ValveWitness
INSPECTION

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PRE-SHIPMENT INSPECTION REPORT — INDUSTRIAL VALVES

SAMPLE REPORT FOR WEBSITE DOWNLOAD. All buyer, factory, serial and measurement data are fictitious and marked EXAMPLE. Photos omitted.

Report No.	EXAMPLE: PSI-2026-0001
Inspection date	EXAMPLE: 2026-11-05
Inspection type	Pre-Shipment Inspection (PSI) ☐ DUPRO ☐ Re-inspection ☐ Pressure-test witness only
Client (buyer)	EXAMPLE Buyer Ltd. (fictitious)
Supplier / factory	EXAMPLE Valve Factory (fictitious), Zhejiang, China
Inspector	Kevin Lyu
Technical reviewer	EXAMPLE reviewer
Report issued	EXAMPLE: 2026-11-06 10:00 (UTC+8)

1. Inspection Summary

☐ PASS	☐ FAIL	☒ PENDING (EXAMPLE)

Overall result definitions: PASS = all sections conform and defects within AQL limits. FAIL = any critical defect, defects above AQL rejection number, or pressure test failure. PENDING = a final decision is needed from the client (e.g. missing document, deviation outside the checklist, or test not witnessed).

No.	Section	Result	Remarks (EXAMPLE)
2	Order information & documents	PENDING	MTC for heat no. H2611-07 not available on site
3	AQL sampling	Conform	ISO 2859-1, GIL II, n = 50
4	Quantity check	Conform	300 / 300 pcs finished, 100% packed
5	Packing & shipping marks	Conform	—
6	Visual / workmanship	Conform	Major 2 (Ac 3), Minor 4 (Ac 5), Critical 0
7	Dimensions	Conform	All within tolerance
8	Marking & nameplate (MSS SP-25)	Conform	—
9	Pressure test witness (API 598)	Conform	20 / 20 witnessed, no visible leakage
10	Operation test	Conform	—
11	Coating thickness (DFT)	Not conform	1 sample below specified minimum DFT
12	PMI (optional)	Conform	Stem and body readings consistent with specified grades

2. Order Information & Documents

PO / Contract No.	EXAMPLE: PO-EX-12345
Product	EXAMPLE: Gate valve, bolted bonnet, OS&Y, flanged RF
Size / Class	EXAMPLE: NPS 2 (DN 50), ASME Class 150
Design / test standard	EXAMPLE: Design per API 600; testing per API 598 (or ISO 5208 / EN 12266-1 / API 6D as specified in PO)
Body / trim material	EXAMPLE: ASTM A216 WCB / Trim 8 (13Cr stem, hard-faced seats)
End connection / F-F standard	EXAMPLE: ASME B16.5 flanges; face-to-face per ASME B16.10
Coating spec	EXAMPLE: Epoxy, RAL 5015, min. DFT 120 µm (per PO)
Order quantity	EXAMPLE: 300 pcs
Approved drawing / ITP	EX-DWG-001 Rev. A EX-ITP-001 Rev. 0

Document	Required	Seen on site	Remark (EXAMPLE)
Purchase order / technical spec	Yes	Yes	Rev. 0
Approved GA drawing	Yes	Yes	—
Material test certificates (EN 10204 3.1)	Yes	Partial	Heat H2611-07 MTC missing
Factory pressure test records (100%)	Yes	Yes	Serial nos. covered
Pressure gauge calibration certificate	Yes	Yes	Valid until 2026-11-05
Coating gauge calibration / verification	Yes	Yes	Verified with reference foils on site

3. AQL Sampling Plan

Sampling per ISO 2859-1 / ANSI/ASQ Z1.4, single sampling, normal inspection, unless the client specifies otherwise.

Parameter	Value (EXAMPLE)
Lot size	300 pcs

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Parameter	Value (EXAMPLE)
Inspection level	General Inspection Level II
Sample size code letter	H
Sample size (visual / workmanship)	50 pcs
Special level for dimensions / DFT	S-3 → code letter D → 8 pcs (client-defined)
Pressure test witness quantity	20 pcs (per client ITP; factory tests 100% per API 598)

Defect class	AQL	Ac	Re	Found	Result
Critical	0 (not allowed)	0	1	0	Conform
Major	2.5	3	4	2	Conform
Minor	4.0	5	6	4	Conform

4. Quantity Check

Item / size	Order qty	Finished	Packed	Cartons / cases	Result
EXAMPLE: Gate valve NPS 2 Cl.150	300	300	300	25 wooden cases × 12 pcs	Conform

Selected case numbers for sampling (EXAMPLE): 2, 5, 9, 13, 17, 21, 24.

