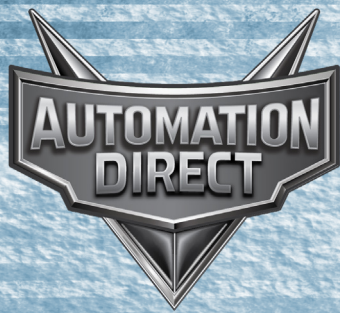
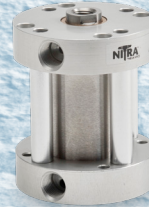




PNEUMATIC ACTUATORS

BUYING GUIDE



WHAT DO THEY DO?

Pneumatic actuators convert compressed air into mechanical motion for automation, offering fast and reliable operation. A common example is the pneumatic cylinder, which uses air pressure to move a piston back and forth in a sealed chamber to create controlled linear motion. In addition to cylinders, pneumatic actuators include rotary devices and grippers for a broad range of motion and handling tasks.

Common Actuator Types

- **Imperial Non-repairable Cylinders:** Non-repairable designs provide cost-effective actuation with simple operation and quick replacements for standard U.S. measurements.
- **ISO 6432 Cylinders:** Slim, non-repairable builds conform to international standards, offering consistent performance and easy interchangeability.
- **Compact Cylinders:** Short-body designs fit in tight spaces while delivering adequate stroke for limited-footprint automation setups.
- **NFPA Tie Rod Cylinders:** Rugged construction meets NFPA mounting standards, ensuring high durability in industrial environments.
- **Dual Guide Rod Cylinders:** Added rod stability resists bending and side loads, ideal for precision positioning and repetitive cycles.

Topics

- » [What Do They Do?](#)
- » [Applications](#)
- » [How to Choose](#)
- » [Sizing and Selection](#)
- » [Product Category Overview](#)
- » [Product Lineup](#)

- **Stainless Steel Cylinders:** Corrosion-resistant materials withstand harsh washdown or food-grade applications without compromising strength.
- **ISO 15552 Cylinders:** Standardized mounting and dimensions allow easy integration and replacement in global industrial systems.
- **Rodless Cylinders:** Internal carriage design moves loads without a projecting rod, saving space and enabling long strokes.
- **Rotary Actuators:** Convert pneumatic energy into rotation for indexing, clamping, or turning processes with controlled motion.
- **Pneumatic Grippers:** Pneumatic jaws open and close to securely grip parts for handling, assembly, or sorting tasks.

Choosing the right pneumatic actuators ensures precise, controlled motion tailored to each application's requirements. Proper selection also improves system efficiency, reduces maintenance demands, and supports long-term reliability in demanding industrial environments.



APPLICATIONS

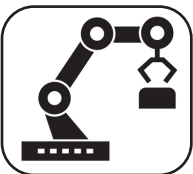
Pneumatic actuators serve diverse roles in industrial automation, powering motion for clamping, pressing, lifting, rotating, and gripping tasks. They are chosen for reliability and speed in harsh or repetitive environments, enabling precise control in manufacturing, packaging, and assembly processes.



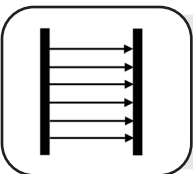
Automated Packaging & Cartoning: Compact cylinders and grippers enable fast, repeatable product handling, case erecting, and sealing where space is limited and cycle times are critical.



Food & Beverage Processing: All-stainless cylinders and corrosion-resistant actuators are used to push bottles along a conveyor line, gently positioning them for filling, capping, or labeling.



Material Handling & Pick-and-Place: Grippers and rotary actuators deliver precise positioning and reliable motion for sorting, conveying, and assembly tasks.



Machine Tool Clamping & Fixturing: High-force, double-acting cylinders provide consistent clamping and part stabilization, improving machining accuracy and repeatability.



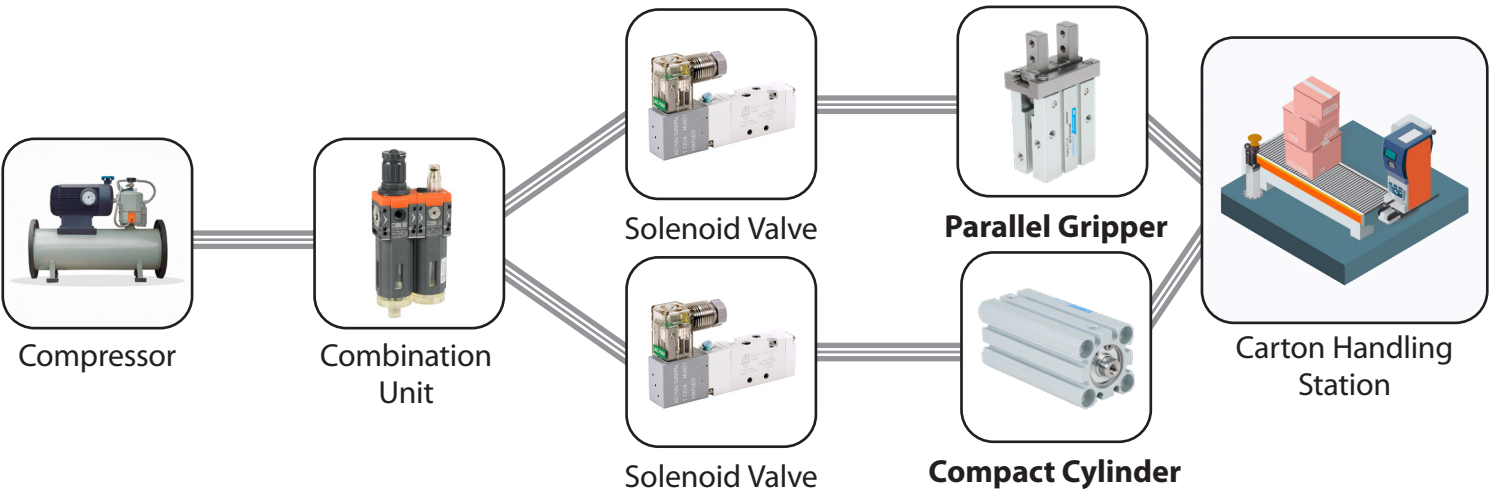
Automotive Assembly & Body Shops: NFPA tie-rod cylinders handle high-cycle pressing, lifting, and positioning in demanding, high-load production lines.



