	.095	TCG
	BC70-126	3 1/2	20	0°	.095	TCG
	BC70-128	4	20	0°	.095	TCG
Hard Plastic Slow Feed	BC70-140	2	10	-5°	.095	TCG
	BC70-142	2 1/2	10	-5°	.095	TCG
	BC70-144	3	10	-5°	.095	TCG
	BC70-146	3 1/2	10	-5°	.095	TCG
	BC70-148	4	10	-5°	.095	TCG
Hard Plastic Fast Feed	BC70-160	2	16	-5°	.095	TCG
	BC70-162	2 1/2	20	-5°	.095	TCG
	BC70-164	3	20	-5°	.095	TCG
	BC70-166	3 1/2	20	-5°	.095	TCG
	BC70-168	4	20	-5°	.095	TCG

Saw Blade Speed and Feed Chart, Page 146

TCG Triple Chip Grind

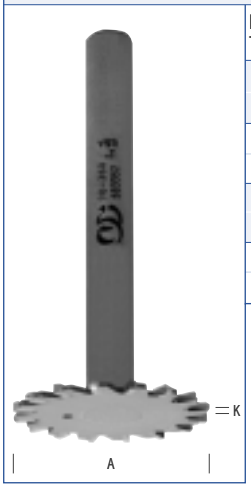
Arbors

BC Saw Tool Number	Overall Length	
BC70-180	3 1/4	1/2" Shank
BC70-181	4 1/2	
BC70-182	3 1/4	5/8" Shank
BC70-184	3 1/4	3/4" Shank



Carbide Tipped Flush Mounted Saws

Series BC70-300



NAP GLADU Tool Number	Rotation Direction	A Cutting Diameter	Teeth Count	Tooth Rake	K Blade Kerf	Grind Type	1/2" Shank
BC70-300	Right	2	10	0°	.095	TCG	Soft Plastic Slow Feed
BC70-302	Left	2	10	0°	.095	TCG	
BC70-340	Right	2	10	-5°	.095	TCG	Hard Plastic Slow Feed
BC70-342	Left	2	10	-5°	.095	TCG	
BC70-320	Right	2	16	0°	.095	TCG	Soft Plastic Fast Feed
BC70-322	Left	2	16	0°	.095	TCG	
BC70-360	Right	2	16	-5°	.095	TCG	Hard Plastic Slow Feed
BC70-362	Left	2	16	-5°	.095	TCG	

TCG Triple Chip Grind

This saw is designed for flush trimming and slotting of both hard and soft plastics. The saws are permanently attached to the arbors and are not reversible. The shank is available in 1/2” and 12 mm for metric sizes. The overall length is four inches.

Guide to Feeds and Speeds

NAP GLADU Tool Series	Cutting Diameter	Max RPM	Soft Plastic	Hard Plastic	Fibrous Reinforcements
BC70-100	2"	18,000	150	150	150
BC70-100	2 1/2"	16,000	150	150	150
BC70-100	3"	14,000	150	150	150
BC70-100	3 1/2"	12,000	150	150	150
BC70-100	4"	10,000	150	150	150
BC70-200	> 1 1/2"	14,000	150	150	150
BC70-300	2"	16,000	150	150	150

Inches per Minute

Use this chart to determine the correct RPM for the saws listed on pages 145 and 146. These measurements are based on the series number and the cutting diameter of each tool. For saws in Series BC70-200 the listed RPM applies to bits with a cutting diameter 1 1/2” or smaller.

Series BC70-500

Special plastic drills with a 60° point to eliminate cracking and provide smooth, chip-free finish holes in plastic sheet goods.

Plastic Drills with Special Point

	NAP GLADU Tool Number	A Cutting Diameter	B Cutting Height	Overall Length
1/8" Shank	BC70-502	1/8	1 1/2	2 3/4
5/32" Shank	BC70-506	5/32	1 15/16	3 1/8
3/16" Shank	BC70-510	3/16	2 1/8	3 1/2
1/4" Shank	BC70-514	1/4	2 7/16	4
	BC70-520*	5/16	1 3/4	3 1/8
	BC70-524*	3/8	2 1/4	4 3/8
	BC70-528*	7/16	2 1/2	4 3/4
	BC70-532*	1/2	2 5/8	5 1/8

*Shank Length 7/8"

Series 129-460 | BC60-090

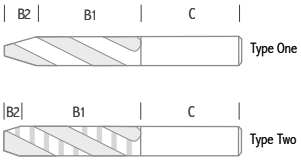
Designed for the cutting of lock cases and face-plates in doors. Cutting edges with chip breakers and a positive spiral allow for optimum chip evacuation. A two flute design for door hardware cutouts and three flute design only for lock cases

Leuco Solid Carbide Lock-Case Cutter

	NAP GLADU Tool Number	Edge Cut	A Cutting Diameter	B Cutting Height	C Shank Length	Overall Length
5/8" Shank	BC60-090	Three	5/8	2	2	6 1/2
14 mm Shank	178843	Double	14 mm	25 mm	50 mm	155 mm
	178839	Three	14 mm	25 mm	50 mm	155 mm
16 mm Shank	178958	Double	16 mm	25 mm	50 mm	175 mm
	178840	Three	16 mm	25 mm	50 mm	175 mm
18 mm Shank	178959	Double	18 mm	25 mm	50 mm	175 mm
	178841	Three	18 mm	25 mm	50 mm	175 mm
20 mm Shank	178842	Three	20 mm	25 mm	50 mm	175 mm

Series 129-460

Designed for the plunge-cutting and routing of latchholes and keyholes in the door manufacturing industry. Type one is for boring of peepholes and through-holes, type two is for cutting latchholes and keyholes.

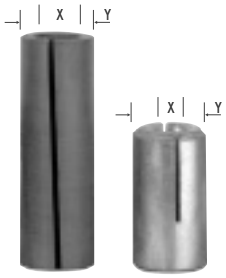


Leuco Solid Carbide Latchhole | Keyhole Cutter

	NAP GLADU Tool Number	Edge Cut	Cutter Type	A Cutting Diameter	B1 Cutting B2 Height	C Shank Length	Overall Length
12 mm Shank	179189	Double	One	12 mm	B1 47 mm B2 10 mm	53 mm	110 mm
	179190	Double	One	12 mm	B1 70 mm B2 10 mm	50 mm	130 mm
14 mm Shank	178359	Double	One	14 mm	B1 47 mm B2 10 mm	45 mm	110 mm
16 mm Shank	178360	Double	One	16 mm	B1 52 mm B2 11 mm	60 mm	130 mm
	178362	Double	Two	16 mm	B1 65 mm B2 5 mm	60 mm	130 mm
20 mm Shank	179191	Three	Two	20 mm	B1 70 mm B2 5 mm	60 mm	135 mm

Adapter Bushings - Fiber and Steel

Series BC33-00 | BC34-00



NAP GLADU Tool Number	X Inside Diameter	Y Outside Diameter	Overall Length	
BC33-01	1/8	1/4	1 1/4	Fiber
BC33-02	3/16	1/4	1 1/4	
BC33-03	1/4	1/2	1 1/2	
BC33-04	5/16	1/2	1 1/2	
BC33-05	3/8	1/2	1 1/2	
BC34-03	1/4	1/2	1 1/4	Steel
BC34-05	3/8	1/2	1 1/4	

This reduces larger collets down to fit smaller shank router bits - increasing the selection of router bits available for use. Available in fiber or steel.

Spindle Taper Wiper

Series BC33-60

NAP GLADU Tool Number	Handle Diameter	Max Taper Diameter	Taper Length	Total Length	Spindle Type
BC33-60	1	1 1/4	2 3/8	6 5/8	ISO-30
BC33-62	1	1 3/4	3 1/16	7 1/2	ISO-40
BC33-64	1 3/16	2 3/4	4 3/4	9 1/2	ISO-50

Used to insure a clean spindle taper before installing collet chucks into CNC router spindles.

Tool Extender - collet and wrench sold seperately

Series BC33-30

NAP GLADU Tool Number	Head Diameter	Shank Length	Extended Length	Use With Collet	
BC33-30	1/2	4	5	ER8	3/8" Shank
BC33-32	5/8	5 1/2	6 9/16	ER11	1/2" Shank
BC33-36	7/8	5 1/2	6 1/4	ER16	
BC33-34	5/8	5 1/2	6 1/4	ER11	5/8" Shank
BC33-38	7/8	5 1/2	6 9/16	ER16	3/4" Shank

Designed to extend the reach of 3/8” and smaller router bits. Used primarily for CNC routers when routing three-dimensional parts. The tool extender should be cut to the appropriate length before use.

Series BC33-50

Collets for Tool Extender

NAP GLADU Tool Number	Collet Size	Collet Type
BC33-50	1/8	ER8
BC33-51	1/8	ER11
BC33-52	3/16	ER11
BC33-53	1/4	ER11
BC33-54	1/8	ER16
BC33-55	3/16	ER16
BC33-56	1/4	ER16
BC33-57	5/16	ER16
BC33-58	3/8	ER16

Wrenches

BC Saw Tool Number	Extension Part Number
BC33-40	BC33-30
BC33-42	BC33-32 BC33-34
BC33-44	BC33-36 BC33-38

Series BC34-50

Collet plugs are designed to prevent full grip collets from collapsing in the back when the shank of the bit does not fully fill the grip collet.

Collet Life Plug

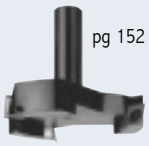
NAP GLADU Tool Number	Collet Size
BC34-51	1/4
BC34-52	3/8
BC34-53	1/2
BC34-54	5/8
BC34-55	3/4

Series BC33-10

Collet Brush Kit

NAP GLADU Tool Number	Brush Length
BC33-15	1/4
BC33-16	3/8
BC33-17	1/2
BC33-18	3/4
BC33-19	1
BC33-10	Collet Brush Kit (Includes 4 Brushes)
BC33-25	Collet Brush Kit (Includes 5 Brushes)

Insert Router Bits and Knives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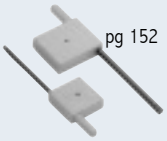
pg 152

pg 152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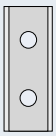
pg 153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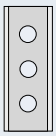
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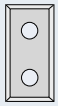
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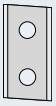
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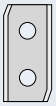
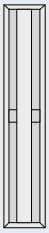

pg 154

pg 155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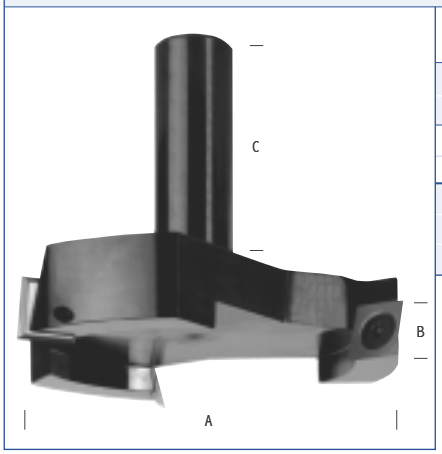
GBC Insert Router Bits 152
GBC Mini Turnover Knives 155
ICK Insert Router Bits 152
ICK Raker Turnover Knives 153-154
ICK Raker Turnover Knives with Countersink 155
Screws for Insert Router Bits 152
Spoilboard Surfacing Cutters 152
Torx Wrenches 152

Spoilboard Surfacing Cutters

Series BC90-000

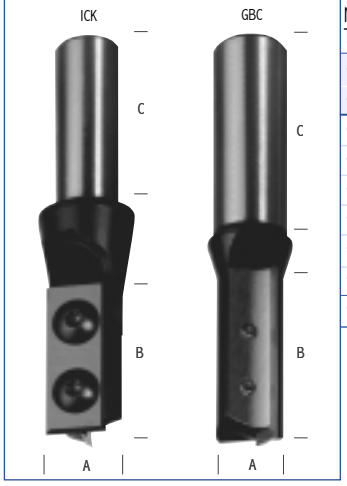


NAP GLADU Tool Number	Shear Angle	Wing Count	A Cutting Diameter	C Shank Length	
BC90-002	Straight	2	2 1/2	2	1/2" Shank
BC90-004	Up-Shear	2	2 1/2	2	
BC90-006	Straight	3	4	2 1/4	3/4" Shank
BC90-008	Up-Shear	3	4	2 1/4	
BC90-052	Inserts 10/pk				Replacement Parts
BC90-102	Screws				
BC90-104	Wrench				

These are designed for surfacing MDF, particleboard and balsa core spoilboards. Replaceable insert knives permit a quick change of worn inserts.

Insert Router Bits - GBC and ICK Styles

Series BC90000



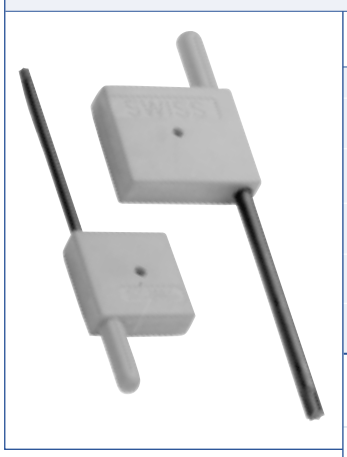
NAP GLADU Tool Number	A Cutting Diameter	B Cutting Length	C Shank Length	Overall Length	Knife Number	
90240ICK	5/8	1 11/64	1 3/8	3 5/8	ICK30	1/2" Shank
90242ICK	3/4	1 11/64	1 3/8	3 5/8	ICK30	
90200GBC	1/2	1 3/16	1 3/16	2 7/8	GBC30	
90210GBC*	5/16	25/32	1 3/8	2 3/8	GBC20	
90212GBC*	3/8	25/32	1 3/8	2 3/8	GBC20	
90218GBC*	1/2	25/32	1 3/8	2 3/8	GBC20	
90220GBC*	1/2	1 3/16	1 3/8	2 3/4	GBC30	
90226GBC*	5/8	2	1 3/8	3 11/16	GBC50	
90850GBC*	3/4	2	1 9/16	3 7/8	GBC50	3/4" Shank

*Non-Plunging
ICK Knives inserted with screws
GBC 'Groove Back Centre,' Knives inserted on a groove

These router bits are reversible with disposable carbide insert knives, which are economical, costing less than resharpening charges of conventional router bits. Using insert router bits decreases downtime on the job and allows you to maintain strict tolerances.

Torx Wrenches and Screws for Insert Router Bits

Series 00500 | TORX



NAP GLADU Tool Number	Corresponding Insert Router		Screw Dimensions	
00550	90210	90212	M2.5 x 5.5	Screws
00560	90200 90220	90218	M3 x 7	
00570	90240	90242	M3.5 x 4 (for bottom knife)	
00575	90240	90242	M3.5 x 4 (for main knife)	
00580	BC90-002 BC90-006	BC90-004 BC90-008	M4 x 5	
00585	90226 90850	90850	M4 x 11.5	
T8	90200 90212 90220	90210 90218	–	Torx Wrenches
T15	90226 90240 90850	90228 90242	–	
T20	BC90-002 BC90-006	BC90-004 BC90-008	–	

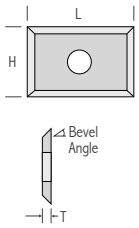
These screws fit the insert router bits above and are used to hold the insert knife in place. The torx wrenches are made for use with the insert screws.

Series ICK

Raker Turnover Knife

Solid carbide turnover knives made with two cutting edges.

	NAP GLADU Tool Number	L Blade Length	H Blade Height	T Blade Thickness	Bevel Angle	Hole Diameter
General Purpose	ICK7.5G	7.5 mm	12 mm	1.5 mm	55°	4 mm
	ICK9.6G	9.6 mm	12 mm	1.5 mm	55°	4 mm
	ICK10.5G	10.5 mm	12 mm	1.5 mm	55°	4 mm
	ICK11G	11 mm	12 mm	1.5 mm	55°	4 mm
	ICK13G	13 mm	12 mm	1.5 mm	55°	4 mm
	ICK15G	15 mm	12 mm	1.5 mm	55°	4 mm
	ICK15.7G	15.7 mm	12 mm	1.5 mm	55°	4 mm
	ICK17G	17 mm	12 mm	1.5 mm	55°	4 mm
	ICK18G	18 mm	12 mm	1.5 mm	55°	4 mm
	ICK19G	19 mm	12 mm	1.5 mm	55°	4 mm
	ICK20G	20 mm	12 mm	1.5 mm	55°	4 mm
MDF, HDF	ICK20X	20 mm	12 mm	1.5 mm	55°	4 mm
Particle Board	ICK20P	20 mm	12 mm	1.5 mm	55°	4 mm
Exotic Wood	ICK20E	20 mm	12 mm	1.5 mm	55°	4 mm
Mirror Finish, Hard	ICK20HM	20 mm	12 mm	1.5 mm	45°	4 mm
Mirror Finish, Soft	ICK20SM	20 mm	12 mm	1.5 mm	45°	4 mm

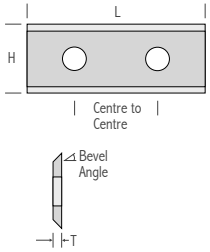


Series ICK

Raker Turnover Knife

Solid carbide turnover knives made with two cutting edges.

