



Oil & Gas



Forestry & Lumber

Products for Natural Resource Industries

Solutions for Mining
Aggregates Cement
Asphalt & Steel Mills



Power Generation



Paper & Pulp



Steel & Smelting



Water Treatment

Proven Solutions for your Harsh Production Needs

Established in 1959, SMC Corporation has become the global leader in pneumatic automation.

Technical Support Centers are located in the United States, Canada, Japan, China, and Europe employing Over 1,400 Engineers

360 Sales and Support Offices in 73 Countries

SMC North American Headquarters



Mining

SMC Products for Mineral Extraction
& Processing Applications



Steel & Smelting

SMC Products for Steel, Smelting and
Metal Processing Applications



Asphalt, Concrete and Aggregates

SMC Products for Asphalt, Concrete and
Aggregates Production



Featured Products for Flotation Cells

Pneumatic Products Specifically Designed For Flotation Cell Harsh Environments

SMC has been providing pneumatic solutions to the resources sector since 1968 including development of components to withstand some of the most aggressive environments known to industry.



SMC Air Servo



SMC Dart Valve Cylinder

Air Servo Application Success Story

At a customer's installation in Mexico, material recovery percentage for Flotation Cells was increased from 65% to 89% with the SMC Air Servo.



Air Servo Cylinder IN-777

Capable of air cylinder multipoint positioning and control



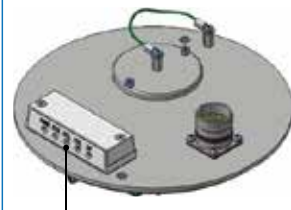
■ Repeatability for the stopping position: ± 0.5 mm

■ Servo valve and controller integrated cylinder

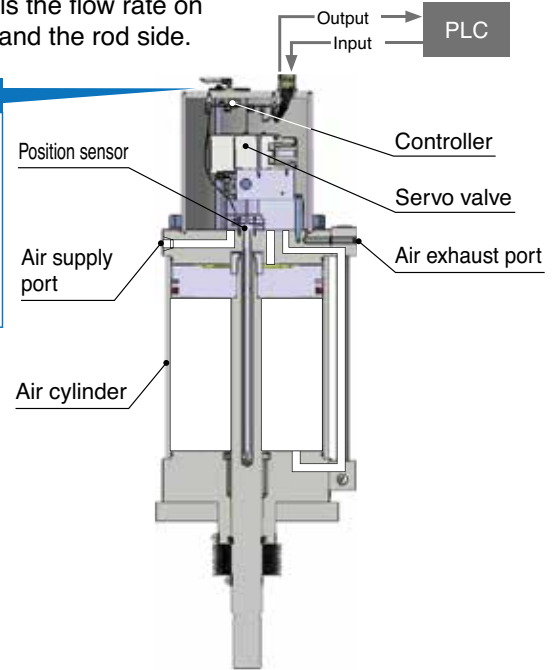
Built-in position sensor

The servo valve controls the flow rate on the cylinder head side and the rod side.

Self diagnosis function



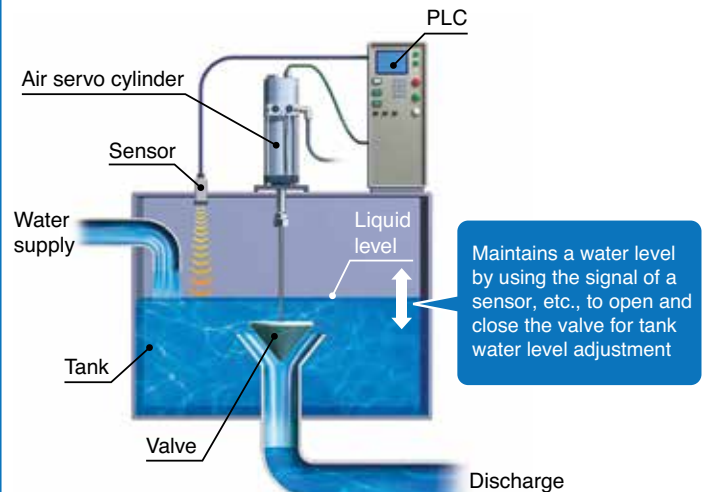
PWR : Power supply
CTR : Controller
CYL : Position sensor
VAL : Valve
RF : Rod friction



