# **PROFESSIONAL GRADE SAW BLADES**



# The Professionals' Edge™







**BI-METAL** 



CARBON



# What do we mean by "The Professionals' Edge<sup>™</sup>"?

It all comes down to confidence in quality products. With Simonds products you have the peace of mind of knowing that the designs and innovations present in every Simonds blade and cutting tool have stood the test of time in the harshest environments under the scrutiny of some very tough customers. And that quality comes at a fair price. We offer tremendous value for products made to exacting standards from the longest-lasting alloys and other stateof-the-art materials, resulting from time-tested research and design.

"The Professionals' Edge<sup>™</sup>" also means you have access to Simonds' superior product support. We offer comprehensive customer service backed up by our highly skilled and trained field technicians. We offer training, partnerships to increase business productivity, and money-back guarantees. You can also look to us for other product lines including files, power tool accessories, and other industrial products. "The Professionals' Edge<sup>™</sup>"</sup> simply delivers our promise the best blades and the best people to back them up.

# The Professionals' Edge™



"Simonds' mission is best defined by continuous improvement on our proven blades while we develop new blade technologies for our customers today and tomorrow's toughest sawing applications." – Simonds Design Engineer



"With Simonds, I know I can be assured that my customers will always have the right blade for their toughest applications. Simonds' service and support gives me an edge over my competition." – Simonds Distributor



"Whether I need more production volume out of a blade or a better cut finish, I know that Simonds can give me the advantage that I need for increased profitability in my operation." – Simonds Customer

# Table of Contents



INTRODUCTION	Simonds — The Competitive Edge	2
BAND SELECTION MADE EASY	Cutting Considerations	3
BAND APPLICATIONS CROSS-REFERENCE CHART	Choose the Correct Blade	4-5
	BANDSAW PRODUCTS	0.7
	Sinevvave lechnology	b-7
	CARBIDE Triple Chip	0
	Carbide Set Tooth	9
	20° Negative Rake	10
	BI-METAL	
	X-51™	11
	BroadBand® BlockPueter®	12-13
	SiClone®	14
	IC Enduro™	16
	DieBand Plus®	17
	PalletBuster®	18
	CARBON	
	Red Streak	19
	HardBack	20 21
	WoodMax	21
	Friction	23
	GRIT-EDGE	
	SimoGrit	24
	POWER HACKSAWS	25
BANDSAW INFORMATIONAL PAGES	Blade Terminology	26-27
	Tooth Pitch Primer	28
	Break-in Procedure	29
	Speed and Feed Charts	30-31
	Iroublesnooting	32
OTHER SIMONDS PRODUCTS		

# www.simondsinternational.com



Simonds — The Competitive Edge



SIMONDS INTERNATIONAL has been in operation since 1832, and is a leading global manufacturer and marketer of high quality industrial cutting tools. With over 800,000 square feet of space dedicated to a network of factories, warehouses, distribution and welding centers in the United States, Canada, Germany, and the United Kingdom, customers can count on access to quality Simonds products worldwide. To maintain and grow business globally and to serve our end users

efficiently, Simonds metal band products are brought to market through a comprehensive industrial distributor base — a long established partnership.

# Value-Added Excellence

WARRANTED WARRANTED IMONDS SQUA FITCHBURG, MASSACHUSETTS U.S.A. OVINCINITY IN QUALITY AND IN QUALITY AND IN QUALITY AND IN QUALITY AND IN COLLINA AND IN COL



Value-added excellence is another Simonds' hallmark. No matter where people use Simonds, the brand name is renowned for quality and service. Our ongoing efforts to utilize the most advanced technology in research and development, engineering, and manufacturing processes mean our customers can continue to expect superior value from our products. In addition, Simonds employees are dedicated to providing individualized attention to our customers through a network of field representatives and customer service representatives trained in product knowledge.

# **Tuition FREE Training**

Simonds world-famous Little Red Schoolhouse provides innovative, tuition-free training for our customers. The training center expands product knowledge and selling skills. At our cutting lab, attendees get hands-on experience in operating and performing preventive maintenance programs on bandsaw machines. The preventive maintenance training and knowledge our customers receive pays dividends in the form of reduced machine down-time and blade expenditures. Simonds Territory Managers and Distributor Representatives are skilled in the use of products. They are available to put their knowledge to use assisting end-users in their cutting applications.

# **Guaranteed Trial**

All Simonds products are guaranteed free of defect or your money back. The recommended trial blade from SIMONDS will outperform your current product or our blade is free.

# **Band Selection Made Easy**

# SIMONDS

# What is your sawing application?

What is your sawing requirement – pieces on the floor, or blade life? Do you cut one thing continuously or many over the life of the blade? Different operating conditions and different expectations help determine what type of blade and what teeth per inch (TPI) is selected.

### What is your material?

The "toughness" of metal affects tool life. Material can look the same but vary greatly in machinability, with one being much harder to cut than another. Material hardness also affects cutting performance, with annealed metals cutting more easily than hardened metals.



### What shape is the material?

Work piece shape can affect cutting performance – structural materials and small solids tend to be harder on a bandsaw blade. Work piece positioning on the saw is another variable – try to position the material so there is as little cross-section dimensional variance as possible across the blade's path.



#### What is the material dimension?

Do you cut mostly one dimension or a wide variety of dimensions on a regular basis? Determine what your most common dimension is, then select the proper TPI for your bandsaw blade. Remember – "one blade fits all" is not always the case – sometimes it is optimal to use more than one blade to cut a wide range of materials.

# What machine are you using?

Different machine models are designed for different cutting applications. The condition of the saw can affect its ability to provide the results you desire. Consult your saw's Operator's Manual to see if your saw is geared toward the application you are attempting. If in doubt, call Simonds for a technical consultation.

# What is the best blade to use?

Band quality varies widely depending upon the blade type - carbon, bi-metal, or carbide tipped. They differ in their ability to resist the heat generated while cutting and in their ability to resist the "shock" of entering and exiting the cut (a prime consideration when cutting structurals, pipe, and tubing). Generally, carbon bands are good for maintenance shops, general purpose low volume cutting, or for cutting wood, plastics, and other non-ferrous materials. Bi-metal blades are the "everyday workhorse", handling everything from simple metal cutting to production cutting of the super alloys. Carbide tipped blades excel cutting the super alloys and in applications where high production rates and/or good surface finish is a requirement.





# What is the correct TPI?



Too few teeth in the cut may straddle the work and break teeth. Too many teeth can cause gullet overload and

strip teeth. Aim for a minimum of 3 teeth and a maximum of 24 teeth in the workpiece, with 6 to 12 teeth in the workpiece optimum for most applications.

