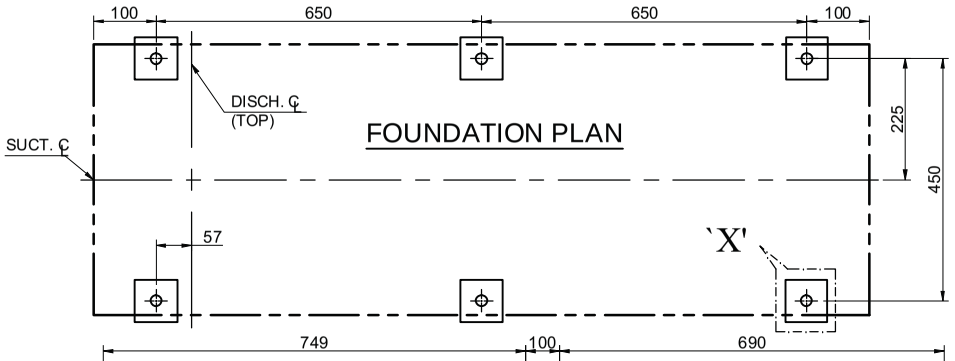
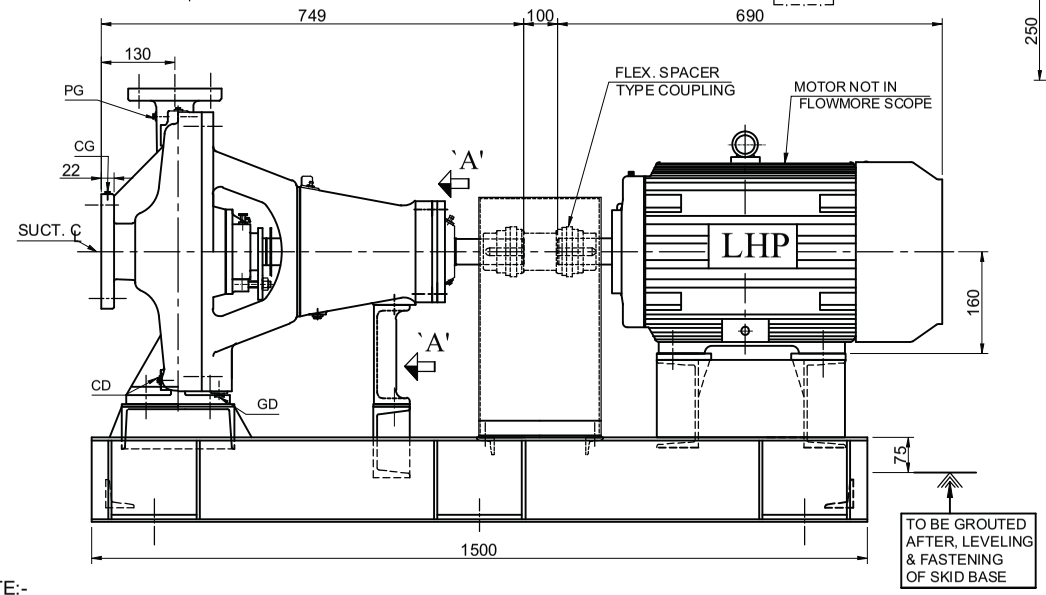
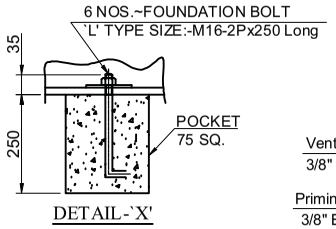
TECHNICAL DATA SHEET UAF WATER PUMPS		
1	**Pump Details**	**UAF Water Pump**
2	Liquid	Water
3	Make	Flow More
4	Qty. (Nos)	10
5	Capacity(M3/Hr)	77
6	Head(m)	30
7	Sp.Gr.	1
8	Temp.	Amb
9	KKS Tag No.	10SAF12AP001-02, 20SAF12AP001-02, 30SAF12AP001-02,40SAF12AP001-02,50SAF12AP001-02
	PUMP SPECIFICATIONS	
10	Pump Model	F 5523 A
11	Succ.X Del(mm)	75X50
12	Pump Type	ENDSUCTION
13	Shut of Head	41
14	Effeciency(%)	52
15	Pump Input(kw)	12
16	Required Motor(kw)	15
17	RPM	1460
18	Nozzle Orientation	Side Suc X Top Discharge
19	Coupling Type	Spacer
20	NPSHr (M)	4
	Motor Specifications	
21	Make	LHP
22	Type	Totally Enclosed Fan Cooled Squirrel Cage
23	Insulation	Class F With Temp. rise limited to class B
24	Power Supply	AC 3 Phase,415 Volt+/-10%,50Hz+/-5%
25	Performance	Confirming to IS 325
26	Protection	IP-55(IS;2148)
	Material Of Construction	
27	Pump Casing	CI IS 210 GR FG 260
28	Impeller	Bronze IS 318 Gr-2
29	Impeller wearing	Bronze IS 318 Gr-2
30	Shaft	EN-8
31	Shaft Sleeve	Bronze as per IS 318
32	Gland Packing	PTFE
33	Base Plate	MS IS2062

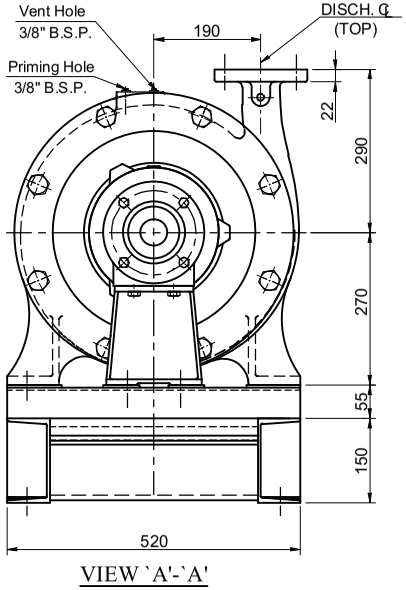


FLANGE DETAILS AS PER ANSI-B16.5-150 LBS.			
SUCTION:------	75 N.B.	DISCHARGE:----	50 N.B.
FLANGE O.D.:---	191	FLANGE O.D.:---	152
P.C.D.:--------	152	P.C.D.:--------	121
NO. OF. HOLES:-	4	NO. OF. HOLES:-	4
DIA OF BOLTS:-	M16	DIA OF BOLTS:-	M16

CD	CASING DRAIN	3/8" B.S.P.
GD	GLAND DRAIN	1/2" B.S.P.
CG	COMPOUND GAUGE	1/4" B.S.P.
PG	PRESSURE GAUGE	1/4" B.S.P.