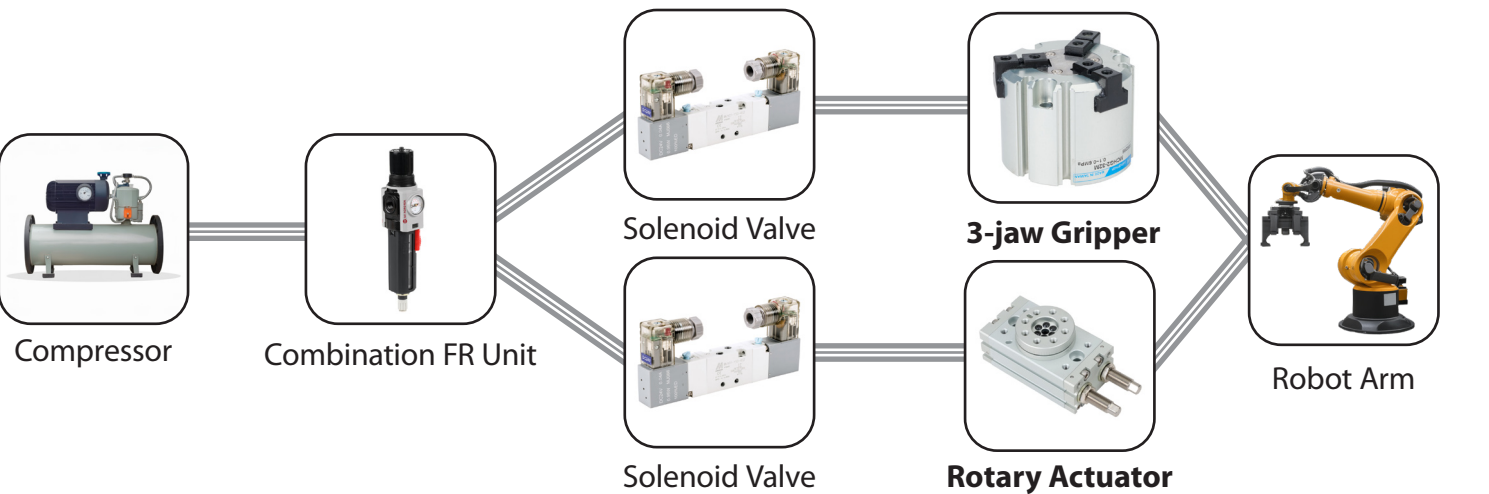
Pharmaceutical Inspection & Sorting: Compact cylinders and guided actuators enable precise, repeatable movement for vial inspection, rejection, and high-speed line sorting.

APPLICATIONS: EXAMPLES

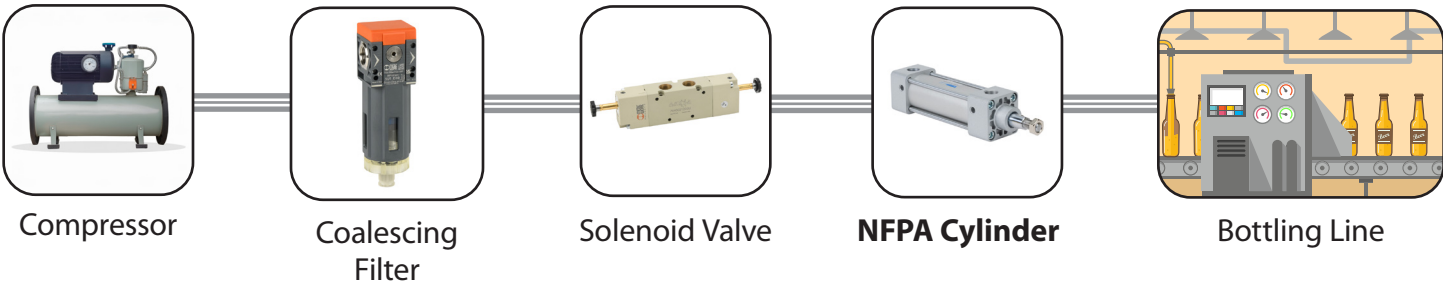
- **Automated Packaging & Cartoning:** Clean, regulated air powers compact cylinders and grippers for fast, repeatable carton forming, product handling, and sealing operations.



