



# ANSI 150# CAST IRON GLOBE VALVES

## Literature



### Introduction:



Figure 1 ANSI 150# Cast Iron Globe Valve

Globe valve is a valve that is used to permit, stop and regulate the flow in a pipeline system. The disc can be lifted up or lifted down vertically by turning the wheel handle to open position or close position. It is designed and manufactured according to ASME B16.10/ASME B16.34/BS 1873/API 602 standard due to different kinds of materials. Inspection and testing had been carried out according to API 598 standard. Globe valve is widely installed on systems that require flow regulating such as fuel oil system and cooling water system.

### Material and Design:

ANSI 150# flange end globe valve is available in stainless steel SS316, cast iron A126B, cast steel WCB, and forged steel A105. For ANSI flange end globe valves, the cover is available in bolted cover type where the cover is tightened with the valve body with screws and nuts to hold the internal parts.

There are two designs for the stem element, namely rising stem design and non-rising stem design. Rising stem design globe valve is a type of globe valve where the stem will rise and be exposed when the valve is turned to open position and lower when the valve is turned to close position. This design allows the user to check if the valve is in open position or close position by looking at the amount of stem that is exposed.

For non-rising stem design globe valves, the valve is in open position when the handle is turning to open position and in close position when the handle is turning to close position. However it is unable to check the position of the non-rising stem globe valve compared to rising stem globe valve. This design globe valve is suitable to install on systems that have limited space, for example, underground pipeline systems.

### Size and Pressure Rating:

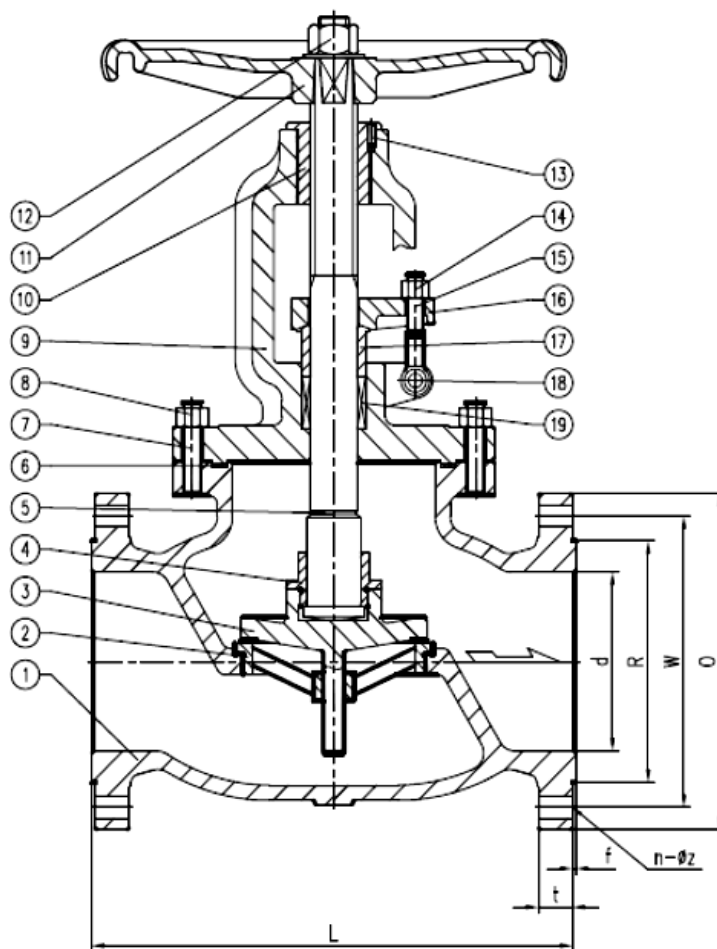
The size for the globe valve is available from 1" to 6", subject to material type. ANSI 150# flange end globe valve can withstand up to 150 PSI working pressure.



Figure 2 ANSI 150# Cast Iron Globe Valve

### Connection Type:

The both end of ANSI globe valve is come with ANSI 150# flange connection. The pipe end has to be in the same flange end connection to connect between pipe and globe valve. Some accessories like gasket, bolts and nuts are needed to connect both flanges together. The number of bolt holes is dependent on globe valve size, for example, 4 bolt hole design for valve size below 4" and 8 bolt hole design for valve size above 4".