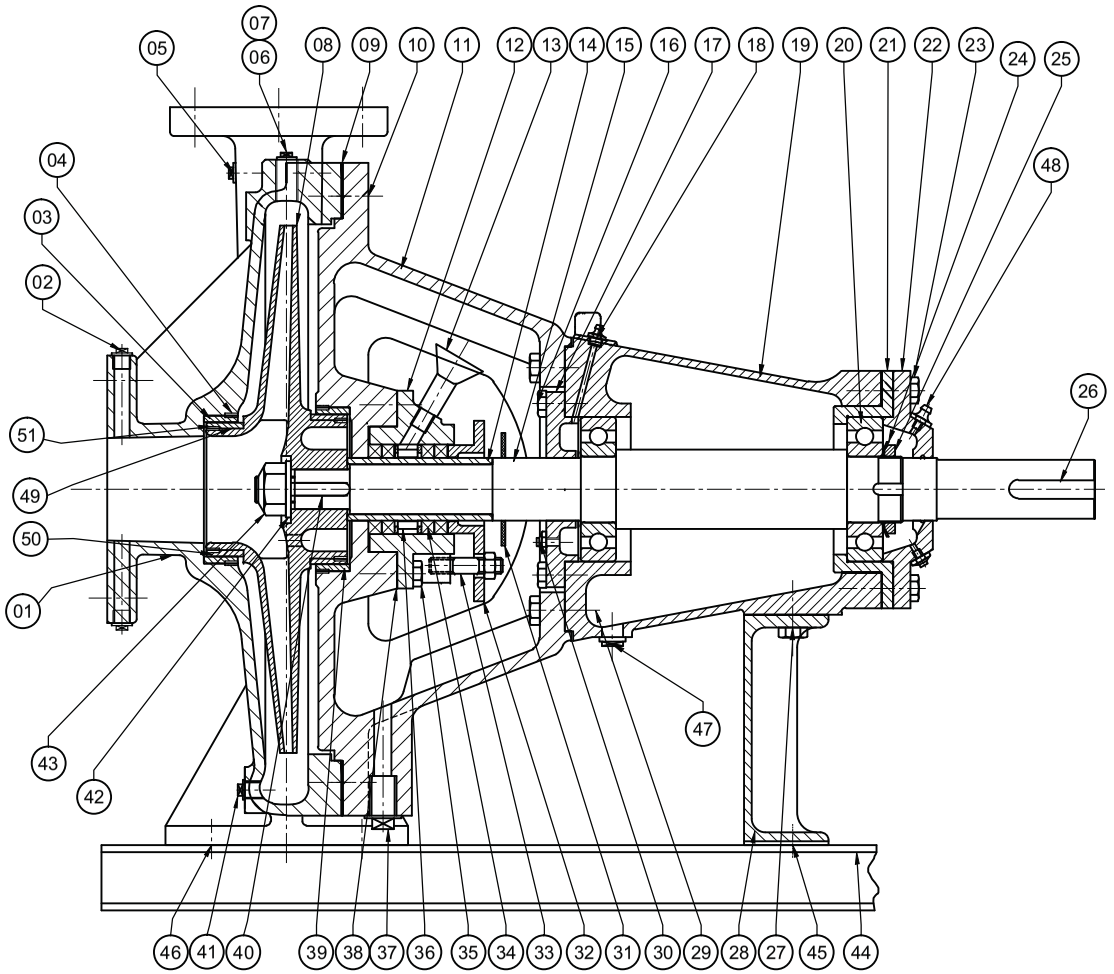






NOTE:-
1. DIMENSIONS ARE IN MM UNLESS OTHERWISE SPECIFIED.
2. DIRECTION OF ROTATION:-COUNTER CLOCKWISE WHEN LOOKING FROM DRIVING END.
3. STATIC LOAD (PUMP SET WITH MOTOR) = 430 KGS. (APPROX).
4. DYNAMIC LOAD (PUMP SET WITH MOTOR) = 560 KGS. (APPROX).

MOTOR PARTICULARS		PUMP PARTICULARS (QTY.:- 10 Nos.)	
MAKE	-- LHP	FIG.	-- F5523A
FRAME	-- 160 M/L	SIZE	-- 75x50 (3"x2")
POWER	-- 15 K.W.	STAGE	-- SINGLE
SPEED	-- 1460 R.P.M.	SPEED	-- 1460 R.P.M.
VOLTS	-- 415±10%	CAPACITY	-- 77 Cu. M/hr.
PHASES	-- THREE	HEAD	-- 30 Mtrs.
FREQUENCY	-- 50 Hz.±5%	PUMP INPUT	-- 12 K.W.
TYPE OF CONS.	-- H.S.S.	(Sp. Gr. 1.0)	
		EFFICIENCY	-- 52%

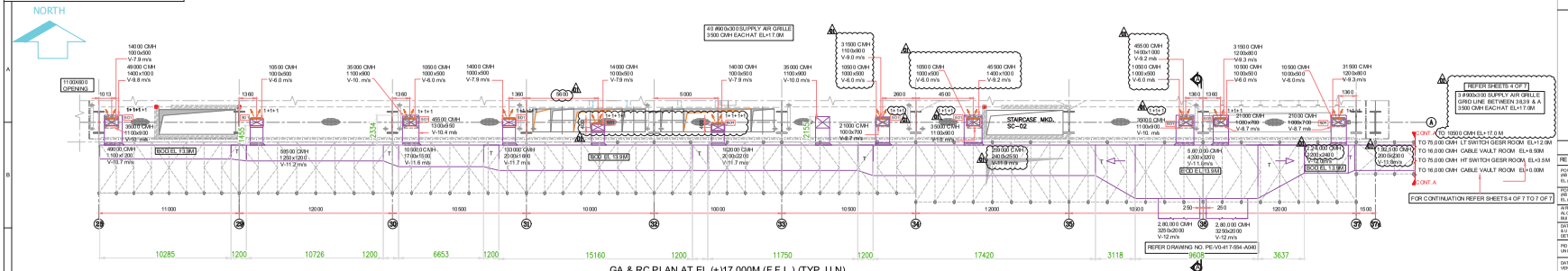


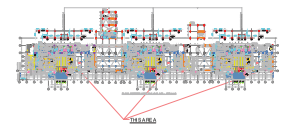
❋	53	COUPLING GUARD	01	M.S. (Fab)
	52	FLEXIBLE COUPLING (SPACER TYPE)	01	C.I.
	51	DOWEL PIN (W/Ring to IMPELLER)	04	S.S.-304
	50	WEARING RING IMPELLER (For BACK SIDE.)	01	BRONZE (IS-318, LTB-II)
	49	WEARING RING IMPELLER (For FRONT SIDE.)	01	BRONZE (IS-318, LTB-II)
	48	GREASE RELEASE FITTING	01	STEEL
	47	PIPE PLUG (Casing drain)	01	M.I.
	46	HEX. HD. BOLT WITH NUT & WASHER	04	M.S. (IS.-1367,Gr.-4.6)
	45	HEX. HD. BOLT WITH NUT & WASHER	02	M.S. (IS.-1367,Gr.-4.6)
	44	SKID BASE	01	M.S. (Fab) (IS-2062)
	43	IMP. NUT (Nylock)	01	STEEL
	42	IMP. WASHER	01	STEEL
	41	PIPE PLUG (Casing drain)	01	M.I.
	40	IMP. KEY	01	EN-9
	39	WEARING RING (For Frame Extn.)	01	C.I. (IS-210, FG. 260)
	38	GASKET	01	RUBBER
	37	PIPE NIPPLE (Gland drain)	01	STEEL
	36	WATER SEAL RING	01	BRONZE (IS:318, LTB-II)
	35	HEX. HD. CAP SCREW	06	M.S. (IS.-1367,Gr.-4.6)
	34	PACKING PCS.(Champion Make,Style No:- 3116)	04	GRAPH. IMP COTTON YARN. (Non Asbestos)
	33	STUD BOLT WITH NUT	02	S.S.-316
	32	PACKING GLAND	01	C.I. (IS-210, FG. 260)
	31	WATER SLINGER	01	RUBBER
	30	GREASE RELIEF FITTING	02	STEEL
	29	HEX. HD. CAP SCREW	04	M.S. (IS.-1367,Gr.-4.6)
	28	FRAME PEDESTAL	01	C.I. (IS-210, FG. 260)
	27	HEX. HD. CAP SCREW	02	M.S. (IS.-1367,Gr.-4.6)
	26	KEY (Pump Half Coup.)	01	EN-9
	25	LOCK NUT (Th. Brg.)	01	STEEL
	24	LOCK WASHER (Th. Brg.)	01	STEEL
	23	HEX. HD. CAP SCREW	04	M.S. (IS.-1367,Gr.-4.6)
	22	BRG. COVER (Thrust)	01	C.I. (IS-210, FG. 260)
	21	BRG. HOUSING (Thrust)	01	C.I. (IS-210, FG. 260)
	20	ANTI FRICTION BEARING (6310Z-C3)	02	BRG. STEEL (SKF/FAG)
	19	FRAME	01	C.I. (IS-210, FG. 260)
	18	GREASE RELEASE FITTING	01	STEEL
	17	BRG. COVER (Inner)	01	C.I. (IS-210, FG. 260)
	16	HEX. HD. CAP SCREW	04	M.S. (IS.-1367,Gr.-4.6)
	15	PUMP SHAFT	01	EN-8
	14	SHAFT SLEEVE	01	ASTM A 276,S.S.-410 (H) (250-300 BHN)
	13	GREASE CUP WITH N.R.V.	01	STEEL
	12	STUFFING BOX	01	C.I. (IS-210, FG. 260)
	11	FRAME EXTENSION	01	C.I. (IS-210, FG. 260)
	10	HEX. HD. CAP SCREW	08	M.S. (IS.-1367,Gr.-4.6)
	09	GASKET	01	RUBBER
	08	IMPELLER	01	BRONZE (IS-318, LTB-II)
	07	PIPE PLUG (Priming)	01	M.I.
	06	PIPE PLUG (Vent Hole)	01	M.I.
	05	PIPE PLUG	01	M.I.
	04	DOWEL PIN (W/Ring to Casing)	04	EN-8/EN-9
	03	WEARING RING (For Volute)	01	C.I. (IS-210, FG. 260)
	02	PIPE PLUG	01	M.I.
	01	VOLUTE (Casing)	01	C.I. (IS-210, FG. 260)

NOTE:-
DIRECTION OF PUMP ROTATION:- COUNTER CLOCK WISE WHEN LOOKING FROM DRIVING END.

