LENOX®

PRODUCT CATALOG

BAND SAW BLADES

TABLE OF CONTENTS

UPBLADE WITH LENOX®

WHAT'S UPBLADE?

If you use a LENOX blade you might already know. But UpBlade is more than just upgrading to the best blades in the market, UpBlade is a continuous commitment to being better. When you switch to LENOX you don't just UpBlade your blade, you UpBlade your tools, your cuts, your capabilities.

UPBLADE™

YOUR OPERATIONS

WHEN CUTTING IS WHAT YOU DO, THE BLADE YOU CHOOSE BECOMES EVEN MORE IMPORTANT.

You're only as efficient as your blade allows you to be. That's why we make sure our band saw blades cut faster and last longer, with the lowest cost per cut—making your operations more competitive. And with our tech reps making sure that our blades are always working at their optimal level, you'll spend more time cutting and less time changing blades. If you don't believe us, talk to your LENOX® representative about taking the UpBlade Challenge.

asia@lenoxtools.com

UPBLADE™

YOUR CAPABILITIES

THERE'S ONLY ONE PART OF YOUR SAW THAT ACTUALLY MAKES THE CUT — THE BLADE.

So you could have the best power tools and machines in the world, but they'll only be as good as the blades you put in them. And even though it might only be part of your job, if your blade isn't making the cut, the whole job pays the price. From our reciprocating saw blades to our carbide band saw blades, our products are always at the forefront of innovation and quality. Our blades are faster and more efficient, allowing you to unlock your full potential.

asia@lenoxtools.com

LENOX® INSTITUTE OF TECHNOLOGY

UPBLADE™ YOUR CRAFT

HAVING THE BEST BLADES IS ONLY PART OF THE EQUATION.

To truly UpBlade, you must also improve yourself. That's why we've developed the LENOX Institute of Technology (LIT).

We provide our Technical Service Reps, distributor partners and consumers with hands-on training by expert instructors who have years of LENOX experience and application knowledge. Because our blades are only as good as the hands that wield them, LIT helps us make sure those hands are amongst the best in the business.

OUR UPBLADE HERITAGE.

The word UpBlade represents a mindset that LENOX® has lived by from day one. For nearly 100 years we've led the industry through many changes and innovations, and our blades have consistently remained on top. You saw this reflected in *HACKMAN®* as he toured the world facing bigger challenges at every stop—returning to us with insights that helped improve our blades' designs. And you see it with the challenges we put before our blades in our One Blade campaign. Challenges such as cutting 8 cars with a single blade. As we push our blades to the limit we UpBlade not only their achievements, but your perception of what one blade is capable of. UpBlade is the reason LENOX makes the best blades in the market. Because we're not satisfied with being the best. We're working hard every day to get even better.

COMMITTED TO BEING BETTER FOR NEARLY 100 YEARS

1915

LENOX® American Saw founded by John Swanson, Carl Ericson, and Carl Davis to manufacture Hacksaw Blades in Springfield, MA

1918

Band Saw Blade production begins

LENOX purchases an electron beam welder and begins manufacturing Bi-metal Band Saw Blades Band Saw Technical Team was created

1965

1964

All LENOX operations moved to its current location in East Longmeadow, MA

1977

First Bi-metal Reciprocating Saw Blades

Hand Tools and Power Tool Accessories.

1981

HACKMAN® uses a LENOX Hacksaw Blade to cut his first car in half

1985

Hacksaw Frames and Carbide Band Saw Blades added to the product line

2006

Asia Pacific headquarters set up in Shanghai

2005

ARMOR® Band Saw Blades added to the product line

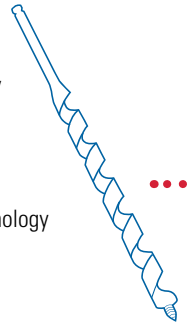
2007

Snips, Bi-metal Drilling Bits and Q Performance Solution™ Band Saw Blades added to the product line

2008

LENOX T2™ Technology recip blades.

Bi-Metal Drilling technology added to product line



2009

HACKMAN® WORLD TOUR 2009

Q88™ Band Saw Blade launched in Asia

2010

LENOX® INSTITUTE OF TECHNOLOGY

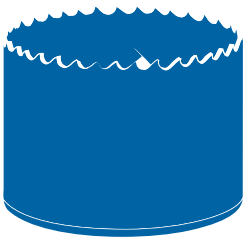
asia@lenoxtools.com

LENOX's "The Blade in the Plaid Box" airplane flies from Portland, ME to Daytona, FL dropping circulars as it passes over large cities

1921

1952

A second plant was built on Chestnut Street, East Longmeadow, MA



1959

Hole Saws added to product line

LENOX began manufacturing Band Saw Blades at the East Longmeadow facility

1961

LENOX enters the Latin American Market

1987

1986

LENOX VARI-BIT® added to the product line

1991

LENOX Self-Feed Bits added to the product line

LENOX becomes the first company in the blade industry to achieve ISO 9001 certification

1996

1998

LENOX purchases a local Hand Hacksaw and Utility Knife Blade manufacturer and opened LENOX of Brazil

LENOX Gold® Bi-metal Utility Blade and Knife added to the product line

2004

2011

Bi-Metal SPEED SLOT® Hole Saw

2014

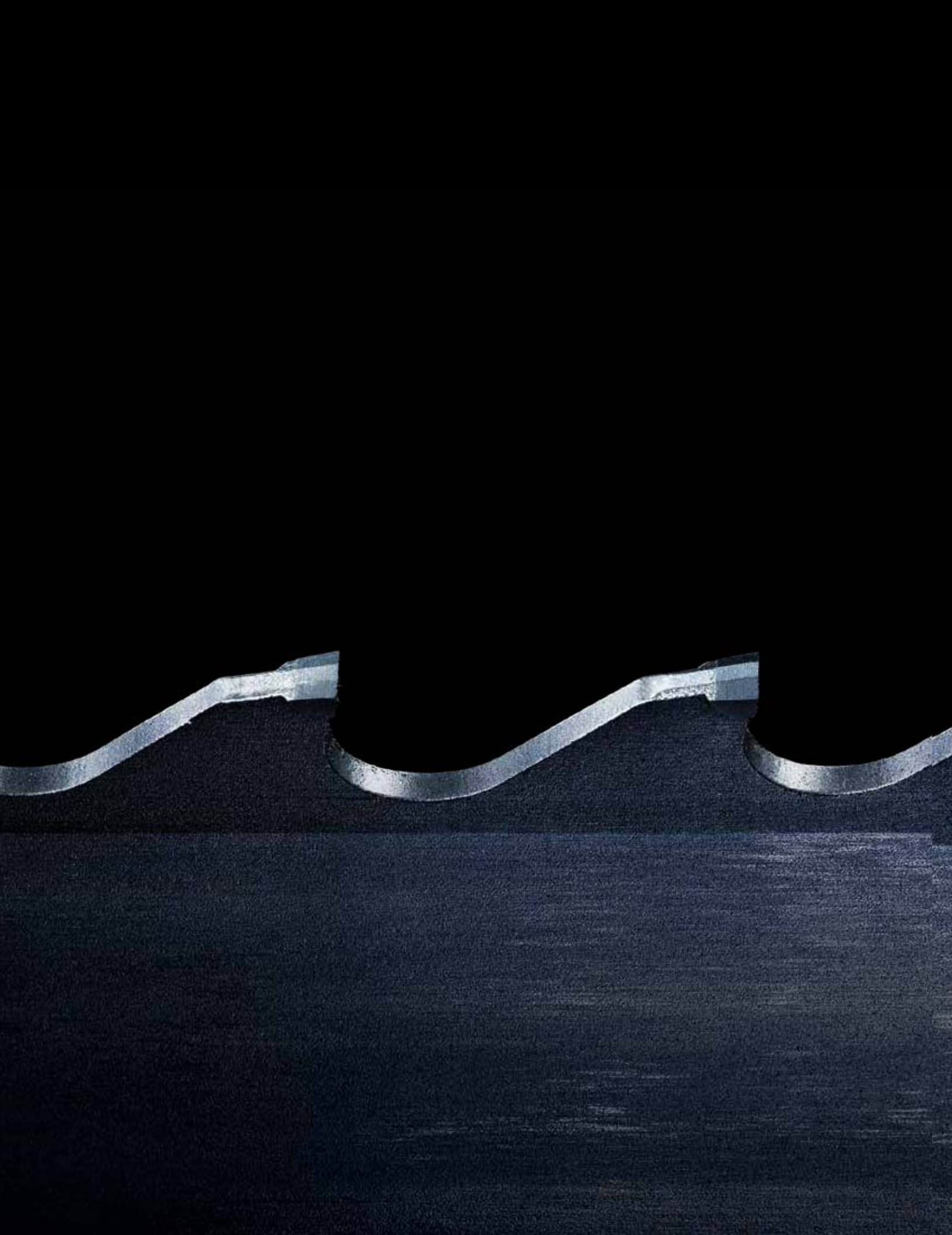
CircTech Precision Metal Cutting Saw Blades and Gold Power Arc Curved Reciprocating Blades launch

2015

100 YEAR ANNIVERSARY


CAUTIN

BANDSAW BLADES



CARBIDE
BAND SAW BLADES

SELECTING CARBIDE TIPPED BAND SAW BLADES

The following information needs to be specified when a band saw blade is ordered:

PRODUCT NAME LENGTH X WIDTH X THICKNESS TEETH PER INCH

For Example: *ARMOR®* CT BLACK 16' x 1-1/4" x .042" 2.5/3.4 TPI

STEP #1: ANALYZE THE SAWING APPLICATION

Machine: Determine the band size for the machine (Length x Width x Thickness).

Material: Determine the following for the material to be cut:

- Material Type/Grade
- Size
- Shape

Operation: Is this a production, or general purpose sawing operation?

STEP #2: DETERMINE HIGH PERFORMANCE VS. SPECIAL APPLICATION

Use the charts below.

- Locate the type of material to be cut in the top row.
- Read down the chart to find which blade is recommended.

STEP #3: DETERMINE THE PROPER NUMBER OF TEETH PER INCH (TPI)

Use the Carbide Tooth Selection chart on page 15.

If having difficulty choosing between two pitches, the coarser of the two will generally give better performance.

When compromise is necessary, choose the correct TPI first. A general rule for bundles: Determine the correct TPI for the largest continuous cross section.

STEP #4: CONFIRM THE DESIRED PRODUCT IS AVAILABLE

- Go to the product page for the product you have selected.
- Confirm that product is available in the correct blade width and TPI.

HIGH PERFORMANCE

ALUMINUM/ NON-FERROUS	CARBON STEELS	STRUCTURAL STEELS	ALLOY STEELS	BEARING STEELS	MOLD STEELS	STAINLESS STEELS	TOOL STEELS	TITANIUM ALLOYS	NICKEL-BASED ALLOYS (INCONEL®)
EASY ←			MACHINABILITY						→ DIFFICULT
	***ARMOR®* CT BLACK**		***ARMOR®* CT BLACK** Extreme Cutting Rates						
LENOX *MAX CT™ CT™*						**LENOX *MAX CT™*** Maximum Performance on Aerospace Alloys			
TRI-TECH CT™			***TRI-TECH CT™*** Set Style Blade for Difficult to Cut Metals						
VERSA PRO™			***VERSA PRO™*** Versatile Carbide Tipped Blade for General Purpose Cutting						
TRI-MASTER®			***TRI-MASTER®*** Versatile Carbide Tipped Blade						

SPECIAL APPLICATION

WOOD	COMPOSITES	ALUMINUM (INCLUDING ALUM. CASTINGS)	CASE HARDENED MATERIALS (INCLUDING IHCP CYLINDER SHAFTS)	OTHER (COMPOSITES, TIRES, ETC.)
EASY ←		MACHINABILITY		→ DIFFICULT
			LENOX *HRc®* Carbide Tipped Blade for Case and Through-Hardened Materials	
Cast MASTER™ ***Cast MASTER™ XL / XLE***		Superior Performance When Sawing Castings		
		TRI-MASTER®		
	MASTER-GRIT®		***MASTER-GRIT®*** Carbide Grit Edge Blade for Cutting Abrasive and Hardened Materials	

Note: We can provide solutions for many cutting applications not listed here. Please contact local Lenox Technical support for customized advice.

CARBIDE TOOTH SELECTION

VISIT SAWCALC.COM
FOR CUSTOMIZED BAND SAW RECOMMENDATIONS

LENOX *MAX CT™* • LENOX *CAST MASTER XL* • LENOX *CAST MASTER XLE* • LENOX *VERSA PRO*

WIDTH OR DIAMETER OF CUT														
INCHES	1	2	3	4	5	6	7	8	10	11	14	16	18	20+
MM	25	50	75	100	125	150	175	200	250	275	350	400	450	500+
0.6/0.8														
0.9/1.1														
1.0/1.4														
1.4/2.0														
2/3														
3/4														

ARMOR® CT BLACK

WIDTH OR DIAMETER OF CUT														
INCHES	1	2	3	4	5	6	7	8	10	11	14	16	18	20+
MM	25	50	75	100	125	150	175	200	250	275	350	400	450	500
0.9/1.1														
1.4/1.6														
1.8/2.0														
2.5/3.4														

TRI-TECH CT™

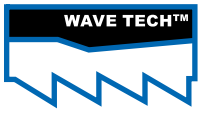
WIDTH OR DIAMETER OF CUT														
INCHES	1	2	3	4	5	6	7	8	10	10	14	16	18	20+
MM	25	50	75	100	125	150	175	200	250	275	350	400	450	500+
0.6/0.8														
0.9/1.1														
1.4/2.0														
1.8/2.0														
2.5/3.4														

TRI-MASTER® • LENOX *HRC®* • *CAST MASTER™*

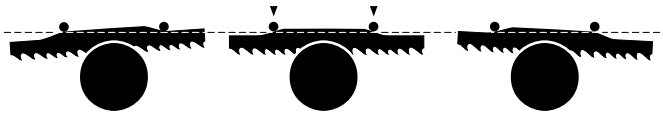
WIDTH OR DIAMETER OF CUT										
INCHES	1	2	3	4	5	6	7	8	10	11
MM	25	50	75	100	125	150	175	200	250	275
2/3										
3										
3/4										

Note: Aluminum and other soft materials cut on machines with extremely high band speed may change your tooth selection. Please contact local Lenox Technical support for customized advice.

WHAT IS WAVE TECH™?

