



## BUTTERFLY VALVE CAST IRON DN100-700, PN10-16



Butterfly valves are used in drinking water networks and water supply lines. Suitable for underground and surface installation. A rubber that provides sealing could be replaced without disassembling other parts. It can also be used with reducer and various actuators. Butterfly valves are used in to regulate water flow.

### 1. Purpose and technical characteristics of the product:

The butterfly valve consists of a body, valve, shaft, axle and other parts. The valve is fixed to the shaft and to the axle which have a crescent-shaped connection in order to ensure the movement of the valve as a result of the rotation of the reducer. Due to the pre-adjustment of the reducer cycles, the valve can be used in angular as well as fully horizontal and fully vertical positions. Environment temperature  $T_{min}$  -10,  $T_{max}$  +50

### 2. Material standards:

Design; EN 558 / EN 593

Flange; EN 1092-2

Test; EN 12266-1,2,3 / EN 10002-1 / EN ISO 6506-1 / EN 10289 / EN 10339

Body; EN 1563 / EN GJS 400-15 / Oval graphite cast iron GGG40

Valves; EN 1563 / EN GJS 400-15 / Oval graphite cast iron GGG40

Flange; EN 1563 / EN GJS 400-15 / Oval graphite cast iron GGG40

Bolts and nuts; DIN934 / DIN933 / DIN912 / ГOCT 7798

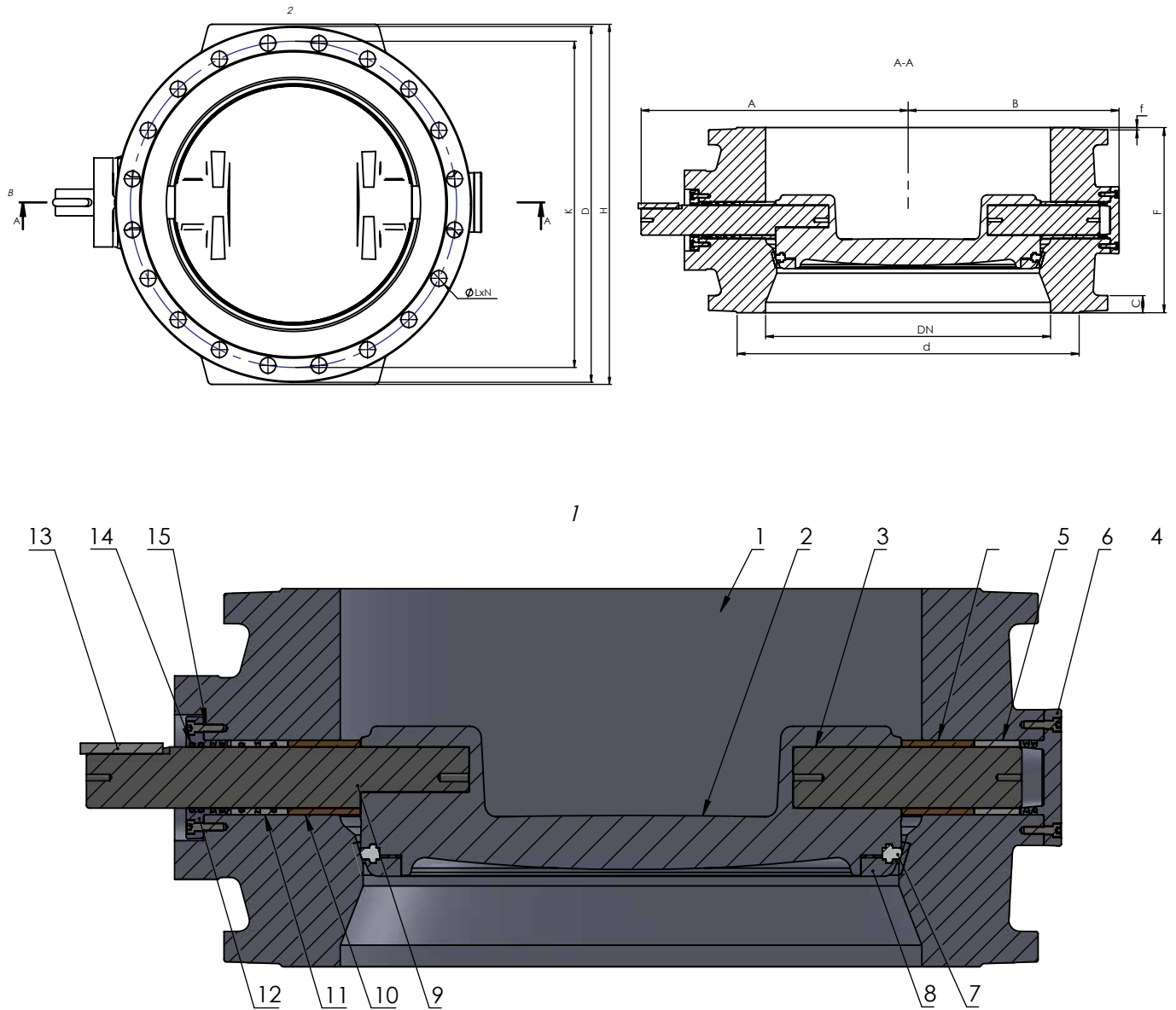
Coating; EN 10289 / EN 10339

Reducer; EN GJL 250, Gray cast iron IP 68, PN10 / 16, DN 600-1400



### 3. Basic technical information and features:

#### 3.1 External views and dimensions of connections





No	DETAIL	MATERIAL	QUANTITY
1	Main body	Cast iron GGG40	1
2	Valve (disc)	Cast iron GGG40	1
3	Axis	Steel X20Cr13	1
4	Bushing(axis)	Brass	1
5	Bushing(axis)	Polyamide	1
6	Cover Axis	Cast iron GGG40	1
7	Sealing rubber	EPDM	1
8	Pressure flange	Cast iron GGG40	1
9	Shaft	Steel X20Cr13	1
10	Bushing(shaft)	Brass	1
11	Bushing(shaft)	Polyamide	1
12	Cover Shaft	Cast iron GGG40	1
13	Key Joint	1.0503 (C45)	1
14	Sealing ring	EPDM	9
15	Bolt	Galvanized steel	-

DN	PN	F	H	D	d	C	f	K	N	L	A	B
100	10-16	190	230	220	156	19	3	180	8	19	156	102
150	10-16	210	295	285	211	19	3	240	8	23	186	135
200	10	230	350	340	266	20	3	295	8	23	235	163
200	16	230	350	340	266	20	3	295	12	23	235	163
250	10	250	410	400	319	22	3	350	12	23	283	193
250	16	250	410	400	319	22	3	355	12	28	283	193
300	10	270	465	455	370	24.5	4	400	12	23	332	239
300	16	270	465	455	370	24.5	4	410	12	28	332	239
350	10	290	515	505	429	24.5	4	460	16	23	389	276
350	16	290	530	520	429	26.5	4	470	16	28	389	276
400	10	310	575	565	480	24.5	4	515	16	28	417	303
400	16	310	590	580	480	28	4	525	16	31	417	303
450	10	330	625	615	530	25.5	4	565	20	28	453	336
450	16	330	650	640	548	30	4	585	20	31	453	336
500	10	350	680	670	582	26.5	4	620	20	28	488	369
500	16	350	725	715	609	31.5	4	650	20	34	488	369
600	10	390	790	780	682	30	5	725	20	31	562	444
600	16	390	850	840	720	36	5	770	20	37	562	444
700	10	430	905	895	794	32.5	5	840	24	31	500	623
700	16	430	920	910	794	39.5	5	840	24	37	500	623



