# BUTTERFLY VALVE METAL TO METAL WITH **ROTARY ACTUATOR (SERIES 240)**

#### INTRODUCTION

Pneucon Metal to Metal Butterfly Valve design is the most common type of rotary valve and provides low weight to Cv Ratio, Combined with simplicity of design and comparatively low cost. It is simple device to control. A single vane or wafer disc pivots in the Valve Body and find wide application for throttling in the chemical, paper & pulp, sugar Industries, cooling water circulation, water treatment Plants, compressed air, gas plant, flue gas desulphurization plants

#### **SPECIFICATIONS**

**DESIGN** : Wafer

**VALVE SIZE** : 50mm to 900 mm (2" to 36") : PN6, PN10, PN16, Suitable to RATING Mount between Flanges

150#,300#

**OPERATING TEMP** : PTFE V Rings upto 180° C

Grafoil upto 600° C.

**END CONNECTION**: Wafer type

Flow Characteristic.: Throttling, On-Off. : As per ISO 5211 **MOUNTING PAD** 

: WCB, CF8 (304), CF8M (316) etc. **Body Material DISC Material** : CF8 (304), CF8M (316) etc.

**Gland Packing** : PTFE V Rings, Grafoil.

Rotary Actuator type: Double Piston (Rack & Pinion). **Spring Range** : Pre Loaded Spring SNS (LH/RH) Type

Air Supply  $: 3.5 - 5 \text{ Kg/cm}^2$ 

**ACTUATOR TYPE** : Double Piston (Rack & Pinion). ACTUATOR ACTION : Single Acting - Air failure Spring

Return Type.

Double Acting - Air failure "Stay Put"

**ACTUATOR BODY** : Extruded Hardened Aluminum

**PINION SHAFT** : EN8 / SS 304 / 316

: Hardened Aluminum LM 24 **PISTON RACK PISTON GUIDES** : 40% BRONZE FILLED PTFE

**SPRINGS** : Pre Loaded Spring SNS (LH/RH) Type **SEALING** : Nitrile (Viton or EPDM available on request)

: 1/4" or 1/2" NPT AIR CONNECTION

ACCESSORIES : 1) Valve Positioner - Pneumatic, Electro

Pneumatic, Smart Positioner 2) Air Filter Pressure Regulator

3) Limit Switch with Honeywell Micro

Switch / P&F Sensor

4) 3/2 / 5/2 Way Solenoid Valve

(220VAC/24VDC)

5) Manual Override (Worm Gear Quarter Turn)

(Limit Switch Enclosure & Solenoid Valve available in Weatherproof, Instrically Safe & Flameproof

Enclosure.)



**BUTTERFLY VALVE WITH ROTARY ACTUATOR** 



**BUTTERFLY VALVE WITH ROTARY ACTUATOR & MOR** 

#### **DESIGN FEATURES**

- Compact & simple design, low cost and maintenance free.
- Very high Cv to body size ratio.
- Reliable smooth operation and flow control with assured product quality.
- Long Life Bellows Seal- provides for absolute gland sealing.
- Valve body is soild, heavy duty.
- > Optimal disc geometry and cavity free flow passage offers minimun flow resistance and high Cv values.
- > Heavy duty pins connecting valve shaft to disc avoids lost motion under high torque conditions.

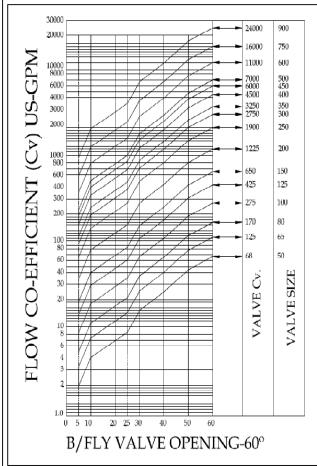
#### **QUALITY AND PERFORMANCE GUARANTEE**

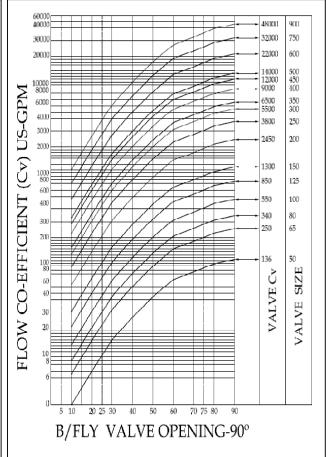
- ▶ Produced with Quality Systems accredited to ISO 9001: 2008 by Bureau Veritas.
- Full material certification available for all major component Parts.
- Full guarantee on design and Performance.
- All testing are performed to the requirements of ANSI B16.34.

