



**Schrader Duncan Limited**

[www.schraderduncan.com](http://www.schraderduncan.com)



An ISO 9001 company, Schrader Duncan Ltd. is part of the JP Goenka group of companies.

The Schrader Pneumatics Business Unit is one of India's pioneers in the field of pneumatics and a leading manufacturer of a wide range of pneumatic products that includes cylinders, directional control valves, FRLs and accessories. It has been serving the Indian industry for more than three decades. With a state of the art, environment friendly manufacturing plant and a dust free temperature controlled assembly facility at Ranjangaon, Pune, the pneumatics business unit is ideally placed to address the future needs of the industry.

With a penetrating network of sales executives and dealers spread over all regions, the company's products are widely distributed and used in most segments of the industry such as printing and paper, packaging, pharma, automotive and machine tools, food processing, steel & metal, power, tyre, cement, textile, petrochemical and other general engineering industries.

In addition to the standard catalogue products, the division's focus has been to offer customized products that meet unique customer application needs. This has been possible and is sustained by a strong technology team that works on comprehensive pneumatic solutions.

## AIR CYLINDERS

- Meets VDMA 24562 and ISO 6431 standard specifications.
  - Available in 32, 40, 50, 63, 80 & 100 mm bore sizes.
  - Cylinder in compact & streamlined construction with range of mountings.
  - Option of reed switch design also available.
  - Super finished anodised aluminium square profile tube & polyurethane rod seal ensure long & trouble free life.
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- Light weight construction, sleek design.
  - Miniature ISO range : 12, 16, 20, 25 mm bore dia. conforming to ISO 6432.
  - Medium ISO range : 32, 40, 50, 63, 80 and 100 mm bore dia.
  - Conforming to ISO 6431 Standard Specifications.
  - "Add on" feature for mountings available on standard ISO range.
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- Proven performance in a wide range of applications.
  - Midget series cylinders available in 1/2", 3/4", & 1" bore sizes.
  - Medium bore series available in 1 1/2", 2 1/4", 2 1/2" 3" & 4" bore dia.
  - Complete range of mountings like rear trunnion, front trunnion, plate mounting, central trunnion, foot mounting etc. available.
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- Built for heavy duty and demanding applications.
  - Available in 5", 6", 8", 10", 12" & 14" bore sizes.
  - Rugged construction with Seamless Steel tube for 8" bore and above and Cast Iron end covers.
  - Cylinders larger than 14" bore available against specific requirements.
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- Conforming to ISO 6431 Standard Specifications.
  - Available in 125, 160, 200 mm bore sizes.
  - Anodised Aluminium barrel Cast Iron end covers.
  - ISO cylinders beyond 200 mm bore available against specific requirements.





## 5/2 DIRECTIONAL CONTROL VALVES

**1/8"- 1/4" Exel Valves**



These high performance and miniature size valves are available in 1/4" & 1/8" port sizes in 5/2 and 3/2 versions.

- Streamlined construction, ideal for easy and compact gang manifolding.
- Quick response to actuation.
- Low friction dynamic seals.
- Working pr. : 1.5 to 8 kg./cm<sup>2</sup>
- Flow rate Cv : 0.7 (700 liters/min)
- Sol. coil rating : 3 W/ 5 VA

Coil voltage : 240 V AC, 110 V AC, 24 V DC (other voltages on request)

**1/4"- 3/8"- 1/2" High Flow Valves**



These new generation of spool valves with high flow capacities are available in 1/4" port size in 5/2 and 3/2 versions.

- Wear compensating "dancing seals" design.
- Choice of side and subbase porting.
- Available in Bar type and Subbase type gang manifolding.
- Working pr. : 1.5 to 8 kg./cm<sup>2</sup>
- Flow rate Cv : 1.3 / 2.2
- Sol. coil rating : 3 W/ 5 VA

Coil voltage : 240 V AC, 110 V AC, 24 V DC (other voltages on request)

**1/4" Modular Spool Valves**



These modular spool valves are sturdy in construction and are time tested for their wide applications and ruggedness.

