



Enriching Lives

## CAST STEEL GLOBE VALVES

AS PER BS : 1873



**KIRLOSKAR BROTHERS LIMITED**  
A Kirloskar Group Company

# CAST STEEL GLOBE VALVE

Widely accepted by Water supply authorities, National Thermal Power Corporation, Nuclear Power Corporation and Industrial users. Designed as per latest edition of BS : 1873 specifications.

## Application

- Widely used for Naptha and Naptha derivatives in oil refineries, petroleum and chemical industries.
- These valves can also be used for handling water, steam, air, gas or liquid with high pressure / temperature applications
- Mainly used to regulate or stop the flow of fluid.

## Salient Constructional features:

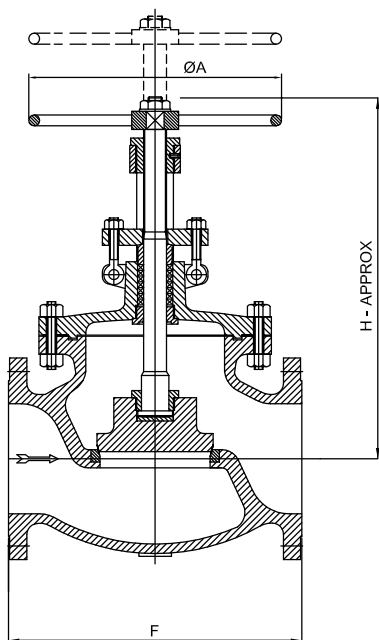
- **Body:**
  - Valve body is designed to provide maximum stream line flow to minimize pressure drop as well as corrosive and erosive effects.
  - The valves have sufficient wall thickness and sturdiness to withstand distortion caused by fluid pressure under ordinary conditions and also to withstand undue stresses on any working parts.
  - Body is strong enough to withstand specified conditions of pressure and temperature.
- **Bonnet**
  - Bonnet is designed in circular form appropriate to valve body and operational requirements.
  - Yoke type bonnet is bolted to body and designed to withstand same temperature and pressure as that of body.
- **Stem**
  - Outside screw, with integral button head at one end with ACME threads.
  - Stem is of one piece construction, having sufficient length to ensure that hand wheel stands well clear above yoke bush when the valve is in closed position.
  - In addition disc nut is provided with back seat bushing collar in order that the valves can be re-packed under pressure.
- **Stuffing Box**
  - Stuffing box of the valve is deep enough to ensure tightness and smooth operation of the valve at maximum differential pressure.
  - A lantern ring is provided for all sizes of Class 300 and Class 600.
- **Body Seat Rings**
  - Accurately machined to close tolerances to match with body recesses.
- **Disc**
  - Loose plug type disc arrangement secured to stem by disc nut.
- **Hand Wheel**
  - Sturdy, specially designed for firm grip.

## Material Of Construction

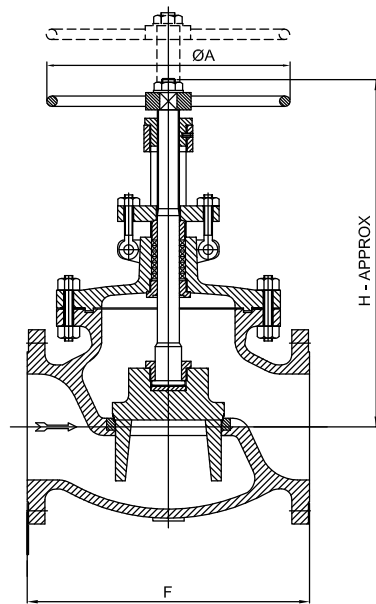
Scope	Body, Bonnet	Body (Seat) Ring	Spindle	Plug	Hand Wheel	Body / Bonnet Fasteners	Gasket
Standard	CS ASTM A 216 Gr.WCB	CS ASTM A515 Gr.70 +13% Cr. H.F.	SS AISI 410	CS ASTM A 216 Gr.WCB +13%Cr. H.F.	CS ASTM A 216 Gr.WCB	ASTM A 193 Gr.B7 / A194 Gr.2H	Spiral wound SS 304 + Graphoil
Optional	SS ASTM A 351 Gr.CF8/Gr.CF8M	SS ASTM A 351 Gr.CF8 / Gr.CF8M (Intergral)	SS AISI 304 SS AISI 316	SS ASTM A351 Gr. CF8 / CF8M	SG IRON CARBON STEEL		Spiral wound SS 316 + Graphoil

Note : 1. For special material of construction ,Contact Design Office.  
2. H.F. :Hard Face.

