

# BUTTERFLY VALVE

UPC Instruments offers an extensive selection of high-quality products that you can trust for reliable performance. Our valves are meticulously crafted in an ISO 9001 certified facility, utilizing a rigorous quality management system.

## Standard Design Features

### Heavy Duty Body

Heavy Duty Body One piece wafer Body has extended neck for 2" piping insulation Standard coating is two layers of epoxy polyester powder coating with semi gloss finish for excellent corrosion resistance. Semi lugged body design with guiding holes for better alignment.

### Top Flange Drilling

Top flange drilled to fit DIN EN ISO 5211 Dimensions and secondary bolt circle dimensions. All handles,, gear operators and pneumatic Actuators are designed to mount directly to UPC valves.

### Disc

Heavy Duty disc with square grooved connections. Several Option ensures excellent corrosion resistance to many chemical media.

### Seat

Heavy Duty square-grooved seat design with molded O-ring seals to serve as flange gaskets EPDM/NBR (buna-n) Seats. Seat designed in such a way that it eliminates movement during the open and close function of the valve Thermal and chemical resistance suitable for use in drinking water and non-alcoholic food safe applications.

### Stem

Blow Out Proof square tip disc connection stem design with easy assembly and disassembly of valve.

### Bush

Heavy duty bushes are superior to absorbs the forces acting on the disc-stem assembly due to line pressure

### O-Ring

Highly versatile used as a sealing due to their efficiency, affordability



# UPC INSTRUMENTS PVT.LTD.

AN ISO 9001:2015, 14001-2015 CE & TÜV SÜD CERTIFIED COMPANY

# BUTTERFLY VALVE



## Confirmity to Standard & Codes:

### Design Standard:

API 609, BS 5155, ISO 5211

### Face to Face Dimension:

API 609

### End Detail:

ASME B16.5 (Suitable for insertion between  
Pn10/Pn16/ #150  
BS-10 Table D/E Flanges)

### Valve Testing:

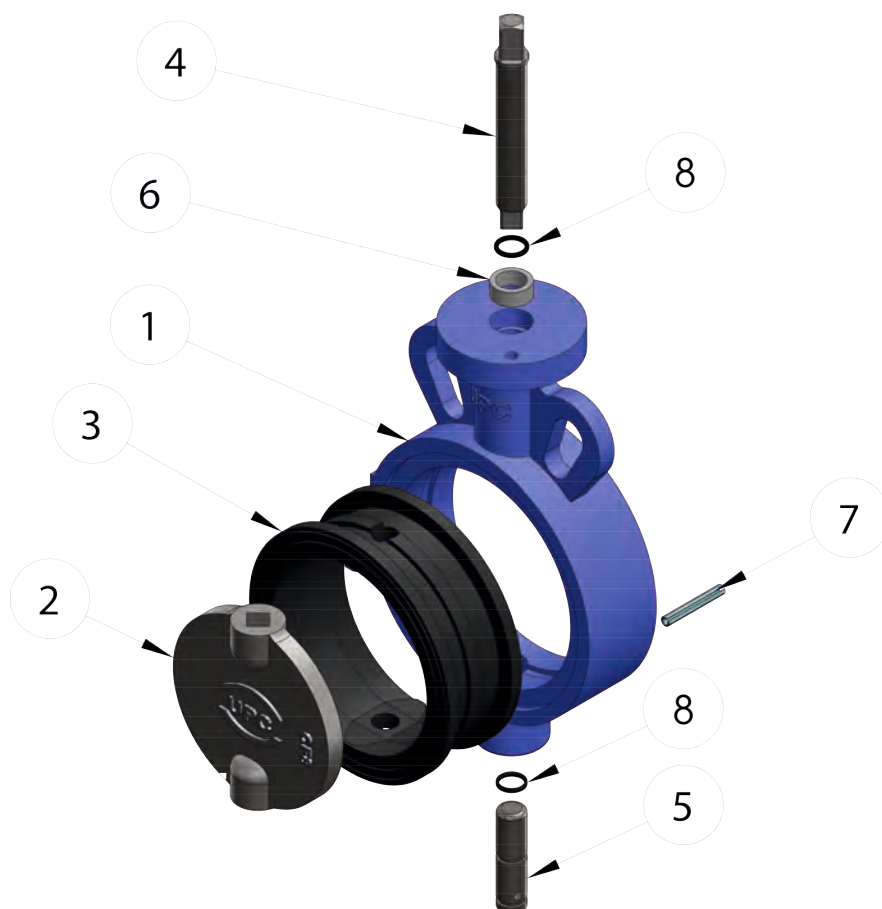
API 598

## Application

- HVAC
- Sugar
- Pulp and Paper
- Pharmaceuticals.
- Chemical and petro chemical
- Irrigation Syatems
- Sewage Plants
- Food Processing
- Water Work Systems



