

SAW BLADES

PRODUCT OVERVIEW

Bimetal & Carbide Tipped Band Saw Blades



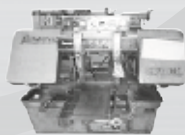
A HISTORY OF CUTTING-EDGE MANUFACTURING

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"**.



1956
■ AM C 225



1962
■ Carbon Steel
Saw Blades

1965
■ RH 300

1968
■ Bimetal Saw Blades

1971
■ Carbide Saw Blades



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



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



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



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



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



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



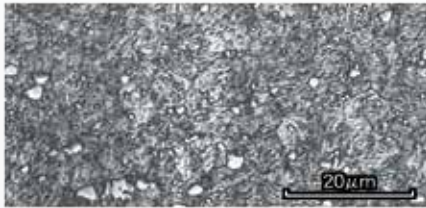
BLADE INFORMATION

Edge material



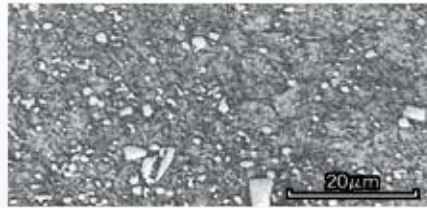
It is not necessarily true that the harder the edge, the longer the service life and the higher the efficiency. In case of cutting that involves high vibration and a large shock, edge material of high toughness are more advantageous because drop-off wear occurs before friction wear.

AMADA Modified M42 HSS



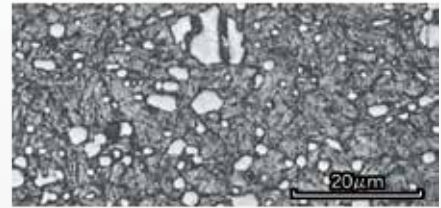
AMADA's original matrix high-speed steel, produced based on M42 cobalt high-speed steel. With toughness greatly improved, this steel exhibits its greatest performance under cutting conditions involving vibration and shock.

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



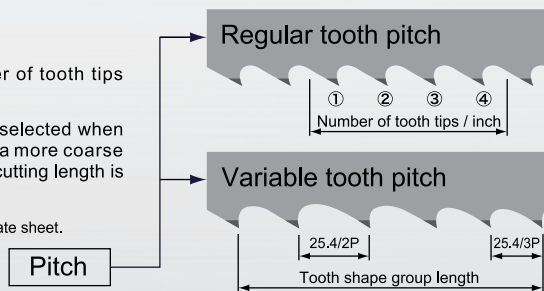
Original highest grade, high-speed steel, developed jointly with a leading steel manufacturer. This steel has hardness of 1000Hv, which is the highest ever recorded in ingot high-speed steel. It is suitable for cutting difficult to cut materials.

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 $25.4 \div 4P = 6.35\text{mm}$.

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

Maximum cutting length Material to be cut			50	100	150	200	250	300	400	500	700	1000 (mm)
			2"	4"	6"	8"	10"	12"	16"	20"	28"	40" (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			3/4P			2/3P		1.5/2P		
		Tool steel, Prehardened steel										
		Hot work die steel, Stainless steel										
Carbide Tipped Blades	Solid material	Super heat resisting alloy								1.1/1.5P		0.75/1P
		Mild steel, Tool steel Prehardened steel		3/4P		2/3P	1.8/2P		1.4/1.6P			0.9/1.1P
		Hot work die steel, Stainless steel Super heat resisting alloy										

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 performance.

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.

Manufacturing



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



AMADA AUSTRIA GmbH
(Austria)



ONO WORKS (Ono-Japan)



