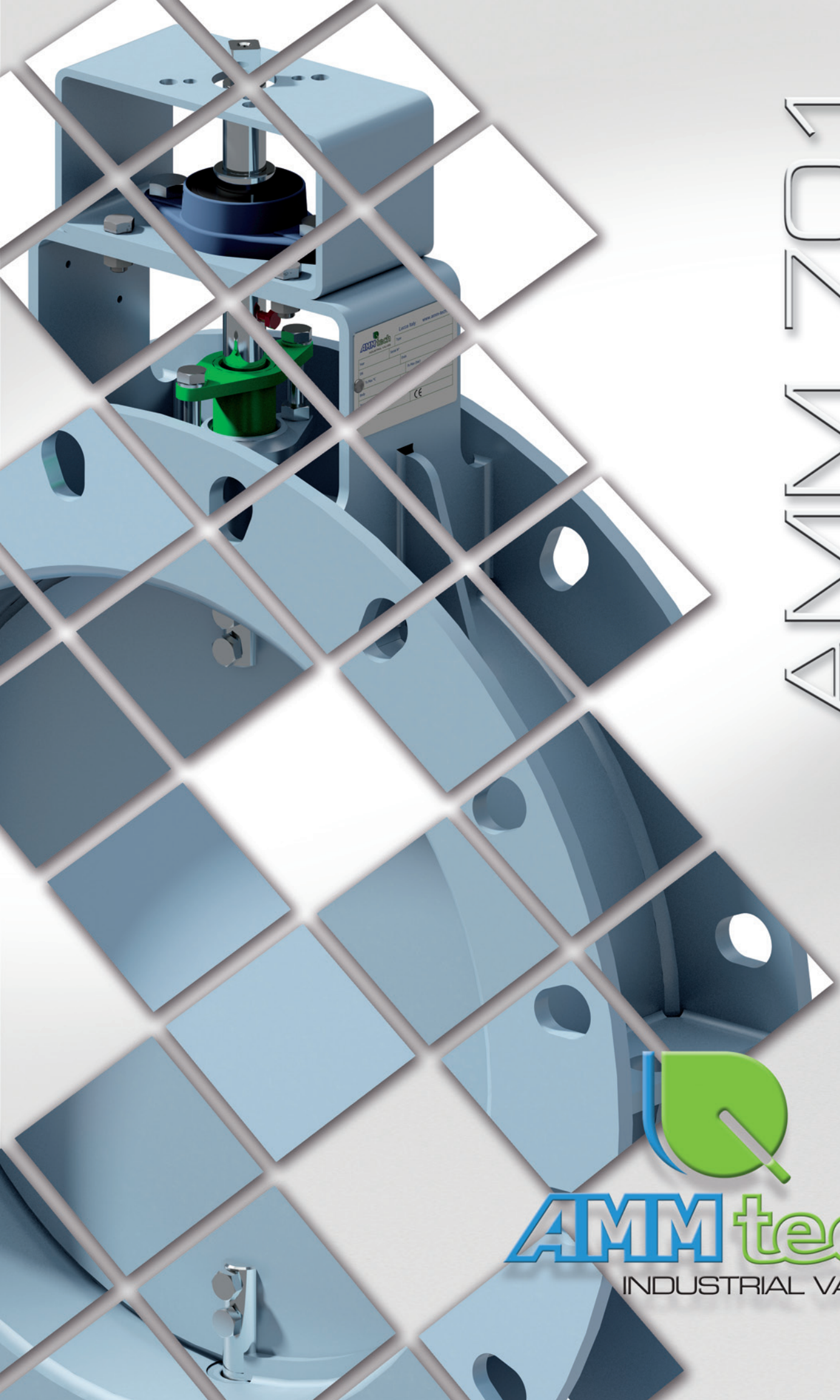


AMM 701

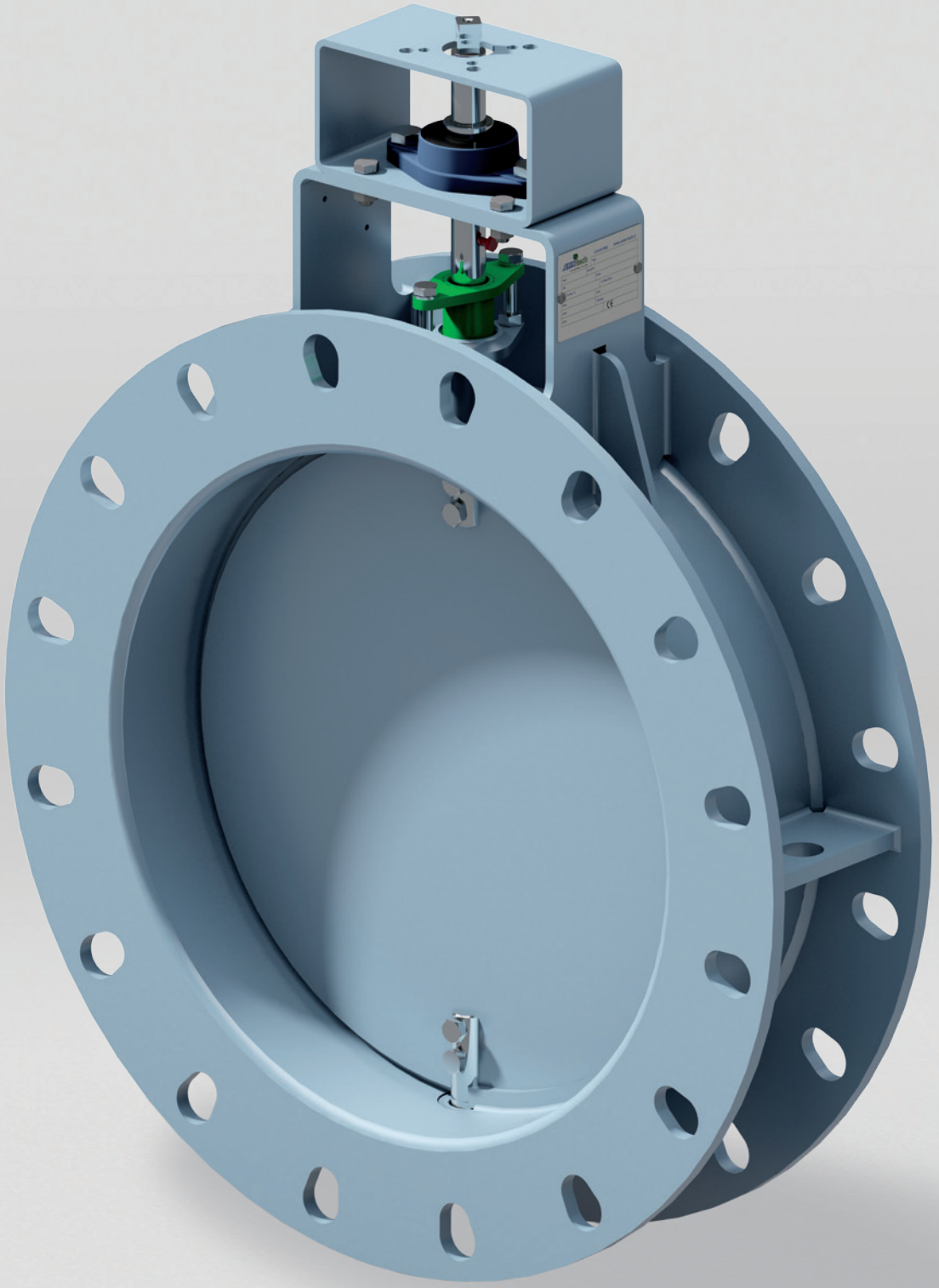
SERIES 7

AMM tech

INDUSTRIAL VALVES

BUTTERFLY DAMPER VALVE

AMM 701



AMM 701
VALVOLA A FARFALLA PER FUMI E ALTE TEMPERATURE

Campi di applicazione
- Fluidi: Aria, Gas e Fumi
- Termovalorizzatori ed Impianti d'Incenerimento
- Cogenerazione
- Biomassa e Biogas
- Industria siderurgica
- Vetrerie
- Cementifici
- Impianti di filtrazione e abbattimento polveri
- Centrali Elettriche
- Sistemi di recupero calore
- Caldaie e bruciatori
- Industria Chimica e Petrolchimica
- Impianti di Ventilazione e Condizionamento
- Impianti di Ossidazione termica e Rigenerativa