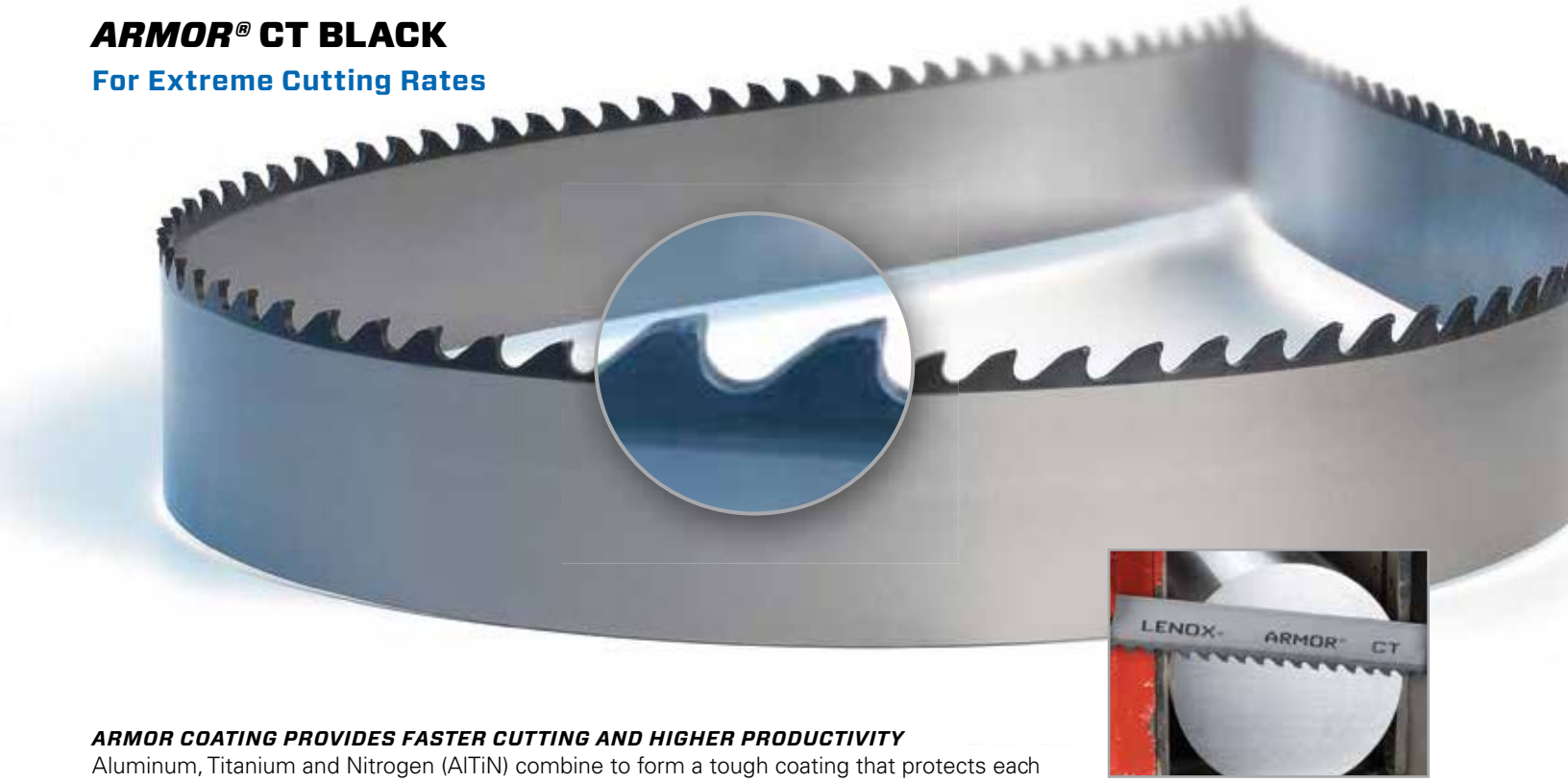


This enhanced mechanical design promotes more efficient tooth penetration and chip formation, easily cutting through the work hardened zone. The **WAVE TECH™** symbol denotes any product that can be **WAVED**. Consult your LENOX Technical Representative to determine if **WAVE TECH™** will benefit your operation.



ARMOR® CT BLACK

For Extreme Cutting Rates

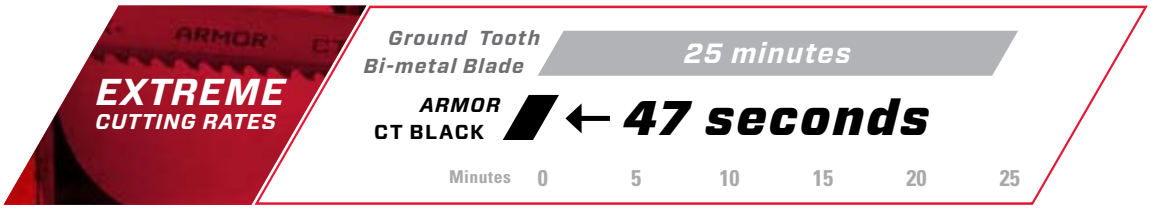


ARMOR COATING PROVIDES FASTER CUTTING AND HIGHER PRODUCTIVITY
Aluminum, Titanium and Nitrogen (AlTiN) combine to form a tough coating that protects each tooth from heat and wear with an armor-like barrier

EXTENDS BLADE LIFE BY PREVENTING HEAT BUILD UP
Improved, thicker coating now forces even more heat into the chips, instead of the blade or workpiece

HIGH PERFORMANCE BACKING STEEL WITH EXCELLENT FATIGUE LIFE
Optimized heat treat and backing steel preparation minimizes premature band breaks

TAILORED TO CUT A WIDE RANGE OF METALS
High quality, Micro Grained Carbide



Material: 6-1/2" (165mm) Round 17-4 PH Stainless Steel. Based on internal test results.

WIDTH X THICKNESS		TPI			
IN	MM	0.9/1.1	1.4/1.6	1.8/2.0	2.5/3.4
1-1/4 x .042	34 x 1.07			•	
1-1/2 x .050	41 x 1.27		•	•	•
2 x .063	54 x 1.60	•	•	•	•
2-5/8 x .063	67 x 1.60	•	•		

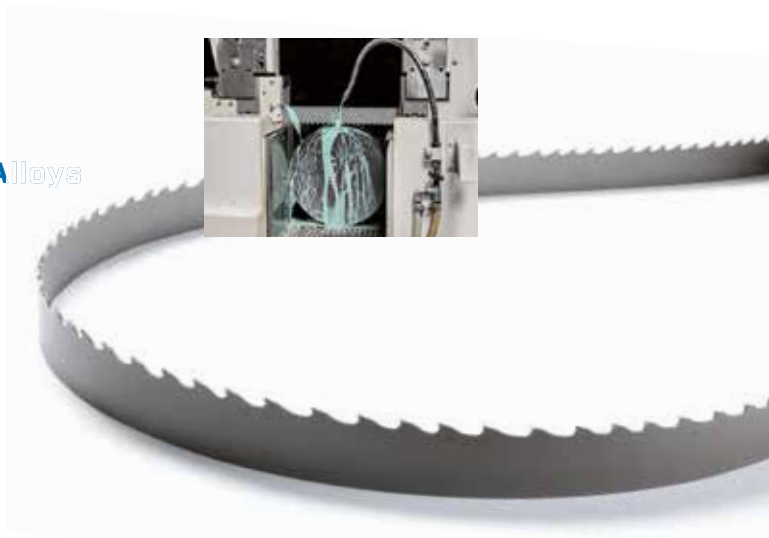
WAVE TECH™

APPLICATION

Carbon Steels	Mold Steels
Alloy Steels	Tool Steels
Bearing Steels	Titanium Alloys
Stainless Steels	Structural Steels

LENOX *MAX CT™*

Maximum Cutting Performance on Aerospace Alloys



EXCEPTIONAL BLADE LIFE
Multi-chip tooth pattern balances the chip load and reduces cutting forces

Next generation welding technology prevents premature tooth loss

FASTER,STRAIGHTER CUTS
Aggressive rake angles aid in tooth penetration in difficult to cut metals

Optimized gullet geometry increases beam strength for straighter cuts

SUPERIOR PART FINISH
Precision ground carbides create razor sharp teeth for a mirror-like finish on cut parts

WIDTH X THICKNESS		TPI			
IN	MM	0.9/1.1	1.0/1.4	1.4/2.0	2/3
1-1/4 x .042	34 x 1.07				•
1-1/2 x .050	41 x 1.27			•	•
2 x .063	54 x 1.60	•	•	•	•
2-5/8 x .063	67 x 1.60	•	•	•	
3 x .063	80 x 1.60	•			

WAVE TECH™

APPLICATION

- Aluminum /Non-Ferrous
- Stainless Steels
- Tool Steels
- Titanium Alloys
- Nickel-based Alloys

TRI-TECH CT ™

Set Style Carbide Blade for Difficult to Cut Metals

STRAIGHT CUTS. NO PINCHING
Set style tooth pattern eliminates pinching in high stress metals

Wide kerf clearance enables plunge cutting

PROLONGED BLADE LIFE
High grade carbide tips are precision ground for efficient cutting

High performance backing steel minimizes body breakage

EXTREME VERSATILITY
Cuts a range of materials from high strength steels to Nickel-based alloys

WIDTH X THICKNESS		TPI			
IN	MM	0.9/1.1	1.4/2.0	1.8/2.0	2.5/3.4
1-1/4 x .042	34 x 1.07			•	•
1-1/2 x .050	41 x 1.27		•	•	•
2 x .063	54 x 1.60	•	•†	•	•
2-5/8 x .063	67 x 1.60	•†	•†		
3 x .063	80 x 1.60	•			

† = Extra heavy set available to prevent blade pinching

WAVE TECH™

APPLICATION

- Nickel-based Alloys (Inconel®)
- Iron Based Super Alloys
- Titanium Alloys
- High Chrome Alloys
- Stainless Steel
- Mold and Tool Steels
- Aluminum/ Non-Ferrous

LENOX

VERSA PRO™

Versatile Carbide Tipped Blade for General Purpose Cutting

LONG BLADE LIFE IN A VARIETY OF METALS
Proprietary grade of tungsten carbide tips with increased

toughness retain a sharp cutting edge

Multi-chip tooth design balances the chip load and reduces the cutting forces

EASY TO RUN WITH NO BREAK IN*
Pre-honed cutting edge minimizes tooth chipping and eliminates the need to break-in the blade

OUTSTANDING PART FINISH
Precision ground carbide tips have clean, sharp edges that deliver smoother parts

* Break-in recommended for pieces larger than 10" (254mm)

WIDTH X THICKNESS		TPI				
IN	MM	0.9/1.1	1.0/1.4	1.4/2.0	2/3	3/4
1-1/4 x .042	34 x 1.07			•	•	•
1-1/2 x .050	41 x 1.27			•	•	
2 x .063	54 x 1.60		•	•	•	
2-5/8 x .063	67 x 1.60	•	•	•		
3 x .063	80 x 1.60	•				

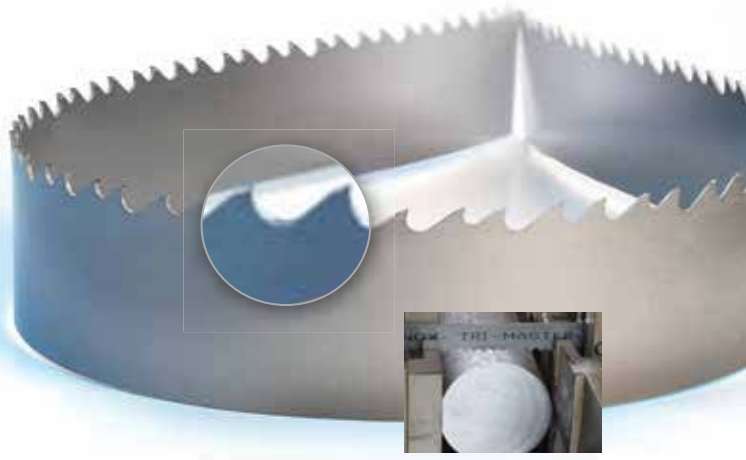
WAVE TECH™

APPLICATION

Aluminum/ Non-Ferrous	Tool Steels
Carbon Steels	Stainless Steels
Bearing Steels	Titanium Alloys
Mold Steels	Nickel-based Alloys
Alloy Steels	(Inconel®)

TRI-MASTER®

Versatile Carbide Tipped Blade



PRECISION TRIPLE CHIP GRIND
Smooth cuts, excellent finish

HIGH PERFORMANCE BACKING STEEL
Excellent fatigue life

GENERAL PURPOSE BLADE
Perfect for cutting of a wide variety of materials

TOOTH FORM WIDTH X THICKNESS		VARI-TOOTH® TPI		STANDARD TPI
IN	MM	2/3	3/4	3
3/8 x .032	9.5 x 0.80			•
1/2 x .025	12.7 x 0.64			•
3/4 x .035	19 x 0.90			•
1 x .035	27 x 0.90	•	•	•
1-1/4 x .042	34 x 1.07	•	•	•
1-1/2 x .050	41 x 1.27	•	•	

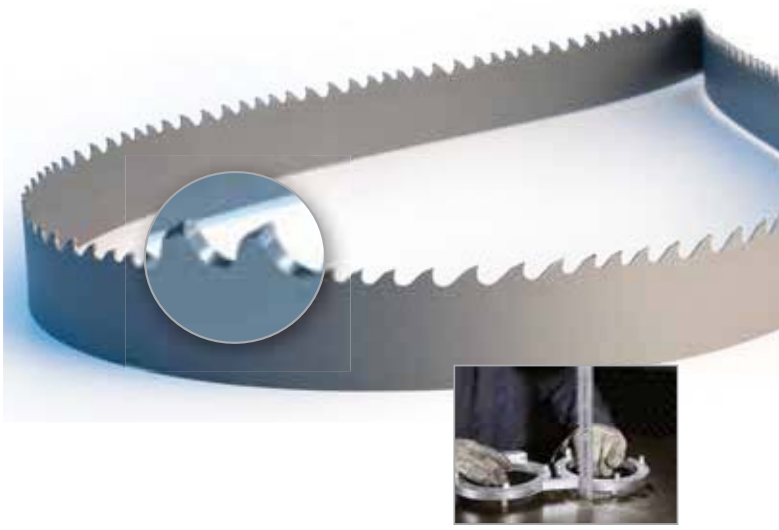
WAVE TECH™

APPLICATION

Aluminum/ Non-Ferrous	Mold Steels
Carbon Steels	Tool Steels
Alloy Steels	Wood
Bearing Steels	Titanium Alloys
Stainless Steels	Nickel-Based Alloys (Inconel®)

CAST MASTER™

Superior Performance When Sawing Castings



EXCEPTIONAL BLADE LIFE IN HAND FED FOUNDRY APPLICATIONS

Sub-micron grade carbide teeth designed for cutting aluminum and non-ferrous parts

Precision grind on the rake face prevents material build up on tooth edge

CUTS PARTS FREELY WITH LIMITED FEED PRESSURE

Optimized rake angle and narrow kerf enable high speed cutting without pulling the part

Multi-chip tooth design reduces cutting forces and limits vibration

HIGH ALLOY BACKING STEEL INCREASES FATIGUE LIFE

Advanced backing steel preparation minimizes band breaks

WIDTH X THICKNESS		TPI		
IN	MM	2/3	3	3/4
3/4 x .035	19 x 0.90		•	•
1 x .035	27 x 0.90	•	*	
1-1/4 x .042	34 x 1.07	•		
1-1/2 x .050	41 x 1.27	•		

• Multi-chip Design
* Set Style (Cast Master SST)

APPLICATION

Aluminum/ Non-Ferrous Castings	Wood
Gates & Risers	Composites

CAST MASTER™ XL

Superior Performance in High Speed Aluminum Cutting

Applications

LONG BLADE LIFE AT HIGH BAND SPEEDS

Special grade of carbide is designed to wear slowly when cutting aluminum

Multi-chip tooth pattern balances the chip load and reduces cutting forces

Next generation welding technology reduces premature tooth loss

EXCEPTIONAL PART FINISH AT INCREASED CUTTING RATES

Precision grind prevents material build up on the tooth edge

Teeth have sharp edges and high rake angles to penetrate easily and leave a smooth finish

STRAIGHT CUTS IN LARGE BLOCK APPLICATIONS

High alloy backing steel and fatigue resistant gullet geometry minimize the impact of wide guide spacing

WIDTH X THICKNESS		TPI		
IN	MM	0.6/0.8	0.9/1.1	1.4/2.0
1-1/4 x .042	34 x 1.07			•
1-1/2 x .050	41 x 1.27			•*
2 x .063	54 x 1.60		•	
2-5/8 x .063	67 x 1.60			•
3 x .063	80 x 1.60	•	•	