	NAP GLADU Tool Number	L Blade Length	H Blade Height	T Blade Thickness	Bevel Angle	Hole Diameter	Centre to Centre
General Purpose	ICK30G	30 mm	12 mm	1.5 mm	55°	4 mm	14 mm
	ICK40G	40 mm	12 mm	1.5 mm	55°	4 mm	26 mm
	ICK50G	50 mm	12 mm	1.5 mm	55°	4 mm	26 mm
	ICK60G	60 mm	12 mm	1.5 mm	45°	4 mm	26 mm
	ICK80G	80 mm	13 mm	2.2 mm	55°	4 mm	60 mm
	ICK100G	100 mm	13 mm	2.2 mm	55°	4 mm	60 mm
	ICK120G	120 mm	13 mm	2.2 mm	55°	4 mm	60 mm
MDF, HDF	ICK30X	30 mm	12 mm	1.5 mm	55°	4 mm	14 mm
	ICK50X	50 mm	12 mm	1.5 mm	55°	4 mm	26 mm
Particle Board	ICK30P	30 mm	12 mm	1.5 mm	55°	4 mm	14 mm
	ICK50P	50 mm	12 mm	1.5 mm	55°	4 mm	26 mm
Exotic Wood	ICK30E	30 mm	12 mm	1.5 mm	55°	4 mm	14 mm
	ICK50E	50 mm	12 mm	1.5 mm	55°	4 mm	26 mm
Mirror Finish, Hardwood	ICK30HM	30 mm	12 mm	1.5 mm	45°	4 mm	14 mm
	ICK40HM	40 mm	12 mm	1.5 mm	45°	4 mm	26 mm
	ICK50HM	50 mm	12 mm	1.5 mm	45°	4 mm	26 mm
Mirror Finish, Softwood	ICK30SM	30 mm	12 mm	1.5 mm	45°	4 mm	14 mm
	ICK40SM	40 mm	12 mm	1.5 mm	45°	4 mm	26 mm
	ICK50SM	50 mm	12 mm	1.5 mm	45°	4 mm	26 mm
	ICK60SM	60 mm	12 mm	1.5 mm	45°	4 mm	26 mm
	ICK80SM	80 mm	12 mm	2.2 mm	45°	4 mm	60 mm



There are two ways to determine what grade of material is best suited for each individual knife. First, by looking at the inner column, the knives are grouped together based on what grade of material each cuts best. Second, at the end of every tool number there is a letter, which corresponds to the material the knife is designed for. Use these guidelines to choose the correct knife for your application.

Selection Guide for Insert Knife Grades

The knives are grouped by material, which is listed on the inside column of each chart.

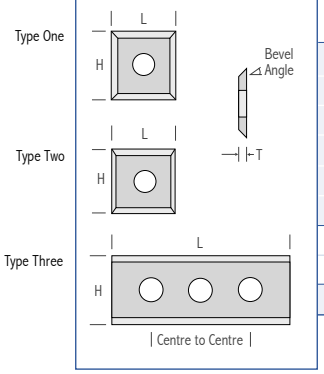
	ICK50X	50
Particle Board	ICK30P	30
	ICK50P	50
Exotic Wood	ICK30E	30
	ICK50E	50
Mirror Finish, Hardwood	ICK30HM	30
	ICK40HM	40
	ICK50HM	50

The letters in the part number also represent the material grade.

G	General Purpose
X	MDF, HDF
P	Particle Board
E	Exotic Wood
HM	Mirror Finish, Hardwood
SM	Mirror Finish, Softwood

Raker Turnover Knife

Series ICKA



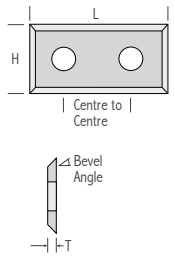
NAP GLADU Tool Number	Knife Type	L Blade Length	H Blade Height	T Blade Thickness	Bevel Angle	Hole Diameter	
ICKA10.5G	One	10.5 mm	10.5 mm	1.5 mm	55°	4 mm	General Purpose
ICKA12G	One	12 mm	12 mm	1.5 mm	55°	4 mm	
ICKA17G	One	17 mm	17 mm	2 mm	55°	4 mm	
ICKA19G	One	19 mm	19 mm	2 mm	55°	4 mm	
ICKA9G	Two	9 mm	12 mm	1.5 mm	55°	4 mm	
ICKA10G	Two	10 mm	12 mm	1.5 mm	55°	4 mm	
ICKA12E	One	12 mm	12 mm	1.5 mm	55°	4 mm	Exotic Wood
ICKA50E*	Three	50 mm	12 mm	1.7 mm	55°	4 mm	
ICKA12HM	One	12 mm	12 mm	1.5 mm	45°	4 mm	Mirror Finish, Hardwood

*Centre to Centre 37 mm

Solid carbide turnover knives; type one: four cutting edges; type two and type three: two cutting edges and face ground.

Raker Turnover Knife

Series ICKB

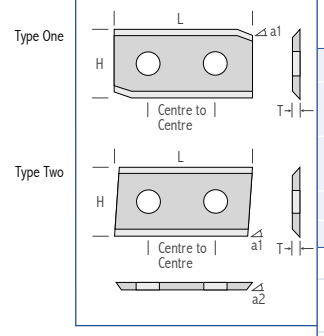


NAP GLADU Tool Number	L Blade Length	H Blade Height	T Blade Thickness	Bevel Angle	Hole Diameter	Centre to Centre	
ICKB29.5G	29.5 mm	12 mm	1.5 mm	55°	4 mm	14 mm	General Purpose
ICKB30G	30 mm	9 mm	1.5 mm	55°	3.7 mm	14 mm	
ICKB39.5G	39.5 mm	12 mm	1.5 mm	55°	4 mm	26 mm	
ICKB40G	40 mm	9 mm	1.5 mm	55°	3.7 mm	26 mm	
ICKB49.5G	49.5 mm	12 mm	1.5 mm	55°	4 mm	26 mm	
ICKB50G	50 mm	9 mm	1.5 mm	55°	3.7 mm	26 mm	
ICKB29.5X	29.5 mm	12 mm	1.5 mm	55°	4 mm	14 mm	MDF, HDF
ICKB30X	30 mm	9 mm	1.5 mm	55°	3.7 mm	14 mm	
ICKB50X	50 mm	9 mm	1.5 mm	55°	3.7 mm	26 mm	

These solid carbide turnover knives are made for shank-type cutters.

Raker Turnover Knife

Series ICKC



NAP GLADU Tool Number	Knife Type	L Blade Length	H Blade Height	T Blade Thickness	a1 Cutting a2 Angle	Hole Diameter	Centre to Centre	
ICKC29.5GL1	One	29.5 mm	12 mm	1.5 mm	a1 15°	4 mm	14 mm	General Purpose, Left Hand
ICKC19.5GL1	Two	19.5 mm	12 mm	1.5 mm	a1 .5° a2 15°	4 mm	–	
ICKC19.5GL2	Two	19.5 mm	12 mm	1.5 mm	a1 3.5° a2 15°	4 mm	–	
ICKC49.2GL	Two	49.2 mm	12 mm	1.5 mm	a1 5°	4 mm	26 mm	
ICKC29.5GL2	Two	29.5 mm	12 mm	1.5 mm	a1 5°	4 mm	14 mm	
ICKC29.5GR1	One	29.5 mm	12 mm	1.5 mm	a1 15°	4 mm	14 mm	General Purpose, Right Hand
ICKC19.5GR	Two	19.5 mm	12 mm	1.5 mm	a1 3.5° a2 15°	4 mm	–	
ICKC29.5GR2	Two	29.5 mm	12 mm	1.5 mm	a1 5°	4 mm	14 mm	
ICKC49.2GR	Two	49.2 mm	12 mm	1.5 mm	a1 5°	4 mm	26 mm	

Solid carbide turnover knives; type one: two cutting edges, chamfer; type two: two cutting edges and edge bevel.

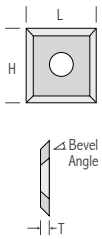
Series ICKD

Turnover Knife with Countersink

Solid carbide insert knives with countersink holes. Type one: made with a spur for cutterheads; type two: raker knife made for a spiral cutter head. The machine type is noted in the chart.

	NAP GLADU Tool Number	Knife Type	L Blade Length	H Blade Height	T Blade Thickness	Bevel Angle	Hole Diameter	Router Machine
General Purpose	ICKD14G1	One	14 mm	14 mm	1.2 mm	60°	8.6 mm	–
	ICKD14G2	One	14 mm	14 mm	1.2 mm	60°	8.6 mm	Holz-Her
	ICKD14G3	One	14 mm	14 mm	2 mm	60°	6.3 mm	–
	ICKD14G4*	One	14 mm	14 mm	2 mm	60°	6.3 mm	–
	ICKD13.6G	Two	13.6 mm	13.6 mm	2 mm	45°	6.3 mm	Fisher Brugg
	ICKD14.3G	Two	14.3 mm	14.3 mm	2.5 mm	55°	6.3 mm	Homag
	ICKD20G	Two	20 mm	14.3 mm	2.5 mm	55°	6.3 mm	Homag
Exotic Wood	ICKD14E	One	14 mm	14 mm	2 mm	60°	6.3 mm	–
Hardwood	ICKD15H	Two	15 mm	15 mm	2.5 mm	60°	6.4 mm	–
Mirror Finish, Hardwood	ICKD14HM	One	14 mm	14 mm	2 mm	60°	6.3 mm	–

*Marked for easier changeovers

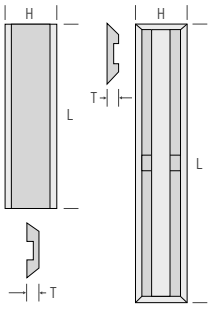


Series GF | GBC

Mini Turnover Knife

Turnover knives, made for general purpose use; GF: with two cutting edges; GBC: with two cutting edges, end sharpened.

	NAP GLADU Tool Number	Knife Type	L Blade Length	H Blade Height	T Blade Thickness
General Purpose	GF12G	GF	12 mm	5.5 mm	1.1 mm
	GF20G	GF	20 mm	5.5 mm	1.1 mm
	GF40G	GF	40 mm	5.5 mm	1.1 mm
	GF50G	GF	50 mm	5.5 mm	1.1 mm
	GBC12G	GBC	12 mm	5.5 mm	1.1 mm
	GBC20G1	GBC	20 mm	4.1 mm	1.1 mm
	GBC20G2	GBC	20 mm	5.5 mm	1.1 mm
	GBC25G	GBC	25 mm	5.5 mm	1.1 mm
	GBC30G	GBC	30 mm	5.5 mm	1.1 mm
	GBC50G	GBC	50 mm	5.5 mm	1.1 mm



Type GF Type GBC

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Leuco Insert Tooling and Clamping Systems

Leuco Ledermann GmbH is a world leader in the research, design and manufacturing of tooling for the woodworking and plastics industry. As the exclusive dealer of Leuco in Canada, NAP GLADU can supply you with the complete Leuco line of tools including:

Diamond Tooling

Diamond Tooling Includes:

- Router Bits
- Bore Tools
- Edge Banding Cutters
- Hogger Segments
- Saw Blades
- Custom Tools

Saw Blades

Insert Tooling and Insert Knives

Insert Tooling Includes:

- Router Bits
- Bore Tools
- Super Profilers
- EcoPro
- Edge Banding Cutters
- Moulder Tooling
- Custom Tools

Insert Knives Include:

- Straight
- Profiled
- Custom Knives

Please contact a NAP GLADUCustomer Service Representative to request your Leuco catalogue and your NAP GLADU CNC Tooling catalogue.

LEUCO

Clamping Systems

Clamping Systems Includes:

- Collets
- Hydraulics
- TriBos

LEUCO

Brazed Tooling

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Carbide Tipped Brad Point Dowel Drills - Length 57.5 mm

Series 50000

NAP GLADU Tool Number	A Cutting Diameter	B Twist Length	C Shank Length	Overall Length
50110	4 mm	30 mm	20 mm	57.5 mm
50114	4.5 mm	30 mm	20 mm	57.5 mm
50116	5 mm	30 mm	20 mm	57.5 mm
50117	5.1 mm	30 mm	20 mm	57.5 mm
50118	5.2 mm	30 mm	20 mm	57.5 mm
50120	6 mm	30 mm	20 mm	57.5 mm
50122	1/4"	30 mm	20 mm	57.5 mm
50124	7 mm	30 mm	20 mm	57.5 mm
50126	8 mm	30 mm	20 mm	57.5 mm
50127	8.1 mm	30 mm	20 mm	57.5 mm
50128	8.2 mm	30 mm	20 mm	57.5 mm
50129	9 mm	30 mm	20 mm	57.5 mm
50130	3/8"	30 mm	20 mm	57.5 mm
50132	10 mm	30 mm	20 mm	57.5 mm
50134	11 mm	30 mm	20 mm	57.5 mm
50136	12 mm	30 mm	20 mm	57.5 mm
50138	1/2"	30 mm	20 mm	57.5 mm
50140	14 mm	30 mm	20 mm	57.5 mm
50142	15 mm	30 mm	20 mm	57.5 mm
50144	16 mm	30 mm	20 mm	57.5 mm

All sizes available in right or left hand rotation

10 mm Shank

These are brad point dowel drills which have a flat chucking surface and an adjustable set screw. Please specify either “R” or “L” for right or left hand rotation when ordering.

Carbide Tipped Brad Point Dowel Drills - Length 70 mm

Series 50000

NAP GLADU Tool Number	A Cutting Diameter	B Twist Length	C Shank Length	Overall Length
50158	4 mm	43 mm	20 mm	70 mm
50160	5 mm	43 mm	20 mm	70 mm
50161	5.1 mm	43 mm	20 mm	70 mm
50162	5.2 mm	43 mm	20 mm	70 mm
50163	6 mm	43 mm	20 mm	70 mm
50164	1/4"	43 mm	20 mm	70 mm
50166	7 mm	43 mm	20 mm	70 mm
50167*	7.5 mm	43 mm	20 mm	70 mm
50168	8 mm	43 mm	20 mm	70 mm
50169	8.1 mm	43 mm	20 mm	70 mm
50170	8.2 mm	43 mm	20 mm	70 mm
50171	9 mm	43 mm	20 mm	70 mm
50172	3/8"	43 mm	20 mm	70 mm
50174	10 mm	43 mm	20 mm	70 mm
50176	11 mm	43 mm	20 mm	70 mm
50178	12 mm	43 mm	20 mm	70 mm
50180	1/2"	43 mm	20 mm	70 mm
50182	13 mm	43 mm	20 mm	70 mm
50184	14 mm	43 mm	20 mm	70 mm
50185	15 mm	43 mm	20 mm	70 mm
50186	16 mm	43 mm	20 mm	70 mm

*Custom Size

All sizes available in right or left hand rotation

10 mm Shank

These are brad point dowel drills which have a flat chucking surface and an adjustable set screw. Please specify either “R” or “L” for right or left hand rotation when ordering.

Series 53000

Metric Solid Carbide V-Point Dowel Drills

V-Point drills are for clean through hole drilling available in right and left hand rotation. Drills are straight shank and must be used in adaptors below if 10 mm shank is required. Please specify “R” or “L” for right or left hand rotation when ordering.

	NAP GLADU Tool Number	A Cutting Diameter	B Twist Length	C Shank Length	Overall Length
2 mm Shank	53210	2 mm	22 mm	27 mm	49 mm
2.5 mm Shank	53212	2.5 mm	27 mm	28 mm	55 mm
3 mm Shank	53214	3 mm	27 mm	28 mm	55 mm
3.2 mm Shank	53216	3.2 mm	27 mm	28 mm	55 mm
3.5 mm Shank	53218	3.5 mm	30 mm	25 mm	55 mm
4 mm Shank	53220	4 mm	30 mm	25 mm	55 mm
4.5 mm Shank	53222	4.5 mm	30 mm	25 mm	55 mm
5 mm Shank	53224	5 mm	30 mm	25 mm	55 mm

All sizes available in right or left hand rotation

Series 01200

Adaptors - allow small size drills to fit metric boring chucks

These allow the solid carbide straight shank drills above to fit in machines requiring 10 mm shanks with a flat chucking surface.

