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*Advancing Cutting Edge  
Technology Since 1946*

**PRODUCT CATALOG**



Since 1946, Simmons Knife & Saw has been a supplier of unique blades to industry. World class quality in manufacturing, innovation in design and product development, and exceptional customer service have become Simmons' trademarks as the company continues to meet constantly changing user demands worldwide. Simmons uses the highest quality steel available to manufacture its extensive selection of sizes and edge types. Ongoing process enhancements and the use of product and quality advancements keep Simmons leading the competition and in the forefront of the cutting edge technology. All of this leads to Simmons being the right partner for your cutting needs. ▼

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**MADE IN THE USA**





Advancing Cutting Edge Technology Since 1946

## Narrow Knife

The Narrow Knife edge blade is a versatile blade designed to slice and peel a variety of soft products. Its sharpened edge produces an accurate and smooth finish while providing extended edge retention when used with grinding wheels specifically matched to the steel and slicing application. Our standard Narrow Knife edge blades are double bevel and produced with carbon steel.

Available in Double Edge



### APPLICATIONS:

Soft Foam • Rubber • Packaging Materials • Fabric • Insulation Material • Vegetables • Cheese • Boneless Meat Products

The following options are available.  
Non-Standard order minimums may apply.

- Single or Double Bevel
- Single or Double Edge
- 180° Degree Twist (double edge only)
- Hard Edge
- Stainless Steel
- Available as Bands or Coils

**Standard Sizes.** Other sizes are available by request. Please contact your Regional Sales Manager.  
For widths smaller than 1/4", please refer to our CNC chart on page 4.

STANDARD	.015"	.016"	.018"	.020"	.022"	.0236"	.025"	.028"	.032"	.035"	
1/4"				S D							6.35mm
3/8"			S D	S D							10mm
7/16"											11mm
1/2"			D	S D					S		12.7mm
5/8"			S D	S D							15mm
3/4"			S D	S D			S		S		19mm
1"				S D			S		S		25mm
1-1/4"			S	S D			S		S		30mm
1-1/2"				S		S	S		S	S	38mm
	0.38mm	0.4mm	0.45mm	0.5mm	0.56mm	0.6mm	0.65mm	0.7mm	0.8mm	0.89mm	<b>METRIC</b>

S = Single Edge D = Double Edge



Narrow Knife Blades used in these industries:  
 PACKAGING FOOD LEATHER FOAM/PLASTIC

See page 27 for cross reference guide.

## Wide Knife

The Wide Knife edge blade is produced from high carbon steel specifically designed to fit a variety of machinery. These blades are joined with precise and uniformly hard welds allowing them to withstand variable feed rates and provide efficient edge retention along with long life.

Simmons offers these blades in both the Tru-Trak® and Ultra Tru-Trak® finish. The Ultra Tru-Trak® blades are finished on all dimensions for minimum deflection or blade movement during operation. Tru-Trak® blades are finished on the front and back edge to aid in the tracking of the blade. All Tru-Trak® and Ultra Tru-Trak® blades are marked with a serial number to ensure the highest level of production control and traceability.

**APPLICATIONS:**

*Rebond • Foam • Leather • Carpet Recycling • Rubber  
• Cork • Packaging Materials • Textiles • Insulation Material*

The following options are available.  
Non-Standard order minimums may apply.

- Single or Double Bevel/Single or Double Edge
- Custom Bevel Geometry
- Tru-Trak® Finish for Better Tracking Performance
- Ultra Tru-Trak® Finish for Best Tracking Performance + Minimum Deflection
- Available as Bands or Coils

**Standard Sizes.** Other sizes are available by request. Please contact your Regional Sales Manager.

WIDTH x THICKNESS	FINISH OPTIONS AVAILABLE	
	TRU-TRAK	ULTRA TRU-TRAK
50mm x 0.6mm		X
2" x .025	X	
50mm x 0.8mm		X
2" x .032	X	
2-1/16" x .035	X	
60mm x 0.6mm	X	X
2-3/8" x .025	X	
60mm x 1mm		X
2-3/8" x .040	X	
2-1/2" x .035	X	
2-3/4" x .035	X	
3" x .035	X	
80mm x 0.6mm	X	X
80mm x 1mm		X
85mm x 1mm		X
3-3/8" x .040	X	
90mm x 1mm		X
95mm x 1.2mm		X
100mm x 1.2mm		X



Simmons offers grinding wheels properly matched to our high quality steel blades and specially-bonded for longer life.

*See page 25 for details.*

Wide Knife Blades used in these industries:  
▼ LEATHER    ▼ FOAM/PLASTIC  
▼ PACKAGING

*See page 27 for cross reference guide.*

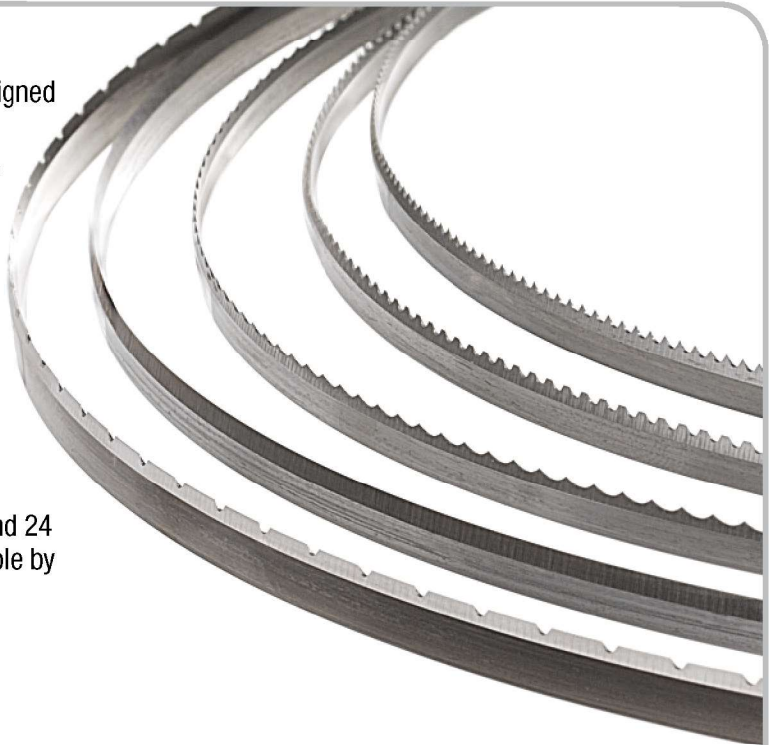


**The Cutting Edge Experts Since 1946**

**CNC**

Simmons produces high quality, affordable blades designed for use in CNC contour foam cutting machinery. CNC blades are manufactured in many edge configurations, allowing you to choose the optimal cutting solution based on your custom requirements.

Knife edge and 24 teeth per inch (TPI) are recommended for soft foams, 18 TPI for medium foams and 14 TPI for heavy foams. The Micro-A and Razorback blades are both excellent options for cutting visco and gel foams. Some cutting applications require a smooth finish, but still need the aggressiveness of a toothed blade. The flat tooth blade gives you just that. It is available in 5, 14, 18, and 24 TPI. Additionally, other tooth configurations are available by quotation.



**APPLICATIONS:**

*Foam (various densities) / Insulation*

The following options are available. Non-Standard order minimums may apply.

- Single or Double Bevel
- Hardened Edge for Blade Retention
- Custom Tooth Configurations Available
- Available as Bands or Cut-to-Length

**Standard Sizes.** Other sizes are available by request. Please contact your Regional Sales Manager.

	Knife	Micro-A	Razorback	11T Flat	14T	14T Flat	18T	18T Flat	24T	24T Flat
3mm x 0.45mm	X	N/A			X		X		X	
3mm x 0.6mm	X	X	X	X	X	X	X	X	X	X
3.6mm x 0.6mm	X	X	X	X	X	X	X		X	X
3.8mm x 0.7mm	X	X	X		X	X	X		X	
4.5mm x 0.65mm	X				X		X		X	
4.5mm x 0.8mm	X	X	X		X	X	X		X	X



CNC Blades used in this industry: **FOAM/PLASTIC**

*See page 27 for cross reference guide.*



# Scallop

Simmons' world famous Scallop blade features a hollow ground cutting edge, meaning each Scallop is individually ground to perfection, resulting in the ultimate slicing blade. Since 1946, this blade has been providing clean, consistent cuts in foam fabricating, food processing, packaging and other special industrial applications.

Standard Scallop blades are produced from carbon steel and have a 1/2" pitch. Stainless Steel blades are available by special request for wet food processing and caustic applications. Many of our cut-to-length Scallop blades have holes or rivets added and are used in reciprocating applications such as bread slicing, meat slicing and packaging.

