



INDUSTRIAL

Router Bit

Replacement Parts

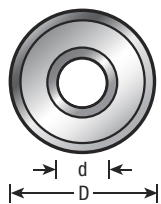


STEEL BALL BEARING GUIDES

Amana Tool® uses only the finest industrial quality precision ball bearings available. Bearings are double steel-shielded for extra rigidity and to inhibit dust. A special high-performance, high-temperature grease is used for maximum life.

Bearing #'s 47701-HP, 47706-HP and 47712-HP have Teflon® shields which provide a better seal and increased bearing life while routing materials that generate very fine dust particles (such as solid surface).

Note: Solvents should not be used to clean ball bearings, as this will deteriorate the special grease. 'Frozen' bearings (ones that do not rotate freely), should be replaced immediately.



Fractional Listed By Size/Steel Shields & New Teflon® Shields

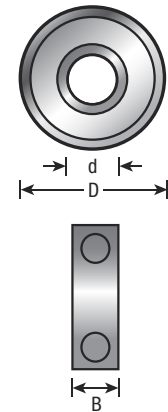
Application	Ød	ØD	B	Tool No.
47090, 47092, 51436 1/4" Diameter Trim Bits	1/8	1/4	.110 (7/64)	47723
47206, 49400, 49402, Smaller Cove Bits, Several Types Of Form Bits, Old Style 3/8" Diameter Trim Bits, New 'No-File' Trim Bits	1/8	3/8	.155 (5/32)	47704
Old Style 1/2" Diameter Flush Trim Bits	1/8	1/2	.171 (11/64)	47700
3/8" Diameter Flush Trim, All Beading Bits, (49300/49302), 49340, 49350, 49540, 49542, 49550, Many Types Of Form Bits	3/16	5/16	.124 (1/8)	47789
Our Most Popular Bearing – Fits 1/2" Diameter Flush Trim, Some Bevel Trim, All Corner Rounds, Raised Panel, Rabbet, Ovolo, Many Types Of Form Bits, 51570, 54160, 54162, 54198, 54370, New Style 54200 & 54220 (After 12/95)	3/16	3/8	.124 (1/8)	47702
With Teflon® Dust Shields Used As A Substitute For 47706 (See Above)	3/16	1/2	.195 (3/16)	47706
For Fine Dust Conditions	3/16	1/2	.195 (3/16)	47706-HP
New Undersized 1/2" Diameter Bearing For Use After Resharpener – Fits All Tools Such As Flush Trims, Corner Rounds, Etc., That Use The Standard 47706 Bearing	3/16	.490	.195 (3/16)	47715
'Overhang' Bits, 49340, 49350 (49300/49302), 55343	3/16	5/8	.195 (3/16)	47718
(49300/49302), 49340, 49350, RC-4950	3/16	3/4	.280 (9/32)	47720
49340, 49350 For 1/4" Rabbet	3/16	7/8	.196 (3/16)	47719
	3/16	1	.196 (3/16)	47773
49340, 49350 For 1/8" Rabbet	3/16	1-1/8	.312 (5/16)	47743
45475, 45475-S	1/4	3/8	.124 (1/8)	47751
45460, 45461, 45750, 45850, 45950, 57100, 57106, 57112, RC-1014.	1/4	1/2	.186 (3/16)	47701
With Teflon® Dust Shields Used As A Substitute For 47701 (See Above)	1/4	1/2	.186 (3/16)	47701-HP
For Fine Dust Conditions	1/4	9/16	.236 (15/64)	47753
45474-S	1/4	5/8	.195 (3/16)	47712
45462, 45476, 45478, 45479, 45809, 45811, 47180, 51530, 51532, 51534, 54188, 54190, 54192, 54194, 54296, 54324, 54350, 54352, 54354, 54356, 57100, 57106, 57112, 'RC' Series Bevel Trim Bits	1/4	5/8	.195 (3/16)	47712-HP
With Teflon® Dust Shields Used As A Substitute For 47712 (See Above)	1/4	5/8	.195 (3/16)	47712-HP
For Fine Dust Conditions.	1/4	3/4	.280 (9/32)	47714
45464, 45988, 47140, 47182, 47184, 51574, 51576, 57100, 57106, 57112, Old Style 57118, 57120	1/4	3/4	.280 (9/32)	47714
450-12 (Timberline®)	1/4	.865 (7/8)	.280(9/32)	47796
49405	1/4	1	.344 (11/32)	47710
55360	5/16	3/4	.280 (9/32)	47759
1/2" Depth Of Cut Slotting Assemblies, All Stile & Rail, 49730, 49770, 53610	5/16	.865 (7/8)	.275 (9/32)	47708
55400, 55401, 56148, 55340				
New Raised Panel With Back Cutter 54221, 54227, 54229	5/16	1-1/4	.196	47763
55320, 55330, 55325	5/16	1.319 (1-5/16)	.335 (21/64)	47762
45884	3/8	7/8	7mm	47741
45463, 45465, 45990	1/2	3/4	.156 (5/32)	47721
45463	1/2	7/8	5mm	47830 New
	1/2	1	5mm	47832 New
45468, 45789, 45992, 51590, 57142, 57144, 57138 & 57140	1/2	1-1/8	.312 (5/16)	47738
57165	1/2	1	5.7mm	47745
57165	1/2	1-1/4	5.7mm	47747
57166	1/2	1-1/2	.466mm (15/32)	47749
57176	7/8	1/2	5mm	47793 New

Note: Fractional size specifications shown in parentheses () are approximate, and are provided for reference purposes only. Tool numbers shown in parentheses () exhibit optional (not standard) bearings for these tools.

STEEL BALL BEARING GUIDES

Metric Listed By Size/Steel Shields

Application	Ød	ØD	B	Tool No.
New Miniature Router Bits	4mm	8mm	3mm(7/64)	47703
47193	5mm	10mm	4mm(5/32)	47794
47191	5mm	11mm	4mm(5/32)	47795
Old Style (Prior To 12/95) 54200, 54220 – For New Style (After 12/95) Use 47706	5mm	13mm	4mm(5/32)	47705
47300, 47302, 51572, 54164 Through 54172, 54215, 54217, 54268, 54269, 54294, 57188, RC-4952, RC-4954, RC-4956	5mm	16mm	5mm(3/16)	47716
'RC' Series Flush Trim Bits	6mm	19mm	6mm(15/64)	47711
RC-1040, RC-1042, RC-1044	7mm	14mm	5mm(3/16)	47746
New Raised Panel With Back Cutter 54221, 54227, 54229	8mm	16mm	5mm(3/16)	47713
TRS-310 (Timberline®)	8mm	1	1/4	47770
49750, 55392	8mm	28mm	9mm(23/64)	47736
TRS-310 (Timberline®)	8mm	1-1/8	1/4	47771
TRS-310 (Timberline®)	8mm	1-3/8	1/4	47772
45466	10mm	26mm	8mm(5/16)	47722
56140, 56150	15mm	35mm	11mm(7/16)	47734
45467	15mm	1	.218 (7/32)	47754
45469	15mm	1-1/4	.343 (11/32)	47756
45470	15mm	1-1/2	.343 (11/32)	47758
TRS-310 (Timberline®)	15mm	2	13mm	47760
47174	6mm	22mm	7mm	47798 <i>New</i>



Note: Fractional size specifications shown in parentheses () are approximate, and are provided for reference purposes only. Tool numbers shown in parentheses () exhibit optional (not standard) bearings for these tools.

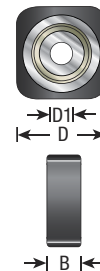
EURO™ SQUARE BEARING *New*

Will Not Scratch or Mark Laminates with Matt or High Gloss Finish

- Can be mounted to any 1/2" diameter Amana Tool® flush trimmer.
- Manufactured with non-stick Teflon.

Ø I.D. x Ø O.D.	'B' Bearing Thickness	For Tool	Tool No.
3/16 x 1/2	.223	47147	SQB100
3/16 x 3/4	.273	47148 & 47149	SQB102

Note: Solvents should not be used to clean ball bearings, as this will deteriorate the special grease. 'Frozen' bearings (ones that do not rotate freely), should be replaced immediately.



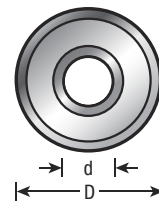
20 PC. REPLACEMENT BEARING KIT

This 20 piece replacement bearing kit contains the most popular bearings to fit our most popular router bits.

