

FINE FLOW



Lined Composite Plastic

# Butterfly Valve



Lined Composite Plastic Butterfly Valve

## Material Properties

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### ● Materials

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**PP+GF**  
**PA+GF**

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**PPS+GF**

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**PFA**

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**PTFE**

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**PVDF**

### Engineering Plastic

Engineering plastics have unique combinations of properties including heat resistance, mechanical strength, rigidity, chemical stability, self-lubrication and fire safety. They have numerous industrial applications particularly such as in manufacturing gears and skids, in chemical plants and in car industry.

### Super Engineering Plastic

Super engineering plastics have higher resistance to heat, chemicals and wear than engineering plastics. They have advantageous applications particularly in aerospace structures, semiconductor manufacturing equipment, and food and beverage processing machinery.

### Perfluoroalkoxy

PFA (Perfluoroalkoxy) has similar advantageous processing properties to FEP (Fluorinated ethylene propylene), but it has ten times greater capability to withstand repeated bending without fracture and has better resistance to heat (up to 260°C) than FEP.

### Polytetrafluoroethylene

PTFE (Polytetrafluoroethylene) is a synthetic fluoropolymer of tetrafluoroethylene. Teflon by Chemours is a well-known brand name of PTFE-based formulas. PTFE has useful properties including slippery surface, high melting point, and high resistance to attacks by various chemicals.

### Polyvinylidene Fluoride

PVDF (Polyvinylidene fluoride or polyvinylidene difluoride) has been used in special applications which require highest purity as well as high resistance to solvents, acids and hydrocarbons.

# Series CBU1

## Butterfly valve

### ● Features

- Lined butterfly valve for chemically corrosive media
- Plastic-metal hybrid structure
- Split body design
- Disassembly and material-specific recycling possible
- Unique stem sealing system
- One-piece disc/stem unit

### ● Applications

- Chemical process
- Desalination
- Water and waste water treatment
- Shipbuilding
- Semiconductor manufacturing
- Hazardous services (Acetic Acid, Sulfuric Acid etc.)

### ● Technical specifications

<b>Construction</b>	Bi-directional centric butterfly valve
<b>Body type</b>	Wafer or Lug butterfly valve
<b>Available size</b>	DN 50 – DN 300
<b>Face to face</b>	EN 558-1
<b>End connection</b>	DIN 2501, PN10/16 ANSI B16.5, Class 150 JIS B 2220, 10K
<b>Top flange</b>	ISO 5211
<b>Tightness check</b>	API 598
<b>Valve material</b>	Body : PPG or PPSG Disc : Stainless Steel CF8
<b>Seal material</b>	Liner : PFA or PTFE



**Series CBU1 Butterfly Valve** have advanced structure (Plastic – Metal Hybrid Technology)

**FINE FLOW's** valves with innovative Plastic-metal hybrid structure have not only provided longer durability and service life, but also been suitable to more aggressive environment than ordinary plastic valves.

## | Series **CBU1**

### ● Features & Benefits



#### Mounting Flange

Designed to mount an automation directly on the top flange. (ISO 5211)



#### Atmosphere Seal

Protects stem and seal components from atmospheric corrosion.



#### Advanced Structure

(Plastic – Metal Hybrid Technology)

The structure enhances durability and service life even in more aggressive environment.



