

S. No.	Item Description	Qty	unit	Rate	Amt.
1	2	3	4	5	6
	CI D/F reflux valves (non-return valves)				
1	Design, manufacturing & testing and supplying of CI D/F reflux valves (non-return valves) confirms to standard IS 5312 Part 1 Including transportation, inspection, loading, unloading, and stacking excluding GST levied by GOI & GOM in all respect etc. complete. Reflux valves as per I.S.5312 Part I (1984)				
a)	Without by pass arrangement -PN -1				
1	100 mm				
2	150 mm				
3	200 mm				
4	250 mm				
5	300 mm				
6	350 mm				
7	400 mm				
8	450 mm				
9	500 mm				
10	600 mm				
b)	With by pass arrangement - PN-1				
1	100 mm				
2	150 mm				
3	200 mm				
4	250 mm				
5	300 mm				
6	350 mm				
7	400 mm				
8	450 mm				
9	500 mm				
10	600 mm				
c)	Without by pass arrangement - PN -1.6				
1	100 mm				
2	150 mm				
3	200 mm				
4	250 mm				
5	300 mm				
6	350 mm				
7	400 mm				
8	450 mm				
9	500 mm				
10	600 mm				
d)	With by pass arrangement - PN-1.6				
1	100 mm				
2	150 mm				
3	200 mm				
4	250 mm				
5	300 mm				
6	350 mm				
7	400 mm				
8	450 mm				
9	500 mm				
10	600 mm				

S. N.	Item Description	Qty	unit	Rate	Amt.
1	2	3	4	5	6
	CI D/F reflux valves (non-return valves)				
2	Design, manufacturing & testing and supplying of CI D/F reflux valves (non-return valves) confirms to standard IS 5312 Part 1 Including transportation, inspection, loading,unloding,and stacking excluding GST levied by GOI & GOM in all respect etc. complete.Reflux valves as per I.S.5312 Part 2 (1984)				
a)	Without by pass arrangement -PN -1				
1	700 mm				
2	750 mm				
3	800 mm				
4	900 mm				
5	1000 mm				
6	1100 mm				
7	1200 mm				
8	1500 mm				
9	1800 mm				
10	2000 mm				
11	2500 mm				
12	3000 mm				
b)	With by pass arrangement -PN -1				
1	700 mm				
2	750 mm				
3	800 mm				
4	900 mm				
5	1000 mm				
6	1100 mm				
7	1200 mm				
8	1500 mm				
9	1800 mm				
10	2000 mm				
11	2500 mm				
12	3000 mm				
c)	Without by pass arrangement -PN -1.6				
1	700 mm				
2	750 mm				
3	800 mm				
4	900 mm				
5	1000 mm				
6	1100 mm				
7	1200 mm				
8	1500 mm				
9	1800 mm				
10	2000 mm				
11	2500 mm				
12	3000 mm				
d)	With by pass arrangement -PN -1.6				
1	700 mm				
2	750 mm				
3	800 mm				
4	900 mm				
5	1000 mm				
6	1100 mm				
7	1200 mm				
8	1500 mm				
9	1800 mm				
10	2000 mm				
11	2500 mm				
12	3000 mm				

S. N.	Item Description	Qty	unit	Rate	Amt.
1	2	3	4	5	6
	DI or SGI D/F reflux valves (non- return valves)				
3	Design, manufacturing & testing and supplying of DI or SGI D/F reflux valves (non- return valves) of following dia with technical specifications as below i. Design, manufacturing & testing standard IS 5312 Part 1 Including transportation, inspection, unloading, loading, stacking excluding GST levied by GOI & GOM in all respect etc. complete. Reflux valves as per I.S.5312 Part I (1984)				
a)	Without by pass arrangement -PN -1				
1	100 mm				
2	150 mm				
3	200 mm				
4	250 mm				
5	300 mm				
6	350 mm				
7	400 mm				
8	450 mm				
9	500 mm				
10	600 mm				
b)	With by pass arrangement - PN-1				
1	100 mm				
2	150 mm				
3	200 mm				
4	250 mm				
5	300 mm				
6	350 mm				
7	400 mm				
8	450 mm				
9	500 mm				
10	600 mm				
c)	Without by pass arrangement - PN -1.6				
1	100 mm				
2	150 mm				
3	200 mm				
4	250 mm				
5	300 mm				
6	350 mm				
7	400 mm				
8	450 mm				
9	500 mm				
10	600 mm				
d)	With by pass arrangement - PN-1.6				
1	100 mm				
2	150 mm				
3	200 mm				
4	250 mm				
5	300 mm				
6	350 mm				
7	400 mm				
8	450 mm				
9	500 mm				
10	600 mm				

