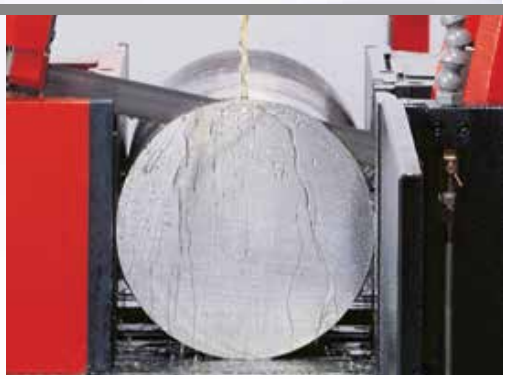
AMADA®
AMADA MACHINERY AMERICA, INC.





SAW BLADES

PRODUCT OVERVIEW

Bimetal & Carbide Tipped Band Saw Blades

A HISTORY OF

CUTTING-EDGE MANUFACTURING

Since we began building machine tools many decades ago, our goals have always been to provide our customers with increased accuracy and productivity. Throughout our history, we've maintained our time-honored tradition of hand-fitting our solutions to deliver the ultimate in quality and precision.

As technology has evolved, we've embraced CNC automation as a core strength, improving throughput and helping new operators become productive more quickly. Today, combining the legacies of AMADA Cutting Technologies and our Grinding Business unit, we are uniquely positioned to help you expand your capabilities and grow your business maintaining our philosophy of **"GROWING WITH OUR CUSTOMERS".**

2019
- Carbide Saw Blades
  - AXCELA STRIKER
  - AXCELA BOOSTER
- DBSAW 500 Diamond Saw
- VT 3850 / VT 4555 Mitre-Box Saws

2017
- HPSAW 310
- Carbide Saw Blades
  - AXCELA HP/HP1
  - AXCELA C-S7

2016
- Bimetal Saw Blades
  - New Protector M42 Design
- Carbide Saw Blades
  - SMART CUT AXCELA S
  - SMART CUT AXCELA B
  - SMART CUT AXCELA G

2014
- DYNASAW 530
- Bimetal Saw Blade
  - DYNABAND G
  - SUPER 8

2013
- Carbide Saw Blades
  - AXCELA ALB
  - AXCELA HMAX
  - AXCELA A

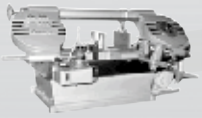
2012
- 2nd-Generation PCSAW
- Carbide Saw Blades
  - AXCELA S
  - AXCELA B

2005
- Double-Pulse-Cutting Automated Band Saw
- Carbide Saw Blades
  - AXCELA G
  - AXCELA H
- SMART CUT BAND Thiner Bimetal Saw Blades

1990
- CTB 400
  First Fully Automatic Carbide CNC Machine
- SIGMA Bimetal Saw Blade

1971
- Carbide Saw Blades

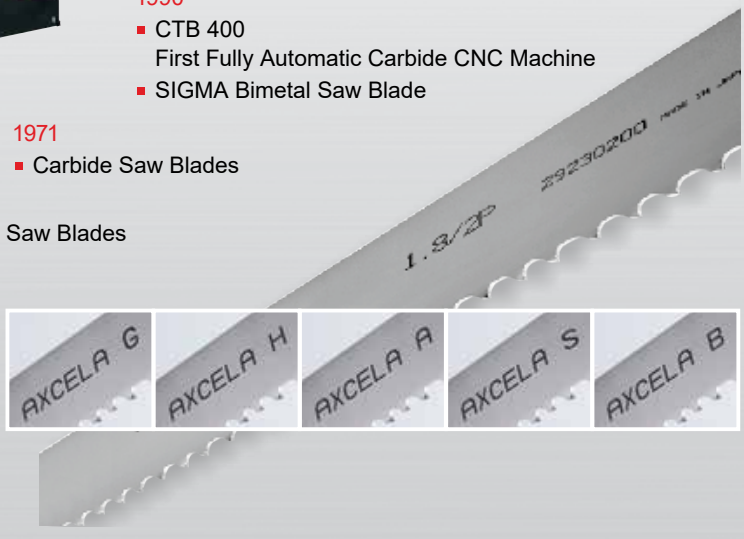
1968
- Bimetal Saw Blades



1965
- RH 300

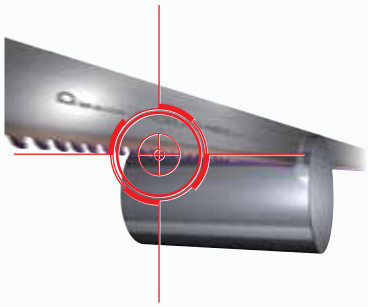
1962
- Carbon Steel Saw Blades

1956
- AM C 225



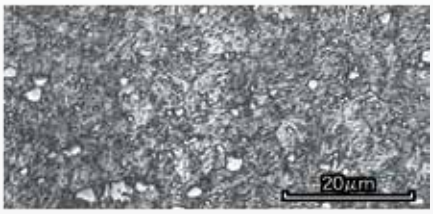
BLADE INFORMATION

Edge material



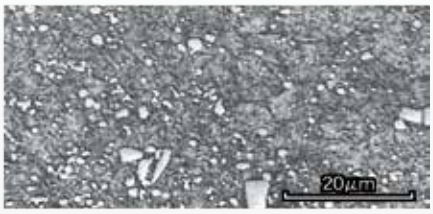
It is not necessarily true that the harder the edge, the longer the service life and the higher the efficiency. In case of cutting that involves high vibration and a large shock, edge material of high toughness are more advantageous because drop-off wear occurs before friction wear.

AMADA Modified M42 HSS



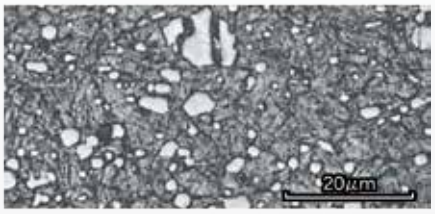
AMADA's original matrix high-speed steel, produced based on M42 cobalt high-speed steel. With toughness greatly improved, this steel exhibits its greatest performance under cutting conditions involving vibration and shock.

M42 Cobalt HSS



M42 cobalt high-speed steel that provides superior wear resistance. Being treated with AMADA's unique heat treatment technology, this steel exhibits a performance that is highest in the class. It is broadly suitable for cutting general steel through difficult to cut materials.

AMADA M71 Original HSS



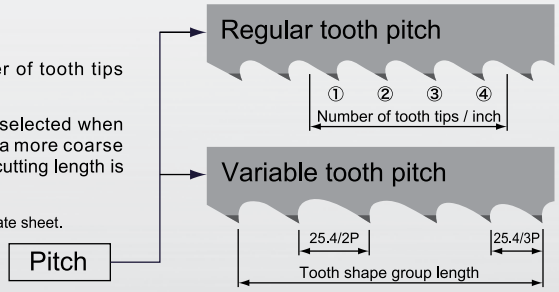
Original highest grade, high-speed steel, developed jointly with a leading steel manufacturer. This steel has hardness of 1000Hv, which is the highest ever recorded in ingot high-speed steel. It is suitable for cutting difficult to cut materials.

Selection

■Pitch

- Pitch is expressed by the number of tooth tips within one inch (25.4mm).
- Generally, a finer pitch should be selected when the cutting length is shorter and a more coarse pitch should be selected when the cutting length is longer.

*See "Blade pitch selection guide" on separate sheet.



Tooth tips are located at equal intervals. The regular tooth pitch is expressed as "00P(00=number of teeth/inch)".
The example shown on the left is 4P, and the tooth tip interval in this case is 25.4÷4P=6.35mm.

Multiple different pitches are combined within one inch. The variable tooth pitch is expressed by two figures such as "2/3P" in the example shown on the left. It means that the maximum tooth tip interval is equivalent to 2P in a tooth shape group (minimum unit of repetition) and that the minimum tooth interval is equivalent to 3P.
Use of this pitch can suppress vibration, and is applicable to cutting in wide range.

■Blade pitch selection table by materials to be cut

	Material to be cut \ Maximum cutting length		50 (2")	100 (4")	150 (6")	200 (8")	250 (10")	300 (12")	400 (16")	500 (20")	700 (28")	1000 (40")	(mm) / (Inch)
HSS Bi-Metal Blades	Roll-formed section steels		6/10P		5/7P & 4/6P								
	Structural steel, Bundled tubes												
	Solid material	Bundled small Diameter material, Mild steel Tool steel,Prehardened steel			3/4P			2/3P		1.5/2P			
		Hot work die steel,Stainless steel											
		Super heat resisting alloy								1.1/1.5P		0.75/1P	
Carbide Tipped Blades	Solid material	Mild steel, Tool steel Prehardened steel Hot work die steel, Stainless steel Super heat resisiting alloy		3/4P		2/3P	1.8/2P		1.4/1.6P			0.9/1.1P	

Note1 : It is recommended for optimum cutting to select a pitch to allow for 20 to 30 teeth to correspond to the cutting length.
Note2 : When cutting deformed material or like that varies in the cutting length suddenly, it is desirable that at least 2 teeth are in contact with the material constantly while cutting.
Note3 : The above table based on "SGLB" should be used as guide. Specific applicability varies somewhat depending on the characteristics of the blades.
For example, 3/4P of "PROTECTOR" is capable of cutting materials in the range including 4/6P in the above table.

TOTAL SOLUTION

- **A Total Manufacturer of Band Saws and Blades**
  AMADA has a full line of Band Saws and Blades to provide the maximum possible sawing performace.
  We are engaged not only in development and manufacturing, but also in marketing and after-sales service. Our customers' opinions are fed back directly to our development and manufacturing teams to meet their specific sawing needs.

- **Band Saw Blade History and R&D**
  We started manufacturing and marketing Contour Saws in 1955 and commercialized Bi-metal Blades in 1968. We then innovated technologies in all areas of blade materials, shapes, and coatings and developed the high-performance Carbide-Tipped Band Saw Blade series AXCELA in 2007. The sawing know-how and latest sawing technologies accumulated over many years, allowing us to develop products that meet our customers needs.

