

PULSE CUTTING BANDSAW MACHINE

PCSAW MACHINE SERIES



 **Qmada®**

What is PCSAW?

PCSAW means “Pulse Cutting Bandsaw Machine.”




Vibration has always been an inherent and unwanted characteristic of metal sawing, a trait that machine and blade manufacturers have been working to mitigate for over 50 years. Compounding the challenge is the need in today’s market for cutting harder, larger-sized materials.

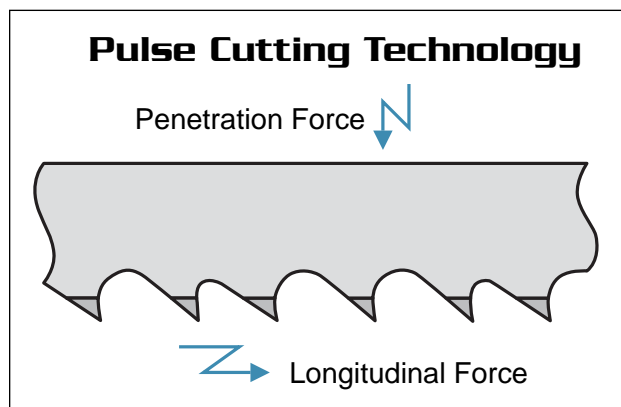
With the conventional metal sawing method, high cutting rates were synonymous with decreased blade life and increased vibration and noise. The answer to the following formula, the value “**A**” has always had a limitation.

$$\text{High Cutting Rates} \times \text{High Precision} \times \text{Low Noise} \times \text{Long Blade Life} = \text{A}$$

Amada addressed this challenge and developed **Pulse Cutting Technology** as a solution to these problems. By sending controlled pulses to the blade, Amada has cancelled all unwanted vibrations for the most efficient metal cutting.

Amada PCSAW Series now offers four models to fit your requirements regarding cutting different sizes of material:

PCSAW Models	 PCSAW330	 PCSAW430AX	 PCSAW530AX	 PCSAW700
Pulse Cutting	Single Pulse			Double Pulse
Cutting Capacity	13"	16"	21"	28"
Pulse Control for Longitudinal Force	N/A			Blade Servomotor Direct Drive
Pulse Control for Penetration Force	Induction Motor Drive			Servomotor with Cam Disc
Cutting Control	Hydraulic Pressure Control and Flow Control	Servomotor with Ball Screw		

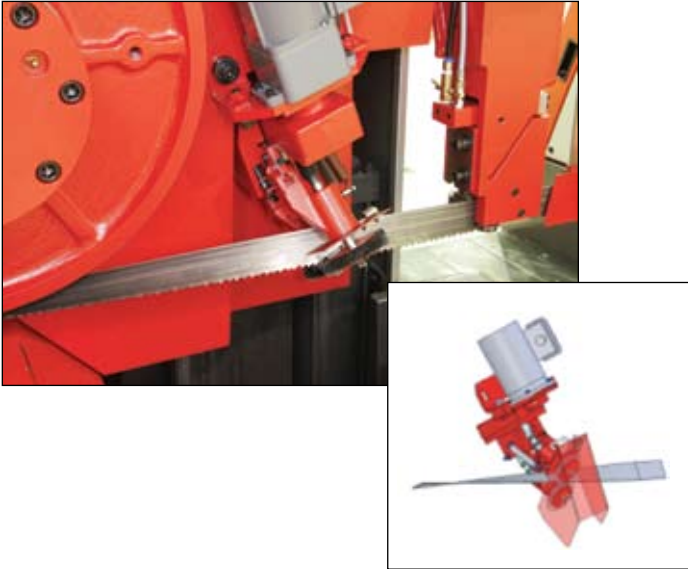


Amada’s Pulse Cutting Technology - This breakthrough achieves maximum blade performance by minimizing vibrations and cutting resistance.

