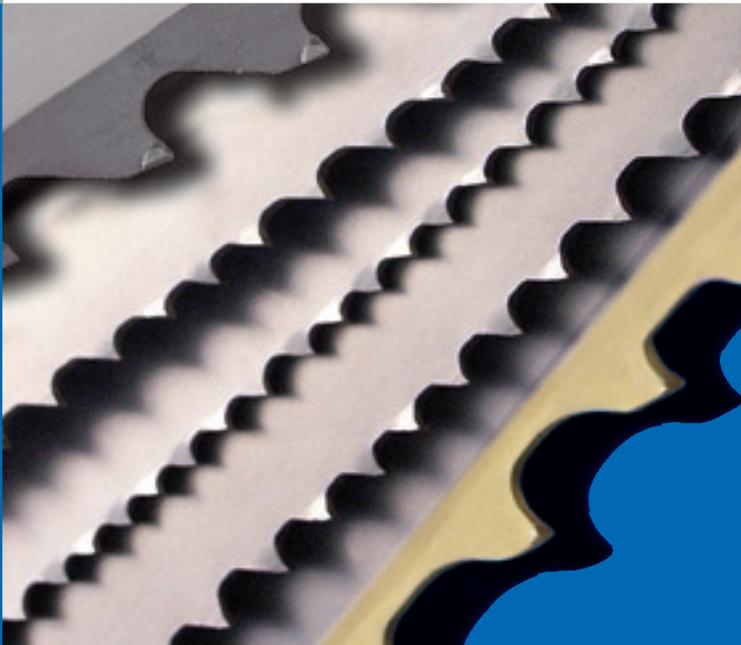


BANDSAW CATALOGUE

BANDSAW BLADES • SAWING FLUIDS

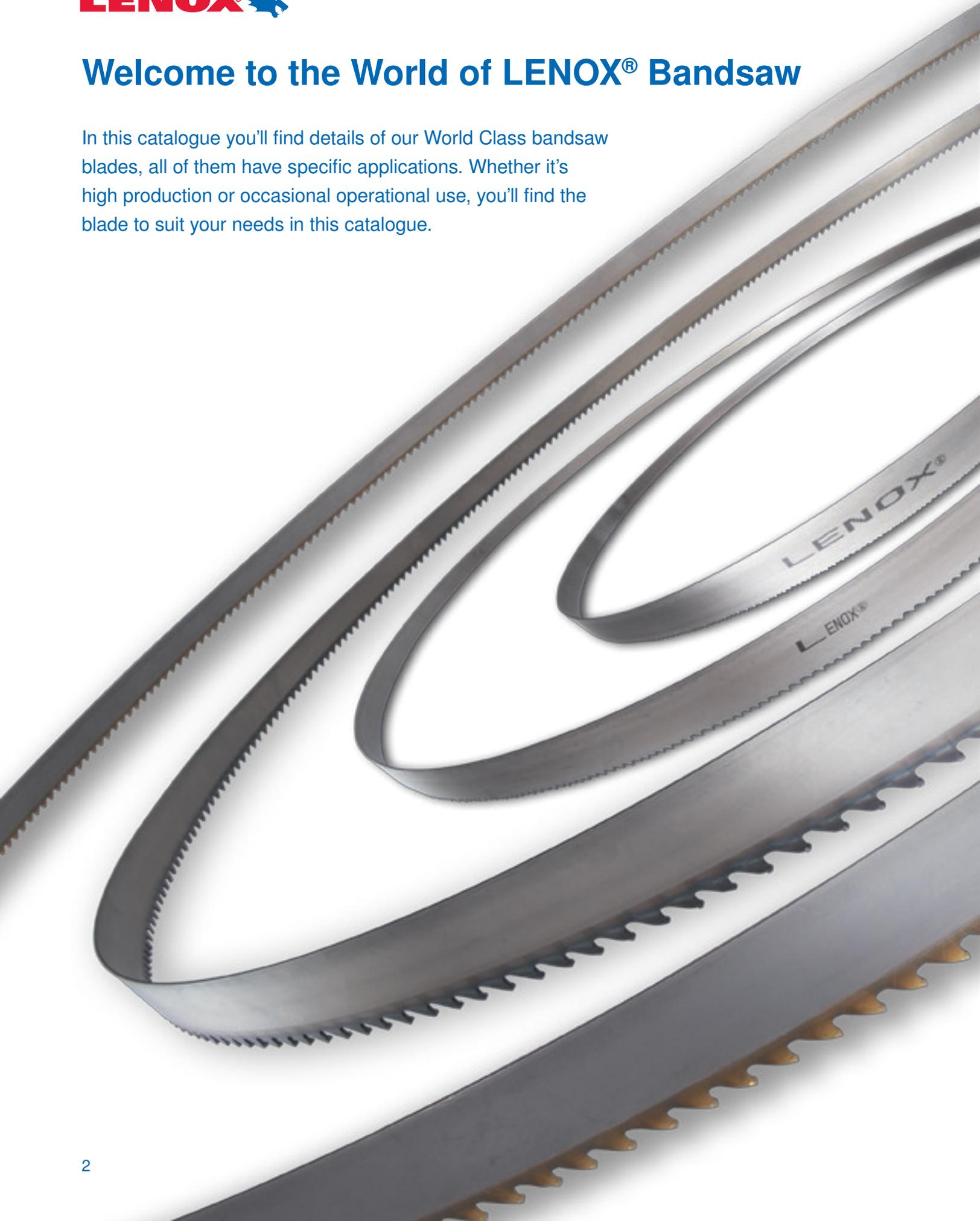


Discover the performance of LENOX® technology.



Welcome to the World of LENOX® Bandsaw

In this catalogue you'll find details of our World Class bandsaw blades, all of them have specific applications. Whether it's high production or occasional operational use, you'll find the blade to suit your needs in this catalogue.





Where can I buy LENOX® Bandsaw products?

Our Bandsaw products are distributed throughout Europe, the Middle East and Africa by our European Bandsaw Centre of Excellence in The Netherlands. We have a distribution, welding and customer service centre in Helmond, The Netherlands.

We also have partnerships with local distributor welding centres in your area, call or email our customer services to find your nearest distributor.

Customer Services

- Call: +31 (0)492 509 509
- Fax: +31 (0)492 509 500
- E-mail: bandsaw@lenoxtools.eu

You can call us free on these numbers:

Customer Services

- Great Britain 0800 899739
- Ireland 1800 552 147

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What the LENOX® Heritage of Quality and Performance Means for You.

The LENOX® name is inspired by the speed, strength and sharp teeth of the wolves that once roamed the hills near the western shore of Loch Lomond in Scotland—home to the Earl of Lenox.

With that inspiration, we began our company in 1915, making the first LENOX® hacksaw blades with just ten employees. Now, 90 years later, LENOX® remains dedicated to producing the highest quality, best performing cutting products. As a result, we’ve grown to employ more than 600 people. Most of them work at our ISO 9001 certified facility in East Longmeadow, Mass., U.S.A., where we design, test and manufacture a broad range of bandsaw blades, power tool accessories and hand tools. Professionals count on the performance of our products in more than 70 countries around the world.

We continue to invest in our facilities, strongly supporting research and development and integrating the most advanced manufacturing technology. The result is the breakthrough performance and endurance of our newest products—including our *ARMOR™* Bandsaw Blades. You’ll see the exciting details in this catalogue. Plus, even more new, pacesetter LENOX® products are under development today and will soon be available.

Our commitment to quality and expertise extends throughout our sales and service organizations. LENOX® Representatives are carefully selected for their professionalism, experience and expertise. They are fully trained on both the application and marketing of LENOX® branded products. As a result, your LENOX® Representative knows your industry and fully understands the needs of distributors and end users.

Above all, we are committed to fully meeting the needs of our customers and ensuring complete satisfaction with our products and services. If you are new to LENOX®, thank you for the opportunity to earn your business.



LENOX® ISO 9001 certified facility in Helmond, The Netherlands, Europe.



LENOX® ISO 9001 certified facility in East Longmeadow, Mass., U.S.A.

How LENOX® R&D Raises the Bar on Cutting Performance

We leverage exceptional scientific understanding.

LENOX® has been developing premium performance blades for 90 years. That unique depth of experience has brought us a command of the science of cutting that's second to none.

It starts with our users' real world needs.

We set our R&D goals based on our unmatched insight into customer and industry requirements. Because we fully understand what our customers are cutting and how they are cutting it, we can develop superior, application specific blades.

Superior quality processes shape our product development.

We apply advanced statistical tools such as Six Sigma® to ensure consistent performance every step of the way. Our milestone-based product development ensures that you get the right product with the right quality at the right time—right from the start.

We won't ship a blade until its premium performance is proven. We constantly test LENOX® and competitors' products—both in our own laboratories and at independent labs. We research and develop new products and processes—finding new ways to engineer and manufacture products that work better for you.

We won't compromise on R&D investment.

Our dedicated R&D staff is among the largest, most experienced in the world. If there's a way to engineer more performance into a blade, our engineers will find it—and our state of the art manufacturing facility can build it.

A fully equipped, in-house metallurgical lab enables us to engineer LENOX® product performance right down to the raw material level. With a broad in-house test facility, we can fine tune blade designs and other products to ensure maximum performance in any application.



TUFF TOOTH™ Technology— Just One Example of How LENOX® R&D Pays Off For You.

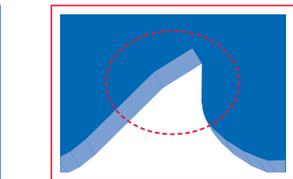
Tooth strippage used to be a problem, especially when cutting tough materials like stainless steel. Not anymore. Using the latest computer design technology, LENOX® R&D found a way to greatly strengthen teeth at the point where they were most likely to break. LENOX® brings you the result—patented **TUFF TOOTH™** design—available on our **CLASSIC™** bi-metal blade. **TUFF TOOTH™** delivers dramatically improved cutting performance with a smoother feel, faster cut and longer lasting blade.



TUFF TOOTH™ patent no. 6167792B2

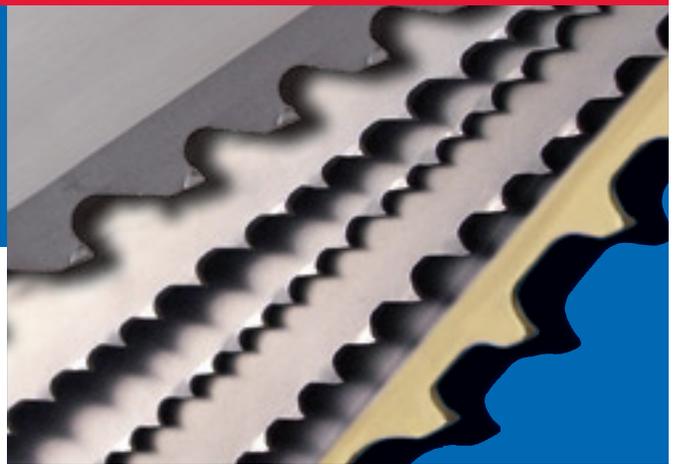


Standard tooth



vs. **TUFF TOOTH™**

SUPPORTING YOUR BUSINESS



Guaranteed Trial Order.

Order a LENOX® blade and get this guarantee: the recommended blade will outperform your present blade or your money back—that's the LENOX® Guaranteed Trial Order (GTO). Contact your LENOX® Sales Representative for more details.

Machine Tune-Up for the Best Sawing Performance.

After a thorough tune-up by your LENOX® Factory Trained Technical Representative, every blade will cut smoother, straighter and faster. This 13 point tune-up optimizes blade and machine performance—ultimately reducing costs.

Training Increases Productivity.

Help your operators become more efficient with a training session taught in your plant by LENOX®. The training will cover installing blades, adjusting machinery, understanding speeds and feeds—everything you need to know to maximize machine and blade efficiency and reduce downtime.

Technical Support.

Answers to sawing questions are just a call away. LENOX® Technical Support Professionals will tell you the most appropriate blade for a job. Get tips on sawing and learn ways to make the job easier. The answers will save money and effort.

- Call: +31 (0)492 509 509
- Fax: +31 (0)492 509 500
- E-mail: bandsaw@lenoxtools.eu

You can call us free on these numbers:

- Great Britain 0800 899739
- Ireland 1800 552 147

SAWCALC®

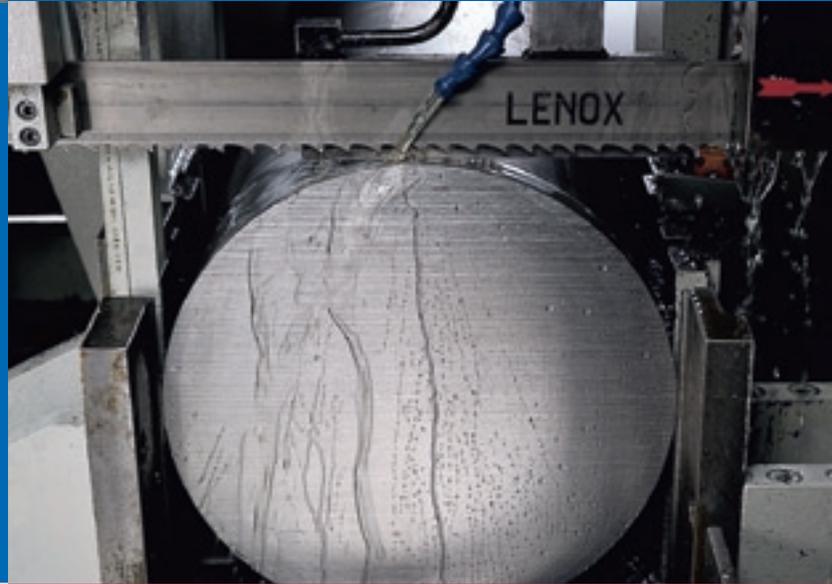
Product Number 00501

SAWCALC® is an easy to use software program designed to increase efficiency and profits. You can quickly access volumes of sawing information to help reduce your sawing costs. Let SAWCALC® help you determine cutting parameters for your bandsawing applications.

SAWCALC® considers your material composition, size, shape, and the machine model to prescribe specific speeds, feeds, blade and tooth specification needed to achieve the best payback on your sawing investments. The program is available in English, French, German and Spanish, using either imperial or metric units.

