CATALOGO VALVOLE DI REGOLAZIONE TIPO DAMPER "VNT"

CATALOGUE REGULATING BUTTERFLY VALVES DAMPER TYOE "VNT"

PRESENTAZIONE SOCIETA'
COMPANY PRESENTATION

EUROVALVE produce valvole a farfalla per l'industria chimica, petrolchimica, energetica, navale,etc. **EUROVALVE** ha 20 anni di esperienza in questo settore sia sul mercato italiano che estero.
La società offre un efficiente servizio di post vendita e un ben organizzato magazzino in modo da soddisfare la clientela in termini di prezzo e tempi di approntamento del prodotto.
I prodotti della **EUROVALVE** sono:

- valvole a farfalla a tenuta gommata (PN6-10-16-ANSI150) adatte ad un impiego in condizioni operative non estreme (-35°C a +160°C),
- valvole a farfalla doppio eccentriche a tenuta morbida
- valvole a farfalla doppio eccentriche a tenuta metallica per alte prestazioni,
- valvole a farfalla a tenuta metallica, che è stata progettata per condizioni estreme di esercizio, in termini di temperature (-196 °C a + 700 °C) che di pressioni, sia nel campo dell'intercettazione e controllo di fluidi che in applicazioni con fluidi corrosivi. Tale valvola è di esecuzione triplo eccentrica, il che significa che le caratteristiche di rotazione del disco e la generatrice del cono della sede sono posizionate su assi differenti rispetto alla tenuta. Questa triplo eccentricità consente il movimento del disco senza sfregamenti fra l'anello di tenuta e la sede, che entrano in contatto solo al momento della chiusura.Le valvole a farfalla a tenuta metallica hanno una costruzione intrinsecamente "FIRE SAFE" in quanto sono completamente metalliche, ovvero non hanno alcuna parte che può essere parzialmente o totalmente distrutta durante un eventuale incendio compromettendone la tenuta. **EUROVALVE** ha comunque provveduto, per documentare la costruzione "FIRE SAFE", ad effettuare una prova del fuoco secondo le procedure BS 6755 Part 2.
- valvole di regolazione (-40°C a +600°C)

EUROVALVE is a valves manufacturer which produces butterfly type valves for chemical, petrochemical, power production, naval and general industries. **EUROVALVE** has a twenty years experience in this sector and acts in Italy as well as abroad. The company offers a very efficient service of post selling assistance and a good organized warehouse to satisfy the customers in terms of price and delivery time.
The products of **EUROVALVE** are:

- the rubber seated butterfly valves (PN6-10-16-ANSI150) suitable to be employed in not extreme operational condition (-35°C to +160°C),
- the double eccentric soft seated butterfly valves,
- the double eccentric high performance butterfly valves,
- the metal seated butterfly valves that has been designed to support extreme operational condition, either of temperature (-196 °C to + 700 °C) or pressure, in the field of fluids interception and control as well as in the application with corrosion media.
  This valve is a triple-eccentric execution, which means that the disc rotation features and the seat cone generator are positioned on axis different from those of the sealing area.
  This triple eccentricity allows the disc movement with no creeps between the seal ring and the seat which get in contact at shut-off only.
  The metal seated butterfly valves are inherently FIRE SAFE since there are no resilient elements that can be partially or completely destroyed in case of fire. **EUROVALVE** to prove the FIRE TEST construction, has subjected the valve to a simulated fire test according to the procedure in compliance with BS 6755 Part 2 standard.
- the regulation valves (-40°C to +600°C)




EUROVALVE unendo le caratteristiche di compattezza e leggerezza tipiche delle tradizionali valvole a farfalla alle caratteristiche di tenuta già descritte, si pone in concorrenza con le valvole tradizionali attualmente sul mercato (saracinesche, sfere, a flusso avviato) rispetto alle quali presenta notevoli vantaggi di peso e di ingombro.

EUROVALVE which joints together the compactness and lightness features of the traditional butterfly valves with extreme sealing features is in competition with the traditional valves presently on the market (gate, ball, piston check etc.) since, compared with them, presents remarkable advantages as far as weight and overall dimensions are concerned.