#### 4. Description of the construction:

The body, valve, pressure flange, right and left covers of the butterfly valve cover are made of GGG40 cast iron that have high resistance in accordance with EN 1563 standard. In terms of the paint, it is coated with a "WRAS type" coating that has a high resistance against the external impacts and has a thermoplastic composition or an electrostatic "Epoxy" coating (depending on the customer's requirements). Flange standard is fully compliant with the requirements of EN 1092-2 standard. The steel bolts and nuts used are selected in accordance with EN 10088 1/2/3. The sealing rubbers meet the requirements of EN 681-1 and do not pose a threat to human life.

#### 5. Structure and working principles:

5.1 What should be done before installation :

-the pipeline must be cleaned of dirt, gravel, sand and debris remaining inside the pipe;  
-during installation, taking into account the weight of the valves, the flanges must be fixed either by means of a lifting crane or by means of a stabilizer other than the lower part to prevent the weight from falling on the bolts and crowns during installation.

5.2 Prior to mounting the bolts and nuts, the seals on the flanges must be fitted with gasket and then the bolts must be tightened.

5.3 Tightening of bolts shall be carried out in an "X" shape so that uneven compression does not occur and no bending of the bolts is observed.

5.4 After installation, the reducer should be moved to check if there is any problem regarding the rotation.

5.5 All processes must be carried out under the supervision of a specialist who has experience in the installation process and water systems.

5.6 A special care must be taken regarding the valves that are assembled with hand wheels in order to ensure that the height of the handwheel is equal to the level of the worker's belt for proper distribution of the clamping force.

5.7 It is forbidden to open or tighten the adjusting bolts on the reducer during installation or before installation. As a result, setting deviations in the closing and opening of the shut-off valve can be observed, and leakage is observed in the line. In such cases, please inform the supplier. If a breach is observed in any of the valves, then the supplier must be notified and the installation stopped.

#### 6. Safety instructions:

To ensure safe operation, water in the pipeline must be evacuated during installation or disassembly and water must be prevented. Otherwise, installation work must be prohibited.

#### 7. Storage information:

7.1 Prior to installation, the valves of the finished products must be kept open and covered with a protective cover to protect them from external impacts.

7.2 During long-term storage, the connection surfaces, sealing surfaces should be cleaned of dirt and dust, the rotation of the reducer and the operation of the system should be checked regularly.

#### 8. Shipping:

8.1 Valves that are fixed on pallets and packed with adhesive transparent nylon can be transported by vehicles on any pallet.

8.2 Unpacked transport is allowed, but it is recommended to remove the flywheel to avoid breaking.

#### 9. Warranty:

The equipment is certified. AZERTEKNOLAYN LLC offers consumers a warranty for two years from the date of commissioning by enforcing the rules of transport, storage, installation and operation (excluding climatic conditions, installation and user defects). The total service life of the butterfly valve is 10 years, excluding moving parts. In case of violation of installation rules, claims on the quality of the butterfly valve are not accepted.