- **Material Handling & Pick-and-Place:** Integrated pneumatic motion enables precise part transfer, orientation, and placement with synchronized linear and rotary actuation.



- **Food & Beverage Processing:** Corrosion-resistant components provide reliable motion in washdown environments for processing, sorting, and packaging food products.



HOW TO CHOOSE

Selecting the right pneumatic actuator involves matching the required motion, load, and operating conditions to the appropriate actuator technology. Evaluating key design and performance factors will help ensure reliable operation and long service life.

1. Application Type: Match the actuator style to function, such as linear movement, rotary actuation, or gripping tasks.

2. Cylinder Standard: Choose Imperial, ISO 6432, or ISO 15552 based on regional standards and machine compatibility.

3. Space Constraints: Use compact or compact extruded cylinders when space is limited without sacrificing stroke or load capacity.

4. Load Requirements: Select NFPA tie rod cylinders for heavy or medium-duty loads and extended service life in tough environments.

5. Cylinder Action: Use single-acting cylinders for simple one-way motion with spring return, or double-acting cylinders when controlled motion is needed in both directions.

6. Guided Motion: Dual guide rod cylinders offer improved rigidity and prevent rotation in precision applications.

7. Corrosion Resistance: Opt for stainless steel cylinders in washdown or harsh environments to prevent material degradation.

8. Stroke Length: Ensure the available stroke meets the movement range required for the process.
9. Mounting Options: Pick cylinders with mounts that suit your machine design, such as front flange or rear clevis.

10. Air Supply: Confirm your air pressure and flow capacity are sufficient for actuator performance.

11. Speed Needs: Consider cylinder bore and air control for achieving desired cycle speeds without instability.

12. Maintenance Preference: Select non-repairable cylinders for simplicity or repairable designs for longer service potential.

13. Rodless Design: Use rodless cylinders for long strokes in compact footprints and mitigate the impact of side loads.

14. Motion Control: Choose actuators with compatible position switches if precise feedback is required.

15. Gripper Selection: Pick parallel or angle grippers depending on part shape and gripping direction needs.

16. Rotary Work: Use pneumatic rotary actuators for applications needing controlled rotational motion in compact packages.



CYLINDER SIZING AND SELECTION

Force and Size Requirements

The equations below and chart at right show the relationship between the force required to move a load, the pressure available, and the required cylinder bore size. Always factor in 25% more force than actually required to overcome friction, pressure drop, and other factors.

Given:
Pressure (PSI) =
Force(lbs) ÷ Area(sq-in)
Piston Area = $\pi \times r^2$
Cylinder Bore (in) = $2 \times r$

Therefore:
 $P = F \div (\pi \times (B \div 2)^2)$

And solving for B:
Bore Required = $\sqrt{\frac{4 \times \text{Force}}{\pi \times \text{Pressure}}}$

Where:
F = Force Required, the estimated force needed to move the load (lbs)
P = Air Pressure, the nominal air pressure of the pneumatic system (PSI)

Example:
Given an estimated force required of 900lbs (including the 25% overage for friction, pressure drop, etc.) and that the system will operate at 80PSI:
The Required Piston Area = $900 \text{ lbs} \div 80 \text{ lbs/in}^2 = 11.25 \text{ in}^2$.
Divide 11.25 by π , take the square root to get r, and note that the bore (dia) must be at least 3.78 inches.
From the chart, the next largest cylinder diameter is 4". Use a 4" cylinder.

Bore Diameter & Cylinder Area	
Bore Dia.	Cylinder Area (Sq. in.)
7/16"	0.150
9/16"	0.249
3/4"	0.442
7/8"	0.601
1-1/16"	0.887
1-1/4"	1.23
1-1/2"	1.77
2"	3.14
2-1/2"	4.91
3"	7.07
3-1/4"	8.30
4"	12.57
5"	19.64
6"	28.27
8"	50.27

Speed Requirements

Estimating cylinder speed can be challenging because air flow is affected by pressure losses through valves, tubing, fittings, bends, and ports. As speed increases, these losses become greater, reducing the pressure available at the piston and requiring the cylinder to produce force more quickly. For this reason, cylinder speed is typically estimated using practical rules of thumb rather than exact calculations.

General Rules of Thumb for Fast Cylinder Action
For fast cylinder action, select a cylinder that provides at least 25% more force than required. For very high-speed applications, allow 50% more force to help overcome system losses. Choose a directional control valve with a port size that matches the cylinder, but always verify the valve's flow rating rather than relying on port size alone. Use larger-diameter tubing when appropriate, keep tubing runs as short as possible, and minimize fittings to reduce restrictions.

