AMADA MACHINE TOOLS AMERICA, INC.

THE VISION OF PRECISION

VM 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

VM Series

With more and more businesses embracing "just-in-time" supply chain management, customers are demanding more flexibility and agility from their steel service centers. That means being able to provide more kinds of steel in different sizes more quickly, and that requires the right tools for the job.

Amada's vertical bandsaws come in a variety of sizes and configurations to meet your needs, and they all feature the legendary Amada quality that delivers long, straight, highly accurate cuts for decades of productive service.

VM420, VM1200, VM2500, VM2500WT, VM3800 and VM6500

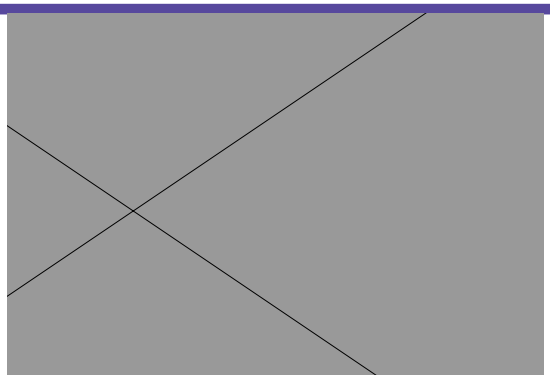
Control Panel

Auto Adjust Wire Brush

MODEL	CUTTING CAPABILITY (L x H)	THROAT DEPTH
VM420	16.5" x 5.9" (420 mm x 150 mm)	11.8" (300 mm)
VM1200	48" x 20" (1219 mm x 508 mm)	20" (508 mm)
VM2500	99" x 20" (2515 mm x 508 mm)	20" (508 mm)
VM2500WT	99" x 20" (2515 mm x 508 mm)	40" (1016 mm)
VM3800	149.6" x 23.6" (3800 mm x 600 mm)	31.5" (800 mm)
VM6500	255.9" x 23.6" (6500 mm x 600 mm)	31.5" (800 mm)

MODEL	CUTTING CAPABILITY (L x H)	THROAT DEPTH
TVM7600	25'0" x 47.2" (7620 mm x 1200 mm)	63" (1600 mm)

Auto Back Gauge



Hydraulic-Driven Chip Removal

STANDARD FEATURES	VM420	VM1200	VM2500	VM2500WT	VM3800	VM6500
AC servo motor table feed		●	●	●	●	●
Auto blade guide positioning		●	●	●	●	●
Blade deviation monitor		●	●	●	●	●
Blade speed display		●	●	●	●	●
Centralized operator station	●	●	●	●	●	●
Chip conveyor		●	●	●	●	●
Cutting length control		●	●	●	●	●
Cutting rate display		●	●	●	●	●
Full-stroke clamping vise (420 only)						
Hydraulic table feed	●					
Motion detector	●	●	●	●	●	●
NC auto gauge (420 only)	●					
NC programmable control		●	●	●	●	●
Variable blade speed by inverter	●	●	●	●	●	●
Wheel cover limit switch	●	●	●	●	●	●
Work height sensor		●	●	●	●	●
Work stopper		●	●	●	●	●

OPTIONAL ACCESSORIES	VM420	VM1200	VM2500	VM2500WT	VM3800	VM6500
Beacon		●	●	●	●	●
Clamp kits	●	●	●	●	●	●
Laser beam marking		●	●	●	●	●
T slot clamps (pair)	●	●	●	●	●	●

VM420, VM1200, VM2500, VM2500WT, VM3800 and VM6500

Easy Setup

Material Clamping Vise

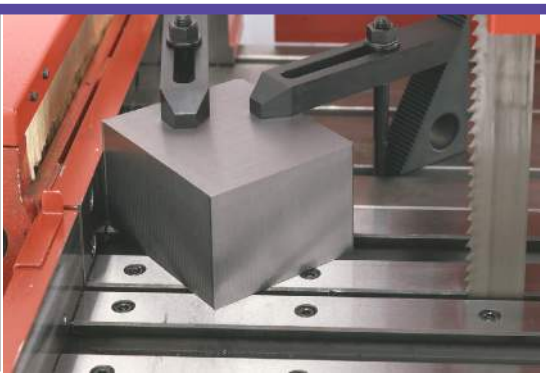
VM420 Features

Flow Feed Control—The flow control ensures the optimum cutting rate can be obtained regardless of the section or alloy being cut. The flow control sets the maximum feed rate of the head.

