

1. The **Ball Valves** of following specifications and sizes are required.

I).BILLS OF MATERIALS

Description	Specifications
Type	3- Piece
MOC	SS 304 L
Details	As per specification sheet TS # 01

I).BILL OF QUANTITIES

Sr. No.	Size (mm)	Quantities
i.	DN 15	50
ii.	DN 20	50
iii.	DN 25	50
iv.	DN 40	50

2. The **Globe Valves** of following specifications and sizes are required.

I).BILLS OF MATERIALS

Description	Specifications
MOC	SS 304 L
Details	As per specification sheet TS # 02

I).BILL OF QUANTITIES

Sr. No.	Size (mm)	Quantities
i.	DN 15	20
ii.	DN 20	20
iii.	DN 25	20
iv.	DN 40	20

3. The **Butterfly Valves** of following specifications and sizes are required.

I).BILLS OF MATERIALS & QUANTITIES

Description	Specifications	Quantities
MOC	SS 316 L	20
SIZE	DN 150	
Details	As per specification sheet TS # 03	

4. The **Plug (Cylindrical) Valves** of following specifications and sizes are required.

I).BILLS OF MATERIALS & QUANTITIES

Description	Specifications	Quantities
MOC	SS 316 L	20
SIZE	DN 20	
Details	As per specification sheet TS # 04	

TS#01

SPECIFICATION SHEET

3-PIECE BALL VALVES

03/06

Service Condition	Rating	1000 lbs
	Temperature	180 °C
	Gauge pressure	10 bars
	Service Fluids	Demineralized Water
Test	Body test	15 bars
	Seat test	7 bars air under water

BODY	Cylindrical – Full Port valve, Quick Disconnected, Stainless Steel 304L
CONNECTION	Flanges, Stainless Steel 304L, Butt-welding (BW) ends, Sch: 80s
BALL	Ball - Stainless Steel 304L.
SEAT	Spherical PTFE facing
STEM	Spindle – Stainless Steel 304L.
CONTROL	Stainless Steel Hand Lever.
PACKING	PTFE
BOLTS and NUTS	Tie-rods and Nuts – Stainless Steel
	Note: no part of copper metal
ROOM CONDITION	Corrosive atmosphere

Bill of Quantity

Sr. No.	Size	Qty (Nos.)	Remarks
1.	DN 15	50 Nos.	
2.	DN 20	50 Nos.	
3.	DN 25	50 Nos.	
4.	DN 40	50 Nos.	

SPECIFICATION SHEET

GLOBE VALVES

LIMITS OF USE	Rating	2500 lbs
	Temperature	200 °C
	Gauge pressure	300 bars
TEST	Body test	450 bars
	Seat test	7 bars air under water

SERVICE FLUIDS	1. Saturated Steam 2. Condensate
BODY	Straight – Stainless Steel, SS 304 L
BONNET	Welded on the body – Stainless Steel SS 304 L
CONNECTION	Flanged – Schedule : double extra-strong
OBUTRATOR	Disc for flow rate adjustment – Stainless Steel.
SEAT	Integral – machined in the body.
STEM	Rising with outside threads – Stainless Steel.
STUFFING –BOX PACKING	PTFE
CONTROL	Hand wheel of plasticized metal.
	Note: no part of copper metal
MAKE	BONETTI/ Equivalent

Bill of Quantity

Sr. No.	Size	Qty (Nos.)	Remarks
1.	DN 15	20	
2.	DN 20	20	
3.	DN 25	20	
4.	DN 40	20	

SPECIFICATION SHEET**BUTTERFLY VALVES**

LIMITS OF USE	Rating	150 lbs
	Temperature	180 °C
	Gauge pressure	10 bars
TEST	Body test	15 bars
	Seat test	7 bars air under water

SERVICE FLUIDS	Demineralized Water (DMW)
TYPE	DISCOVANNE – TIGHT
BODY	Cylindrical - Stainless Steel 316L
SEAT	Tightness between body and disc by spherical facings of metal and PTFE containing powdered Stainless Steel.
CONNECTION	Mounting between Welding- Neck Raised Face (WNRF) 150lbs, flanges- “stock finish” machining-machined bolt facings- drilling as per ASME B 16.5
DISC	Stainless Steel 316L Disc
GUIDE STEM	Stainless Steel 316L
CONTROL	Hand wheel on reduction gear in tight casing with disc positioner.
	Note: no part of copper metal
ROOM CONDITION	Corrosive atmosphere

Bill of Quantity

Sr. No.	Size	Qty (Nos.)	Remarks
1.	DN 150	20	

SPECIFICATION SHEET

PLUG (CYLINDRICAL) VALVES

LIMITS OF USE	Rating	150 lbs
	Temperature	180 °C
	Gauge pressure	10 bars
TEST	Body test	15 bars
	Seat test	7 bars air under water

SERVICE FLUIDS	Pool Water
TYPE	DISCOVANNE – TIGHT
BODY	Cylindrical - SS 316 L
SEAT	The tightness between body and disc will be made by a flexible and interchangeable ring of ethylene propylene
CONNECTION	Mounting between Welding- Neck Raised Face (WNRF) 150lbs, flanges- “stock finish” machining-machined bolt facings- drilling as per ASME B 16.5
DISC	SS 316 L
GUIDE STEM	SS 316 L
CONTROL	Hand wheel on reduction gear in tight casing with disc positioner.
	Note: Possibility of a possible dismounting of the upstream or downstream piping draining without draining the piping.
ROOM CONDITION	Normal atmosphere

Bill of Quantity

Sr. No.	Size	Qty (Nos.)	Remarks
1.	DN 20	20	