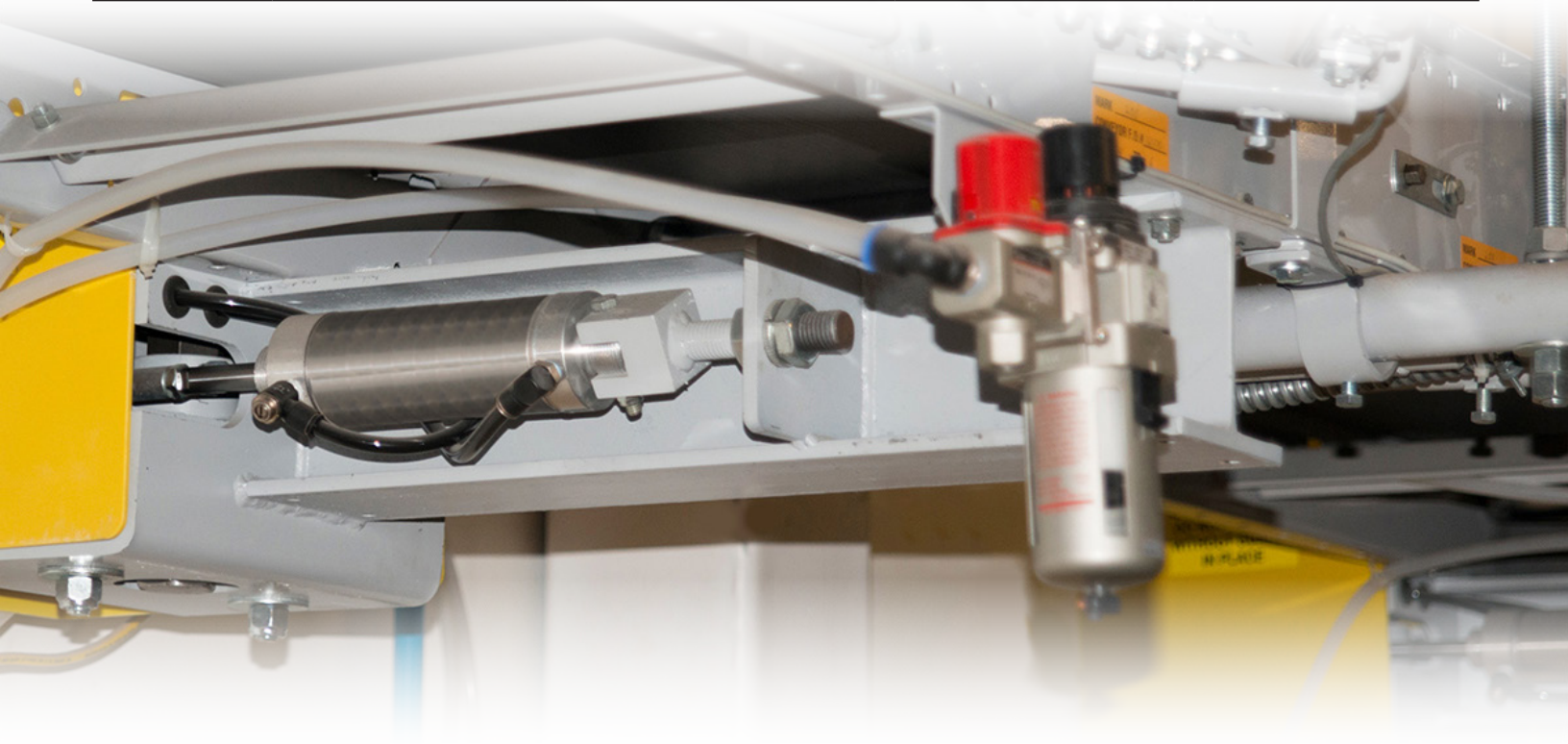
Achieving a Specific Speed
When a specific speed is required, size the cylinder, valve, tubing, and fittings for a faster stroke, then use flow controls to slow the cylinder to the desired speed. Extremely fast applications may require testing and adjustment, and cushioned cylinders should be considered to help protect components in high-speed systems.

CLICK HERE

for sizing tools and additional detailed guidance on selecting the right cylinder for your application

PRODUCT CATEGORY OVERVIEW

Product Category	What it Does	When to Choose This	Typical Applications	Key Selection Factors
Pneumatic Cylinders	Provides straight-line motion using a rod that extends and retracts	You need simple push/pull motion with good force and flexibility	Clamping, lifting, pressing, machine automation	Stroke length, force required, mounting style, available space, environment
Rodless Air Cylinders	Moves a load along a linear path without an exposed rod	You need long travel in a compact space or want to carry loads along the cylinder body	Material transfer, packaging lines, gantry systems	Travel length, load guidance, mounting space, speed requirements
Parallel Grippers	Opens and closes jaws in a straight, parallel motion	You need precise, repeatable gripping with minimal part movement	Pick-and-place, electronics, small part handling	Jaw stroke, grip force, mounting orientation (side/end), part size
Angled Grippers	Uses pivoting jaws for a wide opening range	You need larger opening angles or easier part access in tight spaces	Packaging, light assembly, pick-and-place	Opening angle, finger length, grip force, clearance space
Rotary Actuators	Converts air power into controlled rotational movement (adjustable angle)	You need to rotate parts between set positions instead of linear motion	Indexing tables, diverters, valve actuation	Rotation angle, torque output, cushioning/shock control, mounting
3-Jaw Grippers	Grips parts evenly from three sides for centered holding	You need to securely hold round or irregular-shaped objects with balanced force	Part handling, machining load/unload, assembly	Part shape/size, gripping force, stroke range, repeatability



