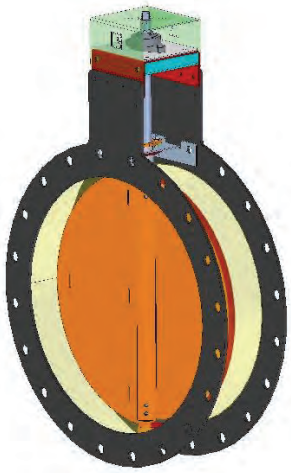


Valvola Damper 4BVG

Scheda Tecnica - *Technical Sheet*
Version 2.01- June 2019

Informazioni Generali

APPLICAZIONI

Esclusione regolazione flussi d'aria in impianti di condizionamento, ventilazione, ventilatori industriali impianti chimici, petrolchimici, cementifici, forni industriali settore navale, impianti depolverazione e filtrazione fumi acciaierie, macchine da stampa.

LIMITI D'IMPIEGO

Temperatura max. d'esercizio 600 °C
Fluidi Aria, Fumi, Gas

Modelli Pressione Standard:

Pressione max. esercizio 50'000 Pa fino a DN 350
Pressione max. esercizio 30'000 Pa da DN 400 a DN 1000
Pressione max. esercizio 20'000 Pa da DN 1100

Modelli Alta Pressione:

Pres. max. d'esercizio 50'000 Pa da DN 400 a DN 800

STANDARD NORMATIVI APPLICABILI

Valvola: UNI-EN12516-1, UNI-EN736-1, UNI-EN 736-2, UNI-EN736-3, UNI-EN1349, UNI-EN593, ATEX 2014/34/UE (modelli E-L)
Connessioni:UNI-EN-ISO1092-1, ASME 150 lb
Processi di saldatura:UNI-EN-ISO9606-1:2013, ASME sect.IX

General Information

APPLICATIONS

Gas flow regulation or exclusion in air conditioning plant, ventilation plant, industrial fan and blowers, chemical plant, oil & gas plant, cement plant, industrial oven, marine application, dedusting and gas filtration plant, steel plant, dryers.

WORKING LIMITS

Max working temperature 600 °C
Fluid: Air, Smoke, Gas

Standard Pressure Models:

Max working pressure 50'000 Pa up to DN 350
Max working pressure 30'000 Pa from DN 400 to DN 1000
Max working pressure 20'000 Pa from DN 1100

High Pressure Models:

Max working pres.50'000 Pa from DN 400 up to DN 800

APPLICABLE STANDARD

Valve: UNI-EN12516-1, UNI-EN736-1, UNI-EN 736-2, UNI-EN736-3, UNI-EN1349, UNI-EN593, ATEX 2014/34/UE (model E-L)
Connections:UNI-EN-ISO1092-1, ASME 150 lb
Welding process:UNI-EN-ISO9606-1:2013,ASME sect.IX

