

KR VAVLE: Water Treatment Valve Selection Types and RFQ Checklist



Tianjin, China Oct 30, 2026 (Issuewire.com) - Water treatment valve selection starts with the duty: isolating equipment, preventing reverse flow, or controlling pressure and tank level. Then control the fluid, operating conditions, installation dimensions, and maintenance access. Pipe diameter and pressure class alone cannot establish whether a valve will work in a particular location.

For engineers and procurement teams, the practical objective is a valve schedule that connects each installation point to a defined function. This makes supplier quotations easier to compare and reduces the chance that a technically incomplete description reaches the purchasing stage.

Which valve types belong in a water treatment system?

Different functions require different valve designs. An isolation valve provides a planned shutoff point; a check valve responds to flow direction; a control valve manages a specified operating variable. Although the filter is not a valve, it can remove debris and falls within the scope of the equipment protection discussion.

Component

Butterfly valve

Main duty

Isolation; design of flow regulation

Selection question

Do the disc, seat, connection, and actuator suit the duty?
What are the advantages of hydraulic butterfly valves?
What is the difference between a midline butterfly valve and an eccentric butterfly valve?
Concentric vs. double-offset butterfly valve: what is the difference?
Double offset vs. triple offset butterfly valve: which one for steam?
Wafer vs lug butterfly valve difference, can lug type be used for dead end?
Butterfly valve vs. gate valve for a large-diameter water pipeline?
EPDM vs. NBR vs. PTFE seat butterfly valve selection guide
What is the temperature limit for the EPDM seat butterfly valve?
Can a rubber-seated butterfly valve work for steam?
WCB / ductile iron / SS316 butterfly valve body material selection
How to calculate butterfly valve actuator torque
Pneumatic vs. electric butterfly valve: which one to select?
Butterfly valve internal leakage, common causes & solutions

Resilient seated gate valve

Main duty

On/off isolation in compatible water service

Selection question

Are sealing materials, dimensions, and operating access suitable?

What is the difference between a rising stem gate valve and a non-rising stem gate valve?

What is the applicable environment for EPDM gate valves?

Wedge gate valve vs. resilient gate valve application difference

OS&Y vs. NRS gate valve: how to choose

When to use a gate valve instead of a globe valve

What seat material for the gate valve: a resilient seat or a metal seat?

Temperature and pressure limit of a resilient seated gate valve

Can a metal-seated gate valve be used for steam?

Actuator torque calculation for a large-diameter gate valve

ISO5211 mounting for gate valve actuator

Can a gate valve be installed horizontally and vertically?

Check valve

Main duty

Prevent reverse flow.

Selection question

Does its closing behavior suit the hydraulic system?

What is the kind of check valve? Dual disc check valve, swing check valve, lifting check valve

Swing check valve vs. dual plate check valve: which one for pump outlet?

Lift check valve vs. swing check valve: difference and application

Silent check valve vs. swing check valve: how to choose

Can a check valve be installed on the pump suction side safely?

Hydraulic control valve

Main duty

Pressure or level control, depending on configuration

Selection question

Which variable must the pilot system control?

How to operate the hydraulic control valve?

When to use a hydraulic control butterfly valve instead of an electric butterfly valve?

How does a hydraulic slow-closing butterfly valve eliminate water hammer?
How to set a slow closing time for a hydraulic control butterfly valve
What will happen if the hydraulic butterfly valve closing speed is too fast?
A hydraulic butterfly valve cannot close fully. What are the causes?
Hydraulic control butterfly valve internal leakage after long service?

Y strainer
Main duty
Capture specified debris.
Selection question
What screen opening and pressure loss are acceptable?
Y vs. basket strainer: which one to choose?
Y strainer vs. T strainer difference and application
When to use a Y-type strainer before the control valve/pump?
How to select mesh size for Y strainer
Can the Y strainer be installed after the check valve?
Does the Y strainer need a bypass line?
How often to clean the Y strainer screen?