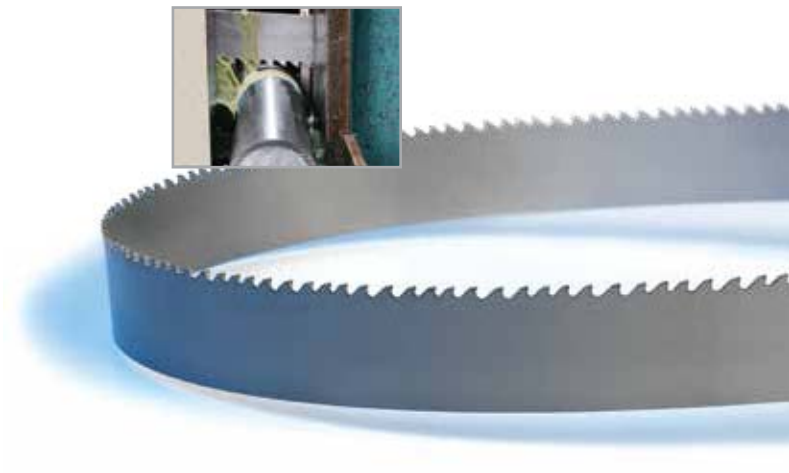
* *CAST MASTER XLE* - Spec designed for automated cutting of engine blocks

APPLICATION

Aluminum/ Non-Ferrous Castings	Engine Blocks
	Gates & Risers

LENOX HRc®

Carbide Tipped Blade for Case and Through-Hardened Materials



HIGH QUALITY, MICRO-GRAINED CARBIDE
Outstanding durability

STRONG TOOTH DESIGN
Superior edge strength and strip resistance

NEW HIGH PERFORMANCE BACKING STEEL
Excellent fatigue life

REPLACES ABRASIVE CUT-OFF OPERATIONS

TOOTH FORM WIDTH X THICKNESS		VARI-TOOTH® TPI		STANDARD TPI
IN	MM	2/3	3/4	3
1 x .035	27 x 0.90			•
1-1/4 x .042	34 x 1.07		•	•
1-1/2 x .050	41 x 1.27		•	
2 x .063	54 x 1.60	•		

WAVE TECH™

APPLICATION

Carbon Steels
Stainless Steels
Case Hardened Materials

MASTER-GRIT®

Carbide Grit Edge Blade for Cutting Abrasive and Hardened Materials

TUNGSTEN CARBIDE PARTICLE GRIT
Metallurgically bonded edge

GULLETED
For applications greater than 1/4"(6.4mm) in cross-section

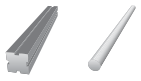
CONTINUOUS
For applications less than 1/4"(6.4mm) in cross-section

GRIT EDGE PREPARATION WIDTH X THICKNESS		GULLETED			CONTINUOUS	
IN	MM	MED	MED COARSE	COARSE	MED	COARSE
3/8 x .025	9.5 x 0.64		•			
1/2 x .025	12.7 x 0.64	•	•		•	
3/4 x .032	19 x 0.80		•	•		
1 x .035	27 x 0.90		•	•	•	•
1-1/4 x .042	34 x 1.07			•		

APPLICATION

Case Hardened Materials

Other: Fiberglass, Steel Belted Radial Tires, Composites



CARBIDE SPEED CHART

VISIT SAWCALC.COM
FOR CUSTOMIZED BAND SAW RECOMMENDATIONS

MATERIALS		ARMOR® CT BLACK		LENOX MAX CT™		TRI-TECH™		VERSA PRO™		TRI-MASTER®		CAST MASTER™		LENOX HRC®	
TYPE	GRADE	FPM	MPM	FPM	MPM	FPM	MPM	FPM	MPM	FPM	MPM	FPM	MPM	FPM	MPM
Aluminum Alloys	2024, 5052, 6061, 7075			3,500–8,500*	1000–2600	3,500 - 8,500	1,000 - 2,600	3,500–8,500*	1000–2600	3,500–8,500*	1000–2600	3,500–8,500*	1000–2600		
Copper Alloys	CDA 220 CDA 360 Cu Ni (30%) Be Cu			240 300 220 180	75 90 65 55	240 300 220 180	73 91 67 55	240 300 220 180	75 90 65 55	210 295 200 160	65 90 60 50	210 295 200 160	65 90 60 50	280	85
Bronze Alloys	AMPCO 18 AMPCO 21 AMPCO 25 Leaded Tin Bronze Al Bronze 865 Mn Bronze 932 937			205 180 115 300 200 220 300 300	60 55 35 90 60 65 90 90	205 180 115 300 180 220 300 300	62 55 35 91 55 67 91 91	205 180 115 300 200 220 300 300	60 55 35 90 60 65 90 90	180 160 110 290 150 215 280 250	55 50 35 90 45 65 85 75	180 160 110 290 150 215 280 250	55 50 35 90 45 65 85 75		
Brass Alloys	Cartridge Brass Red Brass (85%) Naval Brass			260 230	80 70	240 230	73 70	260 230	80 70	220 200	65 60			220 200	65 60
Leaded, Free Machining Low Carbon Steels	1145 1215 12L14	370 425 450	115 130 135			290 325 350	88 99 107			290 325 350	90 100 105				
Structural Steel	A36	350	105												
Low Carbon Steels	1008, 1018 1030	310 290	95 90			250 240	76 73			250 240	75 75			270** 250**	80 75
Medium Carbon Steels	1035 1045	285 275	85 85			230 220	70 67			230 220	70 65			240** 230**	75 70
High Carbon Steels	1060 1080 1095	260 250 240	80 75 75											200** 195** 185**	60 60 55
Mn Steels	1541 1524	260 240	80 75												
Cr-Mo Steels	4140 41L50 4150H	300 310 290	90 95 90			220 250	67 76								
Cr Alloy Steels	6150 52100 5160	315 300 315	95 90 95			190 190	58 58								
Ni-Cr-Mo Steels	4340 8620 8640 E9310	300 310 305 315	90 95 95 95			190 190	58 58								
Low Alloy Tool Steel	L-6	300	90	240	75	240	73	240	75	190	60				
Water-Hardening Tool Steel	W-1	300	90	240	65	220	67	240	65	175	55				
Cold-Work Tool Steel	D-2	240	75	210	65	210	64	210	65	170	50				
Air-Hardening Tool Steels	A-2 A-6 A-10	270 240 190	80 75 60	230 220 160	70 65 50	230 220 160	70 67 49	230 220 160	70 65 50	185 175 130	55 55 40				
Hot Work Tool Steels	H-13 H-25	240 180	75 55	220 150	55 45	220 150	67 46	220 150	55 45	175 120	55 35				
Oil-Hardening Tool Steels	O-1 O-2	260 240	80 75	240 220	75 65	240 220	73 67	240 220	75 65	190 175	60 55				
High Speed Tool Steels	M-2, M-10 M-4, M-42 T-1 T-15	140 130 120 100	45 40 35 30	110 105 100 80	35 30 30 25	110 105 100 80	34 32 30 24	110 105 100 80	35 30 30 25	90 85 80 65	25 25 25 20				
Mold Steels	P-3 P-20	300 280	90 85	200 160	60 50	200 160	61 49	200 160	60 50	160 130	50 40				
Shock Resistant Tool Steels	S-1 S-5, S-7	220 200	65 60												
Stainless Steels	304 316 410,420 440A 440C	260 240 290 250 240	80 75 90 75 75	220 180 250 200 200	65 55 75 60 60	190 180 250 200 200	58 55 76 61 61	220 180 250 200 200	65 55 75 60 60	155 125 175 140 140	45 40 55 45 45			220 180 250 200 200	65 55 75 60 60
Precipitation Hardening Stainless Steels	17-4 PH 15-5 PH	300 300	90 90	160 140	50 45	160 160	49 49	160 140	50 45	110 100	35 30			160 140	50 45
Free Machining Stainless Steels	420F 301	340 320	105 100	270 230	80 70	270 230	82 70	270 230	80 70	190 160	60 50			270 230	80 70
Nickel Alloys	Monel® K-500 Duranickel® 301			90 80	25 25	90 80	27 24	90 80	25 25	90 80	25 25				
Iron-Based Super Alloys	A286, Incoloy® 825 Incoloy 600 Pyromet® X-15			80 75 90	25 25 25	105 85 90	32 26 27	80 75 90	25 25 25	80 75 90	25 25 25				
Nickel-Based Alloys	Inconel® 600, Inconel 718 Nimonic® 90 NI-SPAN-C® 902, RENE® 41 Inconel® 625 Hastalloy B, Waspalloy Nimonic® 75, RENE® 88			85 85 115 75 75	25 25 35 25 25	105 100 105 105 100 105	32 30 32 32 30 32	85 85 115 75 75	25 25 35 25 25	85 85 115 75 75	25 25 35 25 25				
Titanium Alloys	CP Titanium Ti-6A1-4V	230 230	70 70	180 180	55 55	180 180	55 55	180 180	55 55	150 150	45 45				
Cast Irons	A536 (60-40-18) A536 (120-90-02) A48 (Class 20) A48 (Class 40) A48 (Class 60)	360 175 250 160 115	110 55 75 50 35												

FPM = Feet Per Minute | MPM = Meters Per Minute **For metal cutting saws run between 275 and 350 FPM. **Typically for hardened and case hardened carbon steels up to 61 Rc.*

BI-METAL
BAND SAW BLADES

SELECTING BI-METAL BAND SAW BLADES

The following information needs to be specified when a band saw blade is ordered:

PRODUCT NAME LENGTH X WIDTH X THICKNESS TEETH PER INCH

For Example: *Contestor GT®* 16' x 1-1/4" x .042" 3/4 TPI

STEP #1: ANALYZE THE SAWING APPLICATION

Machine: Determine the band size for the machine (Length x Width x Thickness).

Material: Determine the following for the material to be cut:

- Material Type/Grade
- Size
- Shape
- Will material be stacked/bundled, or cut one at a time?

Operation: Is this a production, or general purpose sawing operation?

STEP #2: DETERMINE THE BEST PRODUCT FOR THE APPLICATION

Use the charts below.

- Locate the type of material to be cut in the top row.
- Read down the chart to find which blade is recommended.

STEP #3: DETERMINE THE PROPER NUMBER OF TEETH PER INCH (TPI)

- Use the Bi-metal Tooth Selection chart on page 25.

STEP #4: CONFIRM THE DESIRED PRODUCT IS AVAILABLE

- Go to the product page for the product you have selected.
- Confirm that product is available in the correct blade width and TPI.

FOR ASSISTANCE, CONTACT LENOX TECHNICAL SUPPORT 400-820-2740.

PRODUCTION SAWING

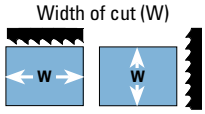
ALUMINUM NON-FERROUS	CARBON STEELS	STRUCTURAL STEELS	ALLOY STEELS	BEARING STEELS	MOLD STEELS	TOOL STEELS	STAINLESS STEELS	TITANIUM ALLOYS	NICKEL-BASED ALLOYS (INCONEL®)
EASY ← MACHINABILITY → DIFFICULT									
QXP™				***QXP™*** Long Life. Fast Cutting					
					CONTESTOR GT® Long Life. Straight Cuts				
					CONTESTOR XL™ High Performance Sawing of Large, Difficult to Cut Metals				
	LENOX *Rx®+* Structurals/ Bundles								
	HRX™ Optimized to Cut Large Beams and Heavy Walled Tubes						***HRX™***		
	ARMOR® Rx®+ Long Life. Structurals/Bundles								
Q88+™ Next Generation Multi-purpose Blade						***Q88+™***			
CLASSIC® / CLASSIC+™ 3/4" and Wider Blades						***CLASSIC® / CLASSIC+™***			
DIEMASTER 2® 1/2" and Wider Blades						***DIEMASTER 2®***			

Note: We can provide solutions for many cutting applications not listed here. Please contact local Lenox Technical support for customized advice.

BI-METAL TOOTH SELECTION

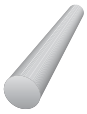
VISIT SAWCALC.COM
FOR CUSTOMIZED BAND SAW RECOMMENDATIONS

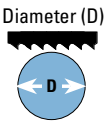
1. Determine the size and shape of material to be cut.
2. Identify the chart to be used (square solids, round solids, or tubing/structurals).
3. Read teeth per inch next to material size.



SQUARE/RECTANGLE SOLID Locate width of cut (W)

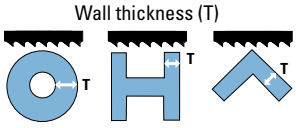
WIDTH OF CUT																									
IN	.1	.2	.3	.4	.5	.6	.7	.8	.9	1	2	5	10	15	20	25	30	35	40	45	50				
MM	2.5	5	75	10	12.5	15	175	20	22.5	25	50	125	250	375	500	625	750	875	1000	1125	1250				
TPI	14/18		10/14		8/12		6/10		6/8 5/8		4/6		3/4		2/3		1.5/2.0 1.4/2.0		1.0/1.3				0.7/1.0		





ROUND SOLID Locate diameter of cut (D)

DIAMETER OF CUT																									
IN	.1	.2	.3	.4	.5	.6	.7	.8	.9	1	2	5	10	15	20	25	30	35	40	45	50				
MM	2.5	5	75	10	12.5	15	175	20	22.5	25	50	125	250	375	500	625	750	875	1000	1125	1250				
TPI	14/18		10/14		8/12		6/10		6/8 5/8		4/6		3/4		2/3		1.5/2.0 1.4/2.0		1.0/1.3				0.7/1.0		



TUBING/PIPE/ STRUCTURALS Locate wall thickness (T)

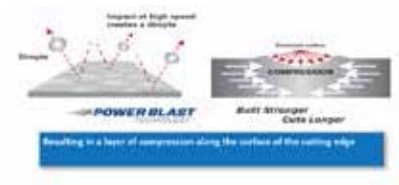
WALL THICKNESS																									
IN	.05	.10	.15	.20	.25	.30	.40	.50	.60	.70	.80	.90	1	1.5	2										
MM	1.25	2.5	3.75	5	6.25	7.5	10	12.5	15	17.5	20	22.5	25	37.5	50										
TPI	14/18	10/14	8/12	6/10	6/8 5/8		4/6			3/4				2/3											

BUNDLED/STACKED MATERIALS:

To select the proper number of teeth per inch (TPI) for bundled or stacked materials, find the recommended TPI for a single piece and choose one pitch coarser to cut the bundle

WHAT IS *POWER BLAST TECHNOLOGY®*?