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PRODUCT LINEUP



PNEUMATIC CYLINDERS

Series Name	Best For	Key Attributes	Primary Benefit	Price Tier
A-Series Imperial Non-Repairable	Basic automation, quick replacement	Simple design, light-duty, easy swap	Most economical, no-hassle solution	\$
Compact Metric Extruded	Tight machine spaces	Compact aluminum body, sensor-ready	Space savings without sacrificing function	\$
ISO 6432 Non-Repairable	Standardized OEM builds	ISO standard, slim round body	Easy cross-brand replacement	\$
C-Series Compact	Compact machines needing strength	High force in small size, versatile mounting	Full performance in a reduced footprint	\$\$
Medium-Duty NFPA Tie Rod	General industrial automation	Standardized mounting, longer strokes	Reliable all-purpose industrial cylinder	\$\$
G-Series ISO 15552	Global machine platforms	ISO compliant, broad sizing	Simplifies global sourcing and design	\$\$
F-Series Stainless Steel	Washdown / corrosive environments	All stainless construction, durable	Long service life in harsh conditions	\$\$\$
W-Series Dual Guide Rod	High-load applications	Reinforced guides, rigid structure	Maintains alignment under load	\$\$\$\$
D2 Series Heavy-Duty NFPA Tie Rod	High-force, demanding applications	Heavy-duty build, NFPA standard, cushioning	Maximum durability and long service life	\$\$\$\$

A-SERIES IMPERIAL NON-REPAIRABLE CYLINDERS
STARTING AT \$18.50

A-series cylinders provide dependable linear motion for everyday automation tasks. They are built to keep systems running without adding maintenance complexity and allow for quick replacement when needed.

- Broad bore range from 7/16 in. to 2 in. supports light to moderate force requirements
- Stroke lengths available from short 1/2 in. travel to extended positioning ranges up to 18 in.
- Durable stainless steel and aluminum construction, designed for minimal friction
- Supports operating pressure up to 250 psi
- Models available for both single-acting or double-acting operation
- Multiple mounting styles allow flexible installation
- 3 year warranty

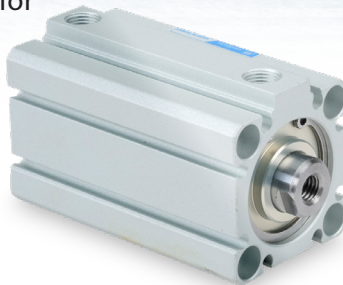


COMPACT METRIC EXTRUDED AIR CYLINDERS

STARTING AT \$21.00

Compact extruded air cylinders deliver space-saving linear motion with strong, lightweight aluminum construction. Designed for tight machine layouts, these cylinders offer dependable double-acting performance, flexible mounting options, and easy sensor integration for modern automation systems.

- Wide range of bore sizes from 12mm to 100mm for flexible force sizing
- Short stroke configurations from 5mm to 100mm, ideal for clamping, indexing, and small motion tasks
- Magnetic piston design supports easy integration with position sensors
- Multiple mounting styles including tapped and through-hole options simplify machine design
- Ideal for packaging equipment, assembly automation, and space-constrained machinery



ISO 6432 NON-REPAIRABLE CYLINDERS

STARTING AT \$38.50

ISO 6432 cylinders deliver compact linear motion in a standardized round-body design. They provide predictable sizing and compatibility across a wide range of equipment.

- Small bore sizes from 8mm to 25mm for light-duty force output
- Stroke lengths available from 50mm up to 300mm for short and moderate ranges
- Double acting, magnetic pistons for sensor control
- Supports operating pressure up to 145 psi
- Universal mount dependent on accessories selected to include: foot mount, rod clevis, rod eye, rear clevis, pivot mount, and flange mount



C-SERIES COMPACT AIR CYLINDERS

STARTING AT \$58.00

C-series compact cylinders provide full-performance linear motion in a reduced footprint. They help maximize usable space while maintaining consistent operation.

- Bore sizes from 12mm to 100mm
- Stroke lengths from 5mm to 100mm
- Interchangeable with other mini actuator, flat cylinder, or pancake cylinder brands
- Double acting, magnetic pistons for sensor control
- Multiple mounting options with tapped and counterbored holes



MEDIUM-DUTY NFPA TIE ROD CYLINDERS

STARTING AT \$70.00

NFPA medium-duty tie rod air cylinders provide rugged, standardized linear motion for industrial systems requiring moderate force and longer strokes. Built to NFPA mounting standards, these cylinders ensure easy integration, reliable performance, and compatibility across a wide range of automation and material handling applications.