Condizioni d'esercizio
- **Massima temperatura d'esercizio: 200°C**
- **Pressione massima d'esercizio: 3 bar**

La pressione massima varia al variare del diametro e della temperatura

Caratteristiche generali
- Servizio ON-OFF o modulante
- Diametro da DN 150 a DN 1500 (diametri inferiori a DN 150 e superiori a DN 1500 su richiesta)
- Connessioni: WAFER o FLANGIATA PN6, PN10, ANSI 150, a saldare o a disegno
- Supporto esterno a cuscinetto
- Classe di tenuta: I, II e III secondo FCI 70-2 (ex ANSI B16.104)
- Manuali e motorizzate con attuazione pneumatica o elettrica

Materiali
- Carbon Steel: S275JR o equivalente
- AISI 304
- AISI 316
- Altri su richiesta

Standard applicabili
- Secondo EN 12516-1, EN 736-1, EN 736-2, EN 736-3, EN 1349, EN 593, ASMEB16.34
- Materiali secondo EN 1503-1, EN 1503-2
- Connessioni secondo EN 1092-1, ASME B16.5
- Marcatura secondo EN 19
- Certificazione Processi di saldatura UNI EN 287-1

Direttive applicabili
- Dichiarazione di conformità alla direttiva macchine 2006/42/CE
- Dichiarazione di conformità alla direttiva PED 97/23/CE
- Dichiarazione di conformità ala direttiva ATEX 94/9/CE

Gruppo II Categoria 3 per Zona 2 Gas e 22 Polveri (II 3 GD)

Verniciatura
- In accordo a PSP00 Cycle PS3_P
- Carbon Steel: RAL 7031

Test
- In accordo a AMMtech Quality Control Plan QCP00
- In accordo a ANSI/FCI70-2, EN 12266-1, EN 12266-2, EN 60534

Attuazione
- Attuatori pneumatici e elettrici secondo EN 15714-1, EN 15714-2, EN 15714-3
- Connessioni e Attuatori secondo EN ISO 5210, EN ISO 5211

AMM 701
BUTTERFLY DAMPER VALVE

Applications
- Fluids: Air, Gas and Fumes
- CHP and Incineration Plants
- Biomass, Biogas and Renewable Energy Plants
- Steel Industry and Furnaces
- Glass Industry
- Cement Plants
- Air Pollution and Filtration
- Power Plants
- Heat recovery systems
- Boilers and Burners
- Chemical Industry
- Oil and Gas
- HVAC
- Thermal Oxidizers

Working Conditions
- **Maximum Working Temperature up to 200°C**
- **Maximum Working Pressure up to 3 bar**

Maximum Working pressure varies with diameter and temperature

General Characteristics
- ON/OFF or MODULATING Service
- Diameter Range from DN 150 to DN 1500 (DN below 150 or above 1500 upon request)
- End Connections: WAFER or FLANGED PN6, PN10, ANSI 150, Butt Weld or according to Customer Drawing
- Outside Bearing
- Tightness Class I, II and III according to FCI 70-2 (ex ANSI B16.104)
- Operated by Handlever, Pneumatic or Electric Actuators

Materials
- Carbon Steel: S275JR or equivalent
- 304 SS
- 316 SS
- Others upon request

Applicable Standards
- Designed according to EN 12516-1, EN 736-1, EN 736-2, EN 736-3, EN 1349, EN 593, ASME B16.34
- Materials according to EN 1503-1, EN 1503-2
- End Connections as per EN 1092-1, ASME B16.5
- Marking according to EN 19
- Certified Welding Procedures according to UNI EN 287-1

Applicable Directives
- Declaration of Conformity in Compliance with Machinery Directive 2006/42/CE
- Declaration of Conformity in Compliance with European Directive PED 97/23/CE
- Declaration of Conformity in Compliance with European Directive ATEX 94/9/CE

Group II Category 3 for Zone 2 Gas and 22 Dust (II 3 GD)