**ANSI 150# Cast Iron Globe Valve 2" – 4" (DN50 – DN100) Drawing:**


No	Part Name	Material
1	Body	A126 B Cast Iron
2	Seat	A126 B Cast Iron
3	Disc	A126 B Cast Iron
4	Cover	A29 1025
5	Stem	A276 SUS410
6	Gasket	SS304 + Graphite
7	Bolts	A29 1035
8	Nuts	A29 1025
9	Bonnet	A126 B Cast Iron
10	Stem Nut	A276 SUS410

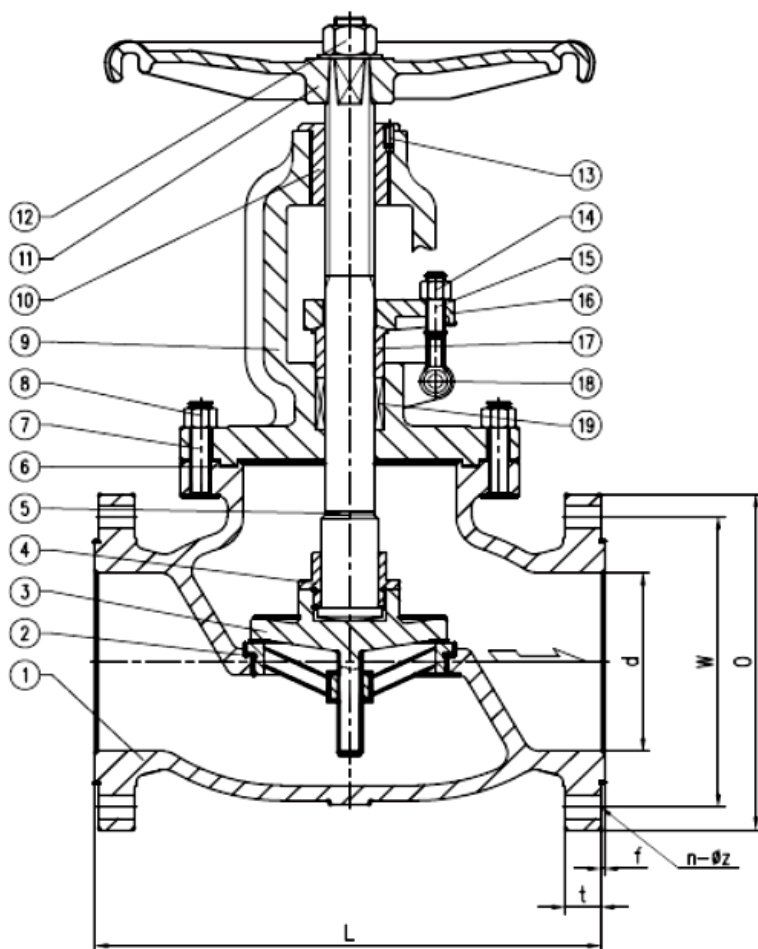
11	Handwheel	A47 32510 Malleable Iron
12	Nut	A29 1025
13	Screw	SS304
14	Nut	A29 1025
15	Bolt	A29 1035
16	Gland Flange	A126 B Cast Iron
17	Packing Gland	A276 SUS410
18	Pin	A29 1025
19	Packing	Flexible Graphite

**Main Technical Parameter:**

<b>Normal Pressure</b>	150#
<b>Hydraulic Body Test Pressure</b>	2.06 MPa
<b>Seal Test Pressure</b>	1.57 MPa
<b>Hermetical Sealing Test</b>	0.6 MPa

**Technical Specification:**

1. Basic design and manufacture according to ASME B16.10
2. Face to face dimension: ASME B16.10
3. Flange End: ASME B16.5
4. Inspection and test: API 598

**ANSI 150# Cast Iron Globe Valve 5" – 6" (DN125 – DN150) Drawing:**


No	Part Name	Material
1	Body	ASTM A126 B
2	Seat	ASTM A126 B + SS304
3	Disc	ASTM A126 B + SS304
4	Cover	ASTM A29 1025
5	Stem	ASTM A276 SUS410
6	Gasket	SS304 + Graphite
7	Bolts	ASTM A29 1035
8	Nuts	ASTM A29 1025
9	Bonnet	ASTM A126 B
10	Stem Nut	ASTM A276 410

11	Handwheel	ASTM A47 32510
12	Nut	ASTM A29 1025
13	Screw	SS304
14	Nut	ASTM A29 1025
15	Bolt	ASTM A29 1035
16	Gland Flange	ASTM A126 B
17	Packing Gland	ASTM A276 410
18	Pin	ASTM A29 1025
19	Packing	Flexible Graphite

## Main Technical Parameter

<b>Normal Pressure</b>	150#
<b>Hydraulic Body Test Pressure</b>	2.06 MPa
<b>Seal Test Pressure</b>	1.57 MPa
<b>Hermetical Sealing Test</b>	0.6 MPa
<b>Max Working Pressure</b>	≤ 429°C

### Technical Specification:

1. Basic design and manufacture according to ASME B16.10
2. Face to face dimension: ASME B16.10
3. Flange End: ASME B16.5
4. Inspection and test: API 598

## Chuan Kok Hardware & Machinery Pte Ltd

Address : 1783 Geylang Bahru, #01-02, Singapore 339708  
Telephone Number : +65 6294 2566  
Email Address : [info@chuankok.com](mailto:info@chuankok.com)  
Website : [www.chuankok.com](http://www.chuankok.com)  
Business Registration Number : 198201577Z  
Country of Registration : Singapore

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