AMADA MACHINE TOOLS AMERICA, INC.

AHB TOOLING & MACHINERY

COMPLETE METALWORKING SOLUTIONS

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THE VISION OF PRECISION

PCSAW Series

AMADA®

Contents

Amada Machine Tools America

With more than 70 years of industry experience, Amada Machine Tools America is committed to helping our customers deliver dependable service and top-quality work with exceptional sawing solutions.

Whatever your sawing needs, we have the right solution for your specific application.

Market-Leading Quality—We believe quality work begins with quality tools designed and built from the ground up to deliver outstanding performance, time after time.

Customer-Driven Innovation—Every feature, function, and configuration we offer has been developed to address the needs of our customers.

Proven Accuracy—We help you take your work to the next level and exceed your customers' expectations.

Reliable Productivity—We understand productivity is the heart of your business, and we can help you optimize it in multiple ways.

A History of Cutting-Edge Manufacturing

Amada Machine Tools was founded on the manufacturing of saws back in 1946. Since that time, our goals have always been to provide our customers with increased productivity and reliability.

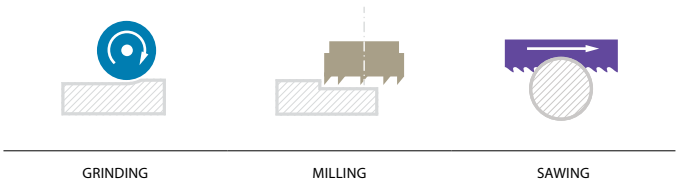
And, as technology has evolved, we've embraced CNC automation as a core strength, improving throughput and helping new operators become productive more quickly.

Today, we are uniquely positioned to help you expand your capabilities and grow your business.

Solutions Designed Around Customer Needs

No two customers' needs are exactly alike. Finding the right solution means thoroughly understanding your objectives and configuring a solution to match them precisely. Our engineers bring decades of industry experience to help you achieve your specified goals with a process that fits—and enhances—your workflow.

TECHNOLOGIES OF AMADA



Amada Sawing Technology

A Perfect Match with Amada Blades

Amada also offers another unique advantage in that we manufacture our own bandsaw blades. This allows you to precisely match the characteristics of the blade to the machine to achieve optimum cutting performance, no matter what material you're working with.

Because we manufacture our own blades, we're able to ensure we've got the right blades—in stock—when you need them. And we have expert engineers with years of industry experience on staff to answer any questions you might have.

Finding the Right Solution

No matter what kind of sawing capabilities you need, these machines deliver the proven quality and accuracy that have made Amada the trusted choice for productivity and reliability.

Series	Description
CTB	CNC-controlled horizontal bandsaws designed for carbide-tipped blades
DYNASAW	Dynamic, high-performance bandsaw machines
H	Highly rigid horizontal bandsaws for a wide range of cutting tasks
HA	Semi-automatic horizontal bandsaws
HFA	Fully automatic horizontal bandsaws
HK	Miter-cutting bandsaws for structural steel sections
HKB	NC bandsaws for bundled tubes, solids, and structural materials
PCSAW	Horizontal bandsaws with Amada's revolutionary pulse cutting technology
VM	Vertical bandsaws for cutting blocks and plates
CMB	Circular saws with exceptional surface finishing
SCP	Automated chip compactor

SAWING TECHNOLOGY

Saws

Throughout the steel processing world, the Amada name is known for quality and dependability. Our lineup of industry-leading saws brings a host of innovations designed to improve your productivity. From operator-friendly controls and intuitive CNC software to our patented pulse-cutting technology that offers dramatically improved cutting times while improving blade life, you can count on Amada

SAWING TECHNOLOGY

PCSAW Series

For more than 50 years, machine and blade manufacturers have been working to mitigate the effects of vibration in metal sawing. Traditionally, high cutting rates have always meant decreased blade life and increased vibration and noise. This has become even more challenging in today's market with the increased demand for cutting harder and larger materials. And deadlines haven't gotten any shorter.

PCSAW Series

Vertical Pulse

Robust Blade Guarding

PCSAW Series Revolutionary Pulse Cutting Bandsaws

Achieving higher cutting rates without increasing vibration (and sacrificing precision and blade life) required breakthrough thinking, which is precisely what Amada
delivers.

By sending controlled pulses to the blade, Amada eliminates unwanted vibrations and delivers some of the highest cutting rates in the industry. The pulses can be applied to the penetration force (single pulse) or to the longitudinal force as well (double pulse).

We offer five models with this innovative technology to meet your most demanding cutting jobs.

MODEL	PULSE	CUTTING CAPABILITY ROUND	CUTTING CAPABILITY RECTANGLE (W x H)
PCSAW330	Single	1.18"~13" (30 mm~330 mm)	13" x 13" (330 mm x 330 mm)
PCSAW430X/AX	Single	1.18"~16.93" (30 mm~430 mm)	16.93" x 16.93" (430 mm x 430 mm)
PCSAW530X/AX	Single	1.18"~20.87" (30 mm~530 mm)	20.87" x 20.87" (530 mm x 530 mm)
PCSAW700	Double	28" (715 mm)	31.5" x 28" (800 mm x 715 mm)
PCSAW720	Single	28.3" (720 mm)	32" x 28" (815 mm x 715 mm)

PCSAW330
Horizontal Pulse Cutting Bandsaw for Metal

The PCSAW330 features post construction for improved rigidity compared to hinge-type machines. The full cover prevents scattering of chips and cutting fluid to ensure a cleaner work environment.