- Available in multiple bore sizes from 1-1/2 in. to 4 in. to match required force output
- Stroke options up to 24 in. support long travel applications such as lifting, pressing, and positioning
- Double-acting designs deliver consistent extend and retract force for controlled motion
- Adjustable pneumatic cushions reduce end-of-stroke impact in high-cycle systems
- Broad mounting accessory options including clevis, pivot, flange, and rod ends simplify installation in existing equipment



G-SERIES ISO 15552 AIR CYLINDERS

STARTING AT \$80.00

G-series ISO 15552 cylinders provide a standardized solution for medium to high force applications. They support consistent machine design and simplify sourcing across regions, as they are commonly used in European machinery.

- Bore sizes range from 32mm to 100mm
- Wide range of stroke lengths available from 25mm to 600mm
- ISO 15552 standard ensures interchangeability across manufacturers
- Supports operating pressure up to 145 psi
- Double acting piston and internal magnet for sensor switching
- Supports a wide range of mounting configurations

F-SERIES ALL STAINLESS STEEL NON-REPAIRABLE CYLINDERS

STARTING AT \$127.00

F-series cylinders use stainless steel construction to maintain performance in wet or corrosive environments. They are designed to hold up under frequent cleaning and harsh exposure.

- Broad bore range from 3/4 in. to 2 in. supports light to moderate force requirements
- Stroke lengths available from short 1/2 in. travel to extended positioning ranges up to 18 in.
- Supports operating pressure up to 250 psi
- Multiple mounting styles support flexible installation



W-SERIES DUAL GUIDE ROD AIR CYLINDERS

STARTING AT \$157.00

W-series dual guide rod cylinders are engineered for higher load capacity and increased rigidity. They maintain consistent positioning under more demanding conditions.

- Large bore sizes from 12mm to 63mm support increased load capacity
- Stroke lengths from 10mm to 400mm for short to extended guided travel
- Reinforced, guided construction improves rigidity under load
- Double-acting magnetic cylinders pair with compatible T-slot cylinder switches
- Multiple mounting options and port locations for versatile integration



HEAVY-DUTY NFPA TIE ROD CYLINDERS

STARTING AT \$208.00

D2 series NFPA tie rod cylinders are built for high-force applications and long service life. They follow standardized dimensions that simplify both system design and replacement.

- Bore sizes from 1.5 in. to 4 in. for higher force output
- Stroke lengths from 1 in. up to 24 in.
- NFPA standard mounting dimensions allow drop-in replacement
- Supports operating pressure up to 145 psi
- Adjustable pneumatic cushioning reduces end-of-stroke impact



PNEUMATIC CYLINDER ACCESSORIES

Pneumatic air cylinder accessories include mounting hardware such as clevis joints, mounting brackets, rod end connectors, seal kits, and locking nuts.

RODLESS AIR CYLINDERS

Series Name	Best For	Key Attributes	Primary Benefit
L-Series Rodless Air Cylinders	Long travel in limited space	Rodless design, carriage-mounted load, long stroke	Saves space by eliminating rod overhang

L-SERIES RODLESS AIR CYLINDERS STARTING AT \$279.00

L-series rodless air cylinders provide long-stroke motion without the need for a projecting rod. They help reduce overall system length while maintaining controlled movement.

- Stroke lengths up to 1000mm, significantly longer than traditional rod cylinders
- Bore sizes from 16mm to 40mm to support varying load capacities
- Double-acting, magnetic piston for sensor control
- Carriage-mounted design allows direct load attachment
- Adjustable pneumatic cushioning reduces end-of-stroke impact
- Eliminates rod overhang, reducing required installation space



PNEUMATIC ROTARY ACTUATORS & GRIPPERS

Series Name	Best For	Key Attributes	Primary Benefit	Price Tier
Pneumatic Angle Grippers	Pick-and-place operations and handling small components	Angular jaw motion, compact body, single- or double-acting models	Provides wide jaw opening while minimizing space requirements	\$
MCHC2 Series Parallel Grippers	Precise gripping of flat, square, or consistent part geometries	Parallel jaw motion, flexible mounting options, sensor-ready design	Delivers accurate, repeatable gripping and positioning	\$\$\$
MCHG2 Series 3-Jaw Gripper Actuators	Handling round, cylindrical, or irregularly shaped parts	Self-centering three-jaw design, balanced gripping action, multiple mounting options	Automatically centers parts for improved stability and repeatability	\$\$\$\$
MCRQ2 Series Rotary Actuators	Controlled angular motion and part positioning	Adjustable rotation, compact design, shock-control options	Provides repeatable rotary movement with built-in motion control features	\$\$\$\$



PNEUMATIC ANGLE GRIPPERS STARTING AT \$46.50

Pneumatic angle grippers provide efficient angular motion for secure part handling in compact spaces. With hardened gripping fingers and reliable actuation, these grippers are well suited for pick-and-place operations and light assembly tasks.

- Bore sizes from 10mm to 32mm
- Angular opening motion enables efficient part access and release
- Compact design fits into tight machine layouts
- Single-acting and double-acting configurations
- Hardened gripping fingers improve durability and grip reliability
- Ideal for pick-and-place, light assembly, and small part handling

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MCHC2 SERIES PARALLEL GRIPPERS STARTING AT \$163.00

MCHC2 series parallel grippers provide precise, straight-line jaw motion for consistent part handling. Their design supports both internal and external gripping with flexible mounting options.

