



BUTTERFLY VALVE SERIES

Worm Gear Wafer Butterfly Valve

D371X

Worm gear operated wafer centerline soft-seated butterfly valve for water supply, HVAC, sewage treatment and compatible industrial pipeline applications.

01 Key Specifications

Product Type	Worm gear operated wafer centerline butterfly valve
Nominal Size	DN50-DN600 reference range
Pressure Rating	PN10 / PN16
Body Materials	Ductile iron / Carbon steel / SS304 / SS316
Disc Materials	Ductile iron with nylon coating / Carbon steel / SS304 / SS316 / Aluminum bronze
Seat Materials	EPDM / NBR / PTFE
Operation	Worm gear manual gearbox; quarter-turn; lockable option available
End Connection	Wafer mounting between flanges; EN 1092-1 / ASME B16.5 / GB/T 9113 options
Typical Service	Water supply / HVAC / wastewater / municipal and compatible industrial service

02 Design Features & Configuration

Wafer Ultra-Thin Body Compact body saves installation space, weight and material cost.	Worm Gear Operation Manual gearbox reduces hand force for practical operation at larger sizes.
Centerline Design Concentric disc and stem arrangement with simple 90° quarter-turn operation.	Soft-Seated Sealing EPDM or NBR resilient seat for reliable shut-off on compatible media.
Lockable Option Lockable gearbox or padlock provision available where required.	ISO 5211 Mounting Standardized mounting interface for gearbox and selected actuator configurations.

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
Gearbox Housing	Cast iron or aluminum alloy; confirm selected model

04 Pressure Ratings & Size Coverage

Model Series	Pressure Class	Body Material	Reference Size
D371X-10Q / 16Q	PN10 / PN16	Ductile iron	DN50-DN600*
D371X-10C / 16C	PN10 / PN16	Carbon steel (WCB)	DN50-DN600*
D371X-10P / 16P	PN10 / PN16	SS304	DN50-DN600*
D371X-10R / 16R	PN10 / PN16	SS316	DN50-DN600*

* Reference range only. Exact size, material, pressure class, seat material and gearbox configuration depend on the selected model.

Operating Temperature by Seat Material

EPDM Seat	-40°C to +135°C reference depending on grade and medium; commonly -29°C to +120°C
NBR Seat	-23°C to +82°C reference depending on grade and medium; commonly -20°C to +80°C
PTFE Seat	Higher temperature range where offered; confirm selected model
Selection Note	Confirm seat compatibility with medium and actual operating temperature

05 Dimensions & Weight - Reference

DN	L mm	Flange OD mm	H mm	Weight kg
50	43	165	155	~7.0
65	46	185	165	~8.5
80	46	200	175	~10.5
100	52	220	190	~13.0
125	56	250	205	~16.5
150	56	285	220	~20.5
200	60	340	250	~31.0
250	68	405	280	~43.0
300	78	460	310	~60.0
350	78	520	340	~78.0
400	102	580	370	~100
450	114	640	400	~128
500	127	715	430	~165
600	154	840	490	~240

Reference values for wafer construction with standard worm gear operator. Confirm final dimensions, bolt pattern, gearbox height and total assembly weight on the approved drawing.

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
Flange / Mounting	EN 1092-1 / ASME B16.5 / GB/T 9113 options
Pressure Testing	GB/T 13927 / API 598 / ISO 5208
Top Mounting	ISO 5211
Product Marking	Model / nominal size / pressure class / body material
Destination Market	Request applicable conformity documents for intended service and market

07 Quality & Documentation

Pressure Test Report Shell and seat pressure test documentation available according to selected standard.	Material Certificate Material documentation may be supplied according to order requirements.
Gearbox Documentation Gearbox datasheet, ratio and mounting drawing available on request.	Seat Documentation Seat material grade and temperature reference can be confirmed for selected model.
Third-Party Inspection Independent inspection support can be arranged where required.	Export Packing Protective packing and export document support for international shipments.

08 Applications

- Water supply and distribution pipelines
- Sewage treatment and wastewater 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
- Larger manual isolation applications where worm gear operation reduces hand force

09 Product Views



10 Frequently Asked Questions

01

What is the difference between D371X, D71X and D341X?

D371X uses a wafer body with worm gear operation. D71X is also wafer but uses a manual lever. D341X uses a flanged body with worm gear operation. Selection depends on size, installation space, support and service access.

02

When should I choose worm gear instead of a manual lever?

Choose worm gear operation when valve size or operating torque makes lever operation impractical, or when slower, controlled manual opening and closing is preferred.

03

Can D371X be used for natural gas?

Do not assume a standard D371X water-service valve is suitable for natural gas. Gas service requires confirmation of design, seat material, applicable standards and approval for the intended service.

04

Which seat material should I choose - EPDM or NBR?

EPDM is commonly used for water and general service. NBR is commonly used for oil and air service. Confirm compatibility with the medium, concentration and operating temperature.