EUROVALVE è in possesso dei seguenti certificati:

EUROVALVE is certified as follows:

ISO 9001:2008

ISO 9001:2008

Resistenza al fuoco in accordo alle **BS 6755 Parte 2**

Fire Safe according to **BS 6755 Part 2**

PED- Direttiva Europea per le Attrezzature in pressione **97/23/Ce** secondo la procedura di valutazione descritta nel modulo **H.**
Ente Notificato incaricato della sorveglianza del sistema qualità del fabbricante
TI
numero di identificazione presso la Comunità Europea:
1354

PED- European Pressure Equipement Directive **97/23/EC** as for module **H** conformity evaluation procedure.
Notified Body monitorino the manufacturer's quality assurance system :
TI
identification number in the E C :
1354

ATEX – Direttiva 94/9/CE-ATEX100 per regolamentazione apparecchiature destinate all'impiego in zone a rischio di esplosione

ATEX – Directive 94/9/CE-ATEX100 Regulation of special benches on the activity in the area of explosion

GOST-R – Certificato che conferma la qualità del prodotto e la conformità alle normative ed esigenze della Federazione Russa

GOST-R – This Certificate confirms the quality of product and its conformity with standards and requirements of Russia Federetion

MAIN FEATURES

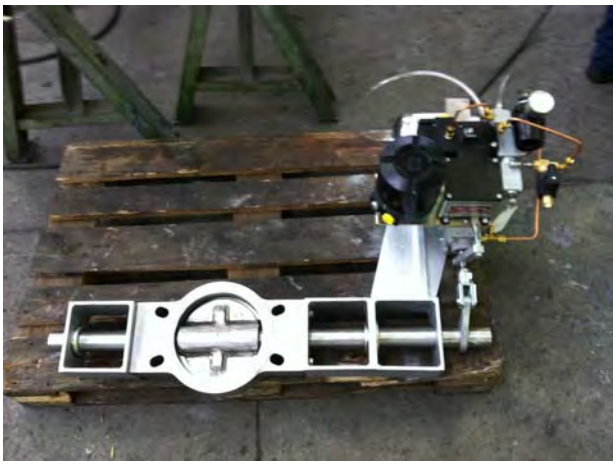
The butterfly valves **EUROVALVE** VNT are essentially unlined butterfly valves used for low pressure applications.

These valves are used when the perfect tight shut-off is not required.

The light weight construction with wafer body enables easy mounting on the ducts, manifolds and exhaust lines without additional support or strengthening of the pipelines.

The main features of EUROVALVE VNT butterfly valves are:

- Very low operating torque through the seatless construction and then small sizes of actuator (is used) and low air consumption
- Ideal for low control and modulating applications in low pressure gas lines
- Low pressure drop in open position
- Wide operating temperatures range to cater to exhaust and flue gas control lines
- Perfect adaptability intended for low pressure large volume gas and hot air flow control applications
- The best for furnace air flow and combustion control applications
- Disc pins located high on the shaft in order to reduce torsional displacement of the disc and actuator driving arm
- Leakage rates are based on the best fit obtained within normal manufacturing tolerances while allowing the clearance to operate at the design temperature without galling



TECHNICAL DATA

These valves are suitable for flanges PN 6/10/16 or ANSI 150 (other drillings are available on request).

The standard connection is WAFER but LUG, DOUBLE FLANGED and BUTT WELDING are available on request.

The **EUROVALVE** VNT butterfly valves are suitable for temperature from -40 °C up to 800 °C depending on material combination.

We also can produce these kind of valves with the internal of the body in refractory material for working at highest temperatures (more than 1000 °C).

It's possible to request these valves with or without seal. The leakage is different and depending by the sealing used:

- With landing bars on body: from 0,01% to 0,5% of KV at 90°

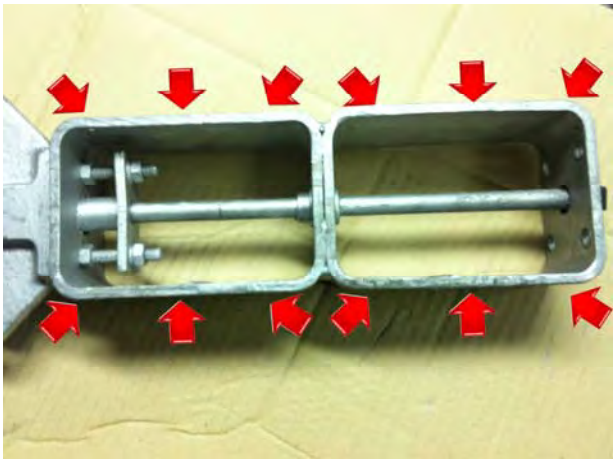
- Without landing bars on body: about 1% of KV at 90°

The standard design provides the outboard bearings for the high temperature services to prevent any kind of galling. These bearings are mounted on the external brackets on both upper and bottom sides.

The standard design provides two adjustable packing on both upper and bottom sides to ensure the perfect tightness of the body. Normally it's used the graphoil packing but it depends by the media and the temperature of the application (other materials are available on request – ex: PTFE, …).

Another important aspect is represented by the choose to have a double bracket on the upper side and a single bracket on the bottom side to mount these valve on the insulated lines without problem.