POWER BLAST TECHNOLOGY®



Peening process commonly used in the aerospace and automotive industries to add a layer of compressive stress to the surface of the metal

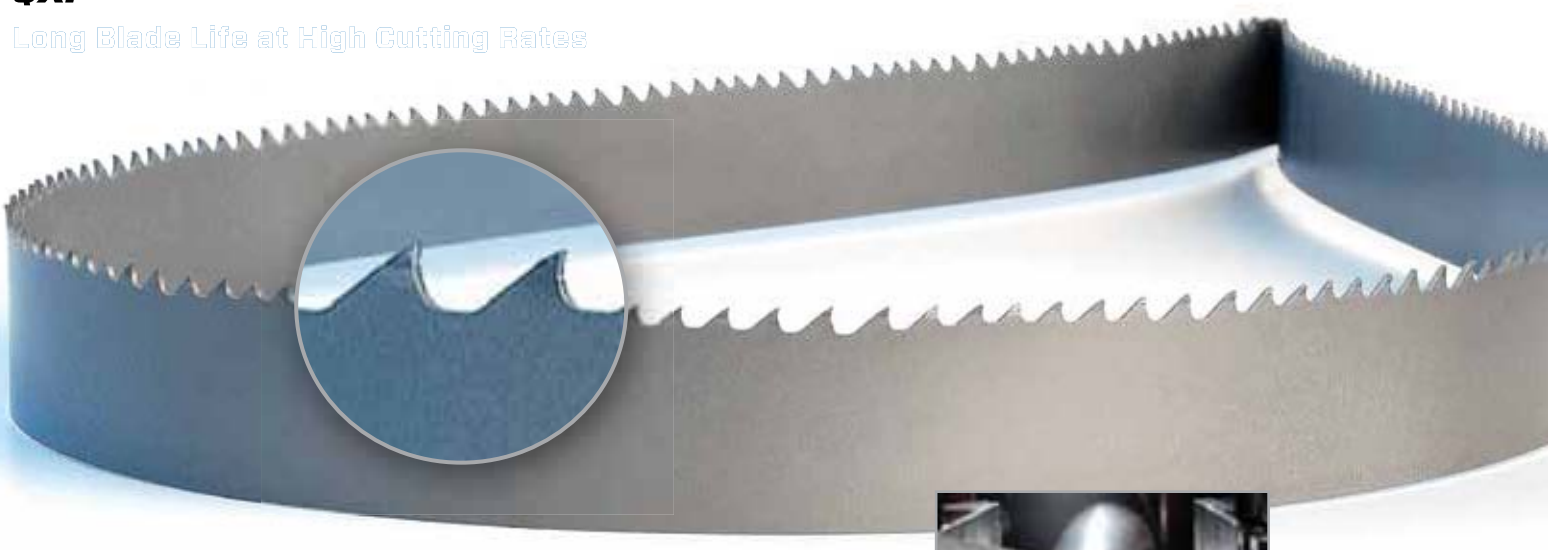
This prevents cracks from surfacing, which can cause blade failure

LENOX has been peening Band Saw blades for over 9 year

LENOX

QXP™

Long Blade Life at High Cutting Rates



LONG LIFE. FAST CUTTING
Solids of mild to moderate machinability

Proprietary backing steel preparation provides increased fatigue life

PENETRATES WITH LESS FEED FORCE
Extreme positive rake tooth form

INCREASED CUTTING RATES
Deep gullet design

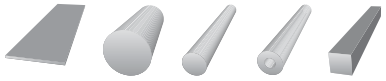
WIDTH X THICKNESS		TPI					
IN	MM	1.0/1.3	1.5/2.0	2/3	3/4	4/6	5/8
3/4 x .035	19 x 0.90					*	
1 x .035	27 x 0.90			◆	◆	◆	◆
1-1/4 x .042	34 x 1.07		◆	◆	◆	◆	◆
1-1/2 x .050	41 x 1.27		◆	◆	◆	◆	
2 x .063	54 x 1.60	◆	◆	◆	◆	◆	
2-5/8 x .063	67 x 1.60	◆	◆	◆			
3 x .063	80 x 1.60	◆					

*=without PowerBlast

WAVE TECH™

APPLICATION

Aluminum/ Non-Ferrous	Bearing Steels
Carbon Steels	Mold Steels
Alloy Steels	Stainless Steels
	Tool Steels



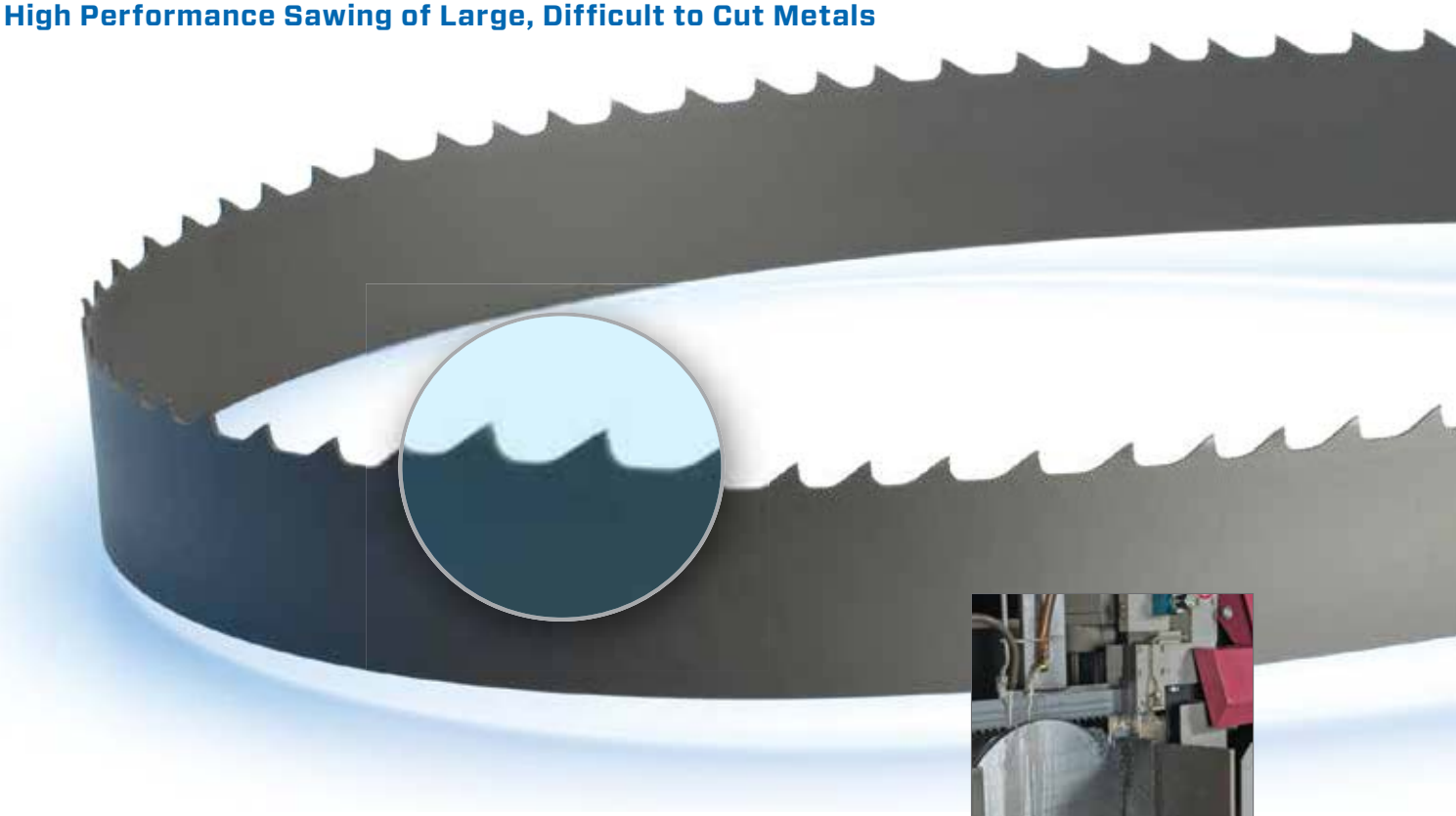
POWER BLAST TECHNOLOGY®

LONG LIFE. SMOOTH CUTTING. BLADE AFTER BLADE. GUARANTEED.*

*The recommended ***POWER BLAST TECHNOLOGY®*** Blade will outperform your current product or your money back. Contact your LENOX Technical Sales Representative for more information.

CONTESTOR XL™

High Performance Sawing of Large, Difficult to Cut Metals



INCREASED WEAR RESISTANCE DELIVERS LONGER BLADE LIFE
New HSS edge wire increases tooth hardness for better abrasive wear resistance

Patent pending chip controlling design reduces heat and wear

IMPROVED CHIP FORMATION HELPS PENETRATE DIFFICULT TO CUT METALS
Variable tooth heights and multi-level set creates longer, narrower chips

High rake angles reduce cutting forces

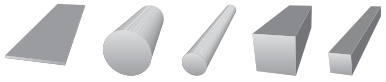
OPTIMIZED DESIGN FOR STRAIGHTER CUTS ON LARGE BLOCKS
Shallow gullet construction increases beam strength

WIDTH X THICKNESS		TPI					
IN	MM	0.7/1.0	1.0/1.3	1.4/2.0	2/3	3/4	4/6
1-1/4 x .042	34 x 1.07				◆	◆	◆
1-1/2 x .050	41 x 1.27			◆	◆	◆	
2 x .063	54 x 1.60		◆	◆	◆	◆	
2-5/8 x .063	67 x 1.60	◆	◆	◆			
3 x .063	80 x 1.60	◆	◆				

WAVE TECH™

APPLICATION

- Mold Steels
- Stainless Steels
- Tool Steels
- Titanium Alloys
- Nickel-Based Alloys (Inconel®)



LENOX®

CONTESTOR GT®

High Performance Sawing

STRAIGHTER CUTS ON LARGER, DIFFICULT TO CUT MATERIALS

Unique gullet design for increased beam strength

OPTIMUM CHIP FORMATION IN WORK HARDENING ALLOYS

Precision ground teeth—smoother tooth face and gullet surfaces

Patented special set and tooth profile

•

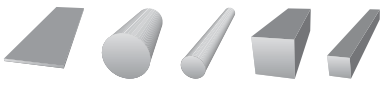
WIDTH X THICKNESS		TPI					
IN	MM	0.7/1.0	1.0/1.3	1.4/2.0	2/3	3/4	4/6
1 x .035	27 x 0.90				•	•	•
1-1/4 x .042	34 x 1.07			◆		◆	
1-1/2 x .050	41 x 1.27			◆			◆
2 x .063	54 x 1.60			◆	◆	◆	
2-5/8 x .063	67 x 1.60	◆	◆	◆	◆		
3 x .063	80 x 1.60	◆	◆	◆			

• = Milled tooth
◆ = Ground tooth

WAVE TECH™

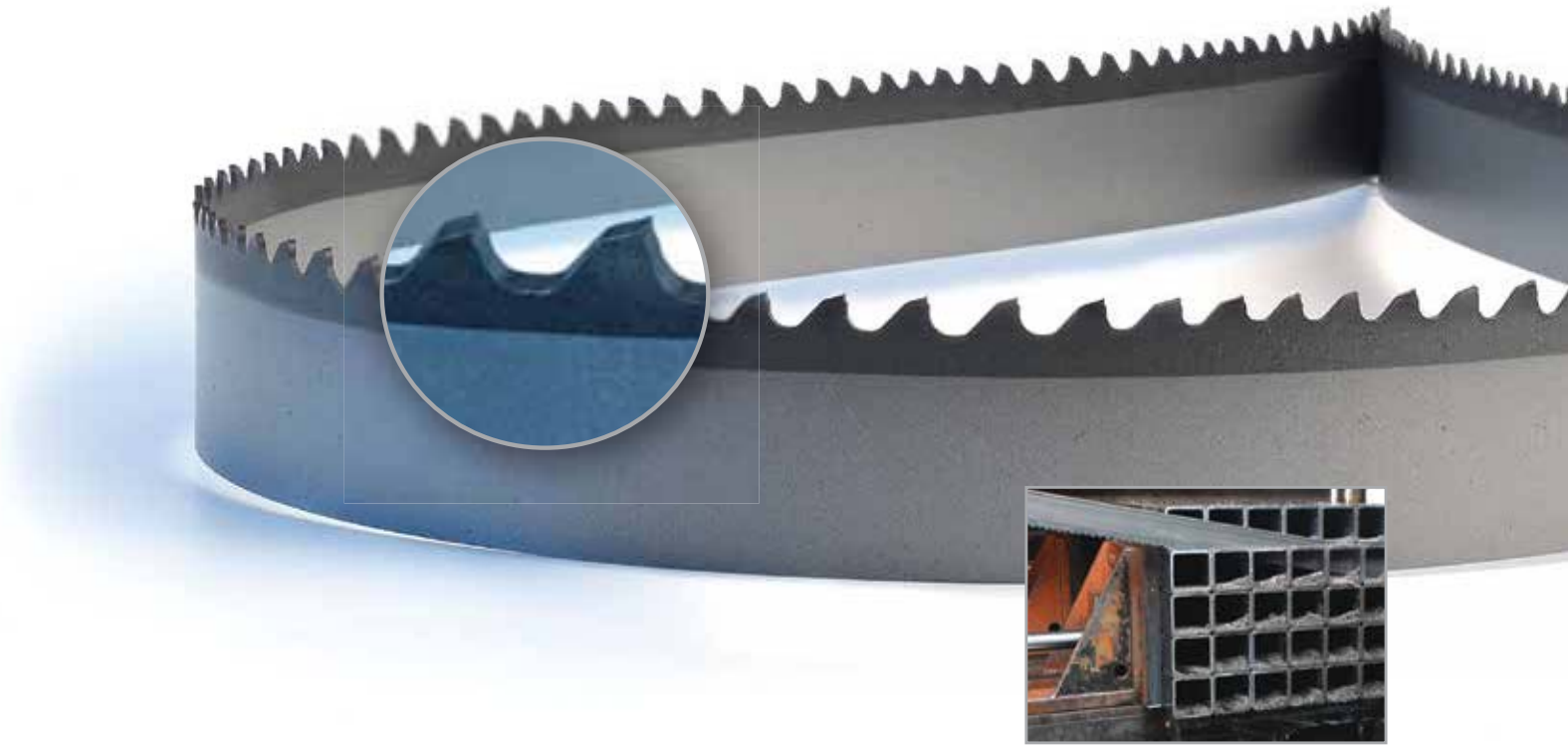
APPLICATION

Mold Steels
Stainless Steels
Tool Steels
Titanium Alloys
Nickel-Based Alloys (Inconel®)



ARMOR® Rx®+

Engineered for Long Life



ALTIN COATING FOR PRODUCTIVITY AND LONG BLADE LIFE
Aluminum, Titanium, and Nitrogen combine to form a coating that is hard and tough, protecting each tooth from heat and wear with an armor-like barrier

UNIQUE, PATENTED TOOTH PROFILE
Special, reinforced tooth design for reduced tooth strippage at higher feed rates

Minimized harmonics and vibrations

Quiet cutting

HIGH PERFORMANCE BACKING STEEL
For longer fatigue life

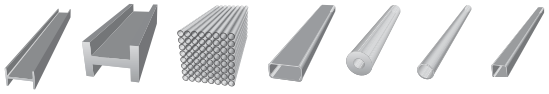
WIDTH X THICKNESS		TPI		
IN	MM	2/3	3/4	4/6
1-1/4 x .042	34 x 1.07		◆†	
1-1/2 x .050	41 x 1.27	◆	◆†	◆†
2 x .063	54 x 1.60	◆	◆†	

