


The Eaton logo is displayed in white, bold, sans-serif capital letters. The letter 'A' is stylized with a dot in the center. The background of the top half of the page is a photograph of an industrial setting, likely a steel mill, featuring large metal pipes, a ladder, and a glowing orange molten metal container.

Cylinders

Capabilities Brochure

Hydraulic
Pneumatic
Electro-Hydraulic

The bottom half of the page features a photograph of several workers in a steel mill. They are wearing heavy protective gear, including helmets and aprons. A bright stream of molten metal is being poured from a ladle into a mold. The scene is dimly lit, with the primary light source being the intense heat of the molten metal.

Quality and
Expertise Delivered

Quality and Expertise Delivered...

through **Application Experience.**
through **Product Capability.**
through **Unmatched Service.**



Global competition is increasing in virtually every industry. As such, every business faces increased pressure in delivering exceptional performance, solid reliability, and cost-efficient solutions, with unlimited versatility. **Eaton® offers the world's broadest range of Industrial Cylinders;** sold under Hydro-Line®, Vickers™, and Hydrowa® brands; to meet the demands of the most rigorous applications, including offshore drilling, steel mills, and machine tools. **And, if there isn't an Eaton cylinder that meets your exact specifications, we'll custom design one for you!**

Our decades of application expertise and cylinder experience translates to better solutions for all types of Industrial applications. This experience coupled with the comprehensive product offering results in Eaton's reputation as a trusted leader for reliable, consistent, and high performance cylinders!



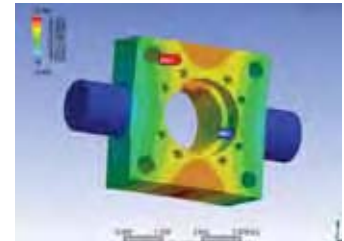
Application Experience

• 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.

• Custom Cylinders Built to Your Specifications

Eaton engineers welcome atypical application or cylinder needs; with decades of experience, they will **configure the right solutions** quickly. Whether it means solving unique application problems, upgrading existing products, or designing new cylinders, we're up to the challenge.



Eaton's comprehensive modeling tools are used in the design process to better simulate application environments and design superior quality products.

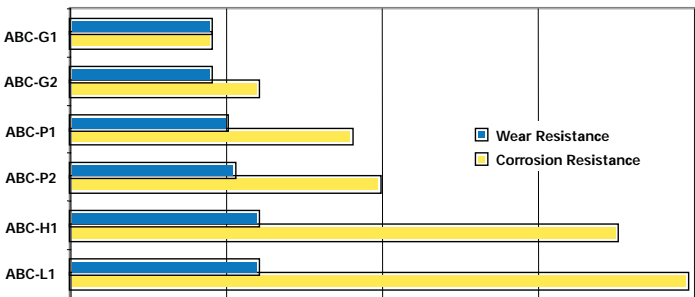
• Advanced Rod Coatings Capability

Eaton offers a comprehensive line of coatings, ranging from Nickel Chromium to Laser Clad, that provide the perfect balance of wear and corrosion resistance to meet your **specific application needs**. What's more, our Innovation Team pursues cutting edge R&D, advancing our work on next generation technologies.



• Decades of Experience in Application Engineering

Creativity, global availability, and experience make the perfect combination for our Application Engineering team. They are eager and willing to help you design your application, with *'Expertise You Can Count On.'*



Application Based Coatings: Eaton Excels At Comprehensive Protection From Basic Applications to the World's Toughest Environments

Standard Range	ABC-G1	Galvanic hard chromium plating for Various Applications
	ABC-G2	Galvanic Nickel Chromium / Sulfamate Plating for Various Applications
Mid Range	ABC-P1	Aluminum Titanium Oxide Plasma Sprayed Coating for Fresh Water and Corrosive Environments
	ABC-P2	Metallic Oxide Plasma Sprayed Coating for Salt water, Fresh Water and Corrosive Environments
High-End Range	ABC-H1	Metallic High Velocity Oxygen Fuel Coating for Spray Zone and Under Water Applications
	ABC-L1	Laser Clad Coatings for Spray Zone, Under Water Applications and Severe Conditions



Expertise.



