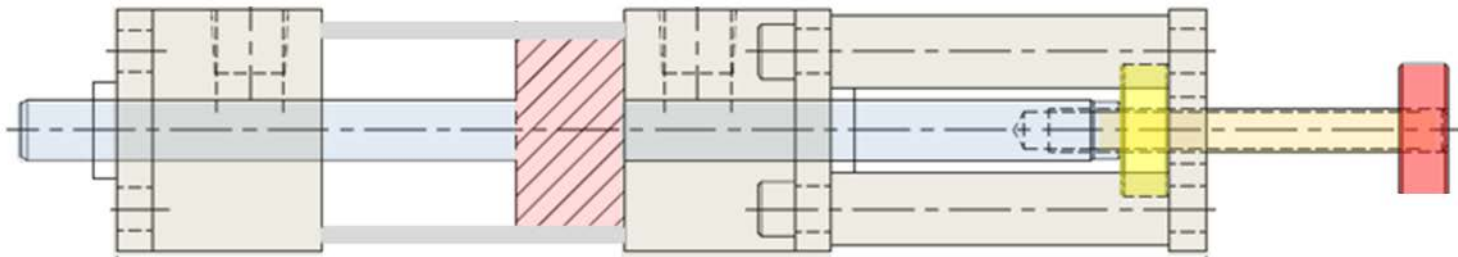


Milwaukee Cylinder's Mechanical Adjustable Stroke Cylinders



A Quality Reputation for Over 60 Years



A long established manufacturer of highly engineered cylinder solutions.

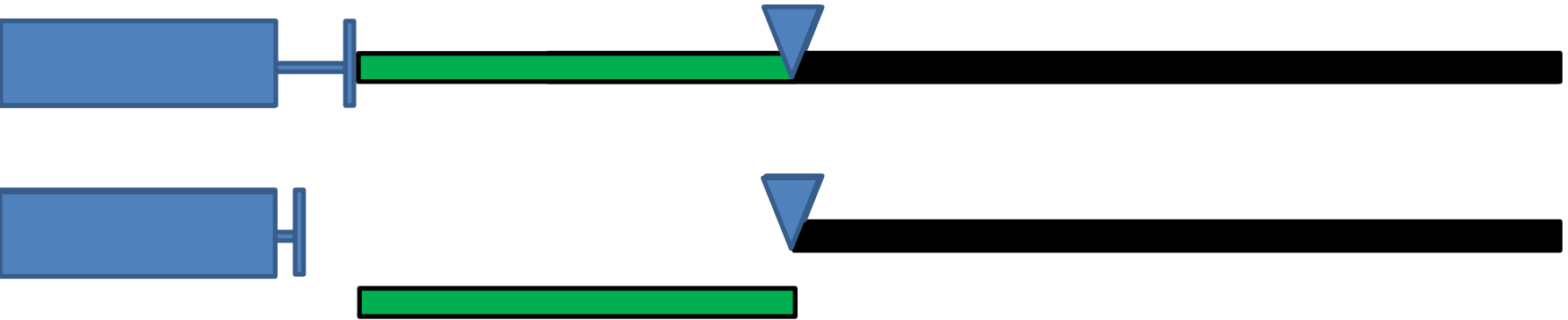
- Reputation for:
 - Solutions for the most demanding cylinder applications
 - Complete line of high quality hydraulic and pneumatic cylinders
 - Specialty Cylinders: “*Specials are our standard*”
- Milwaukee Cylinder
 - Located in Cudahy WI
 - Established 1956
 - ISO 9001 Certified
 - SIL 3 Certified
 - We make thousands of high end cylinders in a year



- Why Use
- Key Benefits
- Key Features
- How It Works
- Applications
- How To Order
- Resources