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**

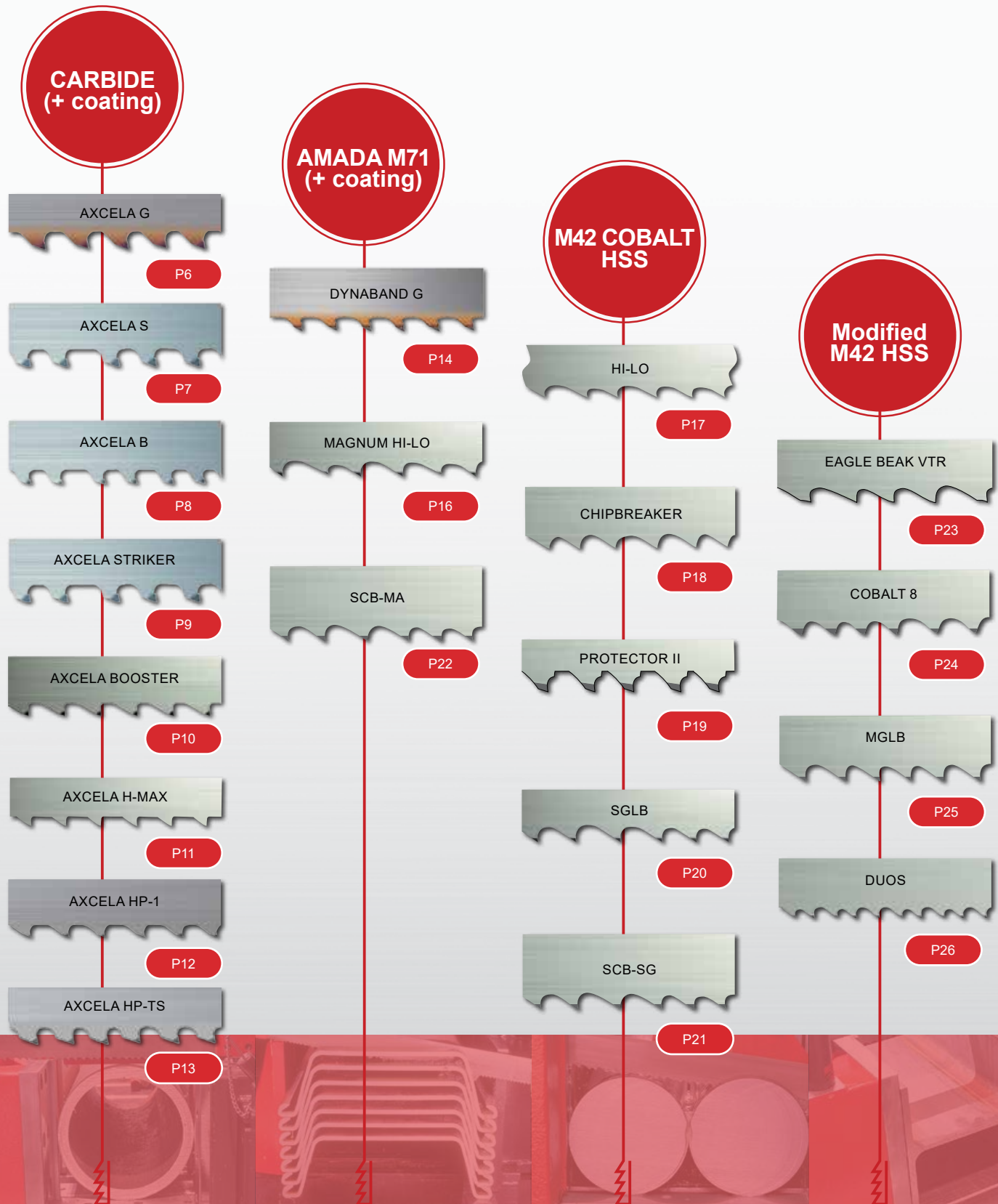
Technical centers are established in Japan, United States, Germany, Thailand, and China. To propose optimum solutions for the sawing issues.

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



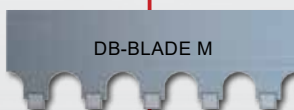
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CIRCULAR Saw Blades

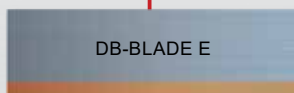


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DIAMOND



P30



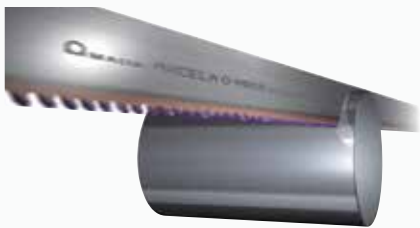
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Options



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.

① Kerf-Dispersal Tooth Shape

Effectively reduces cutting resistance on high-alloy steels.

② Tooth Tip Micro-chamfer

Delivers ultra-high cutting rates and reduces tooth chipping.

③ EX-COAT-DP

Coating provides a high degree of hardness, high resistance to heat and chipping.



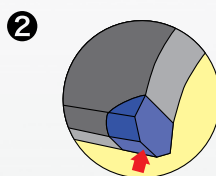
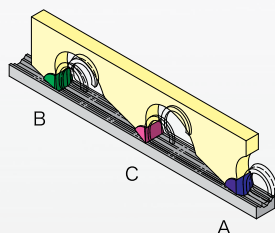
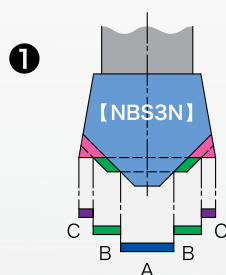
Tooth Type: Variable Gullet, Kerf dispersion dove tail tooth shape

Edge Material: Carbide+ (EX-COAT-DP)

Hardness: 1600HV+ (Film 2800HV)

Wear Resistance: ★★★★★

Chipping Resistance: ★★★★★



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~
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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.

① Cutting Surface Improved

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

② Cutting Performance Improved

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

③ Chipping Suppressed

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



AXCELA S

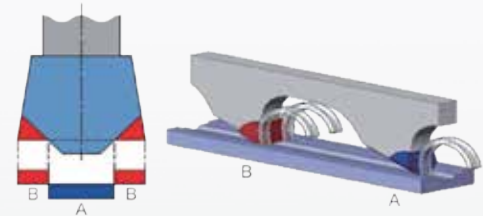
Tooth Type: Dove Tail Type

Edge Material: Carbide

Hardness: 1600HV

Wear Resistance: ★★★★★

Chipping 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 inch	mm	Blade Thickness inches	mm	Pitch				
				.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

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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.



