



DINGLIU

RESILIENT SEATED GATE VALVES

Technical Selection Catalog

WATERWORKS / HVAC / FIRE PROTECTION

PN10 / PN16

2"-48" | DN50-DN1200

Reliable isolation for water and wastewater systems

Built for dependable water-system isolation

Tianjin Dingliu Valve Industry Co., Ltd.

Dingliu provides valve engineering, manufacturing, supply and technical support for international water, wastewater, HVAC and industrial projects. This catalog focuses on resilient seated gate valves for reliable shut-off service.

2"-48"

Flanged gate-valve range

PN10 / PN16

Standard pressure ratings

EN / BS

Main waterworks standards

Manufacturing and quality focus

- Ductile-iron pressure-containing components
- Fully encapsulated resilient wedge
- Fusion-bonded epoxy coating for corrosion protection
- Hydrostatic shell and seat testing before shipment

Available documentation

Document	Typical availability
General arrangement drawing	Available for offered configuration
Material certificate / COC	According to order requirements
Pressure test certificate	Manufacturer-issued
Packing, weight and dimensions	Provided before shipment

Select by stem arrangement, installation and connection

Series	Size	Rating	Best suited for
Non-rising stem	2"-48"	PN10/16	Low headroom; buried or chamber installation
Rising stem (OS&Y)	2"-48"	PN10/16	Visible position; above-ground service
Direct-buried NRS	2"-48"	PN10/16	Underground pipelines; operating extension
Electric actuated	2"-48"	PN10/16	Remote or centralized operation
Grooved-end	2"-12"	PN10/16	Fast installation; fire-water and utility piping

Selection note

Confirm medium, design pressure, temperature, flange or groove standard, face-to-face requirement, operation method and coating specification before ordering. Large sizes and project-specific configurations are subject to drawing approval.

Primary applications

WATER

Distribution networks

WASTEWATER

Treatment and pumping

HVAC

Building services

FIRE WATER

Grooved piping systems

Low-torque operation and tight resilient sealing

01 Fully encapsulated wedge

EPDM or NBR coating isolates the ductile-iron core from the medium.

02 Straight-through bore

Reduces flow resistance and minimizes debris accumulation.

03 Stem sealing system

Multiple O-rings support reliable sealing and maintenance.

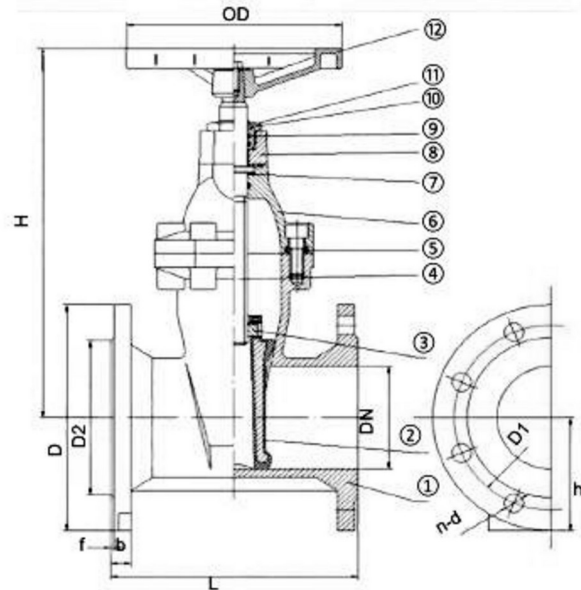
04 Corrosion protection

Fusion-bonded epoxy coating on internal and external surfaces.

05 Replaceable operating parts

Stem nut, seals and operating accessories can be serviced.

➤ Z45X Non-Rising Stem Soft Seal Gate Valve



Non-Rising Stem Resilient Seated Gate Valve

A compact shut-off valve in which the stem rotates without rising. It is suited to chambers, buried pipelines and installations where vertical clearance is limited.

