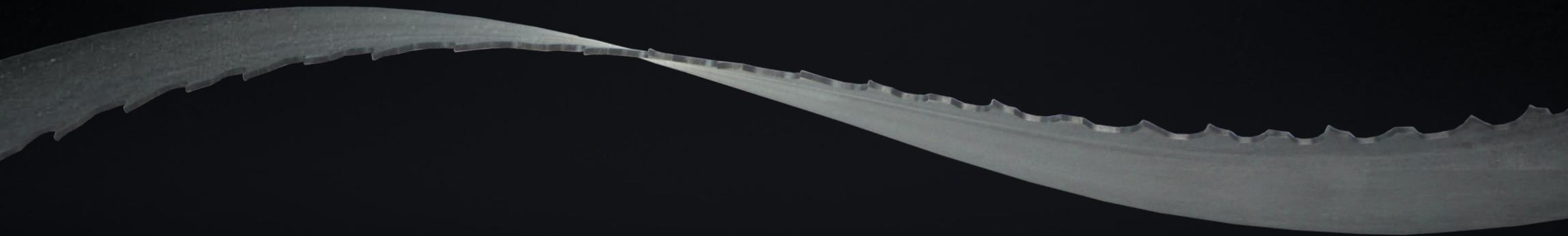




BORN TO CUT



HISTORY OF SIMONDS



1832

Abel Simonds opens a small scythe-making shop along the banks of the Nashua River in West Fitchburg – the company operates under the name J.T. Farwell & Company.

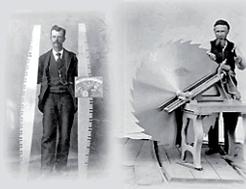
Original product range includes cutting tools used around the farm.



1878

As the agricultural market base moves further west, the mower blade and reaper business is sold off in 1878.

Simonds begins manufacturing circular saw blades and wide bandsaws that same year.



1923

The companies name changed to the Simonds Saw & Steel Company, to better reflect the focus.



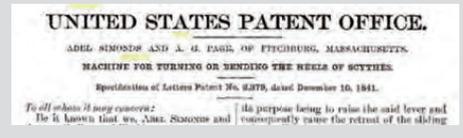
2001

Nicholson bandsaw blade division of Cooper-Tools is purchased, bringing together two storied saw-making traditions.



1841

The young company is awarded its first patent in 1841, #2379, for scythe blades.



1879

Simonds develops an entirely new method of manufacturing saws - the Crescent Ground process - achieving results far superior to any saws made before. This is the first of many Simonds product innovations.



1931

A new production plant was built. The world's first windowless plant, featuring straight - line production all on one level. Raw material comes in the back, flows through the plant and leaves the front as finished product.



2004

Simonds brings a new innovation to the light, The Sinewave technology get introduced.



1851

Abel Simonds buys out J. T. Farwell and renames the company A. Simonds & Son.



1893

To reduce our dependence on foreign steel, a steel mill is added in Chicago in 1900. Later on it will be replaced by a large one in Lockport, NY.



1963

Simonds develops the first carbide tipped bandsaw blade in 1963, based on our carbide tipped circular saw innovations.



2014

The german facility expands the factory floor space by 70% to keep up with the production.



1868

Having outgrown the initial premises, in 1868 the company is incorporated as Simonds Mfg. Co., and moves to a new building in downtown Fitchburg.



1915

Simonds became the largest saw manufacturer in the world! A third site, on North Street in downtown Fitchburg, is a sprawling complex.



1992

Simonds acquires a german bandsaw manufacturer, increasing the European market share.

2019

New tooth grinding technology is installed in Germany while in Louisville the facility get expand by 30% and installed Carbide manufacturing production.