Use this matrix to assign functions before comparing construction details. Water supply guidance from AVK likewise distinguishes shutoff, check, and control duties by their application within the network.

When should you consider butterfly or gate valves?
Consider butterfly valves where a rotating disc and compact installation suit the piping layout. Selection still requires checking the seat material, disc clearance, flange compatibility, and available operating torque. A valve that fits between two flanges may still conflict with the adjoining pipe bore or equipment.

For modulating duty, request flow capacity data and review the operating range. Do not assume every isolation valve can regulate continuously. NTGD's selection guidance identifies pressure drop, operating angle, and actuator requirements as checks for butterfly valve throttling service.

For compatible water lines requiring on/off isolation, resilient seated gate valves are another option. Specify the installed dimensions and stem arrangement alongside the nominal size. Underground installations and accessible plant rooms create different requirements for operation and inspection.

A useful procurement question is, can the operator reach and operate the valve after the surrounding equipment is installed? Resolve that on the layout drawing before approving the purchase.

For a replacement project, photograph the installed assembly and record the nameplate, connection details, and surrounding clearances. Request a dimensional drawing for approval. If a proposed substitute changes the operating method or installed length, document that change before ordering; otherwise, the installation team may discover the mismatch on site.

How should you specify check valves at pump outlets?
Select check valves by fluid conditions, installation orientation, flow range, and closing behavior. Their purpose is to prevent reverse flow, but the appropriate design depends on how the pumping system behaves during operation and shutdown.

Water hammer involves pressure transients associated with changes in liquid velocity. Research on pipeline valve closure shows why the closure process matters to pressure response. Neither "fast

closing" nor "slow closing" establishes suitability on its own.

For a pumping station, provide the supplier with the pump operating range, pipeline arrangement, elevation information, and expected shutdown conditions. Ask whether the proposed valve requires a transient assessment and what performance information is available. This turns an ambiguous request for an "anti-water-hammer valve" into a reviewable engineering task.

What changes between pressure control and level control?

A pressure reducing duty and a tank filling duty require different control objectives. Identify the controlled variable before selecting water control valves; a similar body appearance does not make pilot configurations interchangeable.

For pressure reduction, record inlet pressure variation, the required downstream pressure, and minimum and maximum flow. For tank filling, describe the required level behavior and available installation arrangement. Have the supplier confirm the selected configuration, operating limits, and maintenance needs in writing.

KR VALVE offers pressure-reducing and remote float control options. The proposed assembly should be reviewed against the actual service conditions rather than selected from a model name alone.

How do materials and strainers affect selection?

Define the complete fluid exposure before approving body, disc, stem, and sealing materials. Clean water, wastewater, and chemical treatment streams are different services. Include temperature, chemical concentration where relevant, and cleaning conditions in the specification.

For drinking water projects, request the applicable product documentation for the destination market and intended use. Confirm which supplied components the documentation covers. A material name alone does not establish approval for the complete assembly.

Where debris could affect downstream equipment, assess Y-type strainers as part of the piping design. Screen opening, available screening area, and flow capacity influence performance. Spirax Sarco explains that pressure loss can be significant in pumped water service and can be assessed using capacity data or pressure loss diagrams.

Include space to remove and clean the screen. A strainer installed where its cover cannot be accessed creates a maintenance problem even if its hydraulic sizing is correct.

During design review, mark the expected removal path for serviceable parts on the arrangement drawing. Check whether adjacent equipment must be dismantled to gain access. Procurement can then ask bidders to identify maintenance requirements and recommended spares, allowing the project team to compare service arrangements alongside the initial purchase price.

What should a water treatment valve RFQ include?

A useful request for quotation links every valve tag to operating data and an acceptance requirement. As a procurement checklist, include:

Service: fluid, solids or debris, temperature range, and relevant chemical exposure.