Size range	2"-48" / DN50-DN1200
Pressure rating	PN10 / PN16
Operation	Handwheel, cap top or gearbox
Connection	Flanged ends
Temperature	Typically 0 to 80 C, subject to elastomer

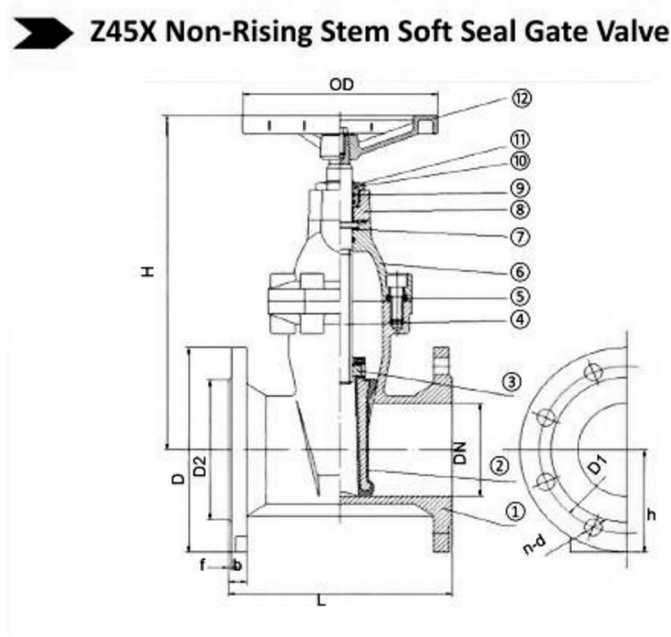


Key advantages

- Compact installation height
- Stem threads isolated from the line medium
- Bidirectional shut-off service
- Low operating torque with resilient wedge

NRS Gate Valve - Construction & Materials

Design	EN 1171 / EN 1074-2 / BS 5163
Face-to-face	EN 558 Series 14 or Series 15
Flanges	EN 1092-2, PN10 or PN16
Testing	EN 12266-1



Typical materials of construction

Component	Standard material	Optional / note
Body / bonnet	Ductile iron	EN-GJS-500-7 or approved equivalent
Wedge	Ductile iron + EPDM	NBR option for compatible media
Stem	Stainless steel	2Cr13 / AISI 420 or specified grade
Stem nut	Copper alloy	High wear resistance
Seals	EPDM	NBR option
Coating	FBE epoxy	Color and thickness by specification

Dimensions and weights vary by size, face-to-face series and operating arrangement. Final certified drawings are supplied for order approval.

Rising Stem Resilient Seated Gate Valve

The outside screw and yoke arrangement provides clear visual indication of valve position and keeps the stem thread accessible for inspection and lubrication.

Size range	2"-48" / DN50-DN1200
Pressure rating	PN10 / PN16
Operation	Handwheel or gearbox
Connection	Flanged ends
Installation	Normally above ground



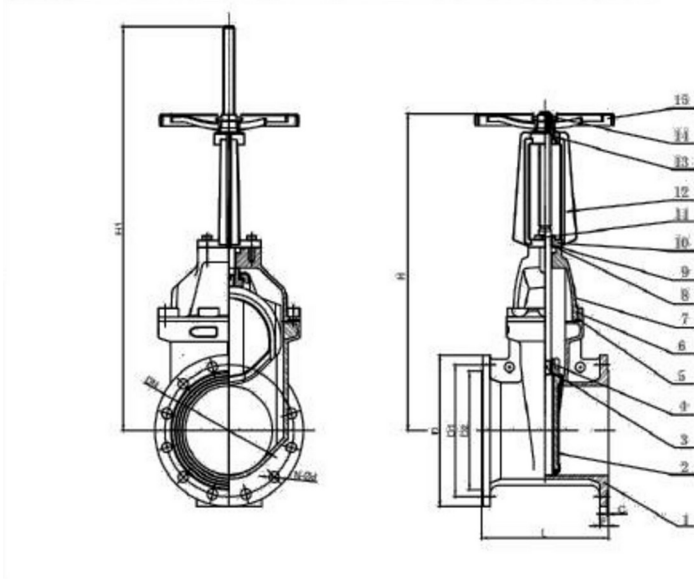
Key advantages

- Visible open/closed position
- Stem threads outside the flow path
- Suitable for plant rooms and exposed piping
- Easy routine inspection and lubrication

OS&Y Gate Valve - Construction & Materials

Design	EN 1171 / EN 1074-2 / BS 5163
Face-to-face	EN 558 Series 14 or Series 15
Flanges	EN 1092-2, PN10 or PN16
Testing	EN 12266-1

➤ Z41X Rising Stem Resilient Seat Gate Valve



Typical materials of construction

Component	Standard material	Optional / note
Body / bonnet	Ductile iron	Pressure-containing castings
Wedge	Ductile iron + EPDM	NBR option
Rising stem	Stainless steel	Corrosion-resistant surface
Yoke / handwheel	Ductile iron	Epoxy coated
Stem nut	Copper alloy	Replaceable
Seals	EPDM	Selected for service medium

Dimensions and weights vary by size, face-to-face series and operating arrangement. Final certified drawings are supplied for order approval.

