

## SERIES 89 ANSI RANGE

Series 89 Forged Globe Valves are linear motion valves devised for stopping the flow of the service fluid when necessary. They are of robust and compact design, bolted bonnet, outside screw and yoke, conventional port and rising handwheel, being the closure element a disc seating against a precisely machined seat thus achieving the positive closure. The atmospheric sealing is achieved by flexible graphite rings. The flow comes upwards underneath the seat, being unidirectional. Their shape leads to higher pressure drop compared to gate valves but operation is quicker and this feature allows to use the valve as regulating valve when arranged with throttling plug. Valves are of easy and safe operation being widely used in power, chemical and oil industry. The range is also comprehensive of a wide offer of different versions and options. The standard operation is achieved by handwheel, and they can also be arranged for automation with different kinds of actuators.

Outside screw and yoke

Ergonomic rising handwheel

Precise machining of components for optimal performance

Marking for identification and full traceability purpose

Back Seat feature

Robust and compact construction

Seat surface can be hardened to increase wear resistance

Great versatility in end connections, materials and configurations



### Main Features / Reference Standards

Design: API 602  
 Pressure Rating: 800/1500/2500#  
 Face to face length: Manufacturer standard  
 Valve end connections: Threaded NPT to ASME B1.20.1 / BSP to ISO 228-1 / BSPT to ISO 7-1  
 Welded SW to ASME B16.11  
 Marking: MSS SP-25  
 Inspections & Tests: API 598  
 Unidirectional design. See the arrow on the body for normal flow direction  
 Zinc phosphated surface protection for forged steel valves  
 Product compliant with Directive 2014/68/EU on Pressure Equipment (PED) and Machinery Directive 2006/42/EC for European Union territory

### Main Duties / Limits of use

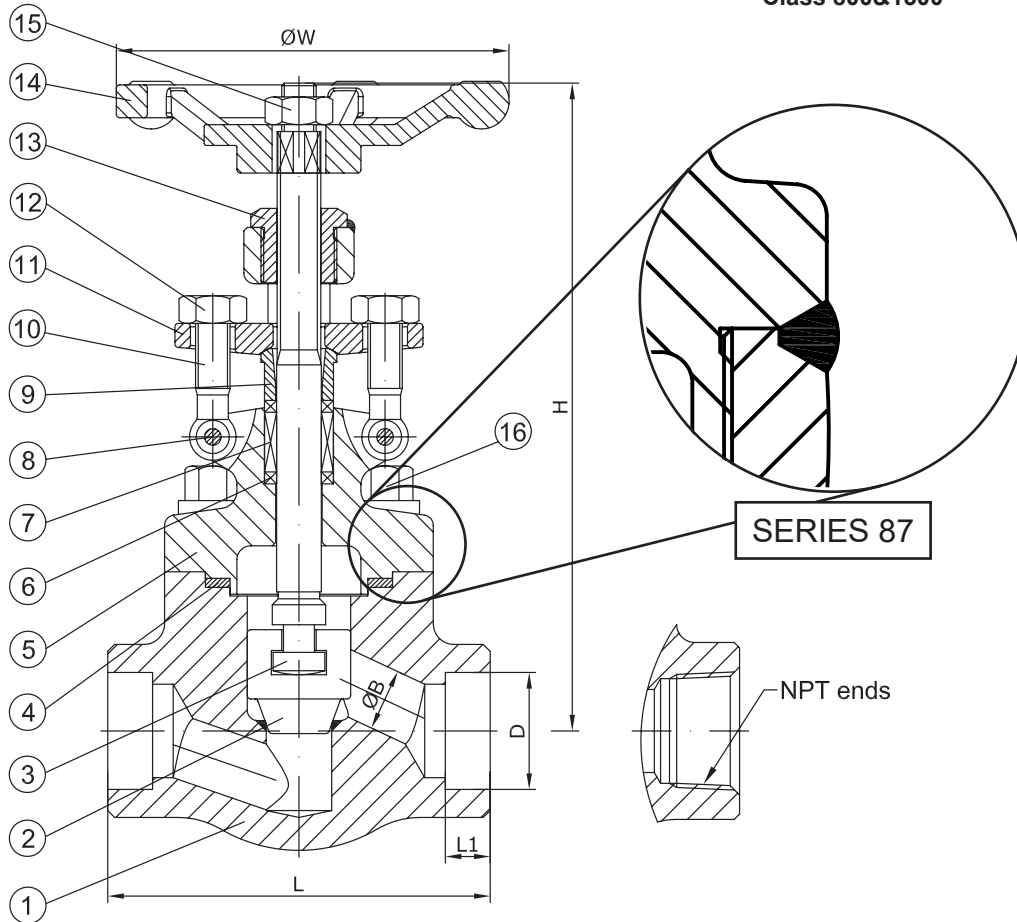
Fluids compatible with materials of construction. Questions referring to chemical resistance, please consult us  
 Pressure / Temperature Rating to ASME B16.34. See section "Engineering & Performance Data"  
 For products compliant with Directive 2014/68/EU, observe also limits acc. to Annex II tables 6 & 8 (gases & liquids group 1\*) and tables 7 & 9 (gases & liquids group 2\*) up to category III  
 \*Classification of fluids (group 1 or 2) acc. to Directive 2014/68/EU, Article 13

