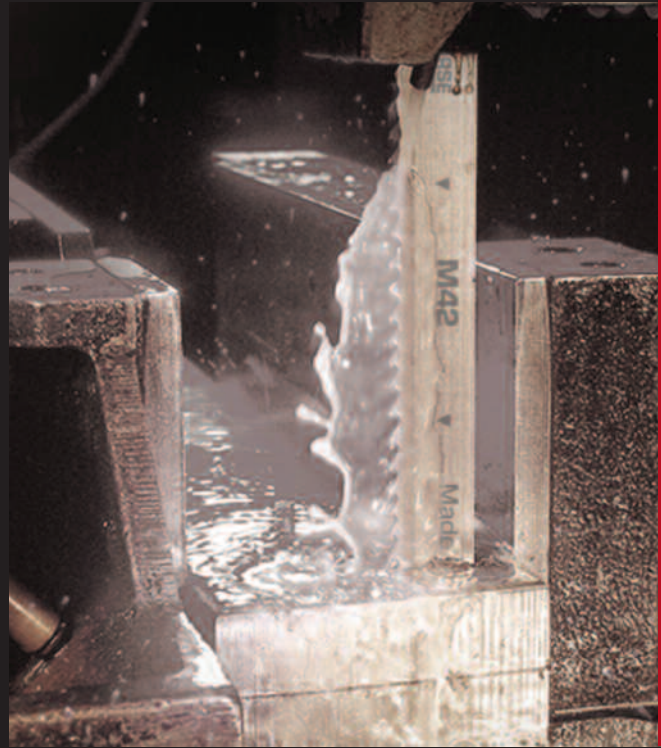


# MORSE™

THE M.K. MORSE COMPANY

## Industrial Band Saw Blade Catalog

PREMIUM SAWING SOLUTIONS

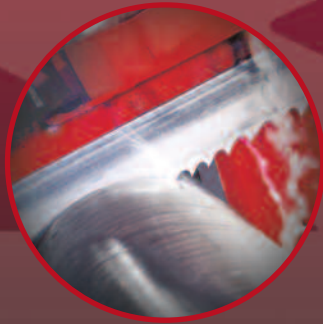


INDEPENDENCE® EXS BI-METAL  
ACHIEVER™ BI-METAL  
TUNGSTEN CARBIDE GRIT EDGE

▼ M-FACTOR BY MORSE™ CT  
▼ MATRIX II BI-METAL ▼ M42 BI-METAL  
▼ INDEPENDENCE® II BI-METAL

MORSE™  
THE M.K. MORSE COMPANY





## WE MAKE SAW BLADES...

At The M.K. Morse Company we've had just one focus for over forty years. Make better saw blades and accessories and get them to customers on time. We don't make machinery. We don't make other products. We do one thing and we do it very well.

This single-minded devotion has led to some unique innovations over the years. But, mostly it has led to a relentless march to improve value.

We are constantly looking for ways to build even more durability into our blades while driving production costs down.

The result is a collection of high value industrial band saw blades that top the charts in performance and quality.

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#### PRODUCTION BLADES

Independence <sup>®</sup>	
Independence II <sup>®</sup>	
Independence EXS <sup>®</sup>	
High-Production Bi-Metal	14
Achiever Production Bi-Metal	16 <b>NEW!</b>
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#### M-FACTOR BY MORSE CT **NEW!**

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WARRANTY	BACK COVER
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## WE HAVE NEVER STRAYED FROM OUR ROOTS

There really was an M. Kenneth Morse. As a manufacturer's rep, he became frustrated when he sold products manufacturers couldn't deliver on time



or with the quality his customers demanded. He started manufacturing saw blades to make sure his customers got what they wanted when they needed it. We still do business the same way today, using the talents and resources of people working in

manufacturing and warehousing facilities around the world. They are M.K. Morse, today.

## GOOD ONES

We have accomplished this by totally integrating our manufacturing process. In fact, we do everything but make our own steel ... so far. This unique ability to control our processes makes it easier for us to meet tight production deadlines and control costs. Our customers get the benefits. At M.K. Morse this is the way we operate.



## AT HOME AROUND THE WORLD

We're still headquartered where we started ... in Canton, Ohio, U.S.A. However, today we have warehousing in Los Angeles, California; Vancouver, Canada; Toronto, Canada; West Yorkshire, England; and Helsinki, Finland. The Los Angeles, Toronto, and West Yorkshire warehouses are also weld centers. Our products are available from industrial supply distributors world-wide.



## WE WILL NEVER, EVER LET YOU DOWN

Our reputation for immediate availability at all distribution facilities and timely shipment is based on solid facts. Over 98% of all orders for standard stock products ship complete within 24 hours. Our integrated manufacturing process, dedication to customer service and worldwide distribution make it all possible. Our customers make it all worthwhile.

- **Guaranteed shipping dates**
- **Guaranteed quality**
- **Guaranteed trial blades**

*See the back cover for all Guarantee information.*

# MORSE BAND SAW PRODUCTS OVERVIEW

The charts on this page provide a general overview of the types of M. K. Morse band saw blades best suited to different cutting applications.

## MORSE BI-METAL BAND SAW BLADE APPLICATION OVERVIEW

Selection Based Upon Target Application

General Purpose Cutting Machines in Poor Condition	STRUCTURAL STEELS	CARBON STEELS	ALUMINUM & LT. ALLOY STEELS	ALLOY STEELS MOLD STEELS	TOOL STEELS	STAINLESS STEELS	NICKEL BASE ALLOYS	TITANIUM ALLOYS
AISI	A36	1010, 1020, 1045	6061, 2011, 2024, 5052	4140, P20	A2, H13, S7 M-SERIES	316, 304 17-4 PH., 15-5 PH	INCONEL, MONEL, WASSPALLOY	Ti-6Al-4V
JIS		S20C, S45C	6061, 2011, 2024, 5052	SCM 440(H), SCM 445(H)	SHD11, SHD12, SKD61, SKS41	SUS316, SUS304	NCUP-O	H4650, H4600
DIN		Ck45, C16.8	AlCuPb, AlCuMg2, AlMg2Mn0.3	41CrMo4	X155CrVMoV51, (G)X40CrMoV51	X5CrNiMo18 10, X5CrNi18 10	NiCr19NbMo, NiCr19Co14Mo4Ti	
		<b>MATRIX II</b>	<b>M42</b>		<b>ACHIEVER</b>			
						<b>INDEPENDENCE II</b>		
						<b>INDEPENDENCE EXS</b>		

## MORSE CARBON BAND SAW BLADE APPLICATION OVERVIEW

Selection Based Upon Saw Type & Target Application

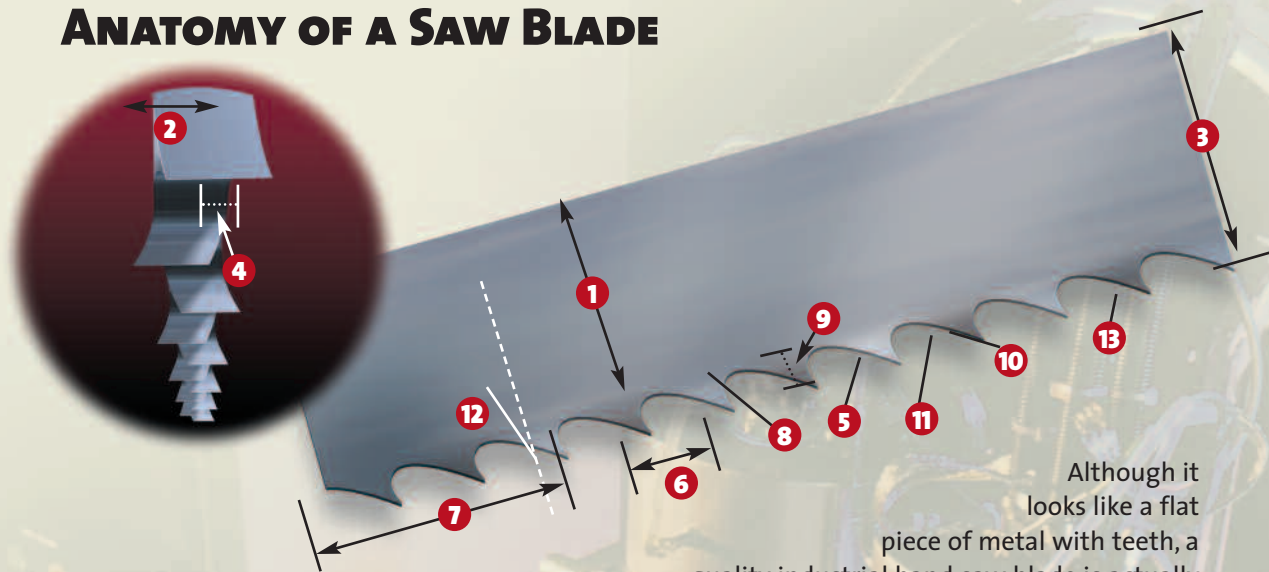
PRODUCTION WOOD CUTTING	WOOD CUTTING	MILD STEELS	LOW ALLOY STEELS	NON-FERROUS METALS	NON-METALIC MATERIALS/PLASTIC
<b>HARD EDGE HARD BACK</b>					
<b>HARD EDGE FLEX BACK</b>					

## MORSE CARBIDE GRIT & CARBIDE TIPPED BAND SAW BLADE APPLICATION OVERVIEW

Selection Based Upon Target Application

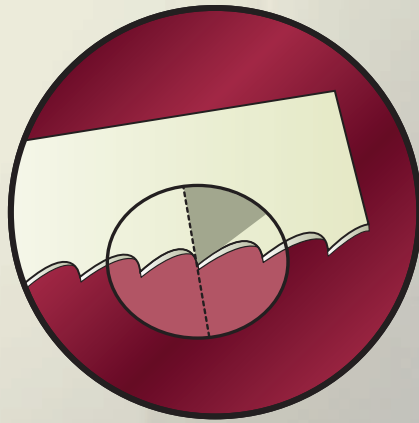
CAST IRON HARDENED STEEL	CERAMICS FOAMED GLASS	FIBERGLASS	CABLE WIRE ROPE	CEMENT CONCRETE	TIRES & WIRE REINFORCED RUBBER	GRAPHITE	COMPOSITES	ABRASIVE WOODS	ALUMINUM CASTINGS
<b>CARBIDE GRIT</b>								<b>M-FACTOR</b>	

# ANATOMY OF A SAW BLADE

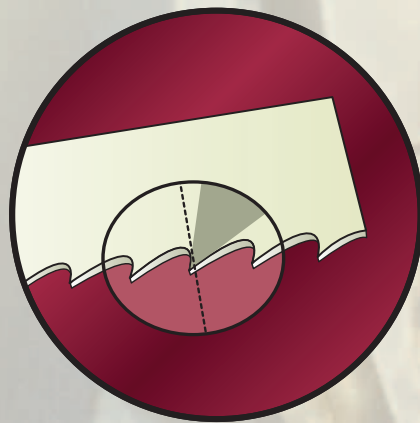


Although it looks like a flat piece of metal with teeth, a quality industrial band saw blade is actually a sophisticated cutting tool. Its ability to efficiently cut through tough metals, composite materials, plastics, and woods depends on a variety of interrelated factors such as the design, spacing and set of the teeth; the design and capacity of the gullets to make sure chips are efficiently removed; the composition of the backer strip; and the gage of the metal. These considerations must be taken into account when selecting the right blade for your application. The following Technical Pages will help you arrive at the perfect Morse solution to your particular cutting problem.

