

AMM 731

SERIES 7

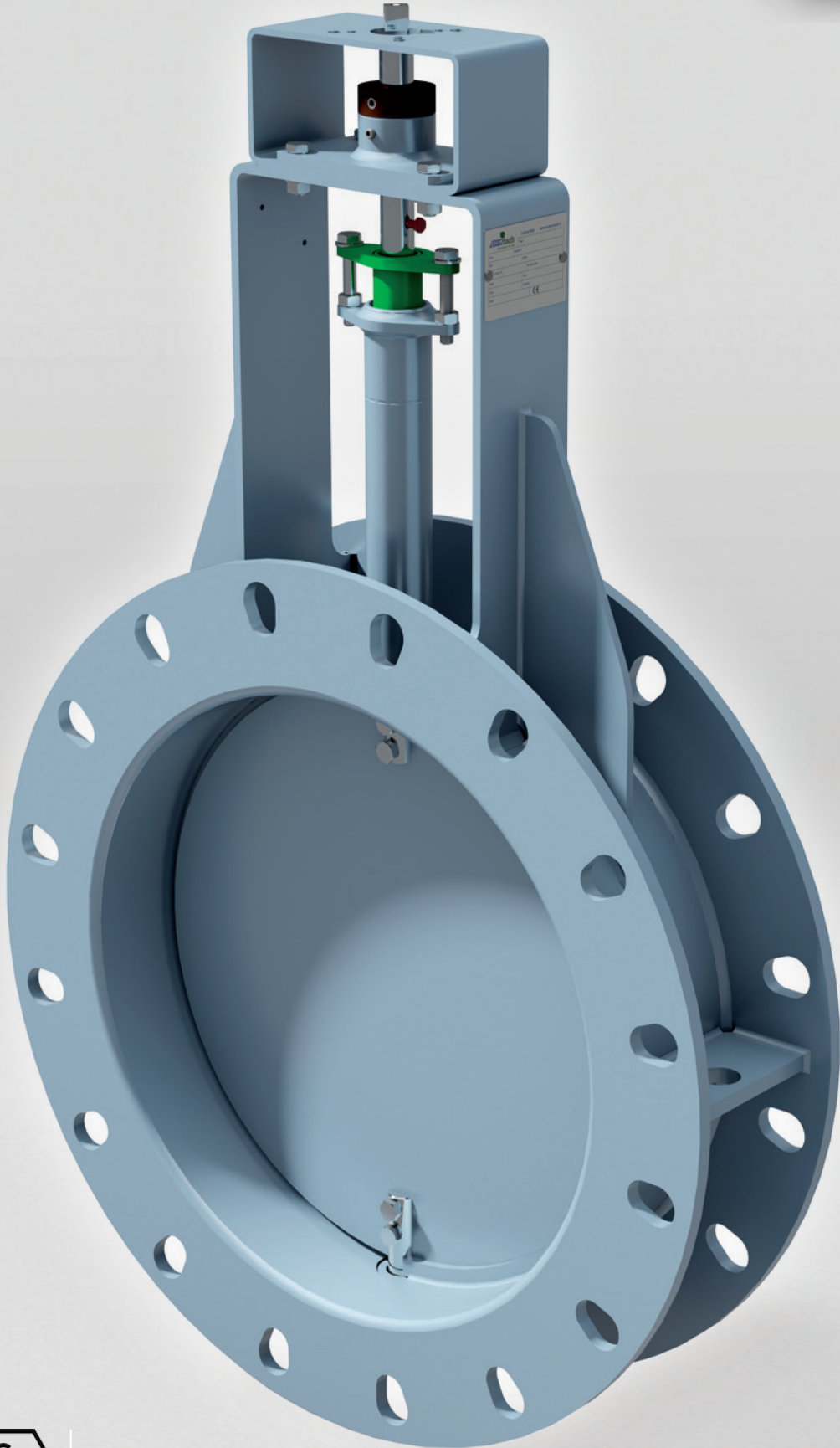


AMMtech
INDUSTRIAL VALVES



BUTTERFLY DAMPER VALVE

AMM 731



AMM 731

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 Petrochimica
- Impianti di Ventilazione e Condizionamento
- Impianti di Ossidazione termica e Rigenerativa

■ Condizioni d'esercizio

- **Massima temperatura d'esercizio: 600°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
- Supporti esterni
- Classe di tenuta: I, II e III secondo FCI 70-2 (ex ANSI B16.104)
- Manuali e motorizzate con attuazione pneumatica o elettrica
- Predisposta per coibentazione esterna 200 mm