The double bracket on the upper side is used to dissipate the heat so it's possible to use directly the operator (electrical, pneumatic or hydraulic) without any other lateral transmission to reduce the dimension of the valve mounted on the plant.

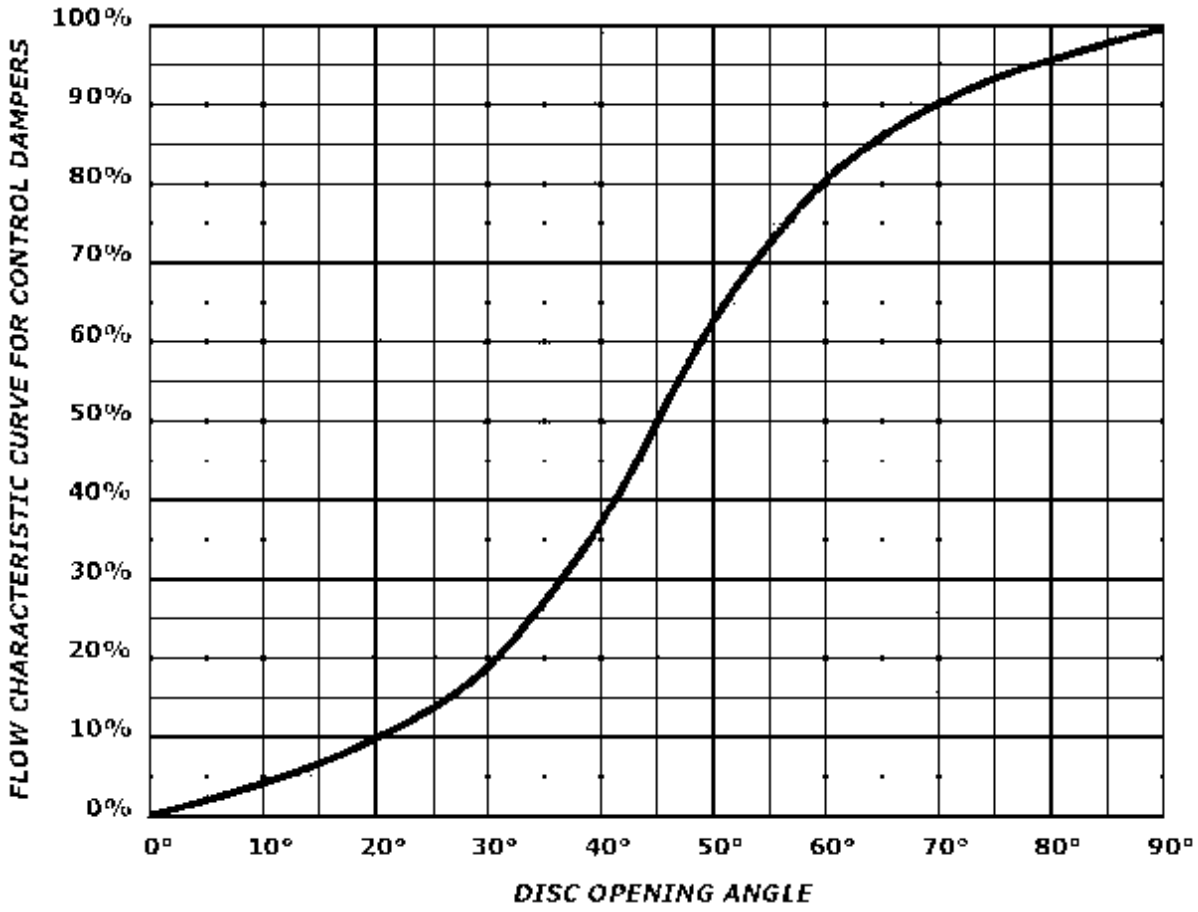


FLOW CHARACTERISTIC CURVE FOR CONTROL DAMPER

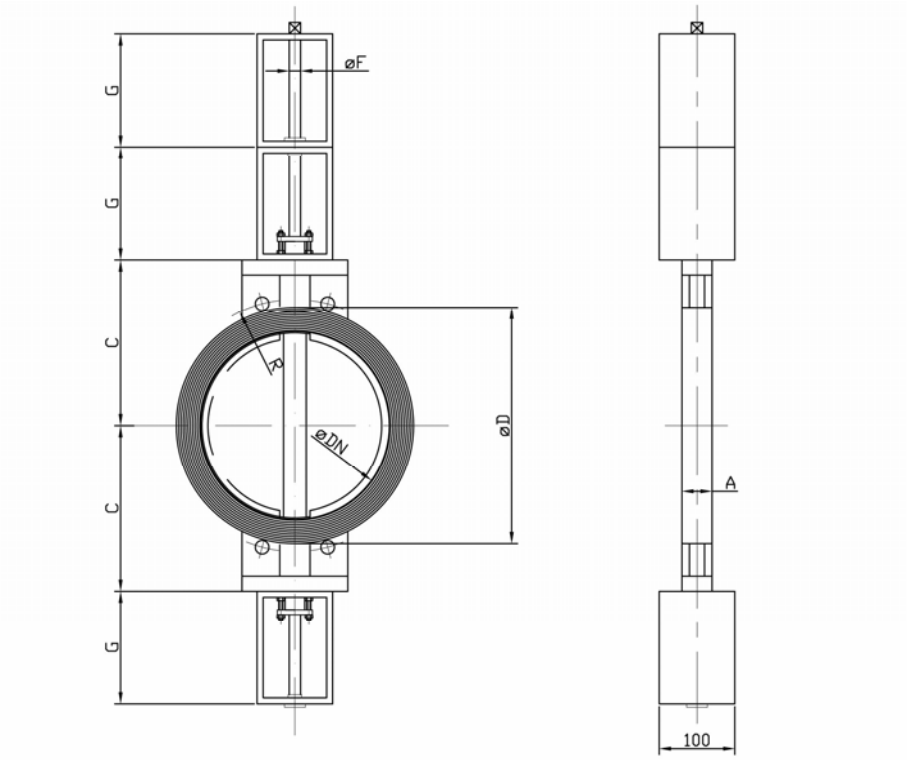
The flow rate characteristic curve shows the percentage of flow passing through the damper in function of disc opening angle.

For control services, the nominal damper diameter should be selected in such a way that the maximum flow rate is assured at a maximum opening angle of 70°.

The dampers valves have a characteristic curve which is approximately an equal-percentage curve in the range 0°-70°.



MAIN DIMENSIONS



DN	A	C	ØD	ØF	G	CV at 90°	NOTE
50	25	95	85	10	150	131	
65	25	100	105	12	150	249	
80	30	105	120	12	150	385	- OTHER SIZES ON REQUEST UP TO DN 4500
100	30	115	140	12	150	712	
125	35	135	170	12	150	1170	
150	40	150	195	15	150	1751	
175	40	165	225	15	150	2580	
200	40	175	255	15	150	3164	
225	40	185	280	15	150	4057	- CV = 1,16 x KV
250	40	220	310	15	150	4993	
300	45	240	360	20	150	7639	
350	45	290	415	25	150	10341	
400	50	335	465	30	150	13356	
450	50	360	520	30	150	17280	
500	55	400	570	30	150	21816	
550	60	420	620	30	150	32084	
600	65	460	675	30	150	37990	
700	70	495	780	35	150	44781	
800	75	545	880	40	150	59783	
900	80	600	980	40	150	76108	
1000	90	670	1080	45	150	95061	
