

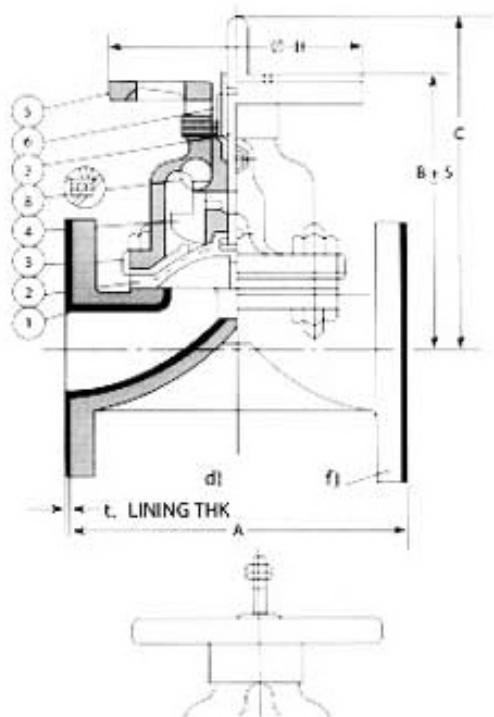


**UNIMAC**  
**CONTROL SYSTEMS**

# Diaphragm Valves

## *SALIENT FEATURES*

- **BODY:** weir design reduces diaphragm travel, increasing its life pocketless design for contamination free performance and smooth flow characteristics.
- **BONNET:** Isolates working parts from hazardous atmosphere.
- **DIAPHRAGM:** Strong and Resilient, giving positive shut-off, designed to assist flow and totally isolates working parts from fluids.
- **STEM & STEM BUSHING:** Designed to reduce friction for low operational torque.
- **THRUST BEARING:** Provided for sizes 80mm and above to reduce friction and torque.
- **FINGER PLATE & COMPRESSOR:** Finger plates or finger cast into the bonnet in larger valves combine with the compressor, supports diaphragm at all stages of travel to increase diaphragm life.
- **HAND WHEEL:** Comfortable handgrip, eases rapid operation.
- **CLOSURE CAP:** Stops the ingress of foreign particles and atmosphere. Additionally an 'O'Ring seal can be provided to increase security on hazardous products.
- **MANUFACTURING STANDARD:** 'UNIMAC' Valves are manufactured to the following standards as well as being in over all lengths to BS:5156.
  - Flanges
  - British BS 10 Table D, E and F
  - BS 4504 Table PN 10/16
  - BS1560 Class 150. Female screwed Ends
  - BS 21 Taper
  - BS 21 Parallel
  - American ANSI B 16.1 Class 125
  - ANSI B 16.5 Class 150
- **MAJOR CONSUMERS:** Basic Chemicals, End User Chemicals, Food and Beverage, Mining, Nuclear Power, Pharmaceuticals, Pulp & Paper, Sewage Treatment, Water Treatment, Pollution Control.



Part No	Part Name	Material
1	Body / Lining	Cl / As Reqd
2	Diaphragm c)	NEOPRENE / As Reqd.
3	Bonnet	Cl
4	Compressor	AL a) / Cl
5	Hand Wheel	Cl
6	Stem Bushing	S.G.IRON
7	Stem	EN8 / 410
8	Thrust Bearing b)	Steel

a) For sizes upto 50 b) For Sizes 80 and higher c) Diaphragm Hardness shore 'A' d) Lining hardness - shore 'D' f) Flange : OD, THK, Drilling. Only Dimension 'A' is certified and conforms to BS:5156 Other dimensions are only indicative

#### INDICATING WITH TRAVEL STOP

SIZE	15	20	25	40	50	65	80	100	125	150	200	250	300
A	114	123	123	165	196	222	260	313	364	414	529	645	759
B	84	92	104	143	150	170	218	241	291	350	465	555	659
C	90	102	118	164	179	206	260	296	362	431	584	699	825
ØH	70		100	140		180	225		310	368	471	587	690
t	3.0							4.0				5.0	
Wgt-kg	2.50	2.60	3.50	7	10	15	22	37	62	91	163	240	418
OPT PR.Bar	14.00			12.00		10.50			8.75		7.00	5.00	4.25

#### TEST PRESSURE BAR

HYDRO	SHELL	21.00	18.00	15.75	13.25	10.50	7.50	6.50
	SEAT	14.00	12.00	10.50	8.75	7.00	5.00	4.25
AIR	SEAT	5.00						4.25

CODE	Cl	Cl	WCB
MATERIAL	IS : 210	IS:210	A216
SPECN	FG200	FG200	WCB

**DIAPHRAGM MATERIALS AND CONFIGURATIONS**

GRADE	MATERIAL	TEMP ° C		TYPICAL SERVICES
		Min.	Max.	
A	Natural Rubber	-30	80	Water, Gases, Sewage, Slurry Sludge, Brine, Acids, Alkalies, Salts.
WA	White Natural Rubber	-10	80	Pigments Pharmaceuticals.
N	Neoprene	-25	95	Weak Chemical, Hot compressed air, Acids, Alalies, Oils
E	Ethylene Propylene	-30	150	Chemicals, Acids, Abrasives
B	Black Butyl	-25	120	Chemicals, Acids, Abrasves.
WB	White Butyl	-25	105	Foods, Beverages.
H	Hypalon	-15	105	Oxdiyzing Agents, Concentrated Sulphuric Acid, Phosporic Acid, Chlorine
R	Buna - N	-10	80	Animal, Vegetable and Mineral Oils, Paraffins, Kerosene
S	Soft Natural Rubber	-15	80	Abrassive Fluids
V	Viton	-25	165	Hydro Carbons, Strong Acids, Solvents, Chlorine.
EP	EPDM	-20	110	Radio Active Fluid, Chemical resistance similar to 'BG'
T	PTFE ( with Neoprene)	-30	175	All Chemicals and Food