Available in Double Edge



### APPLICATIONS:

Medium-Heavy Foam • Memory Foam • Insulation Materials • Rubber • Green Ceramic Material • Transformer Coils • Paperboard • Packaging Film and Foil • Plastic Film • Cardboard Tubes • Fiberglass • Boneless Meat • Bread • Vegetables

The following options are available. Non-Standard order minimums may apply.

- Single or Double Bevel
- Single or Double Edge
- 1/4" and 3/8" Pitch Available
- Set Teeth Available
- Hard Edge
- Stainless Steel
- Available as Bands or Coils
- Reciprocating Blades with Rivets and/or Holes

**Standard Sizes.** Other sizes are available by request. Please contact your Regional Sales Manager.

STANDARD	.016"	.018"	.020"	.022"	.0236"	.025"	.028"	.032"	.035"	
1/4"			S							6.35mm
3/8"			S							10mm
7/16"	S									11mm
1/2"			S D			S D		S		12.7mm
5/8"		S D	S	S		S				15mm
3/4"			S D			S		S	S	19mm
1"			S D			S		S	S	25mm
1-1/4"		S	S					S		30mm
1-1/2"									S	38mm
	0.4mm	0.45mm	0.5mm	0.56mm	0.6mm	0.65mm	0.7mm	0.8mm	0.89mm	<b>METRIC</b>

**S** = Single Edge **D** = Double Edge

Scallop Blades used in these industries: **FOOD** **PACKAGING** **FOAM/PLASTIC**

See page 27 for cross reference guide.





# Providing Optimized Cutting Solutions

## Wire

Simmons' Wire blades are used to cut special patterns and shapes out of foam, rock wool and foamglass. These continuous Wire blades are wound so that the outer layer of wire acts as an abrasive when it is pulled through the material being cut. Simmons' Wire blades are available in many different levels of abrasiveness depending on the density or type of product being cut. These blades can be ordered in continuous lengths from 1500mm to 12,000mm. Because of the manufacturing process, rolls of blade wire are not available.



### APPLICATIONS:

*Foam • Non-Woven Materials • Insulation • Rebond • Pipe Insulation*

This chart represents the different types of Wire Blades. They are available in continuous lengths ranging from 1500mm to 12000mm.

	Rock Wool	Calcium Silicate	Flexible Foam	Polystyrene	Rebonded Foam	Foamglass	Phenolic Resin	Rigid Foam
Diameter (Range)	1.5-1.7 mm	1.5-1.7 mm	1.0-1.2 mm	1.5-1.7 mm	1.5-1.8 mm	1.5-1.7 mm	1.2-1.5 mm	1.2-1.5 mm
Stainless Steel Available							X	
Tungsten* Available	X					X		
Molybdenum* Available							X	

\*Tungsten and Molybdenum outer wire wraps offer greater wire life.



Wire Blades used in these industries: PACKAGING FOAM/PLASTIC

See page 27 for cross reference guide.

## V-Tooth

V-Tooth blades are ideal for cutting through medium to heavy foam. It is a suitable replacement for Knife edge blades if your machine does not have an operational grinding system. The tooth penetration of the V-Tooth provides a faster cut than a standard Knife edge blade.

Most standard sizes are available in 10 and 14 teeth per inch (TPI). Many other tooth configurations can be produced; please inquire with our Sales or Customer Service Department. For widths narrower than 1/4" please see our CNC blades on page 4.

### APPLICATIONS:

*Medium-Heavy Foam • Packaging Materials • Plastic Film • Aluminum Honeycomb • Filter Media • Tear-Off Tape Dispensers*

The following options are available. Non-Standard order minimums may apply.

- Single or Double Bevel
- Single or Double Edge
- 180° Degree Twist (double edge only)
- Set Teeth Available
- Tooth Only, No Bevel
- Hard Edge
- Stainless Steel
- 60mm Wide (available by special order)
- Available as Bands or Coils
- Deep tooth available in select sizes for maximum penetration and extended life.

**Standard Sizes.** Other sizes are available by request. Please contact your Regional Sales Manager. For widths smaller than 1/4", please refer to our CNC chart on page 4.

STANDARD	.016"	.018"	.020"	.022"	.0236"	.025"	.028"	.032"	.035"	
1/4"			14S							6.35mm
3/8"		14S 14D 18D	10S 14S 14D							10mm
7/16"										11mm
1/2"			10S 10D 12S 12D 14S 14D			14S 14D				12.7mm
5/8"		10S 10D 14S 14D 18D	10S 10D 14S 14D							15mm
3/4"			10S 10D 14S 14D			14S				19mm
1"			10S 14S 14D							25mm
1-1/4"		10S 14S	10S 14S							30mm
1-1/2"			14S							38mm
2"						10S				
	0.4mm	0.45mm	0.5mm	0.56mm	0.6mm	0.65mm	0.7mm	0.8mm	0.89mm	METRIC

**10S** = 10TPI Single Edge    **14S** = 14TPI Single Edge    **10D** = 10TPI Double Edge    **14D** = 14TPI Double Edge

V-Tooth Blades used in these industries:  PACKAGING  FOAM/PLASTIC

See page 27 for cross reference guide.



**Our Customers' Productivity Is Our Responsibility**

## Wavy

The Wavy edge blade is designed to slice low density foams while providing a nearly dust-free cut. It is often the top choice when cutting fibrous materials because the smooth crest of the waves will not pull on individual fibers when cutting, leaving a smooth and finely finished product. Our standard Wavy edge blades are double bevel with a 3/4" pitch.



**APPLICATIONS:**

- Fabric • Felt • Fibrous Materials • Foam Rubber Products
- Sponges • Vinyl • Leather • Paper • Cardboard • Filter Media

The following options are available.  
Non-Standard order minimums may apply.

- Single or Double Bevel
- Hard Edge
- 1/2" Pitch Available

**Standard Sizes.** Other sizes are available by request. Please contact your Regional Sales Manager.

STANDARD	.016"	.018"	.020"	.022"	.0236"	.025"	.028"	.032"	.035"	
1/4"			X							6.35mm
3/8"										10mm
7/16"										11mm
1/2"			X			X		X		12.7mm
5/8"			X							15mm
3/4"			X			X				19mm
1"			X					X		25mm
1-1/4"		X				X				30mm
1-1/2"										38mm
	0.4mm	0.45mm	0.5mm	0.56mm	0.6mm	0.65mm	0.7mm	0.8mm	0.89mm	<b>METRIC</b>



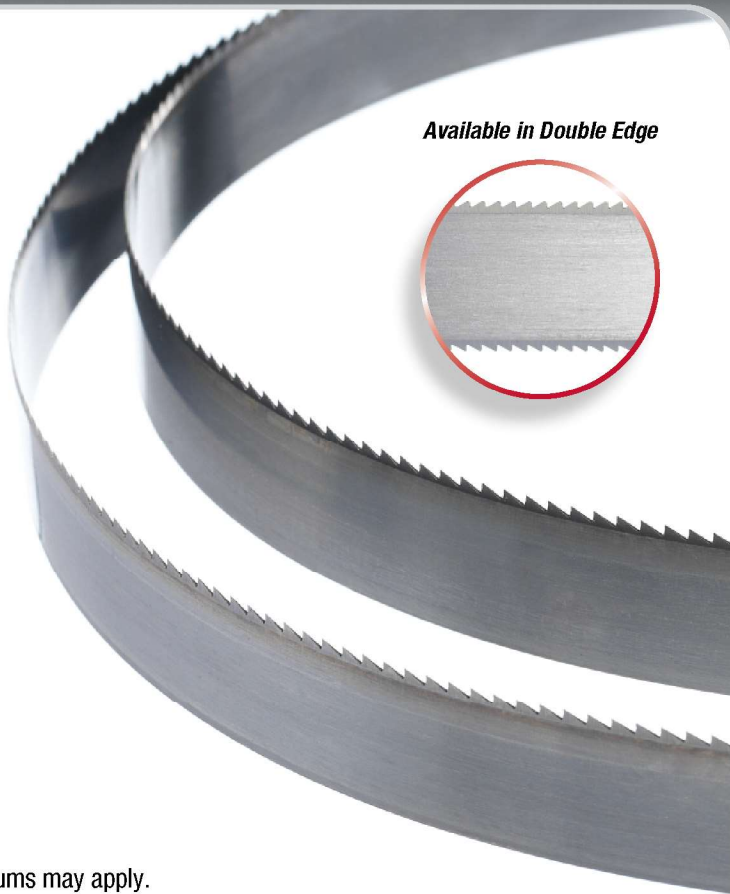
Wavy Blades used in these industries: PACKAGING FOAM/PLASTIC

See page 27 for cross reference guide.