- IP67
- Ambient temperature: -20°C to 60°C (No freezing)
- Applicable to cylinders with diameters of $\phi 125$ to $\phi 400$
- Input signal: 4 to 20 mA
- With stroke position signal output function (4 to 20 mA)
- HART transmission
- With auto calibration function
- Supports the fail safe function

Application Example

Cylinder control for maintaining a liquid level position

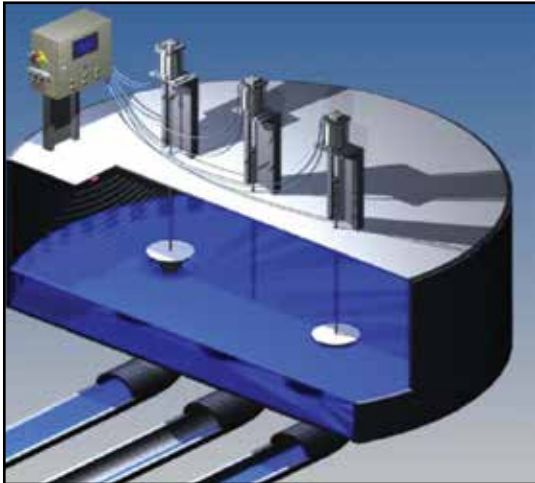




Featured Installation for Flotation Cells

Dart Valve Installation

Flotation Cell



Control Cabinets





Crust Breaker for Smelting

Our high quality crust breaker cylinders are recognized by many in the smelter industry for their excellent operational life cycle performance and also their value. These steel bodied cylinders operate at a fixed air pressure, delivering a fixed stroke using a fixed dwell time, and SMC also offers variable crust strength and crust depth performance. Designed and developed specifically for the aluminum smelting industry, SMC now offers a crust breaker cylinder that has a life expectancy exceeding that of the pot.

**Contact sensing solution • Variable stroke • Variable air pressure
Variable crust strength • Variable crust depth**



Custom Valve Cylinder Application



For special applications, SMC can assist with the design and manufacture of specialty pneumatic cylinders to meet process industry requirements.



Contactless Positioner Cylinder

For heavy duty mining and process industry applications



Remote Type



Fixed Type

Medium Duty Air Cylinder

NCA1 Series - NFPA Interchangeable



Valve Positioning

For Integrated Assemblies



How can you achieve the best out of your compressed air preparation and improve energy efficiency while reducing costs?

Mining Industry specialists from SMC can calculate your requirements and determine the most suitable solution.



XT316 Air Shocker

The air shocker is a pneumatic piston type shock generator which removes material plugging due to bridging or adhesion of bulk material inside a hopper or chute.

IP8101 Rotary Smart Positioner

- IP65 dustproof and waterproof rating
- Analog gauges for supply and output pressures
- Easy zero point and span adjustment
- 2 alarm outputs (option)
- 4 to 20 mA DC output (option)
- HART transmission function (option)
- 1/4 port size with Rc, NPT, or G threads



C(D)S1 Air Cylinder

- Double acting, single rod, lube type
- Bore sizes: 125mm to 300mm
- Strokes up to 2400mm available
- Seven mounting styles available
- Auto switch capable



AC20-B to AC60-B

- Air filter, regulator and lubricator unit
- Clean looking, urban white, modular design
- Energy saving with high flow rate
- Transparent bowl guard
- Mounting interchangeable with existing product
- Improved installation
- Embedded gauge and pressure switch options available
- Rc, G, or NPT threads



Related Products

For low/high temperatures and aggressive ambient



AMD150C to 550C / AMD650 to 850 Coalescing Micro Mist Separator

- Prefilter of compressed air
- Modular connection is possible
- Port size: 1/8, 1/4, 3/8, 1/2, 3/4, 1, 1 1/2, 2
- Thread: Rc, G, NPT



ADH Heavy Duty Auto Drain

- Series ADH4000
- can be maintained without changing existing piping.
- There is no need for electric power and no waste of air.
- Float style drain allows automatic drain discharge without electric power.



Filter Regulators



Air Dryers



CS1 Cylinders



Mainline Filtration



Shut-off Valves



Process Hints for the Mining Industry



ALD, DP Lube and Lube Unit, Metric

- Centrally located lubricator
- Low oil consumption
- Simplified oil feeding volume setting in which only the pressure differential is adjusted
- Oil can be replenished without interrupting air supply
- Low maintenance
- Visible oil mist ensures proper operation



VXE Series

- Process valves with power saving coils.
- Reduce energy and coil temperature significantly.
- Improved valve performance with VXE Valves.