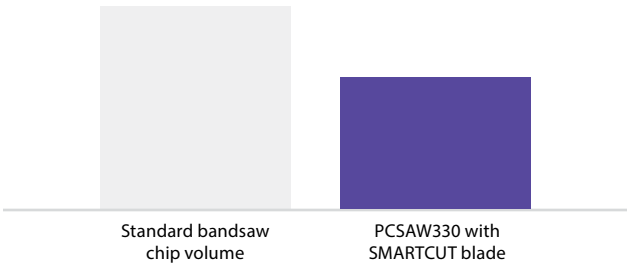
PCSAW330

Blade Deviation Monitor

User-Friendly Controls

The PCSAW330 comes with an Amada SMARTCUT band as standard equipment to help increase yield and reduce the amount of chips produced. The combination of the PCSAW330 and the SMARTCUT band helps minimize the cutting resistance and increases material yield by reducing kerf.

CHIP VOLUME REDUCTION



Standard Features

- 99 station NC backgauge
- AC inverter speed control
- Automatic blade guide setting
- Auto trim cut
- Blade deviation monitor
- Chip conveyor
- Full-stroke vise
- Hydraulic blade tension
- Motion detector
- Quick approach
- Split-front vise

Optional Accessories

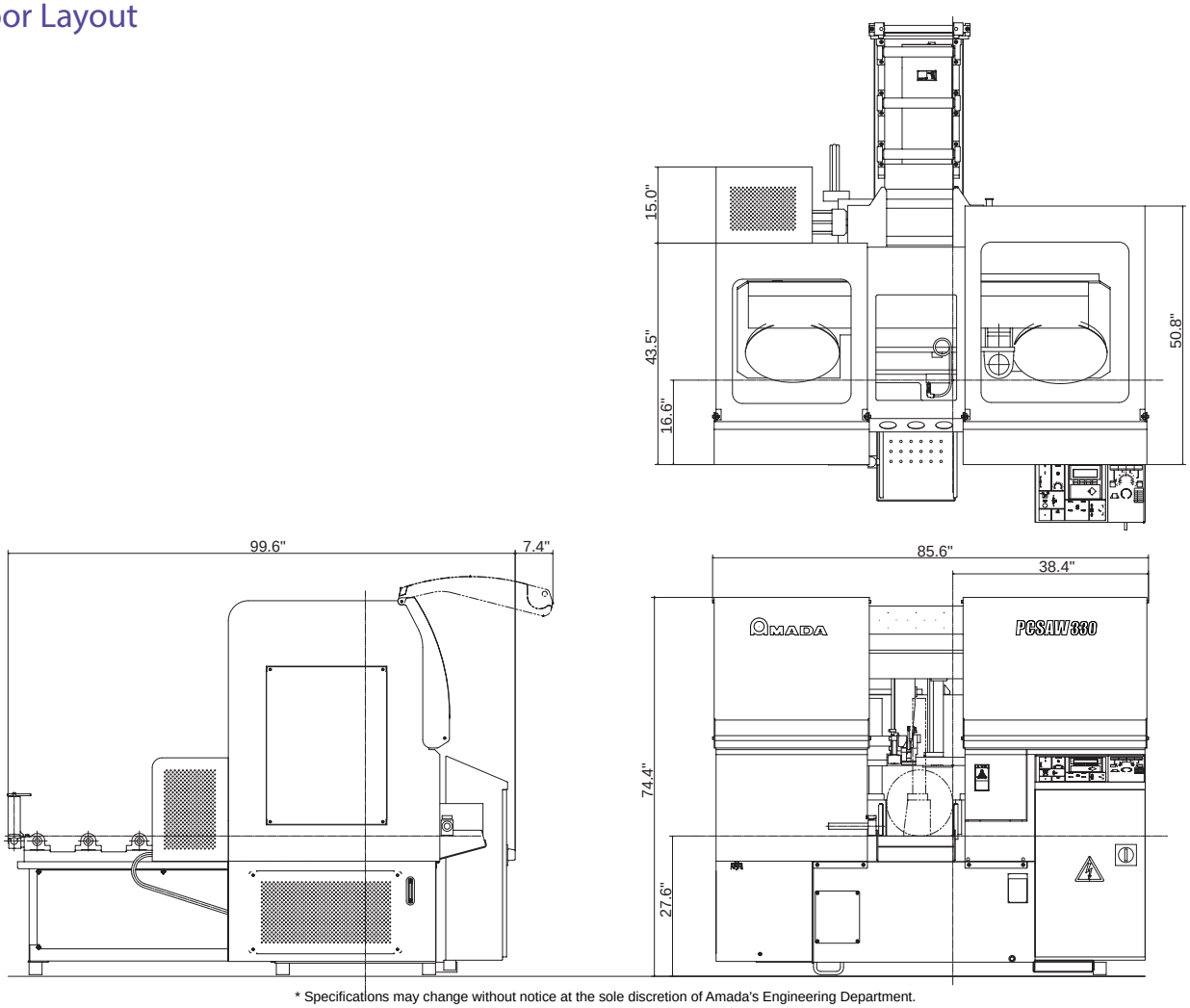
- Roller table 6.5 ft (2 m)
- Roller table 10 ft (3 m)
- Vise pressure control

