



SUPREME ENTERPRISE

Industrial Valves

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Doc. No.	SV-DATA-2026-PNEUMATIC_ACTUATED_KNIFE_GATE_VALVE_DOUBLE_ACTING		Pneumatic Actuated Knife Gate Valve -- Double Acting Cylinder -- Technical Datasheet		Page	1 OF 1
Rev.	A				Date	13-Jun-2026
R	REFERENCES & RELATED DOCUMENTS					
R1	P&ID / Process Diagram	N/A -- Product Datasheet	Piping Material Spec.	N/A -- Product Datasheet		
R2	Project Standard / Spec.	MSS SP-81, EN 593, API 598				
1	GENERAL					
2	P&ID No. / Tag No.	N/A -- Product Datasheet	Piping Class	PN10 / Class 150		
3	Valve Tag / Item No.	N/A -- Product Datasheet	Quantity Required	As required		
4	Design Standard	MSS SP-81, EN 593, API 598	Pressure Class / Rating	PN10 / Class 150		
5	Valve Size, Inlet x Outlet	DN50 to DN600 (2" to 24")	End Connection	Wafer / Lugged between flanges		
6	Valve Type / Model	Pneumatic Actuated Knife Gate Valve -- Double Acting Cylinder	Operation Mode	Knife gate valve fitted with a yoke-mounted double-acting pneumatic cylinder and NAMUR solenoid/limit switches -- fast automated on/off isolation of slurry, pulp, and bulk-solid lines		
6A	Service / Application	Automated Slurry Handling, Mining, Wastewater, Process On/Off	Fluid State	Liquid / Gas / Steam (as applicable)		
7	DESIGN CONDITIONS					
8	Design Pressure	PN10 / Class 150	Design Temp. Min / Max	-29°C to +425°C (standard) -- higher/lower on request		
9	Operating Pressure	PN10 / Class 150	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	Automated Slurry Handling, Mining, Wastewater, Process On/Off	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	Knife gate valve fitted with a yoke-mounted double-acting pneumatic cylinder and NAMUR solenoid/limit switches -- fast automated on/off isolation of slurry, pulp, and bulk-solid 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	ASTM A351 CF8M (SS) or Ductile Iron GGG40 + Pneumatic Cylinder			
	Bonnet / Cover	As per standard	As per standard / matching body grade			
	Trim (Disc / Seat)	As per standard	SS316 bevelled / polished / Metal / EPDM / NBR / PTFE replaceable			
	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			
	Actuator	As per standard	Double-Acting Pneumatic Cylinder, yoke-mounted			
	Controls	As per standard	NAMUR solenoid, limit switches, positioner (optional)			
	Air Supply	As per standard	4 – 7 bar instrument air			
17	TESTING, INSPECTION & CERTIFICATION REQUIREMENTS					
18	Hydrostatic Shell Test	Hydrostatic 1.5 MPa (15 bar) -- 1.5x PN10	Seat / Pneumatic Test	Hydrostatic 1.1 MPa (11 bar) -- 1.1x PN10		
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 Pneumatic Actuated Knife Gate Valve -- Double Acting Cylinder.</p> <p>2. Design Standard: MSS SP-81, EN 593, API 598.</p> <p>3. Application / Service: Automated Slurry Handling, Mining, Wastewater, Process On/Off.</p> <p>4. Size Range: DN50 to DN600 (2" to 24"). Pressure Rating: PN10 / Class 150.</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: Spring-return fail-safe cylinder, IP67 solenoid, and feedback positioner 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
	A	13-Jun-2026	Initial issue -- Product datasheet generated from standard catalogue
			Prepared / Reviewed / Approved Supreme Valves India -- Technical Department
AP	DOCUMENT APPROVAL		
	PREPARED BY Supreme Valves India -- Technical Department, Ahmedabad	REVIEWED BY	APPROVED BY
	_____	_____	_____
	Signature / Date	Name / Signature / Date	Name / Signature / Date