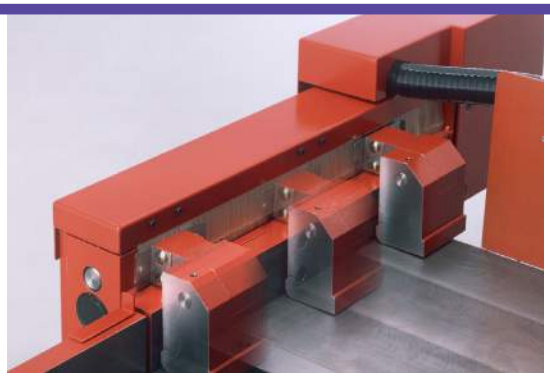
Manual Positioning of Saw Table—The table positioning buttons actuate solenoid valves to rapidly position the table forward or backward. Manual movement of the table is performed from the control panel, and the controls incorporate safety interlocks.

NC Auto Back Gauge—The NC auto back gauge and stopper ensure easy material setting and squareness of material.

Full-Stroke Clamping Vise—The full-stroke clamping vise reduces the operator setup time for material clamping. Also, it allows for a cut-off length of 0.118" (3 mm).



Mechanical Work Holding



NC Auto Back Gauge

VM1200, VM2500, VM2500WT, VM3800 and VM6500 Features

Drive Wheel Transmission—The helical gear motor delivers proper torque and power to the cutting edge for the most economical cutting in even the toughest materials.

Blade Deviation Monitor—The blade deviation monitor constantly displays the current blade cutting conditions and has independently adjustable limits for each direction. If the blade deviation exceeds any limits for more than 90 seconds, the machine will stop. Using the cutting display in conjunction with the runout detector enables the operator to optimize the cutting performance to achieve the desired rate and accuracy.

Automatic Blade Guide Positioning—The height of the rigid saw blade guide is positioned automatically by a hydraulic motor. Appropriate adjustment of the saw blade guide assures the straightest possible cutting.

Table Feed System—The rigid bed and accurate AC servo motor feeding function ensure precision cutting of hard materials. As the system can feed the material at a variety of speeds, these machines can precisely cut materials ranging from aluminum to hard-to-cut steels.

VM420, VM1200, VM2500, VM2500WT, VM3800 and VM6500

Hydraulic Material Fine Positioning

NC Control

VM1200, VM2500, VM2500WT, VM3800 and VM6500 Features

Control System—Conventional flow control valve systems require operators to apply subtle adjustments according to the quality and shape of each material being cut. However, the CNC units of these machines employ Amada's advanced bandsaw technology, eliminating the need for valve adjustment. Once the cutting conditions of a material have been stored in the system, the cutting rate and blade speed are automatically controlled. In addition, the cutting conditions can be changed during cutting operations. The cutting results and conditions of the saw blade in use are displayed on the monitor for quick reference.

Idler Wheel Motion Detector—The idler wheel motion detector will turn off the blade drive in the event of a blade breaking or jamming in the workpiece. This feature prevents premature wear on the drive wheel from a stalled band.

TVM7600 Features

Saw Head Tracking—The saw head tracking allows the TVM7600 to cut long pieces without requiring a large area.

Control System—Conventional flow control valve systems require subtle valve adjustments according to the quality and shape of each material being cut. However, the CNC unit of this machine employs Amada's advanced bandsaw technology, eliminating the need for valve adjustment. Once the cutting conditions of a material have been stored in the system, the cutting rate and
blade speed are automatically controlled. In addition, the cutting conditions can be changed during cutting operations. The cutting results and conditions of the saw blade in use are displayed on the monitor for quick reference.

Chip Conveyor—Cutting large pieces over a long period of time produces a large amount of chips, which is why the TVM7600 features a large chip conveyor to remove chips from the entire table, supporting continuous operation and eliminating the need for the operator to remove chips.

Rigid Arch Frame and Twin-Rail Moving System—To ensure consistent, accurate cutting of large pieces over the life of the machine, the TVM7600 was designed with a rigid arch frame and twin-rail moving system. With the head vibration minimized during cutting, you can achieve exceptionally straight and precise cuts.

Automatic Positioning Mechanism (option)— With the automatic index option, the material is held with the upper clamping unit and the cutting position is determined quickly without requiring manual operation. Also, use of this mechanism makes it possible to automate cutting for a single material.