S. N.	Item Description	Qty	unit	Rate	Amt.
1	2	3	4	5	6
	DI D/F reflux valves (non- return valves)				
4	Design, manufacturing & testing and supplying of multi door DI D/F reflux valves (non-return valves) of following dia with technical specifications as below i. Design, manufacturing & testing standard IS 5312 Part 2 Including transportation, inspection, unloading, loading, stacking excluding GST levied by GOI & GOM in all respect etc. complete.Reflux valves as per I.S.5312 Part II (1984)				
a)	Without by pass arrangement -PN -1				
1	700 mm				
2	750 mm				
3	800 mm				
4	900 mm				
5	1000 mm				
6	1100 mm				
7	1200 mm				
8	1500 mm				
9	1800 mm				
10	2000 mm				
11	2500 mm				
12	3000 mm				
b)	With by pass arrangement -PN -1				
1	700 mm				
2	750 mm				
3	800 mm				
4	900 mm				
5	1000 mm				
6	1100 mm				
7	1200 mm				
8	1500 mm				
9	1800 mm				
10	2000 mm				
11	2500 mm				
12	3000 mm				
c)	Without by pass arrangement -PN -1.6				
1	700 mm				
2	750 mm				
3	800 mm				
4	900 mm				
5	1000 mm				
6	1100 mm				
7	1200 mm				
8	1500 mm				
9	1800 mm				
10	2000 mm				
11	2500 mm				
12	3000 mm				
d)	With by pass arrangement -PN -1.6				
1	700 mm				
2	750 mm				
3	800 mm				
4	900 mm				
5	1000 mm				
6	1100 mm				
7	1200 mm				
8	1500 mm				
9	1800 mm				
10	2000 mm				
11	2500 mm				
12	3000 mm				

S. N.	Item Description	Qty	unit	Rate	Amt.
1	2	3	4	5	6
	CS D/F reflux valves (non-return valves)				
5	Design, manufacturing & testing and supplying of CS D/F reflux valves (non-return valves) of following dia with technical specifications as below i. Design, manufacturing & testing standard IS 5312 Part 1 Including transportation, inspection, unloading, loading, stacking excluding GST levied by GOI & GOM in all respect etc. complete. Reflux valves as per I.S.5312 Part I (1984)				
a)	Without by pass arrangement -PN -1				
1	100 mm				
2	150 mm				
3	200 mm				
4	250 mm				
5	300 mm				
6	350 mm				
7	400 mm				
8	450 mm				
9	500 mm				
10	600 mm				
b)	With by pass arrangement - PN-1				
1	100 mm				
2	150 mm				
3	200 mm				
4	250 mm				
5	300 mm				
6	350 mm				
7	400 mm				
8	450 mm				
9	500 mm				
10	600 mm				
c)	Without by pass arrangement - PN -1.6				
1	100 mm				
2	150 mm				
3	200 mm				
4	250 mm				
5	300 mm				
6	350 mm				
7	400 mm				
8	450 mm				
9	500 mm				
10	600 mm				
d)	With by pass arrangement - PN-1.6				
1	100 mm				
2	150 mm				
3	200 mm				
4	250 mm				
5	300 mm				
6	350 mm				
7	400 mm				
8	450 mm				
9	500 mm				
10	600 mm				