GENERAL INFORMATION

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CARBIDE BANDSAW BLADE

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BI-METAL BANDSAW BLADE

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FOR WOOD

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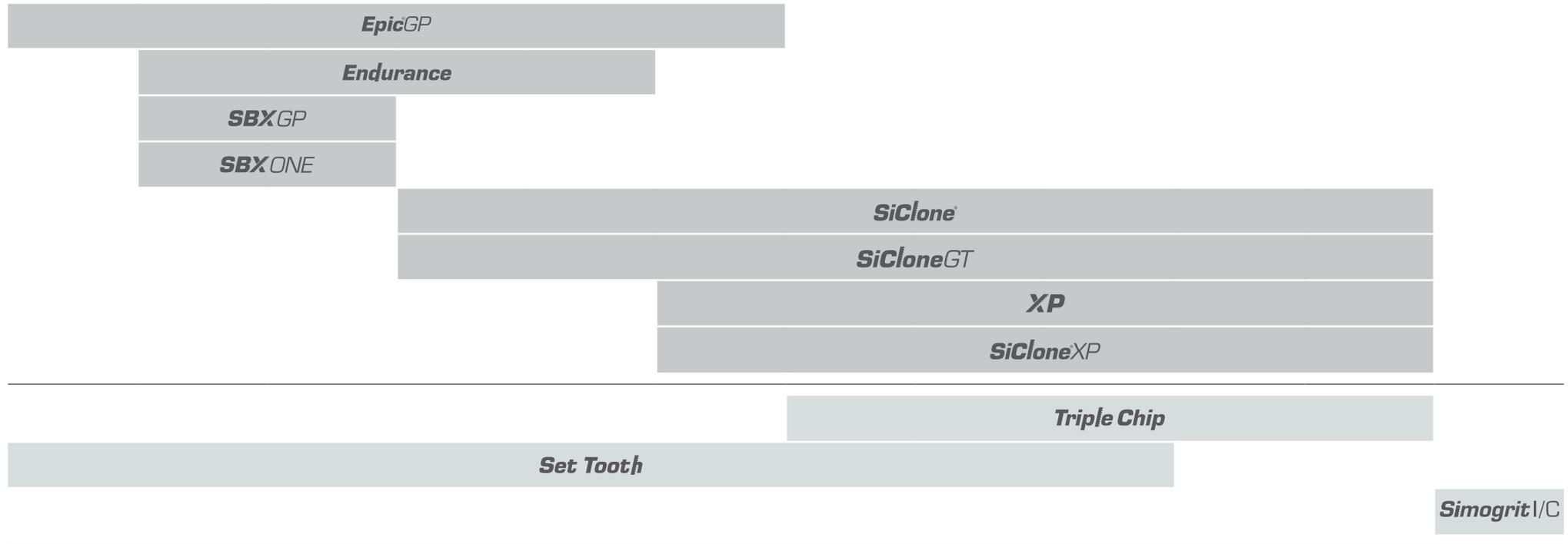


MATERIAL REFERENCE CHART

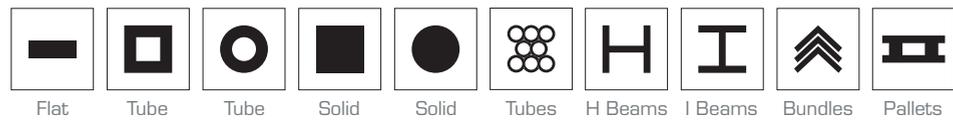


Materials

Wood/Plastic	Aluminium/ Bronze/ Non-Ferrous	Structural Steels & Beams	Carbon Steels	Low Alloy Steels	Medium Alloy Steels	Mold & High Alloy Steels	Tools and Die Steels	Stainless Steel	Titanium & Titanium Alloys	Nickel Basic Alloys	Induction Hardened
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RS PRO
PalletBuster





OPTIMIZING TOOTH PITCH

Always strive for a minimum of 3 teeth and a maximum of 20 teeth in the cut. 6 - 12 teeth in the cut at any time is the optimum

AVERAGING VARIABLE PITCH TEETH

PITCH - AVERAGE NUM OF TEETH

3/4 TPI - 3 1/2 TPI

5/8 TPI - 6 1/2 TPI

6/10 TPI - 10 TPI

EXAMPLE

4" bar stock - using a 3/4 TPI blade (Average TPI = 3 + 4 : 2 = 3,5)

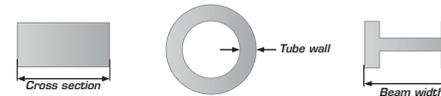
Would mean bar stock size (4) x by the av. TPI (3,5) = Teeth in the cut (14)