Direct-Buried NRS Resilient Seated Gate Valve

A non-rising stem gate valve equipped for direct underground operation through an extension spindle, protective tube and surface operating cap or valve box.

Size range	2"-48" / DN50-DN1200
Pressure rating	PN10 / PN16
Operation	Extension spindle and cap top
Connection	Flanged ends
Installation	Direct buried / underground



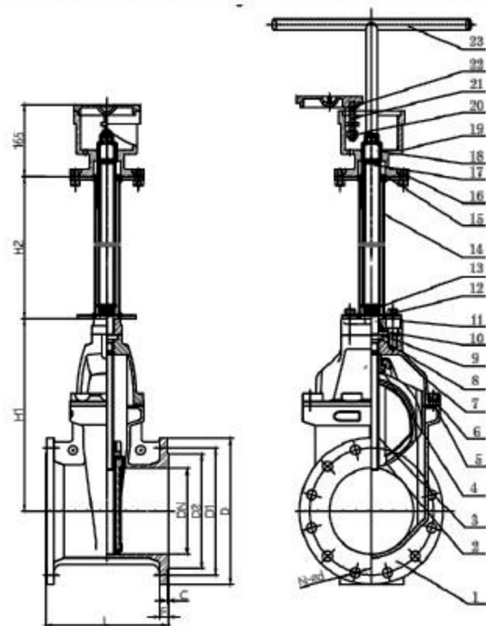
Key advantages

- Operation from ground level
- Adjustable or fixed extension options
- Protective tube shields operating components
- Suitable for municipal distribution networks

Direct-Buried Valve - Installation Data

► ZM45X Directly Buried Resilient Seated Gate Valve

Valve design	EN 1171 / EN 1074-2
Face-to-face	EN 558 Series 14 or Series 15
Flanges	EN 1092-2, PN10 or PN16
Burial depth	Specified at order stage



Typical materials of construction

Component	Standard material	Optional / note
Valve body	Ductile iron	FBE epoxy coated
Extension spindle	Carbon steel / stainless steel	By project requirement
Protective tube	PE / coated steel	Protects extension assembly
Operating cap	Ductile iron / steel	Square cap to specified dimension
Wedge and seals	EPDM	NBR option
Valve box	Optional	Selected for road or landscaped area

Dimensions and weights vary by size, face-to-face series and operating arrangement. Final certified drawings are supplied for order approval.

Electric Actuated Resilient Seated Gate Valve

An electric actuator enables local, remote or centralized operation for pumping stations, treatment facilities and automated water networks.

Size range	2"-48" / DN50-DN1200
Pressure rating	PN10 / PN16
Actuation	Electric, multi-turn
Connection	Flanged ends
Control	Open/close or modulating option

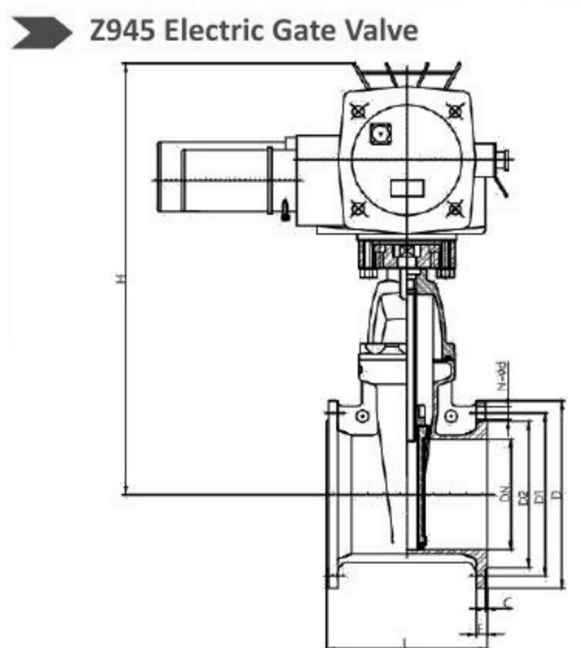


Key advantages

- Remote open and close control
- Local handwheel override
- Limit and torque protection options
- Control signals selected to project requirements