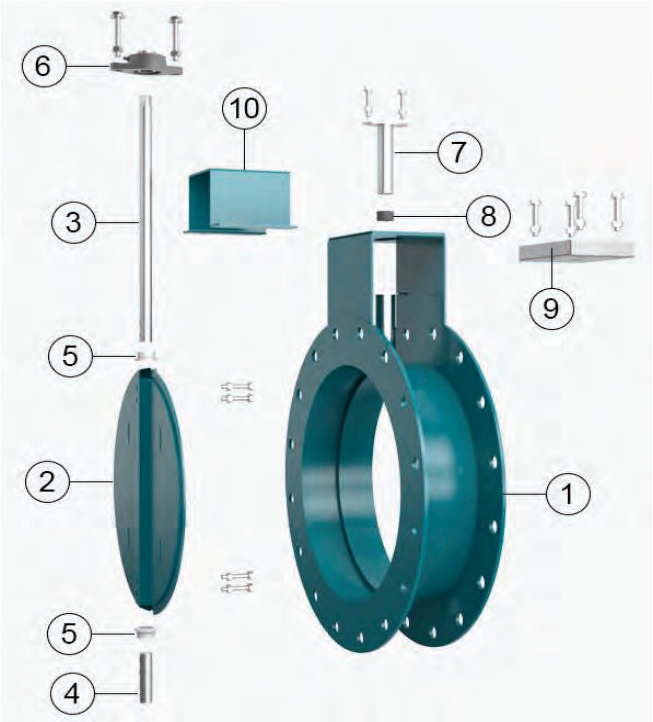
CARATTERISTICHE TECNICHE

Cassa e flange saldate, pala a ridotta resistenza aerodinamica, alberi imbullonati alla pala, tenuta sul disco metallo su metallo, tenute sui passaggi albero a premitreccia, diametri disponibili da DN-80 a DN-1600, esecuzione flangiata o wafer, foratura flange secondo PN-06, PN-10 oppure ASME 150 lb, supporti esterni in ghisa con cuscinetti, supporti interni su bussole.

TECHNICAL CHARACTERISTICS

Welded body and flanges, disc with low aerodynamic resistance, shaft bolted to the disc, disc seal metal on metal type, shaft seal stuffing box type, allowable diameter from DN-80 to DN-1600, double flange or wafer execution, flange drilling according to PN-06, PN-10 or ASME 150 lb, external support with roller bearing and grease nipple, internal support on bushes.

Caratteristiche Costruttive / *Construction Features*



1- **Corpo / *Body*:**
S-275-JR, Aisi-304, Corten-A, Aisi-316-L

2- **Disco / *Disc*:**
S-275-JR, Aisi-304, Corten-A, Aisi-316-L

3- **Perno superiore / *Upper shaft:***
Aisi-303, Aisi-316-L

4- **Perno inferiore / *Lower shaft:***
Fino a DN-600 da DN-700 come perno superiore
Up to DN-600 from DN-700 as upper shaft Aisi-303, Aisi-316-L

5- **Bussola / *Bush:***
Bronzo sinterizzato / *Sintered bronze*
Ceramica C520 / *Hi-tech ceramics*

6- **Sopporto e cuscinetto / *Support and bearing:***
Tipo UCFL Standard (T≤120°C) - Alta Temperatura (T>120°C)
UCFL Type: Standard (T≤120°C) - High Temperature (T>120°C)

7- **Premitreccia / *Stuffing box:***
Aisi-316-L

8- **Anelli di tenuta / *Shaft seal rings:***
Carbo-grafite / *Carbon graphite*

9- **Isolamento termico / *Thermal insulation*:**
Fibra ceramica / *Ceramic fibers*

10- **Base attuatore / *Actuator base:***
S-275-JR, Aisi-304, Corten-A, Aisi-316-L

Caratteristiche Costruttive Specifiche	*Specific Construction Features*
DN80 e DN100: Perno Passante diam.15mm con pala singola sp.4mm decentrata, imbullonata e saldata **da DN150 a DN250:** Perni superiore ed inferiore fresati diam.20mm con pala singola sp.6mm imbullonata e saldata **da DN300 a DN450:** Perni superiore ed inferiore diam.20mm con quadri di rinforzo e pale sp.3+3mm imbullonate e saldate **da DN500 a DN600:** Perni superiore ed inferiore diam.25mm con quadri di rinforzo e pale sp.4+4mm imbullonate e saldate **da DN700 a DN1000:** Perni superiore ed inferiore diam.35mm con quadri di rinforzo e pale sp.4+4mm imbullonate e saldate **da DN1100 a DN1600:** Perni superiore ed inferiore diam.40mm con quadri di rinforzo e pale sp.5+5mm imbullonate e saldate	**DN80 to DN100:** Through shaft diam. 15mm with 4mm thick single blade decentralized, bolted and welded **from DN150 to DN250:** Upper and lower milled shafts diam. 20mm with 6mm thick single blade bolted and welded **from DN300 to DN450:** Upper and lower shafts diam.20mm with reinforcing square and 3+3mm blades bolted and welded **from DN500 to DN600:** Upper and lower shafts diam.25mm with reinforcing square and 4+4mm blades bolted and welded **from DN700 to DN1000:** Upper and lower shafts diam.35mm with reinforcing square and 4+4mm blades bolted and welded **from DN1100 to DN1600:** Upper and lower shafts diam.40mm with reinforcing square and 5+5mm blades bolted and welded
MODELLI COSTRUITTIVI DISPONIBILI	*CONSTRUCTION TYPES AVAILABLE*
4BVGAX e 4BVGFX - Versione costruttiva N Standard Condizioni Operative:Temp. MAX design +120 °C Materiali Costruttivi: • Corpo, flange, pala, battute e selle di supporto in S275 JR • Perni in AISI 303 con tenute a baderna • Supporti cuscinetto Standard • Boccola inferiore perni diam.15, 20 e 25mm in Bronzo Trattamenti Superficiali: Standard V – RAL 5009	**4BVGAX and 4BVGFX - Construction version N Std** Operational Limits: MAX design temperature +120 °C Construction Materials: • Body, flanges, disc, stops and support in S275JR • Shaft in AISI 303 with stuffing box • Standard flanged bearings • Lower bushing shaft diam.15, 20 and 25mm in Bronze Surface treatments: Standard V – RAL 5009

