Valve Testing and Documentation Checklist

Version 1.0 | Honiks Valve | Buyer planning aid

Use this checklist before quotation, purchase order release, inspection planning, or final document review. It helps the buyer state the required test basis and documentation package for an industrial valve order.

This is a planning aid. It does not replace the purchase specification, the valve product standard, the approved drawing, the inspection and test plan (ITP), or final supplier confirmation. Test scope, pressure, duration, acceptance criteria, witnessing and records must be agreed for the offered configuration.

1. State the test basis before quotation

Item	Buyer confirmation
Valve type	Gate, globe, check, ball, butterfly, strainer, or other type
Size and rating	DN/NPS, PN/Class, design pressure and temperature
End connection	Flanged, butt-welded, threaded, wafer, lug, RTJ, or other specified end
Design or product standard	State the controlling standard, edition and any project additions
Test standard	Examples may include API 598, ISO 5208, EN 12266-1/-2, or another specified standard
Acceptance criteria	State the shell, closure and functional acceptance criteria; do not leave them implied
Test medium	State the required liquid, gas, cleanliness and safety controls where applicable
Inspection level	Review, witness, hold, surveillance and release points in the project ITP
Identification	Valve tag, serial number, heat or lot traceability and nameplate requirements

The applicable standard and edition should be written into the RFQ or purchase order. A standard name alone does not prove that a particular valve configuration has passed every possible test.

2. Confirm the testing scope

Select only the tests required by the product standard, purchase specification and ITP.

- Pressure-boundary or shell test: confirm the test pressure, medium, duration, temperature and acceptance criteria.
- Closure or seat-leakage test: confirm the test direction, seat material, pressure, duration and allowable leakage class or rate.
- Backseat test: confirm whether the valve design and project specification require it.
- Functional test: confirm opening, closing, travel, torque, actuator or gear operation, position indication and fail action where applicable.
- Cavity, double-block-and-bleed, reverse-flow, low-temperature, fire-test, fugitive-emission or supplementary tests: include them only when the product standard, purchase specification or ITP requires them for the offered configuration.

- Dimensional and visual inspection: confirm face-to-face or end-to-end dimensions, flange or weld-end details, marking, coating, cleanliness and protection.

For a check valve, state the required flow direction and closure test. For a ball or butterfly valve, state the seat, actuator and travel requirements. For a gate or globe valve, state any backseat, stem, disc or throttling limitations relevant to the service. These are prompts for the project specification, not universal requirements.

3. Build the inspection and test plan

ITP field	What to define
Stage	Material receipt, machining, assembly, pressure test, coating, final inspection or packing
Responsible party	Supplier, inspection agency, buyer or other named party
Control point	Review, witness, hold, surveillance or document review
Method	Applicable procedure, product standard, project specification and approved drawing
Acceptance	Measurable criterion, leakage limit, dimensional tolerance or document requirement
Record	Report, certificate, checklist, photograph, calibration record or release note
Notification	Notice period, inspection location, remote witness method and release timing

The ITP should identify which requirements are mandatory for the order and which are optional or project-specific. Any conflict between a product standard and the purchase specification should be resolved before production or inspection.

4. Test report fields to request

- Valve tag, model, size, pressure class or PN, end connection and serial number.
- Production source, test date, report number and document revision.
- Test standard, procedure number, edition, test type and acceptance criteria.
- Test medium, pressure, duration, temperature where relevant and test equipment identification.
- Calibration reference and validity date for pressure gauges or other measuring equipment.
- Observed result, leakage result or functional result, disposition of any deviation and final status.
- Inspector, witness or reviewer name, signature or electronic approval, as required by the ITP.
- Traceability to material certificates, heat numbers, approved drawings and inspection release documents.

Do not accept a test report with only a generic valve description if the order requires serial, tag, size, rating or material traceability.

5. Documentation package before release

Confirm the required document index before final inspection or shipment. The package may include only the items specified for the project.

- Approved general arrangement or dimensional drawing.
- Data sheet, nameplate or marking record and configuration summary.
- Material certificates and heat or lot traceability when specified.
- Pressure, closure, functional or supplementary test reports as applicable.
- PMI, NDE, coating, cleanliness or repair records when specified.
- Actuator, gearbox, limit-switch, positioner or accessory documents when supplied.

- Operation and maintenance instructions, spare-parts list and preservation guidance where required.
- Inspection release note, packing list, photographs, commercial documents and shipping records.

The final document list depends on the purchase order, ITP, destination and project approval process. A catalog list is reference data, not a confirmed document commitment for every valve.

6. RFQ questions for the buyer

[ ] What valve type, size, rating, material and end connection are required?

[ ] Which product or design standard controls the offered configuration?

[ ] Which test standard, edition and acceptance criteria should be used?

[ ] Are witness, hold, review or third-party inspection points required?

[ ] Which reports and certificates must be submitted before release?

[ ] Is an actuator, gearbox, position switch or other accessory included?

[ ] Are special cleanliness, coating, preservation, marking or packing requirements included?

[ ] Are any supplementary tests required for the service, medium, temperature or safety case?

[ ] What are the document language, format, approval and submission requirements?

[ ] Which items must be confirmed against the approved drawing before production?

Reference note

API 598, ISO 5208 and EN 12266-1/-2 are examples of valve testing reference families. The controlling document, edition, test scope and acceptance criteria must be confirmed for the project. Where requirements differ, use the applicable product standard and purchase specification as the governing basis.

Honiks can help review an inquiry and coordinate a project document package with qualified partner factories. Final testing, documentation, materials, dimensions and configuration remain subject to the project specification, approved drawings and supplier confirmation.

Download the companion Industrial Valve Inquiry Checklist PDF from the Honiks website, or contact Honiks Valve for project-specific review.