

## UKL HIGH PRESSURE VALVE

- UKL High Pressure Gate and Globe Valves are manufactured to the latest International designs, using latest state of art technology and a strict quality control system.
- These valves are exceptionally sturdy, rugged and durable.
- They are designed for a tight seal, ease of operation with inbuilt Quality and integrity for a long service life.

### **MATERIAL OF CONSTRUCTION:-**

ASTM A 105 / ASTM A 182 Gr. F11/ F22

ASTM A 216 Gr. WCB

ASTMA 217 Gr. WC6/WC9

ASTMA 351 Gr. CF8/ CF8M (on request)

ASTMA352 Gr. LCB/LCC

### **Industrial Application**

- Power Stations, General Industries, Chemical and Process Industries, Sugar, Refineries, Fertilizers, steel, Off-shore Platforms.
- For Water, Steam ( saturated/ Superheated) Oil and Gas, Hydrocarbons, NACE and sour services, LNG and Natural Gas, Oxygen , Hydrogen and many other Process applications.
- All valves up to 40 mm are outside screw and yoke, Welded Bonnet type, rising stem, renewable seat for Gate valves. Globe valves will have integral seat.
- All valves 50 mm and above are also outside screw and yoke, rising stem and with pressure seal bonnet.
- Gate valves shall be with Flexible wedge type Gate. Globe Valves shall have conical type disc.
- Pressure seal Bonnet Design
- Stellite Hard faced seat and disc.
- Direct Retro-fitted Actuator/ Gear Box arrangement as applicable.



## Design Specification

UKL High Pressure Gate and Globe valves

Sizes: 15NB to 250 NB

### RANGE:

15 NB to 40 NB- Forged steel, welded bonnet,  
SW/BW Ends

50 NB to 250 NB- Cast Alloys- straight type-  
Butt weld Ends

ASME B 16.34 : Pressure Class 1500 & 2500

### MATERIALS:

#1500,#2500 A-216 WCB 0°C to 425°C

#1500,#2500 A-217 WC6/WC9 0°C to 593°C

Other material on request.

### High Pressure Valve Range

15 to 40NB Y-Type Globe Valve #1500 & #2500

15 to 40NB T-Type Globe Valve #1500 & #2500

15 to 40NB Gate valve #1500 & #2500

All above sizes are in forged form with  
Body welded to bonnet.

50 to 250NB Pressure Seal Globe Valve\*

50 to 250NB Pressure Seal Gate Valve\*

\*available in #1500 & #2500

### Valve Design

Gate Valve : API 600/602

Globe Valve : BS 1873/5352

Face to Face : ASME B16.10

Butt weld End : ASME B 16.25

Testing : API 598

### Operating Data

Rating	Parameter	ASTM A 216 Gr. WCB/ASTM A 105	ASTM A 217 Gr. WC6/WC9/ ASTM A 182 Gr. F11/F22
#1500	Max Pressure	255.3 bar	258.3 bar
	Max Temperature	425°C	595°C
#2500	Max Pressure	425.5 bar	430.9 bar
	Max Temperature	425°C	595°C

## COMMON INSPECTIONS/TESTS

Test/Inspection	Acceptance Criteria
Visual Inspection	MSS SP55
Chemical Analysis	Relevant ASTM
Mechanical Properties	Relevant ASTM
Radiographic Insp.	ASME B 16.34
Pressure Testing	API 598/ BS 6755
Dimensional Insp.	Valve Standard