① Cutting Resistance Reduced

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

② Cutting Performance Improved

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

③ Chipping Suppressed

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

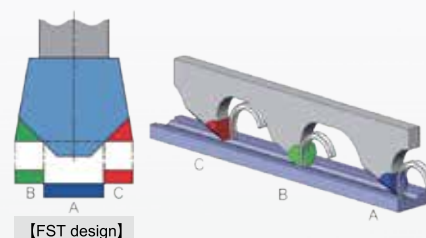
Tooth Type: FST • 3 Special Set Teeth Pattern

Edge Material: Carbide

Hardness: 1600HV

Wear Resistance: ★★★★★

Chipping Resistance: ★★



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 • 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~
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Lineup of Products

Name				Axcela B				
Tooth type				FST • 3 special set teeth pattern				
Blade Width inch	mm	Blade Thickness inches	mm	Pitch				
				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.



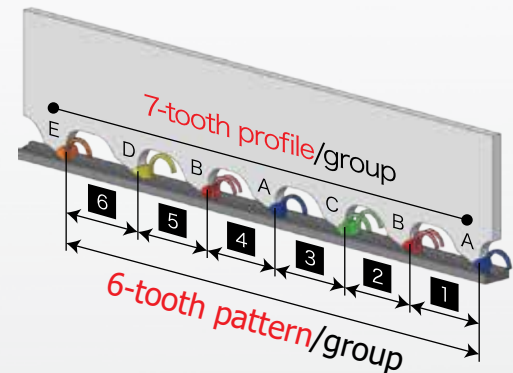
Tooth Type: Kerf Dispersion FST Set Tooth

Edge Material: Carbide

Hardness: 1600HV

Wear Resistance: ★★★★★

Chipping Resistance: ★★

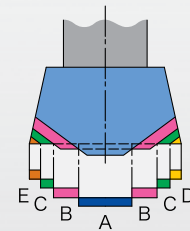


① Reduced Vibration Using Multiple Pitch Pattern

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.

② 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 • 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 STRIKER				
Blade Width inch	mm	Blade Thickness inches	mm	Pitch				
				.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: ★★★

① 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.

② Tooth Tip Micro-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 inches	mm	Blade Thickness inches	mm	Pitch		
				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

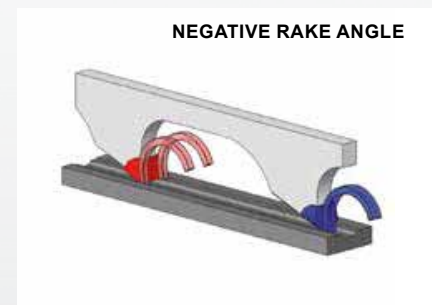
Advantages

- 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

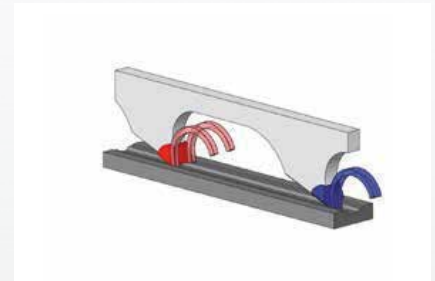


Application Materials - AMADA AXCELA HP1

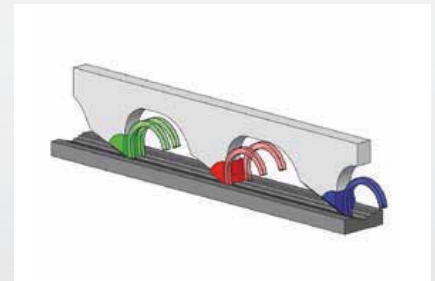


Recommended	Suitable	Limited Suitability*
Construction Steel*	Cold-Worked Steel	Nickel Alloys
Hard-Treated Steel	Hot-Working Steel	Titanium Alloys
Stainless Steel		Copper Alloys
Cast Steel		
Aluminum Alloys		

*Notes: Mainly for Use with HP1 Mild Steel Version



B2 Tooth Pattern



B3 Tooth Pattern

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

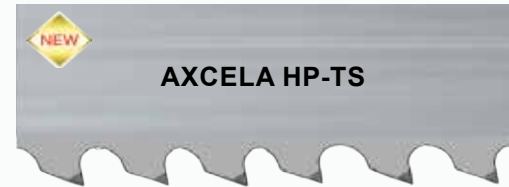
High Performance Carbide Tipped Saw Blade

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)

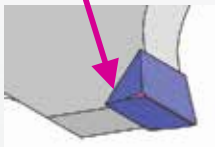
Hardness: 1600HV + (Film 3000HV)

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 ● ■

Lineup of Products

Name		AXCELA HP-TS			
Blade Width inch mm	Blade Thickness inches 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: ★

1 Triple Hybrid Tooth Profile

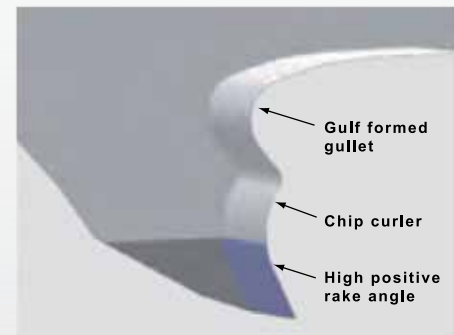
- Gulf gullet shape improves blade fatigue life.
- Chip curler improves chip discharge and suppresses bending.
- High positive rake angle reduces cutting resistance when cutting difficult to cut materials.

