Model 448 Steel Cord Slice Press

Side Opening Type

The Model 448 Splice Press is employed in the steel cord calendering process, and is used for splicing the trailing ends of steel cords from a completed creel run to the leading ends of cords from a newly started creel run. The side opening feature allows the Splice Press to be moved onto or off centerline of calender while the steel cords are in place.

Splicing is done by use of uncured rubber strips to bind the cords to each other by pressing the rubber/cord assembly between the electrically heated platens of the Splice Press. The rubber strips become vulcanized and adhere to the steel cords, thereby joining the many wires sufficiently to allow the calendering operation to continue.

The Splice Press is installed in the process line between the forward end of the creel (after the master organizing board, if one is used) and the calender. The Splice Press is motorized and placed on tracks to move between the operating position (on centerline of calender) and idle position. Sensors are activated at operation or idle positions and may be used to provide a signal at the calender PLC.

The Splice Press uses an Allen-Bradley PLC and a combination of Human-Machine Interface (HMI) screens and manual buttons for operator control. It uses a FESTO pneumatic motion terminal to control air pressure and flow control settings to the Guard and Platen cylinders, with settings configurable from the HMI screen. Each platen of the press is energized separately from the HMI screen.

Each platen is individually controlled using feedback from a thermocouple. The temperature limit is factory set at approximately 400°F (204°C), and may be adjusted to a different value if desired from the operator HMI screen, but in no case should be set higher than 480°F (250°C). The guard is operated either from the HMI or physical buttons. The Safety Edge Guard System, if tripped when the guard is moving, will stop movement until reset by push button at operator panel.

The platen is operated either from the HMI or physical buttons. The press is unable to close until the guard is completely closed. Two hooks prevent deflection of frame when pressing. The movement of the hooks and press are interlocked. Automatic opening of the press is controlled by an adjustable timer, which, when timed- out, causes the press to open. The timer is set from the HMI.

Apart from the timer, the press can be opened by pressing either the Open Platen physical button or the HMI button located at the operator panel.

Customer may select right hand (RH) or left hand (LH) machine, which indicates open end and operator panel side. The Splice Press may optionally be provided with steel cord combs and magnetic cord retainers to aid in the organizing of the cords over the platens.

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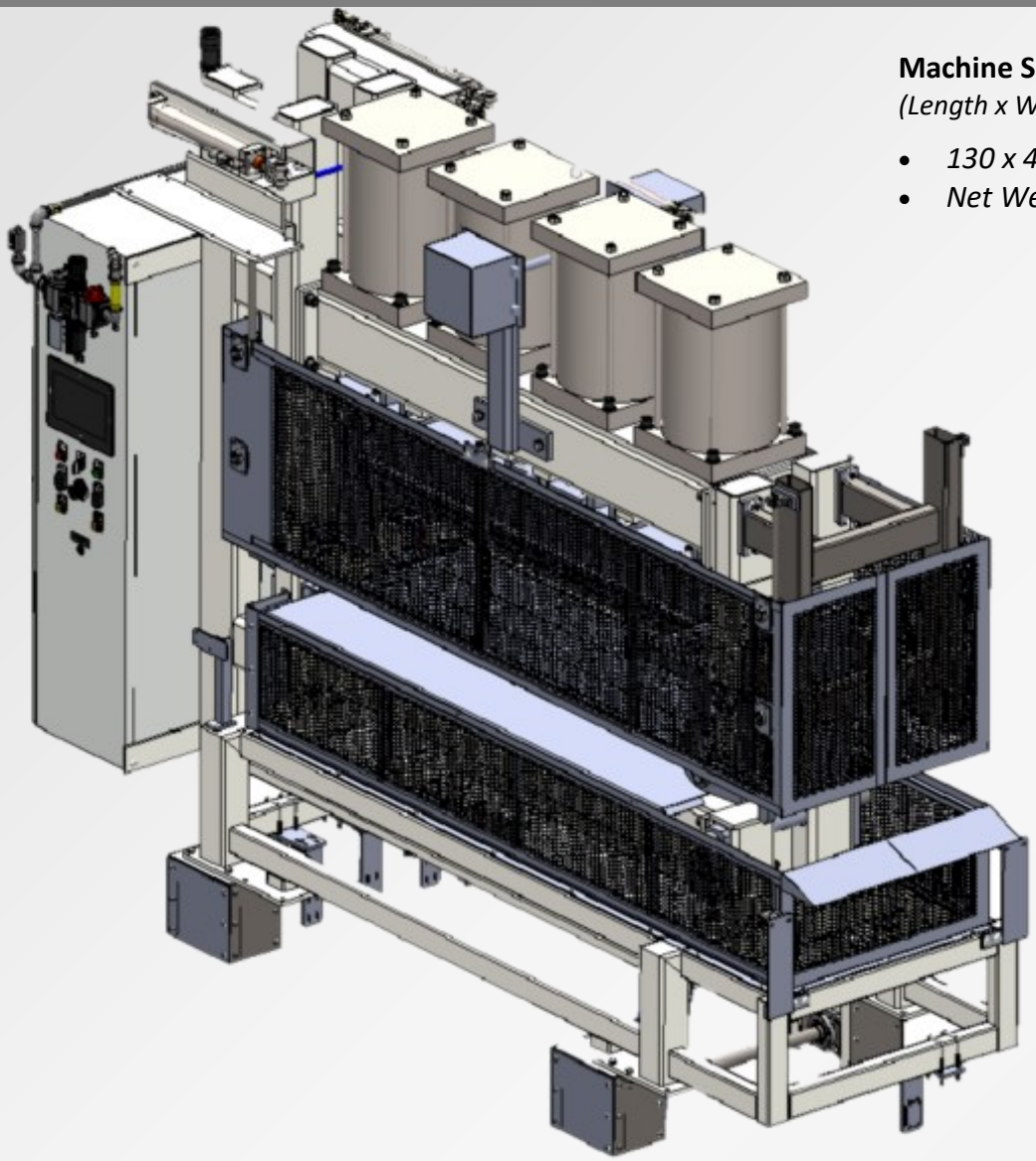

Machine Size, Overall Dimensions
(Length x Width x Height)

- *130 x 44 x 95.5 IN (330 x 112 x 243 CM)*
- *Net Weight: 5700 LB (2585 KG)*

Platen Details

- Platen Size: 60 IN x 5 IN
- Platen Clear Opening: 12 IN
- Interface Pressure:
  - at 100 PSI (7 KG/CM2):
  - at 150 PSI (10.6 KG/CM2)
  - based on platen area

Power Requirements

- Air Pressure: 100 PSI (7 KG/CM2) maximum
- Compressed Air Volume (at atmospheric pressure)
  - 47 cubic FT (1.3 M3) per close/open cycle
- Electrical - choice of:
  - 480 volts, 3-phase, 60 Hz
  - 380 volts (heating elements at 220v by connecting each leg to neutral), 3-phase, 50 Hz
  - 240 volts, 3-phase, 50/60 Hz
- Electrical Power Requirement
  - Both platens, approximately 36,000 watts total

RJS® CORPORATION
3400 MASSILLON ROAD
AKRON, OHIO 44312 USA
Tel: +1 330-896-2387 sales@rjscorp.com