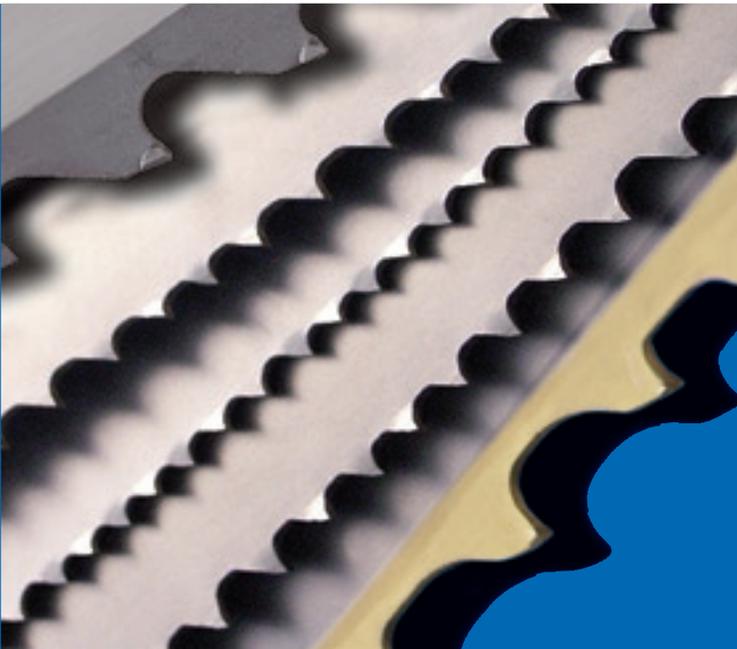
The LENOX® Guarantee:

LENOX® provides a limited warranty for our products. Use only in accordance with LENOX® instructions. We warrant that our products are free from defects in materials and workmanship and that these products will perform as described under normal use and service. This warranty of quality is valid for 90 days from confirmed date of purchase. Except as expressly set forth herein, LENOX® makes no other warranties, express or implied, with regard to products, and expressly disclaims any warranty of fitness for a particular purpose. This warranty gives you specific legal rights and you may also have other rights which vary between countries.



BANDSAW BLADES

CARBIDE • BI-METAL • CARBON • POWER HACKS • SAWING FLUIDS



HOW TO SELECT YOUR BANDSAW BLADES

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

<i>For example:</i>	Product Name <i>CONTESTOR GT®</i>	Length x Width x Thickness 16' x 1-1/4" x .042" 4860mm x 34mm x 1.07mm	Teeth Per Inch 3/4 TPI
---------------------	---	---	----------------------------------

These steps are a guide to selecting the appropriate product for each application:

Step #1 Analyze the sawing application

Machine: For most situations, knowing the blade dimensions (length x width x thickness) is all that is necessary.

Material: Find out the following characteristics of the material to be cut.

- Grade • Hardness (if heat treated or hardened) • Shape • Size
- Is the material to be stacked (bundled) or cut one at a time?

Other Customer Needs: The specifics of the application should be considered.

- Production or utility/general purpose sawing operation?
- What is more important, fast cutting or tool life?
- Is material finish important?

Step #2 Determine which product to use

Use the charts on pages 9, 19, 20 and 28.

- Find the material to be cut in the top row.
- Read down the chart to find which blade is recommended.
- For further assistance, contact your LENOX® Technical Representative.

Step #3 Determine the proper number of teeth per inch (TPI)

Use the tooth selection chart on page 30.

- If having difficulty choosing between two pitches, the finer of the two will generally give better performance.
- When compromise is necessary, choose the correct TPI first.

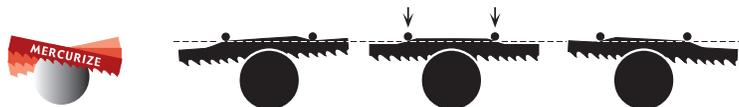
A general rule for bundles: Determine the correct TPI for one piece, and choose one pitch coarser for the bundle.

Step #4 Order LENOX® Sawing Fluids and Lubricants

...for better performance and longer life on any blade.

Step #5 Determine the need for MERCURIZATION

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



Step #6 Install the blade and fluid

Step #7 Break in the blade properly

For break-in recommendations, refer to page 42 or contact your LENOX® Technical Representative.

Step #8 Run the blade at the correct speed and feed rate

Refer to the Bi-metal and Carbide Speed Charts. For additional speed and feed recommendations contact your LENOX® Technical Representative.

PRODUCT SELECTION CHARTS

Carbide Product Selection

HIGH PERFORMANCE

	Aluminium	Low Carbon Steels	High Carbon Steels	Alloy Steels	Bearing Steels	Mold Steels	Stainless Steels	Tool Steels	Titanium Alloys	Nickel-Based Alloys	
PERFORMANCE ↑	ARMOR™ CT BLACK for Extreme Cutting Rates										
	ARMOR™ CT GOLD		ARMOR™ CT GOLD for Superior Life								
	TNT CT®						TNT CT®				
	TRI TECH CT™			TRI TECH CT™ Set Style Carbide for Difficult to Cut Metals							
	TRI-MASTER®										
	EASY ←			MACHINABILITY				→ DIFFICULT			

SPECIAL APPLICATION

	Wood	Composites	Aluminium (Including Alum Castings)	Tires	Case Hardened Materials (Including IHCP Cylinder Shafts)
PERFORMANCE ↑	ALUMINIUM MASTER™ CT			HRC™	
	SST CARBIDE™				
	TRI-MASTER®				
	MASTER-GRIT™		MASTER-GRIT™		
	EASY ←		MACHINABILITY		→ DIFFICULT

Bi-metal Product Selection

HIGH PERFORMANCE

	Aluminium	Low Carbon Steels	High Carbon Steels	Alloy Steels	Bearing Steels	Mold Steels	Stainless Steels	Tool Steels	Titanium Alloys	Nickel-Based Alloys	
PERFORMANCE ↑							QGT™ Longest Life. Straight Cuts.				
	QXP™		QXP™ Longest Life. Fast Cutting.								
	ARMOR™ Rx®+ Ideal for Structural Bundles							CONTESTOR GT® M-51 for Superior Life – Large Block Applications			
							CONTESTOR GT® for Superior Life – Standard Applications				
	LXP®						LXP® Ideal at High Cutting Rates				
	Rx®+ Ideal for Structural Bundles										
	EASY ←			MACHINABILITY				→ DIFFICULT			

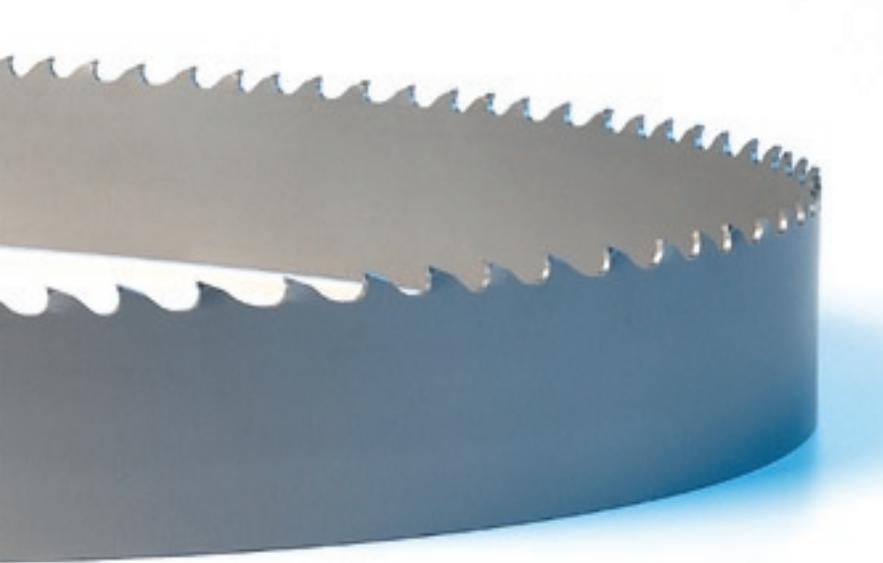
GENERAL PURPOSE

	Carbon Steels	Light Alloy Steels	Mold Steels	Tool Steels	Stainless Steels
PERFORMANCE ↑	CLASSIC™ for 19mm and Wider Blades				
	CONTESTOR GT® M-51 for 12.7mm and Narrower Blades				
	EASY ←		MACHINABILITY		→ DIFFICULT

TRI-TECH CT™



**SET STYLE CARBIDE
for Difficult to Cut Metals**



THE LENOX® ADVANTAGE™

- **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.
Optimized chip formation keeps the blade moving through the work.
- **EXTREME VERSATILITY**
Cuts a range of materials from high strength steels to Nickel-based alloys.
Positive rake angle provides strength and durability at the cutting edge.

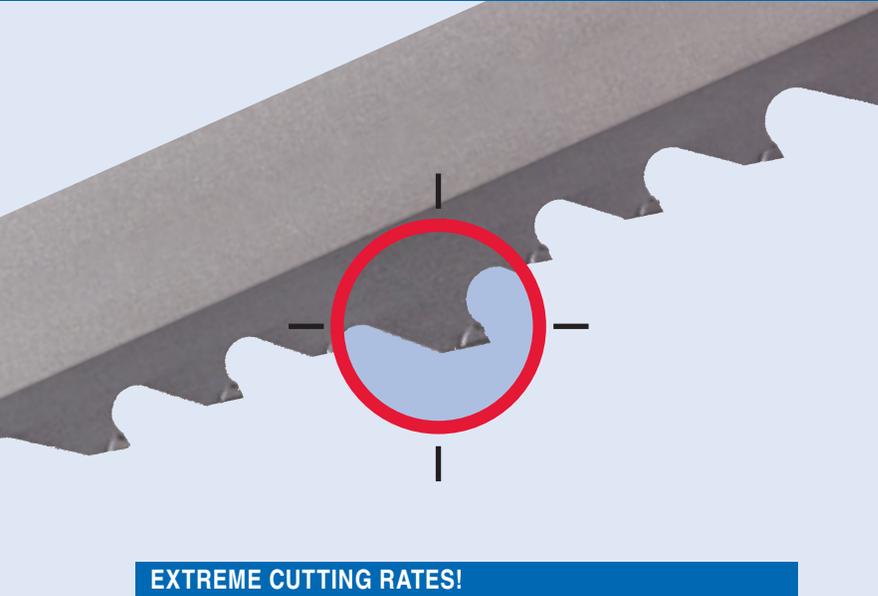
Specifications

Width x Thickness		TPI					Applications
Inches	MM	0.6/0.8	0.9/1.1	1.4/1.8	1.8/2.0	2.5/3.4	
1-1/4 x .042	34 x 1.07				◆	◆	Nickel-based Alloy (Inconel®), Iron Based Super Alloys, Titanium Alloys, High Chrome Alloys, Stainless Steel, Mold and Tool Steels, Aluminum/non-Ferrous
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	◆	◆				



ARMOR™ CT BLACK

For Extreme Cutting Rates



EXTREME CUTTING RATES!

Ground Tooth Bi-metal Blade

25 minutes

ARMOR™ CT BLACK

← **47 SECONDS!**

Minutes

0 5 10 15 20 25

Material: 6-1/2" (152mm) Round 17-4 PH Stainless Steel

Based on internal test results.

THE LENOX® ADVANTAGE™

- **High quality, micro-grained carbide**
Tailored to cut a wide range of materials.
- **New high performance backing steel**
Excellent fatigue life.
- **AlTiN ARMOR™ for productivity and 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.
- **ARMOR™ allows for low thermal conductivity**
Forces heat into the chips rather than the blade or workpiece.

Specifications

Width x Thickness		TPI			
Inches	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	◆	◆		
3 x .063	80 x 1.60	◆			

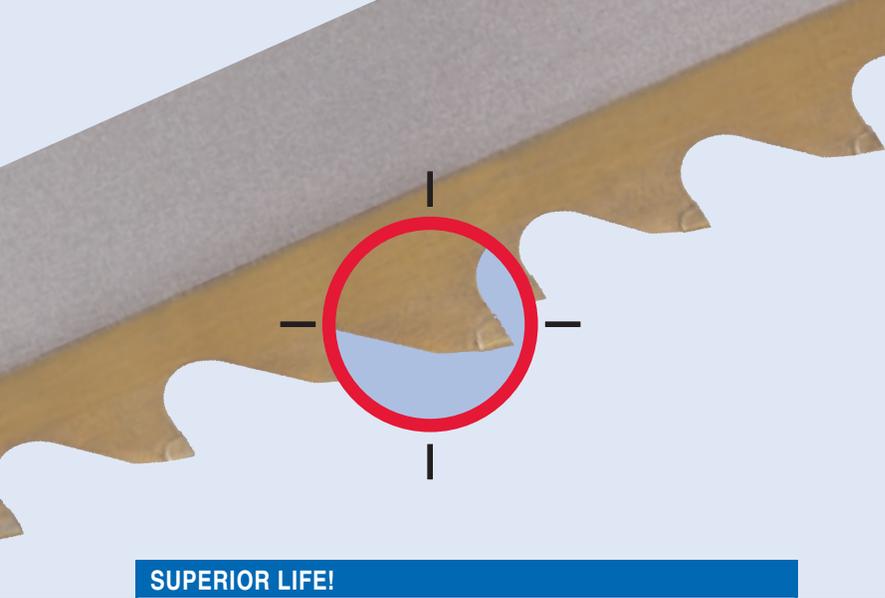
Applications

Carbon steels, Alloy steels, Aluminum,
Bearing steels, Stainless steels,
Mold steels, Tool steels, Titanium alloys,
Bundled, mild steel tubing



ARMOR™ CT GOLD

For Superior Life



THE LENOX® ADVANTAGE™

- **High quality, micro-grained carbide**
Tailored to offer superior toughness in difficult applications.
- **New high performance backing steel**
Excellent fatigue life.
- **TiN ARMOR™ for productivity and blade life**
Our Titanium Nitride coatings combine Titanium ions and Nitrogen in a vapor deposition chamber. This gold colored coating is very adaptable to most general purpose cutting applications and is known for its high adhesion to the tooth edge substrate, and has excellent high hardness and wear characteristics.

SUPERIOR LIFE!

Ground Tooth Bi-metal Blade

ARMOR™ CT GOLD

Material: 3" (76mm) Plate A-36 Mild Steel
Based on external test results.

5m ²
16 SQUARE METRES!

m² 3 6 9 12 15

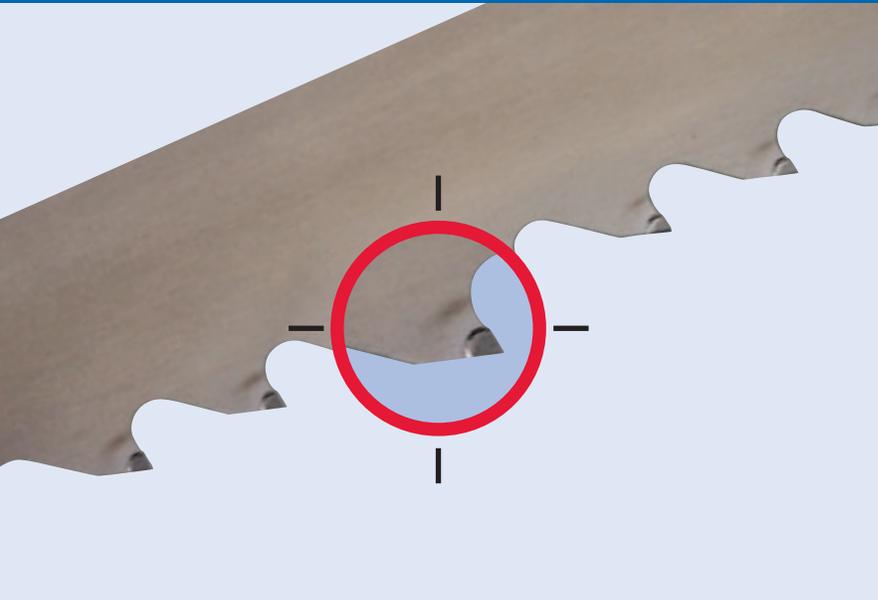
Specifications

Width x Thickness		TPI		Applications
Inches	MM	0.9/1.1	1.8/2.0	
1-1/2 x .050	41 x 1.27		◆	Low carbon steels, Alloy steels, Stainless steels, Mold steels, Bearing steels
2 x .063	54 x 1.60	◆	◆	



TNT CT®

Extreme Performance on Super Alloys



THE LENOX® ADVANTAGE™

- **New grade of carbide and special ground tooth form**
Superior wear resistance when sawing difficult to cut materials.
- **New high performance backing steel**
Excellent fatigue life.