■ Materiali

- Carbon Steel: S355JOWP – CORTEN A (Tmax <450°C)
- 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 alla 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 PS4_PHT
- Carbon Steel: RAL 9005 HT

■ 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

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BUTTERFLY DAMPER VALVE

■ Applications

- Fluids: Air, Gas and Fumes
- CHP and Incineration Plants
- Biomass and 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 600°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 Bushing
- Tightness Class I, II and III according to FCI 70-2 (ex ANSI B16.104)
- Operated by Handlever, Pneumatic or Electric Actuators
- Designed for Insulation 200 mm

■ Materials

- Carbon Steel: S355JOWP - CORTEN A (Tmax < 450°C)
- 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, ASMEB16.34
- 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 Directive PED 97/23/CE
- Declaration of Conformity in Compliance with Directive ATEX 94/9/CE
- Group II Category 3 for Zone 2 Gas and 22 Dust (II 3 GD)

■ Coating

- According to PSP00 Cycle PS4-PHT
- Carbon Steel: RAL 9005 HT silicon coating

■ Test

- According to AMMtech Quality Control Plan QCP00
- According to ANSI/FCI70-2-2006, 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 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

$$K_v = Q_n / 519 * [(p_g * T_1) / (\Delta p * p_2)]^{0.5} \quad (C_v = K_v / 0.8565)$$

where:

Q_n [m³/h] : Flow Rate of gas, related to 0 °C and 1013 mbar

p_g [kg/m³] : density of gases at 0 °C and 1013 mbar

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

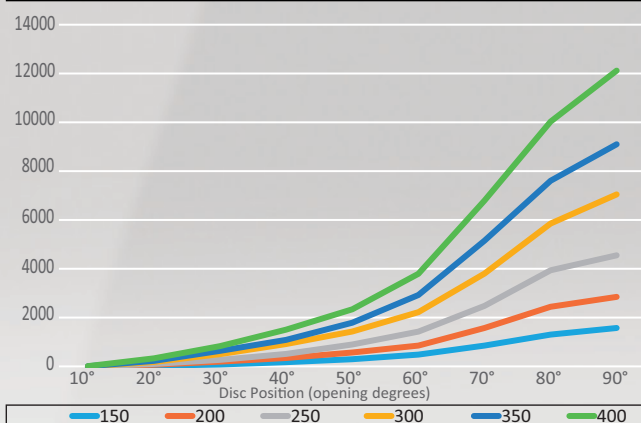
Δp [bar] : pressure drop in the valve

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

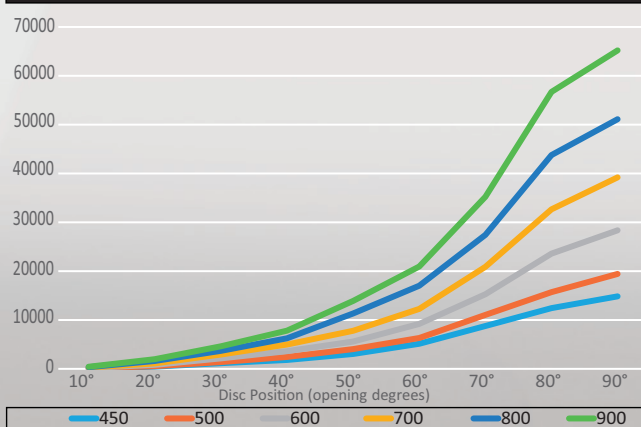
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BUTTERFLY DAMPER VALVE