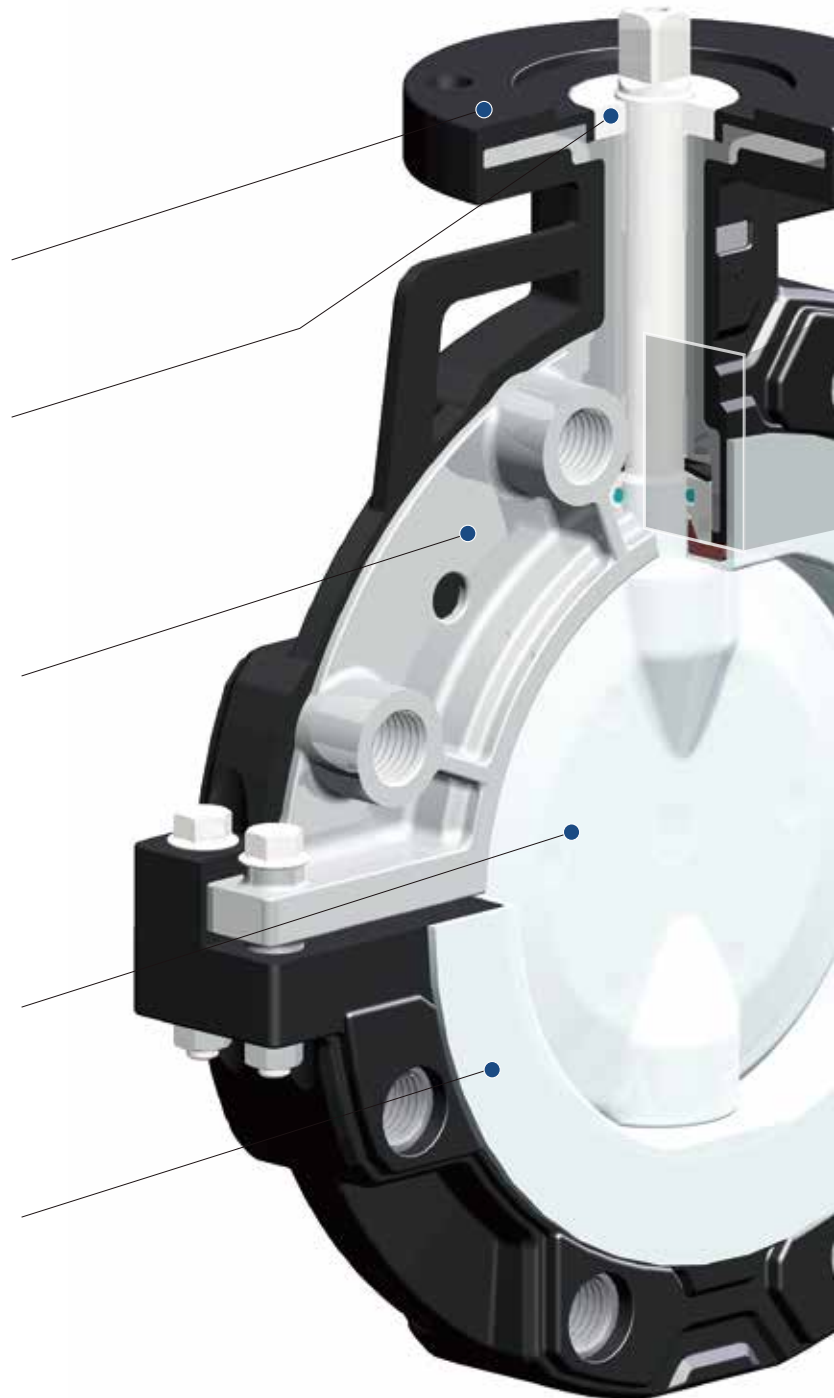
#### PFA Lined One-piece Disc/Stem

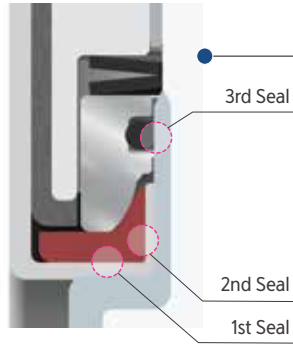
PFA liner guarantees outstanding resistance to corrosion and permeation.



#### PFA / PTFE Seat

3~3.5mm thick PFA/PTFE seat provides high resistance to permeation.





**Self-adjusting Sealing System**

Belleville spring provides live loading to the three seal points and reliable stem sealing with various open and closed cycles even at fluctuating pressures and temperatures.

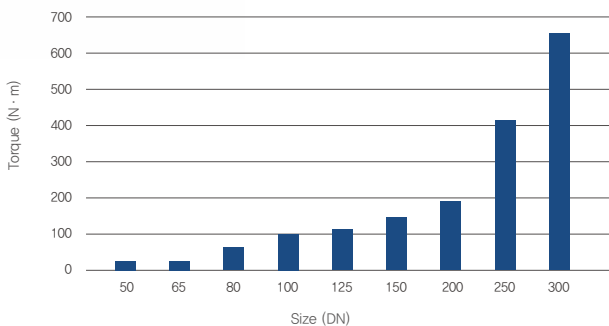
**Max. Recommended Flange Torques**

Size (DN)	50	65	80	100	125	150	200	250	300
Torque (N·m)	35	45	55	50	65	80	120	100	140

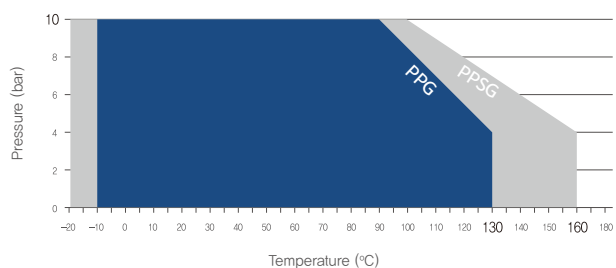
**Cv-Values**

DN	Cv
50	176
65	176
80	334
100	560
125	1,040
150	1,730
200	3,430
250	6,370
300	10,450

