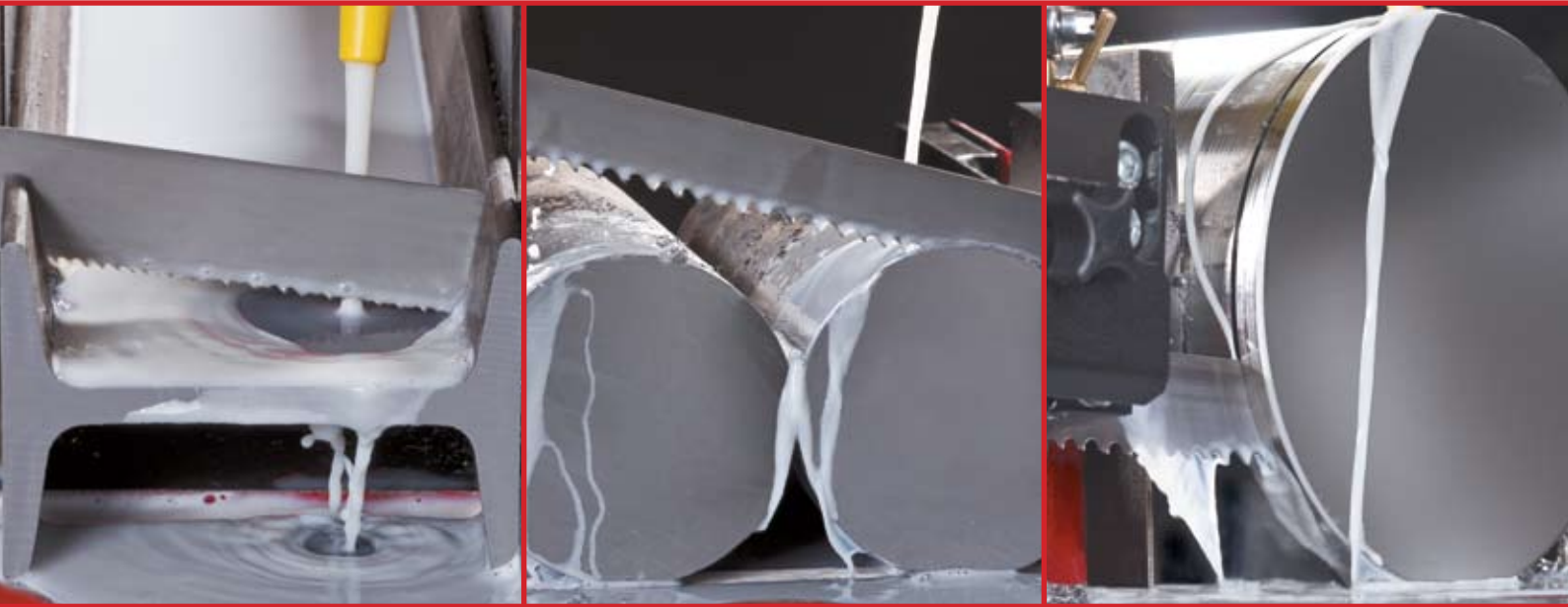




Band Saw
Blades

Starrett®



Versatix™ MP

Intenss™ PRO

Advanz™ TS

“ Starrett: Precision, Quality and Innovation.”

For more than 128 years, manufacturers worldwide have depended upon precision tools from the L.S. Starrett Company to ensure the consistent quality of their products.

The most demanding craftsmen and professionals know that the Starrett name on a band saw blade, hand tool or measuring tool means quality, exceptional service and expert technical assistance.

With strict quality control, state-of-the-art equipment and an ongoing commitment to R&D, the 5,000+ products in today's Starrett line continue to be the most accurate, robust and durable tools available.

INTRODUCTION

- 3 Starrett Worldwide

TECHNICAL INFORMATION

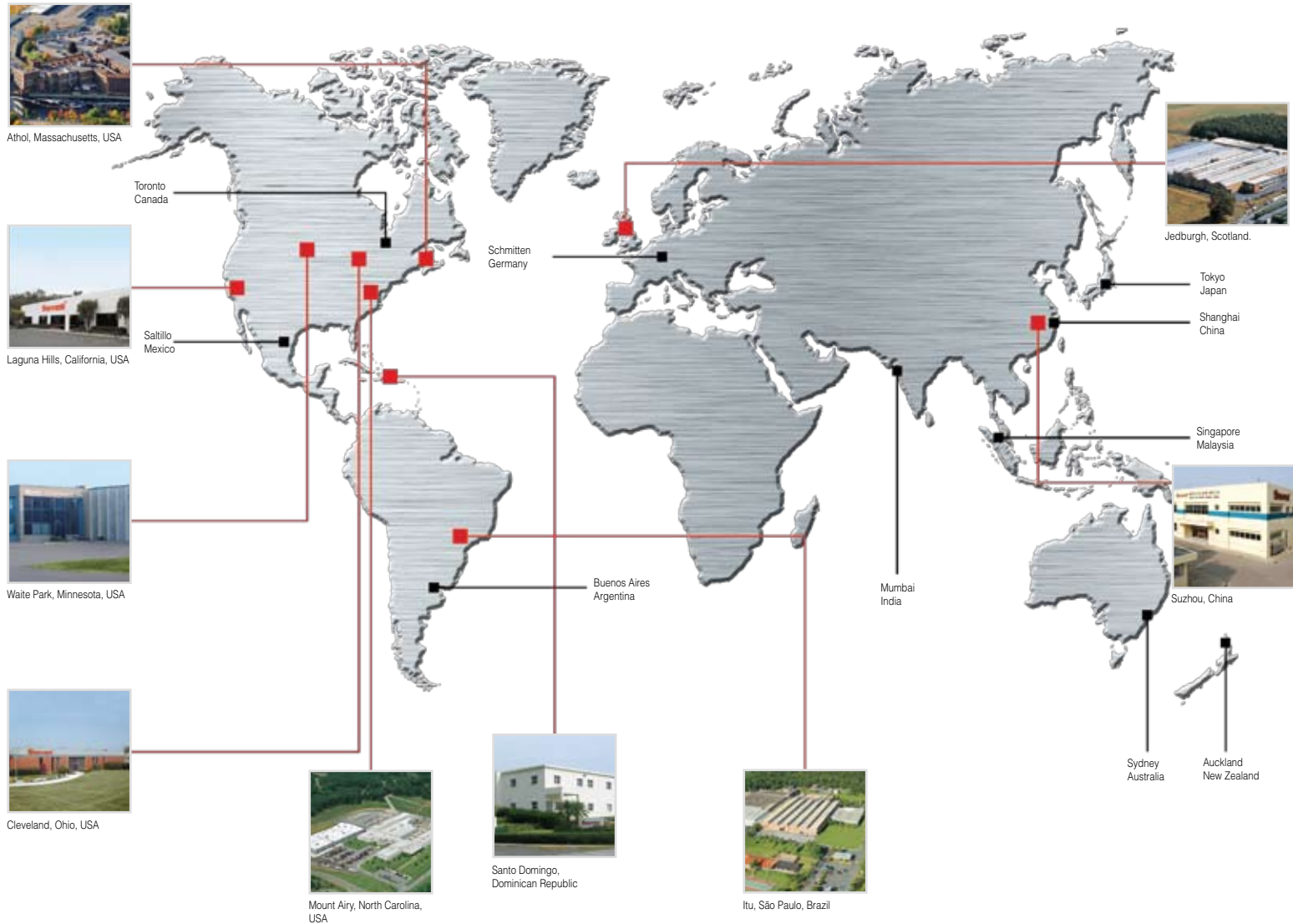
- 4 Blade Selection
- 5 Application Guide
- 6 Terminology
- 7 Characteristics