2 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.

3 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~
● ■	● ■	● ■	● ■	● ■	● ■	● ■	● ■	● ■	● ■	● ■	● ■

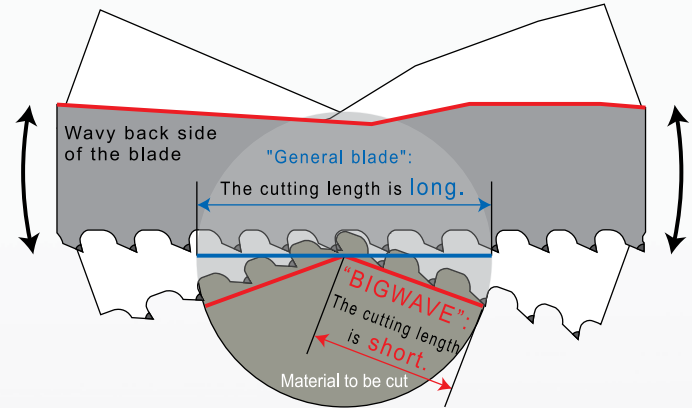
Lineup of Products

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			

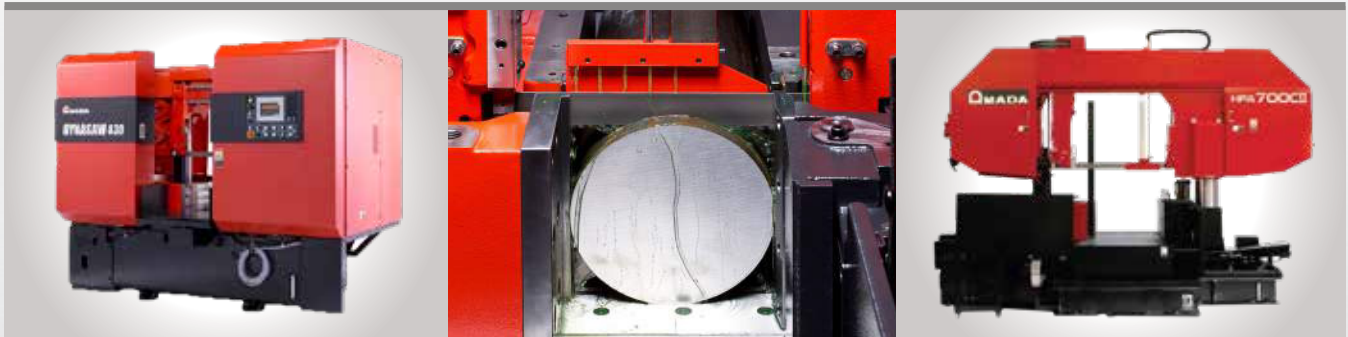
V: Variable Positive Rake
 Specifications may change without notice at the sole discretion of Amada's Engineering Department.

- ① AMADA's Original Waveform Machined on the Back Side of the Blade
- ② The Blade Oscillates along the Waveform Machining
- ③ 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.

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



Tooth Type: Variable Gullet, Kerf Dispersion Tooth Shape

Edge Material: AMADA M71 HSS

Hardness: 1000HV

Wear Resistance: ★★★★★

Chipping Resistance: ★



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 inches	mm	Blade Thickness inches	mm	Pitch			
				.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

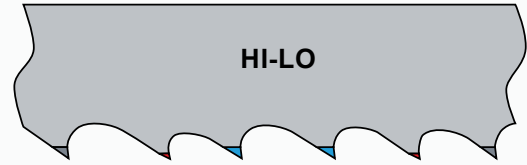
Ideal for Cutting Hard Steels

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



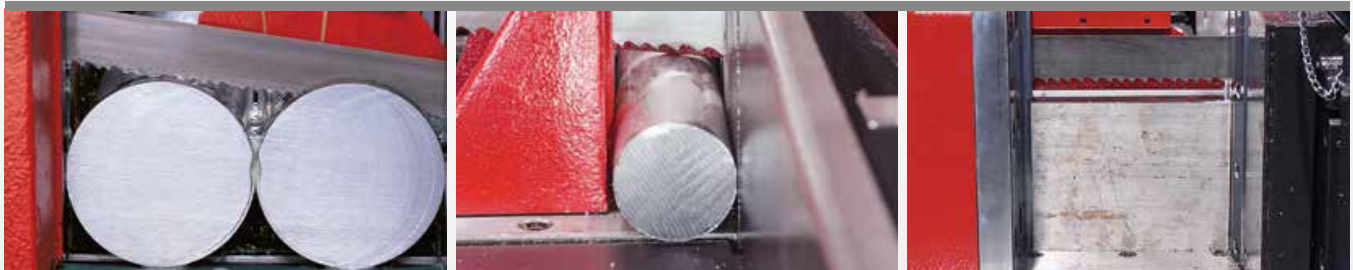
Tooth Type: HI-LO

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	mm	Blade Thickness inch	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