Standard Features

- Band deviation monitor
- Chip conveyor
- Material hold down (at upper guide arm)
- NC feed control
- Power material handling systems (not auto index)

Optional Accessories

- Automatic index

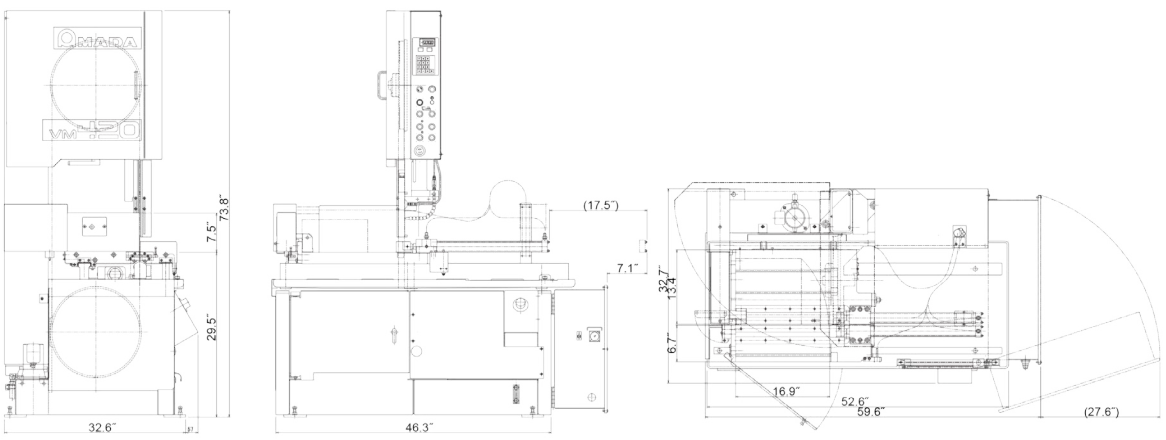
VM420

VM420

VM420 Machine Specifications

CAPACITY	Cutting capacity (LxH)	16.5" x 5.9"	420~150 mm	
	Throat depth	11.8"	300 mm	
	Work load capacity	441 lb	200 kg	
BLADE AND VISE OPERATION	Saw blade	Dimensions (L x T x W)	11'6" x 0.042" x 1.25"	3505 x 1.1 x 34 mm
		Blade speed	49.2~295 ft/min, by inverter	15~90 m/min, by inverter
		Tension control	Hydraulic	
	Blade control	Cutting control	Hydraulic pressure and flow control valve	
	Vise operation	Type	Front and rear vise	
		Control	Hydraulic full-stroke cylinder	
MOTORS	Saw blade motor	3 HP	2.2 kW	
	Hydraulic pump motor	1 HP	0.75 kW	
	Cutting fluid pump motor	1/8 HP	0.10 kW	
	Wire brush motor	1/10 HP	0.06 kW	
	Back gauge motor	1/4 HP	0.20 kW	
POWER REQUIREMENTS	Power supply voltage	AC220 ± 10%, 3 PH, 60 Hz (all other voltages require transformer)		
	Power requirement	5.5 kVA		
CUTTING FLUID AND HYDRAULIC	Cutting fluid	Tank capacity	12.1 gal	46 liters
		Pump type	Electric	
	Hydraulic	Tank capacity	10.5 gal	40 liters
		Pressure setting	384 psi	2.7 MPa (27 kgf/cm^2)
CHIP DISPOSAL	Manual			
FEED	Feed mechanism		Table feed, hydraulic	
	Feed stroke		17.52"	445 mm
	NC back gauge		0.118"~12.008"	3~305 mm
DIMENSIONS AND WEIGHT	Machine dimensions (W x L x H)		59.64" x 32.67" x 73.78"	1515 x 830 x 1874 mm
	Table height (above floor)		29.5"	750 mm
	Machine weight		1984 lb	900 kg

