

Freeborn

TOOL COMPANY, INC.

American Made Tooling



Freeborn Tool Company has built a reputation on precision, repeatability, value and customer support - unequaled in the tooling industry.

Thank you for choosing Freeborn Tool Co. for your tooling needs.

Since the 1970's, Freeborn Tool Co. has been a leading manufacturer of shaper cutters in the United States. Throughout the years, Freeborn has become known for the quality of their cutters as well as their ability to make custom tooling to fit the woodworker's requirements, quickly.

As the industry has progressed, Freeborn has kept up with current technology. Hand turning of bodies has been replaced with 5 axis machining centers, and CNC milling centers. No longer are profiles ground using manual profile machines. Instead, state of the art 5-axis profile grinders are used for all profiles, ensuring exact repeatability cutter after cutter.

Freeborn Tool Co. was one of the first cutter manufacturers to offer both carbide and alloy tipping to their cutters. T-alloy is superior in cutting most natural woods. Carbide cuts well with natural wood as well as man-made materials.

All Freeborn cutters go through a stringent quality assurance program throughout the manufacturing process. Multiple checks throughout the production process ensure accuracy, balance and a perfect fit every time. Unlike some of our competition, our Cope and Pattern sets are not just six cutters pulled from the shelf. Each set is individually matched on an optical comparator to guarantee the proper fit.

Initial quality is only the first step at Freeborn. We are available to work with the customer to determine their needs, and our after-sale customer service is of the highest standard. Whether professional or novice we will provide the information you need to resolve any cutter issues you face. Call us to discuss how we can help you.

We offer brazed shaper cutters, insert cutters, spiral inserts, router bits, custom tooling, and tool holders for CNC tooling. If you don't see what you need here, give us a call and we will help you find it.



Freeborn Tool Company is proud to present its latest collection of high quality Carbide and T-Alloy tipped shaper cutters. We are confident that here you will find numerous solutions to your woodworking needs. Your input is appreciated.

This catalog depicts all of our stock cutters including new profiles and wood cutting tools.

We list both our MINI-PRO and PRO-LINE series cutters that share the same profile on the same page. Opposite rotation is available at an additional 20% over the suggested list price. Wood samples are shown actual size unless otherwise indicated.

By offering the woodworker a choice in tipping materials, finding the tool best suited for the job becomes simpler.

T-ALLOY TIPPED

Freeborn offers a limited selection of alloy tipped cutters designed for cutting natural woods (not to be used for man-made materials). Call us for availability in the profile of your choice. T-Alloy is one of the most advanced cutting materials on the market today. It is extremely durable to better resist chipping and cracking, as well as corrosion from wood acids. They can also be face-honed between sharpenings for extra long life. T-Alloy cutters are painted bright yellow.

CARBIDE TIPPED

Carbide tipped cutters are still unsurpassed while working with man-made materials such as particle board, plywood and fiberboard, as well as natural wood. The time-tested, orange colored Freeborn cutters offer a geometrically precise design that provides long life and unmatched results in a variety of applications.

ORDERING INFORMATION

Product numbers are simple to understand by following the "Product Order Code" interspersed through the catalog.

MINI-PRO SERIES

Our 3 wing cutters with a 3/4" bore.

PRO-LINE SERIES

Our 3 wing cutters with a 1-1/4" bore.

CUSTOM

Of course, if you don't see exactly what you need, please give us a call to discuss custom cutters (see the Custom Made Tooling page in the back of the catalog).

RETURN POLICY

All returns to Freeborn Tool Co. must be approved in advance. Returns must be unused and are subject to a 15% restocking fee. Exchanges of unused cutters will be exempt from the 15% restocking fee.

CANCELLATIONS

Stock orders may be cancelled prior to shipping without penalty. Custom orders will be charged a prorated fee based on completion status.

PRODUCT ORDER CODE

M	C	00-000
P	C	00-000
P	T	00-000

M - MINI-PRO	(3/4" Bore)
P - PRO-LINE	(1-1/4" Bore)
C - Carbide Tip	(Orange)
T - T-Alloy Tip	(Yellow)

Address:

3304 E. Ferry Ave.
Spokane, WA 99202

Phone:

(509) 484-3033
Toll Free in U.S. and Canada
1-800-523-8988

Fax:

(509) 484-9932

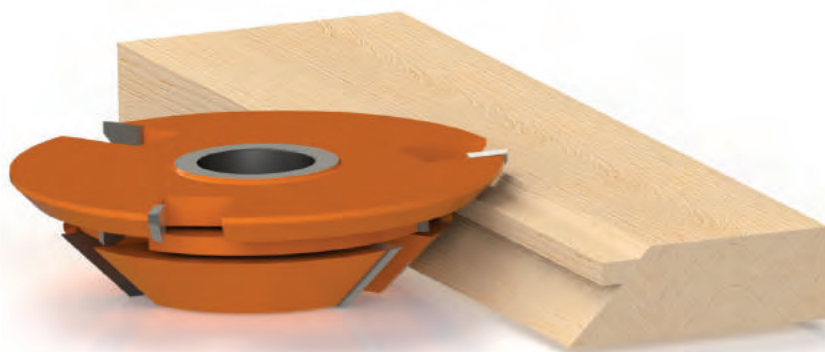
E-mail:

sales@freeborntool.com

Web site:

www.freeborntool.com

Call Toll Free for the Freeborn
Dealer nearest you.



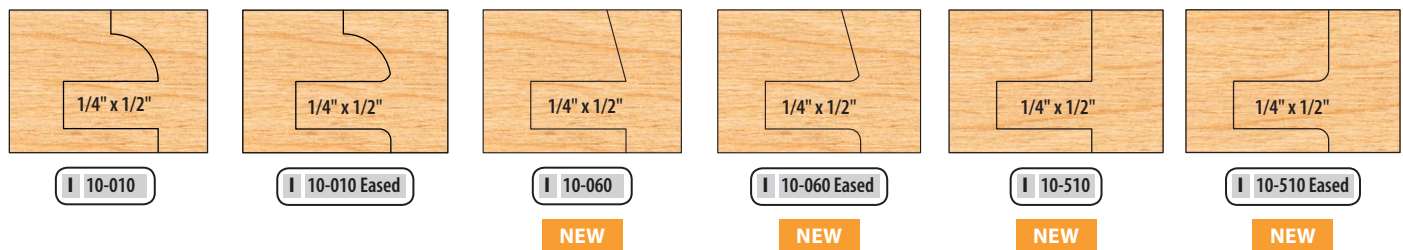
INSERT TOOLING

New 3 piece insert Cope and Pattern sets to allow easy fit adjustment.

- A two piece cope head with shims allow you to adjust your fit
- Common minor diameters and vertical profile centering eliminate the need to adjust the spindle height or fence position when switching from cope to pattern cuts
- Heads will accept both square and eased edges
- For 3/4" to 7/8" material
- 4-1/2" outside diameter, 3-1/2" minor diameter
- 4" diameter for Unique 250/265 available by special order
- 5.5mm x 1/2" tongue available by special order
- 1-1/4" bore
- Carbide tips are kept on the shelf; alloy tips are made to order; please call for availability
- Two piece insert sets available by special order

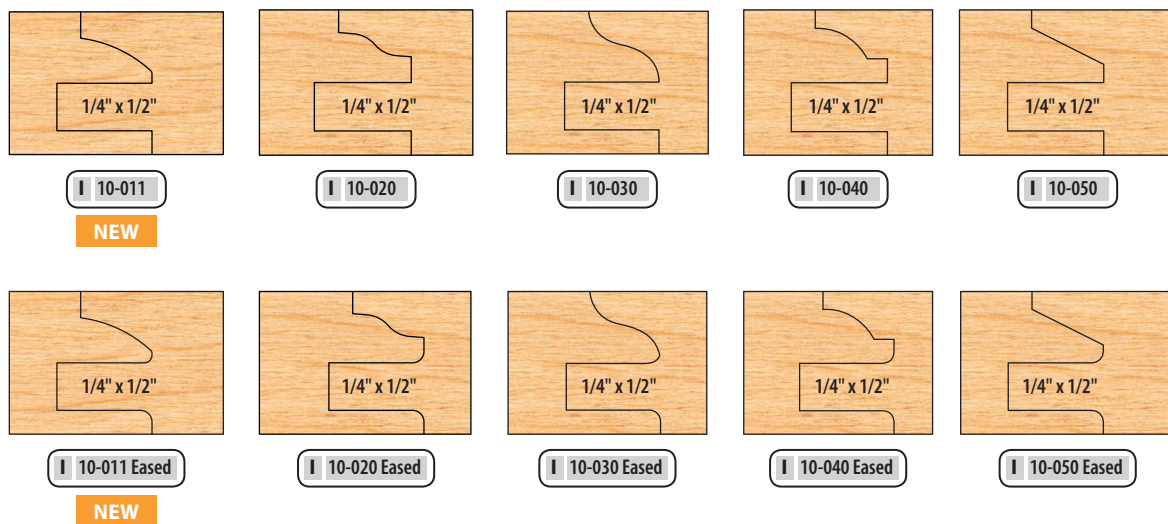


Dedicated Profile Insert Cutters (3/4" to 7/8" material)



Each of the above profiles has its own dedicated heads.

Multi Profile Insert Cutters (3/4" to 7/8" material)

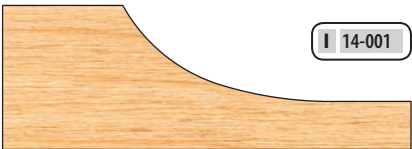


Our multi profile head will accept any of the five profiles shown above.

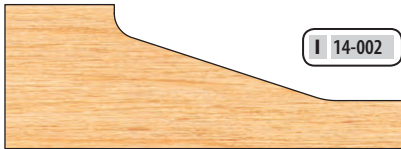
Dedicated Raised Panel Insert Cutters (3/4" material)

• 3 wing • 1-1/4" bore • 6" diameter

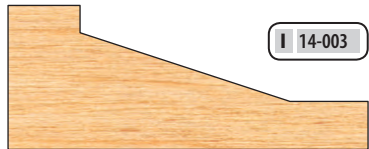
Tips available in Carbide and Alloy.



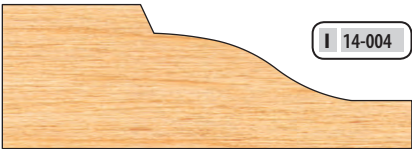
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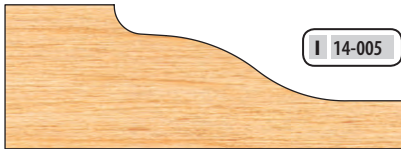
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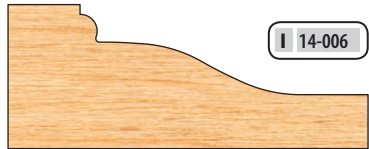
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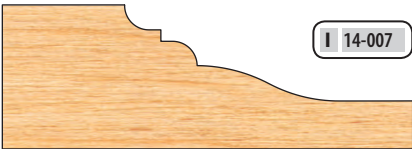
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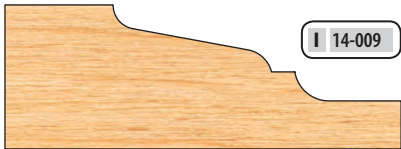
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14-006



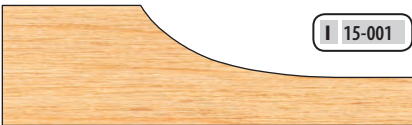
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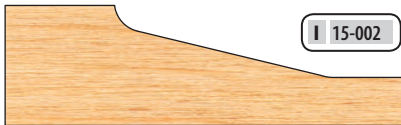
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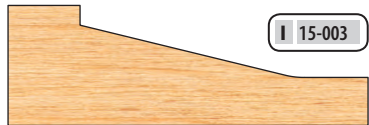
Dedicated Raised Panel Insert Cutters (5/8" material)



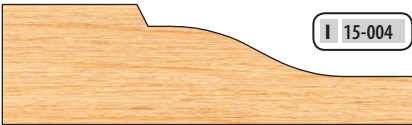
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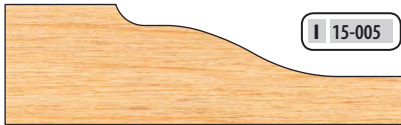
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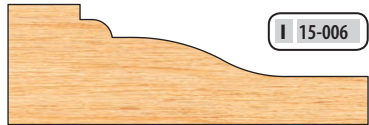
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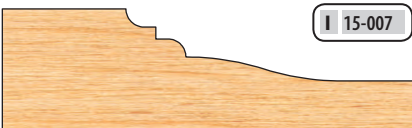
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15-005



15-006



15-007



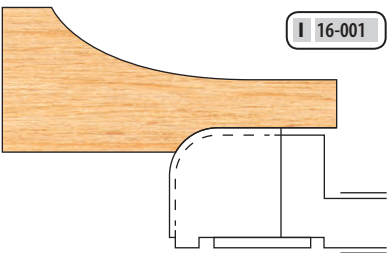
15-009

See page 7 for tip information.

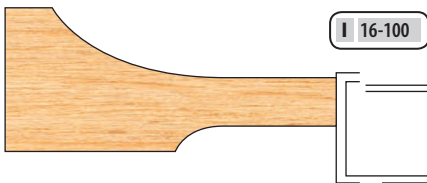
Dedicated Insert Back & Trim Cutters

• 3 wing • 1-1/4" bore • 4-3/4" diameter

• 3 wing • 1-1/4" bore • 3" diameter



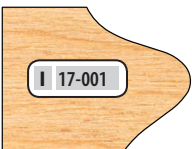
16-001



16-100

CARBIDE ONLY

Dedicated Door Edge Detail Insert Cutters



17-001



17-002



17-101



17-110

NEW



17-113

NEW

• 3 wing
• 1-1/4" bore
• 3-1/2" minor diameter

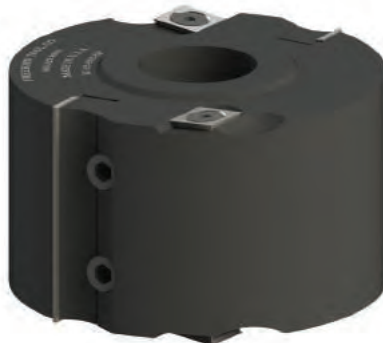
Straight Cutter Inserts



NEW

IC-22-016-SP

- 4" Outer Diameter
- 1-1/4" Bore
- 30mm Tips
- 14x14mm Spur Bit



NEW

IC-22-032-SP

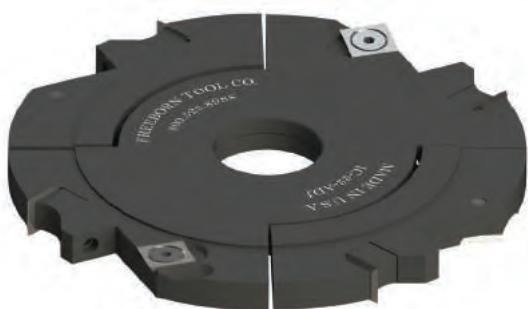
- 4" Outer Diameter
- 1-1/4" Bore
- 60mm Tips
- 14x14mm Spur Bit

Using standard 30mm or 60mm carbide inserts, this is an easy and inexpensive way to perform trim or rabbet cuts.