Electric Gate Valve - Actuator Selection

Valve design	EN 1171 / EN 1074-2 / BS 5163
Testing	EN 12266-1
Power supply	Specified by project
Protection	IP rating and enclosure by order



Typical materials of construction

Component	Standard material	Optional / note
Valve assembly	Ductile iron resilient seated	PN10 / PN16
Actuator type	Multi-turn electric	Open-close or modulating
Local controls	Selector and push buttons	Optional configuration
Position feedback	Limit switches / transmitter	By control philosophy
Communication	Hardwired / fieldbus	Project-specific
Manual override	Handwheel	Standard actuator feature

Dimensions and weights vary by size, face-to-face series and operating arrangement. Final certified drawings are supplied for order approval.

Grooved-End Resilient Seated Gate Valve

Designed for grooved piping systems, this valve supports fast installation without flanged bolting. The red coating suits common fire-water identification practices.

Size range	2"-12" / DN50-DN300
Pressure rating	PN10 / PN16
Operation	Handwheel
Connection	Grooved ends
Typical service	Fire water and utility water



Key advantages

- Compact connection arrangement
- Fast installation and maintenance
- No mating flanges required
- Red coating retained for fire-water service

Grooved-End Valve - Connection & Selection

Connection compatibility

Groove outside diameter and groove geometry shall match the selected piping and coupling standard. Confirm coupling manufacturer, pipe material, pipe outside diameter and working pressure before order release.

Selection item	Required confirmation
Nominal size	2"-12" / DN50-DN300
Pressure rating	PN10 or PN16
Groove standard	AWWA C606 or approved project standard
Pipe material	Steel, ductile iron or specified piping
Coupling	Compatible grooved coupling and gasket
Coating	Red FBE epoxy; other colors by request

Important

Grooved-end dimensions are not interchangeable with EN 1092-2 flanged dimensions. Certified end details and coupling compatibility must be approved for the selected piping system.

Standard face-to-face options support common waterworks layouts

Reference face-to-face lengths (mm)

Size	EN 558 S14 (F4)	EN 558 S15 (F5)	BS 5163 type
DN50	150	250	178
DN65	170	270	190
DN80	180	280	203
DN100	190	300	229
DN125	200	325	254
DN150	210	350	267
DN200	230	400	292
DN250	250	450	330
DN300	270	500	356
DN350	290	550	381
DN400	310	600	406
DN450	330	650	432
DN500	350	700	457
DN600	390	800	508

Values shown are selection references. Flange drilling, overall height, operating torque and weight depend on pressure rating and final configuration. Sizes above DN600 require certified project drawings.

Materials are selected around medium compatibility and corrosion protection

Part	Standard	Alternative / selection note
Body and bonnet	Ductile iron	Grade according to approved manufacturing specification
Resilient wedge	DI fully encapsulated with EPDM	NBR for compatible oil-bearing media
Stem	Stainless steel	Grade confirmed by order specification
Stem nut	Copper alloy	Selected for wear and operating torque
Bonnet gasket / O-rings	EPDM	NBR option
Fasteners	Carbon steel or stainless steel	External protection according to environment
Internal/external coating	Fusion-bonded epoxy	Color and thickness by project requirement

Elastomer selection

EPDM

Preferred for clean water, potable-water projects subject to required approvals, wastewater and many HVAC applications. Not recommended for petroleum oils.

NBR

Used where resistance to oils and hydrocarbons is required. Suitability depends on medium concentration, temperature and project specification.

Specify it once. Select it correctly.

Ordering information

- Valve series and stem arrangement
- Nominal size and pressure rating
- Face-to-face and end-connection standard
- Body, wedge, stem and elastomer materials
- Operation method and actuator requirements
- Medium, temperature and installation environment
- Coating color, thickness and documentation needs



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