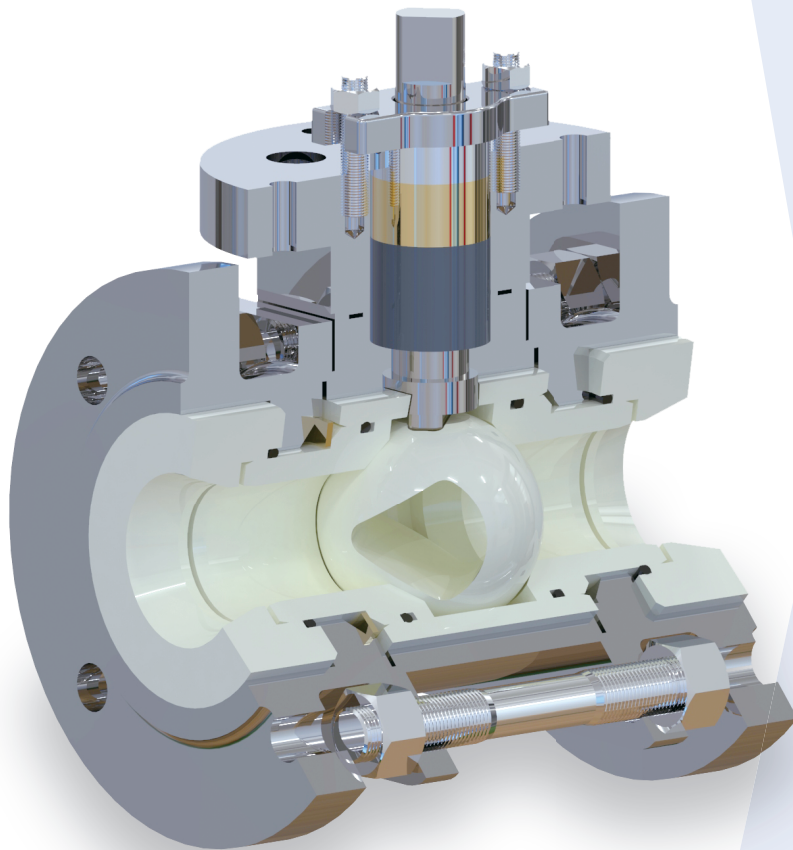


KOWOY[®]

CERAMIC VALVES

陶瓷阀门 | 陶瓷阀门的引领者
The leader in ceramic valves



烟台金泰美林科技股份有限公司
Yantai Kingway Science & Technology Co.,Ltd

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KOWOV Ceramic Products

Ensure Your System Safe, Stable, and Efficient !



Energy & Environmental Protection



Desulfurization Denitrification
Three Wastes Treatment
Fly Ash Removal
Zero Wastewater Discharge

Coal Chemical Industry



Blast Furnace Coal Injection, Ash and Dust Removal, Sintering Machine Desulfurization, Electric Furnace Carbon Injection, Hot Metal Pretreatment

Silicon Chemical Industry



Silicon Powder Transportation, Slurry Discharge, Residual Liquid Treatment, Primary, Secondary, and Tertiary Cyclones, Fine Powder Tank Venting

Fertilizer Industry



Slurry, sediment sludge, crystallized phosphoric acid; crystallized mixture, ammonium nitrate, phosphoric acid, and phosphates

Iron & Steel Metallurgy



Blast Furnace Coal Injection, Ash and Dust Removal, Sintering Machine Desulfurization, Electric Furnace Carbon Injection, Hot Metal Pretreatment

Mining and Smelting



Tailings Backfill, Slurry and Ore Sand Transportation, Cyanidation, Smelting, Electrolysis

Petrochemistry



Catalytic Cracking, Drilling Mud, Acidic Mixtures

Salt Chemical



Carbide Slurry, Salt Mud, Lime Milk, Ammonium Salt Water, Sulfuric Acid, Hydrochloric Acid, Liquid Chlorine

Hydrometallurgy



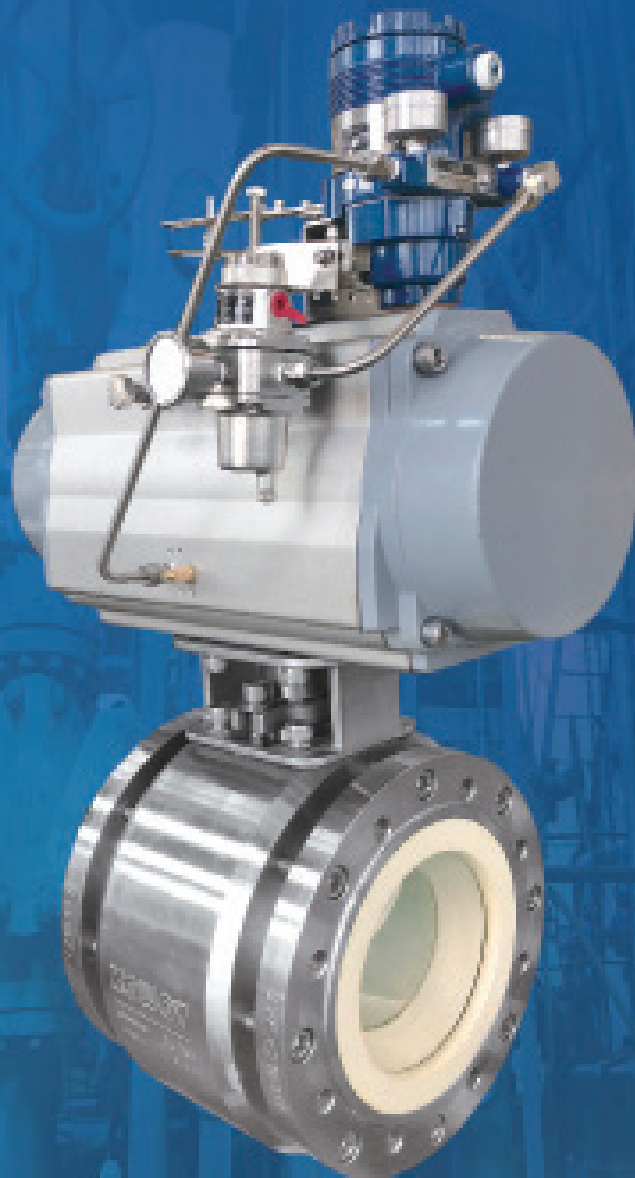
Casting, Mining and Mineral Processing, Non-Ferrous Smelting, Molding Sand Transportation, Slurry Regulation





CERAMIC BALL VALVES

The advanced structure of KOWOV ceramic ball valves, designed by our expert team, offers easier installation, greater versatility, and higher reliability than those from Germany, Japan, the United States, and other countries. Through dedicated research and development, our ceramic ball valves meet various customized customer needs and have fully surpassed internationally available options from Germany, Japan, the United States, and other countries.



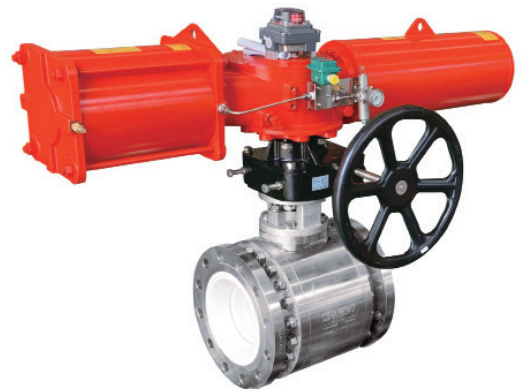
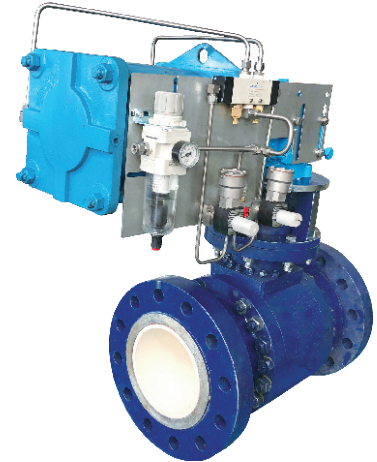
Overview of Ceramic Ball Valve

KOWOV ceramic ball valves are the premier offerings of Kingway Company. After decades of dedicated research and application, they have become the ideal replacement for metal hard-seal valves, various precious metal valves, and internationally available ceramic ball valves. KOWOV ceramic ball valves combine the dual advantages of structural ceramics and ball valves. The main sealing pair adopts a ceramic-to-ceramic hard seal, and all ceramic components are made of wear-resistant ceramic materials. This fully utilizes the high hardness of structural ceramics, effectively expanding the application range of ball valves. They can be used not only as shut-off valves but also as control valves.

The advanced structure of KOWOV ceramic ball valves, designed by our expert team, has comprehensively surpassed those from Germany, Japan, the United States, and other countries. They offer easier installation, greater versatility, and higher reliability, and can match all commonly used ball valve specifications. With over twenty years of high-tech structural ceramics research and production experience, we have effectively controlled and overcome the weaknesses of structural ceramics, ensuring reliability in use.

KOWOV series ceramic ball valves are categorized into various series based on different working conditions, using different ceramic materials and valve structures according to the medium, temperature, and pressure. These valves are mainly suitable for harsh conditions with both particles and corrosion in gas-solid/liquid-solid/gas-liquid-solid two-phase or three-phase environments.

They are widely used in various harsh and demanding conditions in industries such as energy and environmental protection, steel metallurgy, coal chemical industry, silicon chemical industry, salt chemical industry, petrochemical industry, lithium battery, mining and smelting, and paper making.