Specifications

Width x Thickness		TPI			Applications
Inches	MM	0.9/1.1	1.8/2.0	2.5/3.4	
1-1/4 x .042	34 x 1.07			◆	Titanium, Titanium alloys, Inconel®, Aerospace, Nickel-base alloys, Stainless steels, High chrome alloys, Tool steels, Specialty steels, Aluminum
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	◆			

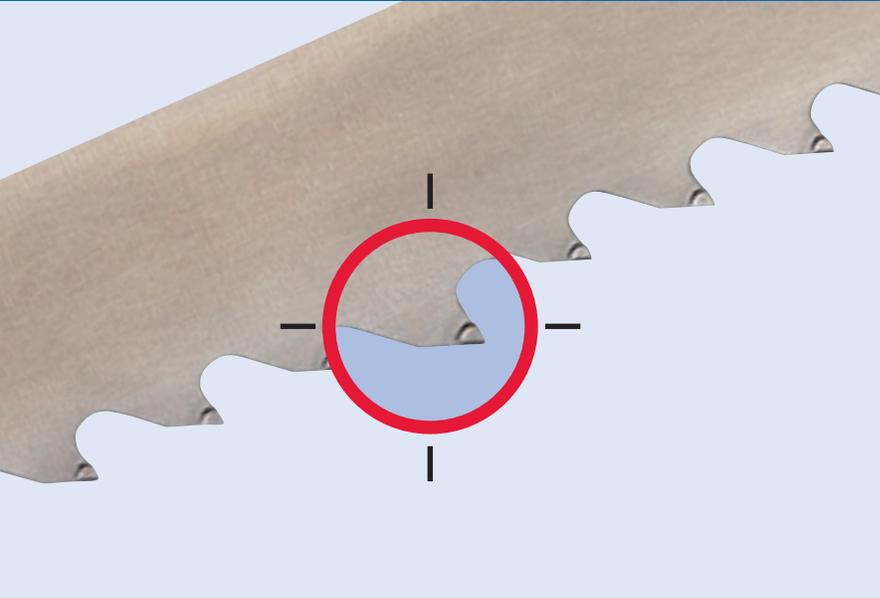


(see page 8 for details)



TRI-MASTER®

Versatile Carbide Tipped Blade



THE LENOX® ADVANTAGE™

- **Precision triple chip grind**
Smooth cuts, excellent finish.
- **New high performance backing steel**
Excellent fatigue life.

Specifications

Tooth Form		VARI-TOOTH®				Standard Positive	Applications
Width x Thickness		TPI				TPI	
Inches	MM	1.2/1.8	1.5/2.3	2/3	3/4	3	
3/8 x .032	9.5 x 0.80				◆	◆	Abrasive non-ferrous materials, Wood cutting, Alloy steels, Tool steels, Bearing steels, Carbon steels, Stainless steels, Mold steels
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	◆		◆	◆	◆	
2 x .063	54 x 1.60	◆		◆		◆	
2-5/8 x .063	67 x 1.60	◆					
3 x .063	80 x 1.60	◆					

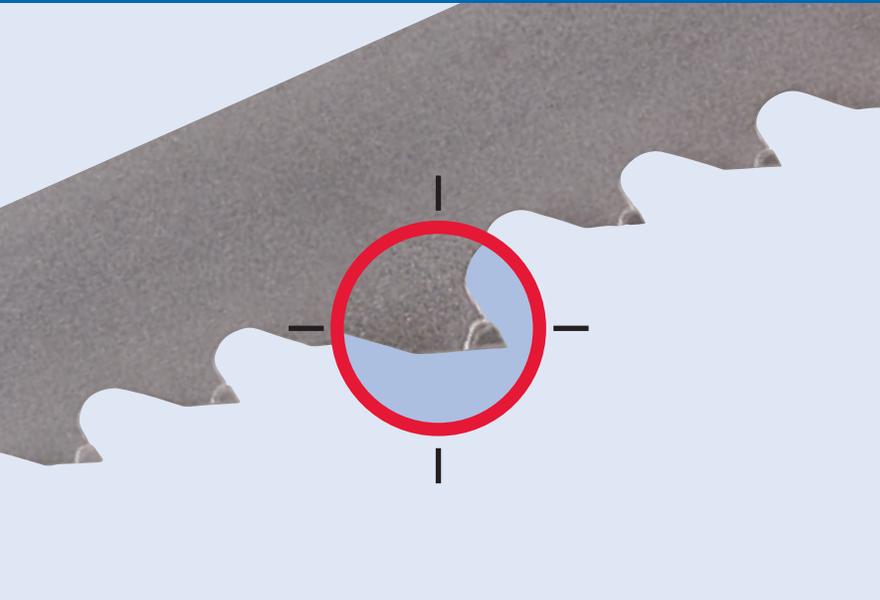
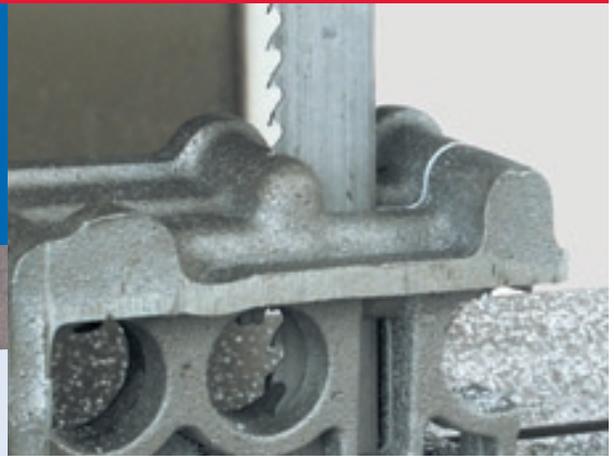


(see page 8 for details)



ALUMINUM MASTER™ CT

Triple Chip Tooth Design



THE LENOX® ADVANTAGE™

- **High quality sub micro-grained carbide**
Extreme wear resistance.
- **Triple chip tooth geometry**
Fast cutting, ease of feed, great finish.
- **New high performance backing steel**
Excellent fatigue life.

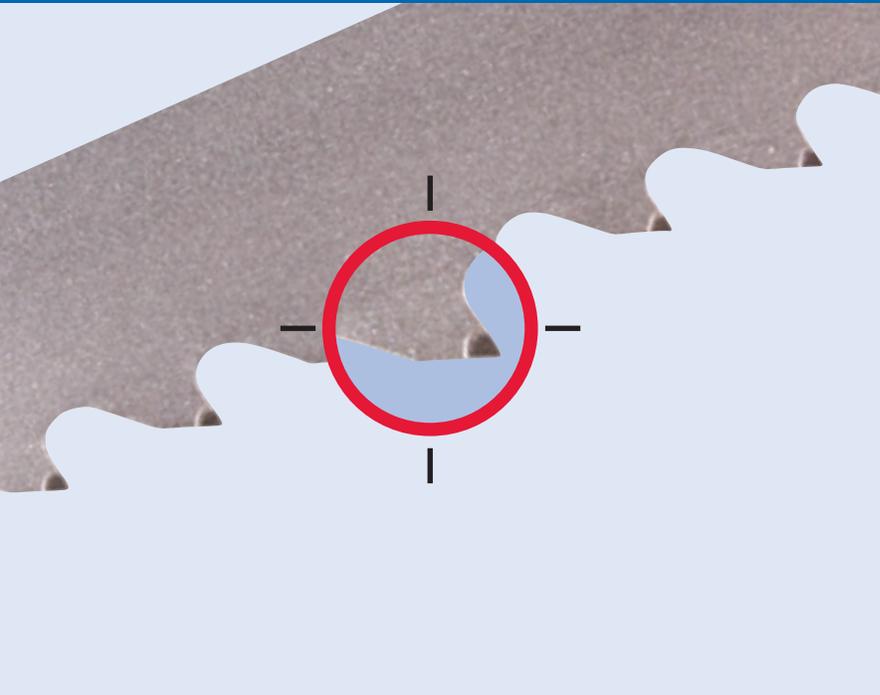
Specifications

Tooth Form		VARI-TOOTH® TPI 2.3	Standard Positive TPI 3	Applications
Width x Thickness Inches	MM			
3/4 x .035	19 x 0.90		◆	Castings, Composites, Aluminum engine blocks, Rough cutting of wood & plywood
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	◆		



SST CARBIDE™

Set Style Tooth (SST) Design



THE LENOX® ADVANTAGE™

- **High quality sub micro-grained carbide**
Extreme wear resistance.
- **Set style tooth geometry**
Regularly outperforms the competition.
- **New high performance backing steel**
Excellent fatigue life.
- **Improved durability in hand-fed and contour cutting**

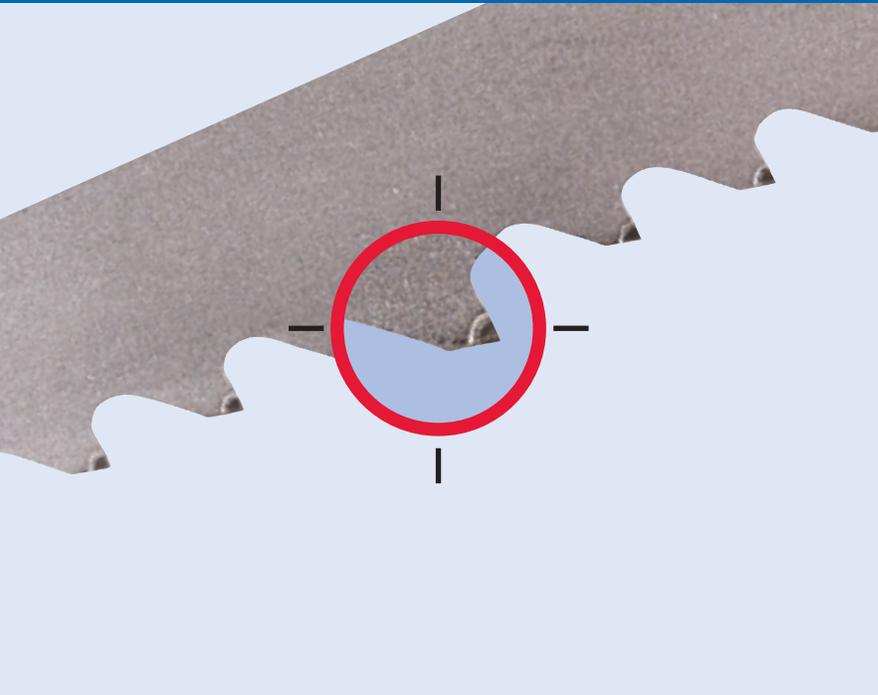
Specifications

Tooth Form Width x Thickness		Standard TPI	Applications
Inches	MM	3	
3/4 x .035	19 x 0.90	◆	Castings, Composites, Aluminum, Gates & risers, Rough cutting of wood & plywood
1 x .035	27 x 0.90	◆	



HRC™

Carbide Tipped Blade for Case Hardened Materials



THE LENOX® ADVANTAGE™

- **High quality, micro-grained carbide**
Outstanding durability.
- **Strong tooth design**
0° rake angle, superior strip resistance.
- **New high performance backing steel**
Excellent fatigue life.
- **Replaces abrasive cut-off operations**

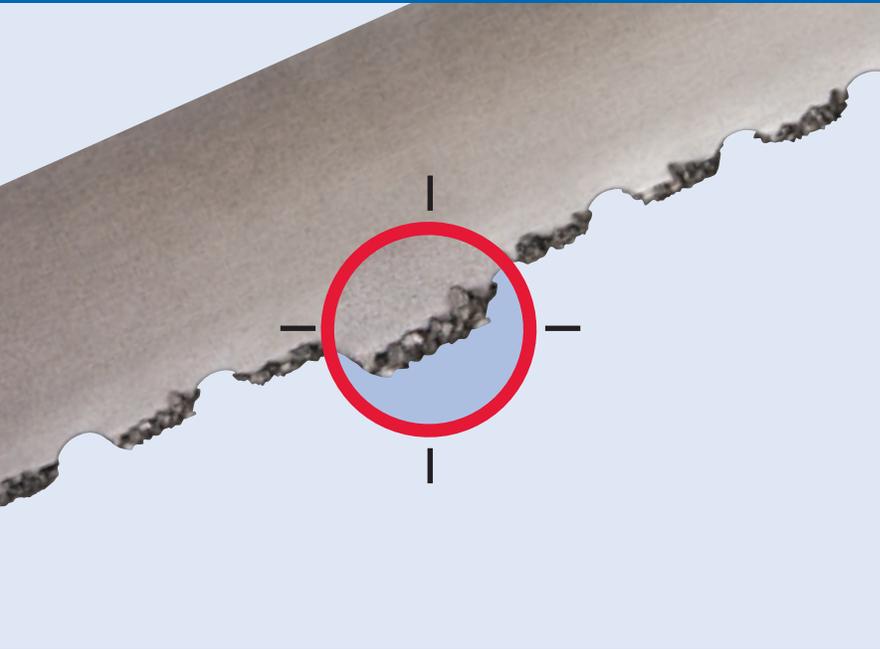
Specifications

Tooth Form		VARI-TOOTH®		Standard Positive	Applications
Width x Thickness		TPI		TPI	
Inches	MM	2/3	3/4	3	
1 x .035	27 x 0.90			◆	IHCP cylinder shafting, Ampco bronze, Case hardened materials, Tyre cutting, Railway track
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	◆			



MASTER-GRIT™

**Carbide Grit Edge Blade
for Cutting Abrasive and
Hardened Materials**



THE LENOX® ADVANTAGE™

- **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.

Specifications

Edge Preparation Grit Width x Thickness		Gulleted			Continuous	Applications
Inches	MM	Medium	Med-Coarse	Coarse	Medium	
1/4 x .020	6.4 x 0.50				◆	Fiberglass, Reinforced plastics, Graphite, Steel belted tires
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			◆		



CARBIDE PRODUCT SELECTION CHART

HIGH PERFORMANCE

↑ PERFORMANCE	Aluminium	Unlegierte Kohlenstoffstähle	Legierte Kohlenstoffstähle	Legierte Stähle	Kugellagerstähle	Form-stähle	Rostfreie Stähle	Werkzeugstähle	Titanium Legierungen	Auf Nickel basierende Stähle
	ARMOR™ CT BLACK for Extreme Cutting Rates									
	ARMOR™ CT GOLD		ARMOR™ CT GOLD for Superior Life							
	TNT CT®						TNT CT®			
	TRI TECH CT™						TRI TECH CT™ Set Style Carbide for Difficult to Cut Metals			
TRI-MASTER®										
← EASY			← MACHINABILITY →					→ DIFFICULT		

CARBIDE SPEED CHART

FPM = Feet Per Minute
MPM = Meters Per Minute

Special Applications shown on page 20.