- Other NDT Tests- On Request

- IBR Certification on Request

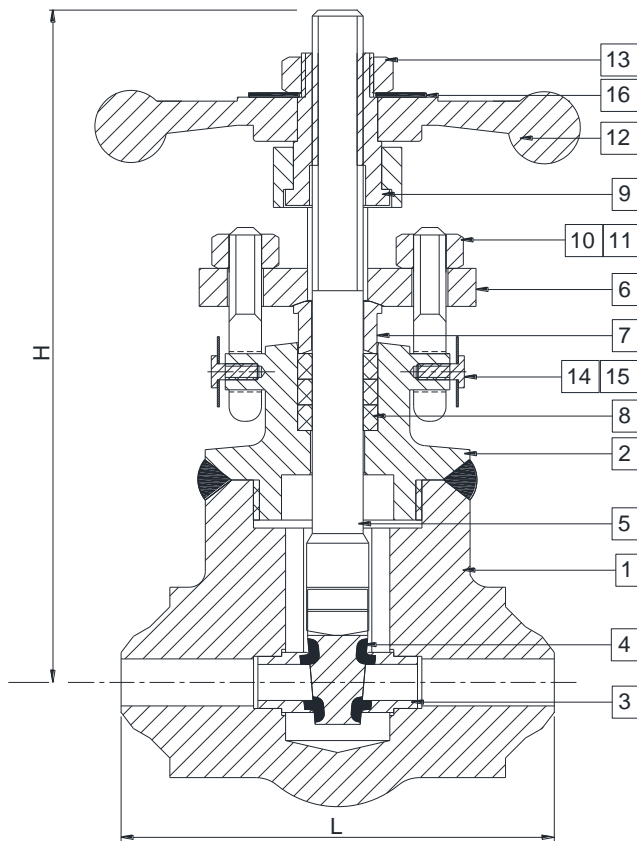
Every individual valve manufactured at UKL is inspected and pressure tested to API 598 / BS 6755 Part I requirements, for which test certificates are provided.

### Compliance Standards

Parameter	Compliance
Gate Valve	API 600
Globe Valve	BS 1873
ASME	B16.34 Gate, Globe
Pressure Temp Rating	ASME B 16.34
Face to Face	ASME B / Mfrs Std
Butt weld End Dimensions-	ASME B 16.25
Valve Inspection & Testing-	API 598/BS 6755



## UKL High Pressure Gate Valve:-



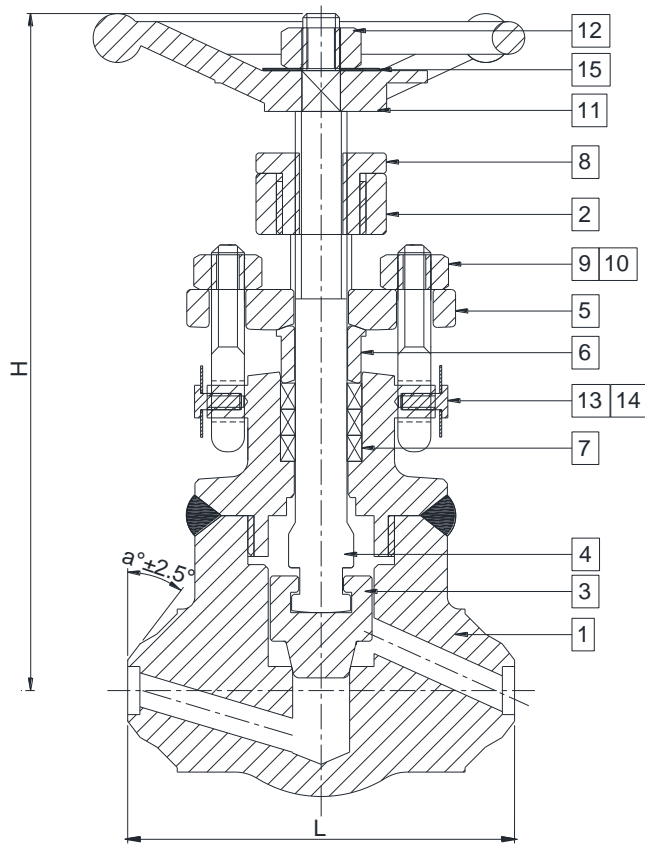
Sr.	Size	Class	L	H
1	15	1500	108.00	168.00
2	20	1500	108.00	170.00
3	25	1500	142.00	225.00
4	40	1500	209.00	284.00
5	50	1500	209.00	283.00

Sr.	Size	Class	L	H
1	15	2500	102.00	260.00
2	20	2500	144.00	280.00
3	25	2500	144.00	280.00
4	40	2500	209.00	359.00
5	50	2500	209.00	354.00