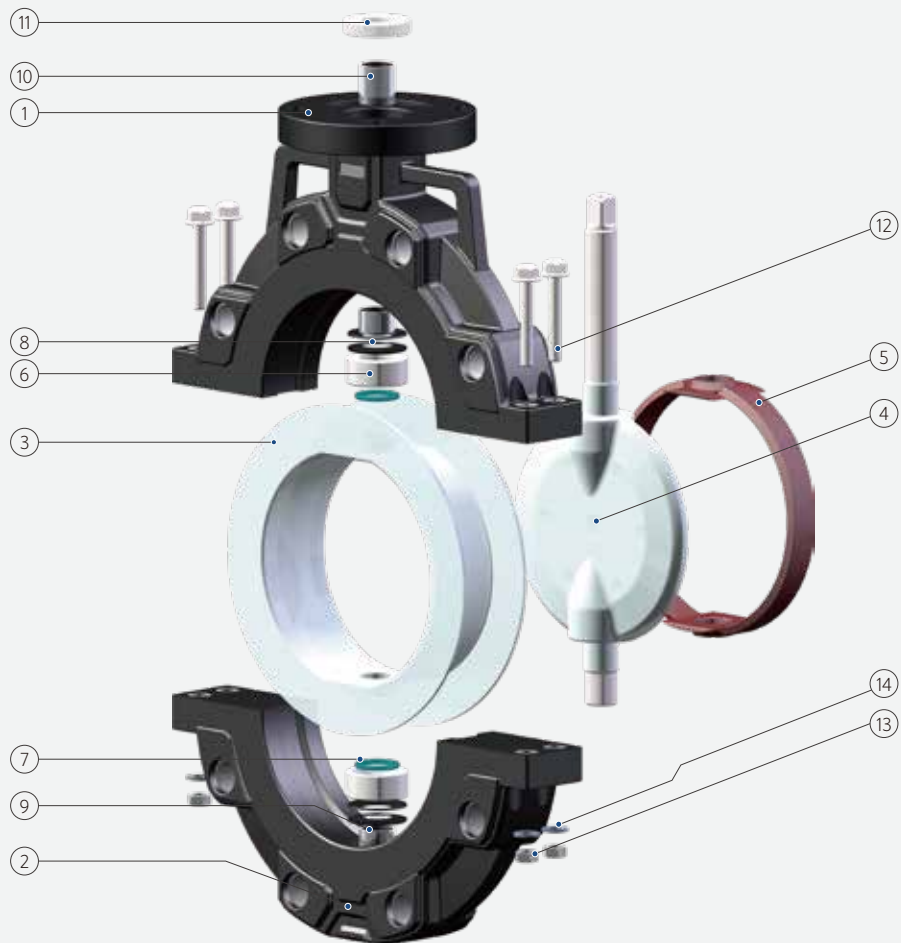
**Operating Torque**



**Pressure-Temperature Chart**



## Structure & Specification



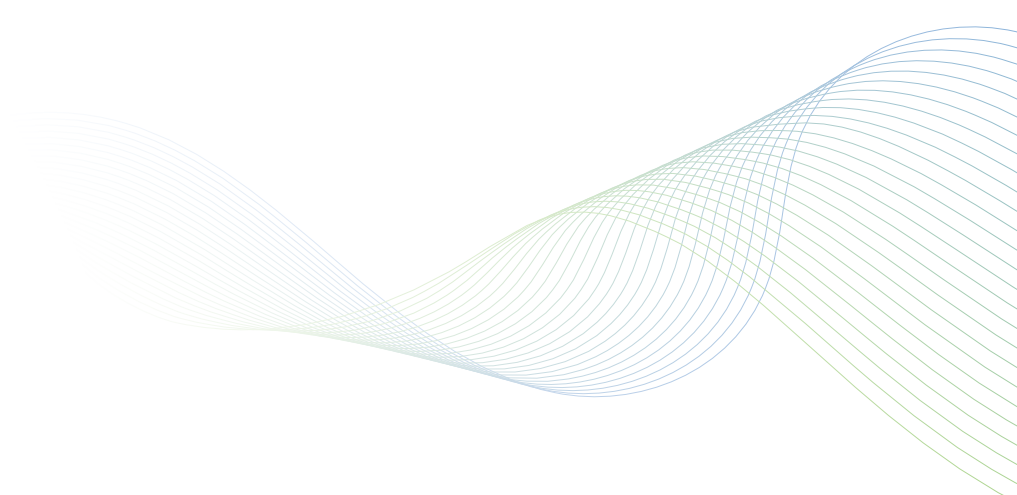
Lined composite plastic Butterfly Valve Series CBU1		
No.	Description	Material
1	Upper body	PPG
2	Lower body	PPG
3	Body liner	PFA / PTFE
4	Disc	CF8 with PFA
5	Liner back up	FKM
6	Pusher	SUS 304
7	O-ring	FKM
8	Belleville spring	SUP 10
9	Bush bearing	SUS 304(PTFE Coated)
10	Top bush bearing	SUS 304(PTFE Coated)
11	Top seal	PTFE
12	Hex bolt	SUS 304
13	Hex nut	SUS 304
14	Plain washer	SUS 304





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