Materials	Trade Name	German Stoff #	Japan JIS	ARMOR® CT BLACK		ARMOR® CT GOLD		TNT CT®	
				FPM	MPM	FPM	MPM	FPM	MPM
Aluminum Alloys	2024, 5052, 6061, 7075	3.1355, 3.3525, 3.3211, 3.4365	2024, 5052, 6061, 7075	3,500-8,500*	1000-2600*			3,500-8,500*	1000-2600*
Copper Alloys	CDA 220	2.0230	C2200					240	73
	CDA 360	2.0375	C3601					300	91
	Cu Ni (30%)	2.0835	-					220	67
Bronze Alloys	Be Cu	-	C1700, C1720					180	55
	AMPCO 18	-	-					205	62
	AMPCO 21	-	-					180	55
	AMPCO 25	-	-					115	35
	Leaded Tin Bronze	2.1177	-					300	91
	Al Bronze 865	2.0976	AlBCn1					200	61
Brass Alloys	Mn Bronze	2.0602	-					220	67
	932	-	-					300	91
	937	-	-					300	91
	Cartridge Brass, Red Brass (85%)	-	BC6					260	79
Naval Brass	-	YCuZnSn					230	70	
Leaded, Free Machining Low Carbon Steels	1145	-	-	370	113	290	88		
	1215	1.0736	SUM 25	425	130	325	99		
Structural Steel	12L14	1.0718	SUM 24L	450	137	350	107		
	A36	1.0132	-	350	107				
Low Carbon Steels	1008, 1018	1.0310, 1.0453	S9CK	310	94	250	76		
	1030	1.1178	S 30 C	290	88	240	73		
Medium Carbon Steels	1035	1.0501	S 35 C	285	87	230	70		
	1045	1.0503, 1.1191	S 45 C	275	84	220	67		
High Carbon Steels	1060	1.0601	S 58 C, S60 CM	260	79				
	1080	1.1259	1080	250	76				
	1095	1.0618	SUP 4	240	73				
Mn Steels	1541	1.1167	SMn 438 (H)	260	79	220	67		
	1524	1.0499	SCMn1, SCMn21	240	73	200	61		
Cr-Mo Steels	4140	1.7225	SCM 440 (H)	300	91	230	70		
	41L50	-	-	310	94	240	73		
Cr Alloy Steels	4150H	-	-	290	88	220	67		
	6150	1.8159	SUP 10	315	96	220	67		
Ni-Cr-Mo Steels	52100	1.3505	SUJ 2	300	91	295	90		
	5160	1.7176	SUP 9 (A)5	315	96	230	70		
	4340	1.6565	SNCM 439, SNCM 8	300	91	230	70		
	8620	1.6523	SNCM 220H, SNCM21	310	94	280	85		
Low Alloy Tool Steel	8640	1.6546	SNCM 240	305	93	240	73		
	E9310	1.6657	-	315	96	295	90		
Water-Hardening Tool Steel	L-6	1.2714	SKT 4	300	91			240	73
Cold-Work Tool Steel	W-1	1.1673	SK 1	300	91			220	67
	D-2	1.2379	SKD 11	240	73			210	64
Air-Hardening Tool Steels	A-2	1.2363	SHD 12	270	82			230	70
	A-6	-	-	240	73			220	67
	A-10	-	-	190	58			160	49
Hot Work Tool Steels	H-13	1.2344	SKD 61	240	73			220	67
	H-25	-	-	180	55			150	46
Oil-Hardening Tool Steels	O-1	1.2510	SKS 3	260	79			240	73
	O-2	1.2842	-	240	73			220	67
High Speed Tool Steels	M-2, M-10	1.3343	SKH 9	140	43			110	34
	M-4, M-42	1.3348, 1.3247	SKH 54, SKH 59	130	40			105	32
	T-1	1.3355	SKH 2	120	37			100	30
	T-15	1.3202	SKH 10	100	30			80	24
Mold Steels	P-3	-	-	300	91			200	61
	P-20	1.2328	-	280	85			160	49
Shock Resistant Tool Steels	S-1	1.2542	SKS 41	220	67				
	S-5, S-7	1.2823	-	200	61				
Stainless Steels	304	1.4301	SUS 304	300	91	235	72	220	67
	316	1.4401	SUS 316	280	85	225	69	180	55
	410, 420	1.4006, 1.4021	SUS 410, SUS 420 J1	330	101	240	73	250	76
	440A	1.4109	SUS 440 A	290	88	210	64	200	61
	440C	1.4125	SUS 440 C	280	85	200	61	200	61
Precipitation Hardening Stainless Steels	17-4 PH	1.4542, 1.4568	SUS 630, SUS 631	300	91	220	67	160	49
	15-5 PH	1.4545	-	300	91	220	67	140	43
Free Machining Stainless Steels	420F	-	-	340	104	250	76	270	82
	301	1.431	-	320	98	240	73	230	70
Nickel Alloys	Monel® K-500	2.4375	-	-	-	-	-	90	27
	Duranickel® 301	-	-	-	-	-	-	80	24
Iron Based Super Alloys	A286, Incoloy® 825	1.4980	SUH 660	-	-	-	-	80	24
	Incoloy® 600	-	-	-	-	-	-	75	23
	Pyromet® X-15	-	-	-	-	-	-	90	27
Nickel Based Alloys	Inconel® 600, Inconel® 718, Nimonic® 90	2.4816, 2.4668,	NCF-600	-	-	-	-	85	26
	NI-SPAN-C® 902, RENE 41®	2.4973	-	-	-	-	-	85	26
	Inconel® 625	2.4831	-	-	-	-	-	115	35
	Hastalloy B, Waspalloy	2.4800, 2.4654	Ni-Mo28	-	-	-	-	75	23
	Nimonic® 75, RENE 88	2.4951	-	-	-	-	-	75	23
Titanium Alloys	CP Titanium	3.7025	-	230	70			180	55
	Ti-6Al-4V	3.7615	-	230	70			180	55
Cast Irons	A536 (60-40-18)	0.7040	FCD 40	360	110				
	A536 (120-90-02)	0.7080	-	175	53				
	A48 (Class 20)	0.6010	FC 10	250	76				
	A48 (Class 40)	0.6025	FC 25	160	49				
A48 (Class 60)	0.6040	-	-	115	35				

* For metal cutting saws run between 275 and 350 FPM. (84 and 107 MPM)

CARBIDE PRODUCT SELECTION CHART

SPECIAL APPLICATION

↑ PERFORMANCE	Wood	Composites	Aluminium (Including Alum Castings)	Tires	Case Hardened Materials (Including IHCP Cylinder Shafts)
	ALUMINIUM MASTER™ CT			HRC™	
	SST CARBIDE™				
	TRI-MASTER®				
	MASTER-GRIT™			MASTER-GRIT™	
	← MACHINABILITY →		DIFFICULT		

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CARBIDE SPEED CHART

FPM = Feet Per Minute
MPM = Meters Per Minute

Materials	Trade Name	German Stoff #	Japan JIS	ALUMINIUM MASTER™ CT		SST CARBIDE™		HRC™		TRI-MASTER®	
				FPM	MPM	FPM	MPM	FPM	MPM	FPM	MPM
Aluminum Alloys	2024, 5052, 6061, 7075	3.1355, 3.3525, 3.3211, 3.4365	2024, 5052, 6061, 7075	3,500-8,500*	1000-2600*	3,500-8,500*	1000-2600*			3,500-8,500*	1000-2600*
Copper Alloys	CDA 220	2,0230	C2200	210	64	210	64			210	64
	CDA 360	2,0375	C3601	295	90	295	90			295	90
	Cu Ni (30%)	2,0835	-	200	61	200	61	280		200	61
	Be Cu	-	C1700, C1720	160	49	160	49			160	49
Bronze Alloys	AMPCO 18	-	-	180	55	180	55			180	55
	AMPCO 21	-	-	160	49	160	49			160	49
	AMPCO 25	-	-	110	34	110	34			110	34
	Leaded Tin Bronze	2,1177	-	290	88	290	88			290	88
	Al Bronze 865	2,0976	A1BCn1	150	46	150	46			150	46
	Mn Bronze	2,0602	-	215	66	215	66			215	66
Brass Alloys	932	-	-	280	85	280	85			280	85
	937	-	-	250	76	250	76			250	76
	Cartridge Brass, Red Brass (85%)	-	BC6					220	67	220	67
Naval Brass	-	YCuZnSn					200	61	200	61	
Leaded, Free Machining Low Carbon Steels	1145, 1215, 12L14	-	-							290	88
Structural Steel	A36	1,0132	-							325	99
	1008, 1018	1,0310, 1,0453	S9CK					270**	82	250	76
Low Carbon Steels	1030	1,1178	S 30 C					250**	76	240	73
Medium Carbon Steels	1035	1,0501	S 35 C					240**	73	230	70
	1045	1,0503, 1,1191	S 45 C					230**	70	220	67
High Carbon Steels	1060	1,0601	S 58 C, S60 CM					200**	61		
	1080	1,1259	1080					195**	59		
	1095	1,0618	SUP 4					185**	56		
Mn Steels	1541	1,1167	SMn 438 (H)								
	1524	1,0499	SCMn1, SCMn21								
Cr-Mo Steels	4140	1,7225	SCM 440 (H)								
	41L50	-	-								
	4150H	-	-								
Cr Alloy Steels	6150	1,8159	SUP 10								
	52100	1,3505	SUJ 2								
	5160	1,7176	SUP 9 (A)5								
Ni-Cr-Mo Steels	4340	1,6565	SNCM 439, SNCM 8								
	8620	1,6523	SNCM 220H, SNCM21								
	8640	1,6546	SNCM 240								
	E9310	1,6657	-								
Low Alloy Tool Steel	L-6	1,2714	SKT 4							192	59
Water-Hardening Tool Steel	W-1	1,1673	SK 1							176	54
Cold-Work Tool Steel	D-2	1,2379	SKD 11							168	51
	A-2	1,2363	SHD 12							184	56
Air-Hardening Tool Steels	A-6	-	-							176	54
	A-10	-	-							128	39
	H-13	1,2344	SKD 61							176	54
Hot Work Tool Steels	H-25	-	-							120	37
	O-1	1,2510	SKS 3							192	59
Oil-Hardening Tool Steels	O-2	1,2842	-							176	54
	M-2, M-10	1,3343	SKH 9							88	27
High Speed Tool Steels	M-4, M-42	1,3348, 1,3247	SKH 54, SKH 59							84	26
	T-1	1,3355	SKH 2							80	24
	T-15	1,3202	SKH 10							64	20
	P-3	-	-							160	49
Mold Steels	P-20	1,2328	-							128	39
	S-1	1,2542	SKS 41								
Shock Resistant Tool Steels	S-5, S-7	1,2823	-								
	304	1,4301	SUS 304					220	67	154	47
Stainless Steels	316	1,4401	SUS 316					180	55	126	38
	410, 420	1,4006, 1,4021	SUS 410, SUS 420 J1					250	76	175	53
	440A	1,4109	SUS 440 A					200	61	140	43
	440C	1,4125	SUS 440 C					200	61	140	43
	17-4 PH	1,4542, 1,4568	SUS 630, SUS 631					160	49	112	34
Precipitation Hardening Stainless Steels	15-5 PH	1,4545	-					140	43	98	30
Free Machining Stainless Steels	420F	-	-					270	82	189	58
	301	1,431	-					230	70	161	49
Nickel Alloys	Monel® K-500	2,4375	-							90	27
	Duranickel® 301	-	-							80	24
Iron Based Super Alloys	A286, Incoloy® 825	1,4980	SUH 660							80	24
	Incoloy® 600	-	-							75	23
	Pyromet® X-15	-	-							90	27
Nickel Based Alloys	Inconel® 600, Inconel® 718, Nimonic® 90	2,4816, 2,4668	NCF-600							85	26
	NI-SPAN-C® 902, RENE 41®	2,4973	-							85	26
	Inconel® 625	2,4831	-							115	35
	Hastalloy B, Waspalloy	2,4800, 2,4654	Ni-Mo28							75	23
	Nimonic® 75, RENE 88	2,4951	-							75	23
Titanium Alloys	CP Titanium	3,7025	-							150	46
	Ti-6Al-4V	3,7615	-							150	46
Cast Irons	A536 (60-40-18)	0,7040	FCD 40								
	A536 (120-90-02)	0,7080	-								
	A48 (Class 20)	0,6010	FC 10								
	A48 (Class 40)	0,6025	FC 25								
A48 (Class 60)	0,6040	-									

* For metal cutting saws run between 275 and 350 FPM. (84 and 107 MPM)

** Typically for hardened and case hardened carbon steels up to 61 Rc.

QGT™

NEW

Long Blade Life When Cutting Tough Materials



THE LENOX® ADVANTAGE™

- **LONG LIFE. STRAIGHT CUTTING**
Solids of moderate to difficult machinability. Proprietary backing steel preparation provide increased fatigue life
- **OPTIMUM CHIP FORMATION IN WORK HARDENING MATERIALS**
Special set and tooth profile
- **MAXIMUM BEAM STRENGTH FOR STRAIGHTER CUTTING**
Modified gullet design

Specifications

Width x Thickness		TPI			
Inches	MM	1.0/1.3	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	◆			

Applications

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



(see page 8 for details)



QXP™

NEW

Long Blade Life At High Cutting Rates



THE LENOX® ADVANTAGE™

- **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

Specifications

Width x Thickness		TPI			
Inches	MM	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	◆	◆		

Applications

Aluminum/Non-Ferrous, Carbon Steels, Alloy Steels, Bearing Steels,
Mold Steels, Stainless Steels, Tool Steels, Heavy walled tubing

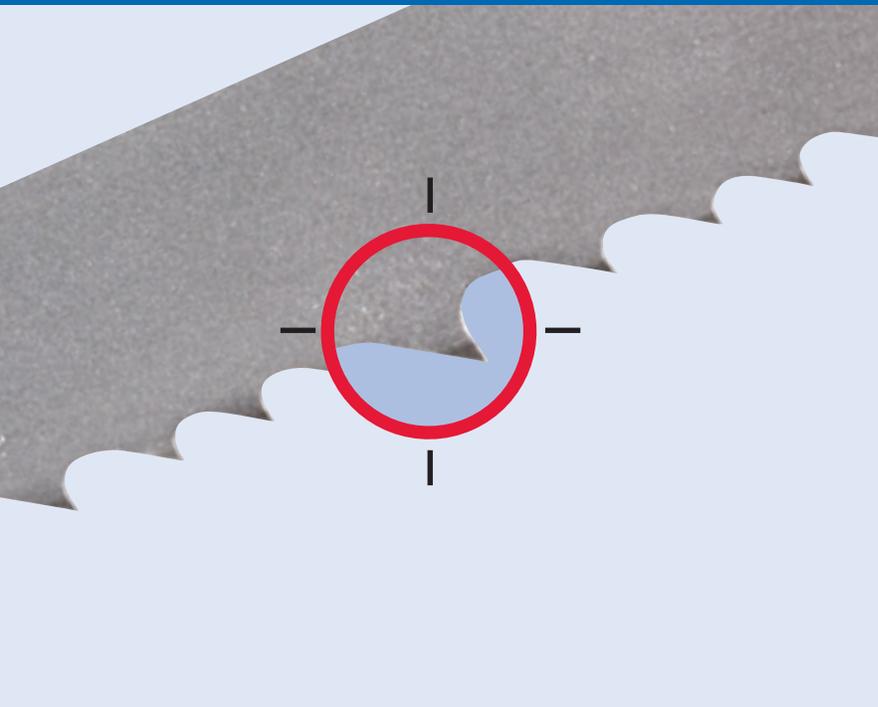


(see page 8 for details)



