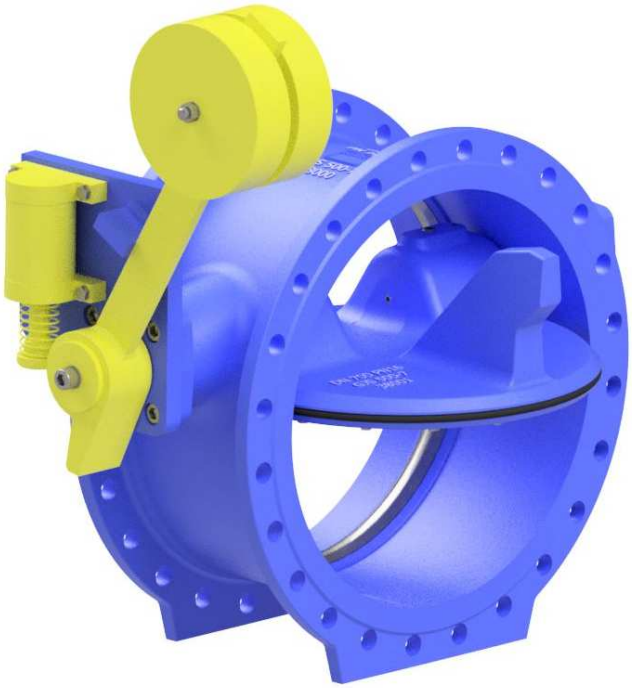
PROTECTION VALVES DN 150 - 1400		21/11/2019
		EAPFAEURSTDLA00

