Rod Feeder Systems

Designed to Maximise the Benefits of using AMG Aluminum Grain Refining Rod

AMG Aluminum Rod Feeder Systems are specially designed for the continuous grain refinement and alloying of aluminium casthouse melts using grain refiners and master alloys in rod form. AMG Aluminum is a world leader in manufacturing of grain refining rod and the AMG Rod Feeder Systems are designed to maximize the benefits of using AMG Aluminum grain refining rod.

Three basic decisions need to be made when deciding which system to install:

1. Which rod feeder – single or twin?
2. Which speed – 5 – 100cm/min, 20 – 600cm/min, 50 – 1000cm/min?
3. Which control panel – MRF or XRF?

Single strand feeder

The single rod feeder machine feeds a single grain refiner rod with a nominal diameter of 9.5mm to 9.7mm at a wide range of speeds into molten aluminium for continuous grain refinement.

Compact Design:
335mm x 307mm x 600mm

Twin strand feeder

The single rod feeder machine feeds a single grain refiner rod with a nominal diameter of 9.5mm to 9.7mm at a wide range of speeds into molten aluminium for continuous grain refinement.

Compact Design:
335mm x 307mm x 600mm

Both rod feeder systems utilise a single geared motor to reduce cost, footprint and simplify maintenance. Each unit has a helical worm reduction gearbox with a splined shaft that is mounted to the feed box. Drive is supplied from an enclosed, force – cooled motor. Hardened top rollers are forced against the rod using compression springs. The rod is guided in and out of each unit by antifriction guides for a positive non-slip feed. Precision self-aligning bearings are sealed and lubricated for life. The body and base are made from durable CNC machined aluminium plate. The system incorporates two shaft encoders on the twin ultra rod feeder and one shaft encoder on the single ultra rod feeder for accurate speed monitoring.
Rod Feeder Systems

MRF Control Panel
The MRF controller uses Allen Bradley Micrologix 1400 series PLC with an Allen Bradley HMI display. The unit can be run in either local (at the rod feeder panel) or remote (the client) control.
- Allen Bradley Micrologix 1400 series PLC with a 4.3" Colour HMI Display
- Local or remote operation
- The unit is supplied with a pre-wired 7.5m plug and socket connection between the motor and the control panel
- Mains Isolating Switch

Compact Design:
500mm wide x 500mm high x 210mm depth

XRF Control Panel
The XRF Rod feeder has ethernet connectivity in the PLC and can communicate with the clients DCS / SCADA systems and also direct (point to point) communication can be established with other PLC in the Bradley range that support such.
- Allen Bradley Micrologix 1400 PLC with a 7" Colour HMI Display.
- Ethernet connectivity
- Local or remote operation
- Real time alarm history.
- The unit is supplied with a pre-wired 7.5m plug and socket connection between the motor and the control panel.
- Mains Isolating Switch.

Compact Design:
500mm wide x 500mm

Decoiling Spools
Dual axis decoilers are available that are designed to take up to one 250Kg coil or up to one 450Kg coil. The decoilers are available for use with either the single or twin ultra rod feeder machines. They can be used for rod pay off in either the horizontal or vertical axis.

DA-250 Model Vertical and Horizontal Axis Shown

The AMG Aluminum Rod Feeder Systems are all CE, UL, and cUL approved. AMG Aluminum Rod Feeder Systems can usually be customized to meet your specific requirements.

PARTS AND SERVICE
Parts and service for AMG Aluminum Rod Feeding Machines are available directly from Thompson and Hudson Wire Machinery. www.thompsonandhudson.co.uk