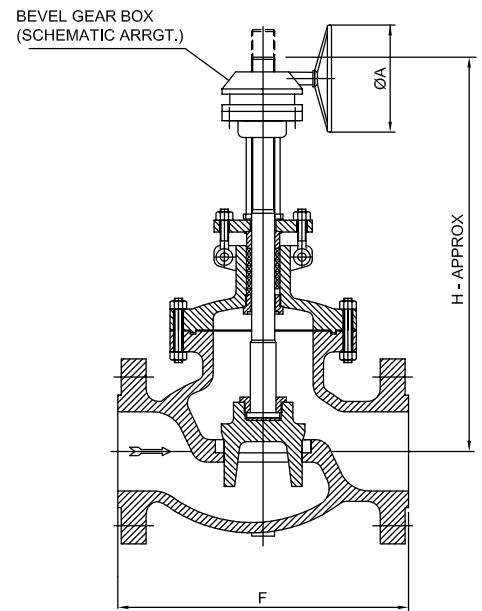
## General Outline Drawing Class 150



**Size Range**  
50 mm to 100 mm



**Size Range**  
150 mm to 250 mm



**Size Range**  
300 mm

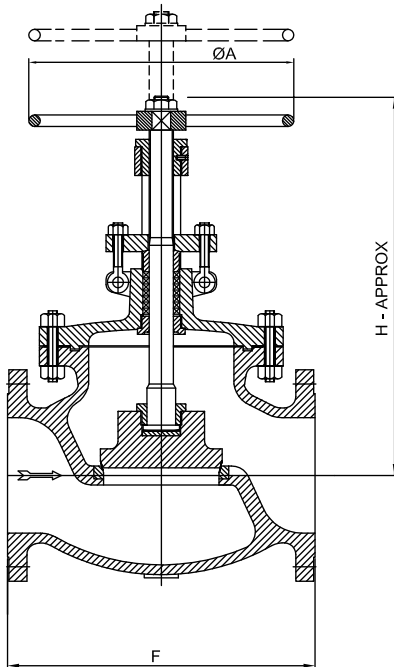
## General Outline Dimensions Class 150

Valve Size	50	65	80	100	150	200	250	300
F	203	216	241	292	406	495	622	698
H Approx	290	375	385	430	505	507	585	850
ØA	200	200	250	250	350	450	450	•

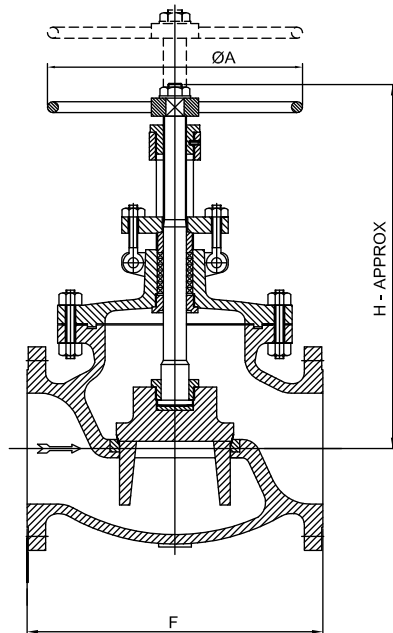
Note: 1. All Dimensions are in 'mm' otherwise stated.  
2. Depend on Make and Model of Gear Box.