EUROSTOP NON RETURN BUTTERLY VALVE



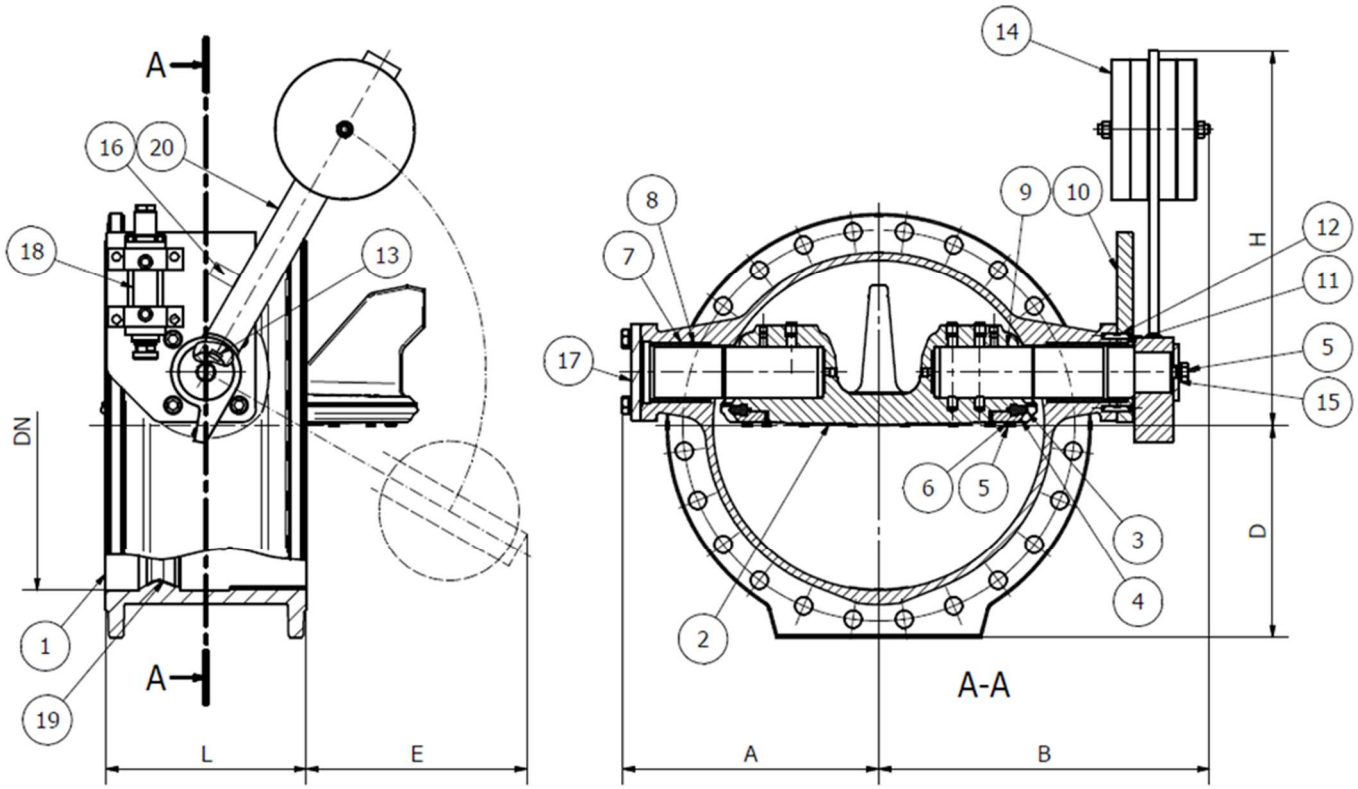
Application

The non-return butterfly valve PAM is designed to equip, supply hydraulic networks and pumping stations. Of robust construction, it is generally installed on the pumps line; with the stopping of the pumps, it retains the water column automatically.
The non-return butterfly valve Saint-Gobain PAM is characterized by a butterfly rocking and a flanged body with stainless steel seat. It opens under the action of the positive flow and is adjusted with a degree of opening corresponding to the rate of the flow. When the flow is reversed, the closure is guaranteed by a counterweight and a shock absorber is provided for the final closing stage.
These characteristics guarantee a fast closing and without shock.