Floor Layout



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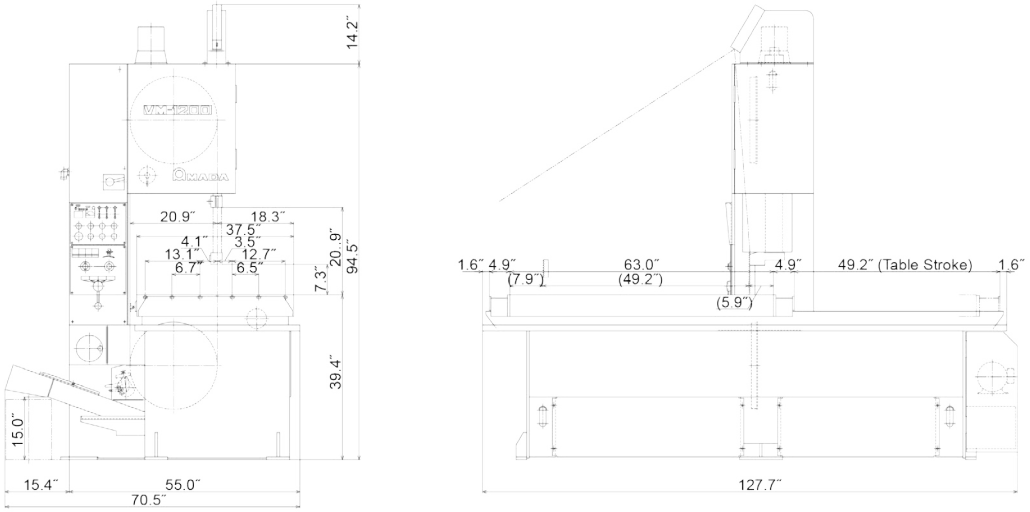
VM1200

VM1200

VM1200 Machine Specifications

CAPACITY	Cutting capacity (L x H)	48" x 20"	1219 x 508 mm	
	Throat depth	20"	508 mm	
	Work load capacity	4410 lb	2000 kg	
BLADE AND VISE OPERATION	Saw blade	Dimensions (L x T x W)	15'4" x 0.063" x 2"	4670 x 1.6 x 54 mm
		Blade speed	33~295 ft/min, by inverter	10~90 m/min, by inverter
		Tension control	Hydraulic	
	Blade control	Cutting control	AC servo motor	
MOTORS	Saw blade motor	7.5 HP	5.5 kW	
	Hydraulic pump motor	1 HP	0.75 kW	
	Cutting fluid pump motor	1/4 HP	0.18 kW	
	Wire brush motor	1/8 HP	0.09 kW	
POWER REQUIREMENTS	Power supply voltage	AC220 ± 10%, 3 PH, 60 Hz (all other voltages require transformer)		
	Power requirement	11 kVA		
CUTTING FLUID AND HYDRAULIC	Cutting fluid	Tank capacity	27.7 gal	105 liters
		Pump type	Electric	
	Hydraulic	Tank capacity	2.6 gal	10 liters
		Pressure setting	498 psi	3.5 MPa (35 kgf/cm^2)
CHIP DISPOSAL	Chip conveyor			
FEED	Feed mechanism		Table feed, AC servo motor with rack and pinion	
	Feed stroke		49.2"	1250 mm
DIMENSIONS AND WEIGHT	Machine dimensions (W x L x H)		79.5" x 128.5" x 96.5"	2020 x 3263 x 2450 mm
	Table height (above floor)		39.6"	1005 mm
	Machine weight		7277 lb	3300 kg

Floor Layout



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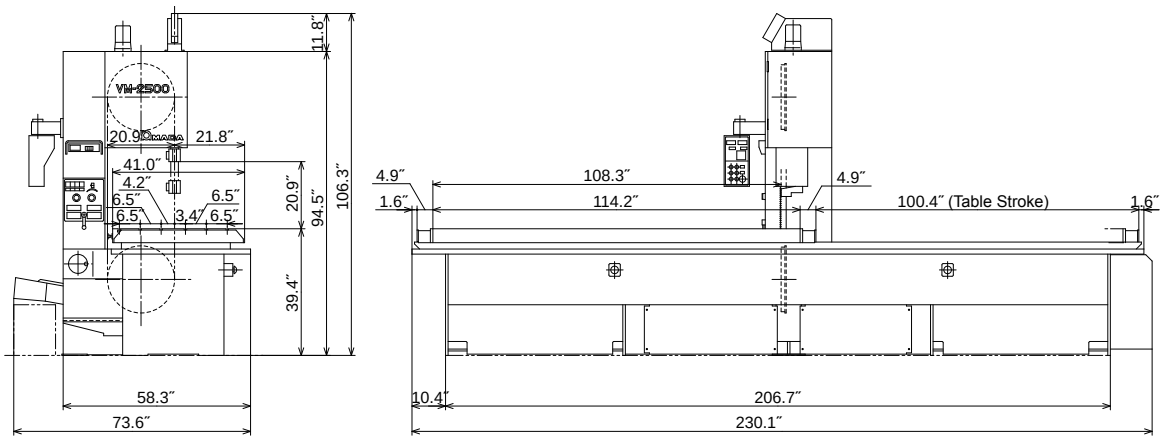
VM2500