† = Extra heavy set available to prevent blade pinching

APPLICATION

Carbon Steels

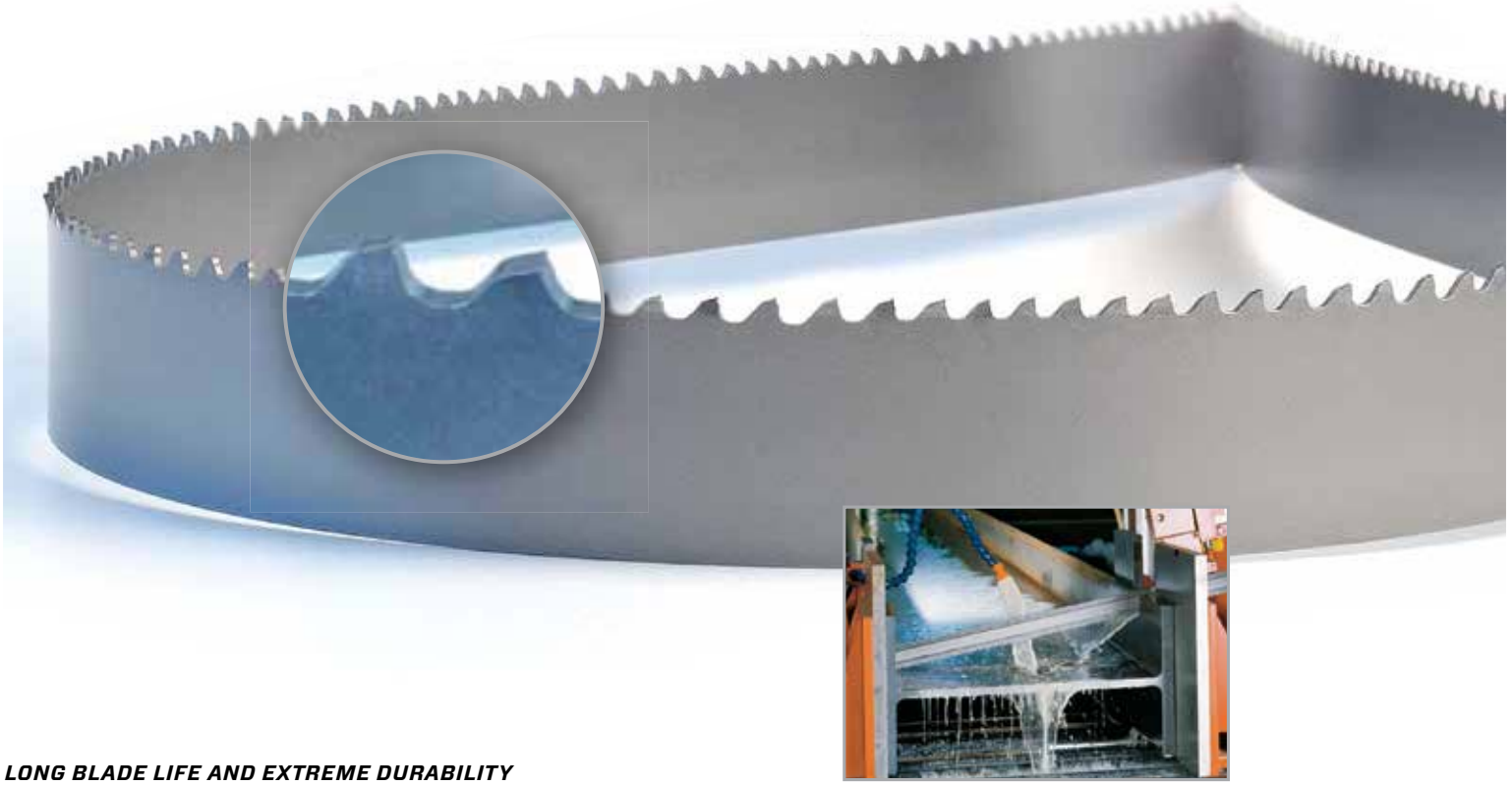
Structural Steels



LENOX

LENOX *Rx*®+

Engineered to Cut Structurals, Tubing and Bundles



LONG BLADE LIFE AND EXTREME DURABILITY
Patented tooth profile resists tooth strippage, even at higher feed rates

QUIET CUTTING, REDUCED VIBRATION
Optimized tooth pitch/set sequence

WIDTH X THICKNESS		TPI						
IN	MM	2/3	3/4	4/6	5/7	5/8	6/10	10/14
5/8 x .032	16 x 0.80							*
3/4 x .035	19 x 0.90			◆		◆	◆	◆
1 x .035	27 x 0.90				◆		◆	◆
1-1/4 x .042	34 x 1.07	◆	◆†	◆†		◆		
1-1/2 x .050	41 x 1.27	◆†	◆†	◆†		◆		
2 x .050	54 x 1.27	◆	◆†	◆		◆		
2 x .063	54 x 1.60	◆†	◆†	◆				
2-5/8 x .063	67 x 1.60	◆†	◆†	◆				

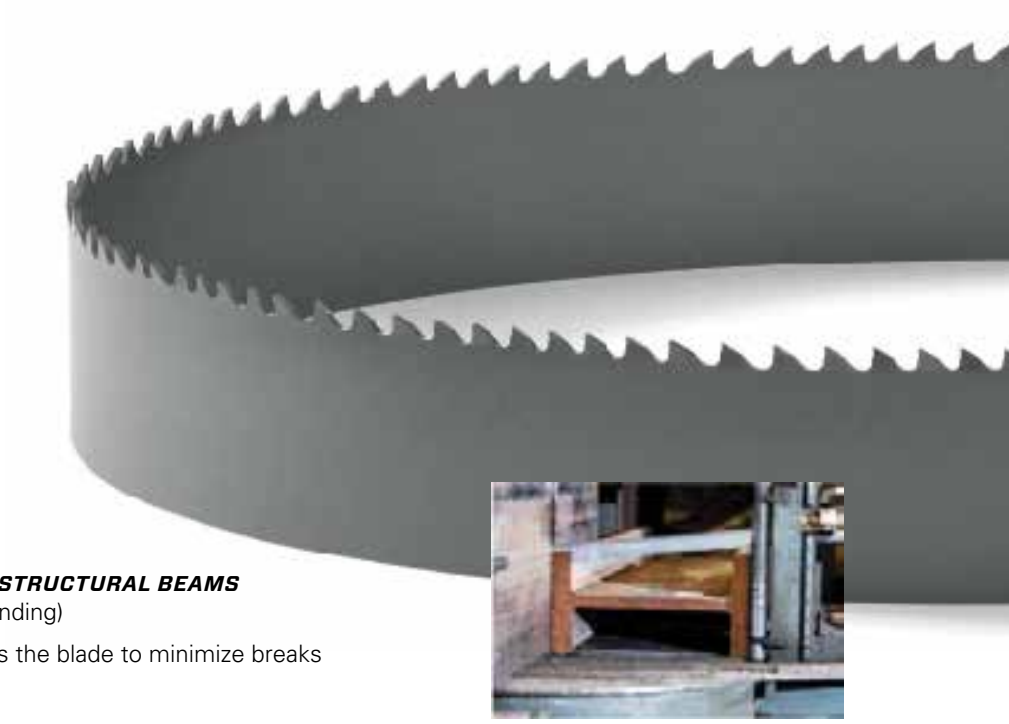
* = Matrix edge
† = Extra heavy set available to prevent blade pinching

APPLICATION

Carbon Steels
Structural Steels

HRX ™

Optimized to Cut Large Beams and Heavy Walled Tubes



LONG BLADE LIFE WHEN CUTTING LARGE STRUCTURAL BEAMS
Designed to resist stripping teeth (Patent Pending)

POWER B LAST TECHNOLOGY® strengthens the blade to minimize breaks

STRAIGHT CUTS THROUGH WIDE CROSS SECTIONS
Designed to improve chip flow and reduce blade deflection for cutting efficiency

Tooth geometry designed to minimize edge chipping and crooked cuts

WIDE KERF LIMITS PINCHING IN LARGER BEAMS
Alternating set teeth widen the cutting channel to limit blade pinching

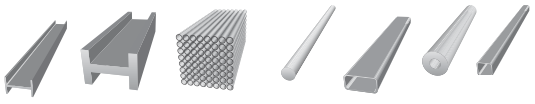
POWER BLAST TECHNOLOGY®

WIDTH X THICKNESS		TPI				
IN	MM	1.4/2.0	2/3	3/4	4/6	5/7
1-1/4 x .042	34 x 1.07			◆	◆	◆
1-1/2 x .050	41 x 1.27		◆	◆	◆	
2 x .063	54 x 1.60	◆	◆†	◆†	◆	
2-5/8 x .063	67 x 1.60	◆	◆†	◆†		

†= Extra Heavy Set available

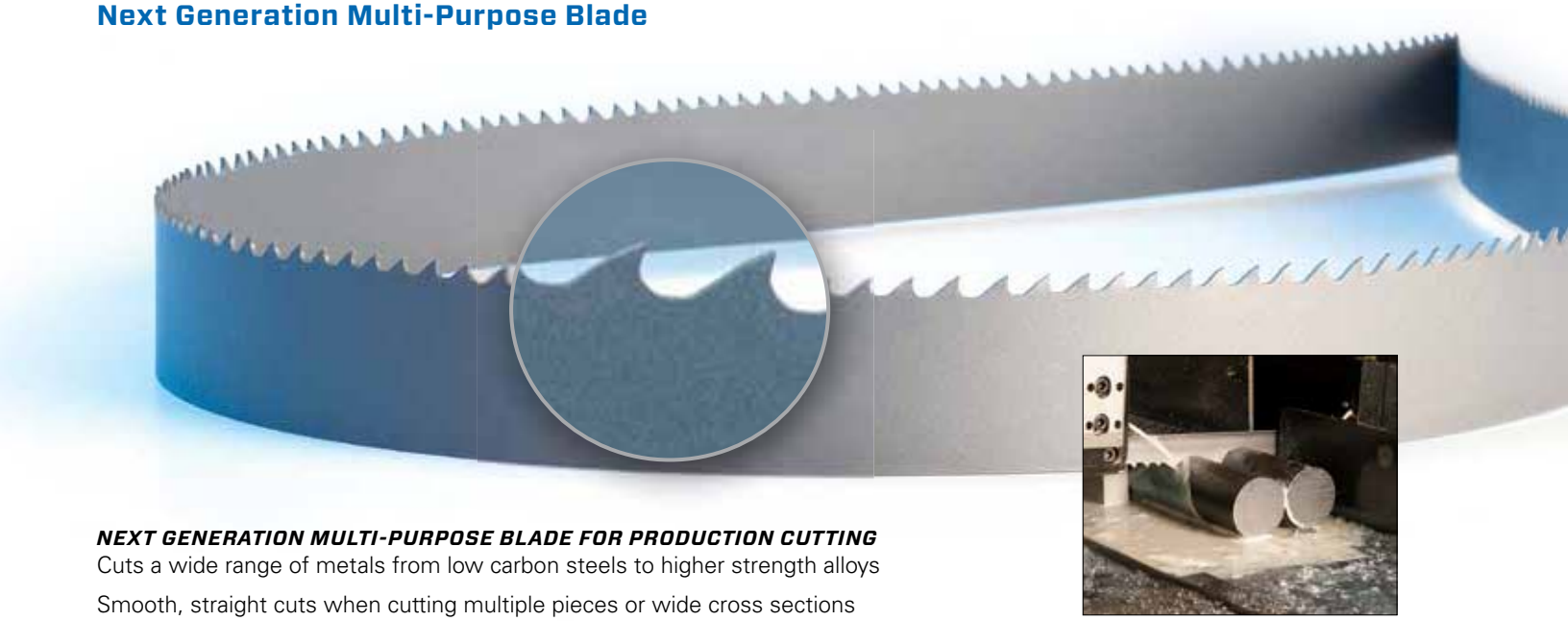
APPLICATION

Angle Iron
Carbon Steel
Stainless Steel
Structural Steel



LENOX Q88+™

Next Generation Multi-Purpose Blade



NEXT GENERATION MULTI-PURPOSE BLADE FOR PRODUCTION CUTTING

Cuts a wide range of metals from low carbon steels to higher strength alloys

Smooth, straight cuts when cutting multiple pieces or wide cross sections

EXCEPTIONAL BLADE LIFE

Proprietary *POWER BLAST TECHNOLOGY*® increases fatigue life & minimizes band breaks

CONSISTENT PERFORMANCE CUT AFTER CUT

Advanced tooth geometry and set minimizes noise & vibration from the very 1st cut

TOOTH FORM WIDTH X THICKNESS		TPI					
IN	MM	1.0/1.3	1.4/2.0	2/3	3/4	4/6	5/8
1 x .035	27 x 0.90			◆	◆	◆	◆
1-1/4 x .042	34 x 1.07			◆	◆	◆	◆
1-1/2 x .050	41 x 1.27		◆	◆	◆†	◆	
2 x .063	54 x 1.60	◆	◆	◆†	◆†		
2-5/8 x .063	67 x 1.60	◆	◆	◆†			

† = Extra heavy set available to prevent blade pinching

APPLICATION

Carbon Steels	Stainless Steels
Alloy Steels	Tool Steels
Mold Steels	Structural Steels

Aluminum/Non Ferrous

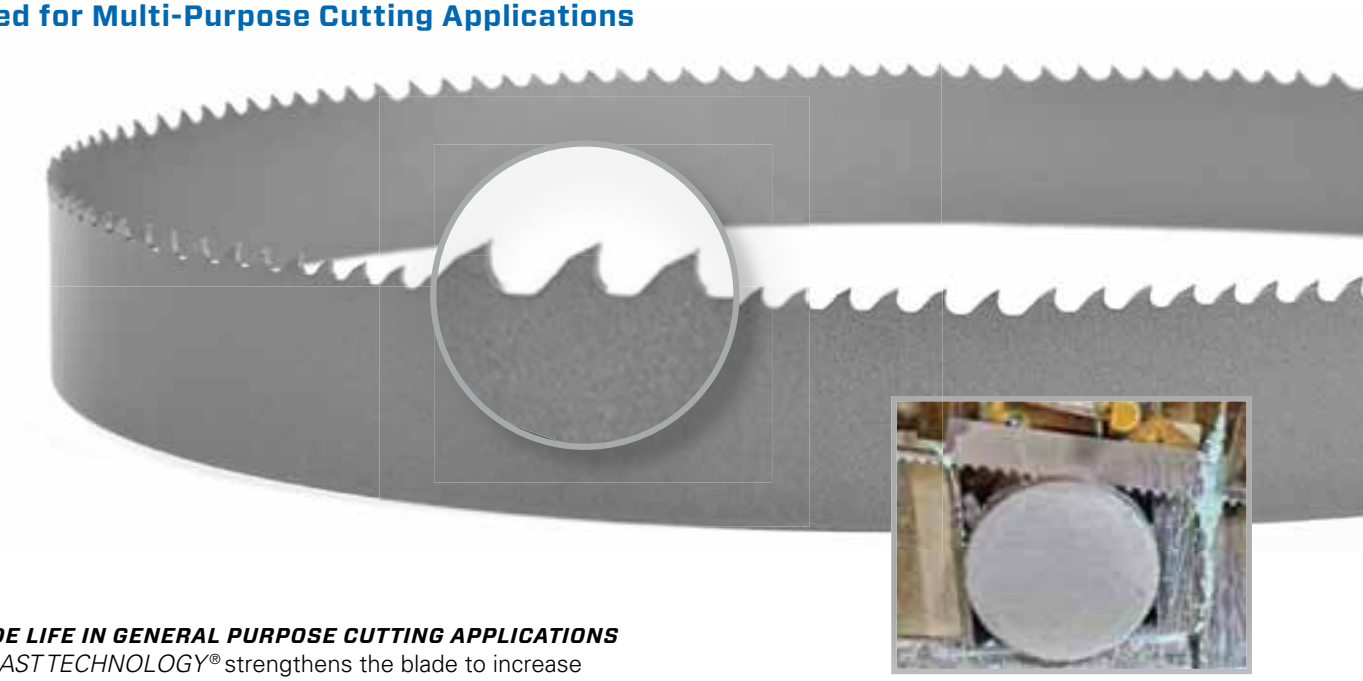
POWER BLAST TECHNOLOGY®

LONG LIFE. SMOOTH CUTTING. BLADE AFTER BLADE. GUARANTEED.*

*The recommended ***POWER BLAST TECHNOLOGY*** ® Blade will outperform your current product or your money back. Contact your LENOX Technical Sales Representative for more information.