5. Packing & Shipping Marks

Check point	Requirement (EXAMPLE)	Result
End protection	Flange faces covered with plastic / wooden caps	Conform
Valve position for shipping	Gate valve: closed (or per client spec)	Conform
Internal preservation	Dry, rust-preventive applied to machined surfaces	Conform
Packing material	Fumigated / ISPM 15-marked wooden case, moisture barrier	Conform
Shipping marks	Per PO: client name, PO No., case No., G.W./N.W., dimensions, destination	Conform
Packing list	Matches case content & serial nos.	Conform

[Photo: shipping mark — photo omitted in web sample] *[Photo: case interior — photo omitted in web sample]* *[Photo: flange protection — photo omitted in web sample]*

6. Visual / Workmanship

Check point	Method	Defects found (EXAMPLE)	Class
Casting surface (sand holes, cracks, cold shuts)	Visual, 100% of sample	1 pc: sand inclusion on body neck, 3 mm	Major
Flange sealing face finish / damage	Visual, compare with Ra 3.2–6.3 µm per B16.5 serrated finish	1 pc: scratch across RF serration	Major
Coating appearance (runs, missing, overspray)	Visual	3 pcs: paint run on bonnet	Minor
Fasteners (studs/nuts, thread engagement)	Visual	1 pc: nut missing thread engagement by 1 thread	Minor
Handwheel, yoke, gland condition	Visual	None	—
Cleanliness of bore / no debris	Visual / torch	None	—

7. Dimensional Check

Values below are EXAMPLE values; take the specification and tolerance from the approved drawing and the applicable standard (e.g. ASME B16.10 face-to-face, ASME B16.5 flange dimensions).

Dimension	Spec (EXAMPLE)	Tol.	S1	S2	S3	S4	S5	S6	S7	S8	Result
Face-to-face (mm)	178	±1.5	177.8	178.4	178.1	177.6	178.2	178.0	177.9	178.3	OK
Flange OD (mm)	150	±2	150.4	150.1	149.8	150.6	150.2	150.0	150.3	149.9	OK
Bolt circle (mm)	120.7	±1.5	120.6	120.9	120.5	120.8	120.7	120.6	120.8	120.7	OK
Bolt hole Ø (mm)	19	+0.8/-0	19.2	19.1	19.3	19.2	19.0	19.4	19.2	19.1	OK
Raised face Ø (mm)	92	±1	92.1	91.8	92.3	92.0	92.2	91.9	92.0	92.1	OK
Handwheel Ø (mm)	200	±5	—	—	—	—	—	—	—	—	OK

Instruments: Caliper EX-C01, cal. due 2027-06, Tape EX-T01, cal. due 2027-06.

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8. Body Marking & Nameplate (MSS SP-25)

Marking item	Location	Required (EXAMPLE)	Found	Result
Manufacturer name / trademark	Body (cast/forged)	EX mark	Yes	OK
Body material	Body	WCB	WCB	OK
Pressure class	Body	150	150	OK
Size	Body	2 (or DN 50)	2	OK
Heat / melt identification	Body	Traceable to MTC	H2611-07	OK (MTC pending)
Flow direction arrow	Body	Only for unidirectional valves (n/a for gate)	n/a	n/a
Nameplate: manufacturer, size, class, rated pressure at 38 °C	Nameplate	Per MSS SP-25 / design std.	Yes	OK
Nameplate: body / bonnet / trim material, trim no.	Nameplate	WCB / Trim 8	Yes	OK
Nameplate: serial no., standard, PO / tag no. (if required)	Nameplate	Per PO	Yes	OK

[Photo: body casting marks — photo omitted in web sample] *[Photo: nameplate close-up, readable — photo omitted in web sample]*

9. Pressure Test Witness (API 598)

Tests are performed by the factory; the inspector witnesses and records. Test pressures and minimum durations must be taken from the edition of the standard named in the PO (API 598, API 6D, ISO 5208 or EN 12266-1). EXAMPLE basis below: ASME Class 150, Group 1.1 (WCB), rated 19.6 bar at 38 °C; NPS 2.

Test	Medium	Required pressure (EXAMPLE)	Min. duration (EXAMPLE)	Acceptance (EXAMPLE)
Shell (hydrostatic)	Water + inhibitor	≥ 1.5 × rated = 29.4 bar(g), test at 30 bar(g)	15 s (NPS ≤ 2)	No visible leakage through body, bonnet, wall
Backseat (if specified)	Water	≥ 1.1 × rated	15 s	No visible leakage
High-pressure closure (seat)	Water	≥ 1.1 × rated = 21.6 bar(g), test at 22 bar(g)	15 s	Per API 598 leakage table (metal seat NPS ≤ 2: 0 drops)
Low-pressure closure (seat)	Air / N_2	4–7 bar(g), test at 6 bar(g)	15 s	Per API 598 leakage table (0 bubbles for NPS ≤ 2)

Test gauge: EX-PG-01, range 0–60 bar (test pressure within 30–70 % of range recommended), calibration due 2026-11-05. Water chloride content (if stainless): n/a.

