BUTTERFLY DAMPER VALVE

MEDIUM TEMPERATURE SERVICE

ARP INDUSTRY
VALVE TECHNOLOGY

TYPE CFM11

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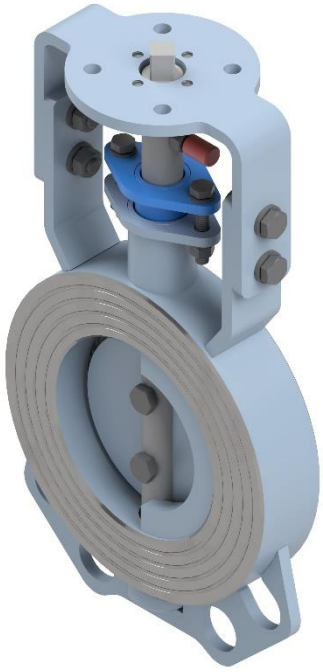


CFM11 bidirectional butterfly damper valves with controlled leakage are suitable for max. 600°C working temperature and low pressure. They are used extensively for gas isolation or control application.

The valve body is made from one solid piece and the blade is bolted to the shafts. They are lightweight and cost-effective, allows easy maintenance with replacement of push-packing and bushings. Mild steel or stainless-steel construction. The flange surface is machined, which allows for various degrees of surface finishing to ensure the best compatibility with any gasket, ensuring a high-quality seal.

The valve seat can be metal to metal or soft seat.
Leakage classes in compliance with ANSI FCI 70-2.

Actuation can be added to all sizes and flanges can be designed to suit customised requirements.
Shop tested for proper mechanical operation.

TECHNICAL CHARACTERISTICS:

- Diameter range DN50 ÷ DN150
- Max Temperature 600°C
- Max pressure 3 barg
- Interception or modulating service
- Designed for 50 mm insulation
- Max Leakage Class II (FCI 70-2)

MATERIALS:

- Body and blade:
  - Austenitic stainless steels
  - Carbon steel
- Shaft in austenitic stainless steel

SHAFT PACKING:

- Graphite Braid packing

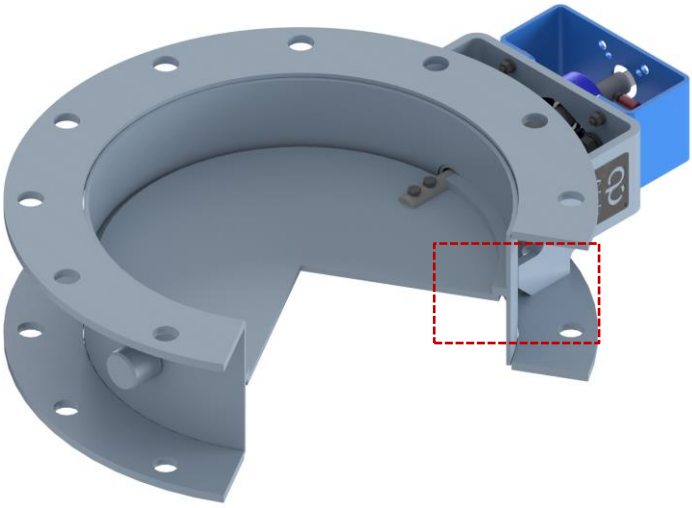
SEAT PACKING:

- No Seat
- Metal to Metal Seat
- Soft sealing with graphite braid

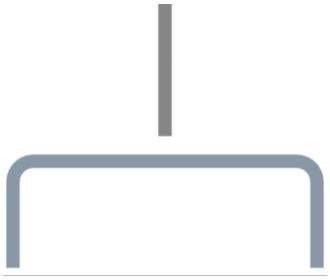
APPLICABLE STANDARD:

- Design EN 593, EN 12516, ASME B16.34
- Flanges EN 1092-1, ASME B16.5,
- Testing EN12266
- Top flange connections: EN ISO 5211

BLADE SEALING DESIGNS:

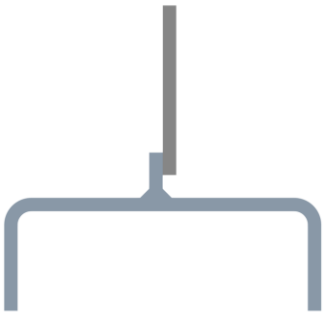


NO SEAT



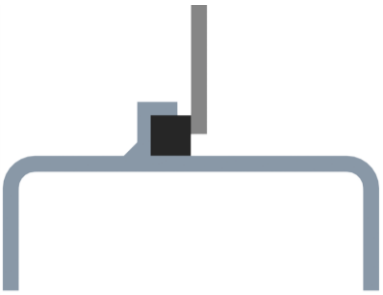
No contact between disc and valve body.
Relative tightness class I FCI 70-2.
Suitable when no specific tightness with closed disc is required.

