# Diaval®



# Diaphragm Valves www.diaval.com

## Diaval<sup>®</sup> Diaphragm Valves

Diaphragm Valves proved to be the answer to many process engineers' greatest desire of reliability at an acceptable cost of ownership. Of simple and reliable design, diaphragm valves offer secure operation with full leaktight at the plant. The maintenance, when required, is limited to the replacement of the diaphragm, the bolted bonnet design permits to dismantle the valve without removing the valve body from the pipe work.

The body seatless design eases the internal lining, which opens a broad range to inexpensive options to process engineers when selecting materials resistant to corrosion and abrasion duties. Conventional isolating valves would demand expensive exotic materials to resist the effects of severe corrosion whereas a duly linediron based material can do the job.

**DIAVAL** portfolio clearly meets the requirements of modern industrial processes and the needs of all engineers. Through constant product development and own polymer research technology, **DIAVAL**<sup>®</sup> Diaphragm Valves are a reliable alternative to existing costly and expensive to maintain conventional valves.

**DIAVAL** manufacture one of the largest Diaphragm Valves portfolio comprehensive of body linings, diaphragm grades and actuation currently available in the international market. Your **DIAVAL**<sup>®</sup> Team is available to guide you along a great cost saving experience.

**DIAVAL**<sup>®</sup> range of superior design and major cost saving benefits, for secure and full leaktight operation under the most severe circumstances.

The **DIAVAL**<sup>®</sup> range is totally interchangeable with other diaphragm valves in the market thus easing the plant choice.

#### **Design Attributes**

**# Valve stroke Indicator;** a yellow position indicator gives clear and positive valve position from any angle.

**# Greased for life valve spindle;** spindle chamber incorporates a grease reservoir that lubricates the spindle along operations thus avoiding valve spindle jamming.

**# Valve stroke stopper;** the bonnet design prevents over closure of the valve thus avoiding early diaphragm rupture.

**# Rugged bonnet assemblies;** all metal bonnets made out of ductile iron offer great value integrity optionally a range of sealed bonnets for toxic and hazardous fluids **# Ergonomically Design Hand wheel;** great comfort and ease of operation. Other operation options such as actuators, padlocks, interlocking, extended spindle and others are available from **DIA-VAL**<sup>®</sup>.

**# Self draining;** weir valves are self draining when installed at an angle of 20° above horizontal. ST and Full Flow valves are self cleaning with an unobstructed bore.

**# Diaphragms;** wide range of diaphragm materials to meet the needs of today's industrial processes and standards. Resilient diaphragms provides 100% leak-tight shut off and isolates all bonnet parts from the line fluid.

**# Linings;** porous free chemically resistant linings designed to eliminate the need of expensive metals. Wide range of polymers and fluoropolymers available to match all industrial needs. Full face rubber lining removes the need for gaskets unlike spigot face lining.

**# Safety;** Optional Sealed bonnet arrangements available for toxic and hazardous fluids, Interlocking arrangement, padlocking and flange sealing coating.

**# Body end connections;** flanged and screwed ends to meet all European, Imperial and American standards.





### New Horizons in the Process Industry



#### **Standard Materials**

Part	Description	Material
01	Body	Ductile or Cast Iron
1A	Body lining	Rubber or Fluoropolymer
02	Diaphragm	Rubber
03	Bonnet*	Ductile or Cast Iron
04	Compressor	Cast Iron
05	Spindle	Steel
06	Handwheel	Cast Iron
07	Handwheel pin	Steel
08	Body studs **	Steel
09	Body nuts **	Steel

\* With eye bolts in DN 200-300 to ease handling \*\* DN15-80: 4 units / DN100: 6 units / DN125-200: 8 units /

DN250: 12 units / DN300: 16 units / DN

#### **Body Material Options**

Cast Iron (Grey)			
EN1561	EN JL1040/GJL-250 (GG-25)		
ASTM	A 126 Class B		
Ductile Iron (SG Iron)			
EN1563	EN JS1030/GJS-400-15 (GGG-40)		
ASTM	A536 Grade 65-45-12		
Carbon Steel			
EN10213	GP240GH+N (1.0619+N)		
ASTM	A 216 WCB		
Stainless Steel 316			
EN10088-1	X5CrNiMo17-12-2 (1.4401)		
ASTM	A 351 CF8M		
Stainless Steel 316L			
EN10088-1	X2CrNiMo17-12-2 (1.4404)		
ASTM	A 351 CF3M		
Bronze			
EN1982	CuSn5Zn5Pb5-C (CC491K)		
EN1982	CuSn7Zn2Pb3-C (CC492K)		
ASTM	B62		
Iron Alloys			
Chromium Iron 24%, 30%, etc.			

#### **Other Material Options**

- Body studs and nuts in St.Steel A2 or A4
- Further material options available on request

#### **Other Options**

- Actuation packages; accessories; sealed bonnets; pad locks; hand wheel protection...



#### **Other Body Lining Material Options**

Rubber Lining	Fluoropolyner Lining
Hard Rubber - Ebonite (HR)	Sky Blue Spot
Butyl Rubber (BR)	Dark Blue Spot
Soft Rubber (SR)	White Spot
Neoprene® Rubber	Red Spot
Hypalon® Rubber	Green Spot
Linatex®	

#### **Diaphragm Options**

Material	Code	
Natural Rubber	D10	_
White Natural Rubber	D15	
EPDM Rubber	D20	
Butyl Rubber	D30	
Nitrile Rubber	D40	
Neoprene® Rubber	D50	
Hypalon® Rubber	-D60	
Viton® Rubber	D70	
Linatex®	DLN	-
PTFE/EPDM	D92	
PTFE/Butyl Rubber	D93	
PTFE/ Viton®	D97	

Special vacuum reinforced diaphragms add code letter [V] e.g. D10V

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