# BUTTERFLY VALVE



## PART LIST

S. NO.	PART NAME	MATERIAL	SPECIFICATION	QTY.
1.	BODY	CAST IRON / DUCTILE IRON	IS210 GR. FG200/220 / ASTM A536 GR. 65-45-12/60-40-18	1
2.	DISC	DUCTILE IRON / STAINLESS STEEL	ASTM A536 GR. 65-45-12/60-40-18 / ASTM A351 GR.CF8/CF8M	1
3.	RUBBER SUPPORTED BACK-UP RING	PLASTIC/METAL + RUBBER	BACKLITE/ALUMINUM + NBR/EPDM	1
4.	MAIN STEM	STAINLESS STEEL	ASTM A 276 GR. 410/304/316	1
5.	PIVOT STEM	STAINLESS STEEL	ASTM A 276 GR. 410/304/316	1
6.	SELF LUBRICATED BUSH	STEEL + BRNZ + PTFE	CARBON STEEL BACKING + SINTERED BRONZE & PTFE	2
7.	DOWEL PIN	CARBON STEEL	ASTM A105	1
8.	O-RING	NBR (BUNA-N)	NBR (BUNA-N)	2

Note: 1. Special Seat Material like PTFE lined EPDM/NBR, Body Moulded Fixed Seat, Silicon, Viton and UHMWPE Available on Demand.  
2. Special Coatings available on Demand.  
3. Contact Technical Team for Any Kind of Special Material.

## DIMENSIONS

SIZE	INCH	A	B	C	D	E	F	G	H	I	J
DN40	1 ½"	34	38	70	113.3	67	50	11.8	21	8	2
DN50	2"	43	50	77	123	67	50	11.8	21	8	2
DN65	2 ½"	48.3	63	86	132	68	50	14	20	8	2
DN80	3"	46	78	93	143	69	50	14	20	8	2
DN100	4"	52	98	104	152	68.5	50	14	21	8	2
DN125	5"	54	122	119	170	85	68	14	21	8	2
DN150	6"	57	143	138	186	86	69	14	20	8	2
DN200	8"	64	196	168	224	86	69	17	21	8	2
DN250	10"	68	251	202	269	125	102	20	21	11.5	4
DN300	12"	78	301	234	298	125	102	20	21	11.5	4
DN350	14"	78	340	275	330	175	140	24	24	17.5	4
DN400	16"	102	391	303	358	175	140	36	38	17.5	4
DN450	18"	114	442	356	403	175	140	36	38	17.5	4
DN500	20"	127	486	382	435	210	165	46	48	21.5	4
DN600	24"	154	585	440	510	210	165	55	57	21.5	4
DN700	28"	165	680	490	560	300	254	55	57	17.5	8
DN750	30"	165	699	540	615	300	254	55	57	17.5	8
DN900	36"	200	850	630	705	300	254	55	57	17.5	8

\*All dimensions are in mm unless and otherwise specified.