❋ THESE ITEM ARE NOT SHOWN IN THIS DRAWING.

PUMP PARTICULARS (QTY.:- 14 N		
FIG.	--	F5523 A
SIZE	--	75x50 (3" x 2")
STAGE	--	SINGLE
LUB.	--	GREASE





REFERENCE DOCUMENT/DRAWING

REFERENCE DOCUMENT NO.	REFERENCE DOCUMENT/DRAWING TITLE
POWER HOUSE BUILDING (W/ BAY-TG) GA & RC DETAILS OF FLOOR AT EL (+)5500M(F.F.L.)UNIT#3&2)	PE-00-417-61-GD21
POWER HOUSE BUILDING (W/ BAY-TG) GA & RC DETAILS OF FLOOR AT EL(+)17.000M(F.F.L.)UNIT#3&2)	PE-00-417-61-GD30
AIR WASHER LAYOUT FOR "A ROW" SIDE ALONG WITH FOUNDATION DETAILS - TG BUILDING (UNIT 3, 4 & 5)	PE-V0-417-554-A040
DATA SHEET & GA DRAWING FOR AIR WASHER & UAF ALONGWITH PANEL PUMP FOUNDATION DETAILS FOR VENTILATION SYSTEM	PE-V0-417-554-A009
PID & SCHEME FOR AIR WASHER AND UAF UNIT FOR VENTILATION SYSTEM	PE-V0-417-554-AQ01
DATA SHEET OF GI AND MS SHEET FOR VENTILATION SYSTEM	PE-V0-417-554-A016
TG EQUIPMENT LAYOUT PLAN AT MEZZANINE FLOOR	PE-00-417-100-M004
VENTILATION AND BUS DUCT SUPPORTING STRUCTURE UNIT # 1 A ROW	PE-00-417-613-GD63
DETAIL OF GI DUCT SUPPORT & R.R.WASHER FOUNDATION OUTSIDE A ROW (STAGE-1)	PE-00-417-648-GD02

NOTES:

1. ALL DIMENSIONS ARE IN MM & LEVELS ARE IN METER UNLESS STATED OTHERWISE.
2. CONCRETE & MASONRY WORK/WALL CLADDING ARE IN BHEL SCOPE.
3. MINOR MODIFICATION IN DUCT CAN BE DONE AS SUIT AT SITE CONDITION.
4. DUCT SUPPORT INSIDE BUILDING WILL BE TAKEN FROM EXISTING SLAB/STRUCTURE TO SUIT AT SITE CONDITION.
5. MAXIMUM DUCT LOAD IS 150 KG PER RUNNING MTRS.
6. ALL BOTTOM LEVEL DIMENSIONS ARE GIVEN FROM FINISH FLOOR LEVEL.
7. LOCATION OF VENTILATION DUCT ROUTINGS ARE DONE AS PER BHEL INPUT DRAWINGS.
8. SPACING BETWEEN TWO SUPPORT/HANGER OF THE DUCT SHALL BE 2.0 M.

LEGENDS

SYMBOLE	DESCRIPTION
	Supply Air Grill
	Volume Control Damper
	Motorised Fire Damper
	Gravity Damper
	Wall Opening
SAG	Supply Air Grill
BOD	Bottom of Duct
WO	Wall Opening
BO	Bottom of
SO	Slab Opening
VCD	Volume Control Damper
MFD	Motorised Fire Damper
GD	Gravity Damper
AD	ACCESS DOOR
	INSULATION

SLAB OPENING SCHEDULE
A ROW SIDE FOR UNIT # 3

TAG NO.	SIZE(WxH)	QTY.	AREA OF LOCATION	REMARKS
SO1	1100x600	11	EL.+17.0 MTR @ GRID A	FROM SHAFT
SO2	1030x1000	5	EL.+8.5 MTR @ GRID A	FROM SHAFT
SO3	600x700	3	EL.+8.5 MTR @ GRID A	FROM SHAFT

SUPPLY AIR GRILLE SCHEDULE
A ROW SIDE FOR UNIT # 3

TAG NO.	SIZE(WxH)	QTY.	AIR QTY. CMH EACH	TOTAL AIR QTY. CMH	AREA OF LOCATION
SAG-1	900x300	40	3500	140,000	EL.+17.0 MTR
SAG-2	900x300	34	3500	1,19,000	EL.+8.5 MTR
SAG-3	900x300	34	3500	1,19,000	EL.+0.0 MTR

VOLUME CONTROLD AMPER SCHEDULE
A ROW SIDE FOR UNIT # 3

TAG NO.	SIZE(WxH)	QTY.	AREA OF LOCATION
VCD-1	1000 x 600	11 Nos.	EL.+8.5 MTR
VCD-2	1100 x 600	5 Nos.	EL.+8.5 MTR
VCD-3	1000 x 700	3 Nos.	EL.+8.5 MTR

MOTORISED FIRE DAMPER A ROW SIDE UNIT # 3

TAG	SIZE(WxH)	QTY.	AREA OF LOCATIONS
MFD-01	1000 x 600	11 Nos.	@EL+ 17.0 MTR
			@EL+ 8.5 MTR

DUCTING BOQ UNIT 3,4&5

S.NO.	GAUGE	DUCT QTY. (SQM.)	INSULATION QTY. (SQM.)
1.	20	7260	3153
2.	18	3763	

UNIT - 3

JOB NO.	417
STATUS	CONTRACT
DISTRIBUTION	

REV.	DATE	A/TD	CHD	A

VENTILATION DUCT LAYOUT FOR TG BUILDING -'A' ROW SIDE (Unit 3, 4 & 5)

HS	L.P.A.L.	A.G.M.R.	S.VERMA	09.07.2021	1:100	PE-V0-417-554-A043

SIZE-A0

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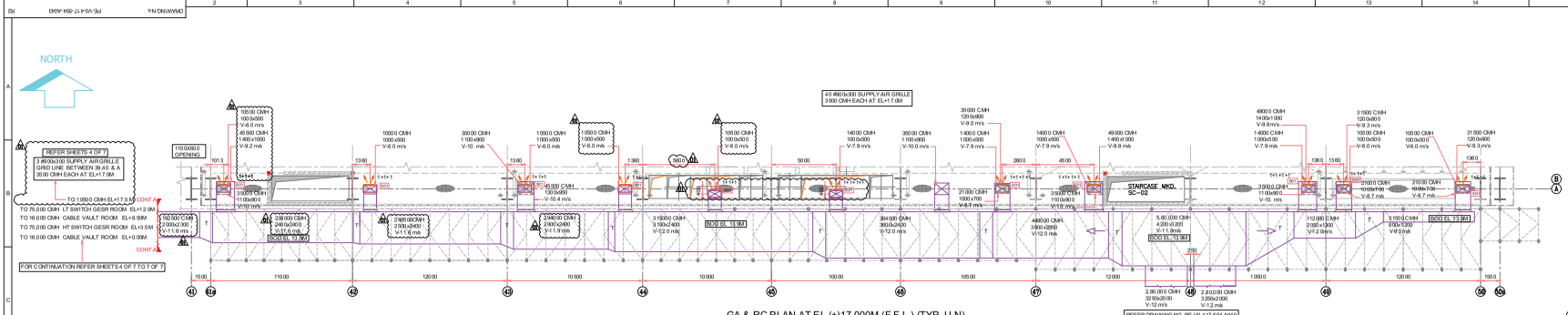

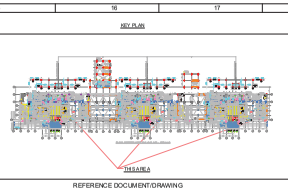

REFERENCE DOCUMENT/DRAWING

REFERENCE DOCUMENT NO.	REFERENCE DOCUMENT/DRAWING TITLE
POWER HOUSE BUILDING (KB 6KV-TG) GA & RC DETAILS OF FLOOR AT EL (+) 6500M(F.F.L.) (UNIT#1&2)	PE-00-417-M1-GD21
POWER HOUSE BUILDING (KB 6KV-TG) GA & RC DETAILS OF FLOOR AT EL (+)17.000M(F.F.L.)(UNIT#1&2)	PE-00-417-M1-GD30
AIR WASHER LAYOUT FOR "A ROW" SIDE ALONG WITH FOUNDATION DETAILS - TG BUILDING (UNIT 3, 4 & 5)	PE-V0-417-554-A040
DATA SHEET & GA DRAWING FOR AIR WASHER & UAF ALONG WITH PAN & PUMP FOUNDATION DETAILS FOR VENTILATION SYSTEM	PE-V0-417-554-A009
PID & SCHEME FOR AIR WASHER AND UAF UNIT FOR VENTILATION SYSTEM	PE-V0-417-554-A061
DATA SHEET OF GI AND MS SHEET FOR VENTILATION SYSTEM	PE-V0-417-554-A016
TG EQUIPMENT LAYOUT PLAN AT MEZZANINE FLOOR	PE-00-417-100-M004
VENTILATION AND DUST DUCT SUPPORTING STRUCTURE UNIT # 1 ROW	PE-00-417-M3-GD65
DETAIL OF DUCT SUPPORT & AIR WASHER FOUNDATION OUTSIDE A ROW (STAGE I)	PE-00-417-M4-GD02

