

Corrosion & Abrasion  
Resistant flow Control



DN 8

A



DN 10/20

B

DN 25-80

**DIAPHRAGMS FOR WEIR TYPE DIAPHRAGM VALVES**

[www.kdvflow.com](http://www.kdvflow.com)

## Manufacturing

KDV manufactures a wide variety of premium quality reinforced diaphragms to suit a range of industrial valves. Our strict quality control standards and the use of only the best materials and construction methods ensures complete security of line media in the harshest of environments.

KDV diaphragms can be relied on to provide peace of mind and superior return on investment no matter what the application. Our specialist reinforcement and bonding techniques ensure that our diaphragms provide outstanding durability and security.



Our PTFE faced diaphragms provide a corrosion resistant barrier in applications where rubber is not appropriate. Our PTFE and EPDM food grade diaphragms carry FDA approval - and our PTFE diaphragms satisfy USP class 6 (USA pharmaceutical standard).

- **Chemical and abrasion resistance**
- **Durable**
- **Excellent compression qualities**
- **Superior leak tight sealing**
- **Optional multi layer rubber, nylon and other specialty reinforcement materials**
- **Range of custom diaphragm connector stud materials available**



## Range

### Elastomer



DN8-DN20 (Button )  
assembled by pressing the diaphragm button into the compressor.

### Elastomer



DN15-DN350 (Screwed)  
assembled by screwing the diaphragm stud into the compressor thread.

\*DN15-DN20 available on special order.

### Bonded PTFE/Elastomer



DN15-DN80 (Screwed)  
assembled by screwing the diaphragm stud into the compressor thread.

1  
P  
C  
S

### PTFE(TFM)/Elastomer



DN15-DN300 (Screwed)  
assembled by screwing the diaphragm stud into the compressor thread.

### PTFE(TFM)/Elastomer



DN15-DN200 (Bayonet)  
assembled by inserting the diaphragm insert into the compressor and rotating 90°

**Optional Titanium Insert<sup>2</sup>available**  
Ti Gr7 possesses excellent corrosion resistance and high impact toughness.

### TFM/PVDF/ Elastomer



DN15-200 (Bayonet)  
assembled by rotating the diaphragm insert into the compressor and rotating 90°

A PVDF interlayer<sup>1</sup>forms an additional corrosion resistant barrier against chemicals that are potentially able to permeate the molecular structure of the PTFE facing of the diaphragm.

**Optional Titanium Insert<sup>2</sup>available**  
Ti Gr7 possesses excellent corrosion resistance and high impact toughness.

2  
P  
C  
S

3  
P  
C  
S



\*Genuine KDV diaphragms are supplied in protective packaging with a comprehensive installation guide