PLEASE NOTE: spurs are required for all cuts except trimming.

See page 7 for replacement tips.

Split Groover Insert



NEW

IC-22-ADJ

2 piece expandable groover set

See page 7 for replacement tips.

Spiral Cutters



NEW

IS-22-032

- 4" Outer Diameter
- 1-1/4" Bore
- 4 Wing
- 2" Height
- Aluminum Body



NEW

IS-22-064

- 4" Outer Diameter
- 1-1/4" Bore
- 4 Wing
- 4" Height
- Aluminum Body

Insert Replacement Tips

COPE AND PATTERN						
SET #	Carbide Cope Top	Carbide Cope Bottom	Carbide Pattern	Alloy Cope Top	Alloy Cope Bottom	Alloy Pattern
I-10-010	IC-000-CTS	IC-010-CBS	IC-010-PS	IT-000-CTS	IT-010-CBS	IT-010-PS
I-10-010-E	IC-000-CTES	IC-010-CBES	IC-010-PES	IT-000-CTES	IT-010-CBES	IT-010-PES
I-10-011	IC-000-CTS	IC-011-CBS	IC-011-PS	IT-000-CTS	IT-011-CBS	IT-011-PS
I-10-011-E	IC-000-CTES	IC-011-CBES	IC-011-PES	IT-000-CTES	IT-011-CBES	IT-011-PES
I-10-020	IC-000-CTS	IC-020-CBS	IC-020-PS	IT-000-CTS	IT-020-CBS	IT-020-PS
I-10-020-E	IC-000-CTES	IC-020-CBES	IC-020-PES	IT-000-CTES	IT-020-CBES	IT-020-PES
I-10-030	IC-000-CTS	IC-030-CBS	IC-030-PS	IT-000-CTS	IT-030-CBS	IT-030-PS
I-10-030-E	IC-000-CTES	IC-030-CBES	IC-030-PES	IT-000-CTES	IT-030-CBES	IT-030-PES
I-10-040	IC-000-CTS	IC-040-CBS	IC-040-PS	IT-000-CTS	IT-040-CBS	IT-040-PS
I-10-040-E	IC-000-CTES	IC-040-CBES	IC-040-PES	IT-000-CTES	IT-040-CBES	IT-040-PES
I-10-050	IC-000-CTS	IC-050-CBS	IC-050-PS	IT-000-CTS	IT-050-CBS	IT-050-PS
I-10-050-E	IC-000-CTES	IC-050-CBES	IC-050-PES	IT-000-CTES	IT-050-CBES	IT-050-PES
I-10-060	IC-000-CTS	IC-060-CBS	IC-060-PS	IT-000-CTS	IT-060-CBS	IT-060-PS
I-10-060-E	IC-000-CTES	IC-060-CBES	IC-060-PES	IT-000-CTES	IT-060-CBES	IT-060-PES
I-10-510	IC-000-CTS	IC-510-CBS	IC-510-PS	IT-000-CTS	IT-510-CBS	IT-510-PS
I-10-510-E	IC-000-CTES	IC-510-CBES	IC-510-PES	IT-000-CTES	IT-510-CBES	IT-510-PES

RAISED PANEL					
SET #	CARBIDE	ALLOY	SET #	CARBIDE	ALLOY
I-14-001	IC-4-001-S	IT-4-001-S	I-15-001	IC-5-001-S	IT-5-001-S
I-14-002	IC-4-002-S	IT-4-002-S	I-15-002	IC-5-002-S	IT-5-002-S
I-14-003	IC-4-003-S	IT-4-003-S	I-15-003	IC-5-003-S	IT-5-003-S
I-14-004	IC-4-004-S	IT-4-004-S	I-15-004	IC-5-004-S	IT-5-004-S
I-14-005	IC-4-005-S	IT-4-005-S	I-15-005	IC-5-005-S	IT-5-005-S
I-14-006	IC-4-006-S	IT-4-006-S	I-15-006	IC-5-006-S	IT-5-006-S
I-14-007	IC-4-007-S	IT-4-007-S	I-15-007	IC-5-007-S	IT-5-007-S
I-14-009	IC-4-009-S	IT-4-009-S	I-15-009	IC-5-009-S	IT-5-009-S

BACK CUTTER			TRIM CUTTER	
SET #	CARBIDE	ALLOY	SET #	CARBIDE
I-16-001	IC-6-001-S	IT-6-001-S	I-16-100	IC-0140-060*
I-16-002	IC-6-002-S	IT-6-002-S		

DETAIL CUTTER		
SET #	CARBIDE	ALLOY
I-17-001	IC-7-001-S	IT-7-001-S
I-17-002	IC-7-002-S	IT-7-002-S
I-17-101	IC-7-101-S	IT-7-101-S
I-17-110	IC-7-110-S	IT-7-110-S
I-17-113	IC-7-113-S	IT-7-113-S

MISCELLANEOUS CUTTERS		
SET #	MAIN	SPUR
IC-22-016-SP	IC-0300-050*	IC-0140-060*
IC-22-032-SP	IC-0600-050*	IC-0140-060*
IC-22-ADJ	IC-0120-050*	IC-0140-060*
IS-22-032	IC-0150-060*	
IS-22-064	IC-0150-060*	



*Sold in boxes of 10 tips.

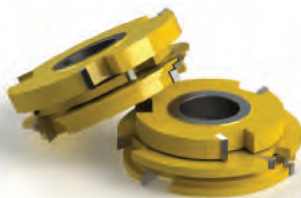
Cope & Pattern (6 Piece Cutter Sets)

Versatile and easy-to-use. These 6 piece cutter sets are designed to perform the 3 functions shown. Our standard sets cut 1/4" wide x 3/8" deep tongue and groove.

Our common minor diameter requires NO fence adjustment when changing from cope to to pattern cuts (3/8" tongue only).

Counterclockwise rotation with wood fed face down.

For optional tongue and groove cutters and eased edge option, see page 10 and 11.



For **opposite rotation**, add 20% to the suggested list price.

To order **custom profiles**, see our Custom Made Tooling page in the back of the catalog. Same day quoting.

Wood samples shown actual size.

For eased edges add 20% to the suggested list price.



See stacking instructions on page 28.

MINI-PRO cutters

• 3 wing • 2-15/16" diameter
• 3/4" bore • Runs with a 2-3/16" diameter rub bearing (AM-90-035)

PRO-LINE cutters

• 3 wing • 4" diameter
• 1-1/4" bore • Runs with a 3-1/4" diameter rub bearing (AP-90-052)

Cope & Pattern 3/4" to 1-1/8" material	Glass Panel 3/4" to 7/8" material	Tongue & Groove 3/4" material
<p>1/4" x 3/8"</p>		
<p>1/4" x 3/8"</p>		
<p>1/4" x 3/8"</p>		
<p>1/4" x 3/8"</p>		
<p>1/4" x 3/8"</p>		
<p>1/4" x 3/8"</p>		
<p>1/4" x 3/8"</p>		
<p>1/4" x 3/8"</p>		
<p>1/4" x 3/8"</p>		

PRODUCT ORDER CODE

M C 00-000 **P C** 00-000
P T 00-000

M - MINI-PRO (3/4" Bore)
P - PRO-LINE (1-1/4" Bore)
C - Carbide Tip (Orange)
T - T-Alloy Tip (Yellow)

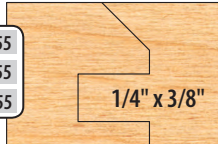
Cope & Pattern (6 Piece Cutter Sets)

Cope & Pattern

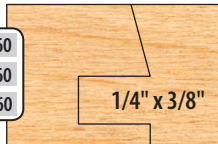
3/4" to 1-1/8" material

NEW

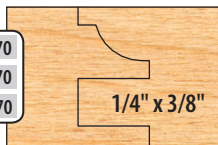
M C 50-055
P C 10-055
P T 10-055



M C 50-060
P C 10-060
P T 10-060

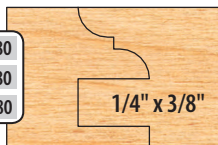


M C 50-070
P C 10-070
P T 10-070



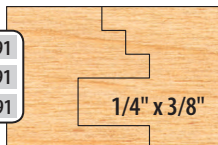
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M C 50-080
P C 10-080
P T 10-080



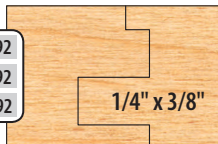
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P C 10-091
P T 10-091

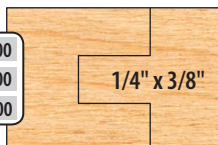


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P T 10-092

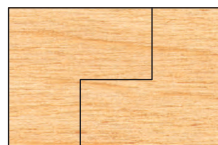
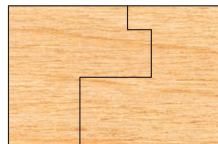
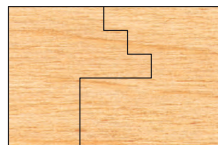
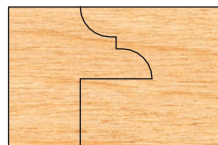
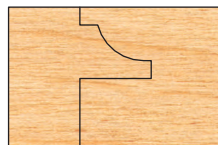
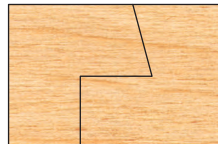
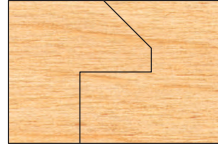


M C 50-500
P C 10-500
P T 10-500



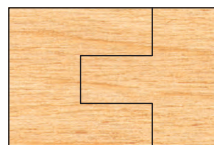
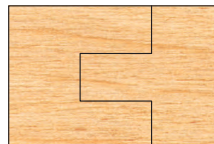
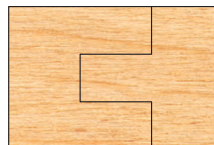
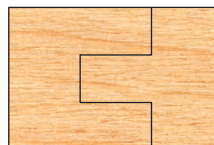
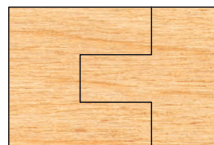
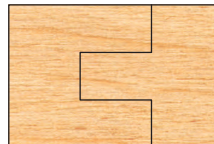
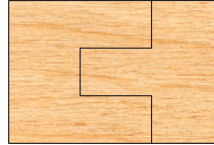
Glass Panel

3/4" to 7/8" material



Tongue & Groove

3/4" material



See stacking instructions
on page 28.

For **opposite rotation**,
add 20% to the
suggested list price.

To order **custom
profiles**, see our
Custom Made Tooling
page in the back of
the catalog. Same day
quoting.

Wood samples shown
actual size.

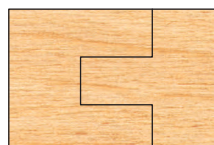
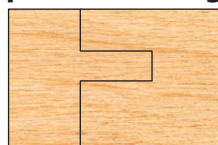
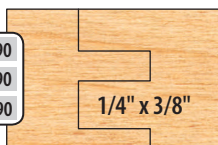
For eased edges add
20% to the suggested
list price.



Applied Moulding Set

NEW

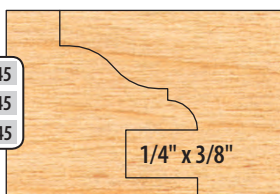
M C 50-090
P C 10-090
P T 10-090



Cope & Pattern

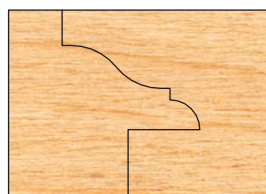
1" to 1-3/8" material

M C 50-145
P C 10-145
P T 10-145



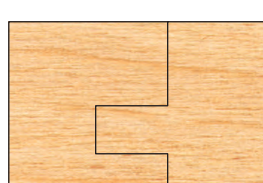
Glass Panel

7/8" to 1-1/8" material



Tongue & Groove

13/16" offset



Note: This profile does
not share a common
minor diameter.

Double Sided Cope & Pattern (6 Piece Cutter Sets)

Standard sets cut 1/4" wide x 3/8" deep tongue and groove.

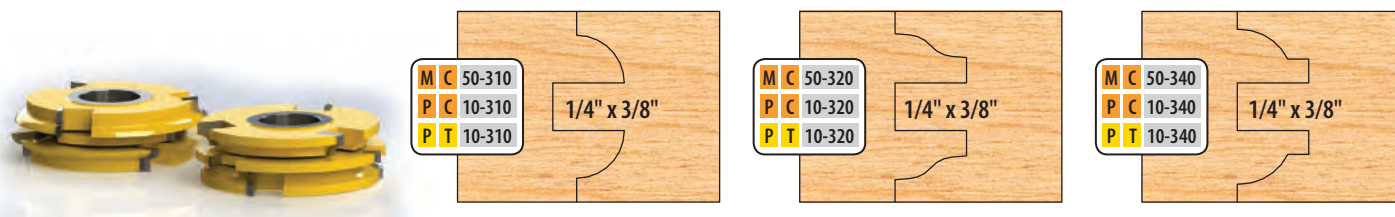
MINI-PRO cutters

- 3 wing • 2-15/16" diameter
- 3/4" bore • Runs with a 2-3/16" diameter rub bearing (AM-90-035)

PRO-LINE cutters

- 3 wing • 4" diameter
- 1-1/4" bore • Runs with a 3-1/4" diameter rub bearing (AP-90-052)

1" to 1-1/8" material



Center Groover Sets (2 Piece Sets)

PRODUCT ORDER CODE

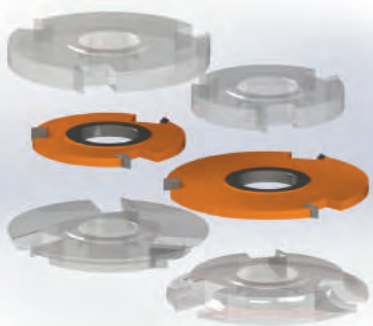
M	C	00-000	P	C	00-000	M - MINI-PRO	(3/4" Bore)
P	C	00-000	P	C	00-000	P - PRO-LINE	(1-1/4" Bore)
P	T	00-000	P	T	00-000	C - Carbide Tip	(Orange)
						T - T-Alloy Tip	(Yellow)

At time of purchase, you may substitute the following tongue & groove cutters for the standard tongue & groove cutters in your cope & pattern set, at no additional charge. If you choose an optional center groover set other than 3/8" depth, you will be unable to do the tongue & groove option.

