



EATON

Mill and Tie Rod Cylinders

Solutions Focus

Eaton® M-Series Cylinders for Arc Furnaces and Rolling Mills



Primary Metals applications vary significantly, though the one aspect each application has in common is the rugged, demanding environment. From movement of arc furnace electrodes, to slag door operation, gantry swivels/locks and ladle turrets to rolling mill tensioners as well as chop gate operation, Eaton has the product, global presence and application experience to support these applications.

The primary metals market is a focus segment for Eaton, which has enabled decades of engineering experience and expertise to be integrated into the new M-Series Mill Duty cylinders. These medium and heavy-duty mill cylinders set a new standard for primary metal and steel mill applications.

Better Base Design

The new M-Series cylinders were designed to satisfy the demanding product environment and the need for increasing reliability for mission critical applications. The product features more robust threaded flange design, durable secured piston design, high performance, heavy-duty rod cartridge, smoother adjustable cushion design, and virtually unlimited standard options to streamline configuration, quoting, and delivery.

Rugged Materials

Eaton M-Series cylinders are based on high yield strength steel for body, bolts, piston rods, and all core components. In addition, other design features focus on creating a product with ultimate durability. The flange was designed to thread directly into the body and the head/cap bolts directly to the flange. Several options

of materials and plating are also available based on application needs.

Best-In-Class Simulation & Modeling Tools

Comprehensive 3D drawing capability and finite element analysis expertise, coupled with years of experience, results in improved design quality. Eaton excels at using these cutting edge tools to simulate components and assemblies in real-world applications to assess areas like pressure loading and stress impact.



PRODUCT CAPABILITY

M-Series Mill Duty Cylinders

Comprehensive Range of Sizes

Bore Sizes	to 2-16 in. / 51-406 mm
Stroke Sizes	to 300 in. / 7600 mm

Pressure Ratings

Hydraulic	to 3000 psi / 207 bar
Pneumatic	to 250 psi / 17 bar

Features/Benefits

- Stronger Material and Better Flange Design
- Best-In-Class Features

Eaton® Tie Rod Cylinder for Sand Molding and Casting Processes



Secondary processes to cast and coat materials are demanding applications that require cylinders to provide continuous performance with extreme reliability. Eaton Tie Rod Cylinders are designed to provide the performance, seal integrity, and design flexibility required for sand molding/casting, hot galvanizing dip lines, electrolytic dip lines and spray coating lines.

Eaton has decades of application and cylinder experience which translates to better solutions for these rigorous industrial applications.

N-Series and I-Series Tie Rod Cylinders

Eaton offers a broad range of NFPA and ISO hydraulic, pneumatic and electrohydraulic cylinders. This comprehensive line features a proven design with robust materials and a smarter sealing system for improved performance and better serviceability. The N-Series and I-Series families offer virtually unlimited options.

Eaton Tie Rod Cylinders are available in a comprehensive range of standard sizes to 30 in./800 mm bore, 300 in./8 m stroke and pressure ratings to 3000 psi/210 bar. Custom products that far exceed these specifications are also available.

Configurator: Professional Grade Tools To Build Your Own Cylinder

ProSpec/HLSpec are online cylinder selection tools to streamline the specification process using sound engineering principles. Available only from Eaton, these tools provide literally billions of configurable part numbers and drawings.

Global Service & Delivery: Quick, Close & Convenient

Quick. Close. Convenient. With Eaton, you always get the cylinders you need, when you need them. Eaton has global presence, and a global distribution network, to ensure your local needs are met. Our Express Delivery Program means we can handle your urgent requests on key products within three days, with same day breakdown service available.



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