### Improve productivity!

With Simonds! Rest assured that the Simonds blade you have chosen will give you the best possible productivity. The results you get today will be the same tomorrow, next month, next year! With Simonds, you have chosen the best value for the money!



# **Band Applications Cross-Reference Chart**

	SIMONDS BANDSAW BLADES CATEGORIES AND PRODUCT NAMES									
		CARBIDE				BI-METAL				
	Triple Chip page 8	Carbide Set Tooth <i>page 9</i>	20° Negative Rake <i>page 10</i>	X-51™ <i>page 11</i>	BroadBand® page 12-13	BlockBuster® page 14	SiClone® page 15	IC Enduro™ page 16		
Wood	•	•								
Carbon Graphite	•	•								
Fiberglass		•								
Non-Metallic Materials	•	•								
Non-Ferrous Metals		•			•					
Cast Iron		•	•	•						
Brass		•								
Bronze		•								
Aluminum		•								
General Purpose Cutting					•					
Structural Steel					•			•		
Carbon Steels					•	•		•		
Low Alloy Steels					•	•		•		
Med. Alloy Steels: Nickel/Moly/Chrome					•	•	•			
Silicon Steels					•	•	•			
Alloy Steels/ Mold Steels	•	•		•	•	•	•			
Tool Steels/ Die Steels	•			•	•	•	•			
Stainless Steels	•	•		•	•	٠	•			
Nickel Base Alloys	•	•		•	•	•	•			
Titanium Alloys	•	•		•	•	•	•			
Induction Hardened Cylinder Rod			•							



# Band Applications Cross-Reference Chart

		TNAMES	ND PRODUC	FEGORIES A	BLADE CA	S BANDSAW	SIMONDS	
	GRIT-EDGE		BON	CAR			BI-METAL	
-	SimoGrit page 24	Friction page 23	WoodMax page 22	FlexBack page 21	HardBack page 20	Red Streak page 19	PalletBuster® page 18	DieBand Plus® page 17
Wood			•	•	•	•	•	
Carbon Graphite	•							
Fiberglass	•							
Non-Metallic Materials	•			•	•			
Non-Ferrous Metals				•	•			
Cast Iron	•							
Brass				•	•			
Bronze				•	•			
Aluminum				•	•			
General Purpose Cutting				•	•			•
Structural Steel				•	•			
Carbon Steels				•	•			•
Low Alloy Steels				•	•			•
Med. Alloy Steels: Nickel/Moly/Chrome								
Silicon Steels								•
Alloy Steels/ Mold Steels								•
Tool Steels/ Die Steels	•							•
Stainless Steels		•						
Nickel Base Alloys	•	•						
Titanium Alloys	•	•						
Induction Hardened Cylinder Rod	•							



# Special Applications Technology

SIMONDS application engineered SineWave® technology provides enhanced cutting ability, reducing work time, and increasing blade life.

SineWave® technology features a value-added broaching cutting action by utilizing ramps on the back edge of the blade. This technology exerts more force into the cut without having to increase machine pressure.

SineWave<sup>®</sup> technology provides ramp customization capabilities to optimize the cutting performance of specific alloy cross sections.

SineWave<sup>®</sup> can be supplied on all M42 bi-metal and all carbide tipped bandsaw blades from 1" to 3-1/8".

SineWave<sup>®</sup> is supplied only in welded-to-length bands.









Simonds Bi-metal and Carbide Tipped bandsaw blades with SineWave® technology are ideal for use on difficult to cut steels such as high chrome, tool, die, stainless and nickel base. Your best solution for cutting titanium and other exotic metals.



With self-feeding action, the band actually grows in width (see magnified back edge view of the SineWave<sup>®</sup> blade above), forcing each tooth to penetrate the work.

Products displaying this icon are available with SineWave® technology.





# SineWave® Technology



# How Does SineWave® Work?

**SineWave**<sup>®</sup> technology from Simonds International provides an aggressive broaching action in the cut, enhancing cutting ability, reducing work time and increasing blade life. It incorporates a series of "ramps" on the back edge of bandsaw blades, which allows bandsaw machines to exert more force into a cut without increasing machine pressure. The "rocking" motion of SineWave ensures less tooth to work piece contact which increases penetration for faster cutting.

Ramp depth and length can be engineered to a customer's specific cutting applications, operating parameters and production requirements to optimize performance across a wide variety of materials. SineWave technology can be applied for light, moderate or aggressive cutting action.

Supplied only in welded-to-length bands, Simonds SineWave technology is ideal for blades cutting high chrome, tool, die, stainless and nickel based steels. The technology is a proven solution for cutting titanium and other exotic metals and can be used on almost all bandsaw machines.

# SineWave Advantages

- Cuts work hardened materials 30-40% faster.
- Can double blade life.
- Makes cutting rate more consistent.

# How Do I Order SineWave?

- Determine maximum cross-section dimension of all materials cut.
- Determine your required aggressiveness of the cutting action – light, moderate or aggressive.
- Call your Simonds sales person for applications assistance.





Production cutting operations, steel service centers, aerospace and forging houses.

# Materials

High nickel alloys, titanium, Inconel and other exotic materials.



### Features and Benefits

- Carbide tipped teeth increase wear resistance cutting high temperature alloys
- Triple Chip geometry provides smoother surface finish
- Positive rake angle allows faster penetration for high production cutting
- Plastic capping protects teeth against damage in transit and handling





*Triple Chip is ideal for cutting applications requiring smooth surface finish and high production rates.* 

Triple Chip	1/2″x .035 13 x 0.9 250′	3/4″x .035 19 x 0.9 250′	1″ x .042 27 x 1.1 250′	1-1/4″ x .042 34 x 1.1 250′	1-1/2″ x .050 41 x 1.3 250′	2″ x .062 54 x 1.6 150′	2-5/8″ x .062 67 x 1.6 150′	3-1/8″ x .062 80 x 1.6 150′
3 TPI	55799000	55800000	55801000	55801800				
2.5-3.5 TPI		55800508	55801108	55801208	55803458	55804808	55805908	
2-3 TPI				55801308	55803700	55804708		
1.9-2.1 TPI				55801508	55803308	55804508		
1.4-1.8 TPI					55803408	55804008	55805808	55807008
.9-1.1 TPI						55805008	55805308	55808008

Coils shown as 150' and 250' lengths. May also be shipped in random lengths. Also available in welded-to-length and SineWave?



Triple Chip

# Carbide Set Tooth





# Applications

Production cutting operations, steel service centers, foundries, aerospace and forging houses.

# Materials

High nickel alloys, titanium, aluminum, bronze, Inconel and other exotic materials.