VM2500

VM2500 Machine Specifications

CAPACITY	Cutting capacity (L x H)	99" x 20"	2515 x 508 mm	
	Throat depth	20"	508 mm	
	Work load capacity	11,025 lb	5000 kg	
BLADE AND VISE OPERATION	Saw blade	Dimensions (L x T x W)	15'4" x 0.063" x 2"	4670 x 1.6 x 54 mm
		Blade speed	33~295 ft/min, by inverter	10~90 m/min, by inverter
		Tension control	Hydraulic	
	Blade control	Cutting control	AC servo motor	
MOTORS	Saw blade motor	7.5 HP	5.5 kW	
	Hydraulic pump motor	1 HP	0.75 kW	
	Cutting fluid pump motor	1/4 HP	0.18 kW	
	Wire brush motor	1/8 HP	0.09 kW	
POWER REQUIREMENTS	Power supply voltage	AC220 ± 10%, 3 PH, 60 Hz (all other voltages require transformer)		
	Power requirement	11 kVA		
CUTTING FLUID AND HYDRAULIC	Cutting fluid	Tank capacity	27.7 gal	105 liters
		Pump type	Electric	
	Hydraulic	Tank capacity	2.6 gal	10 liters
		Pressure setting	498 psi	3.5 MPa (35 kgf/cm²)
CHIP DISPOSAL	Chip conveyor			
FEED	Feed mechanism		Table feed, AC servo motor with rack and pinion	
	Feed stroke		100.4"	2550 mm
DIMENSIONS AND WEIGHT	Machine dimensions (W x L x H)		79.5" x 230.8" x 96.5"	2020 x 5863 x 2450 mm
	Table height (above floor)		39.6"	1005 mm
	Machine weight		12,128 lb	5500 kg

