



VM3800

# VM series

Vertical Band Sawing Machine



# The VM series machines make the best use of know-how to achieve long, straight and high

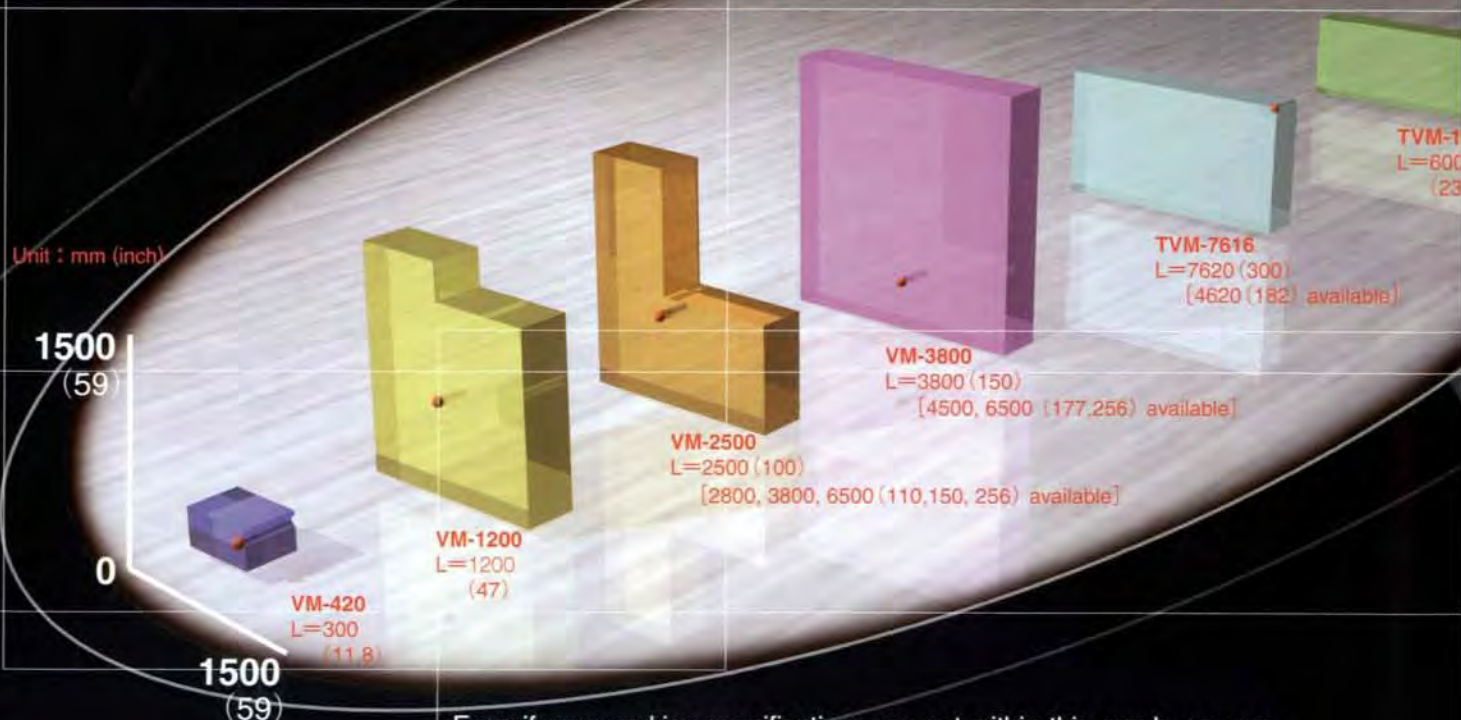
Types of the work being demanded has been more and more diversified, but it is an unfavorable idea to keep steel materials of different sizes and types in stock. The VM series features the unique function that enables you to cut a large-side material freely as necessary. This ability is advantageous to use the material effectively and to realize the "just-in-time" production system.

**Not only the length but also the height and width are selectable according to your working specifications**

## VM series models in specification distribution graph

The horizontal axis of the graph represents the width (W) of each product, the vertical axis represents the height (H) of the material (H) and each "L" value represents the cutting length of the standard specification.