Coating
- According to PSP00 Cycle PS3_P
- Carbon Steel: RAL 7031 epoxy coating

Test
- According to AMMtech Quality Control Plan QCP00
- According to ANSI/FCI70-2, EN 12266-1, EN 12266-2, EN 60534

Driving Systems
- Pneumatic and Electric Actuators according to EN 15714-1 , EN 15714-2 , EN 15714-3
- Actuators End Connections as per EN ISO 5210, EN ISO 5211

FLOW COEFFICIENT

Flow Coefficient KV										
DN	NPS	90°	80°	70°	60°	50°	40°	30°	20°	10°
150	6"	1593	1322	874	506	318	197	104	46	5
200	8"	2861	2458	1591	874	591	367	218	94	10
250	10"	4557	3948	2492	1443	916	532	291	122	18
300	12"	7040	5852	3811	2235	1447	935	525	206	27
350	14"	9087	7597	5152	2935	1807	1107	660	252	31
400	16"	12094	10012	6792	3805	2355	1525	850	353	36
450	18"	14843	12436	8769	5122	3032	1816	1143	454	51
500	20"	19434	15691	11042	6310	4043	2415	1379	531	64
600	24"	28355	23588	15256	9207	5576	3616	2140	817	155
700	28"	39198	32657	20885	12270	7779	4982	2928	1107	264
800	32"	51110	43759	27424	17016	11344	6235	3681	1603	331
900	36"	65197	56692	35219	20949	13903	7812	4607	1980	420
1000	40"	88575	74031	45613	27339	17739	10979	5929	2424	576
1100	44"	102597	81922	52019	31070	19862	13043	7032	2977	629
1200	48"	114762	90965	61188	36818	23213	15698	8746	3339	722
1300	52"	129225	105050	70393	41360	25674	16364	9451	4072	823
1400	56"	148449	121954	77473	46911	27595	17408	10370	5058	886
1500	58"	186168	151348	98037	58748	36171	23234	13284	5876	1168

$K_v = Q_n/519 * [(\rho_G * T_1)/(\Delta p * p_2)]^{0,5}$ $(C_v = K_V/0,8565)$

where:

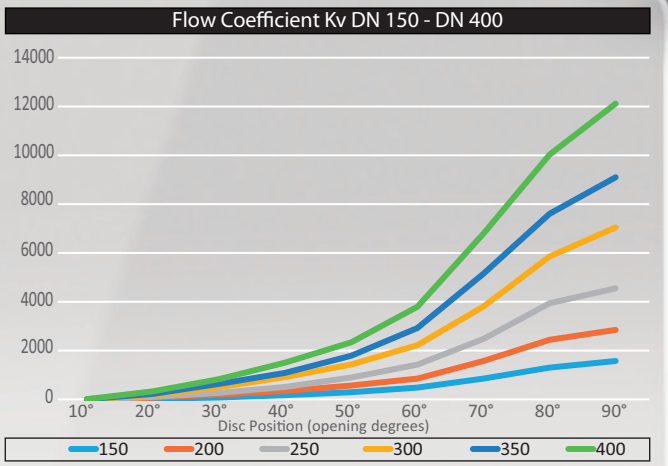
Q_n [m_3/h] : Flow Rate of gas, related to 0 °C and 1013 mbar

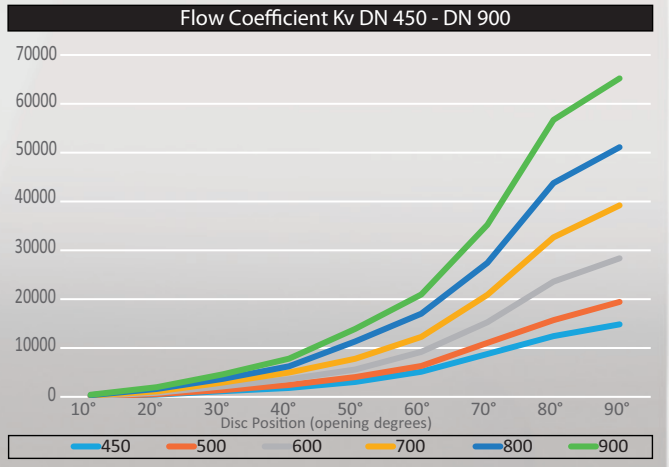
ρ_G [kg/m_3] : density of gases at 0 °C and 1013 mbar