- Bore sizes from 4mm to 40mm
- Stroke lengths from 4mm to 30mm
- Side and end mounting options for flexible integration
- Magnetic piston with sensor grooves for position sensing
- Hardened gripping fingers for durability and repeatability



MCHG2 SERIES 3-JAW GRIPPER ACTUATORS STARTING AT \$187.00

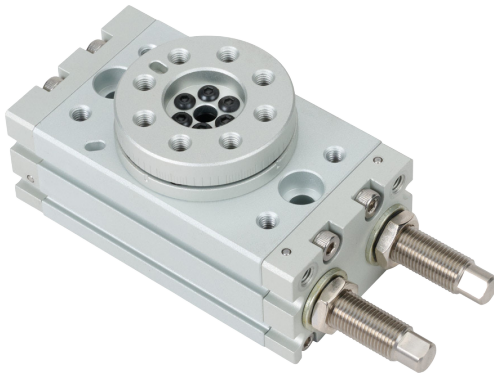
MCHG2 series 3-jaw grippers deliver centered gripping action for improved stability when handling round or irregular parts. The design balances gripping force evenly across three contact points.

- Bore sizes from 16mm to 125mm
- Stroke lengths from 4mm to 32mm
- Three-jaw configuration provides self-centering grip
- Magnetic piston with integrated sensor mounting grooves
- Anodized aluminum body with hardened steel jaws
- Multiple mounting hole options support flexible installation

MCRQ2 SERIES ROTARY ACTUATORS STARTING AT \$231.00

MCRQ2 series rotary actuators convert air power into controlled angular motion with adjustable travel. They provide repeatable positioning with built-in shock management options.

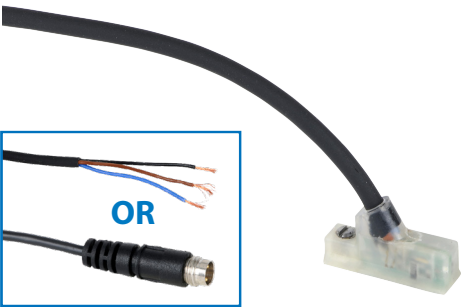
- 16mm, 20mm, and 25mm models (Tube I.D.)
- Adjustable rotation range up to 190°
- Double-acting design provides controlled bidirectional rotation
- Options include rubber bumpers or shock absorbers for end-of-travel control
- Magnetic piston supports position sensing integration
- Compact body design supports space-conscious installations



PNEUMATIC CYLINDER POSITION SWITCHES

Pneumatic cylinder switches provide reliable, non-contact position sensing across a wide range of cylinder types. They feature solid-state sensing technology, flexible PNP/NPN outputs, and compact, durable housings with IP67 protection for industrial use. Position switches also offer LED status indication for easy setup and diagnostics, along with 3m cable or M8 quick-disconnect options for straightforward installation on select series.

Series Name	Best For	Key Attributes	Primary Benefit	Price Tier
CPS9D / CPS9E - 1/4in X 60 deg Dovetail Cylinder Switches	Standard dovetail groove cylinders	Simple mounting, compact, reliable sensing	Lowest-cost way to add position feedback	\$
CPS9C Series 4mm Round Switches	Small round-slot cylinders	Compact, screw-mounted, long cable option	Easy install in tight, round-body designs	\$\$
CPS9F Series 6.5mm X 3.2mm T-Slot Switches	General-purpose metric cylinders	Fast response, flexible wiring	Reliable sensing with quick setup	\$\$
CPS9M Series 1/4" Round Switches	Larger round-slot cylinders	Durable housing, simple integration	Drop-in sensing for larger round slot cylinders	\$\$
CPS9Q Series 6.5mm X 3.2mm Low-Profile T-Slot Switches	Space-constrained T-slot cylinders	Slim design, fast switching	Fits where standard sensors won't	\$\$
CPS Series 5mm Square T-Slot Switches	Cost-effective standard sensing	Higher current capacity, durable, versatile	Best value for general-purpose applications	\$\$\$
CPS9H Series 4mm Square T-Slot Switches	Compact T-slot designs	Simple install, compact size, reliable output	Straightforward, no-fuss sensing solution	\$\$\$
CPSF Series IP69K 5mm Square T-Slot Switches	Washdown / harsh environments	IP69K rated, stainless elements, high durability	Maximum reliability in extreme conditions	\$\$\$



CPS9D AND CPS9E SERIES 1/4 INCH X 60 DEG DOVETAIL CYLINDER SWITCHES STARTING AT \$16.50

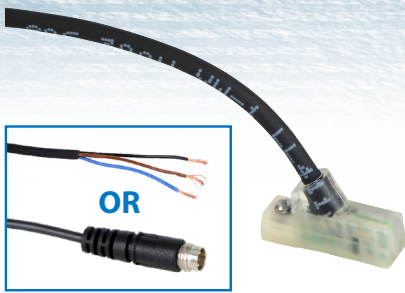
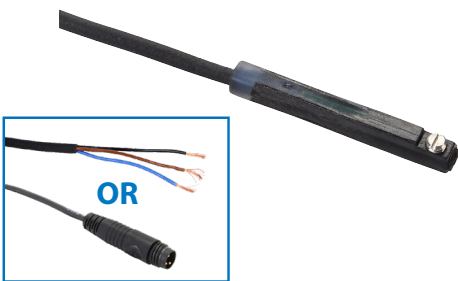
CPS9D and CPS9E series switches are designed for dovetail grooves and offer a simple way to add position sensing to cylinders that use this common mounting style.