Available on all M-50 and P-10 series cope & patterns.

For options other than 3/8" depth, diameters will no longer be the same, requiring fence adjustments between cuts.

Center Groovers Only - Profile cutters not included



M C 50-501 P C 10-501 P T 10-501	1/4" x 1/2"	M C 50-604 P C 10-604 P T 10-604	5 mm x 3/8"
M C 50-502 P C 10-502 P T 10-502	1/4" x 5/8"	M C 50-605 P C 10-605 P T 10-605	5 mm x 1/2"
M C 50-503 P C 10-503 P T 10-503	1/4" x 3/8"	M C 50-607 P C 10-607 P T 10-607	5.2mm x 3/8"
M C 50-601 P C 10-601 P T 10-601	5.5 mm x 3/8"	M C 50-608 P C 10-608 P T 10-608	5.2mm x 1/2"
M C 50-602 P C 10-602 P T 10-602	5.5 mm x 1/2"	Glass Option (for rubber extrusion) M C 50-700 P C 10-700 P T 10-700	9/64" x 1/4"
M C 50-609 P C 10-609 P T 10-609	3/8" x 1/2" NEW	Eased Edge Glass Groover Pattern Side Groover Only M C 50-701 P C 10-701 P T 10-701	0.375" NEW
M C 50-610 P C 10-610 P T 10-610	3/8" x 3/8" NEW	Eased Edge Glass Groover Pattern Side Groover Only M C 50-702 P C 10-702 P T 10-702	0.500" NEW

Both 609-610 options are for 7/8" mat. min.

To order **custom profiles**, see our Custom Made Tooling page in the back of the catalog. Same day quoting.

Wood samples shown actual size.

NEW! Split Groover Sets

These 4 piece split groover sets are used in the 10 and 50 series cope and pattern sets to allow you to cut between .188" and .350" with the included shims.

NOTE: Provides adjustment for spindle alignment issues.
Exchange for standard center groovers for an additional fee.

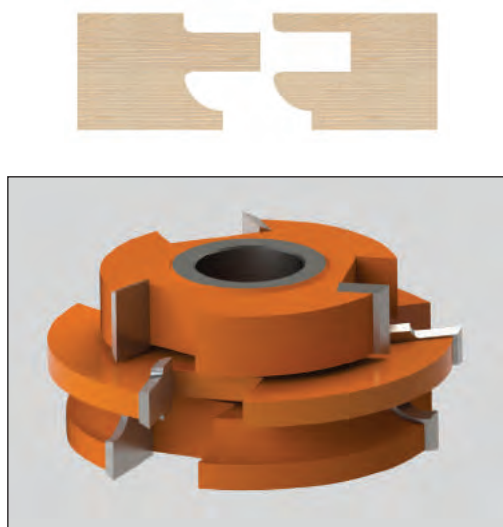
3/8" Depth	M	C	50-403	M	C	50-403	E	E
	P	C	10-403	P	C	10-403	E	E
	P	T	10-403	P	T	10-403	E	E
1/2" Depth	M	C	50-401	M	C	50-401	E	E
	P	C	10-401	P	C	10-401	E	E
	P	T	10-401	P	T	10-401	E	E



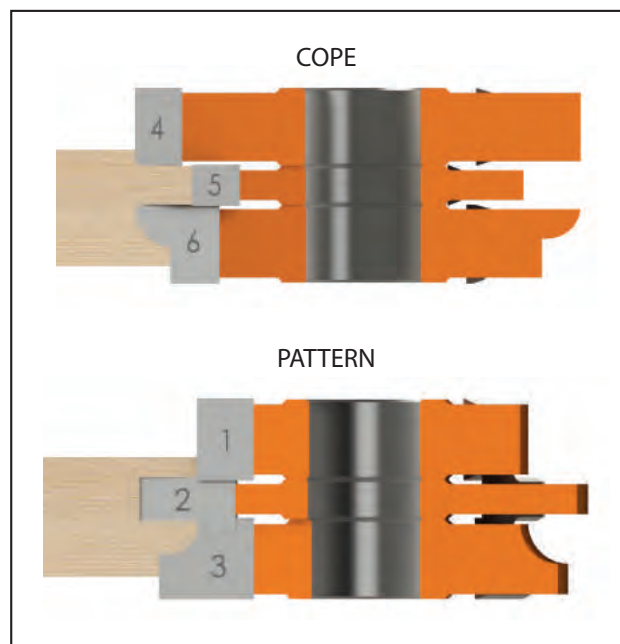
Optional Eased Edge Sets

Eased edges are available on all 10 and 50 series cope and patterns. However, you cannot do glass panel or tongue and groove without optional groovers from page 10. Add 20% to the suggested list price.

PLEASE NOTE: Freeborn Tool Co. will not be responsible for bent center groovers due to incorrect stacking. Be sure to read the stacking instructions included with your cutters.



REMEMBER: Always stagger cutters when stacking. Never stack wing-to-wing or you will bend the center groover.



Cope & Pattern (6 Piece Cutter Sets)

1/2" DEPTH OF PATTERN

New Deeper Profile Sets

Versatile and easy-to-use. These 6 piece cutter sets are designed to perform the 3 functions shown. Our standard sets cut 1/4" wide by 1/2" deep tongue and groove.

Our common minor diameter requires NO fence adjustment when changing from cope to pattern cuts. (1/2" tongue only)

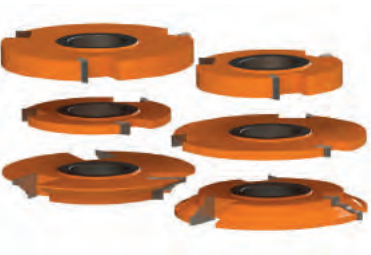
Counterclockwise rotation with wood fed face down.



For opposite rotation add 20% to the suggested list price.

Wood samples shown actual size.

For eased edges add 20% to the suggested list price.



	Cope & Pattern 3/4" to 1-1/8" material	Glass Panel 3/4" to 7/8" material	Tongue & Groove 3/4" material
NEW	<p>M C 50-211 P C 10-211 P T 10-211</p> <p>1/4" x 1/2"</p>		
NEW	<p>M C 50-220 P C 10-220 P T 10-220</p> <p>1/4" x 1/2"</p>		
NEW	<p>M C 50-225 P C 10-225 P T 10-225</p> <p>1/4" x 1/2"</p>		
NEW	<p>M C 50-231 P C 10-231 P T 10-231</p> <p>1/4" x 1/2"</p>		
NEW	<p>M C 50-240 P C 10-240 P T 10-240</p> <p>1/4" x 1/2"</p>		
NEW	<p>M C 50-245 P C 10-245 P T 10-245</p> <p>1/4" x 1/2"</p>		
NEW	<p>M C 50-250 P C 10-250 P T 10-250</p> <p>1/4" x 1/2"</p>		

MINI-PRO cutters

- 3 wing • 3.19" diameter
- 3/4" bore • Runs with a rub bearing (AM-90-035)

PRO-LINE cutters

- 3 wing • 4.25" diameter
- 1-1/4" bore • Runs with a rub bearing (AP-90-052)

3/4" to 1-1/8" material

MINI-PRO cutters

- 3 wing • 2-15/16" diameter
- 3/4" bore • Runs with a 1-11/16" diameter rub bearing (AM-90-027)

PRO-LINE cutters

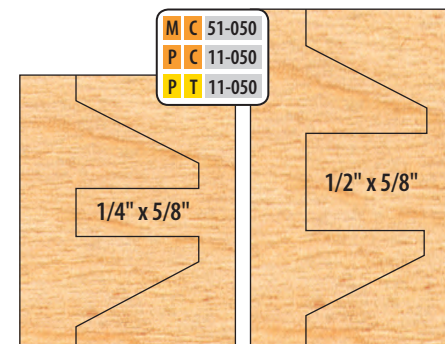
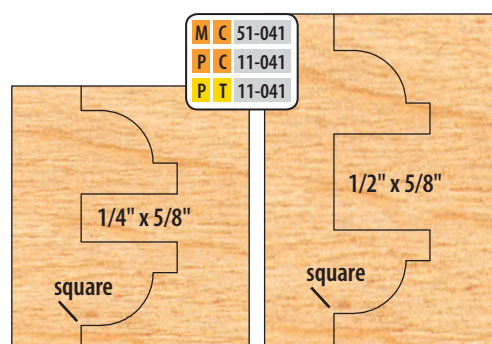
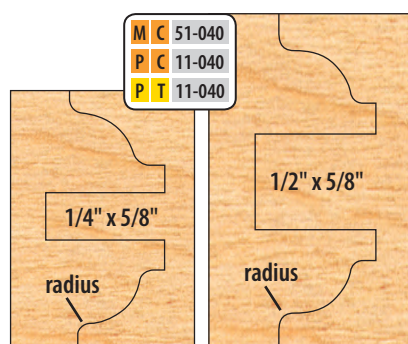
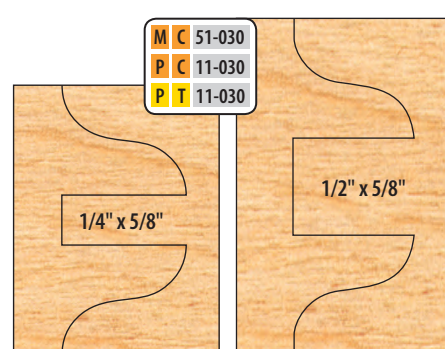
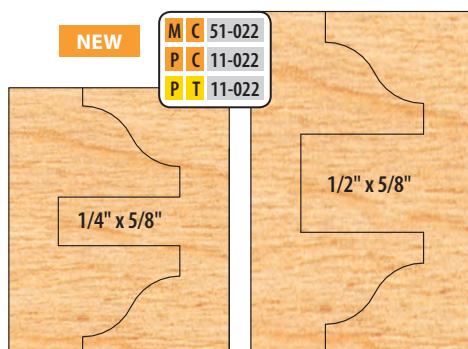
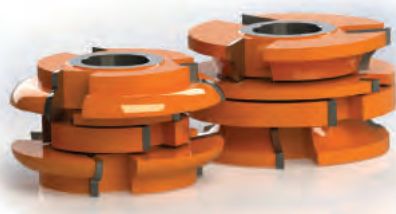
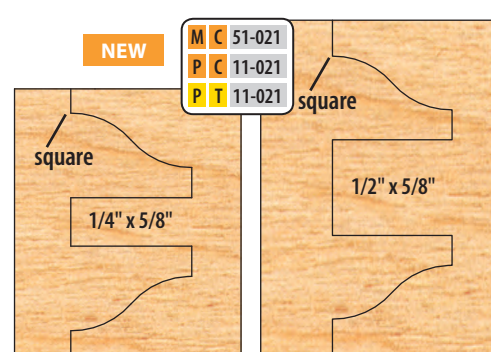
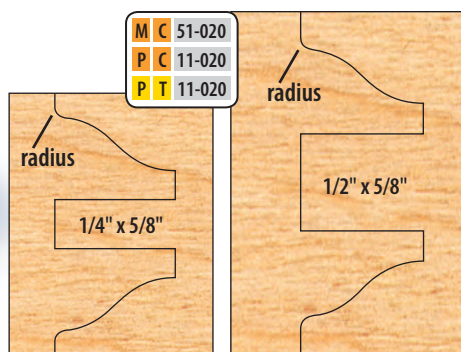
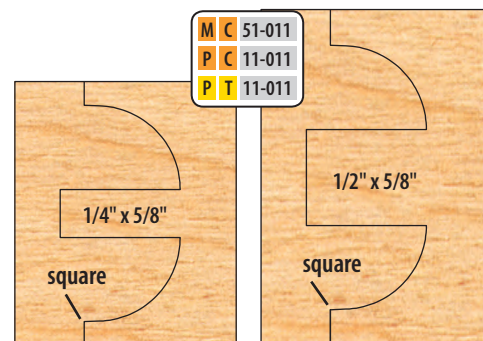
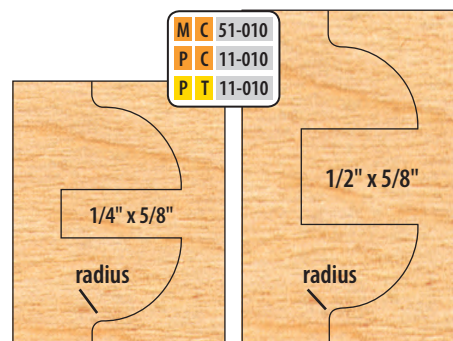
- 3 wing • 4" diameter
- 1-1/4" bore • Runs with a 2-3/4" diameter rub bearing (AP-90-044)

Double Sided Cope & Pattern (8 Piece Cutter Sets)

Standard sets cut 1/4" x 5/8" or 1/2" x 5/8" deep tongue and groove. Mini-Pro is not to be used on 1/2" spindle.

These 8 piece cutter sets are built to cut both 1-3/8" passage doors and 1-3/4" entry doors simply by changing the center cutters.

A 2 piece glass panel groover set is also available to run with these sets (see next page).



Double Sided Cope & Pattern (8 Piece Cutter Sets)

Eased edges are available for an additional 20%.

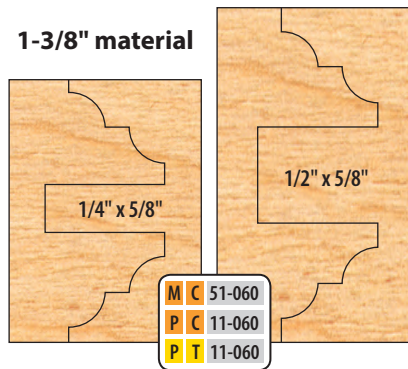
See **custom cutter** ordering information on inside back cover. Same day quoting.

Wood samples shown actual size. NOTE: All profiles shown may be made as a window sash set. Profiles shown as examples only.

Any of the below groover sets may be exchanged at no charge at the time of purchase.

