

FLEXiVALVE



FLEXiVALVE 'LDO'

Pinch Valves offer a cost effective and fit for purpose solution for most abrasive Mining and Industrial applications at pressures up to 16 Bar.

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FLEXiVALVE - LDO SERIES

Light & Heavy-Duty Open Frame Pinch Valves

FLEXiVALVE 'LDO' Light Duty Open Frame Pinch Valves

FLEXiVALVE 'LDO' Pinch Valves have been specifically designed as fit for purpose, cost effective industrial valves suitable to handle a wide range of corrosive and abrasive slurries, powders, or granular substances, and are particularly suitable for bulk solids or solids in suspension in air or liquids. These valves are designed to operate at pressures of up to 16 bar.

FLEXiVALVE 'LDO' Pinch Valves are manufactured in an Open Frame Body design to be used in lower pressure applications as well as applications where damage to equipment or the environment is negligible in the event of sleeve rupture.

The lightweight design allows for easier transportation and installation further reducing total cost of ownership.

The sleeve contains the pipeline media, isolating it from all metal parts of the valve. 'Shut off' is affected by clamping or pinching the flexible rubber sleeve, allowing the media to be effectively controlled. In addition, the flow in the partially closed position is smooth. In the fully open or fully closed positions there is little or no wear.

Applications include:

- Mining (Slurries, corrosives, and acids)
- Chemical Industrial, including fertilizer manufacture (Slurries, corrosives, and acids)
- Power generation (Ash, dust)
- Mineral processing plants (Slurries and Acids)
- Sewage and effluent (Sludge and acids)
- Pulp and paper (Slurry and acids)
- General industry (corrosives, abrasives powders and delicate fluids).

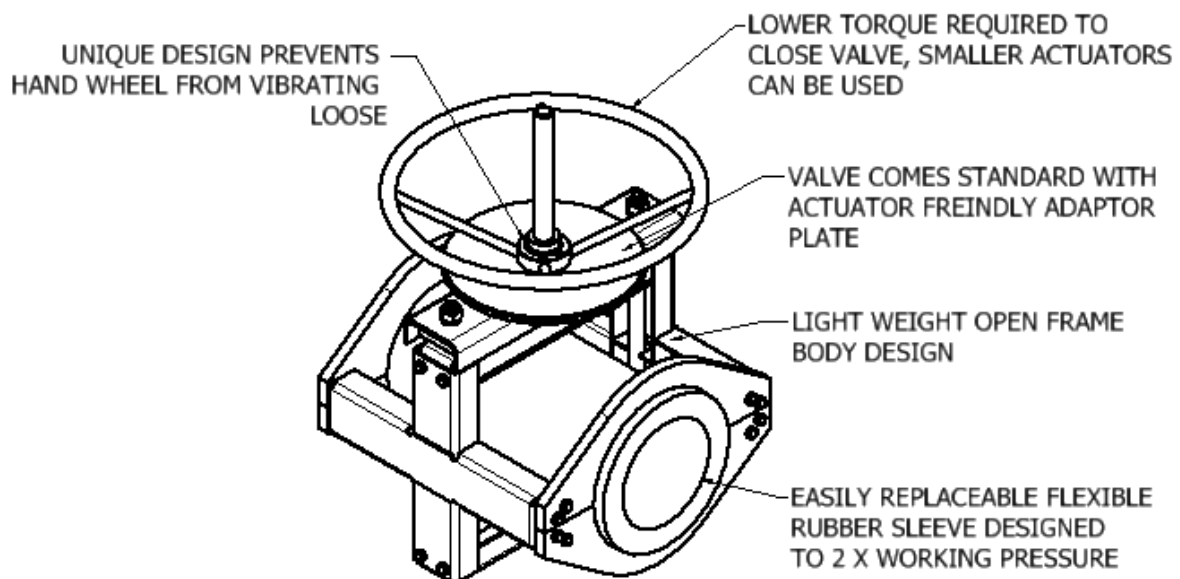
FLEXIVALVE 'LDO' Series (Light Duty Open frame) Pinch Valves

Technical advantages

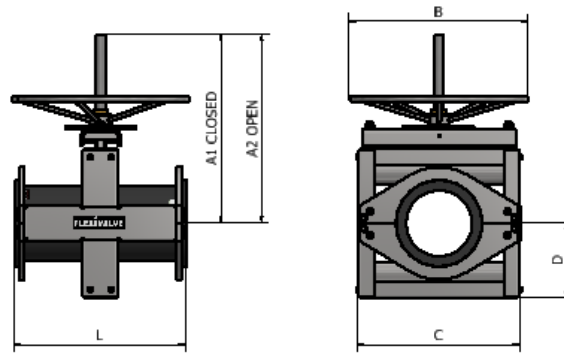
Size Range: 50mm to 600mm / 2" to 32"