Main technical parameters

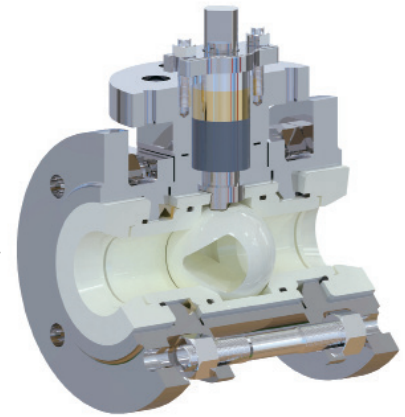
Size	1/2"~16" (15mm~400mm)
Maximum working pressure	Class900 (15.0MPa)
Maximum operating temperatur	456°C
Thermal Shock	392°F/200°C
Maximum seal level	Class VI ANSI B16.104/FCI 70.2
Standard for structural length	ASME B16.10
Flange standard	ANSIB16.5, DN,JIS ,BS,HG.

FCCV1 STANDARD CERAMIC BALL VALVE

The FCCV1 series is the standard type of ceramic ball valve in the series, designed for high corrosion and severe wear conditions with a maximum temperature of 180°C and a maximum pressure differential of 2.0 MPa.

Structural characteristics

- Broad sealing surface with scraper-type valve seat for reliability and long life.
- Matched and ground ball and seat surfaces ensure sealing.
- Packing box with "live load" for constant load under wear, prolonging packing life.
- Symmetrical valve design for bidirectional sealing, doubling service life.
- Large ceramic flange surface protects metal flange from erosion and corrosion.



Hot Assembly
Process

Symmetrical
design

Stem for
applicable
conditions

Valve body
with built-
in mounting
platform

Wide independent
ceramic flange
surface

All-ceramic
flow passage

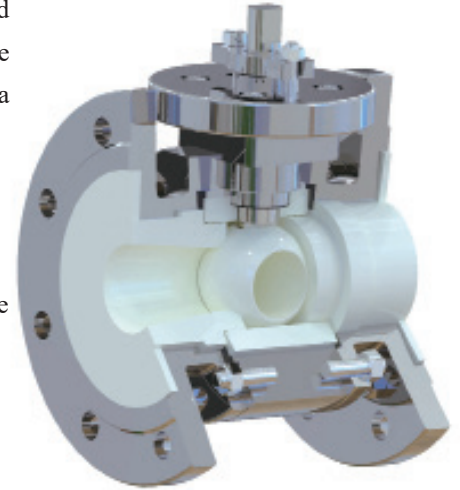
Main technical parameters

Structural form	Floating Ball
Flange standard	ASME B16.5/HG/DIN/JIS
Nominal Path	DN15~DN250
Nominal pressure	PN10~PN50/150Lb~300Lb
Service temperature	-40°C~180°C



FCCV2 HIGH TEMPERATURE CERAMIC BALL VALVE

When operating conditions require ceramic ball valves beyond the standard range for high temperatures and severe thermal shock, FCCV2 series valves are suitable. They are designed for applications involving highly corrosive media with high temperatures and significant thermal shocks.



Structural characteristics

- No sealing rings, suitable for high temperatures, organic solvents, and strong corrosive environments.
- Fully hard-sealing surfaces, no non-metallic materials like graphite or PTFE.
- "Live load" in the packing box maintains constant load under wear for long packing life.

Upper and lower sliding bearings in the packing box prevent valve displacement and

- packing squeeze, enhancing packing longevity.

Hot Assembly
Process

No o-ring, better
heat resistance

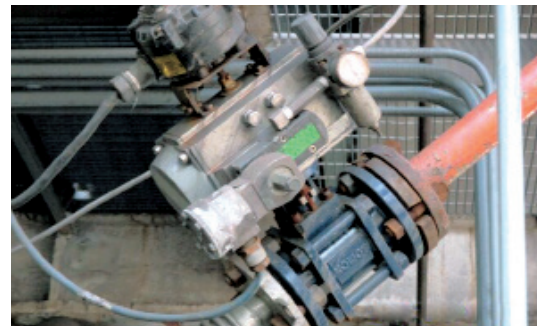
Blowout-
proof stem

Wide independent
ceramic flange
surface

All-ceramic
flow passage

Main technical parameters

Structural form	Floating Ball or Fixed Ball
Flange standard	ASME B16.5/HG/DIN/JIS
Nominal Path	DN25~DN250
Nominal pressure	PN10~PN50/150Lb~300Lb
Service temperature	-40°C~456°C



FCCV3 INNER F-LINED CERAMIC BALL VALVE

PTFE (Teflon) is one of the most corrosion-resistant materials, but over time, it tends to age and lose its sealing effectiveness, leading to multiple valve issues. By replacing the PTFE-lined ball core with structural ceramic, the valve's sealing performance and lifespan can be significantly extended, making it suitable for highly corrosive, low-temperature, and low-pressure conditions without particulate media.



Structural characteristics

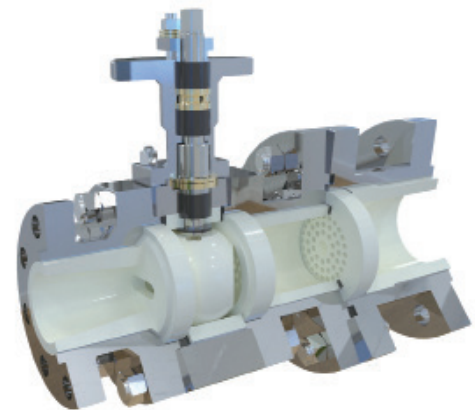
- Flat + concave-convex surface seal between valve body pieces for excellent sealing and leak prevention.
- Abundant packing with metal spring for automatic compensation, ensuring optimal sealing.
- Valve seat uses surface seal.
- Valve body cavity has multiple dovetail grooves, multi-sided valve stem, and multi-hole ball design.
- Split structure with small cavity to prevent material accumulation.

Main technical parameters

Structural form	Floating Ball
Flange standard	ASME B16.5/HG/DIN/JIS
Nominal Path	DN15~DN200
Nominal pressure	PN10~PN16/ANSI 150Lb
Service temperature	-40°C~150°C

FCCV4 ANTI-DEFLECTION CERAMIC BALL VALVE

The anti-bias flow ceramic ball valve is suitable for flow regulation or primary pressure relief under high differential pressure conditions. It reduces valve erosion, vibration, and noise to below specified levels while meeting the medium's scouring and cavitation requirements.



Structural characteristics

- Anti-bias flow prevents severe erosion at small openings.
- Vibration reduction minimizes vibrations from "water hammer effect" near elbows.
- Noise reduction customizable for single or multi-stage noise reduction to meet standards.
- Pressure reduction customizable to meet on-site requirements.

Main technical parameters

Structural form	Floating Ball or Fixed Ball
Flange standard	DIN/ANSI/API/HG
Nominal Path	DN25~DN250
Nominal pressure	PN10~PN150/150Lb~900Lb
Service temperature	-40°C~456°C

FCCV5 HIGH TEMPERATURE & HIGH PRESSURE CERAMIC BALL VALVE

Specifically developed for conditions with high temperatures, high pressures, and fast-flowing media containing solid particles, it is suitable for applications involving severe wear and corrosive media under high temperature, high pressure, and high differential pressure conditions.

Structural characteristics

- Extra-large ceramic ball, doubling the ball strength;
- Scraper-type valve seat with a wide sealing surface, ensuring reliable and long-lasting seal;
- All hard-sealing surfaces with no graphite or PTFE non-metallic materials;
- Dovetail groove sealing structure with wide spiral wound gasket, ensuring zero leakage of the housing seal under pipeline stress or cyclic thermal stress;
- Packing box equipped with a "live load" that maintains a constant load even under significant wear, ensuring long packing life.



Hot Assembly Process

Triple packing seal

Blowout-proof stem

Tenon seal structure

High Platform structure

All-ceramic flow passage

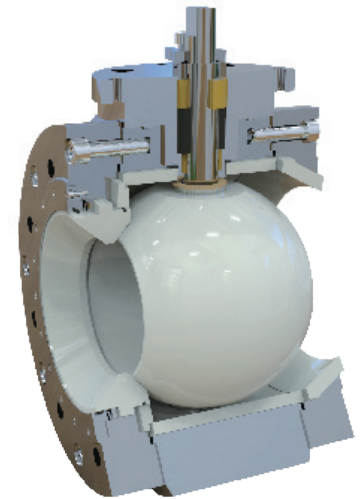
Main technical parameters

Structural form	Floating Ball or Fixed Ball
Flange standard	ASME B16.5/HG/DIN/JIS
Nominal Path	DN15~DN300
Nominal pressure	PN63~PN150/300Lb~900Lb
Service temperature	-40°C~456°C



FCCV6 SINGLE SEAT CERAMIC BALL VALVE

The most notable feature of this series of ceramic ball valves is the absence of a dead space, making them ideal for controlling highly viscous, crystallizing, and scaling slurries and mineral slurries. They ensure excellent performance and long-term stable operation of the system.



Structural characteristics

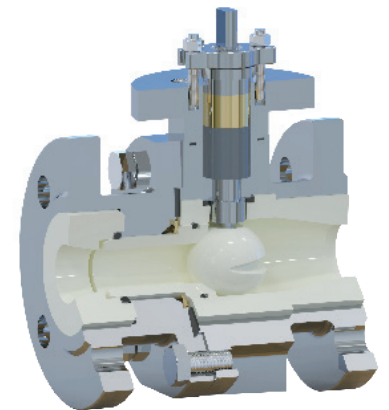
- No-cavity design prevents material accumulation.
- Fixed ball design ensures low operating torque.
- Highest sealing level: ANSI Class VI.
- Scraper-type valve seat cleans sealing surfaces with each operation.
- Blowout-proof stem design ensures safety.
- Automatic compensation structure for long-lasting packing life.

Main technical parameters

Structural form	Fixed Ball
Flange standard	ASME B16.5/HG/DIN/JIS
Nominal Path	DN25~DN400
Nominal pressure	PN10~PN50/150Lb~300Lb
Service temperature	-40°C~220°C

FCCV7 PRECISION CONTROL CERAMIC BALL VALVE

For media that are both corrosive and subject to solid erosion and wear, with a CV value below 10, and requiring high flow regulation precision, this series of ceramic ball valves is an exceptionally competitive product.