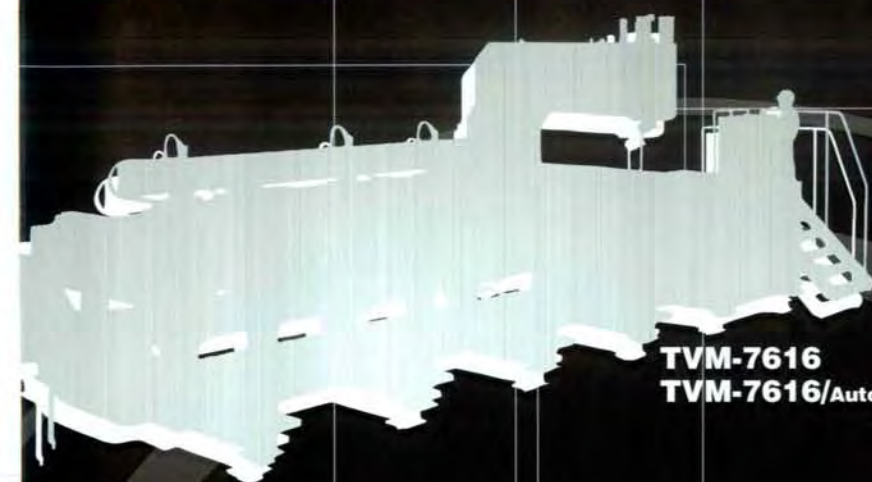
You can easily find which model is suitable for the specifications of your cutting work.



Even if your working specifications are not within this graph, you are assured that Amada can provide machines of special specifications with such cutting function as to meet your demands.



# Amada's long accumulated technology and -quality cutting.



**TVM-7616**  
**TVM-7616/Auto-index**



**VM-420**



**VM-2500/Auto-index**  
**VM-3800/Auto-index**



**VM-6500**  
**VM-3800**



**VM-1200**



**TVM-1560**



**VM-1200/3-wheel**  
**VM-2500/3-wheel**  
**VM-3800/3-wheel**



**VM-2500**



# Table-moving type

With an established reputation of highly stable cutting function

## Ideal for block cutting of large-sized materials and partial cutting of miscellaneous shaped materials

VM Series machines cope with various working patterns such as block-cutting of large-sized materials, splitting and grooving of miscellaneous shaped materials. Cutting is executed in such a way that the cut off portion which is discarded as saw chips in the conventional milling method can be reused as material for new products.

### DIE CUT MASTER

Wide applicability --- for metal dies, components, jigs, stepped working, etc.

#### VM-420

Cutting Capacity

■H150\*×W300×L420mm

(H6\*×W12\*×L16.5)

\*200mm (8") available

NC back gauge



Cutting length stopper  
(equipped with a remaining amount  
setting gauge)



#### VM-3800

Standard Cutting Capacity

■H300\*×W800×L3800mm

(H12\*×W32\*×L150")

\*600, 800, 1500mm

(24, 32, 60") available

#### VM-6500

Standard Cutting Capacity

■H300\*×W800\*\*×L6500mm

(H12\*×W32\*\*×L256")

\*600, 800mm (24, 32") available

\*\*900, 1000mm (36, 40") available





### VM-1200

Standard Cutting Capacity  
 ■H500\* $\times$ W500 $\times$ L1200mm  
 (H20\* $\times$ W20 $\times$ L47")  
 \*600, 800, 1000, 1200mm  
 (24, 32, 40, 47") available



### VM-2500

Standard Cutting Capacity  
 ■H500\* $\times$ W500 $\times$ L2500mm  
 (H20\* $\times$ W20 $\times$ L100")  
 \*300, 600, 800, 1300mm  
 (12, 24, 32, 51") available

**3-wheel types with a largely increased throat section are also available.**

### VM-1200/3-wheel

Standard Cutting Capacity  
 ■H500\* $\times$ W1050\*\* $\times$ L1200mm  
 (H20\* $\times$ W41\*\* $\times$ L47")  
 \*1000mm (40") available  
 \*\*1080mm (42") available

### VM-2500/3-wheel

Standard Cutting Capacity  
 ■H500\* $\times$ W1050\*\* $\times$ L2500mm  
 (H20\* $\times$ W41\*\* $\times$ L100")  
 \*600mm (24") available  
 \*\*1200mm (47") available