Floor Layout



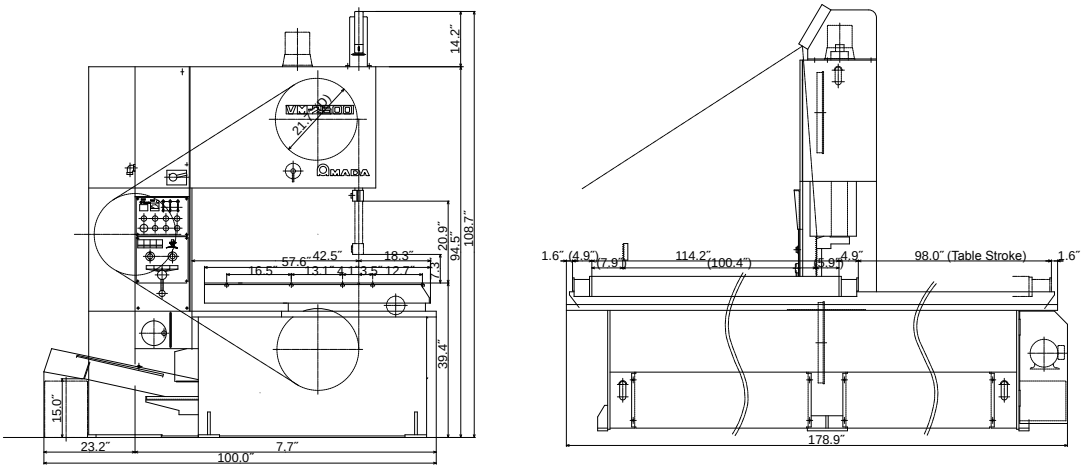
VM2500WT

VM2500WT

VM2500WT Machine Specifications

CAPACITY	Cutting capacity (L x H)	99" x 20"	2515 x 508 mm	
	Throat depth	40"	1016 mm	
	Work load capacity	11,023 lb	5000 kg	
BLADE AND VISE OPERATION	Saw blade	Dimensions (L x T x W)	19'5.5" x 0.063" x 2"	5930 x 1.6 x 54 mm
		Blade speed	33~295 ft/min, by inverter	10~90 m/min, by inverter
		Tension control	Hydraulic	
	Blade control	Cutting control	AC servo motor	
MOTORS	Saw blade motor	7.5 HP	5.5 kW	
	Hydraulic pump motor	1 HP	0.75 kW	
	Cutting fluid pump motor	1/4 HP	0.18 kW	
	Wire brush motor	1/8 HP	0.09 kW	
POWER REQUIREMENTS	Power supply voltage	AC220 ± 10%, 3 PH, 60 Hz (all other voltages require transformer)		
	Power requirement	11 kVA		
CUTTING FLUID AND HYDRAULIC	Cutting fluid	Tank capacity	27.7 gal	105 liters
		Pump type	Electric	
	Hydraulic	Tank capacity	2.6 gal	10 liters
		Pressure setting	498 psi	3.5 MPa (35 kgf/cm²)
CHIP DISPOSAL	Chip conveyor			
FEED	Feed mechanism		Table feed, AC servo motor with rack and pinion	
	Feed stroke		100.4"	2550 mm
DIMENSIONS AND WEIGHT	Machine dimensions (W x L x H)		103.5" x 230.8" x 96.5"	2629 x 5863 x 2450 mm
	Table height (above floor)		39.6"	1005 mm
	Machine weight		12,128 lb	5500 kg

Floor Layout



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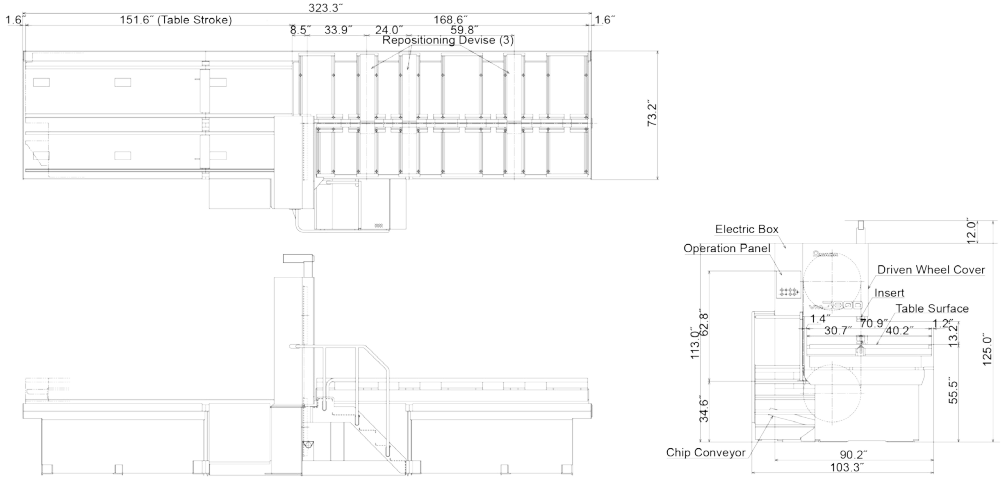
VM3800

VM3800

VM3800 Machine Specifications

CAPACITY	Cutting capacity (L x H)	149.6" x 24"	3800 x 600 mm	
	Throat depth	32"	800 mm	
	Work load capacity	26,450 lb	12,000 kg	
BLADE AND VISE OPERATION	Saw blade	Dimensions (L x T x W)	21' 0" x 0.063" x 2.625"	6400 x 1.6 x 67 mm
		Blade speed	33~262 ft/min, by inverter	10~80 m/min, by inverter
		Tension control	Hydraulic	
	Blade control	Cutting control	AC servo motor	
MOTORS	Saw blade motor	10 HP	7.5 kW	
	Hydraulic pump motor	2 HP	1.5 kW	
	Cutting fluid pump motor	1/2 HP	0.18 kW	
	Table feed motor	1 HP	0.75 kW	
	Wire brush motor	1/8 HP	0.09 kW	
POWER REQUIREMENTS	Power supply voltage	AC220 ± 10%, 3 PH, 60 Hz (all other voltages require transformer)		
	Power requirement	14 kVA		
CUTTING FLUID AND HYDRAULIC	Cutting fluid	Tank capacity	47.6 gal	180 liters
		Pump type	Electric	
	Hydraulic	Tank capacity	3.96 gal	15 liters
		Pressure setting	784 psi	5.5 MPa (55 kgf/cm^2)
CHIP DISPOSAL	Chip conveyor			
FEED	Feed mechanism		Table feed, AC servo motor with rack and pinion	
	Feed stroke		151.6"	3850 mm
DIMENSIONS AND WEIGHT	Machine dimensions (W x L x H)		105.4" x 333.5" x 124.3"	2678 x 8472 x 3156 mm
	Table height (above floor)		55.5"	1410 mm
	Machine weight		22,050 lb	10,000 kg