BAND SAW BLADES

- 8 Versatix™ MP
- 9 Intenss™ PRO-DIE
- 10 Intenss™ PRO
- 11 Intenss™ PRO-VTH
- 12 Advanz™ FS
- 13 Advanz™ TS
- 14 Advanz™ CG
- 15 Advanz™ DG
- 16 Duratec™ SFB
- 17 Woodpecker™ Premium / Woodpecker™ PRO
- 18 Meatkutter™ Premium / Meatkutter™ Stainless / Carcaskutter™
- 19 Band Knives

- 20 Important Recommendations

- 22 Troubleshooting



- Starrett Distribution Centres & Offices
- Starrett Factories

The L.S. Starrett Company has been involved in precision tool manufacturing since 1880, sold products worldwide since the 1890s and introduced its first saw blade in about 1904.

Headquartered in Athol, MA since its founding, Starrett has a tradition and reputation so rich and solid that the words "quality" and "Starrett" have become synonymous.

The Company employs over 2,000 people worldwide with sales of over \$200,000,000.

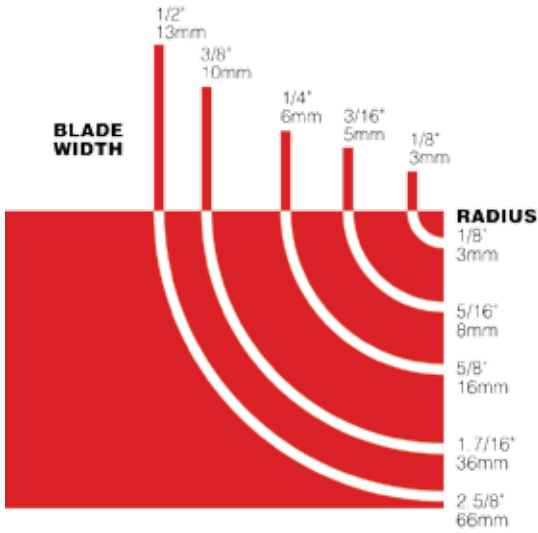
FACTORIES AROUND THE WORLD

BLADE SELECTION

Blade length is dependent on the band saw machine being used. To establish correct blade length please refer to your band saw machine manual and if in doubt please contact our Technical Support Department for help and advice.

Use the widest blade your machine will take except when cutting contours. The diagram below details recommended blade widths for cutting radii and contours.

Use the chart opposite to select the blade that will provide the best results with the material to be cut, then refer to the individual blade pages for detailed information.



Band saw tooth pitch selection is determined by the size of the cross section to be cut. In general cutting thinner sections require more teeth per inch, thicker sections require coarser pitches, or less teeth per inch.



To select an appropriate tooth size please refer to the table immediately below unless material to be cut is a tube, in which case refer to the larger table further below. For general purpose cutting use a Versatix MP blade, for more aggressive production cutting of harder to cut materials use an Intenss™ PRO blade or an Intenss™ PRO-VTH blade.

NOTE: When cutting two or more tubes lying side by side, please be aware of the double wall thickness.

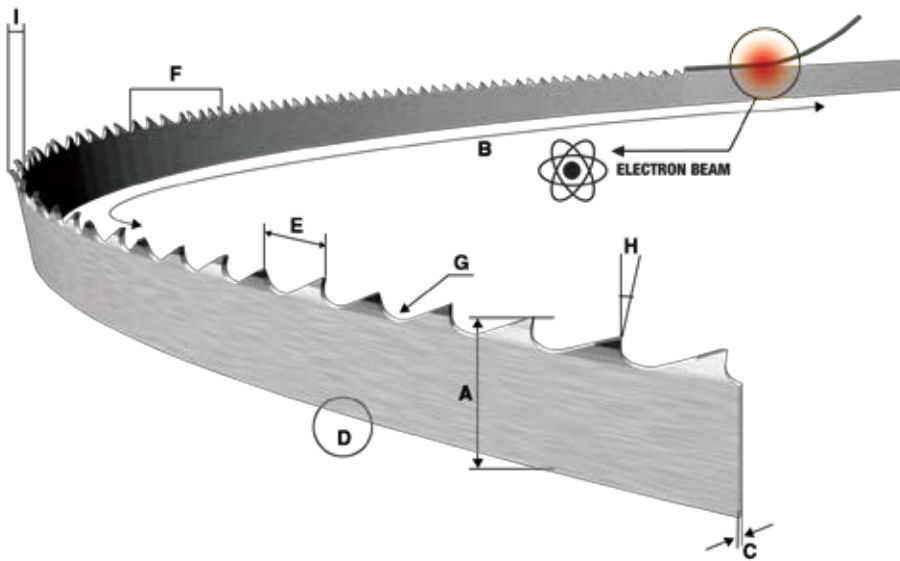
Section Size (mm)	Constant Pitch (TPI)	Variable Pitch (TPI)
Up to 10	24 or 18	14-18 or 10-14
10-15	14	8-12
16-30	10	6-10
31-50	8	5-8
51-80	6	4-6
81-120	4	3-4
121-200	3	2-3
Over 200	1 or 1.3	0.8-1.3 or 1.4-2

Wall Thickness	Outside diameter of tube or maximum profile section length (mm)												
	20	40	60	80	100	120	150	200	300	500	600	700	800
mm	20	40	60	80	100	120	150	200	300	500	600	700	800
2	14	14	14	14	14	14	10-14	10-14	8-12	8-12	6-10	5-8	5-8
3	14	14	10-14	10-14	10-14	10-14	8-12	8-12	6-10	6-10	5-8	5-8	5-8
4	14	14	10-14	10-14	8-12	8-12	6-10	6-10	5-8	5-8	4-6	4-6	4-6
5	14	10-14	10-14	8-12	8-12	6-10	6-10	5-8	5-8	4-6	4-6	4-6	4-6
6	14	10-14	10-14	8-12	8-12	6-10	6-10	5-8	5-8	4-6	4-6	3-4	3-4
8	14	10-14	8-12	8-12	6-10	6-10	5-8	5-8	4-6	4-6	3-4	3-4	3-4
10		8-12	8-12	6-10	6-10	5-8	5-8	4-6	4-6	3-4	3-4	3-4	3-4
12		8-12	6-10	6-10	5-8	5-8	4-6	4-6	3-4	3-4	3-4	3-4	2-3
15			6-10	5-8	5-8	4-6	4-6	4-6	3-4	3-4	3-4	2-3	2-3
20				5-8	4-6	4-6	4-6	3-4	3-4	2-3	2-3	2-3	2-3
30					4-6	4-6	3-4	3-4	3-4	2-3	2-3	2-3	2-3
50						3-4	3-4	3-4	2-3	2-3	2-3	2-3	2-3
75							2-3	2-3	2-3	2-3	2-3	1.4-2	1.4-2

BLADE SELECTION

 Primary Application
 Secondary Application

	Duratec™ SFB	Woodpecker™ Premium	Woodpecker™ PRO	Intens™ PRO	Intens™ PRO-DIE	Intens™ PRO-VTH	Versatix™ MP	Advanz™ FS	Advanz™ TS	Advanz™ CG	Advanz™ DG	Meatkutter™	Carcaskutter™	Band Knives
Low Alloy Steels														
Aluminum														
Inox (Stainless)														
Tool, Die & Mould Steels														
Carbon Steel														
Structural Steels														
Steels up to 45 HRc														
Nickel Based Alloys														
Non-Ferrous Metals														
Wood														
Nail Embedded Wood														
Furniture														
Composition Board														
Plastic														
Acrylic														
Ceramic														
Glass														
Porcelain														
Fibreglass														
Stone														
Marble														
Granite														
Foam / Fibrous Material														
Rubber														
Paper														
Meat														
Carcass														



A - WIDTH

Tip of the cutting edge to the back of the blade.