4BVGA4 e 4BVGF4 - Versione costruttiva N AISI 304

Condizioni Operative: Temperatura MAX di design +120 °C

Materiali Costruttivi:

- Corpo, flange, pala, battute e selle di supporto in AISI 304
- Perni in AISI 303 con tenute a baderna
- Supporti cuscinetto Standard
- Boccola inferiore perni diam.15, 20 e 25mm in Bronzo

Trattamenti Superficiali: Standard P - AISI decapato

4BVGA4 and 4BVGFA – Constr. version N AISI 304

Operational Limits: MAX design temperature +120 °C

Construction Materials:

- Body, flanges, disc, stops and support in AISI 304
- Shaft in AISI 303 with stuffing box
- Standard flanged bearings
- Lower bushing shaft diam.15, 20 and 25mm in Bronze

Surface treatments: Standard P - AISI pickled

4BVGEX e 4BVGLX - Versione costruttiva ATEX

Condizioni Operative: Temp. MAX di design +350 °C

Materiali Costruttivi:

- Corpo, flange, pala, battute e supporto S275 JR
- Battute pala su profilo in Ottone
- Perni in AISI 303 con tenute a baderna
- Supporti cuscinetto Alte Temperature con foglio isolante sp.3mm
- Boccola inferiore perni diam.15, 20 e 25mm in Ceramica

Trattamenti Superficiali: Standard T – Allum.Silic. RAL-9006

4BVGEX and 4BVGLX - Construction version ATEX

Operational Limits: MAX design temperature +350 °C

Construction Materials:

- Body, flanges, disc and support in S275JR
- Shovel stops on brass profile
- Shaft in AISI 303 with stuffing box
- High temperature flanged bearings with insulating sheet 3mm thick
- Lower bushing shaft diam.15, 20 and 25mm in Ceramic

Surface treatments: Standard T - Silicone Alum. Coating

4BVGBX e 4BVGGX - Versione costruttiva T350

Condizioni Operative: Temp. MAX di design+350 °C

Materiali Costruttivi:

- Corpo, flange, pala, battute e supporto in S275 JR
- Perni in AISI 303 con tenute a baderna
- Supporti cuscinetto Alte Temperature con foglio isolante sp.3mm
- Boccola inferiore perni diam.15, 20 e 25mm in Ceramica

Trattamenti Superficiali: Standard T – Allum.Silic. RAL-9006

4BVGBX and 4BVGGX - Construction version T350

Operational Limits: MAX design temperature +350 °C

Construction Materials:

- Body, flanges, disc and support in S275JR
- Shaft in AISI 303 with stuffing box
- High temperature flanged bearings with insulating sheet 3mm thick
- Lower bushing shaft diam.15, 20 and 25mm in Ceramic

Surface treatments: Standard T - Silicone Alum. Coating

4BVGCX e 4BVGHX - Versione costruttiva HT450

Condizioni Operative:Temp. MAX di design +450 °C
Materiali Costruttivi:

- Corpo, flange, pala, battute ,supporto in CORTEN-A
- Perni in AISI 316 con tenute a baderna
- Supporti cuscinetto Alte Temperature con foglio isolante sp.3mm
- Isolante termico di sp.25mm
- Boccola inferiore perni diam.15, 20 e 25mm in Ceramica

Trattamenti Superficiali: Standard T – Allum.Silic. RAL-9006

4BVGDX e 4BVGIX - Versione costruttiva HTT-600

Condizioni Operative:Temp. MAX di design +600 °C
Materiali Costruttivi:

- Corpo, flange, pala, battute e selle di supporto in AISI 316
- Perni in AISI 316 con tenute a baderna
- Supporti cuscinetto Alte Temperature con foglio isolante sp.3mm
- Isolante termico di sp.25mm
- Boccola inferiore perni diam.15, 20 e 25mm in Ceramica

Trattamenti Superficiali: Standard P – AISI decapato

4BVGCX and 4BVGHX - Construction version HT450

Operational Limits: MAX design temperature +450 °C
Construction Materials:

- Body, flanges, disc and support in CORTEN-A
- Shafts in AISI 316 with stuffing box
- High temperature flanged bearings with insulating sheet 3mm thick
- 25mm thick thermal insulation
- Lower bushing shaft diam.15, 20 and 25mm in Ceramic

Surface treatments: Standard T - Silicone Alum. Coating

4BVGDX and 4BVGIX - Construction version HTT600

Operational Limits: MAX design temperature +600 °C
Construction Materials:

- Body, flanges, disc and support in AISI 316
- Shafts in AISI 316 with stuffing box
- High temperature flanged bearings with insulating sheet 3mm thick
- 25mm thick thermal insulation
- Lower bushing shaft diam.15, 20 and 25mm in Ceramic

Surface treatments: Standard P - AISI pickled

V = Verniciatura leggera (per interno) / *light painting (indoor use)*			
Substrato/*Substrate*: Acciaio al Carbonio/ *Carbon steel*			
Temperature operative/*Operating temperature*: -30°C a/*to* 120°C			
Pretrattamento/ *Surface preparation*: Sabbiatura grado di pulizia Sa 2½ (ISO 8501-1), profilo di rugosità maggiore di 40 µm *Sandblasting degree of cleaning Sa 2½ (ISO 8501-1). Blast profile higher than 40 µm*			
Prodotto/*Product*:		Spessore/*Thickness*	Colore / *Colour*
Polyaspartic	INTERCURE 3240G	80 µm	Da specifica / *As specified*
DFT-Spessore Totale/*Final Thickness*		80 µm	

T = Alte Temperature (per interno) / *High temperatures (Indoor use only)*			
Substrato/*Substrate*: Acciaio al Carbonio/ *Carbon steel*			
Temperature operative/*Operating temperature*: fino a / *up to* +540°C			
Pretrattamento/ *Surface preparation*: Sabbiatura grado di pulizia Sa 2½ (ISO 8501-1), profilo di rugosità compreso tra 50-85 µm *Sandblasting degree of cleaning Sa 2½ (ISO 8501-1). Blast profile between 50-85 µm*			
Prodotto/*Product*:		Spessore/*Thickness*	Colore / *Colour*
Siliconic	INTERTHERM 50	25 µm	Aluminium[2]
Siliconic	INTERTHERM 50	25 µm	Aluminium[2]
DFT-Spessore Totale/*Final Thickness*		50 µm	

P = Decapaggio / *Pickling*		
Substrato/*Substrate*: Acciaio inox / *Stainless steel*		
Temperature operative/*Operating temperature*: N/A		
Pretrattamento/ *Surface preparation*: Sgrassaggio, risciacquo / *Degreasing, rinsing*		
Prodotto/*Product*:		Tempo immersione / *Immersion timing*
Pickling	WE DEK 10 L / WE DEK 100 GEL	>30'
Post trattamento / *Surface post treatment:* Risciacquo / *Rinsing*		

[2]*INTERTHERM 50 è disponibile solo nella colorazione Aluminium standard (~ RAL 9006).*

[2] *INTERTHERM 50 is available only in Aluminium standard color (~ RAL 9006).*