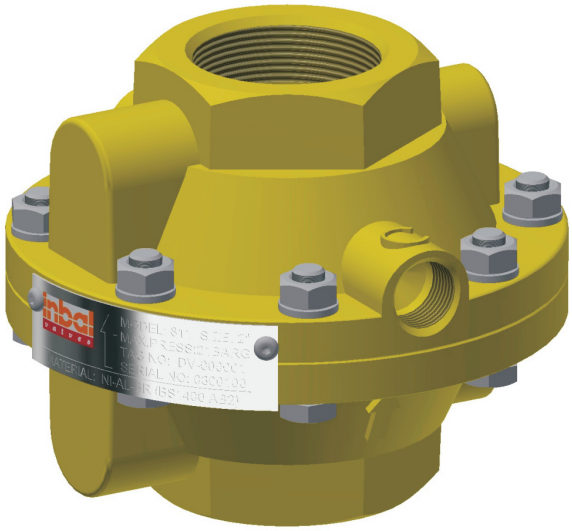
Inbal Valve
Series 800D

Flanged model 833D



Threaded model 811D

General Description

The **Inbal** series 800 is a pressure operated, diaphragm actuated, in line Valve, The simplicity of construction and operation of the **Inbal** series 800 creates its working benefits in a wide range of services and conditions.

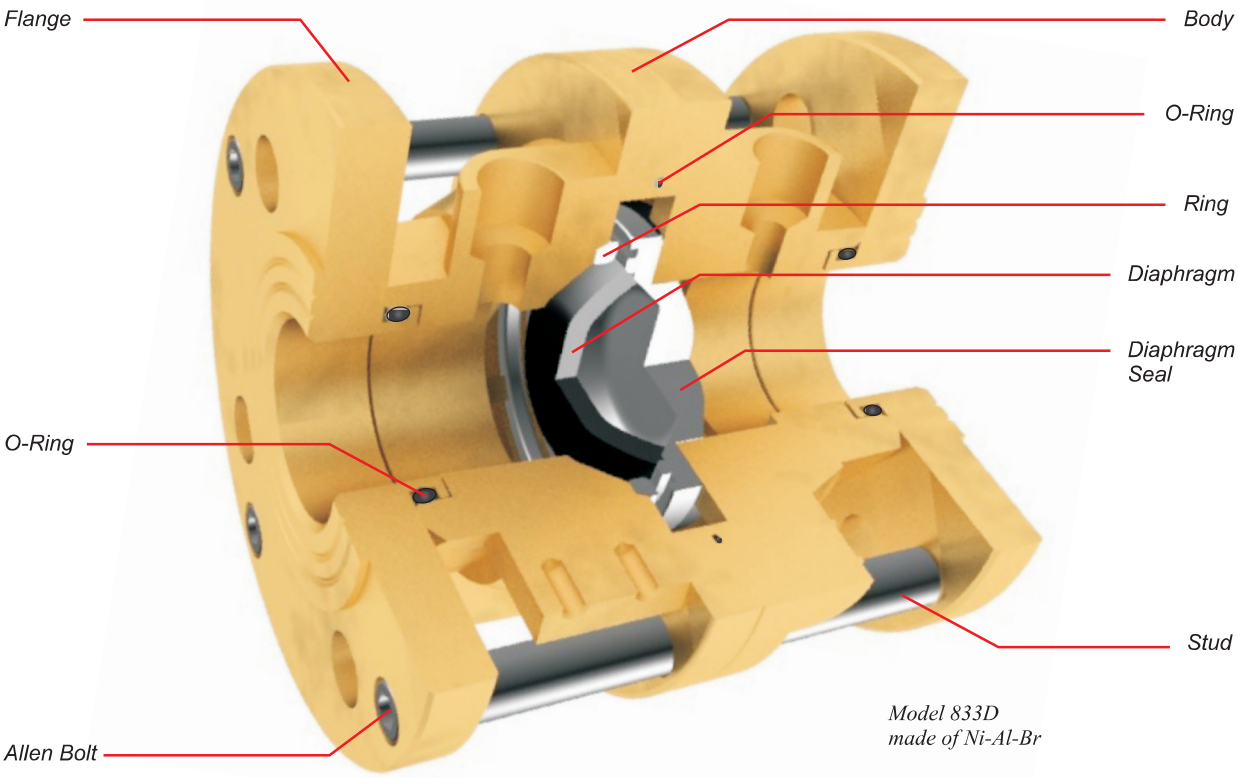
The **Inbal** Valve series 800 consists of three parts: inlet & outlet ends and a diaphragm. The diaphragm is the only moving part and serves also as the sealing mechanism. It forms a sealed chamber in the internal portion of the valve, separating operating pressure from line pressure, and forms a drop tight seal with the seating surface of the body, when pressure is applied to the control space.