AMADA LIANYUNGANG MACHINE TOOL CO.,LTD. (China)

AMADA AUSTRIA GmbH (Austria)

ONO WORKS (Ono-Japan)

Manufacturing

Development

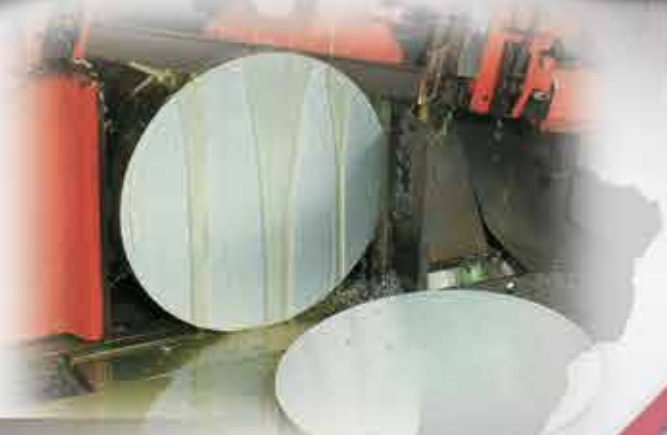
ONO WORKS (Ono-Japan)

AMADA SOLUTION CENTER

VERIFICATION

P&P ROOM

Sales



Service

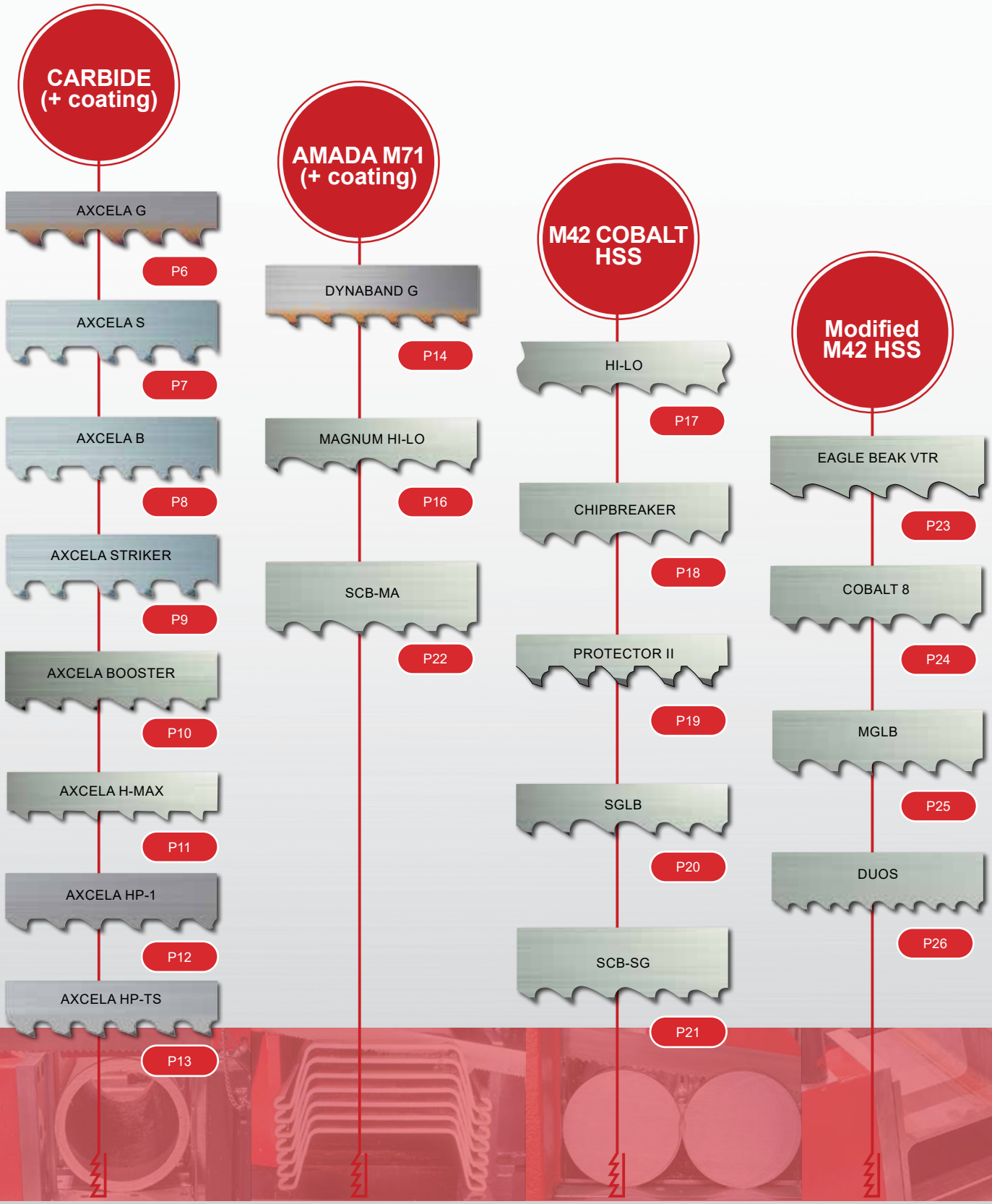
- **Global Supply System**
  Our Saw Blades are delivered to our customers throughout the world. From manufacturing facilities in Japan, China, and Austria through an optimum supply network.

- **Solution Proposal**
  Technical centers are established in Japan, United States, Germany, Thailand, and China. To propose optimum solutions for the sawing issues.
  At the technical centers, customers can actually cut their products to experience the differences between conventional and proposed sawing technologies and can verify the performance of proposed solutions by simulation.

A FULL LINE-UP OF AMADA SAW BLADES

TO SUIT ALL MATERIALS AND CUTTING NEEDS

AMADA has a full line-up of Band Saw Blades, Contour Saw Blades, Carbide Tipped Circular Saw Blades, and Diamond Blades. You can select optimum saw blades for your materials and for your sawing productivity and cost problems.



CONTOUR Saw Blades

CONTOUR BLADES

P27

CIRCULAR Saw Blades

CIRCULAR SAW BLADES

P28-29

DIAMOND

DB-BLADE M

P30

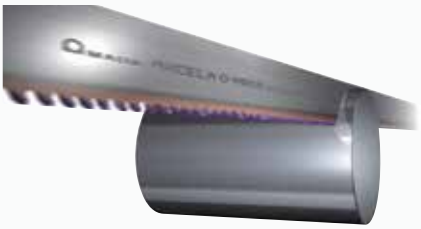
DB-BLADE E

P31

Options

BIG WAVE

P15



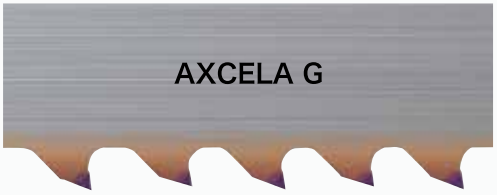
AXCELA® G

Carbide blade designed for high speed, high performance cutting

Carbide

Capable of Cutting Difficult to Cut Materials

- Carbide blade providing unparalleled high speed sawing of special steels.
- Excellent multi-purpose blade for production sawing of mixed materials and grades.



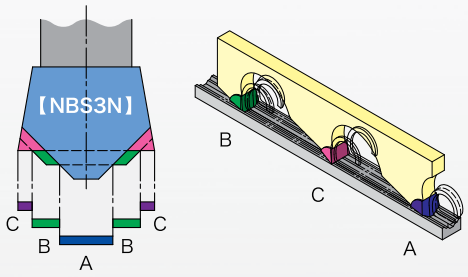
Tooth Type: Variable Gullet, Kerf dispersion dove tail tooth shape
Edge Material: Carbide+ (EX-COAT-DP)
Hardness: 1600HV+ (Film 2800HV)
Wear Resistance: ★★★★★
Chipping Resistance: ★★★

❶ Kerf-Dispersal Tooth Shape
Effectively reduces cutting resistance on high-alloy steels.

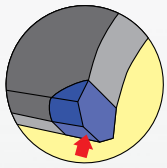
❷ Tooth Tip Micro-chamfer
Delivers ultra-high cutting rates and reduces tooth chipping.

❸ EX-COAT-DP
Coating provides a high degree of hardness, high resistance to heat and chipping.

❶



❷



❸

Applicability by Materials

: Break-in area / 1000cm² • 100 in²

Mild steels, non-ferrous metals			Tool steels, pre-hardened steels			Hot work tool steels, stainless steels			Super heat resistant alloys		
~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~
●■	●■	●■	●■	●■	●■	●■	●■	●■	●■	●■	●■
●●●			●●●			●●			●		

Lineup of Products

Name				AXCELA G (MANUFACTURED)			
Blade Width		Blade Thickness		Pitch			
inch	mm	inches	mm	.9/1.1	1.4/1.6	1.8/2.0	2/3
1-1/4	34	0.042	1.1				V
1-1/2	41	0.050	1.3			V	V
2	54	0.063	1.6		V	V	
2-5/8	67	0.063	1.6		V	V	
3	80	0.063	1.6		V		

Name					AXCELA G (PREWELDED TO LENGTH)		
Blade Width		Blade Thickness		Length	Pitch		
inch	mm	inches	mm		.9/1.1	1.4/1.6	1.8/2.0
1-1/2	41	0.050	1.3	15’ 0”			V
1-1/2	41	0.050	1.3	15’ 6”			V
2	54	0.063	1.6	20’ 0”		V	V
2-5/8	67	0.063	1.6	22’ 11”	V	V	V
2-5/8	67	0.063	1.6	27’ 3”	V	V	
3	80	0.063	1.6	36’ 5”	V		

V: Variable Positive Rake
Specifications may change without notice at the sole discretion of Amada’s Engineering Department.

AXCELA® S

Standard carbide blades for high speed/high accuracy cutting

Carbide

Standard Model Suitable for Difficult to Cut Materials

• Robust Carbide saw blade for variable application fields, particularly for existing higher performance machines.

Tooth Type: Dove Tail Type
Edge Material: Carbide
Hardness: 1600HV
Wear Resistance: ★★★★★
Chipping Resistance: ★★

❶ Cutting Surface Improved

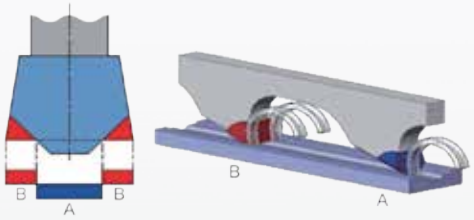
Kerf cleaning tooth design reduces cutting resistance, improving the straightness and finish of the cut.

❷ Cutting Performance Improved

Enhanced cutting performance comes from High-Precision grinding of each tooth surface.

❸ Chipping Suppressed

Multiple pitch dove tail tooth pattern reduces chip load on hard to cut materials. Creating less cutting resistance.