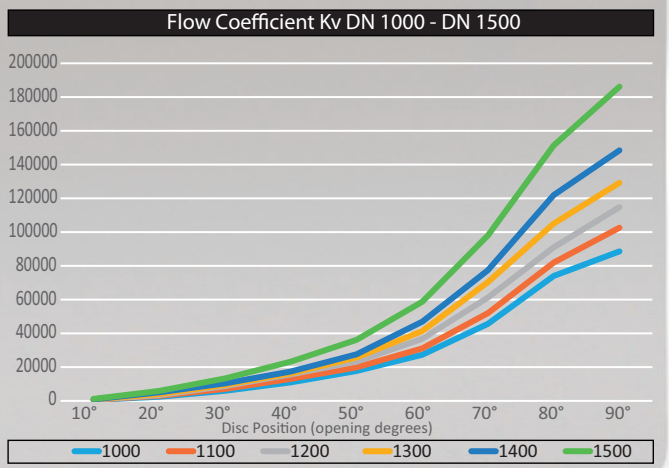
T_1 [K] : absolute temperature at upstream side of the valve

Δp [bar] : pressure drop in the valve

p_2 [bar] : absolute pressure at downstream side of the valve







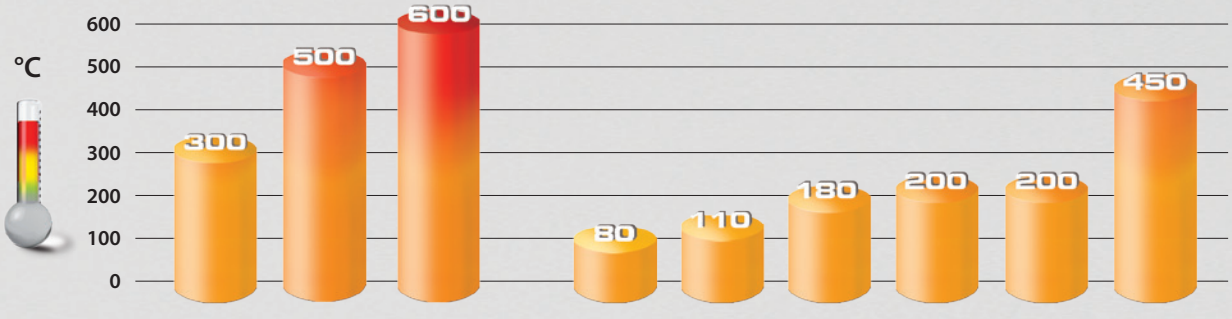
AMM 701

BUTTERFLY DAMPER VALVE

VALVE MATERIAL

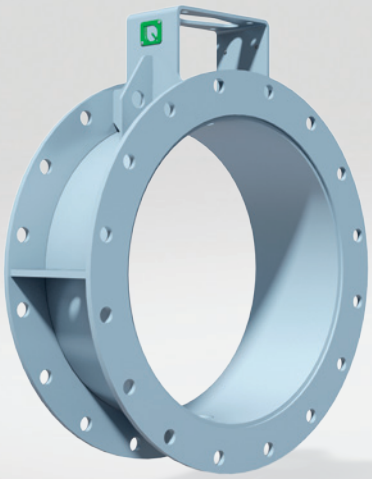
Body and disc material		
S275JR	AISI 304	AISI 316

Seat and packing material					
NBR	EPDM	FPM	Silicone	PTFE	Graphite



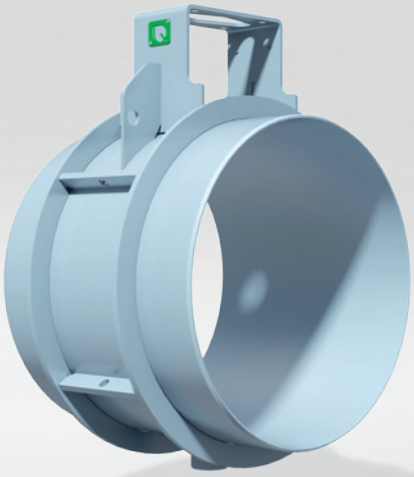
* Verificare compatibilità chimica dei materiali con fluido di processo.
Chemical suitability of construction material to verified according to process fluid.