### Options

Diverse body materials and trim combinations, different valve connections, Y-Pattern, regulating plug, extended bonnet, bellows seal, pressure seal, welded bonnet, different actuation, limit switches... Please consult us

Main Parts and Materials

SERIES 89/87 ANSI RANGE  
Class 800&1500



| N° | PART          | MATERIAL          |                |                |                   |                 |                      |                   |                   |                   |
|----|---------------|-------------------|----------------|----------------|-------------------|-----------------|----------------------|-------------------|-------------------|-------------------|
|    |               | A105N             |                |                | A350 LF2          |                 | A182 F11/F22         | A182 F304/F304L   | A182 F316/F316L   | A182 F51/F53      |
|    |               | Trim 1 (89A01)    | Trim 5 (89A05) | Trim 8 (89A08) | Trim 2 (89A12)    | Trim 10 (89A1D) | Trim 5 (89B75/89B65) | (89I10/80I90)     | (89I30/89J10)     | (89K30/89K40)     |
| 1  | Body          | A105N+ 13Cr       | A105N+ HF      | A105N+ HF      | A350 LF2 +SS304   | A350 LF2 +SS316 | A182 F11/ F22+HF     | A182 F304(L)      | A182 F316(L)      | A182 F51/F53      |
| 2  | Disc          | A182 F6a          | A182 F6a+HF    | A182 F6a       | A182 F304         | A182 F316       | A182 F6a+HF          | A182 F304(L)      | A182 F316(L)      | A182 F51/F53      |
| 3  | Stem          | A276 410          |                |                | A276 304          | A276 316        | A276 410             | A276 304(L)       | A276 316(L)       | A182 F51/F53      |
| 4  | Bonnet Gasket | SS304+Graphite    |                |                | SS304+ Graphite   | SS316+ Graphite | SS304+ Graphite      | SS304+ Graphite   | SS316+ Graphite   | SS316+ Graphite   |
| 5  | Bonnet        | A105N             |                |                | A350 LF2          |                 | A182 F11/F22         | A182 F304(L)      | A182 F316(L)      | A182 F51/F53      |
| 6  | Packing       | SS304+Graphite    |                |                | SS304+Graphite    |                 | SS304+ Graphite      | SS304+ Graphite   | SS316+ Graphite   | SS316+ Graphite   |
| 7  | Packing       | Flexible Graphite |                |                | Flexible Graphite |                 | Flexible Graphite    | Flexible Graphite | Flexible Graphite | Flexible Graphite |
| 8  | Eyebolt Pin   | A276 410          |                |                | A276 410          |                 | A276 410             | A276 304          | A276 304          | A276 304          |
| 9  | Packing Gland | A276 420          |                |                | A276 304          |                 | A276 420             | A276 304(L)       | A276 316(L)       | A182 F51/F53      |
| 10 | Eyebolt       | A193 B7           |                |                | A320 L7           |                 | A193 B16             | A193 B8(M)        | A193 B8M          | A193 B8M          |
| 11 | Gland Flange  | A105N             |                |                | A350 LF2          |                 | A182 F11/F22         | A182 F304(L)      | A182 F316(L)      | A182 F51/F53      |
| 12 | Eyebolt Nut   | A194 2H           |                |                | A194 4            |                 | A194 4               | A194 8(M)         | A194 8M           | A194 8M           |
| 13 | Stem Nut      | A276 410          |                |                | A276 410          |                 | A276 410             | A276 410          | A276 410          | A276 410          |
| 14 | Handwheel     | A197              |                |                | A197              |                 | A197                 | A197              | A197              | A197              |
| 15 | Handwheel Nut | AISI 1035         |                |                | AISI 1035         |                 | AISI 1035            | AISI 1035         | AISI 1035         | AISI 1035         |
| 16 | Bonnet Bolt   | A193 B7           |                |                | A320 L7           |                 | A193 B16             | A193 B8(M)        | A193 B8M          | A193 B8M          |