NOTES:

1. ALL DIMENSIONS ARE IN MM & LEVELS ARE IN METER UNLESS STATED OTHERWISE.
2. CONCRETE & MASONRY WORK/WALL CLADDING ARE IN BHEL SCOPE.
3. MINOR MODIFICATION IN DUCT CAN BE DONE AS SUIT AT SITE CONDITION.
4. DUCT SUPPORT INSIDE BUILDING WILL BE TAKEN FROM EXISTING SLAB/STRUCTURE TO SUIT AT SITE CONDITION.
5. MAXIMUM DUCT LOAD IS 150 KG PER RUNNING MTRS.
6. ALL BOTTOM LEVEL DIMENSIONS ARE GIVEN FROM FINISH FLOOR LEVEL.
7. LOCATION OF VENTILATION DUCT ROUTINGS ARE DONE AS PER BHEL INPUT DRAWINGS.
8. SPACING BETWEEN TWO SUPPORT/HANGER OF THE DUCT SHALL BE 2.0 M.

LEGENDS

SYMBOLE	DESCRIPTION
	Supply Air Grill
	Volume Control Damper
	Motorised Fire Damper
	Gravity Damper
	Wall Opening
SAG	Supply Air Grill
BOD	Bottom of Duct
WO	Wall Opening
BO	Bottom of
SO	Slab Opening
VCD	Volume Control Damper
MFD	Motorised Fire Damper
GD	Gravity Damper
AD	ACCESS DOOR
	INSULATION

SLAB OPENING SCHEDULE
A ROW SIDE FOR UNIT # 4

TAG NO.	SIZE(WxH)	QTY.	AREA OF LOCATION	REMARKS
SO1	1100x600	11	EL.+17.0 MTR @ GRID A	FROM SHAFT
SO2	1000x1000	5	EL.+8.5 MTR @ GRID A	FROM SHAFT
SO3	600x700	3	EL.+8.5 MTR @ GRID A	FROM SHAFT

SUPPLY AIR GRILLE SCHEDULE
A ROW SIDE FOR UNIT # 4

TAG NO.	SIZE(WxH)	QTY	AIR QTY. CMH EACH	TOTAL AIR QTY. CMH	AREA OF LOCATION
SAG-1	900x300	40	3900	1,40,000	EL.+17.0 MTR
SAG-2	900x300	34	3900	1,19,000	EL.+8.5 MTR
SAG-3	900x300	34	3900	1,19,000	EL.+0.0 MTR

VOLUME CONTROLD AMPER SCHEDULE
A ROW SIDE FOR UNIT # 4

TAG NO.	SIZE(WxH)	QTY.	AREA OF LOCATION
VCD-1	1000x600	11 Nos.	EL.+8.5 MTR
VCD-2	1100x900	5 Nos.	EL.+8.5 MTR
VCD-3	1100x700	3 Nos.	EL.+8.5 MTR

MOTORISED FIRE DAMPER A ROW SIDE UNIT # 4

TAG	SIZE(WxH)	QTY.	AREA OF LOCATIONS
MFD-01	1000x600	11 Nos.	@EL+ 17.0 MTR
			@EL+ 8.5 MTR

UNIT - 4

JOB NO.	417
STATUS	CONTRACT
DISTRIBUTION	

REV.	DATE	AUTD	CHD	APPD

VENTILATION DUCT LAYOUT FOR TG BUILDING -'A' ROW SIDE (Unit 3, 4 & 5)

PE-V0-417-554-A043

SIZE-A0

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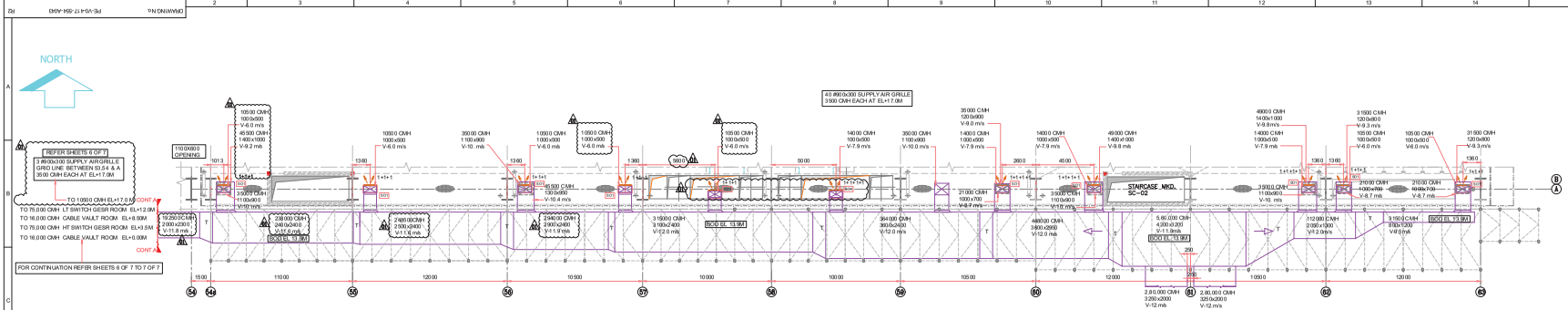
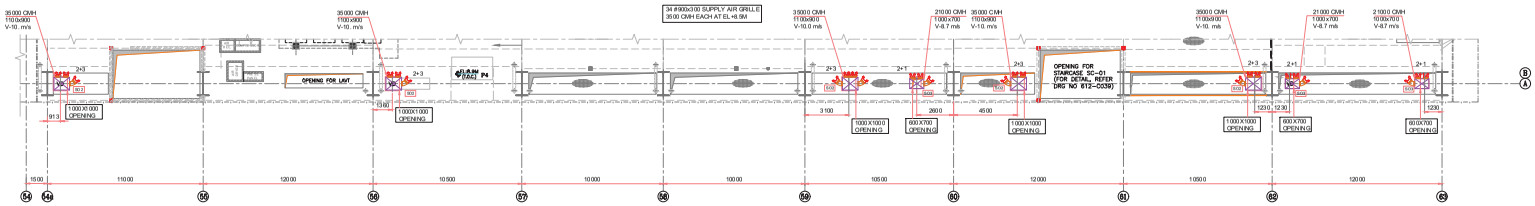
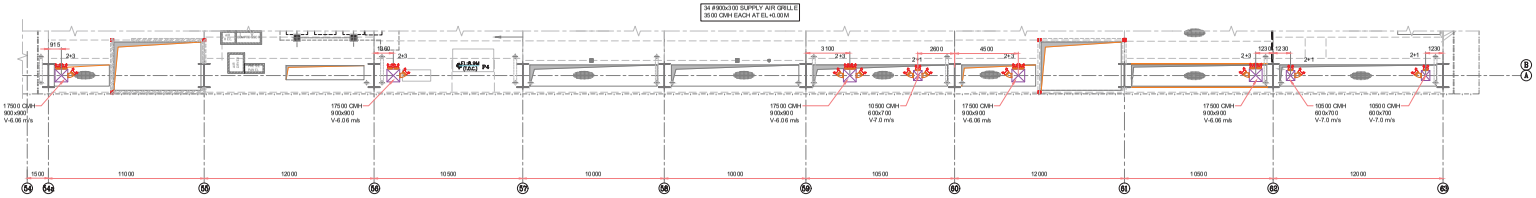
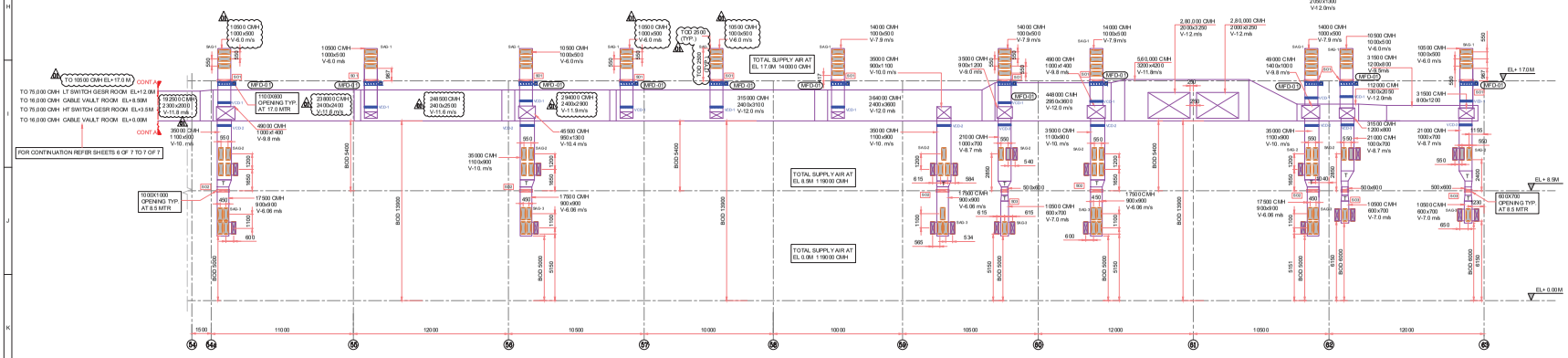
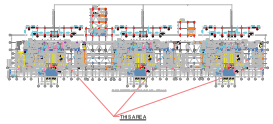








