



SUPREME ENTERPRISE

Industrial Valves

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Doc. No.	SV-DATA-2026-SIL_RATED_PED_COMPLIANT_VALVES			Page	1 OF 1
Rev.	A			Date	13-Jun-2026
SIL 2 / PED Module H Certified Ball & Gate Valve Assemblies -- 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.	IEC 61508 (SIL), PED 2014/68/EU Module H, API 6D / API 600 / API 609			
1	GENERAL				
2	P&ID No. / Tag No.	N/A -- Product Datasheet	Piping Class	ASME Class 150 to 1500	
3	Valve Tag / Item No.	N/A -- Product Datasheet	Quantity Required	As required	
4	Design Standard	IEC 61508 (SIL), PED 2014/68/EU Module H, API 6D / API 600 / API 609	Pressure Class / Rating	ASME Class 150 to 1500	
5	Valve Size, Inlet x Outlet	2" to 24" (DN50 – DN600), per valve type	End Connection	Flanged RF / RTJ per ASME B16.5 or Butt Weld	
6	Valve Type / Model	SIL 2 / PED Module H Certified Ball & Gate Valve Assemblies	Operation Mode	High-integrity automated isolation package -- SIL-certified spring-return fail-safe actuator, SIL 3 solenoid, and PST-capable smart positioner; supplied with Functional Safety Assessment and SIL calculation certificates	
6A	Service / Application	Safety Instrumented Systems, Emergency Shutdown (ESD), Oil & Gas, Refineries	Fluid State	Liquid / Gas / Steam (as applicable)	
7	DESIGN CONDITIONS				
8	Design Pressure	ASME Class 150 to 1500	Design Temp. Min / Max	-29°C to +425°C (standard) -- higher/lower on request	
9	Operating Pressure	ASME Class 150 to 1500	Operating Temp.	Ambient to +200°C (standard) -- project-specific on request	
10	Set / Relief Pressure	ASME Class 150 to 1500	Back Pressure	N/A -- Product Datasheet	
11	Fluid Handled / Service	Safety Instrumented Systems, Emergency Shutdown (ESD), Oil & Gas, Refineries	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	High-integrity automated isolation package -- SIL-certified spring-return fail-safe actuator, SIL 3 solenoid, and PST-capable smart positioner; supplied with Functional Safety Assessment and SIL calculation certificates	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	ASTM A105N Forged Carbon Steel / A182 F316 Stainless Steel		
	Bonnet / Cover	As per standard	As per standard / matching body grade		
	Trim (Disc / Seat)	As per standard	As per standard		
	Stem / Spindle	As per standard	As per standard		
	Gasket / Packing	As per standard	Spiral wound SS316 + graphite		
	Bolting / Nuts	As per standard	ASTM A193 B7 / A194 2H		
	Valve	As per standard	API 6D Ball / API 600 Gate / API 609 Butterfly		
	Actuator	As per standard	SIL-Certified Spring Return Pneumatic Scotch Yoke		
	Solenoid Valve	As per standard	SIL 3 Rated Low-Power 3/2 NC		
	Diagnostics	As per standard	Smart positioner with Partial Stroke Testing (PST)		
	Control Tubing	As per standard	Stainless Steel 316 (seam-free)		
	Documentation	As per standard	FSA reports & SIL Calculation Certificates		
17	TESTING, INSPECTION & CERTIFICATION REQUIREMENTS				
18	Hydrostatic Shell Test	Hydrostatic 15.3 MPa (2225 psi)	Seat / Pneumatic Test	Hydrostatic 11.2 MPa (1630 psi)	

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 SIL 2 / PED Module H Certified Ball & Gate Valve Assemblies.</p> <p>2. Design Standard: IEC 61508 (SIL), PED 2014/68/EU Module H, API 6D / API 600 / API 609.</p> <p>3. Application / Service: Safety Instrumented Systems, Emergency Shutdown (ESD), Oil & Gas, Refineries.</p> <p>4. Size Range: 2" to 24" (DN50 – DN600), per valve type. Pressure Rating: ASME Class 150 to 1500.</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: 1001 (SIL 2) or 1002 (SIL 3) voting; ESD / HIPPS 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		
	<p style="text-align: center;">PREPARED BY</p> <p style="text-align: center;">Supreme Valves India -- Technical Department, Ahmedabad</p> <p>_____</p> <p style="text-align: center;">Signature / Date</p>	<p style="text-align: center;">REVIEWED BY</p> <p>_____</p> <p style="text-align: center;">Name / Signature / Date</p>	<p style="text-align: center;">APPROVED BY</p> <p>_____</p> <p style="text-align: center;">Name / Signature / Date</p>