LENOX *CLASSIC+™*

Optimized for Multi-Purpose Cutting Applications



LONG BLADE LIFE IN GENERAL PURPOSE CUTTING APPLICATIONS

POWER B LAST TECHNOLOGY® strengthens the blade to increase durability

Enhanced chamfer on the back edge of the blade minimizes band breaks

EFFECTIVELY CUTS A WIDE RANGE OF SOLID AND STRUCTURAL METALS

M42 High Speed Steel tooth edge provides superior heat and wear resistance

Advanced tooth geometry and set pattern reduces stripped teeth

EXCEPTIONAL VALUE AND PERFORMANCE

Made in the USA with high quality components

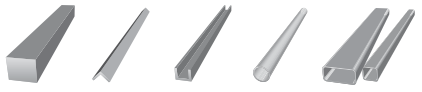
Extended tooth face makes it easier to sharpen

POWER BLAST TECHNOLOGY®

TOOTH FORM WIDTH X THICKNESS		TUFF TOOTH™ TPI		
IN	MM	2/3	3/4	4/6
1 x .035	27 x 0.90	◆	◆	◆
1-1/4 x .042	34 x 1.07	◆	◆	◆
1-1/2 x .050	41 x 1.27	◆	◆	◆

APPLICATION

Carbon Steels	Bearing Steels
Structural Steels	Mold Steels
Alloy Steels	Aluminum/Non-Ferrous



LENOX *CLASSIC*®

The Ultimate Multi-Purpose Blade

DESIGNED FOR LONG LIFE IN GENERAL PURPOSE CUTTING APPLICATIONS

Patented design reduces tooth strippage

M-42 high speed steel edge for excellent heat and wear resistance

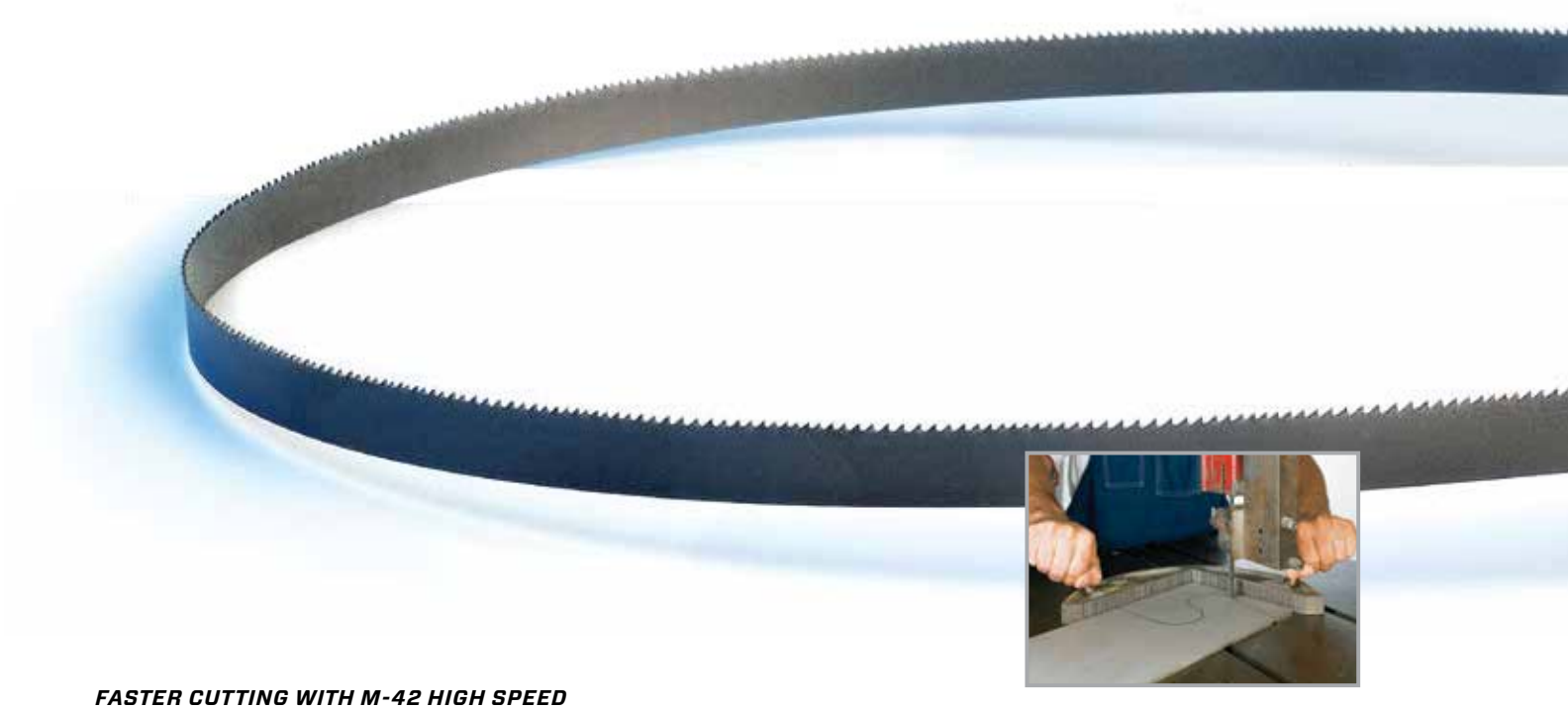
TOOTH FORM WIDTH X THICKNESS		HOOK TPI	POSITIVE RAKE ANGLETPI	VARI-TOOTH™ TPI				WAVY TPI
IN	MM	3	4/6	5/8	6/10	8/12	10/14	18
3/4 x .035	19 x 0.90	◆	◆	◆	◆	◆	◆	◆
1 x .035	27 x 0.90			◆	◆	◆	◆	
1-1/4 x .042	34 x 1.07			◆	◆	◆		

APPLICATION

- Aluminum/ Non-Ferrous
- Carbon Steels
- Structural Steels
- Alloy Steels
- Stainless Steels
- Tool Steels

DIEMASTER 2®

Engineered for Contour Cutting



FASTER CUTTING WITH M-42 HIGH SPEED STEEL TOOTH EDGE
Runs at twice the speed of carbon blades for faster, easier cutting

LONGER BLADE LIFE
Lasts 10 times longer than carbon blades

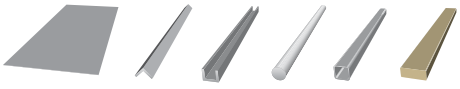
FOR GENERAL PURPOSE HAND-FED APPLICATIONS
Tool and die shops, machine shops, maintenance facilities

TOOTH FORM WIDTH X THICKNESS		VARI-TOOTH™ TPI				STANDARD TPI				HOOK TPI		
IN	MM	6/10	8/12	10/14	14/18	10	14	18	24	3	4	6
1/4 x .025	6.4 x 0.64			◆	◆							◆
1/4 x .035	6.4 x 0.90			◆								◆
3/8 x .025	9.5 x 0.64			◆	◆							
3/8 x .035	9.5 x 0.90					◆					◆	◆
1/2 x .020	12.7 x 0.50			*	*		*	*	*			
1/2 x .025	12.7 x 0.64	◆	◆	◆	◆		◆	◆			◆	◆
1/2 x .035	12.7 x 0.90			◆		◆				◆	◆	

* = Matrix edge

APPLICATION

Aluminum/ Non-Ferrous	Alloy Steels
Carbon Steels	Stainless Steels
Structural Steels	Tool Steels
	Wood



LENOX

BI-METAL SPEED CHART

VISIT SAWCALC.COM
FOR CUSTOMIZED BAND SAW RECOMMENDATIONS

	MATERIALS		BAND SPEED	
	TYPE	GRADE	FEET/ MIN	METER/ MIN
ALUMINUM / NON-FERROUS	Aluminum Alloys	2024, 5052, 6061, 7075	300+	85+
	Copper Alloys	CDA 220 CDA 360 Cu Ni (30%) Be Cu	210 295 200 160	65 90 60 50
	Bronze Alloys	AMPCO 18 AMPCO 21 AMPCO 25 Leaded Tin Bronze Al Bronze 865 Mn Bronze 932 937	180 160 110 290 150 215 280 250	55 50 35 90 45 65 85 75
	Brass Alloys	Cartridge Brass, Red Brass (85%) Naval Brass	220 200	65 60
CARBON STEELS	Leaded, Free Machining Low Carbon Steels	1145 1215 12L14	270 325 350	80 100 105
	Low Carbon Steels	1008, 1018 1030	270 250	80 75
	Medium Carbon Steels	1035 1045	240 230	75 70
	High Carbon Steels	1060 1080 1095	200 195 185	60 60 55
STRUCTURAL STEEL	Structural Steel	A36	250	75
ALLOY STEEL	Mn Steels	1541 1524	200 170	60 50
	Cr-Mo Steels	4140 41L50 4150H	225 235 200	70 70 60
	Cr Alloy Steels	6150 5160	190 195	60 60
	Ni-Cr-Mo Steels	4340 8620 8640 E9310	195 215 185 160	60 65 55 50
BEARING STEEL	Cr Alloy Steels	52100	160	50
MOLD STEEL	Mold Steels	P-3 P-20	180 165	55 50
STAINLESS STEEL	Stainless Steels	304 316 410, 420 440A 440C	115 90 135 80 70	35 25 40 25 20
	Precipitation Hardening Stainless Steels	17-4 PH 15-5 PH	70 70	20 20
	Free Machining Stainless Steels	420F 301	150 125	45 40
TOOL STEEL	Low Alloy Tool Steel	L-6	145	45
	Water-Hardening Tool Steel	W-1	145	45
	Cold-Work Tool Steel	D-2	90	25
	Air-Hardening Tool Steels	A-2 A-6 A-10	150 135 100	45 40 30
	Hot Work Tool Steels	H-13 H-25	140 90	40 25
	Oil-Hardening Tool Steels	O-1 O-2	140 135	40 40
	High Speed Tool Steels	M-2, M-10 M-4, M-42 T-1 T-15	105 95 90 60	30 30 25 20
	Shock Resistant Tool Steels	S-1 S-5, S-7	140 125	40 40
TITANIUM ALLOY	Titanium Alloys	CP Titanium Ti-6Al-4V	85 65	25 20
NICKEL BASED ALLOY	Nickel Alloys	Monel® K-500 Duranickel 301	70 55	20 15
	Iron-Based Super Alloys	A286, Incoloy® 825 Incoloy® 600 Pyromet X-15	80 55 70	25 15 20
	Nickel-Based Alloys	Inconel® 600, Inconel® 718, Nimonic 90, NI-SPAN-C 902, RENE 41 Inconel® 625 Hastalloy B, Waspalloy Nimonic 75, RENE 88	60 60 80 55 50	20 20 25 15 15
OTHER	Cast Irons	A536 (60-40-18) A536 (120-90-02) A48 (Class 20) A48 (Class 40) A48 (Class 60)	225 110 160 115 95	70 35 50 35 30

The Speed Chart recommendations apply when cutting 4" wide (100mm), annealed material with a bi-metal blade and flood sawing fluid:

ADJUST BAND SPEED FOR DIFFERENT SIZED MATERIALS

MATERIAL	BAND SPEED
1/4" (6mm)	Chart Speed + 15%
3/4" (19mm)	Chart Speed + 12%
1-1/4" (32mm)	Chart Speed + 10%
2-1/2" (64mm)	Chart Speed + 5%
4" (100mm)	Chart Speed - 0%
8" (200mm)	Chart Speed - 12%

ADJUST BAND SPEED FOR DIFFERENT FLUID TYPES

FLUID TYPES	BAND SPEED
Spray lube	Chart Speed - 15%
No fluid	Chart Speed - 30–50%

ADJUST BAND SPEED FOR HEAT TREATED MATERIALS

ROCKWELL	BRINELL	DECREASE BAND SPEED
Up to 20	226	-0%
22	237	-5%
24	247	-10%
26	258	-15%
28	271	-20%
30	286	-25%
32	301	-30%
36	336	-35%
38	353	-40%
40	371	-45%

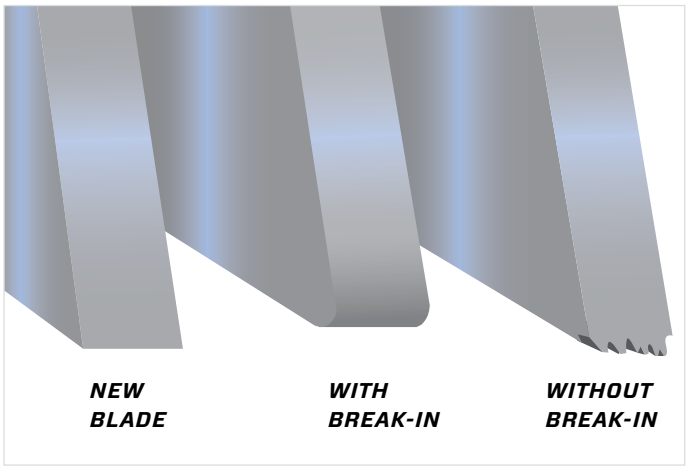
Reduce band speed 50% when sawing with carbon blades

BLADE BREAK-IN

Getting Long Life from a New Band Saw Blade

WHAT IS BLADE BREAK-IN?
A new band saw blade has razor sharp tooth tips. In order to withstand the cutting pressures used in band sawing, tooth tips should be honed to form a micro-fine radius. Failure to perform this honing will cause microscopic damage to the tips of the teeth, resulting in reduced blade life

WHY BREAK-IN A BAND SAW BLADE?
Completing a proper break-in on a new band saw blade will dramatically increase its life



HOW TO BREAK IN A BLADE
Select the proper band speed for the material to be cut (see chart on page 36)