REV PLAN



THIS AREA

REFERENCE DOCUMENT/DRAWING

REFERENCE DOCUMENT NO.	REFERENCE DOCUMENT/DRAWING TITLE
POWER HOUSE BUILDING (90 MW+150 GVA) INDUSTRIALS OF FLOOR AT EL (+)5500M(F.F.L.)UNIT#1&2	PE-00-417-M1-0031
POWER HOUSE BUILDING (90 MW+150 GVA) INDUSTRIALS OF FLOOR AT EL+17.000M(F.F.L.)UNIT#1&2	PE-00-417-M1-0030
AIR WASHER LAYOUT FOR "A ROW" SIDE ALONG WITH FOUNDATION DETAILS - TG BUILDING (UNIT 3, 4 & 5)	PE-V0-417-554-A040
DATA SHEET & GA DRAWING FOR AIR WASHER & UAF ALONG WITH PAN& PUMP FOUNDATION DETAILS FOR VENTILATION SYSTEM	PE-V0-417-554-A009
PID & SCHEME FOR AIR WASHER AND UAF UNIT FOR VENTILATION SYSTEM	PE-V0-417-554-A061
DATA SHEET OF GI AND MS SHEET FOR VENTILATION SYSTEM	PE-V0-417-554-A016
TG EQUIPMENT LAYOUT PLAN AT MEZZANINE FLOOR	PE-00-417-100-M004
VENTILATION AND DUST DUCT SUPPORTING STRUCTURE UNIT # 1 ROW	PE-00-417-M3-0065
DETAIL OF DUCT SUPPORT & AIR WASHER FOUNDATION OUTSIDE A ROW (STAGE I)	PE-00-417-M4-0002

NOTES:

1. ALL DIMENSIONS ARE IN MM & LEVELS ARE IN METER UNLESS STATED OTHERWISE.
2. CONCRETE & MASONRY WORK/WALL CLADDING ARE IN BHEL SCOPE.
3. MINOR MODIFICATION IN DUCT CAN BE DONE AS SUIT AT SITE CONDITION.
4. DUCT SUPPORT INDEXE BUILDING WILL BE TAKEN FROM EXISTING SLAB/STRUCTURE TO SUIT AT SITE CONDITION.
5. MAXIMUM DUCT LOAD IS 150 KG PER RUNNING MTRS.
6. ALL BOTTOM LEVEL DIMENSIONS ARE GIVEN FROM FINISH FLOOR LEVEL.
7. LOCATION OF VENTILATION DUCT ROUTINGS ARE DONE AS PER BHEL INPUT DRAWINGS.
8. SPACING BETWEEN TWO SUPPORT/HANGER OF THE DUCT SHALL BE 2.0 M.

LEGENDS

SYMBOLE	DESCRIPTION
	Supply Air Grill
VCD	Volume Control Damper
MFD	Motorised Fire Damper
GD	Gravity Damper
SAG	Supply Air Grill
BOD	Bottom of Duct
WO	Wall Opening
BO	Bottom of
SO	Slab Opening
VCD	Volume Control Damper
MFD	Motorised Fire Damper
GD	Gravity Damper
AD	ACCESS DOOR
	INSULATION

SLAB OPENING SCHEDULE
A ROW SIDE FOR UNIT # 5

TAG NO.	SIZE(W×H)	QTY.	AREA OF LOCATION	REMARKS
SO1	1100x600	11	EL.+17.0 MTR @ GRID A	FROM SHAFT
SO2	1000x1000	5	EL.+8.5 MTR @ GRID A	FROM SHAFT
SO3	600x700	3	EL.+8.5 MTR @ GRID A	FROM SHAFT

SUPPLY AIR GRILLE SCHEDULE
A ROW SIDE FOR UNIT # 5

TAG NO.	SIZE(W×H)	QTY.	AIR QTY. CMH EACH	TOTAL AIR QTY. CMH	AREA OF LOCATION
SAG-1	900x300	40	3900	1,40,000	EL.+17.0 MTR
SAG-2	900x300	34	3500	1,19,000	EL.+8.5 MTR
SAG-3	900x300	34	3500	1,19,000	EL.+0.0 MTR

VOLUME CONTROLD AMPER SCHEDULE
A ROW SIDE FOR UNIT # 5

TAG NO.	SIZE(W×H)	QTY.	AREA OF LOCATION
VCD-1	1000x500	11 Nos.	EL.+8.5 MTR
VCD-2	1100x900	5 Nos.	EL.+8.5 MTR
VCD-3	1000x700	3 Nos.	EL.+8.5 MTR

MOTORISED FIRE DAMPER A ROW SIDE UNIT # 4

TAG	SIZE(W×H)	QTY.	AREA OF LOCATIONS
MFD-01	1000x500	11 Nos.	@EL+ 17.0 MTR
			@EL+ 8.5 MTR

UNIT - 5

JOB NO. 417
STATUS CONTRACT
DISTRIBUTION

REV.	DATE	ALTD	CHD	APPD

VENTILATION DUCT LAY OUT FOR TG BUILDING -'A' ROW SIDE (Unit 3, 4 & 5)

PE-V0-417-554-A043

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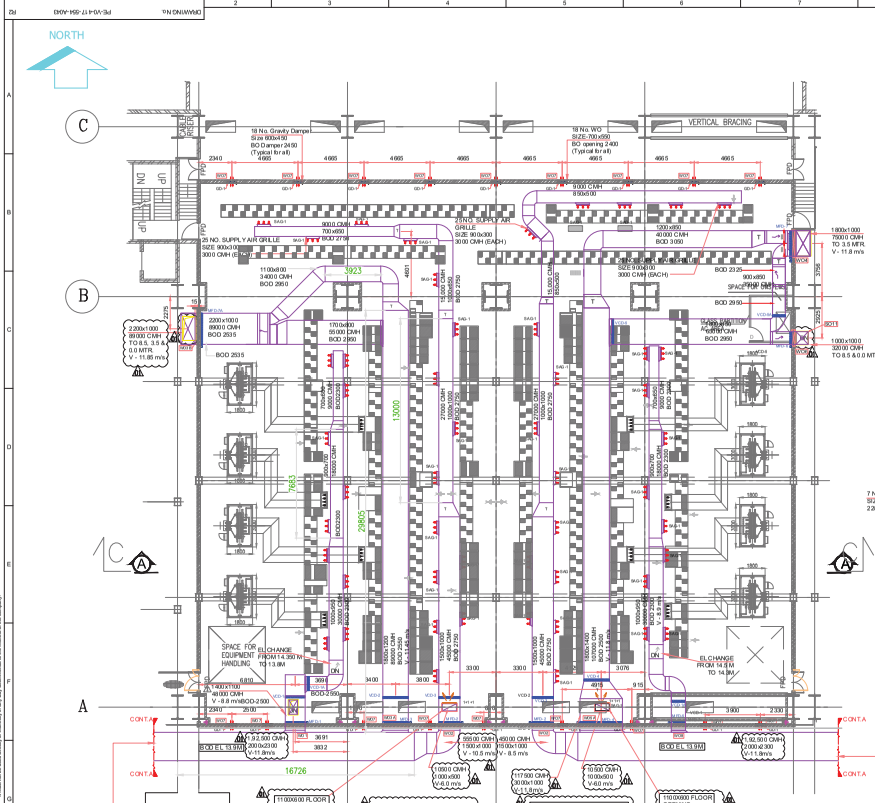