Structural characteristics

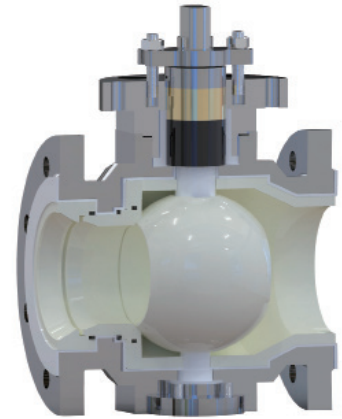
- Tapered grooves on the ceramic ball core serve as flow regulation windows, ensuring high precision.
- Grooves adhere to the Coanda effect principle, preventing medium bias flow and erosion.
- Solid ceramic ball core, significantly stronger than conventional ones.
- Slotting design allows precise regulation of very small flow rates.

Main technical parameters

Structural form	Fixed Ball
Flange standard	ASME B16.5/HG/DIN/JIS
Nominal pressure	≤300Lb
Service temperature	≤180°C

FCCV8 DOUBLE LINING CERAMIC BALL VALVE

The metal inner wall is coated with PTFE material using the molding process. The PTFE material is formed and closely bonded with the metal, providing reliable corrosion resistance and sealing performance. The flow passage is fully lined with ceramic, ensuring excellent wear resistance and corrosion resistance of the valve. With double sealing protection, it is suitable for highly corrosive critical applications.



Structural characteristics

- Double lining structure, double sealing, and corrosion protection;
- The PTFE lining is applied using the molding process, combined with a dovetail groove design, ensuring the lining does not detach.
- The split-body design reduces the cavity volume, preventing material accumulation.

Main technical parameters

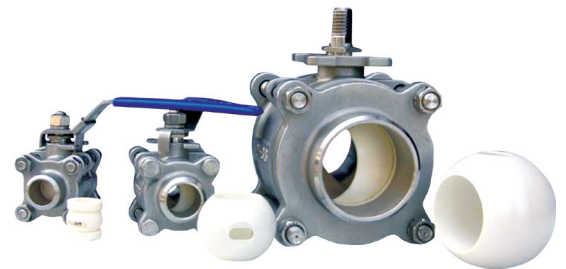
Structural form	Floating Ball or Fixed Ball
Flange standard	ASME B16.5/HG/DIN/JIS
Nominal Path	DN15-DN250
Nominal pressure	≤300Lb
Service temperature	-40°C~180°C

FCCV UNLINED HARD CERAMIC BALL VALVE

The full bore series ceramic ball valve is suitable for all corrosive media applicable to stainless steel, as well as harsh conditions containing high-hardness particulate media.

Main technical parameters

Structural form	Fixed Ball
Flange standard	ASME B16.5/HG/DIN/JIS
Nominal Path	DN15~DN250
Nominal pressure	≤300Lb
Service temperature	-40°C~180°C

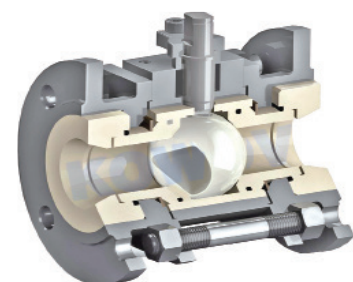


ELCV ECONOMICAL CERAMIC BALL VALVE

The structural form is essentially the same as the FCCV1 structure, but without the upper platform. The material selection is flexible based on working conditions, opting for cost-effective structural ceramics with slightly lower reliability.

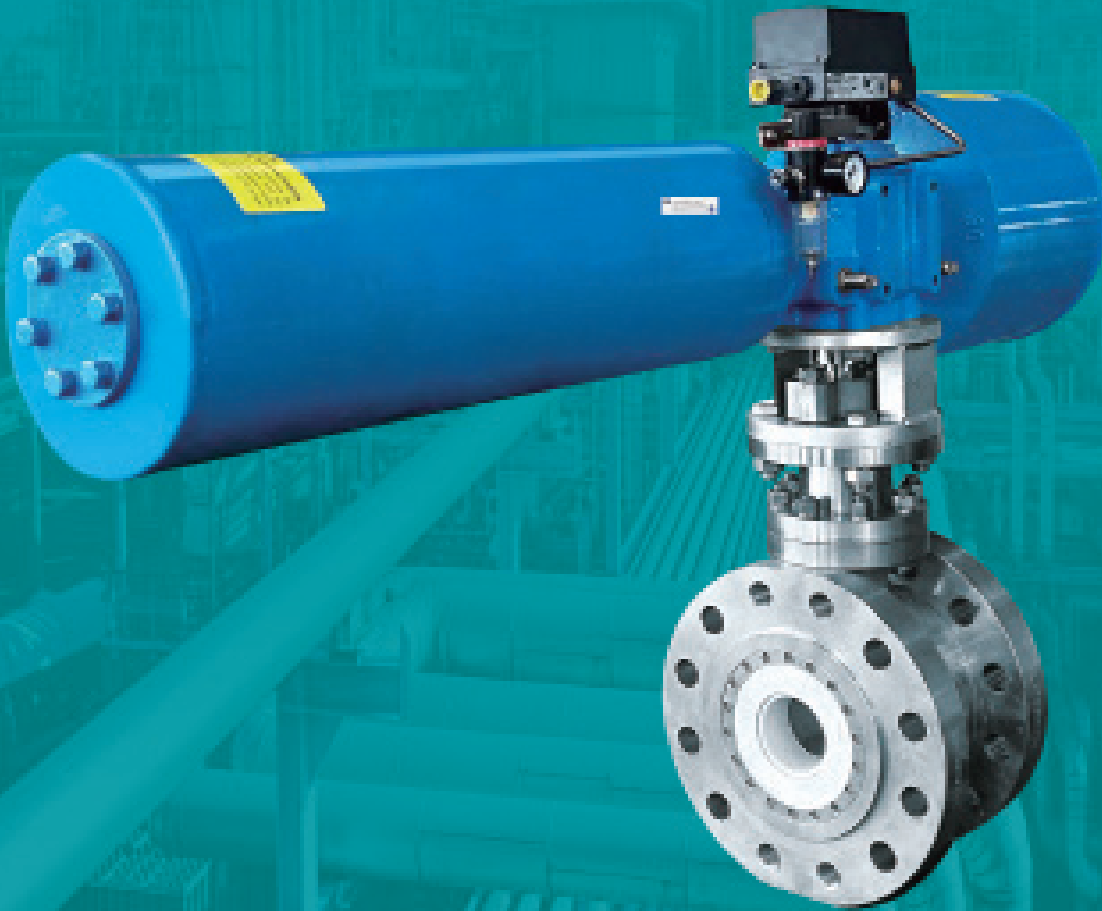
Main technical parameters

Structural form	Fixed Ball
Flange standard	ASME B16.5/HG/DIN/JIS
Nominal Path	DN15~DN250
Nominal pressure	PN10~PN50/150Lb~300Lb
Service temperature	-40°C~180°C



CERAMIC C ROTARY VALVE

The KOWOV series ceramic C valve features a non-eccentric, cavity-free design. The ball core can bear high torque, making it particularly suitable for harsh conditions where the medium tends to crystallize, scale, or clog.

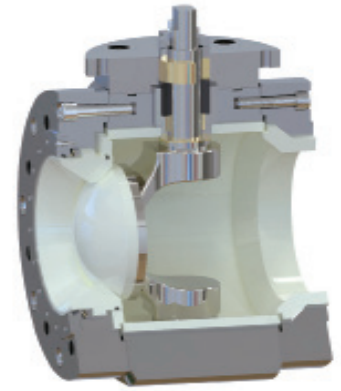


FCRV CERAMIC C ROTARY VALVE

Currently, in various industries, certain highly erosive conditions require strict sealing while dealing with media that are viscous, prone to caking, scaling, crystallizing, or containing large particles, causing various valves to clog. This calls for a valve that can function both as a control valve and a shut-off valve, with excellent sealing performance, smooth operation, and the ability to overcome various clogging situations.

Compared to the eccentric and double eccentric valves on the market, the KOWOV series ceramic C valve features a non-eccentric design, ensuring no erosion of the valve stem during small opening angles, thereby providing maximum protection to the valve stem.

The ball crown of the valve maintains close contact with the seat, allowing for the shearing of adhered materials and debris on the sealing pair, ensuring the cleanliness of the sealing surfaces; the inherent self-lubricating properties of ceramics ensure that the ball core and the seat do not stick to the medium. The valve body adopts a structural design with upper and lower support shafts for positioning. The support shafts are statically fitted with the valve body, preventing any tilting of the C-rotary. The valve stem is set inside the upper support shaft, and the thrust of the medium on the C-rotary is borne by the upper and lower support shafts, with the valve stem only transmitting the torque for opening and closing the ball valve.



Structural characteristics

- Special C-type structure design with ball core mechanically connected and embedded by C-type lugs and ceramic ball crown, protecting lugs from erosion.
- Concentric design keeps ceramic ball crown in close contact with the seat, scraping off adhered materials and ensuring sealing performance.
- C-type lugs directly bear rotational torque, ideal for harsh conditions with crystallization, scaling, caking, high solid content, and clogging.
- Cavity-free design prevents material accumulation inside the valve.
- Fixed ball design prevents ball core movement under pressure, resulting in low operating torque, achieving ANSI Class VI sealing.
- All flow passages in contact with the medium are lined with ceramic, ensuring corrosion resistance.
- Anti-blowout stem design ensures valve safety and reliability.