Description	Tool No.
20 Piece Replacement Bearing Kit	6004

Includes the following sizes:

Ø I.D. x Ø O.D.	'B' Bearing Thickness	Qty.	Tool No.
1/8 x 1/4	.110 (7/64)	2	47723
1/8 x 3/8	.155 (5/32)	3	47704
3/16 x 3/8	.124 (1/8)	5	47702
3/16 x 1/2	.195 (3/16)	5	47706
1/4 x 1/2	.186 (3/16)	3	47701
1/2 x 3/4	.156 (5/32)	2	47721



6004 includes plastic storage box.

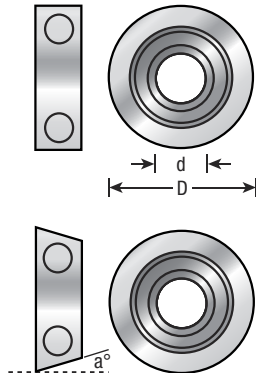


Warning: Before use, read router bit safety guidelines on pages 248-250.



ULTRA-GLIDE™ HIGH-PERFORMANCE BALL BEARING GUIDE ASSEMBLIES

Using the same quality standards as our regular steel bearings, these Ultra-Glide™ bearing assemblies feature satin-smooth Delrin® sleeves. Delrin® is an industrial synthetic plastic material similar to nylon, and will leave no marks on the material being cut. Applications include solid-surface materials such as Gibraltar®, Corian®, Surell® & Fountainhead® etc.; Plexiglas® & other clear acrylics, including plastic laminates. Not recommended for regular wood applications due to a higher wear factor. Product #'s 47709, 47725, 47726, 47731 & 47733 now include new Teflon® dust shields. These bearings provide a better seal to increase bearing life while routing materials that generate very fine dust particles (such as solid surface).



Application	Ød	ØD	a°/R	Tool No.
1/2" Diameter Flush Trim, Corner Rounds, Etc.	3/16	.500 (1/2)	-0-	47707
All Tools That Accept Our Regular #47706 Steel Bearing				
47140, 57154 Trim Bits And New Style 57118, 57120, 57257	1/4	.750 (3/4)	-0-	47709 *
Slot Cutter Assemblies: 1/4" Depth Of Cut, 53610	5/16	1.382 (1-3/8)	-0-	47727
Slot Cutter Assemblies: 3/8" Depth Of Cut, 53610	5/16	1.137 (1-9/64)	-0-	47728
Set Of Two Above: 47727 & 47728	5/16		-0-	47729
Old Style 57122 Bevel Bit With 31/32" Large Diameter	1/4	.965 (31/32)	10°	47725 *
New Style 57122, Other 'Solid-Surface' Type Bits	1/4	.866 (7/8)	10°	47726 *
57156 Through 57168 Bowl Bits Only	1/4	.866 (7/8)	10°	47731 *
57129 And 57161	1/4	1	12°	47732 *
New Bowl Bits	1/4	1	5°	47733 *
57138, 57140	15mm	1.125 (1-1/8)	-0-	47737
57163	1/4	15/16	21°	47765
57191	1/4	15/16	3/8	47766
57190	1/4	27/32	1/2	47767
57192	1/4	3/4	3/4	47768
57194	1/4	3/4	1	47769
57269	1/4	13/16	18°	47788
57268	1/4	55/64	14°	47785
57267	1/4	7/8	10°	47787

Note: Outside dimensions are approximate and are given for reference purposes only.

* Includes new Teflon® dust shields.



STEEL DUST SHIELDS

Application: Used between ball bearing and router bit to inhibit dust.
'Cone-shaped' end always faces the bearing.

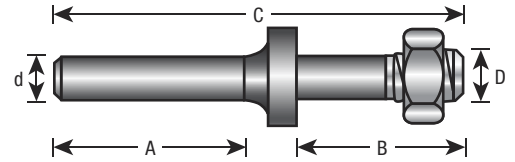
Diameters		Use with Bearing #	Tool No.
'd' Inside x 'D' Outside			
3/16 X 1/2	47700, 47701, 47706, 47712, 47714, 47718, 47720		67098
1/8 X 3/8	47704		67100
5mm X 16mm	47716		67103
1/4 X 5/8	47712 (Solid Surface Bowl Bits Only)		67116
3/16 X 5/8	47712 (Solid Surface Bowl Bits Only)		67126

ROUTER ARBORS

With Hex Nut And Washers

Application	ØD	Ød	A	B	C	Tool No.
2 & 3-Wing Slotting Assemblies, Assemblies, and Single	5/16-24 NF	1/4	1-1/4	7/8	2-3/8	47600
4-Wing Trim Cutter Assemblies	5/16-24 NF	1/2	1-1/2	7/8	2-3/8	47604
Double Trim Cutters, Rail & Stile, 53600, 55300, 55320, 55325, 55330, 55400 (Replaces 55360 Arbor)	5/16-24 NF	1/2	1-1/2	1-3/8	3-1/8	47612
49730, 49770	5/16-24 NF	1/2	1-7/16	2-9/16	4-3/16	47618
49750, 55340, 55392	5/16-24 NF	1/2	1-3/8	2-1/8	3-3/4	47620
55420, 55430, 55440	5/16-24 NF	1/2	1-5/16	1-3/4	3-5/16	47622
General Purpose	1/4-28 NF	1/4	1-1/4	7/8	2-3/8	47610
Screw Type Mortising Bits 55250 Through 55258	1/4-28 NF	1/4	1-7/16	1/4	1-13/16	47611 *
Screw Type Mortising Bits 55250 Through 55258	1/4-28 NF	1/2	1-3/4	1/4	1-1/2	47614 *

* Due to application, these arbors are not furnished with hex nut or washers.



HEX NUTS FOR ROUTER ARBORS

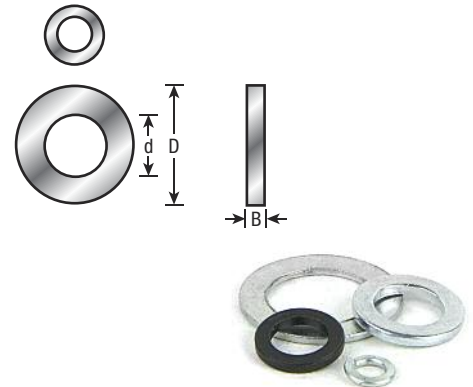
Application	Description	Tool No.
46300, 46304 Spiral Trim Bits	10-32 NF	67086
All Arbors With 5/16-24 NF Thread	5/16-24 NF	67088
47610 Arbor, "Nova"	1/4-28 NF	67089
47124-2, 47126-2, 47128-2 Trim Bits	5mm X .8mm (10-32)	67118
55460, 55462, 55464	12mm X 1.75mm	67131



STEEL FLAT WASHERS

Application: Used between ball bearing & screw head or hex nut. Part No. 67101 is used in place of a dust shield on beading bits #'s 49592 through 49622.

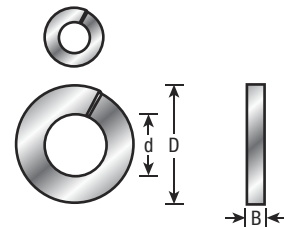
Diameters		Use with Bearing #	Use with Screw #	Tool No.
'd' Inside x 'D' Outside	'B' Thick			
3/16 x 5/16 x 1.0mm		47702	67094, 69096	67101
12mm X 18.7mm x 7/64		47744	55460, 55462, 55464	67125
1/4 x 3/8 x 1.5mm		47701	'Face Inlay' Spacer	67132
3/32 x 1/4 x 1.0mm		47704	67095	67200
1/8 x 5/16 x 1.0mm		47706	67094, 67096	67202
5/16 x 1/2 x 1.6mm		47708	5/16 Thread Arbors (For Slot Cutters)	67204
1/4 x .356 x 2.2mm		47701	'Superabbet' Spacer	67206
1/4 x 15/32 x 3/64		47701	46300, 46304, 46400, 46404, 51432	67053



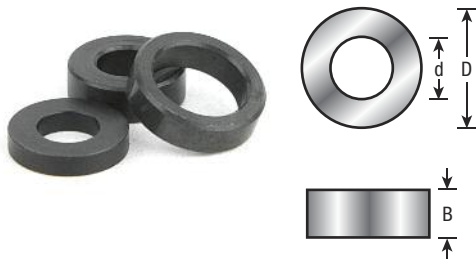
STEEL SPLIT LOCK WASHERS

Application: Used between ball bearing & screw head or hex nut to serve as a lock washer.