B - LENGTH

Measurement along the back edge of the blade.

C - THICKNESS

Measurement of the body of the blade.

D - BACK EDGE

Opposite side of the blade from the teeth.

E - TOOTH PITCH

Distance from the tip of one tooth to the next tip.

F - TEETH PER INCH/25MM

Number of teeth per inch/25mm.

G - GULLET

The curved area between two teeth.

H - TOOTH FACE

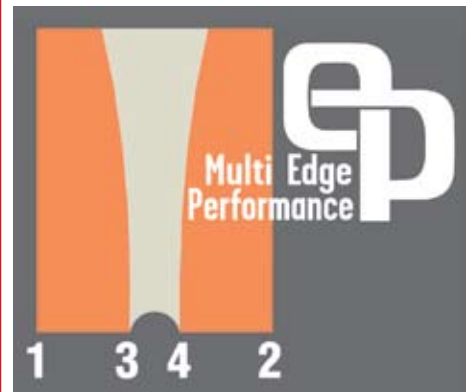
Surface of the tooth where the chip is formed. The tooth can have a positive or straight angle when measured against a line perpendicular from the back of the blade.

I - TOOTH SET

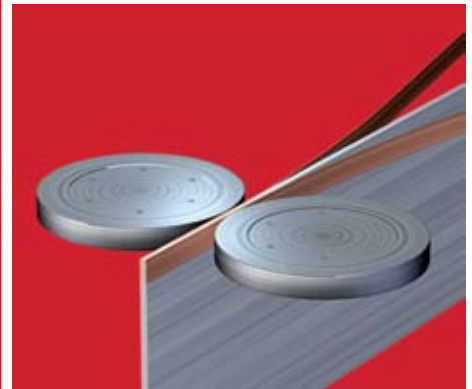
The bending of the teeth, right and left, to allow blade clearance through the cut.



SPLIT CHIP ADVANTAGE




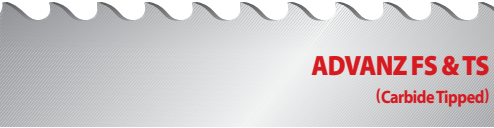


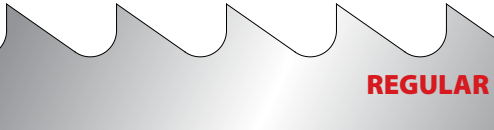


MULTIPLE CUTTING EDGES







170% MORE WELD CONTACT AREA

Starrett®
bi-metal unique®
saw technology

	Constant Pitch	Variable Pitch	
 <p>INTENSS PRO</p>	<input checked="" type="checkbox"/> 3 to 24	<input checked="" type="checkbox"/> 0.8-1.3 to 14-18	<p>Positive Rake (P) (up to 10°). Use for high production cutting of solids or heavy wall profiles. M-42 high speed edge with 8% cobalt.</p> <p>Positive rake (P) (up to 10°) product with a patented surging cutting action. Use with nickel alloys, stainless steels, and heat treated steels (up to 45 HRC). M-42 high speed edge with 8% cobalt.</p> <p>Computer designed product with a resultant positive rake tooth (P) aimed specifically for intermittent cuts on beams, channels and tubes. Works well for all general cutting. M-42 high speed edge with 8% cobalt.</p> <p>CNC Ground Triple Chip Tooth form (T). Excellent for high production rates on hard metallic and abrasive non-metallics. Advanz™ FS is for shock, foundry applications. Advanz™ TS is for heat treated, difficult to machine materials.</p>
 <p>INTENSS PRO-VTH</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/> 1-1.2 to 4-6	
 <p>VERSATIX MP</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/> 2-3 to 10-14	
 <p>ADVANZ FS & TS (Carbide Tipped)</p>	<input checked="" type="checkbox"/> 1 to 3	<input checked="" type="checkbox"/> 0.9-1.1 to 3-4	

 <p>REGULAR</p>	<input checked="" type="checkbox"/> 6 to 24	<input checked="" type="checkbox"/> 8-12 to 14-18	<p>A standard 0° rake (R) tooth form good for general and light duty cutting applications.</p> <p>A 10° rake (H) angle available in the carbon line. Good for fast cutting of hardwoods and non-ferrous materials.</p> <p>0° rake (S) tooth with expanded gullet area. Works well on soft woods, non-ferrous and non-metallics.</p>
 <p>HOOK</p>	<input checked="" type="checkbox"/> 1.1 to 8	<input type="checkbox"/>	
 <p>SKIP</p>	<input checked="" type="checkbox"/> 3 to 6	<input type="checkbox"/>	

 <p>RAKER SET</p>	<p>A recurring sequence of teeth set left and right, followed by one tooth unset (RAKER TOOTH). Frequency of unset teeth on variable pitch blades varies depending on the tooth configurations.</p>
 <p>ALTERNATE SET</p>	<p>A recurring sequence of teeth set alternately left and right.</p>
 <p>WAVY SET</p>	<p>Groups of teeth set to each side of the blade, with varying amounts of set in a controlled pattern.</p>
 <p>TRAPEZOIDAL</p>	<p>Special carbide cylinder welded in the tooth edge, being slightly thicker than the blade, and triple chip grind.</p>



Versatix™ MP

Developed and tested by Starrett, with a patent application pending, Versatix™ MP band saw blades set new standards in cutting structural steels, sections, tubes and small solids.

The new revolutionary tooth design ensures that the blades can easily cope with the shock loading conditions associated with intermittent cutting, and are also ideal for manual “pull down” band saw machines with uncontrolled feed rates.

Features:

- ▶ New tooth design resulting in a significant increase in tooth strength and consequent reduction in tooth stripping.
- ▶ Triple tempered M-42 cobalt high speed steel teeth combined with a fatigue resistant alloy steel backing strip.

Benefits:

- ▶ Ideal for use on manual “pull down” band saw machines where uncontrolled feed rates can easily overload the teeth with a standard blade.

Applications:

- ▶ Sections and structural steels.
- ▶ Tubes.
- ▶ Angle iron.
- ▶ Small solids.

SOLID



TUBULAR



STRUCTURAL



BUNDLE



■ Primary Application
■ Secondary Application

Versatix™ MP

Blade Width x Thickness		Tooth Pitch						
mm	Inch	2-3	3-4	4-6	5-8	6-10	8-12	10-14
19 x 0.90	3/4 x .035			VXMP	VXMP	VXMP	VXMP	VXMP
27 x 0.90	1 x .035		VXMP	VXMP	VXMP	VXMP	VXMP	VXMP
34 x 1.10	1.1/4 x .042	VXMP	VXMP	VXMP	VXMP	VXMP		
41 x 1.30	1.1/2 x .050	VXMP	VXMP	VXMP	VXMP			
54 x 1.60	2 x .063	VXMP	VXMP					
67 x 1.60	2.5/8 x .063	VXMP	VXMP					

VXMP - Versatix™ MP Blade Type: All VXMP Blades Are Raker Tooth Set: VXMP Is Positive Rake (P) Angle.



