



# SUPREME ENTERPRISE

Industrial Valves

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Rev.	A			Date	13-Jun-2026
<b>Gun Metal Needle Valve (BS 5154, Heavy-Duty Instrument Service) -- Technical Datasheet</b>					
<b>R</b>	<b>REFERENCES &amp; RELATED DOCUMENTS</b>				
R1	P&ID / Process Diagram	N/A -- Product Datasheet	Piping Material Spec.	N/A -- Product Datasheet	
R2	Project Standard / Spec.	BS 5154 / BS 5155 / IS 778 / IS 318			
1	<b>GENERAL</b>				
2	P&ID No. / Tag No.	N/A -- Product Datasheet	Piping Class	PN10 / PN16; 0°C to +100°C	
3	Valve Tag / Item No.	N/A -- Product Datasheet	Quantity Required	As required	
4	Design Standard	BS 5154 / BS 5155 / IS 778 / IS 318	Pressure Class / Rating	PN10 / PN16; 0°C to +100°C	
5	Valve Size, Inlet x Outlet	15mm & 40mm NB (1/2" to 1-1/2" BSP/NPT)	End Connection	Threaded Screwed BSP (IS 554 / BS 21) or NPT	
6	Valve Type / Model	Gun Metal Needle Valve (BS 5154, Heavy-Duty Instrument Service)	Operation Mode	Precision SS316 needle and ground seat give fine, repeatable throttling and tight isolation -- gun metal body for power, pulp, and chemical instrument lines	
6A	Service / Application	Instrumentation, Throttling, Power Plants, Pulp Mills, Chemical Lines	Fluid State	Liquid / Gas / Steam (as applicable)	
7	<b>DESIGN CONDITIONS</b>				
8	Design Pressure	PN10 / PN16; 0°C to +100°C	Design Temp. Min / Max	-29°C to +425°C (standard) -- higher/lower on request	
9	Operating Pressure	PN10 / PN16; 0°C to +100°C	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	Instrumentation, Throttling, Power Plants, Pulp Mills, Chemical Lines	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	<b>VALVE OPERATION REQUIREMENT</b>				
14	Type of Valve Operator	Precision SS316 needle and ground seat give fine, repeatable throttling and tight isolation -- gun metal body for power, pulp, and chemical instrument 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	<b>VALVE MATERIAL SPECIFICATION (EQUIVALENT OR SUPERIOR)</b>				
	Valve Part	Specified Material	Proposed Material (Supreme Valves India)		
	Body	As per project specification	Gun Metal LG2 (C83600) per IS 318 / BS 1400		
	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	Stainless Steel 316 (ASTM A276), precision-ground tip		
	Gasket / Packing	As per standard	PTFE / Braided Flexible Graphite		
	Bolting / Nuts	As per standard	ASTM A193 B7 / A194 2H		
	Handwheel	As per standard	Cast Iron / Pressed Steel		
	Coating	As per standard	Anti-Corrosive Epoxy RAL 5015 (Sky Blue), DFT 225 Microns		
17	<b>TESTING, INSPECTION &amp; CERTIFICATION REQUIREMENTS</b>				
18	Hydrostatic Shell Test	Hydrostatic per API 598 / IS 14846	Seat / Pneumatic Test	Hydrostatic per API 598 / IS 14846 -- drop-tight	
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	<b>PAINTING, PRESERVATION &amp; PACKING</b>				
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**

1. This datasheet covers standard specifications for Gun Metal Needle Valve (BS 5154, Heavy-Duty Instrument Service).
2. Design Standard: BS 5154 / BS 5155 / IS 778 / IS 318.
3. Application / Service: Instrumentation, Throttling, Power Plants, Pulp Mills, Chemical Lines.
4. Size Range: 15mm & 40mm NB (1/2" to 1-1/2" BSP/NPT). Pressure Rating: PN10 / PN16; 0°C to +100°C.
5. All valves are manufactured new and unused by an ISO 9001 compliant foundry.
6. Material Test Certificates (MTC) per EN 10204 3.1 provided as standard; EN 10204 3.2 available on request at additional cost.
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.
8. Face-to-face dimensions per ASME B16.10 / BS 2080 / manufacturer standard unless otherwise specified.
9. Marking per MSS SP-25: Size, Pressure Class, Material, Heat Number, Tag Number, Serial Number, Flow Direction.
10. Alternative / upgraded materials: Bronze and SS316 bodies, panel-mount and bar-stock variants available on request.
11. Actuated valves (electric, pneumatic, hydraulic) supplied with ISO 5211 mounting pad and position indicator.
12. Third-party inspection by TUV, SGS, Bureau Veritas, or Lloyds Register available on request at client cost.
13. This datasheet is for general reference. Firm specifications to be confirmed upon receipt of confirmed Purchase Order with technical requirements.
14. For specific project requirements, deviation forms, or material substitutions, please contact our engineering team.

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			
	<b>PREPARED BY</b> Supreme Valves India -- Technical Department, Ahmedabad  _____ Signature / Date	<b>REVIEWED BY</b>  _____ Name / Signature / Date	<b>APPROVED BY</b>  _____ Name / Signature / Date