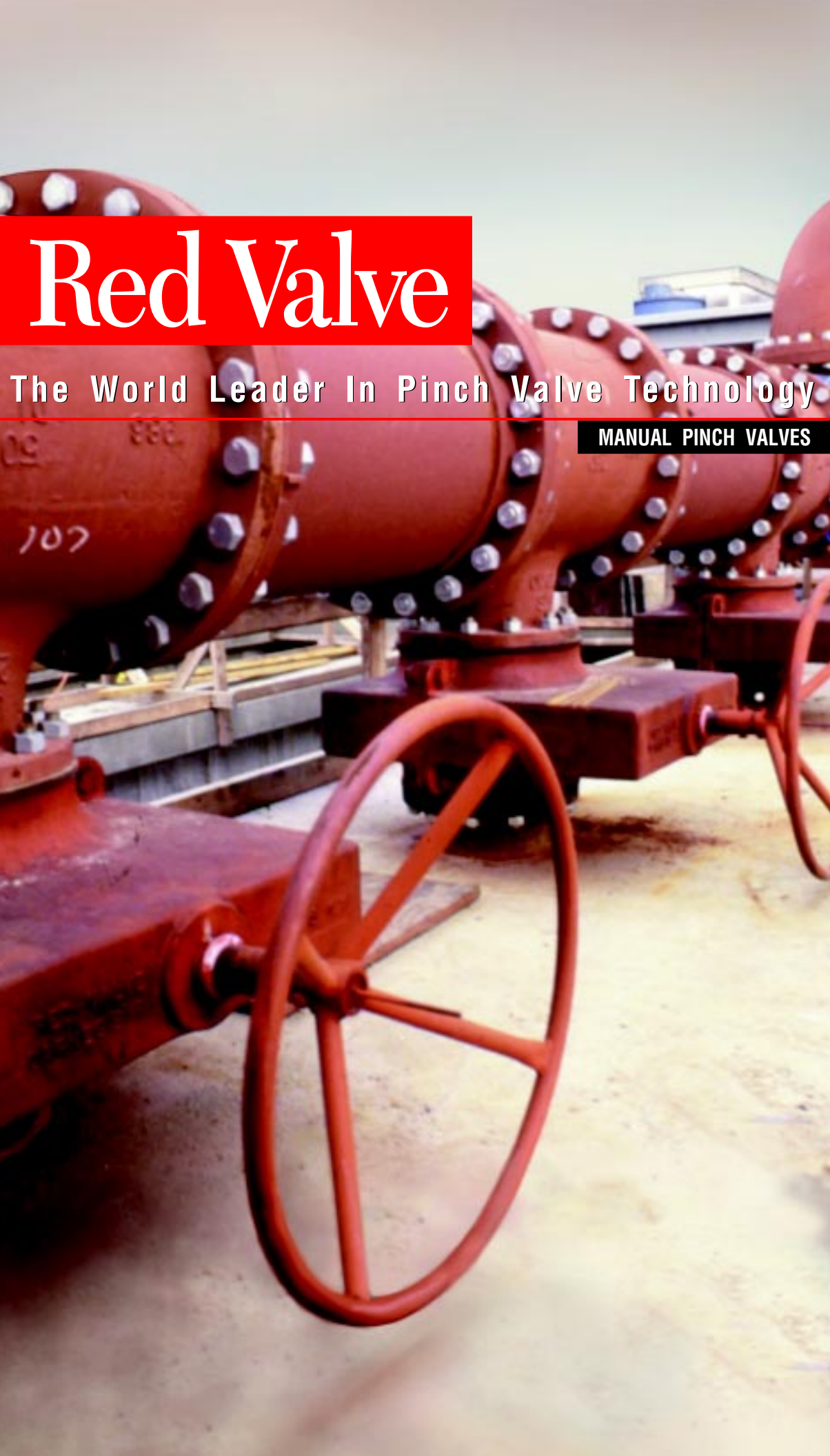


# Red Valve

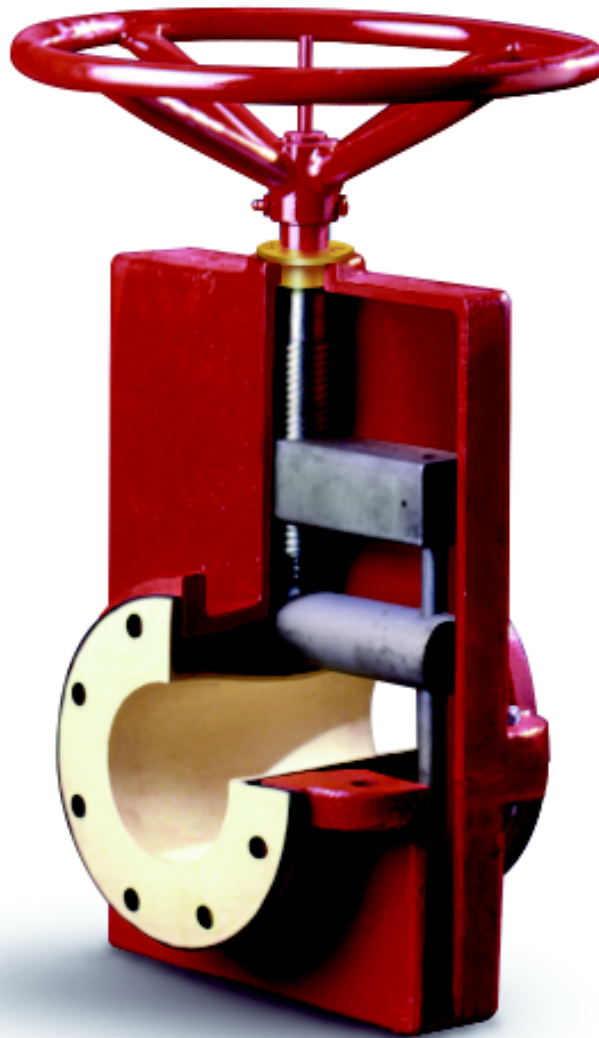
The World Leader In Pinch Valve Technology

MANUAL PINCH VALVES



# Red Valve Manual Pinch Valves

- ▶ **Same Face-to-Face As Gate, Plug, Or Ball Valves To 12"**
- ▶ **100% Full Port**
- ▶ **Bi-Directional Droptight Shutoff**
- ▶ **No Packing To Maintain, Ever**
- ▶ **Sleeve Is Only Wetted Part: No Need For Alloy Bodies**
- ▶ **Self-Cleaning**
- ▶ **Excellent Throttling Characteristics**



*The Series 75's flexible sleeve isolates the valve's working parts.*



*This is accomplished by the use of two pinch bars closing on centerline.*



*This feature eliminates turbulence and wear, provides a smooth closing venturi, and self-cleans with each operation.*



*Fully closed, the Series 75 ensures droptight, bi-directional shutoff, intrinsically safe design with no packing to maintain.*



## ▶ **Power Plants**

FGD systems, scrubber systems, coal handling, fly ash, bottom ash

## ▶ **Waste Water Treatment Plants**

Sludge handling, grit removal, raw sewage, lime, carbon slurry, digester gas

## ▶ **Mining**

Tailings, flotation control, thickener underflow lines, numerous other slurry applications