2/3 TPI - 10 teeth in the cut - perfect amount - best cutting rates

4/6 TPI - 20 teeth in the cut - limit of teeth - still performing ok

5/8 TPI - 26 teeth in the cut - too many teeth - low in performance

	EpicGP SiClone [®] XP SiCloneXP							CARBIDE				
Cross section	5/8	4/6	3/4	2/3	1.4/2	1.1/1.4	0.7/0.9	3	3/4	2/3	1.9/2.1	1.4/1.8
1"	*	*						*				
2"		*	*					*	*			
4"			*	*				*	*	*		
6"			*	*				*	*	*		
8"				*						*		
10"				*	*					*	*	
12"				*	*						*	*
16"					*						*	*
20"					*	*						*
24"					*	*						*
30"						*	*					
36" +						*	*					



Note:
If cutting more than one piece,
add wall thicknesses.

FURTHER INFLUENCE FACTORS OF PITCH SELECTION

MATERIAL SHAPE

- Complex shapes can easily strip teeth. It is best to use a blade with less face rake angle when cutting structurals and other complex profile shapes.

CHIP FORMATION

- Hard materials require a small, strong tooth shape.
- Soft materials require larger gullets due to the large chip load.

CHIP LENGTH

- The longer the tooth is in a cut, the more chip that will be generated which has to be departed.
- Cutting stops when gullets are full and the blade get cracks due the chip load.

	EpicGP							Endurance				SBXGP				SBXONE						
Tube wall	10/14	8/12	6/10	5/8	4/6	3/4		5/7	4/6	3/4	2/3		12/16	8/11	6/9	5/7	4/6	3/4	4/6	3/4	2/3	
1 / 16"	*												*									
1 / 8"	*	*											*	*								
1 / 4"		*	*										*	*	*							
1 / 2"				*	*			*	*							*	*					
3 / 4"					*	*			*	*							*	*				
1"					*	*			*	*	*						*	*				
1 1/2"											*											
2"											*											
Beam width												4/6		3/4		4/6		3/4		2/3		
< 6"								*	*							*	*	*				
6" - 8"									*								*		*	*		
8" - 12"											*								*	*	*	*
12" +																				*	*	*



Triple Chip

ADVANTAGES

- Triple Chip geometry provides a smooth surface finish.
- Positive rake angle allows faster penetration for high production cutting.

APPLICATIONS GROUPS

- Nickel Based Alloys.
- High Nickel Alloys.
- Exotic Metals.



inch	mm	Teeth per inch				
		3	3/4	2/3	1.9/2.1	1.4/1.8
3/4" x 035	20 x 0.90	■	■			
1" x 035	27 x 0.90	■	■			
1 1/4" x 042	34 x 1.10		■	■	■	
1 1/2" x 050	41 x 1.30		■	■	■	■
2" x 063	54 x 1.60		■	■	■	■
2 5/8" x 063	67 x 1.60			■		■
Dimension	inch	4"-6"	2"-6"	4"-12"	10"-12"	12"-31"
Dimension	mm	120-200	80-200	130-400	220-600	400-800



Set Tooth



ADVANTAGES

- Three chips pattern with raker ensures straighter cuts.
- Designed for both manual and automatic bandsaws.

APPLICATIONS GROUPS

- Aluminium | Bronze.
- Carbon Fiber | Graphite.



inch	mm	Teeth per inch	
		3	2/3
3/4" x 035	20 x 0.90	■	
1" x 035	27 x 0.90	■	■
1 1/4" x 042	34 x 1.10	■	
Dimension	inch	4"-6"	4"-12"
Dimension	mm	120-200	130-400





Simogrit I/C

ADVANTAGES

- Carbide grit provides a homogenous perfect surface finish.
- Cuts all materials which could not be penetrated with teeth blades.