CONTESTOR GT®

**High Performance
Bi-metal Blade**



THE LENOX® ADVANTAGE™

- **GT: Ground Tooth**
Cuts with less feed pressure.
- **High speed, steel edge material**
M-42 standard; M-51 available as listed below.
- **Unique gullet design**
Increased beam strength.
- **Use when tool life and cutting accuracy are most important**

Specifications

Width x Thickness		TPI						Applications
Inches	MM	.7/1.0	1.0/1.3	1.4/2.0	2/3	3/4	4/6	
1 x .035	27 x 0.90				●	●	●	Aerospace alloys, Tool steels, Stainless steels, Nickel based alloys, Titanium alloys
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	◆	◆■	◆■	◆	◆	◆	
3 x .063	80 x 1.60	◆	◆	◆				

- = Milled Tooth
- ◆ = Ground Tooth
- = M-51 Edge

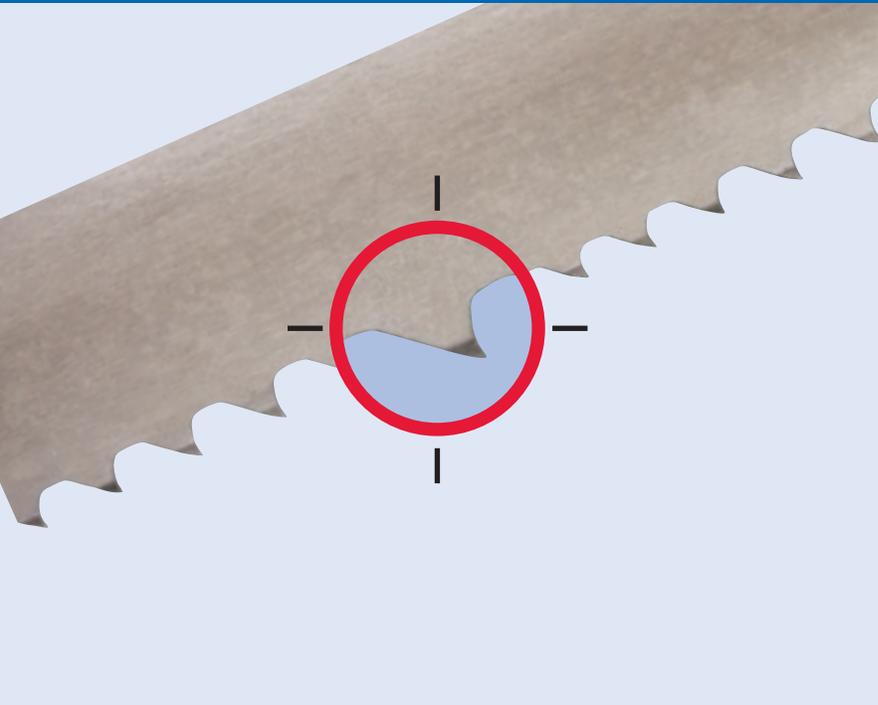


(see page 8 for details)





For Extreme
Production Rates



THE LENOX® ADVANTAGE™

- **Large capacity gullet**
Improved chip carrying capacity, for production cutting of alloy and carbon steels.
- **Extreme positive rake tooth profile**
Easy penetration with reduced feed force.

Specifications

Width x Thickness		TPI						Applications
Inches	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					◆		Production cutting, Aluminum, Carbon steels, Bearing steels, Alloy steels, Tool steels, Stainless steels, Solids, Heavy-walled tubing
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	◆						

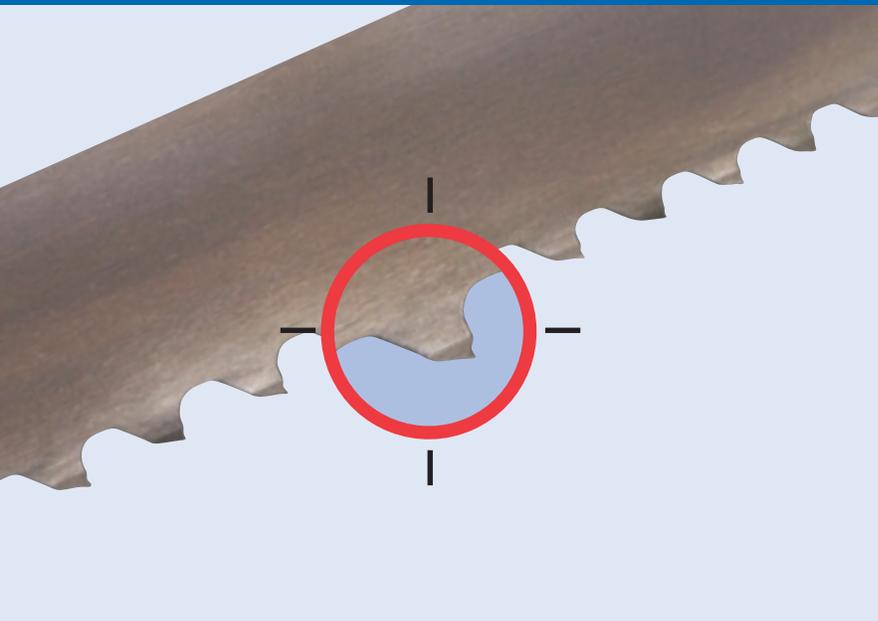


(see page 8 for details)





Engineered to Cut Structurals, Tubing and Bundles



THE LENOX® ADVANTAGE™

- **Reinforced tooth design**
For long life and extreme durability.
- **Unique, patented tooth profile**
Powers through interrupted cuts. Eliminates tooth strippage.
- **Unique, patented tooth pitch/set sequence**
Minimizes vibration and equalizes tooth loading. This eliminates harmonics and significantly reduces noise levels.
- **M-42 high speed steel tooth edge**
For durability.

Specifications

Width x Thickness		TPI					Applications
Inches	MM	2/3	3/4	4/6	5/8	10/14	
5/8 x .032	16 x 0.80					*	Large cross-section profiles, Bundled structural steel and tubing
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	◆†	◆†	◆			

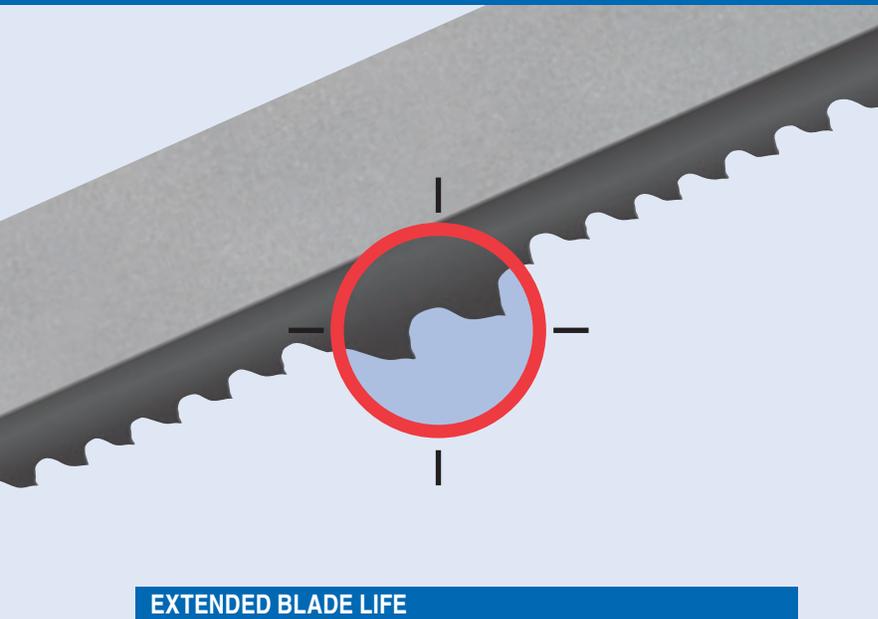
† = Extra heavy set available to prevent blade pinching

* = Matrix Edge



ARMOR™ Rx⁺

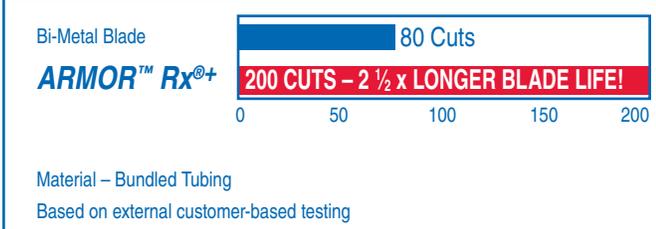
For Extended Blade Life and Increased Productivity



THE LENOX® ADVANTAGE™

- All the advantages of Rx⁺, plus:
- **AlTiN Armor for Productivity & Blade Life**
Aluminium, 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. ARMOR allows for low thermal conductivity that forces heat into the chips rather than the blade or work piece.

EXTENDED BLADE LIFE



Specifications

Width x Thickness		TPI		
Inches	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	◆†	◆†	

Applications

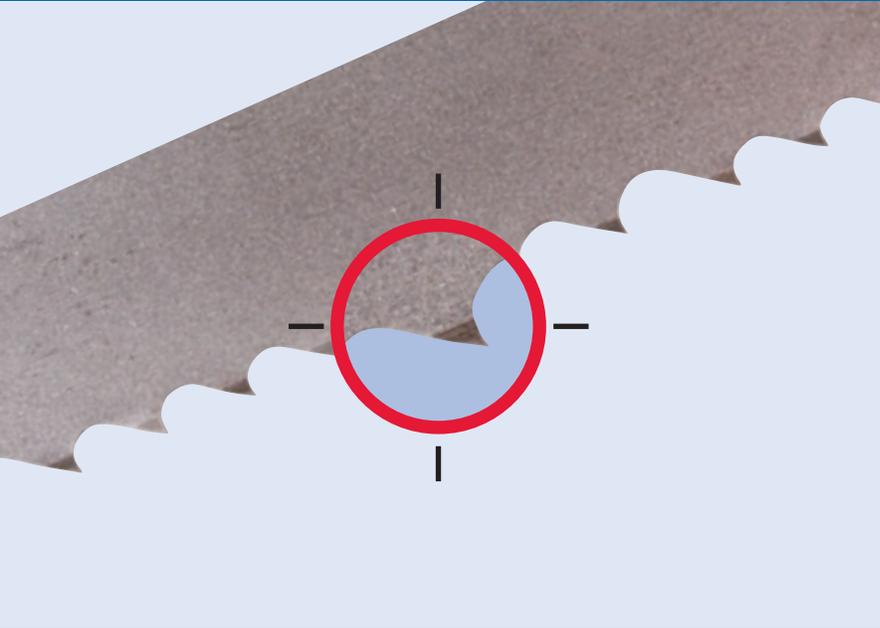
Large cross-section profiles,
Bundled structural steel and tubing

† Also available as Extra Heavy Set



CLASSIC™

**The Ultimate
Multi-Purpose Blade**



THE LENOX® ADVANTAGE™

- **Shallow gullets**
For increased beam strength.
- **Patented TUFF TOOTH™ design**
For strip resistance.
- **M-42 high speed steel edge**
For durability.

Specifications

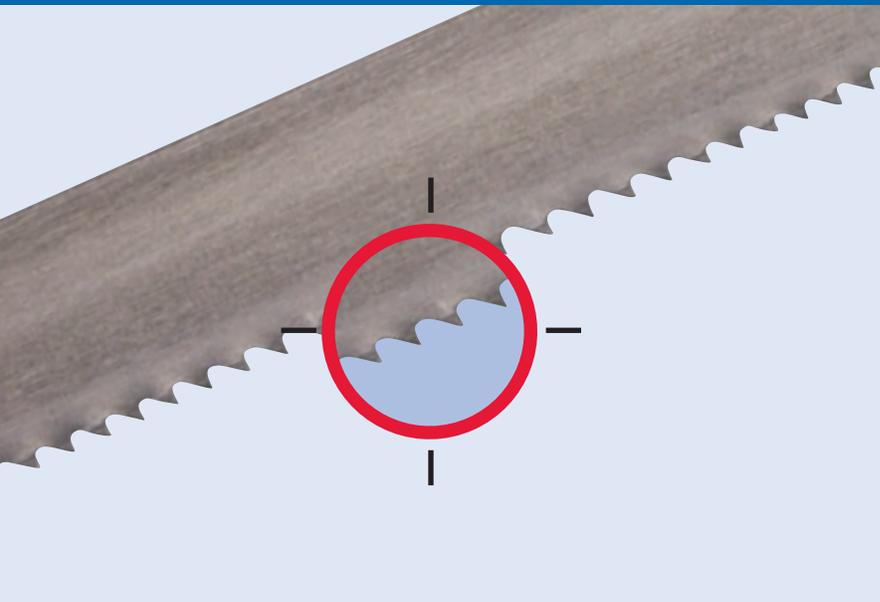
Tooth Form Width x Thickness Inches MM		TUFF TOOTH™ TPI				VARI-TOOTH® TPI				Wavy TPI		Hook TPI	Applications
		2/3	3/4	4/6	6/8	5/8	6/10	8/12	10/14	14	18	3	
3/4 x .035	19 x 0.90			◆	◆	◆	◆	◆	◆	◆	◆	◆	Carbon steels, Light alloy steels, Mold steels, Tool steels, Stainless steels
1 x .035	27 x 0.90	◆	◆	◆	◆	◆	◆	◆	◆			◆	
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	◆†	◆†	◆									

† = Extra heavy set available to prevent blade pinching



DIEMASTER 2®

Engineered for
Contour Cutting



THE LENOX® ADVANTAGE™

- **M-42 high speed steel tooth edge**
For durability.
- **Designed to run at high speed**
Runs at twice the speed of carbon.
- **Increased blade life**
Lasts 10 times longer than carbon blades.
- **General purpose hand-fed applications**
Tool and die shops, machine shops, maintenance facilities.