METAL / METAL SEAT



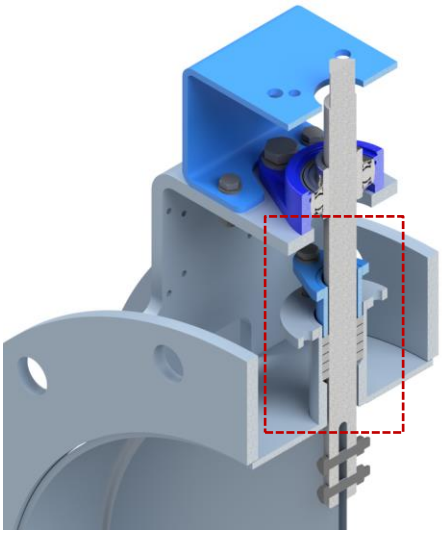
Metal seat with rigid rim between body and disc. This sealing option is widely used where a better shut off capability is required. It admits a percentage of leakage. Relative tightness class I FCI 70-2

SOFT SEALING

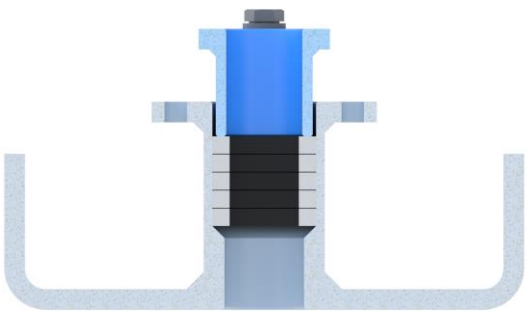


Soft gasket or braided seat between disc and valve body. It is designed to cater an improved tightness class requirement. Relative tightness class II FCI 70-2 (< 0,5% Kvs).

SHAFT SEALING:

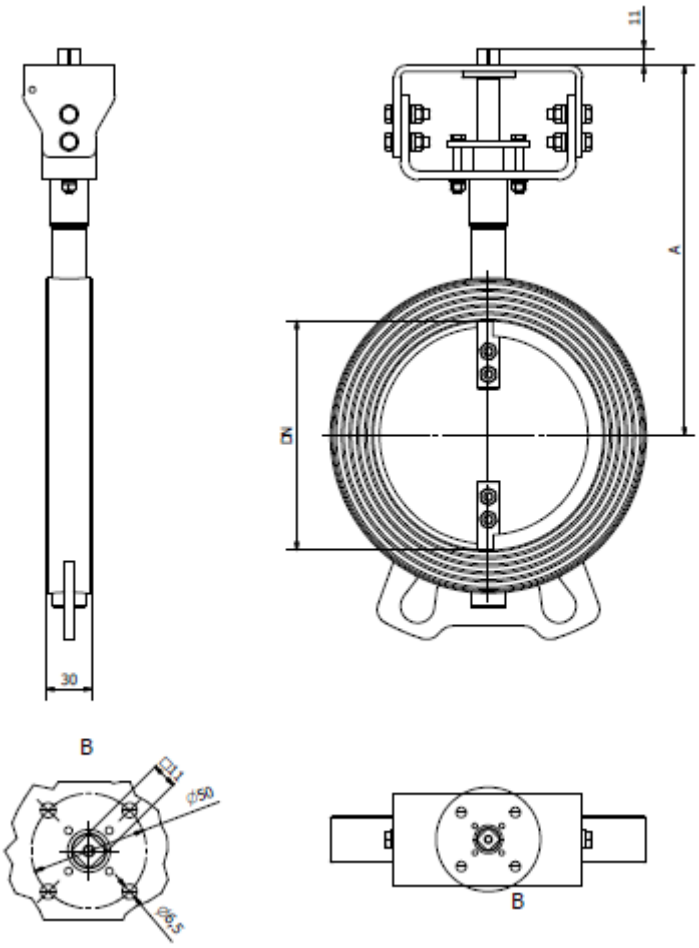


STANDARD BRAID PACKING CODE SS02



Seal tightness between the cover and the stem is achieved by pressing a push-packing to fill the existing gap.