- Compatible with 1/4 inch 60° dovetail slot mounting
- Compatible with CPS9D dovetail groove adapters for alternate mounting sizes
- Available with either 45 or 90 degree cable exit
- CE, RoHS, REACH agency approvals

CPS9C SERIES 4MM ROUND CYLINDER SWITCHES PRICED AT \$18.00

CPS9C series switches are built for small round-slot cylinders and provide dependable position sensing in compact pneumatic systems.

- Compatible with 4mm round slot mounting
- Secured using integrated mounting screw for fixed positioning
- CE, RoHS, REACH agency approvals



CPS9F SERIES 6.5MM X 3.2MM T-SLOT CYLINDER SWITCHES PRICED AT \$18.50

CPS9F series switches are designed for metric T-slot cylinders and provide reliable sensing in a compact rectangular form.

- Compatible with 6.5 x 3.2mm T-slot channels
- CE, RoHS, REACH agency approvals

CPS9M SERIES 1/4 INCH ROUND CYLINDER SWITCHES PRICED AT \$19.50

CPS9M series switches are designed for larger round-slot cylinders and provide simple integration with reliable electrical outputs.

- Compatible with 1/4 inch round slot mounting
- CE, RoHS, REACH agency approvals



CPS9Q SERIES 6.5 X 3.2MM T-SLOT LOW PROFILE CYLINDER SWITCHES PRICED AT \$20.00

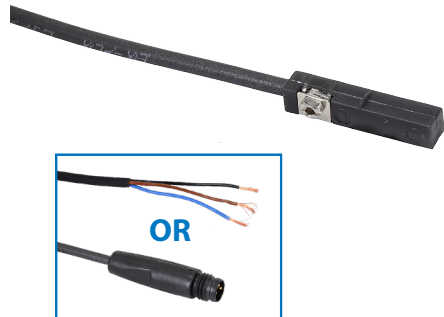
CPS9Q series switches provide the same functionality as standard T-slot sensors in a lower-profile housing that fits tighter installations.

- Compatible with 6.5 x 3.2mm T-slot mounting with low-profile body
- Compact housing reduces interference in space-constrained designs
- Uses high-performance housing material for added durability
- CE, RoHS, REACH agency approvals

CPS SERIES 5MM SQUARE T-SLOT CYLINDER SWITCHES STARTING AT \$24.50

CPS series switches are built for standard 5 mm T-slot cylinders and offer a cost-effective way to add position feedback using solid-state sensing.

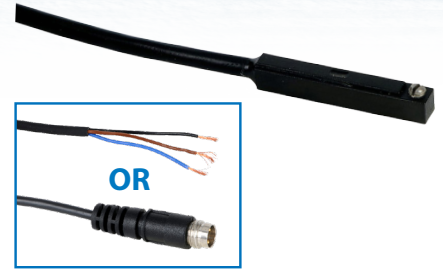
- Compatible with 5mm square T-slot grooves on common cylinders
- AMR sensing technology provides high sensitivity and repeatability
- Near-unlimited cycle life due to solid-state construction
- Can be adapted for round body and tie rod cylinders using CPSB bands or CPSA adapters
- M8 connector or 2m cable lead options for flexible wiring



CPS9H SERIES 4MM SQUARE T-SLOT CYLINDER SWITCHES PRICED AT \$25.50

CPS9H series cylinder switches provide a straightforward solution for detecting piston position in compact T-slot cylinders. They deliver reliable feedback with simple installation and widely compatible electrical options.

- Compatible with 4mm square T-slot mounting on extruded cylinders
- Higher current capacity (up to ~0.5 A) compared to many compact switches
- Robust ABS housing for general industrial durability
- CE, RoHS, REACH agency approvals



CPSF SERIES IP69K 5MM SQUARE T-SLOT SWITCHES STARTING AT \$28.50

CPSF series switches are designed for demanding washdown and harsh environments where durability and sealing are critical.

- Compatible with 5mm square T-slot grooves on common cylinders
- Rated for IP69K washdown environments with high-pressure and high-temperature cleaning
- AMR sensing technology delivers precise switching with minimal hysteresis
- Can be adapted for round body and tie rod cylinders using CPSS bands or CPSS adapters
- Short-circuit, overload, and reverse polarity protection
- Very high switching frequency (>6000 Hz) for fast cycle applications
- M12 connector or 2m cable lead options for flexible wiring



**This buying guide was drafted with AI assistance and edited by the AutomationDirect Technical Marketing Team*