1200	90	790	1285	45	150	143980	
1300	100	900	1400	50	150	169684	
1400	100	920	1510	50	150	201012	
1500	100	965	1610	50	150	229680	
1600	110	1010	1710	55	150	262300	
1700	110	1060	1810	55	150	291300	
1800	120	1120	1920	60	150	339425	
1900	120	1170	2030	60	150	395846	
2000	120	1230	2130	60	150	419621	

VALVE SELECTION

CV, imperial units (CV = flow rate GMP with 1 psi pressure drop) allows to set the valve nominal diameter (DN) depending by the fluid working conditions.

One the CV has been calculated, selected the correct valve diameter by using the relevant CV valve datasheet in order to have the calculated CV at almost 80% of the relevant valve data.

MEDIUM: GAS

CASE 1: Absolute outlet pressure greater than 50% of the absolute inlet pressure

$$CV = \frac{Q}{380}\sqrt{\frac{d \times T}{\Delta p \times P_2}}$$

Q	=	Flow rate	m^3/h
Δp	=	Differential pressure outlet-inlet	Kg/cm^2
P_1	=	Absolute inlet pressure	Kg/cm^2
P_2	=	Absolute outlet pressure	Kg/cm^2
T	=	Absolute temperature (t+273)	°C
d	=	Gas density related to air	Kg/dm^3

CASE 2: Absolute outlet pressure equal or lower than 50% of the absolute inlet pressure

$$CV = \frac{Q}{205 \times P_1}\sqrt{d \times T}$$

Q	=	Flow rate	m^3/h
Δp	=	Differential pressure outlet-inlet	Kg/cm^2
P_1	=	Absolute inlet pressure	Kg/cm^2
P_2	=	Absolute outlet pressure	Kg/cm^2
T	=	Absolute temperature (t+273)	°C
d	=	Gas density related to air	Kg/dm^3

CONTACT

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