S. N.	Item Description	Qty	unit	Rate	Amt.
1	2	3	4	5	6
	Multi door CS D/F reflux valves (non- return valves)				
6	Design, manufacturing & testing and supplying of multi door CS D/F reflux valves (non- return valves) of following dia with technical specifications as below i. Design, manufacturing & testing standard IS 5312 Part 2 Including transportation, inspection, unloading, loading, stacking excluding GST levied by GOI & GOM in all respect etc. complete.Reflux valves as per I.S.5312 Part II (1984)				
a)	Without by pass arrangement -PN -1				
1	700 mm				
2	750 mm				
3	800 mm				
4	900 mm				
5	1000 mm				
6	1100 mm				
7	1200 mm				
8	1500 mm				
9	1800 mm				
10	2000 mm				
11	2500 mm				
12	3000 mm				
b)	With by pass arrangement -PN -1				
1	700 mm				
2	750 mm				
3	800 mm				
4	900 mm				
5	1000 mm				
6	1100 mm				
7	1200 mm				
8	1500 mm				
9	1800 mm				
10	2000 mm				
11	2500 mm				
12	3000 mm				
c)	Without by pass arrangement -PN -1.6				
1	700 mm				
2	750 mm				
3	800 mm				
4	900 mm				
5	1000 mm				
6	1100 mm				
7	1200 mm				
8	1500 mm				
9	1800 mm				
10	2000 mm				
11	2500 mm				
12	3000 mm				
d)	With by pass arrangement -PN -1.6				
1	700 mm				
2	750 mm				
3	800 mm				
4	900 mm				
5	1000 mm				
6	1100 mm				
7	1200 mm				
8	1500 mm				
9	1800 mm				
10	2000 mm				
11	2500 mm				
12	3000 mm				

S. N.	Item Description	Qty	unit	Rate	Amt.
1	2	3	4	5	6
	CI double flange sluice valve				
7	Design, manufacturing & testing and supplying of CI double flange sluice valve confirming for IS-14846 including worm gear arrangements as per test pressure stainless steel spindle, caps Including transportation, inspection, unloading, loading, stacking excluding GST levied by GOI & GOM in all respect etc. complete.				
a)	Without by pass arrangement -PN -1				
1	700 mm				
2	750 mm				
3	800 mm				
4	900 mm				
5	1000 mm				
6	1100 mm				
7	1200 mm				
8	1500 mm				
9	1800 mm				
10	2000 mm				
11	2500 mm				
12	3000 mm				
b)	With by pass arrangement -PN -1				
1	700 mm				
2	750 mm				
3	800 mm				
4	900 mm				
5	1000 mm				
6	1100 mm				
7	1200 mm				
8	1500 mm				
9	1800 mm				
10	2000 mm				
11	2500 mm				
12	3000 mm				
c)	Without by pass arrangement -PN -1.6				
1	700 mm				
2	750 mm				
3	800 mm				
4	900 mm				
5	1000 mm				
6	1100 mm				
7	1200 mm				
8	1500 mm				
9	1800 mm				
10	2000 mm				
11	2500 mm				
12	3000 mm				
d)	With by pass arrangement -PN -1.6				
1	700 mm				
2	750 mm				
3	800 mm				
4	900 mm				
5	1000 mm				
6	1100 mm				
7	1200 mm				
8	1500 mm				
9	1800 mm				
10	2000 mm				
11	2500 mm				
12	3000 mm				