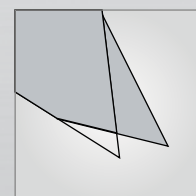


Recommended

Hot-Working Steel
Stainless Steel
High Heat-Resisting Steel
Aluminum Alloys
Nickel Alloys
Titanium Alloys
Copper Alloys

Limited Suitability*

Cold-Worked Steel

Extremely Positive
Rake AngleStructure Image of the Tooth
Tip Material (M42 HSS)

CHIPBREAKER®

Designed to reduce heat generated at increased chip load

M42 Cobalt HSS

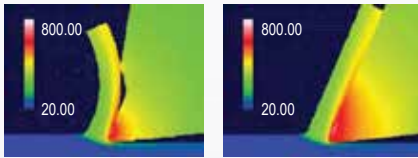
Special Tooth Design Reduces Cutting Resistance

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.

Features

- Reduced Heat Generated at Increased Chip Loads



Tooth Type: CHIPBREAKER

Edge Material: M42 HSS

Hardness: 950HV

Wear Resistance: ★★ ★

Chipping Resistance: ★★ ★

- 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 • 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-beam 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 inch	mm	Blade Thickness inch	mm	Pitch				
				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.

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.



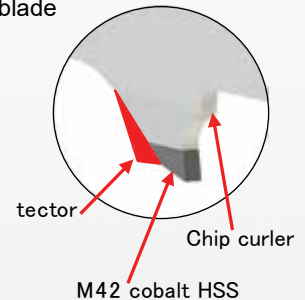
Tooth Type: Protector II Tooth Shape

Edge Material: M42 Cobalt HSS

Hardness: 950HV

Wear Resistance: ★★ ★★

Chipping Resistance: ★★ ★★ ★★



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 environments.

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 inch	mm	Blade Thickness inch	mm	Pitch		
				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)
Specifications may change without notice at the sole discretion of Amada's Engineering Department.

Highlighted Products: EXCOAT-DP coating specification available (special order required)

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

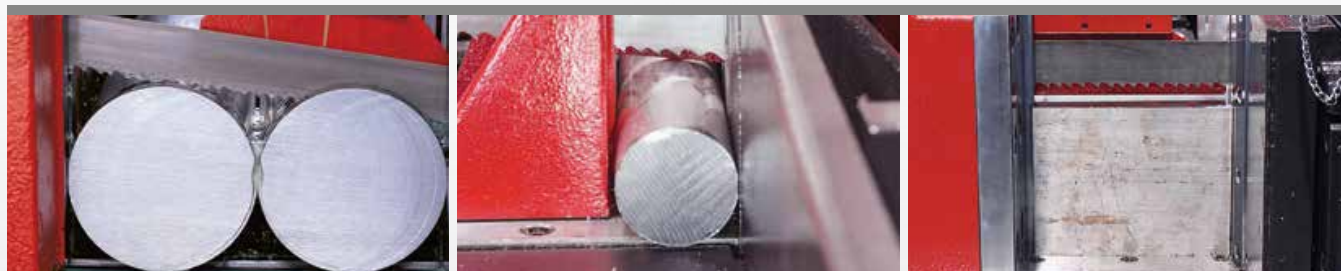
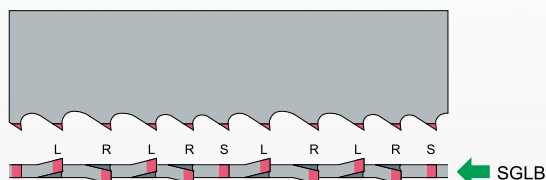
Hardness: 950HV

Wear Resistance: ★★ ★

Chipping Resistance: ★ ★
















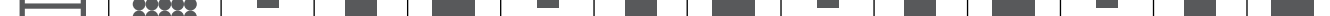




① Adoption of M42 Cobalt High-Speed Steel

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-beam 	~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 inch mm		Blade Thickness inch mm		Pitch								
				.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."