# C-Tooth

Consider using our C-Tooth blade when cutting firm or dense foams. This blade is more aggressive than our standard V-Tooth blade and will provide you with a smooth, clean cut. The vertical edge of the tooth is designed to enter the product first, providing true cutting action. Running the blade in the opposite direction is another option, giving a more gentle slicing action.

Simmons' C-Tooth blades are available in 10 and 14 teeth per inch (TPI) and special tooth configurations can be produced for custom applications. To make this blade even more versatile, Simmons offers the option to set the teeth (teeth bent left and right of center) on both single and double edge versions. This will help the blade track straight in the most difficult cutting applications.



**APPLICATIONS:**

*Medium-Heavy Foam • Packaging Materials • Plastic Film • Aluminum Honeycomb • Filter Media*

The following options are available. Non-Standard order minimums may apply.

- Single or Double Bevel
- Single or Double Edge
- 180° Degree Twist (double edge only)
- Set Teeth Available
- Tooth Only, No Bevel
- Hard Edge
- Stainless Steel
- Available as Bands or Coils

**Standard Sizes.** Other sizes are available by request. Please contact your Regional Sales Manager.

STANDARD	.016"	.010"	.020"	.022"	.0236"	.025"	.020"	.032"	.035"	
1/4"										6.35mm
3/8"		14D	14D							10mm
7/16"										11mm
1/2"			10D 14S 14D							12.7mm
5/8"		14S 14D								15mm
3/4"			10S 10D							19mm
1"			10S							25mm
1-1/4"										30mm
1-1/2"										38mm
	0.4mm	0.45mm	0.5mm	0.56mm	0.6mm	0.65mm	0.7mm	0.8mm	0.89mm	<b>METRIC</b>

**10S** = 10TPI Single Edge    **14S** = 14TPI Single Edge    **10D** = 10TPI Double Edge    **14D** = 14TPI Double Edge

C-Tooth Blades used in these industries: **PACKAGING** **FOAM/PLASTIC**

See page 27 for cross reference guide.



**The One Source for All of Your Cutting Needs**

## Razorback

Combining the cutting action of our V-Tooth blade with the slicing action of our Scallop blade has helped Simmons' Razorback blade to become a favorite in the foam fabrication industry. When cutting medium density foams, the Razorback produces less dust when compared to that of a more aggressive blade.

Available in Double Edge



### APPLICATIONS:

*Medium-Heavy Foam*

The following options are available.  
Non-Standard order minimums may apply.

- Single or Double Bevel
- Single or Double Edge
- Hard Edge
- Stainless Steel
- Available as Bands or Coils

**Standard Sizes.** Other sizes are available by request. Please contact your Regional Sales Manager.  
For widths smaller than 1/4", please refer to our CNC chart on page 4.

STANDARD	.016"	.018"	.020"	.022"	.0236"	.025"	.028"	.032"	.035"	
1/4"										6.35mm
3/8"										10mm
7/16"										11mm
1/2"			S							12.7mm
5/8"										15mm
3/4"			S							10mm
1"			S							25mm
1-1/4"			S							30mm
1-1/2"										38mm
	0.4mm	0.45mm	0.5mm	0.56mm	0.6mm	0.65mm	0.7mm	0.8mm	0.89mm	<b>METRIC</b>

S = Single Edge D= Double Edge



Razorback Blades used in this industry: **FOAM/PLASTIC**

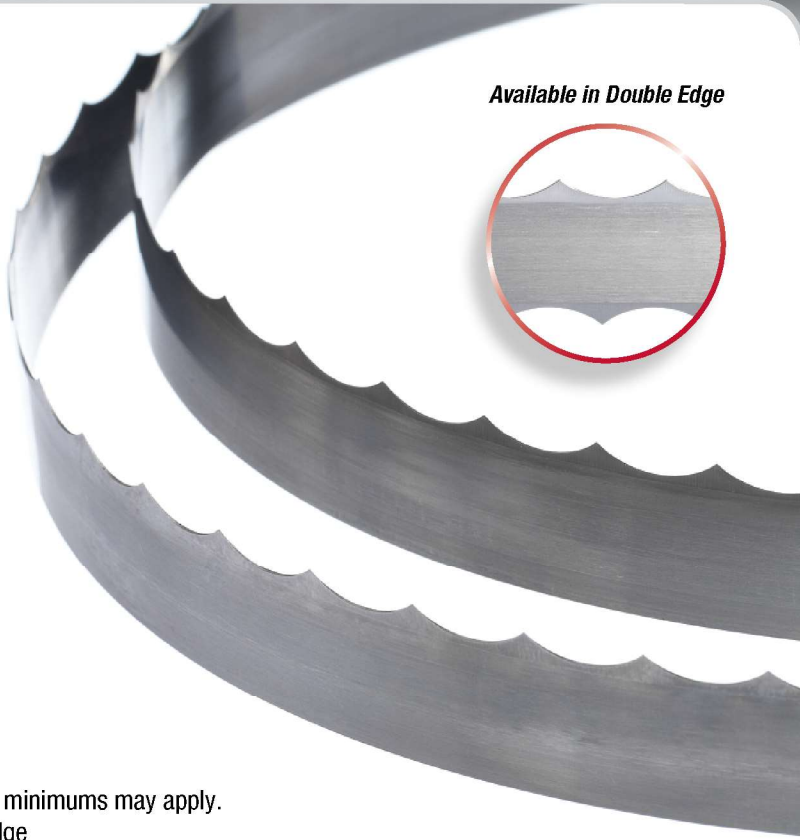
See page 27 for cross reference guide.



# Apex

The Apex blade is similar in design to the Scallop blade when you look at the convex profile. The Apex has a straight grind, whereas the Scallop has individually ground gullets. The standard Apex blade is produced from carbon steel and has a 1/2" pitch. While the Apex offers less penetration than the Scallop blade, it does have greater penetration than either the Knife Edge blades or the V-Tooth blades. If you like the Scallop blade, but its price is prohibitive, the Apex may be the right solution for your project.

*Available in Double Edge*



**APPLICATIONS:**

*Light-Medium Foam • Rubber • Cardboard Tubes •  
Fiber Insulation • Boneless Meat • Fruits • Vegetables*

The following options are available. Non-Standard order minimums may apply.

- Single or Double Bevel
- Single or Double Edge
- 1/4" and 3/8" Pitch Available
- Set Teeth Available
- Hard Edge
- Stainless Steel
- Available as Bands or Coils

**Standard Sizes.** *Other sizes are available by request. Please contact your Regional Sales Manager.*

STANDARD	.016"	.018"	.020"	.022"	.0236"	.025"	.028"	.032"	.035"	
1/4"										6.35mm
3/8"										10mm
7/16"										11mm
1/2"			S D							12.7mm
5/8"										15mm
3/4"										19mm
1"										25mm
1-1/4"										30mm
1-1/2"										38mm
	0.4mm	0.45mm	0.5mm	0.56mm	0.6mm	0.65mm	0.7mm	0.8mm	0.89mm	METRIC

**S** = Single Edge   **D** = Double Edge

Apex Blades used in these industries: ▼ **FOOD**   ▼ **PACKAGING**   ▼ **FOAM/PLASTIC**

*See page 27 for cross reference guide.*



**Leaders in Industrial Cutting Technology**

## Leather Splitting

Simmons' Leather Splitting blades have been the standard of the splitting industry since their development in 1992 and are produced from the finest high carbon steel, joined with precise, finely finished, uniformly hard welds. Leather Splitting blades are used in many leather processing applications ranging from leather tanneries to splitting leather for shoes, belts, straps and other small leather goods.

The 85mm x 1.2mm steel used for leather splitting band knives in tanneries is polished and tempered in three Rockwell hardness levels; Low (41-43 RC for lime splitting), Medium (44-47 RC for wet blue / chrome splitting) and High (48-52 RC for dry splitting). These blades are not limited to just leather splitting. They can also be used for rubber splitting, textiles and carpet recycling.

Leather Splitting blades used for smaller leather goods including shoes, belts and handbags are welded to lengths determined by the original equipment manufacturer (OEM), many of which are listed below. Although some of these companies have merged or are no longer selling splitting machines, Simmons can still supply the required blade.