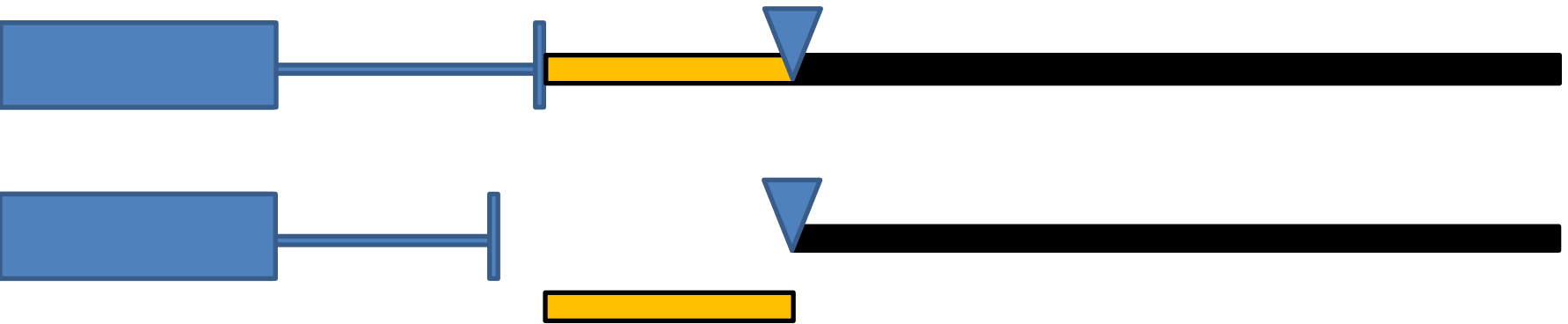
Why Use

What if a customer needs to make one size part for one batch



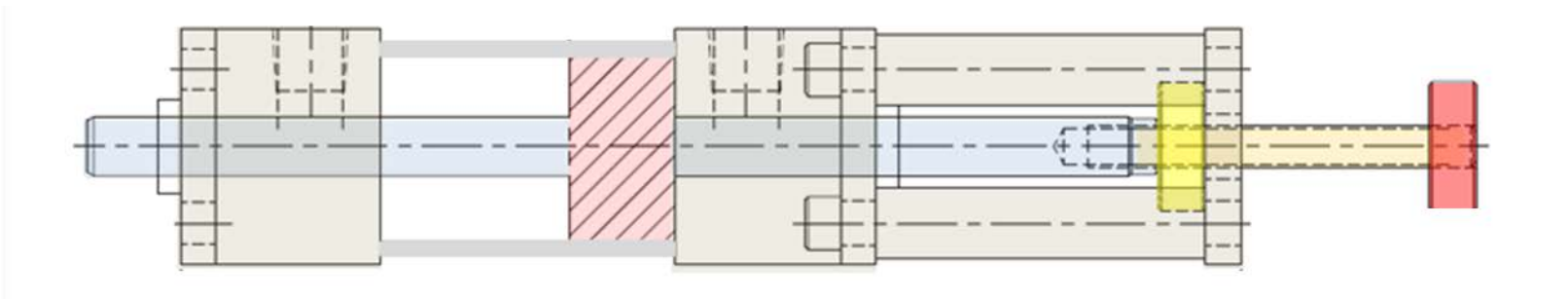
Why Use

and another size part for another batch?



Overview

A mechanical adjustable stroke is perfect for a process where stroke adjustments are only required between part batches



Note: If frequent stroke adjustments are required – consider an electronically controlled stroke.

- Why Use
- **Key Benefits**
- Key Features
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Key Benefits

- Simple – mechanical adjustment
 - Uses standard available hand tools
- Less expensive/less complicated vs. electronic solutions
- Minimal change over time to change stroke
- Virtually no training required – no special knowledge required to operate
- Very durable
- No maintenance



Complicated



Quick Adjustments

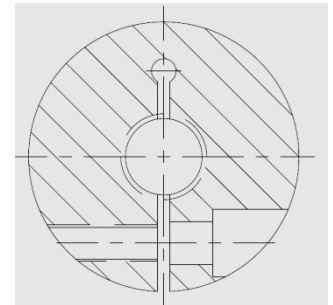


Training Not Required

- Why Use
- Key Benefits
- **Key Features**
- How It Works
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Key Features