Advantages

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



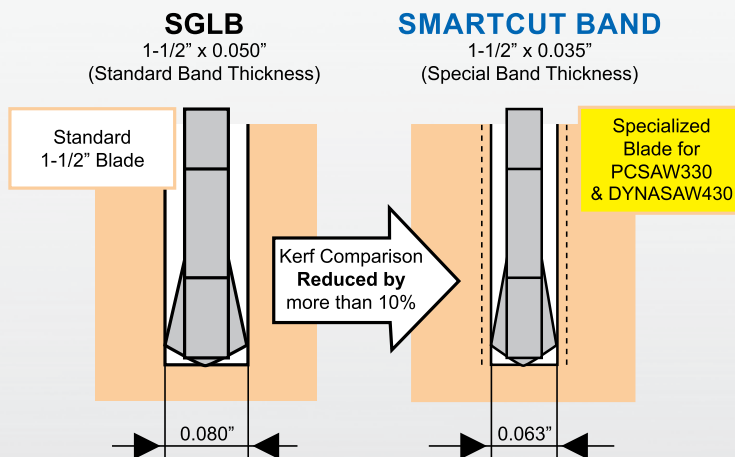
Tooth Type: SCB-SG (SMARTCUTBAND SGLB)

Edge Material: M42 High-Speed Steel

Hardness: 950HV



















Wear Resistance: ★ ★ ★

Chipping Resistance: ★ ★



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 	Thick wall 	~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 inch	mm	Blade Thickness inch	mm	Pitch			
				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."

Advantages

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



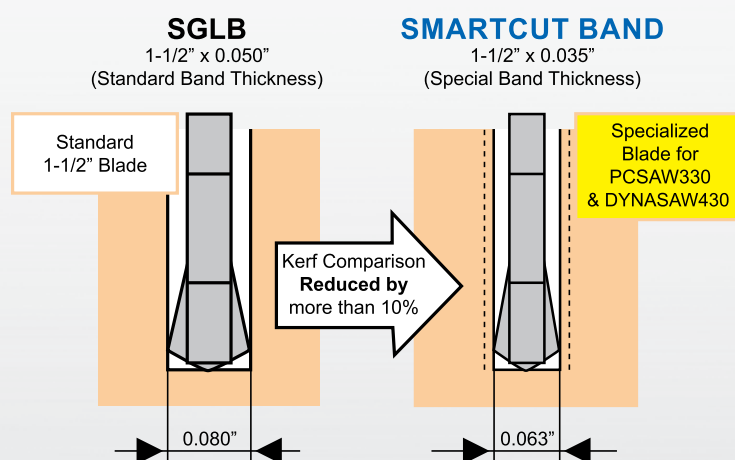
Tooth Type: SCB-MA (SmartCutBand Magnum HI-LO)

Edge Material: AMADA M71 HSS

Hardness: 1000HV

Wear Resistance: ★★★★★

Chipping Resistance: ★



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-beam	~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

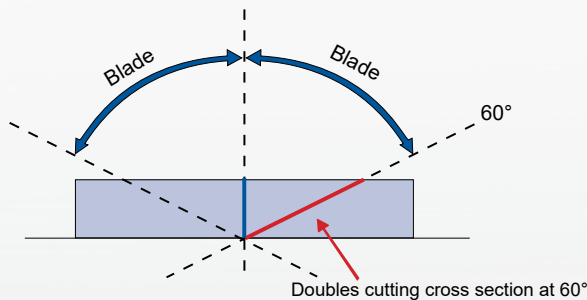
Vertical Tilt-Frame Blade

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



EAGLE BEAK VTR

Tooth type :

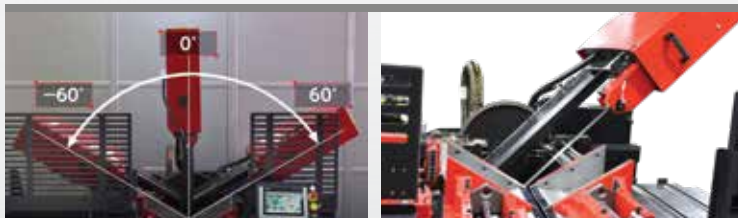
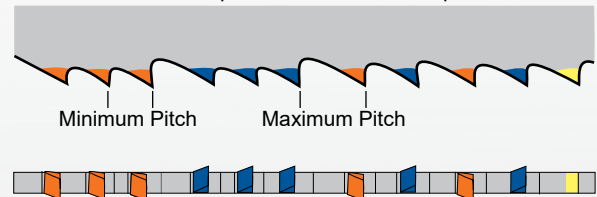
Edge material : M42 Cobalt HSS

Hardness : 950HV

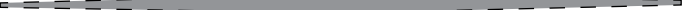


Wear resistance : ★★★★★

Chipping resistance : ★★★★★

Maximum pitch = 2x the Minimum pitch

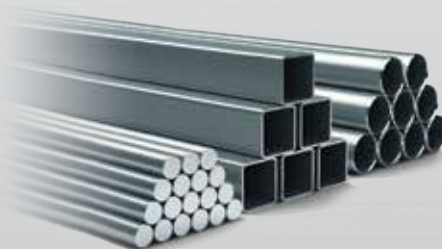


Recommended TPI for Cutting Material Size

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

Lineup of Products

Eagle Beak VTR				
Name				
Blade Width inch	Blade Width mm	Blade Thickness inch	Blade Thickness mm	Pitch
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

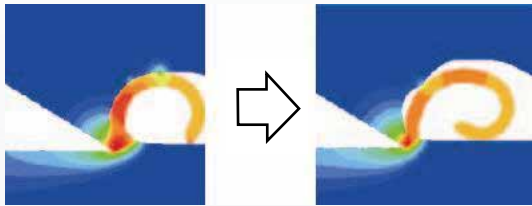
AMADA Modified M42 HSS

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
Chip curler tooth shape improves chip removal and reduces the impact on the bottom of the gullet resulting in better life. Cobalt8 is ideally suited to cut mild steel.