#	Serial No.	Shell bar / s	Seat HP side A bar / s	Seat HP side B bar / s	Seat LP bar / s	Leakage	Result
1	EX-0001	30 / 60	22 / 30	22 / 30	6 / 30	None visible	Accept
2	EX-0015	30 / 60	22 / 30	22 / 30	6 / 30	None visible	Accept
3	EX-0032	30 / 60	22 / 30	22 / 30	6 / 30	None visible	Accept
…	…	…	…	…	…	…	…
20	EX-0298	30 / 60	22 / 30	22 / 30	6 / 30	None visible	Accept

Witness summary (EXAMPLE): 20 / 20 accepted. Gauges pressure-held with no drop observed. [Photo: gauge reading at hold — photo omitted in web sample] [Video: seat test, 30 s — video omitted in web sample]

10. Operation Test

Check point	Requirement (EXAMPLE)	Qty checked	Result
Full open / full close stroke	Smooth, no binding, no abnormal noise	8	OK
Number of handwheel turns (open→close)	Per dwg: 8	8	OK
Operating torque / force	Within manufacturer value; one person by hand	8	OK
Position indicator / stem travel	Matches open/close position	8	OK
Gland / packing	No leak after operation; gland bolts adjustable	8	OK
Actuator / gearbox (if fitted)	Per actuator datasheet; limit switches set	n/a	n/a

11. Coating Thickness (DFT)

Method: magnetic / electromagnetic DFT gauge per ISO 2808, gauge verified with reference foils before use. Acceptance per client spec (EXAMPLE: each reading ≥ 80 % of min. DFT, average ≥ min. DFT, in the spirit of ISO 19840).

Sample	R1 µm	R2	R3	R4	R5	Average	Min. spec	Result
S1	135	142	128	150	139	139	120	OK
S2	126	131	122	140	129	130	120	OK
S3	118	104	110	121	112	113	120	NOT OK

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Sample	R1 µm	R2	R3	R4	R5	Average	Min. spec	Result
S4	145	138	152	141	136	142	120	OK
S5 – S8	…	…	…	…	…	≥ 125	120	OK

Gauge: EX-DFT-01, verification foil 125 µm. Colour check vs. RAL card: Conform (EXAMPLE).

12. PMI — Positive Material Identification (Optional)

Performed only if ordered. Portable XRF; results are indicative (carbon is not measured by XRF). Instrument: EX-XRF-01, check standard verified before use.

Sample	Part	Specified grade (EXAMPLE)	Cr %	Ni %	Mo %	Co %	Result
S1	Stem	13Cr (e.g. ASTM A182 F6a)	12.4	0.3	—	—	Consistent
S1	Seat ring hard-facing	CoCr alloy (e.g. Stellite 6 type)	28.6	—	—	61.2	Consistent
S1	Body	WCB (carbon steel)	0.1	0.1	—	—	Consistent

13. Defect List with Photos

No.	Description (EXAMPLE)	Class	Qty	Serial / case	Photo
D1	Sand inclusion on body neck, approx. 3 mm	Major	1	EX-0101 / case 9	[Photo D1 — omitted in web sample]
D2	Scratch across RF serration of inlet flange	Major	1	EX-0177 / case 15	[Photo D2 — omitted in web sample]
D3	Paint run on bonnet	Minor	3	Various	[Photo D3 — omitted in web sample]
D4	Nut thread engagement short by 1 thread	Minor	1	EX-0233 / case 20	[Photo D4 — omitted in web sample]
D5	Coating DFT below minimum (avg 113 µm vs 120 µm)	Spec dev.*	1	Sample S3	[Photo D5 – gauge reading — photo omitted in web sample]

* Spec deviation from a measured test (Section 11); reported separately and not counted in the visual AQL totals.

[Photo D1 — photo omitted in web sample] Caption: …	[Photo D2 — photo omitted in web sample] Caption: …
[Photo D3 — photo omitted in web sample] Caption: …	[Photo D5 — photo omitted in web sample] Caption: …

14. Conclusion

EXAMPLE conclusion: Based on the sample inspected, visual/workmanship defects are within the AQL acceptance numbers (Critical 0/0, Major 2/3, Minor 4/5). Quantity, packing, marking, dimensions, operation and witnessed pressure tests conform. Overall result is PENDING because (1) the material test certificate for heat no. H2611-07 was not available on site, and (2) one sample did not meet the specified minimum coating thickness. The client is asked to decide on shipment release. Suggested actions: factory to submit the missing MTC and to re-coat / re-check DFT on the affected lot portion for re-verification.

Factory representative	EXAMPLE factory QC / (signature) / 2026-11-05 (acknowledges findings, not acceptance)
Inspector	Kevin Lyu / (signature) / 2026-11-05
Technical reviewer	EXAMPLE reviewer / (signature) / 2026-11-05

Disclaimer: This report reflects the condition of the samples inspected on the date and at the location stated. It does not release the supplier from its contractual obligations. Inspection was performed by random sampling; items not sampled are not covered.

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