Properties

- Uncoated Carbide Saw Blade
- Sectional Cut Channel
- Robust Cutting Geometry
- For Production Machines

Advantages

- Reduced Cutting Resistance
- High Economic Efficiency
- Wide Application Spectrum

Applicability by Materials

: Break-in area / 1000cm² • 100in²

Mild steels, non-ferrous metals			Tool steels, pre-hardened steels			Hot work tool steels, stainless steels			Super heat resistant alloys		
~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~

Lineup of Products

Name				AXCELA S				
Tooth type				Dove tail type				
Blade Width		Blade Thickness		Pitch				
inch	mm	inches	mm	.9/1.1	1.4/1.6	1.8/2.0	2/3	3/4
1	27	0.035	0.9					V
1-1/4	34	0.042	1.1			V	V	V
1-1/2	41	0.050	1.3		V	V	V	V
2	54	0.063	1.6		V	V	V	
2-5/8	67	0.063	1.6	V	V			
3	80	0.063	1.6	V				

V: Variable Positive Rake

Specifications may change without notice at the sole discretion of Amada's Engineering Department.

AXCELA® B

Standard carbide blades for most difficult to cut materials

Carbide

Standard Model Suitable for most Difficult to Cut Materials

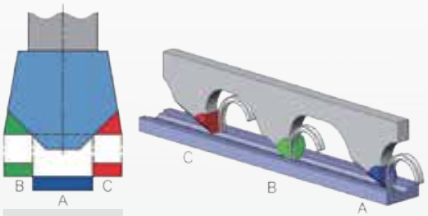
- The highly efficient AXCELA B offers a unique tooth design that allows the blade to excel in a titanium and nickel based alloys.

Tooth Type: FST • 3 Special Set Teeth Pattern
Edge Material: Carbide
Hardness: 1600HV
Wear Resistance: ★★★★★
Chipping Resistance: ★★

❶ Cutting Resistance Reduced
Cutting resistance is reduced and blade edge wear is suppressed with a flat set triple tip.

❷ Cutting Performance Improved
Enhanced cutting performance comes from High-Precision grinding of each tooth surface.

❸ Chipping Suppressed
Robust three pitch ground kerf tooth pattern, reduces chip load on hard to cut materials. Creating less cutting resistance.



【FST design】

Properties
- Uncoated Carbide Saw Blade
- Variable Grinding Pattern Similar to an Offset
- Robust Cutting Geometry
- For Older Standard Machines

Advantages
- Suitable for Universal use with Almost all Steels & Nonferrous Metals
- Improved Cutting Performance and Service Life

Applicability by Materials

: Break-in area / 1000cm² • 100in²

Mild steels, non-ferrous metals			Tool steels, pre-hardened steels			Hot work tool steels, stainless steels			Super heat resistant alloys		
~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~

Lineup of Products

Name				Axcela B				
Tooth type				FST・3 special set teeth pattern				
Blade Width		Blade Thickness		Pitch				
inch	mm	inches	mm	0.9/1.1	1.4/1.6	1.8/2.0	2/3	3/4
1-1/4	34	0.042	1.1				V	V
1-1/2	41	0.050	1.3		V	V	V	V
2	54	0.063	1.6		V	V	V	
2-5/8	67	0.063	1.6	V	V			

V: Variable Positive Rake
Specifications may change without notice at the sole discretion of Amada's Engineering Department.

AXCELA® STRIKER

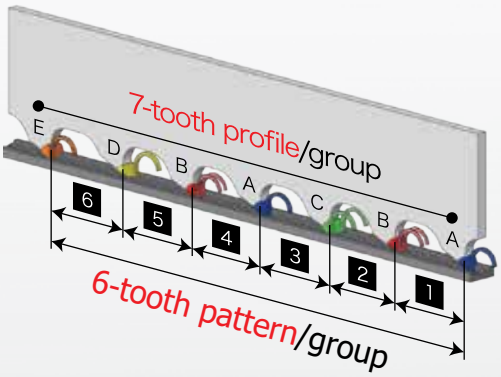
Carbide blades for cutting tool steels and stainless steels

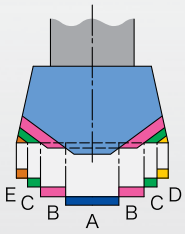
Carbide

Carbide Blades with Excellent Vibration Isolation Performance

• Designed with distinguished vibration isolation performance, our carbide blades realize stable high-speed cutting.

Tooth Type: Kerf Dispersion FST Set Tooth
Edge Material: Carbide
Hardness: 1600HV
Wear Resistance: ★★★★★
Chipping Resistance: ★★





❶ Reduced Vibration Using Multiple Pitch Pattern

7 tooth profile = 42 tooth pitch/pattern with a kerf dispersion tooth. Unique profile contributes to minimized vibration during cutting. Resulting in longer service life and excellent surface finish.

❷ Tooth Tip with Sharp Edge (Sharp Tooth Tip Form)

Enhanced cutting performance comes from High-Precision grinding of each tooth surface.

Applicability by Materials

: Break-in area / 1000cm² • 100 in²

Mild steels, non-ferrous metals			Tool steels, pre-hardened steels			Hot work tool steels, stainless steels			Super heat resistant alloys		
~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~

Lineup of Products

Name				AXCELA STRIKER				
Blade Width		Blade Thickness		Pitch				
inch	mm	inches	mm	.9/1.1	1.4/1.6	1.8/2.0	2/3	3/4
1	27	0.035	0.9					V
1-1/4	34	0.042	1.1			V	V	V
1-1/2	41	0.050	1.3		V	V	V	V
2	54	0.063	1.6		V	V	V	
2-5/8	67	0.063	1.6	V	V			

V: Variable Positive Rake

Specifications may change without notice at the sole discretion of Amada's Engineering Department.

AXCELA® BOOSTER

Carbide blades suitable for cutting mild steels

Carbide

Carbide Blades with Improved Durability Intended for General-Purpose Band Saws

• Under the concept of “easier to use carbide blades,” these carbide blades enable the HA and HFA series band saws to realize high speed cutting.

Tooth Type: Set Tooth
Edge Material: Carbide
Hardness: 1600HV
Wear Resistance: ★★★★★
Chipping Resistance: ★★★

❶ Set Tooth Type Adopted

The adoption of the set tooth type, which has been used for a wide variety of blades and highly reputed, helps reduce cutting resistance and minimize blade deviation.

❷ Tooth Tip Mirco-Chamfering

Micro-chamfering minimizes tooth tip chipping of general-purpose band saws during cutting.

Applicability by Materials

: Break-in area / 1000cm² • 100in²

Mild steels, non-ferrous metals			Tool steels, pre-hardened steels			Hot work tool steels, stainless steels			Super heat resistant alloys		
~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~

Lineup of Products

Name				AXCELA BOOSTER		
Blade Width		Blade Thickness		Pitch		
inches	mm	inches	mm	1.8/2.0	2/3	3/4
1-1/4	34	0.042	1.1		V	V
1-1/2	41	0.050	1.3	V	V	

V: Variable Positive Rake

Specifications may change without notice at the sole discretion of Amada’s Engineering Department.

AXCELA® HMAX

Carbide blade for most difficult to cut materials

Carbide

Special Geometry for Separating Boundary Layer-Hardened Steels

Induction Hardened Chrome Rod up to 65HRC

Properties

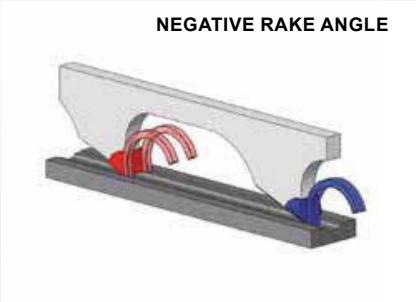
- Uncoated Carbide Saw Blade
- Robust Design
- Negative Rake Angle

Advantages

- Extended Service Life Cutting Boundary Layer-Hardened Steels or Hard Chromium Plated Steels
- Smooth Cutting with Good Surface Finish

Application Materials - AMADA AXCELA HMAX

Recommended	Limited Suitability*
Hard-Treated Steel	Construction Steel
Cold-Worked Steel	Hot-Working Steel
Ball-Bearing Steel	Stainless Steel
Piston Rods	Cast Steel
Cam and Crankshafts	High-Speed Steel
Threaded Rods	High Heat-Resisting Steel
Boundary Layer-Hardened Steel	Aluminum Alloys
	Nickel Alloys
	Titanium Alloys
	Copper Alloys

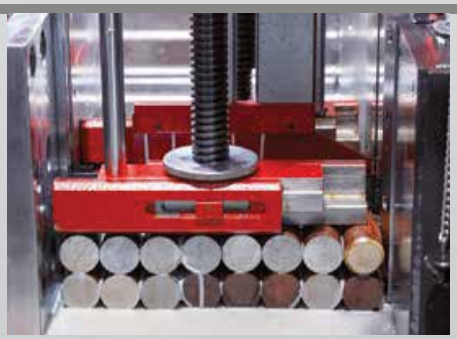


B2 Tooth Pattern

Selection of the Tooth Pitch - AMADA AXCELA HMAX Delivery Forms

Height		Thickness		2/3 B2	3/4 B2
inches	mm	inches	mm		
1-1/4	34	0.042	1.2	●	●
1-1/2	41	0.050	1.3	●	●
2	54	0.063	1.6	●	

B2 = 2 Piece Tooth Group



AXCELA® HP-1 Coated carbide saw blade

Carbide

High Performance Carbide Tipped Saw Blade

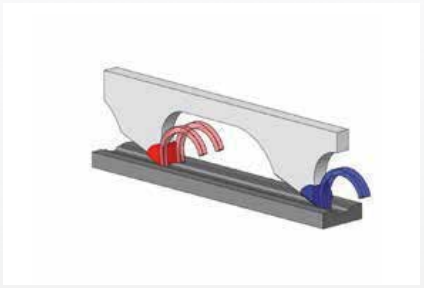
Designed for the AMADA HPSAW 310 Band Saw

Properties

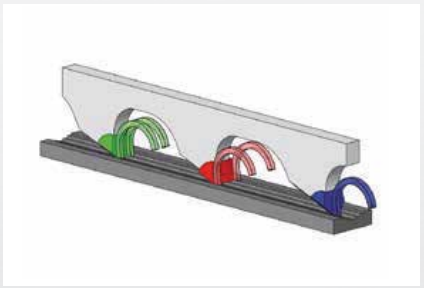
- Coated Carbide Saw Blade
- AXCELA HP Blade is designed to cut Stainless Steel and Tool Steel Applications.