- 1** **BLADE BACK** .....The body of the blade not including tooth portion
- 2** **GAGE** .....The thickness of the blade
- 3** **WIDTH** .....The tip of tooth to back of blade
- 4** **SET** .....The bending of teeth right or left
- 5** **TOOTH** .....The cutting portion of saw blade
- 6** **TOOTH PITCH** .....The distance from one tooth tip to the next
- 7** **T.P.I.** .....The number of teeth per inch measured gullet to gullet
- 8** **GULLET** .....The curved area between the tooth points
- 9** **GULLET DEPTH** .....The distance from the tooth tip to the bottom of the gullet
- 10** **TOOTH FACE** .....The surface of the tooth on which the chip is formed
- 11** **TOOTH FLANK** .....The angled back surface of the tooth opposite the tooth face
- 12** **TOOTH RAKE ANGLE** ..The angle of the tooth face measured with respect to a line perpendicular to the cutting direction of the saw
- 13** **TOOTH TIP** .....The cutting edge of the saw tooth



**STANDARD (0 RAKE)**



**HOOK (POSITIVE RAKE)**

Here's where the blade makes the cut. The tooth design variables include shape, position, set, type and spacing. The combination of these variables will determine whether the blade can move easily through your material without binding or becoming clogged with chips.

**RAKER**



Recurring sequence of teeth - one set right, one set left, and one unset.

**MODIFIED RAKER (DOUBLE SET RAKER)**



Recurring sequence with more than two set teeth before an unset tooth. For example: left, right, left, right, straight, etc. tooth pattern.

**VARIABLE PITCH MODIFIED RAKER**



Set sequence depends on the number of teeth in the variable pitch tooth pattern.

**WAVY**



Groups of teeth, usually 3 or 4, set to each side in a controlled pattern with an unset tooth between groups.

**ALTERNATE (ETS)**



Every tooth set alternately to the left and right.



**VARIABLE PITCH**

- VARYING GULLET DEPTH
- 0° RAKE ANGLE
- VARIABLE TOOTH SPACING

**ADVANTAGES**

- Excellent Chip Carrying Capacity
- Reduces Harmonic Vibration

**BENEFITS**

- Improves Blade Life
- Reduces Noise
- Cuts Smoother & More Efficiently



**VARIABLE PITCH POSITIVE RAKE**

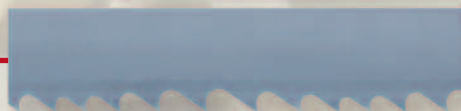
- VARYING GULLET DEPTH
- VARIABLE TOOTH SPACING
- POSITIVE RAKE ANGLE

**ADVANTAGES**

- Better Chip Formation
- Excellent Chip Carrying Capacity
- Reduces Harmonic Vibration
- More Aggressive Cutting

**BENEFITS**

- Cuts Smoother, Cuts Faster
- Wide Range of Applications
- Reduces Noise
- Easier Chip Generation



**STANDARD RAKER**

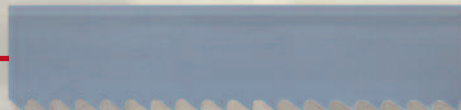
- EQUALLY SPACED TEETH
- 0° RAKE ANGLE

**ADVANTAGES**

- Excellent Chip Carrying Capacity

**BENEFITS**

- General Purpose



**SKIP**

- WIDE FLAT GULLETS
- 0° RAKE ANGLE
- EQUALLY SPACED TEETH

**ADVANTAGES**

- Excellent Chip Carrying Capacity
- Provide Coarse Pitch on Narrow Bands
- Flat Gullets

**BENEFITS**

- Excellent Cutting for Non-Metallic & Non-Ferrous Applications, (Wood, Plastic, Brass, Copper, Bronze & Aluminum)
- Help Break "Stringy" Chips



**HOOK**

- WIDE ROUNDED GULLETS
- EQUALLY SPACED TEETH
- POSITIVE RAKE ANGLE

**ADVANTAGES**

- Excellent Chip Carrying in Non-Metallic Applications
- Positive Rake Provides Better Tip Penetration with Less Feed Pressure

**BENEFITS**



- Good Cutting Performance in Discontinuous Chip Forming Materials (Cast Iron)
- Fast Cutting with Good Surface Finish






For angle, tubing, pipe, and other structural shapes, find the wall thickness in size column & move right for tooth size

MATERIAL SIZE (INCHES)	TEETH PER INCH	MATERIAL SIZE (METRIC)	WALL THICKNESS (INCHES)	TEETH PER INCH	WALL THICKNESS (METRIC)
0		0	1/16		1.8
.1	14/18	14/18	1/8	10/14	3.2
.2	10/14		3/16	8/12	4.8
.3		10/14	1/4	6/10	6.3
.4	8/12		5/16	5/8	7.9
.5		8/12	3/8		9.5
.6	6/10		7/16		11.0
.7		6/10	1/2		12.7
.8	5/8		9/16	4/6	14.3
.9		5/8	5/8		15.8
1			11/16		17.5
1-1/4		4/6	3/4		19.0
1-1/2	4/6		13/16		20.6
1-3/4		4/6	7/8		22.0
2			15/16	3/4	23.8
2-1/4		4/6	1		25.4
2-1/2			1-1/8		28.6
2-3/4		4/6	1-1/4		32.0
3			1-3/8	2/3	35.0
3-1/4		3/4	1-1/2		38.0
3-1/2					
3-3/4		3/4			
4					
5					
6	2/3				
7		2/3			
8					
9					
10	1.4/2.5	1.4/2.5			
15					
30	1/1.5	1/1.5			

 **RECTANGULAR SOLIDS:**  
(USE WIDTH)
  **ROUND SOLIDS:**  
(USE DIAMETER)

 **PIPE TUBING STRUCTURALS**  
(USE WALL THICKNESS)

Band saw tooth size is determined by the size and type of material to be cut and the desired finish. Select a pitch based on the chart to the left. Find material dimension on chart and move right for appropriate teeth per inch.

**Cutting speed - Structural Rule of thumb:**  
When cutting structurals use a cutting speed of 250-325 S.F.M. Wet • 200-250 S.F.M. Dry

**BLADE BREAK-IN EXTREMELY IMPORTANT!**

The extremely sharp tooth points and edges of new blades must be broken-in before applying full feed pressure to the blade. A good analogy is that of writing with a freshly sharpened wooden pencil.

**RECOMMENDED PROCEDURE**

- Maintain proper blade speed for the material to be cut.
- Reduce blade feed pressure or feed rate by 50% for the first 50 to 100 square inches of material cut.
- Gradually increase feed pressure or feed rate after break-in to full pressure or rate.



Removal Rate - Square Inches Per Minute																			
BAR DIA.	BAR AREA, IN <sup>2</sup>	1 in <sup>2</sup> /min	2 in <sup>2</sup> /min	3 in <sup>2</sup> /min	4 in <sup>2</sup> /min	5 in <sup>2</sup> /min	6 in <sup>2</sup> /min	7 in <sup>2</sup> /min	8 in <sup>2</sup> /min	9 in <sup>2</sup> /min	10 in <sup>2</sup> /min	11 in <sup>2</sup> /min	12 in <sup>2</sup> /min	13 in <sup>2</sup> /min	14 in <sup>2</sup> /min	15 in <sup>2</sup> /min	16 in <sup>2</sup> /min	17 in <sup>2</sup> /min	18 in <sup>2</sup> /min
		MINUTES PER CUT																	
1.00	0.79	.79	.39	.26	.20	.16	.13	.11	.10	.09	.08	.07	.07	.06	.06	.05	.05	.05	.04
1.25	1.23	1.2	.61	.41	.31	.25	.20	.18	.15	.14	.12	.11	.10	.09	.09	.08	.08	.07	.07
1.50	1.77	1.8	.88	.59	.44	.35	.29	.25	.22	.20	.18	.16	.15	.14	.13	.12	.11	.10	.10
1.75	2.41	2.4	1.2	.80	.60	.48	.40	.34	.30	.27	.24	.22	.20	.19	.17	.16	.15	.14	.13
2.00	3.14	3.1	1.6	1.0	.79	.63	.52	.45	.39	.35	.31	.29	.26	.24	.22	.21	.20	.18	.17
2.25	3.98	4.0	2.0	1.3	1.0	.80	.66	.57	.50	.44	.40	.36	.33	.31	.28	.27	.25	.23	.22
2.50	4.91	4.9	2.5	1.6	1.2	1.0	.82	.70	.61	.55	.49	.45	.41	.38	.35	.33	.31	.29	.27
2.75	5.94	5.9	3.0	2.0	1.5	1.2	1.0	.85	.74	.66	.59	.54	.49	.46	.42	.40	.37	.35	.33
3.00	7.07	7.1	3.5	2.4	1.8	1.4	1.2	1.0	.88	.79	.71	.64	.59	.54	.50	.47	.44	.42	.39
3.25	8.30	8.3	4.1	2.8	2.1	1.7	1.4	1.2	1.0	.92	.83	.75	.69	.64	.59	.55	.52	.49	.46
3.50	9.62	9.6	4.8	3.2	2.4	1.9	1.6	1.4	1.2	1.1	1.0	.87	.80	.74	.69	.64	.60	.57	.53
3.75	11.04	11.0	5.5	3.7	2.8	2.2	1.8	1.6	1.4	1.2	1.1	1.0	.92	.85	.79	.74	.69	.65	.61
4.00	12.57	12.6	6.3	4.2	3.1	2.5	2.1	1.8	1.6	1.4	1.3	1.1	1.0	1.0	.90	.84	.79	.74	.70
4.25	14.19	14.2	7.1	4.7	3.5	2.8	2.4	2.0	1.8	1.6	1.4	1.3	1.2	1.1	1.0	.95	.89	.83	.79
4.50	15.90	15.9	8.0	5.3	4.0	3.2	2.7	2.3	2.0	1.8	1.6	1.4	1.3	1.2	1.1	1.1	1.0	.94	.88
4.75	17.72	17.7	8.9	5.9	4.4	3.5	3.0	2.5	2.2	2.0	1.8	1.6	1.5	1.4	1.3	1.2	1.1	1.0	1.0
5.00	19.64	19.6	9.8	6.5	4.9	3.9	3.3	2.8	2.5	2.2	2.0	1.8	1.6	1.5	1.4	1.3	1.2	1.2	1.1
5.25	21.65	21.6	10.8	7.2	5.4	4.3	3.6	3.1	2.7	2.4	2.2	2.0	1.8	1.7	1.5	1.4	1.4	1.3	1.2
5.50	23.76	23.8	11.9	7.9	5.9	4.8	4.0	3.4	3.0	2.6	2.4	2.2	2.0	1.8	1.7	1.6	1.5	1.4	1.3
5.75	25.97	26.0	13.0	8.7	6.5	5.2	4.3	3.7	3.2	2.9	2.6	2.4	2.2	2.0	1.9	1.7	1.6	1.5	1.4
6.00	28.27	28.3	14.1	9.4	7.1	5.7	4.7	4.0	3.5	3.1	2.8	2.6	2.4	2.2	2.0	1.9	1.8	1.7	1.6
6.25	30.68	30.7	15.3	10.2	7.7	6.1	5.1	4.4	3.8	3.4	3.1	2.8	2.6	2.4	2.2	2.0	1.9	1.8	1.7
6.50	33.18	33.2	16.6	11.1	8.3	6.6	5.5	4.7	4.1	3.7	3.3	3.0	2.8	2.6	2.4	2.2	2.1	2.0	1.8
6.75	35.78	35.8	17.9	11.9	8.9	7.2	6.0	5.1	4.5	4.0	3.6	3.3	3.0	2.8	2.6	2.4	2.2	2.1	2.0
7.00	38.48	38.5	19.2	12.8	9.6	7.7	6.4	5.5	4.8	4.3	3.8	3.5	3.2	3.0	2.7	2.6	2.4	2.3	2.1
7.25	41.28	41.3	20.6	13.8	10.3	8.3	6.9	5.9	5.2	4.6	4.1	3.8	3.4	3.2	2.9	2.8	2.6	2.4	2.3
7.50	44.18	44.2	22.1	14.7	11.0	8.8	7.4	6.3	5.5	4.9	4.4	4.0	3.7	3.4	3.2	2.9	2.8	2.6	2.5
7.75	47.17	47.2	23.6	15.7	11.8	9.4	7.9	6.7	5.9	5.2	4.7	4.3	3.9	3.6	3.4	3.1	2.9	2.8	2.6
8.00	50.27	50.3	25.1	16.8	12.6	10.1	8.4	7.2	6.3	5.6	5.0	4.6	4.2	3.9	3.6	3.4	3.1	3.0	2.8
8.25	53.46	53.5	26.7	17.8	13.4	10.7	8.9	7.6	6.7	5.9	5.3	4.9	4.5	4.1	3.8	3.6	3.3	3.1	3.0
8.50	56.75	56.7	28.4	18.9	14.2	11.3	9.5	8.1	7.1	6.3	5.7	5.2	4.7	4.4	4.1	3.8	3.5	3.3	3.2
8.75	60.13	60.1	30.1	20.0	15.0	12.0	10.0	8.6	7.5	6.7	6.0	5.5	5.0	4.6	4.3	4.0	3.8	3.5	3.3
9.00	63.62	63.6	31.8	21.2	15.9	12.7	10.6	9.1	8.0	7.1	6.4	5.8	5.3	4.9	4.5	4.2	4.0	3.7	3.5
9.25	67.20	67.2	33.6	22.4	16.8	13.4	11.2	9.6	8.4	7.5	6.7	6.1	5.6	5.2	4.8	4.5	4.2	4.0	3.7
9.50	70.88	70.9	35.4	23.6	17.7	14.2	11.8	10.1	8.9	7.9	7.1	6.4	5.9	5.5	5.1	4.7	4.4	4.2	3.9
9.75	74.66	74.7	37.3	24.9	18.7	14.9	12.4	10.7	9.3	8.3	7.5	6.8	6.2	5.7	5.3	5.0	4.7	4.4	4.1
10.00	78.54	78.5	39.3	26.2	19.6	15.7	13.1	11.2	9.8	8.7	7.9	7.1	6.5	6.0	5.6	5.2	4.9	4.6	4.4



