

marvel®

MANUFACTURING COMPANY, INC.

HORIZONTAL MITERING

S330
SA330WPC
SA460WPC
PA2743S
PB2743S



**HORIZONTAL MITERING
METAL CUTTING SAW**

SPARTAN® SERIES

EXPECT QUALITY, DEMAND PERFORMANCE

Visit us at: www.MarvelSaws.com

S330

- **Blade Tension:** Manual tension (30,000 psi) provides consistent square cutting accuracy.
- **Hydraulic Down Feed:** Infinitely variable feed rate is hydraulically controlled for fast, accurate cutting. Settings are made at the operator's control station.
- **Hydraulic Frame Return:** The saw frame is raised hydraulically using a push button mounted on the operator's control panel.
- **Blade Guides:** Carbide blade guides provide reduced vibration, heat and blade stress providing longer blade life and accuracies of +0.002 per inch of cut material.
- **Vise Jaw:** Optional hydraulic vise design clamps and holds the work piece securely. The vise is operated by a selector switch located on the operator's control panel. Maximum vise opening is 18" (460 mm).
- **Operators Control Panel:** Operation of the machine is safe and convenient from the swing arm pedestal mounted on the machine base. Control Voltage is 110V.



S330/2 Speed Range: Blade speed is infinitely variable through an Inverter Drive heavy-duty worm gear transmission. Blade speeds are 60 to 330 FPM. The broad speed range allows for optimum cutting of a large spectrum of materials.

S330/3 Speed Range: Blade speed is variable through a precision balanced step pulley and heavy-duty worm gear transmission. Blade speeds are 85, 150, 230 and 330 SFPM. The broad speed range allows for optimum cutting of a large variety of materials.

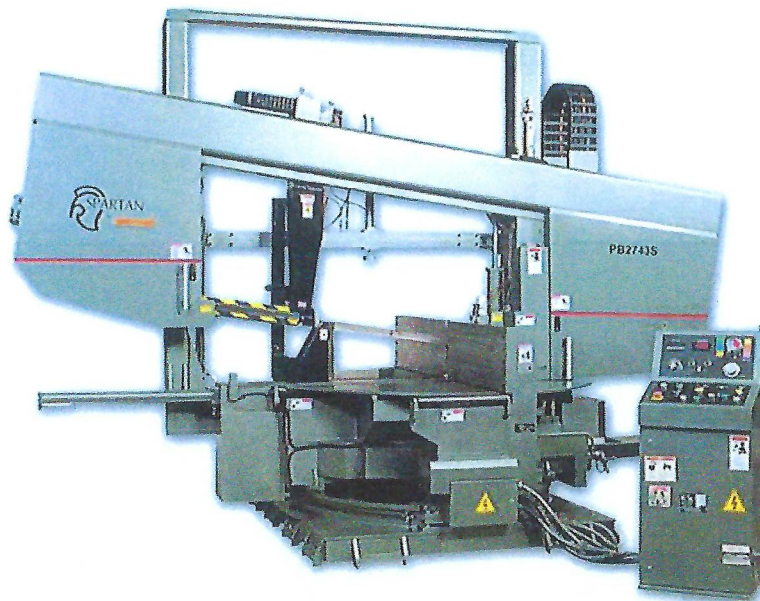


*Some safety equipment may have been removed or opened to illustrate products clearly and must be in place, and functioning, prior to operation.

*Pictures may include some optional equipment.

PA2743S & PB2743S

- **Blade Tension:** Hydraulically controlled tension (35,000 psi) provides consistent square cutting accuracy. The motion detector will shut the machine off should a blade break or stall. Blade wheel diameter is 34.625" to provide maximum blade life.
- **Speed Range:** 50-325 SPFM (15-100m/min) infinitely variable through a frequency inverter system and a heavy duty worm gear transmission. The broad speed range allows for optimum cutting of a large spectrum of materials. An electric tachometer assures accurate speed settings.
- **Hydraulic Down Feed:** Feed rate and pressure can be controlled independently for fast, accurate cutting. Setup is made easy through the color coded dial allowing the operator to select the best setting for the type of material being cut.
- **Blade Guides:** A combination of roller bearing and hydraulically actuated carbide blade guides assures the blade is held taut for fast, accurate cuts. The cast iron movable guide arm is positioned through a hydraulic cylinder, then is hydraulically locked in place.
- **Chip Brush:** Independent motor drives the blade brush to assure complete removal of chips from each gullet of the blade assuring optimum cutting performance and enhanced blade life.
- **Fast Approach:** Work height is automatically set allowing the head to raise just enough to clear the work piece, reducing cycle time and allowing for faster cutting performance.
- **Controls:** An independent electric cabinet and control panel allow the operator to position the controls for optimum viewing of the cutting area. A PLC controls all electrical and hydraulic functions.



Saw Frame: The saw frame is canted at an 8 degree angle for faster cutting of structural and other flat materials. The saw base swivels to 45 degrees one direction and 60 degrees the other, for miter cutting. A ½ HP (400 W) motor turns the machine base and the degree of angle is read out on a LED display. The heavy duty saw frame rides up and down a linear way guide system.