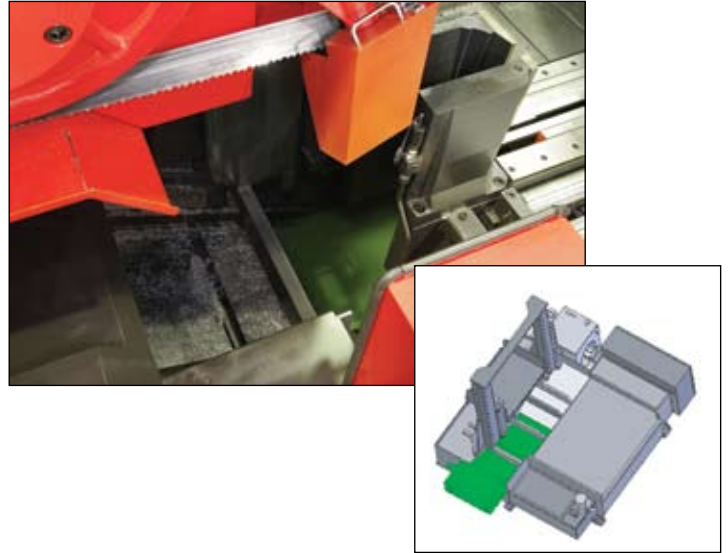
PCSAW430AX and PCSAW530AX

New Features for High Speed Cutting

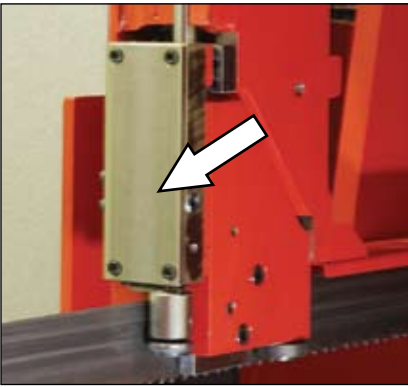
3D Chip Removal System



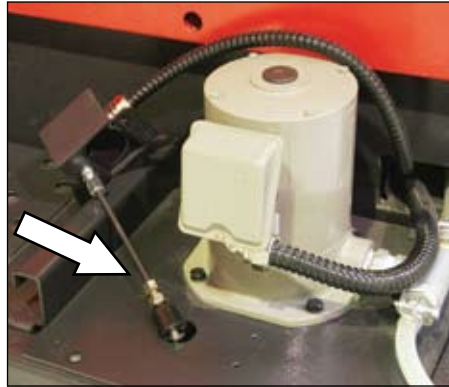
Large Area Chip Conveyor



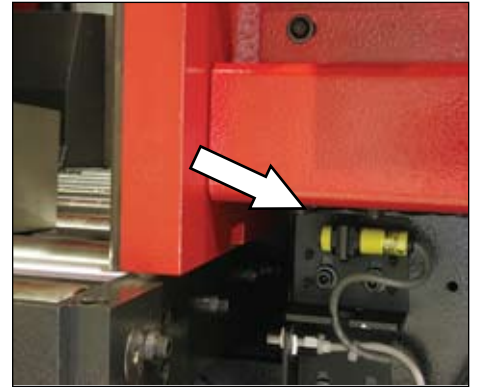
Blade Deviation Monitor



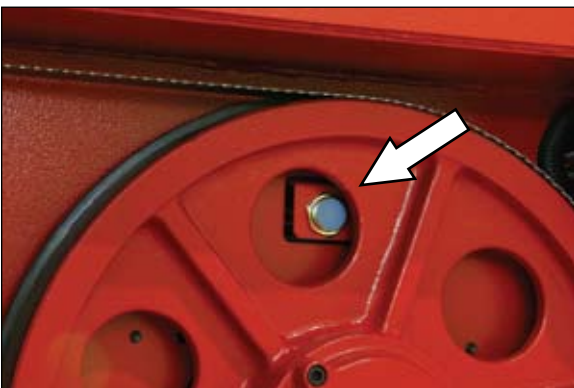
Cutting Fluid Level Detector



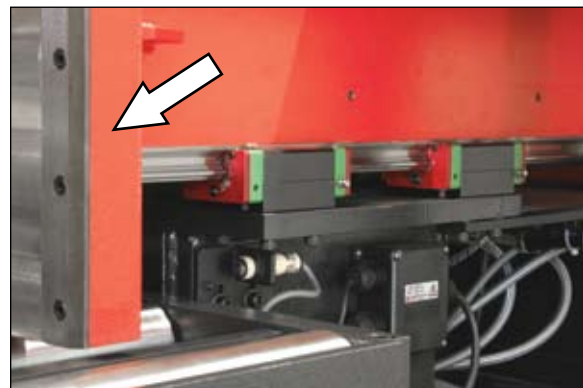
Feed Detector



Wheel Slip Detector