PCSAW330 Machine Specifications

CAPACITY	Cutting capacity	Round (diameter)	1.18"~13"	30~330 mm
		Rectangle (W x H)	13" x 13"	330 x 330 mm
	Work load capacity		4410 lb	2000 kg
BLADE AND VISE OPERATION	Saw blade	Dimensions (L x T x W)	13'6" x 0.035" x 1.5"	4115 x 0.9 x 41 mm
		Blade speed	49~394 ft/min, by inverter	15~120 m/min, by inverter
		Tension control	Hydraulic	
	Blade control	Top limit setting	Automatic setting with quick approach feeler	
		Cutting control	Hydraulic pressure control and flow control valves	
	Vise operation	Type	Split vise	
		Control	Hydraulic full-stroke cylinder	
MOTORS	Saw blade motor	5 HP	3.7 kW	
	Hydraulic pump motor	2 HP	1.5 kW	
	Pulse cutting motor	1/4 HP	0.2 kW	
	Cutting fluid pump motor	1/4 HP	0.18 kW	
POWER REQUIREMENTS	Power supply voltage	AC220 ± 10%, 3 PH, 60 Hz (all other voltages require a transformer)		
	Power requirement	13 kVA		
CUTTING FLUID AND HYDRAULIC	Cutting fluid	Tank capacity	16.9 gal	64 liters
		Pump type	Electric	
	Hydraulic	Tank capacity	8.7 gal	33 liters
		Pressure setting	498 psi	3.5 MPa (35 kgf/cm^2)
CHIP DISPOSAL	Chip conveyor			
MATERIAL INDEX	Index mechanism		Shuttle vise	
	Stroke		19.685"	500 mm
	Length		0.394"~393.70"	10~9999.9 mm
	Number of input stations		1~99	
	Number of cut-off pieces		1~9999	
	Remnant length		2.283" plus length of parts	58 mm plus length of parts
DIMENSIONS AND WEIGHT	Machine dimensions (W x L x H)	Head up position	85.6" x 99.6" x 74.4"	2175 x 2530 x 1891 mm
		Head down position	85.6" x 99.6" x 74.4"	2175 x 2530 x 1891 mm
	Table height (above floor)		27.6"	700 mm
	Machine weight		3970 lb	1800 kg

PCSAW330

Floor Layout

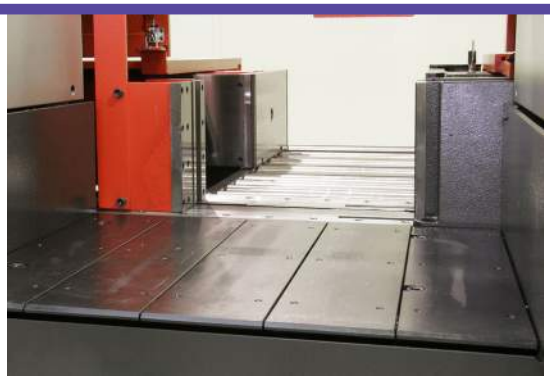


* Specifications may change without notice at the sole discretion of Amada's Engineering Department.

PCSAW430X/AX and PCSAW530X/AX
Horizontal Pulse Cutting Bandsaw for Metal

The PCSAW430X/AX and PCSAW530X/AX models offer a variety of productivity-enhancing features designed to improve cutting performance and operator efficiency. On the PCSAW430X and PCSAW530X, the cutting feed is controlled by a hydraulic flow control valve with stepping motor. The AX models of these two machines utilize a servo motor control for cutting feed.

PCSAW430X/AX and PCSAW530X/AX



Loading Table

Cutting Fluid Level Detector

Standard Features

- 3D automatic adjusting wire brush for chip removal
- Large area chip conveyor
- Blade deviation monitor
- Cutting fluid level detector
- Feed detector
- Motion detector
- Increased vise rigidity—prevents material movement during indexing
- Back gauge plate for stopper block—facilitates cutting short material
- Windows®-based CNC controls
- Fully accessible feeding table—accommodates a full range of material sizes
- Obstruction-free loading table—accommodates all types of materials
- Safe and easy blade replacement

Optional Accessories

- External chip conveyor
- Vertical clamp
- Roller table 6.5 ft (2 m)
- Return conveyor
- Vise pressure control