- Available in 5/2 & 5/3 versions.
- Choice of side & subbase porting.
- Subbase type gang manifolding available.
- Working pr. : 2.7 to 10 kg./cm<sup>2</sup>
- Flow rate Cv : 1.0 ( 1000 liters/min )
- Sol. coil rating : 3 W/ 5 VA

Coil voltage : 240 V AC, 110 V AC, 24 V DC (other voltages on request)

**3/8" Basic Double Poppet Valves**



These Poppet Valves are designed to give long and trouble free service under the most arduous conditions.

- Available in 1/4", 3/8" & 1/2" sub base port connections.
- Available in Solenoid, Manual or Pilot actuations.
- The design of face sealing on poppet makes the valve "Self Cleaning" under adverse air conditions.
- Gang manifolding facility available having common inlet & exhaust.
- Working Pressure : 1.5 to 10 kg./cm<sup>2</sup>
- Flow rate Cv : 2.04 ( 3/8" port )
- Sol. Coil rating : 3W/5 VA

Coil Voltage : 240 V AC, 110 V AC, 24V DC (Other voltages on request)

**3/4" Basic Double Poppet Valves**



The internal design and salient features of 3/4" basic poppet valves are same as 3/8" basic poppet valves except the flow rate (Cv) which is 5.8 (3/4" port ).

- Available in 1/2", 3/4" & 1" sub base port connections.
- Ideal for actuation of Air cylinders of 8" bore dia and above.
- Explosion proof coil can be offered as per IS 2148/1981

## 2 WAY & 3 WAY VALVES

2 way and 3 way direct acting solenoid valves are generally used for operating midget cylinders or for giving pilot signal or for remote control of main valve. The valves are suitable for air, water, light oil and are also useful in vacuum applications. The valves can be selected in G25 ( 4w/6.5 VA ) and G50 (8w/14.5 VA) coil versions. The G50 range valves are also offered with flame proof coil class I, IIA, IIB as per IS 2148.

Schrader offers following internal pilot operated 2 way solenoid valves which are suitable for air, water and oil.

- 1/4" to 1 1/2" 2 way diaphragm operated valves. The design is compact with higher flow capacities. 1/4", 3/8", 1/2" are with brass body & G 25 coil while 3/4", 1", 1 1/2" are offered with stainless steel body & G 50 coil.
- 1"-2 way piston operated valve with 25mm orifice. The design is sturdy and is suitable for heavy duty applications.

Vertical poppet valves utilize the well proven poppet principle to give high flow rates with short valve travel. Basic valve is of 9.5 mm (3/8") orifice and is offered in 1/4", 3/8" and 1/2" connections. The valve is with normally closed or normally open construction with solenoid and pilot actuations.

Axial valve is an innovative improvisation over conventional ball valve & rotary actuator assembly. The axial valve offers following features:

- Compact design, combining functions of conventional ball valve and rotary actuator.
  - All stainless steel streamlined construction.
  - Viton seals are used as standard, which are compatible to air, water, oil, hydrocarbons etc. and can withstand temperatures up to 180° C
  - Provided with Namur standard base for directly mounting Namur valves.
  - Provision of Normally close, Normally open single acting and double acting versions.
  - Available in 1", 1 1/2" & 2" port sizes.
  - Flow rate Cv : 16, 53 & 75 respectively
- Schrader Pulse valves are specially designed to remove dust from filter bags of dust collector systems
  - Available with solenoid and pilot actuations
  - High flow and faster operation contribute to efficient cleaning
  - Option of explosion proof coils available



## AIRLINE ACCESSORIES

**Filter - Regulator - Lubricator**



- Maxflow Series FRLs.
- 1/8" to 1" Port sizes.
- Modular design.
- High flow capacities

**Flow Control Valves**



- These Flow Control Valves allow free flow in one direction & controlled flow in the other so as to regular the speed of cylinder.
- G 1/8" to G 1/2" Banjo Flow Control Vales for direct mounting on cylinder port.
- G 1/8" to G 3/4" Inline Flow Control Vales for line or panel mounting.
- Both the above versions available with knob type recess type design.