Floor Layout



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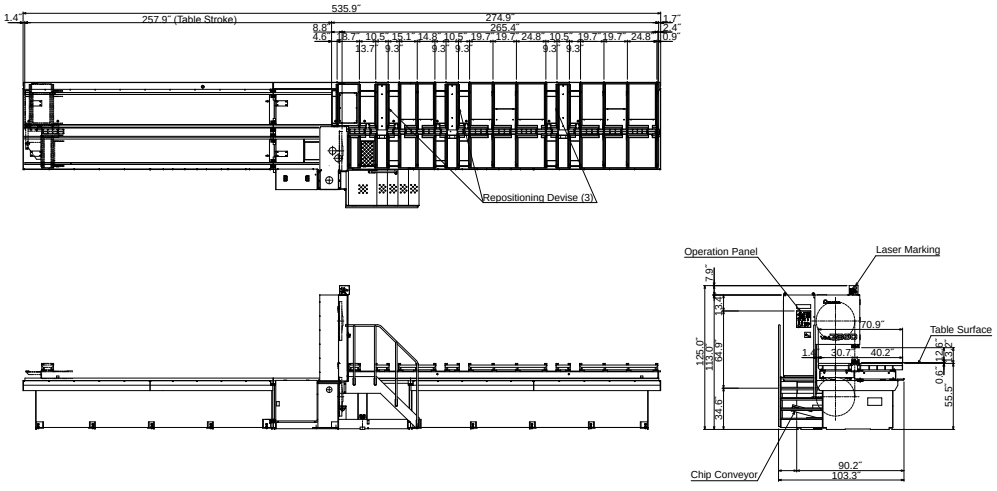
VM6500

VM6500

VM6500 Machine Specifications

CAPACITY	Cutting capacity (L x H)	255.9" x 23.6"	6500 x 600 mm	
	Throat depth	31.5"	800 mm	
	Work load capacity	52,920 lb	24,000 kg	
BLADE AND VISE OPERATION	Saw blade	Dimensions (L x T x W)	21' 0" x 0.063" x 2.625"	6400 x 1.6 x 67 mm
		Blade speed	33~262 ft/min, by inverter	10~80 m/min, by inverter
		Tension control	Hydraulic	
	Blade control	Cutting control	AC servo motor	
MOTORS	Saw blade motor	10 HP	7.5 kW	
	Hydraulic pump motor	2 HP	1.5 kW	
	Cutting fluid pump motor	1/2 HP	0.18 kW	
	Table feed motor	1 HP	0.75 kW	
	Wire brush motor	1/8 HP	0.09 kW	
POWER REQUIREMENTS	Power supply voltage	AC220 ± 10%, 3 PH, 60 Hz (all other voltages require a transformer)		
	Power requirement	14 kVA		
CUTTING FLUID AND HYDRAULIC	Cutting fluid	Tank capacity	47.6 gal	180 liters
		Pump type	Electric	
	Hydraulic	Tank capacity	3.96 gal	15 liters
		Pressure setting	784 psi	5.5 MPa (55 kgf/cm^2)
CHIP DISPOSAL	Chip conveyor			
FEED	Feed mechanism		Table feed, AC servo motor with rack and pinion	
	Feed stroke		257.9"	6550 mm
DIMENSIONS AND WEIGHT	Machine dimensions (W x L x H)		105.4" x 546.1" x 124.3"	2678 x 13,872 x 3156 mm
	Table height (above floor)		55.5"	1410 mm
	Machine weight		35,280 lb	16,000 kg