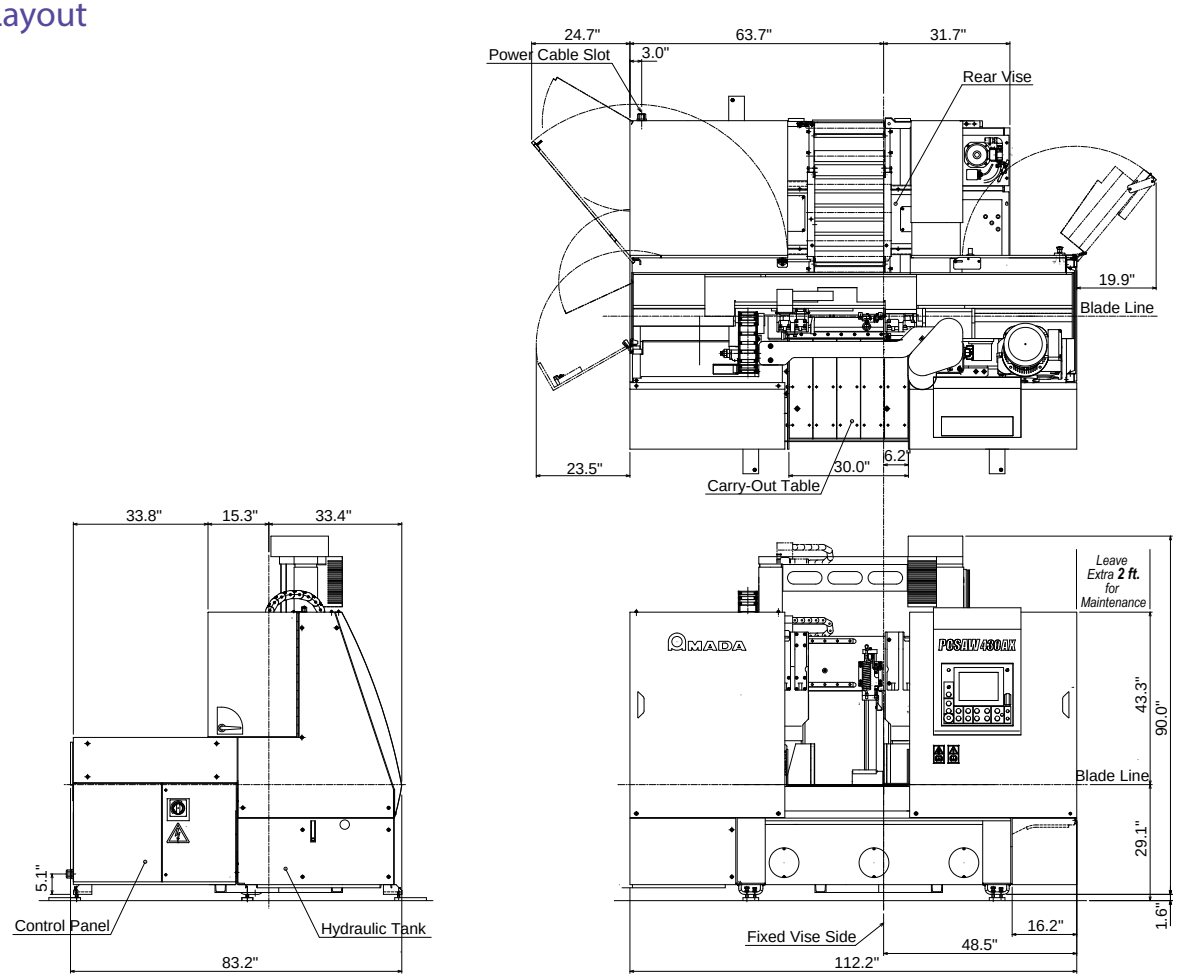
PCSAW430X/AX Machine Specifications

CAPACITY	Cutting capacity	Round (diameter)	1.18"~16.93"	30~430 mm
		Rectangle (W x H)	16.93" x 16.93"	430 x 430 mm
	Work load capacity		6613 lb	3000 kg
BLADE AND VISE OPERATION	Saw blade	Dimensions (L x T x W)	20' x 0.063" x 2"	6100 x 1.6 x 54 mm
		Blade speed	49~394 ft/min, by inverter	15~120 m/min, by inverter
		Tension control	Hydraulic	
	Blade control	Top limit setting	Automatic setting with quick approach feeler	
		Cutting control	430AX: Windows® CNC, servo motor with ball screw 430X: Windows® CNC, hydraulic flow control valve with stepping motor	
	Vise operation	Type	Split vise	
		Control	Hydraulic full-stroke cylinder	
MOTORS	Saw blade motor	15 HP	11 kW	
	Hydraulic pump motor	3 HP	2.2 kW	
	Pulse cutting motor	1/8 HP	0.09 kW	
	Cutting fluid pump motor	1/2 HP	0.25 kW	
	Wire brush motor	1/2 HP	0.2 kW	
POWER REQUIREMENTS	Power supply voltage	AC220 ± 10%, 3 PH, 60 Hz (all other voltages require a transformer)		
	Power requirement	17 kVA		
CUTTING FLUID AND HYDRAULIC	Cutting fluid	Tank capacity	47.3 gal	179 liters
		Pump type	Electric	
	Hydraulic	Tank capacity	7.34 gal	28 liters
		Pressure setting	597.4 psi	4.2 MPa (42 kgf/cm^2)
CHIP DISPOSAL	Built-in wide scraper style chip conveyor			
MATERIAL INDEX	Index mechanism		Shuttle vise	
	Stroke		19.685"	500 mm
	Length		0.394"~393.70"	10~9999.9 mm
	Number of blocks		1~30	
	Number of input stations		1~99	
	Number of cut-off pieces		1~9999	
	Remnant length		3.94" plus length of parts	100 mm plus length of parts
DIMENSIONS AND WEIGHT	Machine dimensions (W x L x H)	Head up position*	112.2" x 83.2" x 90.0"	2850 x 2113 x 2285 mm
		Head down position	112.2" x 83.2" x 90.0"	2850 x 2113 x 2285 mm
	Table height (above floor)		27.6"	700 mm
	Machine weight		10,361 lb	4700 kg