Diameters		Tool No.
'd' Inside x 'D' Outside	'B' Thick	
1/8 x 1/4 x 1.0mm		67082
1/8 x 1/4 x 1.0mm		67111
12mm x 18.7mm x 1.3mm		67128



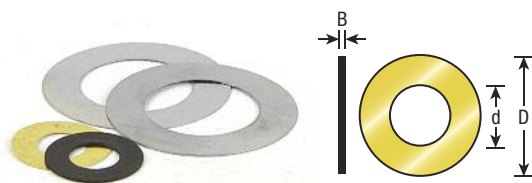
Warning: Before use, read router bit safety guidelines on pages 248-250.



STEEL SPACERS

Application: General purpose arbor spacers used on assembly type tools that require cutter adjustment.

Diameters: 'd' Inside x 'D' Outside	'B' Face Width	Tool No.
5/16 x 5/8	3.0mm(1/8)	55366
5/16 x 5/8	3.4mm(9/64)	55367
5/16 x 5/8	6.0mm(1/4)	55368
5/16 x 5/8	5.5mm(7/32)	55369
1/2 x 3/4	6.0mm(1/4)	55363
1/2 x 18mm	5.0mm	55371



STEEL SHIMS

Application: General purpose arbor shims used on assembly type tools that require cutter adjustment. Particularly useful after tool re-sharpening.

Diameters: 'd' Inside x 'D' Outside	'B' Shim Thickness	Tool No.
5/16 x 5/8	.05mm(.002)	55356
5/16 x 5/8	.10mm(.004)	55357
32mm x 3/4	.18mm(.007)	55358
5/16 x 5/8	1.00mm(.040)	55402
5/16 x 5/8	.50mm(.020)	55404
5/16 x 5/8	.40mm(.015)	55403



Snap Rings

BALL BEARING RETAINING COLLARS AND SNAP RINGS

Application: To retain bearings on tools furnished with upper ball bearing guides. Collars include #67091 set screw.

Diameters: 'd' Inside x 'D' Outside	Used On Tool No. ('s)	Tool No.
.22 x .079	51436	47779
.289 x .375	56130, 56148, 49150, 49152, 49154	47748
.542 x .675	56140, 56150	47750



Retaining Collars

Diameters 'd' Inside x 'D' Outside	Face Thickness	Used On Tool No.('s)	Tool No.
1/4 x 7/16	.203 (13/64)	45460, 45461, 45462, 45464, 45750, 45850, 45950, 45988, 54190, 54192, 54194	47724
3/8 x 5/8	.203 (13/64)	45466	47730
1/2 x 23/32	.234 (15/64)	45463, 45465, 45467, 45991	47739
1/2 x 25/32	.234 (15/64)	45468, 45469, 45470, 45990, 45992, 51592	47740
6.3mm x 9.5mm	1/4	45475, 45475S	47764

ALLEN-TYPE SET SCREWS FLAT (FP) AND CUP-POINT (CP)

Case Hardened • Black-Oxide Finish

Application	Description	Use With Key Size	Tool No.
Boring Bits	5mm x .8mm (FP)	S/D Slotted*	67007*
Rosette Cutterheads	6mm x 1.0mm (FP)	3mm (#5008)	67008
RC-3100	3 x 4mm Special (FP)	1.5mm (#5000)	67015
RC-3200 & 3110	3 x 5mm Special (FP)	1.5mm (#5000)	67016
RC-3204 & 3307	3 x 6mm Special (FP)	1.5mm (#5000)	67017
Metric Countersinks (6mm to 12mm)	6mm x 1.0mm (CP)	3.0mm (#5004)	67079
#55 Countersinks With 1 Screw	6mm x 1.0mm (FP)	3.0mm (#5004)	67083
Metric Countersinks (5mm Only)	5mm x .8mm (CP)	2.5mm (#5007)	67087
47724-47752 Collars	#5-40 NC (CP)	1/16 (#5002)	67091
#55 Countersinks With 2 Screws	#10-24 NC (CP)	3/32 (#5000)	67092
Metric Chucks	5mm x .8mm (FP)	2.5mm (#5007)	67097

*#67007 Boring bit adjustment screw is screwdriver slotted.



Slotted



Allen



SOCKET HEAD ALLEN TYPE, HEX, FLAT, TORX® AND PHILLIPS® RETAINING SCREWS

Case Hardened • Black Oxide Finish

Application	Type	Description	Use With Key Size	Tool No.
RC-2000	Allen	3.5 x 6mm	2.5mm (#5007)	67018
RC-3400	Torx®	5mm x 8.5mm		67057
'Mini' Bits	Allen	3 x .5 x 10mm	2.5mm (#5007)	67080
20200 Adj. C/S	Allen	4 x .7mm x 12mm	3mm (#5004)	67090
Multi-Use	Allen	#10-32 x 3/8 NF	5/32 (#5003)	67093
Multi-Use	Allen	#5-40 x 1/2 NC	3/32 (#5000)	67094
Multi-Use	Allen	#3-48 x 3/8 NC	5/64 (#5001)	67095
Multi-Use	Allen	#5-40 x 3/8 NC	3/32 (#5000)	67096
Multi-Use	Allen	#10-32 x 1/2 NF	5/32 (#5003)	67109
Torx® Screw For Insert Trim & Plunge Bits	Torx®	4 X .7mm x 5mm	#T-15 (#5005)	67115
Torx® Screw For Insert Plunge Bits	Torx®	3.5 X .6mm x 5mm	#T-15 (#5005)	67117
47090 & 47092 1/4 Trim Bits	Phillips®	#2-56 x 7/32 NC	#0 Phillips®	67134
Special	Allen	#10-32 x 3/8 NF	1/8 (#5009)	67146
Insert Flush Trim	Torx®	4mm x 12mm	#T-15 (#5005)	67176
In-Tech™ Bits	Hex	#3-48 x 3/8 NC	5/64 (#5001)	67013
In-Tech™ Bits	Flat	—	—	67099



Allen



Phillips®



Torx®



Warning: Before use, read router bit safety guidelines on pages 248-250.

INDUSTRIAL

REPLACEMENT PARTS & ACCESSORIES

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Allen



Torx®

ALLEN-TYPE HEX AND TORX® KEYS SHORT ARM

Case Hardened • Black Oxide Finish



Use With Application	Type	Size	Key Screw # (s)	Tool No.
Multi-Use	Allen	3/32	67094,67096	5000
Insert Plunge	Allen	5/64 (2mm)	67095	5001
47724-47730, 47739 Collars	Allen	1/16	67091	5002
Helix Trim & Bowl Bit	Allen	5/32	67093,67109	5003
20200 Adj. C/S	Allen	3mm	67090	5004
Insert Plunge RC-2000	Allen	.050 (1.2mm)	67077	5006
Metric C/S & Chucks	Allen	2.5mm	67087,67097	5007
Solid Surface Bits	Allen	1/8	67109	5009
Insert Cutterheads	Allen	3mm	67142	5012
New Insert Bits RC-2000 & RC-3000 Series	Allen	1.5mm	67015,67016, 67017	5011
Profile Pro™ Cutterheads	Allen	4mm	67144	5010
Nova System™ Router Bits	Torx®	#T-20	67154	5015
61288, 61292	Torx®	#T-25	67154	5025



Allen



Torx®



TORX® AND ALLEN KEY

Case Hardened • Black-Oxide Finish

Application	Type	Key Size	Use With Screw #	Tool No.
'RC' Series Insert Trim Bits	Torx®	#T-15	67115	5005
Insert Cutterheads	Torx®	#T-9	67160	5090
Rosette Cutterheads – Hex Key	Allen	3mm	67008	5008



HEX KEY / 'T'- HANDLE

Case Hardened • Black-Oxide Finish

Application	Type	Key Size	Use With Screw #	Tool No.
Insert Cutterheads-T Handle	Allen	2.5mm	—	5013
Insert Cutterheads-T Handle	Allen	4mm	67144	5014

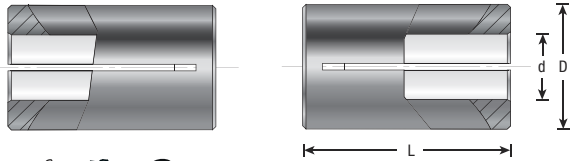


WRENCH HANDLE

Case Hardened • Black-Oxide Finish

Application	Tool No.
EZ Dial™ Slot Cutters	5017
Nova System	5015

HIGH PRECISION STEEL ROUTER COLLET REDUCERS



Bit sold separately.