## ▶ **Chemical Processes**

Corrosive and abrasive materials, powders, pellets, waste treatment



# Series 75

- ▶ No packing to maintain, ever
- ▶ Same face-to-face as gate, plug or ball valves to 12"
- ▶ Sleeve is the only wetted part, reduces maintenance costs
- ▶ Position indicator, heavy-duty sleeve
- ▶ 100% full port design
- ▶ Bi-directional bubbletight shutoff



## Materials of Construction

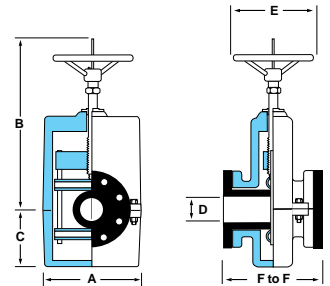
- ▶ Cast iron or aluminum body
- ▶ Sleeves available in Pure Gum Rubber, Neoprene, Hypalon®, Chlorobutyl, Buna-N, EPDM and Viton®
- ▶ Heavy-duty carbon steel mechanism, (optional stainless steel stem) position indicator, brass bushing, and grease fittings
- ▶ ANSI Class 125/150 flanges or metric flanges

The Series 75 manually operated pinch valve is the number-one selling pinch valve in the world today. The Series 75 is a reliable, maintenance-free, cost-effective valve designed for tough slurries, abrasives, and corrosive-chemical applications. The Series 75 full port design eliminates any dead spots or crevices, seats or bearings where slurry can hang up and impair operation or even cause complete valve failure.

