

Part C : Bill of Quantities

Tender Specification BHEL:PSSR:SCT:GRP PIPE for Design, Supply, Erection, Hydrotesting of GRP Pipelines within Plant Boundary along with Civil supervision charges

at Udangudi Thermal Power Station

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A	SCHEDULE A - Supply (Including Lamination Kits, Couplings and Jointing Tools) as per BHEL/PEM PE-TS-435-100-M042 R03	--		
1.0	PIPE NB 200 - Tapping Pipes for manholes etc	m	20	.0001743
2.0	PIPE NB 200 - Tapping Pipes	m	3	.0000261
3.0	PIPE NB 250 - Tapping Pipes	m	10	.0001109
4.0	PIPE NB 300 - Desalination pump recirculation Line	m	60	.0008053
5.0	PIPE NB 350 - Tapping Pipes for manholes etc	m	10	.0001637
6.0	PIPE NB 450 - ACW recirculation piping	m	85	.0019739
7.0	PIPE NB 500 - CW Make up pumps recirculation line	m	60	.0015865
8.0	PIPE NB 500 - Tapping Pipes	m	3	.0000799
9.0	PIPE NB 600 - Tapping Pipes for manholes etc	m	22	.0007688
10.0	PIPE NB 600 - Tapping Pipes	m	22	.0007723
11.0	PIPE NB 700 - Brine Reject water Discharge pumps to outfall sump	m	940	.0420363
12.0	PIPE NB 800 - Feed water piping to Desalination plant	m	1,105	.0620961
13.0	PIPE NB 800 - ACW piping outside TG building	m	1,025	.0577958
14.0	PIPE NB 1000 - From CW Make up piping for Pigging operation	m	6	.0005189
15.0	PIPE NB 1200 - CW Blowdown Piping to outfall sump	m	1,710	.1908905
16.0	PIPE NB 1400 - Make up piping to CW forebay	m	1,670	.2445636

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17.0	90 ELBOW NB 1000 - From CW Make up piping for Pigging operation	No	1	.0004949
18.0	90 ELBOW NB 300 - Desalination pump recirculation Line	No	3	.0000508
19.0	90 ELBOW NB 450 - ACW recirculation piping	No	3	.000128
20.0	90 ELBOW NB 500 - CW Make up pumps recirculation line	No	2	.0001077
21.0	90 ELBOW NB 700 - Brine Reject water Discharge pumps to outfall sump	No	3	.0005787
22.0	90 ELBOW NB 800 - Feed water piping to Desalination plant	No	5	.0013075
23.0	90 ELBOW NB 800 - ACW piping outside TG building	No	14	.0036611
24.0	90 ELBOW NB 1200 - CW Blowdown Piping to outfall sump	No	2	.0014685
25.0	90 ELBOW NB 1400 - Make up piping to CW forebay	No	2	.0022537
26.0	45 ELBOW NB 300 - Desalination pump recirculation Line	No	2	.0000239
27.0	45 ELBOW NB 700 - Brine Reject water Discharge pumps to outfall sump	No	4	.000447
28.0	45 ELBOW NB 800 - Feed water piping to Desalination plant	No	6	.0008965
29.0	45 ELBOW NB 1200 - CW Blowdown Piping to outfall sump	No	8	.0034715
30.0	45 ELBOW NB 1400 - Make up piping to CW forebay	No	8	.0053167
31.0	55 ELBOW NB 450 - ACW recirculation piping	No	1	.0000291
32.0	30 ELBOW NB 500 - CW Make up pumps recirculation line	No	1	.0000272
33.0	15 ELBOW NB 800 - ACW piping outside TG building	No	2	.000164