## General Outline Drawing

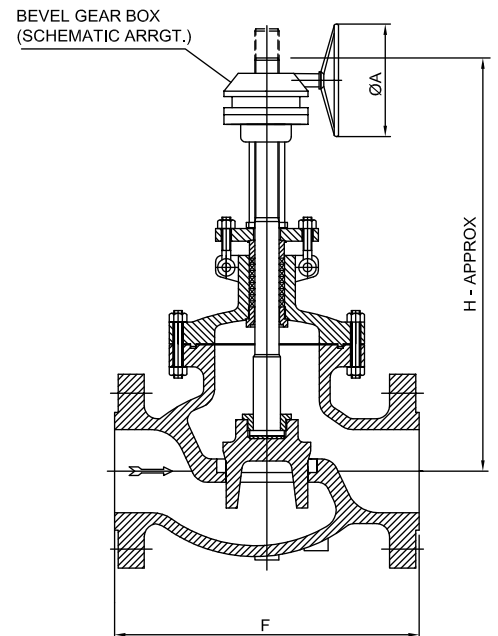
Class 300



**Size Range**  
50 mm to 100 mm



**Size Range**  
150 mm and 200 mm



**Size Range**  
250 mm and 300 mm

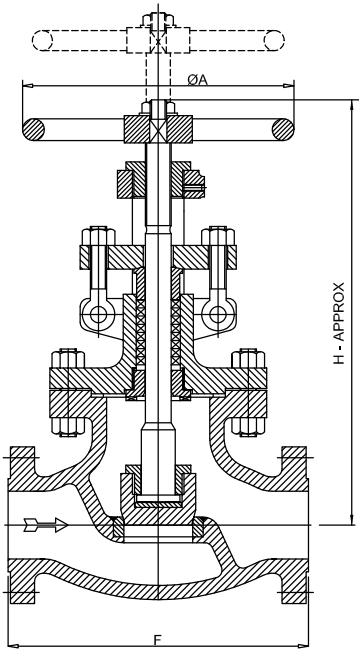
## General Outline Dimensions

Class 300

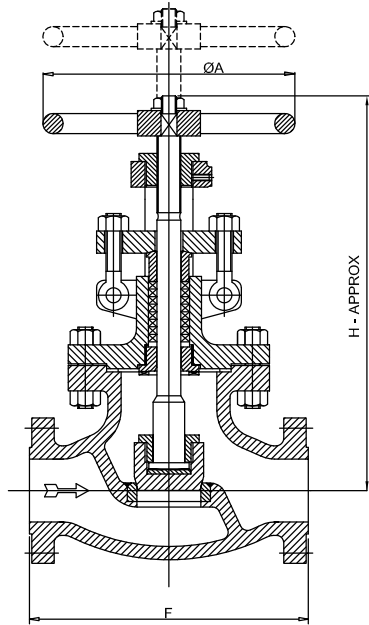
Valve Size	50	65	80	100	150	200	250	300
F	267	292	318	356	444	559	622	711
H Approx	295	390	405	510	530	665	950	1300
ØA	200	200	250	300	350	450	•	•

- Note: 1. All Dimensions are in 'mm' otherwise stated.  
2. Depend on Make and Model of Gear Box.

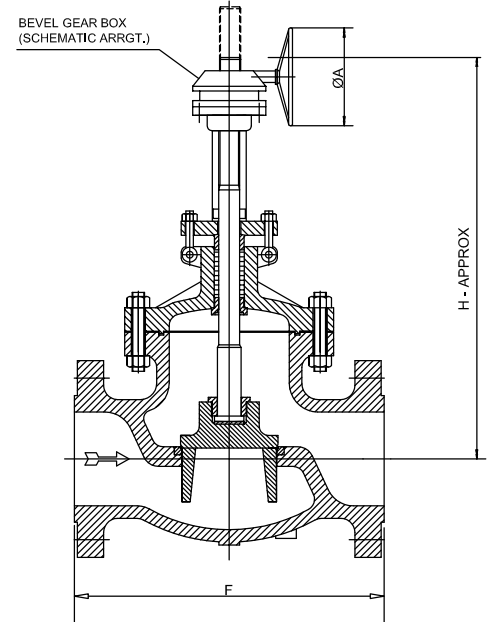
## General Outline Drawing Class 600



**Size Range**  
50 mm to 80 mm



**Size Range**  
100 mm and 150 mm



**Size Range**  
200 mm to 300 mm

## General Outline Dimensions Class 600

Valve Size	50	65	80	100	150	200	250	300
F	292	330	356	432	559	660	787	838
H Approx	310	400	420	510	690	870	950	1020
ØA	250	250	250	350.0	350.0	•	•	•

Note: 1. All Dimensions are in 'mm' otherwise stated.

