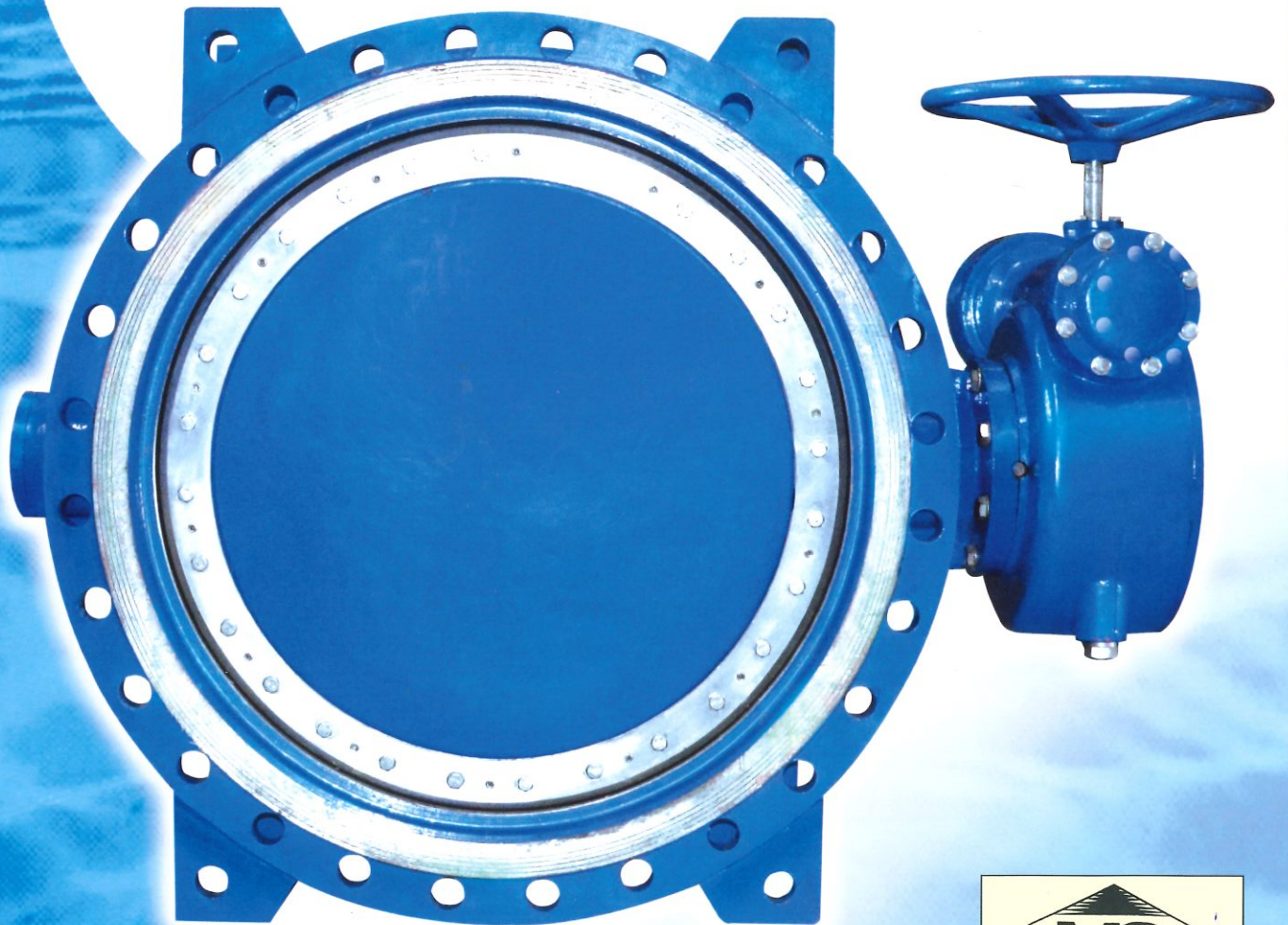




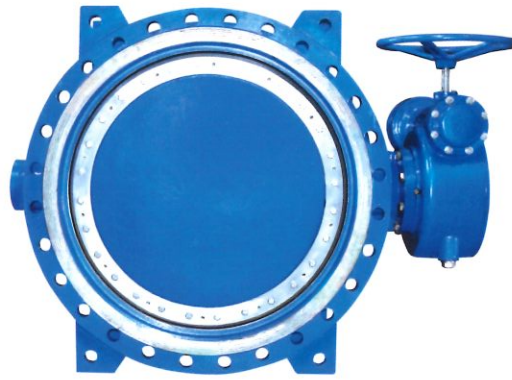
LYE DUCTILE IRON BUTTERFLY VALVE

TO BS EN 593



ISO 9001:2008 Certified

 SIRIM
CERTIFIED TO BSEN 593:2004 CERTIFICATION NO. PL018802



DUCTILE IRON BUTTERFLY VALVE

INTRODUCTION

Butterfly valve is design for waterworks in accordance with BS EN593 standard. Casted parts are made of selected materials with inherent strength and rigidity to withstand the pressure of fluids. The shaft and gears are also made of selected materials and machined to close tolerances. The opening and closing operation is very smooth and quick. The disc is of a stream line shape and so loss of water head at the full opening of the valve is minimized. A one-piece rubber seat-in-disc gives a reliable seal under long period of services.

SPECIFICATIONS

Nominal diameter	50 to 2,400mm
Type of Fluid	Water
Max. Working Pressure	16 bar
Flange Dimension *	BS EN 1092-2
Hydro-static Test	Body Pressure : 24 bar Disc Strength : 24 bar Seat Leakage : 17.6 bar

FEATURES

• Low Head Loss Characteristic

This butterfly valve is designed with large and effective passage by separation of shaft into upper and lower sections. The disc is of a streamline design of smooth surface with little resistance to flow.

• Sufficient Strength

Casted parts such as the valve body and disc are made of selected materials that meet the optimum requirement of the product. In addition, because of sufficient wall thickness, these components possess satisfactory strength and rigidity to withstand the pressure of fluids.

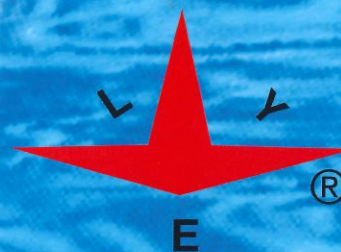
• Cost Saving

Extensive research and field test have resulted in enhance simplicity of design and dependability at low cost.

• Simplified Seat Construction