Increased Vise Rigidity
prevents material movement during cutting
or indexing



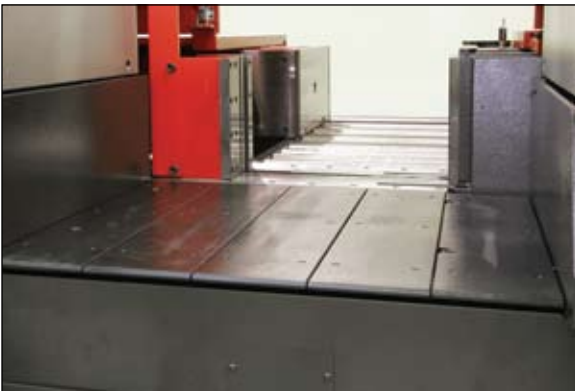
PCSAW430AX and PCSAW530AX

New Features for Efficient Operation

Back Gauge Plate for Stopper Block makes it easy to cut short material



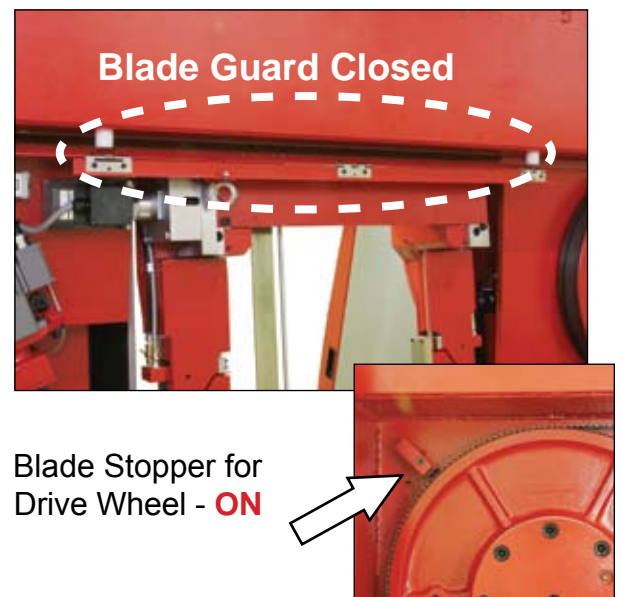
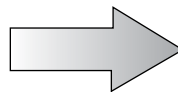
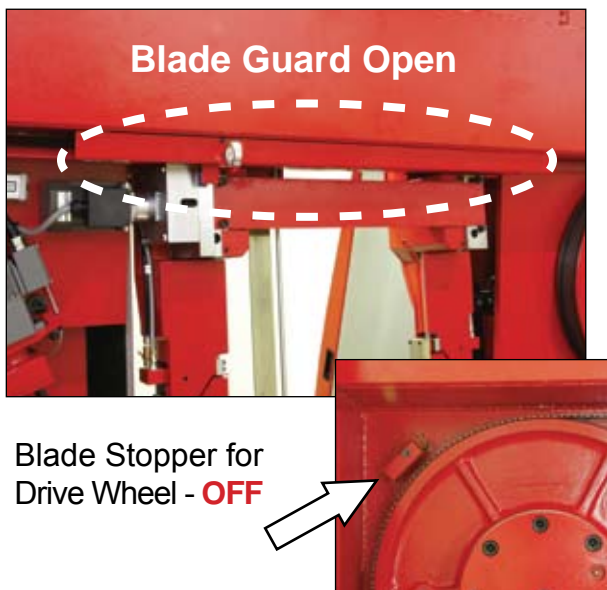
Fully Accessible Feeding Table to accommodate the full range of material sizes