Specifications

Tooth Form		VARI-TOOTH®				Standard				Hook			Applications
Width x Thickness		TPI				TPI				TPI			
Inches	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			◆	◆							◆	Carbon steels, Light alloy steels, Mold steels, Tool steels, Stainless steels, Sheet metal
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



BI-METAL PRODUCT SELECTION CHART

HIGH PERFORMANCE

	Aluminium	Low Carbon Steels	High Carbon Steels	Alloy Steels	Bearing Steels	Mold Steels	Stainless Steels	Tool Steels	Titanium Alloys	Nickel-Based Alloys	
PERFORMANCE ↑							QGT™ Longest Life. Straight Cuts.				
	QXP™ Longest Life. Fast Cutting.									QXP™ Longest Life. Fast Cutting.	
	ARMOR™ Rx®+ Ideal for Structural Bundles									CONTESTOR GT® M-51 for Superior Life – Large Block Applications	
							CONTESTOR GT® for Superior Life – Standard Applications				
	LXP®									LXP® Ideal at High Cutting Rates	
	Rx®+ Ideal for Structural Bundles										
	EASY ← MACHINABILITY → DIFFICULT										

GENERAL PURPOSE

	Carbon Steels	Light Alloy Steels	Mold Steels	Tool Steels	Stainless Steels
PERFORMANCE ↑	CLASSIC™ for 19mm and Wider Blades				
	CONTESTOR GT® M-51 for 12.7mm and Narrower Blades				
	EASY ← MACHINABILITY → DIFFICULT				

For Technical Assistance
see us on the web at
www.lenox.eu
or contact your **LENOX®**
Technical Representative.

BI-METAL SPEED CHART PARAMETERS

These figures are a guide to cutting 4" (100mm) 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 =
8" (203mm)	Chart Speed - 12%

- Reduce band speed 15% when using **MICRONIZER®** lubricants.
- Reduce band speed 30%–50% when sawing without fluid.
- Reduce band speed 50% when sawing with carbon blades.

For Heat Treated Materials

DECREASE Band Speed:	When Cutting Harder Material:	
	Rockwell	Brinell
0%	Up to 20	226
5%	22	237
10%	24	247
15%	26	258
20%	28	271
25%	30	286
30%	32	301
35%	36	336
40%	38	353
45%	40	371

BI-METAL SPEED CHART

Materials	U.S. Designation	German Stoff #	Japan JIS	FPM	MPM
Aluminum Alloys	2024, 5052, 6061, 7075	3.1355, 3.3525, 3.3211, 3.4365	2024, 5052, 6061, 7075	275-340*	84-104*
Copper Alloys	CDA 220	2.0230	C2200	210	64
	CDA 360	2.0375	C3601	295	89
	Copper Nickel (30%)	2.0835	-	200	61
	Beryllium Copper	-	C1700, C1720	160	49
Bronze Alloys	AMPCO 18	-	-	180	55
	AMPCO 21	-	-	160	49
	AMPCO 25	-	-	110	34
	Leaded Tin Bronze	2.1177	-	290	88
	Aluminum Bronze 865	2.0976	AIBClN1	150	46
	Manganese Bronze	2.0602	-	215	65
Brass Alloys	932	-	-	280	85
	937	-	-	250	76
Cartridge Brass, Red Brass (85%)		-	BC6	220	67
	Naval Brass	-	YCuZnSn	200	61
Leaded, Free Machining Low Carbon Steels	1145	-	-	270	82
	1215	1.0736	SUM 25	325	99
	12L14	1.0718	SUM 24L	350	107
Structural Steel	A36	1.0132	-	250	76
Low Carbon Steels	1008, 1018	1.0310, 1.0453	S9CK	270	82
	1030	1.1178	S 30 C	250	76
Medium Carbon Steels	1035	1.0501	S 35 C	240	73
	1045	1.0503, 1.1191	S 45 C	230	70
High Carbon Steels	1060	1.0601	S 58 C, S 60 CM	200	61
	1080	1.1259	1080	195	59
	1095	1.0618	SUP 4	185	56
Mn Steels	1541	1.1167	SMn 438 (H)	200	61
	1524	1.0499	SCMn1, SCMn21	170	52
Cr-Mo Steels	4140	1.7225	SCM 440 (H)	225	68
	41L50	-	-	235	71
	4150H	-	-	200	61
Cr Alloy Steels	6150	1.8159	SUP 10	190	58
	52100	1.3505	SUJ 2	160	49
	5160	1.7176	SUP 9 (A)5	195	59
Ni-Cr-Mo Steels	4340	1.6565	SNCM 439, SNCM 8	195	59
	8620	1.6523	SNCM 220H, SNCM 21	215	65
	8640	1.6546	SNCM 240	185	56
	E9310	1.6657	-	160	49
Low Alloy Tool Steel	L-6	1.2714	SKT 4	145	44
Water-Hardening Tool Steel	W-1	1.1673	SK 1	145	44
Cold-Work Tool Steel	D-2	1.2379	SKD 11	90	27
Air-Hardening Tool Steels	A-2	1.2363	SHD 12	150	46
	A-6	-	-	135	41
	A-10	-	-	100	30
Hot Work Tool Steels	H-13	1.2344	SKD 61	140	43
	H-25	-	-	90	27
Oil-Hardening Tool Steels	O-1	1.2510	SKS 3	140	43
	O-2	1.2842	-	135	41
High Speed Tool Steels	M-2, M-10	1.3343	SKH 9	105	32
	M-4, M-42	1.3348, 1.3247	SKH 54, SKH 59	95	29
	T-1	1.3355	SKH 2	90	27
	T-15	1.3202	SKH 10	60	18
Mold Steels	P-3	-	-	180	55
	P-20	1.2328	-	165	50
Shock Resistant Tool Steels	S-1	1.2542	SKS 41	140	43
	S-5, S-7	1.2823	-	125	38
Stainless Steels	304	1.4301	SUS 304	115	25
	316	1.4401	SUS 316	90	27
	410, 420	1.4006, 1.4021	SUS 410, SUS 420 J1	135	41
	440A	1.4109	SUS 440 A	80	24
	440C	1.4125	SUS 440 C	70	21
Precipitation Hardening Stainless Steels	17-4 PH	1.4542, 1.4568	SUS 630, SUS 631	70	21
	15-5 PH	1.4545	-	70	21
Free Machining Stainless Steels	420F	-	-	150	46
	301	1.431	-	125	38
Nickel Alloys	Monel® K-500	2.4375	-	70	21
	Duranickel® 301	-	-	55	16
Iron Based Super Alloys	A286, Incoloy® 825	1.4980	SUH 660	80	24
	Incoloy® 600	-	-	55	16
	Pyromet® X-15	-	-	70	21
Nickel Based Alloys	Inconel® 600, Inconel® 718, Nimonic® 90	2.4816, 2.4668	NCF-600	60	18
	NI-SPAN-C® 902, RENE 41®	2.4973	-	60	18
	Inconel® 625	2.4831	-	80	24
	Hastalloy B, Waspalloy	2.4800, 2.4654	Ni-Mo28	55	16
	Nimonic® 75, RENE 88	2.4951	-	50	16
Titanium Alloys	CP Titanium	3.7025	-	85	25
	Ti-6Al-4V	3.7615	-	65	20
Cast Irons	A536 (60-40-18)	0.7040	FCD 40	225	68
	A536 (120-90-02)	0.7080	-	110	34
	A48 (Class 20)	0.6010	FC 10	160	49
	A48 (Class 40)	0.6025	FC 25	115	25
	A48 (Class 60)	0.6040	-	95	28

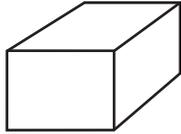
FPM = Feet Per Minute
MPM = Meters Per Minute

* These speeds are for cutting aluminum on metal cutting saws. Production aluminum cutting houses typically use high speed production saws that cut at speeds from 3,500-8,500 FPM. (1000 - 2600 MPM)

BI-METAL TOOTH SELECTION

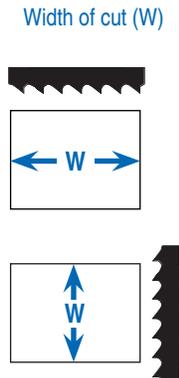
1. Determine size and shape of material to be cut.
2. Identify chart to be used (square solid, round solid, or tubing/structurals).
3. Read teeth per inch next to material size.

Square/Rectangle Solid

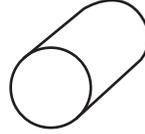


Locate width of cut (W)

INCHES	TPI	MM
.1	14/18	
.2	10/14	5
.3	8/12	10
.4	6/8 6/10	15
.5	5/8	20
.6		25
.7		30
.8		35
.9		40
1	4/6	50
1.1		55
1.2		60
1.3		65
1.4		70
1.5	3/4	75
1.6		80
1.7		85
1.8		90
1.9		95
2	2/3	100
2.1		105
2.2		110
2.3		115
2.4		120
2.5		125
2.6		130
2.7		135
2.8		140
2.9		145
3	1.5/2.0	150
3.1		155
3.2		160
3.3		165
3.4		170
3.5		175
3.6		180
3.7		185
3.8		190
3.9		195
4	1.4/2.0	200
4.1		205
4.2		210
4.3		215
4.4		220
4.5		225
4.6		230
4.7		235
4.8		240
4.9		245
5		250
5.1		255
5.2		260
5.3		265
5.4		270
5.5		275
5.6		280
5.7		285
5.8		290
5.9		295
6	1.0/1.3	300
6.1		305
6.2		310
6.3		315
6.4		320
6.5		325
6.6		330
6.7		335
6.8		340
6.9		345
7		350
7.1		355
7.2		360
7.3		365
7.4		370
7.5		375
7.6		380
7.7		385
7.8		390
7.9		395
8		400
8.1		405
8.2		410
8.3		415
8.4		420
8.5		425
8.6		430
8.7		435
8.8		440
8.9		445
9		450
9.1		455
9.2		460
9.3		465
9.4		470
9.5		475
9.6		480
9.7		485
9.8		490
9.9		495
10	.7/1.0	500
10.1		505
10.2		510
10.3		515
10.4		520
10.5		525
10.6		530
10.7		535
10.8		540
10.9		545
11		550
11.1		555
11.2		560
11.3		565
11.4		570
11.5		575
11.6		580
11.7		585
11.8		590
11.9		595
12		600
12.1		605
12.2		610
12.3		615
12.4		620
12.5		625
12.6		630
12.7		635
12.8		640
12.9		645
13		650
13.1		655
13.2		660
13.3		665
13.4		670
13.5		675
13.6		680
13.7		685
13.8		690
13.9		695
14		700
14.1		705
14.2		710
14.3		715
14.4		720
14.5		725
14.6		730
14.7		735
14.8		740
14.9		745
15		750
15.1		755
15.2		760
15.3		765
15.4		770
15.5		775
15.6		780
15.7		785
15.8		790
15.9		795
16		800
16.1		805
16.2		810
16.3		815
16.4		820
16.5		825
16.6		830
16.7		835
16.8		840
16.9		845
17		850
17.1		855
17.2		860
17.3		865
17.4		870
17.5		875
17.6		880
17.7		885
17.8		890
17.9		895
18		900
18.1		905
18.2		910
18.3		915
18.4		920
18.5		925
18.6		930
18.7		935
18.8		940
18.9		945
19		950
19.1		955
19.2		960
19.3		965
19.4		970
19.5		975
19.6		980
19.7		985
19.8		990
19.9		995
20		1000
20.1		1005
20.2		1010
20.3		1015
20.4		1020
20.5		1025
20.6		1030
20.7		1035
20.8		1040
20.9		1045
21		1050
21.1		1055
21.2		1060
21.3		1065
21.4		1070
21.5		1075
21.6		1080
21.7		1085
21.8		1090
21.9		1095
22		1100
22.1		1105
22.2		1110
22.3		1115
22.4		1120
22.5		1125
22.6		1130
22.7		1135
22.8		1140
22.9		1145
23		1150
23.1		1155
23.2		1160
23.3		1165
23.4		1170
23.5		1175
23.6		1180
23.7		1185
23.8		1190
23.9		1195
24		1200



Round Solid



Locate diameter (D)

INCHES	TPI	MM
.1	14/18	
.2	10/14	5
.3	8/12	10
.4	6/8 6/10	15
.5	5/8	20
.6		25
.7		30
.8		35
.9		40
1	4/6	50
1.1		55
1.2		60
1.3		65
1.4		70
1.5	3/4	75
1.6		80
1.7		85
1.8		90
1.9		95
2	2/3	100
2.1		105
2.2		110
2.3		115
2.4		120
2.5		125
2.6		130
2.7		135
2.8		140
2.9		145
3	1.5/2.0	150
3.1		155
3.2		160
3.3		165
3.4		170
3.5		175
3.6		180
3.7		185
3.8		190
3.9		195
4	1.4/2.0	200
4.1		205
4.2		210
4.3		215
4.4		220
4.5		225
4.6		230
4.7		235
4.8		240
4.9		245
5		250
5.1		255
5.2		260
5.3		265
5.4		270
5.5		275
5.6		280
5.7		285
5.8		290
5.9		295
6	1.0/1.3	300
6.1		305
6.2		310
6.3		315
6.4		320
6.5		325
6.6		330
6.7		335
6.8		340
6.9		345
7		350
7.1		355
7.2		360
7.3		365
7.4		370
7.5		375
7.6		380
7.7		385
7.8		390
7.9		395
8		400
8.1		405
8.2		410
8.3		415
8.4		420
8.5		425
8.6		430
8.7		435
8.8		440
8.9		445
9		450
9.1		455
9.2		460
9.3		465
9.4		470
9.5		475
9.6		480
9.7		485
9.8		490
9.9		495
10	.7/1.0	500
10.1		505
10.2		510
10.3		515
10.4		520
10.5		525
10.6		530
10.7		535
10.8		540
10.9		545
11		550
11.1		555
11.2		560
11.3		565
11.4		570
11.5		575
11.6		580
11.7		585
11.8		590
11.9		595
12		600
12.1		605
12.2		610
12.3		615
12.4		620
12.5		625
12.6		630
12.7		635
12.8		640
12.9		645
13		650
13.1		655
13.2		660
13.3		665
13.4		670
13.5		675
13.6		680
13.7		685
13.8		690
13.9		695
14		700
14.1		705
14.2		710
14.3		715
14.4		720
14.5		725
14.6		730
14.7		735
14.8		740
14.9		745
15		750
15.1		755
15.2		760
15.3		765
15.4		770
15.5		775
15.6		780
15.7		785
15.8		790
15.9		795
16		800
16.1		805
16.2		810
16.3		815
16.4		820
16.5		825
16.6		830
16.7		835
16.8		840
16.9		845
17		850
17.1		855
17.2		860
17.3		865
17.4		870
17.5		875
17.6		880
17.7		885
17.8		890
17.9		895
18		900
18.1		905
18.2		910
18.3		915
18.4		920
18.5		925
18.6		930
18.7		935
18.8		940
18.9		945
19		950
19.1		955
19.2		960
19.3		965
19.4		970
19.5		975
19.6		980
19.7		985
19.8		990
19.9		995
20		1000
20.1		1005
20.2		1010
20.3		1015
20.4		1020
20.5		1025
20.6		1030
20.7		1035
20.8		1040
20.9		1045
21		1050
21.1		1055
21.2		1060
21.3		1065
21.4		1070
21.5		1075
21.6		1080