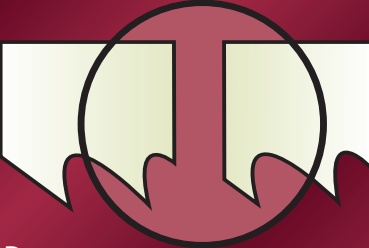
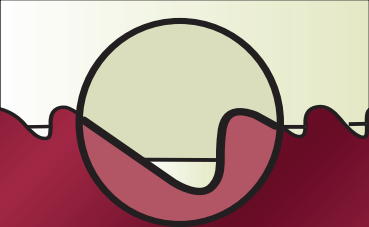
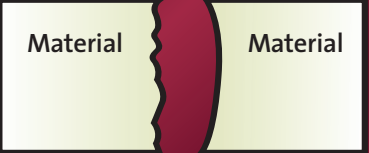




**FOR USE WITH BI-METAL BLADES\***

TYPE OF MATERIAL	UNDER 1"		1" TO 3"		3" TO 6"		6" - OVER	
	Blade Speed (SFM)	Removal Rate (in <sup>2</sup> /min.)	Blade Speed (SFM)	Removal Rate (in <sup>2</sup> /min.)	Blade Speed (SFM)	Removal Rate (in <sup>2</sup> /min.)	Blade Speed (SFM)	Removal Rate (in <sup>2</sup> /min.)
<b>STRUCTURAL STEEL SHAPES</b>								
A36, A242, A662	300		280		260		240	
<b>CARBON STEEL</b>								
1005 - 1013	310	8 - 12	290	10 - 15	270	13 - 18	250	11 - 16
1015 - 1035	300	9 - 13	280	13 - 17	260	15 - 20	250	11 - 17
1040 - 1059	240	5 - 7	230	6 - 8	205	8 - 11	190	7 - 10
1060 - 1080	220	4 - 7	205	7 - 8	195	8 - 11	160	7 - 9
1084 - 1095	200	3 - 6	190	5 - 7	180	6 - 8	130	5 - 8
<b>FREE MACHINING STEEL</b>								
1110	310	9 - 12	280	11 - 15	280	15 - 18	240	12 - 15
1117 - 1118	300	9 - 13	270	11 - 16	270	14 - 19	230	12 - 17
1137 - 1151	260	6 - 8	230	7 - 10	220	10 - 13	190	8 - 12
1211 - 1215	310	9 - 12	290	11 - 15	270	14 - 19	250	13 - 17
<b>MANGANESE STEEL</b>								
1330 - 1345	260	4 - 7	240	6 - 8	215	8 - 11	195	6 - 9
1513 - 1536	300	11 - 13	280	14 - 15	260	16 - 18	240	12 - 17
1541 - 1572	245	4 - 7	230	6 - 8	200	9 - 11	175	8 - 10
<b>MOLYBDENUM STEEL</b>								
4012 - 4024	250	4 - 7	230	6 - 8	200	8 - 11	175	6 - 10
4027 - 4037	240	4 - 7	230	6 - 9	190	8 - 11	170	6 - 10
4042 - 4047	220	4 - 6	210	5 - 7	170	6 - 9	150	5 - 8
<b>CHROME MOLY STEEL</b>								
4118 - 4130	230	5 - 9	220	7 - 11	200	9 - 13	180	8 - 12
4135 - 4142	220	4 - 7	210	6 - 9	190	9 - 13	170	8 - 12
4145 - 4161	200	2 - 6	180	5 - 8	180	6 - 10	160	5 - 8
<b>NICKEL CHROME MOLY STEEL</b>								
4317 - 4320	210	4 - 6	190	5 - 8	170	6 - 9	150	5 - 8
4337 - 4340	200	4 - 6	180	4 - 7	160	5 - 8	140	4 - 7
4718 - 4720	275	4 - 7	270	6 - 8	245	7 - 10	220	5 - 8
8615 - 8627	210	4 - 6	190	5 - 7	170	6 - 8	150	4 - 7
8630 - 8645	210	3 - 5	190	4 - 6	170	5 - 7	150	4 - 6
8647 - 8660	210	2 - 4	190	3 - 5	170	4 - 6	150	3 - 5
8715 - 8750	210	3 - 6	190	5 - 8	170	6 - 8	150	4 - 7
9310 - 9317	190	2 - 4	160	3 - 5	150	3 - 5	130	2 - 4
9437 - 9445	210	4 - 6	190	5 - 7	170	5 - 8	150	4 - 7
9747 - 9763	210	3 - 5	190	4 - 6	170	4 - 7	150	3 - 6
9840 - 9850	210	4 - 7	190	5 - 8	170	6 - 9	150	4 - 8
<b>NICKEL MOLY STEEL</b>								
4615 - 4626	220	4 - 7	200	5 - 8	180	6 - 9	160	5 - 8
4815 - 4820	210	3 - 6	190	3 - 6	170	4 - 6	140	4 - 6
<b>CHROMIUM STEEL</b>								
5045 - 5046	210	5 - 8	190	6 - 9	170	8 - 11	150	7 - 10
5120 - 5135	230	4 - 6	210	6 - 8	180	7 - 10	160	5 - 9
5140 - 5160	210	4 - 6	190	4 - 6	170	5 - 7	150	4 - 6
50100 - 52100	175	3 - 5	140	4 - 6	130	5 - 7	110	4 - 6
<b>CHROME VANADIUM STEEL</b>								
6118	230	4 - 6	210	5 - 8	190	6 - 9	170	5 - 8
6150	210	3 - 5	190	4 - 7	170	5 - 8	150	4 - 7
<b>SILICON STEEL</b>								
9254 - 9260	210	3 - 5	190	4 - 6	190	4 - 8	160	3 - 7
<b>COLD WORK DIE STEEL</b>								
A2, A3, A6	210	2 - 4	190	3 - 5	190	3 - 6	160	2 - 4
A7	170	2 - 4	160	4 - 5	150	3 - 6	125	2 - 4
D2, D3, D4	135	1 - 3	115	2 - 4	120	2 - 4	80	2 - 3
D7	110	1 - 3	90	1 - 3	80	2 - 3	60	1 - 3
O1, O2	240	3 - 6	230	4 - 7	200	5 - 8	180	4 - 7
O6, O7	230	4 - 7	220	5 - 8	200	6 - 9	160	5 - 8
<b>HOT WORK STEEL</b>								
H12, H13, H21	235	3 - 6	200	4 - 6	190	4 - 7	170	3 - 6
H22, H24, H25	190	2 - 4	175	2 - 5	160	3 - 6	135	2 - 4
<b>SHOCK RESISTANT STEEL</b>								
S1	230	3 - 6	210	4 - 6	200	4 - 7	160	3 - 6
S2, S5	180	2 - 4	165	3 - 5	150	3 - 6	120	2 - 4

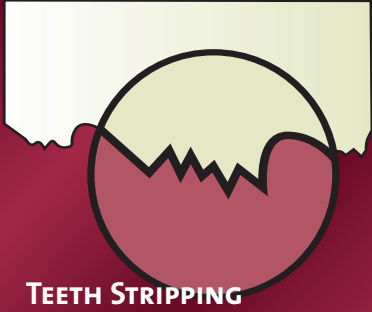
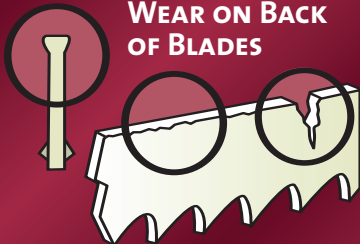
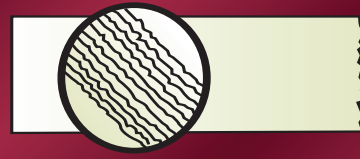
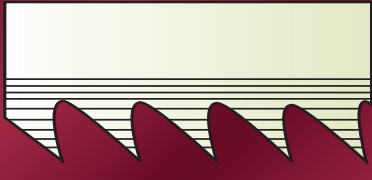

