



GLOBE VALVE SERIES

Forged Steel High-Pressure Globe Valve

J41H

Forged steel high-pressure flanged globe valve for steam, water, gas and compatible industrial service requiring reliable shut-off and throttling control.

01 Key Specifications

Product Type	Forged steel high-pressure globe valve, multi-turn rising stem, flanged ends
Nominal Size	DN15-DN50
Pressure Rating	PN160 / PN320; ASME Class 900 / 1500 / 2500
Body Materials	A105 / F11 / F22 / F304 / F316 / F304L / F316L
Sealing Surface	Cr13 stainless steel; hard-faced Stellite option where offered
Operation	Handwheel standard; electric actuator option
End Connection	Flanged; ASME B16.5 / EN 1092-1 / GB/T 9113
Typical Service	High-pressure steam / water / gas and compatible industrial media

02 Design Features & Configuration

Forged Steel Body High-strength forged construction for demanding small-bore high-pressure service.	Multi-Turn Rising Stem Linear stem movement provides visual position indication and controlled throttling.
Cr13 Sealing Surface Hard metal-to-metal seating suited to steam and elevated-temperature service.	Flanged Connection Rigid bolted pipeline connection with project-specific flange standard and facing.
Bonnet Options Bolted bonnet or pressure-seal bonnet according to pressure class and service.	Throttling Capability Globe-valve flow path supports precise flow adjustment as well as shut-off.

03 Materials of Construction

Component	Standard Material	Options
Body / Bonnet	A105 forged carbon steel	F11 / F22 / F304 / F316 / F304L / F316L
Disc	Cr13 stainless steel	Stellite hard-facing where offered
Seat Surface	Cr13 stainless steel	Stellite hard-facing where offered
Stem	Cr13 stainless steel	SS304 / SS316 / 17-4PH where offered
Packing	Flexible graphite	PTFE for lower-temperature service where applicable
Gasket	Graphite + SS spiral wound	Confirm for selected model
Bonnet Bolts	ASTM A193-B7 / A194-2H	Other grades available by configuration

04 Pressure Ratings & Temperature

Pressure Class	Body Materials	Reference Size
PN160	A105 / F11 / F22 / F304 / F316	DN15-DN50
PN320	A105 / F11 / F22 / F304 / F316	DN15-DN40
Class 900	A105 / F11 / F22 / F304 / F316	DN15-DN50
Class 1500	A105 / F11 / F22 / F304 / F316	DN15-DN40
Class 2500	A105 / F11 / F22 / F304 / F316	DN15-DN25

A105 forged carbon steel	-29 C to +425 C reference
F11 alloy steel	-29 C to +550 C reference
F22 alloy steel	-29 C to +600 C reference
F304 stainless steel	-40 C to +600 C reference
F316 stainless steel	-40 C to +650 C reference

Temperature and pressure values are reference ranges from the supplied product information. Final pressure-temperature limits must be confirmed for the selected valve configuration.

05 Typical Reference Dimensions

DN	NPS	L mm	H mm	K mm	W	H mm	Weight kg
15	1/2 in	140	95	66.7	4-15	200	6.0
20	3/4 in	152	115	82.6	4-19	215	8.0
25	1 in	165	125	88.9	4-19	235	10.5
32	1-1/4 in	178	140	101.6	4-19	255	14.0
40	1-1/2 in	190	155	114.3	4-22	275	18.0
50	2 in	216	165	127.0	8-19	310	24.0

Dimensions are reference values for the supplied J41H data. Actual dimensions depend on pressure class, flange standard, body construction and bonnet design; confirm against the approved drawing before ordering.

06 Standards & Testing

Design / Manufacturing	API 602 / API 623 / ASME B16.34 / GB/T 12235 / GB/T 12224
Flange Standard	ASME B16.5 / EN 1092-1 / GB/T 9113
Face-to-Face	ASME B16.10 / GB/T 12221
Pressure Testing	API 598 / GB/T 13927
Pressure-Temperature	ASME B16.34
Product Marking	Model, nominal size, pressure class and body material

07 Quality & Documentation

Pressure Test Report

Shell and seat pressure testing documentation may be supplied for the selected order.

Dimensional Inspection

Key valve dimensions can be verified against the approved drawing.

Third-Party Inspection

Third-party inspection can be coordinated where required by the order.

Material Certificate

EN 10204 2.2 / 3.1 documentation and heat-number traceability available where specified.

Sealing Surface Record

Cr13 or Stellite sealing-surface material can be documented for the selected configuration.

Export Documentation

Protective packing and related shipment documents can be arranged for export supply.

08 Applications

- High-pressure steam and boiler auxiliary lines
- High-pressure water, condensate and feedwater systems
- High-pressure gas and instrument isolation service where the selected model is approved
- Thermal power plant small-bore steam and water pipelines
- Petroleum, chemical and petrochemical process lines
- Oil and gas field, refining and compatible high-pressure industrial service

09 Product Views



10 Frequently Asked Questions

What is the difference between J41H and J11H?

J41H uses flanged ends and, in the supplied data, is positioned for forged-steel high-pressure service. J11H uses threaded ends and is generally used for small-bore threaded service.

Why use forged steel for high-pressure service?

Forged steel offers high strength, toughness and pressure containment for demanding small-bore high-pressure applications.

Can J41H be used for gas service?

The supplied product information includes high-pressure gas among typical services. Medium compatibility, leakage requirements, materials and applicable project standards must be confirmed for the selected configuration.

What is the difference between bolted and pressure-seal bonnets?

A bolted bonnet uses bolting and a gasket. A pressure-seal bonnet uses internal pressure to energize the seal and is used for higher pressure classes where specified.

11 How to Order

Send the valve size and quantity, body material, pressure class, flange standard and facing, sealing-surface requirement, service medium and operating temperature, bonnet design, operation method, and required quality documentation. ZeMin Gas can support configuration confirmation before quotation.

Note: Technical data in this datasheet is based on the product information supplied for J41H. Final dimensions, materials, ratings and documentation should be confirmed against the approved quotation and drawing for the selected model.