

Red Roc Pinch Valves are reliable, low maintenance, cost-effective valves engineered for tough slurries, dry and wet abrasives, and corrosive chemical applications. When fully open the 100% full bore design is identical to a rubber lined pipe. This design completely encapsulates the media being transported, and eliminates the risk of the media contaminating the mechanical working parts where in most other types of valves slurry can build up and impair operation of the valve or even cause complete valve failure.

Typical applications for Red Roc Pinch Valves:

- Mineral Processing
 - Mine tailings
 - Slurries
 - Corrosives
 - Acids
- Power Generation
 - Ash handling
 - Coal
 - Dust and scrubber slurries
- Oil Sands
 - Oil Drilling mud
- Chemical Plants
- Mineral Dressing Plants
- Fertilizer manufacturers
- Sewage effluent treatment
- Slurry tailings valve
- Thickener or clarifier
- Cyclone isolation
- Dry hoppers
- Pneumatic Conveying
- Paper pulps
- Cement
- Pump isolation



First Quantum Minerals (FQM)

Due to the full bore design, turbulence is greatly reduced, which reduces wear and increases the life of the valve. Scale build stuck to the sleeve wall will break up and dislodge passing through the valve because of the flexing of the rubber sleeve. Red Roc Pinch Valves are bi-directional and feature a drop tight shutoff. They have been designed with a shortened face-to-face dimension, similar to that of a diaphragm valve.

Handwheel

Considered rim pull for ease of opening and closing

Feedback

Engineered for linear response for modulating and control applications; may be substituted for electronic encoder if required, recommended on large sizes

Actuator

Designed and engineered to be correctly sized for the application

Bridge

Designed gap to reduce the risk of finger trapping

Position Indication

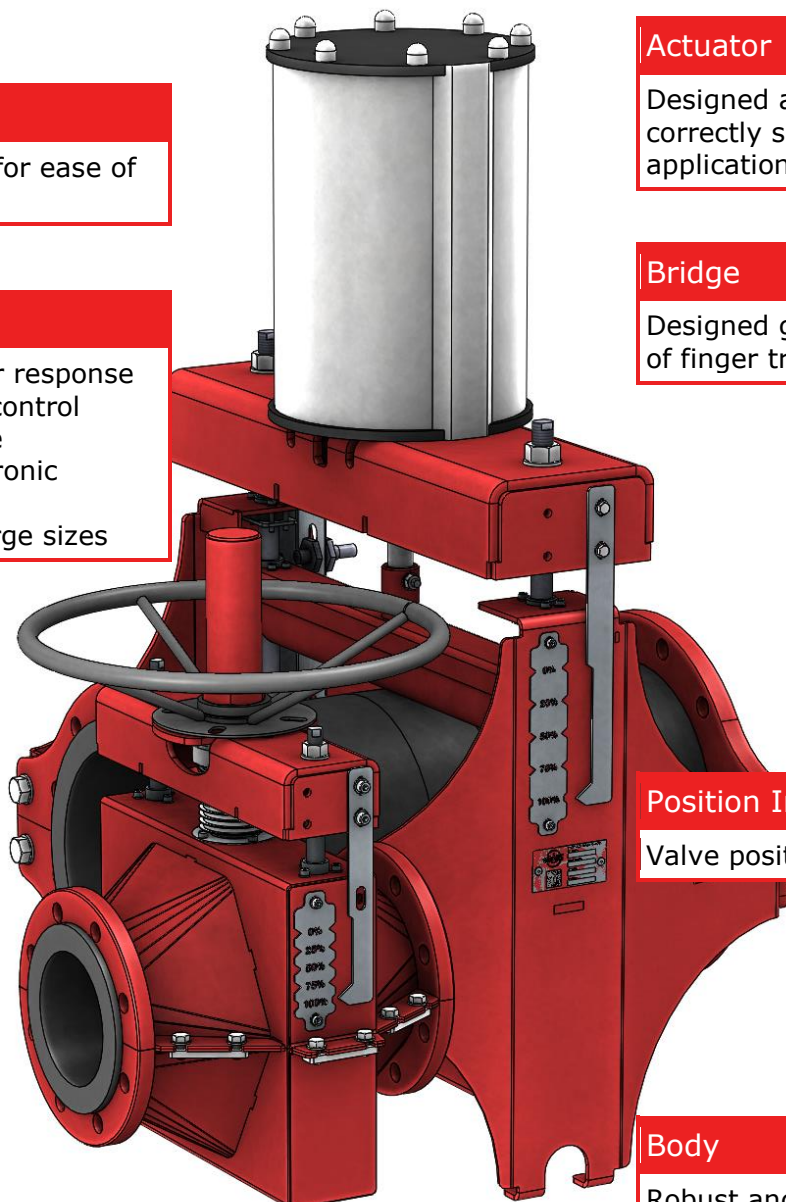
Valve position highly visible

Body

Robust and shrouded to limit spillage trouble but it is not sealed. Finished with a high quality paint to offer superior corrosion resistance

