

Specifications of Cryogenic Manual valve:

a. ½” Globe Valve Specifications

S No	Specification	Compliance (Yes/No/Noted/Parametric Value)
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 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

S No	Specification	Compliance (Yes/No/Noted/Parametric Value)
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 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:

S No	Specification	Compliance (Yes/No/Noted/Parametric Value)
1	Valve type: Globe valve	
2	Valve Size: 1.5”	
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 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:

S No	Specification	Compliance (Yes/No/Noted/Parametric Value)
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	