ØD	Ød	L	Tool No.
4mm	2mm	20mm	RB-140
4mm	2.5mm	20mm	RB-142
4mm	3mm	20mm	RB-144
6mm	2mm	20mm	RB-160
6mm	2.5mm	20mm	RB-162
6mm	3mm	20mm	RB-164
6mm	4mm	20mm	RB-166
6mm	1/8	20mm	RB-168
1/4	2mm	1	RB-090
1/4	2.5mm	1	RB-092
1/4	3mm	1	RB-100
1/4	1/8	1	RB-102
1/4	4mm	3/4	RB-101
1/4	3/16	1	RB-103

ØD	Ød	L	Tool No.
8mm	6mm	1	RB-104
8mm	1/4	1	RB-106
3/8	1/8	1	RB-121
3/8	1/4	1	RB-108
3/8	8mm	1	RB-123
10mm	1/4	25mm	RB-109 <i>New</i>
10mm	8mm	1	RB-110
12mm	1/8	1	RB-125
12mm	6mm	1	RB-112
12mm	1/4	1-3/16	RB-126
12mm	8mm	1	RB-114
12mm	10mm	1	RB-127
1/2	1/8	1	RB-115
1/2	4mm	1	RB-111
1/2	3/16	1	RB-117

ØD	Ød	L	Tool No.
1/2	6mm	1-1/4	RB-113
1/2	1/4	1	RB-116
1/2	5/16	1	RB-119
1/2	8mm	1	RB-118
1/2	3/8	1-3/16	RB-122
1/2	10mm	1	RB-120
3/4	1/8	1	RB-130
3/4	6mm	1-1/4	RB-131
3/4	1/4	1-1/4	RB-132
3/4	5/16	1-1/4	RB-134
3/4	8mm	1-1/4	RB-135
3/4	3/8	1-1/4	RB-136
3/4	10mm	1-1/4	RB-138
3/4	12mm	1-1/4	RB-137
3/4	1/2	1-1/4	RB-139

Warning: Reducing the router collet with a sleeve is not a long term solution, for best results using the correct size collet is strongly recommended.

10 PIECE BRASS TEMPLATE GUIDE SET

Designed to fit into the router sub-base and guide the router through curved and complex shapes. Must be used with a template offset to accommodate the bushing diameter.

Description	Tool No.
10 Piece Template Guide Set	BTG-100

Template Guide Set Includes:

I.D.	O.D.
1/4	5/16
9/32	3/8
11/32	7/16
13/32	1/2
17/32	5/8
21/32	3/4
5/8	51/64
Adapter	—
Lock Nut	—



BRASS INLAY BUSHING

Includes both 3/16" & 9/16" O.D. for 1:1 ratio. Threaded lock collar included. Use #46200 1/8" down-cut spiral (not included).

Description	Tool No.
Inlay Bushing	BTG-200



PORTER-CABLE ROUTER COLLET ASSEMBLY

Replacement Collet for Porter-Cable 690 and 890 Series Routers.

For Shank	Comparable to Portercable #	Tool No.
1/4	42999	CO-132
3/8	42975	CO-135
1/2	42950	CO-136



Warning: Before use, read router bit safety guidelines on pages 248-250.

Insert Knives

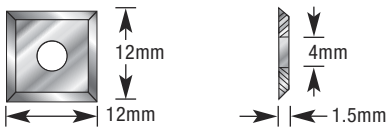
Solid Carbide



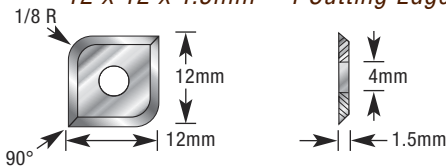
STRAIGHT SOLID CARBIDE INSERT KNIVES

New grades now available for different material types such as softwood/hardwood, MDF/solid surface and micro-finish for general purpose. All knives have a 35° bevel, except the micro finish 'MF' series which has a 45° bevel.

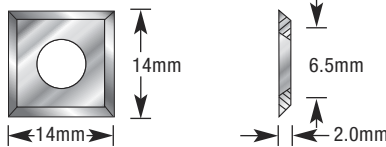
12 x 12 x 1.5mm – 4 Cutting Edges



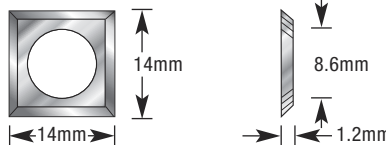
12 x 12 x 1.5mm – 4 Cutting Edges



14 x 14 x 2mm – 4 Cutting Edges



14 x 14 x 1.2mm – 4 Cutting Edges



Tool Application	'G' 35° Gen. Purpose Wood, Chipboard, Plywood	'S' 35° Solid Wood DLC Coated*	'S' 35° Softwood/ Hardwood	'H' 35° MDF, Chipboard, Solid Surface	'MF' 45° Micro-finish Gen. Purpose
Insert Trim Bits	Tool #	Tool #	Tool #	Tool #	Tool #
RC-1000, RC-1008, RC-1010, RC-1012, RC-1014, RC-1024, RC-1026, RC-2241, RC-2242, RC-2243, RC-2245, RC-2257, RC-2258	AMA-12	AMA-12-DLC* New	SMA-12	HMA-12	MFA-12

Insert Trim Bits	Tool #	—	—	—	—
RC-2242	RCK-344				

Insert Cutterhead	Tool #	Tool #	Tool #	Tool #	—
61288, 61292, 61340, 61360, 61362, 61460, 61462, 61470, 61472, 61480, 61482	RCK-70	RCK-70-DLC* New	SCK-70	HCK-70	

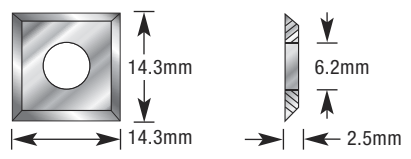
Insert Cutterheads	Tool #	—	—	—	—
61330, 61350, 61450, 61452,	RCK-71				

* Diamond-Like Carbon (DLC)

Tool Application	'G' 35° Gen. Purpose Wood, Chipboard, Plywood	'S' 35° Softwood/ Hardwood	'H' 35° MDF, Chipboard, Solid Surface	'MF' 45° Micro-finish Gen. Purpose
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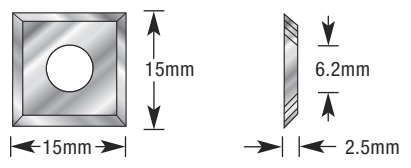
Various	Tool #	—	—	—
	RCK-73			

14.3 x 14.3 x 2.5mm – 4 Cutting Edges



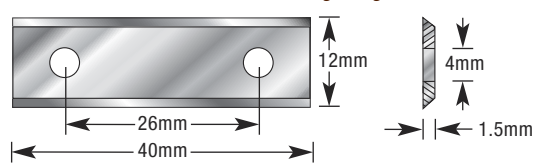
Various	Tool #	—	—	—
	RCK-15			

15 x 15 x 2.5mm – 4 Cutting Edges



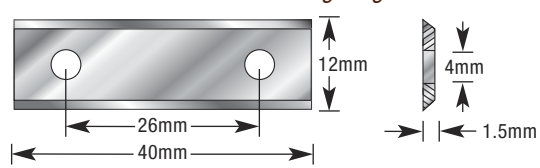
Various	Tool #	—	—	—
RC-2370, RC-2370LH	RCK-40			