Main technical parameters

Structural form	Fixed Ball
Flange standard	ASME B16.5/HG/DIN/JIS
Nominal Path	DN50~DN400
Nominal pressure	PN10~PN150/150Lb~900Lb
Service temperature	-40°C~456°C



CERAMIC SLIDE VALVE

The valve core moves up and down in a linear motion on the valve seat, creating a planar seal with the edge of the seat flow passage hole, minimizing erosion on the sealing surfaces by the medium. When the medium flows through the valve, there are no sharp turns or stagnation points, greatly reducing flow resistance and erosion.



FCSV CERAMIC SLIDE VALVE



The flow passage holes of the valve and the pipeline are intentionally separated to reduce erosion on the sealing surfaces by the medium. The sealing of the valve is achieved through a planar seal with a slider corresponding to the shape of the valve flow passage hole, sealing along the edge of the flow passage hole. This design can be used as a shut-off valve or a control valve, suitable for conditions with many impurities and severe erosion. In terms of valve structure, the flat-type valve core fits against the fixed valve seat to create a seal, with the highest sealing level being unidirectional Class IV. Each valve is designed with the optimal structural type and material combination based on the specific working conditions.

Main technical parameters

Flange standard	ASME B16.5/HG/DIN/JIS
Nominal Path	DN50~DN400
Nominal pressure	PN10~PN150/150Lb~900Lb
Service temperature	-29°C~456°C

Structural characteristics

- The valve core moves linearly on the valve seat, creating a planar seal at the edge of the valve seat flow passage hole, allowing throttling, opening, and closing.
- The design minimizes flow resistance and erosion, with no sharp turns or stagnation points.
- The valve core is embedded in a metal mounting plate with ceramic to prevent breakage from clogging.
- Each valve seat and valve core are pair-ground to ensure sealing.
- The metal mounting plate has a T-slot that connects with the valve stem's T-slot, keeping the valve core floating and improving sealing performance.
- Both valve core and seat are made of structural ceramic, with ceramic-lined flow passages at the flanges for wear, corrosion, and erosion resistance.
- The valve's design significantly extends its service life (interior valve body currently cannot be lined with ceramic).
- Equipped with a "live load" that maintains a constant load under significant wear, ensuring packing longevity.

Main Applications

Ceramic slide valves can achieve cut-off and regulation for various slurries, gas-solid particle media, and gas-solid-liquid three-phase media, especially in severely erosive conditions. They ensure no stalling or clogging, maintain long-term effective sealing, improve valve service life, and ensure long-term stable operation of the device.

Coal Chemical Industry: Quenching water control valve; black and grey water flow control valve.

Salt Chemical Industry: Lime milk flow control valve in soda ash production.

Petrochemical Industry: Catalyst particle transportation control valve.

Ore Metallurgy: Tailings backfill, ore transportation, ore feeding, copper mine on-off and control valves.

Waste Incineration Power Plants: Limestone slurry atomization flow control valve.



CERAMIC ANGLE VALVE

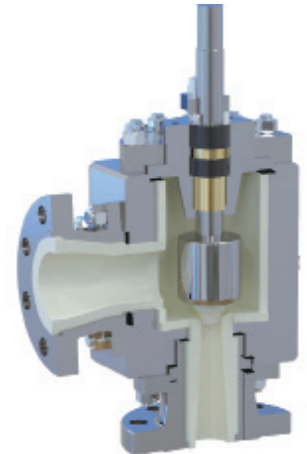
The main sealing pair and the fixed circular plate seat of the ceramic angle valve are made of high-performance structural ceramic materials, providing excellent corrosion resistance, wear resistance, and erosion resistance, significantly extending the valve's service life.



FCAV CERAMIC ANGLE VALVE

The main sealing pair and the fixed circular plate seat of the ceramic angle valve are made of high-performance structural ceramic materials, providing excellent wear resistance, corrosion resistance, and erosion resistance, significantly extending the valve's service life. With a simple and compact structure, the valve features low operating torque, is not prone to jamming, and has a self-cleaning function. There is no high-frequency vibration between the valve core and the seat, effectively avoiding the high-frequency vibration noise issue found in traditional linear stroke plunger angle valves, as well as preventing scratching and sticking between the valve core and the sealing seat.

Structural characteristics



- Both the valve core and seat have flow channels, creating a planar seal at the edges of the valve core and seat flow channel holes. The valve core rotates relative to the seat to achieve throttling, opening, and closing of the fluid.
- The valve is quarter-turn, allowing for direct installation of quarter-turn actuators. This significantly reduces the overall dimensions compared to linear actuators, thereby reducing the valve's installation space.
- Each valve seat and valve core are paired and ground to ensure the valve's sealing performance.
- The valve core and seat are always in close contact, preventing high-frequency vibration and avoiding valve core fracture due to such vibrations.
- The valve core and seat are made of structural ceramics, and the remaining flow channels are lined with ceramics, providing excellent corrosion, wear, and erosion resistance, greatly extending the valve's service life.
- A wide spiral wound gasket is set within the mortise and tenon seal structure, ensuring zero leakage of the casing under pipeline stress or cyclic thermal stress.

The packing box is equipped with a "live load" that maintains a constant load even under high wear conditions, ensuring long-lasting packing life.

Main technical parameters

Flange standard	ASME B16.5/HG/DIN/JIS
Nominal Path	DN25~DN400(1"~16")
Nominal pressure	≤900Lb
Service temperature	-40°C~456°C

Main Applications

Media with both flashing and corrosive properties are particularly troublesome. Reducing the speed of erosive fluids and selecting valves with minimal changes in fluid direction can minimize particle impact. Ceramic angle valves have excellent erosion resistance, corrosion resistance, and cavitation resistance, enhancing valve service life and ensuring long-term stable operation.

- Coal Chemical Industry:** Black water angle valve
- Hydrometallurgy:** Discharge pipeline from high-pressure leaching autoclave to flash tank; exhaust pipeline from high-pressure leaching autoclave; pipeline from flash tank to adjustment tank.



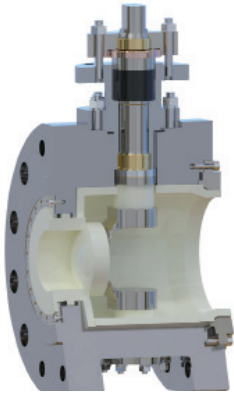
MORE CERAMIC VALVES

A diverse range of ceramic valve products and services to meet the evolving needs of customers, providing added value for our clients.



FERV Ceramic eccentric rotary valve

Structural characteristics



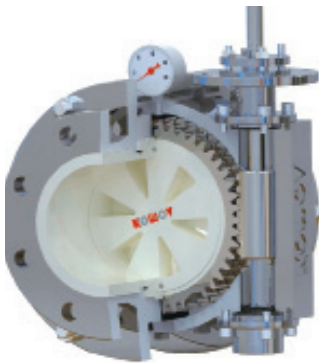
- Full ceramic lining, no dead space or corners, excellent self-cleaning, ideal for crystallizing, scaling, and clogging media.
- At 90° full open, valve core and pivot are outside the flow path, minimizing erosion; stem and pivot are protected by ceramic sleeves.
- Bidirectional installation, high Kv value, adjustable ratio up to 200.
- Lighter than same-size ball valves; actuators offer lower output torque, weight, and cost than same-size ball valves
- **Typical applications:** Black and gray water control valves; quench water control valves; slurry control valves, etc

Main technical parameters

Nominal Path	DN25~DN400
Nominal pressure	PN10~PN150/150Lb~900Lb
Service temperature	-40°C~456°C

FCWV Ceramic wheel valve

Structural characteristics



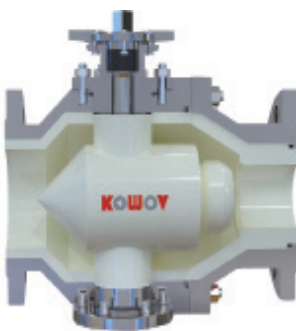
- Fully ceramic-lined, with the medium not contacting any metallic parts (including the stem), and no dead space.
- Valve core strength is over three times that of same-diameter ball valve cores, ensuring extreme durability.
- Superior shearing ability, easily cutting through foreign objects in the medium, such as 4mm diameter iron rods.
- Equipped with a warning/alarm function for medium contact with the metal valve body. If the medium comes into contact with any metallic part of the valve body, the valve will issue a warning.

Main technical parameters

Nominal Path	DN50~DN300
Nominal pressure	PN10~PN40/150Lb~300Lb
Service temperature	-40°C~350°C

FAAV Ceramic A valve

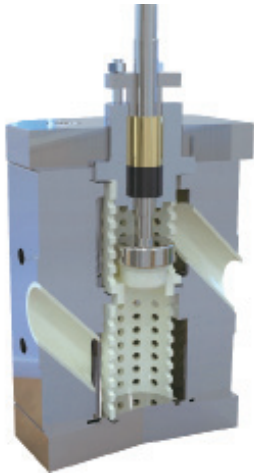
Structural characteristics



- Fully ceramic-lined with hard sealing, maintaining a consistent fluid flow direction and eliminating bias flow erosion of downstream pipelines.
- No relative frictional wear in the sealing pair, ensuring long sealing life.
- Short stroke valve core; when fully closed, the short cantilever provides superior vibration resistance compared to Globe valves.
- Simple flow path shape with no dead space or stagnant zones, preventing scaling or blockage.
- Capable of achieving tight shutoff, ensuring zero leakage and meeting the sealing standard.

Main technical parameters

Nominal Path	DN25~DN400
Nominal pressure	PN10~PN40/150Lb~300Lb
Service temperature	-40°C~300°C



Ceramic Globe Valve

Structural characteristics

Performance Characteristics:The valve core, seat, and other flow-through components are all made of structural ceramic materials, offering high adjustment precision and strong erosion resistance. The adjustment curves include equal percentage control, linear control, and specially customized control curves.

Applicable Conditions:Suitable for precise regulation, multi-stage pressure reduction, and noise reduction applications.