Vise Jaws: Full stroking vise jaws and a vertical clamp device assures the work piece is secure and eliminating excessive vibration during the cut providing better blade life and cleaner cuts. Minimum clamping capacity is 16.125" (410 mm).

SA330WPC & SA460WPC

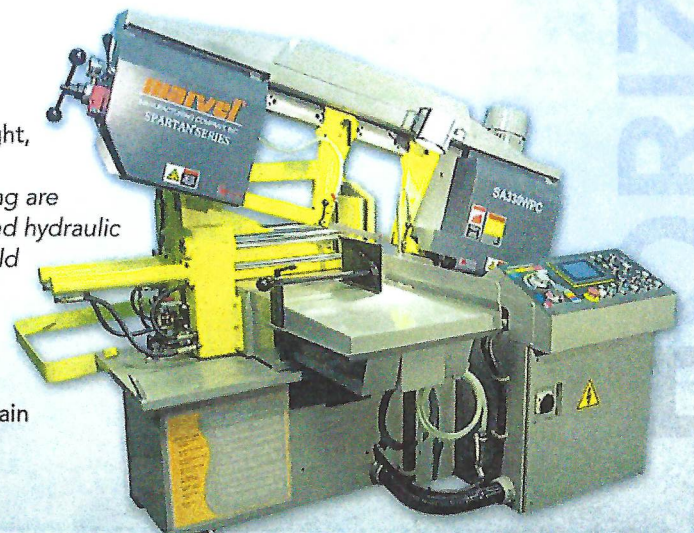
- **Blade Tension:** Manually controlled tension with Blade Tension Indicator Gauge provides consistent square cutting accuracy. The motion detector will shut the machine off should the blade break or stall.
- **Speed Range:** 95 – 295 SFPM (29 – 90 m/min) infinitely variable through an inverter drive and a heavy-duty worm gear transmission. The broad speed range allows for optimum cutting of a large spectrum of materials. An electric tachometer assures accurate speed setting.
- **Hydraulic Down Feed:** Feed rate and down pressure can be controlled independently for fast, accurate cutting. Setup is made easy through the color-coded dial allowing the operator to select the optimum setting for the type of material being cut. Both settings are made at the operator's station.
- **Hydraulic Shuttle Feed:** Length settings of 0 – 27.6" (700mm) are accomplished with simple programming at the operator's touch screen. The shuttle comes to positive stops at both ends of the index, assuring cutoff length accuracy, reducing material loss. Repeatability is + .005 per index. (Maximum pull weight fully supported on rollers 4,400 LBS).
- **Out-of-Stock Switch:** The machine will shut off automatically when material is no longer present in the rear vise jaws, allowing for truly automatic operation.
- **Blade Guides:** The combination roller bearing and carbide blade guides reduce heat and blade stress providing longer blade life and accuracies of + .002 per inch of cut material.
- **Fast Approach:** Work height is manually set allowing the head to rise just enough to clear the work piece, reducing cycle time and allowing for faster cutting performance.
- **Chip Brush:** Powered from the main drive wheel of the saw, the brush changes speed along with the blade to assure that chips are being removed from each gullet of the blade, improving cutting performance and blade life.
- **Work Light:** Positioned directly over the work area to provide better illumination of the cutting area, the work light can be turned on and off independently from the operator's control panel.

PC Programmable Control: Conveniently located on the operator's control panel, this touch screen control allows the operator to program and store up to ten jobs. Inputs include **Part Length** from 0 to 393.661" (in inches up to 3 decimal places) and **Number of Pieces** to be cut. The **Blade Speed** is displayed on and set using the touch screen, but is not stored in memory. The Automatic Piece Counter stops each job when the pre-set number of cuts has been made. The control provides the option of running up to 10 jobs consecutively.

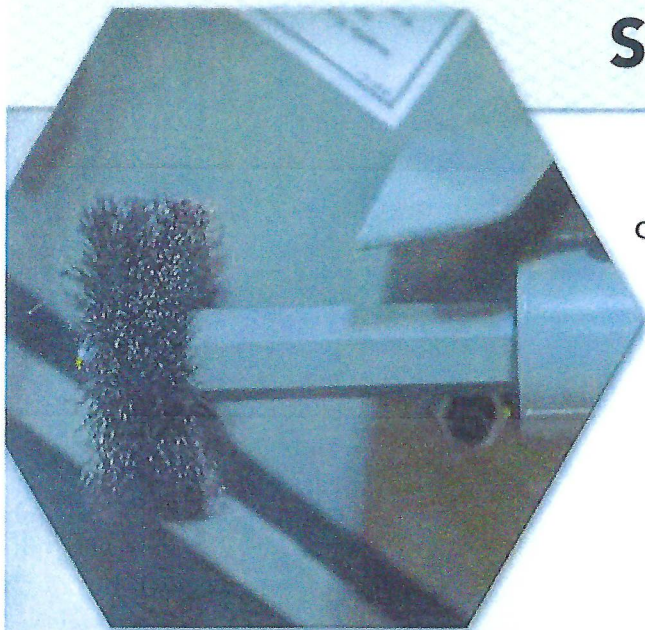
Full Stroking Hydraulic Vise Jaws: Holding the work piece on both sides of the blade reduces blade vibration, providing more accurate cuts and longer blade life. **Rear Vise:** The rear vise jaw floats hydraulically to accommodate crooked stock assuring straight, accurate cuts.