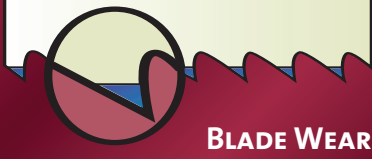
FOR USE WITH BI-METAL BLADES*									
TYPE OF MATERIAL	UNDER 1"		1" TO 3"		3" TO 6"		6" - OVER		
	Blade Speed (SFM)	Removal Rate (in <sup>2</sup> /min.)	Blade Speed (SFM)	Removal Rate (in <sup>2</sup> /min.)	Blade Speed (SFM)	Removal Rate (in <sup>2</sup> /min.)	Blade Speed (SFM)	Removal Rate (in <sup>2</sup> /min.)	
<b>SPECIAL PURPOSE STEEL</b>									
L2, L6	210	3 - 5	210	4 - 7	190	5 - 8	175	4 - 7	
L7	200	3 - 5	190	4 - 6	180	4 - 7	130	3 - 6	
<b>WATER HARDENING STEEL</b>									
W1	265	3 - 6	240	5 - 7	220	5 - 7	180	3 - 5	
<b>HIGH SPEED STEEL</b>									
M1, M2, M7	165	2 - 4	150	2 - 5	145	3 - 6	100	3 - 5	
M3, M4, M10	125	2 - 4	100	2 - 5	100	3 - 5	80	3 - 4	
M30, M33	100	1 - 3	90	2 - 3	75	2 - 3	70	1 - 3	
M41, M42, M43	100	1 - 3	90	1 - 3	75	1 - 4	70	1 - 3	
T1, T2	150	2 - 4	135	2 - 4	120	2 - 5	100	2 - 4	
T4, T5, T6	125	1 - 3	110	1 - 4	100	2 - 4	85	1 - 3	
T15, M15	90	1 - 3	70	1 - 3	60	1 - 3	50	1 - 2	
<b>AUSTENITIC STAINLESS STEEL</b>									
201, 202, 301 - 304	135	3 - 4	120	2 - 5	120	3 - 6	85	2 - 4	
303, 303F, 303Se	160	3 - 6	140	3 - 6	135	4 - 6	90	3 - 5	
305, 308 - 314	100	1 - 2	85	1 - 2	75	1 - 3	65	1 - 2	
316, 317, 329	100	1 - 2	90	1 - 2	80	1 - 3	60	1 - 2	
321, 347, 348	140	2 - 4	125	2 - 5	120	3 - 6	90	2 - 4	
330	85	1 - 2	65	1 - 3	55	1 - 4	45	1 - 2	
<b>FERRITIC STAINLESS STEEL</b>									
429, 430	120	2 - 4	100	3 - 4	90	3 - 6	75	2 - 4	
430F, 430FSe	130	3 - 5	115	5 - 6	100	5 - 7	90	4 - 6	
434, 436	100	2 - 4	80	3 - 4	75	3 - 5	55	3 - 4	
442	110	2 - 4	85	3 - 5	75	3 - 6	60	3 - 5	
446	90	2 - 4	70	3 - 4	60	2 - 5	50	1 - 3	
<b>MARTENSITIC STAINLESS</b>									
403, 410, 420	170	2 - 5	155	3 - 6	145	3 - 7	100	2 - 4	
414, 416Se	235	5 - 9	210	6 - 9	195	7 - 11	170	5 - 9	
420F, 416	220	3 - 8	200	5 - 9	190	6 - 10	150	4 - 8	
440A, B, C	130	2 - 4	120	2 - 6	110	3 - 7	70	1 - 4	
501, 502	135	1 - 2	120	2 - 4	100	3 - 4	80	2 - 3	
<b>NICKEL BASED ALLOYS</b>									
Monel	100	1 - 4	90	1 - 4	85	2 - 4	65	1 - 3	
K-Monel	115	1 - 4	90	1 - 4	70	2 - 4	50	1 - 2	
R-Monel	130	2 - 4	100	2 - 5	90	3 - 5	60	1 - 4	
K-R Monel	115	1 - 4	100	1 - 4	100	2 - 5	65	1 - 3	
Inconel	105	2 - 4	90	2 - 4	75	2 - 3	50	1 - 2	
Inconel 625-x-750	95	1 - 2	80	1 - 2	70	1 - 2	40	1	
Inconel 718	95	1 - 2	80	1 - 2	70	1 - 2	40	1	
Incoloy 800 - 802	95	1 - 2	75	1 - 2	60	1 - 2	35	1	
Incoloy 804 - 825	60	1	40	1 - 2	40	1 - 2	30	1	
Waspalloy	100	1	90	1 - 2	70	1 - 2	50	1	
Hastelloy A	130	2 - 3	110	3 - 4	100	4 - 6	70	1 - 3	
Hastelloy B	110	1 - 2	80	1 - 3	75	1 - 4	60	1 - 2	
Hastelloy C	100	1 - 2	90	1 - 2	80	1 - 2	65	1	
Rene 41	90	1	80	1 - 2	60	1 - 2	50	1	
Udimet 500	95	1	80	1 - 2	70	1 - 2	60	1	
<b>TITANIUM</b>									
6AL 4V	65	.5-1	50	1 - 2	50	1 - 2	40	.5 - 1	
<b>MARAGING STEEL</b>									
Most	190	3 - 4	145	4 - 6	110	6 - 7	90	4 - 6	
<b>BRONZE</b>									
Most	230	6 - 9	205	10 - 12	180	10 - 12	140	7 - 9	
Aluminum Bronze	100	2 - 4	95	3 - 4	85	3 - 5	70	3 - 4	
<b>ALUMINUM</b>									
Most	800		700		600		500		
<b>CAST IRON</b>									
Class 20	210	9 - 12	200	11 - 15	180	11 - 15	160	10 - 14	
Class 40	170	7 - 9	160	7 - 10	140	8 - 12	120	7 - 11	
Ductile 60-40-18, 150 HB	240	6 - 8	230	8 - 10	230	8 - 10	220	6 - 7	
Ductile 80-55-06, 225 HB	140	3 - 4	130	4 - 5	120	5 - 7	110	3 - 5	

\*Reduce speeds by 50% for carbon blades



PROBLEM	PROBLEM CAUSE	SOLUTION
 <p><b>PREMATURE BLADE BREAKAGE</b> Straight Break indicates fatigue</p>	<ul style="list-style-type: none"> <li>• Incorrect blade - teeth too coarse</li> <li>• Blade tension too high</li> <li>• Side guides too tight</li> <li>• Damaged or misadjusted blade guides</li> <li>• Excessive feed</li> <li>• Incorrect cutting fluid</li> <li>• Wheel diameter too small for blade</li> <li>• Blade rubbing on wheel flanges</li> <li>• Teeth in contact with work before starting saw</li> <li>• Incorrect blade speed</li> </ul>	<ul style="list-style-type: none"> <li>• Use finer tooth pitch</li> <li>• Reduce blade tension (see machine manual)</li> <li>• Check side guide clearance (see machine manual)</li> <li>• Check all guides for alignment/damage</li> <li>• Reduce feed pressure</li> <li>• Check coolant</li> <li>• Use thinner blade</li> <li>• Adjust wheel alignment</li> <li>• Allow 1/2" clearance before starting cut</li> <li>• Increase or decrease blade speed</li> </ul>
 <p><b>PREMATURE DULLING OF TEETH</b></p>	<ul style="list-style-type: none"> <li>• Teeth pointing in wrong direction - blade mounted backwards</li> <li>• Improper or no blade break-in</li> <li>• Hard spots in material</li> <li>• Material work hardened</li> <li>• Improper coolant</li> <li>• Improper coolant concentration</li> <li>• Speed too high</li> <li>• Feed too light</li> <li>• Teeth too small</li> </ul>	<ul style="list-style-type: none"> <li>• Install blade correctly. If teeth are facing the wrong direction, flip blade inside out</li> <li>• Break in blade properly (Page 8)</li> <li>• Check for hardness or hard spots like scale or flame cut areas</li> <li>• Increase feed pressure</li> <li>• Check coolant type</li> <li>• Check coolant mixture</li> <li>• Check recommended blade speed (Page 10-11)</li> <li>• Increase feed pressure</li> <li>• Increase tooth size</li> </ul>
 <p><b>INACCURATE CUT</b></p>	<ul style="list-style-type: none"> <li>• Tooth set damage</li> <li>• Excessive feed pressure</li> <li>• Improper tooth size</li> <li>• Cutting fluid not applied evenly</li> <li>• Guides worn or loose</li> <li>• Insufficient blade tension</li> </ul>	<ul style="list-style-type: none"> <li>• Check for worn set on one side of blade</li> <li>• Reduce feed pressure</li> <li>• Check tooth size chart (Page 8)</li> <li>• Check coolant nozzles</li> <li>• Tighten or replace guides, check for proper alignment</li> <li>• Adjust to recommended tension</li> </ul>
 <p><b>BAND LEADING IN CUT</b></p>	<ul style="list-style-type: none"> <li>• Over-feed</li> <li>• Insufficient blade tension</li> <li>• Tooth set damage</li> <li>• Guide arms loose or set too far apart</li> <li>• Chips not being cleaned from gullets</li> <li>• Teeth too small</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce feed force</li> <li>• Adjust recommended tension</li> <li>• Check material for hard inclusions</li> <li>• Position arms as close to work as possible. Tighten arms.</li> <li>• Check chip brush</li> <li>• Increase tooth size</li> </ul>
 <p><b>CHIP WELDING</b></p>	<ul style="list-style-type: none"> <li>• Insufficient coolant flow</li> <li>• Wrong coolant concentration</li> <li>• Excessive speed and/or pressure</li> <li>• Tooth size too small</li> <li>• Chip brush not working</li> </ul>	<ul style="list-style-type: none"> <li>• Check coolant level and flow</li> <li>• Check coolant ratio</li> <li>• Reduce speed and/or pressure</li> <li>• Use coarser tooth pitch</li> <li>• Repair or replace chip brush</li> </ul>
 <p><b>TEETH FRACTURE</b> Back of tooth indicates work spinning in clamps</p>	<ul style="list-style-type: none"> <li>• Incorrect speed and/or feed</li> <li>• Incorrect blade pitch</li> <li>• Saw guides not adjusted properly</li> <li>• Chip brush not working</li> <li>• Work spinning or moving in vise</li> </ul>	<ul style="list-style-type: none"> <li>• Check cutting chart (Page 10-11)</li> <li>• Check tooth size chart (Page 8)</li> <li>• Adjust or replace saw guides</li> <li>• Repair or replace chip brush</li> <li>• Check bundle configuration/adjust vise pressure</li> </ul>
 <p><b>IRREGULAR BREAK</b> Indicates material movement</p>	<ul style="list-style-type: none"> <li>• Indexing out of sequence</li> <li>• Material loose in vise</li> </ul>	<ul style="list-style-type: none"> <li>• Check proper machine movement</li> <li>• Check vise or clamp</li> </ul>



PROBLEM	PROBLEM CAUSE	SOLUTION
 <p><b>TEETH STRIPPING</b></p>	<ul style="list-style-type: none"> <li>• Feed pressure too high</li> <li>• Tooth stuck in cut</li> <li>• Improper or insufficient coolant</li> <li>• Incorrect tooth size</li> <li>• Hard spots in material</li> <li>• Work spinning in vise - loose nest or bundle</li> <li>• Blade speed too slow</li> <li>• Blade teeth running backwards</li> <li>• Chip brush not working</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce feed pressure</li> <li>• Do not enter old cut with a new blade</li> <li>• Check coolant flow and concentration</li> <li>• Check tooth size chart (Page 8)</li> <li>• Check material for hard inclusions</li> <li>• Check clamping pressure - be sure work is held firmly</li> <li>• Increase blade speed - see cutting chart (Page 10-11)</li> <li>• Reverse blade (turn inside out)</li> <li>• Repair or replace chip brush</li> </ul>
 <p><b>WEAR ON BACK OF BLADES</b></p>	<ul style="list-style-type: none"> <li>• Excessive feed pressure</li> <li>• Insufficient blade tension</li> <li>• Back-up guide roll frozen, damaged, or worn</li> <li>• Blade rubbing on wheel flange</li> </ul>	<ul style="list-style-type: none"> <li>• Decrease feed pressure</li> <li>• Increase blade tension and readjust guides</li> <li>• Repair or replace back-up roll or guide</li> <li>• Adjust wheel cant</li> </ul>
 <p><b>ROUGH CUT</b> Washboard surface Vibration and or chatter</p>	<ul style="list-style-type: none"> <li>• Dull or damaged blade</li> <li>• Incorrect speed or feed</li> <li>• Insufficient blade support</li> <li>• Incorrect tooth pitch</li> <li>• Insufficient coolant</li> </ul>	<ul style="list-style-type: none"> <li>• Replace with new blade</li> <li>• Increase speed or decrease feed</li> <li>• Move guide arms as close as possible to the work</li> <li>• Use finer pitch blade</li> <li>• Check coolant flow</li> </ul>
 <p><b>WEAR LINES, LOSS OF SET</b></p>	<ul style="list-style-type: none"> <li>• Saw guide inserts or wheel flange are riding on teeth</li> <li>• Insufficient blade tension</li> <li>• Hard spots in material</li> <li>• Back-up guide worn</li> </ul>	<ul style="list-style-type: none"> <li>• Check machine manual for correct blade width</li> <li>• Tension blade properly</li> <li>• Check material for inclusions</li> <li>• Replace guide</li> </ul>
 <p><b>TWISTED BLADE</b> Profile sawing</p>	<ul style="list-style-type: none"> <li>• Blade binding in cut</li> <li>• Side guides too tight</li> <li>• Radius too small for blade width</li> <li>• Work not firmly held</li> <li>• Erratic coolant flow</li> <li>• Excessive blade tension</li> </ul>	<ul style="list-style-type: none"> <li>• Decrease feed pressure</li> <li>• Adjust side guide gap</li> <li>• Use narrower blade</li> <li>• Check clamping pressure</li> <li>• Check coolant nozzles</li> <li>• Decrease blade tension</li> </ul>
 <p><b>BLADE WEAR</b> Teeth blued</p>	<ul style="list-style-type: none"> <li>• Incorrect blade</li> <li>• Incorrect feed or speed</li> <li>• Improper or insufficient coolant</li> </ul>	<ul style="list-style-type: none"> <li>• Use coarser tooth pitch</li> <li>• Increase feed or decrease speed</li> <li>• Check coolant flow</li> </ul>