- Albeko
- Ellegi
- Nippy Kikai
- Alberti
- Fortuna
- Omsa
- Camoga
- Moenus Scianora
- Sysco

Simmons offers these blades in both the Tru-Trak<sup>®</sup> and Ultra Tru-Trak<sup>®</sup> finish. The Ultra Tru-Trak<sup>®</sup> blades are finished on all dimensions for minimum deflection or blade movement during operation. Tru-Trak<sup>®</sup> blades are finished on the front and back edge to aid in the tracking of the blade. All Tru-Trak<sup>®</sup> and Ultra Tru-Trak<sup>®</sup> blades are marked with a serial number to assure the highest level of production control and traceability.

**Standard Sizes.** Other sizes are available by request. Please contact your Regional Sales Manager.

STANDARD	.018"	.020"	.0236"	.028"	.032"	.047"	
1-1/2"	X	X	X				40mm
2"			X	X	X		50mm
3-3/8"						X	85mm
	0.45mm	0.5mm	0.6mm	0.7mm	0.8mm	1.2mm	<b>METRIC</b>

Leather Splitting Blades used in this industry: **LEATHER**

See page 27 for cross reference guide.



## Special Notch

Special Notch is a modified Knife edge blade with an angular notch every 1/4". This promotes penetration while maintaining a clean cut. This blade can be used if knife grinders are not present but a dust-free cut is necessary. If knife grinders are operational, the Special Notch blade can be resharpened to extend the life of the blade.

### APPLICATIONS:

*Light-Medium Foam • Non-Woven Materials*

The following options are available.  
Non-Standard order minimums may apply.

- Single or Double Bevel
- Other Pitches Available Upon Request
- Hard Edge
- Available as Bands or Coils



Special Notch Blades used in this industry: ▼ **FOAM/PLASTIC**

*See page 27 for cross reference guide.*

## Honeycomb

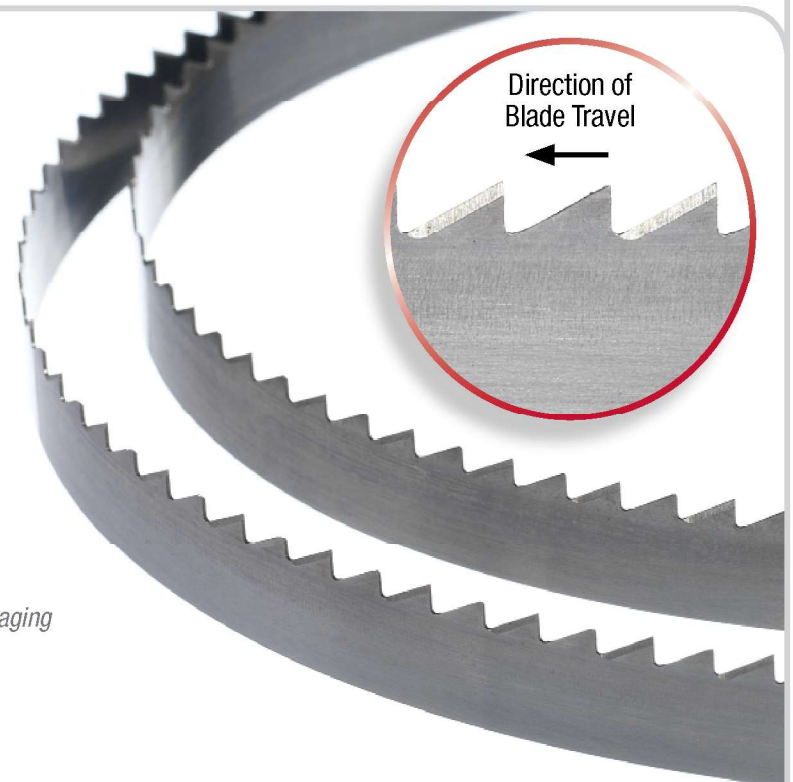
Simmons' Honeycomb blade is intended to cut with the teeth facing backward and has alternating bevels on the back of the teeth, allowing the blade to cut very aggressively without removing material or damaging the fragile material being cut. This is the blade of choice for open cell materials when a "fuzz-free" cut is necessary. Because the tooth face is ground, we recommend that the thickness of the blade be at least 0.7mm or .028". All standard Honeycomb blades have 4 teeth per inch, with no set.

### APPLICATIONS:

*Aerospace Panels • Various Honeycomb Materials • Packaging*

The following options are available.  
Non-Standard order minimums may apply.

- Multiple Set Options
- Hard Edge
- Available as Bands or Coils



Honeycomb Blades used in this industry: ▼ **PACKAGING**

*See page 27 for cross reference guide.*





Providing Optimized Cutting Solutions

## Hardback

Hardback blades are ideal for straight cuts in medium to high density urethane and polyurethane foams, wood, non-ferrous metals and non-hardened mild steel. It has hardened teeth and a hardened back, which allows it to be tightened to a greater tension than the Flexback. This greater tension combined with the set teeth allow the blade to achieve a very straight cut and increased blade life.

**APPLICATIONS:**

*Medium-Heavy Foam • Non-ferrous Metals • Mild Steel • Wood Products Including Doors, Furniture, Cabinetry, Pallets, Crates, Packaging, etc.*

The following options are available.  
Non-Standard order minimums may apply.

- Multiple Set Patterns
- Available as Bands or Coils



**Standard Sizes.** Other sizes are available by request. Please contact your Regional Sales Manager.

HARDBACK WIDTH x THICKNESS	SET/TOOTH PROFILE		
	RAKER	WAVY	HOOK
1/4" x .025	10, 14	N/A	4, 6
3/8" x .025	10	N/A	6
1/2" x .025	6, 10, 14	N/A	6
3/4" x .032	8, 10, 14	12	N/A
1" x .035	10	N/A	1.3

Numbers in chart represent teeth per inch (TPI).



Hardback Blades used in these industries:  
 ▼ PACKAGING ▼ FOAM/PLASTIC ▼ WOOD/METAL

See page 27 for cross reference guide.

# Flexback/Furniture Band

Flexback blades are ideal for straight or radius cuts in medium to high density polyurethane and urethane foams, wood, non-ferrous metals and non-hardened mild steel. It has hardened teeth, but a relatively soft back. The set pattern allows for a straight cut.

Furniture Band is thicker than Flexback and Hardback and also has a wider kerf to allow for improved radius cuts. This blade is able to withstand heavier twisting required in tight radius cutting applications often found in wood furniture manufacturing.

**APPLICATIONS:**

*Medium-Heavy Foam • Non-ferrous Metals • Mild Steel • Wood Products Including Doors, Furniture, Cabinetry, Pallets, Crates, Packaging, etc.*

The following options are available. Non-Standard order minimums may apply.

- Multiple Set Patterns
- Available as Bands or Coils



**Standard Sizes.** Other sizes are available by request. Please contact your Regional Sales Manager.

FLEXBACK	SET/TOOTH PROFILE			
WIDTH x THICKNESS	RAKER	WAVY	SKIP	HOOK
3/16" x .025	10, 14	N/A	4	N/A
1/4" x .025	10, 14, 18	N/A	4	4, 6
3/8" x .025	10, 14	N/A	N/A	3, 4, 6
1/2" x .014	14	N/A	N/A	N/A
1/2" x .020	10	14	N/A	N/A
1/2" x .025	6, 10, 14, 18	14, 18, 24	N/A	3, 4, 6
3/4" x .032	6, 10, 14, 18	N/A	N/A	2, 3, 4, 6
1" x .035	6, 8, 10	N/A	N/A	1.3, 2, 3, 4

FURNITURE BAND	SET/TOOTH PROFILE			
WIDTH x THICKNESS	RAKER	WAVY	SKIP	HOOK ETS
1/4" x .032	N/A	N/A	N/A	4
3/8" x .032	N/A	N/A	N/A	3, 4
1/2" x .032	N/A	N/A	N/A	3, 4
3/4" x .032	N/A	N/A	N/A	3

Numbers in chart represent teeth per inch (TPI).

Flexback/Furniture Blades used in these industries: ▼ PACKAGING ▼ FOAM/PLASTIC ▼ WOOD/METAL

*See page 27 for cross reference guide.*





**Advancing Cutting Edge Technology Since 1946**

## Bi-Metal M42

Simmons' Bi-Metal blades have especially hard tooth tips made of M42 high speed steel and an alloy backing with 4% chromium to allow the blades to withstand the severe stresses exerted by modern high production band saw machines. They are excellent for cutting all metals with a hardness maximum of 50 on the Rockwell C scale. They last approximately ten times longer than regular carbon steel band saw blades, which leaves you with far less down time for changing blades and a reduced cost per cut. Bi-Metal blades are advantageous to use for materials that are difficult to cut due to their hardness or their abrasiveness.



