



**Joseph**  
machine

# ZDM-4590 ZERO SCRAP DOUBLE MITER SAW

The ZDM-4590 has two 45° / 90° independent horizontal-stroking miter saws that ensure zero scrap between each miter cut. This saw is designed to cut 45° / 45°, 45° / 90° and 90° / 90° (straight cut) parts. It is equipped with a servo-controlled in-feed allowing the material to be cut to length based on the cut files that are manually entered, loaded by USB jump drives, or downloaded via an available network connection. Custom fixture designs for high speed, multi-track processing

## BASE MACHINE

- Estimated Machine Cycle time: 8-10 seconds cut to cut
- Cut length Tolerance:  $\pm 0.030$
- Fabrication Location Tolerance:  $\pm 0.15$
- Fabrication Tolerance:  $\pm 0.10$
- Two saws equipped with 3 HP motors and 16" carbide tipped saw blades
- Pneumatic cylinder on in-feed saw chassis for auto 45/90 blade positioning
- Fixed 45° angle on out-feed saw chassis
- Saws pneumatically activated by air/oil cylinders
- Saw carriages ride on precision ground rails and linear bearings
- Flow controlled saw stroke
- Standard saw guard with vacuum port
- 1/2" Filter/Regulator with OSHA compliant lockout/tagout
- In-feed
  - Servo controlled In-feed accommodates 16' lineal
  - Left to Right or Right to Left feed orientation
  - Thru-Beam photo eyes for mill length detection
- Fusible disconnect with OSHA compliant lockout/tagout
- Controls - combined PC + PLC control system
- Networkable
- Production data can be downloaded using JMC CSV file format
- Ergonomic working height, fine adjustments made via leveling feet
- Heavy duty powder coated steel frame
- Coalescing air filter

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## MACHINE OPTIONS

- Custom color powder coating
- Pro-Lube lubrication system for cutting
- Auto-Lube system for machine lubrication
- Dust collection system

### Fixture:

- 2 or multi track custom fixtures
- Custom tooling for fabrication
- Machined anodized aluminum fixture
- Alternative fixture material and coatings available
- Vertical/Horizontal clamping
- Fixture Identification

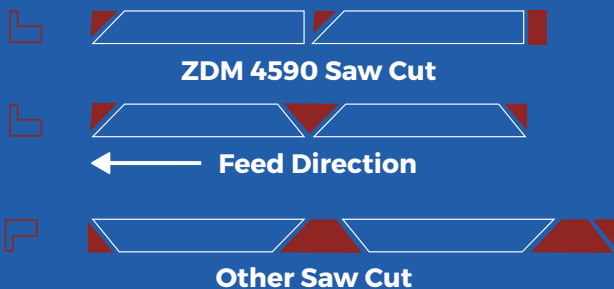
### Saw:

- 18", 20", 22" diameter carbide tipped saw blade
- 5 HP motor
- Variable frequency drives with brakes
- Servo system for in-feed/out-feed saw stroke
- Servo system for in-feed/out-feed saw angle

### Software Options:

- Lineal Optimization
- Tail End utilization by stock parts or future batch parts
- Label printing

### Saw Cutting Capacity



### In-feed:

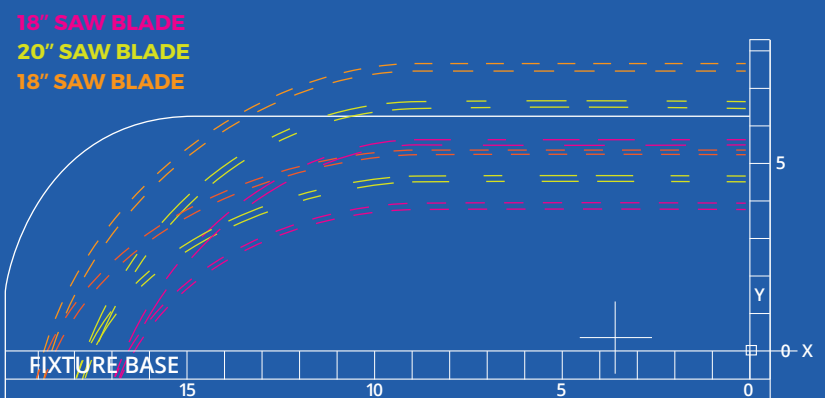
- Optional in-feed lengths accommodate 20' or 24' lineals
- Single set pre-loader to accommodate 16', 20', or 24' lineals
- Double set pre-loader to accommodate 16', 20', or 24' lineals
- Diffuse photo eyes for independent mill length detection
- Quick change in-feed gripper and UHMW guides
- Linear encoder

### Out-feed:

- 5' table with stainless steel top
- 10' roller table
- Power conveyor
- Wiper table

### Controls:

- Touch screen monitor
- Additional monitor for in-feed/out-feed
- Variable frequency drive with brakes
- Upgraded safety packages
- Transformers available for different voltages



## TECHNICAL SPECIFICATIONS

- Power: 240V/480V
- Air: 80-100 PSI
- Warranty: One year Parts