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34.0	TEE NB 1400x600 - Make up piping to CW forebay	No	11	.0101687
35.0	TEE NB 1400x500 - Make up piping to CW forebay	No	1	.000897
36.0	TEE NB 1400x200 - Make up piping to CW forebay	No	1	.0008282
37.0	TEE NB 1400x1400 - Make up piping to CW forebay	No	1	.0014519
38.0	TEE NB 1400x1000 - Make up piping to CW forebay	No	3	.0034527
39.0	TEE NB 800x300 - Feed water piping to Desalination plant	No	1	.0001681
40.0	TEE NB 800x200 - Feed water piping to Desalination plant	No	2	.0003046
41.0	TEE NB 800x600 - Feed water piping to Desalination plant	No	3	.000685
42.0	TEE NB 700x200 - Brine Reject water Discharge pumps to outfall sump	No	1	.0001086
43.0	TEE NB 700x350 - Brine Reject water Discharge pumps to outfall sump	No	3	.0003947
44.0	TEE NB 300x200 - Desalination pump recirculation Line	No	1	.0000239
45.0	TEE NB 1200x800 - CW Blowdown Piping to outfall sump	No	1	.0007114
46.0	TEE NB 1200x600 - CW Blowdown Piping to outfall sump	No	11	.0069898
47.0	TEE NB 1200x500 - CW Blowdown Piping to outfall sump	No	1	.0006098
48.0	TEE NB 1200x250 - CW Blowdown Piping to outfall sump	No	4	.0022143
49.0	TEE NB 1200x200 - CW Blowdown Piping to outfall sump	No	1	.0005466
50.0	TEE NB 1400x1000 - From CW Make up piping for Pigging operation	No	1	.0011509

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
51.0	FLANGE NB 200 - Make up piping to CW forebay	No	1	.0000264
52.0	FLANGE NB 200 - Feed water piping to Desalination plant	No	2	.0000528
53.0	FLANGE NB 200 - Brine Reject water Discharge pumps to outfall sump	No	1	.0000264
54.0	FLANGE NB 200 - Desalination pump recirculation Line	No	1	.0000264
55.0	FLANGE NB 200 - CW Blowdown Piping to outfall sump	No	1	.0000264
56.0	FLANGE NB 250 - CW Blowdown Piping to outfall sump	No	4	.0001799
57.0	FLANGE NB 300 - Desalination pump recirculation Line	No	1	.0000511
58.0	FLANGE NB 350 - Brine Reject water Discharge pumps to outfall sump	No	3	.0001976
59.0	FLANGE NB 450 - ACW recirculation piping	No	2	.0002292
60.0	FLANGE NB 500 - CW Make up pumps recirculation line	No	1	.0001411
61.0	FLANGE NB 500 - CW Blowdown Piping to outfall sump	No	1	.0001411
62.0	FLANGE NB 600 - Make up piping to CW forebay	No	11	.0021032
63.0	FLANGE NB 600 - CW Blowdown Piping to outfall sump	No	11	.0021032
64.0	FLANGE NB 700 - Brine Reject water Discharge pumps to outfall sump	No	1	.0003011
65.0	FLANGE NB 800 - Feed water piping to Desalination plant	No	4	.0018561
66.0	FLANGE NB 800 - CW Blowdown Piping to outfall sump	No	1	.000464
67.0	FLANGE NB 800 - ACW piping outside TG building	No	12	.0055683

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
68.0	FLANGE NB 1000 - From CW Make up piping for Pigging operation	No	1	.0006725
69.0	FLANGE NB 1200 - CW Blowdown Piping to outfall sump	No	2	.001787
70.0	FLANGE NB 1400 - Make up piping to CW forebay	No	4	.0060554
71.0	END CAP NB 1400 - Make up piping to CW forebay	No	1	.0004062
72.0	END CAP NB 700 - Brine Reject water Discharge pumps to outfall sump	No	1	.000063
B	SCHEDULE B - Supply (Including Lamination Kits, Couplings and Jointing Tools) as per BHEL/RANIPET SPEC.NO.ROS: 6283 R02	--		
1.0	PIPE NB 25 - Air Vent	m	40	.0000694
2.0	PIPE NB 150 - Hypochlorite Solution Line to Intake Pump house	m	1,050	.0091489
3.0	PIPE NB 150 - Hypochlorite Solution Line to Intake Velocity well	m	1,050	.0091489
4.0	PIPE NB 200 - Backwash sump reject to CW outfall line	m	210	.0018093
5.0	PIPE NB 200 - PT plant sludge to Ash Pond	m	2,320	.0199883
6.0	PIPE NB 200 - ECP Feed	m	320	.002757
7.0	PIPE NB 250 - Hypochlorite solution line to CW fore-bay	m	1,350	.0201236
8.0	90 ELBOW NB 150 - Hypochlorite Solution Line to Intake Pump house	No	19	.0001092
9.0	90 ELBOW NB 150 - Hypochlorite Solution Line to Intake Velocity well	No	19	.0001092
10.0	90 ELBOW NB 200 - Backwash sump reject to CW outfall line	No	6	.0000445
11.0	90 ELBOW NB 200 - PT plant sludge to Ash Pond	No	19	.0001409