### APPLICATIONS:

*Steel • Stainless Steel • Space Age Alloys • Hard Woods • Honeycomb Composites • Pallets*

The following options are available. Non-Standard order minimums may apply.

- Multiple Set Patterns
- Available as Bands or Coils

**Standard Sizes.** Other sizes are available by request. Please contact your Regional Sales Manager.

WIDTH x THICKNESS	SET/TOOTH PROFILE		
	REGULAR TOOTH RAKER SET	HOOK TOOTH RAKER SET	VARITooth
3/8" x .025	N/A	N/A	10/14
1/2" x .025	10, 14	N/A	6/10, 10/14
1/2" x .035	N/A	4	10/14
3/4" x .035	N/A	N/A	4/6*, 6/10, 8/12, 10/14
1" x .035	4	N/A	2/3*, 4/6*, 5/6*, 5/8, 6/10, 8/12, 10/14
1-1/4" x .042	N/A	N/A	2/3*, 3/4*, 5/8

\*Indicates tooth profile has a positive rake angle. Numbers in chart represent teeth per inch (TPI).



Bi-Metal M42 Blades used in this industry: **WOOD/METAL**

See page 27 for cross reference guide.

## Carbide Grit/Carbide Tipped

The Carbide Grit blades are specifically designed to cut hard, brittle and fibrous materials. The band saw blades are available in continuous and gulletted cutting edges. Gulletted bands have greater penetration and greater flex or fatigue life than continuous bands; smaller band saw wheels will certainly see greater life with the gulletted bands. Select finer grit for a finer finish, very thin materials and fragile materials which have a tendency to chip easily. Use coarser grit for faster cutting, thicker materials and metal work.

Simmons offers Tungsten Carbide Tipped band saw blades for the cutting of exceptionally hard or abrasive materials. Designed to withstand more heat generating from cutting high temperature alloys, Tungsten Carbide is superb for cutting exotic metals. It is available in regular raker tooth, positive rake and triple chip grind.



### CARBIDE GRIT APPLICATIONS:

*Ceramic Tiles • Glass • Laminates • Cast Iron • Fiberglass • Composites • Concrete Reinforced Pipe • Hardened Tool Steel • Sheet Metal • Wall Board • Wire Reinforced Hose*

### CARBIDE TIPPED APPLICATIONS:


*Uranium • Beryllium • Hastalloy • Cast Iron • Titanium • Inconel • Waspalloy • Monel • Foam Glass*

The following options are available. Non-Standard order minimums may apply.

- Continuous or Gulletted Edge
- Available as Bands or Coils

*Available sizes are shown below. Minimums and lead times may vary. Please contact your Regional Sales Manager.*

CARBIDE GRIT ONLY	GULLETED			CONTINUOUS	
	MEDIUM	MED-COARSE	COARSE	MEDIUM	COARSE
1/4" x .020				X	
3/8" x .025	X	X			
1/2" x .025	X	X		X	
3/4" x .032		X	X		
1" x .035		X	X	X	X
1-1/4" x .042			X		

Carbide Grit/Carbide Tipped Blades used in this industry: 

*See page 27 for cross reference guide.*



**Leaders in Industrial Cutting Technology**

**Simcor®**

The Simcor® blade features a hook tooth with a light set to minimize the amount of dust. It is available in 8 and 10 teeth per inch (TPI) with a hardened cutting edge to help the blade achieve a straight cut through denser and more rigid products.

Simcor® is the preferred blade for use with packaging materials that are wrapped around a cardboard core.

**APPLICATIONS:**

- Rigid Foam • Cardboard • Packaging • Bubble Wrap • Bone & Tissue Processing

The following options are available.  
 Non-Standard order minimums may apply.  
 • Stainless Steel



**Standard Sizes.** Other sizes are available by request. Please contact your Regional Sales Manager.

STANDARD	.016"	.018"	.020"	.022"	.0236"	.025"	.028"	.032"	.035"	
1/4"										6.35mm
3/8"										10mm
7/16"	10S									11mm
1/2"				10C						12.7mm
5/8"				8S, 10S						15mm
3/4"				10C						19mm
1"										25mm
1-1/4"										30mm
1-1/2"										38mm
	0.4mm	0.45mm	0.5mm	0.56mm	0.6mm	0.65mm	0.7mm	0.8mm	0.89mm	<b>METRIC</b>

8S = 8TPI Stainless Steel, 10S = 10TPI Stainless Steel, 10C = 10TPI Carbon Steel



Simcor Blades used in these industries: PACKAGING FOAM/PLASTIC

See page 27 for cross reference guide.



## B-III

The B-III is a convex blade with a standard 3/4" pitch that slices aggressively in soft product applications without creating dust or ragged edges. It is very effective in cutting materials such as fiber, non-woven products or foam where conventional blades may tear or pull on the product being cut. The B-III stays sharper longer as a result of the standard hardened cutting edge. Benefits of this blade include less dust, excellent penetrating capabilities and an increase in yield (particularly in boneless meat cutting applications).



**APPLICATIONS:**

*Boneless (Bone-out) Meat Products • Poultry  
• Foam Products • Fabric • Fiber • Non-Woven Materials*

The following options are available.  
Non-Standard order minimums may apply.

- 1/4" Pitch Available
- With/Without Hard Edge
- Stainless Steel
- Available as Bands or Coils
- Reciprocating Blades with Rivets and/or Holes

**Standard Sizes.** Other sizes are available by request. Please contact your Regional Sales Manager.

STANDARD	.016"	.018"	.020"	.022"	.0236"	.025"	.028"	.032"	.035"	
1/4"										6.35mm
3/8"										10mm
7/16"										11mm
1/2"			X							12.7mm
5/8"				X						15mm
3/4"										19mm
1"			X							25mm
1-1/4"										30mm
1-1/2"										38mm
	0.4mm	0.45mm	0.5mm	0.56mm	0.6mm	0.65mm	0.7mm	0.8mm	0.89mm	<b>METRIC</b>

B-III Blades used in these industries: ▼ **FOOD** ▼ **FOAM/PLASTIC**

*See page 27 for cross reference guide.*

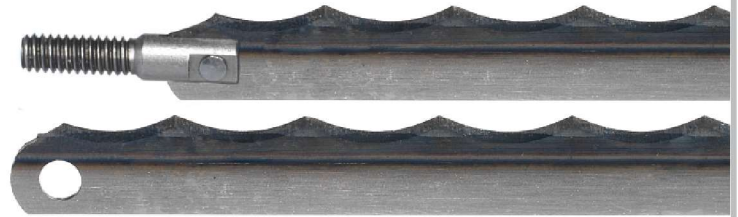


**The Cutting Edge Experts Since 1946**

## Bread Slicing Blades

Simmons' first product was the reciprocating bread slicer blade and, of course, much has evolved since 1946 but the reciprocating bread slicing blade is still widely used. Always manufactured from the finest carbon steel available, the hard edged disposable blade was first created and introduced to the bread slicing industry by Simmons and remains the standard against which all others are measured. The standard is a 1/2" pitch scalloped edge but there are several configurations of widths, lengths, mounting hole locations, rivets, and holders for mounting blades into slicing machines. Simmons' blades will always yield fast clean cuts with a minimum of crumbs for all types of bread.

Listed below are the more typical slicers and blades that are used. If you are unsure of the type of slicer and/or blade that you require, please measure the overall length of the blade, the distance from the centers of the holes



or mounting rivets, and be able to describe the types of rivets or holders to your Regional Sales Manager or customer service representative. We are able to produce most types of slicer blades.

If you have needs for a blade other than the typical slicer blade, Simmons has the capability to produce blades with a great range of edge types, sizes, and configurations. Simmons can provide different sized holes, custom mounting devices and stainless steel blade material, all available in your required width/thickness/length.

PART NUMBER	SLICING MACHINE MANUFACTURER/MODEL	
R303	Oliver – 709, 711, 732, 758, 777 and 797	
R303S	Oliver, Stainless Steel – 709, 711, 732, 758, 777 and 797	
R345	Berkel – MB	
R126	Micro Wesco Automatic Junior, Senior, Heavy Duty	
R310	Micro Wesco Midget Deluxe 14"	
S106	Hartman – Ace Counter Gravity 50-80	



Bread Slicing Blades used in this industry: FOOD

See page 27 for cross reference guide.



## Bread Slicing Bands

Simmons' bread slicing Scallop bands are produced in matched sets so they can be installed on commercial bread slicers. The Scallop blades feature a hollow ground cutting edge, meaning each Scallop is individually ground to perfection, resulting in the ultimate slicing blade. This superior cutting edge produces less crumbs (some customers have seen reductions up to 50%) and leaves no pilling on the bread while giving clean, straight cuts.