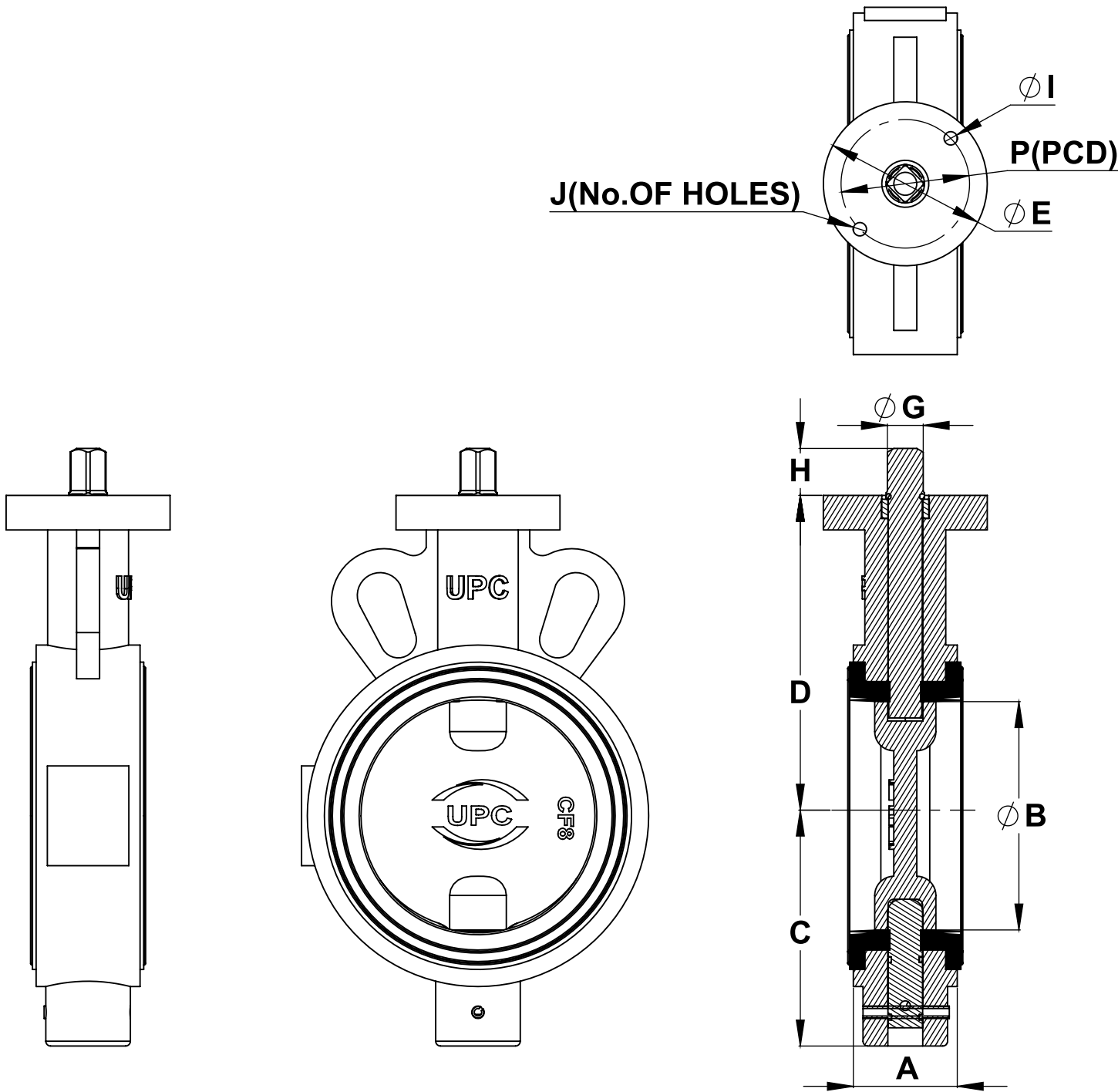


Diagram : UPC Butterfly Valve

## OPERATING INFORMATION

### UPC-BFV-414

Butterfly Valves up to size 12" can be supplied with lever handles for manual operation. Optional accessories for hand lever operation can be provided for various flow control requirements.



### UPC-GOBV-415

Valves of all sizes can be direct mounted with gear operators for manual operation. Gear-operated butterfly valves have the gear system connected to the handwheel through a short shaft. This allows the torque applied by the valve operator to go direct to the gear system. The torque is then multiplied through a system of gears which makes high torque-demanding butterfly valves easy to open.



### UPC-EOBV-417

All valves can be direct mounted with motorize Electric actuators and accessories for complete on-off automation or modulating control.



### UPC-PBV-416

All valves can be direct mounted with Pneumatic actuators and accessories for complete on- off automation or modulating control.



#### Standard features:-

- Compact, Light Weight and Robust Design.
- IP68 protection.
- Quarter turn (90°) operation with mechanical travel stops.
- Torque range: 20 NM to 6000 NM.
- Type 4X weatherproof aluminium alloy enclosure.
- Highly visual dome style valve position indicator.
- Space heater in built in all models.
- ISO5211 multi flange valve mounting
- Thermostatically controlled space heater – included as standard in all models.
- Two auxiliary limit switches included with on-off units – included as standard in all models (potentiometer feedback).
- Approvals - CSA & CE.
- High duty cycle.
- Ambient temperature -20° ~ +80° C.
- Smart modulation module, anti-interference, ratio board protection.
- Manual override with clutch type handwheel in all models.

#### Standard features:-

- Double pistons driven, rack and gear transmission with impact structure, symmetry assembling position, quick action and the rotation direction of output shaft can be changed simply by piston reversion. Angular travel output: 0° ~ 90°  
DA means double action and SR means single action i.e. Spring returning type.
- The Cylinder body adopts extruded aluminium alloy cylinder body with anode oxidation surface treatment which largely improves the hardness and corrosion resistance. The internal surface of the cylinder has gone through fine honing treatment which brings low friction coefficient and long service life.
- Output shaft: high quality bearing with good reliability and leak tightness with low friction coefficient is adopted which has wide temperature application range and long service life.
- Two independent screws for travel adjustment are on front face of the cylinder body.  $\pm 5^\circ$  precise adjustment is available when the stroke is on 0° and 90° position which shall be in consistent with the open and close position of the valve



## ORDERING INFORMATION

Body Material	Disc Material	Seat	Stem	Bush	Manual Operation	Modulated
1 - Cast Iron	1 - Ss304	1 - EPDM	1 - Ss410	1 - Steel	1 - 5-Position	+P1 - Pneumatic Single Acting Actuator
	2 - Ss316	2 - Nitrile	2 - Ss304	2 - Bronze	2 - Gear Handwheel	+P2 - Pneumatic Double Acting Actuator
	3 - SG Iron		3 - Ss316	3 - PTFE		+M - Motorize(Electric) Actuator
						+S - SUV
						+L - Limit Switch

(Example: 6"-in [150mm] Model - UPC-PBV-416 Butterfly Valve with Pneumatic Actuator with SUV & Limit Switch – 11113+P1+S+L)

## VALVE PRESSURE RATING

RATING	SHELL(Kg/cm <sup>2</sup> )	SEAT(Kg/cm <sup>2</sup> )
PN-10	15.0	11.0
PN-16	24.0	17.6
PN-25	38	28

## WARRANTY

All the valves are warranted against any manufacturing defect for a period of 12 months from date of supply, provided the valves has not been misused, damaged, installed for services it is not recommended or the seal has been tempered with. The company shall be liable to furnish part/ parts thereof or full Valve as the company may deem fit.



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