Obstruction-Free Loading Table to accommodate all types of material loading



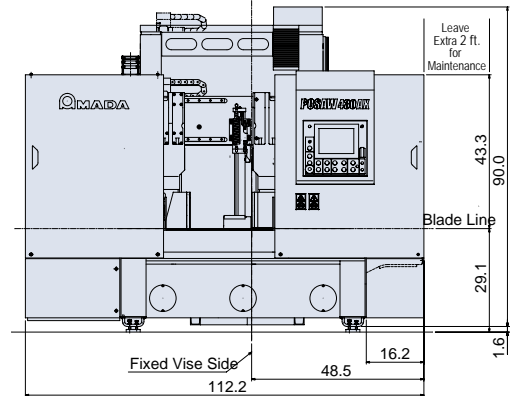
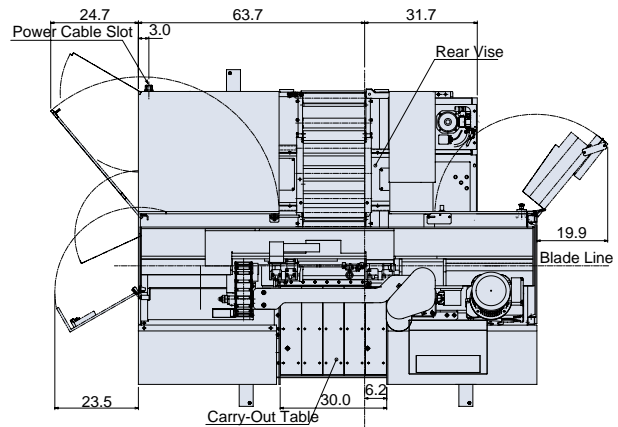
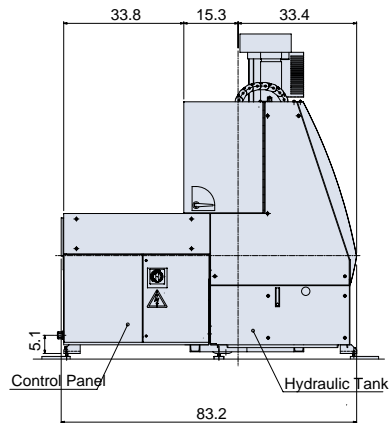
Safe and Easy Blade Replacement



Dimensions (inches)

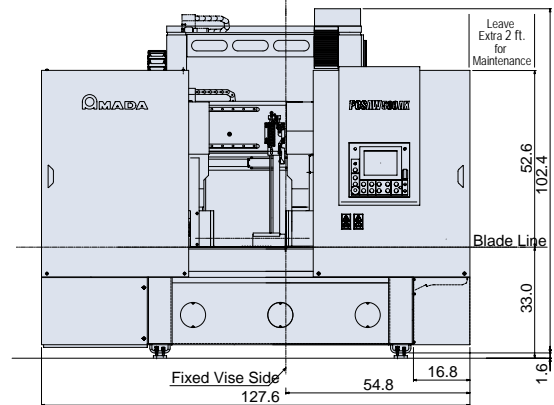
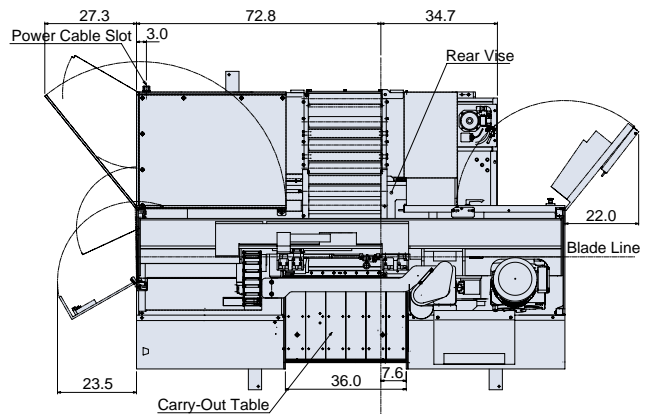
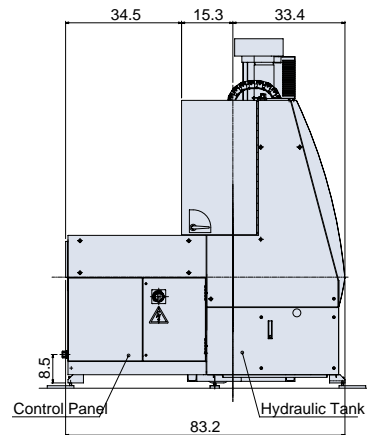
New Machine

PCSAW430AX



New Machine

PCSAW530AX



PCSAW330

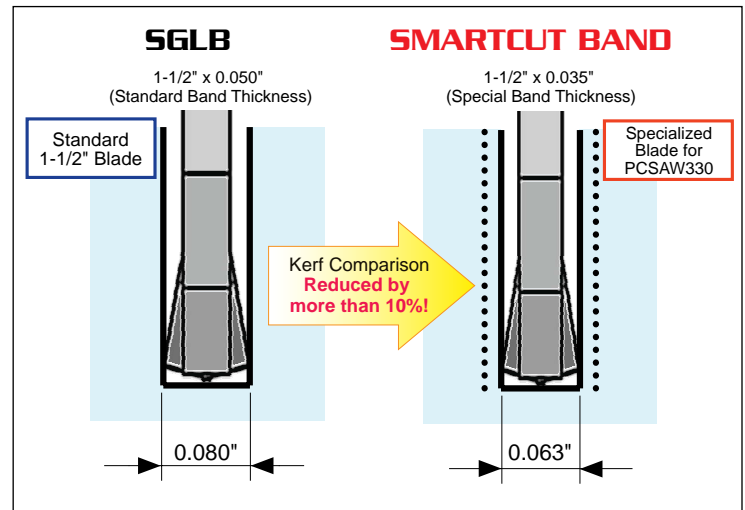
Pulse Cutting Remarkably Increases Productivity