40 x 12 x 1.5mm – 2 Cutting Edges



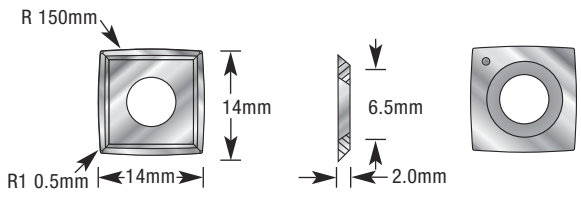
Various	Tool #	—	—	—
	ICK-40			

40 x 12 x 1.5mm – 2 Cutting Edges



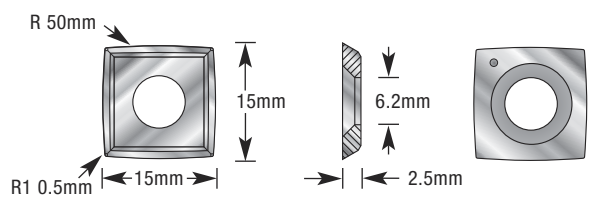
Various	Tool #	—	—	—
	RCK-378			

14 x 14 x 2mm – 4 Cutting Edges Round Edge



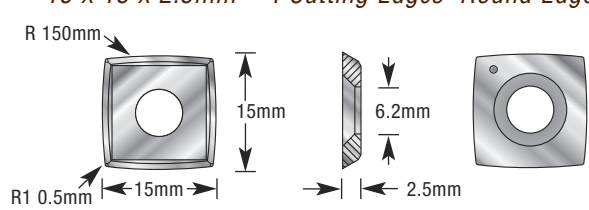
Various	Tool #	—	—	—
	RCK-13			

15 x 15 x 2.5mm – 4 Cutting Edges Round Edge



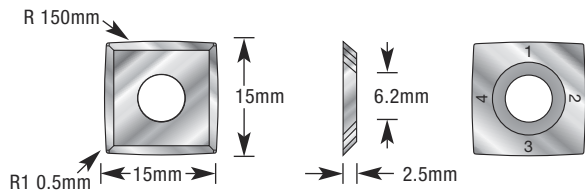
Various	Tool #	—	—	—
	RCK-370			

15 x 15 x 2.5mm – 4 Cutting Edges Round Edge



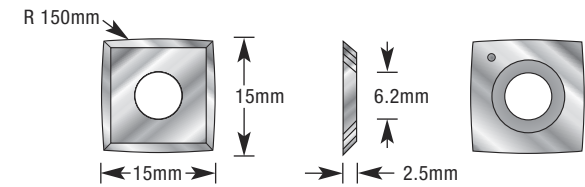
Warning: Before use, read router bit safety guidelines on pages 248-250.

15 x 15 x 2.5mm – 4 Cutting Edges *Round Edge*



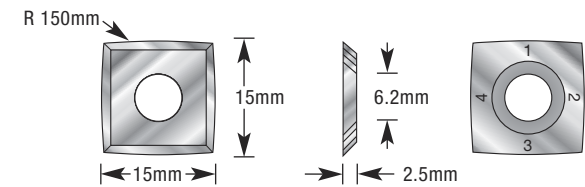
Tool Application	'G' 30° Gen. Purpose Wood, Chipboard, Plywood	'S' 35° Softwood/ Hardwood	'H' 35° MDF, Chipboard, Solid Surface	'MF' 45° Micro-finish Gen. Purpose
Various	Tool # RCK-372	—	—	—

15 x 15 x 2.5mm – 4 Cutting Edges *Pointed Edge*



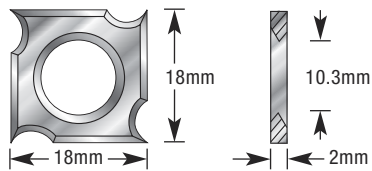
Various	Tool # RCK-374	—	—	—
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15 x 15 x 2.5mm – 4 Cutting Edges *Pointed Edge*



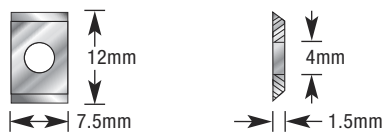
Various	Tool # RCK-376	—	—	—
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18 x 18 x 2mm – 4 Cutting Edges



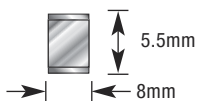
Insert Cutterheads	Tool #	—	—	—
61330, 61350, 61450, 61452	RCK-18			

7.5 x 12 x 1.5mm – 2 Cutting Edges



Insert Trim Bits	Tool #	—	Tool #	—
RC-1040, RC-1042, RC-1044	AMA-17		HCK-17	
Insert Cutterheads 61360, 61384				

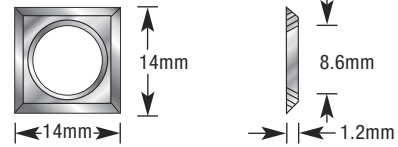
8 x 5.5 x 1.1mm – 2 Cutting Edges



Use on RC-2000	Tool # RCK-8	—	—	—
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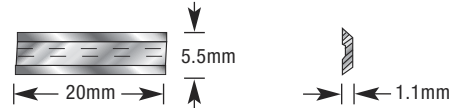
Tool Application	'G' 35° Gen. Purpose Wood, Chipboard, Plywood	'S' 35° Solid Wood DLC Coated*	'S' 35° Softwood/ Hardwood	'H' 35° MDF, Chipboard, Solid Surface	'MF' 45° Micro-finish Gen. Purpose
For Holz-Her® System	Tool #	—	—	—	—
	RCK-75				

14 x 14 x 1.2mm – 4 Cutting Edges



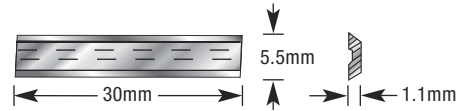
Insert Straight Bit	Tool #	—	—	—	—
RC-3100	RCK-32				

20 x 5.5 x 1.1mm – 2 Cutting Edges



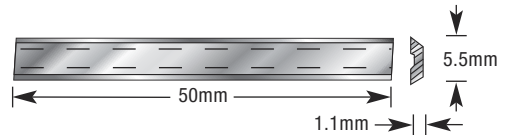
Insert Straight Bits	Tool #	—	—	Tool #	—
RC-3110, RC-3200, RC-3204, RC-3260, RC-3300, RC-3305, RC-3310, RC-3312, RC-3318, RC-3320	RCK-34			HCK-34	

30 x 5.5 x 1.1mm – 2 Cutting Edges



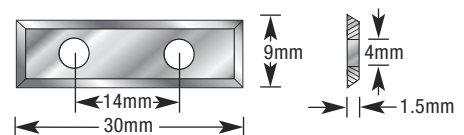
Insert Straight Bits	Tool #	—	—	Tool #	—
RC-3208, RC-3264, RC-3304, RC-3307, RC-3314, RC-3316, RC-3322, RC-3324	RCK-36			HCK-36	

50 x 5.5 x 1.1mm – 2 Cutting Edges



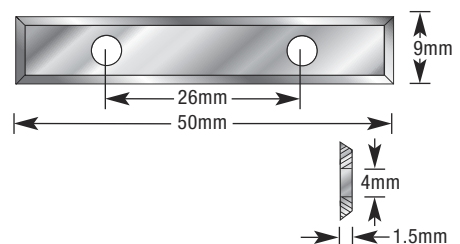
Insert Straight Bits	Tool #	—	—	Tool #	—
RC-1080, RC-1082, RC-1154, RC-2080, RC-2082, RC-2154	AMA-30	AMA-30-DLC * <i>New</i>		MDF-30	

30 x 9 x 1.5mm – 4 Cutting Edges



Various	Tool #	—	—	—	—
	AMA-50				

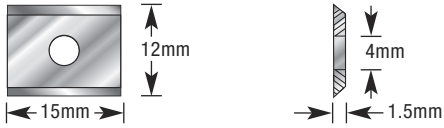
50 x 9 x 1.5mm – 4 Cutting Edges



* Diamond-Like Carbon (DLC)

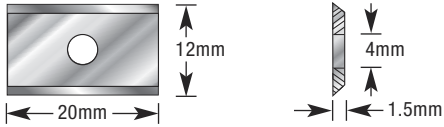
▲ **Warning:** Before use, read router bit safety guidelines on pages 248-250.