DIMENSIONAL DRAWINGS Type CFM11:



DN		Ø Int	A	TOP FLANGE ISO 5211	WEIGHT kg	Max Press. [bar]	Torque +40% [Nm]
mm	inch						
50	*2*	*50*	*188*	*F05*	*3,5*	*3*	***4***
65	*2,5*	*65*	*195*	*F05*	*4,0*	*3*	***6***
80	*3*	*80*	*208*	*F05*	*4,5*	*3*	***8***
100	*4*	*100*	*218*	*F05*	*5,0*	*3*	***10***
125	*5*	*125*	*230*	*F05*	*6,0*	*3*	***12***

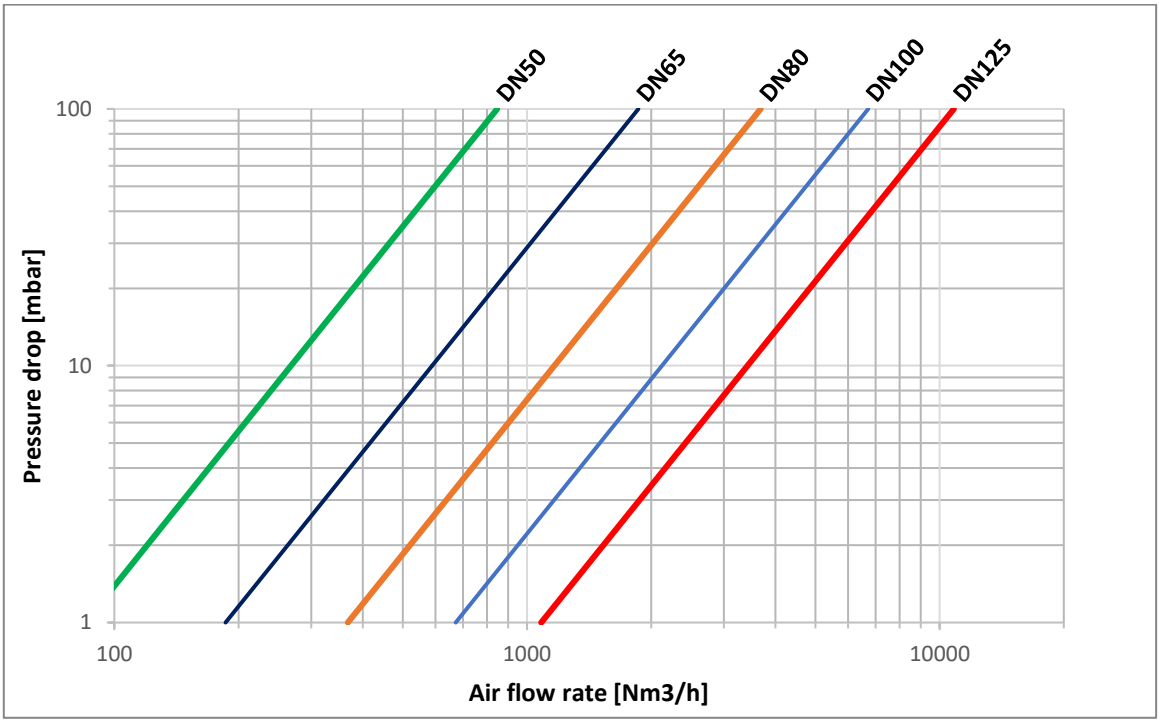
*ARP INDUSTRY reserves the right to make changes to its products at any time

* Other diameters available upon request

FLOW COEFFICIENT (Kv VALUE) Type CFM11:

		OPENING ANGLE								
DN	**NPS**	**90°**	**80°**	**70°**	**60°**	**50°**	**40°**	**30°**	**20°**	**10°**
50	2"	100	85	60	38	24	14	8	4	1
65	2.1/2"	219	187	132	85	54	31	17	8	2
80	3"	434	370	262	167	107	62	33	16	3
100	4"	791	674	477	305	194	114	61	29	5
125	5"	1276	1087	770	491	313	183	98	47	9

Flow rate of air at 20°C and atmospheric downstream pressure (P_2):