Intenss™ PRO-DIE

Featuring the longevity and chip clearing advantages of bi-metal unique® saw technology, Intenss™ PRO-DIE is available in a variety of tooth pitches and is ideal for contour and general purpose cutting on horizontal and vertical machines.

Features:

- ▶ Ideal for contour and general purpose cutting of tool, die and mold steels, stainless steels, nickel based alloys and non-ferrous alloys.
- ▶ Resists heat, abrasion and shock, allowing faster cutting rates.
- ▶ Can be used on horizontal and vertical machines.
- ▶ Triple tempered M-42 cobalt high speed steel teeth combined with a fatigue resistant alloy steel backing strip.

Benefits:

- ▶ Longer life and faster cutting with less feed.
- ▶ Resists heat, abrasion and shock allowing for faster cutting.

Applications:

- ▶ Tool, die and mould steels.
- ▶ Stainless steels.
- ▶ Carbon steels.
- ▶ Low alloy and non-ferrous metals.
- ▶ Aluminium.



SOLID



TUBULAR



STRUCTURAL



BUNDLE



■ Primary Application
■ Secondary Application

Intenss™ PRO-DIE (formerly known as Powerband Die-Pro)

Blade Width x Thickness		Tooth Pitch											
mm	Inch	3	4	6	10	14	18	24	6-10	8-12	10-14	14-18	
6 x 0.65	1/4 x .025			ITPD								ITPD	ITPD
6 x 0.90	1/4 x .035			ITPD								ITPD	ITPD
10 x 0.65	3/8 x .025			ITPD							ITPD	ITPD	ITPD
10 x 0.90	3/8 x .035		ITPD	ITPD							ITPD	ITPD	ITPD
13 x 0.50	1/2 x .020					ITPD	ITPD	ITPD					
13 x 0.65	1/2 x .025		ITPD	ITPD		ITPD	ITPD		ITPD	ITPD	ITPD	ITPD	ITPD
13 x 0.90	1/2 x .035	ITPD	ITPD	ITPD	ITPD	ITPD			ITPD	ITPD	ITPD		

ITPD - Intenss™ PRO Blade Type: ITPD Blades Are Raker Tooth Set Apart From 14-18 TPI - Wavy Tooth Set: ITPD Is Positive Rake (P) Angle.



Intenss™ PRO

The ultimate competitor in bi-metal band saw blades, providing a universal solution with optimum efficiency in large production cutting operations.

Features:

- ▶ Hardened spring tempered back.
- ▶ Ground teeth with positive tooth angles.
- ▶ Precision set teeth.
- ▶ Thin kerf available.

Benefits:

- ▶ Longer life and faster cutting with less feed.
- ▶ High production rates.
- ▶ Can be re-sharpened.
- ▶ Increased yields.
- ▶ Grade lumber, re-saws, pallet manufacturing.

Applications:

- ▶ High production cutting.
- ▶ Full range of steels from mild to stainless up to 45HRC.
- ▶ Nickel based and non-ferrous alloys.

SOLID



TUBULAR



STRUCTURAL



BUNDLE



■ Primary Application
■ Secondary Application

Intenss™ PRO (formerly known as Powerband Gladiator)

Blade Width x Thickness		Tooth Pitch						
mm	Inch	0.8-1.3	1.4-2	2-3	3-4	4-6	5-8	6-10
19 x 0.90	3/4 x .035				ITP	ITP		
27 x 0.90	1 x .035			ITP	ITP	ITP	ITP	ITP
34 x 1.10	1.1/4 x .042		ITP	ITP	ITP	ITP		
41 x 1.30	1.1/2 x .050		ITP	ITP	ITP	ITP		
54 x 1.30	2 x .050		ITP	ITP	ITP			
54 x 1.60	2 x .063		ITP	ITP	ITP	ITP		
67 x 1.60	2.5/8 x .063	ITP	ITP					
80 x 1.60	3.1/8 x .063	ITP	ITP					

ITP - Intenss™ PRO Blade Type: All ITP Blades Are Raker Tooth Set: ITP Is Positive Rake (P) Angle.



Intenss™ PRO-VTH

A high performance bi-metal band saw blade with a uniquely designed tooth edge that allows the teeth to cut in a fast pulsating action.

Features:

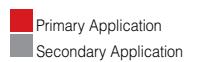
- ▶ Aggressive “surging” cutting action created by variable tooth height and set.
- ▶ Ground teeth for maximum blade performance.
- ▶ Triple tempered M-42 cobalt high speed steel teeth combined with a fatigue resistant alloy steel backing strip.

Benefits:

- ▶ Ideal for the production cutting of exotic and nickel based alloys, high hardness steels and other solids.

Applications:

- ▶ Large solid sections of exotic and nickel based alloys.
- ▶ High hardness steels.



Intenss™ PRO-VTH (formerly known as Powerband Gladiator Pulsator M42)

Blade Width x Thickness		Tooth Pitch				
mm	Inch	1-1.2	1.4-2	2-3	3-4	4-6
27 x 0.90	1 x .035			ITPV	ITPV	ITPV
34 x 1.10	1.1/4 x .042			ITPV	ITPV	ITPV
41 x 1.30	1.1/2 x .050			ITPV	ITPV	
54 x 1.60	2 x .063	ITPV	ITPV			
67 x 1.60	2.5/8 x .063	ITPV	ITPV			
80 x 1.60	3.1/8 x .063	ITPV	ITPV			

ITPV - Intenss™ PRO-VTH Blade Type: All ITPV Blades Are Raker Tooth Set: ITPV Is Positive Rake (P) Angle With Variable Tooth Height.



Advanz™ FS

Advanz™ FS, one of two new carbide tipped band saw blades from Starrett, replaces Type I in our previous offering. It is made for sawing tough materials that bi-metal blades cannot cut. With teeth ground from high quality micro-grained carbide cylinders welded to a tough, ductile backing material, Advanz™ FS offers exceptional resistance to fatigue, shock and wear.

Features:

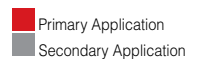
- ▶ New micro-grained carbide selected for toughness, wear and shock resistance.
- ▶ Improved carbide to back bonding.
- ▶ Triple chip tooth geometry.
- ▶ Tough ductile back.

Benefits:

- ▶ Higher resistance to wear.
- ▶ Improved tooth strip resistance.
- ▶ Smooth finish.
- ▶ Faster cutting speeds.

Applications:

- ▶ Aluminium castings.
- ▶ Fibreglass.
- ▶ Masonite.
- ▶ Plastics.
- ▶ Composite Materials.
- ▶ Abrasive wood.



Advanz™ FS (formerly known as Carbide Tipped Type I)

Blade Width x Thickness		Tooth Pitch	
mm	Inch	2-3	3
19 x 0.90	3/4 x .035		ADVFS
27 x 0.90	1 x .035	ADVFS	ADVFS
27 x 1.30	1 x .050		ADVFS
34 x 1.10	1.1/4 x .042		ADVFS

ADVFS - Advanz™ FS Blade Type: All ADVFS Blades Are Trapezoidal Tooth Set.