Range

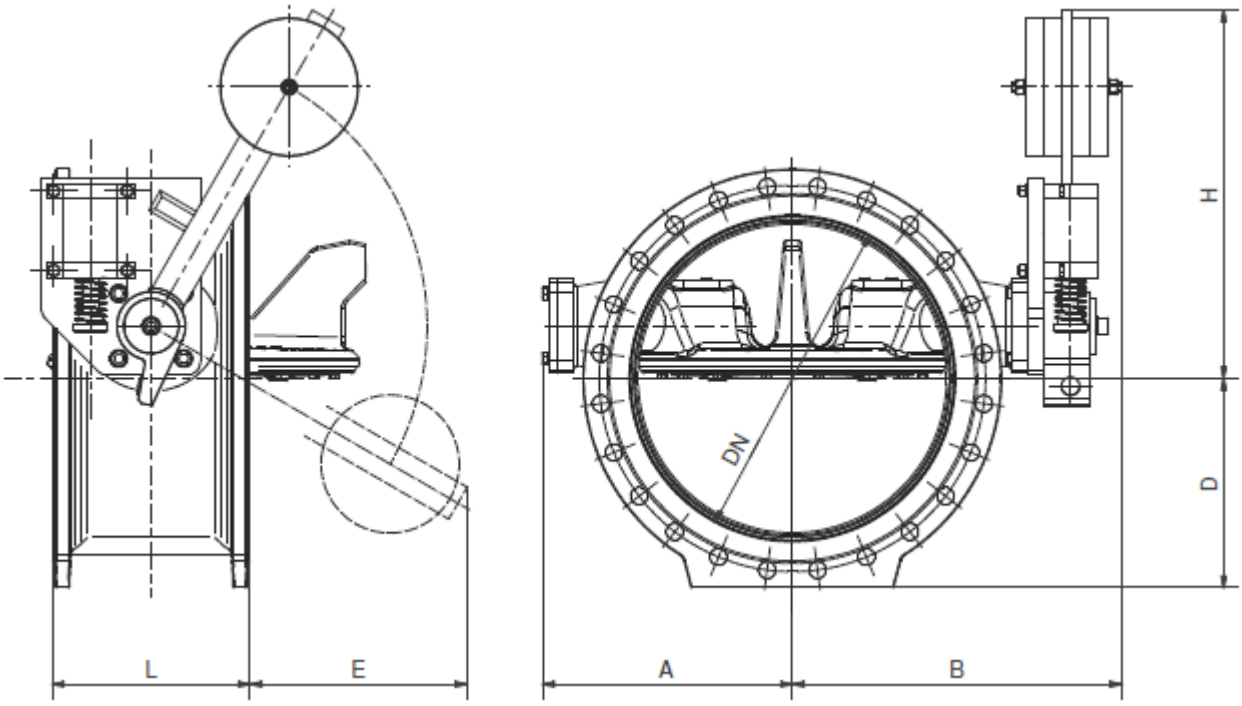
DN150 to 1400 in P10 or PN16

Material and coating



Item	Denomination	Material	Coating
1	Body	Ductile iron EN 1563 EN-GJS-500-7	Epoxy thickness 250 microns
2	Disc		
3	Sealing ring	EPDM	-
4	Retaining ring	Carbon steel EN 10025 S235JR	Epoxy thickness 250 microns
5	Screw	Stainless Steel A2	-
6	Washer	Stainless Steel	-
7	Bush	Bronze EN1982 CuSn12	-
8	O-ring	EPDM	-
9	Shaft	Stainless steel EN10088 X30Cr13	-
10	Plate	Carbon steel EN 10025 S235JR	Epoxy thickness 250 microns
11	Bush	Bronze EN1982 CuSn5Zn5Pb5	-
12	Pin	Spring steel	-
13	Feather key	Carbon steel EN 10083 C40E	-
14	Counterweight	Carbon steel EN 10025 S235JR	Epoxy thickness 250 microns
15	Washer	Stainless Steel	-
16	Stop block	Carbon steel EN 10025 S235JR	Epoxy thickness 250 microns
17	Rear cover	Carbon steel EN 10025 S235JR	Epoxy thickness 250 microns
18	Brake	-	Epoxy thickness 250 microns
19	Seat ring	Stainless steel EN 10088 X2CrNiMo17-12-2	-
20	Lever	Carbon steel EN 10025 S235JR	Epoxy thickness 250 microns

Dimensions and mass



DN	L	A	B	D	H	E	Mass
mm	*mm*	*mm*	*mm*	*mm*	*mm*	*mm*	*kg*
150	210	175	225	143	240	113	48
200	230	205	245	170	250	103	65
250	250	235	300	203	460	294	115
300	270	260	325	230	470	285	139
350	290	290	350	260	475	273	170
400	310	315	380	290	480	260	210
450	330	390	495	320	490	302	250
500	350	395	500	358	500	243	310
600	390	450	595	420	520	225	440
700	430	543	717	455	801	472	730
800	470	580	670	513	810	445	923
900	510	660	805	563	845	444	1336
1000	550	710	805	628	850	413	1616
1200	630	850	1000	743	900	422	2640
1400	710	1000	1100	843	1030	450	3700

Applicable Standards

Hydraulic test

Every single butterfly valve is subjected to hydraulic final test with the purpose of verifying the accordance with the prescriptions ISO 5208:

- Body test at 1,5 time the PFA (open valve);
- Seat test at 1,1 time the PFA (closed valve).

Product test

- Control of manoeuvre torque (MOT and mST) as defined in the EN1074
- Control of coating: test of thickness, holiday test, impact test, MIBK test

Conformity to the standards

Product:

- EN 1074 – 1 and 3
- EN 593
- ISO 10631

Plant test:

- ISO 5208

Flanges dimension:

- ISO 5752 series 14

Flanges drilling:

- EN 1092-2
- ISO 7005-2

Suitability for potable water:

- Italian CM 102 of 02/12/78
- Conformity to foreign norms: KTW (Germany), WRC (U.K.), ACS (France)

Marking

On the body like EN19:

- Nominal diameter in mm (DN);
- Nominal pressure in bar (PN);
- Type of ductile iron;
- Manufacturer’s logo;

- Model code;
- Fusion date.

On the label like EN19:

- Nominal diameter in mm (DN);
- Nominal pressure in bar (PN);
- Maximum operating pressure (PFA);
- Closing direction;
- Model code;
- Manufacturing order, Order confirmation;
- Manufacturer's logo.

On the disc:

- Nominal diameter in mm (DN);
- Nominal pressure in bar (PN);
- Type of ductile iron;
- Manufacturer's logo;
- Model code.

The marking of the valves manufactured by Saint-Gobain refers to the EN 1074-2 and EN 19 international standards.

Markings are either integral markings, cast in the body, or markings made on plates, securely fixed to the body, in accordance with the EN 19 standard specifications.

Specifications EN19			Saint-Gobain valves process
Table1–Valve markings		Requirements	
1	DN	EN 19 § 4.2.1 Mandatory markings Shall be integral markings or on a marking plate	Integral
2	PN		Integral
3	Material		Integral
4	Manufacturer's name or trade mark		Plate
11	Reference to Standard	EN 19 § 4.3 Supplementary markings Items 7 to 21 in Table 1 are optional	Integral
12	Melt identification		Integral
16	Quality test		Printed on body
18	Manufacturing date		Plate
21	Closing direction		Plate + sticker on body