NAP GLADU Tool Number	X Inside Diameter	Y Outside Diameter	Adaptor Length
01210	2 mm	10 mm	23 mm
01212	2.5 mm	10 mm	23 mm
01214	3 mm	10 mm	23 mm
01216	3.2 mm	10 mm	23 mm
01218	3.5 mm	10 mm	23 mm
01220	4 mm	10 mm	23 mm
01222	4.5 mm	10 mm	23 mm
01224	5 mm	10 mm	23 mm

Series 53000A

Adaptors - allow small size drills to fit metric boring chucks

These allow the solid carbide straight shank drills, pictured above, to fit in machines requiring 10 mm shanks with a flat chucking surface.

	NAP GLADU Tool Number	A Corresponding Drill Diameter	C Shank Length	Adaptor Length
10 mm Shank	53210A	2 mm	20 mm	38 mm
	53212A	2.5 mm	20 mm	38 mm
	53214A	3 mm	20 mm	38 mm
	53216A	3.2 mm	20 mm	38 mm
	53218A	3.5 mm	20 mm	38 mm
	53220A	4 mm	20 mm	38 mm
	53222A	4.5 mm	20 mm	38 mm
	53224A	5 mm	20 mm	38 mm

Carbide Tipped V-Point Dowel Drills - Length 57.5 mm

Series 53000

NAP GLADU Tool Number	A Cutting Diameter	B Twist Length	C Shank Length	Overall Length	
53110	5 mm	27 mm	26 mm	57.5 mm	10 mm Shank
53112	6 mm	27 mm	26 mm	57.5 mm	
53113	1/4"	27 mm	26 mm	57.5 mm	
53114	7 mm	28 mm	25 mm	57.5 mm	
53116	8 mm	27 mm	26 mm	57.5 mm	
53120	10 mm	27 mm	26 mm	57.5 mm	
53122	12 mm	33 mm	20 mm	57.5 mm	

All sizes available in right or left hand rotation

Use one of these V-Point tips for clean through hole drilling and flat chucking surfaces with an adjustable set screw. Please specify “R” or “L” for right or left hand rotation when ordering.

Carbide Tipped Brad Point Dowel Drills - Length 70 mm

Series 53000

NAP GLADU Tool Number	A Cutting Diameter	B Twist Length	C Shank Length	Overall Length	
53126	4 mm	35 mm	26 mm	70 mm	10 mm Shank
53128	3/16"	35 mm	26 mm	70 mm	
53130	5 mm	35 mm	26 mm	70 mm	
53131	7/32"	35 mm	26 mm	70 mm	
53132	6 mm	35 mm	26 mm	70 mm	
53133	1/4"	35 mm	26 mm	70 mm	
53134	7 mm	35 mm	26 mm	70 mm	
53136	8 mm	35 mm	26 mm	70 mm	
53138	9 mm	35 mm	26 mm	70 mm	
53139	3/8"	35 mm	26 mm	70 mm	
53140	10 mm	35 mm	26 mm	70 mm	
53142	12 mm	35 mm	26 mm	70 mm	
53144	1/2"	35 mm	26 mm	70 mm	

All sizes available in right or left hand rotation

Use one of these V-Point tips for clean through hole drilling and flat chucking surfaces with an adjustable set screw. Please specify “R” or “L” for right or left hand rotation when ordering.

Series 55000

Carbide Tipped Countersinks - for Metric Twist Drills

Designed for drilling countersinks in solid wood and panel materials. A socket screw will hold the countersink to drills 3 mm to 6 mm in diameter.

10 mm Shank

NAP GLADU Tool Number	Rotation Direction	A1 Fits Drill Diameter	A2 Countersink Size	Overall Length
55102	Right	3 mm	15 mm	58 mm
55104	Left			
55106	Right	3.5 mm	15 mm	58 mm
55108	Right	4 mm	15 mm	58 mm
55110	Left			
55112	Right	4.5 mm	15 mm	58 mm
55114	Left			
55116	Right	5 mm	15 mm	58 mm
55118	Left			
55120	Right	6 mm	15 mm	58 mm
55122	Left			

All sizes available in right or left hand rotation

Series 55000

Countersinks for Dowel Drills - Twist and Shank Clamping

These countersinks are for attachment to the spiral flutes of brad point and taper point drills (Series 51000 and 53000). All countersinks are available in right or left hand rotation. Please specify “R” or “L” for right or left when ordering.

NAP GLADU Tool Number	X Inside Diameter	Y Outside Diameter	Adaptor Length
55000	4 mm	14 mm	15 mm
55002	5 mm	16 mm	15 mm
55004	6 mm	16 mm	15 mm
55006	7 mm	18 mm	15 mm
55008	8 mm	18 mm	15 mm
55010	9 mm	20 mm	15 mm
55012	10 mm	20 mm	15 mm
55014	12 mm	22 mm	15 mm
55020*	5-10 mm	20 mm	16.5 mm
55022*	10-12 mm	22 mm	16.5 mm

All sizes available in right or left hand rotation

*These countersinks clamp onto Series 51000 and 53000 drills

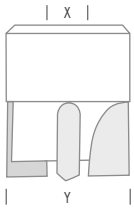
Series 56000

Custom Counterbores for Dowel Drills - Twist Clamping

These counterbores are for attachment to the spiral flutes of brad point and taper point drills (Series 51000 and 53000). The counterbores are custom made and require 4-6 weeks for delivery. Please specify the inside diameter required when ordering, as well as “R” or “L” for right or left hand rotation.

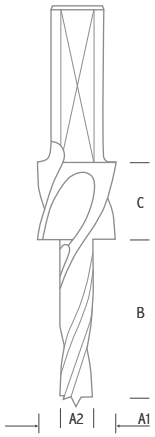
NAP GLADU Tool Number	X Inside Diameter	Y Outside Diameter	Adaptor Length
56020	Custom	20 mm	20 mm
56025	Custom	25 mm	20 mm
56030	Custom	30 mm	20 mm
56035	Custom	35 mm	20 mm
56040	Custom	40 mm	20 mm

All sizes available in right or left hand rotation



Custom Solid Counterbore - High Speed Steel

Series 57000



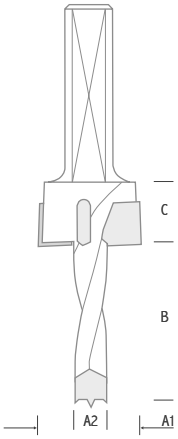
A1 Large Diameter	A2 Small Diameter	B Twist Length	C Counterbore Length	Overall Length	
Up To: 15 mm	Custom	Custom	Custom	Up To:	Custom Shank
20 mm				130 mm	
25 mm					
30 mm					
40 mm					
50 mm					

All sizes available in right or left hand rotation

Custom solid counterbore made from high speed steel, when ordering, please state the direction of rotation and the required dimensions according to the diagram shown. All items are custom made and require 4-6 weeks delivery. Extra charges will be added for the addition of v-points, threaded shanks, shanks with driving flats and length adjusting screws.

Custom Solid Counterbore - Carbide Tipped

Series 58000



A1 Large Diameter	A2 Small Diameter	B Twist Length	C Counterbore Length	Overall Length	
Up To: 15 mm	Custom	Custom	Custom	Up To:	Custom Shank
20 mm				130 mm	
25 mm					
30 mm					
40 mm					
50 mm					

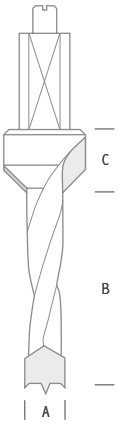
All sizes available in right or left hand rotation

Custom solid counterbore made with carbide tips, when ordering, please state the direction of rotation and the required dimensions according to the diagram shown. All items are custom made and require 4-6 weeks delivery. Extra charges will be added for the addition of v-points, threaded shanks, shanks with driving flats and length adjusting screws.

Solid Countersink - Carbide Tipped

Custom Sizes Available

Series 59000



BC Saw Tool Number	A Small Diameter	B Twist Length	C Countersink Length	Overall Length	
59005	5 mm	15 mm	15 mm	50 mm	10 mm Shank
59006	6 mm	15 mm	15 mm	50 mm	
59008	8 mm	15 mm	15 mm	50 mm	
59010	10 mm	15 mm	15 mm	50 mm	
59105	5 mm	20 mm	15 mm	55 mm	
59106	6 mm	20 mm	15 mm	55 mm	
59108	8 mm	20 mm	15 mm	55 mm	
59110	10 mm	20 mm	15 mm	55 mm	

All solid countersink tools have a 20 mm Shank Length
All sizes available in right or left hand rotation

Custom solid countersink made with carbide tips, when ordering, please state the direction of rotation and the required dimensions according to the diagram shown. All items are custom made and require 4-6 weeks delivery.

Series 60000

Solid Countersink - Carbide Tipped

Custom Sizes Available

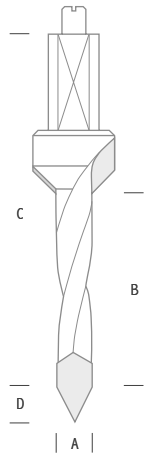
Custom solid countersink made with carbide tips, when ordering, please state the direction of rotation and the required dimensions according to the diagram shown. All items are custom made and require 4-6 weeks delivery.

10 mm Shank

NAP GLADU Tool Number	A Small Diameter	B Twist Length	C End to Twist	D V-Point Length	Overall Length
60005	5 mm	22.5 mm	57.5 mm	4 mm	61.5 mm
60006	6 mm	22.5 mm	57.5 mm	5 mm	62.5 mm
60008	8 mm	22.5 mm	57.5 mm	6.5 mm	64 mm
60105	5 mm	35 mm	70 mm	4 mm	74 mm
60106	6 mm	35 mm	70 mm	5 mm	75 mm
60108	8 mm	35 mm	70 mm	6.5 mm	76.5 mm
60110	10 mm	35 mm	70 mm	8.5 mm	78.5

All solid countersink tools have a 20 mm Shank Length and a 15 mm Countersink Length

All sizes available in right or left hand rotation



Series 52000

Carbide Tipped Hinge Boring Bits - Length 57.5 mm

This bit has two cutting edges, two spurs and a centre point to provide for clean hole boring for concealed hinges. Cylindrical 10 mm shanks have a flat chucking surface and adjustable set screw for optimum clamping. All boring bits are available in right or left hand rotation, please specify “R” or “L” when ordering.

10 mm Shank

NAP GLADU Tool Number	A Cutting Diameter	C Shank Length	Overall Length
52110	15 mm	26 mm	57.5 mm
52112	16 mm	26 mm	57.5 mm
52114	18 mm	26 mm	57.5 mm
52116	20 mm	26 mm	57.5 mm
52118	22 mm	26 mm	57.5 mm
52120	24 mm	26 mm	57.5 mm
52122	25 mm	26 mm	57.5 mm
52124	26 mm	26 mm	57.5 mm
52126	28 mm	26 mm	57.5 mm
52128	30 mm	26 mm	57.5 mm
52130	32 mm	26 mm	57.5 mm
52134	35 mm	26 mm	57.5 mm
52138	38 mm	26 mm	57.5 mm
52140	40 mm	26 mm	57.5 mm

All sizes available in right or left hand rotation

Series 52000

Carbide Tipped Hinge Boring Bits - Length 70 mm

This bit has two cutting edges, two spurs and a centre point to provide for clean hole boring for concealed hinges. The cylindrical 10 mm shanks have a flat chucking surface and adjustable set screw for optimum clamping. When ordering, please specify “R” for right hand rotation or “L” for left hand rotation.

10 mm Shank

NAP GLADU Tool Number	A Cutting Diameter	C Shank Length	Overall Length
52142	15 mm	26 mm	70 mm
52144	18 mm	26 mm	70 mm
52146	20 mm	26 mm	70 mm
52148	25 mm	26 mm	70 mm
52150	26 mm	26 mm	70 mm
52152	30 mm	26 mm	70 mm
52154	35 mm	26 mm	70 mm
52156	40 mm	26 mm	70 mm

All sizes available in right or left hand rotation

Carbide Tipped Hinge Boring Bits - Length 90 mm

Series 52000

NAP GLADU Tool Number	A Cutting Diameter	C Shank Length	Overall Length	
52160	8 mm	30 mm	90 mm	10 mm Shank
52161	10 mm	30 mm	90 mm	
52162	11 mm	30 mm	90 mm	
52163	12 mm	30 mm	90 mm	
52164	13 mm	30 mm	90 mm	
52165	14 mm	30 mm	90 mm	
52166	15 mm	30 mm	90 mm	
52167	16 mm	30 mm	90 mm	
52168	17 mm	30 mm	90 mm	
52169	18 mm	30 mm	90 mm	
52170	19 mm	30 mm	90 mm	
52171	20 mm	30 mm	90 mm	
52172	21 mm	30 mm	90 mm	
52173	22 mm	30 mm	90 mm	
52174	23 mm	30 mm	90 mm	
52175	24 mm	30 mm	90 mm	
52176	25 mm	30 mm	90 mm	
52177	26 mm	30 mm	90 mm	
52178	27 mm	30 mm	90 mm	
52179	28 mm	30 mm	90 mm	
52180	29 mm	30 mm	90 mm	
52181	30 mm	30 mm	90 mm	
52182	31 mm	30 mm	90 mm	
52183	32 mm	30 mm	90 mm	
52184	33 mm	30 mm	90 mm	
52185	34 mm	30 mm	90 mm	
52186	35 mm	30 mm	90 mm	
52187	36 mm	30 mm	90 mm	
52188	37 mm	30 mm	90 mm	
52189	38 mm	30 mm	90 mm	
52190	40 mm	30 mm	90 mm	
52191	42 mm	30 mm	90 mm	
52192	44 mm	30 mm	90 mm	
52193	45 mm	30 mm	90 mm	
52194	46 mm	30 mm	90 mm	
52195	48 mm	30 mm	90 mm	
52196	50 mm	30 mm	90 mm	
52197	55 mm	30 mm	90 mm	
52198	58 mm	30 mm	90 mm	
52199	60 mm	30 mm	90 mm	

This bit has two cutting edges, two spurs and a centre point to provide for clean hole boring for concealed hinges. The cylindrical 10 mm shanks have a flat chucking surface and an adjustable set screw for optimum clamping. *These boring bits are only available for right hand rotation*.

Series 5

These 7/16-14 threaded shank chucks accept straight shank drills. They are available in both right and left hand rotations.

Miscellaneous Boring Chucks

	NAP GLADU Tool Number	Rotation Direction	X Inside Diameter
7/16-14 Thread	BC62473	Right	1/8
	BC62474	Right	5/32
	BC62475	Right	3/16
	BC62476	Right	7/32
	BC62477	Right	1/4
	BC62478	Right	9/32
	BC62479	Right	5/16
	BC62480	Right	3/8
	BC62481	Right	7/16
	BC62482	Right	1/2
	BC62483	Right	10 mm
	BC62484	Left	1/8
	BC62485	Left	5/32
	BC62486	Left	3/16
	BC62487	Left	7/32
	BC62488	Left	1/4
	BC62489	Left	9/32
	BC62490	Left	5/16
	BC62491	Left	3/8
	BC62492	Left	7/16
	BC62493	Left	1/2
	BC62494	Left	10 mm

Series 7

These chucks will allow the adaptation of North American bits for use on European boring machines.

Metric Boring Chucks for European Machinery

	NAP GLADU Tool Number	Rotation Direction	X Inside Diameter	Y Outside Diameter	Overall Length	Corresponding Machine(s)
8 Thread	BC62239 BC62240	Right Left	10 mm	16 mm	40 mm	Nottmeyer
	BC62245 BC62246	Right Left	10 mm	16 mm	50 mm	Bilek Knoevenagel
10 Thread	BC62241 BC62242	Right Left	10 mm	19 mm	40 mm	Holtzma, Torwegge, Mayer, Knoevenagel
	BC62243 BC62244	Right Left	10 mm	19 mm	41 mm	Alberti, Balestrini, Busellato, Torwegge, Biesse, Vitap, Weeke, Gessner, Morbidelli
	BC62247 BC62248	Right Left	10 mm	19 mm	42 mm	Morbidelli, Nottmeyer

Boring Tools

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Forstner Bits 172-173
Holesaws 178
Holesaw Accessories 179
Multispur Bits 174-175
Plug Cutters 177

Imperial Forstner Bits

Series 51000

NAP GLADU Tool Number	A Cutting Diameter	Overall Length	
51300	1/4	3 1/2	5/16" Shank
51302	3/8	3 1/2	
51304	1/2	3 1/2	
51306	9/16	3 1/2	
51308	5/8	3 1/2	
51310	11/16	3 1/2	
51312	3/4	3 1/2	
51314	13/16	3 1/2	
51316	7/8	3 1/2	
51318	15/16	3 1/2	
51320	1	3 1/2	
51322	1 1/16	3 1/2	
51324	1 1/8	3 1/2	
51326	1 3/16	3 1/2	
51328	1 1/4	3 1/2	3/8" Shank
51330	1 5/16	3 1/2	
51332	1 3/8	3 1/2	
51334	1 1/2	3 1/2	
51336	1 5/8	3 5/8	
51338	1 3/4	3 5/8	
51340	1 7/8	3 5/8	
51342	2	3 5/8	
51344	2 1/8	3 5/8	
51346	2 1/4	3 5/8	
51348	2 3/8	6 1/4	1/2" Shank
51350	2 1/2	6 1/4	
51352	2 5/8	6 1/4	
51354	2 3/4	6 1/4	
51356	2 7/8	6 1/4	
51358	3	6 1/4	

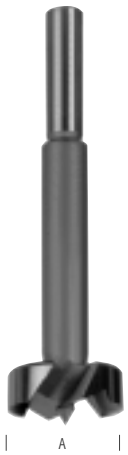
A versatile high speed steel tool used in drilling true sized holes. Forstner bits are guided by their outside edge instead of a centre point. This enables the bits to drill angled holes, pocket holes, flat bottom holes or completely through holes.