Single pulse cutting cancels the vibrations that occur during the penetration force. This technology decreases cutting resistance while increasing blade life and cutting rates. Increased blade life is now guaranteed without sacrificing productivity.

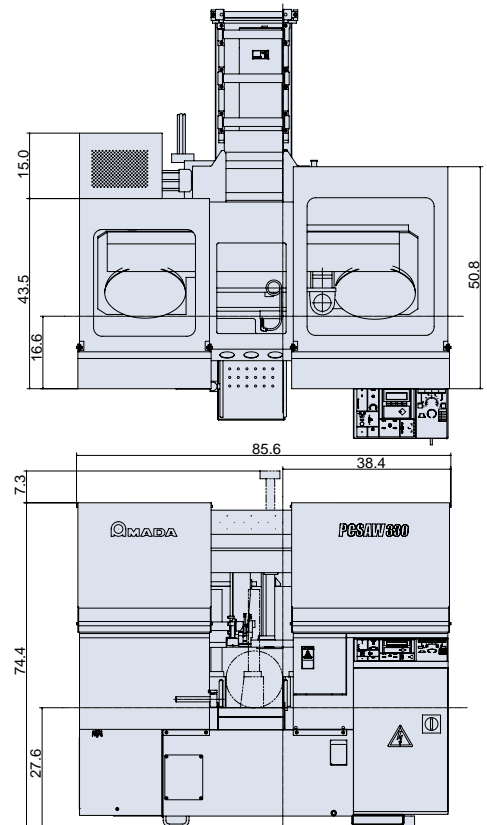
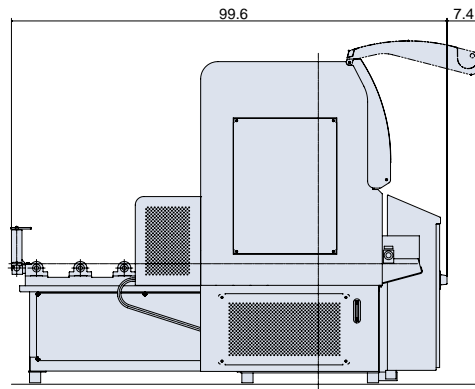
PCSAW + Smartcut Band Blade

Use **SMARTCUT BAND** for optimal performance of your PCSAW330. The combination of the machine and blade fully minimize the cutting resistance. SMARTCUT BAND also increases material yield by reducing kerf.

Note: Standard blade (1-1/2" x 0.050") is also available for PCSAW330. Please ask our distributors for the detail.



Dimensions (inches)



PCSAW700

Attain Higher Cutting Rates with Low Noise Levels

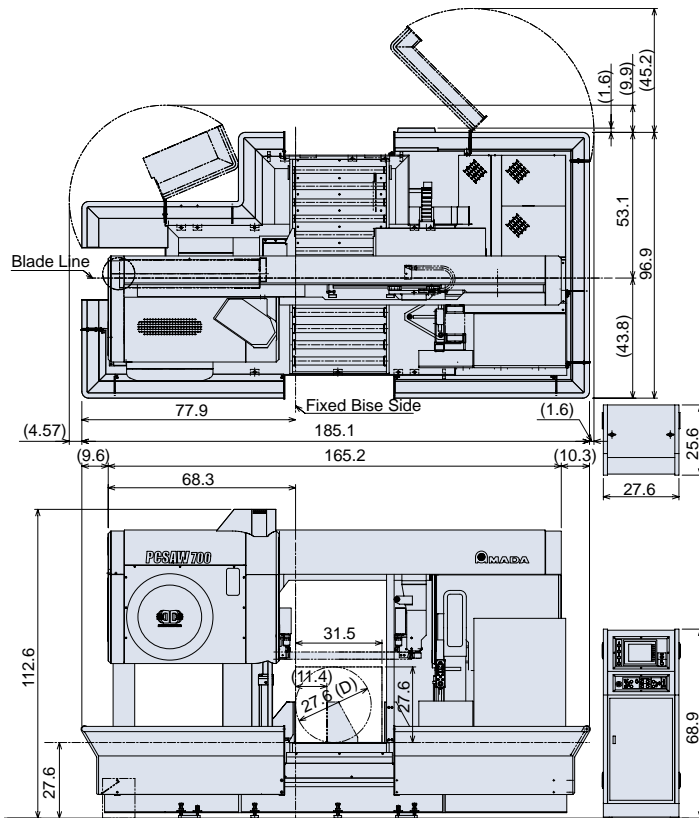
Double pulse cutting by servomotor controls vibrations that occur during the longitudinal and penetration forces. This technology generates the maximum efficiency of blade performance and enables high cutting rates with low noise levels.