# Features and Benefits

- Positive rake angle provides aggressive tooth geometry for faster cutting and increased production
- Raker tooth set ensures straighter cuts
- Plastic capping prevents tooth damage during shipping and handling

*Carbide Set Tooth is great for cutting high temperature alloys. Specialty blades also available for non-ferrous foundries.* 

Carb Set 1	ide Tooth	3/8″ x .025 10 x 0.6 250′	1/2″ x .025 13 x 0.6 250′	3/4″ x .035 19 x .0.9 250′	1″ x .035 27 x 0.9 250′	1″ x .042 27 x 1.1 250′	1-1/4″ x .042 34 x 1.1 250′	1-1/2″ x .050 41 x 1.3 250′	2″ x .062 54 x 1.6 150′	2-5/8″ x .062 67 x 1.6 150′	3-1/8″ x .062 80 x 1.6 150′
4	TPI	55167000	55177000		55470500						
3	TPI		55176000	55400100*	55400600*	55400500*	55500600*	55503000			
3 TPI	VariSet			55400200*							
2-3	ТРІ						55600460	55600440	55600420		
1.9-2.	1 TPI							55600340	55600320	55600300	5600280
1.4-1.	8 TPI							55600260	55600240	55600220	



#### \*Designed for Foundry Use.

Coils shown as 150' and 250' lengths. May also be shipped in random lengths. Also available in welded-to-length and SineWave®.









# 20° Negative Rake

## **Applications**

For cutting hardened materials up to 65 Rc on power feed saws when machinability is a problem.

# Materials

Heavy chromed shafts, induction hardened shafts, linear bearing shafts.

### Features and Benefits

- Negative tooth tip rake angle provides greater tip strength able to penetrate high hard materials and surface coatings
- Plastic capping protects teeth against damage in transit and handling





20° Negative Rake Carbide Tipped bands make short work of the hardest materials.

20° Negative	1″ x .042	1-1/4″ x .042	1-1/2″ x .050	2″ x .062
	27 x 1.1	34 x 1.1	41 x 1.3	54 x 1.6
	150′	150′	150′	150′
2.5 - 3.5 TPI	55801900	55801400	55803600	55804900

Coils shown as 150' lengths. May also be shipped in random lengths. Also available in welded-to-length.







X-51<sup>™</sup> bandsaw blades feature M51 tooth tips to provide longer life cutting the toughest materials and large cross-sections, making them ideal for cutting exotic alloys.

X-51™	1" x .035 27 x 0.9 250'	1-1/4" x .042 34 x 1.1 250'	1-1/2" x .050 41 x 1.3 250′
4-6 TPI	64W22000	64W25000	64W28000
3-4 TPI	64W21000	64W24000	64W27000
2-3 TPI	64W20000	64W23000	64W26000

Coils shown as 250' lengths. May also be shipped in random lengths. All items are available welded-to-length and in SineWave®.

### **Applications**

X-51

Steel service centers, production cutting.

## Materials

Cast iron, tool steel, die steel, stainless steel, nickel based alloys, titanium, Inconel and other exotic alloys.



## Features and Benefits

- M51 high speed wire electronically welded to premium back for greater wear resistance
- Hybrid alloy for cutting large crosssection exotic alloys
- Oversized blade width increases beam strength
- Aggressive tooth geometries provide optimum angles for top cutting performance









# **BroadBand Advantages**

- Cuts a broader range of **materials** low carbon to stainless steels.
- Cuts a broad range of **shapes** structurals and solids.
- Cuts a broader range of sizes smaller to larger cross-sections than most competitive blades.

## **BroadBand Delivers**

- Faster cutting rates.
- Better cut finishes.
- Longer blade life.

# **BroadBand®**

# NEW BroadBand<sup>®</sup> Blades with Performance Design Reduce Costs and Makes Bandsawing Easy

**A8 BroadBand® Bi-Metal Bandsaw Blades** cover the broadest cutting applications and cut the broadest material ranges to reduce the number of costly blade type changeovers by operators. From **production cutting to general purpose use**, A8 BroadBand Bi-Metal Bandsaw Blades from Simonds International provide a high-performance, longer-lasting cutting experience.

The A8 BroadBand Bandsaw Blades were developed for production cutting applications yet are perfectly suitable for everyday shop applications. Bandsaw machines are often required to cut a myriad of materials during a single day requiring blade type changeovers and are often run by multiple operators with different degrees of experience. A8 BroadBand Bandsaw Blades are robust and highly durable to reduce cutting application variables.

A8 BroadBand Bandsaw Blades employ a breakthrough formula in tooth spacing design to prolong wear while cutting through the widest possible variety of materials. The balanced and repositioned tooth design combined with a special raker tooth delivers a more consistent wear across the blade over time to last longer. This revolutionary A8 technology is featured on all Simonds bi-metal blades.



# The Magic Geometry

Rationalized tooth spacing for:

- More uniform wear
- Greater cutting range

Positive rake or face angle:

- Optimum penetration on alloy materials
- Robustness in rough applications

Special arrangement of tooth sizes within the pattern for:

- Quieter operation
- Smoother cut finishes
- Longer wear-life





# **BroadBand®**



The BroadBand<sup>®</sup> Bandsaw Blade is an all-purpose high-quality blade, well suited for cutting a wide range of alloys.

BroadBand	3/4" x .035 19 x 0.9 250'	1" x .035 27 x 0.9 250'	1-1/4" x .042 34 x 1.1 250'
10-14 TPI	64363408	64367008	
8-12 TPI	64120008	64365508	64188008
6-10 TPI	64362008	64366008	64186008
5-8 TPI	64361008	64364908	64371508
4-6 TPI	64360008	64364608	64371208
3-4 TPI		64364308	64370008
2-3 TPI		64364008	64369008

# Applications

Steel service centers, medium and large manufacturers, fabricators, maintenance shops, job shops, tool & die shops.

# Materials

Carbon steel, chrome steel, tool steel, die steel, stainless steel, nickel base steel, structurals, pipe and tube, and mixed metal applications.



# Features and Benefits

- M42 high speed edge improves wear resistance
- Oversized blade width increases beam strength
- Tooth geometries provide optimum cutting performance across a wide array of applications and materials
- Plastic capping protects teeth against damage in transit and handling (1" and wider)









Production and general purpose cutting in steel service centers.

# Materials

Carbon steel, chrome steel, tool steel, die steel, stainless steel, and nickel base alloys.



### Features and Benefits

- M42 high speed edge improves wear resistance
- Oversized blade width increases beam strength
- Aggressive tooth geometries provide optimum angles for top cutting performance
- Plastic capping protects teeth against damage in transit and handling









New BlockBuster<sup>®</sup> M42 bandsaw blades are designed for high-production cutting applications where cut accuracy and blade life are the most critical factors.