15 x 12 x 1.5mm – 2 Cutting Edges



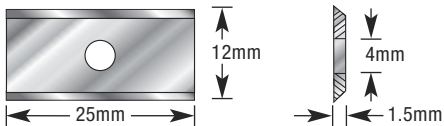
Tool Application	'G' 35° Gen. Purpose Wood, Chipboard, Plywood	'S' 35° Solid Wood DLC Coated *	'S' 35° Softwood/ Hardwood	'H' 35° MDF, Chipboard, Solid Surface	'MF' 45° Micro-finish Gen. Purpose
Insert Cutterheads	Tool #	—	Tool #	—	—
61342, 61362, 61386	ICK-15		HCK-15		

20 x 12 x 1.5mm – 2 Cutting Edges



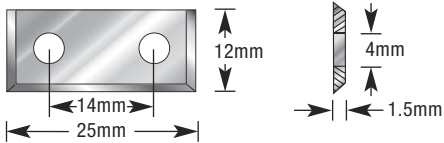
Insert Cutterhead	Tool #	—	Tool #	Tool #	—
61388	ICK-20		SCK-20	HCK-20	

25 x 12 x 1.5mm – 2 Cutting Edges



Various	Tool #	—	—	Tool #	—
	AMA-25		HMA-25		

25 x 12 x 1.5mm – 2 Cutting Edges



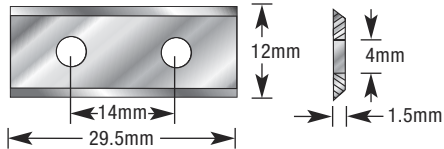
Various	Tool #	—	—	Tool #	—
	ICK-25		HCK-25		

10.5 x 10.5 x 1.5mm – 4 Cutting Edges



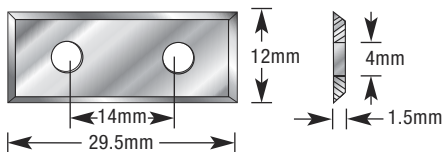
Various	Tool #	—	—	—	—
	AMA-10		HMA-10		

30 x 12 x 1.5mm – 2 Cutting Edges



Insert Trim Bits	Tool #	Tool #	Tool #	Tool #	Tool #
RC-1002, RC-1004, General Use	ICK-30	ICK-30-DLC* <i>New</i>	SCK-30	HCK-30	MFK-30

29.5 x 12 x 1.5mm – 4 Cutting Edges

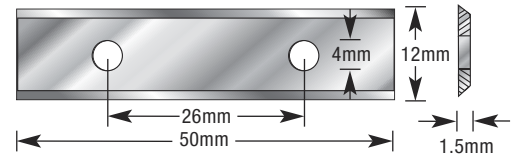


Insert Straight Bits	Tool #	Tool #	Tool #	Tool #	—
RC-1084, RC-1086, RC-1088, RC-1090, RC-1156, RC-1160, RC-1164, RC-2084, RC-2086, RC-2088, RC-2090, RC-2156, RC-2160, RC-2164	RCK-30	RCK-30-DLC* <i>New</i>	SRK-30	HRK-30	

* Diamond-Like Carbon (DLC)

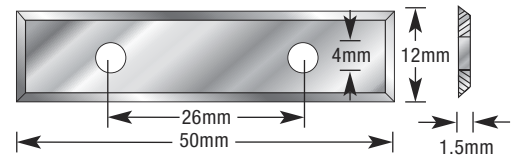
Tool Application	'G' 35° Gen. Purpose Wood, Chipboard, Plywood	'S' 35° Solid Wood DLC Coated *	'S' 35° Softwood/ Hardwood	'H' 35° MDF, Chipboard, Solid Surface	'MF' 45° Micro-finish Gen. Purpose
Insert Cutterheads	Tool #	—	Tool #	Tool #	—
61304, 61306, 61310	ICK-50		SCK-50	HCK-50	

50 x 12 x 1.5mm – 2 Cutting Edges



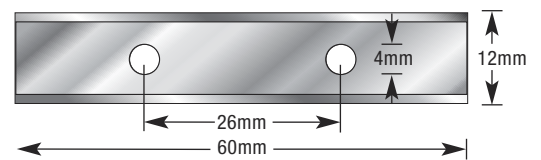
Insert Cutterhead	Tool #	Tool #	Tool #	Tool #	—
RC-1158, RC-1162, RC-1166, RC-2158, RC-2162, RC-2164	RCK-50	RCK-50-DLC * <i>New</i>	SRK-50	HRK-50	

50 x 12 x 1.5mm – 4 Cutting Edges



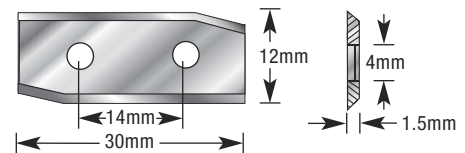
Insert Cutterhead	Tool #	—	—	—	—
61484, 61485, 61467	ICK-60				

60 x 12 x 1.5mm – 2 Cutting Edges



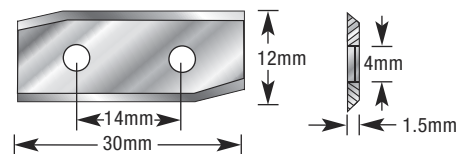
Edgebander Trim	Tool #	—	—	—	—
Knives, Right Hand	ICK-35RH				

30 x 12 x 1.5mm – 2 Cutting Edges



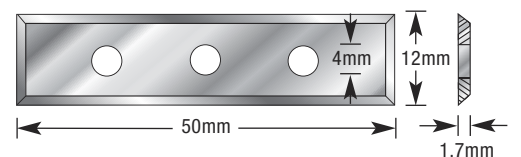
Edgebander Trim	Tool #	—	—	—	—
Knives, Left Hand	ICK-35LH				

30 x 12 x 1.5mm – 2 Cutting Edges



Use on RC-2400	Tool #	Tool #	—	—	—
Use on RC-1006	RCK-151	RCK-151-DLC * <i>New</i>			

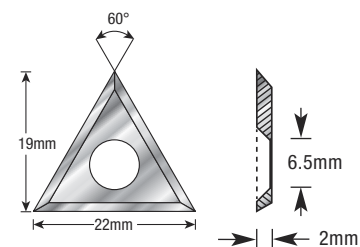
50 x 12 x 1.7mm – 4 Cutting Edges



* Diamond-Like Carbon (DLC)

REVERSIBLE 30° SOLID CARBIDE INSERT

Tool Application	'G' 30° Gen. Purpose Wood, Chipboard, Plywood	'S' 35° Softwood/ Hardwood	'H' 35° MDF, Chipboard, Solid Surface	'MF' 45° Micro-finish Gen. Purpose
Insert Trim Bits	Tool #	Tool #	Tool #	Tool #
	RCK-37			



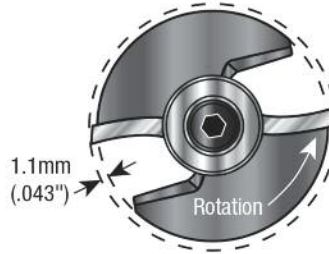
Warning: Before use, read router bit safety guidelines on pages 248-250.

See the Difference!

Highest Quality with Maximum Safety!



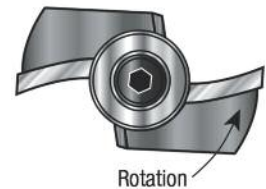
BG CERTIFIED
Anti-kickback design with chip limiter



Safer Design ✓

Other Brands

NON-BG



This "BG Standard" / EN-847-1/2 helps minimize serious work accidents in the woodworking industry for handheld and manual-fed machines.

Amana Tool® router bits are manufactured according to the five requirements of the EN-847-1/2 standard:

- Each tool features "anti-kickback" chip limiter to prevent the tool from "overfeeding" and kicking back the material to the machine operator. The standard also determines the maximum distance between the "anti-kickback" shape and the cutting edge.
- Protrusion of the knife from the supporting tool body is restricted to prevent injury.
- Sharp corners on the supporting body of the knife are prohibited, preventing injury to the user in areas where there is no knife.
- Each tool has a maximum safe speed; calculated by a computer program, that takes into account the size of the cut profile, type of steel, shank size, tool balance and machine run-out.
- Different groups of tools are produced using various grades of steel dictated by workload and material type. Tools are made from raw material defined by the standard to support the high demand of mechanical properties of woodworking tools.

Anti-Kickback....or 'BG' Test?

The term 'Anti-Kickback' has been an industry topic for quite some time and relates to cutting tools such as router bits, saw blades, etc. There are several brands of 'Anti-Kickback' router bits presently on the market and all of them, it seems, would offer some degree of safety to the end-user because they limit the 'chip-thickness' of the material being cut. In other words, the cutting tool will take less of a 'bite', thereby decreasing the likelihood of a kickback. While this is true, however, it should be pointed out that there are significant details to be considered when designing, manufacturing and using industrial cutting tools.

1. What is 'BG'?

'BG' is an acronym for 'Holz Berufsgenossenschaft', the German Woodworking Trade Association. For the sake of worker safety, this esteemed group has established basic rules for the design, manufacturing and use of cutting tools for the wood and plastic industries.