BODY STYLES



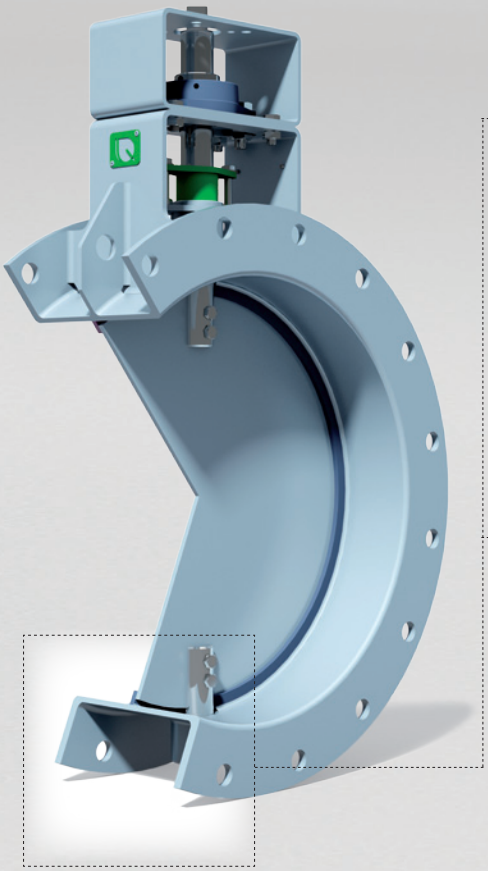
Flanged

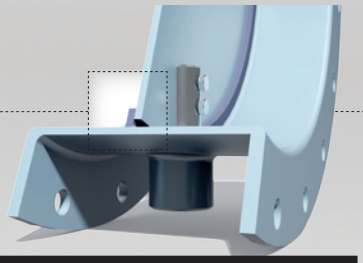
Wafer



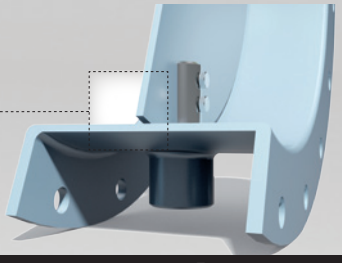
Butt Weld

SEAT STYLES

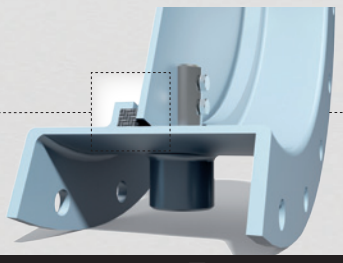




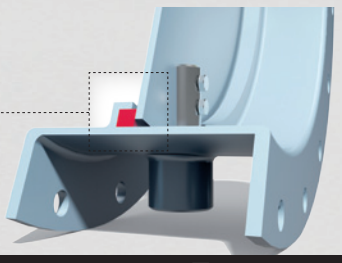
COD.0 standard		
Tenuta Met / Met - Metal to Metal seat		
DN	**CLASS**	**VALUE (FCI 70-2)**
da 150 a 200	I	Relative tightness
da 250 a 1500	II	< 0,5%Kvs
-	-	-



COD.3		
Senza battuta - No seat		
DN	**CLASS**	**VALUE (FCI 70-2)**
da 150 a 1500	I	Relative tightness
-	-	-
-	-	-



COD.5		
Tenuta potenziata con treccia - Soft Sealing with Braid		
DN	**CLASS**	**VALUE (FCI 70-2)**
da 150 a 200	II	< 0,5%Kvs
da 250 a 1000	III	< 0,1%Kvs
da 1100 a 1500	III/IV	< 0,05%Kvs



COD.7		
Tenuta potenziata con Elastometro - Soft Sealing with Elastomer		
DN	**CLASS**	**VALUE (FCI 70-2)**
da 150 a 200	II	< 0,5%Kvs
da 250 a 1000	III	< 0,1%Kvs
da 1100 a 1500	III/IV	< 0,05%Kvs