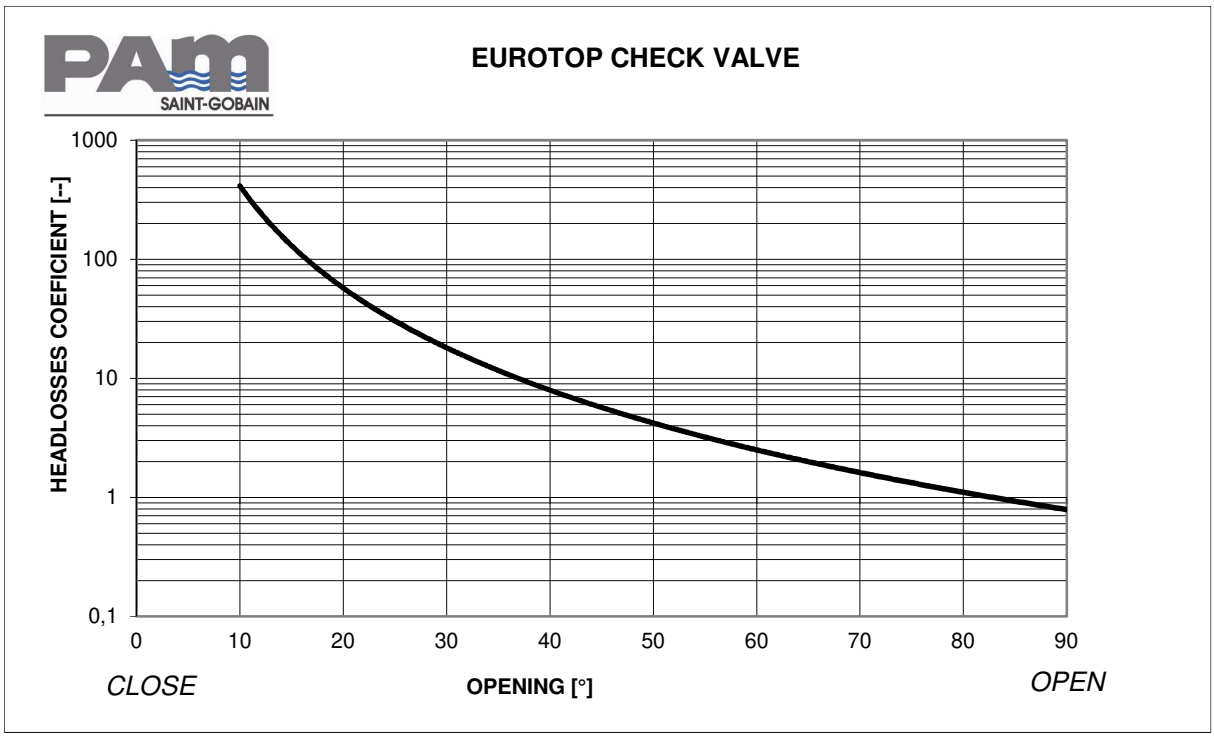
Hydraulic features

The head loss Δh are variable in function of valve open degree and can be calculated with the following expression:

$$\Delta h = \frac{\zeta . v^2}{2.g}$$

with Δh = head loss (m), ζ = head loss coefficient (dimensional), v = nominal speed (m/s), g = 9,81 (m/s²)

The head loss coefficient can be estimated from this diagram:



Instructions for use

Storage

The valve will have to be held (if possible) in covered places, the most possible protected from the sun (maximum allowable temperature 70°C in accordance to EN 1074), from the rain and generally from the atmospheric agents. Moreover it will have to be avoided that the seal of the same air valves come to contact with powder or earth.

Installation

The butterfly valve check valve has to be installed with retaining ring mounted in the opposite way respect to the direction of flow rate to permit the substitution of gasket without dismounting the valve from pipeline and the proper closing under backflow. .

We recommend to insert a dismounting joint for the operation of maintenance.

Maintenance

The butterfly valve does not require a particular maintenance, all parts subjected to wear are perfectly auto-lubricating. In any case, if for a long time will be not used, it is necessary to evaluate the functioning of valve doing (at least one time for year) some manoeuvre of opening-closing.

All the maintenance operation have to be do after the total emptying of pipeline (no flow rate and pressure) to avoid every risk to the people during this operation.

In presence of particularly exercise condition or damage due to external cause, it will be necessary some maintenance operation. In this case the particular shape of EUROSTOP butterfly valve permits the simple gasket substitution without the dismounting of valve from pipeline (if the dismounting joint is present).

The technical features in this document are not contractual and can be changed without preliminary notification due to the continuous technical progress of product.