**Quick Exhaust Valves**



- G 1/4" to G 3/4" Quick Exhaust Vales are used to increase the cylinder piston speed by around 2 times.

**Silencers**



- G 1/4" to G 1" size
- Silencer reduces the noise level of the exhausting air to considerable extent.
- They are available in sintered bronze or aluminium housing.

**QRC - Check Valves - Blow Guns**



These airline accessories are used for performing supportive pneumatic functions such as easy connection / disconnection between pneumatic lines, allowing air flow only in one direction and controlling air jet for blowing off.



## POSITIONER CYLINDERS

Positioner Cylinder has capability to achieve any intermediate position of pneumatic cylinder depending on input signal given to the positioner. Positioner cylinders are available with bore dia between 40 mm to 200 mm and 1½" to 14" and up to 1000 mm stroke.

Following 3 basic models are available with different accessories :

- Pneumatic Positioner : Model SDPP1200R
- Electro Pneumatic Positioner : Model SDEP100R
- Smart Positioner : Model SDSP 2300R ( Electronic with HART Protocol ).

### Schrader Positioners are

- Compact with sleek feed back mechanism & mounting
- Work effectively under demanding environmental conditions.
- Economical due to low air consumption
- Available with positioner transmitter, limit switches, lock-up valves etc.

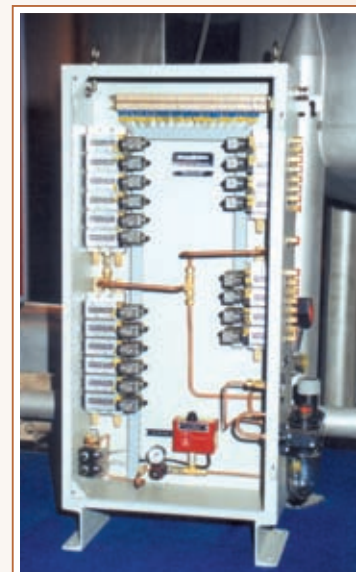


## PNEUMATIC AUTOMATION SYSTEMS

Low investments, compatibility with other automation technologies such as P.L.C.s, simple maintenance demands, inexhaustible air as its working medium are some of the unique features of a Pneumatic Automation System, making it the ready choice in a wide variety of automation needs, be it textile machinery, machine tools, packaging & printing machines, assembly lines, material handling etc. Pneumatic Systems provide a wide range of automation, offering enormous savings in time, energy and costs. For several decades Schrader has been engaged in offering Pneumatic Systems for a wide section of the industry. Equipped with a highly qualified and experienced team and computer aided design tools, we undertake to provide automation solutions from design to execution.

### Some of our notable projects are:

- Valve stands for steel mills.
- Systems for tyre processing machinery.
- Material handling systems.
- Collating and packaging systems.
- Machine tool automation.
- Liquid and solid filling and packing equipment.
- Animation models.
- Education and training kit.
- Customised products.



## SPECIALITY PRODUCTS

Self Reciprocating Cylinders



Reed Switch Cylinders



3/2 Midget Poppet Valves



Rotary Actuators



Hydraulic Cylinders



Explosion Proof Coils



## APPLICATIONS

Power



Steel & Metal



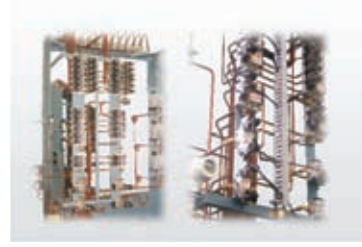
Process



Cement



Tyre



Customized Products



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