Increased Blade Life Without Sacrificing Productivity

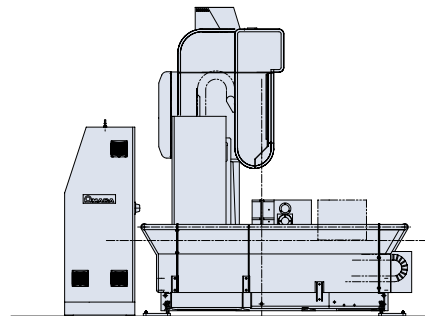
In most cutting applications, by controlling vibrations that occur during the penetration force, pulse cutting reduces cutting resistance and blade wear by 50 percent. Lower tooling cost is ensured by the extended blade life.

Automatic Dual Wire Brush System

The dual wire brushes contact the sides of the blade at the teeth, instantly cleaning the gullet area and avoiding excessive brush wear due to improper settings.



Dimensions (inches)



Specifications

Model		PCSAW330	PCSAW430AX
Cutting Capacity	Round (Diameter)	1.18" - 13"	1.18" - 16.93"
	Rectangle (W x H)	13" x 13"	16.93" x 16.93"
Work Load Capacity		4410 lbs.	6613 lbs.
Work Feed	Feed Stroke	Index Length per Stroke 19.685"	Index Length per Stroke 19.685"
	Feed Length	0.394" - 99.999"	0.394" - 99.999"
Saw Blade	Blade Size (L x T x W)	13'6" x 0.035" x 1-1/2"	20' x 0.063" x 2"
	Blade Speed	49 - 394 ft./min., 60 Hz (Inverter)	49 - 394 ft./min., 60 Hz (Inverter)
Motors	Saw Blade Motor	5 HP	15 HP
	Hydraulic Pump Motor	2 HP	3 HP
	Pulse Cutting Motor	1/4 HP	1/8 HP
	Cutting Fluid Pump Motor	1/4 HP	1/2 HP
	Saw Head Motor	N/A	3/4 HP
Machine Dimensions (W x L x H)		85.6" x 99.6" x 74.4"	112.2" x 83.2" x 90.0"
Table Height (Above Floor)		27.6"	27.6"
Machine Weight		3970 lbs.	10361 lbs.

Model		PCSAW530AX	PCSAW700
Cutting Capacity	Round (Diameter)	1.18" - 20.87"	28"
	Rectangle (W x H)	20.87" x 20.87"	31.5" x 28"
Work Load Capacity		10141 lbs.	26400 lbs.
Work Feed	Feed Stroke	Index Length per Stroke 19.685"	Index Length per Stroke 18.90"
	Feed Length	0.394" - 99.999"	0.984" - 787.400"
Saw Blade	Blade Size (L x T x W)	22'11" x 0.063" x 2-5/8"	27'3" x 0.063" x 2-5/8"
	Blade Speed	49 - 394 ft./min., 60 Hz (Inverter)	49 - 261 ft./min., 60 Hz (Inverter)
Motors	Saw Blade Motor	20 HP	25 HP
	Hydraulic Pump Motor	3 HP	5 HP
	Pulse Cutting Motor	1/8 HP	1/4 HP
	Cutting Fluid Pump Motor	1/2 HP	1/2 HP
	Saw Head Motor	3/4 HP	7 HP
Machine Dimensions (W x L x H)		127.6" x 83.2" x 102.4"	185.1" x 98.5" x 112.6"
Table Height (Above Floor)		31.5"	27.6"
Machine Weight		12125 lbs.	22046 lbs.

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

AXCELA

AXCELA Carbide Blade



PCSAW and AXCELA carbide blade, perfect combination for optimum performance