Block	Buster	1-1/4″ x .042 34 x 1.1 250′	1-1/2″ x .050 41 x 1.3 250′	2″ x .050 54 x 1.3 150′	2″ x .062 54 x 1.6 150′	2-5/8″ x .062 67 x 1.6 150′	3-1/8″ x .062 80 x 1.6 150′
5-8	TPI		64374000				
4-6	TPI		64373000	64375300	64377600	64380000	
3-4	TPI	64370500*	64372700	64375200	64377400	64378800	
2-3	TPI	64369500*	64372500*	64375100*	64377300*	64378000*	
1.5-1.9	TPI	64368008*	64371900*	64375000*	64377240*	64378850*	64378840*
1.1-1.4	ТРІ				64377260*	64378810*	64378820*
.8-1.0	TPI				64377220*	64377750*	64385000*

Coils shown as 150' and 250' lengths. May also be shipped in random lengths. All items are available welded-to-length and in SineWave®. \*Ground Tooth.







The SiClone<sup>®</sup> bandsaw blade is ideal for cutting exotic alloys.

SiClone	1″ x .035 27 x 0.9 250′	1-1/4″x .042 34 x 1.1 250′	1-1/2″x .050 41 x 1.3 250′	2″ x .062 54 x 1.6 150′	2-5/8″x .062 67 x 1.6 150′	3-1/8″x .062 80 x 1.6 150′
4-6 TPI	63544320	63550100				
3-4 TPI	63543750	63549600	63552600*	63556500*		
2-3 TPI	63542000*	63559000*	63552000*	63556000*		
1.5-1.9 TPI			63551200*	63555000*	63558000*	
1.1-1.4 TPI				63554100*	63557100*	
.79 TPI					63568000*	63569000*

Coils shown as 150' and 250' lengths. May also be shipped in random lengths. Also available in welded-to-length. \*Ground Tooth.

# **Applications**

SiClone®

Steel service centers, production cutting.

# Materials

Inconel, D2, stainless steel, Monel, other exotic alloys.



# Features and Benefits

- Designed for constant feed and pressure machines user friendly blade
- Unique tooth geometry prolongs blade life and minimizes work hardening
- 8% cobalt high speed wire electronically welded to premium backer improves performance
- Oversized width improves beam strength for longer blade life
- Plastic capping protects blade quality during transit and handling









Fabricators, steel service centers, job shops, machine shops and production cutting houses.

# Materials

Bundles, solids, tubes and structurals, including large cross-section "H" beams and "I" beams.



### Features and Benefits

- Robust tooth geometry produces faster cutting rates and increases productivity
- 8% cobalt high-speed wire increases blade durability
- Proprietary heat treat minimizes tooth chipping and improves blade flex life
- Plastic capping reduces tooth tip damage during transit and handling





# エト 🍂 器 🗱 cuts shapes

IC Enduro<sup>™</sup>

Enduro is designed for cutting bundle solids, structurals and tubes. It can handle even large cross section structurals while avoiding blade pinching during the cut.

IC Enduro	3/4" x .035 19 x 0.9 250'	1" x .035 27 x 0.9 250'	1 1/4" x .042 34 x 1.1 250'	1 1/2" x .050 41 x 1.3 250'	2" x .062 54 x 1.6 150'	2 5/8" x .062 67 x 1.6 150'	3 1/8" x .062 80 x 1.6 150'
5-8 TPI	<b>64361402</b> <sup>T</sup>	64365302	64371552	64374252			
4-6 TPI	64360302 <sup>*</sup>	64364102	64371472	64373752	64377652		
3-4 TPI		64364202	64371172	64372852	64377552	64379052	64390052
2-3 TPI			64369072	64372402*	64377292*	64380052*	

<sup>7</sup>3/4" blades do not come with plastic capping. \*Ground Tooth.



# DieBand Plus®





DieBand Plus<sup>®</sup> is an M42 product developed specifically for toolrooms and machine shops where contour cutting is the norm.

DieBand Plus	1/4" x .035 6 x 0.9 100'	3/8″ x .035 10 x 0.9 100′	1/2″ x .020 13 x 0.5 250′	1/2″ x .025 13 x 0.6 250′	1/2″ x .035 13 x 0.9 250′
24 TPI			61604000		
18 TPI			61602000		
14-18 TPI			61614180		
14 TPI	60626600	60630100	61602000		
10-14 TPI			61610140	64512000	64522100
10 TPI	60626000	60629900	61601000		
8-12 TPI				64511000	64521600
6-10 TPI				64510000	64521400
6 TPI	60625000	60629300			
4 TPI		60629200			60720000
3 TPI					60730000

## Applications

Tool and die makers.

# Materials

Tool and die steels.



# Features and Benefits

- Bi-metal construction means longer life and lower cost per cut than carbon blades
- M42 high-speed steel edge provides high wear resistance for longer life
- Tempered alloy backer results in longer life for contour cutting



Coils shown as 100' and 250' lengths. May also be shipped in random lengths. Also available in welded-to-length.

# www.simondsinternational.com



Dismantling/recycling pallets using bandsaw blades.

# Materials

Recycled pallets constructed with nails or staples.



# Features and Benefits

- Special nail-embedded wood tooth design results in longer blade usage
- Oversized blade width improves beam strength for straighter cuts
- Plastic capping on bi-metal blades minimizes tooth damage in transit and handling



PalletBuster®

PalletBuster® is manufactured specifically for recycling used wood pallets.

PalletBuster	1-1/4″ x .042 34 x 1.1 250′
Bi-Metal	
6 TPI	60331250
5-8 TPI	64371520
Carbon	
6 TPI	40840020
5-8 TPI	40540020

Coils shown as 250' lengths. May also be shipped in random lengths. Also available in welded-to-length. 500' coils are available.







**Red Streak** 

Pallet assembly and dismantling, portable sawmills, vertical and horizontal resaws

### Materials

Hardwoods, softwoods and laminates

### Features and Benefits

- Affordable, high-quality resharpenable blade
- Heavy set for longer run times
- PlyBand features extreme heavy set for radius cutting



Red Streak	1" OS x .035 27 x 0.9 250'	1" OS x .042 27 x 1.1 250'	1-1/4" x .035 32 x 0.9 250'	1-1/4" x .042 32 x 1.1 250'	1-1/2" x .042 38 x 1.1 250'	1-1/2" x .050 38 x 1.3 250'	2" x .035 51 x 0.9 250'	2" x .042 51 x 1.1 250′	2" x .050 51 x 1.3 250′
HardBack									
2 Tooth	52560000*								
3/4" TS	52550000*	52570000*	52577200*	52575000*					
7/8" TS		52572000	52577780*	52577710*	52577940*	52577950*		52590000*	
1 Tooth				52577920*		52577980*			52591000*
FlexBack									
3/4" TS	52577000		52571000	52577600			52578000		
PlyBand									
2 Tooth	52545000		52574500						
Bi-Metal									
2 Tooth	13290000*								
3/4" TS				13220000*					
3/4"-1" TS VP								13321000*	13320000*
1 Tooth				13190000*				13322000*	
Carbide Tip									
1"-1.5" TS VP								55506000	

\*Ground Tooth.