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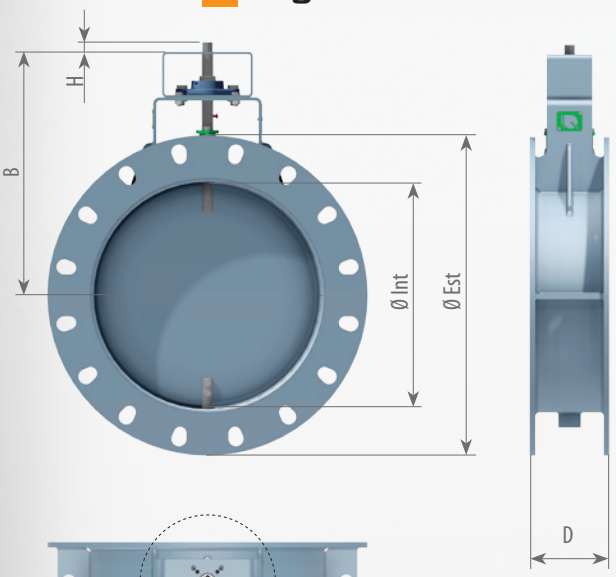
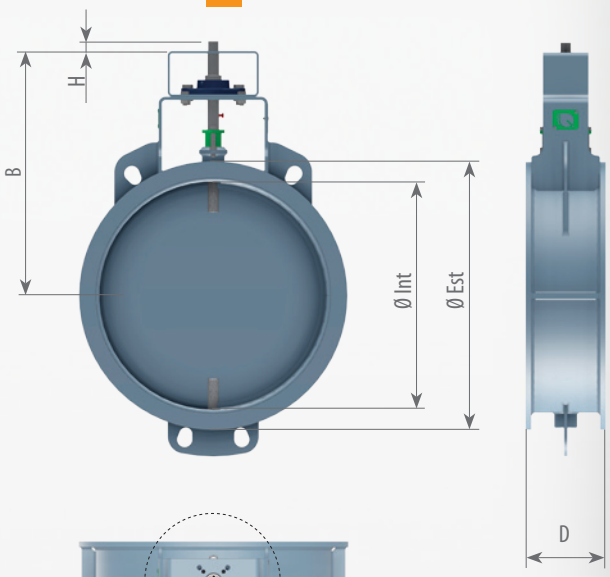
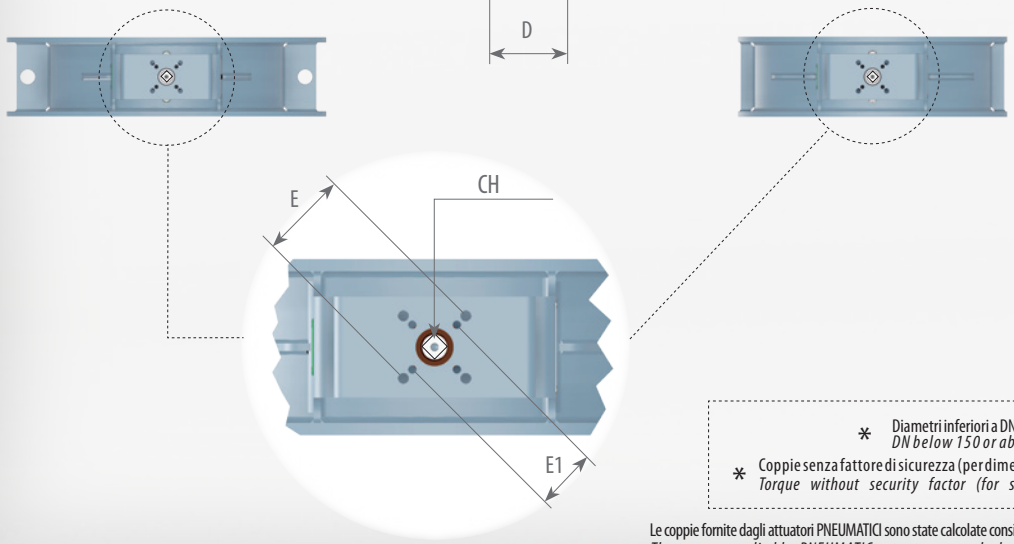
Flanged



Wafer





* Diametri inferiori a DN 150 o superiori a DN 1500 su richiesta .
DN below 150 or above 1500 available upon request.