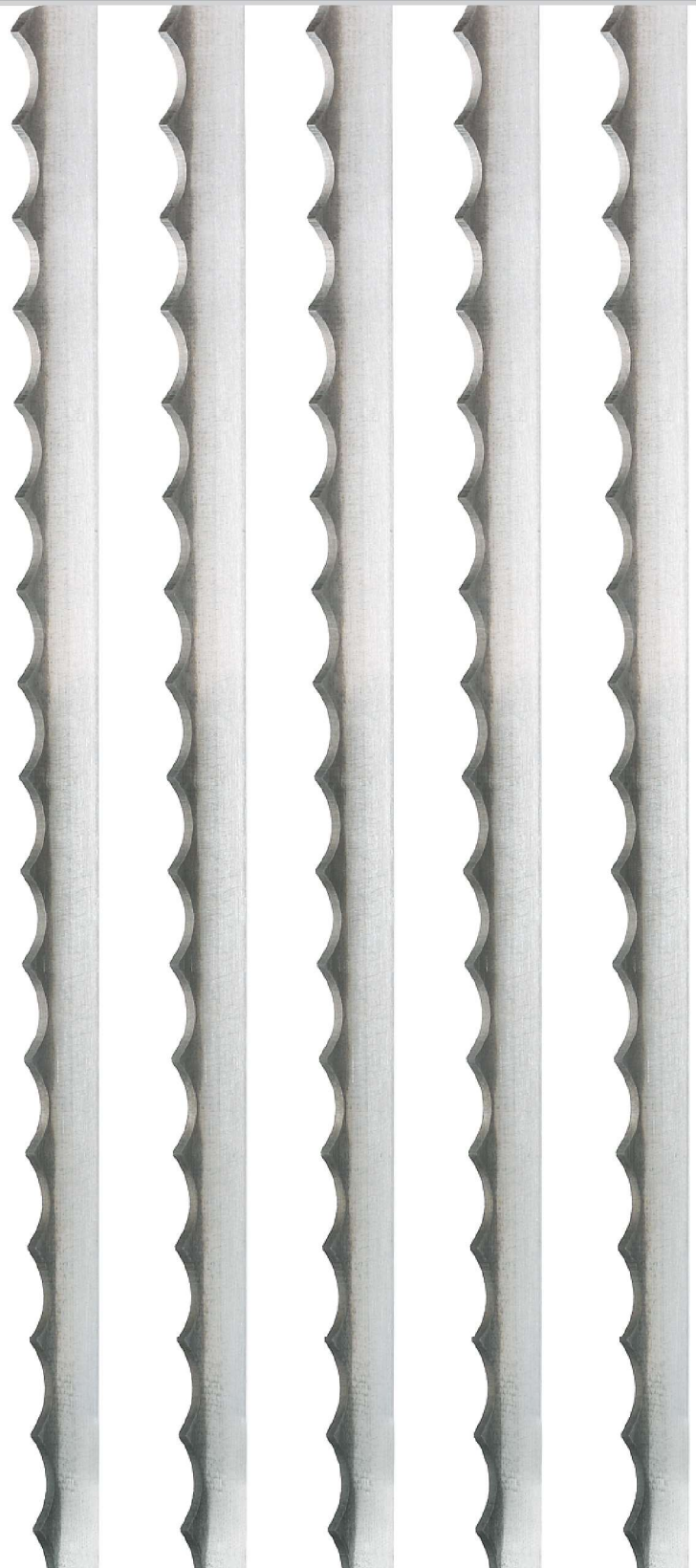
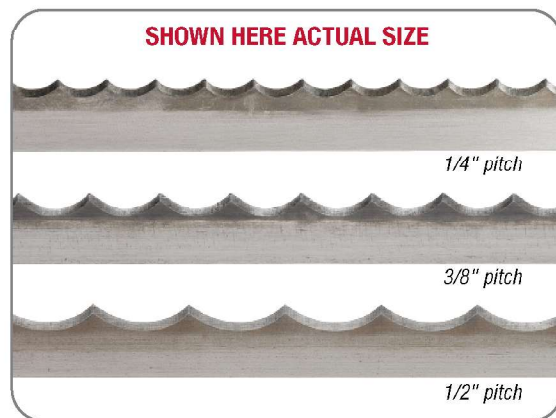
The standard blade is 3/8" x .016" with a 3/8" pitch. This has proven to work well on all types of bread, sometimes lasting 2-3 times longer than the leading competitor. All of these factors contribute to less maintenance/down time, which equals cost savings for our customers.


### APPLICATIONS:

*Bread*

The following options are available.  
Non-Standard order minimums may apply.

- 1/4" Pitch
- 1/2" Pitch
- Hard Edge
- Variable Set Quantities



Food Slicing Blades used in this industry: 

See page 27 for cross reference guide.





Providing Optimized Cutting Solutions

## SimCut® Butcher

SimCut® Butcher Blades are produced using a specialized steel with a superior tooth configuration, precise hardening, and a strict length tolerance. These features provide the strength and durability to withstand high volume and heavy duty operations. This specially designed blade helps lower cutting costs by providing longer blade life while yielding fast clean cuts with less waste.

Simmons' DuraSplit carcass splitting blade uses a unique steel composition specially formulated to extend blade life. This, combined with a wider blade width and aggressive tooth profile, provide the beam strength and durability needed to meet the demanding workload of carcass splitting.

### APPLICATIONS:

- Beef • Pork • Fish • Poultry • Heavy Foam • Plastic
- Cardboard Tubes • Packaging Materials
- Polyethylene Foam

The following options are available.  
Non-Standard order minimums may apply.

- Available as Bands or Coils



**Standard Sizes.** Other sizes are available by request. Please contact your Regional Sales Manager.

STANDARD	.014	.016"	.020"	.022"	.025"	.032"	.035"	
5/8"	3	3, 4	3, 4	3, 4	3, 4			15mm
3/4"				3, 4	3, 4			19mm
1"						3, 4	4	25mm
		0.4mm	0.5mm	0.56mm	0.65mm	0.8mm	0.89mm	METRIC

Numbers in chart represent teeth per inch (TPI).



Butcher Blades used in these industries: PACKAGING FOOD FOAM/PLASTIC

See page 27 for cross reference guide.

## Food Slicing Blades

Simmons offers a full line of replacement blades for use with Grote\* slicers and other similar slicing machines. Starting with high carbon steel with precise bevel geometry for consistent slicing, the cutting edge is hardened for longer blade life, then treated with food grade oils for corrosion resistance. Standard edge types include Knife, V-Tooth and Scallop.

### APPLICATIONS:

*Deli Meats • Cheese • Turkey • Beef • Beef Jerky • Bacon • Fruits • Ground Meat Products • Pepperoni for Frozen Pizza • Vegetables*

The following options are available.  
Non-Standard order minimums may apply.

- Stainless Steel
- Available as Bands or Coils



Simmons offers replacement blades for use with Grasselli\* slicers and other similar slicers for meat and poultry products. The standard blades are produced with stainless steel and are available in four different cutting edges: Knife, Butcher (4TPI & 6TPI), Scallop and Mini-B. Our unique Mini-B edge is a convenient alternative to the standard Knife edge. It saves time and money by eliminating the hassles of resharpening.

### APPLICATIONS:


*Bone-In Meats • Boneless Meats • Breads*



*The blades shown in this chart are standard stocked items. Many other width/thickness variations are available. Please contact your Regional Sales Manager.*

DIMENSIONS	SIMMONS PART NUMBER				
	Knife	Butcher – 4TPI	Butcher – 6TPI	Scallop	Mini-B
10mm x .5mm x 17-5/8"	P2131	N/A	N/A	P2152	
10mm x .5mm x 28"	P2116	N/A	N/A		
5/8" x .020 x 17-5/8"	P1094	N/A	N/A	P2026	P2000
5/8" x .022 x 17-5/8"	P2065	P2019	P1093	P2025	P2066

\*All products listed on this page are manufactured by Simmons Knife & Saw. Simmons is not affiliated with, endorsed by, or sponsored by Grote Company, Inc., Grasselli S.p.A., Grasselli USA, Inc., or any of their subsidiaries or affiliates.