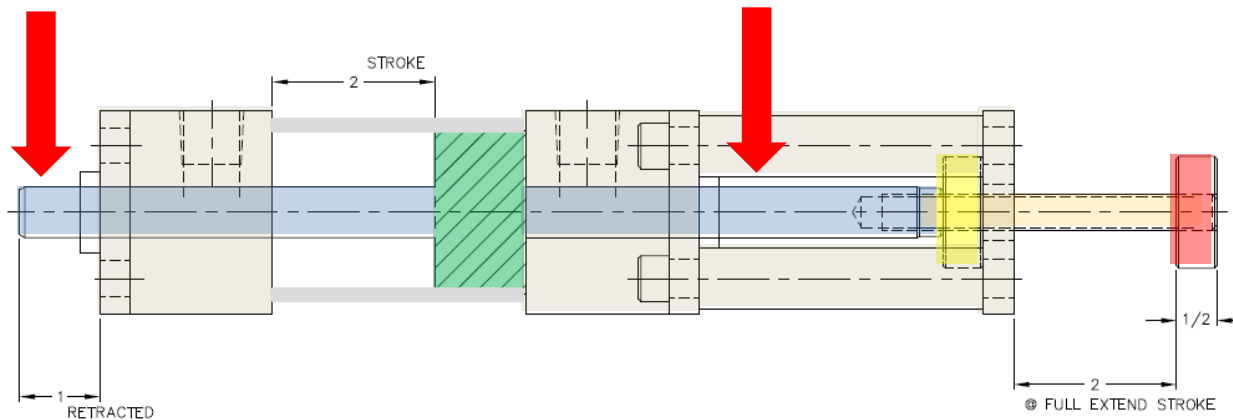
- Available on H,LH, A Series
- Available as
 - Extend Adjustable Only
 - Retract Adjustable Only
 - Both Extend & Retract Adjustable
- Adjustments can be made to any stroke position
- Can be used to lock the rod in any position for maintenance
 - Only applicable to stroke adjust both directions



- Why Use
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- Key Features
- **How It Works**
- Applications
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How It Works

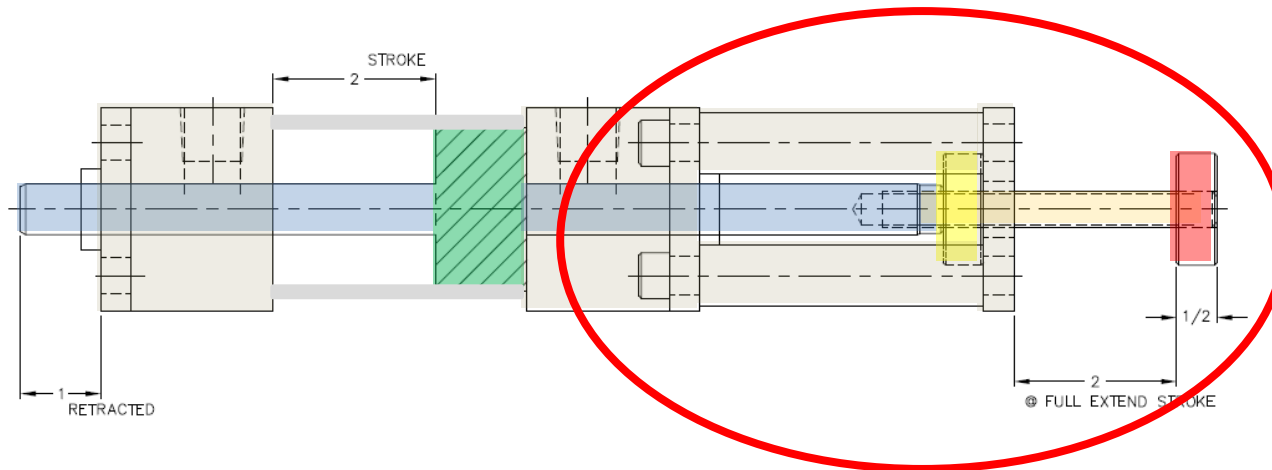
Starts with a double rod end cylinder.