Main technical parameters

Nominal Path	150Lb/300Lb
Nominal pressure	-40°C~456°C
Service temperature	DN25~DN300(1"~12")



FSZV Ceramic Upward Discharge Valve

Structural characteristics

Performance Characteristics:The valve is fully lined with ceramic, solving the problem of traditional enamel-coated valves prone to enamel peeling. It features simple operation, flexible and unrestricted opening, easy valve maintenance, rational sealing structure, and overall structural stability.

Applicable Conditions:Suitable for discharging from reaction vessels, and ideal for environments with high viscosity, corrosive, crystallizing, and high particulate content.

Main technical parameters

Nominal Path	DN25~DN250
Nominal pressure	≤300Lb
Service temperature	-40°C~250°C



FXZV Ceramic Downward Discharge Valve

Structural characteristics

Performance Characteristics:The valve is fully lined with ceramic, solving the problem of traditional enamel-coated valves prone to enamel peeling. It features simple operation, flexible and unrestricted opening, easy valve maintenance, rational sealing structure, and overall structural stability.

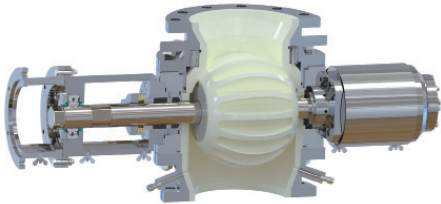
Applicable Conditions:Suitable for discharging from reaction vessels, and ideal for environments with high viscosity, corrosive, crystallizing, and high particulate content.

Main technical parameters

Nominal Path	DN25~DN250
Nominal pressure	PN10~PN40/150Lb~300Lb
Service temperature	-40°C~250°C

FRFV Rotary Seal Feed Ceramic Valve

Structural characteristics



Performance Characteristics: Fully lined with ceramic, hard-sealed, clean and non-polluting, effectively preventing gas medium backflow in reaction vessels. It enables precise adjustment for continuous feeding under conditions where pressure behind the valve is higher than in front, ensuring precise regulation and preventing backflow.

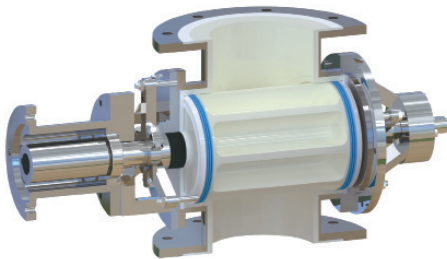
Typical Applications: Used for pressure-fed titanium dioxide powder discharge valves, organic silicon powder conveying valves, and similar applications.

Main technical parameters

Nominal Path	DN25~DN250
Nominal pressure	PN10~PN16/150Lb~300Lb
Service temperature	-40°C~180°C

ESFV Rotary star feed ceramic valve

Structural characteristics



Also known as rotary discharge valve or star feeder valve.

Performance Characteristics: Fully ceramic-lined, clean and non-polluting, precise adjustment, prevents backflow.

Typical Applications: Used in battery powder discharge valves and similar applications.

Main technical parameters

Nominal Path	DN150~DN300
Nominal pressure	PN10~PN16/150Lb
Service temperature	-40°C~200°C

FIBV Ceramic Inflatable Butterfly Valve

Structural characteristics



- There is no rotational wear between the ceramic disc and the rubber valve seat.
- Pneumatic driven, low torque, lightweight accessories, easy maintenance.
- The ceramic disc is wear-resistant, corrosion-resistant, and non-polluting.

Typical Applications: Suitable for particulate and bulk materials such as cement, silica sand, fly ash, ceramic powder, carbon powder, precious metal powders, and battery powders.

Main technical parameters

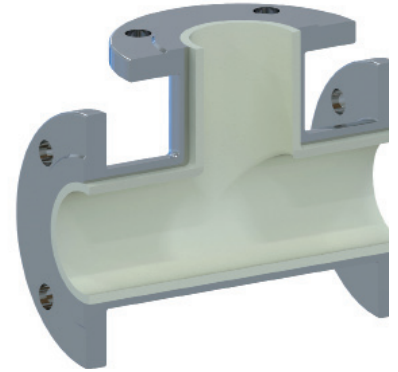
Nominal Path	DN50~DN300
Nominal pressure	PN10~PN16/150Lb
Service temperature	-40°C~160°C

CERAMIC LINED PIPE

KOWOV ceramic wear-resistant pipes are composed of structural ceramic tubes and seamless steel pipes, firmly bonded together using hot fitting techniques or specialized structural ceramic adhesives.

KOWOV ceramic wear-resistant pipes are integrally molded, offering high strength and toughness. They exhibit excellent temperature resistance and aging resistance, capable of long-term operation in conditions ranging from -50°C to 500°C.

The wear-resistant ceramics used in KOWOV ceramic wear-resistant pipes can be selected based on actual operational conditions, including materials such as alumina ceramics, silicon carbide ceramics, and composite ceramics.



Structural characteristics

Low Operating Resistance

Smooth internal surface, no corrosion, unlike seamless steel pipes with potential spiral protrusions.

Superior smoothness, clean resistance coefficient of 0.0193, lower than seamless pipes.

Low operating resistance reduces operational costs.

Excellent Wear Resistance

Structural ceramics provide wear resistance 266 times that of manganese steel and 171.5 times that of high-chromium cast iron.

Significantly reduces equipment wear in powder processing systems.

Over 20 years of field operation, ensuring at least 10 years of service life, reducing maintenance frequency and costs.

Corrosion Resistance

High-performance structural ceramics resist acids, alkalis, seawater corrosion, and scale formation.

Extends pipeline lifespan.

Good Temperature Resistance

Operates normally from -50°C to 500°C due to stable crystalline structure.

Linear expansion coefficient of $6-8 \times 10^{-6} / ^\circ\text{C}$, approximately half that of steel pipes, indicating good thermal stability.

Main technical parameters

1. **Power Plants:** Transporting limestone slurry.
2. **Steel Plants:** Conveying coal powder and fly ash.
3. **Mining Industry:** Transporting mineral slurry and tailings.
4. **Silicon Chemical Industry:** Transporting silica powder.
5. **Chemical Plants:** Transporting acid and alkali slurries.
6. **Coal Chemical Industry:** Transporting ash water, black water, coal slag, and dry coal powder.
7. **Fertilizer Industry:** Transporting granular fertilizers and crystalline materials.
8. **Coal Washing Plants:** Transporting coal slurry and coal mud.
9. **Metallurgical Industry:** Slag removal and boiler ash removal.
10. **New Energy:** Transporting lithium carbonate and lithium iron phosphate.
11. **Energy and Environmental Protection:** Zero discharge of wastewater and solid waste treatment.



Ceramic property sheet

性能品种 Item	Y-ZrO ₂ Y-TZP	Mg-ZrO ₂ M-PSZ	90 Al ₂ O ₃	95 Al ₂ O ₃	99 Al ₂ O ₃	Si ₃ N ₄	SiC	Common ceramics	Carbide alloy	45# 钢 Steel
密度 g/cm ³ Density	6.0~6.05	5.72~5.74	3.45~3.55	3.6~3.75	3.9~3.95	3.2~3.33	3.15~3.25	3.0~3.5	14~18	7.8
硬度 HRA/C Hardness	87	85	90	90	92	92	94	50~60	70	36
抗弯强度 Mpa Flexural Strength	1150	900	350	370	450	1200	470	20~50	2000	804
断裂韧性 Mpa√m Fracture Toughness (KIC)	10~12	13~15	3.4	3.6	4.5	7	4	--	20	101
抗压强度 Mpa Compressive Strength	2000	1800	1700	2000	2200	2800	--	--	4000	2000
热冲击量 °C Thermal Shock Resistance	87	110	--	--	50	200	75	--	500	500
热膨胀系数 ×10 ⁻⁶ /°C Thermal Expansion Coefficient	9.6	10	7.6	7.8	8.3	3.4	4	--	7	12
弹性模量 Gpa Modulus of Elasticity	200	200	310	330	350	300	400	--	600	--
压碎强度 KN (Φ6mm) Crushing Load	15	10	3.5	3.6	4	18	3.5	--	--	--
使用温度 °C Using Temperature	<160	<1000	<1200	<1250	<1500	<1500	<1500	--	--	<560
吸水率 Water Absorption	0	0	0.02%	0.01%	0.00%	0	0.50%	5~10%	--	--
耐碱性(常温) Corrosion Prevention	优 Good	优 Good	优 Good	优 Good	优 Good	优 Good	优 Good	优 Good	差 Flooey	差 Flooey



* 数据来源于样品的典型测试结果或已公布的原始资料
* Data sources: test results or issued original documents.