The principle of design is very simple, with few moving parts. Two mechanical pinch bars open and close the elastomer sleeve. The heart of this unique valve is the durable, flexible rubber sleeve which is reinforced with high-strength fabric. The sleeve, which is the only part of the valve exposed to the line process, eliminates maintenance and the need for expensive, exotic body materials. Valve operation will not freeze and operating torques remain constant, even if the valve has remained in the open or closed position for years, making it ideal for pump isolation.

Series 75 Pinch Valves have the same face-to-face as gate, plug, or ball valves, ANSI 16.10 up to 6" sizes. Sizes 8", 10", 12" available ANSI 16.10 with Cone Sleeves.

The Series 75 has excellent control characteristics and can be used as a throttling manual control valve. By simply turning the handwheel, operators can fine-tune the valve position to maintain a constant rate of flow; few manual valves have this throttling advantage. Zero leakage is maintained bi-directionally.



## Dimensions Series 75

Valve Size D	Length F-to-F	Width A	Height		Dia. E	Working Pressure (psi)*	Valve Weight (lbs)
			B	C			
1 x 1/2"	5-1/2"	5-7/8"	10-1/2"	2-7/8"	6"	150	20
1 x 3/4"	5-1/2"	5-7/8"	10-1/2"	2-7/8"	6"	150	20
1"	5-1/2"	5-7/8"	10-1/2"	2-7/8"	6"	150	20
1-1/2"	6-1/2"	9"	12"	3-5/8"	6"	150	34
2"	7"	10-1/2"	15-3/4"	5-3/8"	8"	150	50
2-1/2"	7-1/2"	9-1/2"	16-1/4"	4-3/4"	12"	150	62
3"	8"	9-1/2"	16-1/4"	5"	12"	150	80
4"	9"	10-3/4"	17-1/2"	5-1/2"	12"	150	85
5"	10"	15-3/8"	24-1/2"	7-3/4"	**18"	150	170
6"	10-1/2"	18-1/4"	24-1/4"	8-3/8"	**18"	150	186
8"	16"	23-1/4"	34"	9-3/4"	**18"	125	400
10"	20"	31-1/4"	37"	10"	**18"	100	500
12"	24"	35"	38"	12"	**18"	100	650
14"	28"	37"	36"	14-3/8"	**18"	75	1,030
16"	32"	36-3/8"	40"	15-1/2"	**18"	50	1,250
18"	36"	44"	43"	20-1/2"	**18"	50	1,400
20"	40"	49-1/4"	45"	21"	**18"	50	1,610
24"	48"	51"	51-1/2"	25"	**18"	50	2,028
30"	60"	78"	61-1/2"	20-1/2"	**18"	50	2,825
36"	72"	77"	65"	35"	**18"	50	5,675
42"	84"	90"	76"	41"	**18"	50	8,900
48"	96"	101"	86"	46"	**18"	50	12,500

\* Higher working pressures available—see Series 9000, page 6.  
\*\* Bevel gear operators normally required.

## Dimensions Series 75S

Flange Size	Port Size D	Length F-to-F	Valve Weight lbs.
8"	6"	11-1/2"	328
10"	8"	13"	442
12"	10"	14"	687

## Series 75HP

Higher working pressure design for large diameter valves.

Flange Size	Port Size D	Length F-to-F	Working Pressure (psi)
8"	6"	16"	150
10"	8"	20"	150
12"	10"	24"	150
14"	12"	28"	150
16"	14"	32"	150
18"	16"	36"	150
20"	18"	40"	150



# Series 70

- ▶ Lightweight open frame construction
- ▶ Valve position instantly visible
- ▶ Custom fabricated design can accommodate special face-to-face dimensions



4

## Materials of Construction

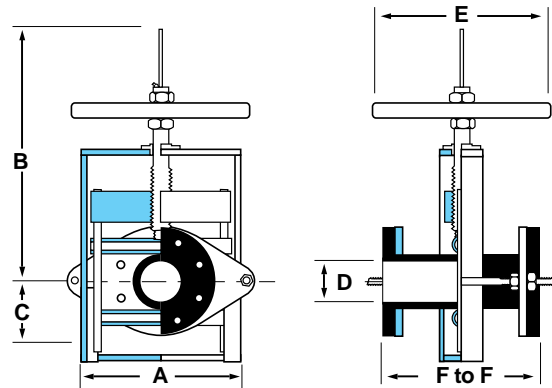
- ▶ Fabricated steel frame
- ▶ Sleeves available in Pure Gum Rubber, Neoprene, Hypalon®, Chlorobutyl, Buna-N, EPDM and Viton®
- ▶ ANSI Class 125/150 flanges or metric flanges

Our Series 70 Manual Pinch Valve is the counterpart to the unique Series 75 and has the same design features and advantages, but the heavy cast iron housing is eliminated and a strong fabricated steel body is in its place. The Series 70 is less costly, lighter, more versatile, and can be used when the location of the valve is not exposed to attack from corrosives or other volatile material.