Adjust stroke both directions shown

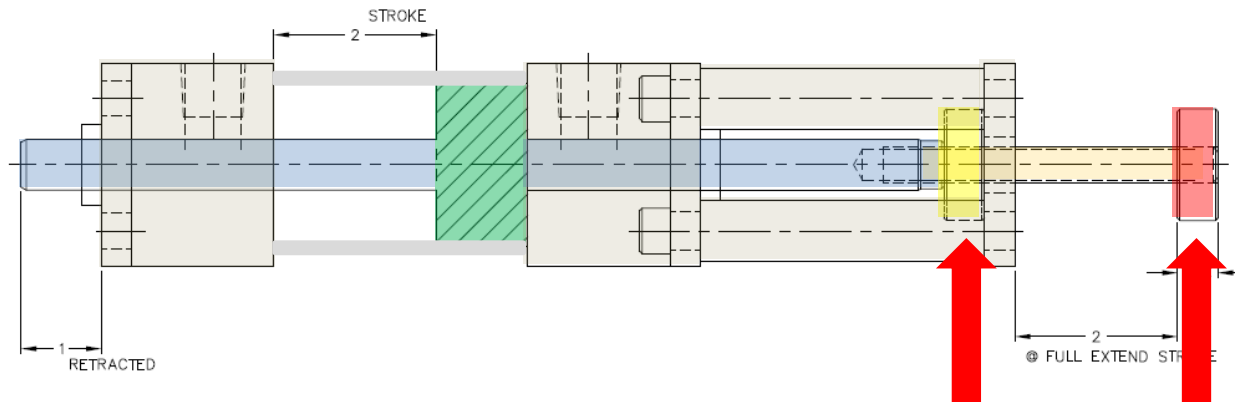
How It Works

A mechanical stopping structure is attached to the non-working end of the cylinder



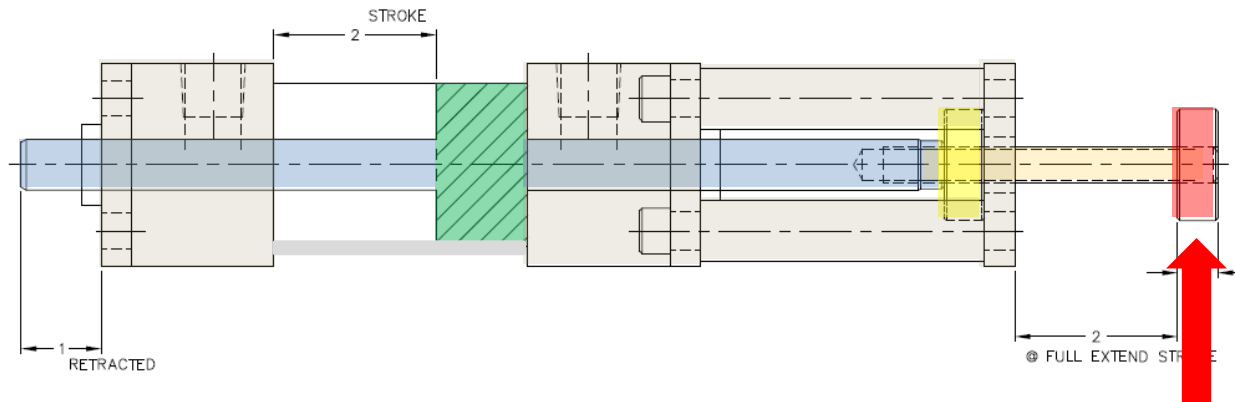
How It Works

The non-working end of the cylinder includes a threaded rod with adjustable locking nuts