### VM-3800/3-wheel

Standard Cutting Capacity  
 ■H1500 $\times$ W1500 $\times$ L3800mm  
 (H59 $\times$ W59 $\times$ L150")





## The rigid bed and accurate AC servo motor feeding function assure precision cutting of hard materials

Amada is proud of its original mechanical engineering --- rigid bed and accurate AC servo motor. As it makes feeding of the material at speeds in a wide range of 0.3mm/min to 6m/min (0.01 in/min to 19.7 ft/min) possible, the machine can execute precision cutting of aluminum to hard materials.

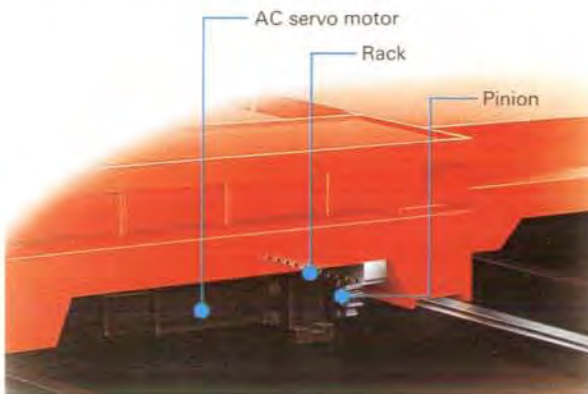
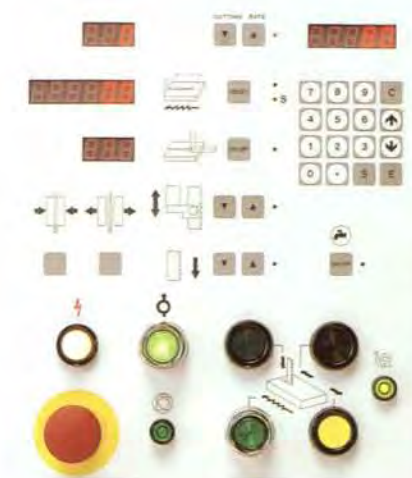


Photo : VM-3800

Photo : VM-3800



## Centralized control panel with outstanding ease of operation

With the "centralized control panel" adopted, all the settings for the machine itself and materials are controlled using an easy-to-use compact panel. The operator can control the machine easily while staying well clear of the blade at work.

Photo : VM-2500



## Crooked cut detector to minimize the material loss

With the crooked cutting tolerable range set, the machine stops automatically, if that value is exceeded due to wear of the saw blade or erroneous setting of cutting conditions. This function is effective in minimizing material loss when cutting long materials.

## Smooth cutting with very little deflection due to appropriate adjustment of the saw blade guide height

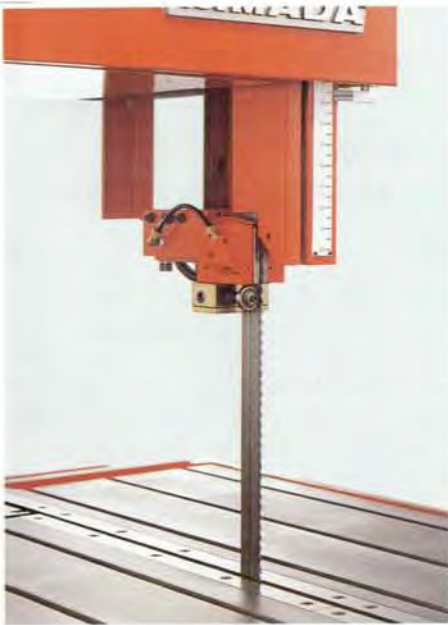
Height of the rigid saw blade guide can be adjusted easily using the button switch operation. Appropriate adjustment of the saw blade guide assures more straight cutting than ever.





incorporated wherever possible

Photo : VM-1200



**Auto-index system capable of cutting products of 9 different widths continuously.**



**VM-2500/Auto-index**  
Standard Cutting Capacity  
■H150\* $\times$ W500 $\times$ L2500mm  
(H6\* $\times$ W20 $\times$ L100")  
\*on using an upper vice (optional)

**VM-3800/Auto-index**  
Standard Cutting Capacity  
■H300\* $\times$ W800 $\times$ L3800mm  
(H12\* $\times$ W32 $\times$ L150")  
\*on using an upper vice (optional)

## Lifter & pusher and laser beam facilitate positioning of heavy material

The conventional positioning method using a crane or the like had to face various problems with respect to work efficiency, safety, accuracy, etc. With the lifter & pusher of VM Series, however, setting for positioning can be done easily and quickly through the button operation only. Furthermore, use of the laser beam which projects the cutting position clearly enhances positioning accuracy.