Series 51000

Metric Forstner Bits

A versatile high speed steel tool used in drilling true sized holes. Forstner bits are guided by their outside edge instead of a centre point. This enables the bits to drill angled holes, pocket holes, flat bottom holes or completely through holes.

	NAP GLADU Tool Number	A Cutting Diameter	Overall Length
8 mm Shank	51800	10 mm	90 mm
	51802	12 mm	90 mm
	51804	13 mm	90 mm
	51806	14 mm	90 mm
	51808	15 mm	90 mm
	51810	16 mm	90 mm
	51814	18 mm	90 mm
	51816	19 mm	90 mm
	51818	20 mm	90 mm
	51820	21 mm	90 mm
	51822	22 mm	90 mm
	51826	24 mm	90 mm
	51828	25 mm	90 mm
	51830	26 mm	90 mm
	51832	28 mm	90 mm
	51834	30 mm	90 mm
10 mm Shank	51836	32 mm	90 mm
	51838	34 mm	90 mm
	51840	35 mm	90 mm
	51842	36 mm	90 mm
	51844	38 mm	90 mm
	51846	40 mm	90 mm
	51848	45 mm	90 mm
	51850	50 mm	90 mm



Series 51700

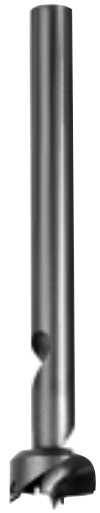
Extension Shank - for forstner and drill bits

Either 130 mm or 250 mm long extension shanks can help get at hard to reach places when drilling or boring.

NAP GLADU Tool Number	A Corresponding Shank Diameter	Overall Length
51700	8 mm	130 mm
51702	8 mm	250 mm
51704	10 mm	130 mm
51706	10 mm	250 mm

Multispur Bits

Series 149



NAP GLADU Tool Number	A Cutting Diameter	Overall Length	
BC62736	1/2	6	1/2" Shank
BC62737	9/16	6	
BC62738	5/8	6	
BC62739	11/16	6	
BC62740	3/4	6	
BC62741	13/16	6	
BC62742	7/8	6	
BC62743	15/16	6	
BC62744	1	6	
BC62745	1 1/16	6	
BC62746	1 1/8	6	
BC62747	1 3/16	6	
BC62748	1 1/4	6	
BC62749	1 5/16	6	
BC62750	1 3/8	6	
BC62751	1 7/16	6	
BC62752	1 1/2	6	
BC62753	1 9/16	6	
BC62754	1 5/8	6	
BC62755	1 11/16	6	
BC62756	1 3/4	6	
BC62757	1 13/16	6	
BC62758	1 7/8	6	
BC62759	1 15/16	6	
BC62760	2	6	
BC62761	2 1/8	6	
BC62762	2 1/4	6	
BC62763	2 3/8	6	
BC62764	2 1/2	6	
BC62765	2 5/8	6	
BC62766	2 3/4	6	
BC62767	2 7/8	6	
BC62768	3	6	
BC62774	3 1/8	6	
BC62775	3 1/4	6	
BC62776	3 1/2	6	
BC62777	3 3/4	6	
BC62778	4	6	
BC62769	3 1/8	6	3/4" Shank
BC62770	3 1/4	6	
BC62771	3 1/2	6	
BC62772	3 3/4	6	
BC62773	4	6	

Designed with a precision ground cutting edge to bore fast and lift chips cleanly up and out of the hole. The multiple outlining spurs bore clean holes without chipping or splintering the surface of the wood, the brad point allows for positive centering. Perfect for boring through veneers. Works well for boring with or across the grain, as well as boring overlapping holes. Heat treating ensures tough, uniformly hard cutting edges, plus long tool life.

Series 149CT

Designed identical to Series 149 bits, except furnished with carbide tips.

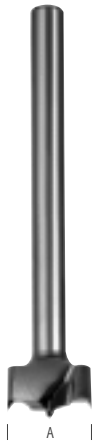
Carbide Tipped Multispur Bits

	NAP GLADU Tool Number	A Cutting Diameter	Overall Length
1/2" Shank	BC62779*	3/4	6
	BC62780*	7/8	6
	BC62781*	15/16	6
	BC62782*	1	6
	BC62783	1 1/16	6
	BC62784	1 1/8	6
	BC62785	1 3/16	6
	BC62786	1 1/4	6
	BC62787	1 5/16	6
	BC62788	1 3/8	6
	BC62789	1 7/16	6
	BC62790	1 1/2	6
	BC62791	1 9/16	6
	BC62792	1 5/8	6
	BC62793	1 3/4	6
	BC62794	1 7/8	6
	BC62795	2	6
	BC62796	2 1/8	6
	BC62811	2 1/4	6
	BC62812	2 3/8	6
	BC62813	2 1/2	6
	BC62814	2 5/8	6
	BC62815	2 3/4	6
	BC62816	3	6
	BC62821	3 1/4	6
	BC62822	3 1/2	6
	BC62823	3 3/4	6
	BC62824	4	6
3/4" Shank	BC62817	3 1/4	6
	BC62818	3 1/2	6
	BC62819	3 3/4	6
	BC62820	4	6

*Carbide tips on every other tooth

Carbide Tipped Two Wing Boring Drills

Series 811CT



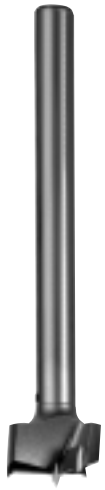
NAP GLADU Tool Number	A Cutting Diameter	Overall Length
BC62797	1	6
BC62798	1 1/8	6
BC62799	1 1/4	6
BC62800	1 3/8	6
BC62801	1 1/2	6
BC62802	1 5/8	6
BC62803	1 3/4	6
BC62804	1 7/8	6
BC62805	2	6
BC62806	2 1/8	6
BC62807	2 1/4	6
BC62808	2 1/2	6
BC62809	2 3/4	6
BC62810	3	6

1/2" Shank

These bits are designed to bore clean, accurate holes on plastic laminates and wood. Spurs outline the hole before the chip lifters plane the material to help prevent cracked edges.

Carbide Tipped Three Wing Boring Drills

Series 812CT



NAP GLADU Tool Number	A Cutting Diameter	Overall Length
BC62825	1/2	6
BC62826	9/16	6
BC62827	5/8	6
BC62828	11/16	6
BC62829	3/4	6
BC62830	13/16	6
BC62831	7/8	6
BC62832	1	6
BC62833	1 1/8	6
BC62834	1 1/4	6
BC62835	1 3/8	6
BC62836	1 1/2	6
BC62837	1 5/8	6
BC62838	1 3/4	6
BC62839	1 7/8	6
BC62840	2	6
BC62841	2 1/8	6
BC62842	2 1/4	6
BC62843	2 1/2	6

1/2" Shank

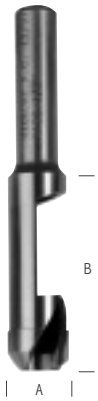
Designed to bore Formica and tempered Masonite, as well as abrasive materials and hardwoods.

Series 140

Designed to cut cross-grain plugs or end-grain dowels up to 2” in length. Plugs up to 1” thick are easily cleared through the 1 1/8” opening.

Carbon Steel Plug Cutters - Softwood

	NAP GLADU Tool Number	A Plug Size	B Cutting Height	Overall Length
1/2" Shank	BC62871	3/8	2 1/8	4 1/2
	BC62872	1/2	2 1/8	4 1/2
	BC62873	5/8	2 1/8	4 1/2
	BC62874	3/4	2 1/8	4 1/2
	BC62875	1	2 1/8	4 1/2

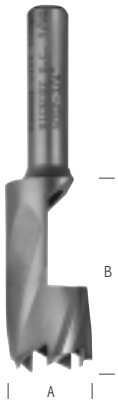


Series 600P

These bits are designed to cut a true-sized plug under almost any condition. These cutters work more effectively at clearing chips than Series 140 plug cutters because of the multiple spiral flutes.

Carbon Steel Spiral Plug Cutters - Hardwood

	NAP GLADU Tool Number	A Plug Size	B Cutting Height	Overall Length
1/2" Shank	BC62876	3/8	2	4 1/2
	BC62877	1/2	2	4 1/2
	BC62878	5/8	2	4 1/2
	BC62879	3/4	2	4 1/2
	BC62880	7/8	2	4 1/2
	BC62881	1	2	4 1/2
	BC62882	1 1/4	2	4 1/2
	BC62883	1 1/2	2	4 1/2
	BC62884	1 3/4	2	4 1/2
	BC62885	2	2	4 1/2



Bimetal Variable Pitch Holesaws

Series H0000

NAP GLADU Tool Number	A (in) Cutting Diameter	A (mm) Cutting Diameter	Arbor Number
H0096	9/16	14 mm	ARB 1, 2, 3
H0058	5/8	16 mm	ARB 1, 2, 3
H0016	11/16	17 mm	ARB 1, 2, 3
H0034	3/4	19 mm	ARB 1, 2, 3
H0036	13/16	21 mm	ARB 1, 2, 3
H0078	7/8	22 mm	ARB 1, 2, 3
H1056	15/16	24 mm	ARB 1, 2, 3
H0100	1	25 mm	ARB 1, 2, 3
H0116	1 1/16	27 mm	ARB 1, 2, 3
H0118	1 1/8	29 mm	ARB 1, 2, 3
H0136	1 3/16	30 mm	ARB 1, 2, 3
H0114	1 1/4	32 mm	ARB 4, 5, 6
H0156	1 5/16	33 mm	ARB 4, 5, 6
H0138	1 3/8	35 mm	ARB 4, 5, 6
H0176	1 7/16	37 mm	ARB 4, 5, 6
H0112	1 1/2	38 mm	ARB 4, 5, 6
H0196	1 9/16	40 mm	ARB 4, 5, 6
H0158	1 5/8	41 mm	ARB 4, 5, 6
H1116	1 11/16	43 mm	ARB 4, 5, 6
H0134	1 3/4	44 mm	ARB 4, 5, 6
H1136	1 13/16	46 mm	ARB 4, 5, 6
H0178	1 7/8	48 mm	ARB 4, 5, 6
H0200	2	51 mm	ARB 4, 5, 6
H0216	2 1/16	52 mm	ARB 4, 5, 6
H0218	2 1/8	54 mm	ARB 4, 5, 6
H0214	2 1/4	57 mm	ARB 4, 5, 6
H0256	2 5/16	59 mm	ARB 4, 5, 6
H0238	2 3/8	60 mm	ARB 4, 5, 6
H0212	2 1/2	64 mm	ARB 4, 5, 6
H0296	2 9/16	65 mm	ARB 4, 5, 6
H0258	2 5/8	67 mm	ARB 4, 5, 6
H0234	2 3/4	70 mm	ARB 4, 5, 6
H0278	2 7/8	73 mm	ARB 4, 5, 6
H0300	3	76 mm	ARB 4, 5, 6
H0318	3 1/8	79 mm	ARB 4, 5, 6
H0314	3 1/4	83 mm	ARB 4, 5, 6
H0338	3 3/8	86 mm	ARB 4, 5, 6
H0312	3 1/2	89 mm	ARB 4, 5, 6
H0358	3 5/8	92 mm	ARB 4, 5, 6
H0334	3 3/4	95 mm	ARB 4, 5, 6
H0378	3 7/8	98 mm	ARB 4, 5, 6
H0400	4	102 mm	ARB 4, 5, 6
H0418	4 1/8	105 mm	ARB 4, 5, 6
H0414	4 1/4	108 mm	ARB 4, 5, 6
H0438	4 3/8	111 mm	ARB 4, 5, 6
H0412	4 1/2	114 mm	ARB 4, 5, 6
H0434	4 3/4	121 mm	ARB 4, 5, 6
H0500	5	127 mm	ARB 4, 5, 6
H0512	5 1/2	140 mm	ARB 4, 5, 6
H0600	6	152 mm	ARB 4, 5, 6

Carbide tipped, carbide grit and diamond holesaws are available in certain sizes

These holesaws are designed to cut through any machinable material including cast iron, tool and stainless steel, brass, bronze, plastic, aluminum and wood. A high speed steel, 4/6 variable pitch cutting edge is welded to a tough alloy steel body to provide extra strength. A 1 1/2” cutting depth is obtained when these holesaws are used with the arbor found on page 179.

Series ARB

For use with the holesaws found on page 178. Can also be used with carbide tipped, carbide grit or diamond holesaws as well. ARB 5, 6 and 7 have drive pins to transfer a large cutting force from the holesaw to the power unit.

Holesaw Arbors

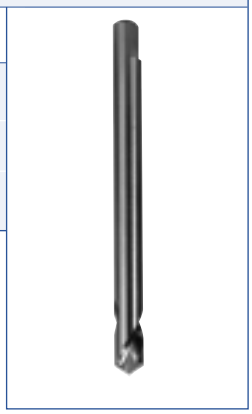
NAP GLADU Tool Number	Shank Size	Corresponding Chuck Size	Corresponding Holesaws
ARB1	–	1/4	H0096-H0136
ARB2	1/4 Triangular	5/16	H0096-H0136
ARB3	11/32 Hexagonal	3/8	H0096-H0136
ARB4	7/16 Hexagonal	1/2	H0096-H0136
ARB5	11/32 Hexagonal	3/8	H0114-H0600
ARB6	7/16 Hexagonal	1/2	H0114-H0600
ARB7	5/8 Hexagonal	3/4	H0114-H0600

Series DRL

High speed steel and carbide tipped pilot drills, used for guiding and keeping the holesaw in the correct position during sawing operations.

Holesaw Pilot Drills

NAP GLADU Tool Number	Drill Description
DRL1	High Speed Steel 1/4" Drill Bit for all arbors except ARB4
DRL2	High Speed Steel 1/4" Drill Bit for ARB4
DRLCT	Carbide Tipped 1/4" Drill Bit for all arbors



Series ACC

A wide variety of accessories to make holesawing easier: arbor extensions for reach in difficult to cut situations; arbor adaptors to adapt smaller arbor threads to larger holesaw threads; ejector springs to facilitate core removal; drive plates designed to take cutting pressure off drive pinholes during heavy operations in stationary and portable machines.