ANTI-CORROSIVE PERFORMANCE REFERENCE TABLE:

Media	Temperature	ZrO ₂	99.9% AL ₂ O ₃	SiC	Si ₃ N ₄	石墨 Graphite	PTFE	氟橡胶 Fluororubber	SS304	SS316	HC
20%HCL	60°C	A	A	A	B	A	A	A	C	C	B
20%HCL	95°C	A	A	A	C	A	A	A	--	--	C
90%H ₂ SO ₄	60°C	A	A	A	A	A	A	A	C	C	B
90%H ₂ SO ₄	95°C	A	A	A	B	A	A	A	C	C	C
60%H ₃ PO ₄	60°C	A	A	A	C	A	A	A	C	C	A
60%H ₃ PO ₄	95°C	A	A	A	C	A	A	A	C	C	A
10%HF	60°C	C	B	A	A	A	A	A	C	C	B
46%HF	95°C	C	C	A	C	A	A	A	--	--	C
60%HNO ₃	60°C	A	A	A	C	B	A	A	A	A	C
60%HNO ₃	95°C	A	B	A	C	B	A	A	B	B	C
30%NaOH	60°C	A	B	A	B	A	A	A	A	A	A
30%NaOH	95°C	B	B	A	C	A	A	A	A	B	A

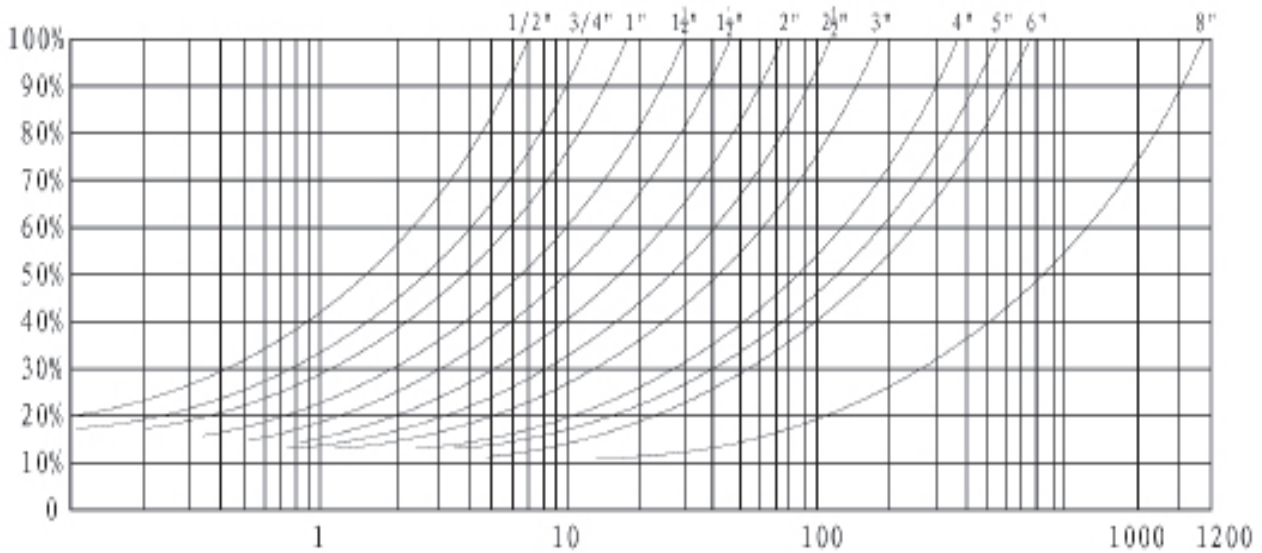
A≤0.1mmg/cm²/day
B=0.1~0.3mmg/cm²/day
C≥0.3mmg/cm²/day
--

Can be ignored or has no corrosion, recommended for use.
Slight or very minor corrosion, use with caution.
Significant corrosion, not recommended for use.
Intense corrosion, to the extent that measurement is not possible.

Flow Characteristic Sheet of Ceramic Ball Valve

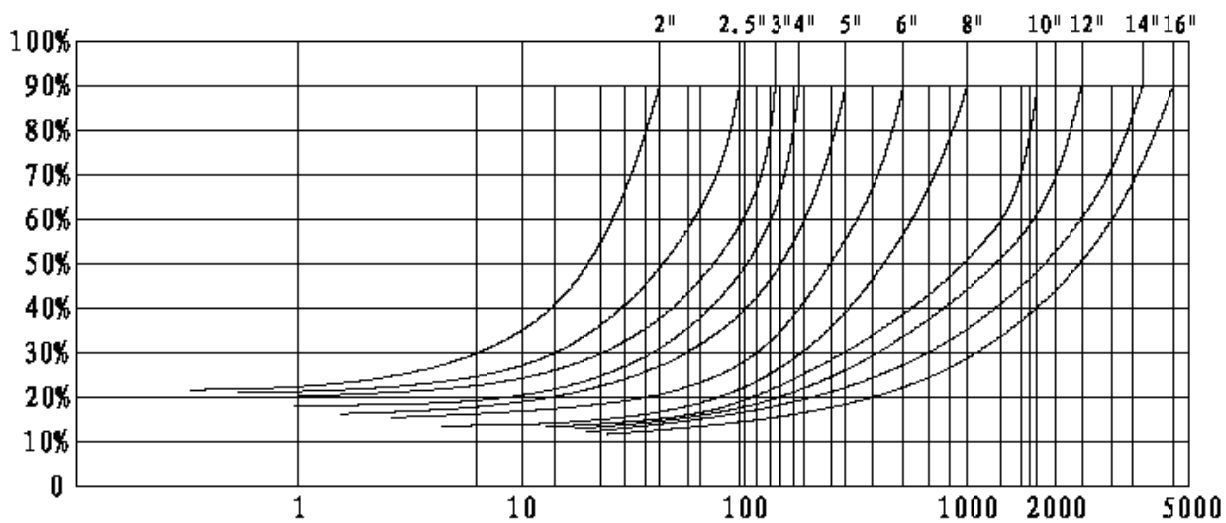
Core Specifications	O-type ball core	V60° ball core	V45° ball core	V30° ball core
DN15	10	7	4	3
DN20	18.2	12	8	5
DN25	29	18	12	8
DN32	47	30	20	13
DN40	73	46	31	21
DN50	114	72	48	32
DN65	181	115	76	51
DN80	292	185	123	82
DN100	456	289	192	128
DN125	712	452	300	201
DN150	1025	650	432	289
DN200	1822	1156	769	514

Flow characteristic curve: Approximate equal percentage(EQ%)



Flow Characteristic Sheet of Ceramic Rotary C Valve

CERAVALVE			Cv flow coefficients													
Nominal diameter		Ball bore	Centre body													
			DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300	DN350			
			1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"	14"			
DN50	2"	round	62													
DN65	2 1/2"	round	62	97												
DN80	3"	round	60	95	155											
DN100	4"	round	55	90	152	249										
DN125	5"	round		86	145	249	389									
DN150	6"	round			137	238	380	608								
DN200	8"	round				230	366	600	875							
DN250	10"	round					354	588	865	1377						
DN300	12"	round						567	850	1350	2515					
DN350	14"	round							839	1322	2465	3383				
DN400	16"	round								1280	2285	3206	4651			



阀门型号的编制方法

FCCV 1 — F MU A H — 150 P Z Z 06 — OS HC FG1
 1 2 3 4 5 6 7 8 9 10 11 12 13

Valve Type	FCCV unlined hard ceramic ball valve; FCCV1 standard ceramic ball valve; FCCV2 high-temperature ceramic ball valve; FCCV3 inner fluorine-lined ceramic ball valve; FCCV4 anti-deflection ceramic ball valve; FCCV5 high-temperature high-pressure ceramic ball valve; FCCV6 single-seat ceramic ball valve; FCCV7 precision adjusting ceramic ball valve; FCCV8 double lining ceramic ball valve; ELCV economical ceramic ball valve; FCRV ceramic C rotary valve; FCSV ceramic slide valve; FCAV ceramic angle valve; FAAV ceramic A valve; FCWV ceramic wheel valve; FSZV ceramic top-entry discharge valve; FRFV ceramic pressurized discharge valve; ESFV ceramic star-shaped discharge valve; FCGV ceramic globe valve;
Type of Connection	F--Flange;T-- Female Thread ;W-- Butt weld ;C-- Butt welding
Driving Manner	BS - Stem; MU - Wrench operated; WW - Turbine operated; EI - Electric AC220V; EJ - Electric AC380V; EK - Electric AC110V; EL - Electric DC24V; PI - Pneumatic double-acting; PJ - Pneumatic double-acting with manual override; PK - Pneumatic spring return; PL - Pneumatic spring return with manual override; HY - Hydraulic actuator; KG - Customer supplied
Control fashion	A - On/Off type; C - Control type
Especial Structure	A~Z to be confirmed with the manufacturer when ordering.
Norminal Pressure	10 ~ 260 — PN10 ~ 260; 150 ~ 1500 — 150 ~ 1500LB; 10 ~ 20K — JIS10 ~ 20K;
Valve Body Material Code	W — A105/WCB; I — Cr5Mo; P — F304/CF8; R — F316/CF8M; RL — F316L/CF3M; PL — F304L/CF3; F — F51; B — F321
Ball Material Code	Z - Structural Ceramic; S - Special Material
Sest Material Code	F - Polymer Material; Z - Structural Ceramic; S - Special Material
Nominal Diameter DN	01--15mm (1/2"); 02--20mm(3/4"); 03--25mm(1"); 04--32mm(1 1/4"); 05--40mm(1 1/2"); 06--50mm(2"); 07--65mm(2 1/2"); 08 — 80mm(3"); 09 — 100mm(4"); 10 — 125mm(5"); 11 — 150mm(6"); 12 — 200mm(8"); 13 — 250mm(10"); 14 — 300mm(12"); 15 — 350mm(14"); 16 — 400mm(16"); 17 — 450mm(18"); 18 — 500mm(20")
Valve Core Aperture Type & Gear Reduction	T: Three-way "T" shaped ball; L: Three-way "L" shaped ball; OM: Hemisphere; OF: Full bore "O" shaped port; OS: Reduced bore "O" shaped port; VF1: Full bore 60° V-shaped port; VF2: Full bore 45° V-shaped port; VF3: Full bore 30° V-shaped port; VF4: Full bore 90° V-shaped port; VF5: Full bore 15° V-shaped port; VF6: Full bore 20° V-shaped port; VF7: Full bore rectangular port; VF8: Full bore 75° V-shaped port; VF9: Full bore 12° V-shaped port; V1: Reduced bore 60° V-shaped port; V2: Reduced bore 45° V-shaped port; V3: Reduced bore 30° V-shaped port; V4: Reduced bore 90° V-shaped port; V5: Reduced bore 15° V-shaped port; V6: Reduced bore 20° V-shaped port; V7: Reduced bore rectangular port; V8: Reduced bore 75° V-shaped port; V9: Reduced bore 12° V-shaped port
Valve Stem Material Code	R-316; RL--316L; M-- Monel alloy; HC--C Hastelloy C; HB--B Hastelloy B; T-- TitaniumAlloy;Z-- Zirconia Alloy;C-- Structure Ceramic; TT-- Tantalum Alloy;X-- Duplex stainless steel; JM--316L 316L coated poly (ether ether ketone); YG--316L 316L coated chromium oxide ceramics ;TG--17-4PH 17-4PH Special Steel; RN--1.4529 Dual phase steel
Note	Special requirement code: Please contact our company to confirm when ordering. For special conditions, please contact us in advance to confirm the valve type. When using, please select the model based on the actual fluid Cv value.