# Saw head tracking type

suitable for cutting long products without requiring large area



Photo : Auto Data



Photo : Material Entry



Photo : Manual Setting



Photo : Current Values Monitor

## The very best of long accumulated band-saw technology concentrated in state-of-the-art control system

The conventional flow control valve system requires subtle valve adjustment according to the quality and shape of each material being cut.

However, with the CNC unit of this machine that employs the Amada's band saw technology, no such valve adjustment is necessary. All you have to do is to select the material whose cutting conditions have been registered in advance. Then the cutting rate and the saw blade speed are automatically selected according to the selected conditions.

In addition, the cutting conditions can be changed while cutting is executed. The cutting results and conditions of the saw blade in use are displayed on the monitor for quick reference.



### TVM-7616

Standard Cutting Capacity

■H620×W1600×L7620\*mm  
(H24.4×W63×L300")

\*4620mm (182") available

### TVM-7616/Auto-index

Standard Cutting Capacity

■H152\*×W1600×L7620mm  
(H6\*×W63×L300")

\*on auto mode

## Measures taken to dispose of saw chips produced from long-time continuous cutting

Cutting large-sized materials over a long period produces a large amount of saw chips. Equipped with a chip conveyor, saw chips are automatically carried off from the entire table, supporting continuous operation and eliminating the step of removing chips by the operator.

## Rigid arch frame and twin rail moving system

To ensure accurate cutting of large-sized materials and durability, a rigid arch frame and twin rail moving method are adopted. With the head vibration minimized during cutting, you can achieve precision quality straight cutting.





