



## Pneumatic Actuated Wafer Pattern Butterfly Valve - NBR Liner

- Full Bore Wafer Pattern that fits between PN10 & PN16, ANSI150 Flanges
- Stainless Steel Disc, NBR Liner
- HP Spring Close or Double Acting Actuator
- Options for Pilot Solenoid & Switchbox
- High Flow Rates

### > Description

A combination of spring return or double acting pneumatic actuators, fitted to a wafer pattern NBR Lined butterfly valve, offering both reliability and performance. This range of pneumatic actuators are manufactured from aluminium and have a hard anodised finish. Position indicator, end of stroke adjustment ( $\pm 5^\circ$ ) and Namur interface are fitted as standard.

The butterfly valve body is epoxy coated ductile iron, with stainless steel disc and NBR liner. In most cases (see note) the valve and actuator fit directly onto each other, (valve has an ISO mounting pad) so no mounting kits are required, thus making the package more compact and cost effective.

The PA4600 is in a modular program range of pneumatic operated quarter turn valves, designed to overcome automated process solutions, affordably and reliable.

NAMUR and ISO 5211 interfaces

Position feedback and pilot solenoids.

- > These valves are suitable for many applications including heating (HVAC), water treatment and water distribution, industrial applications, agricultural and for compressed air, gas, oils, fats and hydrocarbons.



### Description

A strong efficient pneumatic actuated butterfly valve. Wafer pattern suitable for fitting between PN6/10/16, AISI 150, Table D & E flanges. Valve has a soft NBR seat and stainless steel disc and shaft. Actuator supplied in single and double acting and has interface for fitting solenoid and switchbox. Actuator fitted with position indicator and end stops as standard and is directly mounted onto the valve.



### Beschreibung

Ein starkes, effizientes, pneumatisch betätigtes Absperrventil. Zwischenflansche geeignet zum Einbau zwischen PN6/10/16, AISI 150, Tabelle D und E Flansche. Das Ventil hat einen weichen NBR-Sitz und eine Edelstahl-scheibe und -welle. Der Stellantrieb wird einfach- und doppeltwirkend geliefert und verfügt über eine Schnittstelle zum Anbringen von Elektromagnet und Schaltkasten. Antrieb serienmäßig mit Stellungsanzeige und Endanschlägen ausgestattet und wird direkt auf die Armatur montiert.



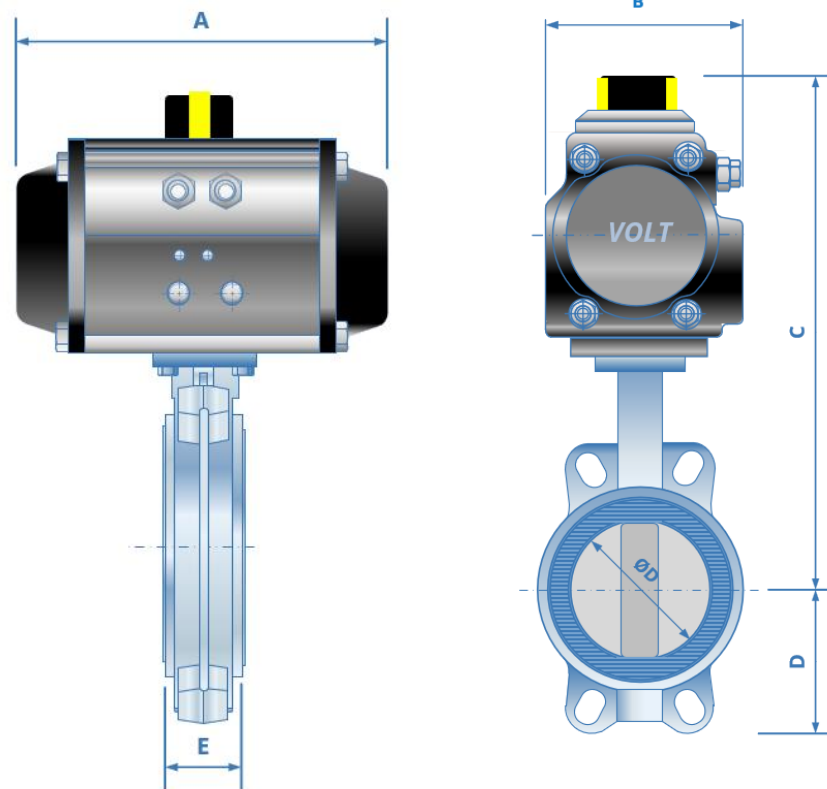
### Descripción

Una válvula de mariposa accionada neumáticamente fuerte y eficiente. Patrón de oblea adecuado para montaje entre bridas PN6/10/16, AISI 150, Tabla D y E. La válvula tiene un asiento blando de NBR y disco y eje de acero inoxidable. Actuador suministrado en simple y doble efecto y tiene interfaz para instalar solenoide y caja de interruptores. Actuador equipado con indicador de posición y topes finales como estándar y se monta directamente en la válvula.