Advanz™ TS

Advanz™ TS, one of two new carbide tipped band saw blades from Starrett, replaces Type III in our previous offering. It is made for sawing tough materials that bi-metal blades cannot cut. With teeth ground from high quality micro-grained carbide cylinders welded to a tough, ductile backing material, Advanz™ TS offers exceptional resistance to fatigue, shock and wear.

Features:

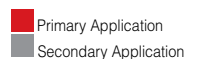
- ▶ New micro-grained carbide selected for its extreme resistance to wear and heat.
- ▶ Improved carbide to back bonding.
- ▶ Triple chip tooth geometry.
- ▶ Tough ductile back.

Benefits:

- ▶ Higher resistance to wear when cutting difficult to machine steels, high-alloy metals, titanium, stainless steel, inconel, etc.
- ▶ Improved tooth strip resistance.
- ▶ Smooth surface finish.
- ▶ Superior durability.

Applications:

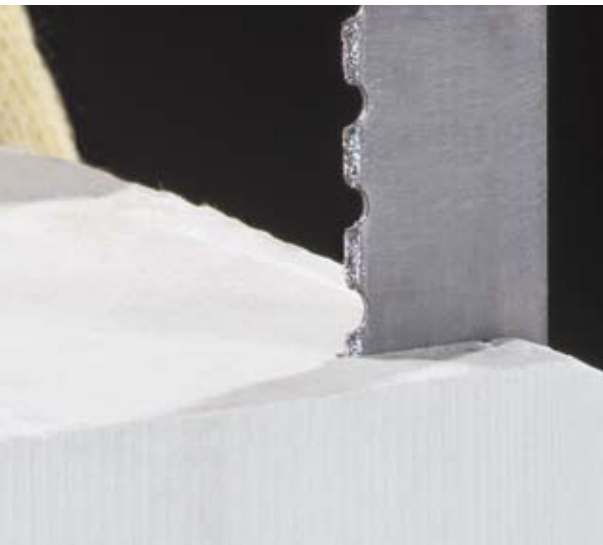
- ▶ Difficult to machine steels.
- ▶ High alloy metals.
- ▶ Titanium.
- ▶ Stainless steel.
- ▶ Inconel.



Advanz™ TS (formerly known as Carbide Tipped Type III)

Blade Width x Thickness		Tooth Pitch						
mm	Inch	0.9-1.1	1	1.3	1.4-2	2-3	3	3-4
19 x 0.90	3/4 x .035						ADVTS	ADVTS
27 x 0.90	1 x .035						ADVTS	ADVTS
34 x 1.10	1.1/4 x .042					ADVTS		ADVTS
41 x 1.30	1.1/2 x .050			ADVTS	ADVTS	ADVTS		
54 x 1.60	2 x .063			ADVTS	ADVTS	ADVTS		
67 x 1.60	2.5/8 x .063	ADVTS			ADVTS	ADVTS		
80 x 1.60	3.1/8 x .063	ADVTS	ADVTS		ADVTS			

ADVTS - Advanz™ TS Blade Type: All ADVTS Blades Are Trapezoidal Tooth Set.



Advanz™ CG

Advanz™ CG blades feature tungsten carbide grit bonded to an alloy back. They easily cut through many hard or abrasive materials that conventional tooth blades won't cut.

Features:

- ▶ Tungsten Carbide Grit bonded to an alloy back.

Benefits:

- ▶ Advanz™ CG is especially useful for cutting complex materials.
- ▶ Where surface chipping is possible or on brittle materials.
- ▶ 30% reduction in cut radius can be achieved using grit blades instead of standard blades.
- ▶ Blade life can be extended by turning the blade inside-out from time to time.

Applications:

- ▶ Rubber and steel - belted tyres.
- ▶ Composite graphite.
- ▶ Fibre - reinforced plastics.
- ▶ Case - hardened steels.

SOLID



TUBULAR



SPECIAL

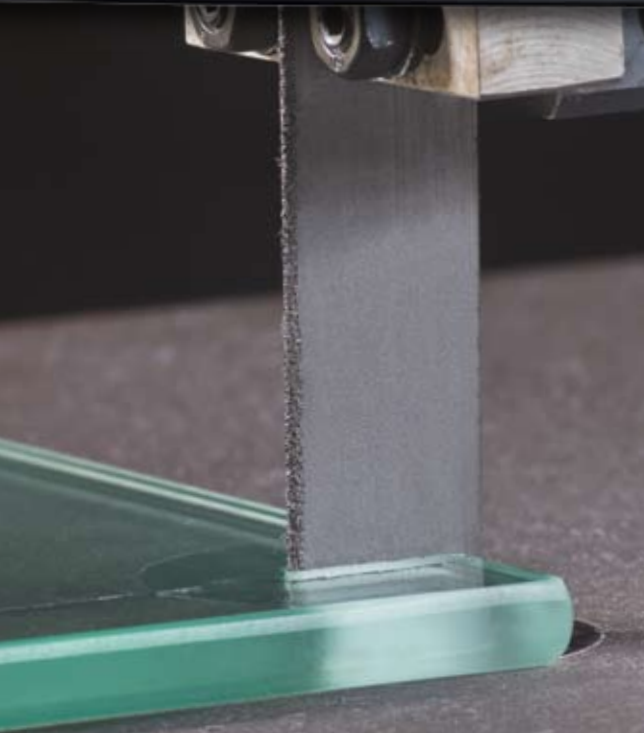


■ Primary Application
■ Secondary Application

Advanz™ CG (formerly known as Carbide Grit)

Blade Width x Thickness		Tooth Type	
mm	Inch	Gulleted	Continuous
6 x 0.50	1/4 x .020	ADVCG-MC-G	ADVCG-MC-C
10 x 0.65	3/8 x .025	ADVCG-MC-G	ADVCG-MC-C
13 x 0.65	1/2 x .025	ADVCG-MC-G	ADVCG-MC-C
19 x 0.80	3/4 x .032	ADVCG-MC-G	ADVCG-MC-C
27 x 0.90	1 x .035	ADVCG-C-G	ADVCG-C-C

MC-G/C - Carbide Grit Medium Coarse Gulleted/Continuous (300 - 400 Microns): C-G/C - Carbide Grit Coarse Gulleted/Continuous (450 - 600 Microns).



Advanz™ DG

Advanz™ DG is ideal for specialized applications involving extremely hard and/or abrasive materials.

Features:

- ▶ Dense diamond grit edge embedded in electroplated nickel.
- ▶ AISI 420 backing strip hardened and tempered to 45HRC for optimum fatigue strength.

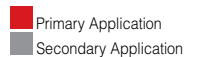
Benefits:

- ▶ Blade life can be extended by turning the blade inside-out from time to time.

Applications:

- ▶ Glass-fired ceramics.
- ▶ Stone.
- ▶ Silicon.
- ▶ Laminated fibreglass.
- ▶ Marble.
- ▶ Porcelain.
- ▶ Glass.

SPECIAL



Advanz™ DG (formerly known as Diamond Grit)

Blade Width x Thickness		Tooth Type	
mm	Inch	Gulleted	Continuous
13 x 0.50	1/2 x .020	ADVDG-G	ADVDG-C
19 x 0.50	3/4 x .020	ADVDG-G	ADVDG-C
27 x 0.50	1 x .020	ADVDG-G	ADVDG-C

G - Diamond Grit Gulleted Coarse (44/60); C - Diamond Grit Continuous Coarse (44/60).



