

# Lug Style Butterfly Valve Type 038



## General

- Size: 2"–24"
- Outer body: Ductile Cast Iron
- Disc: Ductile cast iron Rilsan/epoxy-coated, Stainless steel, Aluminum Bronze
- Seals: EPDM, FKM
- Pressure ratings: PN10/16
- Connection: ANSI B16.5, DIN 2501, and EN 1092-1

## Optional Features

- Actuation: Electric, pneumatic
- Limit Switches: Mechanical, inductive
- Shaft: Titanium, Hastelloy-C
- Operation: Chain operator, square operating nut
- Gear Operator: Stainless steel housing
- Connection: DIN 2501
- Hardware: Alternatives available upon request

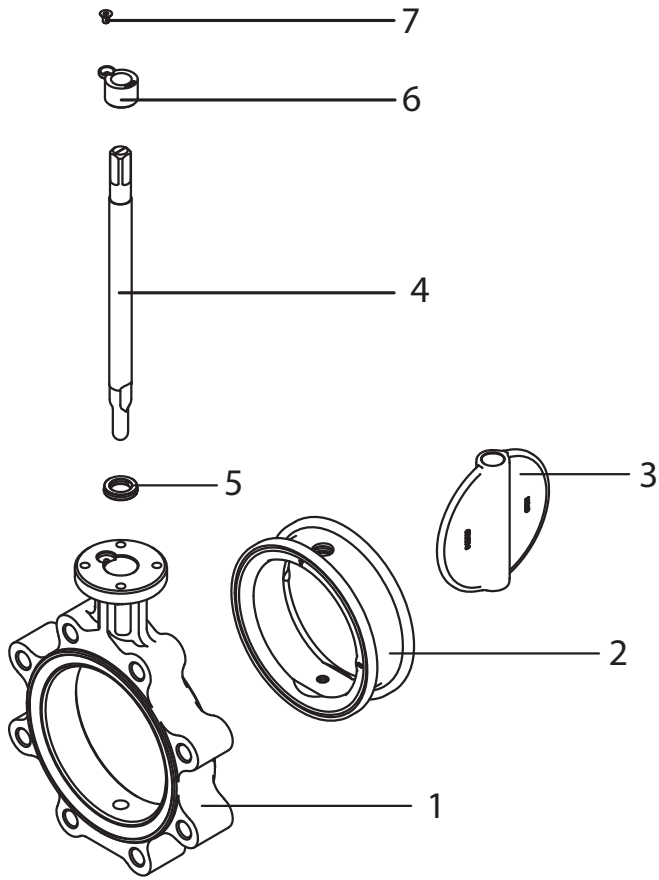
## Sample Specification

The Type 038 Butterfly Valve shall be lug style and universally used. The disk operation shall utilize double eccentric design principles. The shaft shall be non-wetted by a bushing assembly with double O-ring seals and fixed at both ends. The face, disk and shaft seals shall operate independently. All valves shall be tested in accordance to ISO 9393 and designed to ISO16136 standards. All valves shall be manufactured under ISO9001 for quality and ISO14001 for Environmental Management. Following assembly every valve shall be tested and certified bubble tight exceeding Class VI standards.