S. N.	Item Description	Qty	unit	Rate	Amt.
1	2	3	4	5	6
	non-rising spindle sluice Valves				
8	Design, manufacturing & testing and supplying of double flange Ductile Iron non-rising spindle soft seated Resilient seated sluice Valves in accordance with BS 5163/ EN 1074-1&2 of PN-10 / 16 rated, with Body and bonnet of Ductile Iron confirming to EN1563/ GGG40 Wedge fully encapsulated high quality WRAS or DVGW approved EPDM rubber (approved for drinking water), Replaceable Wedge nut of Brass, Shaft of Stainless Steel EN1.4105, Stem seals min. 4 nos. of NBR, Internal fasteners of Stainless Steel A2. Body & Bonnet coated inside & outside with electrostatically applied epoxy powder coated blue colour RAL 5017 (suitable for drinking water) to DIN 30677-2 & GSK guidelines with a coating thickness of min. 250 microns. Valves should be full bore & 100% tight shut-off. Flange drilling as per IS 1538 raised face. Gate valve shall be compatible for buried applications without valve chamber. Manual operation by Handwheel. Operating torque shall be less than that mentioned in EN 1171. Testing shall be as per BS 5163 / EN 12266-1&2 / IS 14846.				
a)	Without by pass arrangement -PN -1				
1	700 mm				
2	750 mm				
3	800 mm				
4	900 mm				
5	1000 mm				
6	1100 mm				
7	1200 mm				
8	1500 mm				
9	1800 mm				
10	2000 mm				
11	2500 mm				
12	3000 mm				
b)	With by pass arrangement -PN -1				
1	700 mm				
2	750 mm				
3	800 mm				
4	900 mm				
5	1000 mm				
6	1100 mm				
7	1200 mm				
8	1500 mm				
9	1800 mm				
10	2000 mm				
11	2500 mm				
12	3000 mm				
c)	Without by pass arrangement -PN -1.6				
1	700 mm				
2	750 mm				
3	800 mm				
4	900 mm				
5	1000 mm				
6	1100 mm				
7	1200 mm				
8	1500 mm				
9	1800 mm				
10	2000 mm				
11	2500 mm				
12	3000 mm				
d)	With by pass arrangement -PN -1.6				
1	700 mm				
2	750 mm				
3	800 mm				
4	900 mm				
5	1000 mm				
6	1100 mm				
7	1200 mm				
8	1500 mm				
9	1800 mm				
10	2000 mm				
11	2500 mm				
12	3000 mm				

S. N.	Item Description	Qty	unit	Rate	Amt.
1	2	3	4	5	6
	C.I. Butterfly Valve				
9	Design, manufacturing & testing and supplying of double flanged short body pattern type manually operated C.I. Butterfly Valve confirming in to IS-13095- 1991, Synthetic rubber faced ring secured on disc by retaining ring with stainless steel screw stub shaft of stainless steel riding in teflon bearing including transportation, inspection, unloading, loading, stacking excluding GST levied by GOI & GOM in all respect etc. complete.				
a)	Butterfly valves - PN -1				
1	100 mm				
2	150 mm				
3	200 mm				
4	250 mm				
5	300 mm				
6	350 mm				
7	400 mm				
8	450 mm				
9	500 mm				
10	600 mm				
11	700 mm				
12	750 mm				
13	800 mm				
14	900 mm				
15	1000 mm				
16	1100 mm				
17	1200 mm				
18	1500 mm				
19	1800 MM				
20	2000 MM				
21	2500 MM				
22	3000 MM				
b)	Butterfly valves - PN -1.6				
1	100 mm				
2	150 mm				
3	200 mm				
4	250 mm				
5	300 mm				
6	350 mm				
7	400 mm				
8	450 mm				
9	500 mm				
10	600 mm				
11	700 mm				
12	750 mm				
13	800 mm				
14	900 mm				
15	1000 mm				
16	1100 mm				
17	1200 mm				
18	1500 mm				
19	1800 MM				
20	2000 MM				
21	2500 MM				
22	3000 MM				