Product Capability

	Industrial Tie Rod	Threaded Type (threaded ends to tube)	Heavy Duty Welded	Custom	Mill Type (Flanged)
Electrohydraulic	✓	✓	✓	✓	✓
Pneumatic	✓	✓	✓	✓	✓
Hydraulic	✓	✓	✓	✓	✓
Comprehensive Range of Sizes					
• Bore Sizes	3/4-30 in. / 19-763 mm	3/4-8 in. / 19-203 mm	4-12 in. / 102-305 mm	to 47 in. / 1200 mm	2-16 in. / 50.8-406 mm
• Stroke Sizes	to 300 in. / 7620mm	to 180 in. / 4572mm	to 300 in. / 7620mm	to 866 in. / 22000 mm	to 300 in. / 7620mm
Pressure Ratings					
• Hydraulic	to 3000 PSI / 207 bar	1000 PSI / 69 bar	3000 PSI / 207 bar	to 10,000 PSI / 690 bar	to 3000 PSI / 207 bar
• Pneumatic	to 250 PSI / 17 bar	to 250 PSI / 17 bar	to 250 PSI / 17 bar	to 250 PSI / 17 bar	to 250 PSI / 17 bar
Features/Benefits	<ul style="list-style-type: none"> • NFPA & ISO • SureSeal™ System • Unlimited Options 	<ul style="list-style-type: none"> • Robust Load Capability • Compact Envelope • Clean Exterior Design 	<ul style="list-style-type: none"> • Industrial Grade • Robust Design • Innovative Sealing 	<ul style="list-style-type: none"> • World Class Base Design • Leading Tools, Processes • Broad Application Expertise 	<ul style="list-style-type: none"> • Stronger Material and Better Flange Designs • Best-in-Class Features



Unmatched Service

- **Repair & Service of Hydraulic, Pneumatic Cylinders**

Integration of repair & service capability with new product manufacturing translates to better repairs for your product. Because of Eaton's extensive capability, not only can we repair your cylinders quickly, we often can recommend structural improvements, improved coating technology, and access to the latest seal technology. And, all of this is covered by Eaton's solid warranty program.

- **Configurator: Professional Grade Tools To Build Your Own Cylinder**

ProSpec/HLPspec are on-line 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.

- **Consistent Adoption & Leadership in Industry Standards**

Adherence to Industry Standards separates the great from the good. Not only does Eaton consistently adopt relevant Industry Standards, but we participate in consortia to define and drive the next generation standards, to continue to push the Cylinder Industry forward. Cylinders are our business, and we are committed to contributing to the future.

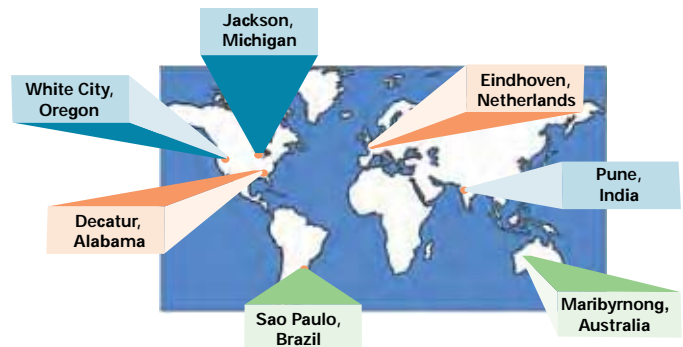
- **Global Service & Delivery: Quick, Close & Convenient**

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.



Map Key

- Engineering Center, Manufacturing, Extensive Repair Capabilities
- Engineering Center, Manufacturing, Basic Repair Capabilities
- Manufacturing, Basic Repair Capabilities



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