Due to its excellent hydraulic performance the **Inbal** Valve series 800 can serve in a very high pressure drop and wide range of flow conditions.

It is used as the basic valve in some automatic valves serving as a basic on/off valve, or remote control, pressure regulating, solenoid operated and flow control valves.

Product Features

- Very high performance standards at a wide range of flows and line pressures.
- No moving mechanical part to maintain.
- No sticking-even after prolonged periods in the open or closed positions.
- Stable and smooth operation at a very wide range of flow rates.
- The valve can handle significant high pressure drop without experiencing cavitation damage.
- Driptight closure even at very low line and operating pressures.
- Low pressure drop is assured by an excellent hydrodynamic design.
- Line pressure alone can operate the Valve.
- Compact and lightweight, easy to install, can be mounted in any position.
- High flow capacities.
- A variety of control systems are available.



Model 833D
made of Ni-Al-Br

Specifications :

Model Numbers

Inlet End	*Outlet End*	*Model No.*
Threaded	Threaded	811D
Flanged	Flanged	833D

Sizes:

Threaded Ends:
1½", 2", 2½", & 3"(40, 50, 65, & 80 mm).
Flanged Ends:
1½", 2", 2½", 3" & 4" (40, 50, 65, 80 &100 mm).

End details:

Threaded End:
NPT or BSPT.
Flanged End:
ANSI B16.5 class 150 & 300 ;
ISO 7005 - PN10, 16 & 25 ;
BS 10 Table D & E ;
AS 2129 Table D & E ;
Jis B 2212, 2213, 2214 ;

Pressure Ratings:

Grade A Diaphmgm
25 Bar (360 psi) max.
1.5 Bar (20 psi) min.

Grade F Diaphragm
8 bar (114 psi) max.
0.8 bar (12 psi) min.

Temperature Range:

SMR5 -Water to + 65°C (l50°F).
Buna·N -Waler to + 90°C (194°F)

Materials Options

***Inbal** Valve*:
Threaded Inlet & Outlet ends:
Cast Stainless Steel AISI 316 ;
Nickel Aluminium Bronze ;
Ductile Iron (ASTM A536 65-45-12).
Aluminum Bronze ASTM B148 (CA 955).

Diaphragm:
SMR 5
EPDM; Buna-N.

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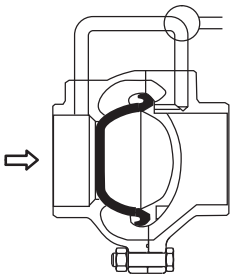
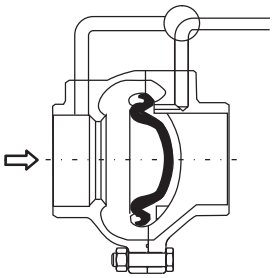
Principle of Operation:



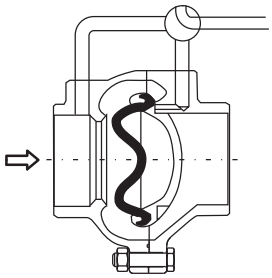
Tight closing operation
When pressure from the Valve inlet (or an equivalent independent operating pressure) is applied to the control space, the **Inbal** *Valve closes drip tight.*

Figure (1)



Full openoperation
When pressure in the control space is allowed to exhaust to the atmosphere the **Inbal** *Valve opens wide.*

Figure (2)



Modulating action
A stable throttling position is obtained when a quantity of pressurized fluid is held in the control space. The amount of fluid in the control space determines the position of the diaphragm.

Figure (3)

Flow Factor

Valve Size		*Flow Factor*		*Max normal Flow Rate*	
mm	*inch*	*Kv*	*Cv*	*m3/h*	*gpm*
40	1½"	45	52	30	130
50	2"	60	70	45	200
80	3"	165	191	105	460