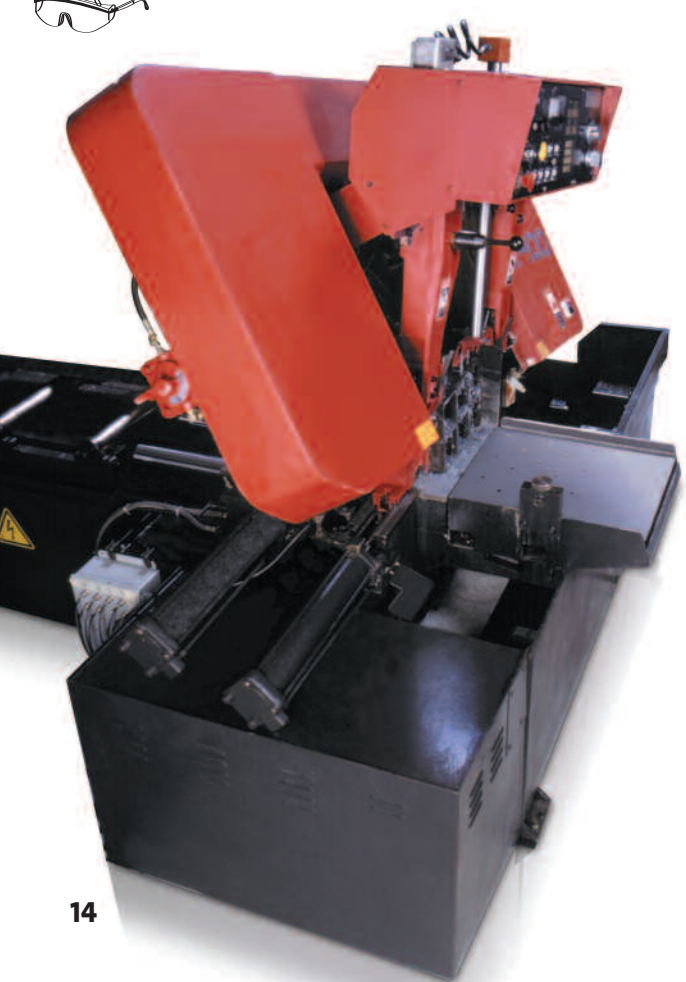
## **HIGH-PRODUCTION BI-METAL BLADES**

**A revolutionary bi-metal blade that can last 20% longer than competitive blades in high-production applications.**

This is our premium high performance bi-metal band saw blade. Independence® is tougher and more wear-resistant than M42. Everything about it is special. Special high speed steel tooth edges provide superior wear, heat and shock resistance. Special tooth geometry with positive rake. A special alloy backer provides the most fatigue resistance in the industry. It was designed from the beginning to free users from the downtime associated with frequent blade changes. We wanted to create a blade that gives you a sense of independence while cutting your production costs. **This is it.**



Visit the Morse BladeWizard on-line to select the right blade for your application:  
[www.bladewizard.com](http://www.bladewizard.com)



### **APPLICATIONS**

- *High Production*
- *Heavy-duty cutting of all shapes and sizes*
- *All machinable metals*
- *Bundles or single pieces*
- *Structurals*



### **Versatility means fewer blade changes.**

Independence® blades can do it all. They cut easily through hard-to-machine metals. They cut all shapes, sizes and types of machinable metals and are your best choice when cutting bundles. Independence® blades improve the flexibility of your manufacturing process while helping you control costs.

## Discover the value of the lowest cost-per-cut blade in high-production.

Independence® doesn't come cheap ... but it's worth it. These blades are on the high end of the cost-per-blade spectrum. However, their superior productivity and durability make them a bargain when measured by cost-per-cut. Many Independence® and Independence® II sizes come in Heavy Set versions to prevent blade pinching when cutting large structural shapes, particularly large I-beam/H-beam.

### Independence®

WIDTH X THICKNESS		TEETH PER INCH						
INCHES	METRIC (mm)	.75/1.1	1.1/1.5	1.5/2.0	2/3	3/4	4/6	5/7
		VARIABLE						
1 x .035	27 x .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	▼	▼	▼	▼			
3 x .063	80 x 1.60	▼	▼					

▼ Heavy Set

### Independence II®

With an Exclusive **New High-Speed Tooth Edge**, this blade is the best choice when production cutting a combination of structural and small to medium, solid steels. Independence II® edges are hardened to Rc69-70 for superior wear resistance.

WIDTH X THICKNESS		TEETH PER INCH						
INCHES	METRIC (mm)	.75/1.1	1.1/1.5	1.5/2.0	2/3	3/4	4/6	5/7
		VARIABLE						
1 x .035	27 x .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				▼▼	▼▼	▼▼	▼

▼ Heavy Set

### Independence EXS®

With an Exclusive **New High-Speed Tooth Edge**, and a tooth geometry specifically designed for hard-to-machine solid metals, these blades are the best choice for production cutting of exotics, stainless steel, and large solid shapes.

Independence EXS® edges are hardened to Rc69-70 for superior wear resistance.

WIDTH X THICKNESS		TEETH PER INCH						
INCHES	METRIC (mm)	.75/1.1	1.1/1.5	1.5/2.0	2/3	3/4	4/6	5/7
		VARIABLE						
1 x .035	27 x .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		▼		▼	▼		

### AT-A-GLANCE

- Special high speed steel teeth, tooth geometry and alloy backer
- Superior fatigue, wear, heat and shock resistance
- Versatility to cut all machinable metals, all shapes and sizes
- Best choice for bundle cutting
- Lowest cost-per-cut

**High Production Blades**  
 Independence® Bi-Metal



## **ACHIEVER™ PRODUCTION BI-METAL BLADES**

**A consistently reliable blade with excellent durability when cutting a wide range of materials.**

The latest addition to The M. K. Morse Company bandsaw product line is the Achiever™ high performance bi-metal production band. Achiever delivers value to the user by contributing to sawing productivity. It features an enhanced blade design incorporating higher fatigue resistance and more tooth toughness when cutting.



**Features:**

- M. K. Morse proprietary Edge Wire
- M. K. Morse Engineered Spring Steel backer
- Premium Achiever Construction

**Advantages:**

- Best Performance in a wide range of materials
- Provides Additional Backer Rigidity
- Excellent Heat and Wear Resistance

**Benefits:**

- Consistent Reliability / Performance from blade to blade
- Exceptional Long Fatigue Life
- Exceptional Tooth Durability



**APPLICATIONS**

- *Production cutting*
- *Layer and bundle cuts*
- *Large profiles and solids carbon steel, alloy tool steel, stainless steels*





**“INTRODUCING THE NEW WORKHORSE OF THE INDUSTRY”**

### Achiever™ 0° Rake

Achiever blades in zero degree rake are well suited for production cutting of structurals, solids and thin walled pipe of carbon steel, alloy steel, tool steels and stainless steels.

#### VARIABLE PITCH - 0° RAKE

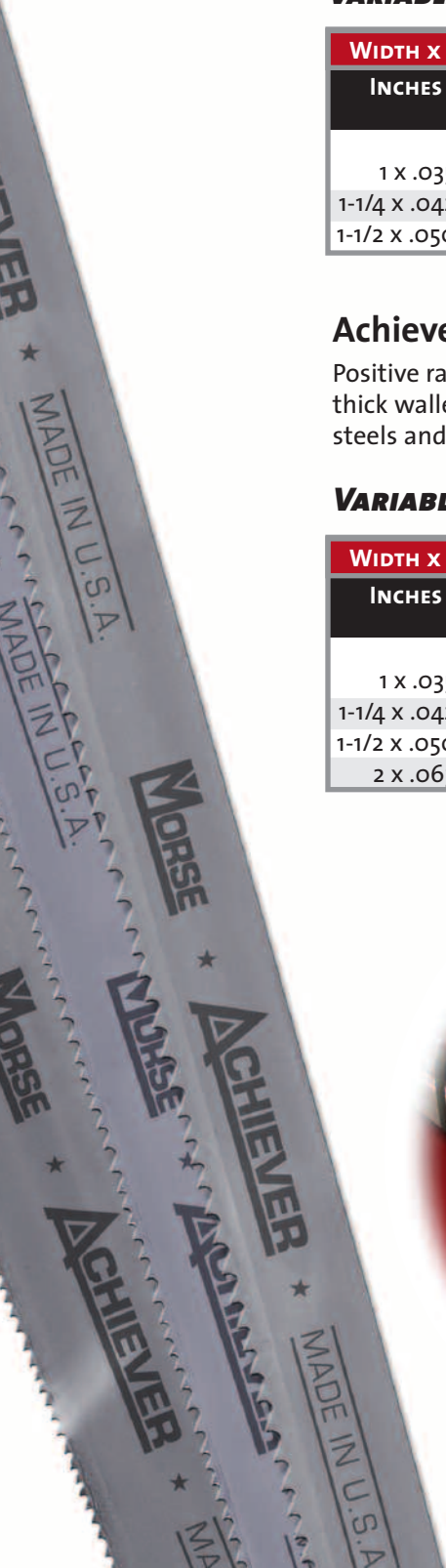
WIDTH X THICKNESS		TEETH PER INCH				
INCHES	METRIC (mm)	1.4/2.5	2/3	3/4	4/6	5/8
VARIABLE						
1 x .035	27 x .90				▼	▼
1-1/4 x .042	34 x 1.07			▼	▼	
1-1/2 x .050	41 x 1.27		▼	▼		

### Achiever™ Positive Rake

Positive rake Achiever blades are excellent for production cutting of large solids and thick walled pipe as well as bundles or layered cuts in carbon steel, alloy steel, tool steels and stainless steels.