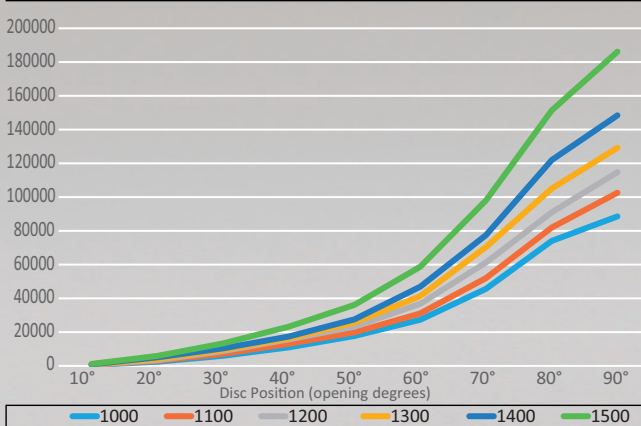
Flow Coefficient Kv DN 150 - DN 400



Flow Coefficient Kv DN 450 - DN 900

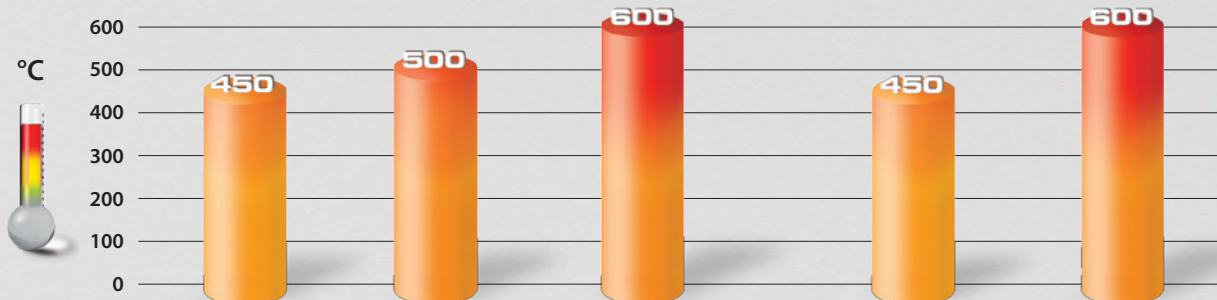


Flow Coefficient Kv DN 1000 - DN 1500



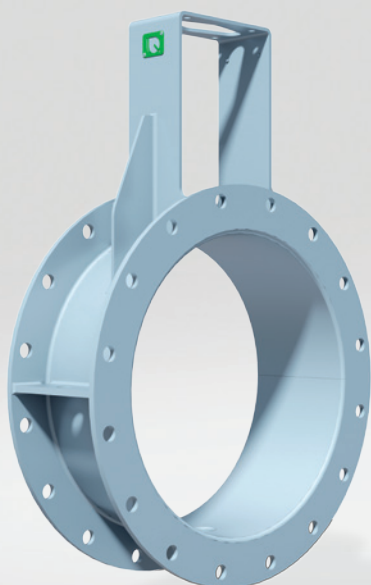
Body and disc material		
S355JOWP	AISI 304	AISI 316