1-3/4" material

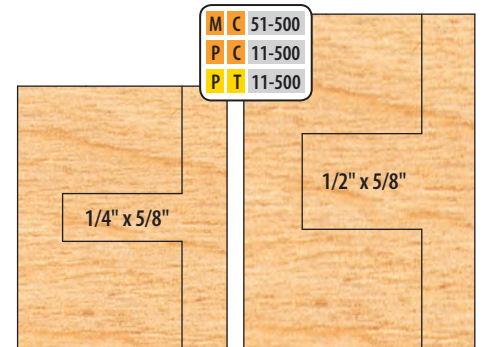
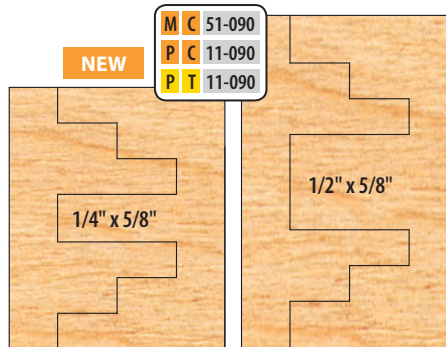
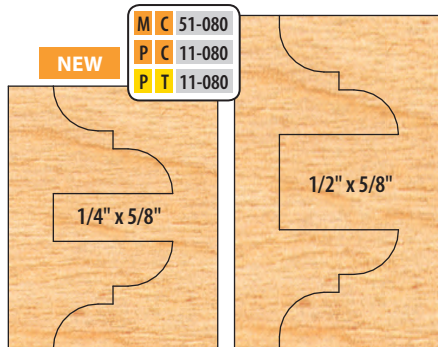
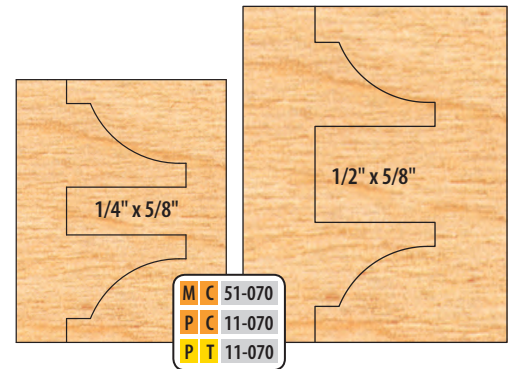
1-3/8" material



PRODUCT ORDER CODE

MC 00-000 PC 00-000
PT 00-000

M - MINI-PRO (3/4" Bore)
P - PRO-LINE (1-1/4" Bore)
C - Carbide Tip (Orange)
T - T-Alloy Tip (Yellow)



5/8" Deep Center Groover Chart

	MINI PRO SET	PRO-LINE SET
1/4" GROOVERS ONLY	MC-51-904	PC-11-904
		PT-11-904
3/8" GROOVERS ONLY	MC-51-903	PC-11-903
		PT-11-903
1/2" GROOVERS ONLY	MC-51-905	PC-11-905
		PT-11-905

1/2" Deep Center Groover Chart

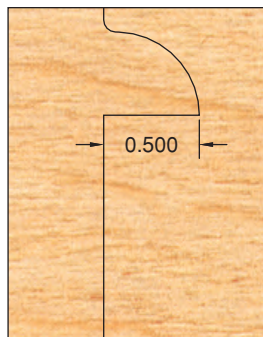
	MINI PRO SET	PRO-LINE SET
1/4" x 1/2"	MC-51-906	PC-11-906
		PT-11-906
3/8" x 1/2"	MC-51-907	PC-11-907
		PT-11-907
1/2" x 1/2"	MC-51-908	PC-11-908
		PT-11-908

Optional Glass Panel Groovers (2 Piece Cutter Sets)

These Glass Panel sets consist of 2" groovers to allow a total material height of 2-1/2" when run with the profile cutters from your Cope and Pattern set. Any of the Double Sided Cope and Pattern profiles can be made into dedicated Glass Panel sets upon request.

Runs with 010, 011, 022, 040, 041, 060 and 500.

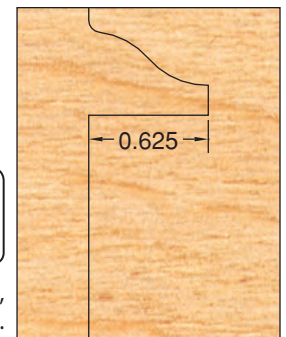
MC 52-011
PC 12-011
PT 12-011



Profile shapes are for example only. Set consists of 2 groovers only.

Runs with 020, 021, 030, 050, 070, 080, 090 and 500.

MC 52-021
PC 12-021
PT 12-021



MINI-PRO cutters

- 3 wing • 4-1/2" diameter
- 3/4" bore • Runs with a 1-5/8" diameter rub bearing (AM-90-026)

PRO-LINE cutters

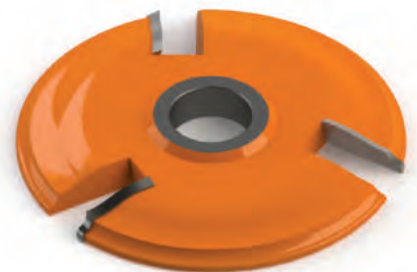
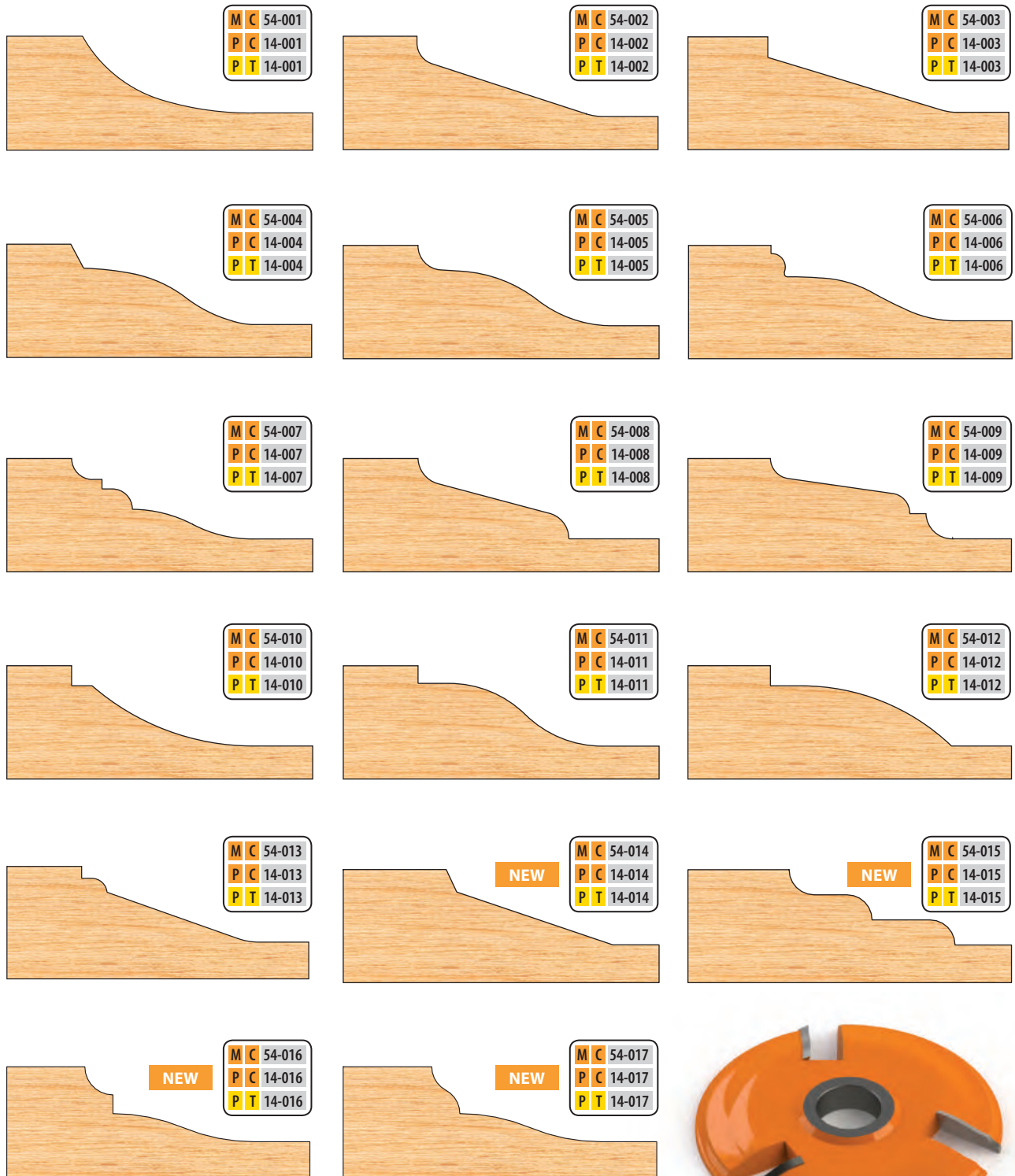
- 3 wing • 6" diameter
- 1-1/4" bore • Runs with a 3" diameter rub bearing (AP-90-048)

Raised Panel Shaper Cutters (3/4" Material)

Our raised panel cutters are manufactured with 15° SHEAR to produce optimum cuts both with and across the grain.

Counterclockwise rotation with wood fed face up.

For **opposite rotation**, add 20% to the suggested list price.



Raised Panel Shaper Cutters (5/8" Material)

For **opposite rotation**, add 20% to the suggested list price.

To order **custom profiles**, see our Custom Made Tooling page in the back of the catalog. Same day quoting.

Wood samples shown actual size.

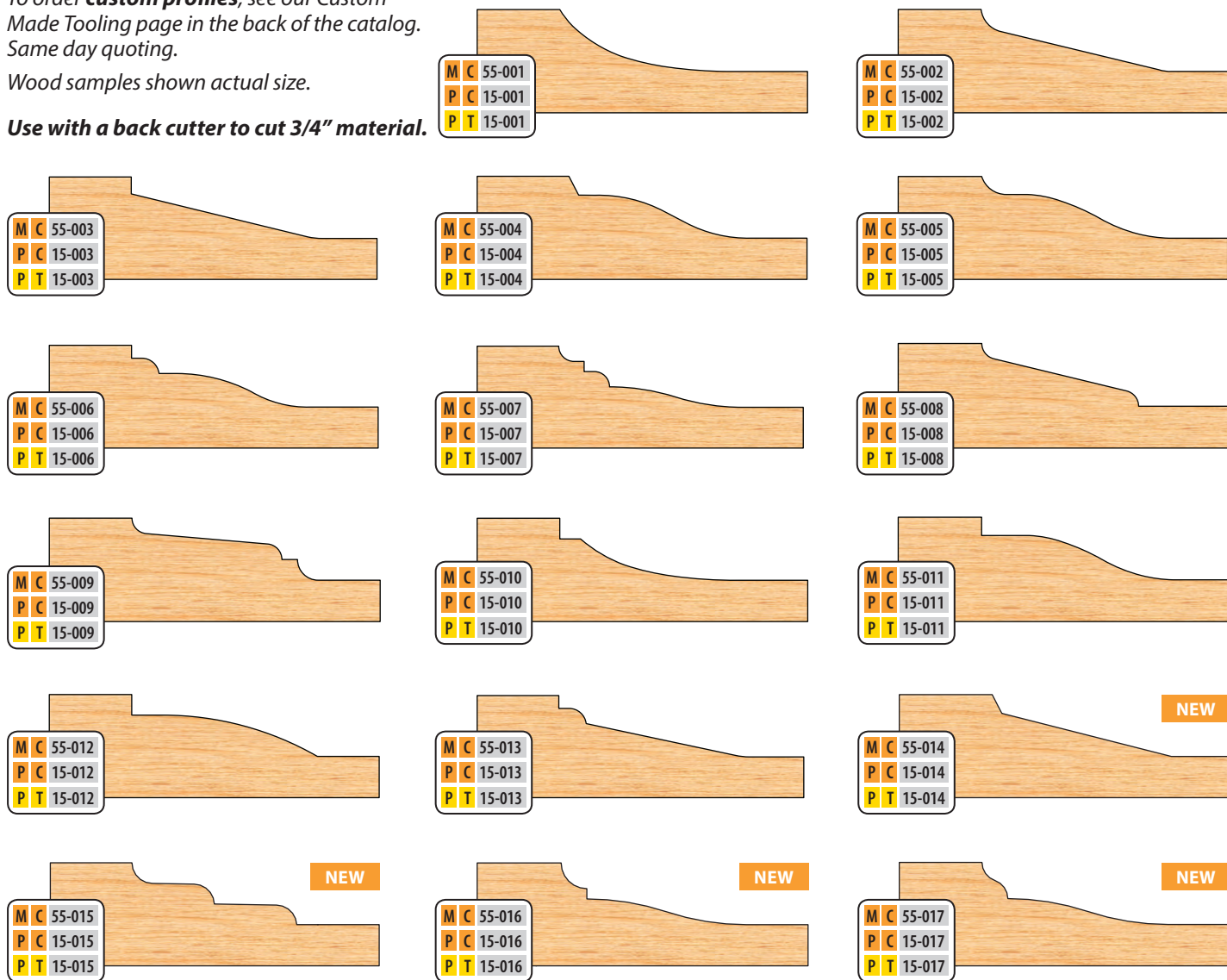
Use with a back cutter to cut 3/4" material.

MINI-PRO cutters

- 3 wing • 4-1/2" diameter
- 3/4" bore • Runs with a 1-5/8" diameter rub bearing (AM-90-026)

PRO-LINE cutters

- 3 wing • 6" diameter
- 1-1/4" bore • Runs with a 3" diameter rub bearing (AP-90-048)



Back Cutters - Raised Panel (3/4" Material)

MINI-PRO cutters

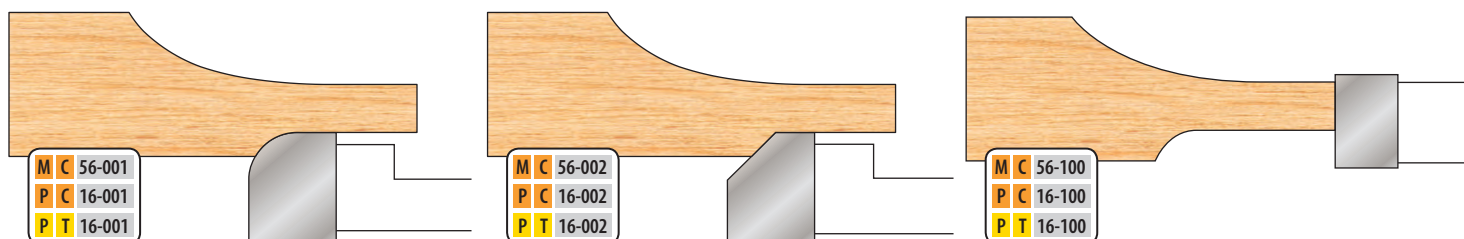
- 3 wing • 3-3/8" diameter
- 3/4" bore

PRO-LINE cutters

- 3 wing • 4-3/4" diameter
- 1-1/4" bore

Does not include Raised Panel Cutter

Use with a 55/15 series raised panel for 3/4" material.