2. Depend on Make and Model of Gear Box.

## Accessories:

- Butt Weld End Connection
- Bypass arrangement
- Companion Flanges and Fasteners
- Locking Arrangement
- Chain and Chain Wheel Arrangement.
- Extension Shafting and Head Stock Arrangement.
- Electrical Actuator
- Bevel Gear Box

## Technical Specification

Design and Manufacturing Standard	BS 1873
Testing Standard	BS EN 12266
Size Range	50 mm - 300 mm
Pressure Rating	CL-150 / 300 / 600.
Pressure temperature Ratings	ASME B16.34
Face-to-Face / End-to-End Dimension	ASME B16.10

Note: 1. For Higher valve sizes and Pressure Rating contact Design Office.

## End Connection

Scope	Flange Drilling Standard
Standard Supply	ANSI B 16.5 CL-150 / 300 / 600

Note: 1. For valves in sizes larger than 24" (600 mm), the flange drilling shall be as per ASME B16.47  
2. Other flange drilling standards are available as per requirement.

## Hydrostatic test Pressures :

Pressure Rating	Hydrostatic Body (Kg/Cm <sup>2</sup> )	Hydrostatic Seat (Kg/Cm <sup>2</sup> )	Air Seat (Kg/Cm <sup>2</sup> )
Class- 150	30	22	7
Class- 300	79	58	7
Class- 600	158	116	7



# ABOUT KBL

Kirloskar Brothers Limited (KBL) is a world class pump manufacturing company with expertise in engineering and manufacture of systems for fluid management. Established in 1888 and incorporated in 1920, KBL is the flagship company of the \$ 2.1 billion Kirloskar Group. KBL, a market leader, provides complete fluid management solutions for large infrastructure projects in the areas of water supply, power plants, irrigation, oil & gas and marine & defence. We engineer and manufacture industrial, agriculture and domestic pumps, valves and hydro turbines.

In 2003, KBL acquired SPP Pumps, United Kingdom and established SPP INC, Atlanta, USA, as a wholly owned subsidiary of SPP, UK to expand its international presence. In 2007, Kirloskar Brothers International B.V., The Netherlands and Kirloskar Brothers (Thailand) Ltd., a wholly owned subsidiary in Thailand, were incorporated. In 2008, KBL incorporated Kirloskar Brothers Europe B.V. (Kirloskar Pompen B.V. since June 2014), a joint venture between Kirloskar International B.V. and Industrial Pump Group, The Netherlands. In 2010, KBL further consolidated its global position by acquiring Braybar Pumps, South Africa. SPP MENA was established in Egypt in 2012. In 2014, KBL acquired SyncroFlo Inc., the largest independent fabricator of commercial and municipal domestic water booster pumps.

To further strengthen its global position, in 2015, Kirloskar Pompen B.V. acquired Rodelta Pumps International, The Netherlands.

KBL has joint venture cooperation with Ebara, Japan since 1988 for the manufacture of API 610 standard pumps. Kirloskar Corrocoat Private Limited is a joint venture cooperation with Corrocoat, UK since 2006. KBL acquired The Kolhapur Steel Limited in 2007 and Hematic Motors in 2010.

KBL has eight manufacturing facilities in India at Kirloskarvadi, Dewas, Kondhapuri, Shirwal, Sanand, Kaniyur, Kolhapur and Karad. In addition, KBL has global manufacturing and packaging facilities in Egypt, South Africa, Thailand, The Netherlands, United Arab Emirates, United Kingdom and United States of America. KBL has 12,700 channel partners in India and 80 overseas and is supported by best-in-class network of Authorised Centres and Authorised Refurbishment Centres across the country.

All the manufacturing facilities at KBL are certified for ISO 9001, ISO 14001, ISO 50001, BS OHSAS 18001 and SA8000. In addition, the Kirloskarvadi plant is also certified for N & NPT Stamp. KBL's corporate office in Pune is certified for ISO 9001 & Sa8000.

The factories deploy Total Quality Management tools using European Foundation for Quality Management (EFQM) model. The Kirloskarvadi plant of KBL is a state-of-the-art integrated manufacturing facility having Asia's largest hydraulic research centre with testing facility upto 5000 kW and 50,000 m<sup>3</sup>/hr.

KBL is the ninth pump manufacturing company in the world to be accredited with the N and NPT certification by American Society of Mechanical Engineers (ASME).

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## KIRLOSKAR BROTHERS LIMITED

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