Pressure rating: Up to 1600 KPa / 232 PSI

- Over 25 years' experience in design and manufacture of Pinch Valves
- Fabric reinforced Pinch Valve Sleeve design incorporates a 2:1 safety factor for Valves from to 50mm - 250mm.
- Steel reinforced Pinch Valve Sleeve design incorporates a 3:1 safety factor for Valve sizes 300mm and above
- Light weight, Open frame body design reducing installation costs
- Lower closure thrusts reducing cost of actuation
- Designed to accept all forms of actuators including Pneumatic, Electric and Hydraulic actuators
- Full bore, unrestricted flow
- Centre line closure ensuring drop tight bi-directional shut off, extending sleeve life
- Flexible Sleeve allows 'self-cleaning' which eliminates in line scaling and blockages
- Offers easy maintenance and reduced cost of ownership



FLEXIVALVE 'LDO' Series Technical specifications:



Valve Size	FLEXIVALVE 'LDO' series Pinch Valve Dimensions (Hand wheel operated)						Weight	Pressure Rating
(mm)	(mm)						Kg's	Bar
(In.)	(In.)						Pounds	PSI
	A1	A2	B	C	D	L	W	(MAX)
50	285	250	250	205	95	198	14	16
2	11.22	9.84	9.84	8.07	3.74	7.80	31	232
80	340	285	250	270	110	263	18	16
3	13.39	11.22	9.84	10.63	4.33	10.35	40	232
100	420	350	300	320	130	312	29	16
4	16.54	13.78	11.81	12.60	5.12	12.28	64	232
125	490	400	400	365	155	365	38	16
5	19.29	15.75	15.75	14.37	6.10	14.37	84	232
150	540	435	400	390	165	415	44	16
6	21.26	17.13	15.75	15.35	6.50	16.34	97	16
200	680	545	500	530	225	535	90	16
8	26.77	21.46	19.69	20.87	8.86	21.06	198	232
250	890	720	650	620	285	645	135	16
10	35.04	28.35	25.59	24.41	11.22	25.39	298	232
300	1000	900	600	760	390	760	300	16
12	39.37	35.43	23.62	29.92	15.35	29.92	661	232
350	1295	1065	1000	850	435	990	350	16
14	50.98	41.93	39.37	33.46	17.13	38.98	772	232
400	1300	1200	See mechanically assisted specifications	1050	520	1220	See mechanically assisted specifications	10
16	51.18	47.24		41.34	20.47	48.03		145
450	1400	1250		1120	550	1350		10
18	55.12	49.21		44.09	21.65	53.15		145
500	1500	1350		1250	600	1500		10
20	59.06	53.15		49.21	23.62	59.06		145
600	1800	1600		1400	660	1800		10
24	70.87	62.99		55.12	25.98	70.87		145

Mechanical assistance is advised on valves larger than DN 300mm / 12", at pressures exceeding 10 bar / 145 PSI.

The weights and dimensions in these tables are approximate and may change with different pressure ratings, actuators and accessories.

Please contact Atkins Industries if more information is required

FLEXiVALVE 'LDO' Series Sleeve selection

The heart of the **FLEXiVALVE 'LDO'** Pinch Valve is the flexible rubber sleeve, which incorporates a 2:1 safety factor for Valves up to 250mm diameter, and a 3:1 safety factor for Valves 300mm diameter and above.

The Sleeve is designed for use in highly abrasive and corrosive applications at working pressures of up to 16 bar. The sleeve flanges have integrated moulded grooves and are reinforced with a metal ring to ensure a rigid and leak free connection.

The full-unrestricted flow pattern and the use of natural gum rubber as an abrasion resistant closing membrane contributes to outstanding longevity, even in high abrasive applications. The sleeves are self-supporting and self-flexing preventing a build-up of scale and blockages.

FLEXiVALVE 'LDO' Sleeves are manufactured to CWP ratings of 1000 & 1600. For higher pressures applications we suggest using **FLEXiVALVE 'HDE'** Pinch Valves or alternatively please consult Atkins Industries.

The choice of wear resistant rubber for specific applications will ensure optimal performance. Where there is uncertainty regarding selection, contact Atkins Industries.

SLEEVE SELECTION

Sleeve		Application	Temperature °C		Temperature °F	
Grade	Colour		Min	Max	Min	Max
RR	BLACK with RED wet parts	This is a Gum rubber sleeve with a 6mm internal lining of soft red gum rubber. In certain conditions, particularly on abrasive services, this lining will outlast the "NR" Grade sleeve - For Slurry and Abrasives	-30	70	-86	158
NR	BLACK	Natural Rubber specially formulated for abrasion and ozone resistance - For Slurry and Abrasives	-30	80	-86	176
N	BLACK	A general purpose Nitrile rubber - resistant to oils, hydrocarbons and some chemicals.	-20	120	-68	248
E	BLACK	An Ethylene Propylene Polymer (EPDM) - Good abrasion resistance, resistant to most chemicals.	-30	120	-86	248
BN	BLACK	A general purpose Butyl rubber - Good acid resistance.	-30	120	-86	248
NP	BLACK	A general purpose Neoprene - Good abrasive properties and is resistant to oil and moderate chemicals and acids.	-30	90	-86	194