Raised Panel Tongue Trimmer

MINI-PRO cutters

- 3 wing • 1-5/8" diameter
- 3/4" bore

PRO-LINE cutters

- 3 wing • 3" diameter
- 1-1/4" bore

Does not include Raised Panel Cutter

PRO-LINE cutters

- 3 wing • 1-1/4" bore
- Designed to run with a 3" diameter rub bearing (AP-90-048)
- Available in Pro-Line only

Manufactured with 15° SHEAR to produce optimum cuts both with and across the grain.

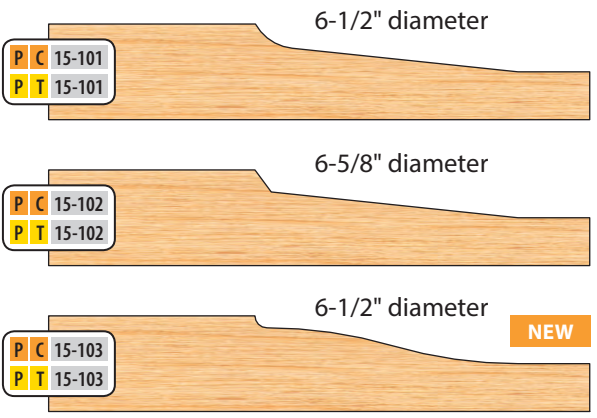
Counterclockwise rotation with wood fed face up.

These raised panel cutters cut a 1-3/8" reveal plus a 3/8" long tongue.

Reduce production time by adding an opposite rotation cutter, and produce double sided raised panels in a single pass.

Opposite rotation cutters are made to order. Please allow 7-10 days.

Raised Panel Shaper Cutters (1/2" Material)

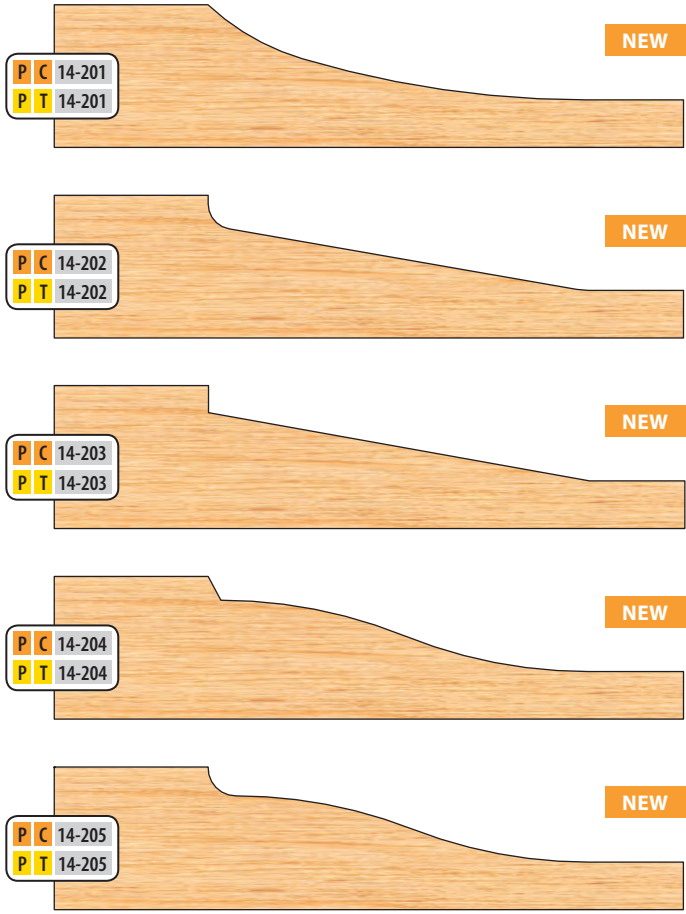


PRO-LINE cutters

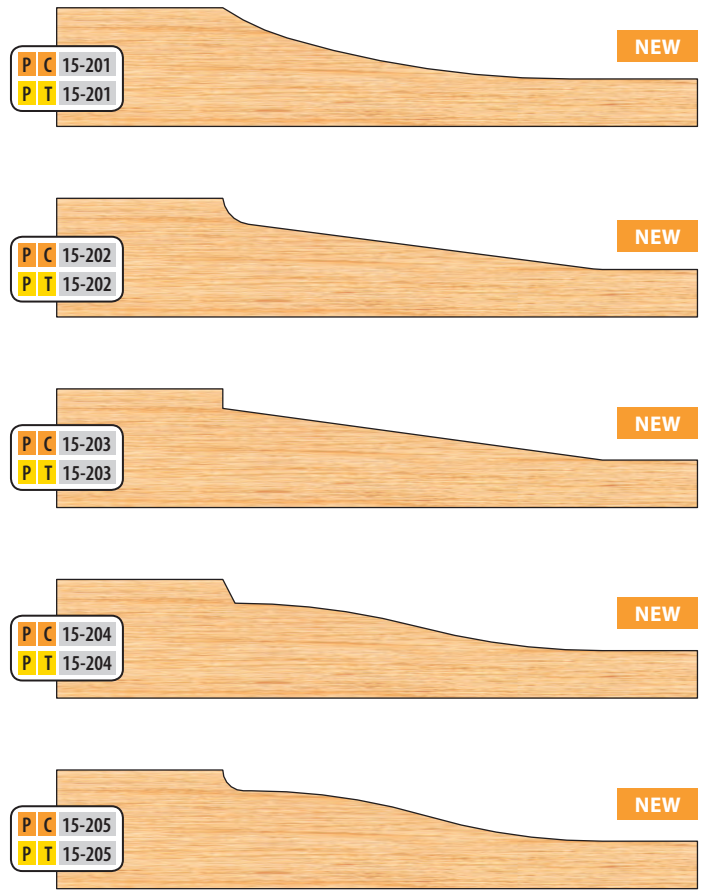
- 3 wing • 1-1/4" bore • 2-1/2" depth of cut
- Designed to run with a 2-1/4" diameter rub bearing (AP-90-036)
- Available in Pro-Line only • Diameters vary from 7-1/4" to 7-1/2"

Raised Panel Shaper Cutters

3/4" material



5/8" material

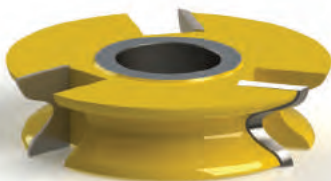


Door Edge Detail Shaper Cutters

All of these wood samples are full scale as shown. Whether it is a 30° back bevel, fingerpull, 3/8" offset, or flush overlay door, we offer a wide selection to choose from.

Counterclockwise rotation with wood fed face up.

To order **custom profiles**, see our **Custom Made Tooling** page in the back of the catalog.



For **opposite rotation**, add 20% to the suggested list price.

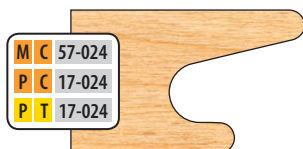
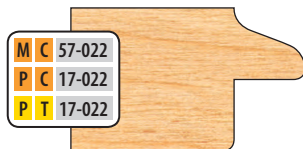
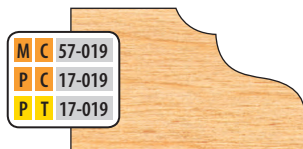
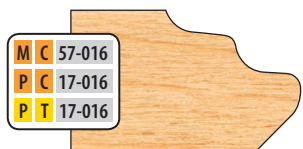
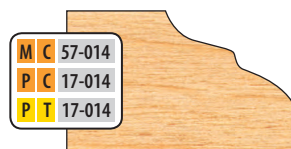
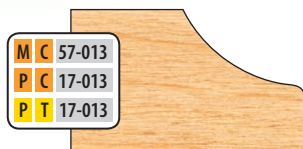
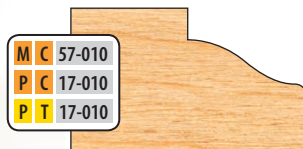
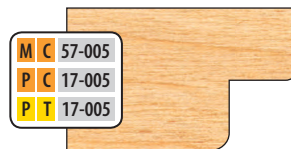
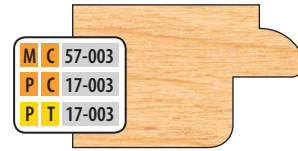
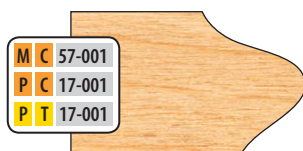
Wood samples shown actual size.

MINI-PRO cutters

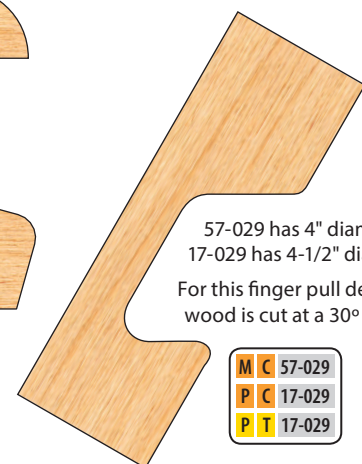
- 3 wing • 2-15/16" diameter
- 3/4" bore • 1" wide tips

PRO-LINE cutters

- 3 wing • 4" diameter
- 1-1/4" bore • 1" wide tips



Similar to 002 profile
but .100 backout



MINI-PRO cutters

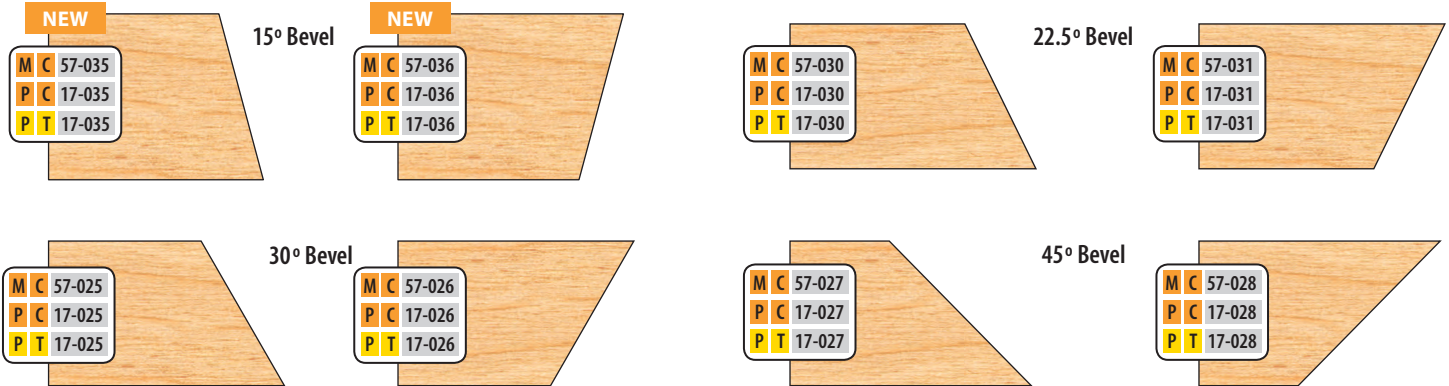
- 3 wing
- 3/4" bore • 1" wide tips

PRO-LINE cutters

- 3 wing
- 1-1/4" bore • 1" wide tips

Door Edge Detail Bevel Cutters

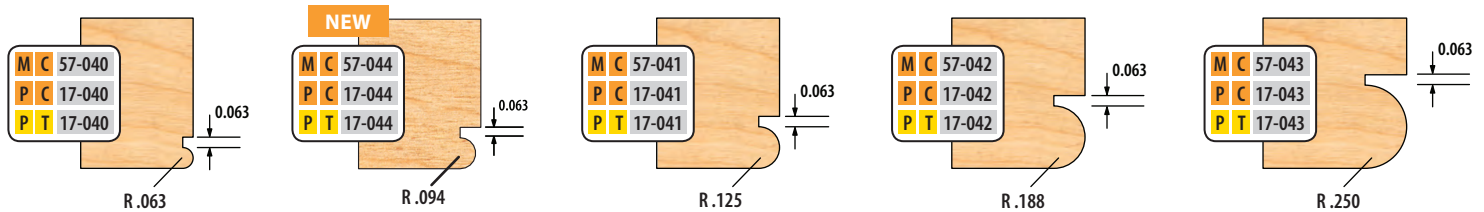
For a different angle or a wider bevel cutter than those shown, ask our custom cutter department for a quote (See inside back cover).

**MINI-PRO cutters**

- 3 wing
- 3/4" bore • 2-15/16" diameter

PRO-LINE cutters

- 3 wing
- 1-1/4" bore • 4" diameter

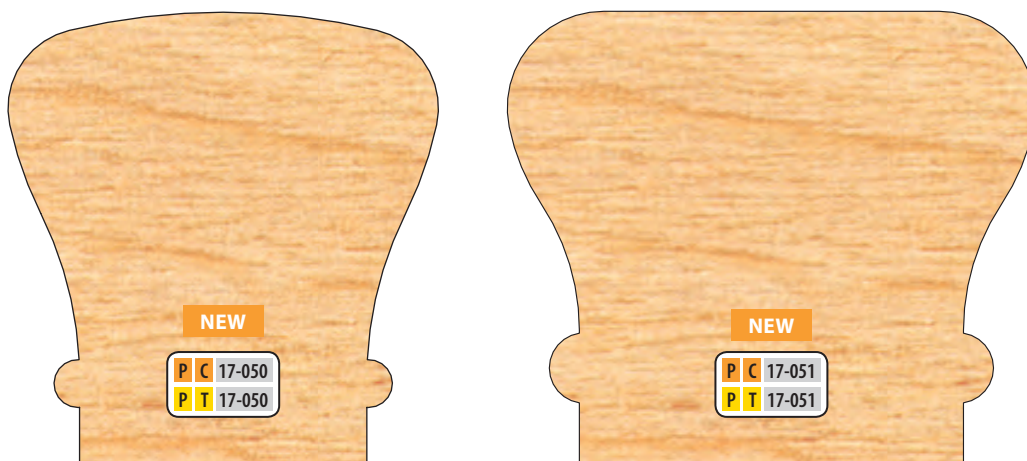
Bead Cutters**PRO-LINE cutters**

- 3 wing
- 1-1/4" bore

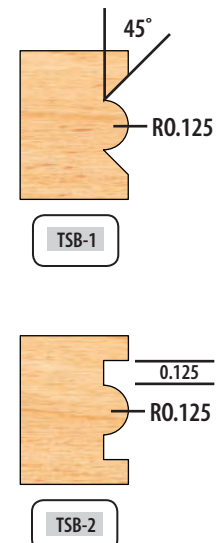
Handrail Cutters (2 Piece Set)

2-1/4" wide x 2-3/8" tall
5-1/4" diameter

2-3/4" wide x 2-3/8" tall
4" diameter

**Table Saw Bead Cutters**

- 6 wing
- 5/8" bore
- 8" diameter



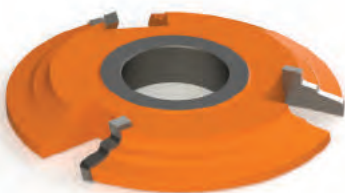
Door Edge Details (32mm Hinge System)

Part number is for top cutter only.