Advantages

- Long Service Life and Maximum Performance
- Optimized Design for Smooth and Vibration-Free Running



B2 Tooth Pattern



B3 Tooth Pattern

Application Materials - AMADA AXCELA HP1

Recommended	Suitable	Limited Suitability*
Construction Steel*	Cold-Worked Steel	Nickel Alloys
Hard-Treated Steel	Hot-Working Steel	Titanium Alloys
Stainless Steel		Copper Alloys
Cast Steel		
Aluminum Alloys		

*Notes: Mainly for Use with HP1 Mild Steel Version

Selection of the Tooth Pitch - AMADA AXCELA HP-1

Height		Thickness		1,4/1,6 B3	1,8/2 B2
inches	mm	inches	mm		
2-5/8	67	0.063	1.6	●	●

B2 = 2 Piece Tooth Group
B3 = 3 Piece Tooth Group

AXCELA® HP-TS Coated carbide saw blade — Carbide

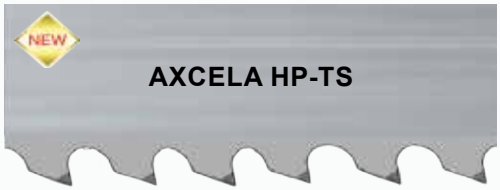
High Performance Carbide Tipped Saw Blade

Designed for the AMADA HPSAW 310 Band Saw

- Advancing the **AXCELA G** technologies to achieve further high-speed cutting of stainless & tool steel

Cutting Speed

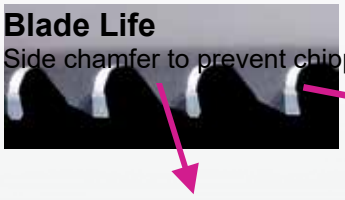
New coating EXCOAT *SG with excellent film hardness and heat resistance
(*SG: Shark Gray)



Edge Material: Cemented Carbide + (EXCOAT-SG)
Hardness: 1600HV + (Film 3000HV)
Wear Resistance: ★★★
Chipping Resistance: ★★★

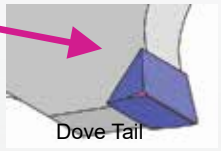
Blade Life

Side chamfer to prevent chipping



Surface Roughness

Adopted Kerf-dispersal 2 teeth pattern with excellent surface roughness



High Speed Cutting

BAND SAW MACHINE	BLADE	MATERIAL 304 • 6" DIAMETER			
		Cutting Rate		Service Life	
		Square in/min		Square in	
HPSAW310	AXCELA HP-TS (2-5/8" x 24' 1" x 1.8/2P)	18.4	4 Times	15,500	2 Times
PCSAW430AX	AXCELA G (2" x 20' x 1.8/2P)	10.4	2 Times	12,400	1.6 Times
HFA400W	SGLB (1-1/2" x 15' x 2/3P)	4.5	1	7,750	1

Applicability by Materials

Alumn. • Non-ferrous	Mild Steels			Tool Steels			Stainless Steels			Super Heat Resistant Alloys		
100~400mm 4 to 16in	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~

Lineup of Products

Name				AXCELA HP-TS		
Blade Width inch	Blade Width mm	Blade Thickness inches	Blade Thickness mm		Pitch	
				0.9/1.1	1.4/1.6	1.8/2.0
2-5/8	67	0.063	1.6		V	V

V: Variable Positive Rake
Specifications may change without notice at the sole discretion of Amada's Engineering Department.

DYNABAND® G

High-speed steel/bi-metal highest quality blades

AMADA M71

Coated HSS Blade Best Suited for Stainless and Hot Work Tool Steels

• Dynamic tooth shape developed by AMADA laser technology.

Tooth Type: Triple-Hybrid Tooth Shape

Edge Material: AMADA M71 HSS + (EX-COAT-DP)

Hardness: 1000HV + (Film 2800HV)

Wear Resistance: ★★★★★

Chipping Resistance: ★

❶ Triple Hybrid Tooth Profile

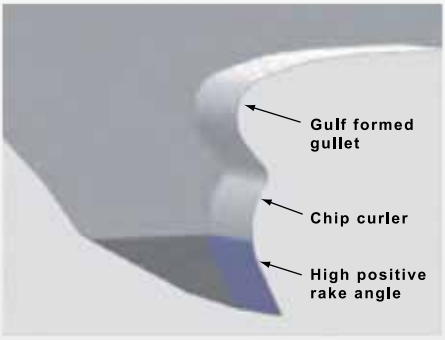
- Gulf gullet shape improves blade fatigue life.
- Chip curler improves chip discharge and suppresses bending.
- High positive rake angle reduces cutting resistance when cutting difficult to cut materials.

❷ Adoption of AMADA M71 High-Speed Steel

AMADA's exclusive M71 HSS with a special heat-treatment process greatly improves cutting performances and blade life.

❸ EX-COAT-DP

Coating technology with high hardness/high thermo stability/high adhesion.



Triple-hybrid tooth shape

Applicability by Materials

: Break-in area / 1000cm² • 100 in²

Mild steels, non-ferrous metals			Tool steels, pre-hardened steels			Hot work tool steels, stainless steels			Super heat resistant alloys		
~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~

Lineup of Products

Name				DYNABAND G			
Blade Width		Blade Thickness		Pitch			
inches	mm	inches	mm	.75/1.1	1.1/1.5	1.5/2.0	2/3
1-1/2	41	0.050	1.3			V	
2	54	0.063	1.6			V	V
2-5/8	67	0.063	1.6		V		
3	80	0.063	1.6	V			

V: Variable Positive Rake

Specifications may change without notice at the sole discretion of Amada's Engineering Department.

BIGWAVE

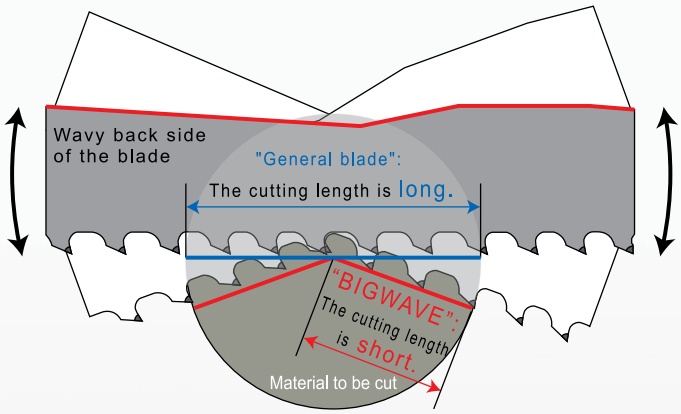
Additional processing options for most difficult to cut materials

❶ AMADA's Original Waveform Machined on the Back Side of the Blade

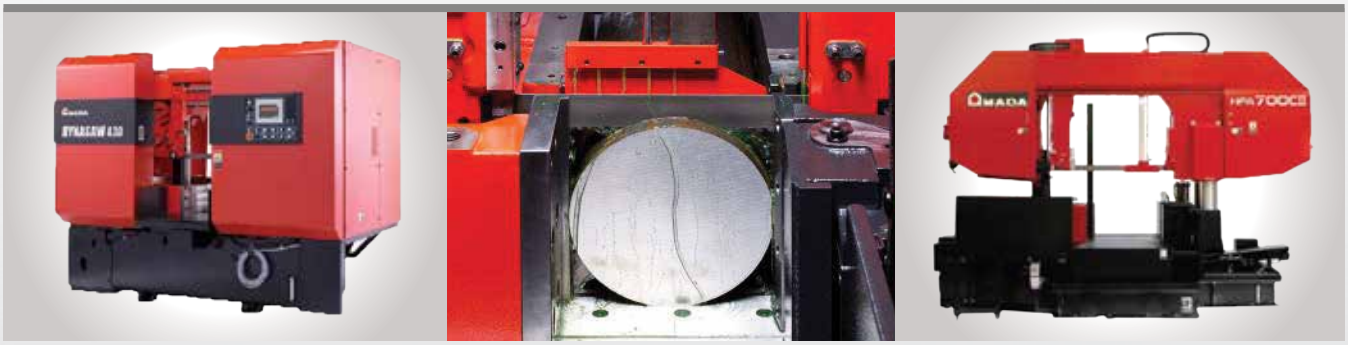
❷ The Blade Oscillates along the Waveform Machining

❸ The Reduced Cutting Length Ensures Reduced Cutting Loads

*Applicable to Bi-Metal & Carbide Tipped Blades.
*Contact our Sales Rep for Detailed Specifications.



BIGWAVE Image diagram of operation



MAGNUM HI-LO

High performance blade for hardened materials

AMADA M71

Best Suited for Medium to Large Sized Difficult-to-Cut Materials

Such as Stainless Steels and Hot Die Steels

• Blades suitable for medium/large diameter high hardness materials with a kerf dispersion tooth shape and special blade edge shape.

Tooth Type: Variable Gullet, Kerf Dispersion Tooth Shape
Edge Material: AMADA M71 HSS
Hardness: 1000HV
Wear Resistance: ★★★★
Chipping Resistance: ★

Advantages

- Higher Resistance to Wear Compared to Conventional M42 Saw Blades Thanks to M71 Tooth Tip Material
- Reduction of the Cutting Resistance
- Longer Service Life with Tool Steel, Stainless Steels, High Heat-Resistant Special Alloys in the Intermediate and Large Diameter Range
- Recommended for Nickel-Based Alloys and Titanium

Applicability by Materials

: Break-in area / 1000cm² • 100 in

Mild steels, non-ferrous metals			Tool steels, pre-hardened steels			Hot work tool steels, stainless steels			Super heat resistant alloys		
~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~

Lineup of Products

Name				MAGNUM HI-LO			
Blade Width		Blade Thickness		Pitch			
inches	mm	inches	mm	.75/1.1	1.1/1.5	2/3	3/4
1-1/4	34	0.042	1.1			V	V
1-1/2	41	0.050	1.3		V	V	V
2	54	0.063	1.6		V	V	
2-5/8	67	0.063	1.6		V		
3	80	0.063	1.6	V	V		

V: Variable Positive Rake
Specifications may change without notice at the sole discretion of Amada's Engineering Department.