* Coppie senza fattore di sicurezza (per dimensionamento maggiorare del 40%).
Torque without security factor (for sizing calculate additional 40%).

Le coppie fornite dagli attuatori PNEUMATICI sono state calcolate considerando una pressione d'alimentazione di 5 bar.
The torque supplied by PNEUMATIC actuators are calculated assuming a supply pressure of 5 bar.

DN	PS MAX (bar)	Ø Int	Ø Est			D	B	CH	H	E	E1	WEIGHT		Max Torque (Nm)	Suggested Actuator	
			FLANGED PN6	FLANGED PN10	WAFER					ISO 5210	ISO 5210	FLANGED	WAFER		Double Acting	Single Acting
150	3	160	285		205	140	310	14	17	F07	F05	15	12	10	AM17.0	AM20.4
200	3	211	340		260	140	335	14	17	F07	F05	17,5	13,5	15	AM17.0	AM20.4
250	2	265	395		315	140	363	14	17	F07	F05	22	16	18	AM17.0	AM30.4
300	2	316	445		371	140	388	14	17	F07	F05	25	19	22	AM17.0	AM30.4
350	2	350	490	505	421	140	405	14	17	F07	F05	31	24,5	26	AM25.0	AM30.4
400	2	400	565		471	140	429	14	17	F07	F05	35	27,5	30	AM25.0	AM30.4
450	1	450	595	615	526	190	488	22	20	F10	F07	47	41	35	AM35.0	AM40.4
500	1	500	670		576	190	513	22	20	F10	F07	60	46	42	AM35.0	AM40.4
600	1	600	755	780	677	190	561	22	20	F10	F07	72	59	55	AM35.0	AM40.4
700	1	700	860	895	782	190	611	22	20	F10	F07	88	68	68	AM40.0	AM45.4
800	0,5	800	975	1015	888	190	661	22	20	F10	F07	110	82	77	AM40.0	AM45.4
900	0,5	900	1075	1115		240	803	27	25	F14	F12	138		89	AM50.0	AM55.4
1000	0,5	1000	1175	1230		240	853	27	25	F14	F12	151		104	AM50.0	AM55.4
1100	0,5	1100	1290	1335		240	903	27	25	F14	F12	164		124	AM50.0	AM55.4
1200	0,5	1200	1405	1445		240	953	27	25	F14	F12	196		144	AM50.0	AM55.4
1300	0,2	1300	1515	1560		240	1003	27	25	F14	F12	231		168	AM55.0	AM60.4
1400	0,2	1400	1560	1675		240	1053	27	25	F14	F12	270		192	AM55.0	AM60.4
1500	0,2	1500	1660	1795		240	1103	27	25	F14	F12	340		214	AM55.0	AM60.4

Viteria / Bolting
- Stainless Steel Grade A2

Supporto Cuscinetto
Bearing Support
- Ghisa / Cast Iron

Bracket
- Carbon Steel

Viteria / Bolting
- N°4 Stainless Steel Grade A2

Indicatore Meccanico Aperto-Chiuso
Open/Close mechanical indicator

Albero Superiore / Upper Shaft
- 316 SS

Viti con rondella e bullone
Bolts and washer
- Stainless Steel Grade A2

Viteria / Bolting
- Stainless Steel Grade A4

O'Ring
- EPDM
- NBR
- FKM
- Silicone

Premitreccia / Push Packing
- 304 SS

Targhetta / Name Plate

Lente / Disc
- Carbon Steel
- 304 SS
- 316 SS

Treccia di Tenuta / Packing Braid
- Grafite / Graphite
- PTFE

Supporto / Support
- 316 SS

Corpo / Body
- Carbon Steel
- 304 SS
- 316 SS

Albero Inferiore / Lower Shaft
- 316 SS

O'Ring
- EPDM
- NBR
- FKM
- Silicone

Viteria / Bolting
- Stainless Steel Grade A4

Targhetta / Name Plate

AMM tech

INDUSTRIAL VALVES

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CATALOGUE EDITION N°1