## Grades & Services

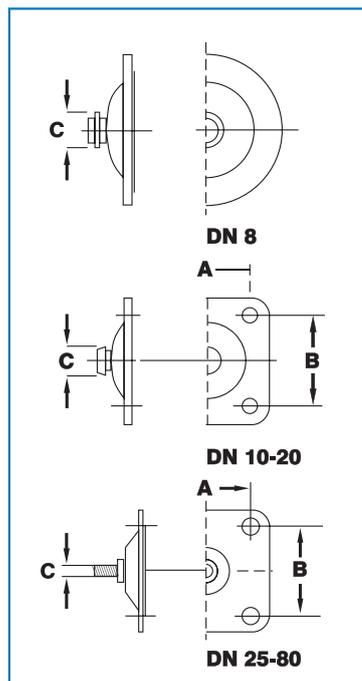
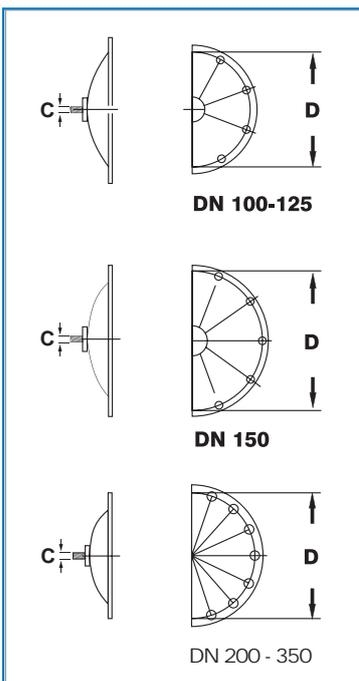
GRADE	MATERIALS	TEMP		SIZE RANGE		SERVICES/PROPERTIES
		°C	°F	Imperial	Metric	
10	Natural Rubber NR	-40 - 100	-40 - 212	1/4" - 12"	8 - 350mm	General Purpose, abrasives, water, diluted minerals, acids
20	EPDM/Black Ethylene Propylene Rubber	-40 - 140	-40 - 284	1/4" - 12"	8 - 350mm	General Purpose, resistant to temperatures, most corrosive chemicals and abrasive liquids.
22	EPDM/Food Grade (FDA)	-30 - 120	-22 - 248	1/4" - 8"	8 - 200mm	Food and pharmaceuticals.
30	Butyl Rubber IIR Chlorobutyl - Isobutylene Isoprene Halogenated	-30 - 130	-22 - 266	1/4" - 12"	8 - 350mm	Acids, alkalis, hot water, low pressure steam.
40	Nitrile Rubber NBR Acrylonitrile Butadiene Rubber	-20 - 100	-4 - 212	1/4" - 12"	8 - 350mm	Oils, fats & fuels.
50	Neoprene CR Chloroprene Rubber	-20 - 100	-4 - 212	1/4" - 12"	8 - 350mm	Air, weak chemicals, greases.
60	Hypalon® CSM Chlorosulfonated Polyethylene	-20 - 100	-4 - 212	1/2" - 12"	15 - 350mm	Concentrated acids & alkalis, chlorine services.
70	FKM/Viton® FPM Fluorinated Elastomer	-20 - 150	-4 - 302	1/2" - 8"	15 - 200mm	High corrosion resistance at elevated temperatures.
80	Silicone	-30 - 175	-22 - 347	1/2" - 8"	15 - 200mm	Moderate or oxidizing chemicals, concentrated sodium hydroxide. Recommended for food.
92	PTFE/EPDM Backed	-30 - 175	-22 - 347	1/2" - 12"	15 - 300mm	General applications include chlorine and other aggressive chemicals. PTFE/TFM faced diaphragms offer high chemical and temperature resistance.  A PVDF interlayer can be specified which forms an additional corrosion resistant barrier against chemicals that are potentially able to permeate the molecular structure of the TFM facing of the diaphragm.  For the highest corrosion resistance and high impact shock toughness, a Titanium (Ti Gr7) insert can be supplied.
93	PTFE/Butyl Backed	-30 - 150	-22 - 300	1/2" - 8"	15 - 200mm	
96	PTFE/Hypalon® Backed	-20 - 120	-4 - 248	1/2" - 8"	15 - 200mm	
97	PTFE/FKM-Viton® Backed	-20 - 175	-4 - 347	1/2" - 8"	15 - 200mm	
9E	PTFE/EPDM Backed 1 Piece Bonded	-30 - 175	-22 - 347	1/2" - 2"	15 - 50mm	
9D	TFM/PVDF/EPDM	-30 - 150	-22 - 300	1/2" - 8"	15 - 200mm	
9R	TFM/PVDF/EPDM with Titanium Insert	-30 - 150	-22 - 300	1/2" - 8"	15 - 200mm	
9A	TFM/EPDM Backed (Screwed Connector)*	-30 - 175	-22 - 347	1/2" - 10"	15 - 250mm	

### Notes

9A also available with Butyl or Viton backing.

Temperature range shown is a guide only. For specific services contact your local KDV distributor. Diaphragms manufactured for vacuum duties include special reinforcing. They are identified with a suffix "V" after the material code on the Tab e.g: 3V. All diaphragms intended for vacuum service must be specified.