HI-LO High performance blade for hardened materials **M42 Cobalt HSS**

Special Saw Blade with High Efficiency

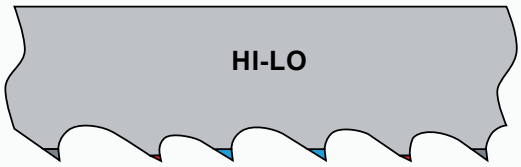
Ideal for Cutting Hard Steels

Features

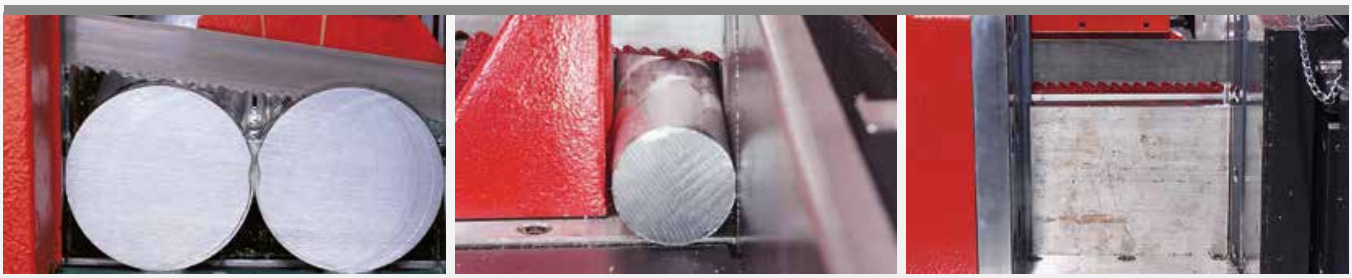
- 15 Degree Positive Rake Angle
- Hardness of HRC68-69
- Patented HI-LO Tooth Design

Advantages

- High Heat & Wear Resistance
- Reduced Cutting Resistance
- Fast Cutting on Difficult to Cut Materials



Tooth Type: HI-LO
Edge Material: M42 HSS
Hardness: 950HV
Wear Resistance: ★★★
Chipping Resistance: ★★



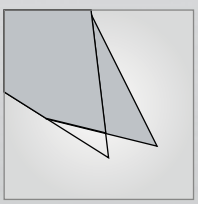
AMADA HI-LO Varying Tooth Height Design, M-42 BI-Metal Blade

Blade Width inch	Blade Width mm	Blade Thickness inch	Blade Thickness mm	.75/1	1.1/1.5	2/3	3/4	4/6
1	27	0.035	0.9			V	V	V
1 1/4	34	0.042	1.1			V	V	V
1 1/2	41	0.050	1.3		V	V	V	
2	54	0.063	1.6	V	V	V		
2 5/8	67	0.063	1.6	V	V			
3	80	0.063	1.6	V	V			

V: Variable Positive Rake

Application Materials - AMADA HI-LO

Recommended	Limited Suitability*
Hot-Working Steel	Cold-Worked Steel
Stainless Steel	
High Heat-Resisting Steel	
Aluminum Alloys	
Nickel Alloys	
Titanium Alloys	
Copper Alloys	



Extremely Positive Rake Angle

Structure Image of the Tooth Tip Material (M42 HSS)

CHIPBREAKER®

Designed to reduce heat generated at increased chip load

M42 Cobalt HSS

Special Tooth Design Reduces Cutting Resistance

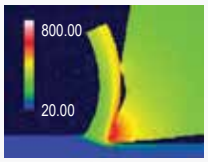
While Maintaining Penetration.

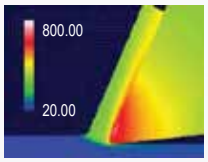
• Designed to reduce heat generated at increased chip load. With reduced tooth stripping and breaking this equates to the lowest possible cost per square inch of metal cutting.

Tooth Type: CHIPBREAKER
Edge Material: M42 HSS
Hardness: 950HV
Wear Resistance: ★★★
Chipping Resistance: ★★

Features

- Reduced Heat Generated at Increased Chip Loads





- Prevents Scoring on Gullets
- Reduced Chip Weld
- Reduced Backing Fatigue

Advantages

- Higher Cutting Rates
- Increased Blade Life
- Reduced Tooth Stripping
- Reduced Blade Breakage

Applicability by Materials

: Break-in area / 1000cm² • 100 in²

Roll-formed section steels	Structural steels	Bundled small diameter materials	Mild steels, non-ferrous metals			Tool steels, pre-hardened steels			Hot work tool steels, stainless steels			Super heat resistant alloys		
Thin wall C-shaped Deck plate	Thick wall H-beem Channel	~100mm ~4in	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~

Lineup of Products

Name				CHIPBREAKER				
Blade Width		Blade Thickness		Pitch				
inch	mm	inch	mm	0.75/1	1.1/1.5	2/3	3/4	4/6
1	27	0.035	0.9				V	V
1 1/4	34	0.042	1.1			V	V	V
1 1/2	41	0.050	1.3		V	V	V	V
2	54	0.063	1.6	V	V	V	V	V
2 5/8	67	0.063	1.6		V	V	V	
3	80	0.063	1.6		V			

V: Variable Positive Rake

PROTECTOR II® Dedicated heavy structural steels blade

M42 Cobalt HSS

Prevention of Tooth Chipping When Cutting Structural Steels

PROTECTOR II Integrates the robust blade design standards and features, highly effective at preventing tooth damage or loss; due to excessive vibration, pinching, and interrupted cutting associated with cutting structural steel materials.

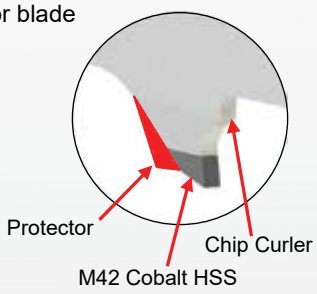
Tooth Type: Protector II Tooth Shape
Edge Material: M42 Cobalt HSS
Hardness: 950HV
Wear Resistance: ★★★
Chipping Resistance: ★★★★★

Features

- **Protection from Tooth Chipping**
  The "protector" located on the relief face of tooth, reinforces the tooth tip, preventing excessive cutting, and tooth damage or loss. Producing superior high cutting efficiency.
- **Elimination of Break-In Cutting**
  On the PROTECTOR series a special treatment of the cutting surfaces, eliminates the need for blade break-in. This blade can be run using normal cutting parameters from beginning.

New Features

- **New Tooth Set Patterns & Shape**
  Decreased burr formation. Reduced time spent deburring parts after cutting completed.
- **M42 High Speed Steel Edge and Chip Curler Tooth Form**
  Improved blade life, M42 HSS edge resist heat and abrasion. Chip Curler improves chip removal and reduces impact on the bottom of the gullet, improving blade life and cut finish.



- **Coating Options**
  High-speed cutting and longer blade life by EXCOAT-DP. Excellent performance in oil mist systems.

Applicability by Materials

Roll-formed section steels	Structural steels	Bundled small diameter materials	Mild steels, non-ferrous metals
Thin wall, C-shaped, Deck plate	Thick wall, H-beam, Channel	~100mm ~4in	~100mm ~4in / 100~400mm 4 to 16in / 400mm~ 16in~
	WS type : Roll-formed large size H-beam		

Selecting the Tooth Pitch

Material Size inch									
4	8	12	16	20	24	28	32	36	40
4/6P									
	3/4P								
						2/3P			

Lineup of Products

Name				PROTECTOR II		
Blade Width		Blade Thickness		Pitch		
inch	mm	inch	mm	2/3	3/4	4/6
1	27	0.035	0.9		V	V
1-1/4	34	0.042	1.1		V	V
1-1/2	41	0.050	1.3	V/WS	V/WS	V
2	54	0.050	1.3		V/WS	
		0.063	1.6	V/WS	V/WS	V
2-5/8	67	0.063	1.6	V/WS	V/WS	

V: Variable Positive Rake WS: Wide Set Specification Available (Helps Eliminate Blade Pinching) Highlighted Products: EXCOAT-DP coating specification available (special order required)
Specifications may change without notice at the sole discretion of Amada's Engineering Department.

SGLB® AMADA global standard blade — **M42 Cobalt HSS**

Adapted to a Wide Range of Materials

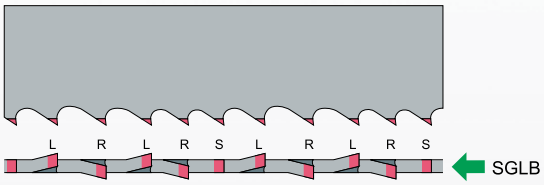
from General Steels to Difficult to Cut Materials

- Worldwide sales achievements and our most versatile, best selling band saw blade.
- Ideal sawing for a wide range of material types, shapes, and sizes.

Tooth Type: Standard Tooth Shape
Edge Material: M42 Cobalt HSS
Hardness: 950HV
Wear Resistance: ★★★
Chipping Resistance: ★★

❶ Adoption of M42 Cobalt High-Speed Steel

The cutting edge is made of the M42 to improve wear resistance.



Applicability by Materials

: Break-in area / 1000cm² • 100in²

Structural steels	Bundled small diameter materials	Mild steels, non-ferrous metals			Tool steels, pre-hardened steels			Hot work tool steels, stainless steels			Super heat resistant alloys		
Thick wall / H-beem	~100mm ~4in	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~

Lineup of Products

Name				SGLB								
Blade Width		Blade Thickness		Pitch								
inch	mm	inch	mm	.75/1.1	1.1/1.5	1.5/2	2/3	3/4	4/6	5/7	6/10	8/12
3/4	19	0.035	0.9						PR			
1	27	0.035	0.9				MG	MG	PR	PR	S	S
1-1/4	34	0.042	1.1		AG		AG	MG	PR	PR	S	
1-1/2	41	0.050	1.3		AG	AG	AG	WS/MG	PR	PR		
2	54	0.063	1.6	AG	AG	AG	AG	MG	AG			
2-5/8	67	0.063	1.6	AG	AG	AG	AG	MG	AG			
3	80	0.063	1.6	AG	AG	AG						

S: Standard Tooth, Straight Raker Set
PR: 7 Degree Positive Rake
MG: 10 Degree Positive Rake
AG: Positive Rake, Large Gullet Size
WS: Wide Set

Specifications may change without notice at the sole discretion of Amada's Engineering Department.

SCB-SG

Thinner blade of SGLB & Magnum HI-LO

M42 Cobalt HSS

Thin-Kerf Blade of SGLB

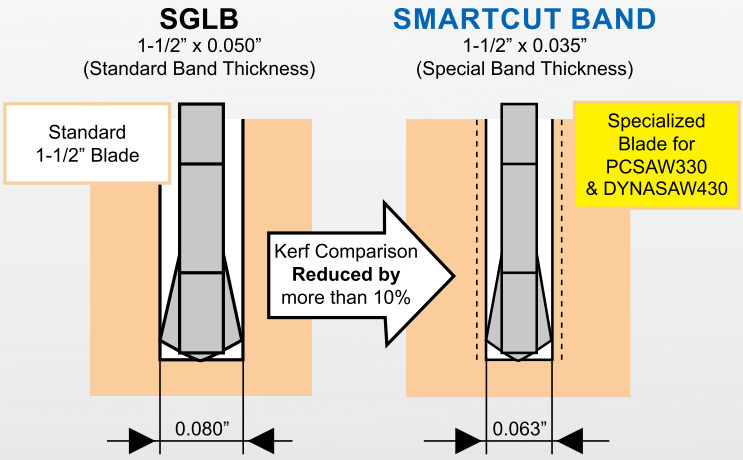
Specialized Blade for AMADA PCSAW330 & DYNASAW430 Band Saws

• When sawing narrow parts from expensive metal bars or blocks, using SMARTCUT BAND gives you twofold cost-saving benefits: reducing material waste, disposal cost and increasing parts yield per bar, resulting in additional profit. The power of accumulating little savings cannot be underestimated. “A penny saved is a penny earned.”

