



SUPREME ENTERPRISE

Industrial Valves

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Doc. No.	SV-DATA-2026- INLINE_HIGH_PRESSURE_CHECK_VALVE_UP_TO_10000_PSI_690_BAR			Page	1 OF 1
Rev.	A			Date	13-Jun-2026
Inline High Pressure Check Valve – Up to 10000 PSI (690 bar) -- Technical Datasheet					
R	REFERENCES & RELATED DOCUMENTS				
R1	P&ID / Process Diagram	N/A -- Product Datasheet	Piping Material Spec.	N/A -- Product Datasheet	
R2	Project Standard / Spec.	ASME B16.34 (Special Class), API 602, NACE MR0175			
1	GENERAL				
2	P&ID No. / Tag No.	N/A -- Product Datasheet	Piping Class	Up to 10000 PSI (690 bar) Working Pressure	
3	Valve Tag / Item No.	N/A -- Product Datasheet	Quantity Required	As required	
4	Design Standard	ASME B16.34 (Special Class), API 602, NACE MR0175	Pressure Class / Rating	Up to 10000 PSI (690 bar) Working Pressure	
5	Valve Size, Inlet x Outlet	1/4" to 2" (DN8 – DN50)	End Connection	NPT / Socket Weld / Flanged / Medium-pressure cone & thread	
6	Valve Type / Model	Inline High Pressure Check Valve – Up to 10000 PSI (690 bar)	Operation Mode	Spring-loaded inline piston check rated to 10000 psi WP -- prevents reverse flow in hydraulic power units, chemical injection, and well-testing high-pressure lines	
6A	Service / Application	Hydraulic Power Units, Chemical Injection, Well Testing, Offshore High Pressure	Fluid State	Liquid / Gas / Steam (as applicable)	
7	DESIGN CONDITIONS				
8	Design Pressure	Up to 10000 PSI (690 bar) Working Pressure	Design Temp. Min / Max	-29°C to +425°C (standard) -- higher/lower on request	
9	Operating Pressure	Up to 10000 PSI (690 bar) Working Pressure	Operating Temp.	Ambient to +200°C (standard) -- project-specific on request	
10	Set / Relief Pressure	N/A -- Product Datasheet	Back Pressure	N/A -- Product Datasheet	
11	Fluid Handled / Service	Hydraulic Power Units, Chemical Injection, Well Testing, Offshore High Pressure	Corrosion Allowance	As per project specification	
12	Required Capacity / Flow Rate	As per valve size and pressure class	Location / Installation	Indoor / Outdoor / Offshore / Marine (as applicable)	
13	VALVE OPERATION REQUIREMENT				
14	Type of Valve Operator	Spring-loaded inline piston check rated to 10000 psi WP -- prevents reverse flow in hydraulic power units, chemical injection, and well-testing high-pressure lines	Actuator Specification	ISO 5211 pad (actuated) -- Electric / Pneumatic / Hydraulic on request	
15	Fail-Safe Position	As per project / application requirements	Accessories Required	Limit switches, positioners, solenoid valves, manual override -- on request	
16	VALVE MATERIAL SPECIFICATION (EQUIVALENT OR SUPERIOR)				
	Valve Part	Specified Material	Proposed Material (Supreme Valves India)		
	Body	As per project specification	Forged ASTM A105 / A182 F316 (Stainless)		
	Bonnet / Cover	As per standard	As per standard / matching body grade		
	Trim (Disc / Seat)	As per standard	A182 F316 / 17-4PH / Metal-to-metal / PEEK insert		
	Stem / Spindle	As per standard	As per standard		
	Gasket / Packing	As per standard	Viton / PEEK		
	Bolting / Nuts	As per standard	ASTM A193 B7 / B8M		
	Spring	As per standard	Inconel X-750 / SS316		
17	TESTING, INSPECTION & CERTIFICATION REQUIREMENTS				
18	Hydrostatic Shell Test	Hydrostatic 103.4 MPa (15000 psi) -- 1.5x WP	Seat / Pneumatic Test	Hydrostatic 75.8 MPa (11000 psi) -- 1.1x WP	
19	NDT Requirements	100% MPI / DPT on machined surfaces (if specified) -- Radiography / Ultrasonic on request			
20	Required Certificates / MTC	EN 10204 3.1 MTC (standard) -- EN 10204 3.2 / third-party inspection on request			
21	Witness / Inspection Agency	Client / TPI representative (if specified)	Third Party Inspection	TUV / SGS / BV / Lloyds Register (client cost)	
22	PAINTING, PRESERVATION & PACKING				

23	Painting / Coating Specification	Standard: one coat primer + two coats synthetic enamel (colour per client spec) -- special coatings (epoxy, PTFE, rubber lining) on request
24	Packing Requirement	Wooden cases / pallets with VCI protection -- sea-worthy packing for export on request
26 NOTES		
<p>1. This datasheet covers standard specifications for Inline High Pressure Check Valve – Up to 10000 PSI (690 bar).</p> <p>2. Design Standard: ASME B16.34 (Special Class), API 602, NACE MR0175.</p> <p>3. Application / Service: Hydraulic Power Units, Chemical Injection, Well Testing, Offshore High Pressure.</p> <p>4. Size Range: 1/4" to 2" (DN8 – DN50). Pressure Rating: Up to 10000 PSI (690 bar) Working Pressure.</p> <p>5. All valves are manufactured new and unused by an ISO 9001 compliant foundry.</p> <p>6. Material Test Certificates (MTC) per EN 10204 3.1 provided as standard; EN 10204 3.2 available on request at additional cost.</p> <p>7. Testing performed per ISO 5208 / API 598: shell test at 1.5x rated pressure, seat test at 1.1x rated pressure -- bubble-tight zero leakage.</p> <p>8. Face-to-face dimensions per ASME B16.10 / BS 2080 / manufacturer standard unless otherwise specified.</p> <p>9. Marking per MSS SP-25: Size, Pressure Class, Material, Heat Number, Tag Number, Serial Number, Flow Direction.</p> <p>10. Alternative / upgraded materials: Inconel 625 trim and sour-service NACE configurations on request.</p> <p>11. Actuated valves (electric, pneumatic, hydraulic) supplied with ISO 5211 mounting pad and position indicator.</p> <p>12. Third-party inspection by TUV, SGS, Bureau Veritas, or Lloyds Register available on request at client cost.</p> <p>13. This datasheet is for general reference. Firm specifications to be confirmed upon receipt of confirmed Purchase Order with technical requirements.</p> <p>14. For specific project requirements, deviation forms, or material substitutions, please contact our engineering team.</p>		

RH	REVISION HISTORY					
	Rev.	Date	Description of Change	Prepared / Reviewed / Approved		
	A	13-Jun-2026	Initial issue -- Product datasheet generated from standard catalogue	Supreme Valves India -- Technical Department		
AP	DOCUMENT APPROVAL					
	PREPARED BY Supreme Valves India -- Technical Department, Ahmedabad _____ Signature / Date		REVIEWED BY _____ Name / Signature / Date		APPROVED BY _____ Name / Signature / Date	