### VALVE SIZING CO-EFFICIENT Cv RATING (Series.240)

	SIZE (mm)		50	65	80	100	125	150	200	250	300	350	400	450	500	600	750	900
Cv AT	AT LL RE	60°	68	125	170	275	425	650	1225	1900	2750	3250	4500	6000	7000	11000	16000	24000
	Cv FU BO	90°	136	250	340	550	850	1300	2450	3800	5500	6500	9000	12000	14000	22000	32000	48000

### **DEGREE OF OPENING Vs FLOW CO-EFFICIENT**





BUILT IN RELIABILITY

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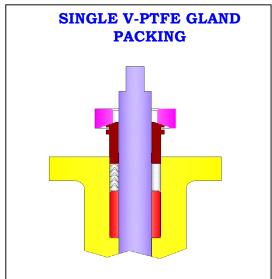


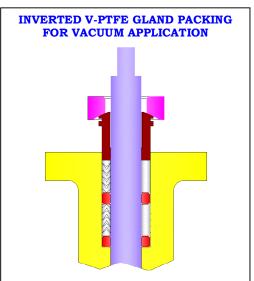
# **TESTING AND INSPECTION**

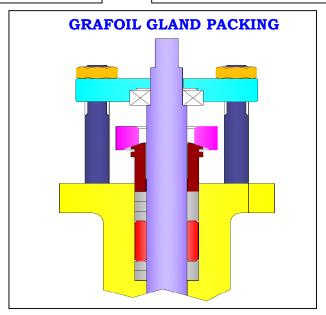
Test	Test Pressure	Test Stds	Test Medium	Acceptance Criteria		
Hydro Test	30 bar (ANSI 150#)	API 598	Water	No Leakage		
Seat Leakage Test	Max ΔP Shut Off	FCI 70-2	Water	Class II & III		

## **GLAND PACKING OPTIONS**

Pneucon offers Single & Double set of V-PTFE rings (upto 180°C) & Graphite Moulded rings (>200°C upto 600°C) as standard. Inverted V-fered for vacuum application with upper set of V-Rings positioned PTFE packings are reverse direction. Low fugitive Emission packings are provided on the LFE packing arrangement request comprises of live loaded packings. The packing gland is loaded with spring washers to maintain a continuous compressive lead to gland packings as shown in figure below.

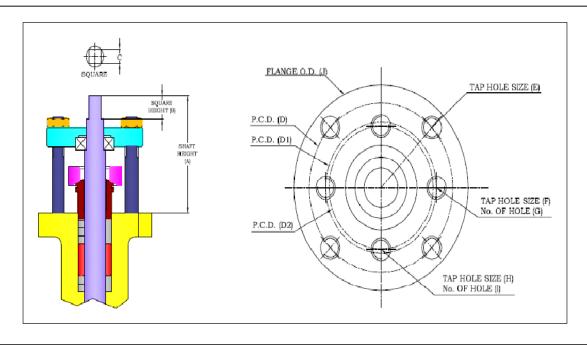






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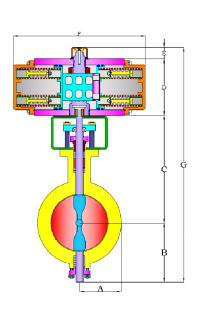


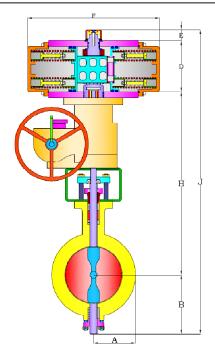


ACTUATOR MOUNTING DETAIL*												
VALVE	SHAFT HEIGHT	SQUARE HEIGHT	SQUARE	P.C.D.	P.C.D.	P.C.D.	TAP HOLE SIZE	TAP HOLE SIZE	NO. OF HOLES	TAP HOLE SIZE	NO. OF HOLES	FLANGE O.D.
SIZE	A	В	С	D	D1	D2	E	F	G	Н	I	J
2" 2.1/2"		15		70	55	35	3/8" UNC	3/8" UNC	2	5/16" UNC		Ø85
3"	75		9									Ø90
4"						50.8	1/2" UNC	3/8" UNC		3/8" UNC	2	Ø85
5"												200
6"	80	20	11	90	65							
8"	85											
10"	85											~
12"	105	25		90	00	65						Ø110
14"		05						7/16" UNC		7/16" UNC		
16"												

\* :- For Higher Sizes Dimensions Shall be Furnished on request







* DIMENSION OF METAL TO METAL BUTTERFLY VALVE (SERIES-240)												
VALVE SIZE	ACTUATOR MODEL	MOR	A	F / F	В	С	D	E	F	G	Н	J
2"	SA-065	100	50	45	89	172	88	20	216	369	277	474
2.1/2"	SA-075	100	55	47	96	187	98	20	232	401	292	506
3"	SA-075	100	64	47	105	194	98	20	232	417	299	522
4"	SA-100	100	78	48	111	208	126	20	293	465	313	570
5"	SA-100	100	93	54	130	237	126	20	293	513	342	618
6"	SA-115	450	108	56	151	243	141	20	346	555	368	680
8"	SA-125	450	135	61	177	273	153	20	405	623	398	748
10''	SA-150	450	154	67	204	311	187	30	475	732	436	857
12''	SA-150	450	190	70	224	402	187	30	475	843	527	968
14''	SA-175	750	209	89	241	423	215	30	521	909	548	1034
16''	SA-200	1000	235	105	280	461	248	30	641	1019	586	1144

The Company's policy is one of continuous product improvement and the right is reserved to modify the specifications contained here in without notice.



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