Resin for positioning rubber seat is injected and cured after fully closing of valve, thus unnecessary compression force is not imposed on rubber seat, minimising the amount of fatigue and attains high seal ability for long period and with little torque required. Durability has been confirmed by various performance tests. This seat is replaceable in the event that it is damaged unexpectedly.

N BUTTERFLY VALVE TO BS EN 593



OPERATION INSTRUCTIONS

In order to achieve full benefit from the optimum properties of LYE butterfly valves the following instructions must be followed.

1. Storage

During storage the disc should remain in its slightly opened position as supplied, to protect the sealing edge and the seat. The valve must be kept in clean environment and direct sunlight must be avoided. Sealing surface must be strictly protected from external effects and damage. Use silicone grease on rubber seal to prevent it from sticking to metal surface.

2. Installation and Dismantling

- Valve must be cleaned before installation.
- Pipeline flanges must be checked for parallel alignment.
- Use of dismantling joint is recommended for easy installation and removal.
- Valves can be installed independent of the direction of flow, but the preferred installation position is with the seat in the upstream position.
- Note the arrow on the valve body.
- Valve can be installed in any angular position (vertical or horizontal) taking the preferred position of the actuator into consideration.
- Fully closed position of the disc must be ensured before installation.
- Valve must never be removed while the pipeline is under pressure.

COATING

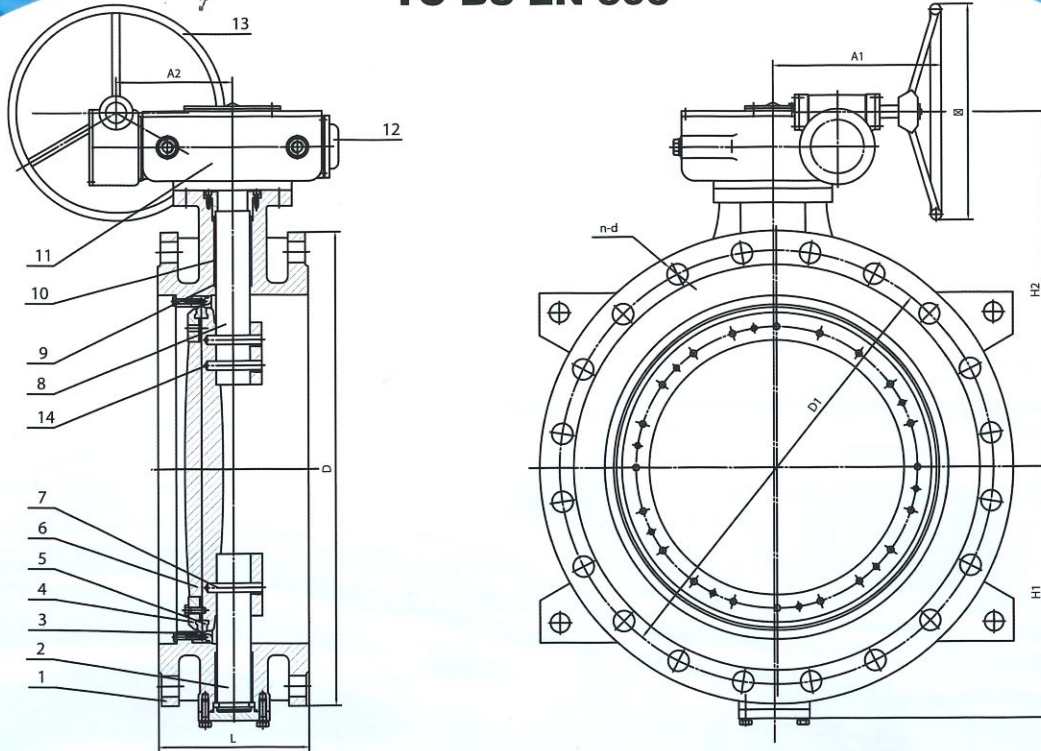
Standard coating is epoxy painting in blue color complying to BS6920.