Optional Equipment: Hydraulic Hold-downs for vertical clamping are designed for high-production multiple cutting. Vertically mounted hydraulic clamps located on each vise jaw apply downward pressure to hold multiple bar work or structural shapes.

Automatic Chip Removal: The chip auger rotating in the coolant return removes chips quickly and efficiently, freeing the operator to perform more productive operations. Coolant is allowed to drain back to the tank before the chips are removed from the machine



S330



Chip Brush: Powered from the drive wheel of the saw, the brush changes speed with the blade to assure that chips are being removed from each gullet, improving cutting performance and blade life.

Swivel: The saw frame swivels a full 60 degrees to the rear and 45 degrees to the front for optimum miter cutting capability. The pivot shaft has sealed bearings for maintenance free operation, while a pointer and angle scale (-60° to +45°) make setup fast and easy. Stops are provided at -60 and +45 degrees.



S330

Capacity	Capacity 45° Round	13" (330mm)
	Capacity 45° Rectangle	11" x 12" (280 x 330mm)
	Capacity 60° Round	9.5" (240mm)
	Capacity 60° Rectangle	11" x 8" (280 x 203mm)
	Capacity 90° Round	13" (330mm)
	Capacity 90° Rectangle	12" x 18" (300 x 460mm)
Blade Speed (S330/2)	0 to 330 FPM Inverter Drive	
Blade Speed (S330/3)	85, 150, 230, 330 SFPM Step Pulley	
Blade Size	13' 6" L x 1" W x .035" T (4115 x 27 x 0.9mm)	
Machine Vise	Manual Quick Position with Cam Lock*	
Motors	Blade Drive	3 HP (1.5kW)
	Hydraulic Pump	1/2 HP (0.375kW)
	Coolant Pump	1/8 HP (0.09kW)
Table Height	30.5" (775mm)	
Machine Weight	1800 lbs. (850kg)	
Dimensions	96" L x 85" W x 57" H (2440L x 2160W x 1448H mm)	

SA330WPC & SA460WPC

Capacity	SA330WPC	SA460WPC
45° Rectangle	11" x 13" (280 x 330mm)	15" x 15" (380 x 380mm)
45° Round	11" (280mm)	15" (380mm)
90° Rectangle	13" x 16" (330 x 406mm)	15" x 24" (380 x 610mm)
90° Round	13" (330mm)	18" (460mm)
90° Square	13" (330mm)	18" (460mm)
Blade Speed	95 - 295 SFPM (29 - 90m/min)	65 - 330 SFPM (20 - 101m/min)
Blade Size	1" x .035" x 13' 7"	1-1/2" x .050" x 17'-6"
Blade Tension	Manual	Hydraulic
Blade Drive	5 HP (3.75kW)	5 HP (3.75kW)
Hydraulic Pump	1 HP (.75kW)	1 HP (.75kW)
Coolant Pump	1/8 HP (.1kW)	1/6 HP (.12kW)
Maximum Index Capacity	0 - 27.6" (700mm)	0 - 27.6" (700mm)

PA2743S & PB2743S

Capacity	Capacity 45° Round	26.75" (680mm)
	Capacity 45° Rectangle	26.75" x 27.5" (680 x 700mm)
	Capacity 60° Round	18.875" (480mm)
	Capacity 60° Rectangle	18.875" x 27.5" (480 x mm)
	Capacity 90° Round	28" (715mm)
	Capacity 90° Rectangle	27.5" x 43" (700 x 1100mm)
Blade Speed	0 to 330 FPM Inverter Drive	
Blade Size	31' 6"L x 2"W x .063"T (9600 x 54 x 1/6mm)	
Machine Vise	Full Stroking Vise Jaws and a Vertical Clamp Device	
Motors	Blade Drive	10 HP (7.5kW)
	Hydraulic Pump	3 HP (2.2kW)
	Coolant Pump	1/4 HP (180W)
Table Height	37" (940mm)	
Machine Weight	17,600 lbs. (8000kg)	
Dimensions	88.5"H x 165-3/8"W x 74-5/8"D (2250H x 4200W x 1900D mm)	



MANUFACTURING COMPANY, INC.

3501 Marvel Drive • Oshkosh, WI 54902 • USA
 Phone: 920.236.7200 • Fax: 920.236.7209 • Email: sales@marvelsaws.com

Visit us at: www.MarvelSaws.com

