



A Rockwell Automation Company

## Gerdau MRM Steel OLF Bar Turner

### The Client:

Gerdau MRM Steel is a rolling mill in Selkirk, Manitoba, that is a world-class producer of specialty steel products. Some of these products include blades and cutting edges, elevator guide rails, truck trailer beams, and rebar. Their annual shipments total

approximately 291,000 tons of steel and sales total nearly \$180 million.

### The Requirement:

In the Off-Line Finishing (OLF) area, the steel bars are checked for straightness. In order to check the bars for straightness, they must be turned and visually inspected. Previously, the bars were manually turned by an operator using a wrench. This manual operation

was a safety concern and Gerdau MRM wished to manufacture a machine to be used for this operation.

### The Design Solution:

Gerdau MRM had designed a Bar Turner that consisted of a cart driven by two electric motors, and a turning fork driven by a hydraulic motor.

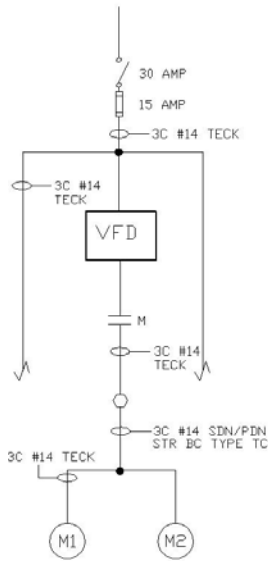
Hinz completed the electrical design requirements for the OLF Bar Turner. The design incorporated a joystick used for controlling the movement of the bar turner and the hydraulic fork, and cable reels to allow

free movement of the cart. An Allen-Bradley POWERflex 70 VFD was used to power the electric motors.



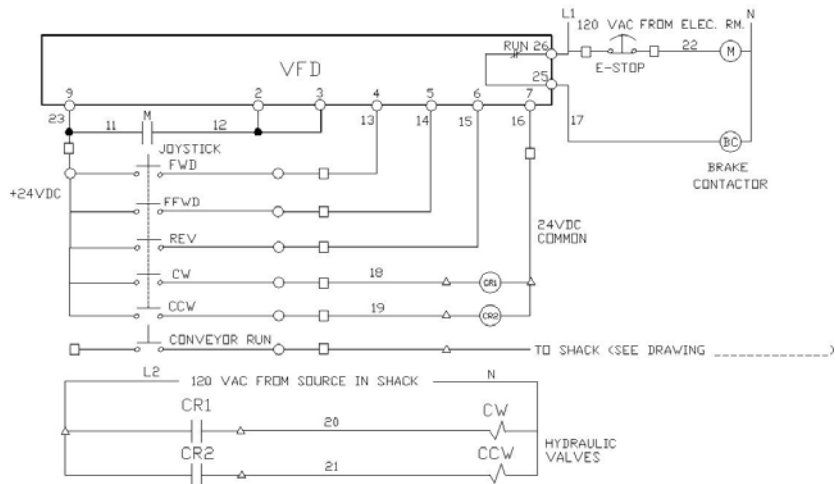
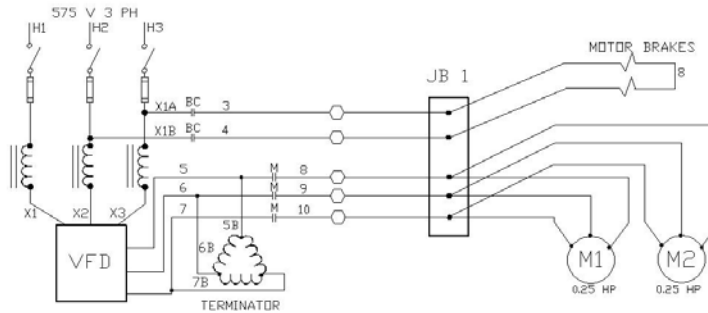
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### LEGEND

- TB IN JOYSTICK JB
- △ TB IN OPERATOR SHACK
- POWER CABLE REEL
- CONTROL CABLE REEL



### System Specifications:

- AB POWERflex 70 Variable Frequency Drive
- Merritt Controls 6 position joystick
- Two ¼ HP electric motors
- One 2-way discrete hydraulic valve
- One “Conveyor Run” control button
- Emergency Stop button

For further information or to contact a Hinz office near you, please check our website at:

[www.hinz.com](http://www.hinz.com)