The Series 70 is available in the same sizes and dimensions as the Series 75. Special face-to-face dimensions are available.

The standard body material is fabricated carbon steel. Sleeve materials include: Pure Gum Rubber, Neoprene, Buna-N, Butyl, Hypalon, EPDM, and Viton®.

Operation of the Series 70 is the same as the Series 75, utilizing double pinch bars to compress the flexible rubber sleeve from above and below, closing simultaneously on centerline when the handwheel is turned.



## Dimensions Series 70

Valve Size D	Length F-to-F	Width A	Height		Dia. E	Working Pressure (psi)	Valve Weight (lbs)
			B	C			
1"	5-1/2"	5-7/8"	10-1/2"	2-7/8"	6"	150	15
1-1/2"	6-1/2"	9"	12"	3-5/8"	6"	150	20
2"	7"	10-1/2"	15-3/4"	5-3/8"	8"	150	25
2-1/2"	7-1/2"	9-1/2"	16-1/4"	4-3/4"	12"	150	36
3"	8"	9-1/2"	16-1/4"	5"	12"	150	40
4"	9"	10-3/4"	17-1/2"	5-1/2"	12"	150	50
5"	10"	15-3/8"	24-1/2"	7-3/4"	24"	150	100
6"	10-1/2"	18-1/4"	24-1/4"	8-3/8"	* 18"	150	100
8"	16"	23-1/4"	34"	9-3/4"	* 18"	125	180
10"	20"	31-1/4"	37"	10"	* 18"	100	200
12"	24"	35"	38"	12"	* 18"	100	260
14"	28"	37"	36"	14-3/8"	* 18"	75	473
16"	32"	36-3/8"	40"	15-1/2"	* 18"	50	560
18"	36"	44"	43"	20-1/2"	* 18"	50	690
20"	40"	49-1/4"	45"	21"	* 18"	50	770
24"	48"	51"	51-1/2"	25"	* 18"	50	1,150
30"	60"	64"	54"	29"	* 18"	50	1,770
36"	72"	77"	65"	35"	* 18"	50	2,250
42"	84"	90"	76"	41"	* 18"	50	3,175
48"	96"	101"	86"	46"	* 18"	50	3,990

\* Bevel gear operators normally required.

# Series 75B

- ▶ Non-contaminating, intrinsically safe design eliminates fugitive emission.
- ▶ Sealed body and yoke with no packing to maintain, ever
- ▶ Sleeve is the only wetted part, reduces maintenance
- ▶ Above ground position indicator available for instant position identification



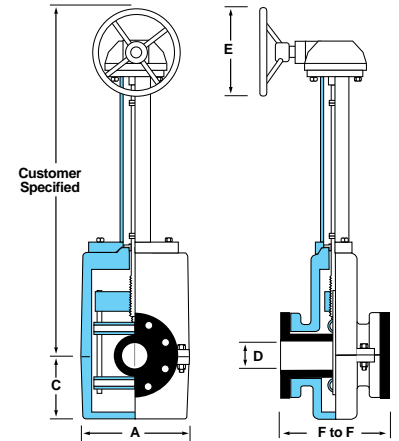
## Materials of Construction

- ▶ Cast iron body, carbon steel yoke
- ▶ Sleeves available in Pure Gum Rubber, Neoprene, Hypalon®, Chlorobutyl, Buna-N, EPDM and Viton®
- ▶ ANSI Class 125/150 Flanges

The Series 75B manually operated Pinch Valve is a reliable, maintenance-free, cost-effective valve designed for tough slurries and abrasive and corrosive chemical applications below ground. This intrinsically safe Pinch Valve, which was developed specifically for underground service, is sealed with an epoxy coating and can be supplied with an above ground position indicator for instant identification if the valve is open, closed, or is in the throttled position. There are no seats to grind, no stuffing boxes to repack, and no packing gland to adjust, ever, with the Series 75B. The pinching action is on centerline so the valve closes on a smooth venturi and is self-cleaning.