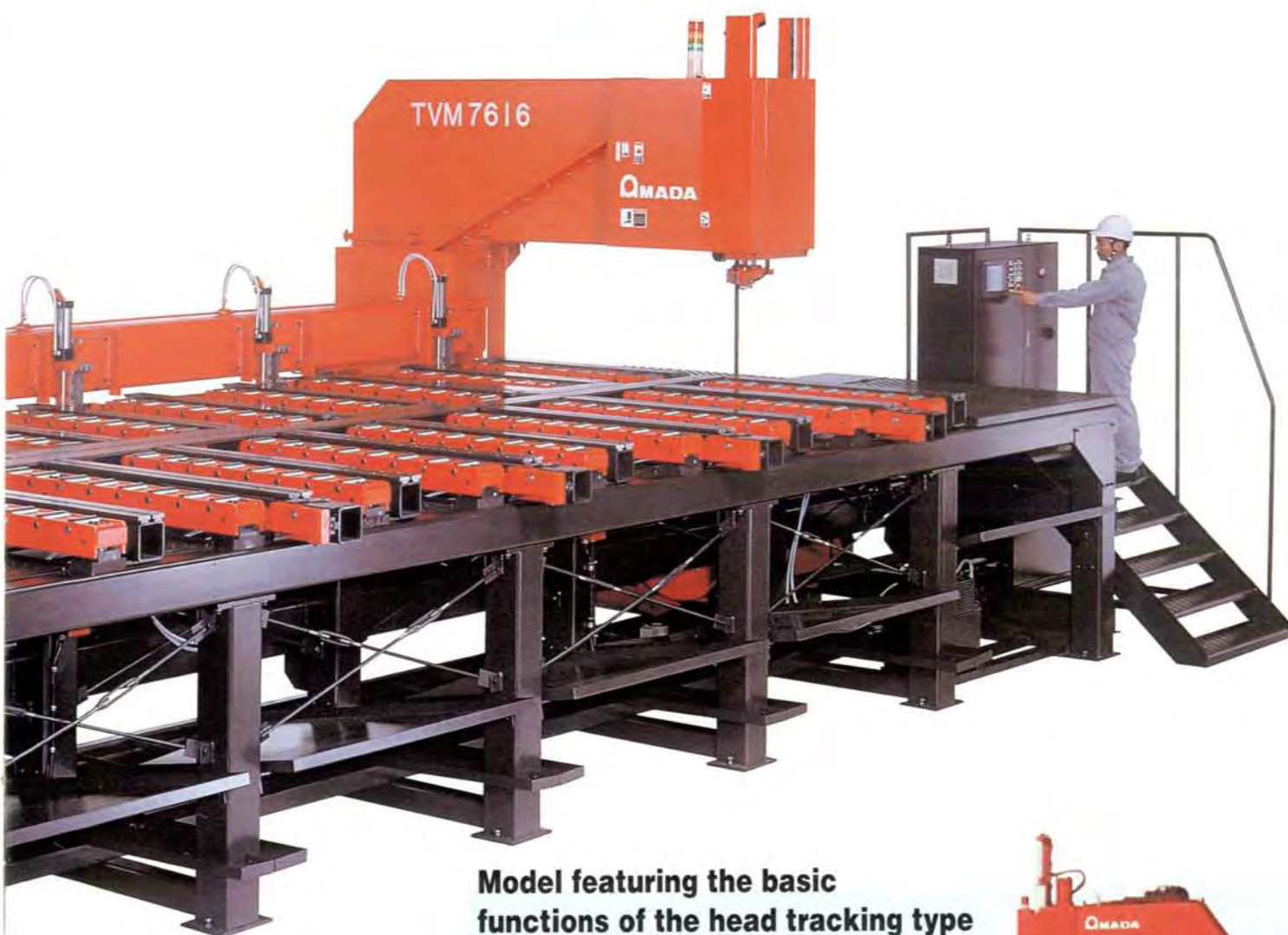
Photo : Clamper



Photo : Pusher

## Automatic positioning mechanism achieves high accuracy and high parallelism

With the auto-index type, 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 construct with a single material an automatic cutting system.



**Model featuring the basic functions of the head tracking type**



### TVM-1560

Cutting Capacity  
 ■ H860×W1560  
 ×L6000mm  
 (H34×W61.4×L236")

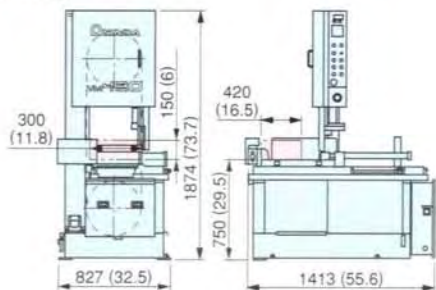




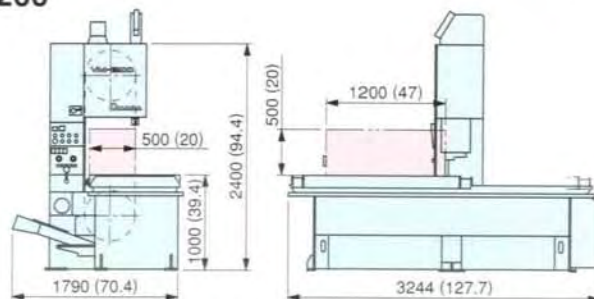
# Dimensions

Unit : mm (inch)