Sleeve

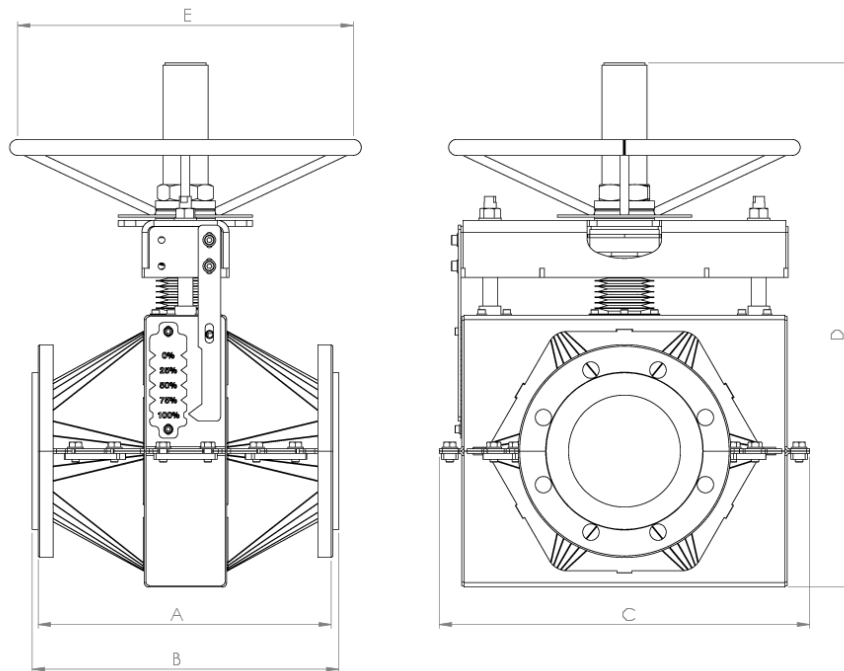
Colour coded to designate pressure rating. Only wetted and wearing part wears



Technical Specification

Available Flanges			
Spec	Pressure	Spec	Pressure
BS 4504/SANS 1123 1000/3	10 bar	DIN PN 10	10 bar
BS 4504/SANS 1123 1000/16	16 bar	DIN PN 16	16 bar
BS 4504/SANS 1123 1000/25	25 bar	DIN PN 25	25 bar
BS 10 TABLE D	6.89 bar	ANSI/ASME B16.1 #125 (grey cast iron, fits to B16.5 #150)	(<38°C) 1-12": 13.8 bar 14-24": 10.3 bar
BS 10 TABLE E	13.78 bar	ANSI/ASME B16.5 #150 (steel)	17.2 bar

Material of Construction			
Part	Material Options	Part	Material Options
Body	Stainless Steel 316 or Phenoline Painted S355JR steel	Actuator	ECoated endplates and StSt 304 cover or all 316 Stainless Steel.
Pedestal	Stainless Steel 316 or Phenoline Painted S355JR steel	Sleeve	Reinforced Rubber



Dimension Table								
Size		Face-to-Face		C (width)	D (height)	E (H/W)	Clearance [†]	Weight
mm	in	A (sleeve)	B (frame)					
150	6	411	395	430	653	450	300	95
200	8	530	500	510	770	450	400	119
250	10	645	615	610	1043	600	450	181
300	12	760	730	780	1309	701	550	259
350	14	990	950	930	1670	900	680	438
400	16	1200	1160	1030	1915	GB [‡]	800	578
450	18	1350	1310	1090	2015	GB	900	624
500	20	1500	1460	1180	2135	GB	900	656

[†] Clearance for sleeve replacement [‡] Gearbox

Sleeve

Red Roc Pinch Valve sleeves are similar in construction to a car tyre. Each one of our sleeves is hand crafted and made to our uncompromising quality standard.

The general construction of Red Roc sleeves is:

- Elastomer/urethane inner liner, this is the only part of the whole valve in contact with the media
- High strength nylon woven fabric
- Exterior Natural rubber cover

These parts are vulcanized under pressure and heat to form a pressure-containing sleeve that becomes the heart of our Red Roc Pinch Valve.

Red Roc Pinch Valve sleeves are offered with the following liner configurations:

Elastomer	Temp Range	Max Pressure
Natural Black Rubber Our standard sleeve material. Good tensile strength, and abrasion resistance. For use in applications with abrasive powders, slurries, water purification and inorganic soils	-35°C to +80°C	25
Pure Gum Red Rubber It has excellent resiliency, tensile strength, and abrasion resistance. Pure Gum Rubber is generally good for most weak chemicals, wet or dry organic acids, alcohols, and ketones	-35°C to 80°C	25
Nitrile This elastomer is generally resistant to moderate chemicals, ozone, fats, and many hydrocarbons	-10°C to 100°C	16
Butyl Generally resistant to ozone, heat, and strong oxidizing chemicals. Butyl has the lowest permeability of all the synthetic rubbers	-25°C to 120°C	16
Natural Rubber / Polyurethane With a natural Rubber outer sleeve for strength and a Polyurethane inner liner this sleeve has excellent abrasion resistance and low temperature flexibility, tear resistance, ozone and weathering resistance. Polyurethane has outstanding oil and fuel resistance, and is generally resistant to moderate chemicals, fats, diluted acids, and many hydrocarbons	-35°C to +80°C	25
EPDM is recommended for good abrasion resistance at elevated temperatures. Good for steam, water, ketones, and diluted acids	-50°C to 160°C	25
Hypalon® Resistant to heat, ozone, weathering, and oxidizing chemicals. It has good resistance to strong acids at room temperatures	-50°C to 160°C	16

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