Food Slicing Blades used in this industry: 

*See page 27 for cross reference guide.*



**The One Source for All of Your Cutting Needs**

## Accessories

### SimCut® 1200 Silicone Lubricant

SimCut® 1200 is formulated to be used on cutting blades and guides used to cut foam and other similar products. It reduces product build-up, allowing blades to cut foam without pulling and creates a smooth slick surface, allowing you to slide foam products across cutting tables. This product is non-staining on most materials, is colorless and contains no nauseous chemicals or smells. Please test on sample material first for any changes in material before using on production material or equipment.

**APPLICATIONS:** *Foam*

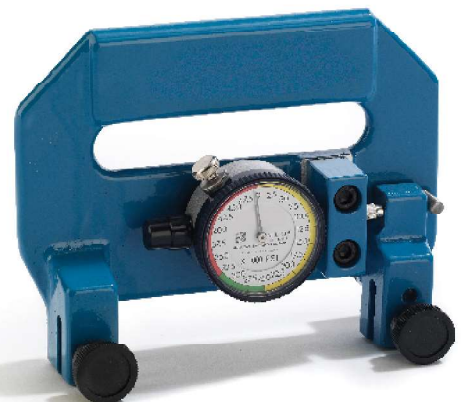


Silicone Lubricant used in this industry: **FOAM/PLASTIC**

*See page 27 for cross reference guide.*

### Tension Meter

Simmons suggests setting blade tension with a tension meter each time you put a new blade on or perform machine maintenance. This will reduce your operating costs in several ways: increased blade life, increased production time and reduced machine maintenance costs. Blades that are over tensioned can become stressed and may start showing signs of premature fatigue in the form of cracks on the back edge of the blade or in the gullet area between the teeth. Over tensioning will also start to pull the blade apart and will cause premature wear on the drive wheels and bearings. At the other end of the spectrum, too little tension on a blade can cause cracking along the back edge or a mushrooming effect along the back edge of the blade. This is caused by the blade being pushed back into the blade guide(s) as it is cutting the product.



*Ask your Regional Sales Manager for a complete list of blade tension recommendations*

**APPLICATIONS:** *All Manually Tensioned Band Saws*

*Tension Meter used in these industries:*

**METAL/WOOD LEATHER FOOD PACKAGING FOAM/PLASTIC**

*See page 27 for cross reference guide.*



## Grinding Wheels

Simmons offers a full line of Grinding Wheels of all types (Flat, Cupped and Flared) made to be compatible with our blades. Our conventional vitrified abrasive wheels grind faster and cooler, last longer and they require fewer dressings than most other wheels.

A ceramic wheel is available in the 200mm, 6" and 8" diameter wheels. This wheel will last longer and grind cooler than a conventional wheel and can also extend the life of a blade. A Borazon wheel is used to polish the grinding edge and will add life to the blade, allowing you to cut foam that you were unable to cut before. This wheel can also last up to 10 times longer than the conventional grinding wheel.



### HELPFUL TIPS:

- Ringing a grinding wheel helps you make sure the wheel you are installing is not damaged. Hold your wheel through the arbor hole with a screwdriver or pencil and extend, making sure it is not in contact with anything. Lightly tap the wheel with the pen or pencil. If you have a ringing sound the wheel is good; if you hear a clunk sound it is damaged and should not be used.
- Redress the grinding wheel if you observe loading or glazing. One probable cause of this is using a wheel of the wrong grit or hardness.
- Borazon grinding wheels produce less sparks, decreasing a fire hazard by build-up of grinding dust.

GRINDING WHEEL TYPE/SIZE	BLADE WIDTH							
	3.0mm 3.6mm 3.8mm 4.5mm	10mm 12mm 15mm 19mm 25mm	3/8" 1/2" 5/8" 3/4" 1"	50mm 60mm	2" 2-3/8"	3"	3-3/8"	85mm
FLAT 3" X 5mm X 15mm w/ HUBS(2.5) 1/8" DPTH	X							
CUP 3" x 1.5" x 20mm		X	X					
CUP 125mm x 63mm x 30mm				X	X			
FLAT 200mm x 13mm x 90mm				X	X		X	X
FLAT 200mm x 20mm x 90mm				X	X		X	X
FLAT 6" x 1/2" x 1/2"						X		
FLAT 8" x 1/2" x 1-1/4"						X		

For other types of grinding wheels, please contact your Regional Sales Manager



**Advancing Cutting Edge Technology Since 1946**



## The Value of Simmons

Simmons Knife & Saw is a company with a long standing tradition of producing high-quality products. We firmly believe that Simmons brings value to the table as we strive to create partnerships with our customers. Here are just some of the ways in which Simmons brings value to you and your company:

### **Superior Quality**

Simmons has been producing high-quality products in America since 1946. When customers see the Simmons name, they know they are getting a product that they can count on.

### **Product Warranty**

Simmons takes pride in our quality of material, workmanship and service. We stand behind our products and guarantee their designed performance. Contact us for full details.

### **ISO 9001:2015 certified**

Simmons follows strict procedures to ensure quality goes into everything that we do.

### **Experienced Sales Staff**

Our Sales Managers can not only help you with your blade needs but are great at helping diagnose complex problems with your band saw machines and other cutting applications.

### **Innovative Products Being Introduced**

As a leader in the blade industry, Simmons is always looking for innovative products to meet the ever-changing needs of our customer base. Many of our products are designed in conjunction with our customers as we work with them directly on complex issues.

### **Broad Range of Products But Specific Enough to Have Knowledgeable Experts**

Simmons offers a wide range of products to meet your cutting needs. However, we remain committed to our core and will never lose the deep knowledge in blades that sets us apart from our competition.

### **Ease of Doing Business**

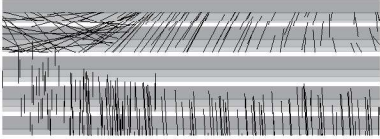
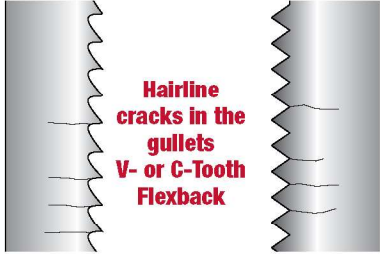
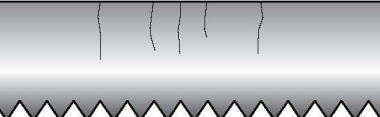
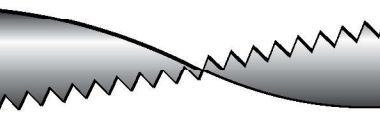
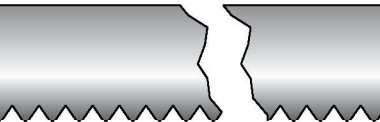
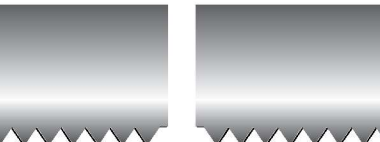
Whether it's the E-PO, E-Invoice, or flexible scheduling, Simmons strives to make it easy for you to meet your cutting needs.



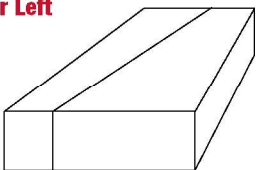
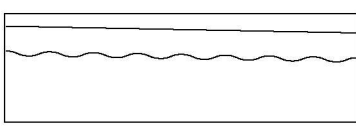

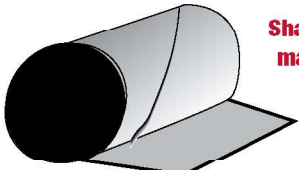
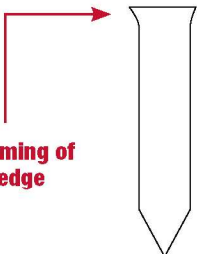
## Industry Cross Reference

TYPE OF BLADE	TYPE OF INDUSTRY				
	Foam	Food	Wood & Metal Cutting	Packaging	Leather Splitting
<b>Apex Edge</b> <i>page 11</i>	X	X		X	
<b>B-III</b> <i>page 19</i>	X	X			
<b>Bi-Metal M42</b> <i>page 16</i>			X		
<b>Carbide Tipped/Carbide Grit</b> <i>page 17</i>			X		
<b>CNC</b> <i>page 4</i>	X				
<b>C-Tooth</b> <i>page 9</i>	X			X	
<b>Flexback/Furniture</b> <i>page 15</i>	X		X	X	
<b>Bread Slicing Blades</b> <i>page 20-21</i>		X			
<b>Food Slicing Blades</b> <i>page 23</i>		X			
<b>Hardback</b> <i>page 14</i>	X		X	X	
<b>Honeycomb</b> <i>page 13</i>				X	
<b>Leather Splitting</b> <i>page 12</i>					X
<b>Narrow Knife Edge</b> <i>page 2</i>	X	X		X	X
<b>Razorback</b> <i>page 10</i>	X				
<b>Scallop Edge</b> <i>page 5</i>	X	X		X	
<b>Simcor®</b> <i>page 18</i>	X			X	
<b>SimCut® Butcher</b> <i>page 22</i>	X	X		X	
<b>Special Notch</b> <i>page 13</i>	X				
<b>V-Tooth</b> <i>page 7</i>	X			X	
<b>Wavy Edge</b> <i>page 8</i>	X			X	
<b>Wide Knife</b> <i>page 3</i>	X			X	
<b>Wire</b> <i>page 6</i>	X			X	