Maintenance, production shops and job shops.

HardBack

# Materials

Mild steel, aluminum, brass, wood and plastic.

## Features and Benefits

- Spring-tempered back increases beam strength for straighter, faster cuts and longer life
- Hardened tooth tip improves tooth tip wear resistance

Recommend maximum operating blade speed of 4000 SFPM.

HardBack offers enhanced performance over FlexBack through improved beam strength.





HardBack	1/4" x .025 6 x 0.6 250'	3/8″ x .025 10 x 0.6 250′	1/2″ x .025 13 x 0.6 250′	3/4″ x .032 19 x 0.8 250′	1″ x .035 27 x 0.9 250′
24 TPI Wavy			40821500		
18 TPI Reg.		40814000	40821000		
14 TPI Reg.	40808000	40813000	40819000	40828500	40833000
14 TPI Wavy				40828800	
10 TPI Reg.	40806000	40812000	40818000	40827300	40832400
10 TPI Wavy				40827600	
8 TPI Reg.			40817500	40826700	40832100
6 TPI Reg.			40817000	40826400	40831800
6 TPI Sabre	40805800	40811500	40816500		
4 TPI Sabre	40805500	40811000	40816000		40831700
3 TPI Sabre			40814600	40825800	40831500
2 TPI Sabre EHS				40825000	
2 TPI Sabre					40830000

Note: All 1/4", 3/8" and 1/2" specifications are also available in 100' coil length. All specifications shown may also be shipped in random lengths or 500' coils on special order. Also available in welded-to-length.





FlexBack

Maintenance shops, small foundries and job shops.

# Materials

Aluminum, brass, lead, wood and plastic.

### Features and Benefits

- Hardened tooth tip prolongs cutting edge life
- Flexible back extends the flex life of the blade
- Raker set provides straighter cuts



HexBack is a versatile, low cost carbon bla
---

FlexBack	1/8″ x .025 3 x 0.6 100′	3/16″ x .025 5 x 0.6 100′	1/4" x .025 6 x 0.6 250'	3/8″ x .025 10 x 0.6 250′	1/2" x .025 13 x 0.6 250'	5/8″ x .032 16 x 0.8 250′	3/4″ x .032 19 x 0.8 250′	1″ x .035 27 x 0.9 250′	1-1/4″ x .042 34 x 1.1 250′
24 TPI Wavy					37469000				
18 TPI Reg.	37106000		37390000	37425000	37466000				
14 TPI Reg.	37103000	37118000	37388000	37421000	37460000	37484000	37529000	37571000	
14 TPI Wavy					37463000				
10 TPI Reg.		37115000	37382000	37418000	37454000		37517000	37565000	
8 TPI Reg.							37511000	37562000	
6 TPI Reg.					37451000		37508000	37559000	
6 TPI Sabre			37379000	37412000	37448000		37505000		
4 TPI Reg.								37556000	
4 TPI Sabre			37373000	37409000	37445000				
4 TPI Skip			37370000	37406000	37442000				
3 TPI Sabre				37403000	37439000		37502000	37553000	
2 TPI Sabre							37493000		
1.33 TPI Sabre									37575000

Note: All 1/4", 3/8" and 1/2" specifications are also available in 100' coil length. All specifications shown may also be shipped in random lengths or 500' coils on special order. Also available in welded-to-length.



Furniture factories, cabinet shops and woodworking shops.

# Materials

All softwoods and hardwoods including oak, maple, mahogany and hickory.



# Features and Benefits

- Precision set provides smoother surface finish
- Positive rake angle facilitates tooth penetration for faster cuts
- Larger gullets improve chip removal for faster cuts
- Available in .032 thickness for improved band stiffness





WoodMax<sup>®</sup> is ideal for furniture, cabinet and woodworking operations.

WoodMax	1/4″ x .025 6 x 0.6 250′	1/4″ x .032 6 x 0.8 250′	3/8″ x .025 10 x 0.6 250'	3/8″ x .032 10 x 0.8 250′	1/2″ x .025 13 x 0.6 250′	1/2″ x .032 13 x 0.8 250′
6 Sabre MultiSet	37379000		37412000		37448000	
4 Sabre MultiSet	37373000		37409000		37445000	
4 Sabre ETS		37620400		37621600		37623500
3 Sabre MultiSet			37403000		37439000	
3 Sabre ETS				37621200		37622300
2 Sabre ETS				37620800		



WoodMax





*Friction is a special high silicon alloy blade offering long life in friction cutting applications.* 

Friction	3/4″ x .035 19 x 0.9 273′	1″ x .035 27 x 0.9 273′
10 TPI Reg.	37590800	37591200
8 TPI Reg.		37591000

Coils shown as 273' lengths. May also be shipped in random lengths. Also available in welded-to-length.

### **Applications**

Friction

Cutting 1/2" and thinner steel with band speed up to 18,000 SFPM.

## Materials

Stainless steel, high alloy steel and sheet metals.



### Features and Benefits

- High silicone alloy increases flex life
- Heavier set provides longer blade life
- Controlled heat treating provides longer lasting cutting edge





Refineries, aerospace and aircraft industries.

# Materials

Fiberglass, ceramic, graphite, honeycomb and narrow cross sections of high nickel alloys.

### Features and Benefits

- Tungsten grit edge provides durable edge for cutting abrasive and hard materials
- Carbide grit provides multiple cutting edges for prolonged blade life
- Continuous edge minimizes tooth strippage in thin cross sections



SimoGrit's carbide continuous or gulleted grit edges are ideal for cutting abrasive and difficult to cut materials under two inches.

SimoGrit			1/4" x .020 6 x 0.5 250'	3/8″ x .025 10 x 0.6 250′	1/2″ x .025 13 x 0.6 250′	3/4″ x .032 19 x 0.8 250′	1″ x .035 27 x 0.9 250′	1-1/4" x .042 34 x 1.1 250'	1-1/2″ x .050 41 x 1.1 250′
.039 Kerf	Fine	Continuous			43105500				
.042 Kerf	Medium	Continuous	43100500						
.047 Kerf	Medium	Gulleted		43102000	43105000				
.047 Kerf	Medium	Continuous		43102550	43105550				
.054 Kerf	Medium	Continuous				43108500			
.056 Kerf	Med/Coarse	Gulleted		43102050	43105050				
.057 Kerf	Medium	Continuous					43111000		
.063 Kerf	Med/Coarse	Gulleted				43108050			
.066 Kerf	Med/Coarse	Gulleted					43110000		
.066 Kerf	Med/Coarse	Continuous					43111050		
.076 Kerf	Coarse	Gulleted				43108100			
.076 Kerf	Coarse	Continuous				43108600			
.079 Kerf	Coarse	Gulleted					43110050		
.086 Kerf	Coarse	Gulleted						43114200	43116200

SimoGrit

Coils shown as 125' and 250' lengths. May also be shipped in random lengths. Also available in welded-to-length.