Duratec™ SFB

Made from carbon steel with a flexible back, Duratec™ SFB is ideal for economical cutting on easy-to-machine ferrous or non-ferrous metal and wood.

Features:

- ▶ Flexible carbon steel back.
- ▶ Wide range of widths, thickness and pitches.

Benefits:

- ▶ Ability to be run at higher band speeds.
- ▶ Economical general purpose cutting.
- ▶ Ideal for both contour & straight cutting.

Applications:

- ▶ Wood, plastics.
- ▶ Non-ferrous foundry materials.
- ▶ Low alloy and non-ferrous metals.
- ▶ Furniture, composition board.
- ▶ Light vertical and horizontal machines.

SOLID



TUBULAR



STRUCTURAL



BUNDLE



■ Primary Application
■ Secondary Application

Duratec™ SFB (formerly known as Super Flex-Back)

Blade Width x Thickness		Tooth Pitch							
mm	Inch	3	4	6	8	10	14	18	24
3 x 0.65	1/8 x .025						FB-R	FB-R	FB-R *
5 x 0.65	3/16 x .025			FB-S		FB-R	FB-R	FB-R	FB-R
6 x 0.35	1/4 x .014			FB-S		FB-R	FB-R		
6 x 0.65	1/4 x .025		FB-S / FB-H	FB-S / FB-H		FB-R	FB-R	FB-R	FB-R
8 x 0.65	5/16 x .025					FB-R	FB-R	FB-R	
10 x 0.35	3/8 x .014			FB-S			FB-R		
10 x 0.65	3/8 x .025	FB-S / FB-H	FB-S / FB-H	FB-S / FB-H	FB-R	FB-R	FB-R	FB-R	FB-R
13 x 0.35	1/2 x .014						FB-R		
13 x 0.65	1/2 x .025	FB-S / FB-H	FB-S / FB-H	FB-R / FB-S / FB-H	FB-R	FB-R	FB-R	FB-R	FB-R
16 x 0.80	5/8 x .032	FB-S	FB-S	FB-S	FB-R	FB-R	FB-R	FB-R	FB-R
19 x 0.80	3/4 x .032	FB-S / FB-H	FB-S	FB-R	FB-R	FB-R	FB-R	FB-R	FB-R *
27 x 0.90	1 x .035	FB-S / FB-H	FB-R / FB-S	FB-R	FB-R	FB-R	FB-R		

H - Hook Tooth Shape: S - Skip Tooth Shape: R - Regular Tooth Shape: FB Blades Are Raker Tooth Set Apart From FB-R * Wavy Tooth Set.



Woodpecker™ Premium Woodpecker™ PRO

A selection of ground tooth blades ideal for a variety of woodworking applications. Includes blades as thin as 0.50mm for jobs such as contour cutting fine hardwoods to thicker blades for tough tasks including pallet work.

Woodpecker™ PRO blades are manufactured from high speed steel M-42 containing 8% cobalt. Specifically designed for cutting all types of hard wood.

Features:

- ▶ Woodpecker™ Premium - Hardened spring tempered back.
- ▶ Woodpecker™ Premium - Ground teeth with positive tooth angles.
- ▶ Woodpecker™ PRO - High speed steel M-42 cutting edge.

Benefits:

- ▶ Longer life and faster cutting with less feed.
- ▶ High production rates.
- ▶ Woodpecker™ Premium - Teeth can be re-sharpened.
- ▶ Increased yields.

Applications:

- ▶ All types of wood, plastic and acrylic.

BUNDLE



SPECIAL



■ Primary Application
■ Secondary Application

Woodpecker™ Premium (WPGPR) Woodpecker™ PRO (WP42)

Blade Width x Thickness		Tooth Pitch					
mm	Inch	1.1	1.3	2	3	4	6
6 x 0.50	1/4 x .020					WPGPR-H	WPGPR-S
6 x 0.65	1/4 x .025						WP42-S
10 x 0.55	3/8 x .022				WPGPR-H	WPGPR-H	WPGPR-S
10 x 0.65	3/8 x .025					WP42-H	
13 x 0.55	1/2 x .022				WPGPR-H	WPGPR-H	WPGPR-S
13 x 0.65	1/2 x .025					WP42-H	
16 x 0.55	5/8 x .022				WPGPR-H	WPGPR-H	
19 x 0.70	3/4 x .028				WPGPR-H	WPGPR-H	
19 x 0.90	3/4 x .035					WP42-H	
27 x 0.60	1 x .023					WPGPR-H	
27 x 0.90	1 x .035		WPGPR-H	WPGPR-H / WP42-H			
34 x 0.90	1.1/4 x .035	WPGPR-H / WP42-H	WPGPR-H / WP42-H				
34 x 1.10	1.1/4 x .042	WPGPR-H / WP42-H	WPGPR-H / WP42-H				
41 x 1.10	1.1/2 x .042	WPGPR-H					
41 x 1.30	1.1/2 x .050	WP42-H					
54 x 1.10	2 x .042	WPGPR-H					
54 x 1.30	2 x .050	WP42-H					
65 x 1.10	2.9/16 x .042	WPGPR-H					

H - Hook Tooth Shape: S - Skip Tooth Shape: All Blades Are Raker Tooth Set.



Meatkutter™ Carcasskutter™

Blades are ideal for meat, fish and poultry band saw machines, these blades are 0.45 - 0.55mm (.018" - .022") thick, so they produce more accurate cuts with minimal meat loss.

Features:

- ▶ Meatkutter™ blades are offered in a choice of special steel or clean-cut stainless steel. Both offer the high levels of hygiene required for cutting meat, fish and poultry.
- ▶ Tooth shape is hook.
- ▶ The teeth are ground.
- ▶ Carcasskutter™ blade designed and developed by Starrett™ for carcass splitting.

Benefits:

- ▶ The stainless steel blade can be washed down without risk of rusting.
- ▶ Ground teeth assure faster, more precise cuts without interruption.
- ▶ Tooth geometry guarantees minimal meat residue at the tooth gullet.

Applications:

- ▶ Fresh or frozen meat or fish, with or without bone.
- ▶ Carcasskutter™ for carcass splitting.
- ▶ Meatkutter™ - Thin plastics.

SPECIAL



■ Primary Application
■ Secondary Application

Meatkutter™ Premium

Blade Width x Thickness		Tooth Pitch	
mm	Inch	3	4
13 x 0.55	1/2 x .022	GTMP-H	GTMP-H
16 x 0.55	5/8 x .022	GTMP-H	GTMP-H
19 x 0.55	3/4 x .022	GTMP-H	GTMP-H

GTMP-H - Hook Tooth Form: Alternate Tooth Set.

Meatkutter™ Stainless

Blade Width x Thickness		Tooth Pitch
mm	Inch	4
16 x 0.45	5/8 x .018	GTMS-H

GTMS-H - Hook Tooth Form: Alternate Tooth Set.

Carcasskutter™

Blade Width x Thickness		Tooth Pitch
mm	Inch	4
19 x 0.55	3/4 x .022	CK-H

CK-H - Hook Tooth Form: Alternate Tooth Set.



Scalloped Edge, Double Bevel



Straight Edge, Double Bevel

Band Knives

Razor-edge band knives are available with double edge bevel in straight or scallop cutting edges. These variations enable them to cut foam, paper, rubber, soft plastic and other fibrous material quickly, smoothly and without waste because their slicing action produces no chips.

Features:

- ▶ Razor edge, extremely sharp blade.