Manufactured with 15° SHEAR to produce optimum cuts both with and across grain.

Counterclockwise rotation with wood fed face up.

Any top cutter is designed to nest and run with any bottom cutter.

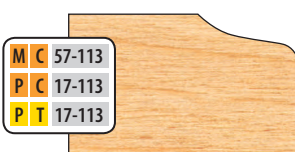
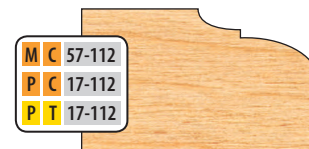
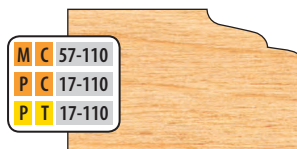
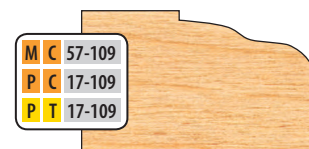
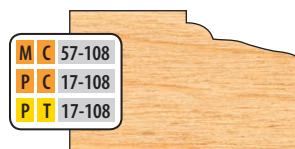
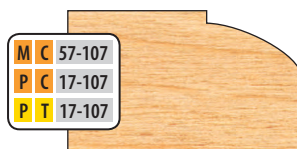
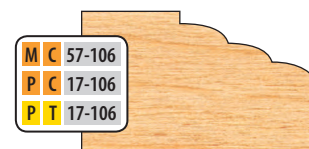
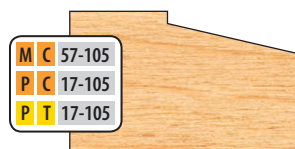
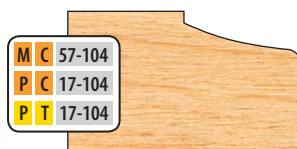
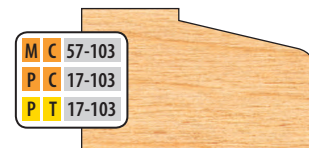
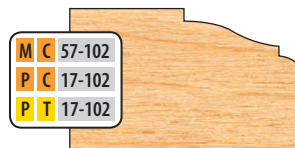
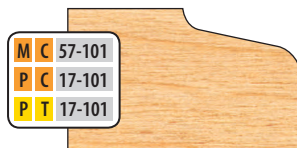


For **opposite rotation**, add 20% to the suggested list price.

To order **custom profiles**, see our Custom Made Tooling page in the back of the catalog. Same day quoting.

Wood samples shown actual size.

Top Cutter Profiles 3/4" to 7/8" material



Bottom Cutter Profiles

Bottom cutters for 32mm Hinge Systems are designed to nest and run with any top cutter listed.

Selection of bottom cutter should depend upon the distance of the bored hole for the hinge from the edge of the door.

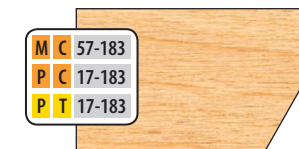
Manufactured to the same specifications as all top cutters.



* Will not run with 32mm hinge system 0.200 →



0.100 →



* Will not run with 32mm hinge system 0.200 →



0.100 →



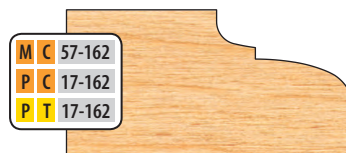
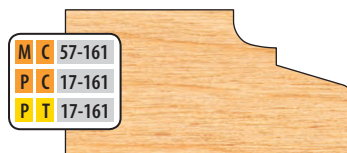
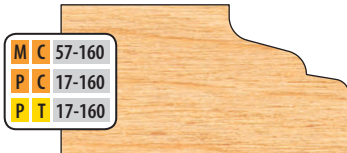
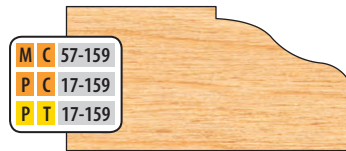
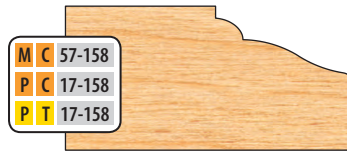
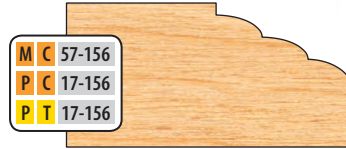
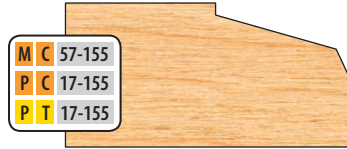
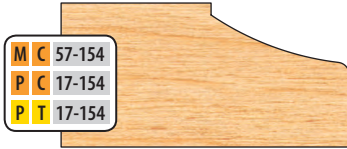
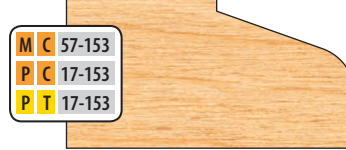
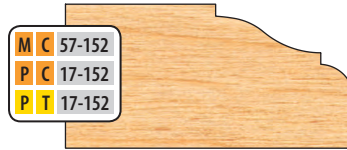
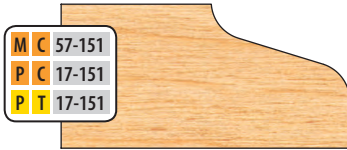
PRODUCT ORDER CODE

M	C	00-000	P	C	00-000
			P	T	00-000

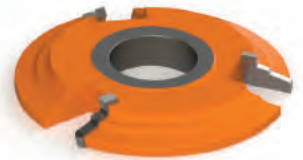
M - MINI-PRO (3/4" Bore)
 P - PRO-LINE (1-1/4" Bore)
 C - Carbide Tip (Orange)
 T - T-Alloy Tip (Yellow)

Door Edge Details (32mm Hinge System)

Top Cutter Profiles 7/8" to 1" material



Part number is for top cutter only.



To order **custom profiles**, see our Custom Made Tooling page in the back of the catalog. Same day quoting.

Wood samples shown actual size.

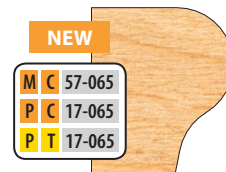
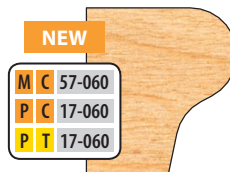
MINI-PRO cutters

- 3 wing • 2-15/16" diameter
- 3/4" bore • 1-1/8" tips

PRO-LINE cutters

- 3 wing • 4" diameter
- 1-1/4" bore • 1-1/8" tips

Edge Detail cutter for up to 7/8" material as shown.



Edge Detail cutter for up to 1-1/8" material as shown.

Window Sill Cutters

MINI-PRO cutters

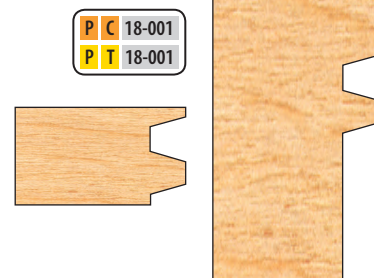
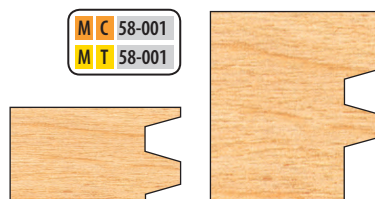
- 3 wing • 2-15/16" diameter
 - 3/4" bore • 1" wide tips
- Cuts from 1/2" to 7/8" material

PRO-LINE cutters

- 3 wing • 2-15/16" diameter
 - 1-1/4" bore • 2" wide tips
- Cuts from 1/2" to 1-7/8" material

Reversible Glue Joint

Creates an incredibly strong joint by interlocking the glue surfaces.

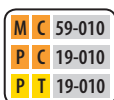


V-Paneling Shaper Cutter Set

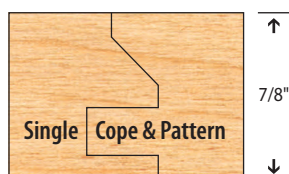
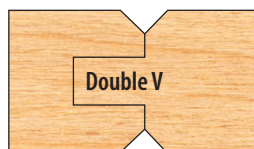
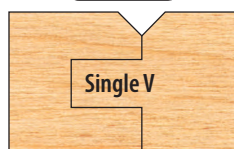
The V-Paneling set consists of 5 cutters and 1 spacer to perform these 4 functions.

Counterclockwise rotation with wood fed face down.

These sets do not share a common minor diameter.



3/4" to 1" material



MINI-PRO cutters

- 3 wing • 2-15/16" diameter
- 3/4" bore • Designed to run with 2-3/16" diameter rub bearing

PRO-LINE cutters

- 3 wing • 4" diameter
- 1-1/4" bore • Designed to run with 3-1/4" diameter rub bearing

To order **custom profiles**, see our Custom Made Tooling page in the back of the catalog. Same day quoting. Wood samples shown actual size.

See stacking instructions on page 29.

Optional Rub-Spacers & Groovers for Cope Side

NEW	MINI-PRO SET		PRO-LINE SET	
	RUB SPACER	GROOVER	RUB SPACER	GROOVER
SINGLE-V	AM-50-809		AP-10-809	PC-19-011
				PT-19-011
DOUBLE-V	AM-50-809		AP-10-809	PC-19-011
				PT-19-011
DOUBLE COPE & PATTERN	AM-50-801	MC-59-012	AP-10-801	PC-19-012
				PT-19-012
SINGLE COPE & PATTERN	AM-50-801	MC-59-012	AP-10-801	PC-19-012
				PT-19-012

7-PC. Flooring Set

The flooring set consists of 6 cutters and 1 spacer to perform these 5 functions.

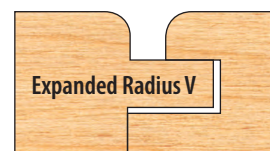
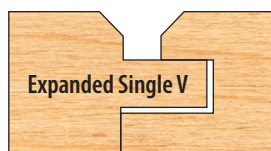
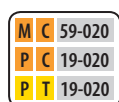
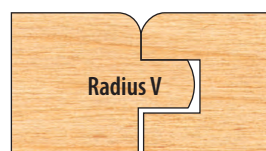
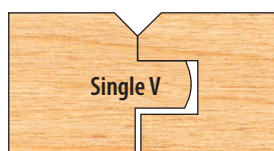
Cut provides a loose fit (.030) for wood expansion. Set up instructions included.

Counterclockwise rotation with wood fed face down.

These sets do not share a common minor diameter.

See stacking instructions on page 29.

3/4" to 1" material



MINI-PRO cutters

- 3 wing • 2-15/16" diameter
- 3/4" bore

PRO-LINE cutters

- 3 wing • 4" diameter
- 1-1/4" bore

5-PC. Flooring Set with Nail Slot

MINI-PRO cutters

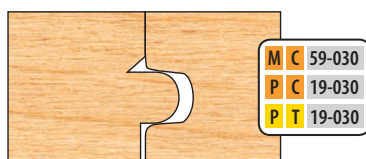
- 3 wing • 2-15/16" diameter
- 3/4" bore

PRO-LINE cutters

- 3 wing • 4" diameter
- 1-1/4" bore

This set includes 5 cutters to perform the cut as shown.

Counterclockwise rotation with wood fed face down. Up to 1" material.



8-PC. Flooring / V-Panel Set

MINI-PRO cutters

- 3 wing • 2-15/16" diameter
- 3/4" bore

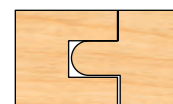
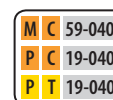
PRO-LINE cutters

- 3 wing • 4" diameter
- 1-1/4" bore

This set includes 8 cutters to perform the two cuts as shown. Runs CCW, face down.

Cut provides a 0.010" loose fit to allow for wood expansion.

1/2" material



MINI-PRO cutters

- 3 wing • 2-15/16" diameter
- 3/4" bore

PRO-LINE cutters

- 3 wing • 4" diameter
- 1-1/4" bore

Quarter Cove Convex Cutters

Number				Radius		
M C	60-002	P C	20-002	P T	20-002	1/8"
M C	60-004	P C	20-004	P T	20-004	1/4"
M C	60-006	P C	20-006	P T	20-006	3/8"
M C	60-008	P C	20-008	P T	20-008	1/2"
M C	60-012	P C	20-012	P T	20-012	3/4"



Counterclockwise rotation with wood fed face down.

MINI-PRO cutters

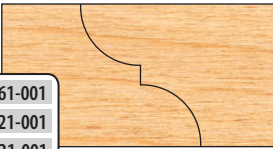
- 3 wing • 2-15/16" diameter
- 3/4" bore • 1" wide tips

PRO-LINE cutters

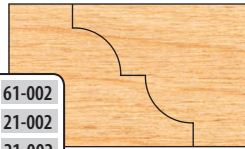
- 3 wing • 4" diameter
- 1-1/4" bore • 1" wide tips

Counterclockwise rotation with wood fed face up.

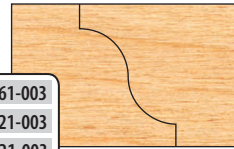
M C	61-001
P C	21-001
P T	21-001



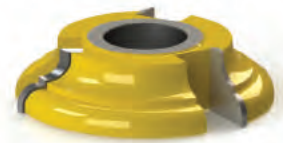
M C	61-002
P C	21-002
P T	21-002



M C	61-003
P C	21-003
P T	21-003



After machining two pieces of wood, one piece may be inverted and plugged into its mate, forming a matched joint.