VBA Series

If you need more process pressure, the VBA pressure Booster will amplify your point of use current air pressure by up to 4 times.





Pulse Valve

Valve for Dust Collector

■ Life: 10 million cycles or more/

Based on SMC's specific testing conditions (JSXFA-06, Pilot valve orifice is $\phi 5$ mm or larger)

10 times or more

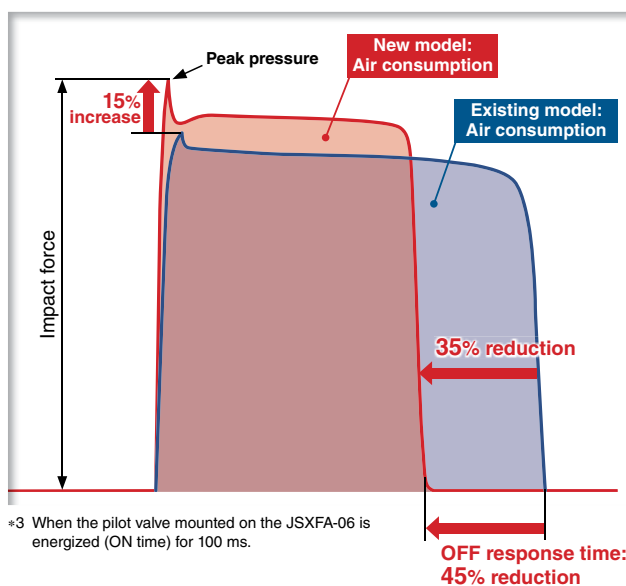
Comparison with SMC existing model

■ High peak pressure and low air consumption

Peak Pressure 15% increase

Air Consumption 35% reduction

When the pilot valve mounted on the JSXFA-06 is energized (ON time) for 100 ms.



Compression fitting type



Size:
3/4 (20A), 1 (25A), 1 1/2 (40A)

Direct piping type



■ Port size



3/4 (20A)



1 (25A)



1 1/2 (40A)

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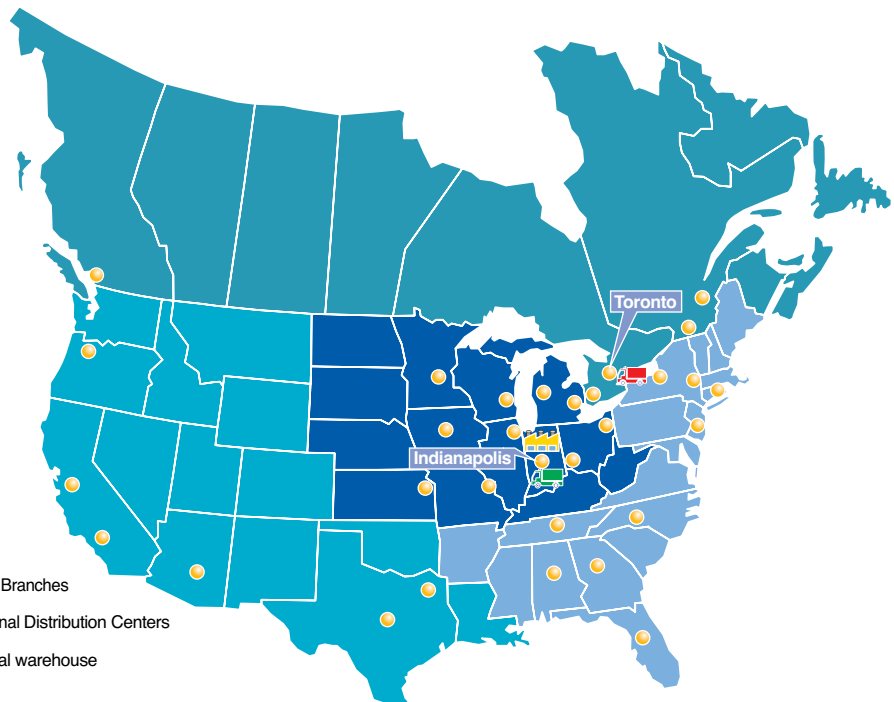
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