Hydraulics: flow range, operating and design pressures, differential pressure, and identified transient conditions.

Installation: nominal size, flange drilling, face-to-face dimensions, orientation, and maintenance

clearance.

Construction: required materials, coatings, sealing arrangement, and any restrictions imposed by the project.

Operation: manual or powered actuation, supply details, control signals, and required behavior following power loss.

Acceptance: applicable specification, inspection and test requirements, drawings, documentation, and spare parts.

For example, a replacement valve request should include the existing flange details and available installed length. A new pump discharge valve request needs hydraulic information as well. These are different purchasing tasks even when both valves share a nominal diameter.

Compare quotations against the same schedule and require suppliers to list deviations explicitly. Keep unresolved items visible until the responsible engineer approves them.

Separate mandatory requirements from preferences in the bid comparison. For each proposed alternative, record the original requirement, the offered configuration, and the approval decision. Keep the approved drawing revision attached to the order. This provides a shared reference for purchasing, incoming inspection, installation, and later spare part requests, without relying on an informal email description.

Prepare the next engineering review.

KR VALVE supplies butterfly, gate, check, and water control valves alongside Y strainers, with OEM services available. To discuss your valve requirements, send the valve schedule, operating conditions, installation drawings, and required documentation. A defined application gives the technical team a practical basis for reviewing the proposed configuration and quotation.

Contact Us

KR VALVE (TIANJIN) CO., LTD.

+86 18920615838

info@tjkrvalve.com

+86 18920615838

No. 355 Kangda Street, Zhongtang Development Zone, Binhai New Area, Tianjin

Welcome to KR VALVE(<https://www.tjkrvalve.com/>)

KR VALVE (TIANJIN) Co., LTD is a company specializing in valve design and manufacturing and comprehensive technical services. Guided by our core corporate philosophy-"Quality Settles the Cornerstone, Innovation Leads Development"-we have solidified our position as a trusted partner for clients worldwide.

KR has more than 20 years of experience in producing standard and non-standard valves of various types. We supply a wide selection of over 500 valve products, including butterfly valve, gate valve, check valve, water control valve, as well as all their matching and accessory products. These products have applications in various industries such as water treatment, dam construction, commercial buildings, energy and heating, chemical engineering, etc. We has won high repeat purchase rates from customers with excellent product variety and quality.

Beyond product excellence, we are dedicated to creating a mutually beneficial partnership with every customer. We believe that reliable service is as crucial as superior products, and we strive to continuously optimize the customer experience to achieve long-term win-win cooperation.

Today, KR VALVE's products have been exported to over 50 countries and regions in Europe, Asia,

Africa, and Oceania, providing project construction and brand marketing services to thousands of customers. We look forward to collaborating with you, leveraging our expertise, comprehensive product range, and unwavering commitment to quality and service to support your success.

Design

R&D department to ensure product design and continuous innovation.

Our technicians continuously design and develop products that meet customer and market requirements, our lab provides extensive modern testing capabilities to elevate product performance development. We have 20 series and over 500 varieties of our products now.

Design

Production

Production department formulates the production plan and produces according to the plan to ensure timely delivery according to customer requirements.

Products are manufactured under strict supervision in accordance with the ISO-9001 quality management system. We have over 30 production equipment and update our inventory monthly to meet and exceed customer expectations for delivery.

inspection

Inspection department to ensure 100% inspection quality of products. Zero leakage is our principle.

According to international quality inspection standards, conduct a series of inspections on the appearance, size, pressure, etc. of the product and issue the report in compliance with international standards.

Media Contact

KR VAVLE (TIANJIN) CO., LTD.

*****@tjkrvalve.com

+86 18920615838

No. 355 Kangda Street, Zhongtang Development Zone, Binhai New Area, Tianjin

<https://www.tjkrvalve.com/>

Source : KR VAVLE (TIANJIN) CO., LTD.

[See on IssueWire](#)