Braid material for seat and packing	
Graphite	FiberGlass



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

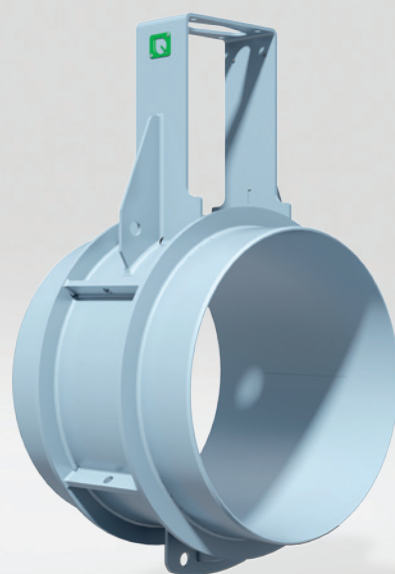
BODY STYLES



Flanged

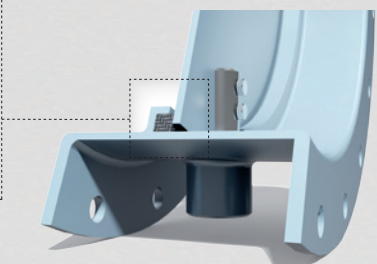
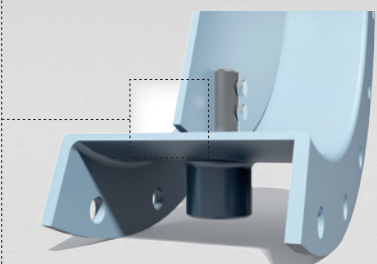
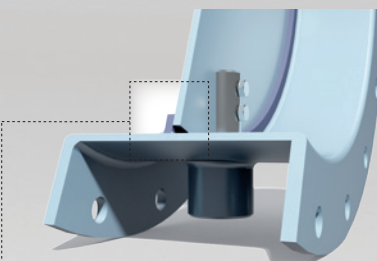
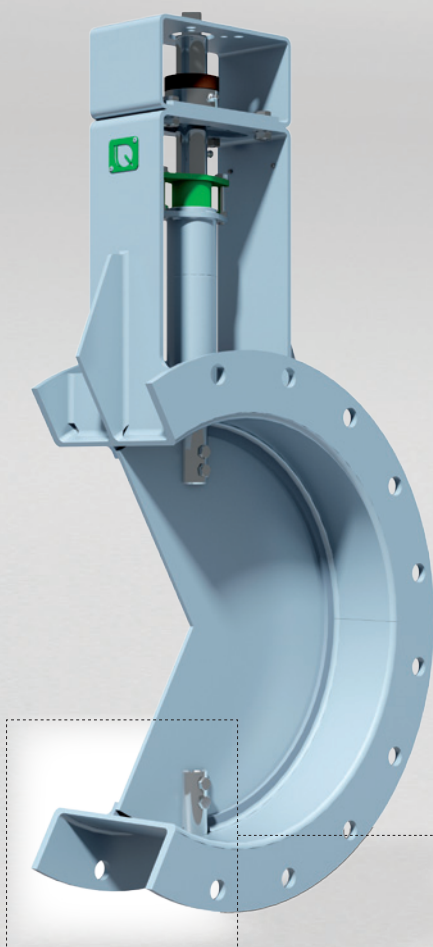


Wafer



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

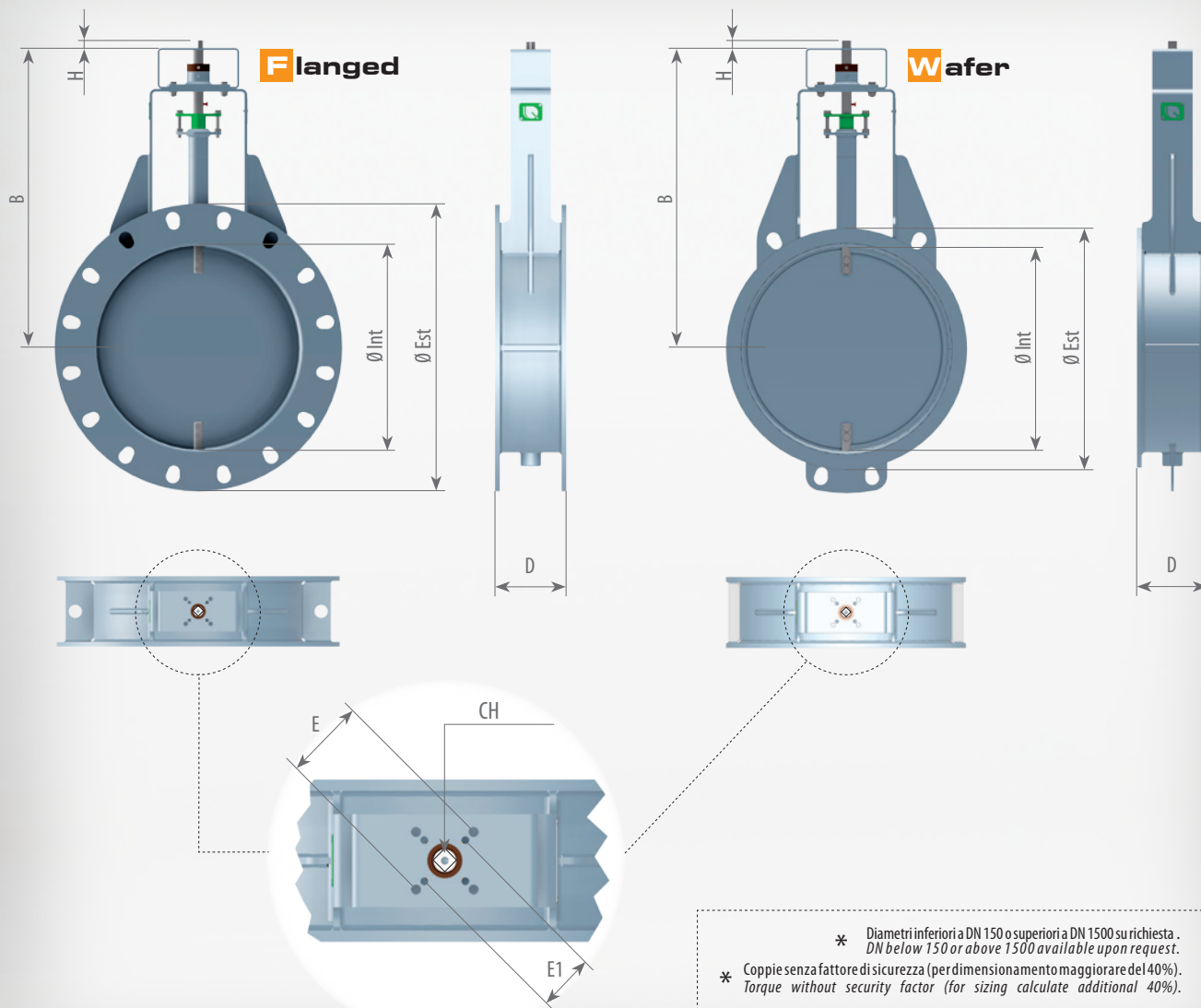
Senza battuta - No seat		
DN	CLASS	VALUE (FCI 70-2)
da 150 a 1500	I	Relative tightness
-	-	-
-	-	-