# Problem Solving Solutions

PROBLEM	PROBABLE CAUSE	SOLUTION
 <p><b>Scoring or gouging on side of blade</b></p>	<ul style="list-style-type: none"> <li>• Material caught in ribbon or stripper guide</li> <li>• Blade guides misaligned</li> <li>• Damaged guides</li> </ul>	<ul style="list-style-type: none"> <li>• Clean guide</li> <li>• Realign per machine manual</li> <li>• Replace guides</li> </ul>
 <p><b>Hairline cracks in the gullets V- or C-Tooth Flexback</b></p>	<ul style="list-style-type: none"> <li>• Build-up of material on band wheels</li> <li>• Over tensioning blade</li> <li>• Improper tracking of blade on crowned wheels</li> <li>• Guide arm set too far forward</li> <li>• Blade gauge too thick</li> <li>• Misaligned or worn band wheels</li> <li>• Worn wheel bearings</li> </ul>	<ul style="list-style-type: none"> <li>• Clean band wheels, adjust wheel wipers</li> <li>• Use proper blade tension</li> <li>• Blade tracking front of crown, track blade in center of crown</li> <li>• Adjust guide arm to be parallel to blade</li> <li>• Use thinner gauge blade</li> <li>• Realign, repair or replace band wheels</li> <li>• Replace bearings</li> </ul>
 <p><b>Hairline cracks Back edge of blade</b></p>	<ul style="list-style-type: none"> <li>• Build-up of material on band wheels</li> <li>• Guide arm set too high</li> <li>• Improper tracking of blade on crowned wheels</li> <li>• Over tensioning of blade</li> <li>• Excessive feed pressure</li> <li>• Worn or damaged back-up guides</li> <li>• Blade gauge too heavy</li> <li>• Under-tensioning of blade</li> <li>• Misaligned or worn band wheels</li> </ul>	<ul style="list-style-type: none"> <li>• Clean band wheels, adjust wheel wipers</li> <li>• Adjust guide arm height to size of material being cut</li> <li>• Blade tracking back of crown, track blade in center of crown</li> <li>• Use proper blade tension</li> <li>• Reduce feeding pressure</li> <li>• Replace back guides</li> <li>• Use thinner gauge blade</li> <li>• Properly tension blade</li> <li>• Realign, repair or replace band wheels</li> </ul>
 <p><b>Twist in blade</b></p>	<ul style="list-style-type: none"> <li>• Blade too wide for radius being cut</li> <li>• Blade guides improperly set</li> </ul>	<ul style="list-style-type: none"> <li>• Use narrower blade</li> <li>• Readjust blade guides properly</li> </ul>
 <p><b>Jagged or irregular break</b></p>	<ul style="list-style-type: none"> <li>• Over feeding</li> <li>• Blade too wide for radius being cut</li> <li>• Guide arm too high</li> <li>• Improper setting of blade in back-up block</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce feeding pressure</li> <li>• Use proper width blade</li> <li>• Lower guide for size of material being cut</li> <li>• Align backup blade block properly</li> </ul>
 <p><b>Premature blade breakage Straight break indicates fatigue</b></p>	<ul style="list-style-type: none"> <li>• Blade tension too high</li> <li>• Damaged or improperly adjusted blade guides</li> <li>• Guide post not aligned</li> <li>• Build-up of material on wheels</li> <li>• Blade not tracking properly on band wheels</li> <li>• Blade gauge too thick</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce blade tension</li> <li>• Check blade guides for alignment or damage</li> <li>• Check guide post alignment</li> <li>• Adjust wiper or manually clean wheels</li> <li>• Adjust accordingly for tracking on crown or flat wheels (Refer to machine manual)</li> <li>• Use thinner gauge blade</li> </ul>

PROBLEM	PROBABLE CAUSE	SOLUTION
 <p><b>Loss of set, one or both side</b></p>	<ul style="list-style-type: none"> <li>• Blade set teeth riding too far back in roller or pad guides</li> <li>• Set riding on steel wheels</li> </ul>	<ul style="list-style-type: none"> <li>• Adjust guides</li> <li>• Check blade tracking and adjust track so set teeth ride out of front edge of wheels</li> </ul>
 <p><b>Burnishing or discoloration of side of blade or cutting edge</b></p>	<ul style="list-style-type: none"> <li>• Blade guide pads too tight</li> <li>• Mistracking of blade across band wheel – moving back and forth and/or skidding</li> <li>• Blade too thick for ribbon or stripper guide</li> </ul>	<ul style="list-style-type: none"> <li>• Readjust and properly set pads</li> <li>• Track blade properly – Refer to machine manual</li> <li>• Use thinner gauge blade</li> </ul>
<p><b>Angular cut Right or Left</b></p> 	<ul style="list-style-type: none"> <li>• Loose or worn guides</li> <li>• Misaligned rails, fence, guide arm</li> <li>• Damaged teeth on set tooth blade</li> <li>• Excessive feed force</li> <li>• Wrong type of blade being used</li> <li>• Low band tension</li> <li>• Improperly ground blade – knife bevel uneven</li> </ul>	<ul style="list-style-type: none"> <li>• Readjust roller or pad guides, replace guides</li> <li>• Realign rails, fence, or guide arm – Refer to machine manual</li> <li>• Check guides for proper adjustment, blade tracking</li> <li>• Reduce feed pressure</li> <li>• Select proper blade for type of material being cut</li> <li>• Increase band tension</li> <li>• Grind bevel even on both sides</li> </ul>
 <p><b>Angled or wavy cut</b></p>	<ul style="list-style-type: none"> <li>• Degree of angle of ribbon guide incorrect</li> <li>• Degree of ground bevel incorrect</li> <li>• Insufficient blade tension</li> <li>• Dull blade</li> <li>• Too much or not enough blade exposed</li> <li>• Wrong type of blade</li> </ul>	<ul style="list-style-type: none"> <li>• Change angle</li> <li>• Grind to correct bevel</li> <li>• Tension properly – Refer to machine manual or use tension meter</li> <li>• Grind sharp edge or replace with new blade</li> <li>• Maximum exposure no more than 1/4" out of stripper or ribbon guide</li> <li>• Increase beam strength or use set tooth blade</li> </ul>
 <p><b>Blade slows down or jams in ribbon or stripper guide</b></p>	<ul style="list-style-type: none"> <li>• Build-up of gummy residue on sides of blade</li> </ul>	<ul style="list-style-type: none"> <li>• Clean the blade slot in the ribbon or stripper guide with a solvent solution</li> </ul>
 <p><b>Shadow marks</b></p>	<ul style="list-style-type: none"> <li>• Misaligned weld</li> <li>• Dogleg blade moves in and out</li> <li>• Insufficient band tension</li> <li>• Improper blade tracking</li> <li>• Cutting edge not properly ground</li> <li>• Dip in weld zone</li> </ul>	<ul style="list-style-type: none"> <li>• Check weld for straightness</li> <li>• Check blade for straightness</li> <li>• Apply recommended blade tension</li> <li>• Re-track blade</li> <li>• Regrind</li> <li>• Contact blade manufacturer</li> </ul>
 <p><b>Mushrooming of back edge</b></p>	<ul style="list-style-type: none"> <li>• Excessive feed force</li> <li>• Wrong type of blade being used</li> <li>• Back-up roller guide frozen, worn or damaged</li> <li>• Back-up guide misaligned, worn or damaged</li> <li>• Wheels misaligned</li> <li>• Dull blade</li> <li>• Insufficient blade tension</li> </ul>	<ul style="list-style-type: none"> <li>• Decrease feed force</li> <li>• Select correct blade for type of material being cut</li> <li>• Repair or replace back-up roller guide</li> <li>• Realign or replace back-up blade guide</li> <li>• Realign wheel – check to be sure blade is not running heavily against guides</li> <li>• Excessive feed force being used. Grind, sharpen edge or change blade</li> <li>• Adjust to proper tension</li> </ul>