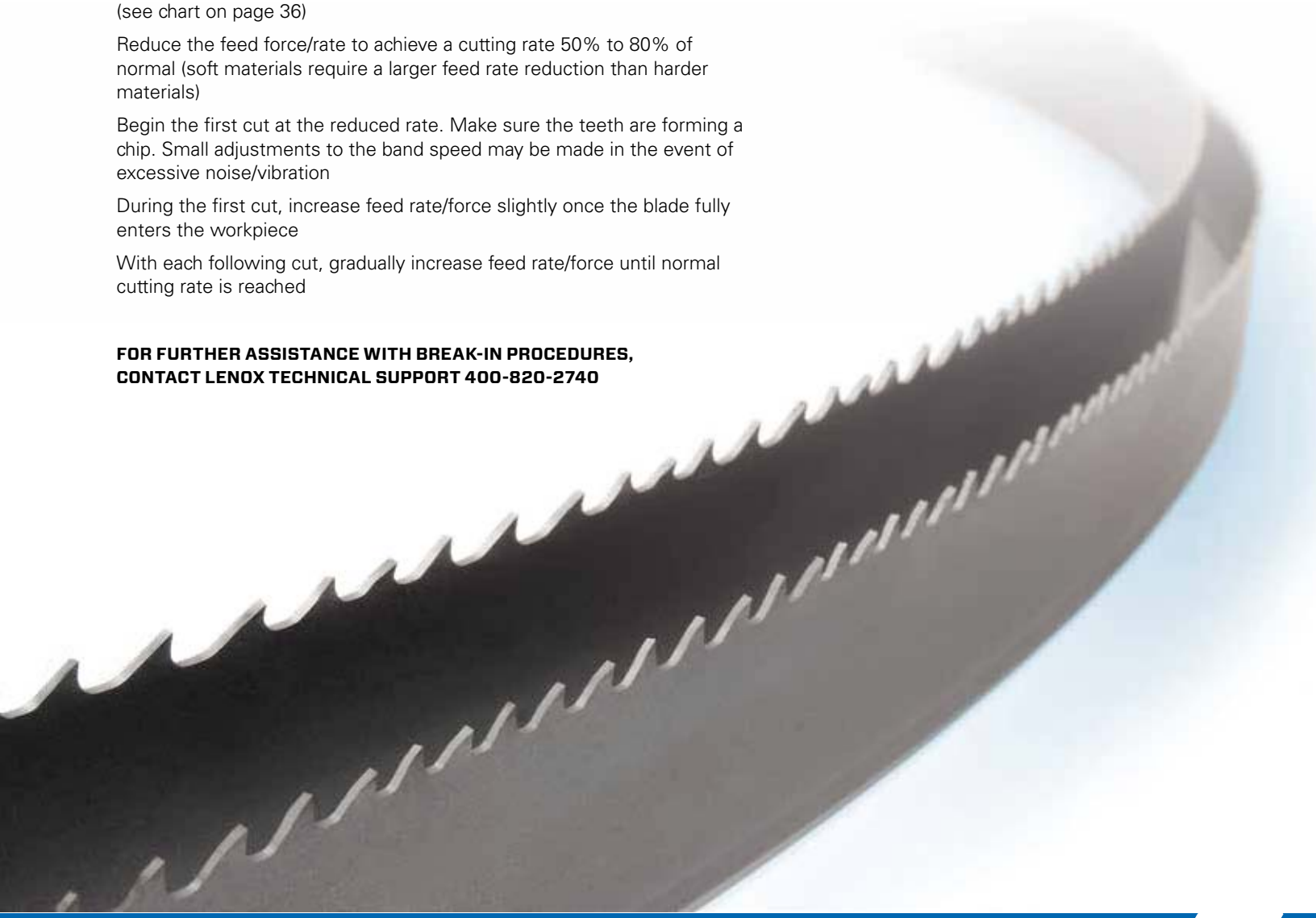
Reduce the feed force/rate to achieve a cutting rate 50% to 80% of normal (soft materials require a larger feed rate reduction than harder materials)

Begin the first cut at the reduced rate. Make sure the teeth are forming a chip. Small adjustments to the band speed may be made in the event of excessive noise/vibration

During the first cut, increase feed rate/force slightly once the blade fully enters the workpiece

With each following cut, gradually increase feed rate/force until normal cutting rate is reached

FOR FURTHER ASSISTANCE WITH BREAK-IN PROCEDURES, CONTACT LENOX TECHNICAL SUPPORT 400-820-2740



WOODMASTER®
BAND SAW BLADES

WOODMASTER® B

Precision Engineered Bi-Metal Blades

CUTS FASTER AND LONGER THAN ONE-PIECE CARBON STEEL BLADES
Two-piece steel construction provides excellent blade life

INCREASED HEAT AND WEAR RESISTANCE
Cobalt rich, high-speed steel tooth tips

INCREASED BEAM STRENGTH FOR LONGER FATIGUE LIFE
Durable spring steel backing material

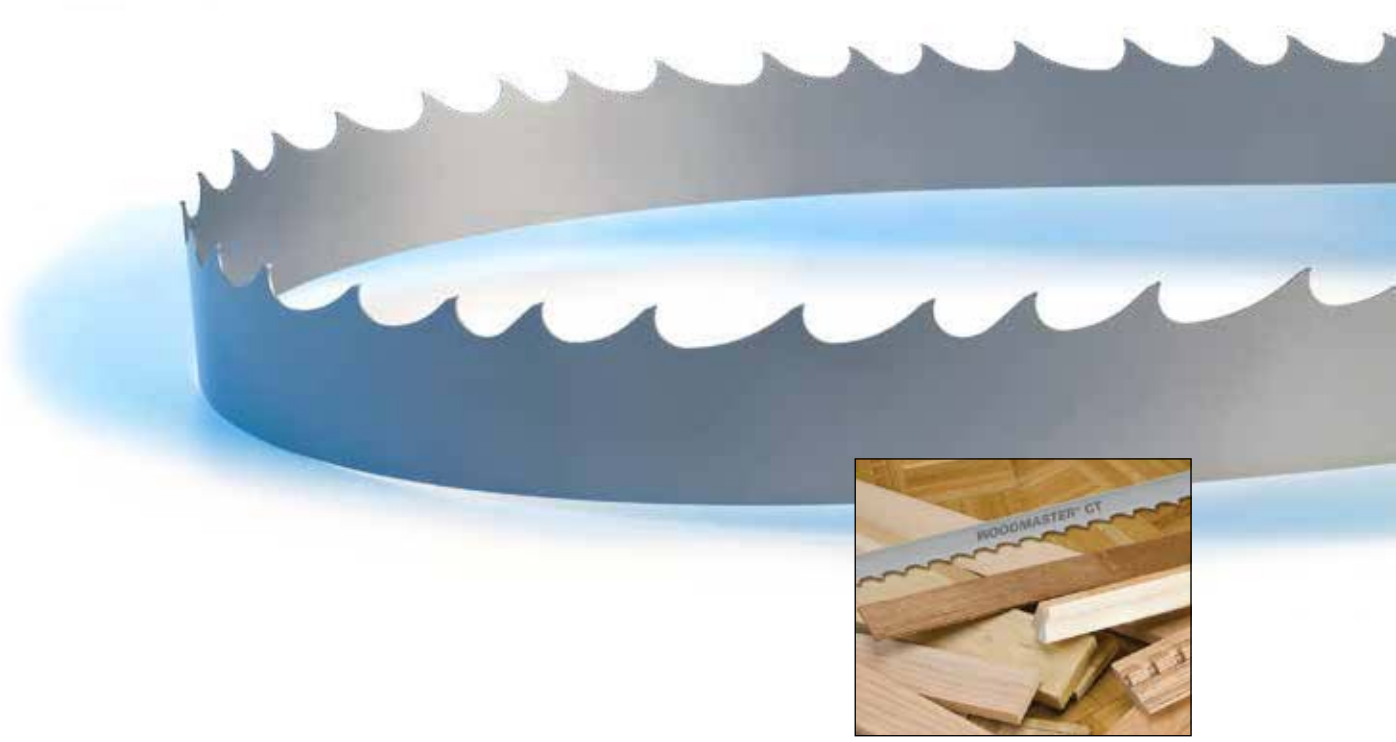
DELIVERS CONSISTENT, RELIABLE PERFORMANCE

WIDTH X THICKNESS		KERF	TOOTH SPACING	1/2"	3/4"	7/8"	1"	1-1/4"	VARI-TOOTH®
IN	MM	IN	TPI	2	1.3	1.1	1	.78	1.0/1.3
1 x .035	27 x 0.90	0.072		◆	◆				
1-1/4 x .035	34 x 0.90	0.072			◆	◆	◆		
1-1/4 x .042	34 x 1.07	0.080			◆	◆	◆		
1-1/2 x .050	41 x 1.27	0.092				◆			
2 x .042	54 x 1.07	0.085					◆		
2 x .050	54 x 1.27	0.092							◆

LENOX

WOODMASTER® CT

Carbide Tipped Blades For Optimum Performance



SMOOTH, PRECISE FINISH
Precision ground carbide tooth tips deliver the straightest cuts

ENGINEERED FOR EXTENDED LIFE AND OPTIMAL SPEED
Effectively cuts exotic or difficult to machine wood

IDEAL FOR SPECIALTY WOOD APPLICATIONS
Designed to cut moulding, hardwood flooring, wood siding, paneling and other millwork applications

EXTREME CUTTING RATES. LONGER BLADE LIFE. MAXIMUM PRODUCTIVITY.

WIDTH X THICKNESS		KERF	TOOTH SPACING	1/2"	3/4"	VARI-TOOTH®
IN	MM	IN	TPI	2	1.3	.7/1
1 x .035	27 x 0.90	0.051		◆	◆	
2 x .035	54 x 0.90	0.051			◆	
2 x .035	54 x 0.90	0.065				◆
2 x .042	54 x 1.07	0.072				◆
2 x .042	54 x 1.07	0.085				◆

SAWING AND METAL WORKING FLUIDS

LENOX

BAND-ADE®

Semi-Synthetic Sawing Fluid

General purpose flood coolant designed for light to moderate-duty machining applications involving both ferrous and non-ferrous metals

EXTENDS BLADE LIFE
Increased lubrication aids in chip formation and evacuation

EXCEPTIONAL COOLING
Water-soluble formulation helps to reduce frictional heat and improves cutting performance

INCREASES PRODUCTIVITY
Faster cutting and reduced machine wear increases efficiency

ENVIRONMENTALLY FRIENDLY
Products are biodegradable, safe for the operator to use, and do not contain harmful chemicals like chlorine and sulphur

SURFACES CAN BE WELDED AND PAINTED OVER

RATIO	REFRACTOMETER
10.1 (10%)	3.5
15.1 (6.7%)	2.6
20:1 (5%)	1.7

PROD NO	CONTAINER SIZE		CONTAINERS PER CASE
	GALLON	LITER	
68004	1	3.8	4
68005	2-1/2	9.5	2
68003	5	18.9	—
68001	55	208.2 drum	—
68007	275	1,040.9 tote	—

NFPA CODE SPECS

HMIS/WHMIS
HEALTH INDEX – 0
FLAMMABILITY – 0
REACTIVITY – 0
PERSONAL PROTECTION – A

Not recommended for use as a spray lubricant. Mix this product with water as recommended

SAW MASTER™

Synthetic Sawing Fluid

Specially formulated flood coolant for light to moderate-duty applications on ferrous metals and alloys

LONGER BLADE LIFE. FASTER CUTTING.
Lubricates and cools to get the most from your blade or tool

REJECTS MOST TRAMP OILS
Unwanted oils can be separated and removed to keep the fluid performing longer

EXCELLENT SUMP LIFE
Advanced anti-microbial agents control bacterial growth and prevent rancidity, which lowers fluid replacement costs

CAN BE USED IN MOST HARD WATER APPLICATIONS
Eliminates filtration problems and residue

SURFACES CAN BE WELDED AND PAINTED OVER

LOW TO NON-FOAMING

RATIO	REFRACTOMETER
5.1 (20%)	6.4
10.1 (10%)	3.2
15:1 (6.7%)	2.4
20:1 (5%)	1.6

PROD NO	CONTAINER SIZE		CONTAINERS PER CASE
	GALLON	LITER	
68064	1	3.8	4
68061	5	18.9	—
68062	55	208.2 drum	—
68063	275	1,040.9 tote	—

NFPA CODE SPECS

HMIS/WHMIS
HEALTH INDEX – 1
FLAMMABILITY – 0
REACTIVITY – 0
PERSONAL PROTECTION – A

Not recommended for use as a spray lubricant. Mix this product with water as recommended

MACHINE CLEANER

Prepares Your Sump for the use of LENOX Sawing Fluids

CLEANS THE MACHINE BETWEEN CHARGES
Eliminates bacteria and fungi

EXTENDS THE LIFE OF THE SAWING FLUID
Helps loosen dirt and contaminants for easier removal and a cleaner system

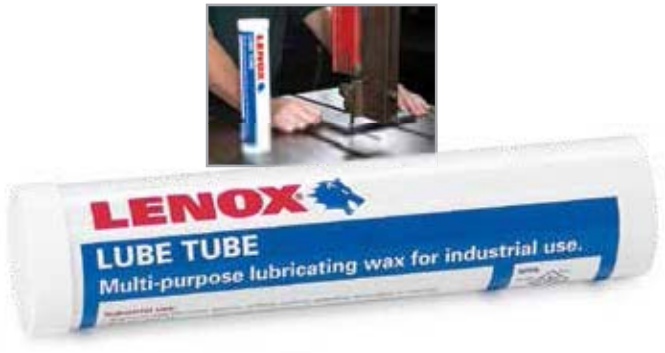
PREVENTS CONTAMINATION WHEN CONVERTING FLUIDS

PROD NO	CONTAINER SIZE		CONTAINERS PER CASE	NFPA CODE SPECS
	GALLON	LITER		
68006	1	3.8	4	HMIS/WHMIS HEALTH INDEX – 1 FLAMMABILITY – 0 REACTIVITY – 0 PERSONAL PROTECTION – A

For industrial use only. Mix this product with water as recommended

LUBE TUBE

Manually Applied Lubricant Stick



EXTREME PRESSURE LUBRICANT
Prevents the build-up of frictional heat

DESIGNED TO BE APPLIED TO BAND SAW BLADES AND OTHER CUTTING TOOLS
Improves overall tool life and productivity when sawing, drilling, milling, grinding, threading and tapping. Works well on abrasives (belts, sanding discs and pads)

CAN BE USED ON FERROUS AND NON-FERROUS METALS, ALUMINUM GATES AND RISERS, PLATES AND EXTRUSIONS

BIODEGRADABLE, NON-TOXIC AND NON-STAINING

PROD NO	CONTAINER SIZE		TUBES PER CASE	NFPA CODE SPECS
	OUNCES	GRAMS		
68020LNX	14.5	411.1	12	HMIS/WHMIS HEALTH INDEX – 0 FLAMMABILITY – 0 REACTIVITY – 0 PERSONAL PROTECTION – A

MICRONIZER®

Precision Lubricant Applicator

DESIGNED TO DELIVER A SMALL AMOUNT OF LUBRICANT
Aids in tooth penetration and chip formation, reducing heat and improving tool life

PRECISE FLUID PUMP AND AIR PRESSURE CONTROLS
Ensures the correct amount of lubricant is applied to the tool

A VARIETY OF NOZZLES ARE AVAILABLE
The LENOX Saw Nozzle is recommended for most sawing applications, and is standard on the one line unit (product no 68090)

RECOMMENDED FOR PRODUCTION SAWING OPERATIONS
For larger band saw machines using 1-1/4" (34mm) and wider blades

PROD NO	DESCRIPTION
68090	1 Line Unit w/LENOX Saw Nozzle, 32 oz. (.95 liter) reservoir and manual on/off switch
1770276	1 Line Unit w/Flex Nozzle, 32 oz. (.95 liter) reservoir and manual on/off switch
1770277	1 Line Unit w/Copper Nozzle, 32 oz. (.95 liter) reservoir and manual on/off switch
1770278	1 Line Unit w/LENOX Saw Nozzle, 32 oz. (.95 liter) reservoir and 110V solenoid valve
1770279	1 Line Unit w/LENOX Saw Nozzle, 32 oz. (.95 liter) reservoir and 220V solenoid valve
1770280	1 Line Unit w/Flex Nozzle, 32 oz. (.95 liter) reservoir and 110V solenoid valve
1770401	1 Line Unit w/Copper Nozzle, 32 oz. (.95 liter) reservoir and 110V solenoid valve
1770402	2 Line Unit w/LENOX Saw Nozzle, 32 oz. (.95 liter) reservoir and manual on/off switch
1770403	2 Line Unit w/Flex Nozzle, 32 oz. (.95 liter) reservoir and manual on/off switch
1770188	2 Line Unit w/Copper Nozzle, 32 oz. (.95 liter) reservoir and manual on/off switch
1770406	2 Line Unit w/LENOX Saw Nozzle, 32 oz. (.95 liter) reservoir and 110V solenoid valve
1770407	2 Line Unit w/Flex Nozzle, 32 oz. (.95 liter) reservoir and 110V solenoid valve
1770408	2 Line Unit w/Copper Nozzle, 32 oz. (.95 liter) reservoir and 110V solenoid valve

MICRONIZER, JR.