BANDSAW BLADES

CARBON BANDSAW BLADES

THE LENOX® ADVANTAGE™

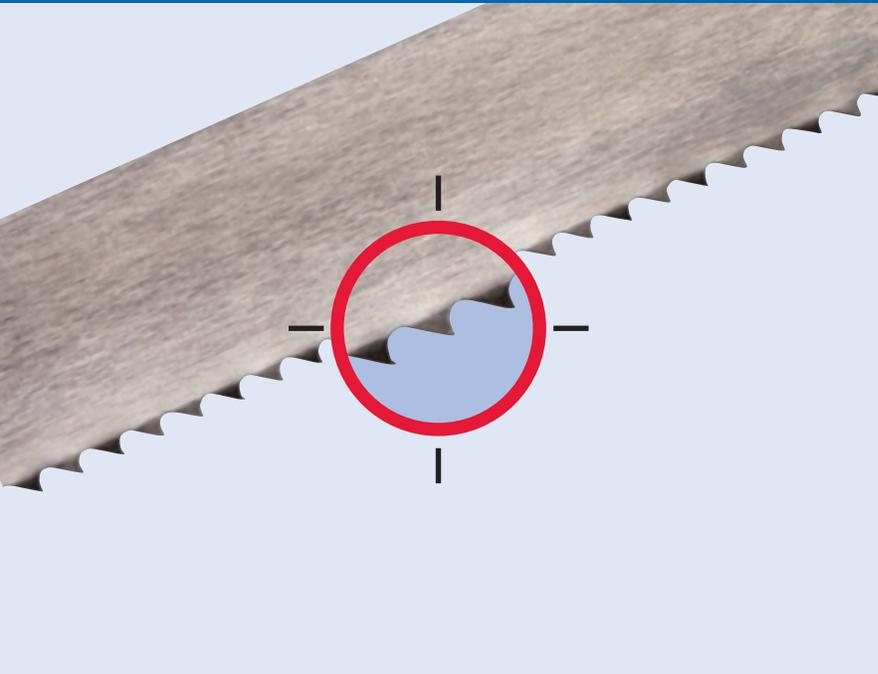
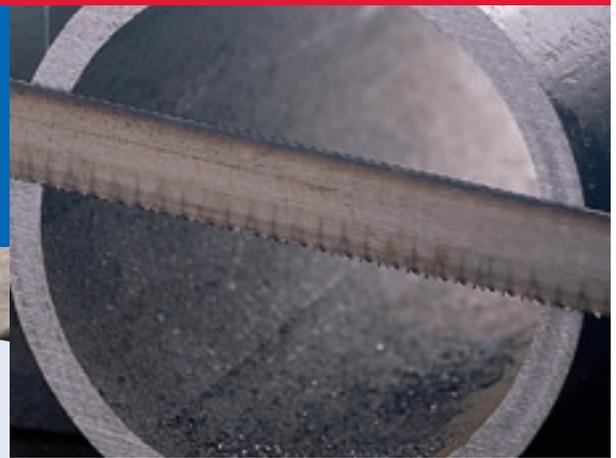
- Why LENOX® Carbon Bandsaw Blades are Better:

Materials: LENOX® uses the finest quality raw materials available.

Process: LENOX® has always been and continues to be the industry leader in heat treatment. This process is the main ingredient in our high quality carbon bandsaw blades.

NEO-TYPE®

Hard Back Carbon Steel Blade



THE LENOX® ADVANTAGE™

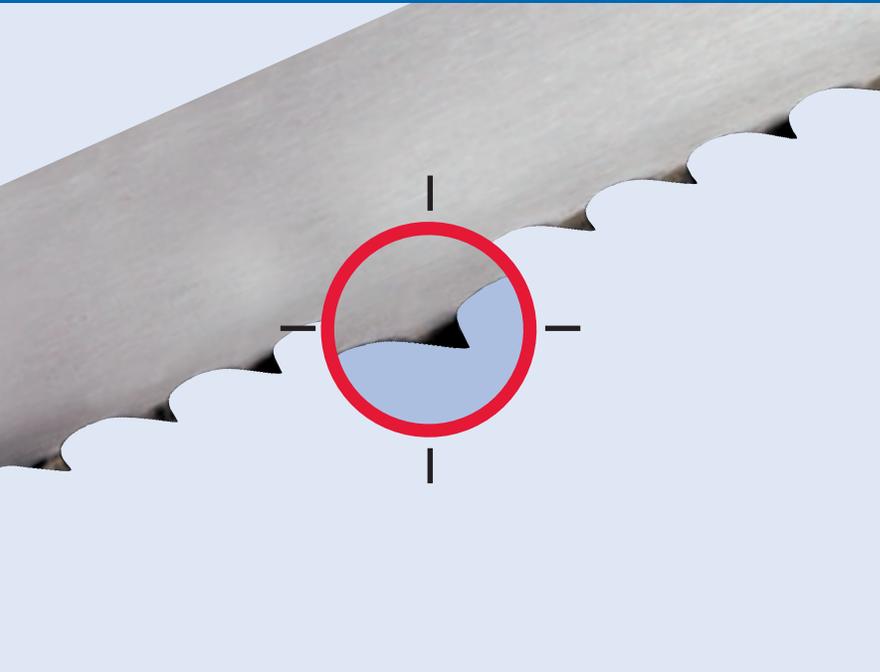
- **Hardened back blades**
- **Great for cutting mild steels**
At slower speeds, due to a blade design that features both hardened teeth and a hardened back.

Specifications

Tooth Form Set Pattern		Standard Raker TPI					Wavy TPI	Hook Raker TPI		Applications
Width x Thickness Inches	MM	6	8	10	14	18	24	3	4	
1/4 x .025	6.4 x 0.64			◆	◆	◆	◆			Ferrous metals, Utility cutting of mild steels. For use on small cut off saws & hand-fed applications.
3/8 x .025	9.5 x 0.64		◆	◆	◆	◆				
1/2 x .025	12.7 x 0.64	◆	◆	◆	◆	◆	◆		◆	
5/8 x .032	16 x 0.80			◆	◆					
3/4 x .032	19 x 0.80	◆	◆	◆	◆	◆				
1 x .035	25.4 x 0.90	◆	◆	◆	◆			◆		

FLEX BACK

Versatile Carbon Steel Blade



THE LENOX® ADVANTAGE™

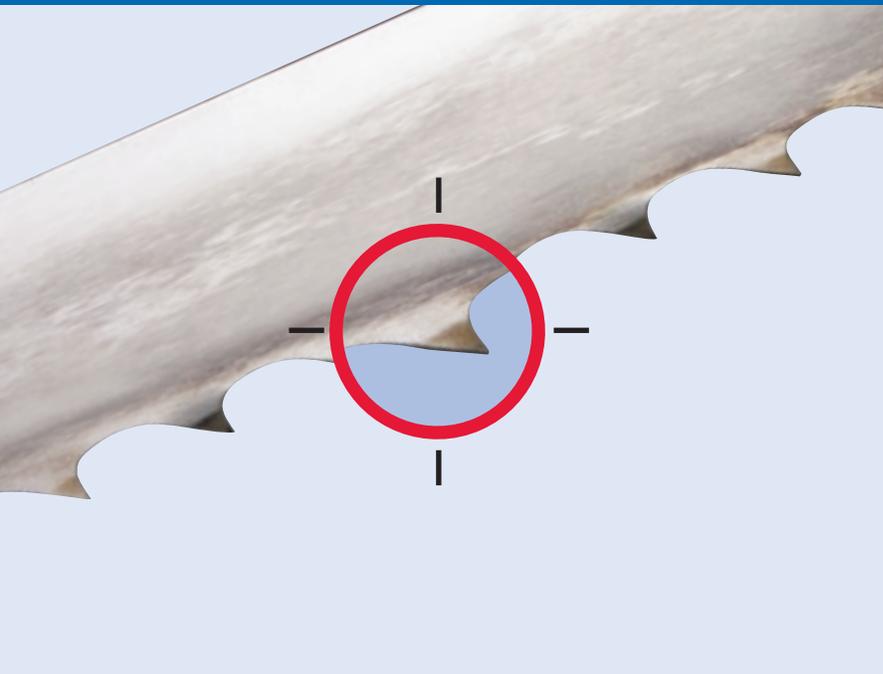
- **Versatile performance**
Our hardened tooth tip/flexible back heat treating enables these blades to cut a variety of materials well at fairly high band speeds.
- **Applications**
Hand-fed applications on vertical saws, non-ferrous metals, abrasive materials, wood cutting applications.

Specifications

Tooth Form Set Pattern		Hook				Alternate TPI	Skip Raker TPI
Width x Thickness		Raker TPI		Hook			
Inches	MM	2	3	4	6	2	1
1/4 x .025	6.4 x 0.64			◆	◆		
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	25.4 x 0.90	◆	◆				
2 x .035	50.8 x 0.90					◆	◆

#32 WOOD

Specialized Wood Applications



THE LENOX® ADVANTAGE™

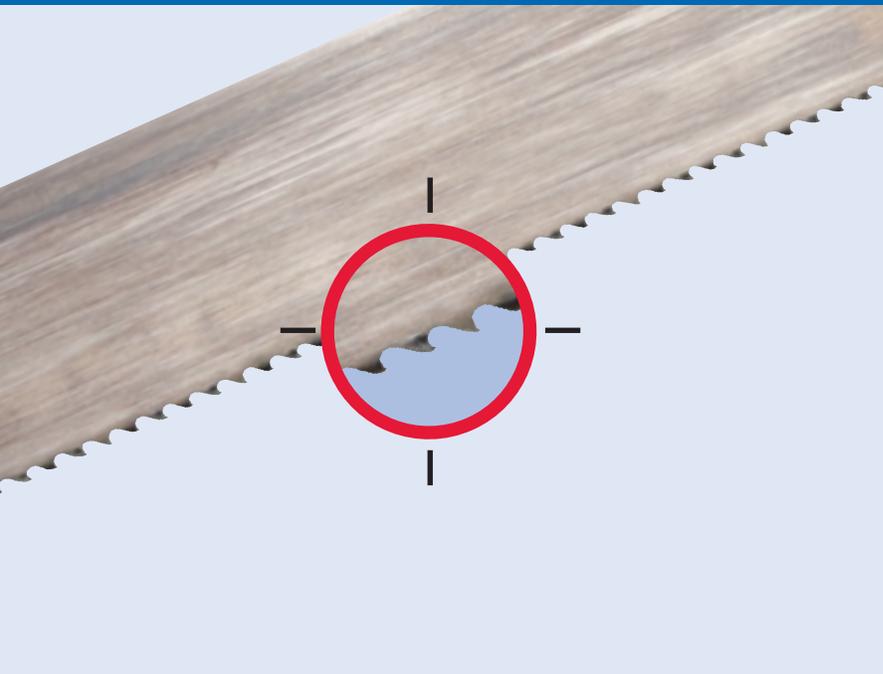
• #32 WOOD (.032) for contour cutting

Specifications

Tooth Form Set Pattern		Hook				
Width x Thickness		Raker TPI			Alternate TPI	
Inches	MM	2	3	4	3	4
1/4 x .032	6.4 x 0.80			◆		◆
3/8 x .032	9.5 x 0.80		◆	◆	◆	◆
1/2 x .032	12.7 x 0.80	◆	◆	◆	◆	

FRICITION BAND

Increased Frictional Heat for Ferrous Metals



THE LENOX® ADVANTAGE™

- **Increased frictional heat**
Can be operated up to 20,000 feet per minute (6,100 meters per minute). For cutting ferrous metals up to 3/4" (18mm) thick.

Specifications

Tooth Form Set Pattern		Standard Raker	Applications
Width x Thickness Inches MM	TPI 10		
1 x .035 25.4 x 0.90	◆		Gates & risers, Weldments, Odd shapes, Sheet metal





Bi-metal Power Hacks for Long Life in Metal Cutting

Specifications

Product Number	Length x Width x Thickness		TPI	Product Number	Length x Width x Thickness		TPI
	Inches	MM			Inches	MM	
22106-250HV	12 x 1 x .050	300 x 27 x 1.30	6/10	22160-884HV	18 x 1-3/4 x .088	457 x 48 x 2.25	3/4
22010-250H	12 x 1 x .050	300 x 27 x 1.30	10	22060-884H	18 x 1-3/4 x .088	457 x 48 x 2.25	4
22011-254H	12 x 1 x .050	300 x 27 x 1.30	14	22061-886H	18 x 1-3/4 x .088	457 x 48 x 2.25	6
22114-450HV	14 x 1 x .050	355 x 27 x 1.30	6/10	22064-976H	19 x 1-1/2 x .075	483 x 41 x 1.90	6
22017-450H	14 x 1 x .050	355 x 27 x 1.30	10	22162-184HV	21 x 1-3/4 x .088	533 x 48 x 2.25	3/4
22018-454H	14 x 1 x .050	355 x 27 x 1.30	14	22069-184H	21 x 1-3/4 x .088	533 x 48 x 2.25	4
22155-466HV	14 x 1-1/4 x .062	355 x 34 x 1.60	4/6	22070-186H	21 x 1-3/4 x .088	533 x 48 x 2.25	6
22022-466H	14 x 1-1/4 x .062	355 x 34 x 1.60	6	22163-404HV	24 x 2 x .100	610 x 54 x 2.50	3/4
22123-460HV	14 x 1-1/4 x .062	355 x 34 x 1.60	6/10	22081-404H	24 x 2 x .100	610 x 54 x 2.50	4
22023-460H	14 x 1-1/4 x .062	355 x 34 x 1.60	10	22164-406HV	24 x 2 x .100	610 x 54 x 2.50	4/6
22026-474H	14 x 1-1/2 x .075	355 x 41 x 1.90	4	22086-004H	30 x 2-1/2 x .100	762 x 65 x 2.50	4
22156-476HV	14 x 1-1/2 x .075	355 x 41 x 1.90	4/6	22557-35066KV	13.78 x 1-3/8 x .062	350 x 35 x 1.60	4/6
22027-476H	14 x 1-1/2 x .075	355 x 41 x 1.90	6	22523-35060KV	13.78 x 1-3/8 x .062	350 x 35 x 1.60	6/10
22043-750H	17 x 1 x .050	432 x 27 x 1.30	10	22540-40068KV	15.75 x 1-3/8 x .062	400 x 35 x 1.60	5/8
22044-754H	17 x 1 x .050	432 x 27 x 1.30	14	22541-40060KV	15.75 x 1-3/8 x .062	400 x 35 x 1.60	6/10
22046-766H	17 x 1-1/4 x .062	432 x 34 x 1.60	6	22558-40076KV	15.75 x 1-5/8 x .075	400 x 41 x 1.90	4/6
22147-760HV	17 x 1-1/4 x .062	432 x 34 x 1.60	6/10	22551-45060KV	17.72 x 1-3/8 x .062	450 x 35 x 1.60	6/10
22047-760H	17 x 1-1/4 x .062	432 x 34 x 1.60	10	22560-45074KV	17.72 x 1-5/8 x .075	450 x 41 x 1.90	3/4
22157-866HV	18 x 1-1/4 x .062	457 x 34 x 1.60	4/6	22561-45076KV	17.72 x 1-5/8 x .075	450 x 41 x 1.90	4/6
22050-866H	18 x 1-1/4 x .062	457 x 34 x 1.60	6	22562-50076KV	19.69 x 1-5/8 x .075	500 x 41 x 1.90	4/6
22151-860HV	18 x 1-1/4 x .062	457 x 34 x 1.60	6/10	22563-55084KV	21.65 x 1-7/8 x .088	550 x 48 x 2.25	3/4
22051-860H	18 x 1-1/4 x .062	457 x 34 x 1.60	10	22564-57504KV	22.64 x 2-1/8 x .100	575 x 54 x 2.50	3/4
22158-874HV	18 x 1-1/2 x .075	457 x 41 x 1.90	3/4	22565-60004KV	23.62 x 2-1/8 x .100	600 x 54 x 2.50	3/4
22054-874H	18 x 1-1/2 x .075	457 x 41 x 1.90	4	22566-65006KV	25.59 x 2-1/8 x .100	650 x 54 x 2.50	4/6
22159-876HV	18 x 1-1/2 x .075	457 x 41 x 1.90	4/6	22567-70004KV	27.56 x 2-1/8 x .100	700 x 54 x 2.50	3/4
22055-876H	18 x 1-1/2 x .075	457 x 41 x 1.90	6	22568-70006KV	27.56 x 2-1/8 x .100	700 x 54 x 2.50	4/6

HV = HACKMASTER® VARI-TOOTH® KV = Kasto Type VARI-TOOTH® H = HACKMASTER®



BANDSAW BLADES

SAWING FLUIDS



THE LENOX® ADVANTAGE™

- Safe to use
- Biodegradable
- Synthetic based
- Greatly improves tool life
- Reduces machine wear

BAND-ADE®

Semi-Synthetic Sawing Fluid

Specifications

Product Number Item

68004	1 gallon / 3.8 liter container (packed 4 containers per case). No split cases.
68005	2-1/2 gallon / 9.5 liter container (packed 2 containers per case). No split cases.
68003	5 gallon / 18.9 liter container.
68001	55 gallon / 208.2 liter drum.