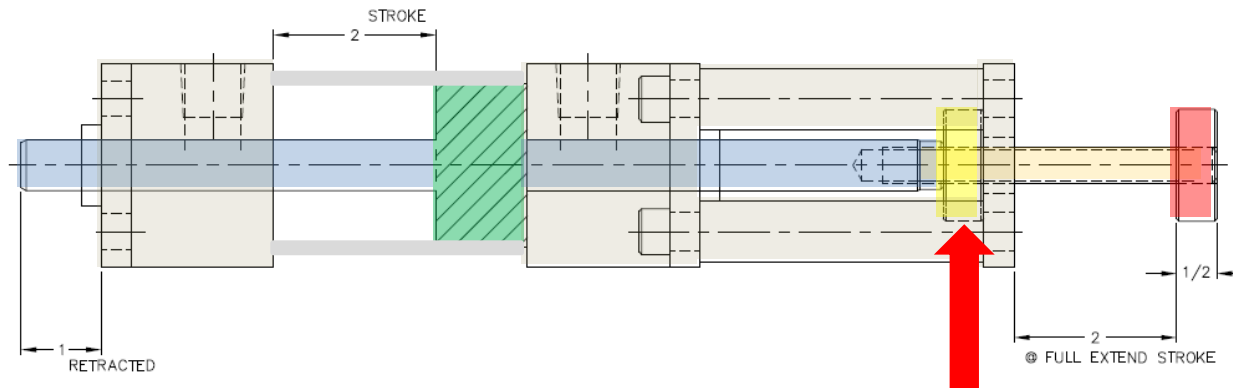
How It Works

One nut adjusts the extend stroke



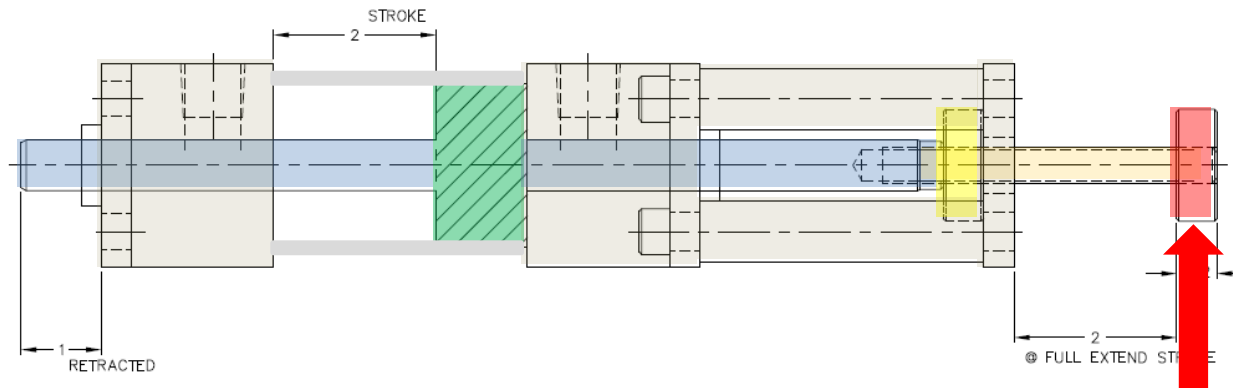
How It Works

One nut adjusts the retract stroke



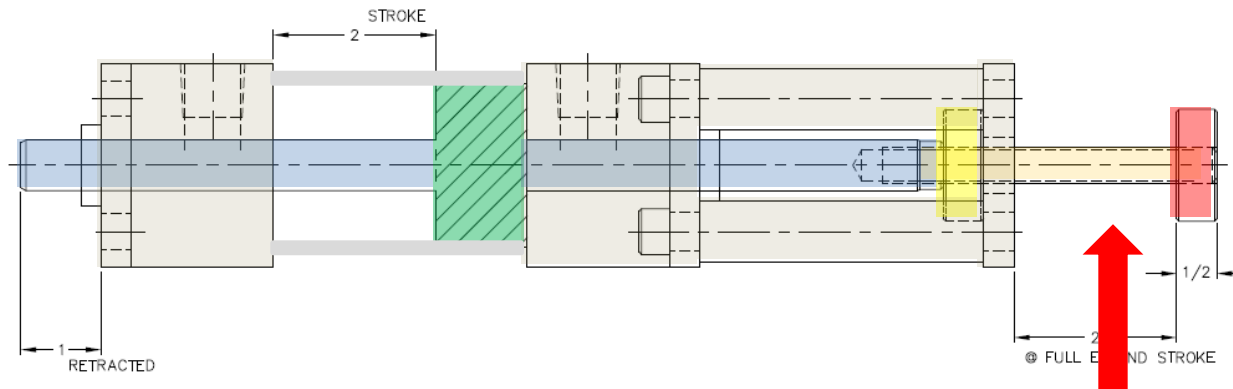
How It Works

Example: Adjusting the extend stroke



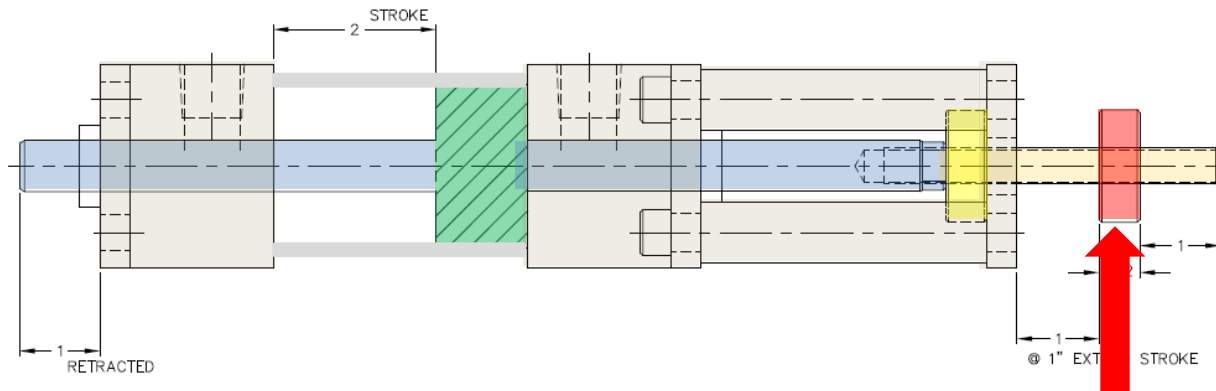
How It Works

Example: Move the nut to the desired location



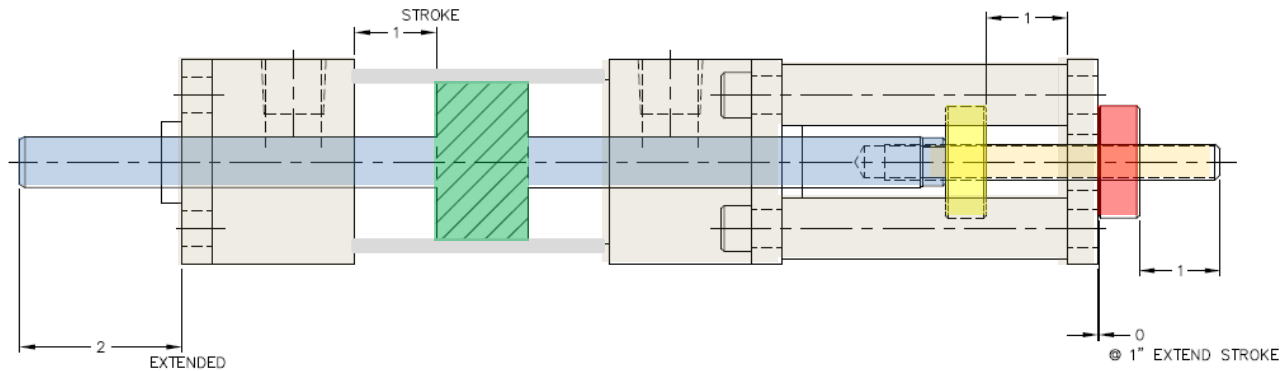
How It Works

Example: Move the nut to the desired location



How It Works

Example: The rod extend stroke stops at the new nut location



- Why Use
- Key Benefits
- Key Features
- How It Works
- **Applications**
- How To Order
- Resources

- Batch cutting operations
- Material Forming Applications
 - Where trial and error machine set-up is required
 - Example automotive trim
- Clamping applications
- Special environments:
 - Rugged environments