## Dimensions



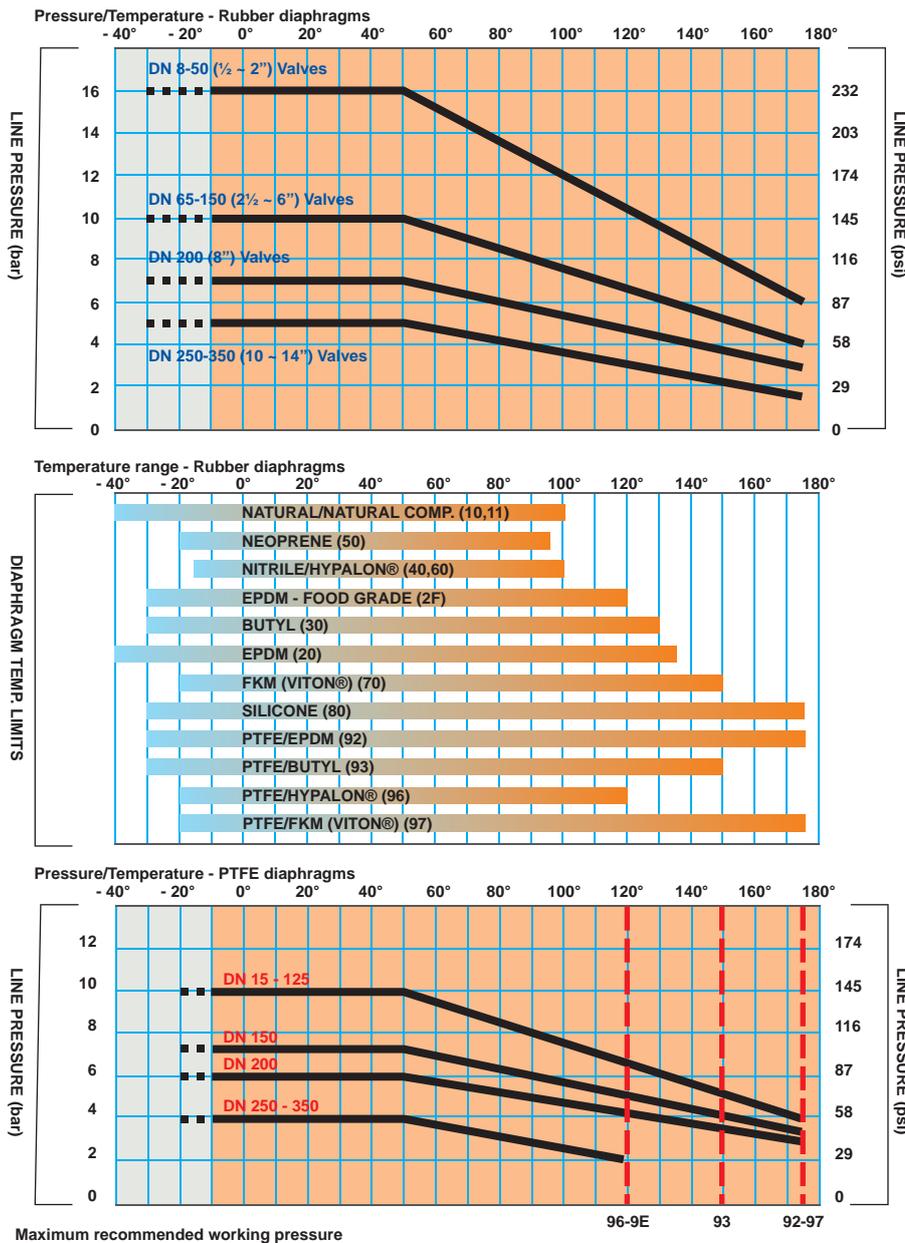
Nominal Size	A	B	C	D
8	-	-	9.5	-
10	33	37	13	-
15	33	37	13	-
20	40	44	13	-
25	46	54	1/4"W	-
32	60	67	1/4"W	-
40	65	70	1/4"W	-
50	78	83	1/4"W	-
65	95	102	1/4"W	-
80	114	127	5/16" W	-
100	-	-	5/16" W	194
125	-	-	3/8"W	222
150	-	-	3/8"W	273
200	-	-	3/8"W	381
250	-	-	7/8"W	438
300	-	-	7/8"W	508
350	-	-	7/8"W	527

W=Whitworth thread

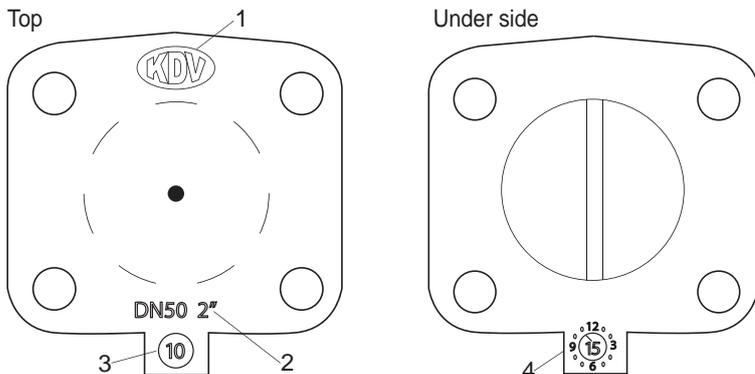
# WEIR TYPE DIAPHRAGMS



## Pressure/Temperature



## Diaphragm identification



KDV diaphragms are stamped with size, grade and date of manufacture. This information provides measurement of service life and precise identification for re-ordering.

1. Genuine KDV part stamp
2. Size
3. Grade
4. Manufacturer code