Tooth Type: SCB-SG (SMARTCUTBAND SGLB)
Edge Material: M42 High-Speed Steel
Hardness: 950HV
Wear Resistance: ★★★
Chipping Resistance: ★★

Advantages

- Special Band Thickness
- Thin Kerf Blade
- Reduce Chip Volume



Applicability by Materials

: Break-in area / 1000cm² • 100in²

Roll-formed section steels	Structural steels	Bundled small diameter materials	Mild steels, non-ferrous metals			Tool steels, pre-hardened steels			Hot work tool steels, stainless steels			Super heat resistant alloys		
Thin wall C-shaped Deck plate	Thick wall H-beem	~100mm ~4in	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~

Lineup of Products

Name				SCB-SG			
Blade Width		Blade Thickness		Pitch			
inch	mm	inch	mm	1.1/1.5	2/3	3/4	4/6
1-1/2	41	0.035	1.3		V	V	V

V: Variable Positive Rake

SCB-MA

Thinner blade of SGLB & Magnum HI-LO

AMADA M71

Thin-Kerf Blades of the Magnum HI-LO

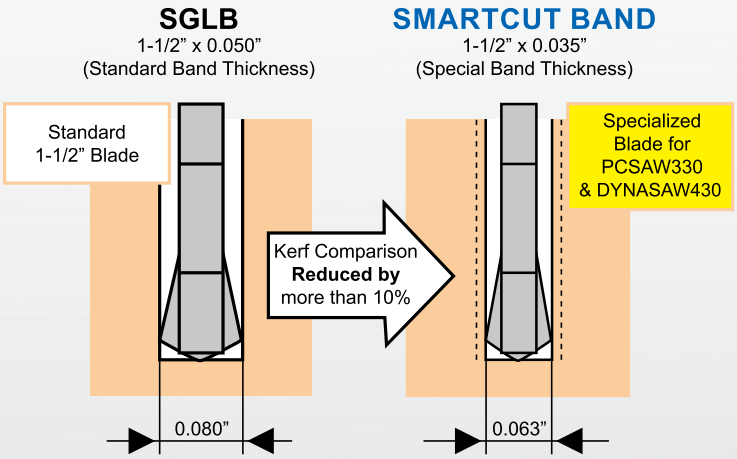
Specialized Blade for AMADA PCSAW330 & DYNASAW430 Band Saws

• When sawing narrow parts from expensive metal bars or blocks, using SMARTCUT BAND gives you twofold cost-saving benefits: reducing material waste, disposal cost and increasing parts yield per bar, resulting in additional profit. The power of accumulating little savings cannot be underestimated. “A penny saved is a penny earned.”

Tooth Type: SCB-MA (SmartCutBand Magnum HI-LO)
Edge Material: AMADA M71 HSS
Hardness: 1000HV
Wear Resistance: ★★★★
Chipping Resistance: ★

Advantages

- Special Band Thickness
- Thin-Kerf Blade
- Reduce Chip Volume



Applicability by Materials

: Break-in area / 1000cm² • 100 in²

Roll-formed section steels	Structural steels	Bundled small diameter materials	Mild steels, non-ferrous metals			Tool steels, pre-hardened steels			Hot work tool steels, stainless steels			Super heat resistant alloys		
Thin wall C-shaped, Deck plate	Thick wall, H-beem	~100mm ~4in	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~

Lineup of Products

Name				SCB-MA			
Blade Width		Blade Thickness		Pitch			
inches	mm	inches	mm	1.1/1.5	2/3	3/4	4/6
1-1/2	41	0.035	0.9		V	V	

V: Variable Positive Rake

EAGLE BEAK VTR

Vertical Tilt-Frame Blade

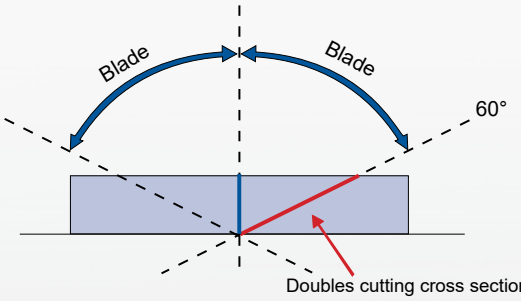
AMADA Modified M42 HSS

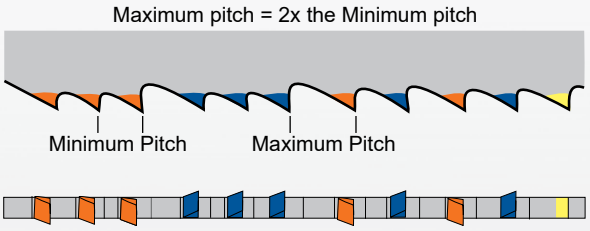
The Only Blade Designed Specifically for Miter Cutting
on a Vertical Tilt-Frame Band Saw

The Amada Marvel Eagle Beak VTR blade cuts a wide range of cross sectional sizes and material. Perfect for heavy thick wall material up to 12 inches in height.

- **Longer Blade Life**
- **Increases Productivity**
- **Decreases Blade Change**
- **Cuts a wide range of cross sectional sizes**

Tooth type :
Edge material : M42 Cobalt HSS
Hardness : 950HV
Wear resistance : ★★★
Chipping resistance : ★★★★





Recommended TPI for Cutting Material Size

Name	Eagle Beak VTR						
Material Size inch							
2	4	6	8	10	12	14	
4/6P							
3/4P							
3/6P							

Lineup of Products

Name		Eagle Beak VTR		
Blade Width		Blade Thickness		Pitch
inch	mm	inch	mm	3/6
1	27	0.035	0.9	V
1-1/4	34	0.042	1.1	V
1-1/2	41	0.050	1.3	V

V: Variable Positive Rake
*These specifications, machinery and equipment appearance are subject to change without reason of improvement. These specifications are listed for the United State.

⚠ Before using this product, please read the operator's manual carefully and follow all applicable instructions.

COBALT 8

Dedicated heavy structural steels blade

AMADA Modified M42 HSS

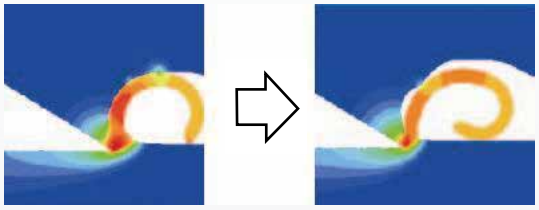
General-Purpose Blade Ideal for Cutting Mild Steel and Structural Steel

"Chip Curler" tooth shape and unique set pattern result in longer blade life.

Features

- Modified M42 High-Speed Steel Edge
- Chip curler tooth shape improves chip removal and reduces the impact on the bottom of the gullet resulting in better life. Cobalt 8 is ideally suited to cut mild steel.

Tooth Type: Cobalt 8
Edge Material: Amada Modified M42 HSS
Hardness: 930HV
Wear Resistance: ★★
Chipping Resistance: ★★★★



Unique "Chip Curler" Tooth Design

- The distinctive set pattern reduces noise and vibrations during cutting resulting in much longer blade life and noticeably better cutting performance as well.

Advantages

- Enhanced Chipping Resistance
- Improved Tooth Penetration

Applicability by Materials

: Break-in area / 1000cm² • 100 in²

Roll-formed section steels	Structural steels	Bundled small diameter materials	Mild steels, non-ferrous metals			Tool steels, pre-hardened steels			Hot work tool steels, stainless steels			Super heat resistant alloys		
Thin wall C-shaped Deck plate	Thick wall H-beem Channel	~100mm ~4in	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~

Lineup of Products

Name				COBALT 8			
Blade Width		Blade Thickness		Pitch			
inch	mm	inch	mm	2/3	3/4	4/6	5/7
1	19	0.035	0.9		V	V	V
1-1/4	34	0.042	1.1	V	V	V	V
1-1/2	41	0.050	1.3	V	V	V	V
2	54	0.063	1.6	V	V	V	

V: Variable Positive Rake

MGLB® General purpose Matrix Bi-Metal blade — AMADA Modified M42 HSS

General Purpose Matrix Bi-Metal Blade for Metal Cutting Band Saw

- The MGLB is best suited for cutting structural shapes, tubing and stacks of mild steel pieces. The MGLB allows band saw machines to cut a wide range of material sizes and shapes without requiring a change of blades. Its tough high-speed steel teeth resist chipping, stripping and abrasion. It can also tolerate the occasional improper speeds and feeds that are often used by inexperienced saw operators.

Features

- Hardness of HRC67-68
- Matrix cobalt high speed steel edge
- Specially designed tooth form
- Wide Set available
  When a roll-formed large-size I-beam is cut, stress relieving may occur, pinching the blade. In order to prevent damage to the blade, a “WS” (Wide Set) type is available for MGLB.

Advantages

- High wear resistance
- Tough shock resistant tooth edge

Applicability by Materials

: Break-in area / 1000cm² • 100 in²

Roll-formed section steels	Structural steels	Bundled small diameter materials	Mild steels, non-ferrous metals			Tool steels, pre-hardened steels			Hot work tool steels, stainless steels			Super heat resistant alloys		
Thin wall C-shaped, Deck plate	Thick wall, H-beem Channel	~100mm ~4in	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~	~100mm ~4in	100~400mm 4 to 16in	400mm~ 16in~

Lineup of Products

Name				MGLB, Straight Pitch, General Purpose Matrix Bi-Metal Blades				
Blade Width		Blade Thickness		Pitch				
inch	mm	inch	mm	3	4	6	10	14
1/4	6	0.035	0.9				V	V
3/8	9	0.035	0.9		V			
1/2	12	0.035	0.9		V	V	V	V

V: Variable Positive Rake

Lineup of Products

Name				MGLB, Varied Pitch Matrix Bi-Metal Blades						
Blade Width		Blade Thickness		Pitch						
inch	mm	inch	mm	2/3	3/4	4/6	5/7	6/10	8/12	10/14
3/4	19	0.035	0.9		V	V	V	V	V	V
1	27	0.035	0.9		V	V	V	V	V	V
1-1/4	34	0.042	1.1		V	V	V	V	V	
1-1/2	41	0.050	1.3	V	V	V	V			
2	54	0.063	1.6	V	V/WS	V				

V: Variable Positive Rake
WS: Wide Set

Specifications may change without notice at the sole discretion of Amada’s Engineering Department.