### Description

Une vanne papillon à commande pneumatique puissante et efficace. Modèle Wafer adapté au montage entre brides PN6/10/16, AISI 150, Tableau D & E. La vanne a un siège en NBR souple et un disque et un arbre en acier inoxydable. Actionneur fourni en simple et double effet et doté d'une interface pour le montage d'un solénoïde et d'un boîtier de commutation. Actionneur équipé d'un indicateur de position et de butées en standard et monté directement sur la vanne.



**NOTE!** 4", 6" and 12" valves are not direct mount on Spring Return and require a mounting Box Kit. 4" and 6" add 50 mm additional height and for 12" add 100 mm

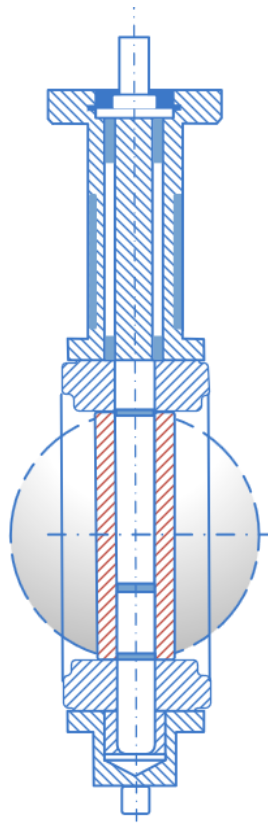
## SPRING RETURN - DIMENSIONS

VALVE	ACTUATOR	A	B	C	D	E
2" (50mm)	HP63S	163	85	233	63	43
2 1/2" (65MM)	HP66S	202	85	240	69	46
3" (80mm)	HP75S	210	96	274	78	46
4" (100mm)	HP88S	247	108	306	106	52
5" (125mm)	HP100S	268	123	329	115	56
6" (150mm)	HP115S	316	141	362	128	56
8" (200mm)	HP145S	414	172	447	160	60
10" (250mm)	HP160S	467	190	484	190	68
12" (300mm)	HP180S	497	206	551	235	78

## DOUBLE ACTING - DIMENSIONS

VALVE	ACTUATOR	A	B	C	D	E
2" (50mm)	HP50D	144	72	219	63	43
2 1/2" (65MM)	HP50D	144	72	226	69	46
3" (80mm)	HP63D	163	85	257	78	46
4" (100mm)	HP66D	202	85	277	106	52
5" (125mm)	HP75D	210	96	305	115	56
6" (150mm)	HP88D	247	108	332	128	56
8" (200mm)	HP115D	316	141	404	160	60
10" (250mm)	HP125D	347	151	437	190	68
12" (300mm)	HP145D	414	172	509	235	78

All information is sourced from our manufacturer's data and is intended for guidance only - Valves Online can accept no liability for changes, omissions or errors.



## > Wafer Pattern Butterfly Valve

This robust and dependable valve has a Stainless Steel 316 Disc and NBR Liner. Used for most fluids of general service, including oils and fats.

### Material List

Body	Epoxy Coated Ductile Iron
Disc	Stainless Steel
Liner	EPDM, ( Options NBR, FKM, PTFE)
Shaft	Stainless Steel
Bushing	PTFE
Washer	Galvanised Carbon Steel
Circlip ISO 3075	Steel
O-Ring	Viton
Bolts	Galvanised Carbon Steel