# Power Hacksaws



High-Speed Molybdenum Product Code	High-Speed Bi-Metal Product Code	Length x Width x Thickness / Inches	Length x Width x Thickness / mm	Overall Length/ mm	Teeth Per Inch
33121050	—	12 x 1 x .050	300 x 25 x 1.25	322	10
33121450	—	12 x 1 x .050	300 x 25 x 1.25	322	14
33141050	_	14 x 1 x .050	350 x 25 x 1.25	376	10
33141450	35141450	14 x 1 x .050	350 x 25 x 1.25	376	14
33140660	35140660	14 x 1-1/4 x .062	350 x 32 x 1.6	376	6
33141060	35141060	14 x 1-1/4 x .062	350 x 32 x 1.6	376	10
33180660	35180660	18 x 1-1/4 x .062	450 x 32 x 1.6	482	6
33181060	35181060	18 x 1-1/4 x .062	450 x 32 x 1.6	482	10
33180470	35180470	18 x 1-1/2 x .075	450 x 40 x 2.0	482	4
33180670	35180670	18 x 1-1/2 x .075	450 x 40 x 2.0	482	6
33180480	35180480	18 x 1-3/4 x .088	450 x 45 x 2.25	482	4
33180680	35180680	18 x 1-3/4 x .088	450 x 45 x 2.25	482	6
33210480	35210480	21 x 1-3/4 x .088	525 x 45 x 2.25	561	4
33210680	35210680	21 x 1-3/4 x .088	525 x 45 x 2.25	561	6
33240400	35240400	24 x 2 x .100	600 x 50 x 2.5	636	4

Order by product code. Packaged 10 blades in a box.

SIMONDS provides a choice of power hacksaw blades designed to meet the needs of performance conscious consumers. For best results, use the widest blade available in the desired length.

# High-Speed Molybdenum

The industry's first choice for general purpose cutting. The solid high-speed steel blade is extremely rigid for straighter cuts.

#### Features and Benefits

- High-speed molybdenum for a tough and durable blade
- Solid high-speed for straighter cuts

# High-Speed Bi-Metal

Combines the extremely hard and long wearing characteristics of high-speed steel and a strong and flexible body, producing a safe and long lasting blade.

### Features and Benefits

- Shatter resistant for additional safety assurance against blade breakage
- Electron beam weld provides a stronger bond between high-speed wire and body of the blade
- High-speed wire for a longer lasting cutting edge





# Blade Terminology





# **Regular or Raker Set**

Regular Set is sometimes referred to as Raker Set and consists of a repetitive pattern with one tooth set to the right, the next to the left, and the third (called the raker tooth) without set. This type of set is best when the material being cut is of uniform size. It is also used in contour sawing.



# Every Tooth Set (E.T.S.)

Every Tooth Set (E.T.S.) is similar to the regular set pattern, but without the raker or unset tooth. All teeth are set right and left in an alternating and repeating pattern. This provides, in effect, one-third more cutting teeth and is especially good for blades used in furniture industries where a raker tooth is a disadvantage.



### Wavy Set

Wavy Set is a different arrangement in which groups of teeth are set to the right and then to the left in a repetitive wave-like pattern. This reduces the strain that would occur on individually-set teeth, making the saw more suitable for cutting thin stock or a variety of shapes and thicknesses without changing blades. Wavy set, therefore, has a range of applications in which it is much superior to the regular-set pattern.



# Variable Tooth Set

Variable Tooth Set consists of teeth set alternately right and left at regular intervals with a raker tooth (i.e., left-right-left-right-raker). Excellent for cutting a variety of shapes and pipe from 15 mm wall thickness and upward.

# Blade Terminology





www.simondsinternational.com



# Tooth Pitch Primer

# WHAT TOOTH PITCH DO WE USE?

## **OPTIMIZING TOOTH PITCH**

Always strive for a minimum of 3 teeth and a maximum of 24 teeth in the cut (6 to 12 teeth in the cut at any time is the optimum)

Hard materials (*example: die steels*) ..... 18-24 teeth in the cut average

Tough materials (*example: Inconel*) ...... 12-18 teeth in the cut average

AVERAGING VARIABLE PITCH TEETH								
PITCH	AVERAGE # OF TPI							
3-4 PITCH	3-1/2 TPI							
4-6 PITCH	5 TPI							
5-8 PITCH	6-1/2 TPI							
6-10 PITCH	8 TPI							

# EXAMPLE:

4" bar stock – using a 3-4 TPI blade Avg. TPI =  $3 + 4 \div 2 = 3.5$ (Bar stock size, multiplied by the average TPI = no. of teeth in the cut) (4 x 3.5 = 14)

> 3-4 pitch would give us 14 teeth in the cut 4-6 pitch would give us 20 teeth in the cut 5-8 pitch would give us 26 teeth in the cut 6-10 pitch would give us 32 teeth in the cut

### ITEMS THAT INFLUENCE TOOTH 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 shapes.

### **Chip Formation**

- Hard materials require a small, strong tooth shape.
- Soft materials make large chips that fill up a gullet quickly. Select a large gulleted blade.

# Chip Length

- The longer the tooth is in a cut, the more chip that will be generated, and the more gullet area that will be needed to hold the chip.
- Cutting stops when the gullets are full.





# **Basic Procedure**

- 1. Set band speed to the normal recommended S.F.P.M. for the material.
- 2. Reduce feed by 50% of the normal cutting rate (25% if SineWave).
- 3. Determine the recommended square inches of material to be cut at break-in from table.
- 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.

<i>For SineWave® Blades</i> Recommended band speed (SFPM) Sq. in. to cut for break-in				150 40	100 25	50 10
<i>For Carbide Tipped Blades</i> Recommended band speed (SFPM) Sq. in. to cut for break-in	300 110	250 95	200 75	150 50	100 35	50 15
<i>For Bi-Metal Blades</i> Recommended band speed (SFPM) Sq. in. to cut for break-in	300 90	250 75	200 60	150 40	100 25	50 10
<i>For SiClone® Blades</i> Recommended band speed (SFPM) Sq. in. to cut for break-in	300 110	250 95	200 75	150 50	100 35	50 15



# Speed and Feed Charts

Speeds and feeds are based on running bi-metal blades. When using carbon blades or when cutting dry, reduce speeds and feeds by 50%.