**MINI-PRO cutters**

- 3 wing • 2-15/16" diameter
- 3/4" bore • Designed for use with 2-15/16" diameter rub bearing for flush trim application

PRO-LINE cutters

- 3 wing • 4" diameter
- 1-1/4" bore • Designed for use with 4" diameter rub bearing for flush trim application

NEW

Number			Width				
W	M C	62-002	P C	22-002	P T	22-002	1/8"
	M C	62-003	P C	22-003	P T	22-003	3/16"
	M C	62-004	P C	22-004	P T	22-004	1/4"
	M C	62-005	P C	22-005	P T	22-005	5/16"
	M C	62-006	P C	22-006	P T	22-006	3/8"
	M C	62-007	P C	22-007	P T	22-007	7/16"
	M C	62-008	P C	22-008	P T	22-008	1/2"
	M C	62-010	P C	22-010	P T	22-010	5/8"
	M C	62-012	P C	22-012	P T	22-012	3/4"
	M C	62-014	P C	22-014	P T	22-014	7/8"
	M C	62-016	P C	22-016	P T	22-016	1"
	M C	62-020	P C	22-020	P T	22-020	1-1/4"
	M C	62-024	P C	22-024	P T	22-024	1-1/2"
	M C	62-028	P C	22-028	P T	22-028	1-3/4"
	M C	62-032	P C	22-032	P T	22-032	2"

Groove



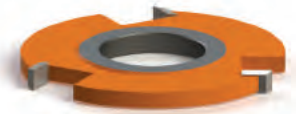
Rabbit



Flush Trim



Straight Top Groovers are ideal for cutting grooves, rabbets, and for flush trimming.

**MINI-PRO cutters**

- 3 wing • 2-15/16" diameter
- 3/4" bore

PRO-LINE cutters

- 3 wing • 4" diameter
- 1-1/4" bore

Number			Width		Radius		
M C	63-002	P C	23-002	P T	23-002	1/4"	1/8"
M C	63-003	P C	23-003	P T	23-003	3/8"	3/16"
M C	63-004	P C	23-004	P T	23-004	1/2"	1/4"
M C	63-006	P C	23-006	P T	23-006	3/4"	3/8"
M C	63-008	P C	23-008	P T	23-008	1"	1/2"



Flute

**Half Round Convex Shaper Cutters****MINI-PRO cutters**

- 3 wing • 2-15/16" diameter
- 3/4" bore

PRO-LINE cutters

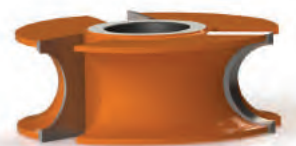
- 3 wing • 4" diameter
- 1-1/4" bore

Number				Opening Width	Radius		
M C	64-002	P C	24-002	P T	24-002	1/4"	1/8"
M C	64-003	P C	24-003	P T	24-003	3/8"	3/16"
M C	64-004	P C	24-004	P T	24-004	1/2"	1/4"
M C	64-006	P C	24-006	P T	24-006	3/4"	3/8"
M C	64-008	P C	24-008	P T	24-008	1"	1/2"
M C	64-009	P C	24-009	P T	24-009	1-1/8"	9/16"
M C	64-010	P C	24-010	P T	24-010	1-1/4"	5/8"
		P C	24-012	P T	24-012	1-1/2"	3/4"



Bullnose

All Concave Cutters have .030" flare for easy bull nosing.

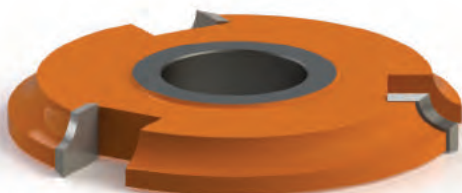
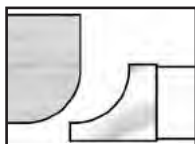
**Half Round Concave Shaper Cutters**

Corner Rounding Shaper Cutters

Larger PRO-LINE Cutters exceed the standard 4" diameter (see chart).

Counterclockwise rotation with wood fed face down.

R = CCW, wood face up



MINI-PRO cutters

- 3 wing • 2-15/16" diameter
- 3/4" bore

PRO-LINE cutters

- 3 wing • 4" diameter (unless specified)
- 1-1/4" bore

Number (R=Opposite Rotation)

Number	(R=Opposite Rotation)	Radius	3/4" Bore Diameter	1-1/4" Bore Diameter
M C 65-002	P C 25-002	1/8"	2-15/16"	4"
M C 65-002R	P C 25-002R	1/8"	2-15/16"	4"
M C 65-003	P C 25-003	3/16"	2-15/16"	4"
M C 65-004	P C 25-004	1/4"	2-15/16"	4"
M C 65-004R	P C 25-004R	1/4"	2-15/16"	4"
M C 65-005	P C 25-005	5/16"	2-15/16"	4"
M C 65-006	P C 25-006	3/8"	2-15/16"	4"
M C 65-006R	P C 25-006R	3/8"	2-15/16"	4"
M C 65-008	P C 25-008	1/2"	2-15/16"	4"
M C 65-008R	P C 25-008R	1/2"	2-15/16"	4"
M C 65-010	P C 25-010	5/8"	2-15/16"	4"
M C 65-012	P C 25-012	3/4"	2-15/16"	4"
P C 25-014	P T 25-014	7/8"	n/a	4-1/2"
P C 25-016	P T 25-016	1"	n/a	4-1/2"
P C 25-020	P T 25-020	1-1/4"	n/a	5"
P C 25-024	P T 25-024	1-1/2"	n/a	5-1/2"
P C 25-028	P T 25-028	1-3/4"	n/a	6-1/2"
P C 25-032	P T 25-032	2"	n/a	6-1/2"

NEW

Matched Drop Leaf

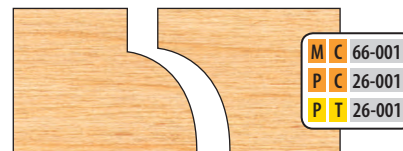
Counterclockwise rotation with wood face down. When running counterclockwise, cove cut is made by lowering shaper spindle to cut with the top half of the cutter. Bead cut is made by raising shaper spindle to cut with the bottom half of the cutter.

MINI-PRO cutters

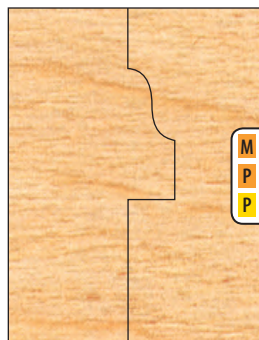
- 3 wing • 2-15/16" diameter
- 3/4" bore

PRO-LINE cutters

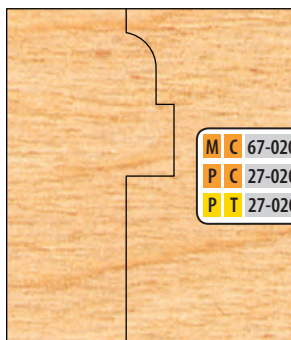
- 3 wing • 4" diameter
- 1-1/4" bore



Window Sash Cutter Set (4 Piece Cutter Set)



M C 67-010
P C 27-010
P T 27-010



M C 67-020
P C 27-020
P T 27-020

MINI-PRO cutters

- 3 wing • 2-15/16" diameter
- 3/4" bore

PRO-LINE cutters

- 3 wing • 4" diameter
- 1-1/4" bore

These window sash profiles are common in many older homes. They are made to cut stock up to 1-3/4".

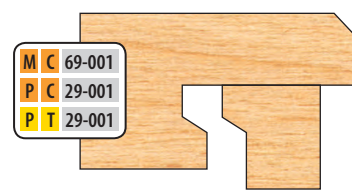
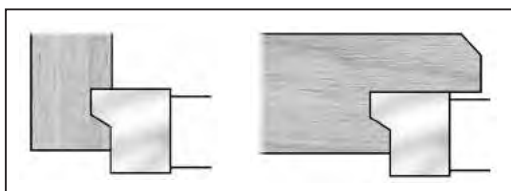
Counterclockwise rotation with wood fed face down.

Drawer Lock Cutter

Run drawer front face up in horizontal position over the top of the cutter. Drawer sides are run on end in a vertical position against the shaper fence.

Made to cut up to 3/4" drawer sides.

Counterclockwise rotation only.



MINI-PRO cutters

- 3 wing • 2-15/16" diameter
- 3/4" bore

PRO-LINE cutters

- 3 wing • 5" diameter
- 1-1/4" bore

One Piece Double Tongue & Groove Lock Mitre Cutter



Counterclockwise rotation only. Mini-Pro is made to run only on 3/4" spindle.

Part B is run flat in horizontal position on shaper table.

Part A is run in a vertical position against the shaper fence (see diagram). See page 28.

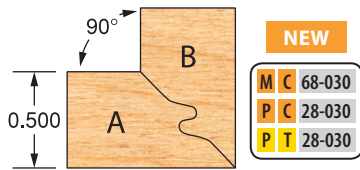
1/2" material

MINI-PRO cutters

- 3 wing • 3/4" bore
- 2-15/16" diameter
- 3/4" wide tips

PRO-LINE cutters

- 3 wing • 1-1/4" bore
- 4" diameter
- 3/4" wide tips



NEW

M	C	68-030
P	C	28-030
P	T	28-030

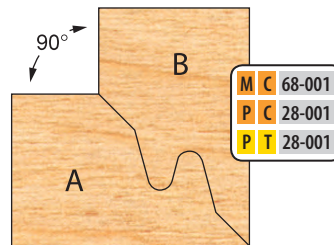
3/4" - 1" material

MINI-PRO cutters

- 3 wing • 3/4" bore
- 4.05" diameter
- 1-1/8" wide tips

PRO-LINE cutters

- 3 wing • 1-1/4" bore
- 5.05" diameter
- 1-1/8" wide tips

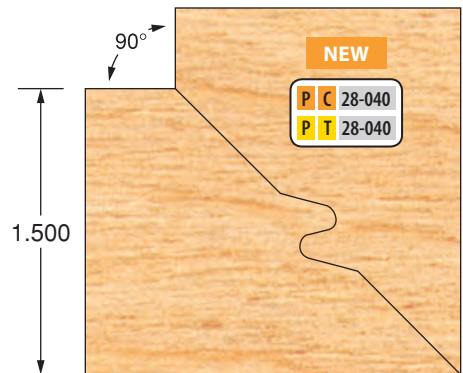


M	C	68-001
P	C	28-001
P	T	28-001

1-1/2" material

PRO-LINE cutters

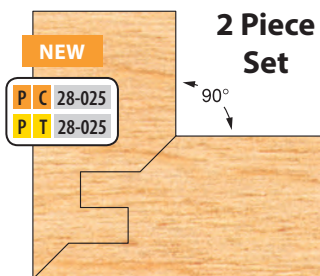
- 1-1/4" bore • 6" diameter
- 3 wing • 1-3/4" wide tips



NEW

P	C	28-040
P	T	28-040

Two Piece Double Tongue & Groove Lock Mitre Sets

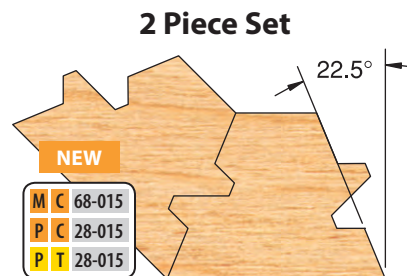


2 Piece Set

3/4" - 1" material

PRO-LINE cutters

- 3 wing
- 1-1/4" bore
- 5.19" diameter
- 1-1/4" wide tips



2 Piece Set

M	C	68-015
P	C	28-015
P	T	28-015

3/4" material

MINI-PRO cutters

- 3 wing • 3/4" bore
- 2-15/16" diameter
- 1" wide tips

PRO-LINE cutters

- 3 wing • 4" diameter
- 1-1/4" bore
- 1" wide tips

MINI-PRO cutters

- 3 wing • 4-5/16" diameter
- 3/4" bore • Use on 3/4" spindles only

PRO-LINE cutters

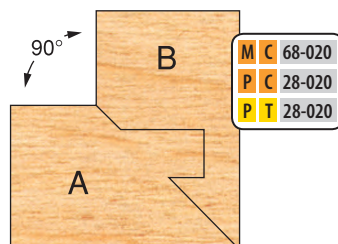
- 3 wing • 5-3/8" diameter
- 1-1/4" bore

Single Tongue & Groove Lock Mitre Cutter (3 Piece Cutter Set)

Counterclockwise rotation only. Mini-Pro is made to run only on 3/4" spindle.

Material to 1-1/8".

Part A and B are both run flat in horizontal position on shaper table. Part B is run again on table saw to cut groove (see diagram).



M	C	68-020
P	C	28-020
P	T	28-020



1-Piece Double Easing Cutters

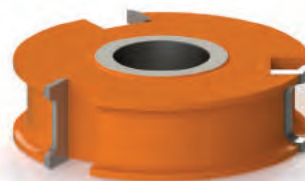
Number				Width	Radius		
M C	71-006	P C	31-006	P T	31-006	3/8"	1/8"
M C	71-008	P C	31-008	P T	31-008	1/2"	1/8"
M C	71-012	P C	31-012	P T	31-012	3/4"	1/8"
M C	71-016	P C	31-016	P T	31-016	1"	1/8"
M C	71-020	P C	31-020	P T	31-020	1-1/4"	1/8"
M C	71-024	P C	31-024	P T	31-024	1-1/2"	1/8"

MINI-PRO cutters

- 3 wing • 2-15/16" diameter
- 3/4" bore

PRO-LINE cutters

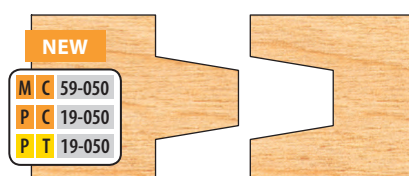
- 3 wing • 4" diameter
- 1-1/4" bore



Custom rub bearings available for these cutters.