Method for Pipeline Model Code

KWCP-W-Z-WT-DN*L-S-PN

① ② ③ ④ ⑤ ⑥ ⑦

- ① KWCP- Ceramic Pipe
- ② W-WCB; P-304; R-316
- ③ Z-ZrO₂; A-Al₂O₃; C-SiC; N-SiN
- ④ ZG-Straight pipe; WT-Bend head; ET-Equal-diameter tee; RT-Reducing tee; EC-Equal diameter four-way ; RC-Reducing four-way ; diameter four-way ; RC-Reducing four-way ;
- ⑤ DN-Nominal size ; L-Length or angle;
- ⑥ Flanged executive standard
- ⑦ PN-Pressure Rating

Note: Special fittings refer to non-standard fittings whose shapes can be designed according to specific requirements.

Example: Inner lining silicon carbide ceramic, outer shell carbon steel, 90° elbow with nominal diameter DN80 and pressure rating PN16, using HG/T20592-2009 flanges.

KWCP-W-C-WT-DN80*90°- HG/T20592-16

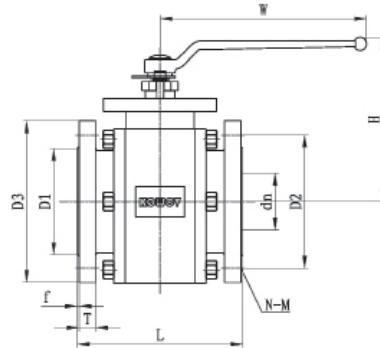
Note: All ceramic pipes, elbows, and special-shaped fittings can be customized according to customer requirements and tailored to specific operating conditions.



Product Types and Codes

Product Types	Code	Coding Method
Two-end fixed flanges	ZG	KWCP-WZ-ZG-nominal size DN L length-flange standard number-pressure class
45° elbow	WT	KWCP-WZ-WT-nominal size DN45-flange standard number-pressure class
90° elbow	WT	KWCP-WZ-W-nominal size DN90-flange standard number-pressure class
Equal-diameter tee	ET	KWCP-WZ-ET-nominal size DN-flange standard number-pressure class
Reducing tee	RT	KWCP-WZ-RT-nominal size DN _{small end} nominal size DN ₁ -flange standard number-pressure class
Equal-diameter cross	EC	KWCP-WZ-EC-nominal size DN-flange standard number-pressure class
Reducing cross	RC	KWCP-WZ-RC-nominal size DN _{small end} nominal size DN ₁ -flange standard number-pressure class
Concentric reducer	CR	KWCP-WZ-CR-nominal size DN _{small end} nominal size DN ₁ -flange standard number-pressure class
Eccentric reducer	ER	KWCP-WZ-ER-nominal size DN*small end nominal size DN ₁ -flange standard number-pressure class

FCCV1/2/6/7/FCRV1 Model Specification and Size Table



FCCV1/FCCV2/FCCV6/FCRV1 -FMU-10

公称直径 DN		外形尺寸 Exterior Size				GB PN10 法兰尺寸 Flange Dia.						HG PN10 法兰尺寸 Flange Dia.						重量Kg
Inch	mm	dn	L	W	H	D1	D2	D3	N-M	T	f	D1	D2	D3	N-M	T	f	
1/2"	15	15	108	166	94	45	65	95	4-M12	14	2	45	65	95	4-M12	14	2	4.5
3/4"	20	15	117	166	94	58	75	105	4-M12	16	2	58	75	105	4-M12	16	2	6
1"	25	20	127	166	97	68	85	115	4-M12	16	2	68	85	115	4-M12	16	2	7
1 1/4"	32	25	140	166	104	78	100	140	4-M16	16	2	78	100	140	4-M16	16	2	15
1 1/2"	40	32	165	237	125	88	110	150	4-M16	16	3	88	110	150	4-M16	16	3	23
2"	50	40	178	237	134	102	125	165	4-M16	18	3	102	125	165	4-M16	18	3	32
2 1/2"	65	50	190	237	145	122	145	185	8-M16	19	3	122	145	185	8-M16	19	3	39
3"	80	65	203	270	169	138	160	200	8-M16	21	3	138	160	200	8-M16	21	3	45
4"	100	80	229		191	158	180	220	8-M16	22.3	3	158	180	220	8-M16	22.3	3	59
5"	125	100	254		407	188	210	250	8-M16	23	3	188	210	250	8-M16	23	3	69.5
6"	150	100	267		407	212	240	285	8-M20	26	3	212	240	285	8-M20	26	3	90
8"	200	150	419 292		520 248	268	295	340 360	8-φ22 8-M20	22 33	2 3	268 262	295 290	340 360	8-φ22 8-M20	22 33	2 3	200
10"	250	200	457		580	320	350	395	12-M20	24	2	320	350	395	12-M20	24	2	290

FCCV1/FCCV2/FCCV6/FCRV1 -FMU-16/150

公称直径 DN		外形尺寸 Exterior Size				GB PN16 法兰尺寸						ANSI CLASS 150 法兰尺寸 Flange Dia.						重量Kg
Inch	mm	dn	L	W	H	D1	D2	D3	N-M	T	f	D1	D2	D3	N-M	T	f	
1/2"	15	15	108	166	94	45	65	95	4-M12	14	2	40	60.3	90	4-M14	14	2	4.5
3/4"	20	15	117	166	94	58	75	105	4-M12	16	2	42.9	69.9	100	4-M14	16	2	6
1"	25	20	127	166	97	68	85	115	4-M12	16	2	55	79.4	110	4-M14	16	2	7
1 1/4"	32	25	140	166	104	78	100	140	4-M16	16	2	63.5	88.9	115	4-M14	16	2	15
1 1/2"	40	32	165	237	125	88	110	150	4-M16	16	3	73	98.4	125	4-M14	16	3	23
2"	50	40	178	237	134	102	125	165	4-M16	18	3	92.1	120.7	150	4-M16	18	3	32
2 1/2"	65	50	190	237	145	122	145	185	8-M16	19	3	104.8	139.7	180	4-M16	19	3	39
3"	80	65	203	270	169	138	160	200	8-M16	21	3	127	152.4	190	4-M16	21	3	45
4"	100	80	229		191	158	180	220	8-M16	22.3	3	157.2	190.5	230	8-M16	22.3	3	59
5"	125	100	254		407	188	210	250	8-M16	23	3	185.7	215.9	255	8-M20	23	3	69.5
6"	150	100	267		407	212	240	285	8-M20	26	3	215.9	241.3	280	8-M20	26	3	90
8"	200	150	419 292		520 248	268	295	340 360	8-φ22 8-M20	22 33	2 3	268 262	295 290	340 360	8-φ22 8-M20	22 33	2 3	200
10"	250	200	457		580	320	355	405	12-M24	24	2	323.8	362	405	12-M24	30.6	2	290

FCCV1/FCCV2/FCCV6/FCRV1-FMU-25

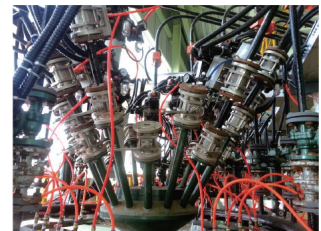
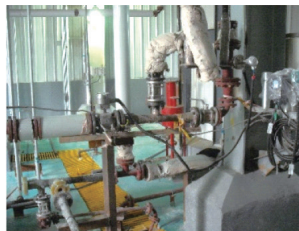
公称直径 DN		外形尺寸 Exterior Size				GB PN25 法兰尺寸 Flange Dia.						HG PN25 法兰尺寸 Flange Dia.						重量Kg
Inch	mm	dn	L	W	H	D1	D2	D3	N-M	T	f	D1	D2	D3	N-M	T	f	
1/2"	15	15	108	166	94	45	65	95	4-M12	14	2	45	65	95	4-M12	14	2	4.5
3/4"	20	15	117	166	94	58	75	105	4-M12	16	2	58	75	105	4-M12	16	2	6
1"	25	20	127	166	97	68	85	115	4-M12	16	2	68	85	115	4-M12	16	2	7
1 1/4"	32	25	140	166	104	78	100	140	4-M16	16	2	78	100	140	4-M16	16	2	15
1 1/2"	40	32	165	238	125	88	110	150	4-M16	16	3	88	110	150	4-M16	16	3	23
2"	50	40	178	238	134	102	125	165	4-M16	18	3	102	125	165	4-M16	18	3	32
2 1/2"	65	50	190	238	145	122	145	185	8-M16	19	3	122	145	185	8-M16	19	3	39
3"	80	65	203	270	169	138	160	200	8-M16	21	3	138	160	200	8-M16	21	3	45
4"	100	80	229		191	162	190	235	8-M20	22.3	3	162	190	235	8-M20	22.3	3	59
5"	125	100	254		407	188	220	270	8-M24	23	3	188	220	270	8-M24	23	3	69.5
6"	150	100	267		407	218	250	300	8-M24	26	3	218	250	300	8-M24	26	3	90
8"	200	150	419 292		520 248	268	295	340 360	8-φ22 8-M20	22 33	2 3	268 262	295 290	340 360	8-φ22 8-M20	22 33	2 3	200
10"	250	200	457		580	335	370	425	12-M27	30	2	335	370	425	12-M27	30	2	290