These basic rules concern testing the working safety of woodworking machine tools. They establish test procedures and indicate all essential regulations and rules of technology, which need to be taken into account during testing. Precise geometric design, as well as the use of high quality materials and replacement parts complying with DIN standards, will ensure a

safe tool with a high degree of precision in the production and the balance of the tools. The purpose of the test is to ascertain whether it is ensured that users or third parties, who are handling the tools properly are, in fact, protected as far as possible from risk to life or health.

Tools for use in wood and plastic working are classified into two groups: manual feed operations and mechanical feed operations.

Manual Feed Operations

'Manual feed' describes the holding and/or guiding by hand of the work-piece or of a machine element incorporating a tool. Manual feed includes the use of a hand-operated carriage, on which the work-piece is placed manually or clamped and the use of a demountable power feed unit. Tools for manual operation marked 'BG-TEST' are designed according to the following rules:

- Thickness of chip limit with a maximum cutting edge projection of 1.1mm (.043"), over the total length of the cutting profile;
- Restricted maximum chip clearance width, including the regrinding range as a function of the cutting flight circle;
- Kickback ratio must not exceed $0.25 V_r/V_s < 0.25$ (where V_s = cutting velocity and V_r = kickback velocity).

Special purpose tools which, for reasons of speed and economy, cannot be inspected by the German Woodworking Trade Association may be used manually, if they conform with the above requirements.

Mechanical Feed Operation

'Mechanical feed' means a feed mechanism for the work-piece or tool, which is integrated with the machine and where the work-piece or machine element with incorporated tool are held and controlled mechanically during the machining operation.

All the tools may be used for mechanical feed operation. The rules that characterize manual feed operation tools do not apply to them, except for the manufacturer's label and maximum permitted speed. The basic rules applying to manual feed operations do not apply to router bits with diameters smaller than 16mm.

2. 'BG' Form vs 'BG' Test

'BG' Form is a term indicating cutting tools which have the same general circular shape of 'BG' Test tools, but which do not comply with the strict regulations governing 'BG' Test as outlined above (1.1mm cutting edge projection, restricted maximum chip clearance width, etc.). There is a significant difference between the two.

Important Note: Unless specified otherwise, all router bits larger than 5/8" (16mm) diameter in this catalog are 'BG-TEST'. This does not apply to CNC router bits.

TECHNICAL INFORMATION

Router Bit Selection, Application & Maintenance

1. GENERAL INFORMATION

The router bits contained in this catalog are designed for use in portable or stationary/CNC routing machines only. Do not use router bits in any other equipment such as a drill press, portable electric drill, etc. Conversely, 'Boring Bits' are designed for boring machines and/or drill presses, and not for routing machines or portable drills. Unless specified otherwise, all router bits in this catalog are for clockwise (right hand) rotation.

Always wear proper eye protection while operating routers.

Read and understand all information provided with the particular router you are using. The router should be of high quality and all parts thereof should be well maintained. Keep body, clothing and hair away from all moving parts.

Cutting tools that are properly sharpened and maintained will cut faster, better and longer, and will be safer to use. In addition, less horsepower is required (both machine & operator) when sharp tools are used.

2. ROUTER TOOL SELECTION

Carbide router bits provide an excellent finish in solid hard and softwood, wood by-products such as MDF and plywood, and abrasive materials such as plastic, Corian® and other solid surface sheet goods. Under certain conditions, non-ferrous metals such as aluminum and brass can also be cut using carbide tools provided that a coolant is used and proper clamping devices are employed. Extreme care should be taken when cutting non-ferrous metals, and if you are not familiar with the special cutting properties of these materials, please seek professional advice before you attempt any routing or sawing. **Never** attempt to cut ferrous metals (steel, iron, etc.) with carbide router bits.

Solid steel portions of our tools (shank, tool body) are **turned, milled and ground** (not cast) from the highest quality tool-steel available.

Note: On certain grinding equipment, cast body tools have been known to be more difficult to re-sharpen due to indexing complications. Choose your tools carefully.

Always use the **shortest cutting edge** available that will meet the requirements of your application. Excessive cutting edge length and/or overall length compounds vibration and deflection – a leading cause of tool breakage.

Always use the **largest diameter shank** available that your router will accommodate.

Always use the **correct size collet** for your router and avoid using collet reducing sleeves or bushings. Reducers only add to vibration and run-out, and they generally do not provide the necessary holding capabilities as with a collet alone.

3. ROUTER TOOL USAGE

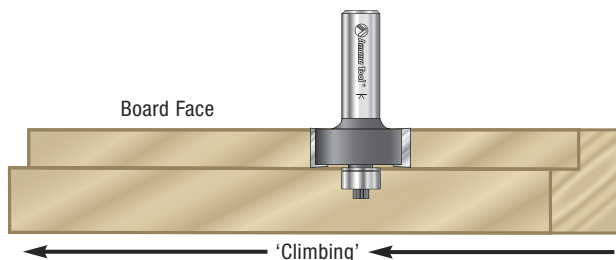
Always use **properly sharpened cutting tools**. The **feed-rate** of a router to the work-piece (or vice-versa if used in a router table) is very important to the longevity of the tool and the overall quality of cut. The operator should feel a constant, even pressure when the work is applied to the cutter. If chattering occurs, stop the router promptly and inspect the router, cutting tool, collet and clamping devices, and ensure that the proper tool is being used for the material being cut.

Always keep the tool moving. Allowing the tool to 'dwell' in the cut will cause burning and reduce tool life immensely. Remember, heat can ruin a sharp tool.

Feed-rate ultimately depends on three factors: 1) the type of material being cut, 2) the amount of material being removed and, 3) the type of tool being used.

'Climb-cutting' is **not recommended** as a portable routing technique.

This action tends to grab the wood and pull the cutting tool in the direction indicated.



If using extremely **large diameter** tools, always accomplish the cut with several passes of the router or, if applicable, remove as much material prior to using the large tool by means of chamfering, etc. This method will increase tool life and generally be a safer practice than trying to remove too much material in one pass. Large diameter router bits should generally be used in a high quality router table.

Proper **collet condition** is of extreme importance. Worn, scored or out-of-round router collets do not provide adequate holding power and will increase run-out and vibration. Multiply these factors by the router RPM (22,000 and greater), and you will realize why we must emphasize the importance of proper router collet condition. Do not assume that new collets are geometrically correct. Dark marks or grooves in the router bit shank usually indicate slippage and a worn collet, which should be replaced immediately.

Router bits should always be **completely inserted** into the collet and backed-off slightly (1/16" approx.). **Never partially insert the bit into the collet.** Follow the guidelines provided in your router owner's manual for further information regarding this and the appropriate usage of the router base and sub-base (particularly for larger diameter tools that do not clear the standard opening in the router sub-base).

4. ROUTER TOOL MAINTENANCE

Carbide tools can be **re-sharpened** many times. Always have your cutting tools re-sharpened by a **reputable grinding firm only**.

Do not attempt to sharpen your own router bits by means of files, whetstones, etc.

Keep your cutting tools clean and free of dirt, wood resin, pitch and other contaminants using a standard commercial solvent. A light coat of machine oil should prevent any surface discoloration or rust. Thoroughly wipe clean all shanks to prevent slippage during use.

Ball Bearings should not be cleaned with solvents, as this will deteriorate the special grease packed inside them. Rather, use an air gun to blow off any dust or dirt. 'Frozen' ball bearings (ones that do not rotate freely) should be replaced promptly.

Hardware (nuts, screws, washers) should be replaced if worn.

See "Replacement Parts" on pages 229-245.

5. ROUTER TOOL TERMINOLOGY

Cutting Diameter ('D') refers to the largest cutting diameter of the tool and is represented in fractions, decimals and/or millimeters.

Cutting Length ('B or C') refers to the length or 'depth' of the cutting edge. This dimension usually represents the cutting edge length parallel to the length of the shank and is represented in fractions and/or millimeters.

Shank Diameter ('d') refers to the largest diameter of the shank and is equivalent to the router collet inside diameter that is necessary to use the tool. This dimension is represented in fractions.

Overall Length ('L') refers to the total length of a router bit from the top of the shank to the bottom of the tool at its furthestmost point. This dimension is represented in fractions and/or millimeters.

Radius ('R') of a cutting tool edge refers to one-half the diameter of a complete circle, and is shown in fractions and/or millimeters.

Bevel Angle ('a°') refers to the angle formed between the cutting tool edge and a straight line drawn parallel or perpendicular to the shank length, and is measured in degrees.

Rake Angle ('T') refers to the angle (or 'hook') of the cutting tool tip in relationship to a straight line drawn perpendicular through the center of the tool. This dimension is measured in degrees.