Holesaw Accessories

	NAP GLADU Tool Number	Accessory Description	Corresponding Arbor	Corresponding Holesaw
1/2" Shank	EXT1	12" x 7/16" Extension	ARB 3, 5	–
	EXT2	12" x 7/16" Extension	ARB 4, 7	–
	ARA	Arbor Adaptor	ARB 2, 3, 4	H0114-H0600
	EJE	Ejector Spring	ARB 1-7	–
	DRP1	Drive Plate	–	H0300-H0418
	DRP2	Drive Plate	–	H0414-H0600

Twist Drills

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Centre Drills, Straight Shank, Brad Point 191-192
Centre Drills, Straight Shank, V-Point 192
Dowel Drills, Screw Shank, Brad Point 182-185
Dowel Drills, Screw Shank, V-Point 185
Jobber Drills 193-195
Machine Drills, Brad Point 187-190
Power Ship Auger Bits 186
Vix Bits 185

Carbon Steel Screw Shank Brad Point Dowel Drills

Series 203

NAP GLADU Tool Number	Rotation Direction	A Cutting Diameter	B Twist Length	Overall Length
BC62000	Right	3/8	2	3 1/2
BC62001	Right	7/16	2	3 1/2
BC62004	Right	1/8	3	4 1/2
BC62005	Right	3/16	3	4 1/2
BC62006	Right	7/32	3	4 1/2
BC62007	Right	1/4	3	4 1/2
BC62008	Right	9/32	3	4 1/2
BC62009	Right	5/16	3	4 1/2
BC62010	Right	11/32	3	4 1/2
BC62011	Right	3/8	3	4 1/2
BC62012	Right	25/64	3	4 1/2
BC62013	Right	13/32	3	4 1/2
BC62014	Right	7/16	3	4 1/2
BC62015	Right	29/64	3	4 1/2
BC62016	Right	1/2	3	4 1/2
BC62017	Right	9/16	3	4 1/2
BC62018	Right	5/8	3	4 1/2
BC62019	Right	3/4	3	4 1/2
BC62020	Right	7/8	3	4 1/2
BC62021	Right	1	3	4 1/2
BC62002	Left	3/8	2	3 1/2
BC62003	Left	7/16	2	3 1/2
BC62022	Left	1/8	3	4 1/2
BC62023	Left	3/16	3	4 1/2
BC62024	Left	7/32	3	4 1/2
BC62025	Left	1/4	3	4 1/2
BC62026	Left	5/16	3	4 1/2
BC62027	Left	11/32	3	4 1/2
BC62028	Left	3/8	3	4 1/2
BC62029	Left	7/16	3	4 1/2
BC62030	Left	1/2	3	4 1/2

7/16 -14 Thread

This bit is designed with brad point and outlining spurs for precision dowel hole boring. These drills are made of the finest carbon tool steel, heat treated and precision ground to exacting standards. Overall lengths are held to very close tolerances in both left and right hand tools to ensure uniform drilling in multiple boring operations. A rounded shoulder has a pinhole for easy removal from machines.

Series X203

Designed exactly like the Series 203 drills, except these are made of high speed steel. This steel will maintain maximum production with only minimum sharpening. The threaded shank is relatively soft to ensure against breakage.

High Speed Steel Screw Shank Brad Point Dowel Drills

7/16-14 Thread

NAP GLADU Tool Number	Rotation Direction	A Cutting Diameter	B Twist Length	Overall Length
BC62031	Right	1/4	2	3 1/2
BC62032	Right	5/16	2	3 1/2
BC62033	Right	3/8	2	3 1/2
BC62034	Right	7/16	2	3 1/2
BC62035	Right	1/2	2	3 1/2
BC62041	Right	3/16	3	4 1/2
BC62042	Right	1/4	3	4 1/2
BC62043	Right	9/32	3	4 1/2
BC62044	Right	5/16	3	4 1/2
BC62045	Right	11/32	3	4 1/2
BC62046	Right	3/8	3	4 1/2
BC62047	Right	25/64	3	4 1/2
BC62048	Right	7/16	3	4 1/2
BC62049	Right	29/64	3	4 1/2
BC62050	Right	1/2	3	4 1/2
BC62051	Right	9/16	3	4 1/2
BC62052	Right	5/8	3	4 1/2
BC62053	Right	3/4	3	4 1/2
BC62054	Right	7/8	3	4 1/2
BC62055	Right	1	3	4 1/2
BC62036	Left	1/4	2	3 1/2
BC62037	Left	5/16	2	3 1/2
BC62038	Left	3/8	2	3 1/2
BC62039	Left	7/16	2	3 1/2
BC62040	Left	1/2	2	3 1/2
BC62056	Left	3/16	3	4 1/2
BC62057	Left	1/4	3	4 1/2
BC62058	Left	9/32	3	4 1/2
BC62059	Left	5/16	3	4 1/2
BC62060	Left	11/32	3	4 1/2
BC62061	Left	3/8	3	4 1/2
BC62062	Left	25/64	3	4 1/2
BC62063	Left	7/16	3	4 1/2
BC62064	Left	29/64	3	4 1/2
BC62065	Left	1/2	3	4 1/2
BC62066	Left	9/16	3	4 1/2
BC62067	Left	5/8	3	4 1/2
BC62068	Left	3/4	3	4 1/2
BC62069	Left	1	3	4 1/2

High Speed Steel Screw Shank Brad Point Dowel Drills - Long Shank

Series X203B

NAP GLADU Tool Number	Rotation Direction	A Cutting Diameter	B Twist Length	Overall Length	
BC62070	Right	3/16	1 3/4	4 1/2	7/16-14 Thread
BC62071	Right	1/4	1 3/4	4 1/2	
BC62072	Right	5/16	1 3/4	4 1/2	
BC62073	Right	3/8	1 3/4	4 1/2	
BC62074	Right	25/64	1 3/4	4 1/2	
BC62075	Right	7/16	1 3/4	4 1/2	
BC62076	Right	1/2	1 3/4	4 1/2	
BC62077	Left	3/16	1 3/4	4 1/2	
BC62078	Left	1/4	1 3/4	4 1/2	
BC62079	Left	5/16	1 3/4	4 1/2	
BC62080	Left	3/8	1 3/4	4 1/2	
BC62081	Left	25/64	1 3/4	4 1/2	
BC62082	Left	7/16	1 3/4	4 1/2	
BC62083	Left	1/2	1 3/4	4 1/2	

These are designed primarily for the Bell 24 Double End Mitre and Boring Machine. They can also be used on any machine where runout has become a problem. The extended shaft ensures rigidity, especially on small diameter tools. The overall length of these bits match that of Series 203, however it is made of higher grade high speed steel.

High Speed Steel Screw Shank Brad Point Dowel Drills - Short Shank

Series X203J

NAP GLADU Tool Number	Rotation Direction	A Cutting Diameter	B Twist Length	Overall Length	
BC62084	Right	1/8	1 1/2	2 3/4	7/16-14 Thread
BC62085	Right	3/16	1 1/2	2 3/4	
BC62086	Right	7/32	1 1/2	2 3/4	
BC62087	Right	1/4	1 1/2	2 3/4	
BC62088	Right	5/16	1 1/2	2 3/4	
BC62089	Right	3/8	1 1/2	2 3/4	
BC62090	Right	7/16	1 1/2	2 3/4	
BC62091	Right	1/2	1 1/2	2 3/4	
BC62092	Left	1/4	1 1/2	2 3/4	
BC62093	Left	3/8	1 1/2	2 3/4	
BC62094	Left	7/16	1 1/2	2 3/4	

Designed for use in J.S. Richardson Boring Machines, but can also be used in Root, Bell, Greenlee and other machines using threaded spindles. The short length reduces runout.

Individual Carbon Steel Brad Point Wood Boring Drills

Series 200A

NAP GLADU Tool Number	A Cutting Diameter	B Twist Length	C Shank Length	Overall Length	
BC62547	1/8	1 1/2	1 1/4	2 7/8	1/8" Shank
BC62548	3/16	1 3/4	1 3/4	3 1/2	3/16" Shank
BC62541	1/4	3 1/8	1 1/4	4 3/8	1/4" Shank
BC62542	5/16	3 1/8	1 1/4	4 3/8	5/16" Shank
BC62543	3/8	3 1/8	1 1/4	4 3/8	3/8" Shank
BC62544	7/16	3 1/8	1 1/4	4 3/8	
BC62545	1/2	3 1/8	1 1/4	4 3/8	

These drills are designed to be used in portable electric drills or drill presses with chucks of 3/8” or more.

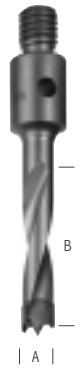
Series 203CT

Carbide Tipped Screw Shank Brad Point Dowel Drills

These bits are designed especially for drilling in plastics, laminated products, chip cores and fine grained hardwoods such as maple and pecan.

7/16 -14 Thread

NAP GLADU Tool Number	Rotation Direction	A Cutting Diameter	B Twist Length	Overall Length
BC62103	Right	1/4	3	4 1/2
BC62104	Right	5/16	3	4 1/2
BC62105	Right	3/8	3	4 1/2
BC62106	Right	25/64	3	4 1/2
BC62107	Right	7/16	3	4 1/2
BC62108	Right	1/2	3	4 1/2
BC62109	Left	1/4	3	4 1/2
BC62110	Left	5/16	3	4 1/2
BC62111	Left	3/8	3	4 1/2
BC62112	Left	25/64	3	4 1/2
BC62113	Left	7/16	3	4 1/2
BC62114	Left	1/2	3	4 1/2
BC62528	Right	6 mm	3	4 1/2
BC62530	Right	8 mm	3	4 1/2
BC62532	Right	10 mm	3	4 1/2
BC62529	Left	6 mm	3	4 1/2
BC62531	Left	8 mm	3	4 1/2
BC62533	Left	10 mm	3	4 1/2



Series X204

High Speed Steel Screw Shank V-Point Dowel Drills

The V-Point on these dowel drills has been accurately ground to ensure smooth boring. The shank on this tool is relatively soft to allow for easy removal from the chuck in the event of breakage.

7/16 -14 Thread

NAP GLADU Tool Number	Rotation Direction	A Cutting Diameter	B Twist Length	Overall Length
BC62095	Right	3/8	3	4 1/2
BC62096	Right	7/16	3	4 1/2
BC62097	Left	3/8	3	4 1/2
BC62098	Left	7/16	3	4 1/2

Carbon Steel Power Ship Auger Bits

Series 157

NAP GLADU Tool Number	A Cutting Diameter	B Twist Length	Overall Length	
BC47017	1/4	12	18	Hex Shank
BC47018	5/16	12	18	
BC47019	3/8	12	18	
BC47020	7/16	12	18	
BC47021	1/2	12	18	
BC47022	9/16	12	18	
BC47023	5/8	12	18	
BC47024	11/16	12	18	
BC47025	3/4	12	18	
BC47026	13/16	12	18	
BC47027	7/8	12	18	
BC47028	15/16	12	18	
BC47029	1	12	18	
BC47030	1 1/16	12	18	
BC47031	1 1/8	12	18	
BC47033	1 1/4	12	18	
BC47035	1 3/8	12	18	
BC47036	1 1/2	12	18	

Designed for deep wood boring where small nails or other foreign material could be present. This bit features a hollow centre twist for fast, continuous chip flow.

Vix Bits

Series 137

NAP GLADU Tool Number	A Hole Diameter	Hole Size	Correspnding Screw Size	Part Description	
BC63350	5/64	#3	#3, 4	–	1/4" Shank
BC63359	7/64	#5	#5, 6	–	
BC63360	9/64	#9	#8, 9, 10	–	
BC63352	11/64	#12	#12	–	
BC63354	13/64	#14	#14, 16	–	
BC63351	5/64	#3	–	Drill-HSS	Replacement Drills
BC63361	7/64	#5	–	Drill-HSS	
BC63362	9/64	#9	–	Drill-HSS	
BC63353	11/64	#12	–	Drill-HSS	
BC63355	13/64	#14	–	Drill-HSS	

These bits are designed for accuracy while cutting holes for hinges, striker plates, door butts, window pulls and and other hardware using screws.

Series 200

Designed for cross-grain boring and other work requiring smooth and accurate holes. The head, twist and shank are ground for accuracy after hardening while two outlining spurs cut in advance of the chip lifter.

Carbon Steel Brad Point Machine Drills

	NAP GLADU Tool Number	A Cutting Diameter	B Twist Length	Overall Length
1/2" Shank	BC62115	1/8	3	5
	BC62116	5/32	3	5
	BC62117	3/16	3	5
	BC62118	7/32	3	5
	BC62119	1/4	3	5
	BC62120	17/64	3	5
	BC62121	9/32	3	5
	BC62122	5/16	3	5
	BC62123	11/32	3	5
	BC62124	3/8	3	5
	BC62125	25/64	3	5
	BC62126	13/32	3	5
	BC62127	7/16	3	5
	BC62128	15/32	3	5
	BC62129	1/2	3	5
	BC62130	5/8	3	5
	BC62131	3/4	3	5
	BC62132	1/8	4	6
	BC62133	5/32	4	6
	BC62134	3/16	4	6
	BC62135	7/32	4	6
	BC62136	1/4	4	6
	BC62137	17/64	4	6
	BC62138	9/32	4	6
	BC62139	19/64	4	6
	BC62140	5/16	4	6
	BC62141	11/32	4	6
	BC62142	3/8	4	6
	BC62143	25/64	4	6
	BC62144	13/32	4	6
	BC62145	7/16	4	6
	BC62146	29/64	4	6
	BC62147	15/32	4	6
	BC62148	1/2	4	6
	BC62149	17/32	4	6
	BC62150	9/16	4	6
	BC62151	19/32	4	6
	BC62152	5/8	4	6
	BC62153	21/32	4	6
	BC62154	11/16	4	6
	BC62155	3/4	4	6
	BC62156	25/32	4	6
	BC62157	13/16	4	6
	BC62158	7/8	4	6
	BC62159	15/16	4	6
	BC62160	1	4	6
	BC62161	1 1/16	4	6
	BC62162	1 1/8	4	6
	BC62163	1 1/4	4	6

High Speed Steel Brad Point Machine Drills

Series X200

NAP GLADU Tool Number	A Cutting Diameter	B Twist Length	Overall Length	
BC62164	3/16	3	5	1/2" Shank
BC62165	1/4	3	5	
BC62166	9/32	3	5	
BC62167	5/16	3	5	
BC62168	11/32	3	5	
BC62169	3/8	3	5	
BC62170	7/16	3	5	
BC62171	1/2	3	5	
BC62172	1/4	4	6	
BC62173	9/32	4	6	
BC62174	5/16	4	6	
BC62175	11/32	4	6	
BC62176	3/8	4	6	
BC62177	13/32	4	6	
BC62178	7/16	4	6	
BC62179	1/2	4	6	
BC62180	17/32	4	6	
BC62181	9/16	4	6	
BC62182	5/8	4	6	
BC62183	11/16	4	6	
BC62184	3/4	4	6	
BC62185	13/16	4	6	
BC62186	7/8	4	6	
BC62187	15/16	4	6	
BC62188	1	4	6	

Identical to Series 200 drills, except these bits are made of high speed steel for added drill life in tough applications. The twist is specially ground to give maximum chip clearance.

Carbide Tipped Brad Point Machine Drills

Series 200CT

NAP GLADU Tool Number	A Cutting Diameter	B Twist Length	Overall Length	
BC62189	1/4	3	5	1/2" Shank
BC62190	5/16	3	5	
BC62191	3/8	3	5	
BC62192	7/16	3	5	
BC62193	1/2	3	5	
BC62194	5/8	3	5	
BC62195	3/4	3	5	
BC62196	1/4	4	6	
BC62197	5/16	4	6	
BC62198	3/8	4	6	
BC62199	7/16	4	6	
BC62200	1/2	4	6	
BC62201	5/8	4	6	
BC62202	3/4	4	6	

Identical to Series 200 drills, except these are carbide tipped for drilling plastics, laminates, chip core and tough to drill materials.

Series 205B

Carbon steel drills with a brad point tip are for drilling clean, accurate holes. Sizes up to 5/16”have a straight shank, where sizes 11/32” to 1” have 5/16” to 1/2” shanks.

Imperial Carbon Steel Brad Point Machine Wood Drills

	NAP GLADU Tool Number	A Cutting Diameter	Overall Length
1/8" Shank	BC20503	1/8	2 5/8
5/32" Shank	BC20504	5/32	2 5/8
3/16" Shank	BC20505	3/16	3 3/8
7/32" Shank	BC20555	7/32	3 3/8
1/4" Shank	BC20506	1/4	4
9/32" Shank	BC20507	9/32	4
5/16" Shank	BC20508	5/16	4 1/2
	BC20509	11/32	4 1/2
	BC20510	3/8	5 1/4
	BC20511	7/16	5 5/8
	BC20512	1/2	6 1/8
3/8" Shank	BC20514	9/16	6 5/8
	BC20516	5/8	7 1/8
	BC20519	3/4	7 3/4
1/2" Shank	BC20522	7/8	8 1/4
	BC20525	1	8 5/8

Series 205BM

These carbon steel brad point drills are identical to Series 205B drills, except they are available in metric sizes.