Stock Dimensions Tooth Pitch	Up 10-14	to 1" , 8-12	From 1" - 3" 8-12, 6-10, 5-8		From 3" - 6" 5-8, 4-6, 3-4, 3 Sabre		Ov 3-4, 2-3, 2 S 3-4	er 6" abre, 1 Tooth, ' T.S.
Material (Annealed)	Blade Speed (SFPM)	Cutting Rate (SIPM)	Blade Speed (SFPM)	Cutting Rate (SIPM)	Blade Speed (SFPM)	Cutting Rate (SIPM)	Blade Speed (SFPM)	Cutting Rate (SIPM)
Carbon Steels 1008-1013 1015-1018 1048-1065 1065-1095	250 250 200 200	8 -10 8 -10 5 - 7 4 - 6	275 275 200 200	9 -12 9 -12 5 - 7 5 - 7	280 250 175 150	12 -15 12 -15 8 -10 6 - 8	250 230 150 120	9 - 12 9 - 12 6 - 8 6 - 8
<b>Free Machining Steels</b> 1108-1111 1112-1113 1115-1132 1137-1151 1212-1213	300 300 300 275 300	9 -11 8 -11 7 -10 6 - 8 8 -10	330 330 330 250 320	12 -14 11 -13 10 -13 8 -10 11 -13	275 275 275 250 300	13 - 15 12 - 15 13 - 16 8 - 11 13 - 15	220 220 220 200 255	11 - 14 12 - 15 11 - 14 7 - 10 11 - 14
<b>Manganese Steels</b> 1320-1330 1335-1345	250 250	5 - 7 5 - 7	250 225	5 - 8 5 - 7	200 200	8 -11 7 - 9	175 175	7 -10 5 - 8
Nickel Chrome Steels 3115-3130 3135-3150 3310-3315	260 220 200	4 - 6 4 - 6 3 - 4	260 200 180	5 - 7 4 - 7 4 - 5	230 180 180	5 - 7 6 - 8 5 - 7	225 150 160	5 - 7 5 - 8 4 - 6
<b>Molybdenum Steels</b> 4017-4024 4032-4042 4047-4068	300 300 250	3 - 5 3 - 5 3 - 5	270 270 220	4 - 7 4 - 7 4 - 6	250 250 200	6 - 8 6 - 8 5 - 7	220 230 180	5 - 8 5 - 8 3 - 5
<i>Chrome Moly Steels</i> 4130-4140 4142-4150	280 230	4 - 6 3 - 5	250 200	5 - 8 4 - 6	250 200	8 -10 5 - 7	220 170	6 - 8 4 - 6
Nickel Chrome Moly Steels 4317-4320 4337-4340 8615-8627 8630-8645 8647-8660 8715-8750 9310-9317 9437-9445 9747-9763 9840-9850	250 230 250 250 250 250 250 250 250 240	3 - 5 3 - 4 3 - 5 3 - 5 2 - 4 3 - 5 4 - 5 4 - 5 4 - 5	225 200 230 200 200 220 160 230 230 220	4 - 6 4 - 5 6 - 7 4 - 6 3 - 5 4 - 6 2 - 3 4 - 5 3 - 5 4 - 6	200 200 230 230 200 220 160 230 200 200	5 - 7 4 - 6 5 - 7 5 - 7 5 - 7 5 - 7 5 - 6 5 - 7 5 - 7	170 170 200 180 150 180 150 180 180 180	4 - 6 4 - 7 4 - 7 4 - 6 3 - 6 3 - 5 4 - 5 3 - 6 3 - 6
Nickel Moly Steels 4608-4621 4640 4812-4820	250 220 200	3 - 5 3 - 5 3 - 5	220 200 180	5 - 6 4 - 6 3 - 5	220 200 180	6 - 7 5 - 7 4 - 6	200 170 160	5 - 6 4 - 6 4 - 5
<i>Chrome Steels</i> 5045-5046 5120-5135 5140-5160 50100-52100	280 280 250 180	4 - 6 4 - 6 3 - 5 2 - 4	250 250 230 160	5 - 7 6 - 7 4 - 6 3 - 5	250 240 230 150	8 -10 7 - 8 5 - 7 4 - 6	200 180 200 100	7 - 8 5 - 8 4 - 6 3 - 5
<i>Chrome Vanadium Steels</i> 6117-6210 6145-6152	225 225	4 - 5 3 - 4	225 200	5 - 7 4 - 5	200 200	6 - 8 5 - 6	170 150	5 - 7 4 - 5
Die Steels A-2, D-2, D-3 D-7 O-1, O-2 O-6	210 110 90 240 230	2 - 3 1 - 2 1 3 - 4 3 - 4	200 100 80 210 200	3 - 4 1 - 2 1 4 - 5 4 - 6	190 90 70 190 180	3 - 4 1 - 2 1 5 - 6 5 - 7	180 80 70 170 150	2 - 3 1 - 2 1 4 - 5 4 - 6

SFPM = Surface Feet Per Minute SIPM = Square Inches Per Minute

# Speed and Feed Charts



Speed and feed rates reflect optimum blade life. For increased production rates, contact Simonds for more information.