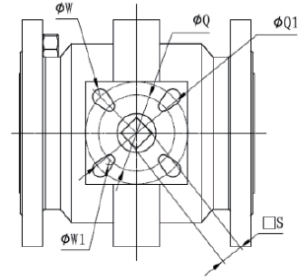
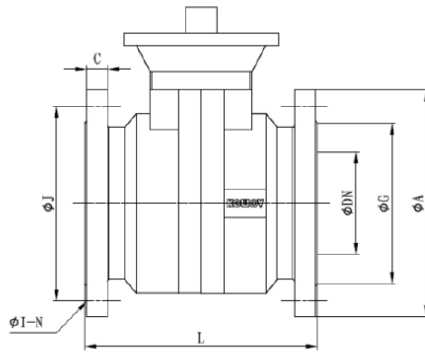
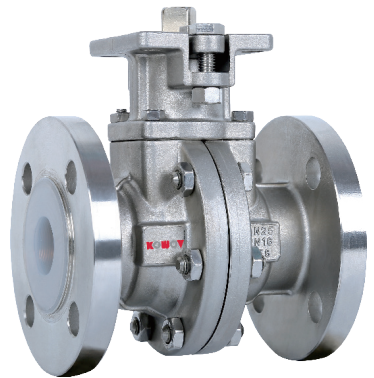
FCCV1/FCCV2/FCCV6/FCRV1-FMU-40/300

公称直径 DN		外形尺寸 Exterior Size				GB PN40 法兰尺寸 Flange Dia.						ANSI CLASS 300 法兰尺寸 Flange Dia.						重量Kg
Inch	mm	dn	L	W	H	D1	D2	D3	N-M	T	f	D1	D2	D3	N-M	T	f	
1/2"	15	15	108	166	94	45	65	95	4-M12	14	2	40	66.7	95	4-M14	14	2	4.5
3/4"	20	15	117	166	94	58	75	105	4-M12	16	2	42.9	82.6	105	4-M16	16	2	6
1"	25	20	127	166	97	68	85	115	4-M12	16	2	55	88.9	125	4-M16	16	2	7
1 1/4"	32	25	140	166	104	78	100	140	4-M16	16	2	63.5	98.4	135	4-M16	16	2	15
1 1/2"	40	32	165	238	125	88	110	150	4-M16	16	3	73	114.3	150	4-M20	16	3	23
2"	50	40	178	238	134	102	125	165	4-M16	18	3	92.1	127	165	8-M16	18	3	32
2 1/2"	65	50	190	238	145	122	145	185	8-M16	19	3	104.8	149.2	185	8-M20	19	3	39
3"	80	65	203	270	169	138	160	200	8-M16	21	3	127	168.3	200	8-M20	21	3	45
4"	100	80	229		191	162	190	235	8-M20	22.3	3	157.2	200	235	8-M20	22.3	3	59
5"	125	100	254		407	188	220	270	8-M24	23	3	185.7	235	270	8-M20	23	3	69.5
6"	150	100	267		407	218	250	300	8-M24	26	3	215.9	269.9	300	12-M20	26	3	90
8"	200	150	419 292		520 248	268	295	340 360	8-φ22 8-M20	22 33	2 3	268 262	295 290	340 360	8-φ22 8-M20	22 33	2 3	200
10"	250	200	457		580	345	385	450	12-M30	36	2	323.8	387.4	445	16-M27	36	2	290

Notes: Ball valves with DN100 and above are equipped with worm gear manual actuators.
Dimensions are based on the ASME B16.10 standard

KOWOV ceramic valves are widely used in various industries including power generation, metallurgy, chemical processing, environmental protection, paper manufacturing, coal chemical industry, casting, and abrasive tools.



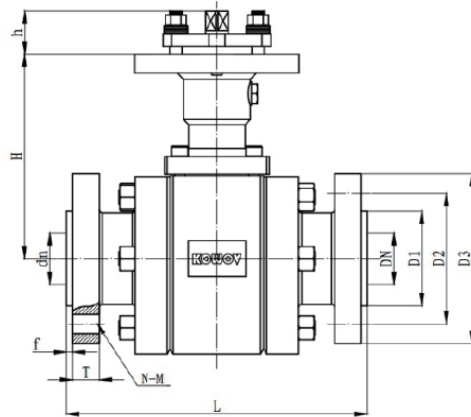
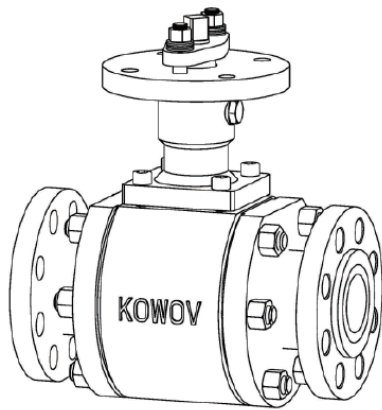


FCCV3-FMU-16/25

公称直径 DN		外形尺寸 Exterior Size						GB/HG PN16 法兰尺寸 Flange Dia.				GB/HG PN16 法兰尺寸 Flange Dia.			
inch	mm	L	Q	Q1	W	W1	S	A	J	C	I-N	A	J	C	I-N
1/2"	15	130		/	M6	/	11	95	65	16	4-Φ14	95	65	16	4-Φ14
3/4"	20	130		/	M6	/	11	105	75	18	4-Φ14	105	75	18	4-Φ14
1"	25	140		/	M8	/	14	115	85	18	4-Φ14	115	85	18	4-Φ14
1 1/2"	40	165		/	M8	/	17	150	110	18	4-Φ18	150	110	18	4-Φ18
2"	50	203		/	M8	/	17	165	125	18	4-Φ18	165	125	20	4-Φ18
2 1/2"	65	222	102	/	M10	/	22	185	145	18	4/8-Φ18	185	145	22	8-Φ18
3"	80	241	102	/	M10	/	22	200	160	20	8-Φ18	200	160	24	8-Φ18
4"	100	305	125	102	M12	M10	27	220	180	20	8-Φ18	235	190	24	8-Φ23
5"	125	356	140	125	M16	M12	27	250	210	22	8-Φ18	270	220	26	8-Φ25
6"	150	394	165	140	M20	M16	36	285	240	22	8-Φ22	300	250	28	12-Φ25
8"	200	457	165	140	M20	M16	36	340	295	24	12-Φ22	360	310	30	12-Φ25

FCCV3-FMU-150

公称直径 DN		外形尺寸 Exterior Size						ANSI CLASS150 法兰尺寸 Flange Dia.			
inch	mm	L	Q	Q1	W	W1	S	A	J	C	I-N
1/2"	15	108	50	/	M6	/	11	95	60.5	14	4-Φ16
3/4"	20	117	50	/	M6	/	11	105	70.0	15	4-Φ16
1"	25	127	70	/	M8	/	14	110	79.5	17	4-Φ16
1 1/2"	40	165	70	/	M8	/	17	125	98.5	18	4-Φ16
2"	50	178	70	/	M8	/	17	150	121.0	18	4-Φ19
2 1/2"	65	190	102	/	M10	/	22	180	140.0	18	4-Φ19
3"	80	203	102	/	M10	/	22	190	152.5	20	4-Φ19
4"	100	229	125	102	M12	M10	27	230	190.5	20	8-Φ19
5"	125	356	140	125	M16	M12	27	255	216.0	22	8-Φ22
6"	150	394	165	140	M20	M16	36	280	241.5	22	8-Φ22
8"	200	457	165	140	M20	M16	36	345	298.5	24	8-Φ22



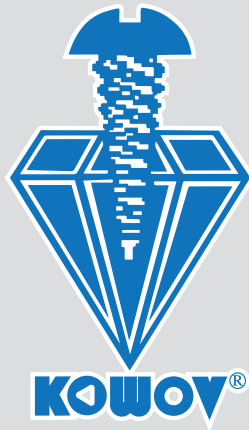
FCGV5-FMU-110/600

公称直径 DN		外形尺寸 Figure Size			DN/HG PN100 法兰尺寸 Flange Dia.							GB/HG/ASME/SH Class600 (PN110) 法兰尺寸 Flange Dia.						重量Kg
Inch	mm	dn	L	H	D1	D2	D3	N-M	T	f	D1	D2	D3	N-M	T	f		
1"	25	20	216	150	68	100	140	4-Φ19	22	2	50.8	88.9	125	4-Φ19	17.5	7	6.8	
1 1/4"	32	25	229	170	78	110	155	4-Φ22	24	2	63.5	98.4	135	4-Φ19	20.7	7	13.0	
1 1/2"	40	32	241	185	88	125	170	4-Φ22	26	2	73.0	114.3	155	4-Φ22	22.3	7	25.0	
2"	50	40	292	200	102	145	195	4-Φ26	28	2	92.1	127.0	165	8-Φ19	25.4	7	38.0	
2 1/2"	65	50	330	220	122	170	220	8-Φ26	32	2	104.8	149.2	190	8-Φ22	28.6	7	60.0	
3"	80	65	356	270	138	180	230	8-Φ26	34	2	127.0	168.3	210	8-F22	31.8	7	90.0	
4"	100	80	432	305	162	210	265	8-Φ30	38	2	157.2	215.9	275	8-Φ26	38.1	7	125.0	
5"	125	100	508	350	188	250	315	8-Φ33	38	2	185.7	266.7	330	8-Φ30	44.5	7	140.0	
6"	150	100	559	350	218	290	355	12-Φ33	42	2	215.9	292.1	355	12-Φ30	47.7	7	180.0	
8"	200	100	660	350	285	360	430	12-Φ36	50	2	269.9	349.2	420	12-Φ33	55.6	7	230.0	

Remarks: Size standards according to ANSI B16.10, ANSI B16.5, HG20615, HG20592

KOWOV high-temperature and high-pressure series ceramic ball valves are now widely used in the coal chemical industry, hydrometallurgy, mining, and other industries.





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