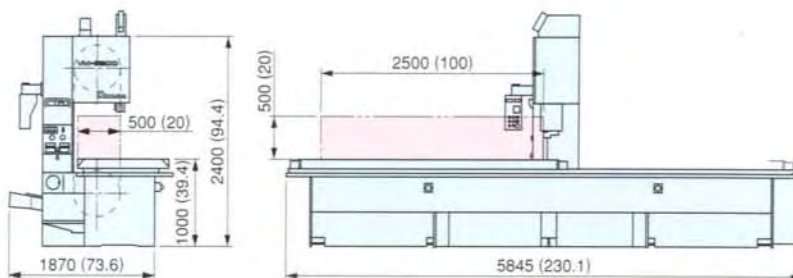
## VM-420



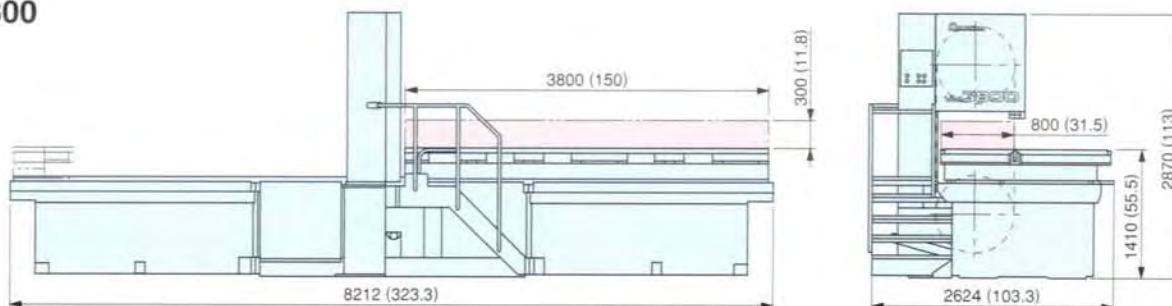
## VM-1200



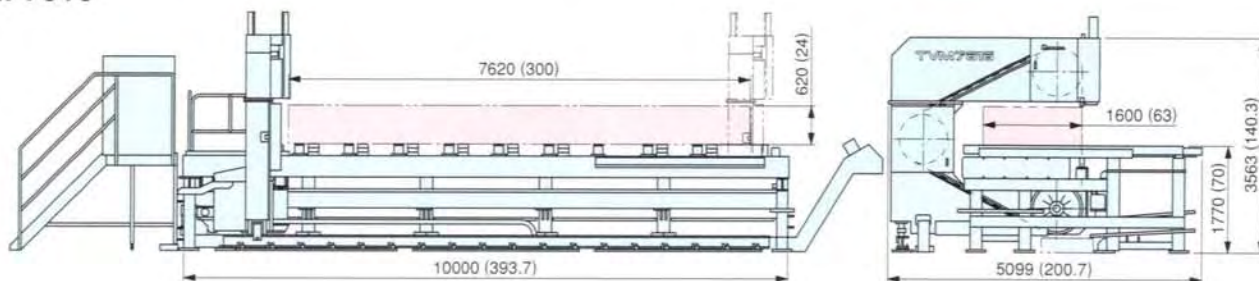
## VM-2500



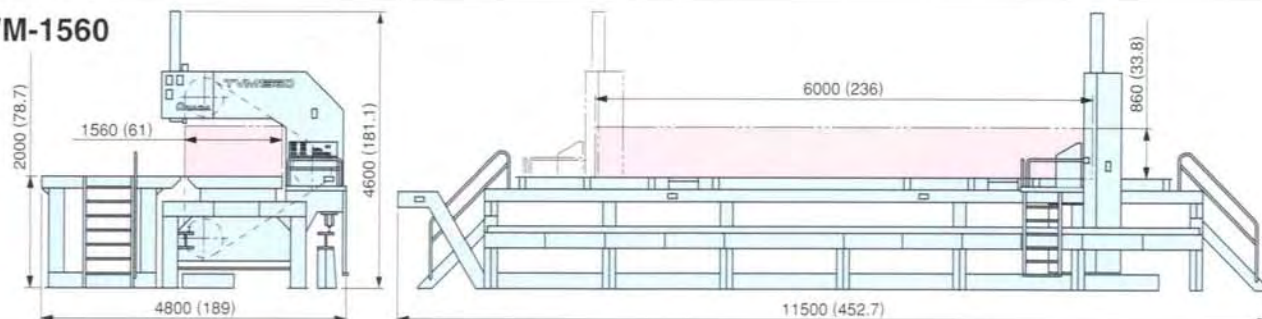
## VM-3800



## TVM-7616



## TVM-1560





# Specifications

Model	VM-420		VM-1200	VM-2500
Work length (L)	420mm (16.5")		1200mm (47")	2500mm (100")
Max. work height X Throat (blade to column) (H×W)	150×300mm (6×11.8")		500×500mm (20×20")	500×500mm (20×20")
Blade	Speed	15~90m/min. (49~295 ft./min.)	17~90m/min. (56~295 ft./min.)	17~90m/min. (56~295 ft./min.)
	Size	25×0.95×3505mm (1"×0.037"×11'6")	38×1.3×4670mm (1.5"×0.05"×15'4")	38×1.3×4670mm (1.5"×0.05"×15'4")
	Motor	2.2kW (3HP)×6P	5.5kW (7.5HP)×4P	5.5kW (7.5HP)×4P
Table height	750mm (29.5")		1000mm (39.4")	1000mm (39.4")
Allowable load	200kg (440 lbs.)		2000kg (4400 lbs.)	5000kg (11000 lbs.)
Mass of machine	900kg (1980 lbs.)		3800kg (8380 lbs.)	7000kg (15400 lbs.)
Optional specification	Special H* Adjustable cutting rest : 0~300mm (0~11.8")  Wide blade : 32×1.066×3505mm (1.25"×0.042"×11'6")  T-slot table		Special H×W* Rapid blade speed : 60~360m/min. (197~1181ft./min.)	Special H×W* Special L : 2800, 3800, 6500mm (110", 150", 256")  Rapid blade speed : 100~360m/min. (328~1181ft./min.)  Lifter & pusher Auto-index : Max.H 150mm (6")

Model	VM-3800 [VM-6500]		TVM-7616	TVM-1560
Work length (L)	3800mm (150") [6500mm (256")]		7620mm (300")	6000mm (236")
Max. work height X Throat (blade to column) (H×W)	300×800mm (11.8×31.5")		620×1600mm (24.4×63")	860×1560mm (33.8×61")