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
12.0	90 ELBOW NB 200 - ECP Feed	No	6	.0000445
13.0	90 ELBOW NB 250 - Hypochlorite solution line to CW fore-bay	No	16	.0002454
14.0	45 ELBOW NB 150 - Hypochlorite Solution Line to Intake Velocity well	No	6	.0000246
15.0	45 ELBOW NB 150 - Hypochlorite Solution Line to Intake Pump house	No	6	.0000246
16.0	45 ELBOW NB 200 - ECP Feed	No	10	.0000522
17.0	45 ELBOW NB 200 - PT plant sludge to Ash Pond	No	10	.0000522
18.0	45 ELBOW NB 250 - Hypochlorite solution line to CW fore-bay	No	10	.0001055
19.0	FLANGE NB 25 - Air Vent	No	15	.0000739
20.0	END CAP/BLIND FLANGE NB 25 - Air Vent	No	15	.0000216
21.0	FLANGE NB 150 - Hypochlorite Solution Line to Intake Pump house	No	4	.0000986
22.0	FLANGE NB 150 - Hypochlorite Solution Line to Intake Velocity well	No	4	.0000986
23.0	FLANGE NB 200 - Backwash sump reject to CW outfall line	No	2	.0000547
24.0	FLANGE NB 200 - PT plant sludge to Ash Pond	No	2	.0000547
25.0	FLANGE NB 200 - ECP Feed	No	2	.0000547
26.0	FLANGE NB 250 - Hypochlorite solution line to CW fore-bay	No	2	.0000983
C	Schedule C - Execution - Lowering, Laying & Jointing Charges (including installation of fittings), Hydrotesting Charges & Supervision of Civil Works	--		

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
C.1	Lowering, Laying,Jointing Charges (including installation of fittings) and Hydrotesting of Pipelines & Fittings	--		
1.0	NB 25 - BHEL/RANIPET SPEC.NO.ROS: 6283 R02	m	40	.0000229
2.0	NB 150 - BHEL/RANIPET SPEC.NO.ROS: 6283 R02	m	2,100	.0062047
3.0	NB 200 - BHEL/PEM PE-TS-435-100-M042 R03	m	23	.0000835
4.0	NB 200 - BHEL/RANIPET SPEC.NO.ROS: 6283 R02	m	2,850	.0103522
5.0	NB 250 - BHEL/PEM PE-TS-435-100-M042 R03	m	10	.0000529
6.0	NB 250 - BHEL/RANIPET SPEC.NO.ROS: 6283 R02	m	1,350	.006391
7.0	NB 300 - BHEL/PEM PE-TS-435-100-M042 R03	m	60	.0003547
8.0	NB 350 - BHEL/PEM PE-TS-435-100-M042 R03	m	10	.0000717
9.0	NB 450 - BHEL/PEM PE-TS-435-100-M042 R03	m	85	.0008438
10.0	NB 500 - BHEL/PEM PE-TS-435-100-M042 R03	m	63	.0007063
11.0	NB 600 - BHEL/PEM PE-TS-435-100-M042 R03	m	44	.0006335
12.0	NB 700 - BHEL/PEM PE-TS-435-100-M042 R03	m	940	.016831
13.0	NB 800 - BHEL/PEM PE-TS-435-100-M042 R03	m	2,130	.0462783
14.0	NB 1000 - BHEL/PEM PE-TS-435-100-M042 R03	m	6	.0001794
15.0	NB 1200 - BHEL/PEM PE-TS-435-100-M042 R03	m	1,710	.0678708
16.0	NB 1400 - BHEL/PEM PE-TS-435-100-M042 R03	m	1,670	.0837643

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
C.2	Supervision of Civil Works	--		
1.0	Supervision of Civil Activities to ensure smooth installation of the system	Man-Months	16	.0168312
TOTAL Weightage				0.9999998