*For PCSAW430AX

PCSAW430X/AX

Floor Layout



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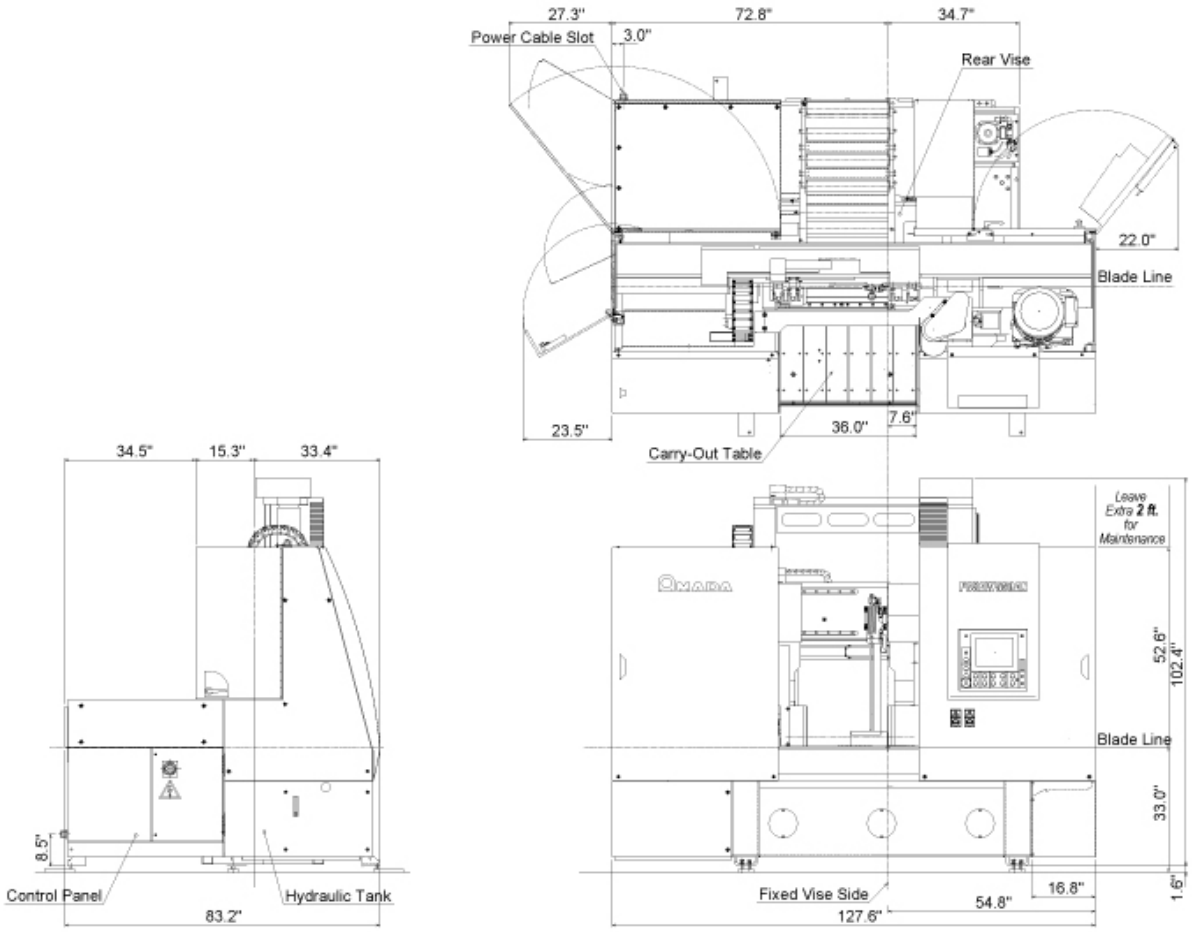
PCSAW530X/AX Machine Specifications

CAPACITY	Cutting capacity	Round (diameter)	1.18"~20.87"	30~530 mm
		Rectangle (W x H)	20.87" x 20.87"	530 x 530 mm
	Work load capacity		10,141 lb	4600 kg
BLADE AND VISE OPERATION	Saw blade	Dimensions (L x T x W)	22'11" x 0.063" x 2.625"	7000 x 1.6 x 67 mm
		Blade speed	49~394 ft/min, by inverter	15~120 m/min, by inverter
		Tension control	Hydraulic	
	Blade control	Top limit setting	Automatic setting with quick approach feeler	
		Cutting control	530AX: Windows® CNC, servo motor with ball screw 530X: Windows® CNC, hydraulic flow control valve with stepping motor	
	Vise operation	Type	Split vise	
		Control	Hydraulic full-stroke cylinder	
MOTORS	Saw blade motor	20 HP	15 kW	
	Hydraulic pump motor	3 HP	2.2 kW	
	Pulse cutting motor	1/8 HP	0.09 kW	
	Cutting fluid pump motor	1/2 HP	0.25 kW	
	Wire brush motor	1/2 HP	0.2 kW	
POWER REQUIREMENTS	Power supply voltage	AC220 ± 10%, 3 PH, 60 Hz (all other voltages require a transformer)		
	Power requirement	22 kVA		
CUTTING FLUID AND HYDRAULIC	Cutting fluid	Tank capacity	50.2 gal	190 liters
		Pump type	Electric	
	Hydraulic	Tank capacity	7.34 gal	28 liters
		Pressure setting	753.8 psi	5.3 MPa (53 kgf/cm^2)
CHIP DISPOSAL	Built-in wide scraper style chip conveyor			
MATERIAL INDEX	Index mechanism		Shuttle vise	
	Stroke		19.685"	500 mm
	Length		0.394"~393.70"	10~9999.9 mm
	Number of input stations		1~99	
	Number of cut-off pieces		1~9999	
	Remnant length		3.94" plus length of parts	100 mm plus length of parts
DIMENSIONS AND WEIGHT	Machine dimensions (W x L x H)	Head up position*	127.6" x 83.2" x 102.5"	3240 x 2113 x 2603 mm
		Head down position	127.6" x 83.2" x 102.5"	3240 x 2113 x 2603 mm
	Table height (above floor)		31.5"	800 mm
	Machine weight		12,125 lb	5500 kg

*For PCSAW530AX

PCSAW530X/AX

Floor Layout



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PCSAW700
Horizontal Double-Pulse Cutting Bandsaw for Metal

The PCSAW700 incorporates Amada's unique pulse cutting technology on both the penetrative and longitudinal directions for faster cutting rates with lower noise levels and increased blade life.