APPLICATIONS GROUPS

- Nickel Based Alloys.
- Exotic Metals.
- Tyres.
- Mineral Materials.
- Industrial Plastics.



inch	mm	Teeth per inch	
		I	C
3/4" x 030	20 x 0.80	■	■
1" x 035	25 x 0.90	■	■
1 1/4" x 042	32 x 1.10	■	■



BORN TO CUT™
www.simonds-saw.com



Break-in Procedure

BASIC PROCEDURE

1. Set band speed to the normal recommended speed per minute for the material.
2. Reduce feed by 50% of the normal cutting rate.
3. Determine the recommended square inches of material to be cut at break-in from table bellow.
4. Gradually increase the feed rate to normal over total break-in period.

Caution: During the break-in period, it is very important that the band always produce chips. Increase the feed if needed to produce chips or reduce noise/vibration.

Recommended band speed (ft/min)	300	250	200	150	100	50
Square inch to cut for break-in (in/min)	90	75	60	40	25	10
Recommended band speed (m/min)	90	75	60	45	30	15
Square mm to cut for break-in (mm/min)	2300	1900	1500	1000	650	250

Advantages

- Reduces Vibration
- Reduces Noise Level
- Guarantees a Straight Cut
- Increases Blade Life



SHIELD® - The special PVD Multilayer coating

SHIELD® provides an additional protection on the tooth edge which extend the blade life time and guarantees a smooth run to optimize the cutting performance bandsaw blade.

SHIELD® can be applied on all bi-metal and carbide tipped bandsaw blades from 1" to 3 1/8"

SHIELD® Advantages

- Better Chip Flow
- Higher Cutting Rates (increased feed and speed)
- Increases Blade Life
- Higher Cutting Flexibility In Different Materials

For additional assistance please contact your local SIMONDS Representative



ADVANTAGES

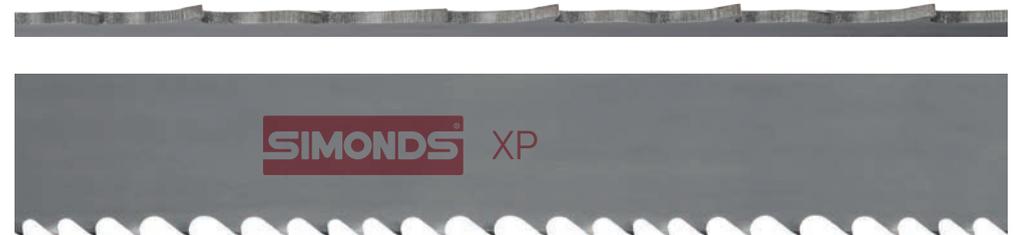
- Longer blade life as M42.
- Higher resistance to heat generation.
- Conventional tooth geometry.

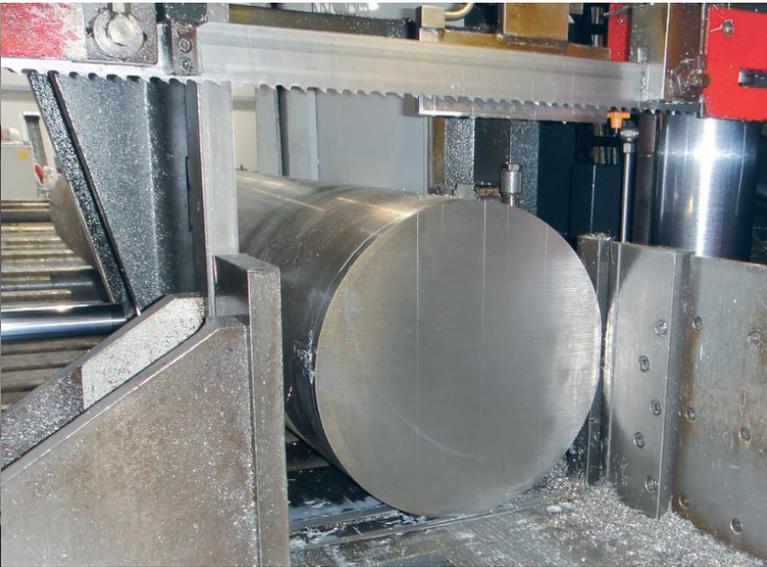
APPLICATIONS GROUPS

- High Alloy Steels.
- Tool and Die Steels.
- Stainless Steels.



inch	mm	Teeth per inch		
		4/6	3/4	2/3
1" x 035	27 x 0.90	■	■	■
1 1/4" x 042	34 x 1.10	■	■	■
1 1/2" x 050	41 x 1.30	■	■	■
Dimension	inch	<2"	2"-6"	4"-12"
Dimension	mm	50-150	80-200	130-400





ADVANTAGES

- Longer blade life as M42.
- Higher resistance to heat generation
- Variable set to increase productivity.

