

ROSS[™]
a global family



Press Metal Forming

Solving Your Application Challenges



ROSS Controls® is a leading global supplier of safety products and pneumatic controls for the Press Metal Forming Industry

ROSS CONTROLS®

Safety Focus

For almost half a century, ROSS® has developed industry-leading safety solutions classified in one of five categories: Energy Isolation, Safe Exhaust, Safe Return, Safe Control & Load Holding, and Press Clutch/Brake Control.

ROSS has shown continued innovation in the field of control reliable double valve technology for clutches and brakes, but we have also developed products for a wide variety of press line applications and press-related systems.

From de-stackers and tilt tables to counterbalance and transfer feeds, ROSS has the products and global experience you depend on for unparalleled service life and the protection of workers and equipment.



Rugged & Robust Designs

Since 1921, ROSS has designed and manufactured pneumatic valves for automation. Our product line includes directional control valves, manual valves, mechanical valves, flow control valves, and air preparation solutions.



Problem Solvers

In addition to standard products, ROSS/FLEX® service and technology is a unique resource for a total system solution. Our ROSS/FLEX® engineering team can design and build custom solutions specific to client application requirements. Customized unique systems designed to meet the needs of industry applications.



Worldwide

Headquartered in the United States, ROSS CONTROLS® has facilities in Germany, Japan, United Kingdom, India, Brazil, China, France, and Canada. In addition to its global sales team, ROSS has a worldwide network of over 100 stocking distributors to help customers select the best products for their applications.



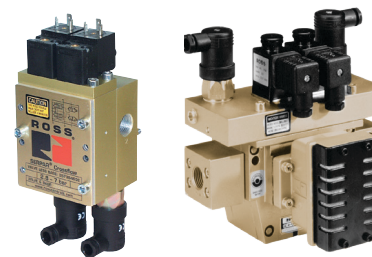
Clutch/Brake Control Double Valves

Up to

**Cat. 4
PL e**

3/2 Valves with or without Pressure Switches for External Monitoring CROSSFLOW™ 35 Series

- In-line mounted 3/2 valves, dual poppet construction
- 1/4" – 1-1/2" port, flow up 43 C_v to exhaust
- Designed to enable users to comply with current safety regulations
- External monitoring systems can provide lockout inhibiting further machine operation until controls system reset



3/2 Valves with Internal Dynamic Monitoring and Memory DM²® Series D

- Base mounted 3/2 valves, dual poppet construction
- 1/4" – 1-1/2" port, flow up to 54 C_v to exhaust
- Control reliable double valves; self-contained dynamic monitoring system
- Dynamic memory of abnormal function retains lockout condition and prevents unintentional reset through reapplication of air or electricity; electrical, pneumatic, or manual reset available
- Status indicator switch feedback for valve condition (ready to run or faulted)



3/2 Valves with Internal Monitoring and Reset SERPAR® 35 Series

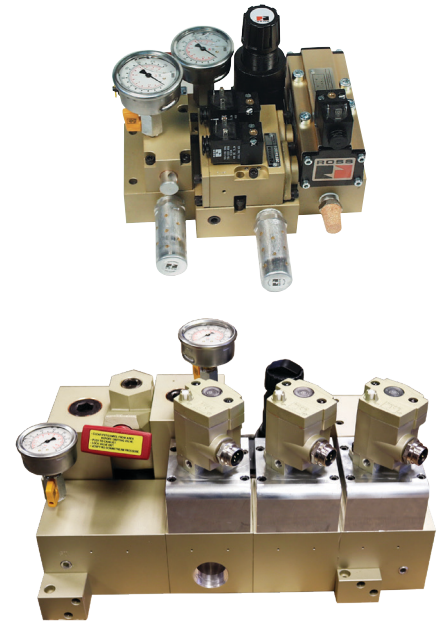
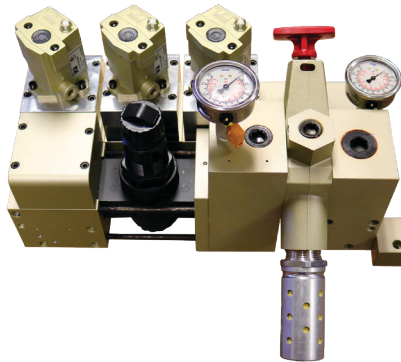
- In-line mounted 3/2 valves, dual poppet construction
- 3/8" – 2" port, flow up to 43 C_v to exhaust
- Internal monitoring – Pneumatic (L-G), Solenoid (E-P), or Dry Contact (D-S) reset options; no undesired automatic reset upon removal of electrical or pneumatic energy sources
- Automatic lock-out in the event of a fault, to inhibit further operation