Metric Carbon Steel Brad Point Machine Wood Drills

	NAP GLADU Tool Number	A Cutting Diameter	Overall Length
3 mm Shank	BC20503M	3 mm	60 mm
4 mm Shank	BC20504M	4 mm	75 mm
5 mm Shank	BC20505M	5 mm	85 mm
6 mm Shank	BC20506M	6 mm	95 mm
7 mm Shank	BC20507M	7 mm	105 mm
8 mm Shank	BC20508M	8 mm	115 mm
	BC20509M	9 mm	120 mm
	BC20510M	10 mm	130 mm
	BC20511M	11 mm	140 mm
	BC20512M	12 mm	150 mm
10 mm Shank	BC20513M	13 mm	150 mm
	BC20514M	14 mm	160 mm
	BC20515M	15 mm	170 mm
	BC20516M	16 mm	180 mm
	BC20518M	18 mm	190 mm
	BC20520M	20 mm	205 mm
13 mm Shank	BC20522M	22 mm	210 mm
	BC20524M	24 mm	210 mm
	BC20525M	25 mm	200 mm
	BC20526M	26 mm	220 mm
	BC20528M	28 mm	220 mm
	BC20530M	30 mm	220 mm

High Speed Steel Brad Point Machine Wood Drills

Series X205BM

| A |

NAP GLADU Tool Number	A Cutting Diameter	Overall Length	
BC20535M	3.5 mm	70 mm	3.5 mm Shank
BC20545M	4.5 mm	80 mm	4.5 mm Shank
BC20555M	5.5 mm	90 mm	5.5 mm Shank
BC20565M	6.5 mm	100 mm	6.5 mm Shank
BC20575M	7.5 mm	110 mm	7.5 mm Shank
BC20585M	8.5 mm	120 mm	8 mm Shank
BC20595M	9.5 mm	125 mm	
BC20515M	10.5 mm	135 mm	

These bits are identical to Series 205BM drills, except they are made from higher quality, high speed steel for more difficult boring applications.

Imperial Carbide Tipped Brad Point Machine Wood Drills

Series 340BCT

| A |

NAP GLADU Tool Number	A Cutting Diameter	Overall Length	
BC34212	3/16	80 mm	4.5 mm Shank
BC34213	1/4	95 mm	6 mm Shank
BC34214	5/16	115 mm	7.5 mm Shank
BC34215	3/8	125 mm	9 mm Shank
BC34217	1/2	150 mm	10 mm Shank

These are quality tipped brad point drills for boring into plastics, laminates, chip core and other tough to drill materials.

Metric Carbide Tipped Brad Point Machine Wood Drills

Series 340BMCT

| A |

NAP GLADU Tool Number	A Cutting Diameter	Overall Length	
BC34005	5 mm	85 mm	5 mm Shank
BC34006	6 mm	90 mm	6 mm Shank
BC34008	8 mm	115 mm	8 mm Shank
BC34010	10 mm	130 mm	10 mm Shank
BC34012	12 mm	150 mm	

These are quality tipped brad point drills for boring into plastics, laminates, chip core and other tough to drill materials.

Series X122B

These are for use with all types of adjustable counterbores and countersinks, or for straight boring jobs. Made from high speed steel for longer life in difficult to drill material.

High Speed Steel Straight Shank Brad Point Centre Drills - 6" Length

NAP GLADU Tool Number	Rotation Direction	A Cutting Diameter	B Twist Length	Overall Length
BC62385	Right	1/8	2 1/4	6
BC62386	Right	5/32	2 1/4	6
BC62387	Right	3/16	2 1/4	6
BC62388	Right	7/32	2 1/4	6
BC62389	Right	1/4	2 1/4	6
BC62390	Right	9/32	2 1/4	6
BC62391	Right	19/64	2 1/4	6
BC62392	Right	5/16	2 1/4	6
BC62393	Right	3/8	2 1/4	6
BC62394	Left	3/16	2 1/4	6
BC62395	Left	7/32	2 1/4	6
BC62396	Left	1/4	2 1/4	6

Series X122BED

These bits are designed for use with all types of adjustable counterbores and countersinks, or for straight boring jobs. These are close to Series X122B, the difference being a longer twist length (3 1/2”) for deeper drilling.

High Speed Steel Straight Shank Brad Point Centre Drill - 6" Length

NAP GLADU Tool Number	Rotation Direction	A Cutting Diameter	B Twist Length	Overall Length
BC62381	Right	19/64	3 1/2	6

Series X122B8

These are designed for use with counterbores when a deep pilot hole is required.

High Speed Steel Straight Shank Brad Point Centre Drills - 8" Length

NAP GLADU Tool Number	Rotation Direction	A Cutting Diameter	B Twist Length	Overall Length
BC62382	Right	3/16	3 1/2	8
BC62383	Right	7/32	3 1/2	8
BC62384	Right	1/4	3 1/2	8

High Speed Steel Straight Shank Brad Point Centre Drills - 4.5" Length

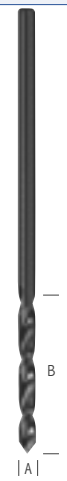
Series X124B

NAP GLADU Tool Number	Rotation Direction	A Cutting Diameter	B Twist Length	Overall Length
BC62402	Right	1/8	2 1/4	4 1/2
BC62403	Right	5/32	2 1/4	4 1/2
BC62404	Right	3/16	2 1/4	4 1/2
BC62405	Right	7/32	2 1/4	4 1/2
BC62406	Right	1/4	2 1/4	4 1/2
BC70522	Left	3/16	2 1/4	4 1/2
BC70523	Left	7/32	2 1/4	4 1/2
BC70524	Left	1/4	2 1/4	4 1/2

For use with counterbores and countersinks, as well as for straight boring. Two outlining spurs and a brad point create clean, accurate holes. These bits are made from tough, long lasting, high speed steel.

High Speed Steel Straight Shank V-Point Centre Drills - 6" Length

Series X122D



NAP GLADU Tool Number	Rotation Direction	A Cutting Diameter	B Twist Length	Overall Length
BC62426	Right	3/32	2 1/4	6
BC62427	Right	1/8	2 1/4	6
BC62428	Right	5/32	2 1/4	6
BC62429	Right	11/16	2 1/4	6
BC62430	Right	3/64	2 1/4	6
BC62431	Right	7/32	2 1/4	6
BC62432	Right	1/4	2 1/4	6
BC62433	Right	9/32	2 1/4	6
BC62434	Right	5/16	2 1/4	6
BC62435	Right	3/8	2 1/4	6

These straight shank drills are designed for use in counterbores and countersinks; made from high speed steel for a longer tool life.

High Speed Steel Straight Shank V-Point Centre Drills - 4.5" Length

Series X124D

NAP GLADU Tool Number	Rotation Direction	A Cutting Diameter	B Twist Length	Overall Length
BC62450	Right	3/32	2 1/4	4 1/2
BC62451	Right	1/8	2 1/4	4 1/2
BC62452	Right	9/64	2 1/4	4 1/2
BC62453	Right	5/32	2 1/4	4 1/2
BC62454	Right	11/16	2 1/4	4 1/2
BC62455	Right	3/16	2 1/4	4 1/2
BC62456	Right	7/32	2 1/4	4 1/2
BC62457	Right	1/4	2 1/4	4 1/2
BC62458	Right	9/32	2 1/4	4 1/2
BC62459	Right	5/16	2 1/4	4 1/2
BC62460	Right	3/8	2 1/4	4 1/2

These straight shank drills are designed for use in counterbores and countersinks; made from high speed steel for a longer tool life.

Series X10

These bits are designed for heavy-duty applications in wood, steel and plastic. The high temperance, black oxide finish and 118° point provide optimum cutting efficiency.

Imperial High Speed Steel Jobber Drills

NAP GLADU Tool Number	A Cutting Diameter	Decimal Equivalent	B Twist Length	Overall Length
BC02001	1/64	.0156	3/16	13/16
BC02002	1/32	.0312	13/32	1 3/16
BC02003	3/64	.0469	5/8	1 1/2
BC02004	1/16	.0625	25/32	1 11/16
BC02005	5/64	.0781	15/16	1 15/16
BC02006	3/32	.0938	1 3/16	2 1/4
BC02007	7/64	.1094	1 5/16	2 13/32
BC02008	1/8	.1250	1 7/16	2 9/16
BC02009	9/64	.1406	1 17/32	2 3/4
BC02010	5/32	.1562	1 11/16	2 15/16
BC02011	11/64	.1719	1 27/32	3 5/32
BC02012	3/16	.1875	2 1/16	3 3/8
BC02013	13/64	.2031	2 1/16	3 3/8
BC02014	7/32	.2188	2 1/4	3 21/32
BC02015	15/64	.2344	2 1/4	3 21/32
BC02016	1/4	.2500	2 1/2	3 31/32
BC02017	17/64	.2656	2 23/32	4 9/32
BC02018	9/32	.2812	2 23/32	4 9/32
BC02019	19/64	.2969	2 15/16	4 19/32
BC02020	5/16	.3125	2 15/16	4 19/32
BC02021	21/64	.3281	2 15/16	4 19/32
BC02022	11/32	.3438	3 3/16	4 29/32
BC02023	23/64	.3594	3 3/16	4 29/32
BC02024	3/8	.3750	3 7/16	5 1/4
BC02025	25/64	.3906	3 7/16	5 1/4
BC02026	13/32	.4062	3 7/16	5 1/4
BC02027	27/64	.4219	3 11/16	5 9/32
BC02028	7/16	.4375	3 11/16	5 9/32
BC02029	29/64	.4531	3 11/16	5 9/32
BC02030	15/32	.4688	3 31/32	5 15/16
BC02031	31/64	.4844	3 31/32	5 15/16
BC02032	1/2	.5000	3 31/32	5 15/16
BC02033	33/64	.5156	4 13/16	6 5/8
BC02034	17/32	.5313	4 13/16	6 5/8
BC02035	35/64	.5469	4 13/16	6 5/8
BC02036	9/16	.5625	4 13/16	6 5/8
BC02037	37/64	.5781	4 13/16	6 5/8
BC02038	19/32	.5938	5 3/16	7 1/8
BC02039	39/64	.6094	5 3/16	7 1/8
BC02040	5/8	.6250	5 3/16	7 1/8
BC02041	41/64	.6406	5 3/16	7 1/8
BC02042	21/32	.6563	5 3/16	7 1/8
BC02043	43/64	.6719	5 5/8	7 5/8
BC02044	11/16	.6875	5 5/8	7 5/8
BC02045	3/4	.7500	5 1/2	8 1/16

Larger sized diameters are available upon request in prentice style drill with 1/2" shank

Imperial High Speed Steel Jobber Drills - Left Hand Rotation

Series X10L

NAP GLADU Tool Number	A Cutting Diameter	Decimal Equivalent	B Twist Length	Overall Length
BC03002	1/32	.0312	13/32	1 3/16
BC03003	3/64	.0469	5/8	1 1/2
BC03004	1/16	.0625	25/32	1 11/16
BC03005	5/64	.0781	15/16	1 15/16
BC03006	3/32	.0938	1 3/16	2 1/4
BC03007	7/64	.1094	1 5/16	2 13/32
BC03008	1/8	.1250	1 7/16	2 9/16
BC03009	9/64	.1406	1 17/32	2 3/4
BC03010	5/32	.1562	1 11/16	2 15/16
BC03011	11/64	.1719	1 27/32	3 5/32
BC03012	3/16	.1875	2 1/16	3 3/8
BC03013	13/64	.2031	2 1/16	3 3/8
BC03014	7/32	.2188	2 1/4	3 21/32
BC03015	15/64	.2344	2 1/4	3 21/32
BC03016	1/4	.2500	2 1/2	3 31/32
BC03017	17/64	.2656	2 23/32	4 9/32
BC03018	9/32	.2812	2 23/32	4 9/32
BC03019	19/64	.2969	2 15/16	4 19/32
BC03020	5/16	.3125	2 15/16	4 19/32
BC03021	21/64	.3281	2 15/16	4 19/32
BC03022	11/32	.3438	3 3/16	4 29/32
BC03023	23/64	.3594	3 3/16	4 29/32
BC03024	3/8	.3750	3 7/16	5 1/4
BC03025	25/64	.3906	3 7/16	5 1/4
BC03026	13/32	.4062	3 7/16	5 1/4
BC03027	27/64	.4219	3 11/16	5 9/32
BC03028	7/16	.4375	3 11/16	5 9/32
BC03029	29/64	.4531	3 11/16	5 9/32
BC03030	15/32	.4688	3 31/32	5 15/16
BC03031	31/64	.4844	3 31/32	5 15/16
BC03032	1/2	.5000	3 31/32	5 15/16

Designed for heavy-duty applications in wood, steel and plastic. The high temperance, black oxide finish and 118° point allows for optimum cutting efficiency.

Series X10M

Designed for heavy-duty applications in wood, steel and plastic. The high temperance, black oxide finish and 118° point allows for optimum cutting efficiency.

Metric High Speed Steel Jobber Drills

NAP GLADU Tool Number	A Cutting Diameter	Decimal Equivalent	B Twist Length	Overall Length
BC04100	1 mm	.0394	12 mm	34 mm
BC04200	2 mm	.0787	24 mm	49 mm
BC04300	3 mm	.1181	33 mm	61 mm
BC04400	4 mm	.1575	43 mm	75 mm
BC04500	5 mm	.1969	52 mm	86 mm
BC04600	6 mm	.2362	57 mm	93 mm
BC04700	7 mm	.2756	69 mm	109 mm
BC04800	8 mm	.3150	75 mm	117 mm
BC04900	9 mm	.3543	81 mm	125 mm
BC05000	10 mm	.3937	87 mm	133 mm
BC05100	11 mm	.4331	94 mm	142 mm
BC05120	12 mm	.4724	101 mm	151 mm
BC05130	13 mm	.5118	101 mm	151 mm
BC05140	14 mm	.5512	108 mm	160 mm
BC05150	15 mm	.5906	114 mm	169 mm
BC05160	16 mm	.6299	120 mm	178 mm
BC05170	17 mm	.6693	125 mm	184 mm
BC05180	18 mm	.7087	130 mm	191 mm
BC05190	19 mm	.7480	135 mm	198 mm
BC05200	20 mm	.7874	140 mm	205 mm

Counterbores and Countersinks

pg 198

pg 198-199

pg 199-200

pg 201, 203

pg 200-202

Counterbores | Countersinks, Screw Shank 198

Counterbores, Straight Shank 201, 203

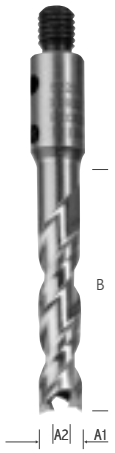
Counterbores, Various 200-202

Countersinks, Straight Shank 198-199

Countersinks, Various 199-200

Carbon Steel Screw Shank Counterbores

Series 121



NAP GLADU Tool Number	Rotation Direction	A1 Counterbore Diameter	A2 Drill Diameter	B Twist Length	Overall Length	
BC62249	Right	3/8	3/16	2 1/2	4 1/2	7/16-14 Thread
BC62250	Right	1/2	3/16	2 1/2	4 1/2	
BC62251	Right	1/2	7/32	2 1/2	4 1/2	
BC62252	Right	1/2	1/4	2 1/2	4 1/2	
BC62253	Left	3/8	3/16	2 1/2	4 1/2	
BC62254	Left	1/2	3/16	2 1/2	4 1/2	
BC62255	Left	1/2	7/32	2 1/2	4 1/2	

Centre drills not included with counterbores

These are designed to produce flat bottom holes on Root, Bell and other similar boring machines requiring tools with threaded shanks. The drill is held in place by a set screw on the shank. For use with drills listed on pages 191-192.

Carbon Steel Screw Shank Countersinks

Series 121V

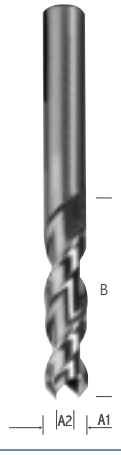
NAP GLADU Tool Number	Rotation Direction	A1 Countersink Diameter	A2 Drill Diameter	B Twist Length	Overall Length	
BC62257	Right	3/8	3/16	2 1/2	4 1/2	7/16-14 Thread
BC62258	Right	1/2	3/16	2 1/2	4 1/2	
BC62259	Left	3/8	3/16	2 1/2	4 1/2	
BC62260	Left	1/2	3/16	2 1/2	4 1/2	

Centre drills not included with countersinks

These are designed to produce flat bottom holes on Root, Bell and other similar boring machines requiring tools with threaded shanks. The drill is held in place by a set screw on the shank. For use with drills listed on pages 191-192.

Carbon Steel Countersinks

Series 122V



NAP GLADU Tool Number	A1 Countersink Diameter	A2 Drill Diameter	B Twist Length	Overall Length	
BC62282	3/8	1/8	2 1/2	4 1/2	1/2" Shank
BC62283	3/8	5/32	2 1/2	4 1/2	
BC62284	3/8	3/16	2 1/2	4 1/2	
BC62285	7/16	3/16	2 1/2	4 1/2	
BC62286	7/16	7/32	2 1/2	4 1/2	
BC62287	1/2	1/8	2 1/2	4 1/2	
BC62288	1/2	5/32	2 1/2	4 1/2	
BC62289	1/2	3/16	2 1/2	4 1/2	
BC62290	1/2	7/32	2 1/2	4 1/2	
BC62291	1/2	1/4	2 1/2	4 1/2	

Centre drills not included with countersinks

Designed for seating flat head screws which require a tapered countersunk hole. A double flute twist with wide channels makes for easy chip clearance. The drill is held in place by a split and set screw on the shank. These are for use with drills listed on pages 191-192.

