

## **Specifications of Cryogenic Manual valve:**

### **a. ½” Globe Valve Specifications**

<b>S No</b>	<b>Description</b>	<b>Specification</b>
1	Valve type	Globe valve
2	Valve size	½” NPS (DN 15)
3	C v	4.5 or Better
4	Fluid Medium	LN2 and GN2. (Liquid nitrogen and Gaseous nitrogen).
5	Operating pressure	15 bar (g) or higher
6	Connection type	Butt welded
7	Operating temperature	-196 °C to + 100 °C
8	Construction Material of Body	SS 316 or Equivalent
9	Construction Material of stem	SS 316 or Equivalent
10	Material of valve seat	PTFE or Equivalent Suitable for Cryogenic application
11	Gland Packing	PTFE/Graphite
12	Material of extended bonnet	SS 304 or Equivalent
13	Bonnet Gasket	PTFE or equivalent
14	Material of valve disc	SS 316 or Equivalent
15	Hand Wheel	Aluminium Alloy or better
16	Extended bonnet length	7” or higher
17	Cleaning requirements	Cleaned and degreased for oxygen service.
18	Valve assembly	Should be rugged. Leak proof and should give Trouble free long life

**b. 1” Globe Valve Specifications**

<b>S No</b>	<b>Description</b>	<b>Specification</b>
1	Valve type	Globe valve
2	Valve size	1” NPS
3	C v	12.5 or Better
4	Fluid Medium	LN2 and GN2. (Liquid nitrogen and Gaseous nitrogen).
5	Operating pressure	15 bar (g) or higher
6	End Connection type	Butt welded
7	Operating temperature	-196 °C to + 100 °C
8	Material of Body	SS 316 or Equivalent
9	Material of Body stem	SS 316 or Equivalent
10	Material of valve seat	PTFE or Equivalent Suitable for Cryogenic application
11	Gland Packing	PTFE/Graphite
12	Material of extended bonnet	SS 316 or Equivalent
13	Bonnet Gasket	PTFE or equivalent
14	Material of Disc	SS 316 or Equivalent
15	Material of Hand Wheel	Aluminium Alloy or better
16	Extended bonnet length	7” or higher
17	Cleaning requirements	Cleaned and degreased for oxygen service.
18	Valve assembly	Should be rugged. Leak proof and should give Trouble free long life

**c. 1.5” Globe Valve Specifications:**

<b>S No</b>	<b>Description</b>	<b>Specification</b>
1	Valve type	Globe valve
2	Valve Size	<b>1.5”</b>
3	C v	25 or Better
4	Fluid Medium	LN2 and GN2. (Liquid nitrogen and Gaseous nitrogen).
5	Operating pressure	15 bar (g) or higher
6	End Connection type	Butt welded
7	Operating temperature	-196 °C to + 100 °C
8	Material of Body	SS 316 or Equivalent
9	Material of Body, stem	SS 316 or Equivalent
10	Material of valve seat	PTFE or Equivalent Suitable for Cryogenic application
11	Gland Packing	PTFE/Graphite
12	Material of extended bonnet	SS 316 or Equivalent
13	Bonnet Gasket	PTFE or equivalent
14	Material of Disc	SS 316 or Equivalent
15	Material of Hand Wheel	Aluminium Alloy or better
16	Extended bonnet length	7” or higher
17	Cleaning requirements	Cleaned and degreased for oxygen service.
18	Valve assembly	Should be rugged. Leak proof and should give Trouble free long life

**General Note:**

1. Vendor shall submit the Valve Drawings along with the quote.
2. Vendor shall submit the technical data sheet of various valves along with the quote.
3. The vendor shall submit the duly filled compliance statement along with the quote.
4. Price shall be quoted for URSC Basis.
5. Warranty: 1 Year from the date of Acceptance of the item
6. Delivery: 6 Months from the date of receipt of PO