The heart of this unique valve is the durable, flexible rubber sleeve which is reinforced with high strength fabric. The sleeve, which is the only part of the valve exposed to the process, eliminates maintenance and the need for expensive, exotic body materials. Additionally, valve operation will not freeze and operating torques remain constant.

Series 75B Pinch Valves have the same face-to-face as gate, plug, or ball valves, ANSI 16.10 up to 6" size; sizes 8", 10" and 12" are available to ANSI 16.10 face-to-face with a Cone Sleeve.



## Dimensions Series 75B

Valve Size D	Length F-to-F	Width A	Height C	Diameter E	Working Pressure (psi)	Valve Weight (lbs)
1"	5-1/2"	5-7/8"	2-7/8"	6"	150	20
1-1/2"	6-1/2"	9"	3-5/8"	6"	150	40
2"	7"	10-1/2"	5-3/8"	8"	150	70
2-1/2"	7-1/2"	9-1/2"	4-3/4"	12"	150	80
3"	8"	9-1/2"	5"	12"	150	90
4"	9"	10-3/4"	5-1/2"	12"	150	100
5"	10"	15-3/8"	7-3/4"	* 18"	150	200
6"	10-1/2"	18-1/4"	8-3/8"	* 18"	150	220
8"	16"	23-1/4"	9-3/4"	* 18"	125	420
10"	20"	31-1/4"	10"	* 18"	100	510
12"	24"	35"	12"	* 18"	100	650
14"	28"	37"	14-3/8"	* 18"	75	1,030
16"	32"	36-3/8"	15-1/2"	* 18"	50	1,250
18"	36"	44"	20-1/2"	* 18"	50	1,400
20"	40"	49-1/4"	21"	* 18"	50	1,610
24"	48"	51"	25"	* 18"	50	2,028

\* Bevel gear operators normally required.

# Series 9000 High Pressure

- ▶ High-pressure pinch valve design
- ▶ Heavy-duty polyester or Kevlar® reinforced high-pressure sleeve is the only wetted part
- ▶ Sealed body design
- ▶ Full pressure rated body

6



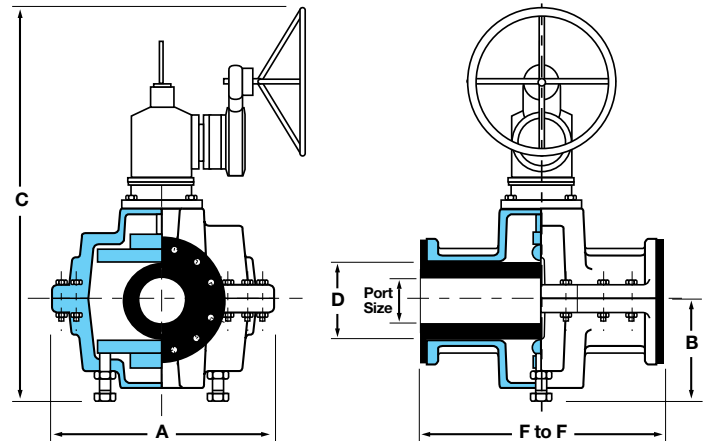
The Series 9000 high-pressure manual pinch valve is designed with ANSI Class 300 flange drilling. The heavy-duty elastomer sleeves are reinforced with high strength nylon, polyester fabrics, or Kevlar® material. Several heavy-duty sleeve designs are available. The elastomer sleeve will close even on solids, and the flexing action of the sleeve eliminates the possibility of scaling. Two heavy-duty pinch bars close the sleeve. All valve working parts are isolated from the process by the sleeve. Combining these features with a sealed body design and no packing to maintain results in a simple, rugged, no-hang-up, maintenance-free valve.

Several bevel gear actuators are available for On/Off manual operation.

In order to accommodate the higher working pressure design, the valve is normally sized one size larger to allow for the thick double wall high pressure sleeve. As shown on the chart below, a 6" port size valve requires a 8" flange body size. Series 9000 designs are also available in ANSI Class 150 designs, and are available with pneumatic, electric, or hydraulic actuators.