Primary Radial Clearance ('P') refers to the relief grind on the tip of the tool and is measured in degrees.

Secondary Radial Clearance ('O') refers to the combined relief grind of the primary clearance and the clearance ground into the body of the tool. This dimension is measured in degrees.

Web Diameter ('N') refers to the thickness of the ground steel body of the tool, including the heel area ('M'). The web must be of adequate thickness to withstand industrial routing applications.

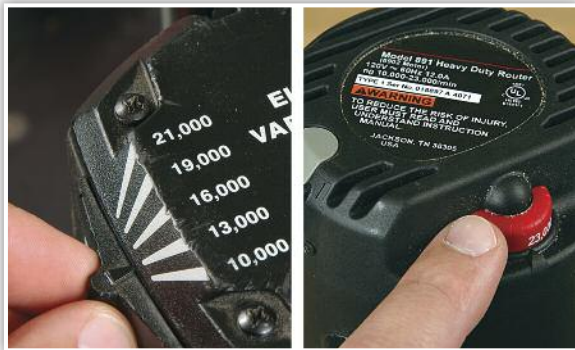
Safety Guidelines for router bits



1. Always refer to your power tool owner's manual prior to using your router and router bits.



2. Always wear eye and hearing protection. Keep clothing clear of cutting area.



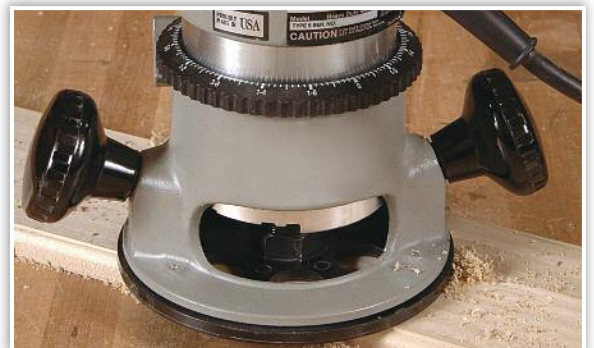
3. Never exceed the recommended RPM for the router bit. See reference chart online <http://www.amanatool.com/maxrpm>



4. Check the router collet periodically for wear.



5. Never use a large diameter bit in a handheld router. Refer to Amana Tool® website and catalog for guidelines.



6. Plan the cutting path to avoid cutting the power cord.

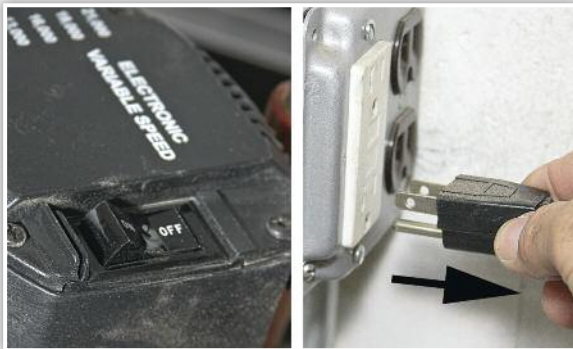
SAFETY GUIDELINES *For Router Bits*



7. Always use a guard and a fence while routing.



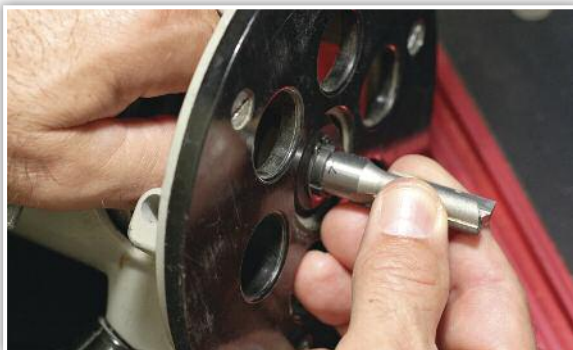
8. Secure the router motor in the base before plugging it in to the power outlet.



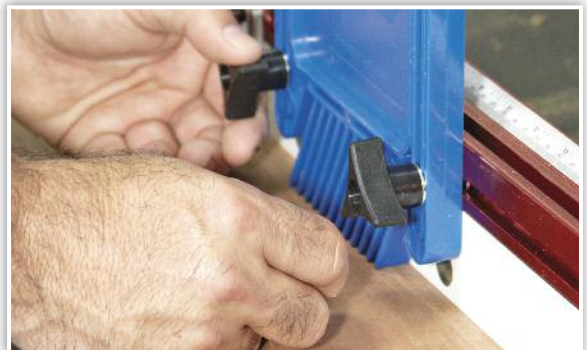
9. Make certain that the power switch is in the "OFF" position before connecting the router to the power source.



10. Make certain that the stock is free of warp, twist, nails, screws, staples, grit or any other foreign object.



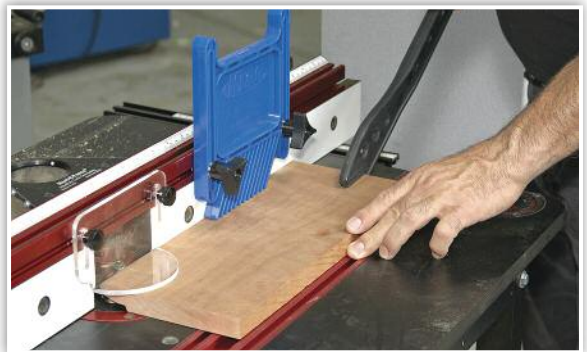
11. Do not bottom-out the bit in the collet; insert the bit fully and then back it out 1/8" or to stop line K, when available.



12. Always use featherboards to hold the work-piece firmly to the table and fence.

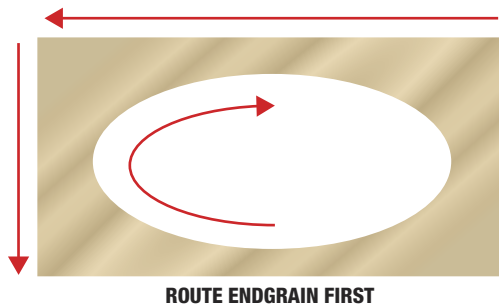


13. Never start the router with the router bit in contact with the stock/work-piece.



14. Always use "push blocks" and "push sticks" to distance your hands from the bit.

SAFETY GUIDELINES *For Router Bits*



- 15.** Push the router in a counter-clockwise direction for external cuts and clockwise for internal cuts.



- 17.** Avoid routing small stock. Shape a larger work-piece and then reduce it in size. If you must shape a small piece use a jig or large wooden clamp to grasp the stock.

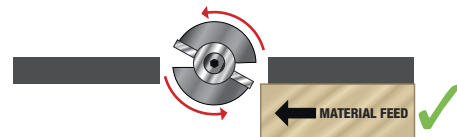


- 19.** Use a jig or miter gauge when shaping end of narrow stock.

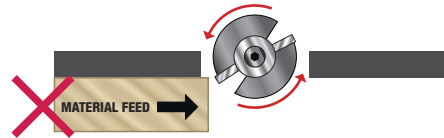


- 21.** Use a starting pin when shaping curved stock without the use of a template.

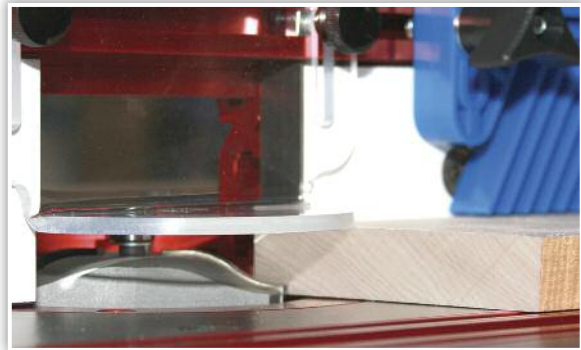
CORRECT WAY TO ROUT WORK-PIECE



DO NOT ATTEMPT CLIMB CUTTING



- 16.** Never “climb” cut. Always feed the work-piece against the rotation of the bit.



- 18.** Always plan to route in several passes to achieve the final profile. Do not force the bit into the work-piece. If the router is straining or becomes overloaded, the cut is too heavy or bit is dull.



- 20.** Reduce the fence opening as much as possible in order to provide support for the work-piece. When using large diameter bits, such as a raised panel bit, make a zero-clearance fence opening.



- 22.** When shaping curved stock with a template, extend template beyond the work-piece so that the template contacts the guide bearing before work-piece contacts the bit.