Series 122VCT

Designed for seating flat head screws which require a tapered countersunk hole. The double flute twist with wide channels allows for easy chip clearance. Carbide tipped for longer life in particle boards, fiber boards and plastics. A drill can be held by a split and set screw on the shank. For use with drills listed on pages 191-192.

Carbide Tipped Countersinks

	NAP GLADU Tool Number	A1 Countersink Diameter	A2 Drill Diameter	B Twist Length	Overall Length
1/2" Shank	BC62296	3/8	3/16	2 1/2	4 1/2
	BC62297	1/2	3/16	2 1/2	4 1/2
	BC62298	1/2	7/32	2 1/2	4 1/2
	BC62299	1/2	1/4	2 1/2	4 1/2

Centre drills not included with countersinks

Series 125CT

Designed with two cutting edges beveled at 82° to match the taper of flat head screws. Carbide tipped for longer life in particle boards, fiber boards and plastics. The drill is held to the countersink by a socket set screw. For use with drills listed on pages 191-192.

Carbide Tipped Countersinks

NAP GLADU Tool Number	A1 Countersink Diameter	A2 Drill Diameter	Overall Length
BC62338	1/2	3/16	1 1/2
BC62339	1/2	7/32	1 1/2
BC62340	1/2	1/4	1 1/2

Centre drills not included with countersinks

Series 202CT

These countersinks are designed with two cutting edges beveled at 82° to match the taper of flat head screws. They are carbide tipped for longer life in particle boards, fiber boards and plastics. The drill is held to the countersink by a socket set screw. For use with drills listed on pages 191-192.

Carbide Tipped Countersinks

	NAP GLADU Tool Number	A1 Countersink Diameter	A2 Drill Diameter	Overall Length
5/16" Shank	55510	11/32	3/32	1 5/8
	55512	3/8	1/8	1 5/8
	55514	1/2	1/8	1 7/8
	55516*	25/64	1/8	1 5/8
	55518*	25/64	9/64	1 5/8
	55520*	25/64	5/32	1 5/8
	55522	25/64	11/64	1 5/8
	55524*	25/64	3/16	1 5/8
3/8" Shank	55310	7/16	3/16	1 7/8
	55312	15/32	7/32	1 7/8
	55314	1/2	15/64	1 7/8
25/64" Shank	55316	1/2	1/4	1 7/8
5/16" Shank	Diplug	25/64	—	2 15/16

*Designed to be used with Diplug

Centre drills not included with countersinks

Carbide Tipped Adjustable Countersink

Series 202CTA

NAP GLADU Tool Number	A1 Countersink Diameter	A2 Drill Diameter	B Cutting Depth	Overall Length
55900	13/32	1/8	12 mm	32 mm
	27/64	9/64		
	29/64	5/32		
	15/32	3/16		
	1/2	13/64		
	33/64	7/32		
	17/32	15/64		
	9/16	1/4		
	37/64	9/32		

Centre drills not included with countersinks

These are designed to fit drill diameters from 1/8” to 9/32” and produce countersunk holes from 13/32” to 37/64” in diameter. They are carbide tipped for clean cuts and longer tool life. A system of screws allows for gripping of the adjustable countersink over drills found on pages 191-192. Each adjustable countersink is supplied with its own key and plastic pouch.

Machine Countersinks

Series 202C

NAP GLADU Tool Number	A Countersink Diameter	Overall Length
55530	1/2	2
55532	5/8	2
55534	3/4	2

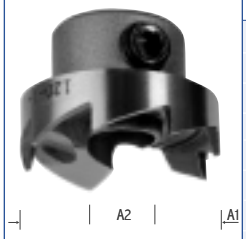
5/16" Shank

Centre drills not included with countersinks

Designed with five precision cutting edges for chatter free 90° countersinking.

Carbon Steel Multi-Spur Counterbores

Series 120



NAP GLADU Tool Number	A1 Counterbore Diameter	A2 Drill or Shank Diameter
BC62345	1 1/8	1/2
BC62346	1 1/4	1/2
BC62347	1 3/8	1/2
BC62348	1 1/2	1/2
BC62349	1 5/8	1/2
BC62350	1 3/4	1/2
BC62351	1 7/8	1/2
BC62352	2	1/2
BC62353	2 1/8	1/2
BC62354	2 1/4	1/2
BC62355	2 1/2	1/2

Centre drills not included with counterbores

An aggressive counterbore cutter designed to fit any drill 1/2” diameter or larger with a 1/2” shank. Designed to be used with drills on pages 187-192.

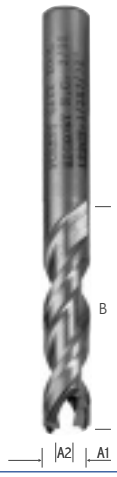
Series 122CT

Designed to bore smooth, flat-bottomed holes. The double fluted twist with wide channels makes for easy chip clearance. Carbide tipped for longer life in particle boards, fiber boards and plastics. The centre drill is held in place by a split shank and set screw. These can be used with the drills featured on pages 189-192.

Carbide Tipped Counterbores

NAP GLADU Tool Number	A1 Counterbore Diameter	A2 Drill Diameter	B Twist Length	Overall Length
BC62292	3/8	3/16	2 1/2	4 1/2
BC62293	1/2	3/16	2 1/2	4 1/2
BC62294	1/2	7/32	2 1/2	4 1/2
BC62295	1/2	1/4	2 1/2	4 1/2

Centre drills not included with counterbores



Series 250CTS

These bits are designed to bore smooth, flat-bottomed holes. Carbide tipped for longer life in particle boards, fiber boards and plastics. Counterbore is held to the drill by a set screw. For use with drills on pages 189-192.

Carbide Tipped Counterbores with Shank

	NAP GLADU Tool Number	A1 Counterbore Diameter	A2 Drill Diameter	Overall Length
5/16" Shank	55540	3/8	1/8	1 7/8
	55542	25/64	5/32	1 7/8
	55544	25/64	11/64	1 7/8
3/8" Shank	55320	1/2	3/16	1 7/8
	55322	1/2	7/32	1 7/8
	55324	1/2	15/64	1 7/8
	55326	1/2	1/4	1 7/8

Centre drills not included with counterbores

Carbide Tipped Counterbores without Shank

Series 250CT

NAP GLADU Tool Number	A1 Counterbore Diameter	A2 Drill Diameter	Overall Length
55910	5/8	1/4	1 1/2
55912	5/8	9/32	1 1/2
55914	5/8	5/16	1 1/2
55916	3/4	5/16	1 1/2
55918	3/4	3/8	1 1/2

Centre drills not included with counterbores

These are designed to bore smooth, flat-bottomed holes. They are carbide tipped for a longer tool life, for use in particle boards, fiber boards and plastics. Counterbore is held to the drill by a set screw. For use with drills on pages 191-192.

Carbon Steel Counterbores

Series 123

Style One

Style Two

NAP GLADU Tool Number	A1 Counterbore Diameter	A2 Drill Diameter	Bore Style	Overall Length
BC62301	3/8	3/16	1	1 1/2
BC62302	1/2	3/16	1	1 1/2
BC62303	1/2	7/32	1	1 1/2
BC62304	1/2	1/4	1	1 1/2
BC62305	5/8	1/4	2	2
BC62306	5/8	5/16	2	2
BC62307	3/4	1/4	2	2
BC62308	3/4	5/16	2	2
BC62309	7/8	5/16	2	2
BC62310	7/8	3/8	2	2
BC62311	7/8	7/16	2	2
BC62312	1	5/16	2	2
BC62313	1	3/8	2	2
BC62314	1	1/2	2	2
BC62315	1 1/8	1/2	2	2
BC62316	1 1/4	1/2	2	2
BC62317	1 3/8	1/2	2	2
BC62318	1 1/2	1/2	2	2

Centre drills not included with counterbores

These counterbores are designed with extension-lip head to bore smooth, flat-bottomed holes. A set screw holds the counterbore in place on the drill. For use with drills on pages 187-192.

Series 122

Designed to bore smooth, flat-bottomed holes, a double fluted twist with wide channels makes for easy chip clearance. A centre drill can be held in place by a split shank and set screw. These counterbores can be used with the drills featured on pages 191-192.

Carbon Steel Counterbores

NAP GLADU Tool Number	A1 Counterbore Diameter	A2 Drill Diameter	B Twist Length	Overall Length
BC62261	3/8	1/8	2 1/2	4 1/2
BC62262	3/8	5/32	2 1/2	4 1/2
BC62263	3/8	3/16	2 1/2	4 1/2
BC62264	7/16	3/16	2 1/2	4 1/2
BC62265	7/16	7/32	2 1/2	4 1/2
BC62266	1/2	1/8	2 1/2	4 1/2
BC62267	1/2	5/32	2 1/2	4 1/2
BC62268	1/2	3/16	2 1/2	4 1/2
BC62269	1/2	7/32	2 1/2	4 1/2
BC62270	1/2	1/4	2 1/2	4 1/2
BC62271	9/16	3/16	2 1/2	4 1/2
BC62272	9/16	1/4	2 1/2	4 1/2
BC62273	5/8	3/16	2 1/2	4 1/2
BC62274	5/8	1/4	2 1/2	4 1/2
BC62275	5/8	9/32	2 1/2	4 1/2
BC62276	5/8	5/16	2 1/2	4 1/2
BC62277	3/4	3/16	2 1/2	4 1/2
BC62278	3/4	1/4	2 1/2	4 1/2
BC62279	3/4	9/32	2 1/2	4 1/2
BC62280	3/4	5/16	2 1/2	4 1/2
BC62281	3/4	3/8	2 1/2	4 1/2

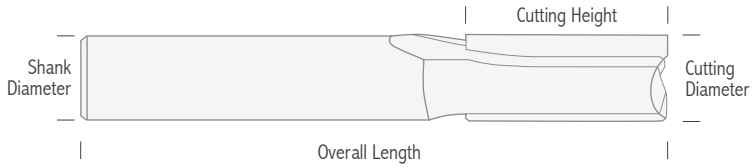
Centre drills not included with counterbores

Troubleshooting Guide

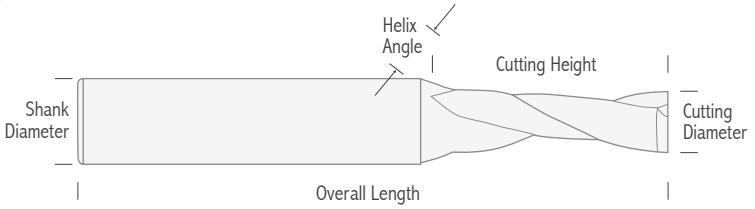
Common Cutting Problems	Common Causes
• tool breakage • excessive tool wear • burning in cut • rough cutting • glazed cutting	• Using dull or improperly sharpened tools. • The feed rate is too slow. • The feed rate is too fast. • The router is under-powered. No more than 20% of the available RPM should be lost under load. • The collet is loose or glazed. • The RPM is too fast or slow for the style of router bit being used. • The tool could be made of the wrong material for the job. For example, the router bit could be made of solid carbide rather than high speed steel. • There is not enough tool clearance on the cutting edge.

Router Bit Terminology

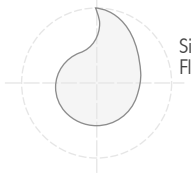
Straight Flute Bit

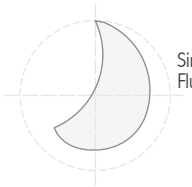


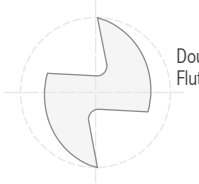
Spiral Bit



Helix Angles







Helpful Hints for Quality Routing

Proper tool selection and use will greatly increase the quality of the cut and extend the life of the tool.

- **Cutting length should never be longer than necessary.** Increased or extra cutting length causes vibration, deflection, and a lower quality finish cut. The cutting length should also never exceed four times the shank diameter. Router bits exceeding this limit are increasingly susceptible to breakage.

- **Always use the largest shank diameter possible.** Larger diameters increase tool strength and reduce the possibility of breakage. A 3/8" diameter shank is 50% stronger than a 1/4" shank. Similarly, the strength of a 1/2" shank diameter is 50% stronger than a 3/8" shank.

- **Worn or glazed router collets account for 80% of router bit breakage problems.** Increased breakage and dark markings on the shank of the tool indicate collet problems. Regular inspection of collet integrity is critical to ensure maximum productivity.

- **Machine integrity should be inspected on a regular basis.** Over time, collet or spindle run-out may increase through wear and tear. Run-out, unless otherwise stated in the machine manual, should not exceed 0.004 inches. You can check the run-out by placing a dowel pin into the collet and a dial indicator against this pin while manually rotating the collet. If the run-out is larger than the suggested maximums, replacement of the collet and/or spindle may be necessary.

- **Overfeeding or forcing the material into a cut can cause chip compression, resulting in bending and/or breakage.** The tool should be allowed to "bite" its way through the material. The operator should feel a constant, even pressure throughout the length of the cut.

- **Underfeeding of material into the cut will cause heat build-up and subsequent excessive friction.** This results in reduced tool life and/or breakage.

- **Remember to use lubricant.** By using lubricant whenever possible you can reduce heat build-up and increase the life of the tool.

- **Always have materials clamped securely on the machine table.** Doing so will help to avoid bouncing or vibrating and ensure a smooth cut.

- **Router bits should be inserted a minimum of 5/8" into the router collet to ensure maximum safety.**

- **Adjust router speed to match the diameter of the bit and the material being cut.** Spindle speeds range from 8000 to 50,000 RPM, by assuring the correct speed for the bit in use, the life of the tool will not be compromised. A NAP GLADU Representative will be glad to help you determine your application's ideal speed.

- **Dust collection is important for clean cuts and long tool life.** The more chips and dust in the cut, particularly when routing through the board, the more work the tool is subjected to.

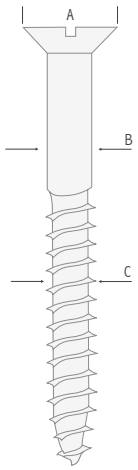
- **Excessive RPM loss results in poor cuts, shorter tool life and extreme machine wear.** If when cutting or routing, your machine bogs down or loses more than 20% of its no-load RPM, either the machine is underpowered, the feed rate is too high for the machine, or the bit is too dull.

For other helpful hints please see the "High Speed Steel and Solid Carbide Router Selection Guide" (Page 100), the "CNC Router Feed Chart" (Pages 210-211) and the "Boring Chart for Wood Screws" (Page 208).

Boring Chart for Wood Screws

How To Use This Guide

This table simplifies the selection of the tool size best suited to the selected wood screw. The tool size for the shank hole (the non-threaded portion of the screw) is listed in the nearest fractional equivalent column, next to the shank diameter; the tool size for the pilot hole (the threaded portion of the screw) is listed in the nearest fractional equivalent column, next to the root diameter. The fractional equivalents and undersize/oversize decimals indicate how close a bit of given fractional size will bore to the actual screw dimension and whether the fit will be snug or loose. In selecting a tool size for the pilot hole, note that root diameters are average dimensions measured at the middle of the threaded portion. On some screws, the root diameter tapers slightly from the end of the screw, increasing toward the head. It is usually good practice to bore the pilot hole the same size as the root diameter in hard-woods, such as oak, and about 15% smaller for softwoods, such as pine and Douglas fir. In some cases, allowances can be made to compensate for moisture content and other varying factors. The same rule can be used for shank holes. The *shank diameters* shown below are standard specifications subject to tolerances of +0.004 and -0.007. *Maximum head diameters* are also standard specifications which apply to flat and oval head screws. Head sizes run from 5% to 10% smaller for round head screws.