Unique “Chip Curler” Tooth Design



Tooth Type: Cobalt 8

Edge Material: Amada Modified M42 HSS

Hardness: 930HV

Wear Resistance:



Chipping Resistance:



- 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 • 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-beam 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 inch mm	Blade Thickness inch mm	Pitch					
		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 • 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	Thick wall	~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~
															
Deck plate		H-beam Channel													

Lineup of Products

Name				MGLB, Straight Pitch, General Purpose Matrix Bi-Metal Blades				
Blade Width inch	mm	Blade Thickness inch	mm	Pitch				
				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 inch	mm	Blade Thickness inch	mm	Pitch						
				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.

① HI-LO + Twin Set Tooth Shape

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

② Proprietary Tooth Tip Shape

A positive rake angle improves cutting performance.

③ Adoption of First Two-Step Relief Angle for Small Pitch Blades

The gullet capacity is increased to prevent chip clogging.



Tooth Type: HI-LO Twin Set Tooth Shape

Edge Material: AMADA Modified M42 HSS

Hardness: 900HV

Wear Resistance: ★★

Chipping Resistance: ★★★★★

Applicability

 : Break-in area / 1000cm² • 100in²

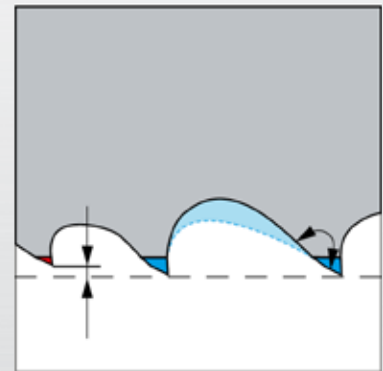
Roll-formed section steels	Structural steels	Small diameter
Thin wall C-shaped ○ □ ▤	H-beam Channel H U	~100mm ~4in ● ■

Lineup of Products

Blade Width inch mm	Blade Thickness inch 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

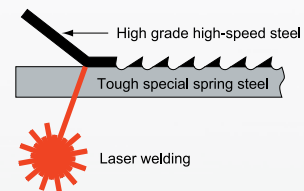
- A breakthrough for previously difficult to cut materials.
- No crooked cuts, no blade breakage and consistent quality cut finish.

1 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.



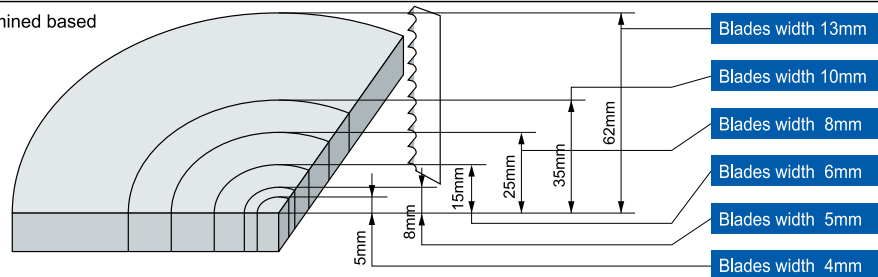
Edge Material: AMADA Modified M42 HSS
Hardness: 890HV



Applicability

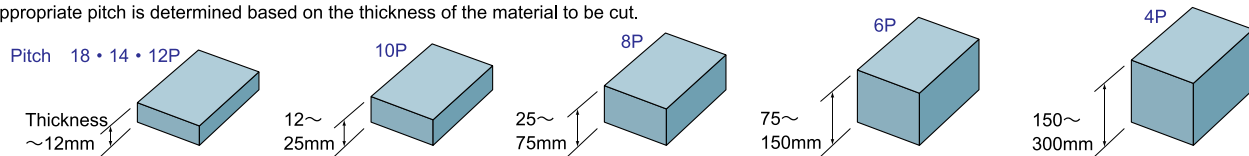
Selection of blades width

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 inches mm	Blade Thickness inches mm	Pitch							
		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.

CARBIDE CIRCULAR BLADES

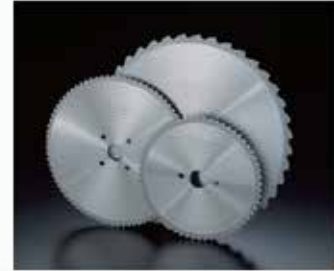
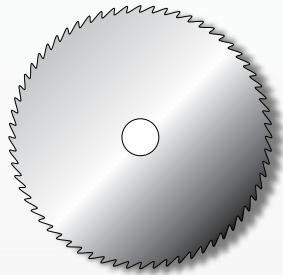
TCB[®] SERIES

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						bearing steel 1.0%	Stainless steel
	0.1	0.2	0.3	0.4	0.5	%		
	TCB-CRⅡ							
TCB-PTⅡ	TCB-CB							TCB-SU
TCB-PT	TCB-TⅢ							TCB-TISU
•STKS •STK •STKM •STKR	•SS400, S10C~40C •SCr, SCM415~440 •SNM415~439 •SMn420~443			•S40C~58C •SCr, SCM440~445 •SNM439~447 •SMn443			•SUJ2~5 •SUM •SUP	•SUS304 etc.