## Key Certifications

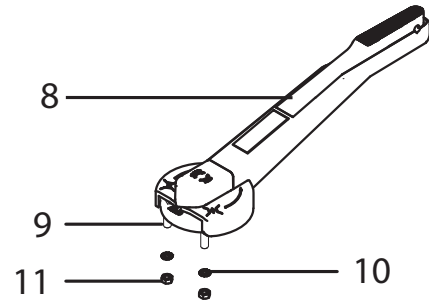
- KTW W270
- DVGW
- WRAS

# Components



## Valve Components

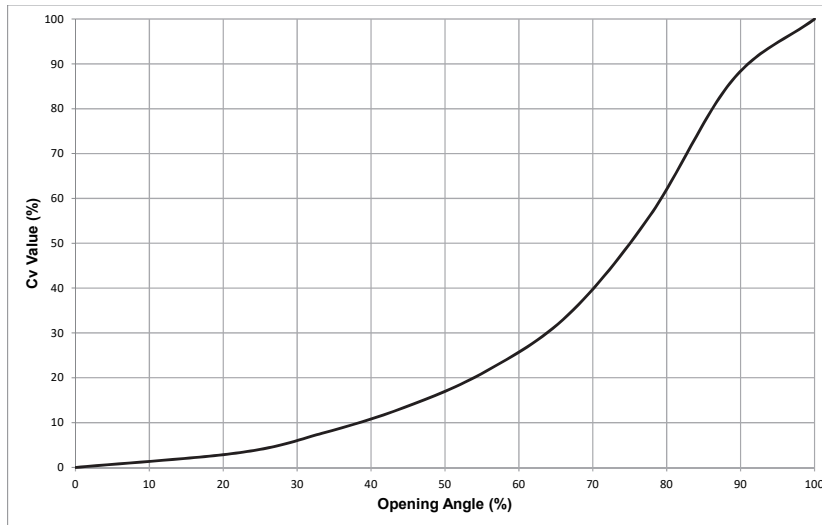
Part	Description	Material
1	Body	Ductile cast iron Rilsan®/epoxy-coated
2	Seat liner	EPDM, FKM
3	Disc	Ductile cast iron Rilsan®/epoxy-coated Stainless steel Aluminum bronze
4	Shaft	420 stainless steel
5	Shaft seal	Buna-N
6	Retention bushing	Natural nylon Bronze
7	Screw for retention bushing	316 stainless steel
8	Lever	Aluminum epoxy-coated
9	Assembly bolt	Stainless steel
10	Tooth Lock Wahser	Stainless steel
11	Nut	Stainless steel



# Technical Data

The following graphs are based on water or similar media applications

## Flow Characteristics



## Cv Values

Size (inch)	d (mm)	Cv (gal/min)
2	63	220
2½	75	320
3	90	500
4	110	820
5	140	1270
6	160	1850
8	225	3240
10	280	5430
12	315	7980
14	355	9940
16	400	12950
18	450	17900
20	500	22000
24	630	29900

## Weight

Size (inch)	Weight (lb)	Weight (kg)
2	8.6	3.9
2½	11.0	5.0
3	14.8	6.7
4	19.2	8.7
5	23.4	10.6
6	27.1	12.3
8	42.1	19.1
10	74.7	33.9
12	111.8	50.7
14	154.3	70.0
16	242.5	110.0
18	307.1	139.3
20	404.5	183.5
24	762.8	346.0

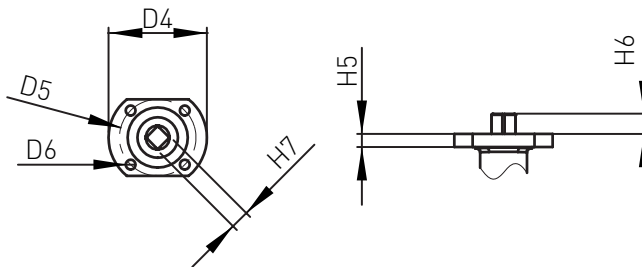


## Operating Torque

Size (inch)	Operating Pressure at 10 bar (Nm)	Operating pressure at 16 bar (Nm)	Operating Pressure at 10 bar (in-lb)	Operating pressure at 16 bar (in-lb)
2	15	15	133	133
2½	20	20	177	177
3	25	25	221	221
4	40	40	354	354
5	50	50	443	443
6	60	60	531	531
8	160	160	1416	1416
10	250	250	2213	2213
12	300	300	2655	2655
14	900	-	7966	-
16	1200	-	10621	-
18	1650	-	14604	-
20	2300	-	20357	-
24	4100	-	36288	-