No.	PART NAME	MATERIAL	MATERIAL CODE
1	Body	Forged Steel	ASTM A105 /A182F11/F22
2	Bonnet	Forged Steel	ASTM A105 /A182F11/F22
3	Seat	Stainless Steel + St.	ASTM A276 -TP410
4	Wedge	Stainless Steel	ASTM A276 -TP410
5	Stem	Stainless Steel	ASTM A276-TP410
6	Gland Flange	Forged Steel	ASTM A105 /A182F11/F22
7	Gland Bush	Klinger Std.	ASTM A276-TP410
8	Gland Packing	Graphite	Embedded-Die Formed Graphite
9	Yoke Sleeve	SG Iron 400/12	SG Iron 400/12
10	Eye Bolt / Stud	Alloy Steel	ASTM A 193 Gr.B7
11	Nut	Carbon Steel	ASTM A 194 Gr.2H
12	Hand Wheel	M.I./C.S.	M.I./C.S.
13	Hand Wheel Nut	Carbon Steel	ASTM A 194 Gr.2H
14	Cheese Head Screw	Carbon Steel	Carbon Steel
15	Washer	Carbon Steel	Carbon Steel
16	Name Plate	Stainless Steel	Stainless Steel

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## UKL High Pressure Globe Valve:-



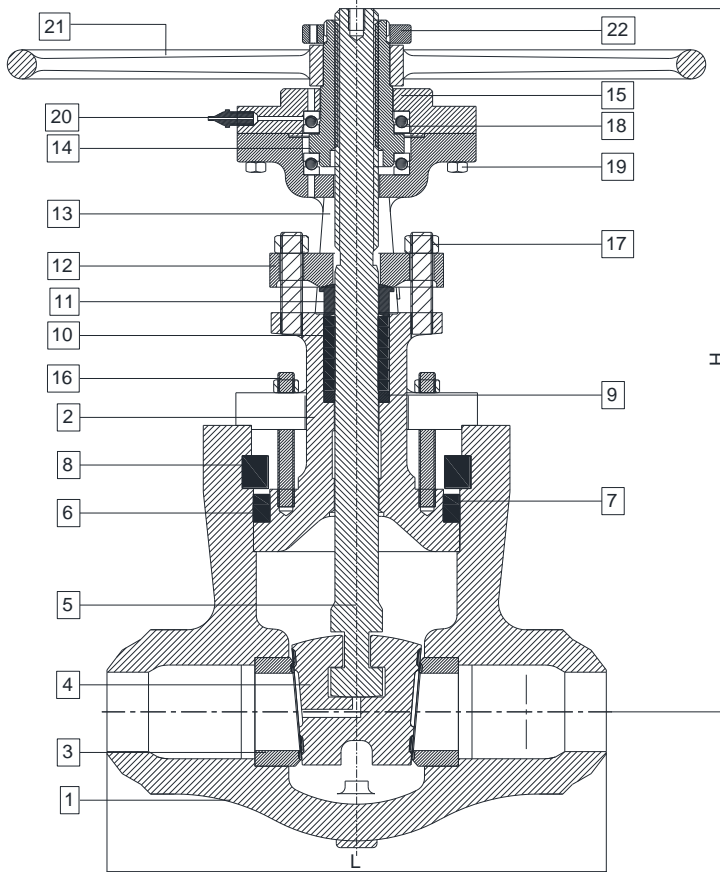
Sr.	Size	Class	L	H
1	15	1500	95.00	166.00
2	20	1500	122.00	226.00
3	25	1500	135.00	233.00
4	40	1500	209.00	280.00
5	50	1500	209.00	280.00

Sr.	Size	Class	L	H
1	15	2500	102.00	263.00
2	20	2500	122.00	288.00
3	25	2500	135.00	290.00
4	40	2500	209.00	370.00
5	50	2500	209.00	370.00

No.	PART NAME	MATERIAL	MATERIAL CODE
1	Body	Forged Steel	ASTM A105 /A182F11/F22
2	Bonnet	Forged Steel	ASTM A105 /A182F11/F22
3	Plug	S.S. + St.	ASTM A276-TP 410
4	Stem	Stainless Steel	ASTM A276 / A479-TP 410
5	Gland Flange	Forged Steel	ASTM A105/A182F11/F22
6	Gland Bush	Klinger Std.	ASTM A276-TP410
7	Gland Packing	Graphite	Embedded -Die Formed Graphite
8	Yoke Nut	SG Iron 400/12	SG Iron 400/12
9	Eye Bolt / Stud	Alloy Steel	ASTM A 193 Gr.B7
10	Nut	Carbon Steel	ASTM A 194 Gr.2H
11	Hand Wheel	M.I./C.S.	M.I./C.S.
12	Hand Wheel Nut	Carbon Steel	ASTM A 194 Gr.2H
13	Cheese Head Screw	Carbon Steel	Carbon Steel
14	Washer	Carbon Steel	Carbon Steel
15	Name Plate	Stainless Steel	Stainless Steel