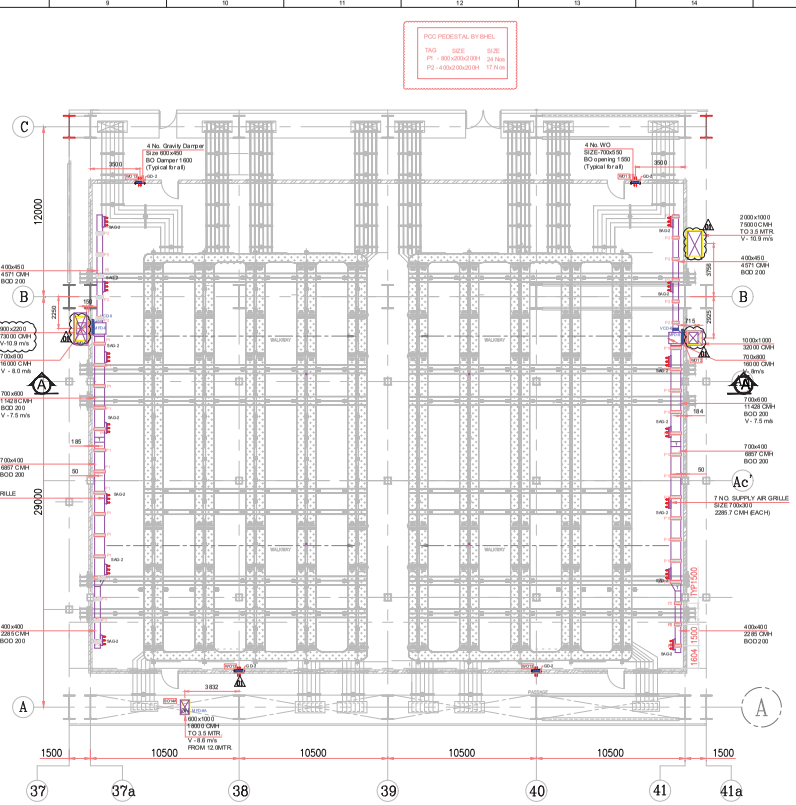

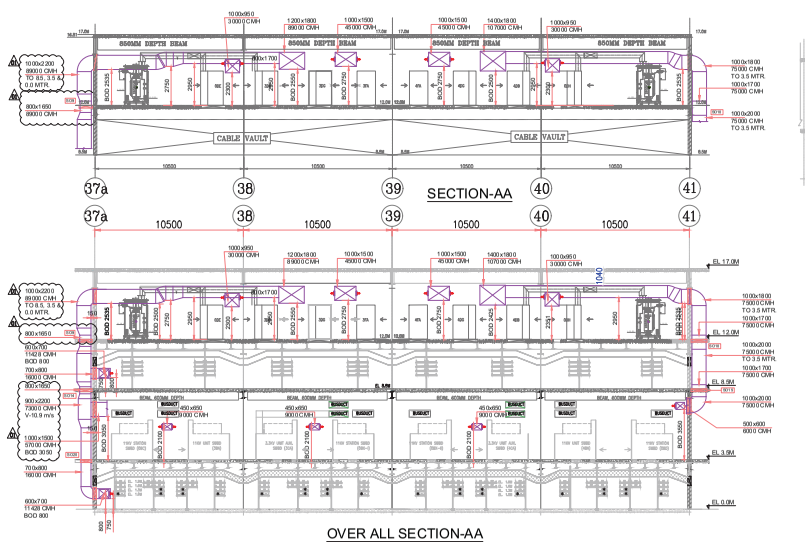

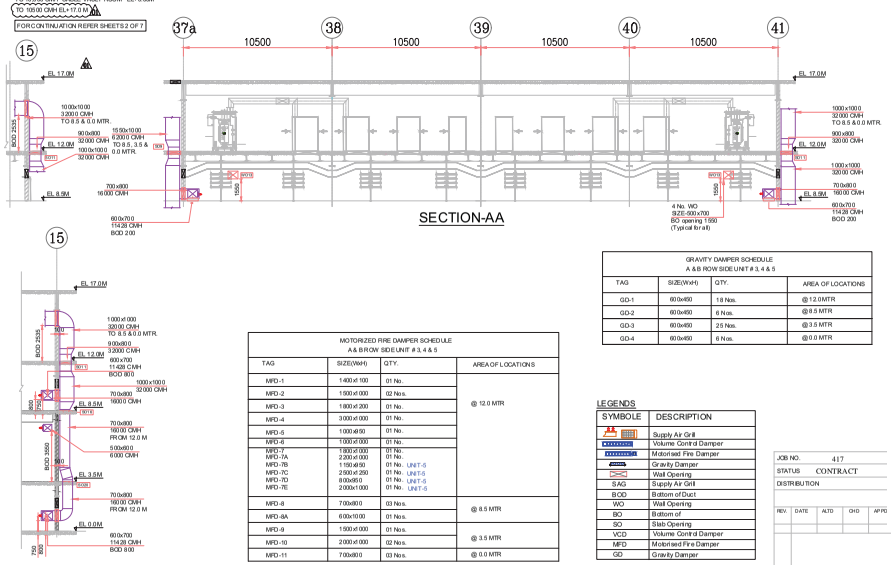

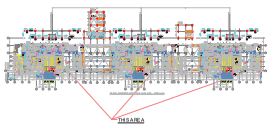

REFERENCE DOCUMENT/DRAWING

REFERENCE DOCUMENT NO.	REFERENCE DOCUMENT/DRAWING TITLE
POWER HOUSE BUILDING (W BAY-TG GA & RCC DETAILS OF FLOOR AT EL (+)5500M(F.F.L.)UNIT#3&4)	PE-00-417-61-GD21
POWER HOUSE BUILDING (W BAY-TG GA & RCC DETAILS OF FLOOR AT EL(+)7.850M(F.F.L.)UNIT#1&2)	PE-00-417-61-GD30
AIR WASHER LAYOUT FOR "A ROW" SIDE ALONG WITH FOUNDATION DETAILS - TG BUILDING (UNIT 3, 4 & 5)	PE-V0-417-E64-A040
DATA SHEET & GA DRAWING FOR AIR WASHER & UAF ALONG WITH PAN& PUMP FOUNDATION DETAILS FOR VENTILATION SYSTEM	PE-V0-417-E64-A009
PID & SCHEME FOR AIR WASHER AND UAF UNIT FOR VENTILATION SYSTEM	PE-V0-417-E64-A016
DATA SHEET OF GI AND MS SHEET FOR VENTILATION SYSTEM	PE-V0-417-E64-A006
TG EQUIPMENT LAYOUT PLAN AT MEZZANINE FLOOR	PE-00-417-100-M004
VENTILATION AND BUS DUCT SUPPORTING STRUCTURE UNIT # 1 & OBR	PE-00-417-613-D063
DETAIL OF DUCT SUPPORT & AIR WASHER FOUNDATION OUTSIDE A ROW (STAGE I)	PE-00-417-M68-D002

NOTES.
1. ALL DIMENSIONS ARE IN MM & LEVELS ARE IN METER UNLESS STATED OTHERWISE.
2. CONCRETE & MASONRY WORK/WALL CLADDING ARE IN BHEL SCOPE.
3. MINOR MODIFICATION IN DUCT CAN BE DONE AS SUIT AT SITE CONDITION.
4. DUCT SUPPORT INSIDE BUILDING WILL BE TAKEN FROM EXISTING SLAB/STRUCTURE TO SUIT AT SITE CONDITION.
5. MAXIMUM DUCT LOAD IS 150 KG PER RUNNING MTRS.
6. ALL BOTTOM LEVEL DIMENSIONS ARE GIVEN FROM FINISH FLOOR LEVEL.
7. LOCATION OF VENTILATION DUCT ROUTINGS ARE DONE AS PER BHEL INPUT DRAWINGS.
8. SPACING BETWEEN TWO SUPPORT/HANGER OF THE DUCT SHALL BE 2.0 M.

