ADCERAX

ENGINEERING PRODUCT CATALOG

Alumina Ceramic Butterfly Valve

Model references and engineering selection
Complete valves and drawing-defined ceramic parts

REVIEW EDITION | NOT FOR EXTERNAL DISTRIBUTION



Product image candidate for review. Visible assembly form only; material, model identity and public-use clearance are not established.

Use the model references to start a valve inquiry, then define the medium, installation interfaces and acceptance requirements. Ceramic components and the complete valve require different evidence and order definitions.

MODEL REFERENCES	SELECTION ROUTES	IN THIS CATALOG
AT-CVD-001 to 009 DN50 to DN300	Existing valve reference New or replacement part	Dimensions 3 Selection 4–5 Acceptance 6 RFQ 7

ADCERAX is a China-based advanced ceramics manufacturer for custom precision ceramic components.

adcerax.com

01 PURCHASE SCOPE

Start with the supply unit

State whether you need the complete valve or ceramic parts. A matching DN, similar photograph or material name does not establish interchangeability.

Inquiry route	Send first	Confirm before quotation
Complete butterfly valve	AT reference or existing valve drawing; DN; connection; medium; quantity.	Body and connection type, offset geometry, face-to-face length, pressure and temperature duty, actuation and tests.
Ceramic disc, seat or liner	Part drawing and revision, old-part photographs or sample details; valve maker/model; quantity.	Actual part profile, mating surfaces, stem features, material, tolerances and component acceptance.



Assembly form reference reused from the cover candidate. It is not evidence of a specific AT item, wafer/lug configuration, ceramic grade or service capability.

Match the operating problem

Duty to discuss	Information that changes selection
Chemical or petrochemical lines	Medium name, concentration, impurities, cleaning chemicals and temperature. Review every wetted ceramic, metal, seal and packing material.
Mining slurry or tailings	Solids fraction and basis, particle distribution and hardness, flow, settling tendency and closing differential pressure.
Flue-gas desulfurization (FGD) slurry or ash	Chlorides, solids, deposits, temperature cycling and outage requirements. Identify hot-gas service separately.

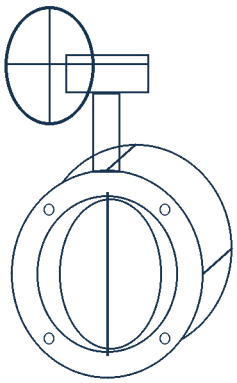
These are application review routes. Suitability follows the agreed valve configuration and duty; the product name alone does not establish chemical compatibility or performance.

02 MODEL REFERENCES

Nine references for initial identification

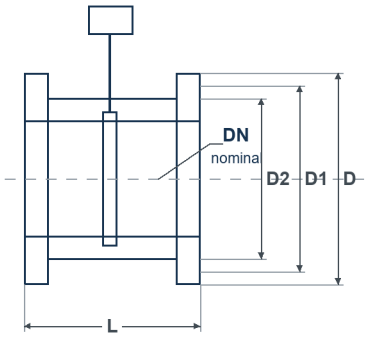
The source table contains nine complete model rows. Its PN(MPa) value of 1.0 applies to all nine rows. Final installation and operating suitability remain drawing and project controlled.

3D RECOGNITION



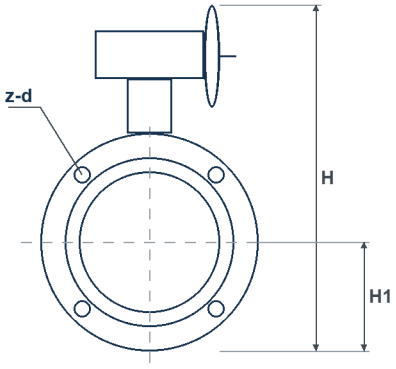
Generic assembly outline

AXIAL SYMBOL GUIDE



D / D1 / D2 features:
confirm on the model drawing

END VIEW KEY



H is total height; H1 is below axis

Dimension key — not to scale. Generic source-based outline, not a model drawing. The bolt pattern is illustrative; z-d specifies the count and hole diameter.

REVIEW LIMIT: L, D, D1, D2, H, H1 and hole-diameter units are not stated in the source. Original values are retained below; no mm or inch unit has been assumed. Do not use this proof for manufacture or installation.