Screw Number	A Maximum Head Diameter	Threads per Inch	B Shank Diameter (Inches in Decimals)	Nearest Fractional Equivalent			C Root Diameter (Inches in Decimals)	Nearest Fractional Equivalent		
0	.119	32	.060	1/16	.002	Oversized	.040	3/64	.007	Oversized
1	.146	28	.073	5/64	.005	Oversized	.046	3/64		Basic Size
2	.172	26	.086	3/32	.007	Oversized	.054	1/16	.008	Oversized
3	.199	24	.099	7/64	.010	Oversized	.065	1/16	.002	Undersized
4	.225	22	.112	7/64	.003	Undersized	.075	5/64	.003	Oversized
5	.252	20	.125	1/8		Basic Size	.085	5/64	.007	Undersized
6	.279	18	.138	9/64	.002	Oversized	.094	3/32		Basic Size
7	.305	16	.151	5/32	.005	Oversized	.102	7/64	.007	Oversized
8	.332	15	.164	5/32	.007	Undersized	.112	7/64	.003	Undersized
9	.358	14	.177	11/64	.005	Undersized	.122	1/8	.003	Oversized
10	.385	13	.190	3/16	.002	Undersized	.130	1/8	.005	Undersized
11	.411	12	.203	13/64		Basic Size	.139	9/64	.001	Oversized
12	.438	11	.216	7/32	.003	Oversized	.148	9/64	.007	Undersized
14	.491	10	.242	1/4	.008	Oversized	.165	5/32	.009	Undersized
16	.544	9	.268	17/64	.002	Undersized	.184	3/16	.003	Oversized
18	.597	8	.294	19/64	.003	Oversized	.204	13/64	.001	Undersized
20	.650	8	.320	5/16	.007	Undersized	.223	7/32	.004	Undersized
24	.756	7	.372	3/8	.003	Oversized	.260	1/4	.010	Undersized

Decimal and Metric Equivalents

Fraction	Decimal	mm	Fraction	Decimal	mm	Fraction	Decimal	mm	Fraction	Decimal	mm
1/64	.015625	.40	17/64	.265625	6.8	33/64	.515625	13.1	49/64	.765625	19.5
1/32	.03125	.80	9/32	.28125	7.2	17/32	.53125	13.5	25/32	.78125	19.9
3/64	.46875	1.2	19/64	.296875	7.6	35/64	.546875	13.9	51/64	.796875	20.2
1/16	.0625	1.6	5/16	.3125	8.0	9/16	.5625	14.3	13/16	.8125	20.6
5/64	.078125	2.0	21/64	.328125	8.4	37/64	.578125	14.7	53/64	.828125	21.0
3/32	.09375	2.4	11/32	.34375	8.8	19/32	.59375	15.1	27/32	.84375	21.4
7/64	.109375	2.8	23/64	.359375	9.2	39/64	.609375	15.5	55/64	.859375	21.8
1/8	.125	3.2	3/8	.375	9.6	5/8	.625	15.9	7/8	.875	22.2
9/64	.140625	3.6	25/64	.390625	10.0	41/64	.640625	16.3	57/64	.890625	22.6
5/32	.15625	4.0	13/32	.40625	10.4	21/32	.65625	16.7	29/32	.90625	23.0
11/64	.171875	4.4	27/64	.421875	10.8	43/64	.671875	17.1	59/64	.921875	23.4
3/16	.1875	4.8	7/16	.4375	11.2	11/16	.6875	17.5	15/16	.9375	23.8
13/64	.203125	5.2	39/64	.453125	11.6	54/64	.703125	17.9	61/64	.953125	24.2
7/32	.21875	5.6	15/32	.46875	12.0	23/32	.71875	18.3	31/32	.96875	24.6
15/64	.234375	6.0	31/64	.484375	12.4	47/64	.734375	18.7	63/64	.984375	25.0
1/4	.25	6.4	1/2	.5	12.8	3/4	.75	19.1	1	1.0	25.4

Standard Gauges - Birmingham or Stubbs

Gauge	Inches	mm	Gauge	Inches	mm	Gauge	Inches	mm	Gauge	Inches	mm
0000	.454	11.532	7	.180	4.572	17	.058	1.473	27	.016	.406
000	.425	10.795	8	.165	4.190	18	.049	1.244	28	.014	.356
00	.380	9.652	9	.148	3.759	19	.042	1.066	29	.013	.330
0	.340	8.636	10	.134	3.403	20	.035	.889	30	.012	.305
1	.300	7.620	11	.120	3.048	21	.032	.812	31	.010	.254
2	.284	7.213	12	.109	2.768	22	.028	.711	32	.009	.229
3	.259	6.578	13	.095	2.413	23	.025	.635	33	.008	.203
4	.238	6.045	14	.083	2.108	24	.022	.559	34	.007	.178
5	.220	5.588	15	.072	1.828	25	.020	.508	35	.005	.127
6	.203	5.156	16	.065	1.651	26	.018	.457	36	.004	.102

Conversion Chart

1 Inch	=	25.4 Millimeters
.001 Inch	=	.0254 Millimeters
1 Millmeter	=	.03937 Inches
.1 Millmeter	=	.00394 Inches
.01 Millmeter	=	.00039 Inches
1 Pound	=	.4536 Kilograms
1 Ounce	=	28.3495 Grams
1 Kilgoram	=	2.2046 Pounds
1 Gallon	=	3.7853 Litres
1 Litre	=	.2642 Gallons
1 Bar	=	14.5 PSI
1 PSI	=	.069 Bars
1 Kilowatt	=	1.33 Horsepower
1 Horsepower	=	.750 Kilowatts

CNC Router Feed Chart - Wood, Wood Products, Metal Doors

These feed rates are in inches per minute and are only guidelines. Actual speed and feed rates will depend on individual equipment and goals. Generally, the faster a bit is fed, the longer the edges will last. For maximum life, start at a "safe" rate, then push feed rate until either finish is undesirable, or tool is risking breakage. Other factors that affect feed rate are:

- Rigidity of Set Up
  Vibration is a major source of tool wear and poor finish. Adjust feed rate to minimize vibration. Often a faster rate can improve finishes.
- Router environment
  Other variable that affect every routing application are spindle, horsepower, rigidity and runout, collet condition, clamping system and tool sharpness. Adjust feed rate to achieve desired finish.
- Spindle Speed
  Adjust feed rate chart on a linear basis relative to 18,000 spindle RPM. If spindle is 20,000 RPM, increase speed by 10%; if spindle is 14,500 RPM, reduce speed rate by approximately 20%.
- Finish
  Find the fastest feed rate that will enable you to obtain a satisfactory finish for the best tool life.
- Routing Formulas
  Feed Rate (Inches per Minute) = RPM x Number of Cutting Edges x Chip Load
  Chip Load = Feed Rate / (RPM x Number of Cutting Edges)
  Speed (RPM) = Feed Rate / (Number of Cutting Edges x Chip Load)

NAP GLADU Tool Series	Cutting Diameter	Cutting Depth	Spindle Speed	Soft Natural Wood	Hard Natural Wood	Soft Plywood	Hard Plywood	MDF	Laminated Chipboard	Laminated Plywood	Metal Door Foam Core
BC10-00	1/4	1/4	18,000	100-200	–	–	–	–	–	–	–
BC12-00	1/2	1/2	18,000	–	100-300	–	–	–	–	–	–
BC12-80	1/2	1/2	18,000	100-500	100-300	–	–	–	–	–	–
BC14-00	1/2	2	18,000	100-500	–	–	–	–	–	–	–
BC15-00	1/2	2	18,000	–	–	–	–	–	–	–	–
BC15-50	1/2	2	2,000-2,500	–	–	–	–	–	–	–	100-200
BC15-75	1/2	2	2,000-2,500	150	–	–	–	–	–	–	200-300
BC30-00	N/A	Varies	18,000	150	150	–	–	150	–	–	–
BC37-50	*	*	18,000	150	150	150	150	150	–	–	–
BC37-60	*	*	18,000	150	150	150	150	150	–	–	–
BC38-00	*	*	18,000	150	150	–	–	–	–	–	–
BC38-50	*	*	18,000	150	150	150	150	150	–	–	–
BC38-60	*	*	18,000	150	150	150	150	150	–	–	–
BC40-000	1/2	3/4	18,000	100-300	100-300	–	–	–	–	–	–
BC40-100	1/2	3/4	18,000	150-400	150-400	–	–	–	–	–	–
BC40-200	1/2	3/4	18,000	100-300	100-300	–	–	–	–	–	–
BC40-300	1/2	3/4	18,000	150-400	150-400	–	–	–	–	–	–
BC40-400	1/2	3/4	18,000	150-400	150-400	–	–	–	–	–	–
BC52-200	1/2	3/4	18,000	200-400	200-400	–	–	200-450	–	–	–
BC57-200	1/2	3/4	18,000	200-400	200-400	–	–	200-450	–	–	–
BC52-400	12 mm	3/4	18,000	200-400	200-400	–	–	200-450	–	–	–
BC57-400	12 mm	3/4	18,000	200-400	200-400	–	–	200-450	–	–	–
BC52-900	1/2	3/4	18,000	200-400	200-400	–	–	200-450	–	–	–
BC56-200	1/2	3/4	18,000	200-400	200-400	200-400	200-400	200-400	–	–	–
BC57-900	1/2	3/4	18,000	200-400	200-450	–	–	200-450	–	–	–
BC60-000 (high)	1/2	3/4	18,000	600-1,000	600-1,000	600-1,200	600-1,200	500-1,000	–	–	–
BC60-000 (low)	1/2	3/4	18,000	700-1,200	700-1,200	700-1,500	700-1,500	600-1,500	–	–	–
BC60-090	1/2	3/4	18,000	100-400	100-400	100-400	100-400	100-400	–	–	–
BC60-100 (1 edge)	1/2	3/4	18,000	100-600	100-600	100-600	100-600	100-500	100-600	100-600	–
BC60-100 (2 edge)	1/2	3/4	18,000	400-1,200	400-1,000	400-1,200	400-1,000	400-800	400-1,200	400-1,000	–
BC60-100 (3 edge)	1/2	3/4	18,000	500-1,600	500-1,500	700-1,800	700-1,600	600-1,200	700-1,800	700-1,600	–
BC60-100C	1/2	3/4	18,000	400-1,500	400-1,200	400-1,400	400-1,200	400-1,000	400-1,400	400-1,200	–
BC60-200	1/2	3/4	18,000	200-600	200-500	–	–	200-500	–	–	–
BC60-470	1/2	3/4	18,000	200-600	200-500	–	–	200-500	–	–	–
BC60-300	1/2	3/4	18,000	400-1,500	400-1,200	400-1,400	400-1,200	400-1,000	–	–	–
BC60-400	1/2	3/4	18,000	400-1,500	400-1,200	400-1,400	400-1,200	400-1,000	–	–	–
BC60-350	1/2	3/4	18,000	500-1,600	500-1,500	700-1,800	700-1,600	600-1,200	–	–	–
BC60-430	1/2	3/4	18,000	500-1,600	500-1,500	700-1,800	700-1,600	600-1,200	–	–	–
BC60-450	12 mm	3/4	18,000	200-600	200-500	–	–	200-500	–	–	–
BC60-500 (M)	1/2	3/4	18,000	500-1,600	500-1,500	700-2,400	700-2,200	600-1,600	700-2,400	700-2,200	–
BC60-600	1/2	3/4	18,000	1,000-1,800	1,000-1,800	1,200-3,000	1,200-2,800	1,000-2,000	1,200-3,000	1,200-2,800	–
BC60-700	1/2	3/4	18,000	1,000-1,800	1,000-1,800	1,200-3,000	1,200-2,800	1,000-2,000		–	–
BC60-900	1/2	3/4	18,000	700-1,200	700-1,200	700-1,500	700-1,500	600-1,500	–	–	–
BC60-950	1/2	3/4	18,000	400-1,500	400-1,200	400-1,400	400-1,200	400-1,000	–	–	–
BC61-000	1/4	1/2	18,000	100-300	–	–	–	–	–	–	–
BC61-200	1/4	1/2	18,000	100-300	100-250	100-250	100-200	100-250	–	–	–
BC62-200	1/4	1/2	18,000	150-300	150-300	–	–	150-300	–	–	–
BC63-200	1/4	1/2	18,000	150-300	150-300	–	–	150-300	–	–	–

*Depth of Cut = Half of the Cutting Edge Diameter

CNC Router Feed Chart - Plastics, Foam and Aluminum

NAP GLADU Tool Series	Soft Plastic	Hard Plastic	Fibrous Reinforcements	Foam	Aluminum	Solid Surface
BC10-00	150	–	–	–	–	–
BC12-00	–	–	–	100	–	–
BC14-00	–	–	–	–	90 Aluminum Extrusion or Aluminum UAD Doors	Windows
BC15-00	–	–	–	–	90	
BC37-50	150 Depth of Cut 1/2 of CED	150 Depth of Cut 1/2 of CED	–	–	–	150 Depth of Cut 1/2" CED
BC37-60	150	150	–	–	–	150
BC38-50	150	150	–	–	–	150
BC38-60	150	150	–	–	–	150
BC40-000	–	–	–	–	120	–
BC40-100	–	–	–	–	120 16,000 RPM	–
BC40-300	–	–	–	–	120	–
BC52-000	–	–	–	150	150	150-200
BC52-200	200	–	–	–	–	150-200
BC52-400	200	–	–	–	–	150-200
BC52-600	275	250	–	–	–	150 3/8" CED, 5/8" DOC
BC53-000	–	–	150	–	–	–
BC56-000P	–	250	150	–	–	150-200
BC56-430	300	275	–	–	–	–
BC56-450		250	150	–	–	150-200
BC56-600	300	275	–	–	–	–
BC57-000	–	–	150	–	150 16,000 RPM	150-200
BC57-200	–	–	–	–	–	150-200
BC57-400	–	–	–	–	–	150-200
BC57-600	300	275	–	–	–	–
BC58-000	–	–	150	–	–	–
BC55-000	–	–	150	–	–	–
BC59-000	–	–	150	–	–	–
BC54-000	–	–	150	–	–	–
BC60-200	–	300	–	–	–	100-300
BC60-470	–	300	250	–	–	100-300
BC61-000P	350	300	–	–	–	–
BC61-400	350	300	–	–	–	–
BC62-000	–	–	100	–	150	–
BC62-400	–	–	100	–	150	–
BC62-600	–	–	–	–	54-144	–
BC62-700	–	200	–	–	–	100-180
BC62-750	150	150	–	–	–	100-180
BC62-800	–	200	–	–	–	100-180
BC62-850	150	150	–	–	–	100-180
BC62-900	–	–	–	–	54-144	–
BC63-000	–	–	100	–	150	–
BC63-400	–	–	100	–	150	–
BC63-600	–	–	–	–	54-144	–
BC63-700	–	200	–	–	–	100-180
BC63-750	150	150	–	–	–	100-180
BC63-800	–	200	–	–	–	100-180
BC63-850	150	150	–	–	–	100-180
BC63-900	–	–	–	–	54-144	–
BC66-000	125	125	–	–	–	125
BC66-200	150	150	–	–	–	–
BC66-250	150	150	–	–	–	–
BC66-300	175	150	–	–	150	–
BC66-350	175	150	–	–	150	–
BC67-000	–	–	125	–	–	–

This feed chart is based on 18,000 RPM, 1/4" cutting diameter and 1/4" cutting height. These feed rates are in inches per minute and are only guidelines. The actual speed and feed rates will depend on individual equipment and goals. Generally, the faster a bit is fed, the longer the edges will last. For maximum life, start at a "safe" rate, then push feed rate until either finish is undesirable, or tool is risking breakage. Other factors that affect feed rate are:

- Rigidity of Set Up
  Vibration is a major source of tool wear and poor finish. Adjust feed rate to minimize vibration. Often a faster rate can improve finishes.
- Router environment
  Other variable that affect every routing application are spindle, horsepower, rigidity and runout, collet condition, clamping system and tool sharpness. Adjust feed rate to achieve desired finish.
- Number of Flutes
  Single flute tools should be fed at a slightly higher rate (approximately 10% more) than double flute tools.
- Bit Diameter
  This chart is for 1/4" diameter bits. Bit diameter feed factors are as follows: 3/8" diameter, plus 10%; 1/2" diameter, plus 20%.
- Depth of Cut
  Decrease feed rate approximately 25% for each multiple of the depth cut. For example, if the depth is 2 times, reduce by 25%; if the depth is 3 times, reduce by 50%.
- Spindle Speed
  Adjust your feed rate chart on a linear basis relative to 18,000 spindle RPM. If spindle is 20,000 RPM, increase speed by 10%; if spindle is 14,500 RPM, reduce speed rate by approximately 20%.
- Finish
  Find the fastest feed rate that will enable you to obtain a satisfactory finish for the best tool life.
- Routing Formulas
  Feed Rate* = RPM x Number of Cutting Edges x Chip Load

  Chip Load = Feed Rate / (RPM x Number of Cutting Edges)

  Speed (RPM) = Feed Rate/(Number of Cutting Edges x Chip Load)

  *Feed Rate is in Inches per Minute

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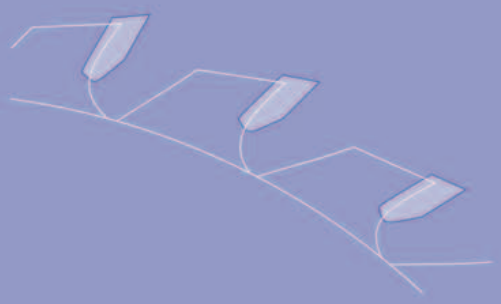
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