Blade Size (Diameter) Recommendation by Material Size

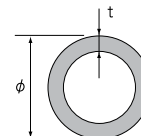
Unit : mm

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															
	50	100															
		60															
380	40	80															
		100															
		60															
460	50	40															
		60															

Blade Pitch Recommendation for Pipes

Unit : mm

		Outer diameter	Inner diameter
		285	32
TCB-PT			40
		140Z	120Z
Pipe diameter	φ 10	—	—
	φ 20	t 6.8	—
	φ 30	t 3.1	t 9.3
	φ 40	t 2.1	t 5.2
	φ 50	t 1.6	t 3.7
	φ 60	t 1.2	t 2.5
	φ 70	t 1.0	t 2.3



Suitable for low and medium carbon steels

TCB-CR II

- 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%.

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



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-PT II

- 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.

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



Outer Diameter mm	Inner Diameter mm	Thickness mm	Number of teeth Z					
			TCB-PTII			TCB-PT		
			60	80	100	100	120	140
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

- 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.

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



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-TII

- 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.

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



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

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

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



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

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

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



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

① Process Improvement with a High-Grade Finish

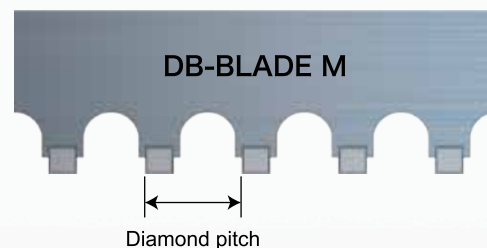
Diamond-supported grinding and cutting contribute to high-accuracy cut faces and reduced burdens on subsequent processes.

② 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.

③ 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.

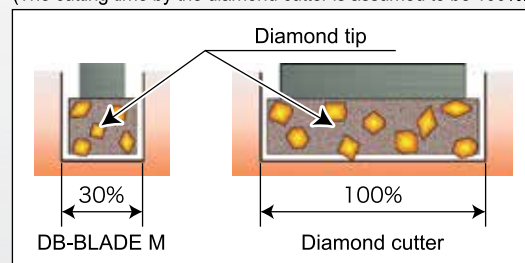


Comparison of cutting time when cutting $\Phi 300$ quartz glass
(The cutting time by the diamond cutter is assumed to be 100%.)

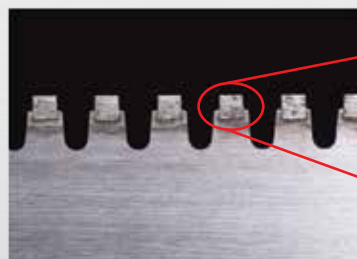


* Comparison with our in-house products

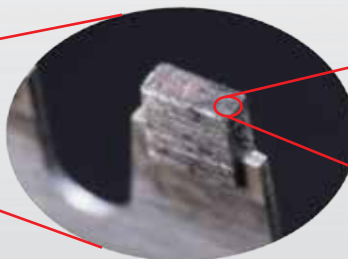
Comparison of cutting margins when cutting $\Phi 300$ quartz glass
(The cutting time by the diamond cutter is assumed to be 100%.)



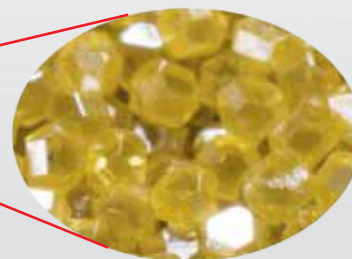
* Comparison with our in-house products



Metal diamond blade



Diamond tip



Diamond abrasive grains

Lineup of Products

Name						DB-BLADE M			
Blade Width inch mm	Blade Thickness inch mm	Thickness inch mm				Diamond pitch			
						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.

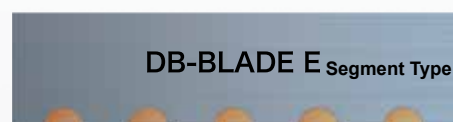
① Flat Type

- 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.



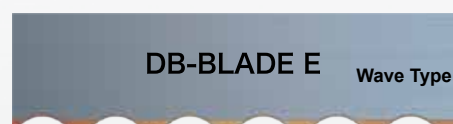
② Segment Type

- 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.



③ 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 inch	mm	Blade Thickness		Electrode position specification		
		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



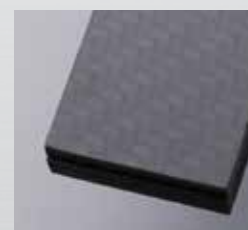
Quartz glass



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.

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AMADA MACHINERY AMERICA, INC.

100 S Puente St · Brea, CA 92821
Phone: 847.285.4800
www.amadamca.com



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