Item	DN	PN (MPa)	L	D	D1	D2	H	H1	z-d
AT-CVD-001	50	1.0	108	140	125	100	254	85	4 x 18
AT-CVD-002	65	1.0	112	160	145	120	278	95	4 x 18
AT-CVD-003	80	1.0	114	185	160	135	312	106	4 x 18
AT-CVD-004	100	1.0	127	205	180	155	330	114	8 x 18
AT-CVD-005	125	1.0	140	235	210	185	365	130	8 x 18
AT-CVD-006	150	1.0	140	260	240	210	404	148	8 x 23
AT-CVD-007	200	1.0	152	315	295	265	496	176	8 x 23
AT-CVD-008	250	1.0	165	370	350	320	538	210	8 x 23
AT-CVD-009	300	1.0	178	435	400	368	632	238	8 x 23

Read the reference correctly

DN is nominal size, not a measured bore. L is face-to-face length. H is total height; H1 runs from the flow axis to the bottom. D, D1 and D2 are source symbols whose exact mating features need the model drawing. For readability, z-d values use count x hole diameter notation; the original numbers are unchanged.

The PN entry is a source reference, not a pressure–temperature envelope or allowable differential-pressure guarantee. The listed references do not establish stock, wafer/lug form, ceramic BOM or compatibility with an OEM valve.

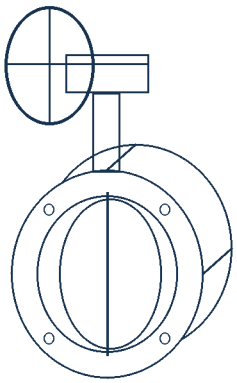
For sizes or pressure classes outside this nine-row table, send the line specification and drawing for review. No additional AT item number is implied.

03 INSTALLATION DEFINITION

Match the valve to the pipework

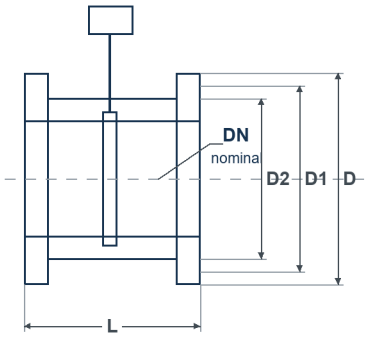
A reference number is the starting point. Confirm the installation envelope and mating interfaces on one approved drawing before ordering.

3D RECOGNITION



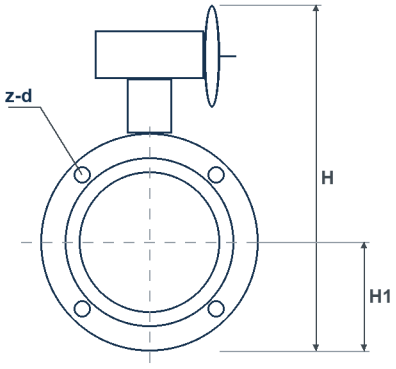
Generic assembly outline

AXIAL SYMBOL GUIDE



D / D1 / D2 features:
confirm on the model drawing

END VIEW KEY



H is total height; H1 is below axis

Dimension key — not to scale. Use the same symbols as the dimensional reference. Model-specific geometry, units and tolerances belong on the approved drawing.

Input	What the drawing or line specification must define
DN and disc clearance	Nominal pipe size, actual bore, pipe wall/reducer geometry and the clear swept envelope of the rotating disc.
L	Face-to-face length, end-face datums, gasket arrangement and axial installation clearance.
D, D1 and D2	Source diameter references, flange/mating-feature identity, drilling standard, face geometry and tolerances.
H and H1	Total assembled height, below-axis height, actuator orientation and operating/maintenance clearance.
z-d	Hole count, hole diameter, bolt-circle arrangement and angular orientation on the mating flange.
Connection and offset	Wafer, lug or flanged interface; centreline/eccentric geometry; flow and pressure direction; any dead-end duty.
Stem and actuator interface	Stem geometry, mounting pattern, rotation/travel limits, drive coupling and permitted assembly loads.
Units and acceptance	Explicit drawing units, datum scheme, general and critical tolerances, and the controlling revision.

For replacement ceramic parts, also define the disc edge, seat contact band, liner support, stem holes/keys/pins and mating clearances. A complete-valve table does not define the dimensions of its loose ceramic parts.

04 DUTY AND MATERIALS

Specify the complete operating envelope

Select ceramic trim together with the valve body, stem, bearings, seals and packing. A ceramic material property does not establish a complete valve rating.