 - High temperature environments



Extend Adjust –
rugged application

- Why Use
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- Key Features
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- **How To Order**
- Resources

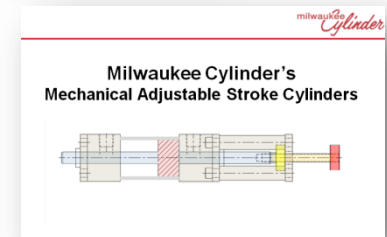
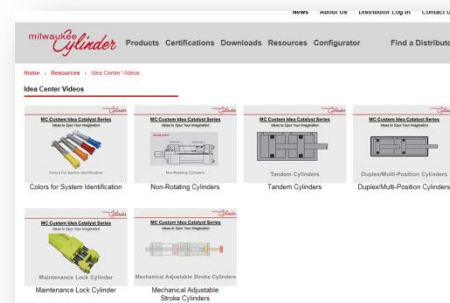
These are all specials

- Provide standard cylinder specifications
- Desired Adjustment Control
 - Extend Only
 - Retract Only
 - Both
- Required range of control
- Application concerns
 - Environmental concerns- high temp?
 - Cycle rate
 - Space constraints

- Why Use
- Key Benefits
- Key Features
- How It Works
- Applications
- How To Order
- **Resources**

- Outside Sales Team
- Inside Sales Team
- Engineering Team
- Power Point
- Video
- 3D Models

Not all shown....



- Contact your Milwaukee Cylinder Distributor

- Milwaukee Cylinder Sales:
414-769-9700
sales@milwaukeeecylinder.com