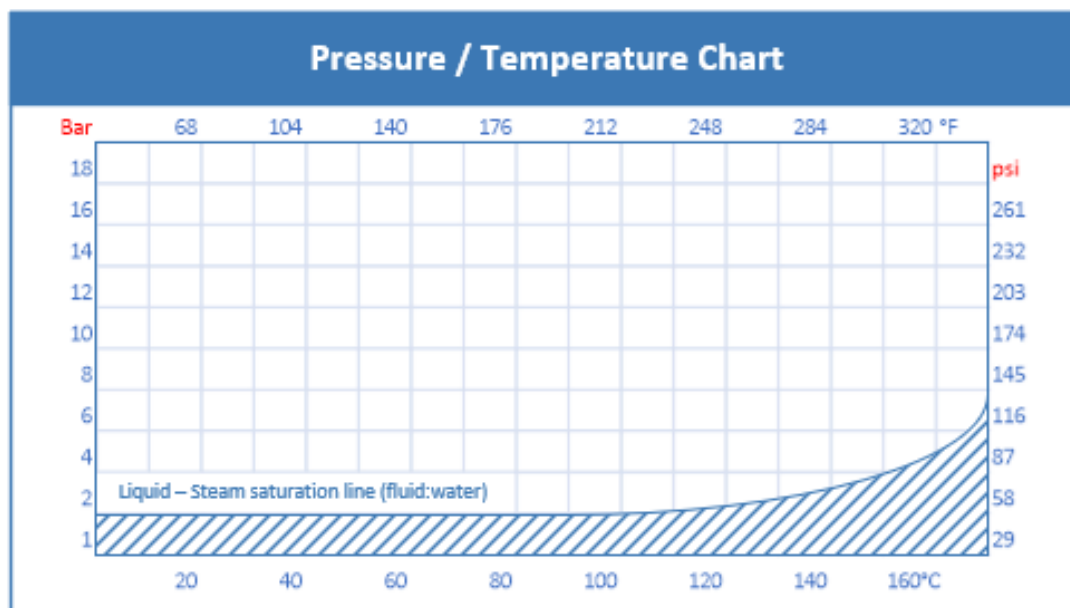
### Pressure / Temperature

Pressure	1" - 12" - PN16
	14" - 24" - PN10
Temperature	EPDM -10°C to 120°C This Product is WRAS Approved
	NBR -10°C to 80°C
	FKM (Viton) -10°C to 120°C
	PTFE -10°C to 120°C



*PA4600 offers reliability, repeatability and outstanding performance, for all your simple process automation needs.  
Need more information?  
Contact our technical sales team.*

KV Rates									
Opening	10	20	30	40	50	60	70	80	90
1"									
1 1/2"	0.04	2.1	4.8	10	19	30	48	73	79
2"	0.05	2.6	6	13	23	38	60	91	99
2 1/2"	0.09	3.8	14	33	53	75	98	108	108
3"	0.17	7.8	16	34	60	100	158	237	261
4"	0.26	15	31	67	120	199	314	471	518
5"	0.43	25	53	115	205	339	535	803	883
6"	0.69	39	82	177	316	522	817	1241	1364
8"	2.6	52	142	250	450	713	1122	1723	2716
10"	2.6	130	276	599	1068	1768	2798	4196	4611
12"	3.5	202	427	926	1650	2730	4322	6483	7124
14"	5.2	292	617	1376	2384	3945	6243	9364	10291
16"	6.9	401	849	1839	3279	5425	8585	12878	14152
18"	9.5	531	1124	2437	4342	7185	11371	17057	18743
20"	12	683	1445	3133	5609	9238	14620	21930	24099
24"	19	1055	2234	4840	8626	14272	22587	33882	37232



**Note: Do not use when temperature and pressure are below the liquid saturation line (hatched area)**

## Technical - Actuator

Body material	Hard anodised extruded aluminium alloy
End Caps	Die cast aluminium epoxy coated
Spring	High tensile steel
Indicator	Open/Closed
Pinion shaft	Alloy steel nickle plated
Pinion Guides	Self Lubricating Polypropylene + GF
Piston seals	NBR steel

## Specification

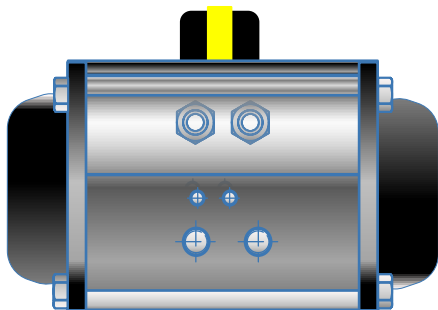
Pressure range	10 Bar
Double acting	2.5 Bar - 8 Bar pilot pressure
Single acting	2.5 Bar - 8 Bar pilot pressure
Temperature range	minus 20°C to +80°C
Movement	90 Degree adjustable -5-+5 Degree
Lubrication	All moving parts are lubricated
Cycle Life	1,000,000 operations
Approvals	EX, ATEX, CE, PED

- Powerful quarter turn rack and pinion actuator
- Single acting (spring close or open)
- Double acting
- Namur interfaces

Rack & Pinion pneumatic actuators are specifically designed for use with quarter-turn valves. The wide torque range ensures that our actuators match the operational characteristics of plug, ball or butterfly valves; or any device requiring precise and reliable 90° rotary motion.

Our pneumatic actuators offer a unique design, are constructed of high quality material and undergo 100% pressure, leak and rotation testing before despatch.

The Result? An actuator, which will stand up to the most severe service conditions, and provide you with a reliable and cost effective means of valve operation.



Port connections are HP50-HP88 1/8" & HP100-HP210 1/4" BSP  
Pilot air should be clean filtered air- sized on 5.5 Bar.

For more information please refer to data sheet.

The AP9001 is a modular design and allows pilot solenoids and position feedback switchboxes to be fitted with ease, allowing simple automation.

For more information on automation and control of your process pipelines please see our blogs and online tuition videos.



**Pilot Solenoid**



**Electric Feedback  
Signal**

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