WALL OPENING SCHEDULE
A & B ROW SIDE UNIT # 3, 4 & 5

TAG	SIZE(WxH)	QTY.	BOTTOM OF OPENING	AREA OF LOCATIONS
WO1	1950 x1250	01 Nos.	EL+ 14.425 M	
WO2	1650 x1150	02 Nos.	EL+ 14.675 M	
WO3A	1950x1950	01 Nos.	EL+ 14.460 M	@ 12.0 MTR
WO3B	2950x1150	01 Nos.	EL+ 14.460 M	
WO4	1950 x1150	01 Nos.	EL+ 14.460 M	
WO5	2450 x1400	01 Nos.	EL+ 14.675 M	UNIT-6
WO5 B	1300 x1100	01 Nos.	EL+ 14.2.75 M	UNIT-6
WO5A	3150 x1150	01 Nos.	EL+ 14.3.0M	
WO6	1150 x1150	01 No.	EL+ 14.460 M	
WO7	700x550	27 Nos.	EL+ 14.400 M	
WO8	1150 x1150	01 Nos.	EL+ 14.4361	
WO8A	1950 x1150	02 Nos.	EL+ 14.460 M	UNIT-5
WO8B	1950 x1150	01 Nos.	EL+ 14.460 M	UNIT-5
SO9	1700 x950	01 Nos.		
SO10	1800 x1130	01 Nos.		@ 12.0 MTR, WHERE DUCT IS COMING DOWN FROM OUTSIDE ALONG WITH WALL
SO11	950x950	01 Nos.		
SO11A	1100 x900	01 Nos.		
WO12	850x950	03 Nos.	EL+ 9.175 M	
WO13	700x550	06 Nos.	EL+ 10.05 M	@ 8.5 MTR
SO14A	700x100	01 Nos.		
SO14	1700 x950	01 Nos.		
SO15	1800 x1130	01 Nos.		@ 8.5 MTR, WHERE DUCT IS COMING DOWN FROM OUTSIDE ALONG WITH WALL
SO16	950 x950	01 Nos.		
SO16A	900 x900	01 Nos.		
WO17	1650 x1150	01 Nos.	EL+ 6.475 M	
WO18A	2150 x1150	01 Nos.	EL+ 6.31 M	@ 3.5 MTR
WO18	2150 x1150	01 Nos.	EL+ 6.46 M	
WO19	700x550	27 Nos.	EL+ 6.6 M	
SO20	850x950	02 Nos.		@ 3.5 MTR, WHERE DUCT IS COMING DOWN FROM UP
SO20A	800x950	01 Nos.		
WO21	850x950	03 Nos.	EL+ 0.675 M	@ 0.0 MTR
WO22	700x550	06 Nos.	EL+ 1.550 M	

SUPPLY AIR GRILLE SCHEDULE
A & B ROW SIDE UNIT # 3, 4 & 5

TAG	SIZE(WxH)	QTY.	CMH (EACH)	AREA OF LOCATIONS
SAG-1	900x300	75 Nos.	3000 CMH	@ 12.0 MTR
SAG-2	700x300	21 Nos.	2285.7 CMH	@ 8.5 MTR
SAG-3	900x300	60 Nos.	3000 CMH	@ 3.5 MTR
SAG-4	550x300	25 Nos.	1800 CMH	
SAG-5	700x300	21 Nos.	2285.7 CMH	@ 0.0 MTR

VOLUME CONTROL DAMPER SCHEDULE
A & B ROW SIDE UNIT # 3, 4 & 5

TAG	SIZE(WxH)	QTY.		AREA OF LOCATIONS
VCD-1	1400 x1100	01 No.		
VCD-1A	1000 x950	02 Nos.		
VCD-2	1800 x1200	01 No.		
VCD-3	1500 x1000	02 Nos.		@ 12.0 MTR
VCD-4	1800 x1400	01 No.		
VCD-5	1800x800 900x800	01 No. 01 No.		
VCD-5A				
VCD-8B	1150 x950	01 No.		UNIT-5
VCD-9C	1400 x1000	02 Nos.		UNIT-5
VCD-9D	850x950	01 No.		UNIT-5
VCD-6	400x450	03 Nos.		@ 8.5 MTR
VCD-7A VCD-7B, VCD-7C	750 x700 750 x950, 800 x1000	01 No. 01 Nos., 01 Nos.		
VCD-8	900x500	01 Nos.		
VCD-9	5.00x500	01 Nos.		@ 3.5 MTR
VCD-10	1700 x600	01 Nos.		
VCD-11	600x950	01 Nos.		
VCD-11A	1500 x600	02 Nos.		
VCD-12	400x450	03 Nos.		@ 0.0 MTR

GRAVITY DAMPER SCHEDULE
A & B ROW SIDE UNIT # 3, 4 & 5

TAG	SIZE(WxH)	QTY.	AREA OF LOCATIONS
GD-1	600x950	18 Nos.	@ 12.0 MTR
GD-2	600x950	6 Nos.	@ 8.5 MTR
GD-3	600x950	25 Nos.	@ 3.5 MTR
GD-4	600x950	6 Nos.	@ 0.0 MTR

MOTORIZED FIRE DAMPER SCHEDULE
A & B ROW SIDE UNIT # 3, 4 & 5

TAG	SIZE(WxH)	QTY.		AREA OF LOCATIONS
MFD-1	1400 x1100	01 No.		
MFD-2	1500 x1000	02 Nos.		
MFD-3	1800 x1200	01 No.		@ 12.0 MTR
MFD-4	3000 x1000	01 No.		
MFD-5	1000 x950	01 No.		
MFD-6	1000 x1000	01 No.		
MFD-7 MFD-7A MFD-7B MFD-7C MFD-7D MFD-7E	1800 x1000 2200 x1000 1150 x950 2500 x1250 800x950 2000x1000	01 No. 01 No. 01 No., UNIT-5 01 No., UNIT-5 01 No., UNIT-5 01 No., UNIT-5		
MFD-8	700x800	03 Nos.		
MFD-8A	600x1000	01 Nos.		@ 8.5 MTR
MFD-9	1500 x1000	01 Nos.		
MFD-10	2000 x1000	02 Nos.		@ 3.5 MTR
MFD-11	700x800	03 Nos.		@ 0.0 MTR

LEGENDS

SYMBOLE	DESCRIPTION
	Supply Air Grill
	Volume Control Damper
	Motorised Fire Damper
	Gravity Damper
	Wall Opening
SAG	Supply Air Grill
BOD	Bottom of Duct
WO	Wall Opening
BO	Bottom of
SO	Slab Opening
VCD	Volume Control Damper
MFD	Motorised Fire Damper
GD	Gravity Damper

JOB NO. 417
STATUS CONTRACT
DISTRIBUTION

REV.	DATE	A/TD	CHD	APPD

VENTILATION DUCT LAYOUT FOR TG BUILDING - 'A' ROW SIDE (Unit 3, 4 & 5)