#### VARIABLE PITCH - POSITIVE RAKE

WIDTH X THICKNESS		TEETH PER INCH				
INCHES	METRIC (mm)	1.4/2.5	2/3	3/4	4/6	5/8
VARIABLE						
1 x .035	27 x .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	▼	▼			



**PRODUCTION BLADES**  
Achiever™ Bi-Metal



#### AT-A-GLANCE

- Best performance in a wide range of materials
- Provides additional backer rigidity
- Consistent reliability
- Low cost-per-cut

# PRODUCTION BI-METAL BLADES (M42)

Rugged production blades to cut solids and heavy walled structures as well as hard-to-machine materials.

These blades feature M42 High Speed Steel edges, electron beam welded to a fatigue-resistant tool steel backer. They are most often used on medium to heavy production machines to cut solids and heavy-walled structures.

## VARIABLE PITCH - POSITIVE RAKE

WIDTH X THICKNESS		TEETH PER INCH				
INCHES	METRIC (mm)	1.4/2.5	2/3	3/4	4/6	5/7
VARIABLE						
3/4 x .035	19 x .90				▼	
1 x .035	27 x .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	▼	▼	▼		

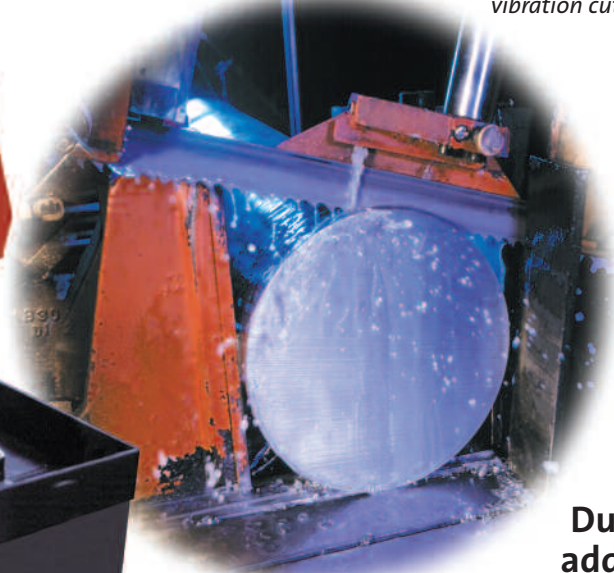
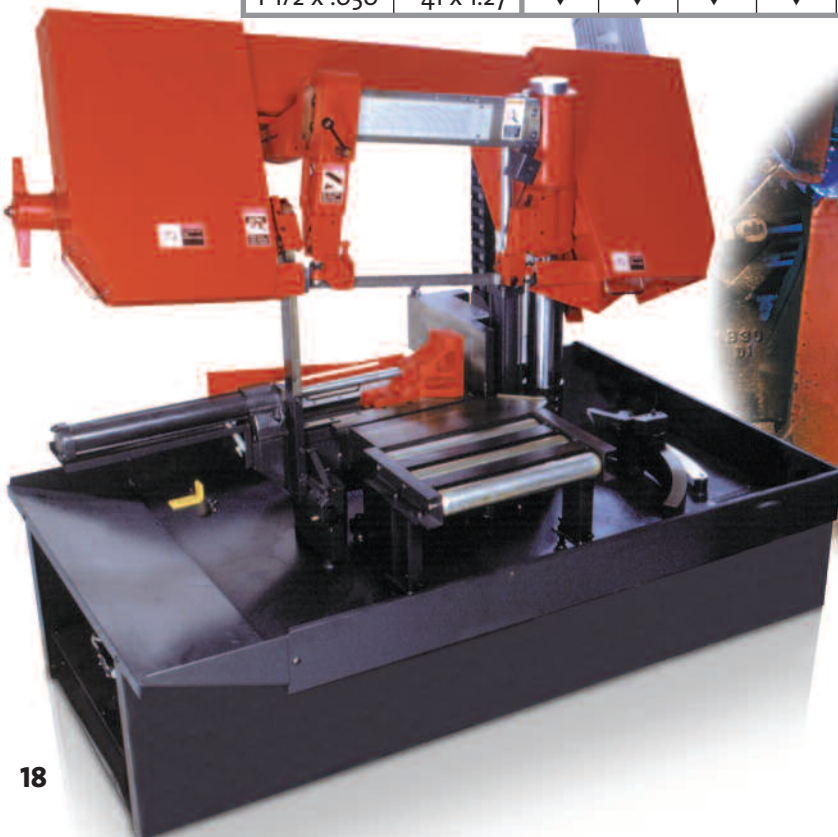
## VARIABLE PITCH - 0° RAKE

WIDTH X THICKNESS		TEETH PER INCH						
INCHES	METRIC (mm)	2/3	3/4	4/6	5/8	6/10	8/12	10/14
VARIABLE								
1/4 x .025	6.4 x .64							▼
1/4 x .035	6.4 x .90							▼
3/8 x .035	9.5 x .90							▼
1/2 x .025	12.7 x .64						▼	
1/2 x .035	12.7 x .90							▼
3/4 x .035	19 x .90			▼		▼	▼	▼
1 x .035	27 x .90	▼	▼	▼	▼	▼	▼	▼
1-1/4 x .042	34 x 1.07	▼	▼	▼	▼	▼		
1-1/2 x .050	41 x 1.27	▼	▼	▼	▼			

Variable Pitch teeth can handle a wider range of cross sectional sizes and reduce sawing harmonics for quieter, reduced vibration cutting.

PRODUCTION BLADES

M42 Bi-Metal



**Durability adds up to greater value**

Although M42 Blades are toward the higher end of the cost-per-blade spectrum, the durability they offer on hard-to-cut materials place them on the lower end of the cost-per-cut spectrum.

## Higher production speeds. Lower downtime costs.

By increasing the durability of the cutting teeth, M42 Production Bi-Metal Blades also decrease the number of blade changes needed during production. Added to the overall lower cost-per-cut they are a high value solution when production cutting hard-to-machine materials.

With teeth hardened to Rc 67-69 they resist tooth damage while offering increased wear and heat resistance. The high wear and heat resistance of the M42 edge make this blade a good choice for difficult-to-machine material.

### STRAIGHT PITCH

WIDTH X THICKNESS		TEETH PER INCH									
INCHES	METRIC (mm)	4	6	8	10	14	10	1	3	4	6
		RAKER					WAVY	HOOK			
1/4 x .035	6.4 x .90				▼	▼					
3/8 x .035	9.5 x .90				▼					▼	
1/2 x .035	12.7 x .90				▼	▼				▼	▼
1 x .035	27 x .90	▼	▼	▼			▼				
1-1/4 x .042	34 x 1.07	▼	▼						▼	▼	
2 x .050	54 x 1.27							▼			
2 x .063	54 x 1.60							▼			

▼ Heavy Set

Straight Pitch teeth are most often used when the cross sectional size range is consistent.

### APPLICATIONS

- Production cutting solids and heavy walled structures.
- Stainless steel
- Inconel
- Monel
- Other work hardening grades
- Medium to heavy production machines



### AT-A-GLANCE

- Rugged bi-metal construction
- Hardened M42 teeth and tool steel, fatigue-resistant backer
- Cut solids and heavy-walled structures
- Handles hard-to-machine materials
- Low cost-per-cut



# PRODUCTION & MAINTENANCE (MATRIX II)

These general purpose production blades are ideal for cutting materials with easy to moderate machinability.

## VARIABLE PITCH-POSITIVE RAKE

WIDTH X THICKNESS		TEETH PER INCH		
INCHES	METRIC (mm)	2/3	3/4	4/6
VARIABLE				
3/4 x .035	19 x .90		▼	▼
1 x .035	27 x .90		▼	▼▼
1-1/4 x .042	34 x 1.07		▼	▼
1-1/2 x .050	41 x 1.27	▼	▼	▼

▼ Heavy Set

## APPLICATIONS

- Interrupted cuts like pipe, tubing, angle iron, channel.
- General purpose metal cutting in maintenance shops and small fabricating shops.
- Small and medium size band saw machines.

## VARIABLE PITCH - 0° RAKE

WIDTH X THICKNESS		TEETH PER INCH						
INCHES	METRIC (mm)	4/6	5/8	6/10	8/12	10/14	14/18	20/24
VARIABLE								
1/4 x .025	6.4 x .64					▼		
3/8 x .025	9.5 x .64					▼		
1/2 x .020	12.7 x .50					▼	▼	▼
1/2 x .025	12.7 x .64			▼	▼	▼	▼	
1/2 x .035	12.7 x .90			▼	▼	▼	▼	
5/8 x .035	16 x .90		▼	▼	▼	▼	▼	
3/4 x .035	19 x .90		▼	▼	▼	▼	▼	
1 x .035	27 x .90	▼	▼	▼	▼	▼	▼	
1-1/4 x .042	34 x 1.07		▼	▼	▼	▼	▼	
1-1/2 x .050	41 x 1.27		▼					

Variable Pitch teeth can handle a wider range of application sizes and reduce sawing harmonics for quieter, reduced vibration cutting.

## SPECIFICATIONS - STRAIGHT PITCH

WIDTH X THICKNESS		TEETH PER INCH													
INCHES	METRIC (mm)	6	8	10	12	14	18	14	18	24	2	3	4	6	
RAKER      WAVY      HOOK															
1/4 x .025	6.4 x .64			▼		▼								▼	
3/8 x .025	9.5 x .64		▼	▼		▼							▼		
1/2 x .020	12.7 x .50			▼			▼	▼	▼	▼					
1/2 x .025	12.7 x .64	▼		▼		▼	▼					▼	▼		
1/2 x .035	12.7 x .90			▼		▼	▼					▼	▼		
3/4 x .035	19 x .90	▼	▼	▼	▼	▼						▼			
1 x .035	27 x .90	▼	▼	▼	▼	▼						▼			
1-1/4 x .042	34 x 1.07	▼													

Straight Pitch teeth are most often used when the cross sectional size range is consistent.

## AT-A-GLANCE

- Good general purpose blade
- Good value on light to medium production and maintenance applications
- Hardened teeth and fatigue-resistant alloy steel backer handle higher speeds and feed pressures than conventional blades
- Handle solids, shapes, tubing and structural materials
- Handle bundles and stacked pieces
- Moderate cost-per-blade/low cost-per-cut



# DIE BANDS

Designed for cutting solids with very low machinability including "super" alloys, tool steels, inconel, waspalloy, hastelloy, "D" grade steels and similar tough materials.

## MATRIX II SPECIFICATIONS

WIDTH X THICKNESS		TEETH PER INCH											
INCHES	METRIC (mm)	6	8	10	14	18	3	4	6	6/10	8/12	10/14	14/18
		RAKER					HOOK			VARIABLE			
1/4 x .025	6.4 x .64			▼	▼				▼				
3/8 x .025	9.5 x .64		▼	▼	▼			▼				▼	
1/2 x .025	12.7 x .64	▼		▼	▼	▼	▼	▼		▼	▼	▼	▼
1/2 x .035	12.7 x .90							▼		▼		▼	

These super tough blades are typically used on vertical machines in tool and die shops to cut die blocks and tool steels. They are made to handle the toughest production cutting jobs in controlled conditions with fewer blade changes. Blades are available in Matrix II and M42 specifications.

Different Die Band specifications offer the right choices for high production and long blade life.

## M42 SPECIFICATIONS

WIDTH X THICKNESS		TEETH PER INCH					
INCHES	METRIC (mm)	10	14	4	6	8/12	10/14
		RAKER		HOOK		VARIABLE	
1/4 x .025	6.4 x .64						▼
1/4 x .035	6.4 x .90	▼	▼				▼
3/8 x .035	9.5 x .90	▼		▼			▼
1/2 x .025	12.7 x .64					▼	
1/2 x .035	12.7 x .90	▼	▼	▼	▼		▼

Morse M42 Die Bands, with their high wear and heat resistance, are best suited for cutting difficult-to-machine tool steel and die blocks.