Wedge Tongue & Groove

4 Piece Cutters and 6 Spacers



MINI-PRO cutters

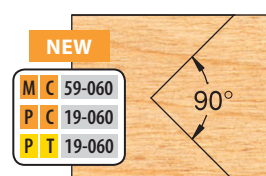
- 3 wing
- 3/4" bore
- 1" material

PRO-LINE cutters

- 3 wing
- 1-1/4" bore
- 1" material

Edge Banding

3 Piece Set



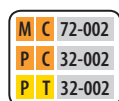
4-Piece Expandable Double Easing Set

MINI-PRO cutters

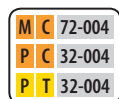
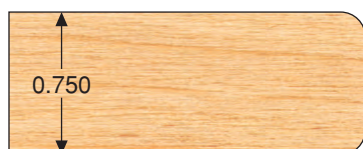
- 3 wing • 2-3/16" minor diameter
- 3/4" bore

PRO-LINE cutters

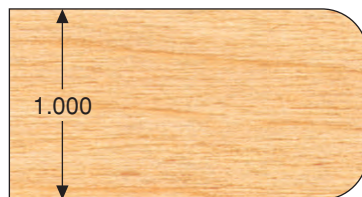
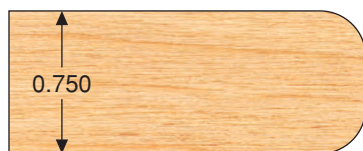
- 3 wing • 3" minor diameter
- 1-1/4" bore



With 1/8" Radius



With 1/4" Radius



Each set includes 2 cutters and 2 spacers to cut 3/4", 1", 1-1/4" and 1-1/2" material.

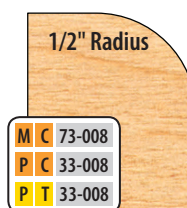
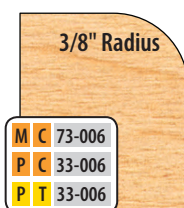
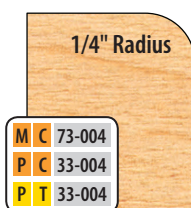
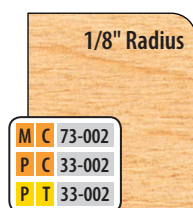
Extended Corner Rounds

MINI-PRO cutters

- 3 wing • 2-15/16" diameter
- 3/4" bore

PRO-LINE cutters

- 3 wing • 4" diameter
- 1-1/4" bore



Counterclockwise rotation with face down. For up to 1-1/4" material.

Ball Bearing Rub Collars

Number	Bore	Diam.
AM 90-026	3/4"	1-5/8"
AM 90-027	3/4"	1-11/16"
AM 90-033	3/4"	2-1/16"
AM 90-035	3/4"	2-3/16"
AM 90-039	3/4"	2-7/16"
AM 90-047	3/4"	2-15/16"

Number	Bore	Diam.
AP 90-036	1-1/4"	2-1/4"
AP 90-040	1-1/4"	2-1/2"
AP 90-044	1-1/4"	2-3/4"
AP 90-048	1-1/4"	3"
AP 90-049	1-1/4"	3-1/16"
AP 90-052	1-1/4"	3-1/4"
AP 90-056	1-1/4"	3-1/2"
AP 90-060	1-1/4"	3-3/4"
AP 90-064	1-1/4"	4"



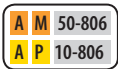
Rub Spacers for Cope & Pattern



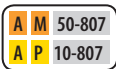
1/4" x 3/8"
tongue



1/4" x 1/2"
tongue



5.5 x 3/8"
tongue



5.5 x 1/2"
tongue



Optional rub spacer available for M-50 and P-10 series cope & pattern sets. Replaces center cutter on cope side.

T-Bushings

Choose from

• **Long Style** - for 3 to 6 Cutter Sets. Consists of 1 long and 1 short T-Bushing.

• **Short Style** - for Single Cutters. Consists of 2 short T-Bushings.

• **Double Sided** - to run between Cutter and Bearing.

Long Style

Number	Bore	Width
AM 91-008	1/2"	3/4"
AX 91-012	3/4"	1"
AP 91-012	3/4"	1-1/4"
AP 91-016	1"	1-1/4"
AP 91-016 XL*	1"	1-1/4"
AP 91-017	30mm	1-1/4"
AP 91-018	1-1/8"	1-1/4"

Short Style

Number	Bore	Width
AM 92-008	1/2"	3/4"
AX 92-012	3/4"	1"
AP 92-008	1/2"	1-1/4"
AP 92-012	3/4"	1-1/4"
AP 92-016	1"	1-1/4"
AP 92-017	30mm	1-1/4"
AP 92-018	1-1/8"	1-1/4"

Double Sided

Number	Bore	Width
AM 93-008	1/2"	3/4"
AP 93-008	1/2"	1-1/4"
AP 93-012	3/4"	1-1/4"
AP 93-016	1"	1-1/4"
AP 93-018	1-1/8"	1-1/4"

* for use with double sided Cope and Pattern sets

Spacers and Shims

Spacers - Used in a wide range of woodworking applications.

Shims - Sets of 48 color-coded plastic shims for various spacing needs.

Spacers

Number	Bore	Width
AM 94-002	3/4"	1/8"
AM 94-004	3/4"	1/4"
AM 94-006	3/4"	3/8"
AM 94-008	3/4"	1/2"
AM 94-010	3/4"	5/8"
AM 94-012	3/4"	3/4"
AM 94-016	3/4"	1"
AP 94-002	1-1/4"	1/8"
AP 94-004	1-1/4"	1/4"
AP 94-006	1-1/4"	3/8"
AP 94-008	1-1/4"	1/2"
AP 94-010	1-1/4"	5/8"
AP 94-012	1-1/4"	3/4"
AP 94-016	1-1/4"	1"

With an emphasis on safety, this book is a step-by-step guide that will teach you all about the shaper: from basic setups to cutting curved molding profiles to designing shaper jigs that will expand your woodworking potential.



Shims - Sets of 20 metal shims in five thicknesses.

Metal Shims NEW

Number	Bore	Qty.	Thickness
AM 95-012-M	3/4"	4	.003"
AP 95-020-M	1-1/4"	4	.005"
		4	.010"
		4	.015"
		4	.020"

Shims

Number	Bore	Qty.	Color	Thickness	Qty.	Color	Thickness
AM 95-008	1/2"	6	Green	.003"	6	Black	.0125"
AP 95-016	1"	6	Matte	.0075"	6	Yellow	.020"
AP 95-018	1-1/8"	6	Brown	.010"	6	Coral	.030"

Setting Up a Lock Mitre Set

This cutter makes a great joint in wood, but they can be a challenge to set up for a perfect fit. The reason is there are two factors that take place to ensure a proper fit. They are the cutter height and the fence position.

To begin the set-up, install the cutter onto the shaper so the middle height of the cutter and the middle height of the stock is approximately the same size vertically. It won't be perfect, but it is a good starting point. Using stock of the same thickness as you will in your project, run two pieces through horizontally, flip one piece 180 degrees and test fit them. If they are flush, your bit height is set correctly. If not, adjust the bit height by half of the distance that the fit was off. When you have got this step right, you can move on to adjusting the fence.

Diagram 1

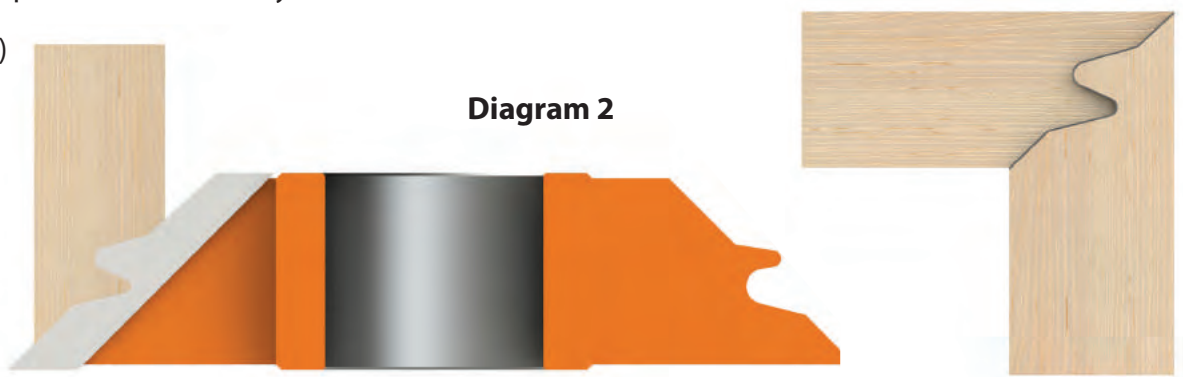
(See diagram 1)



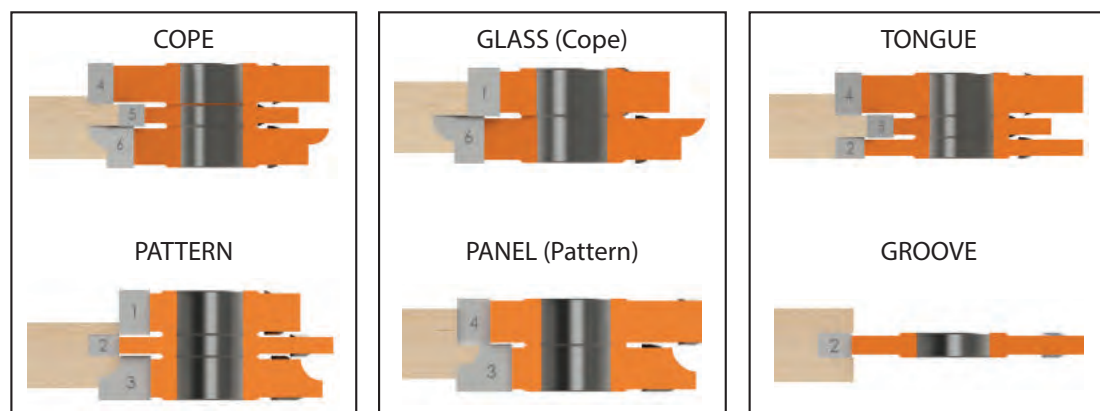
Start by running the test stock vertically against the face of the fence. Once the vertical pieces fit together flush, your set-up should be correctly set.

(See diagram 2)

Diagram 2



Cope & Pattern Stacking Instructions



Each function of the 6 piece cope & pattern set requires a different cutter configuration. For desired results, use the following guide to set up each operation.

REMEMBER: Always stagger cutters when stacking. Never stack wing to wing.

See page 31 for trouble shooting.

M-59-010 / P-19-010

V-Paneling Stacking Instructions

ALWAYS CHECK SPINDLE AND FENCE ALIGNMENT

Each function requires a different cutter configuration. For desired results use the following guide to set up each operation.
0.75" wood thickness shown. (not to scale) These sets do not share a common minor diameter.

SINGLE - V**DOUBLE - V****COPE & PATTERN****DOUBLE SIDED COPE & PATTERN**

M-59-020 / P-19-020

Flooring Set Stacking Instructions

SINGLE - V

(designed to have 0.030" gap)

**RADIUS - V**

(designed to have 0.030" gap)

**STRAIGHT TONGUE & GROOVE**

(designed to have 0.030" gap)

**EXPANDED RADIUS - V****EXPANDED SINGLE - V**

Stack cutters as shown for desired cut.
0.75" wood thickness shown. (not to scale)
These sets do not share a common minor diameter.

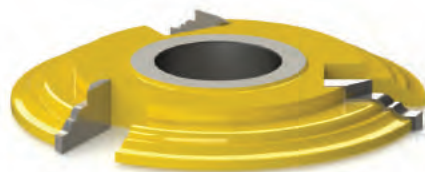
Contact: _____

Company: _____

Phone: _____

Fax: _____

Email: _____



Tool Type: _____

Bore/Shank: _____

Diameter: _____

Rotation: CCW CW

Tipping: Carbide T-Alloy

of Wings: _____

Type: _____

Thickness: _____

Direction: Face Up Face Down

Additional Info: _____

Type: _____

Collet/Spindle Size: _____

Keyway: _____

RPM: _____

Feed Rate: _____

Min./Max. Circle: _____

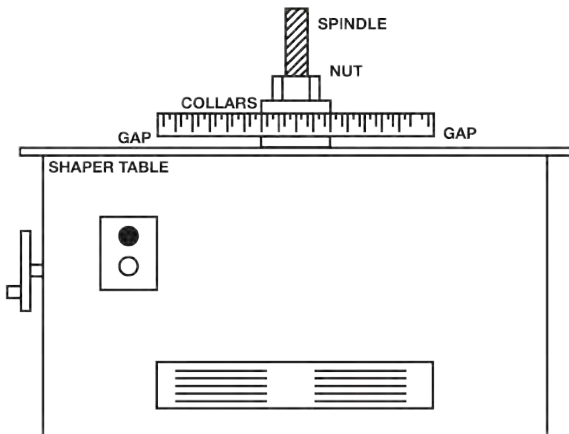
PLEASE DRAW WITH DIMENSIONS AS NEEDED

[illegible]

Ease of Reordering: Every custom-made Freeborn cutter is given careful attention. Each is assigned its own drawing number which is filed for easy reordering reference. The assigned drawing number allows us to quickly duplicate the exact profile to your original specifications.

Toll Free in the U.S. and Canada 1-800-523-8988 • Outside the U.S. 1-509-484-3033

Spindle Alignment



Before using any shaper cutter always check your spindle to be sure it is square with the shaper table. Misalignment here causes off pattern and fitting problems.

1. Unplug the machine. Remove the fence and cutter.
2. Raise the spindle to its highest position and clamp a 12" - 18" steel straight edge between the collars of the spindle.
3. Lower the spindle until the straight edge almost touches the table top.
4. Rotate the spindle by hand, observing the gap between the table top and the straight edge. If this gap is not uniform, indicating shaft misalignment, shim the spindle cartridge as needed to correct.

Cope and Pattern Troubleshooting

On occasion, we receive calls from our customers that their new Cope and Pattern set does not fit together properly. The problem we hear most frequently is that the tongue fits too loose in the groove. In most cases, these problems are caused by a misaligned shaper spindle.

To check this alignment:

1. Follow the spindle alignment steps as listed above.
2. Next, take the center groover from the pattern side and run a test cut in a piece of wood. Take a pair of calipers and measure the cut in the piece of wood. Our standard groovers have a kerf of .252". If the cut is greater than .252" there is spindle run out, since a groover can't cut a groove greater than its kerf unless it is not cutting perpendicular to the wood. You need to go back and align your spindle, or you can shim your cope side to compensate.

NOTE: If your set has eased edges, you must nest the pattern center groover in the gullet of the cutters above and below. Failure to do so will cause the carbide of the center groover to hit the body of the other cutters. This will cause the fit to be poor, and may result in the center groover bending when the set is tightened on the spindle.

When the problem cannot be determined by these methods, give us a call. You can send the set back to us, along with a wood sample, so we can find out where the problem lies. If the problem is with the cutters, we will correct the set and return them to you at no charge. If there is no problem with the cutters, we will run a wood sample and return it with your cutters to show how the fit should be. **Please note, there is a \$25.00 charge for us to check the set and run the sample if we determine there is no problem with our set.**

Freeborn ***TOOL COMPANY, INC.***



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VERSION: 0717