## Materials of Construction

- ▶ Ductile, steel, stainless steel bodies
- ▶ Sleeves are available in Pure Gum Rubber, Neoprene, Hypalon®, Chlorobutyl, Buna-N, EPDM and Viton®
- ▶ Bevel Gear 4:1, 8:1, 16:1, or 22:1 actuator
- ▶ Drilled and tapped to mate with ANSI B 16.5 Class 300 flanges; Optional Class 150 flanges and metric flanges available



## Dimensions Series 9000 High Pressure Pinch Valve

Flange Size D	Port Size*	Length F-to-F	Width A	Height		Working Pressure psi **	Weight lb
				B	C		
1" x 1/2"		7-3/4"	12"	6"	16"	720	150
2" x 1"		9-1/2"	16"	8"	22"	720	250
4" x 3"		14"	20"	11"	28"	720	600
6" x 4"		20"	23"	13"	33"	720	900
8" x 6"		26"	25"	15"	39"	720	1,000
10" x 8"		32-1/2"	33"	20"	51"	720	1,200
12" x 10"		38-1/2"	40"	25"	62"	720	1,600

\* Other port sizes available.

\*\* Higher working pressure designs available — consult factory.



# Options

## Bevel Gears

Are for high pressure service or large diameter valves. Suggested on all valves over 6" diameter and above 75 psi. Standard WBG-16 1600 ft.-lb. 4:1 gear ratio with wheel axis parallel to pipe axis.



## Chainwheels

Consist of 3-spoke sprocket rim, arm, and attachment set. Sizes range from 4" to 30" diameter sprocket rim. Guide and rim are ductile iron.



## Fugitive Emissions Control — Emissions-Tight Package

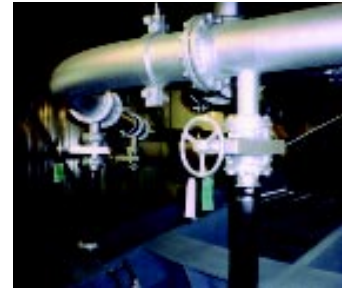
Red Valve's emissions-tight package, the ET Package, provides a low-cost solution for fugitive emissions. The ET Package provides a secondary containment, complete with a stem seal and body seal gaskets. The ET Package also includes a standard pressure gauge for local indication, or an optional transmitter or switch which will send a remote signal in the event of a pressure change in the valve body, automatically indicating the detection of a leak.



# Applications

## Power Industry

Red Valve Series 75 Pinch Valves are ideal for ash handling and wet lime scrubber systems for coal fired utilities. Lime breaks up from the flexing action of the pinch valve sleeve, eliminating the need for unscheduled maintenance.



## Chemical Plants

Chemical Plants use Series 75 Pinch Valves for pump isolation. The sleeve is the only wetted part and eliminates the need for costly alloy bodies. Fugitive emissions are eliminated, which is a problem for other style valves that have packing.



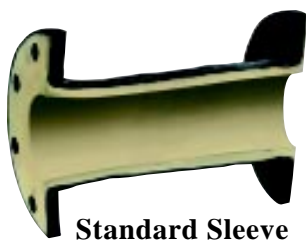
## Mining Industry

Tailings systems use Series 70 and 75 Pinch Valves in sizes 1/2" to 48". The full port design eliminates sleeve wear. The proven design of the Red Valve Pinch Valve was first applied in mining operations.



## Waste Water Treatment

Waste Water Treatment Plants use Series 75 Pinch Valves on sludge, grit, ferric chloride, digester gas, and raw sewage. The full port, no hang-up design is maintenance-free. Series 75 Pinch Valves will not freeze or require the constant lubrication and maintenance of plug valves.



Standard Sleeve

## Sleeve Styles

Different sleeve styles are offered for Red Valve's Manual Pinch Valve product line — Standard, Double Wall, and Cone Sleeves.



Double Wall Sleeve



Cone Sleeve

# A Complete Line Of Quality Products . .

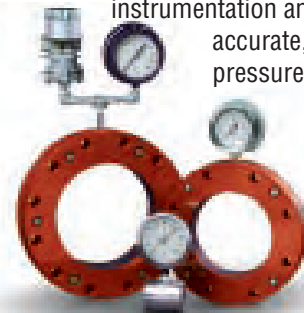


The revolutionary Tideflex® Check Valve stands alone as the product of choice for backflow prevention, replacing high-maintenance flap gates.

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Providing a full 360° pressure reading, Red Valve Pressure Sensors are the industry standard for protecting instrumentation and ensuring accurate, dependable pressure measurement.



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