Stock Dimensions Tooth Pitch	Up to 1" 10-14, 8-12		From 1"- 3" 8-12, 6-10, 5-8		From 3"- 6" 5-8, 4-6, 3-4, 3 Sabre		Over 6" 3-4, 2-3, 2 Sabre, 1 Tooth, 3-4" T.S.	
Material (Annealed)	Blade Speed (SFPM)	Cutting Rate (SIPM)	Blade Speed (SFPM)	Cutting Rate (SIPM)	Blade Speed (SFPM)	Cutting Rate (SIPM)	Blade Speed (SFPM)	Cutting Rate (SIPM)
<i>Silicon Steels</i> 9255-9260 9261-9262	200 200	2 - 4 1 - 3	180 160	3 - 5 2 - 3	180 160	3 - 5 2 - 4	150 150	3 - 5 2 - 3
High Speed Tool Steels T-1, T-2 T-4, T-5 T-6, T-8 T-15 M-1 M-2, M-3 M-4, M-10	130 110 110 80 150 120 100	1 - 2 1 - 2 1 - 2 1 - 3 1 - 3 1 - 2 1 - 2	110 100 100 80 140 110 90	2 - 3 1 - 2 1 - 2 2 - 4 2 - 3 1 - 2	100 90 80 70 130 100 80	2 - 4 2 - 3 1 - 2 3 - 5 3 - 4 1 - 3	90 80 70 50 110 80 60	2 - 3 1 - 2 1 - 2 2 - 4 2 - 3 1 - 2
Hot Work Steels H-12, H-13, H-21 H-22, H-24, H-25	150 150	2 - 4 1 - 3	125 125	3 - 5 1 - 3	125 125	2 - 4 1 - 3	125 125	2 - 4 1 - 3
<i>Shock Resisting Tool Steels</i> S-1 S-2, S-5	220 170	2 - 4 1 - 3	180 150	3 - 5 2 - 4	165 120	3 - 5 2 - 4	150 100	2 - 4 1 - 3
<i>Special Purpose Tool Steels</i> L-6 L-7	200 200	2 - 4 2 - 4	180 180	3 - 5 3 - 5	170 150	3 - 5 3 - 5	150 100	2 - 4 2 - 4
Stainless Steels           201, 202, 302, 304           303, 303F           308, 309, 310, 330           314, 316, 317           321, 347           410, 420, 420F           416, 430F           430, 446           440 A, B, C           440F, 443           17-4PH, 17-7PH	120 140 90 130 150 200 100 120 150 100 100	2 - 4 2 - 4 1 1 - 3 1 - 3 3 - 5 1 - 3 1 - 3 1 - 3 2 - 3 1 - 2	100 120 70 80 110 130 180 90 10 130 90 100	2 - 4 2 - 4 1 1 - 3 1 - 3 4 - 6 2 - 4 1 - 3 1 - 3 2 - 4 1 - 2	100 100 60 70 100 120 170 80 90 120 80 100	2 - 4 3 - 5 2 2 - 4 2 - 4 5 - 7 2 - 4 2 - 4 2 - 4 3 - 4 3 - 4 2 - 3	100 100 60 80 100 150 80 70 100 80 100	1 - 3 2 - 4 1 1 - 3 1 - 3 4 - 6 1 - 3 1 - 3 1 - 3 2 - 3 2 - 3
<b>Beryllium Copper #25</b> BHN 100-120 BHN 220-250 BHN 310-340	350 250 200	4 - 6 2 - 4 1 - 2	300 225 160	5 - 7 3 - 5 1 - 2	275 200 140	6 - 8 4 - 6 2 - 3	225 175 100	5 - 7 3 - 5 1 - 2
Nickel Base Alloys Monel R Monel K Monel Inconel Inconel X Hastelloy A Hastelloy C Rene 41 Udimit Waspalloy Titanium	100 140 100 100 110 90 120 110 100 90 100 90	$ \begin{array}{c} 1 & - & 2 \\ 2 & - & 3 \\ 1 & - & 3 \\ 1 & - & 2 \\ 1 & - & 2 \\ 0 & - & 1 \\ 0 & - & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & - & 2 \end{array} $	100 140 80 90 100 80 100 100 90 90 90 90	1 - 2 2 - 4 1 - 3 1 - 3 1 - 2 1 - 2 0 - 1 1 - 2 1 - 2 1 - 2 2 - 3	80 125 60 80 70 85 90 70 90 90 90 90	$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	60 75 60 80 60 75 75 60 90 90 90 90	1 2 - 3 1 - 2 1 - 2 1 - 2 1 - 2 0 - 1 1 - 2 1 - 2 1 - 2 1 - 2 2 - 3
Titanium Alloys TI-4AL-4MO TI-140A 2CR-2MO TI-150A TI-6AL-4V 99% Pure Titanium	100 100 100 100 100	0 - 1 0 - 1 0 - 1 0 - 1 0 - 1 0 - 1	90 90 90 90 90	0 - 1 0 - 1 0 - 1 0 - 1 0 - 1 0 - 1	80 80 80 80 80	0 - 1 0 - 1 0 - 1 0 - 1 0 - 1 0 - 1	70 60 60 60 60	0 - 1 0 - 1 0 - 1 0 - 1 0 - 1 0 - 1



# Troubleshooting



# Stripping Teeth

- Too many teeth or too few teeth in the cut please see Optimizing Tooth Pitch on p. 28
- Parts not held securely use a third clamp or weld ends
- Feed rate too high or speed too slow
- Poor butt weld
- Chip brush not working, causing chips to overload gullets
- Check coolant concentration



# Band Breakage

- Worn guides
- Guide arms set too far apart
- Diameter of wheels too small use thinner bands
- Band tension too high
- Feed rate too high
- Poor butt weld



# **Crooked Cut**

- Dull blade
- Improper break-in
- Guide arms too far apart or out of alignment
- Damaged roller or carbide guides
- Feed rate too heavy or blade speed too slow
- Tooth pitch too fine
- Band tension too low
- Vise clamp out of square



## Premature Dulling of Teeth

- Improper break-in
- Check coolant concentration and flow
- Check chip brush
- Check feed rates and blade speed
- Select proper tooth pitch



# Rough Cut

- Band speed too slow and feed rate too high
- Improper break-in
- Dull or damaged teeth
- Check chip brush
- Poor butt weld

# **Other Simonds Products**





OUR TOUGHEST COMPETITION IS THE MATERIAL WE CUT. Trying to keep your crew productive? Better get the most dependable line of blades and hole cutters you can get. The Simods Power Tool Accessory line features rugged durability and more cuts per Idade to get through the nasty jobs without continuous downtime for changing blades. Hole saws, hole saw kits, reciprocating saw, jig saw, hacksaw, bi-metal port-a-band blades and annular cutters take on everything from the softest woods to the toughest metals without laying down on the job.

Call 1.800.343.1616 for more info or visit us at www.simondsinternational.com



The Professionals' Edge

you through the toughest work with hours to spare? Simonds has a line of workhorse files that are still hard at work when others are in the scrap bin. For wide-ranging applications choose from our standard American Pattern Files or our premium Black Maxi-Sharp<sup>®</sup> Files specially treated with black oxide coating to resist loading and rust; Swiss Pattern Files for finishing delicate and intricate parts; and Vixen<sup>®</sup> Files recognized as the most efficient ever designed for auto-body work and manufacturing.

The Professionals Edge"

Call 1.800.343.1616 for more info or visit us at www.simondsinternational.com



# Contact your local Simonds Distributor at 1-800-343-1616

or visit our website at www.simondsinternational.com for information on these and other Simonds products.

# SIMONDS



**Triple Chip Carbide Set Tooth** 20° Negative Rake **X-51**<sup>tm</sup> **BroadBand® BlockBuster**<sup>®</sup> SiClone<sup>®</sup> IC Enduro<sup>tm</sup> **DieBand Plus®** PalletBuster<sup>®</sup> **Red Streak** HardBack FlexBack WoodMax Friction SimoGrit **Power Hacksaws** 



**SIMONDS INTERNATIONAL** 135 Intervale Road, P.O. Box 500, Fitchburg, MA 01420 (978) 424-0100 • (800) 343-1616 • fax (800) 541-6224

www.simondsinternational.com

The Professionals' Edge™



©Simonds International 5/10 3M #304R