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## UKL High Pressure Seal Gate Valve (size 50 NB to 250 NB)



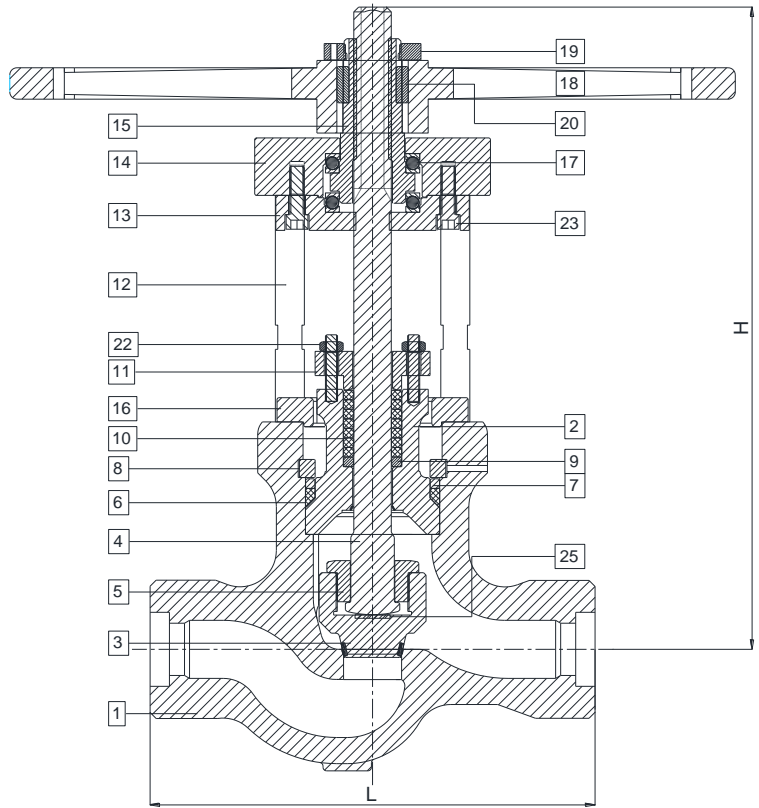
Sr.	Item Description	MOC
01	Body	ASTM A217 Gr. WC6
02	Bonnet	ASTM A217 Gr. WC6
03	Seat	ASTM A217 Gr. WC6
04	Wedge	ASTM A217 Gr. WC6
05	Stem	ASTM A276 TP.410
06	Pressure Seal Ring	Die Formed Graphite
07	Support Ring	ASTM A743 Gr. CA15
08	Segment Ring	ASTM A743 Gr. CA15
09	Anti Extrusion Ring	ASTM A276 TP.410
10	Gland Packing	Graphite - With Enconel Inhibitor
11	Gland Bush	ASTM A276 TP.410
12	Gland Flange	ASTM A216 Gr. WCB
13	Yoke	ASTM A216 Gr. WCB
14	Yoke Sleeve	SG Iron 400/12
15	Yoke Sleeve Retainer	ASTM A216 Gr. WCB
16	Yoke To Bonnet - Stud/Nut	ASTM A193 Gr. B16 / A194 Gr. 7
17	Gland Flange To Bonnet - Stud/Nut	ASTM A193 Gr. B16 / A194 Gr. 7
18	Thrust Bearing	Stainless Steel
19	Hex Bolts for YSR To Yoke	Gr. 8.8 or Higher
20	Grease Nipple	Steel
21	Hand Wheel	ASTM A216 Gr. WCB
22	Hand Wheel Nut	Carbon Steel

Sr. No	Size (NB)	Class	Length (L)	Height (H)
1	100	1500		
2	150	1500	559	634
3	200	1500	711	860
4	250	1500	864	959

Sr. No	Size (NB)	Class	Length (L)	Height (H)
1	100	2500	457	462
2	150	2500	610	657
3	200	2500	762	867
4	250	2500	914	932