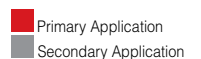
Benefits:

- ▶ Cuts quickly and smoothly.
- ▶ No waste as slicing action produces no chips.

Applications:

- ▶ Foam.
- ▶ Rubber.
- ▶ Cork.
- ▶ Cardboard and paper.
- ▶ Soft plastic.

SPECIAL



Band Knives

Blade Width x Thickness		Edge & Bevel	
mm	inch	Scalloped, Double Bevel	Straight, Double Bevel
10 x 0.55	3/8 x .022	SC-E-DB	
13 x 0.55	1/2 x .022	SC-E-DB	ST-E-DB
19 x 0.55	3/4 x .022	SC-E-DB	ST-E-DB
19 x 0.70	3/4 x .028	SC-E-DB	ST-E-DB
27 x 0.65	1 x .025	SC-E-DB	ST-E-DB
27 x 0.70	1 x .028	SC-E-DB	ST-E-DB

SC-E-DB - Scalloped Edge Double Bevel Blade Type: ST-E-DB - Straight Edge Double Bevel Blade Type.

NEW BLADE WITH RAZOR SHARP TEETH



TOOTH CORRECTLY BROKEN IN



TOOTH INCORRECTLY BROKEN IN



BLADE BREAK-IN

Using the right break-in procedures for a bi-metal blade assures longer blade life, faster cuts for a longer period of time and consistent performance. Conversely, blade life can be significantly compromised if the proper break-in procedures are not followed.

LONGER BLADE LIFE

The teeth on a new band saw blade are razor sharp. To withstand the cutting pressures of band sawing, the tip of each tooth should be honed to create an extremely small radius on its tip.

Easy-to-cut material such as carbon steel and aluminum:

- A. Run the normal surface feet per minute (SFM).
- B. Adjust the feed pressure to about one-half the normal cutting rate for the first few cuts or for 50-100 square inches (323-645sq.cm).
- C. Increase to the normal cutting rate.
- D. Avoid vibration.

Hard-to-cut materials such as nickel-based alloys like inconel, hardened steels, tool steels and stainless steels:

- A. Run the normal surface feet per minute (SFM).
- B. Adjust the feed pressure to about three-quarters of the normal cutting rate for the first few cuts or for 25-75 square inches (161-484 sq.cm).
- C. Then increase the cutting rate part way to normal for the next few cuts.
- D. Then increase to the normal cutting rate.
- E. Avoid vibration.

BAND SAW SERVICE & SUPPORT

Starrett Service Technicians are available to tune up and perform preventative maintenance on your production sawing machine using Starrett Band Saw Blades, at no additional cost.

They fully review machine condition, blade mounting and operation in detail, making adjustments, as required, to help maintain good sawing and long life for both the machine and blades.

TRAINING

Starrett Service Technicians can also instruct saw operators on achieving the best performance of blade and machine for your applications.



START TO CUT MATERIAL AT REDUCED CUTTING RATE



AFTER BREAK-IN WHEN THE BLADE HAS FULLY ENTERED THE WORK-PIECE, INCREASE THE FEED RATE OVER A SERIES OF CUTS UNTIL THE RECOMMENDED CUTTING RATE IS ACHIEVED

Contact your Starrett Band Saw Distributor about arranging a visit to your workplace by a Starrett Service Technician.

TECHNICAL SUPPORT

Tel: 00 44 (0)1835 866205
Email: sawsupport@starrett.co.uk

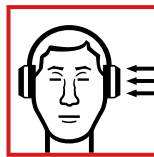
BAND SAW BLADE INSTALLATION GUIDELINES

Always follow the machine manufacturer's instructions and recommendations for blade changes and the safe operation for the band saw machine. The guidelines are not intended to replace the machine manufacturer's instructions or recommendations. The general information contained in the guidelines is intended to assist in the proper installation of band saw blades. Proper blade installation achieves more efficient blade performance. Please contact your machine manufacturer for appropriate procedures for blade changes for your specific machine and your saw blade manufacturer for appropriate cutting recommendations. The L. S. Starrett Co. nor its employees, shall not be held responsible for the accuracy or completeness of these guidelines.

- Wear gloves when handling band saw blades.



- Wear eye protection, safety shoes, and hearing protection.



FOLLOW INSTRUCTIONS CAREFULLY

- Follow all the safety instructions shown in the band saw machine operator's manual and on the machine labels. Recognise and read safety and warning signs such as **Danger**, **Warning** and **Caution**.
- Follow the saw blade installation instructions for the make and model of the band saw machine.

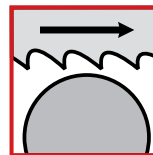
SAW TENSION GAUGE - 682EMZ SERIES



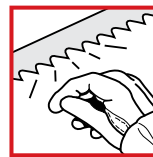
Essential to maximise blade life and produce the most accurate cut, Starrett Saw Tension Gauge will check the tension of any band saw. Graduated in kilograms and pounds, the gauge can be read directly on band saws of any type and is graduated to read up to 4,000kg or 60,000PSI.

BASIC BLADE CHANGE GUIDELINES

- Position saw head to appropriate location to facilitate ease of blade change.
- Follow required lock out tag out procedures.
- Position chip brush away from saw blade.
- Relieve saw blade tension and remove blade.
- Remove any chips from saw guides and band wheels.
- Select appropriate blade for cutting application. (Refer to saw blade selection chart).
- Unfold blade properly. **Do Not Throw**. Throwing the blade will result in tooth damage that will reduce saw blade performance. (Refer to unfolding procedure).
- Install blade with saw teeth pointing in proper direction.



- Adjust blade guides for proper blade support.
- Be aware of pinch points and keep hands and clothing clear of rotating blade.

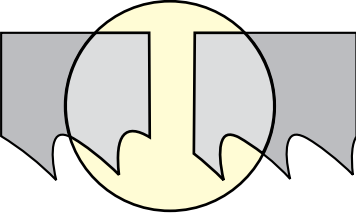
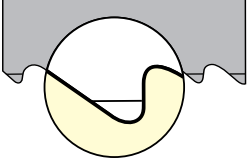
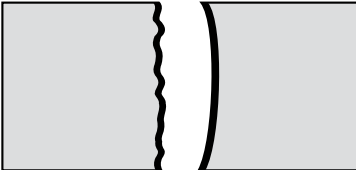

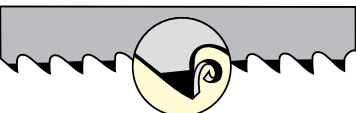

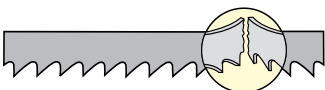


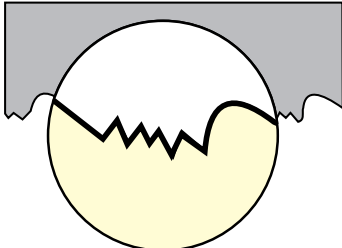
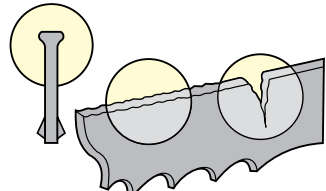
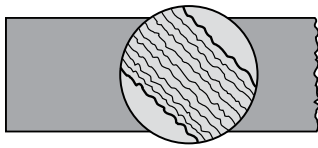
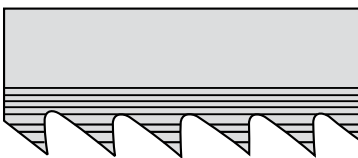
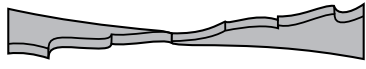
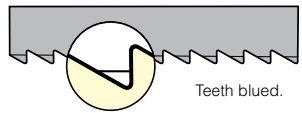
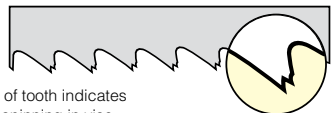
- Adjust guide arms to appropriate positions to workpiece.
- Apply appropriate tension to the blade.
- Adjust chip brush to fully engage saw blade teeth to ensure proper chip removal.
- Check hydraulic fluid levels if applicable.
- Ensure appropriate cutting fluid placement and mix ratios as applicable per machine, cutting fluid, and blade manufacturer's recommendations.
- Break in blade properly before reaching desired cutting rates.

