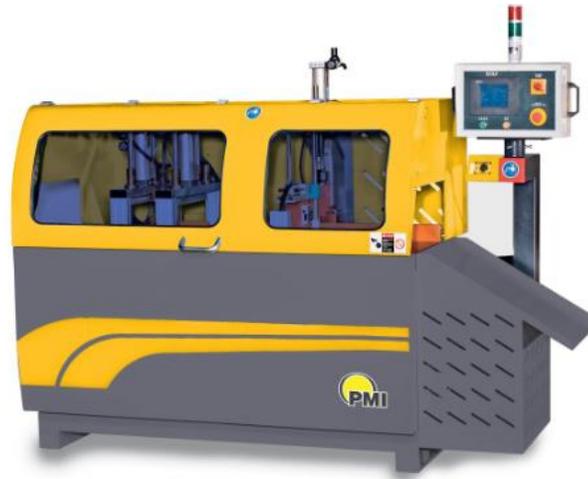




**PAT MOONEY, INC.**  
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## PMI-455 A-Type Automatic Upcut Saw



The PMI-455 A-Type is designed for sawing Aluminum Extrusion and Other non-ferrous metals. The saw's powerful 10 HP saw motor allows it cut quickly and accurately. The PMI-455 A-type's ballscrew/servo-controlled material indexing system ensures accurate, precise, and repeatable cut lengths.

### **Machine Highlights:**

- **Mitsubishi NC Controls**
- **10 HP Saw Motor**
- **Ability to Bundle Cut**

### **Machine Features:**

#### **Saw Blade Feed:**

The saw blade feed is driven by a hydraulic system for maximum stability of the saw blade during the sawing operation. This is especially important when cutting solid or heavy walled extrusions/tubes. The saw blade feed is an upcut design so the saw blade travels from under the work table and through the bottom of the material. The feed rate is adjustable.

#### **10 HP Saw Motor:**

The powerful 10 HP saw motor allows for maximum cutting force and chip removal. This additional power will also extend the life of the saw blade between regrinds.



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### **Saw Blade Speed**

The saw blade speed is 3200RPM. Inverter controlled variable speed is available as an option.

### **NC Control:**

The PMI-455 A-type is equipped with Mitsubishi NC controls. The NC cutting control manages your cutoff program; simply input via the touch screen, your desired cut length, number of pieces, etc. and the machine will monitor the cutoff jobs for accuracy. 100 programs can be stored and each program can have 12 steps.

### **Material Index System:**

The material is indexed to the cut length via a pneumatic gripper vise. The material index system consists of a Servo motor and encoder, a Mitsubishi Servo Drive, Precision Ball Screw and gripper vise. The carriage vise is equipped with two horizontal and vertical clamps. This setup allows for very high accuracy. The four-point clamping system enables the saw to handle irregular shaped stock material without any additional fixtures. The saw is capable of reciprocating and stepping feed. The maximum single stroke length is 20" (510mm) and the saw can do an infinite number of strokes for cut lengths longer than 20".

### **Clamping System:**

The pneumatic clamping system has adjustable clamping pressure to prevent distortion of thin wall profiles. As a standard feature, the saw has vertical and horizontal clamps. The carriage vise has two vertical and two horizontal clamps, so it is capable of clamping irregular shaped pieces of material. The fixed vise has two vertical and one horizontal clamp to ensure the part is clamped securely during the cutting operation. The clamps can be adjusted based on the size of the material. With its extensive clamping system, the PMI-455 A-type is able to cut **multiple pieces** at one time.

### **Precise Micro-Drip Blade Lubrication System:**

The blade is lubricated via a micro-drip system. A small amount of lubricant is introduced to a air line at the point of discharge for control and economical distribution of the saw lubricant.

### **Safety Machine Enclosure:**

The PMI-455 A-type is guarded via a machine enclosure that is monitored by limit switches. The machine cover must be closed for the saw to cycle. The machine's upcut design is built so the saw blade is completely enclosed underneath the worktable and has limited exposure during the cut to allow for operator safety.



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**Safety Limit Switch:**

The saw blade access door is protected via a limit switch that will shut down the machine in case the door is opened while the saw is in operation. The saw blade will NOT cycle with this door open.

**Technical Specifications:**

|                          |  |
|--------------------------|--|
| Maximum Cutting Capacity | 4-1/3" x 4-1/3"<br>4" x 8"<br>3/4" x 11" |
| Material Feed System     | Ball Screw with Servo Motor              |
| Servo Motor              | 500 w                                    |
| Stroke Length            | 20"                                      |
| Saw Blade Speed          | 3200 RPM                                 |
| Saw Motor                | 10 HP                                    |
| Hydraulic Motor          | 1 HP                                     |
| Saw Blade Sizes          | 18" x 1" bore                            |
| Machine Dimensions       | 98.5" x 51.25" x 79.5"                   |
| Machine Weight           | 3,080 LBS                                |

**Additional Standard items included with the PMI-455 A-Type:**

- **13' Infeed Roller Table**
- **120T Saw Blade**
- **Operators Manual**
- **Tool Kit**