BASIC MATERIALS

ITEM	COMPONENT	MATERIAL	BS REFERENCE	GRADE OR DESIGNATION
1	Body	Ductile Iron	BS EN 1563	500/7
2	Lower Shaft	Stainless Steel	BS 970	431S29
3	Seat	Stainless Steel	BS 970	321S31
4	Seat Retainer	Stainless Steel	BS 970	420S29
5	Seal-ring	Synthetic Rubber	BS EN 681	EPDM
6	Disc	Ductile Iron	BS EN 1563	500/7
7	Pin	Stainless Steel	BS 970	420S29
8	Upper Shaft	Stainless Steel	BS 970	431S29
9	O-ring	Synthetic Rubber	BS EN 681	EPDM
10	Bush	Bronze	BS 1400	CA 106
11	Actuator	Ductile Iron	BS EN 1563	500/7
12	Gear Case	Ductile Iron	BS EN 1563	500/7
13	Handwheel	Ductile Iron	BS EN 1563	500/7
14	Reamer Bolt & Nut	Stainless Steel	BS 970	321S31

LYE BUTTERFLY VALVE

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FLANGES DESIGNED AND DRILLED ACCORDING TO BS EN 1092-2 TABLE 9

Unit : mm

DN	Face-to-face Dimension		Outside Dia. D	Raise Face Dia. g	Bolt Holes			Bolt Designation M	Thickness		Height	
	L	±			D1	No.	d		t	f	H1	H2
50	108	1	165	99	125	4	19	M16	19	3	83	140
80	114	1	200	132	160	8	19	M16	19	3	100	160
100	127	1	220	156	180	8	19	M16	19	3	120	175
150	140	1	285	211	240	8	23	M20	19	3	160	240
200	152	1	340	266	295	12	23	M20	20	3	185	265
250	165	1	405	319	340	12	28	M24	22	3	215	295
300	178	1	455	370	410	12	28	M24	24.5	4	240	325
350	190	1	520	429	470	16	28	M24	26.5	4	270	360
400	216	2	580	480	525	16	31	M27	28.0	4	300	405
450	222	2	640	548	585	20	31	M27	30.0	4	340	465
500	229	2	715	609	650	20	34	M30	31.5	4	380	505
600	267	2	840	720	770	20	37	M33	36.0	5	450	590
700	292	2	910	794	840	24	37	M33	39.5	5	510	710
800	318	2	1025	901	950	24	41	M36	43.0	5	570	790
900	330	2	1125	1001	1050	28	41	M36	46.5	5	620	830
1000	410	3	1255	1112	1170	28	44	M39	50.0	5	710	910
1200	470	3	1485	1328	1390	32	50	M45	57.0	5	840	1095
1400	530	3	1685	1530	1590	36	50	M45	60.0	5	970	1155
1600	600	3	1930	1750	1820	40	57	M52	65	5	1075	1400
1800	670	4	2130	1950	2020	44	57	M52	70	5	1260	1700
2000	760	4	2345	2150	2230	48	62	M56	75	5	1410	1850
2200	800	4	2555	2370	2440	52	62	M56	80	6	1530	1980
2400	850	5	2765	2570	2650	56	62	M56	85	6	1670	2100



LYE MANUFACTURING SDN. BHD. (32836-H)

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