## Dimensions

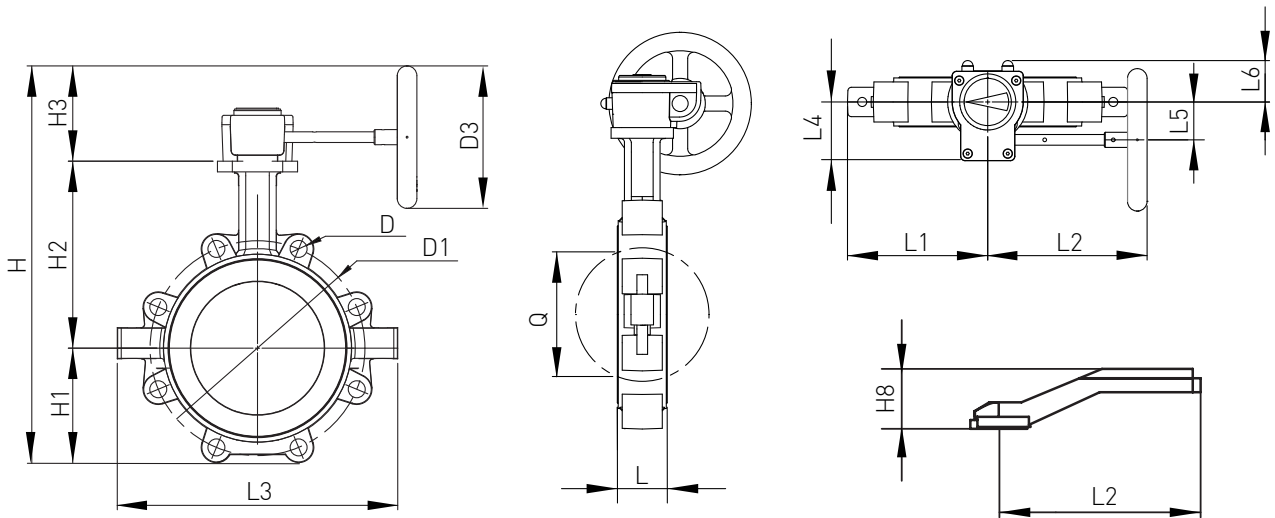
The following tables are shown in millimeters unless otherwise specified



### Bare Shaft Mounting

Size (inch)	D4 (mm)	D5 (mm)	D6 (mm)	H5 (mm)	H6 (mm)	H7 (mm)
2	90	70	9	12	26	11
2½	90	70	9	12	26	11
3	90	70	9	12	26	11
4	90	70	9	14	30	14
5	90	70	9	14	30	14
6	90	70	9	15	33	17
8	90	70	9	15	33	17
10	125	102	12	17	47	22
12	125	102	12	17	47	22

# Dimensions



## Gear and Lever

Size (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	D (mm)	D1 (mm)	D3 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	Q (mm)	H8 (mm)	L7 (mm)
2	292.5	63	140	89.5	18	125	125	43	71	320	142	66	42.5	48	32	95	220
2½	314.5	73	152	89.5	18	145	125	46	83	320	166	66	42.5	48	51	95	220
3	329.5	81	159	89.5	20	160	125	46	93.5	320	187	66	42.5	48	69	95	220
4	382	97	178	107	20	180	160	52	107	320	214	66	42.5	48	89	95	220
5	410	112	191	107	22	210	160	56	136.5	320	273	66	42.5	48	115	95	320
6	452	122	203	127	22	240	200	56	131	320	262	66	42.5	48	143	95	320
8	521	149	245	127	24	295	200	60	160.5	320	321	66	42.5	48	194	95	320
10	631	203	275	153	26	350	250	68	197	560	394	75	50	56	243	48	560
12	709	241	315	153	31	400	250	78	234	560	468	75	50	56	293	48	560

## Large Diameter Valve Dimensions

### Gear

Size (inch)	H1 (mm)	H2 (mm)	H3 (mm)	D1 (mm)	D3 (mm)	L (mm)	Q (mm)
14	291	307	88	476	125	78	332
16	325	342	93	540	140	102	382
18	375	387	102	578	140	113	432
20	381	425	102	635	140	126	478
24	488	532	155	749	254	146	585