APPLICATIONS GROUPS

- High Alloy Steels.
- Stainless Steels.
- Nickel Based Alloys.
- Titanium & Titanium Alloys.



inch	mm	Teeth per inch					
		4/6	3/4	2/3	1.4/2	1.1/1.4	0.7/0.9
1" x 035	27 x 0.90	■	■				
1 1/4" x 042	34 x 1.10	■	■	■			
1 1/2" x 050	41 x 1.30	■	■	■	■		
2" x 063	54 x 1.60		■	■	■	■	
2 5/8" x 063	67 x 1.60				■	■	■
3 1/8" x 063	80 x 1.60					■	■
Dimension	inch	<2"	2"-6"	4"-12"	10"-24"	20"-36"	32"-36"+
Dimension	mm	50-150	80-200	130-400	220-600	400-800	800-2100



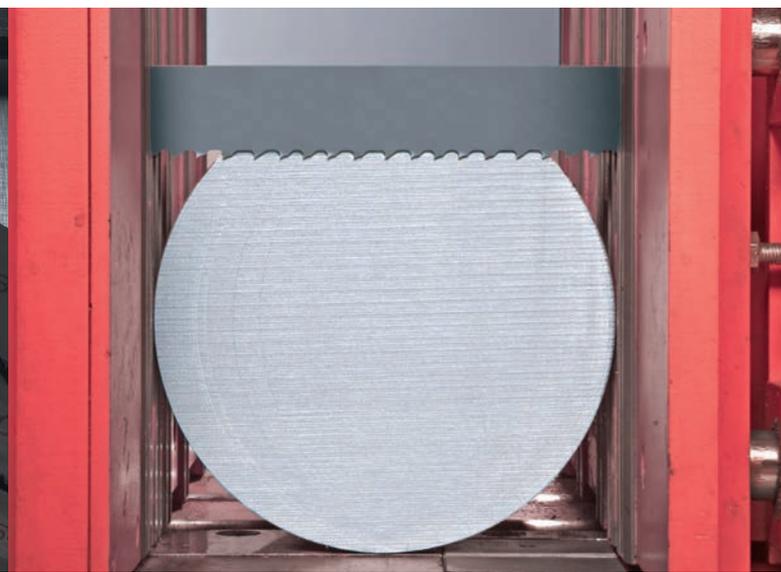


ADVANTAGES

- Special tooth geometry to increase penetration and reduce work hardening.
- Variable set to increase productivity.

APPLICATIONS GROUPS

- High Alloy Steels.
- Stainless Steels.
- Nickel Based Alloys.
- Titanium & Titanium Alloys.



inch	mm	Teeth per inch					
		4/6	3/4	2/3	1.4/2	1.1/1.4	0.7/0.9
1" x 035	27 x 0.90	■	■	■			
1 1/4" x 042	34 x 1.10	■	■	■			
1 1/2" x 050	41 x 1.30	■	■	■ ■	■ ■		
2" x 063	54 x 1.60		■	■ ■	■ ■	■ ■	
2 5/8" x 063	67 x 1.60				■ ■	■ ■	■ ■
3 1/8" x 063	80 x 1.60					■ ■	■ ■
Dimension	inch	<2"	2"-6"	4"-12"	10"-24"	20"-36"	32"-36"+
Dimension	mm	50-150	80-200	130-400	220-600	400-800	800-2100

■ Coated Tooth Version



SiCloneGT



ADVANTAGES

- Special ground tooth for the best rake angle definition, better chip floss and decrease of cutting forces.
- Variable set to increase productivity.