PCSAW700

Automatic Dual Wire Brush System

AC Servo Blade Drive

Standard Features

- Automatic adjusting wire brush
- Automatically positioned guide arm
- Blade deviation monitor
- Blade speed controlled by inverter and pulse motor
- Chip conveyor
- CNC controls
- Full-stroke vises
- Hydraulic blade tensioning
- Motion detector
- Piece counter
- Wheel cover limit switch

Optional Accessories

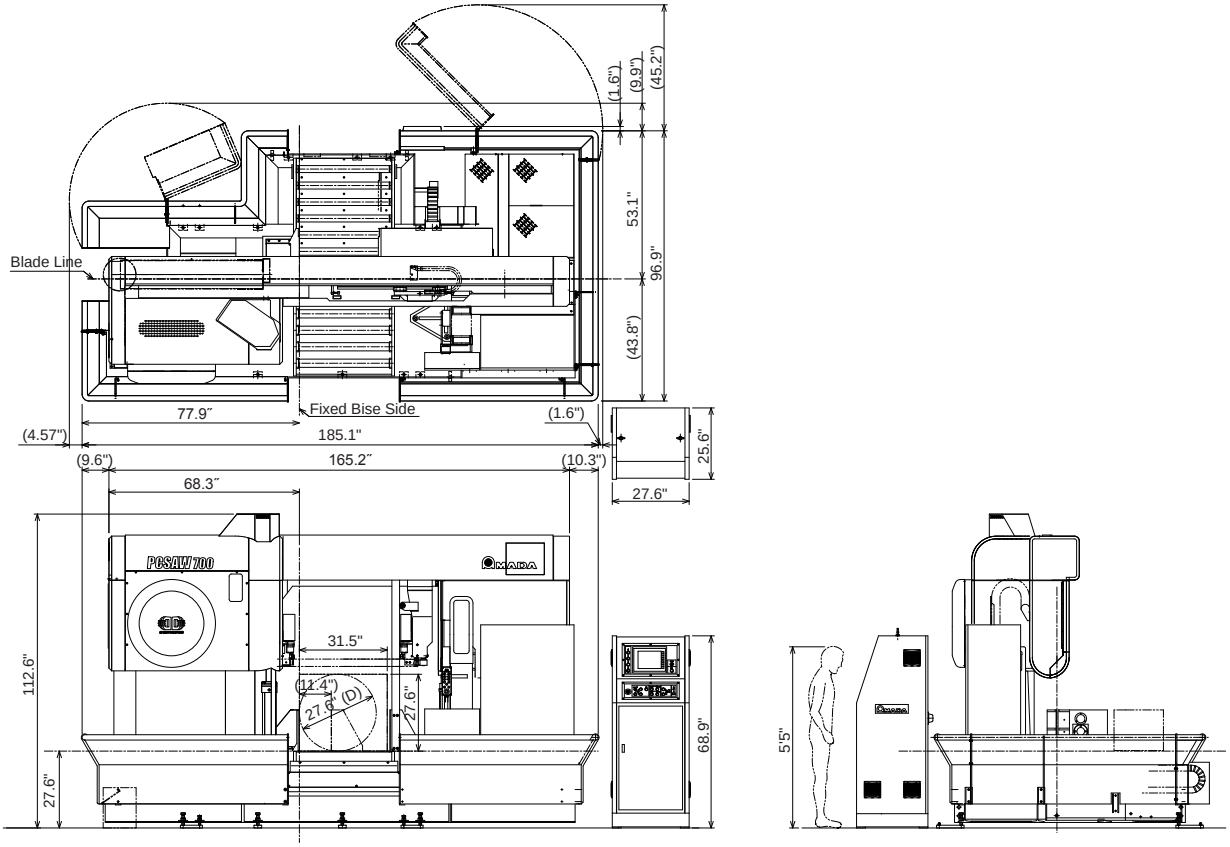
- Roller table
- Powered roller table
- External chip conveyor