S. N.	Item Description	Qty	unit	Rate	Amt.
1	2	3	4	5	6
	D.I. D/F Butterfly Valves.				
10	Design, manufacturing & testing and supplying of Ductile Iron Double Flanged Double Eccentric Butterfly Valves.in accordance with EN 593 /BS 5155 /IS 13095 /API 609 with Body & disc of Ductile Iron confirming to EN1563/ GGG40 / IS 1865 Gr. 400/12, Body seat of PTFE seated with Stainless Steel backed , disk seat of S.S. AISI 304/316 , Shaft of S.S. AISI 420(Dry Shaft Design , (to ensure 100% drop tight shut off as per EN Std suitable for drinking water application), Internal fasteners of Stainless Steel . Body & disc coated inside & outside with electrostatically applied epoxy powder coated blue colour (suitable for drinking water) to DIN 30677-2 & GSK guidelines with a coating thickness of min. 250 microns. Valves should be 100% tight shut-off. Leakages not allowed. Flange drilling as per IS 1538/ IS 9523/ ASME B 16.5 / EN1092-2 raised face. Testing as per EN 12266-1&2. Features required for Butterfly valves will be suitable to water work application for continuous operation up to 70 degree Celsius as per above general specification or otherwise the standard BS 5155/ EN593				
a)	Butterfly valves - PN -1				
1	100 mm				
2	150 mm				
3	200 mm				
4	250 mm				
5	300 mm				
6	350 mm				
7	400 mm				
8	450 mm				
9	500 mm				
10	600 mm				
11	700 mm				
12	750 mm				
13	800 mm				
14	900 mm				
15	1000 mm				
16	1100 mm				
17	1200 mm				
18	1500 mm				
19	1800 MM				
20	2000 MM				
21	2500 MM				
22	3000 MM				
b)	Butterfly valves - PN -1.6				
1	100 mm				
2	150 mm				
3	200 mm				
4	250 mm				
5	300 mm				
6	350 mm				
7	400 mm				
8	450 mm				
9	500 mm				
10	600 mm				
11	700 mm				
12	750 mm				
13	800 mm				
14	900 mm				
15	1000 mm				
16	1100 mm				
17	1200 mm				
18	1500 mm				
19	1800 MM				
20	2000 MM				
21	2500 MM				
22	3000 MM				

S. N.	Item Description	Qty	unit	Rate	Amt.
1	2	3	4	5	6
	Air Valve				
11	Design, manufacturing & testing and supplying of Air Valves confirming IS-14845-2000 and standard specifications double orifice type combined with isolating sluice valve, mounted in horizontal position and operated by wheel gearing, small orifice elastic ball resting on a gun metal orifice nipple, large orifice vulcanite ball seating on moulded seat ring, inlet face and drilled, including transportation, inspection, unloading, loading, stacking excluding GST levied by GOI & GOM in all respect etc. complete.				
a)	Double Ball Flanged Type - PN -1.0				
1	50 MM				
2	80 mm				
3	100 mm				
4	150 mm				
5	200 mm				
6	300 MM				
b)	Double Ball Flanged Type - PN -1.6				
1	50 MM				
2	80 mm				
3	100 mm				
4	150 mm				
5	200 mm				
6	300 MM				

S. N.	Item Description	Qty	unit	Rate	Amt.
1	2	3	4	5	6
	Kinetic Air Valves				
12	Design, manufacturing & testing and supplying of Kinetic Double Orifice type Air Valves confirming to IS 14845 & as per standard specifications combined with screw down isolating valve, small orifice elastic ball resting on a gun metal orifice nipple, large orifice vulcanite ball seating on moulded seat ring, inlet face and drilled, including transportation, inspection, unloading, loading, stacking excluding GST levied by GOI & GOM in all respect etc. complete.				
a)	Kinetic Air Valve Flanged Type P-1				
1	50 mm				
2	80 mm				
3	100 mm				
4	150 mm				
5	200 mm				
6	300 MM				
b)	Kinetic Air Valve Flanged Type P-1.6				
1	50 mm				
2	80 mm				
3	100 mm				
4	150 mm				
5	200 mm				
6	300 MM				