Lubricant Applicator

PORTABLE DESIGN FOR USE ON MANY APPLICATIONS
Strong mounting magnets hold unit in place, but allow it to be moved to different machines

FOR SMALLER BAND SAW MACHINES & OTHER MACHINE TOOLS
A clean, economical method of providing lubrication

CONVENIENT DESIGN
Choice of two reservoir capacities, 7 oz (200ml) or 37 oz (1.1liter)

SEVERAL NOZZLE STYLES AVAILABLE

PROD NO	DESCRIPTION
68260	7 oz (200ml) Unit with copper nozzle, Shut-off valve and 6' (1.8m) of 1/4" (6mm) tubing
68160	7 oz (200ml) Unit with copper nozzle, Shut-off valve and 6' (1.8m) of 1/8" (3mm) tubing
68258	7 oz (200ml) Unit with flex nozzle, Shut-off valve and 6' (1.8m) of 1/4" (6mm) tubing
68158	7 oz (200ml) Unit with flex nozzle, Shut-off valve and 6' (1.8m) of 1/8" (3mm) tubing
68161	37 oz (1.1 liter) Unit with copper nozzle, Shut-off valve and 6' (1.8m) of 1/4" (6mm) tubing
68159	37 oz (1.1 liter) Unit with flex nozzle, Shut-off valve and 6' (1.8m) of 1/4" (6mm) tubing

LENOX *LUBE*®

Clean, Synthetic Lubricant for Spray Applications

Advanced formula enables superior cutting performance when Minimum Quantity Lubrication (MQL) is required

EXTENDS TOOL LIFE
Extreme pressure lubricant reduces frictional heat, prevents chip welding, and delivers an excellent workpiece finish

CLEAN AND ENVIRONMENTALLY FRIENDLY
Synthetic, water-based formulation is safe for the shop and operator

REDUCES COSTS
No disposal costs and use only ounces per day

OPTIMUM PERFORMANCE ON FERROUS METALS
Use with our *MICRONIZER*® systems to lubricate carbon/alloy steels and stainless steels. Works best on pipe and thin-walled tubing

SURFACES CAN BE WELDED AND PAINTED OVER

PROD NO	CONTAINER SIZE		CONTAINERS PER CASE	NFPA CODE SPECS
	GALLON	LITER		
68014	1	3.8	4	HMIS/WHMIS HEALTH INDEX – 0 FLAMMABILITY – 0 REACTIVITY – 0 PERSONAL PROTECTION – A
68018	5	18.9	—	
68017	55	208.2 drum	—	
68016	275	1,040.9 tote	—	

Use this product as it comes from the container – do not mix with water.

C/AI LUBE

High Lubricity Formulation for Spray Applications

Synthetic oil formulated for cutting solids and structurals in a Near Dry Machining (NDM) application

WORKS EFFECTIVELY ON ALL TYPES OF MATERIALS
Use on a variety of steels and non-ferrous metals. Works well on large structural beams, small solids, and all shapes of aluminum (billets, plates and castings)

INCREASED PRODUCTIVITY
Enhances lubrication for higher cutting speeds and feed rates

EXTENDS TOOL LIFE
Enables tooth penetration and chip formation which decreases wear on the machine and blade

CONTROL COSTS
Decreases the volume consumed and lowers replacement costs when used with our *MICRONIZER* systems

PROD NO	CONTAINER SIZE		CONTAINERS PER CASE	NFPA CODE SPECS
	GALLON	LITER		
68024	1	3.8	4	HMIS/WHMIS HEALTH INDEX – 0 FLAMMABILITY – 1 REACTIVITY – 0 PERSONAL PROTECTION – A
68026	5	18.9	—	
68025	55	208.2 drum	—	
68028	275	1,040.9 tote	—	

Use this product as it comes from the container – do not mix with water.

LENOX *PROTOOL LUBE®*

Extends Tool Life

A UNIQUE SYNTHETIC EMULSION DESIGNED TO INCREASE TOOL LIFE
For cutting, milling, reaming, tapping and drilling metal, wood and plastics

SHORTENS CUTTING TIME BY UP TO 50%
Provides smoother, cleaner cutting and dramatically longer blade life

REDUCES HEAT AND FRICTION
Water-soluble so it cleans up with water

BIODEGRADABLE AND NON-TOXIC

EASY TO USE, FLIP-TOP BOTTLE FITS IN YOUR TOOL BOX

PROD NO	CONTAINER SIZE		CONTAINERS PER CASE
	GALLON	LITER	
68064	6 oz	.17	12
68061	1	3.8	4
68062	5	18.9	—
68063	55	208.2 drum	—

NFPA CODE SPECS

HMIS/WHMIS
HEALTH INDEX – 1
FLAMMABILITY – 0
REACTIVITY – 0
PERSONAL PROTECTION – A

Use this product as it comes from the container—do not mix with water.
MSDS available in hard copy or downloadable from lenoxtools.com

ANTI-SPATTER

Wipe Away Welding Spatter

REDUCE SECONDARY PROCESSING STEPS
Provides lubrication so spatter easily wipes away

SAFE TO USE
Non-toxic, non-explosive, non-combustible, and non-carcinogenic.

No silicone or chlorine. No CFCs.

PROTECTS JIGS AND FIXTURES

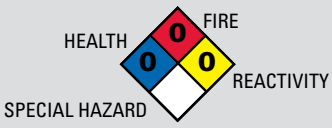
IMPROVES WELD JOINTS

SURFACES CAN BE WELDED AND PAINTED OVER

PROD NO	CONTAINER SIZE		CONTAINERS PER CASE
	GALLON	LITER	
69041	33 fl oz	946 ml trigger spray bottle	12
69039	1	3.8	4
69038	5	18.9	—
69037	55	208.2 drum	—

NFPA CODE SPECS

HMIS/WHMIS
HEALTH INDEX – 0
FLAMMABILITY – 1
REACTIVITY – 0
PERSONAL PROTECTION – A



FLUID REFERENCE CHART

Properties and Applications

LENOX® METAL-WORKING FLUID	TYPE			METALS				APPLICATIONS					
	FLOOD COOLANT	SPRAY LUBRICANT	MANUAL APPLICATION	USE WITH SOLID METALS	USE WITH STRUCTURAL METALS	USE WITH FERROUS METALS	USE WITH NON-FERROUS METALS	BAND SAWING	CIRCULAR SAWING	DRILLING	TAPPING	MILLING	GRINDING
BAND-ADE®	●			●	●	●	●	●	●	●		●	
SAW MASTER™	●			●	●	●		●	●	●			●
LENOX *LUBE®*		●		●	●	●		●	●	●	●	●	●
C/AI LUBE		●		●	●	●	●	●	●	●	●	●	●
LENOX *PROTOOL LUBE®*			●	●	●	●	●		●	●	●		

LENOX METALWORKING FLUID	CHEMICAL PROPERTIES							
	TYPE	COLOR	BIOCIDES	RUST/ CORROSION INHIBITORS	CONTAINS MINERAL OR PETROLEUM OIL	CONTAINS CHLORINE OR SILICONE	CONTAINS SULFUR/ SULPHONATES	CONTAINS CARCINOGENS
BAND-ADE	Semi-Synthetic	Translucent Pink	Yes	Yes	No	No	No	No
SAW MASTER	Synthetic	Translucent Pink	Yes	Yes	No	No	No	No
LENOX *LUBE*	Synthetic Emulsion	Translucent Green	Yes	Yes	No	No	No	No
C/AI LUBE	Synthetic Oil	Translucent Blue	No	Yes	No	No	No	No
LENOX *PROTOOL LUBE®*	Synthetic Emulsion	Translucent Yellow	Yes	Yes	No	No	No	No

LENOX METAL REMOVAL FLUID	PHYSICAL PROPERTIES						
	SOLUBILITY IN WATER	SPECIFIC GRAVITY (H_2O=1)	pH RANGE	VISCOSITY AT 72°F	FLASH POINT	FREEZING POINT	BOILING POINT
BAND-ADE	100%	1.02	8.8 - 9.2	43 SUS	None	-6°C/21°F	99°C/210°F
SAW MASTER™	100%	1.076	9.7 - 10.0	42.7 SUS	None	-12°C/10°F	99°C/210°F
LENOX *LUBE*	100%	1.015	7.8 - 8.2	60 SUS	None	-7°C/19°F	99°C/210°F
C/AI LUBE	Insoluble	0.823	N/A	121 SUS	COC 290°F	N/A	N/A
LENOX *PROTOOL LUBE*	100%	1.03	8.0 - 8.5	500 SUS	None	-25°C/-13°F	99°C/210°F

DILUTION RATIO*	FLUID CONTENT	WATER CONTENT	APPLICATIONS
5:1	20%	80%	Heavy-duty sawing, difficult milling
10:1	10%	90%	Moderate to heavy-duty sawing, drilling, tapping and milling
20:1	5%	95%	Light-duty work
30:1	3%	97%	Grinding, light-duty work

*Dilution ratios are for flood coolants only. LENOX recommends 5:1 or 10:1, depending on the severity of the operation

LENOX

TACHOMETER

Accurate Band Speed Measurement

Running at the proper band speed is essential for optimum tool life. Use this precision tool to calibrate band saw machine internal tachometer. Check band speeds on machines that don't have a tachometer

PROD NO	DESCRIPTION
62139	Tachometer

TENSION METER

Measures Band Tension

Properly tensioned band saw blades cut straighter, longer. Durable construction: made with lightweight cast aluminum. Easy to use: attach to blade, apply tension and read the PSI

PROD NO	DESCRIPTION
62126	Tension Meter

BLADE ALIGNMENT GAUGE

For Straight Cutting

Proper alignment is critical for straight cutting. Using this gauge allows for easy measurement of blade alignment, so proper adjustment of band guide assemblies can be made. Easy to use: clip the blade alignment to the back of the blade and use a machinist's square to see if the blade is perpendicular to the bed

PROD NO	DESCRIPTION
62125	Blade Alignment Guage

TRAVERSE MASTER®

Measures and Reports Feed Rate

Optimize chip loads to achieve fast cutting without detrimental effects on blade life. Accurately achieve cutting rates recommended by LENOX *SAWCALC®*. Precision meter: provides readout of feed rate in inches (or millimeters) per minute. Powered by a 12v DC power supply or rechargeable battery pack (both included)

PROD NO	DESCRIPTION
62140	Traverse Master
62141	Traverse Master

(includes international plug adaptor)

REFRACTOMETER

Measures Sawing Fluid Concentration

IMPROVE FLUID EFFECTIVENESS
Maintaining the proper water to fluid ratio increases tool life and ensures longer fluid performance

EASY TO USE AND CALIBRATE
Calibrate with a drop of water, put a small amount of sawing fluid in the refractometer. A quick look through the lens shows the fluid ratio.

PROD NO	DESCRIPTION
68012	Refractometer

SAWCALC®

Cut Smart with SawCalc – Web-Enabled Solution for Your Cutting Challenges

CUSTOMIZED, ACCURATE RECOMMENDATIONS TO OPTIMIZE BLADE LIFE
Identify the right LENOX blade for the job

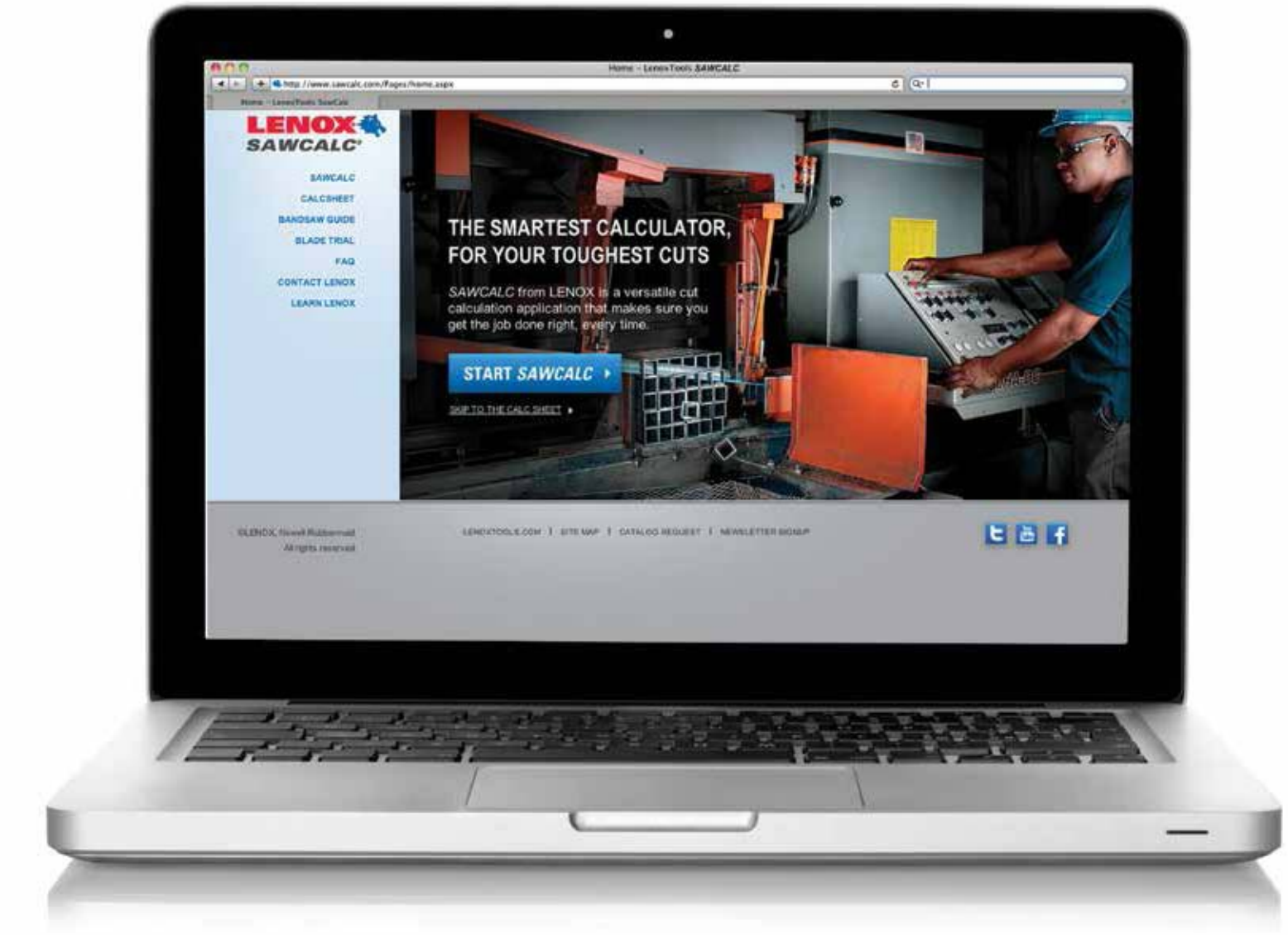
Determine the correct parameters to satisfy your cutting goals

HIGHLY TECHNICAL, ENGINEERED SOLUTIONS
Built-in intelligence based on years of engineering experience

Over 35,000 metals and 9,000 band saws inside the program

FREE, EASY TO USE AND ALWAYS UPDATED
SAWCALC is updated regularly to include the latest machines, metals, and LENOX products

VISIT SAWCALC.COM
TO GET YOUR RECOMMENDATION TODAY!



STANLEY BLACK & DECKER INDIA PVT.LTD
28 Akemps, 3rd Main, 1st Cross, Ashwini Layout,
Koramangala, Intermediate Ring Road,
Bangalore - 560 047

T: +91 80 6791 9900 • **F:** +91 80 6660 8828
E: sbd-customercommunications@sbdinc.com
W:www.lenoxtools.com
Service Helpline No.18604251111

CAT-SW0014

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