PCSAW700 Machine Specifications

CAPACITY	Cutting capacity	Round (diameter)	28"	700 mm
		Rectangle (W x H)	31.5" x 28"	800 mm x 700 mm
	Work load capacity		26,400 lb	11,880 kg
BLADE AND VISE OPERATION	Saw blade	Dimensions (L x T x W)	27'3" x 0.063" x 2.625"	8300 x 1.6 x 67 mm
		Blade speed	49~261 ft/min, by inverter	15~80 m/min, by inverter
		Tension control	Hydraulic	
	Blade control	Top limit setting	Automatic setting	
		Cutting control	CNC with pulse control, servo motor with ball screw	
	Vise operation	Type	Front and rear vise	
		Control	Hydraulic full-stroke cylinder	
MOTORS	Saw blade motor	25 HP, pulse controlled	18.5 kW, pulse controlled	
	Hydraulic pump motor	5 HP	3.7 kW	
	Pulse cutting motor	1/4 HP	0.2 kW	
	Cutting fluid pump motor	1/2 HP	0.37 kW	
POWER REQUIREMENTS	Power supply voltage	AC220 ± 10%, 3 PH, 60 Hz (all other voltages require a transformer)		
	Power requirement	50 kVA		
CUTTING FLUID AND HYDRAULIC	Cutting fluid	Tank capacity	37 gal	140 liters
		Pump type	Electric	
	Hydraulic	Tank capacity	29.1 gal	110 liters
		Pressure setting	783 psi	5.5 MPa (55 kgf/cm^2)
CHIP DISPOSAL	Chip conveyor			
MATERIAL INDEX	Index mechanism		Shuttle vise	
	Stroke		18.9"	480 mm
	Length		0.984"~393.7"	25~9999.9 mm
	Number of input stations		30 blocks, 10 stations per block	
	Number of cut-off pieces		1~999	
	Remnant length		1.8" plus length of parts	45 mm plus length of parts
DIMENSIONS AND WEIGHT	Machine dimensions (W x L x H)		185.1" x 98.5" x 112.6"	4701 x 2501 x 2859 mm
	Table height (above floor)		27.6"	700 mm
	Machine weight		22,046 lb	10,000 kg

PCSAW700

Floor Layout



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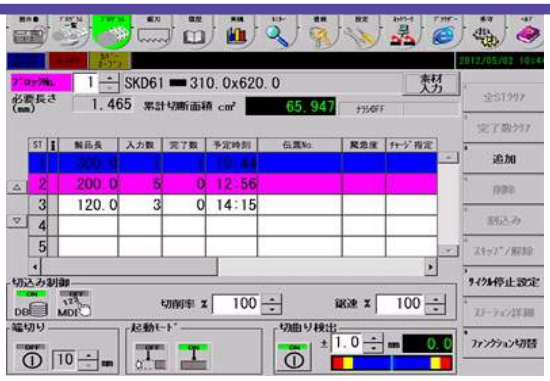
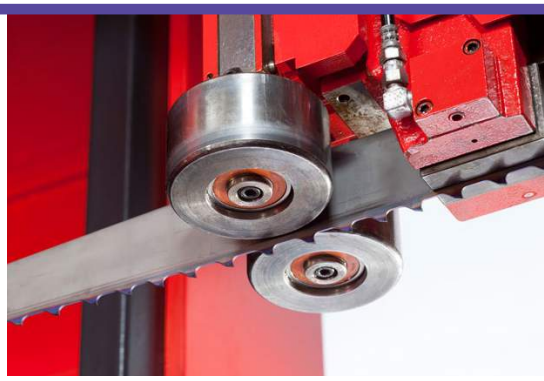
PCSAW720
Horizontal Pulse Cutting Bandsaw for Metal

The PCSAW720 combines Amada's unique pulse cutting technology with the capacity to handle workpieces up to Ø28.3" (Ø720 mm) or 32" x 28" (815 mm x 715 mm). Pulse cutting technology reduces the cutting resistance, dramatically improving cutting rates.

PCSAW720



Windows CNC Control



Vibration Damping

Features

Long Blade Life—The network-enabled CNC controller contains a database of optimum cutting rates with the option of real-time cutting control. This unique database ensures longer blade life and higher cutting rates, especially with carbide-tipped blades like Amada's AXCELA blade.

Low Noise—Powerful vibration dampening rollers reduce both blade chatter and cutting noise.

Ease of Setup—The PCSAW720 utilizes a photo sensor for the quick-approach saw blade for more accurate sawing. The saw design includes larger gaps between the built-in rollers that allow for easier loading from an overhead crane.