S. N.	Item Description	Qty	unit	Rate	Amt.
1	2	3	4	5	6
13	Electric Valve Actuator for non rising spindle type sluice valve, PN 1 & PN 1.6 rating				
	Design, manufacturing & testing and supplying of electric Valve actuators totally enclosed, weather-proof and dust proof construction with IP-67, protection class suitable for installation in any position without lubrication, leakage or other operational difficulty with special grease filled gear box and hand wheel for emergency manual operation which will automatically disengage on restoration of power to motor and with 10 watt single phase space heater and continuous local mechanical position indicator and individually replaceable counter gear assembly and with two torque and four limit switches with S.S. flap and operated with gear driven cams and of rating 250 Volt, 5 Amp, AC/DC, torque switch dial and with TEFC squirrel cage induction motor working on 440 Volts +/- 10%, 3 phase, 50 Hz AC of intermittent duty rating S-2, insulation class "F" and temp rise restricted to class "B" with IP - 67 protection class suitable for DOL starting and with three thermostat and 30% over load margin. The torque rating of reduction gear box shall be at least 1.5 times max. torque required for opening and closing of valve with integral starter controls having four limit switches 1 for OPEN, 1 for CLOSE & 2 Nos. for intermediate positions for interlocking etc complete.				
1	150 mm				
2	200 mm				
3	250 mm				
4	300 mm				
5	350 mm				
6	400 mm				
7	450 mm				
8	500 mm				
9	600 mm				
10	700 mm				
11	750 mm				
12	800 mm				
13	900 mm				
14	1000 mm				
15	1100 mm				
16	1200 mm				
17	1500 mm				
18	1800 mm				
19	2000 mm				
20	2500 mm				
21	3000 mm				

S. N.	Item Description	Qty	unit	Rate	Amt.
1	2	3	4	5	6
14	Dismantling Joints				
	Design, manufacturing & testing and supplying of M.S. Dismantling joint as per requirement and Department's approved drawing and specifications, including machining and rubber rings and suitable for working pressure with required flanges of suitable size with nut bolts etc complete. The joint should have through long bolts so that during normal working pressure there should be no sliding movement of sliding flanges. L.O.F. (length over flange) should not be less than 75% of dia.				
	PN 1.0				
1	100 mm				
2	150 mm				
3	200 mm				
4	250 mm				
5	300 mm				
6	350 mm				
7	400 mm				
8	450 mm				
9	500 mm				
10	600 mm				
11	700 mm				
12	750 mm				
13	800 mm				
14	900 mm				
15	1000 mm				
16	1100 mm				
17	1200 mm				
18	1100 mm				
19	1200 mm				
20	1500 mm				
21	1800 mm				
22	2500 mm				
23	3000 mm				
	PN 1.6				
1	100 mm				
2	150 mm				
3	200 mm				
4	250 mm				
5	300 mm				
6	350 mm				
7	400 mm				
8	450 mm				
9	500 mm				
10	600 mm				
11	700 mm				
12	750 mm				
13	800 mm				
14	900 mm				
15	1000 mm				
18	1100 mm				
19	1200 mm				
20	1500 mm				
21	1800 mm				
22	2500 mm				
23	3000 mm				

S. N.	Item Description	Qty	unit	Rate	Amt.
1	2	3	4	5	6
15	Metallic Expansion Joints				
	Design, manufacturing & testing and supplying of M.S. fabricated Metallic Expansionjoint as per requirement and Department's approved drawing and specifications, including machining and rubber rings and suitable for working pressure with required flanges of suitable size with nut bolts etc complete. The joint should have through long bolts so that during normal working pressure there should be no sliding movement of sliding flanges. L.O.F. (length over flange) should not be less than 75% of dia.				
	PN 1.0				
1	100 mm				
2	150 mm				
3	200 mm				
4	250 mm				
5	300 mm				
6	350 mm				
7	400 mm				
8	450 mm				
9	500 mm				
10	600 mm				
11	700 mm				
12	750 mm				
13	800 mm				
14	900 mm				
15	1000 mm				
16	1100 mm				
17	1200 mm				
18	1100 mm				
19	1200 mm				
20	1500 mm				
21	1800 mm				
22	2500 mm				
23	3000 mm				
	PN 1.6				
1	100 mm				
2	150 mm				
3	200 mm				
4	250 mm				
5	300 mm				
6	350 mm				
7	400 mm				
8	450 mm				
9	500 mm				
10	600 mm				
11	700 mm				
12	750 mm				
13	800 mm				
14	900 mm				
15	1000 mm				
18	1100 mm				
19	1200 mm				
20	1500 mm				
21	1800 mm				
22	2500 mm				
23	3000 mm				