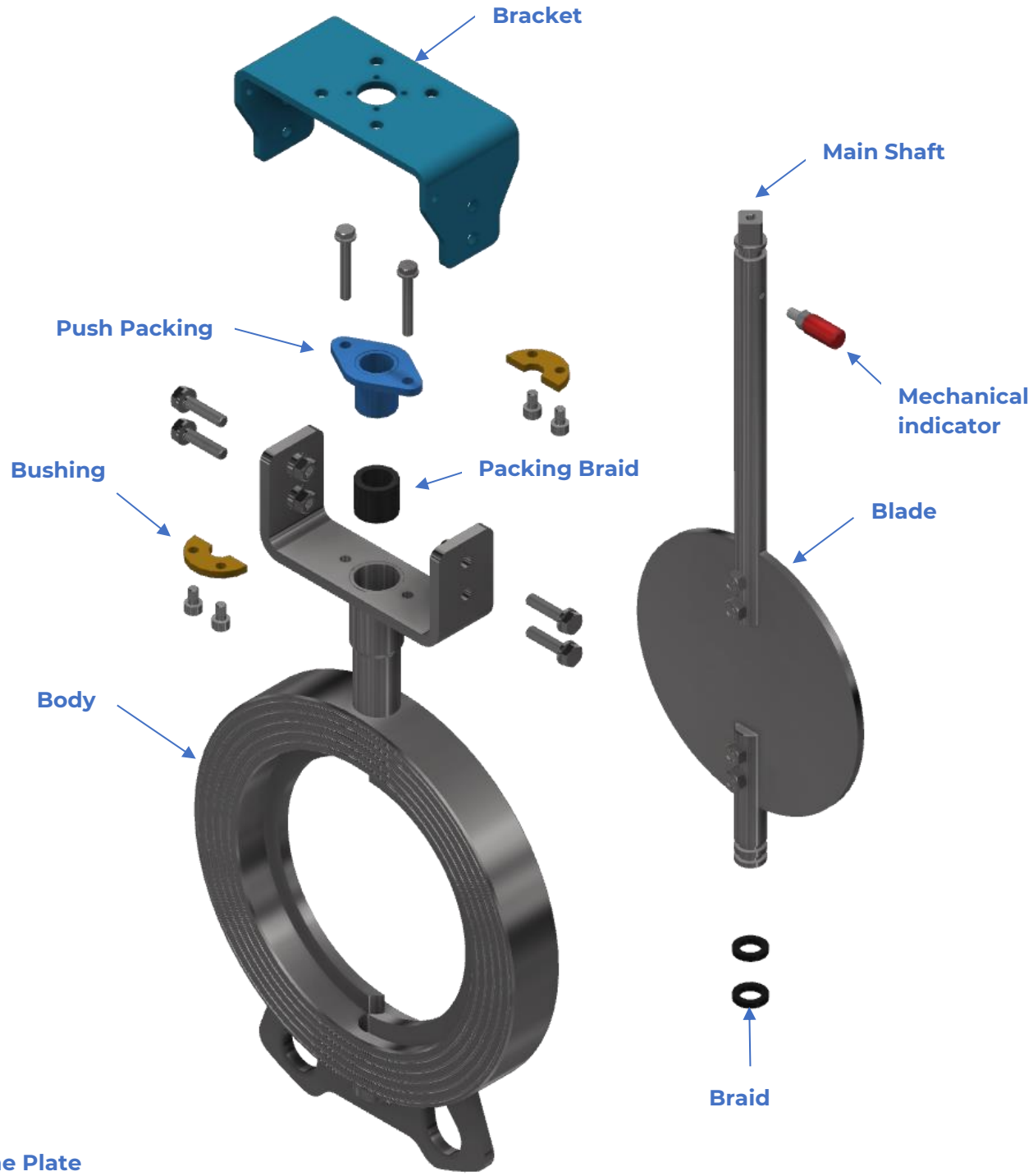
The pressure drop across the valve can be calculated with the following formula:

$$\Delta p = \frac{Q_N^2 \cdot S.G._N \cdot T_1}{Kv^2 \cdot 457^2 \cdot p_2}$$ (Valid for $P_2 >= P_1/2$)

Q_N [Nm^3/h] is the volumetric flow
Kv is the flow coefficient for a given disc position
$S.G._N$ is the specific gravity of the gas (relative to air)

P1 [bar] is the fluid absolute upstream pressure
p_2 [bar] is the fluid absolute downstream pressure
T_1 [K] is the fluid absolute temperature at the valve inlet

EXPLODED VIEW Type CFM11:



Name Plate

ARP INDUSTRY VALVE TECHNOLOGY	www.arpindustry.com
	YEAR:
TYPE:	DN:
SERIAL NUMBER:	
END CONNECTION:	
Max Ts [°C]:	Max Ps [barg]:
BODY:	DISC:
SHAFT:	SEAT:
PUSH PACKING:	
TAG:	CE

CONTACT

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