Morse Matrix II Die Bands, with their high shock resistance, are better suited for thinner sections.



M42 and Matrix II Bi-Metal

DIE BANDS

MORSE  
THE M. K. MORSE COMPANY



### AT-A-GLANCE

- Cut toughest machinable materials
- High heat and wear resistance
- Wide selection of blade type and tooth sizes
- Low cost-per-cut



**NEW!**

**M-FACTOR BY MORSE™  
CARBIDE TIPPED BLADES**

Specially designed for tough abrasive and non-ferrous applications.

M-Factor by Morse™ carbide tipped band saw blades are designed for aluminum foundry cutting and other abrasive cutting applications. Tooth tips are made with submicron grade carbide and precision ground with a triple chip profile for a smooth finish and exceptional long service life. The backer is made from an engineered high performance steel. This allows the blade to accept heavier feed forces and higher speeds for fast cutting.



**APPLICATIONS**

- Aluminum castings
- Composite materials
- Rough cutting of abrasive wood and plywood

**M-FACTOR BY MORSE CARBIDE TIPPED**

WIDTH X THICKNESS		TEETH PER INCH
INCHES	METRIC (mm)	3
1/2 x .025	12.7 x 0.60	▼
3/4 x .035	19 x 0.90	▼
1 x .035	27 x 0.90	▼
1-1/4 x .042	34 x 1.07	▼



# TUNGSTEN CARBIDE GRIT BLADES FOR HARD, ABRASIVE MATERIALS

Ideal for cutting ceramics and other materials that are too hard or abrasive for standard bi-metal blades.

These blades have tungsten carbide grit applied to one edge of a fatigue resistant alloy blade. They provide long life due to their super resistance to heat, wear and abrasion. They also resist snagging while working on hard-to-cut materials. Specifications include both continuous or gulleted edges and various grit sizes to cover a wide variety of different application needs.

## APPLICATIONS

- Fiberglass
- Ceramics
- Foamed glass
- Composites
- Hardened steel
- Cast iron
- Tires and wire reinforced rubber
- Cement and concrete
- Cement-filled computer flooring
- Cable and wire rope
- Graphite

### CARBIDE GRIT (CONTINUOUS)

WIDTH X THICKNESS		GRIT SIZE	
INCHES	METRIC (mm)	MEDIUM	COARSE
1/4 x .020	6.4 x .50	▼	
1/2 x .025	12.7 x .64	▼	
1 x .035	27 x .90	▼	▼

### CARBIDE GRIT (GULLETED)

WIDTH X THICKNESS		GRIT SIZE		
INCHES	METRIC (mm)	MEDIUM	MEDIUM COARSE	COARSE
3/8 x .025	9.5 x .64	▼	▼	
1/2 x .025	12.7 x .64	▼	▼	
3/4 x .032	19 x .80		▼	▼
1 x .035	27 x .90		▼	▼
1-1/4 x .042	34 x 1.07			▼



### AT-A-GLANCE

- Long life
- Superior resistance to heat, wear and abrasion
- Available with continuous and gulleted edges
- Various grit sizes available
- Low cost-per-cut

# PALLET DISMANTLING BLADES

Specially designed to withstand the rough service required on dismantling machines while cutting through pallet nails and staples.

Available in both bi-metal and a special grade of carbon steel to accommodate different budget requirements.

## BI-METAL BLADES

Available in Matrix II and M42 specifications for rugged durability with either straight pitch or variable pitch teeth.

### APPLICATIONS

- All types of band saw pallet dismantling machines.

### M42 BI-METAL

WIDTH X THICKNESS		TEETH PER INCH		
INCHES	METRIC (mm)	6/10	5/8	6
1-1/4 X .042	32 X 1.1	VARIABLE		RAKER
			▼	▼

### MATRIX II BI-METAL

WIDTH X THICKNESS		TEETH PER INCH		
INCHES	METRIC (mm)	6/10	5/8	6
1-1/4 X .042	32 X 1.1	VARIABLE		RAKER
		▼	▼	▼

## CARBON ALLOY STEEL BLADES

Lower cost blades available in a special grade of carbon steel to enhance their durability in a variety of dismantling machines.

### APPLICATIONS

- All types of band saw pallet dismantling machines.

### CARBON HARD BACK (HB) SPECIAL

WIDTH X THICKNESS		TEETH PER INCH		
INCHES	METRIC (mm)	6/10	5/8	6
1-1/4 X .042	32 X 1.1	VARIABLE		RAKER
			▼	▼





# CARBON GENERAL PURPOSE & MAINTENANCE BLADES

Stiffer blades offer straighter cuts in wood & metal cutting. On metals they are used for short production and maintenance applications.

These blades are very similar to Flex Back blades, however they are stiffer due to their hardened and tempered backer. This makes them ideal for applications where straighter cuts or heavier feed pressure are required. Not recommended for blade speeds exceeding 4,000 sfm.

## SPECIFICATIONS

WIDTH X THICKNESS		TEETH PER INCH																							
INCHES	METRIC (mm)	6	8	10	12	14	18	24	8	10	12	14	18	24	32	1.14	1.3	2	3	4	6	3	4	6	
		RAKER						WAVY						Hook				SKIP							
3/16 x .025	4.8 x .64			▼		▼	▼																▼		
1/4 x .025	6.4 x .64			▼		▼	▼	▼							▼					▼	▼		▼	▼	
3/8 x .025	9.5 x .64		▼	▼		▼	▼							▼						▼	▼	▼	▼	▼	
1/2 x .020	12.7 x .50			▼		▼		▼						▼											
1/2 x .025	12.7 x .64	▼	▼	▼		▼	▼	▼		▼		▼	▼	▼					▼	▼	▼	▼	▼	▼	
5/8 x .032	16 x .80		▼	▼		▼	▼						▼							▼	▼	▼		▼	▼
3/4 x .032	19 x .80	▼	▼	▼	▼	▼	▼		▼	▼	▼	▼	▼					▼	▼	▼	▼	▼	▼	▼	
1 x .035	27 x .90	▼	▼	▼		▼				▼								▼	▼	▼		▼			
1 x .042	27 x 1.1																	▼	▼						
1 1/4 x .035	32 x .90														▼	▼									
1 1/4 x .042	32 x 1.1	▼																▼							

▼ Standard Set ▼ Heavy Set ▼ Double Set Raker

## APPLICATIONS

- Low alloy, easy-to-machine ferrous metals
- Non-ferrous metals like brass, bronze, aluminum and lead
- Wood
- Plastic
- Cork
- Composition Board
- Plywood



## AT-A-GLANCE

- Stiffer than HEF blades, so they cut straighter
- Good on easy-to-machine metals and other easy-to-cut materials
- WOOD AND SIMILAR: low cost-per-blade/low cost-per-cut
- METALS: low cost-per-blade/higher cost-per-cut than bi-metals
- Will accept heavier feed pressure than HEF

GENERAL PURPOSE & MAINTENANCE  
Hard Edge/Hard Back (HB) Carbon



# CARBON WOOD PRODUCTION & GENERAL PURPOSE BLADES

Ideal for wood production cutting as well as short production/maintenance applications using low alloy steel & non-ferrous metals

These carbon steel blades are manufactured from a single piece of high carbon steel with individually hardened tooth tips. The flexible back makes them more fatigue resistant. They are an inexpensive blade to purchase but offer a higher cost per cut than bi-metal blades on metal and tougher-to-cut materials..

## APPLICATIONS

- Wood
- Plastic
- Cork
- Composition Board
- Plywood
- Aluminum
- Non-ferrous metals
- Low alloy steel

## SPECIFICATIONS

WIDTH X THICKNESS		TEETH PER INCH																									
INCHES	METRIC (mm)	4	6	8	10	12	14	18	24	8	10	12	14	18	24	32	1	1.14	1.3	2	3	4	6	2	3	4	6
		RAKER						WAVY						HOOK						SKIP							
1/8 x .025	3 x .64					▼	▼																				
3/16 x .025	4.8 x .64			▼		▼	▼	▼																		▼	
1/4 x .014	6.4 x .30						▼	▼						▼	▼												▼
1/4 x .020	6.4 x .50						▼	▼																			▼
1/4 x .025	6.4 x .64			▼	▼	▼	▼	▼	▼													▼	▼			▼	▼
3/8 x .014	9.5 x .30							▼	▼						▼	▼											▼
3/8 x .025	9.5 x .64			▼	▼		▼	▼	▼													▼	▼		▼	▼	
3/8 x .032	9.5 x .80																		▼	▼							
1/2 x .020	12.7 x .50		▼	▼	▼						▼		▼	▼	▼						▼						
1/2 x .025	12.7 x .64	▼	▼	▼	▼		▼	▼	▼		▼	▼	▼	▼	▼	▼					▼	▼	▼	▼	▼	▼	▼
5/8 x .032	16 x .80			▼	▼	▼	▼	▼	▼												▼	▼	▼	▼	▼	▼	▼
3/4 x .032	19 x .80		▼	▼	▼	▼	▼	▼	▼		▼	▼	▼	▼	▼						▼	▼	▼	▼	▼	▼	▼
3/4 x .050	19 x 1.30																										
1 x .035	27 x .90		▼	▼	▼		▼				▼		▼							▼	▼	▼	▼	▼	▼	▼	▼
1 x .035 *Bright	27 x .90																										
1 x .042	27 x 1.07																										
1 x .042 *Bright	27 x 1.07																										
1 1/4 x .035	32 x .90																		▼	▼	▼						
1 1/4 x .035 *Bright	32 x .90																										
1 1/4 x .042	32 x 1.07																									▼	
1 1/4 x .042 *Bright	32 x 1.07																										
1 1/2 x .045	38.1 x 1.14																										
2 x .035	50.8 x .90																										
2 x .035 *Bright	50.8 x .90																										
2 x .042	50.8 x 1.07																										

▼ Standard Set ▼ Heavy Set ▼ Double Set Raker  
 \*"Bright" specifications have an unblued, silver surface finish.

## AT-A-GLANCE

- Flexible backs are fatigue-resistant
- Individually hardened teeth
- Can be run at speeds up to 15,000 SFM (surface feet per minute)
- Low cost-per-blade/low cost-per-cut in wood.

# CARBON FURNITURE PRODUCTION BLADES

Ideal for use on large, high speed vertical cutting machines used in the furniture industry.

A special ETS set pattern and aggressive 10° hook tooth design gives these blades the ability to cut faster with longer tip life. They are manufactured from a single piece of high carbon steel with individually hardened tooth tips. The flexible backs resist fatigue. At the same time they offer the required precision and contour control required in furniture manufacturing. These blades can be resharpened for even greater value.

## APPLICATIONS

- Wood
- Chip board
- Plywood
- Cardboard

## SPECIFICATIONS

WIDTH X THICKNESS		TEETH PER INCH						
INCHES	METRIC (mm)	3	4	6	2	3	4	6
		HOOK ETS			HOOK RAKER SET			
1/4 x .020	6.4 x .50		▼					
1/4 x .025	6.4 x .64		▼	▼			▼	▼
1/4 x .032	6.4 x .80		▼					
3/8 x .025	9.5 x .64	▼				▼	▼	▼
3/8 x .032	9.5 x .80	▼	▼		▼			
1/2 x .020	12.7 x .50							
1/2 x .025	12.7 x .64	▼	▼			▼	▼	▼
1/2 x .032	12.7 x .80	▼	▼					
5/8 x .032	16.0 x .80		▼			▼	▼	▼
3/4 x .032	19.0 x .80	▼	▼		▼	▼	▼	▼
1 x .035	27 x .90	▼						

▼ Standard Set    ▼ Alternate Set    ▼ Heavy Set  
 ▼ Double Set Raker    ▼ Special Extra Heavy Set Hard Back

## AT-A-GLANCE

- Aggressive tooth design cuts faster
- Offers longer tooth life
- Thicker blade is stiffer for more control
- Can be resharpened
- Outstanding on high-speed vertical machines
- Low cost-per-blade/low cost-per-cut
- Used on large, high-speed vertical wood cutting machines



(ETS) Hard Edge/Flex Back Carbon  
 FURNITURE PRODUCTION BLADES



Morse makes two different types of wood mill and resaw hard edge flex back and hard back blades to accommodate different conditions leading to different levels of blade fatigue.