Automatic Counterbalance Pressure Control

Automatic Counterbalance for Mechanical Stamping Presses

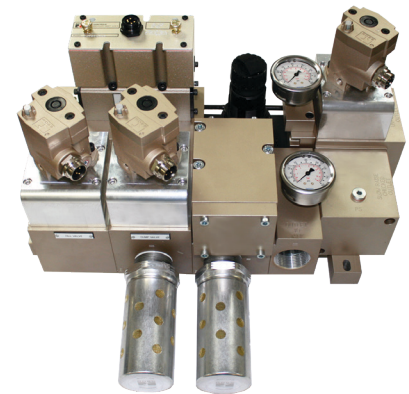
- Fill-Dump with Auto-Manual Select and Parallel Manual Circuit
- Interfaces with controls to monitor/maintain correct counterbalance pressure
- Built-in check valve functions meet all ANSI B11.1 requirements



Automatic Die Cushion Control Systems

Automatic Die Cushion for Material Support and Knockout Operations

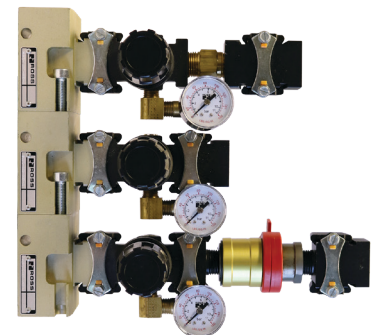
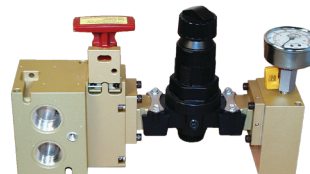
- Die Cushion with Checked & Unchecked Slow Raise Function
- Fill/Dump valves interfaces with controls to monitor/maintain correct die cushion pressures
- Butterfly control valve included
- Slow raise cushion circuit included



Air Distribution Assemblies

Air Distribution Assemblies for Main Air Panel Applications

- Stations or modules that can be stacked to fit any application
- Custom options available



Energy Isolation Valves

3/2 Valves Lockout L-O-X® 15 Series

- In-line mounted
- Cast aluminum construction
 - » Port Size 1/4" through 2"
 - » Cv up to 40
- Spool construction
- Integrated sensing port for pressure verification or visual indicator option
- Lockable only in the OFF position



Safe Exhaust Single Valves

Up to

**Cat. 2
PL c**

3/2 Valves with EEZ-ON® Soft-Start function MDC1 & MDC2 Series

- In-line mounted
- Port Size 3/8" through 3/4"
- Cv up to 4.0
- Single poppet construction
- MDC2 Series valve is equipped with a solid state pressure sensor for external monitoring



Safe Exhaust Double Valves

Up to

**Cat. 4
PL e**

3/2 Valves with or without EEZ-ON® Soft-Start function for External Monitoring M35 Series

- In-line mounted
- Port Size 1/2" and 3/4"
- Cv up to 4.3
- Dual poppet construction
- Solid state pressure sensor for external monitoring



Safe Cylinder Control

Safe Control & Load Holding Double Valves

Up to



4/3 Valves for External Monitoring CC4 Series

- Sub-base mounted
- Port Size 1/4" through 3/4"
- Cv up to 1.7
- Dual poppet design
- Redundant control with position feedback
- Closed Center valve function - allows full control of double-acting cylinders, including jog and load-holding functions
- For external monitoring - allows full safety control and feedback monitoring of cylinder control circuit
- Mid-position sensing - for detection of safe, closed center position



Safe Return Double Valves

Up to



5/2 Valves with Internal Monitoring CROSSMIRROR® CM & 77 Series

- Base mounted
- Dual spool construction
- Solenoid controlled valves equipped with status indication switch (ready-to-run) to inform machine controller of valve condition
- Pressure Controlled valves, senses asynchronous inputs
- Self-contained dynamic monitoring system requires no additional valve monitoring controls

Meets Standards EN13736 and ANSI B11.2, Safety requirements for Pneumatic Cylinder Presses and other hazardous pneumatic cylinder applications.

