



# DUAL STRAIGHT THROUGH DIAPHRAGM VALVE (DSTDV)

**DUAL**'s Straight-Through Diaphragm Valve consists of the valve body and a diaphragm. The valve is closed mechanically via movement of a compressor gate which is located above the diaphragm. The valves are well suited for on/off throttling control applications involving slurries, powders, liquids, granulated materials and applications where scale build is a problem.

- Fast and easy diaphragm change.
- Single wearing part.
- Replaceable Urethan diaphragm and body lining.
- No glands which require regular adjustment.
- Flexible reinforced diaphragm.
- Open/closed indicator (Non rising spindle type).



## PRODUCT SPECIFICATION

<b>BODY:</b>	Cast Aluminium and cast SG Iron
<b>ELASTOMER DIAPHRAGM:</b>	Gum black and red rubber, EPDM, Butyl, Chlorobutyl, Neoprene, Polyurethane, Viton and Hypalon.
<b>SIZE RANGE:</b>	50mm - 350mm.
<b>PRESSURE RATING:</b>	16 Bar (for higher pressure consult factory).
<b>THRUST BEARINGS:</b>	To reduce operating torque (Handwheel type).
<b>THREADED BODY:</b>	25mm to 80mm.
<b>FLANGED BODY:</b>	Drilled to SABS, ANSI, BS or DIN.
<b>VALVE INTERNALS:</b>	304 Stainless Steel Spindles, Rubber diaphragm.
<b>BODY LINING:</b>	As per Elastomer diaphragm.
<b>MATERIAL CERTIFICATION:</b>	Certified chemical and physical test reports can be supplied.
<b>VALVE TYPE:</b>	Rising and non rising spindle.
<b>TEMPERATURES:</b>	-50°C to +140°C.

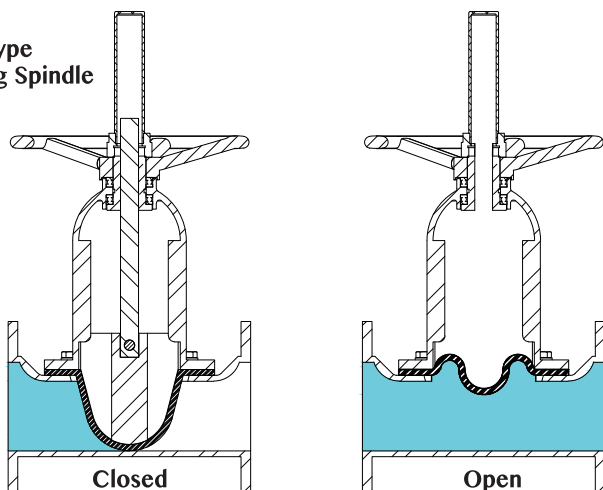
## FEATURES

- 240 Psi (16 Bar).
- Thrust bearing for ease of opening and closing (handwheel type).
- Long operating life.
- Full bore, low friction loss.
- 100% drip tight closure even with solids in the medium.
- Light weight.
- Seals in both directions.
- All types of actuators can be fitted.
- Visible spindle indicator.

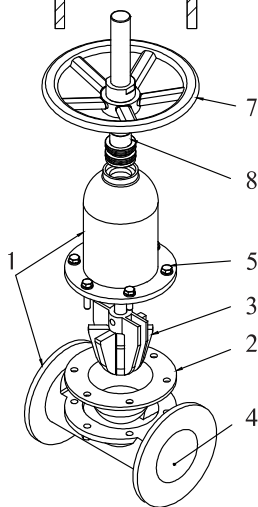
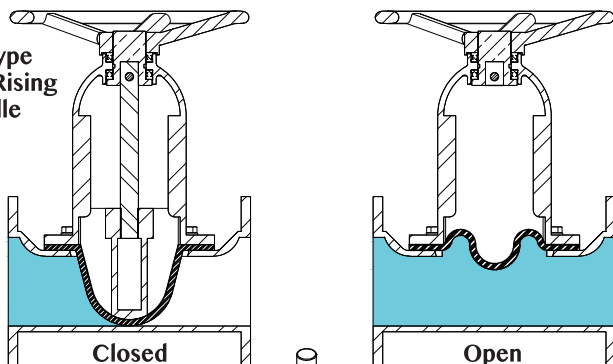
## HOW THE VALVE OPERATES

As the valve cycles downwards, the compressor will start to compress the soft rubber diaphragm, from the top of the valve only, therefore achieving a 100% driptight closure, even with solids in the medium.

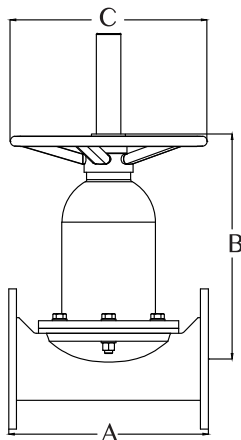
SO Type  
Rising Spindle



SO Type  
Non Rising  
Spindle



PART	DESCRIPTION	
1	Body/Bonnet	Cast Aluminium or SG Iron
2	Diaphragm	Rubber or Urethane
3	Air Connection	Steel Ball Valve
4	Valve Body Lining	Rubber, Urethane, Halar or Ceramic
5	Bolts and Nuts	Cadmium Plated Steel
6	Paint	Epoxy Powder coated, Rilsan Lined or Painted to Custom spec
7	Hand wheel	Cast SG Iron
8	Rev Nut	Brass



## APPLICATIONS

- Mining and mineral processing.
- Power generation.
- Sand and gravel.
- Chemical and soda ash.
- Pulp and paper.
- Environmental and effluent.
- Food stuffs

## VALVE WORKS ON TAILINGS DAM



## ACTUATORS

All types of actuators can be fitted, electric, gearbox, hydraulic, pneumatic and handwheel.

## DIAPHRAGM MATERIAL

Dual offers the following alternative diaphragm materials, providing chemical and abrasive resistance to most media such as:

- Polyurethane.
- Natural red rubber.
- Natural black rubber.
- Neoprene rubber.
- Nitrile rubber.
- EPDM rubber.
- Hypalon.

## DIMENSIONS AND SPECIFICATIONS

NOMINAL BORE (mm)	A	B	C	WEIGHT (kg)
25	127	121	100	5
32	146	121	100	10
40	159	121	100	12
50	191	181	100	15
65	216	200	100	20
80	254	245	300	30
100	305	267	300	40
125	356	305	300	50
150	400	375	500	70
200	521	410	500	120
250	635	559	500	170
300	749	635	600	420
350	980	664	600	500

Dimensions and weights are for guidance only - detailed dimension drawings available on request. All dimensions are in millimeters, unless stated.