Floor Layout



TVM7600

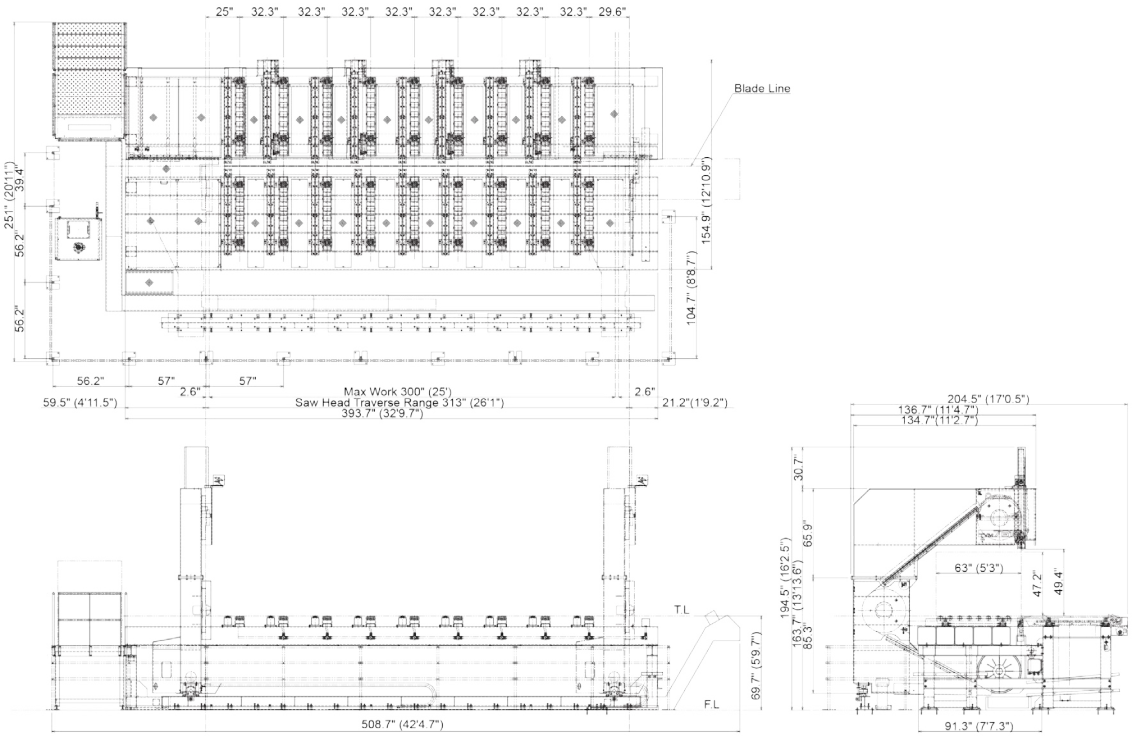
TVM7600

TVM7600 Machine Specifications

CAPACITY	Cutting capacity (L x H)	25' 0" x 47.2"	7620 x 1200 mm	
	Throat depth	63"	1600 mm	
	Work load capacity	88,200 lb	40,000 kg	
BLADE AND VISE OPERATION	Saw blade	Dimensions (L x T x W)	35' 0" x 0.063" x 2.625"	10,680 x 1.6 x 67 mm
		Blade speed	40~230 ft/min	12~70 m/min
		Tension control	Hydraulic	
	Blade control	Cutting control	AC servo motor	
MOTORS	Saw blade motor	15 HP	11 kW	
	Hydraulic pump motor	5 HP	3.7 kW	
	Saw feed motor (AC servo motor)	1 HP	1.0 kW	
	Cutting fluid pump motor	1/2 HP	0.4 kW	
POWER REQUIREMENTS	Power supply voltage	AC220 ± 10%, 3 PH, 60 Hz		
	Power requirement	26 kVA		
CUTTING FLUID AND HYDRAULIC	Cutting fluid	Tank capacity	355 gal	1350 liters
		Pump type	Electric	
	Hydraulic	Tank capacity	9.2 gal	35 liters
		Pressure setting	783 psi	5.5 MPa (55 kgf/cm^2)
CHIP DISPOSAL	Chip conveyor			
FEED	Feed mechanism		Saw head feed, AC servo motor with rack and pinion	
	Feed stroke		300"	7620 mm
DIMENSIONS AND WEIGHT	Machine dimensions (W x L x H)	Head up position	204.5" x 393.7" x 194.5"	5194 x 10,000 x 4939 mm
	Table height (above floor)		70"	1770 mm
	Machine weight		79,380 lb	360,000 kg

TVM7600

Floor Layout



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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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