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

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



THE LENOX® ADVANTAGE™

- Reduces machine wear and improves bandsaw blade tool life
- Surfaces can be welded or painted over
- Gentle to operators' hands; does not remove oil from skin
- Does not contain chlorine, sulfur, silicone, petroleum oils or sulfonates
- Biodegradable

LENOX® Machine Cleaner prepares your sump for the use of LENOX® Sawing Fluids.
68006 1 gallon / 3.8 liter container (packed 4 containers per case). No split cases.

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

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



SAW MASTER™

Synthetic Sawing Fluid

Specifications

Product Number	Item
68064	1 gallon / 3.8 liter container
68061	5 gallon / 18.9 liter container.
68062	55 gallon / 208.2 liter drum.

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

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



THE LENOX® ADVANTAGE™

- Lubricates and cools for extended tool life
- Rejects most tramp oils—hydraulic and oils from materials
- Safe to use; non-irritating to the operator
- Low- to non-foaming
- Longest sump life; excellent anti-microbial package prevents rancidity
- Can be used in most hard water applications

ANTI-SPATTER

Spatter Just Wipes Away!

Specifications

Product Number	Item
69040	14 ounce / 397 grams compressed air can (packed 12 cans per case). No split cases.
69041	32 ounce / 906 grams trigger spray bottle (packed 12 bottles per case). No split cases.
69039	1 gallon / 3.8 liter container
69038	5 gallon / 18.9 liter container.
69037	55 gallon / 208.2 liter drum.

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



Material Safety Data Sheets available upon request.



THE LENOX® ADVANTAGE™

- **NON-Toxic, NON-Explosive, NON-Combustible**
- No silicone or chlorine
- **Advanced 14 ounce can**
 Naturally compressed air (no propellants), easy to hold and use even with gloves. Sprays upside down!
- **No wasted product**
 Full use of all 14 ounces.
- **Protects jigs and fixtures**

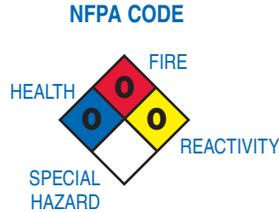
Synthetic Lubricant for Spray Applications

Specifications

Product Number	Item
68014	1 gallon / 3.8 liter containers (packed 4 containers per case). No split cases.
68018	5 gallon / 18.9 liter container.
68017	55 gallon / 208.2 liter drum.

For industrial use only. Not recommended for use as a spray lubricant. Use this product as it comes from the container—do not mix with water.

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



THE LENOX® ADVANTAGE™

- **LENOX® LUBE® is specially formulated for use with the MICRONIZER® or MICRONIZER®, JR.**
 A small amount of this clean, synthetic, water based lubricant aids in tooth penetration and reduces frictional heat. The result is longer blade life, while maintaining a clean working environment and reducing coolant disposal costs.
- **Use when sawing ferrous metals:**
 Carbon and alloy steels, tool steels, and stainless steels.
- **Compatible with BAND-ADE® Sawing Fluid**
- **Can be welded and painted over**

C/AI LUBE

For Non-Ferrous Spray Applications

Specifications

Product Number	Item
68024	1 gallon / 3.8 liter containers (packed 4 containers per case). No split cases.
68026	5 gallon / 18.9 liter container.
68025	55 gallon / 208.2 liter drum.

For industrial use only. Not recommended for use as a spray lubricant. Use this product as it comes from the container—do not mix with water.

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



THE LENOX® ADVANTAGE™

- **C/AI LUBE is specially formulated for use with the MICRONIZER® or MICRONIZER®, JR.**
 This clean, synthetic oil lubricant, formulated for sawing non-ferrous metals, improves cutting performance and helps to prevent material chips from welding to teeth. The result is improved surface finish and extended saw blade life.
- **For sawing non-ferrous metals, especially aluminum and copper alloys**
- **Insoluble in water**

LUBE TUBE

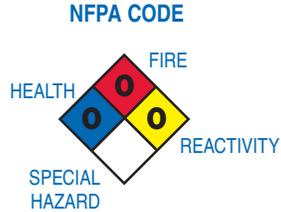
Manually Applied Lubricant Stick

Specifications

Product
Number Item

68020 14.5 ounce / 411.1 gram container (packed 12 tubes per case). No split cases.

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



Material Safety Data Sheets available upon request.



THE LENOX® ADVANTAGE™

- **Extreme pressure lubricant to prevent the build-up of frictional heat on metal surfaces**
- **Designed to be applied to bandsaw blades and other cutting tools**
Improves overall tool life and productivity.
- **Improves tool life**
When sawing, drilling, milling, grinding, threading or tapping.
- **Can be used on ferrous and non-ferrous metals, aluminum gates and risers, plates and extrusions**
- **Biodegradable, non-toxic and non-staining**

MICRONIZER® AND MICRONIZER®, JR.

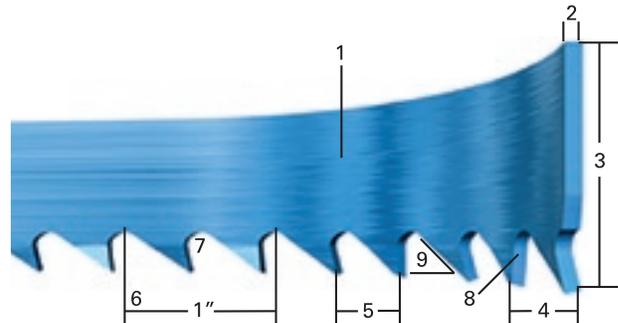
Spray Applicators

Precise fluid pump and air pressure controls ensure the correct amount of lubricant is applied to the blade. A variety of nozzles are available. The *MICRONIZER*® is recommended for production sawing operations and for larger bandsaw machines using 1-1/4" (34mm) and wider blades. The *MICRONIZER*®, JR. is recommended for 1" (25mm) blades and under, using non-automatic saws, for metalworking applications. For more information, contact your LENOX® Representative.

BLADE TERMINOLOGY

1. **Blade Back**—The body of the blade not including tooth portion.
2. **Thickness**—The dimension from side to side on the blade.
3. **Width**—The nominal dimension of a saw blade as measured from the tip of the tooth to the back of the band.
4. **Set**—The bending of teeth to right or left to allow clearance of the back of the blade through the cut.
Kerf—Amount of material removed by the cut of the blade.
5. **Tooth Pitch**—The distance from the tip of one tooth to the tip of the next tooth.
6. **TPI**—The number of teeth per inch as measured from gullet to gullet.
7. **Gullet**—The curved area at the base of the tooth. The tooth tip to the bottom of the gullet is the gullet depth.

8. **Tooth Face**—The surface of the tooth on which the chip is formed.
9. **Tooth Rake Angle**—The angle of the tooth face measured with respect to a line perpendicular to the cutting direction of the saw.



TOOTH FORMS & TOOTH SET



VARIABLE

- Standard tooth forms
- Variable tooth spacing
- Varying gullet depth



VARIABLE POSITIVE

- Smooth cutting
- Reduces noise
- Cuts efficiently
- Enhances blade life



SKIP

- Wide gullets
- Evenly spaced teeth
- Good cutting performance on non-metallic applications (wood, plastic, cork and composition material)



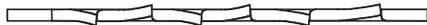
STANDARD

- Deep gullets
- Evenly spaced teeth
- General purpose design for wide range of applications



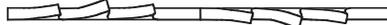
HOOK

- Wide gullets
- Evenly spaced teeth
- Positive rake angle
- Good cutting performance on metals which form discontinuous chips (cast iron) and non-metallic applications (wood, plastic, cork and composition material)



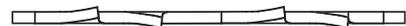
VARI-RAKER

- Multi-tooth sequence depending on tooth pitch
- Varying set angles
- 14/18 **VARI-TOOTH**® has random wavy set



WAVY

- Groups of teeth set to each side
- Teeth have varying amounts of sets in a controlled pattern



RAKER

- Three tooth sequence—left, right, straight
- Uniform set angle



ALTERNATE

- Every tooth set in an alternating sequence
- Wood cutting applications

BLADE BREAK-IN

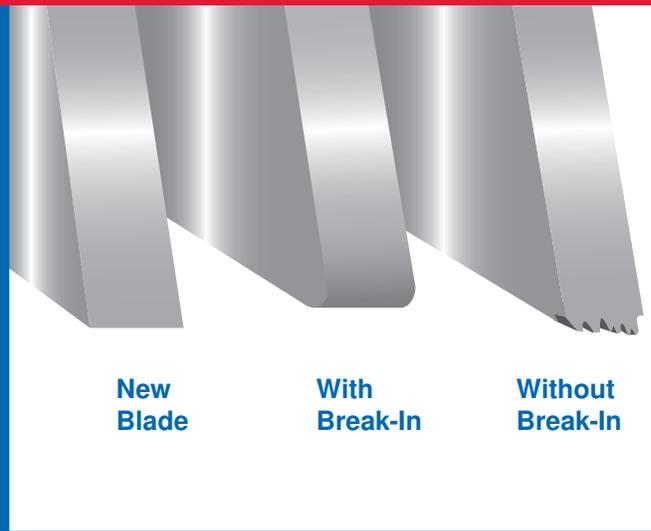
Getting Long Life from a New Bandsaw Blade

What is Blade Break-In?

A new bandsaw blade has razor sharp tooth tips as a result of the forming of the teeth. In order to withstand the cutting pressures used in bandsawing, the tooth tip should be honed to form a micro-fine radius. Cutting with high pressure without performing this honing will cause microscopic damage to the tips of the teeth, resulting in loss of blade life.

Why Break-In a Bandsaw Blade?

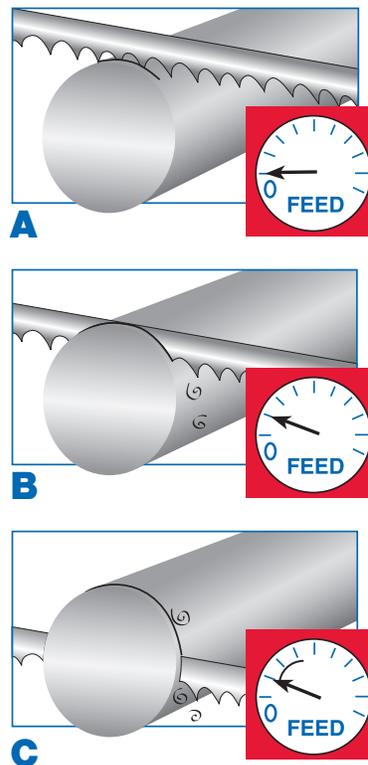
Completing a proper break-in on a new bandsaw blade will dramatically increase its blade life.



How To Break In a Blade

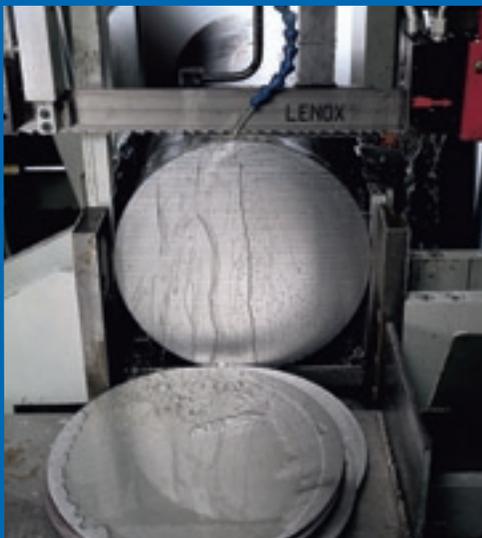
1. Use the appropriate band speed for the material to be cut (see bi-metal band speed chart on pages 20 and 21).
2. Reduce the feed rate/force control on the saw to achieve a cutting rate approximately 20% to 50% of the normal cutting rate. Mild steels require a larger reduction in cutting rate than more difficult to machine materials.
3. Begin the first cut at the reduced rate **(A)**, making sure that the teeth are forming a chip. Once the blade fully enters the workpiece, the feed rate can be slightly increased **(B)**.
4. Make gradual increases in feed rate/force over several cuts until the normal cutting rate is established (cutting a total of 60 to 118 inches² / 150 to 300 cm²) **(C)**.

Note: During break-in, slight adjustments to band speed may be made in the event of excessive noise or vibration. Once the blade is broken in, the recommended band speed should be used.



POSSIBLE CAUSES OF BLADE FAILURE

Observation	Band Speed	Band Wheels	Break-In Proced.	Chip Brush	Sawing Fluid	Feeding Rate	Side Guides	Backup Guides	Preload Condition	Band Tension	Band Tracking	Tooth Pitch
#1 Heavy even wear on tips and corners of teeth	●		●		●	●						
#2 Wear on both sides of teeth												
#3 Wear on one side of teeth		●					●					
#4 Chipped or broken teeth												
#5 Discolored tips of teeth due to excessive frictional heat	●				●	●						
#6 Tooth strippage												
#7 Chips welded to tooth tips	●			●	●	●						
#8 Gullets loading up with material												
#9 Heavy wear on both sides of band					●		●					
#10 Uneven wear or scoring on sides of the band												
#11 Body breakage or cracks from gullets							●		●	●		
#12 Body breakage—fracture traveling in angular direction												
#13 Body breakage or cracks from back edge						●		●	●	●	●	
#14 Heavy wear and/or swaging on back edge												
#15 Butt weld breakage						●	●	●	●	●	●	
#16 Used band is "long" on the tooth edge												
#17 Used band is "short" on the tooth edge		●				●	●					
#18 Band is twisted into figure "8" configuration												
#19 Broken band shows a twist in band length		●				●	●	●	●	●	●	
#20 Heavy wear in only the smallest gullets												



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