POCKET LASER TACHOMETER KIT

A digital, battery operated portable optical tachometer that can operate up to 25 feet from a reflective target using laser light source. The powerful 32 function Tachometer/Ratemeter, Totaliser/Counter and Timer is programmable in inch/metric rates. It has TTL compatible pulse output to trigger devices such as data collectors or stroboscopes. Optical range 5 to 200,000RPM. Optical Accuracy $\pm 0.01\%$ of reading.



Blade Effect	Probable Cause	Solution
<p>Blade Breakage</p>  <p>Straight break indicates fatigue.</p>	<ul style="list-style-type: none"> Incorrect blade Band tension too high Excessive feed Incorrect cutting fluid Wheel diameter too small for blade width Worn or chipped pressure block Blade rubbing on wheel flange Teeth in contact with work before starting saw Side guides too tight 	<ul style="list-style-type: none"> Check tooth selection Reduce band tension, refer to operator's manual Reduce feed pressure Check coolant recommendations Use narrower blade Replace worn pressure blocks Adjust wheel alignment Allow blade clearance above work Refer to operator's manual
<p>Prematurely Dull Teeth</p> 	<ul style="list-style-type: none"> Blade on machine backwards Improper blade break-in procedure Hard material or heavy surface scale Material is work-hardening Improper cutting fluid or mix ratio Speed or feed too high 	<ul style="list-style-type: none"> Install blade correctly Refer to recommended procedures Check material hardness and surface condition Increase feed pressure Follow coolant mixing procedures Check cutting recommendations
<p>Inaccurate Cut</p> 	<ul style="list-style-type: none"> Guide arms too far apart Blade worn out Over or under feeding Improper tooth pitch Cutting fluid not applied properly Too many teeth for material cross section Guides worn or loose 	<ul style="list-style-type: none"> Adjust guide arms closer to material Replace blade Check cutting recommendations Use proper tooth selection Adjust coolant nozzles Use proper tooth selection Tighten or replace guides
<p>Band Leading in Cut</p> 	<ul style="list-style-type: none"> Over feeding Low band tension Tooth set damaged Guide arms loose or space too wide 	<ul style="list-style-type: none"> Check cutting recommendations Refer to operator's manual Check material hardness Adjust guides and guide arms
<p>Chip Welding</p> 	<ul style="list-style-type: none"> Worn or missing chip brush Improper or lack of cutting fluid Wrong coolant ratio Excessive feed or speed Incorrect blade pitch 	<ul style="list-style-type: none"> Replace or adjust chip brush Check coolant flow and fluid type Check coolant type and ratio Reduce feed or speed Use proper tooth selection
<p>Teeth Fracturing - Back</p>  <p>Back of tooth indicates spinning in vise.</p>	<ul style="list-style-type: none"> Saw guides not properly adjusted Incorrect feed or speed Incorrect blade Material moved in vise 	<ul style="list-style-type: none"> Align or adjust saw guides Refer to cutting recommendations Use proper blade type and pitch Inspect and adjust vise
<p>Irregular Break</p>  <p>Indicates material movement.</p>	<ul style="list-style-type: none"> Indexing while blade in work Blade not high enough before index Saw head drifts into work while neutral 	<ul style="list-style-type: none"> Adjust index sequence Adjust height selector Check hydraulic cylinder

Blade Effect	Probable Cause	Solution
<p>Teeth Stripping</p> 	<ul style="list-style-type: none"> Improper blade break-in procedure Speed too slow Feed pressure too high Tooth jammed in cut Poor cutting fluid application or ratio Hard material or heavy scale Wrong blade pitch Work spinning or loose nested bundles Blade on backwards 	<ul style="list-style-type: none"> Follow proper break-in procedure Refer to cutting recommendations Reduce feed pressure Do not enter new blade in that cut Adjust coolant flow and ratio Check material or surface hardness Use proper tooth selection Tighten vises or use nesting clamps Install blade correctly
<p>Wear on Back of Blade</p> 	<ul style="list-style-type: none"> Excessive back-up guide preload Low blade tension Incorrect blade (carbon steel type) Excessive feed rate or pressure Damaged or worn pressure block Guide arms spaced too far apart Blade rubbing band wheel flanges 	<ul style="list-style-type: none"> Adjust pressure blocks Refer to operator's manual Switch to a bi-metal blade Reduce feed rate or pressure Replace pressure block Adjust guide arms closer to work Adjust wheel alignment
<p>Rough Cut</p> 	<ul style="list-style-type: none"> Dull or damaged blade Incorrect feed or speed Blade not supported properly Low blade tension Incorrect tooth pitch Guide arms too far apart 	<ul style="list-style-type: none"> Install new blade Refer to cutting recommendations Adjust or tighten guide arms Refer to operator's manual Use proper tooth selection Adjust guide arms closer to material
<p>Wear Lines - Loss of Set</p> 	<ul style="list-style-type: none"> Saw side guides too tight Blade riding too high in guide Blade teeth riding on band wheel surface Wrong blade width for machine Chips being carried back into cut Worn or damaged pressure block Insufficient coolant flow 	<ul style="list-style-type: none"> Adjust guides properly Adjust rollers or pressure blocks Adjust tracking or replace wheel Refer to operator's manual Replace or adjust chip brush Replace pressure block Adjust coolant flow
<p>Twisted Blade</p>  <p>Contour sawing.</p>	<ul style="list-style-type: none"> Blade binding in cut Side guides are too tight Work loose in vise Feed too heavy Guide arms too far apart 	<ul style="list-style-type: none"> Adjust feed or use heavy set blades Adjust guides Adjust vise Reduce feed pressure Adjust guide arms closer to material
<p>Blade Wear</p>  <p>Teeth blued.</p>	<ul style="list-style-type: none"> Incorrect blade Heavy feed or too fast speed Lack of cutting fluid Blade installed backwards 	<ul style="list-style-type: none"> Use proper tooth selection Refer to cutting recommendations Adjust coolant flow or ratio Install blade correctly
<p>Teeth Fracturing - Front</p>  <p>Front of tooth indicates work spinning in vise.</p>	<ul style="list-style-type: none"> Material loose in vise Incorrect tooth pitch Feed too fast Speed too fast 	<ul style="list-style-type: none"> Adjust vise Use proper tooth selection Reduce feed rate Refer to cutting recommendations



Starrett[®]

The L. S. Starrett Company Ltd.

Jedburgh, Scotland, TD8 6LR

Tel: 00 44 (0)1835 863501 Fax: 00 44 (0)1835 863018

Email: sales@starrett.co.uk Web: www.starrett.co.uk

DISTRIBUTOR