HF = Hard faced

Main Valve Parameters

Class 800

| Nominal Size               |             | inch          | 3/8" | 1/2" | 3/4" | 1"   | 1 1/4" | 1 1/2" | 2"   |      |
|----------------------------|-------------|---------------|------|------|------|------|--------|--------|------|------|
|                            |             | DN            | 10   | 15   | 20   | 25   | 32     | 40     | 50   |      |
| End connection             | Threaded    | NPT/ BSP/BSPT | L    | 79   | 79   | 92   | 111    | 120    | 152  | 172  |
|                            |             |               | ØB   | 8    | 10,5 | 13,5 | 18     | 23     | 29   | 36,5 |
|                            | Socket weld | SW            | L    | 79   | 79   | 92   | 111    | 120    | 120  | 140  |
|                            |             |               | L1   | 9,6  | 9,6  | 12,7 | 12,7   | 12,7   | 12,7 | 16   |
| ØB                         |             |               | 8    | 10,5 | 13,5 | 18   | 23     | 29     | 36,5 |      |
|                            | ØD          | 17,6          | 21,8 | 27,1 | 33,8 | 42,6 | 48,7   | 61,2   |      |      |
| Top works/ Operation       | Handwheel   | H (open)      | 162  | 162  | 165  | 193  | 224    | 260    | 300  |      |
|                            |             | H (close)     | 153  | 153  | 154  | 182  | 213    | 247    | 287  |      |
|                            |             | ØW            | 80   | 80   | 80   | 105  | 130    | 130    | 155  |      |
| Kvs-value                  |             |               | -    | 1,7  | 3,1  | 4,9  | 7,5    | 12,2   | 18   |      |
| Approx. Weight Threaded/SW |             |               | 2    | 2    | 2,2  | 3    | 5,2    | 6,3    | 11   |      |

Dimensions in mm subject to manufacturing tolerance / Kvs-values in m³/h / Weights in kg

Class 1500

| Nominal Size               |             | inch          | 3/8" | 1/2" | 3/4" | 1"   | 1 1/4" | 1 1/2" | 2"   |      |
|----------------------------|-------------|---------------|------|------|------|------|--------|--------|------|------|
|                            |             | DN            | 10   | 15   | 20   | 25   | 32     | 40     | 50   |      |
| End connection             | Threaded    | NPT/ BSP/BSPT | L    | 92   | 111  | 111  | 120    | 120    | 140  | 178  |
|                            |             |               | ØB   | 8    | 10,5 | 13,5 | 18     | 23     | 29   | 36,5 |
|                            | Socket weld | SW            | L    | 92   | 111  | 111  | 120    | 120    | 140  | 178  |
|                            |             |               | L1   | 9,6  | 9,6  | 12,7 | 12,7   | 12,7   | 12,7 | 16   |
| ØB                         |             |               | 8    | 10,5 | 13,5 | 18   | 23     | 29     | 36,5 |      |
|                            | ØD          | 17,6          | 21,8 | 27,1 | 33,8 | 42,6 | 48,7   | 61,2   |      |      |
| Top works/ Operation       | Handwheel   | H (open)      | 165  | 193  | 193  | 224  | 260    | 300    | 355  |      |
|                            |             | H (close)     | 154  | 182  | 182  | 213  | 247    | 287    | 340  |      |
|                            |             | ØW            | 105  | 105  | 105  | 130  | 130    | 155    | 200  |      |
| Kvs-value                  |             |               | -    | 1,7  | 3,1  | 4,9  | 7,5    | 12,2   | 18   |      |
| Approx. Weight Threaded/SW |             |               | 3,5  | 3,5  | 3,8  | 5,5  | 8      | 11     | 18,5 |      |

Dimensions in mm subject to manufacturing tolerance / Kvs-values in m³/h / Weights in kg