## HIGH CARBON STEEL BLADES

**Versatile blades offer high value in a variety of wood-cutting applications.**

Available in both flex back and hard back construction to accommodate applications where blade fatigue is a factor as well as those where precision and cut straightness are most important. Some flex back specifications are available with a bright finish. Blades are manufactured from a single piece of high carbon steel with individually hardened tooth tips. They can be resharpened for even greater value.

### APPLICATIONS

- Portable and stationary wood mills
- Single head and multi-head resaw systems
- Scragg mills

### HARD EDGE FLEX BACK - (HEF)

WIDTH X THICKNESS		TEETH PER INCH			
INCHES	METRIC (mm)	1	1.14	1.3	2
Hook					
1 x .035	27.5 x .9			▼	▼
1 x .042	27.5 x 1.1			▼	▼
1-1/4 x .035	32.0 x .9		▼	▼	▼
1-1/4 x .042	32.0 x 1.1	▼	▼	▼	
1-1/2 x .045	38.1 x 1.1		▼		
2 x .035	50.8 x .9		▼	▼	
2 x .042	50.8 x 1.1		▼		

▼ Heavy Set

### AT-A-GLANCE

- Flex back blades resist blade fatigue
- Hard back blades offer straighter cuts
- Individually hardened tooth tips
- Can be resharpened
- Low cost-per-blade/low cost-per-cut

### HARD EDGE FLEX BACK - (HEF) (BRIGHT FINISH)

WIDTH X THICKNESS		TEETH PER INCH	
INCHES	METRIC (mm)	1.14	1.3
Hook			
1 x .035	27.5 x .9		▼
1 x .042	27.5 x 1.1		▼
1-1/4 x .035	32.0 x .9	▼	▼
1-1/4 x .042	32.0 x 1.1	▼	▼
2 x .035	50.8 x 1.1		▼

### HARD EDGE HARD BACK - (HB)

WIDTH X THICKNESS		TEETH PER INCH	
INCHES	METRIC (mm)	1.14	1.3
Hook			
1 x .035	27.5 x .9		▼
1-1/4 x .035	32.0 x .9	▼	▼
1-1/4 x .042	32.0 x 1.1		▼





# QUIK SILVER® BLADES

**Ideal for wood-cutting applications where blade fatigue is an increased concern.**

A special alloy steel gives these blades enhanced fatigue resistance. They are manufactured from a single piece of Quik Silver® alloy steel with individually hardened tooth tips. We make them available in both hard back and flex back specifications for use in applications requiring both extreme fatigue-resistance and straight cuts. They can be resharpened for even greater value.

## QUIK SILVER® FLEX BACK (RSF)

WIDTH X THICKNESS		TEETH PER INCH			
INCHES	METRIC (mm)	1	1.14	1.3	2
Hook					
1 x .035	27.5 x .9		▼	▼	▼
1-1/4 x .042	32 x 1.1	▼	▼	▼	▼

## QUIK SILVER® HARD BACK (RSH)

WIDTH X THICKNESS		TEETH PER INCH			
INCHES	METRIC (mm)	1	1.14	1.3	2
Hook					
1 x .035	27.5 x .9		▼	▼	▼
1-1/4 x .042	32 x 1.1	▼	▼	▼	▼

### APPLICATIONS

- All thin kerf lumber applications including wood mills, resaw systems and scragg mills

### AT-A-GLANCE

- Special alloy offers exceptional fatigue-resistance
- Available with flex and hard backs
- Individually hardened tooth tips
- Can be resharpened
- Medium cost-per-blade/low cost-per-cut




## USING METAL CHIPS TO TROUBLESHOOT

You can improve the productivity of your metal cutting operation by paying close attention to the chips made by the blade cutting through metal. This chart shows some of the common problems that can be discovered and solved by paying attention to chips.

CHIP FORM	CHIP CONDITION	CHIP COLOR	BLADE SPEED	BLADE FEED	OTHER
	Thick, Hard, and Short	Blue or Brown	Decrease	Decrease	Check Cutting Fluid and Mix
	Thin and Curled	Silver	Suitable	Suitable	
	Powder	Silver	Decrease	Increase	
	Thin and Curl Tight	Silver	Suitable	Decrease	Check Tooth Pitch

### Minimum Radius per Blade Width

Blade Width	Minimum Radius	Materials Thickness 1"/25mm
1"/25mm	7-1/4"/184mm	
3/4"/19mm	5-7/16"/138mm	
5/8"/16mm	3-3/4"/95mm	
1/2"/13mm	2-1/2"/63mm	
3/8"/10mm	1-1/4"/32mm	
1/4"/6mm	5/8"/16mm	
3/16"/5mm	3/8"/10mm	
1/8"/3mm	7/32"/5.5mm	

# BLADE RECOMMENDATION CHECKLIST

**CONTACT MORSE TECHNICAL ASSISTANCE**  
 Complete and Fax to: 1-800-729-1112  
 OR CALL 1-888-422-6362  
 OR VISIT [www.bladewizard.com](http://www.bladewizard.com)

Complete by: \_\_\_\_\_ Date \_\_\_\_\_

## USER INFORMATION

Company: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 \_\_\_\_\_  
 Contact: \_\_\_\_\_  
 Phone No.: \_\_\_\_\_

## DISTRIBUTOR INFORMATION

Company: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 \_\_\_\_\_  
 Contact: \_\_\_\_\_  
 Phone No.: \_\_\_\_\_  
 Fax No.: \_\_\_\_\_  
 e-mail: \_\_\_\_\_

## BLADE INFORMATION

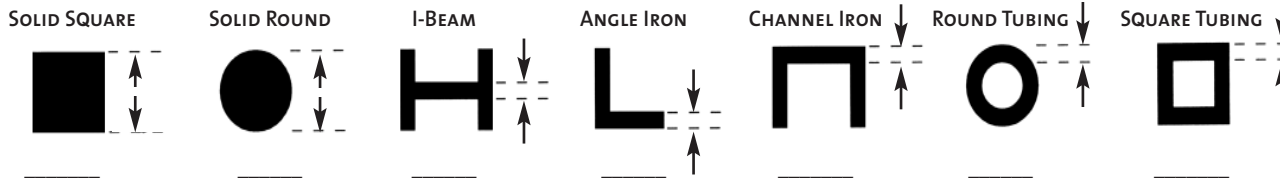
Manufacturer: \_\_\_\_\_  
 Length: \_\_\_\_\_ Width: \_\_\_\_\_  
 Thickness: \_\_\_\_\_ Tooth Pitch: \_\_\_\_\_  
 Type:  Carbon  Matrix  M42  Other \_\_\_\_\_  
 Monthly blade usage: \_\_\_\_\_  
 Current blade distributor: \_\_\_\_\_  
 Current blade cost: \$ \_\_\_\_\_ (ea.)

## MACHINE INFORMATION

Make: \_\_\_\_\_  
 Model: \_\_\_\_\_  
 Vertical  Horizontal  
 Blade Speed (sfm): \_\_\_\_\_  
 Feed Rate: \_\_\_\_\_

## APPLICATION INFORMATION

On the line provided below each icon, provide **material width** and **wall thickness** (where applicable) for each material type being cut



## TYPES OF CUTTING

(Check all that apply)

- Single Piece Cut-off  
 Bundled Cut-off

1. Number of pieces: \_\_\_\_\_ 2. Check each configuration that applies:



## MATERIALS BEING CUT

(Check all that apply)

TYPE	GRADE
<input type="checkbox"/> Non-Ferrous	_____
<input type="checkbox"/> Mild Carbon Steels	_____
<input type="checkbox"/> Tool Steels	_____
<input type="checkbox"/> Stainless Steels	_____
<input type="checkbox"/> Super Alloys	_____
<input type="checkbox"/> Other	_____

## PRODUCTION USAGE (PER DAY)

- Light (2 hrs. or less)  
 Medium (3-6 hrs.)  
 Heavy (7 hrs. or more)

## PROBLEMS WITH PRESENT BLADE

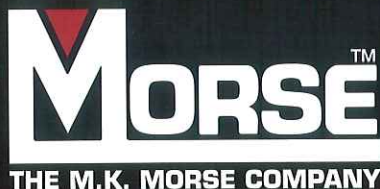
- Breaking blades  Premature dulling  
 Tooth strippage  Crooked Cut  
 Cost  No Problems



## BLADE RECOMMENDATION

BLADE RECOMMENDATION Checklist





## Warranty

The M.K. Morse Company warrants each new product manufactured and sold by it or one of its authorized distributors only against defects in workmanship and/or materials under normal service, proper installation and use. THIS WARRANTY IS LIMITED TO REPAIR OR REPLACEMENT OF VERIFIED DEFECTIVE PRODUCTS AND EXCLUDES ANY AND ALL IMPLIED WARRANTY OF MERCHANTABILITY AND ALL RISK AND LIABILITY WHATSOEVER RESULTING FROM ANY USE OF SAID PRODUCTS, INCLUDING INCIDENTAL AND CONSEQUENTIAL DAMAGES. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE THEREOF. The provisions of this warranty and limitation of liability shall not be modified in any respect except by written document signed by an officer of The M.K. Morse Company.

## Trial Blades

The M.K. Morse Company will provide bi-metal and carbon weld-to-length blades on a "Guaranteed Billed Trial Blade Basis" for the purpose of user evaluation of performance. If the blade recommended by Morse or approved by Morse for the particular application, fails to perform satisfactorily for the user, Morse will issue a full credit for the invoice value of the blade upon the return of the blade to Morse.

In all instances where Morse provides bi-metal and carbon welded-to-length band saw blades for trial and evaluation, the Morse sales representative will provide follow-up.

Morse is confident in the ability of our blades to meet the end users expectations for performance.

## Important

CUTTING TOOLS CAN SHATTER AND/OR BREAK UNDER IMPROPER OR SEVERE USE. WEAR SAFETY EQUIPMENT, AND PARTICULARLY GOGGLES, GLOVES AND HEARING PROTECTION, AT ALL TIMES IN THE VICINITY OF THEIR USE. ALWAYS FOLLOW BAND SAW MACHINE MANUFACTURERS' RECOMMENDATIONS.

**MAILING ADDRESS:**

P.O. Box 8677  
Canton, Ohio 44711 USA

**SHIPPING ADDRESS:**

1101 - 11th St., S.E.  
Canton, Ohio 44707 USA

PHONE \_\_\_\_\_ (330) 453-8187  
FAX \_\_\_\_\_ (330) 453-1111  
HOTLINE \_\_\_\_\_ (800) 733-3377  
FAX HOTLINE \_\_\_\_\_ (800) 729-1112  
WEBSITE \_\_\_\_\_ [www.mkmorse.com](http://www.mkmorse.com)  
[www.bladewizard.com](http://www.bladewizard.com)  
[www.independenceband.com](http://www.independenceband.com)