DUOS®

Dedicated blade for thin walled tubing

AMADA Modified M42 HSS

Best Suited for Cutting Thin-Walled Tubed and Light-Gauge Structural Steels

- Special tooth construction applied with a unique set pattern provides unsurpassed performance on thin walled piping and light structural steels.
- Also effective in light duty band saw applications.

Tooth Type: HI-LO Twin Set Tooth Shape
Edge Material: AMADA Modified M42 HSS
Hardness: 900HV
Wear Resistance: ★★
Chipping Resistance: ★★★★★

❶ HI-LO + Twin Set Tooth Shape

Two types of tooth shapes offer respective protection and prevent excessive penetration into the work material.

❷ Proprietary Tooth Tip Shape

A positive rake angle improves cutting performance.

❸ Adoption of First Two-Step Relief Angle for Small Pitch Blades

The gullet capacity is increased to prevent chip clogging.

Applicability

: Break-in area / 1000cm² • 100in²

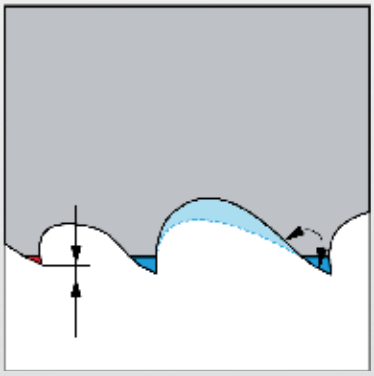
Roll-formed section steels	Structural steels	Small diameter
Thin wall C-shaped	H-beam Channel	~100mm ~4in

Lineup of Products

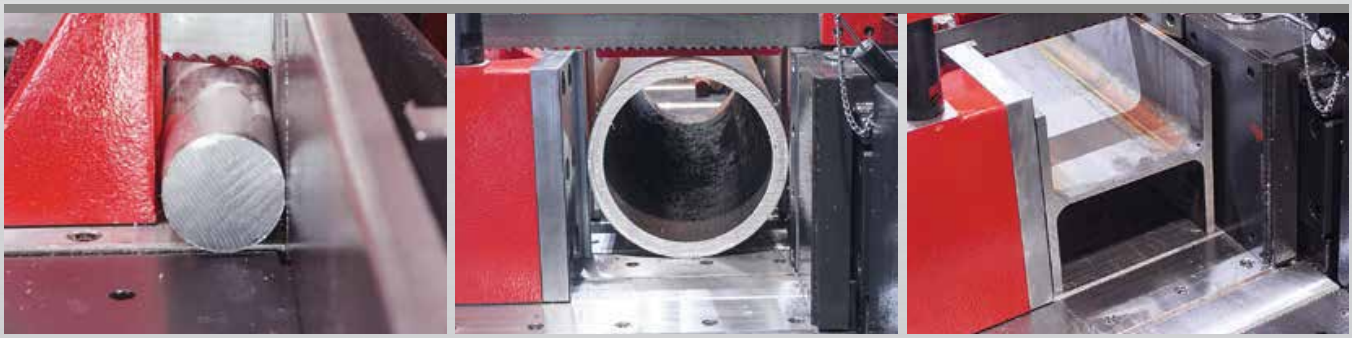
Blade Width inch	Blade Width mm	Blade Thickness inch	Blade Thickness mm	Pitch 9/11
1/2	12	0.025	0.635	V
1/2	12	0.035	0.9	V
3/4	19	0.035	0.9	V
1	27	0.035	0.9	V
1-1/4	34	0.042	1.1	V

V: Variable Positive Rake

Specifications may change without notice at the sole discretion of Amada's Engineering Department.



Alternating tooth heights and enlarged chip space due to two-stage clearance angle.



GLB® contour HSS Bi-Metal Contour Blade — AMADA Modified M42 HSS

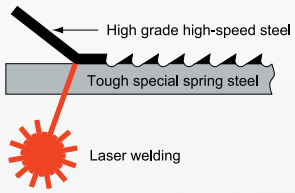
Bi-Metal Blade for Contour Machines

- A breakthrough for previously difficult to cut materials.
- No crooked cuts, no blade breakage and consistent quality cut finish.

Edge Material: AMADA Modified M42 HSS
Hardness: 890HV

❶ Teeth of the Modified M42

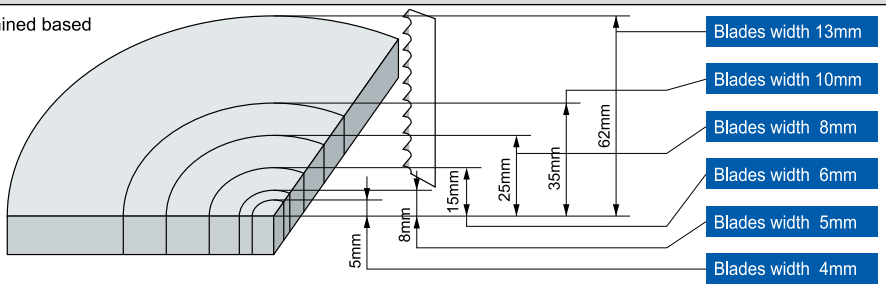
Teeth of the modified M42 high-speed tool steel are electron beam welded to the body of tough spring steel. The resultant bi-metal blade can cut materials difficult to cut with conventional blades, without breaking and bending. The bi-metal blade features an exceptionally long life.



Applicability

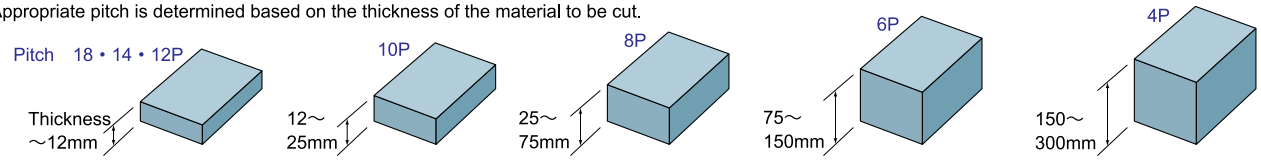
Selection of blades width

The work minimum radius is determined based on the blades width.



Selection of blades pitch

Appropriate pitch is determined based on the thickness of the material to be cut.



Lineup of Products

Name				GLB contour						
Blade Width		Blade Thickness		Pitch						
inches	mm	inches	mm	4	6	8	10	12	14	18
1/8	3	0.02	0.64						V	V
		0.03	0.9						V	
1/8	4	0.02	0.64						V	V
		0.03	0.9				V	V	V	
3/16	5	0.02	0.64					V	V	V
		0.03	0.9				V	V	V	
1/4	6	0.02	0.64				V	V	V	V
		0.03	0.9		V	V	V	V	V	
3/8	8	0.02	0.64				V	V	V	V
		0.03	0.9		V	V	V	V	V	
1/2	10	0.02	0.64		V	V	V	V	V	V
		0.03	0.9	V	V	V	V	V	V	
1/2	13	0.02	0.64							
		0.03	0.9	V	V	V	V	V	V	

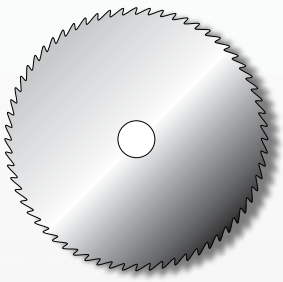
V : Standard item
*There are two types of coil length: 16 meters and 30 meters.

TCB® SERIES Carbide circular saw blade

AMADA Cold Saw Blades Fully Perform

Across a Wide Variety of Applications Ranging from Low Carbon Steels to Difficult to Cut Materials

• Edge material (Tungsten Carbide/Cermet) welded to durable blade body, also featuring a unique tooth profile that provides dynamic chip removal, exceptional cutting efficiency, and longer blade life.



SIZE:
Blade Diameter: 240~460mm
Thickness: 1.75~2.7mm
Number of Teeth: 40~160

Applicability

Steel pipe	Machine structural carbon steel Structural alloy steel		Special purpose steel	
Tensile strength≦800N/mm Vc≦200mm/min	Quantity of carbon 0.1 0.2 0.3 0.4 0.5 %		bearing steel 1.0%	Stainless steel
TCB-PTⅡ / TCB-PT	TCB-CRⅡ / TCB-CB	TCB-TIⅡ		TCB-SU / TCB-TISU
・STKS ・STK ・STKM ・STKR	・SS400、S10C～40C ・SCr、SCM415～440 ・SNCM415～439 ・SMn420～443	・S40C～58C ・SCr、SCM440～445 ・SNCM439～447 ・SMn443	・SUJ2～5 ・SUM ・SUP	・SUS304 etc.

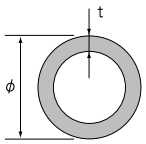
Blade Size (Diameter) Recommendation by Material Size

Unit：mm

Outer diameter	Inner diameter	Number of teeth Z	Minimum and maximum diameters of target materials (10 20 30 40 50 60 70 80 90 100 110 120 130 140 150)
240	32	60	
		80	
250	32	54	
		72	
285	32	60	
		80	
	40	60	
		80	
360	40	60	
		80	
		100	
	50	60	
		80	
		100	
380	40	60	
		80	
		100	
460	50	40	
		60	

Blade Pitch Recommendation for Pipes

Unit：mm

TCB-PT		Outer diameter	Inner diameter
		285	32
			40
		140Z	120Z
Pipe diameter	ϕ10	—	—
	ϕ20	t 6.8	—
	ϕ30	t 3.1	t 9.3
	ϕ40	t 2.1	t 5.2
	ϕ50	t 1.6	t 3.7
	ϕ60	t 1.2	t 2.5
	ϕ70	t 1.0	t 2.3

Suitable for low and medium carbon steels

TCB®-CRⅡ

Edge material : Cermet
Mist fluid : AML3
Dropping speed(1drop) : 5 ～ 6s
Wear resistance : ★★★★
Chipping resistance : ★★★★

- Excellent in wear resistance/deposition resistance cermet tips adopted
- Stable cutting quality is provided with both carbon steel and alloy steel up to C ≤ 0.45%.

Outer Diameter mm	Inner Diameter mm	Thickness mm	Number of teeth Z					
			40	54	60	72	80	100
240	32	1.75			●		●	
250	32	2.0		●		●	●	
285	32	2.0			●		●	
285	40	2.0			●		●	
360	40	2.6(2.5)			●(2.6)		●(2.5)	●(2.5)
360	50	2.6(2.5)			●(2.6)		●(2.5)	●(2.5)
380	40	2.6(2.5)			●(2.6)		●(2.5)	●(2.5)
460	50	2.7	●		●			

Thin-walled tube dedicated

TCB®-PTⅡ

Edge material : Cermet
Mist fluid : AML3
Dropping speed(1drop) : 5 ～ 6s
Wear resistance: ★★★
Chipping resistance: ★★★★★

- Circular saw blade with the number of teeth increased for stably cutting thin-walled pipes.
- As a result of a review of the material and shape of the blade, wear resistance and chipping resistance were improved.