APPLICATIONS GROUPS

- High Alloy Steels.
- Stainless Steels.
- Nickel Based Alloys.
- Titanium & Titanium Alloys.



	inch	mm	Teeth per inch				
			3/4	2/3	1.4/2	1.1/1.4	0.7/0.9
1 1/4" x 042		34 x 1.10	■	■			
1 1/2" x 050		41 x 1.30	■	■	■		
2" x 063		54 x 1.60		■	■	■	
2 5/8" x 063		67 x 1.60			■	■	■
3 1/8" x 063		80 x 1.60				■	■
Dimension	inch		2"-6"	4"-12"	10"-24"	20"-36"	32"-36"+
Dimension	mm		80-200	130-400	220-600	400-800	800-2100





ADVANTAGES

- Long lasting M42 high speed edge improves wear resistance.
- Conventional tooth geometry.

APPLICATIONS GROUPS

- Carbon Steels.
- Low Alloy Steels.
- Medium Alloy Steels/Cr. Mo.



inch	mm	Teeth per inch														
		14	10/14	8/12	6/10	5/8	4/6	4	3/4	2/3	1.4/2	1.25	1.1/1.4	0.75/1.25		
1/2" x 025	13 x 0.65	■	■	■	■			■								
1/2" x 035	13 x 0.90	■	■	■	■			■								
3/4" x 035	20 x 0.90	■	■	■	■	■	■									
1" x 035	27 x 0.90	■	■	■	■	■	■	■	■							
1 1/4" x 042	34 x 1.10					■	■		■	■	■	■				
1 1/2" x 050	41 x 1.30					■	■		■	■	■	■	■			
2" x 063	54 x 1.60						■		■	■	■	■	■	■	■	■
2 5/8" x 063	67 x 1.60						■		■	■	■			■	■	■
3 1/8" x 063	80 x 1.60															■

