



BUTTERFLY VALVE SERIES

Wafer Butterfly Valve

D71X

Centerline soft-seated wafer butterfly valve for water supply, HVAC, wastewater, municipal pipelines and compatible industrial service.

01 Key Specifications

Product Type	Wafer centerline soft-seated butterfly valve
Nominal Size	DN50-DN600 reference range
Pressure Rating	PN10 / PN16
Body Materials	Ductile iron / carbon steel / SS304 / SS316
Disc Materials	Ductile iron / carbon steel / SS304 / SS316 / aluminum bronze
Seat Materials	EPDM / NBR / PTFE
Operation	Manual lever / worm gear / electric / pneumatic
End Connection	Wafer mounting between flanges; EN 1092-1 / ASME B16.5 / GB/T 9113 options
Typical Service	Water / wastewater / HVAC / municipal and compatible industrial service

02 Design Features & Configuration

Wafer Body Compact, lightweight body mounted between pipeline flanges.	Centerline Design Concentric disc rotation with simple quarter-turn operation.
Resilient Soft Seat EPDM, NBR or PTFE options subject to medium and temperature.	Low Operating Torque Suitable for manual operation and actuator configurations.
Bidirectional Sealing Soft-seated centerline design typically supports sealing in both directions.	Actuator Options Manual lever, worm gear, electric and pneumatic operation options.

03 Materials of Construction

Component	Material Options
Body	Ductile iron (QT450-10) / carbon steel (WCB) / SS304 / SS316
Disc	Ductile iron with nylon coating / carbon steel / SS304 / SS316 / aluminum bronze
Stem	SS416 / SS304 / SS316 / 2Cr13
Seat	EPDM / NBR / PTFE
O-ring / Stem Seal	NBR / EPDM / FKM
Bushing	Bronze / PTFE-lined bronze / self-lubricating bearing

04 Pressure Ratings & Size Coverage

Model Series	Pressure Class	Body Material Options	Reference Size Range*
10 series	PN10	Ductile iron / carbon steel / SS304 / SS316	DN50-DN600*
16 series	PN16	Ductile iron / carbon steel / SS304 / SS316	DN50-DN600*

*Reference range only. Actual size, material, pressure-class and seat combinations depend on the selected configuration.

Operating Temperature by Seat Material

Seat Material	Reference Temperature Range / Selection Note
EPDM	-40°C to +135°C reference; commonly -29°C to +120°C depending on grade and medium.
NBR	-23°C to +82°C reference; commonly -20°C to +80°C depending on grade and medium.
PTFE	Higher-temperature option where offered; confirm for the selected model and service.
Selection Note	Confirm compatibility with the medium, temperature and pressure before ordering.

Pressure derating may apply as operating temperature increases. Temperature values are reference ranges and are not universal ratings.

05 Dimensions & Weight - Reference

DN	NPS	L (mm)	Flange OD (mm)	H (mm)	Weight (kg)
50	2 in	43	165	82.5	4.5
65	2-1/2 in	46	185	92	5.5
80	3 in	46	200	100	7.0
100	4 in	52	220	115	9.0
125	5 in	56	250	130	12.0
150	6 in	56	285	145	15.0
200	8 in	60	340	175	24.0
250	10 in	68	405	200	34.0
300	12 in	78	460	225	48.0
350	14 in	78	520	250	63.0
400	16 in	102	580	280	82.0
450	18 in	114	640	310	105.0
500	20 in	127	715	340	135.0
600	24 in	154	840	400	200.0

Values are typical references for wafer body construction. Actual dimensions and weight depend on pressure class, flange standard, body construction and operation type. Confirm the approved drawing for the selected configuration.

06 Standards & Certifications

Design / Manufacturing	GB/T 12238 / API 609 / BS EN 593 / ISO 10631
Face-to-Face	ISO 5752 Series 20 / EN 558-1 Series 20 / API 609 / GB/T 12221
Wafer Mounting	Confirm mating flange standard and bolt pattern: EN 1092-1 / ASME B16.5 / GB/T 9113
Pressure Testing	GB/T 13927 / API 598 / ISO 5208
Top Mounting	ISO 5211 where applicable; confirm selected size and mounting dimensions
Product Marking	Model / nominal size / pressure class / body material
Destination-Market Conformity	Applicable conformity documents available according to product, service and destination requirements

07 Quality & Documentation

Pressure Test Report Shell and seat pressure test documentation available on request.	Material Certificate MTC / relevant material documentation available according to order requirements.
Dimensional Inspection Key valve dimensions can be checked against the approved drawing.	Seat Material Documentation Seat material grade and related technical data can be documented for the selected configuration.
Third-Party Inspection Third-party inspection support may be arranged according to order requirements.	Export Packing Protective packing and document support for international shipments.

08 Applications

- Water supply and distribution pipelines
- Wastewater and sewage treatment systems
- HVAC chilled water, condenser water and heating water systems
- Municipal pipe networks and pump stations
- Power plant circulating water and cooling water systems
- Compatible industrial process lines where material and seat compatibility are confirmed

09 Product Views



10 Frequently Asked Questions

01 What is the difference between D71X and D41X?

D71X uses a compact wafer body installed between pipeline flanges. D41X uses a flanged body. D71X is generally selected where compact installation, lower weight and cost are important; D41X can be preferred for larger sizes and easier service access.

02 Can D71X be used for natural gas?

Do not assume a standard water-service D71X valve is suitable for natural gas. Gas service requires confirmation of the exact valve design, seat material, applicable standards and required approvals for the intended service.

03 Can D71X be used as an end-of-line valve?

Wafer butterfly valves should not be used as end-of-line valves unless the selected design is specifically rated for that service. Confirm the application with the supplier.

04 Which seat material should I choose?

EPDM is commonly selected for water and general service, while NBR is commonly selected for oil and air service. PTFE may be available for selected applications. Always confirm compatibility with the medium, temperature and pressure.