

SPECIFICATIONS / TERMS & CONDITIONS OF SUPPLY

i. Miscellaneous Details:

Sr. #	Description	Specifications	Reference std.
1	Ends (Sch 40S)	Butt welding ends	ASME B16.25
2	Operating Temperature	150 C	---
3	Rating	150 lb	ASME B16.34-2004 Table 2-2.3
4	Valve Dimensions	---	ASME B16.34-2004 Section 6
Needle Valves			
5	Material:	---	---
5.1	Body, Needle, Bonnet, Stem, Nuts, Bolts, Washer & Handle	F316L	ASTM A 182/A 182M - 04
5.2	Seat And Stem Packing	15% R-PTFE	---
Plug Valves			
6	Material:	---	---
6.1	Body, Plug, Bonnet, Stem, Nuts, Bolts, Washer & Handle L-Type Removable	F316L	ASTM A 182/A 182M - 04
6.2	Seat And Stem Packing	15% R-PTFE	---
7	Type	Full port	---

ii. Bill Of Quantities:

Sr. #	Sizes	Unit	Quantity
Needle Valves			
1	Needle Valve, Material: 316L, Size: DN 15, Range: 0-2 Nm ³ /h, Operating Pressure: 2 Bar	No.	25
2	Needle Valve, Material: 316L, Size: DN 15, Range: 0-4 Nm ³ /h, Operating Pressure: 2 Bar	-	20
3	Needle Valve, Material: 316L, Size: DN 15, Range: 0-6 Nm ³ /h, Operating Pressure: 2 Bar	-	40
4	Needle Valve, Material: 316L, Size: DN 25, Range: 0-100 Nm ³ /h, Operating Pressure: 6 Bar	-	20
5	Needle Valve, Material: 316L, Size: DN 40, Range: 0-150 Nm ³ /h, Operating Pressure: 6 Bar		10

Plug Valves				
6	Plug Valve, Material: 316L, Size: DN 15		-	50
7	Plug Valve, Material: 316L, Size: DN 25		-	150

iii. Chemical Composition_F-316L:

Sr. #	Element	Composition %
1	Carbon	0.03
2	Manganese	2.00
3	Phosphorus	0.045
4	Sulfur	0.03
5	Silicon	1.00
6	Nickle	10.0-15.0
7	Chromium	16.0-18.0
8	Molybdenum	2.0-3.0

iv. Required Material Tests:

Sr. #	Description	Reference std.
1	Corrosion Testing	Practice C: ASTM Standard A 262-02a
2	Pressure Testing	Section 7: ASME B16.34-2004.

v. Product Marking:

Each valve shall be marked with the section 20 of ASTM standard A 961 – 04 as:

- ASTM Specification no. , Grade and rating, identification no. , rating, and heat no.
- Name/mark of manufacturer

vi. Finish and Appearance:

The finished parts shall conform to the dimensions and finish as specified on the order. Regarding Surface finishing, product shall conform to the requirements of ASTM standard A 961 – 04.

vii. Packaging:

Supplier should use adequate cushioning material for packaging, and packaging must be able to protect against vibration, compression or any other environmental effects that can disturb the future operation of the items.

viii. Mill Test Certificate:

Product certification must be complied with section 19 of ASTM standard A 961 – 04 and section 16 of ASTM Standard A 182/A 182M – 04. All Test reports, as mentioned against each, shall be furnished to the purchaser.