Selection input	Include in your technical brief
Medium and chemistry	Fluid identity; concentration or pH; contaminants; cleaning fluids; all gas, liquid and solid phases.
Solids and flow	Solids fraction with units and basis; particle sizes, shape and hardness; flow range, velocity and settling or blockage behaviour.
Pressure and temperature	Normal, maximum and transient pressure/temperature; opening and closing differential pressure; pressure direction and thermal cycling.
Isolation or control	On/off or modulating duty; operating frequency; required flow range and control resolution; flow coefficients (Cv/Kv) or valve-position/flow requirements.
Drive and fail position	Manual, pneumatic, electric or other required drive; supply conditions; fail-open/fail-closed requirement; feedback and travel limits.
Torque and acceptance	Breakaway, running and seating torque conditions; actuator margin; seat and stem leakage limits, medium, direction and test conditions.

Ceramic grade follows the part specification

Identify which components must be alumina and provide the required composition or material specification. Record the disc, seat and liner separately in the bill of materials. Review any proposed alternative against the same medium, geometry and acceptance requirements.

The material-selection data must match the actual grade, specimen and test conditions. Purity alone cannot define wear rate, chemical resistance, valve temperature, sealing class or service life.

Keep the three evidence levels separate

Level	What must be agreed
Material	Grade, composition and required material evidence for the relevant ceramic part.
Ceramic component	Drawing dimensions, sealing surface, edge condition, allowable defects and inspection method.
Valve assembly	Fit, torque, leakage, pressure/temperature duty and functional testing under stated conditions.

Provide the current failure mode: leakage, torque drift, erosion, corrosion, chipping or interface mismatch. This helps focus the engineering review without assuming a service-life improvement.

05 ACCEPTANCE AND SUPPLY

Agree what will be inspected and delivered

The order should connect the selected configuration, drawing revision, test conditions and delivered documents. Agree the inspection scope and acceptance criteria with the quotation.

Order definition	Valve-specific requirement to agree
Supply scope and bill of materials (BOM)	Complete valve, actuator package or identified ceramic components; included seals, fasteners and accessories.
Dimensional acceptance	L, connection features, H/H1, disc clearance, stem/actuator interfaces and any component critical features.
Surface and visual checks	Seat contact band and disc edge; defined limits for cracks, chips, surface damage, cleanliness and identification.
Assembly and function	Travel, mechanical stops, drive direction, fail position and torque checks under stated conditions.
Pressure and leakage tests	Separate shell, seat and stem requirements; applicable method, test medium, pressure, duration, direction and leakage limits.
Documentation	Agreed material evidence, dimensional records, inspection plan and valve test records. Specify any witness or third-party requirement.
Packing and identification	Protect the disc, seat, liner and connection faces; define supports, protection against movement, handling points and part/lot labels.
Commercial and repeat order	Quantity, destination, schedule and packing scope; retain drawing/BOM revision, item reference and agreed acceptance record for repeats.

Plan installation and maintenance around the valve

Check pipe alignment, disc sweep and gasket arrangement before installation. Use the valve-specific instructions for tightening sequence, torque, lifting, actuator stops and commissioning tests. Keep external pipe loads away from the ceramic interfaces.

Set inspection intervals from the actual medium, solids, cycling and observed condition. Define permitted cleaning, repair and replacement methods before service; do not assume that a chipped or leaking ceramic sealing face can be restored by lapping.

These are order and operating-plan inputs. Test certificates, inspection capability, packing method, availability, price and lead time are confirmed in the agreed supply scope.

06 REQUEST FOR QUOTATION

Send a usable valve brief

Start with an AT reference or a drawing/photo, the medium and quantity. Add the fields below so the review can address fit, duty and acceptance together.

Path A Existing model reference

Cite ADC-CAT-R117-001 Rev 01 and the AT-CVD item. Add your line drawing or valve nameplate, requested connection, quantity, deviations and operating conditions. A listed reference helps identification; the quotation defines the final order.

Path B New valve or replacement ceramic part

Attach the drawing/model and revision, or photographs and sample details. Identify the valve maker/model, supply unit, actual material requirement, interfaces, dimensions with units, tolerances, sealing surfaces and acceptance needs.

RFQ field	Information to send
Identity and scope	AT reference or drawing/sample; complete valve / disc / seat / liner; valve maker/model where relevant.
Installation	DN, connection, face-to-face length, drilling, flow direction, disc clearance and actuator interface.
Duty	Medium/concentration; particles and solids; pressure, temperature and differential pressure; flow and cycling.
Material and drive	Ceramic and other wetted materials; actuation, fail position, feedback and torque requirements.
Acceptance and delivery	Inspection/testing and document scope; quantity/repeat need; packing; destination and target schedule.

Request engineering review and quotation

info@adcerax.com

Product page and inquiry form

Telephone +86-0731-84428843
HUNAN ATCERA CO.,LTD

The review establishes the proposed configuration, information still needed and quotation scope. Final dimensions, materials, acceptance criteria and commercial terms follow the approved drawing and agreed order.