Outer Diameter mm	Inner Diameter mm	Thickness mm	Number of teeth Z						
			TCB-PTⅡ			TCB-PT			
			60	80	100	100	120	140	160
250	32	2.0				●	●		
285	32	2.0	●	●			●	●	
285	40	2.0	●	●			●	●	
360	40	2.6(2.5)	●(2.6)	●(2.5)	●(2.5)			●(2.5)	●(2.5)

Suitable for low and medium carbon steels

TCB®-CB

Edge material : Carbide
Mist fluid : AML3
Dropping speed (1drop) : 5 ～ 6s
Wear resistance : ★★★
Chipping resistance : ★★★★

- Circular saw blade with tough tips and suitable for cutting low- and medium-carbon steels.
- Excellent in chipping resistance and suited for cutting carbon and many other steels.

Outer diameter mm	Inner diameter mm	Thickness mm	Number of teeth Z					
			40	54	60	72	80	100
9.4	1.25	1.75			●		●	
11.2	1.25	2.0			●		●	
14.1	1.57	2.6(2.5)			●(2.6)		●(2.5)	●(2.5)
14.1	1.96	2.6(2.5)			●(2.6)		●(2.5)	●(2.5)
14.9	1.57	2.6(2.5)			●(2.6)		●(2.5)	●(2.5)
18.1	1.96	2.7	●		●			

Suitable for high carbon steels

TCB®-TIⅡ

Edge material : Carbide + Coating
Mist fluid : AML3
Dropping speed(1drop) : 5 ～ 6s
Wear resistance: ★★★★★
Chipping resistance: ★★★★★

- Our coated circular saw blades are made of an improved chip material offering outstanding high toughness and wear resistance and suitable for high carbon steels with a carbon content of 0.45% or more.
- A new tip shape with improved chipping resistance and a new blazing method realize a longer service life than conventional blades.

Outer Diameter mm	Inner Diameter mm	Thickness mm	Number of teeth Z					
			40	54	60	72	80	100
250	32	2.0		●		●		
285	32	2.0			●		●	
285	40	2.0			●		●	
360	40	2.6(2.5)			●(2.6)		●(2.5)	●(2.5)
360	50	2.6(2.5)			●(2.6)		●(2.5)	●(2.5)
460	50	2.7	●		●			

Stainless steels dedicated

TCB®-SU

Edge material : Carbide
Mist fluid : AML4
Dropping speed (1drop) : 1 ～ 3s
Wear resistance : ★★★
Chipping resistance : ★★★★★

- Circular saw blade with tough tips and dedicated to cutting stainless steels.
- Chip sticking is reduced to prevent chip loading and tooth chipping.

Outer diameter mm	Inner diameter mm	Thickness mm	Number of teeth Z					
			40	54	60	72	80	100
240	32	1.75			●		●	
285	32	2.0			●		●	
285	40	2.0			●		●	
360	40	2.6(2.5)			●(2.6)		●(2.5)	●(2.5)
360	50	2.6(2.5)			●(2.6)		●(2.5)	●(2.5)
460	50	2.7	●		●			

Stainless steels dedicated

TCB®-TISU

Edge material : Carbide＋Coating
Mist fluid : AML4
Dropping speed (1drop) : 1 ～ 3s
Wear resistance : ★★★★★
Chipping resistance : ★★★★★

- Coated circular saw blade dedicated to cutting stainless steels.
- The coating improves chip welding resistance and wear resistance and prolongs the blade life.

Outer diameter mm	Inner diameter mm	Thickness mm	Number of teeth Z					
			40	54	60	72	80	100
240	32	1.75			●		●	
250	32	2.0		●		●		
285	40	2.0			●		●	
285	32	2.0			●		●	
360	40	2.6(2.5)			●(2.6)		●(2.5)	●(2.5)
360	50	2.6(2.5)			●(2.6)		●(2.5)	●(2.5)
460	50	2.7	●		●			

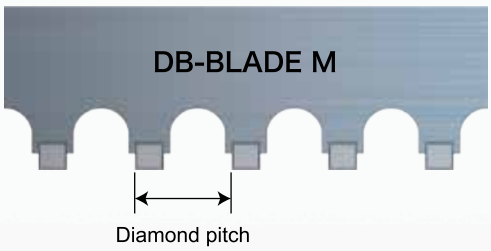
DB-BLADE M

Metal diamond blade

Diamond

Ideal for High-Grade High-Efficiency Cutting
of New Materials (for the DBSAW series)

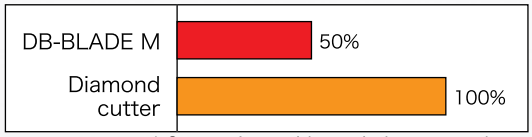
• AMADA's originally developed diamond blade adopting metal-bonded diamond chips



❶ Process Improvement with a High-Grade Finish
Diamond-supported grinding and cutting contribute to high-accuracy cut faces and reduced burdens on subsequent processes.

❷ Adoption of Diamond Tips that Overturns the Conventional Concept
Long-Standing, Stable Sharpness can be maintained thanks to the autogenous (self-sharpening) action of Diamond abrasive grains.

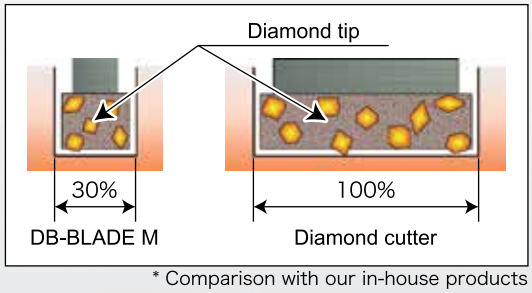
Comparison of cutting time when cutting Φ300 quartz glass
(The cutting time by the diamond cutter is assumed to be 100%.)



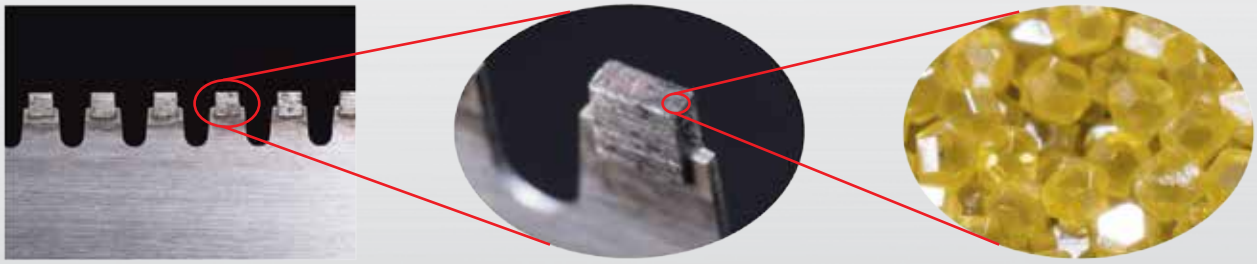
* Comparison with our in-house products

❸ High-Class New Materials Can be Cut without Waste
Compared with other cutting methods, this blade can cut materials at high speed and with a shorter time but requires a smaller cutting margin.

Comparison of cutting margins when cutting Φ300 quartz glass
(The cutting time by the diamond cutter is assumed to be 100%.)



* Comparison with our in-house products



Metal diamond blade　　Diamond tip　　Diamond abrasive grains

Lineup of Products

Name						DB-BLADE M			
Blade Width		Blade Thickness		Thickness		Diamond pitch			
inch	mm	inch	mm	inch	mm	8	10	15	30
3-1/8	80	0.019	0.5	0.047	1.2	●			
5	125	0.03	0.8	0.07	1.8		●		
6-1/8	155	0.04	1.07	0.07	2.0		●		
		0.04	1.25	0.098	2.5		●	●	●
10-1/4	260	0.05	1.47	0.118	3.0			●	

● : Standard item

* For specifications not listed in the catalog, contact a representative of AMADA SANWA DAIYA.

DB-BLADE E

Electrodeposited diamond blade

Diamond

Ideal for High-Efficiency Cutting of New Materials

• Available in various electrode position specifications, our electrode posited diamond blades realize preeminent cutting performance for each material to be cut.

❶ Flat Type

- The flat type can ensure high-grade cutting of to-be-cut materials that are hard and prone to chip.
- Suitable for cutting of small-diameter materials.

❷ Segment Type

- Loading is minimized by segmenting the shape of the electrode posited portion.
- The cutting efficiency of the segment type is higher than that of the flat type.

❸ Wave Type

- The cutting edge is provided with gullet to improve cutting chip removal performance.
- The wave type can cut large-size materials at higher speed than the segment type.

Lineup of Products

Name				DB-BLADE E		
Blade Width		Blade Thickness		Electrode position specification		
inch	mm	inch	mm	Flat type	Segment type	Wave type
3/4	19	0.019 / 0.035	0.5 / 0.9	●		
1	27	0.019 / 0.035	0.5 / 0.9	●	●	
1-1/4	34	0.019 / 0.035 / 0.043	0.5 / 0.9 / 1.1	●	●	●
1-1/2	41	0.019 / 0.035 / 0.043 / 0.051	0.5 / 0.9 / 1.1 / 1.3	●	●	●
2-1/8	54	0.051 / 0.062	1.3 / 1.6	●	●	●
3-1/8	80	0.019	0.5	●	●	
5	125	0.03	0.8	●	●	
6-1/8	155	0.042 / 0.05	1.07 / 1.25	●	●	

● : Standard item

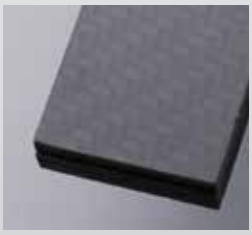
* For specifications not listed in the catalog, contact a representative of AMADA SANWA DAIYA.

Example of Materials to Which the Diamond Blade Can be Applied


Quartz glass


Sapphire


Carbon


CFRP


Fine ceramics


SiC


Silicon

Before Using this Product,
Please Read the Operator's Manual Carefully and Follow all Applicable Instructions.

※Product availability and product specification subject to change without notice at the discretion of the company.
※Some variation in materials and product specifications may occur according to sales areas.
※"AXCELA, DYNABAND, SGLB, PROTECTOR, DUOS, TCB" - AMADA MACHINERY AMERICA, INC., is a registered trademark of AMADA CO., LTD.
※There may be differences in the specification that has been described in this catalog to the AMADA products which are actually shipped. Please ask our staff for more detail.

AMADA MACHINERY AMERICA, INC.
100 S Puente St・Brea, CA 92821
Phone: 847.285.4800
www.amadamca.com

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