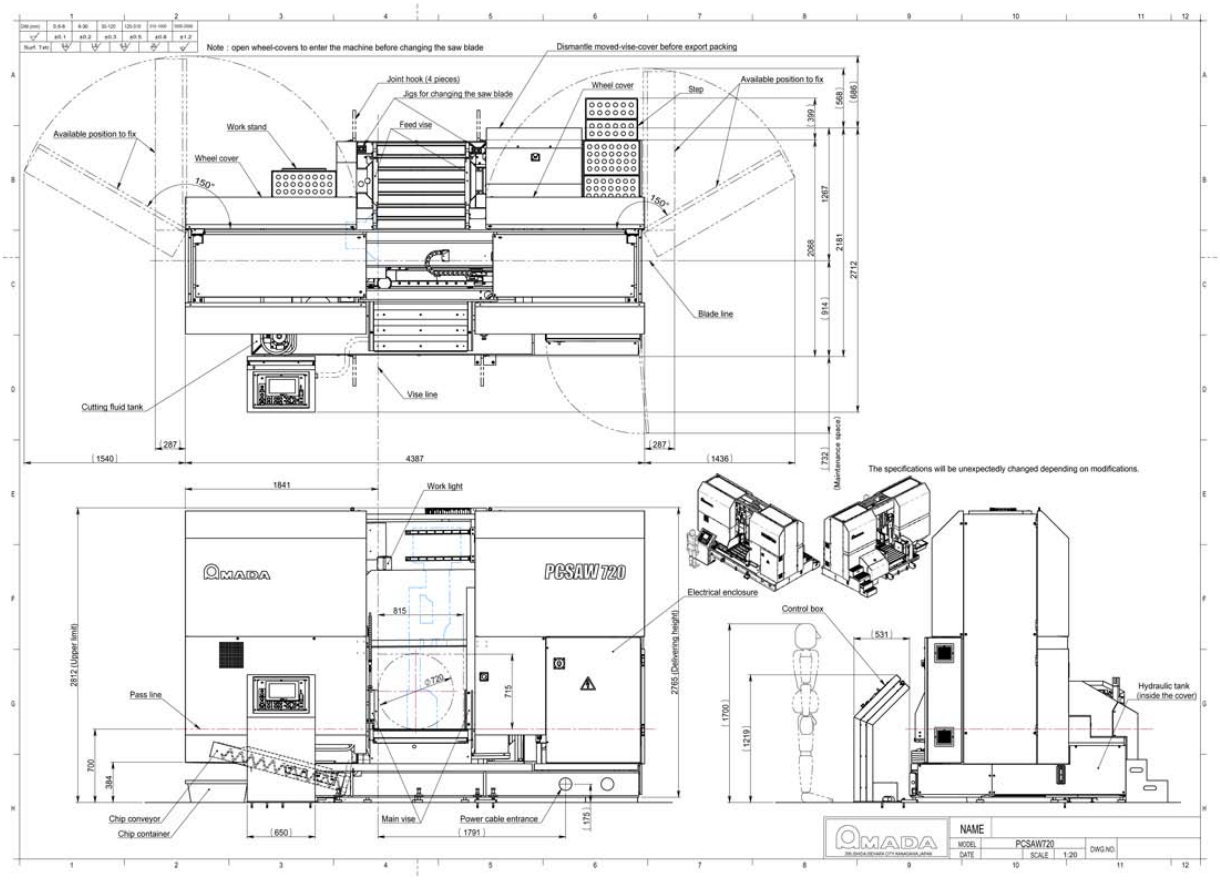
Automatic Dual Wire Brush System—The dual wire brushes contact the sides of the blade at the teeth, instantly cleaning the gullet area and avoiding excessive brush wear due to improper settings.

PCSAW720 Machine Specifications

CAPACITY	Cutting capacity	Round (diameter)	28.3"	720 mm
		Rectangle (W x H)	32" x 28"	815 mm x 715 mm
	Work load capacity		17,640 lb	8000 kg
BLADE AND VISE OPERATION	Saw blade	Dimensions (L x T x W)	27'3" x 0.063" x 2.625"	8300 x 1.6 x 67 mm
		Blade speed	49~361 ft/min, by inverter	15~110 m/min, by inverter
		Tension control	Hydraulic	
	Blade control	Top limit setting	Automatic setting with photo sensor	
		Cutting control	CNC with hydraulic flow control valve with stepping motor	
	Vise operation	Type	Front and rear vise	
		Control	Hydraulic full-stroke cylinder	
MOTORS	Saw blade motor	15 HP	11 kW	
	Hydraulic pump motor	5 HP	3.7 kW	
	Pulse cutting motor	1/4 HP	0.2 kW	
	Cutting fluid pump motor	1/2 HP	0.25 kW	
POWER REQUIREMENTS	Power supply voltage	AC220 ± 10%, 3 PH, 60 Hz (all other voltages require a transformer)		
	Power requirement	25 kVA		
CUTTING FLUID AND HYDRAULIC	Cutting fluid	Tank capacity	52.8 gal	200 liters
		Pump type	Electric	
	Hydraulic	Tank capacity	29.1 gal	110 liters
		Pressure setting	783 psi	5.5 MPa (55 kgf/cm^2)
CHIP DISPOSAL	Chip conveyor			
MATERIAL INDEX	Index mechanism		Shuttle vise	
	Stroke		19.68"	500 mm
	Length		0.787"~393.70"	20~9999.9 mm
	Number of input stations		99 blocks, 99 stations per block	
	Number of cut-off pieces		1~9999	
	Remnant length		1.57" plus length of parts	40 mm plus length of parts
DIMENSIONS AND WEIGHT	Machine dimensions (W x L x H)		172.7" x 85.9" x 110.7"	4387 x 2181 x 2813 mm
	Table height (above floor)		27.6"	700 mm
	Machine weight		17,640 lb	8000 kg

PCSAW720

Floor Layout



See Amada Saws at Work

The AMTA Technical Center was created to provide a unique atmosphere for visitors to experience the latest manufacturing technology in action. This stunning 40,000-square-foot facility houses the latest Amada technology in each product group. Much more than just
an exhibit, every machine, automation accessory, and software program in the facility is fully operational and ready to empower customers to solve their most challenging manufacturing applications.

Specifications, appearance and dimensions are subject to change without notice at the sole discretion of Amada's Engineering Department.

There may be differences between the specifications described in this catalog and the Amada products actually shipped. Please ask our staff for more detail.

The products in the catalog may be subject to the provisions of foreign exchange and the Foreign Trade Law. When exporting cargo subject to such controls, permission pursuant to regulation is required. Please contact our business representative in advance when exporting products overseas.

When using our products, safety equipment is required depending on the operational task.

For safe and correct operation, ensure thorough reference to the Instruction Manual prior to operation.

The cutting performance data in this catalog may be affected by temperature, the cutting materials, tool materials, and cutting conditions, etc. Please note that such data are not guaranteed.

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