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



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* 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							FLANGED	WAFER		Double Acting	Single Acting
150	3	160	285		205	140	470	14	17	F07	F05	16	13	10	AM17.0	AM20.4
200	3	211	340		260	140	495	14	17	F07	F05	19	15	15	AM17.0	AM20.4
250	2	265	395		315	140	522	14	17	F07	F05	23	18	18	AM17.0	AM30.4
300	2	316	445		371	140	547	14	17	F07	F05	26	21	22	AM17.0	AM30.4
350	2	350	490	505	421	140	564	14	17	F07	F05	33	26	26	AM25.0	AM30.4
400	2	400	565		471	140	588	14	17	F07	F05	37	29	30	AM25.0	AM30.4
450	1	450	595	615	526	190	648	22	20	F10	F07	49	39	35	AM35.0	AM40.4
500	1	500	670		576	190	673	22	20	F10	F07	61	49	42	AM35.0	AM40.4
600	1	600	755	780	677	190	721	22	20	F10	F07	74	56	55	AM35.0	AM40.4
700	1	700	860	895	782	190	771	22	20	F10	F07	85	64	68	AM40.0	AM45.4
800	0,5	800	975	1015	888	190	821	22	20	F10	F07	112	85	77	AM40.0	AM45.4
900	0,5	900	1075	1115		240	963	27	25	F14	F12	134		89	AM50.0	AM55.4
1000	0,5	1000	1175	1230		240	1013	27	25	F14	F12	147		104	AM50.0	AM55.4
1100	0,5	1100	1290	1335		240	1063	27	25	F14	F12	160		124	AM50.0	AM55.4
1200	0,5	1200	1405	1445		240	1113	27	25	F14	F12	191		144	AM50.0	AM55.4
1300	0,2	1300	1515	1560		240	1163	27	25	F14	F12	226		168	AM55.0	AM60.4
1400	0,2	1400	1560	1675		240	1215	27	25	F14	F12	265		192	AM55.0	AM60.4
1500	0,2	1500	1660	1795		240	1265	27	25	F14	F12	335		214	AM55.0	AM60.4

AMMtech si riserva il diritto di apportare modifiche ai propri prodotti in qualunque momento / AMMtech reserves the right to make changes to its products at any time.

Bracket

- Acciaio al Carbonio / Carbon Steel

Viteria / Bolting

- N°4 Stainless Steel Grade A2

Viti con rondella e bullone

- Bolts and washer
- Stainless Steel Grade A2

Premitreccia / Push Packing

- 304 SS

Treccia di Tenuta / Packing Braid

- Grafite / Graphite
- Fibra di Vetro / Glass Fiber

Supporto / Support

- 316 SS

Corpo / Body

- S355JOWP (Corten A)
- 304 SS
- 316 SS

Bronzina / Bushing

- Bronzo
- Bronze

Supporto Bronzina

Bushing Support
- 304 SS

Indicatore Meccanico Aperto-Chiuso

Open/Close mechanical indicator

Albero Superiore / Upper Shaft

- 316 SS

Viteria / Bolting

- Stainless Steel Grade A4

Targhetta / Name Plate

Gasket

- Grafite / Graphite
- Fibra di vetro / Glass Fiber

Lente / Disc

- S355JOWP (Corten A)
- 304 SS
- 316 SS

Albero Inferiore / Lower Shaft

- 316 SS

Gasket

- Grafite / Graphite
- Fibra di vetro / Glass Fiber

Viteria / Bolting

- Stainless Steel Grade A4

Targhetta / Name Plate





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