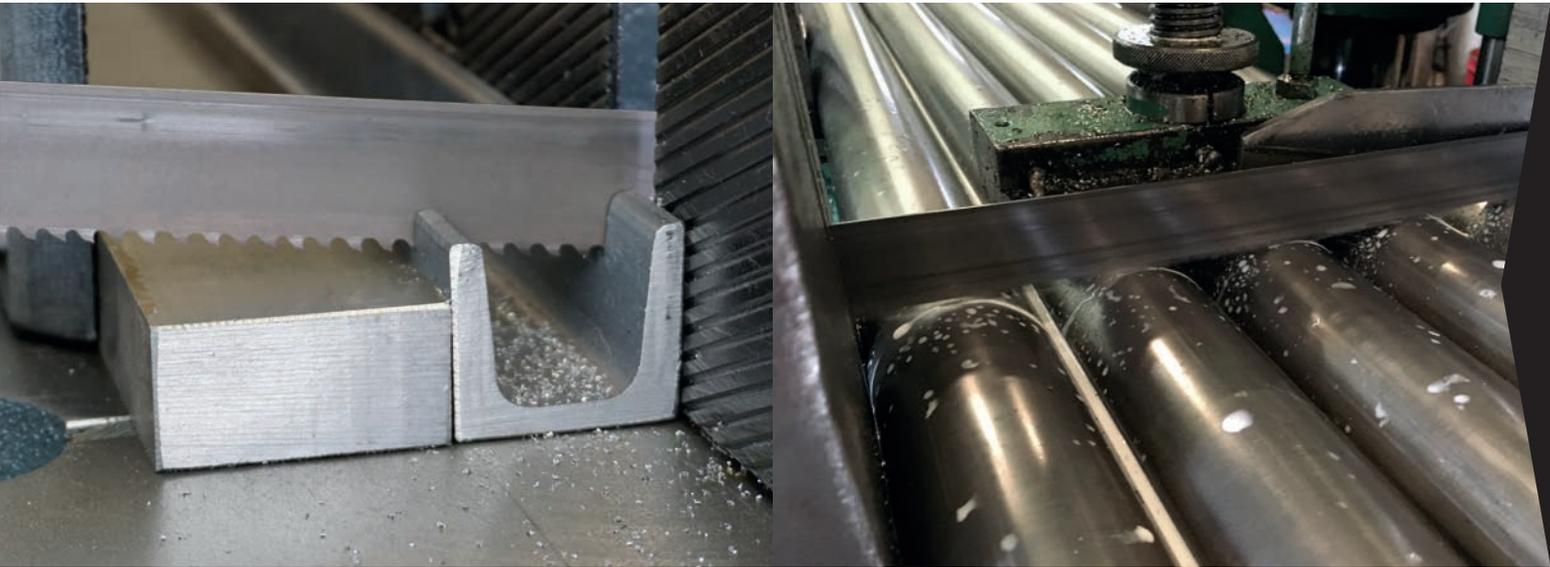


SIMONDS EPIC GP												
14	10/14	8/12	6/10	5/8	4/6	4	3/4	2/3	1.25	1.4/2	1.1/1.4	0.75/1.25
<1 1/16"	<1/8"	<1/4"	<1/2"	<1"	<2"	<2"	2"-6"	4"-12"	10"-24"	12"-31"	20"-36"	30"-36"+
2-25	5-25	10-40	20-60	40-80	50-150	80-120	80-200	130-400	220-600	300-800	400-800	550-1200

Dimension inch and mm



Endurance



ADVANTAGES

- M42 high speed edge improves wear resistance in all-purpose applications.
- Special tooth geometry for small bars and medium/bold structural shapes.

APPLICATIONS GROUPS

- Carbon Steels.
- Structural Steels.
- Low Alloy Steels.
- Medium Alloy Steels/Cr. Mo.



inch	mm	Teeth per inch			
		5/7	4/6	3/4	2/3
1" x 035	27 x 0.90	■	■	■	■
1 1/4" x 042	34 x 1.10	■	■	■	■
1 1/2" x 050	41 x 1.30		■	■	■
2" x 063	54 x 1.60			■	■
Dimension	inch	<1"	<2"	2"-6"	4"-12"
Dimension	mm	40-90	50-150	80-200	130-400





ADVANTAGES

- Robust tooth improves resistance to shock for all-purpose applications.
- Wide range of tooth pitches for multiple applications.

APPLICATIONS GROUPS

- Carbon Steels.
- Structural Steels.



inch	mm	Teeth per inch							
		12/16	8/11	6/9	5/7	4/6	3/4	2/3	
3/4" x 035	20 x 0.90	■	■	■	■	■	■		
1" x 035	27 x 0.90	■	■	■	■	■	■	■	
1 1/4" x 042	34 x 1.10		■	■	■	■	■	■	
Dimension	inch	<1 1/16"	<1/4"	<1/2"	<1"	<2"	2"-6"	4"-12"	
Dimension	mm	2-20	15-40	20-70	40-90	50-150	80-200	130-400	



SBX ONE



ADVANTAGES

- Robust tooth design improves resistance to shock in beam cutting.
- Extra heavy set prevents pinching.

APPLICATIONS GROUPS

- Structural Steels.



inch	mm	Tooth Set		
		4/6	3/4	2/3
1 1/2" x 050	41 x 1.30	■ ■	■ ■	■ ■
2" x 063	54 x 1.60	■ ■	■ ■	■ ■
2 5/8" x 063	67 x 1.60		■ ■	■ ■
3 1/8" x 063	80 x 1.60		■ ■	■ ■
Dimension	inch	<2"	2"-6"	4"-12"
Dimension	mm	50-150	80-200	130-400

■ Coated Tooth Version



ADVANTAGES

- Primary woodcutting applications.
- Portable sawmills.
- Specialize woodcutting (dimensional wood).
- Wood molding industry

APPLICATIONS GROUPS

- Wood.
- Plastic.



inch	mm	Teeth per inch				
		2	1	1.14	1.1/1.4	1.25
1" x 035	27 x 0.90	■				
1 1/4" x 042	34 x 1.10		■	■		■
1 1/2" x 050	41 x 1.30					■
2" x 063	54 x 1.60		■		■	■



PalletBuster®

SIMONDS®

ADVANTAGES

- Robust tooth design for increased shock resistance.
- Flexible backer.

APPLICATIONS GROUPS

- Wood.
- Plastic.



inch	mm	Teeth per inch	
		5/8	4/6
1 1/4" x 042	34 x 1.10	■	
2" x 050	54 x 1.30		■



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