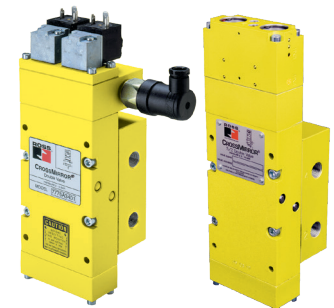
CROSSMIRROR® CM26 Series

- Port Size 1/4" through 1/2"
- Cv up to 3
- Valve fault results in a lockout condition and prevents unintentional reset with removal of air or electricity
- Manifoldable for multi-valve applications



CROSSMIRROR® 77 Series

- Port Size 1/2" through 3/4", SAE12
- Cv up to 3.2
- Automatic reset upon de-actuation



In-line Poppet Valves

Headline Valves 27 Series

- In-line mounted 2/2, 3/2, and 4/2 valves, poppet construction
- 1/4" – 2-1/2" port
- C_v up to 72
- Solenoid pilot or pressure controlled
- CRN certified valves available



ISO Valves

ISO 5599-2 Valves W65 Series

- Sub-base and manifold base mounting 5/2 and 5/3 valves, spool and sleeve construction
- ISO Size 1, 2, & 3 – 1/4" & 3/4" port
- C_v up to 3.4
- 5/2 single or double, and 5/3 double solenoid pilot or pressure controlled
- Serial Bus Communication compatible



Filters

Filters High-Capacity Series

- Modular or in-line mounting, sintered or fiber construction
- Port Size 3/4" through 1-1/2"
- Scfm up to 800
- Automatic or manual drain
- High-strength polycarbonate plastic bowl or metal bowl



Regulators & Remote Pilot Regulators

Regulators High-Capacity Series

- Modular or in-line mounting, diaphragm or piston-type design
- Regulators
 - » Port Size 3/4" through 1-1/2"
 - » Scfm up to 800
 - » Standard or reverse flow
 - » Self-relieving
- Remote Pilot Regulators
 - » Port Size 1-1/2" through 3"
 - » Scfm up to 800





AMERICAS	USA	ROSS CONTROLS	Tel: +1-248-764-1800	www.rosscontrols.com
		AUTOMATIC VALVE	Tel: +1-248-474-6700	www.automaticvalve.com
		ROSS DECCO	Tel: +1-248-764-1800	www.rossdecco.com
	Brazil	ROSS BRASIL	Tel: +55-11-4335-2200	www.rosscontrols.com.br
	Canada	ROSS CANADA	Tel: +1-416-251-7677	www.rosscanada.com
EUROPE	France	ROSS FRANCE SAS	Tel: +33-(0)1-49-45-65-65	www.rossfrance.com
	Germany	ROSS EUROPA	Tel: +49 (0)6103-7597-100	www.rosseuropa.com
		manufactIS	Tel: +49 (0)2013-16843-0	www.manufactis.net
	United Kingdom	ROSS U.K. Ltd.	Tel: +44 (0)1254 872277	www.rossuk.co.uk
ROSS PNEUMATROL		Tel: +44 (0)1254 872277	www.pneumatrol.com	
ASIA & PACIFIC	China	ROSS CONTROLS (CHINA) Ltd.	Tel: +86-21-6915-7961	www.rosscontrolschina.com
	India	ROSS CONTROLS INDIA Pvt. Ltd.	Tel: +91-44-2624-9040	www.rosscontrols.com
	Japan	ROSS ASIA K.K.	Tel: +81-42-778-7251	www.rossasia.co.jp