## UKL High Pressure Seal Globe Valve (size 50 NB to 250 NB)

Sr.	Item Description	Quantity
01	Body	01
02	Bonnet	01
03	Plug / Disc	01
04	Stem	01
05	Stem Nut	01
06	Pressure Seal Ring	01
07	Support Ring	01
08	Segment Ring	01
09	Anti Extrusion Ring	01
10	Gland Packing	As Per Design
11	Gland Flange	01
12	Support Stud	01
13	Bearing Cover Cum Retainer	01
14	Top Plate	01
15	Yoke Sleeve	01
16	Cover Plate	01
17	Thrust Bearing	02
18	Hand Wheel	01
19	Hand Wheel Nut	01
20	Hand Wheel Key	02
21	Stud / Nut Cover Plate To Body	As Per Design
22	Stud / Nut Gland Flange To Bonnet	02 Each
23	Allen Bolt - BCCR To Top Plate	As Per Design
24	Name Plate	01
25	Disc Thrust Plate	01



Sr. No	Size (NB)	Class	Length (L)	Height (H)
1	65	1500		
2	80	1500	470	
3	100	1500	546	494
4	150	1500	705	497
5	200	1500	832	595
6	250	1500	991	669

Sr. No	Size (NB)	Class	Length (L)	Height (H)
1	65	2500	508	
2	80	2500	578	480
3	100	2500	673	532
4	150	2500	914	553
5	200	2500	1022	659
6	250	2500	1270	669

## Body/Bonnet Materials

Cast Steel Gate and Globe Valves are offered in a variety of body and bonnet materials to suit different requirements. These materials include Carbon Steel, Alloy Steels and stainless steels. For other materials of construction, refer UKL.

Material Spec.	ASTM STDS	Working Temp.
Carbon Steel	ASTM A216 Gr. WCB	-29°C to 425°C (-20°F to 800°F)
11/4 Cr- ½ Mo	ASTM A217 Gr. WC6	-29°C to 593°C (-20°F to 1100°F)
21/4 Cr- 1 Mo	ASTM A217 Gr. WC9	-29°C to 593°C (-20°F to 1100°F)
Low temperature Steel	ASTM A352 Gr. LCB/LCC	-46°C to 343°C (-50°F to 650°F)
Austenitic Stainless Steel	ASTM A351 Gr. CF8	-196°C to 538°C (-320°F to 1200°F)
16Cr-12Ni-2 Mo (type 316)	ASTM A351 Gr. CF8M	-196°C to 538°C (-320°F to 1200°F)

- Other materials such as ASTM 351 Gr.CF3/ CF3M and Duplex SS are also offered.

ACTUATORS (On Request) recommended for:

HPV	#1500	#2500
GTV	6" and above	3" and above
GLV	3" and above	3" and above

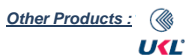
OPTIONAL:-

- By Pass Arrangement
- Position Indicator
- Locking Arrangement
- Other Material

WHILE ORDERING SPECIFY

Type, Pressure Class, Size, Pressure [Design/Operating], Differential Pressure, Temperature [Design/Operating], MOC, End Connections, Pipe Schedule, Accessories.

UKL High Pressure Valves and the respective spares should be stored only in enclosed dry rooms in a non-aggressive atmosphere. Fully assembled UHPV must be stored as supplied by UNI KLINGER. Spare parts must be handled with care and should be stored in their original packing.



**Other Products :** Cast / Forged Steel Piston Valves, Bellow Seal Valves, High Pressure valves (Gate/Globe) , Strainers – "Y" Type, Flash Vessel, Steam Traps (Thermodynamic, Thermostatic, Ball Float Traps, Inverted Bucket), Pressure Reducing Station, Condensate Recovery Products, Level Gauges (Reflex, Transparent, Bicolor), Sight Glass, Hot Water Generation System, Safety and Relief Valves.  
**FSD Products :** Compressed Asbestos / Non Asbestos Fiber Sheeting / Cut Gaskets, Spiral Wound Gaskets.

*In view of technical progress design and dimensions are subjected to change without notice.*



**UNI KLINGER LIMITED**

A joint venture of the Neterwala group of companies and KLINGER AG. Switzerland.

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