Blade	Speed	10~80m/min.[50Hz], 12~80m/min.[60Hz] (33~262ft./min.[50Hz], 39~262ft./min.[60Hz])	8.3~58.3m/min.[50Hz], 10~70m/min.[60Hz] (27~191ft./min.[50Hz], 32~230ft./min.[60Hz])	10~75m/min.[50Hz], 12~90m/min.[60Hz] (33~246ft./min.[50Hz], 39~295ft./min.[60Hz])
	Size	54×1.6×5830mm (2"×0.063"×19'2")	54×1.6×9756mm (2"×0.063"×32')	67×1.6×8200mm (2"×0.063"×26'11")
	Motor	7.5kW (10HP)×4P	11kW (15HP)×4P	7.5kW (10HP)×4P
Table height	1410mm (55.5")		1770mm (70")	2000mm (78.7")
Allowable load	12000kg (26500 lbs.) [24000kg (52920 lbs.)]		40000kg (88200 lbs.)	40000kg (88200 lbs.)
Mass of machine	10000kg (22000 lbs.) [16000kg (35280 lbs.)]		36000kg (79400 lbs.)	21000kg (46300 lbs.)
Optional specification	Special H×W* Special L : 4500, 6500mm (177", 256") Auto-index : Max.H 300mm (11.8") Rapid blade speed : 60~400m/min. (197~1312ft./min.)		Special L : 4620mm (182") Auto-index : Max.H 152mm (6")	

\*We are ready to cope with demands for larger cutting capacity (H x W) including 3-wheel type.

## Accessories

○ : Standard    △ : Optional    × : Unavailable

Model	VM-420	VM-1200	VM-2500	VM-3800 [VM-6500]	TVM-7616	TVM-1560
Remote blade guide control	×	○	○	○	○(Automatic)	○
Laser beam	×	△	△	△	△	△
Chip conveyor	×	△	○	○	○	○
Beacon	×	△	△	△	○	△
Motion detector	×	△	○	○	○	△
Crooked cut detector	×	△	△	△	○	△
Cutting rate monitor	×	×	○	○	○	×
Hour meter	×	△	○	×	○	△
Lifter & pusher	×	×	×	△	△	△(Roller type)
Cutting length stopper	△	○	○	○	○	○
Work clamp	○	×	×	×	×	×
Clamping kit	△	△	△	△	△	△
T-slot clamp	△	△	△	△	△	△
Sub control box	×	×	×	△	○	△

\*Please note that "Standard / Optional" specification of accessories may vary among dealers of different countries.



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