PE-V0-417-554-A043

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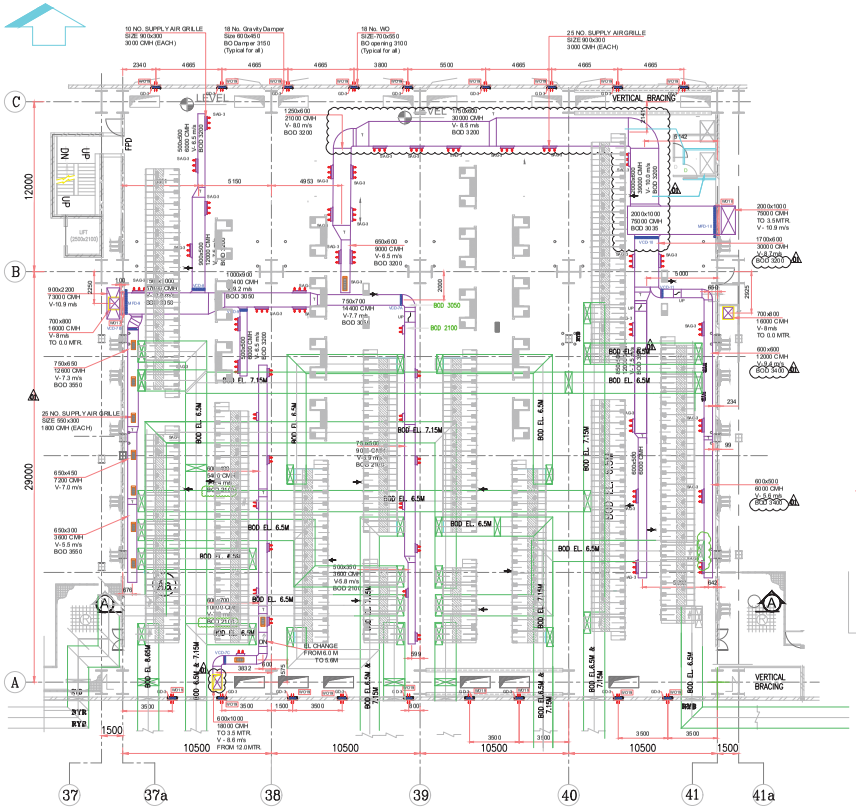
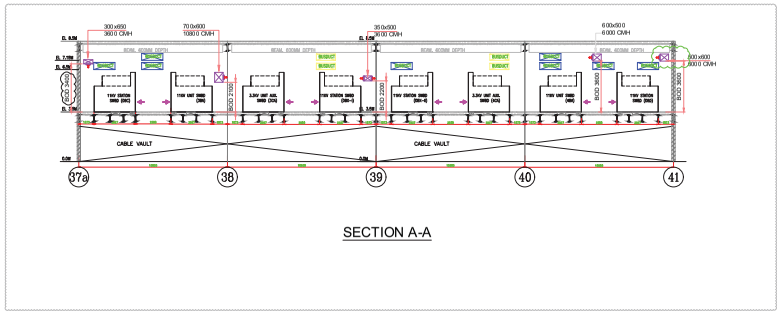
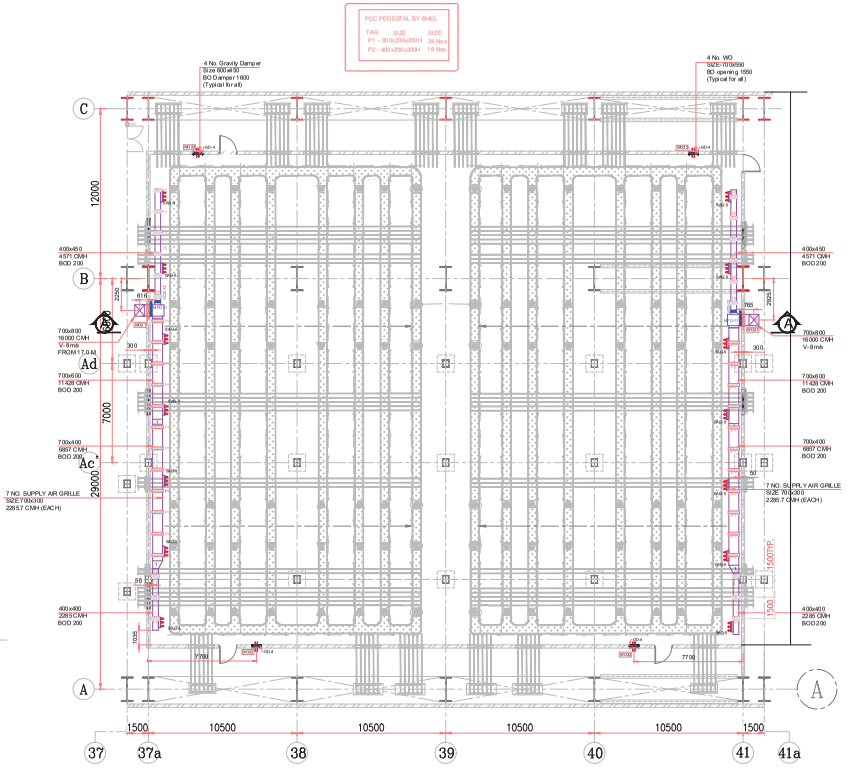


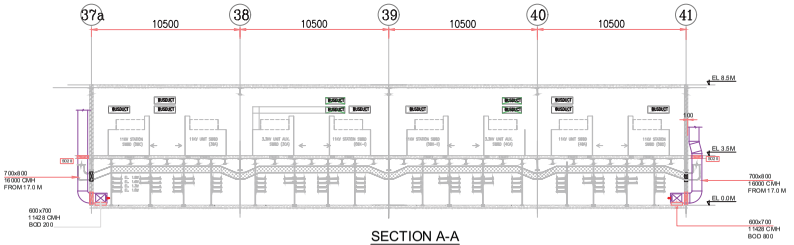
PLAN AT EL. 3.5M - UNIT 3&4



SECTION A-A



PLAN AT EL. 0.0M - UNIT 3&4



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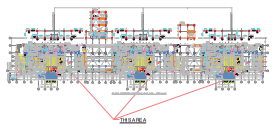
REV PLAN



REFERENCE DOCUMENT/DRAWING

REFERENCE DOCUMENT NO.	REFERENCE DOCUMENT/DRAWING TITLE
POWER HOUSE BUILDING (W WAY-TG GA & RCC DETAILS OF FLOOR AT EL (+)5500MT.F.L (UNIT#3&2)	PE-DG-417-611-Q021
POWER HOUSE BUILDING (W WAY-TG GA & RCC DETAILS OF FLOOR AT EL(+)7.00MT.F.L (UNIT#1&0)	PE-DG-417-611-Q030
AIR WASHER LAYOUT FOR "A ROW" SIDE ALONG WITH FOUNDATION DETAILS - TG BUILDING (UNIT 3, 4 & 5)	PE-V0-417-E64-A043
DATA SHEET & QA DRAWING FOR AIR WASHER & UAF ALONG WITH PAN & PUMP FOUNDATION DETAILS FOR VENTILATION SYSTEM	PE-V0-417-E64-A009
PID & SCHEME FOR AIR WASHER AND UAF UNIT FOR VENTILATION SYSTEM	PE-V0-417-E64-A021
DATA SHEET OF GI AND MS SHEET FOR VENTILATION SYSTEM	PE-V0-417-E64-A016
TG EQUIPMENT LAYOUT PLAN AT MEZZANINE FLOOR	PE-DG-417-100-M004
VENTILATION AND BUS DUCT SUPPORTING STRUCTURE UNIT # 1 ROW	PE-DG-417-013-Q063
DETAIL OF DUCT SUPPORT & AIR WASHER FOUNDATION OUTSIDE A ROW (STAGE I)	PE-DG-417-668-Q002

NOTES:

1. ALL DIMENSIONS ARE IN MM & LEVELS ARE IN METER UNLESS STATED OTHERWISE.
2. CONCRETE & MASONRY WORK/WALL CLADDING ARE IN BHEL SCOPE.
3. MINOR MODIFICATION IN DUCT CAN BE DONE AS SUIT AT SITE CONDITION.
4. DUCT SUPPORT INSIDE BUILDING WILL BE TAKEN FROM EXISTING SLAB/STRUCTURE TO SUIT AT SITE CONDITION.
5. MAXIMUM DUCT LOAD IS 150 KG PER RUNNING MTRS.
6. ALL BOTTOM LEVEL DIMENSIONS ARE GIVEN FROM FINISH FLOOR LEVEL.
7. LOCATION OF VENTILATION DUCT ROUTINGS ARE DONE AS PER BHEL INPUT DRAWINGS.
8. SPACING BETWEEN TWO SUPPORT/HANGER OF THE DUCT SHALL BE 2.0 M.

JOB NO.	417
STATUS	CONTRACT
DISTRIBUTION	

REV.	DATE	AUTO	CHD	APPD

VENTILATION DUCT LAYOUT FOR TG BUILDING - 'A' ROW SIDE (Unit 3, 4 & 5)

PE-V0-417-554-A043

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DRAWING No.
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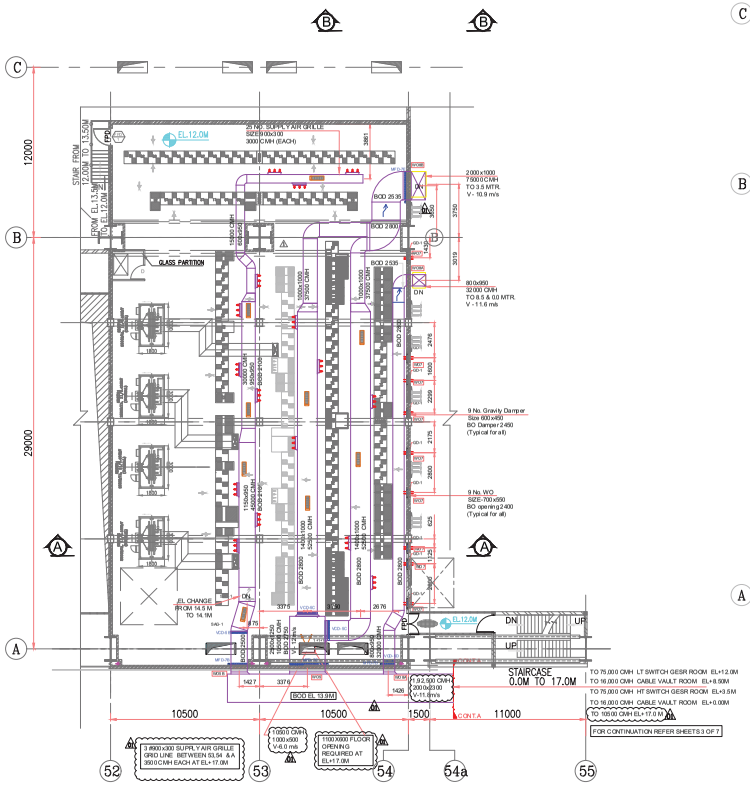
NORTH



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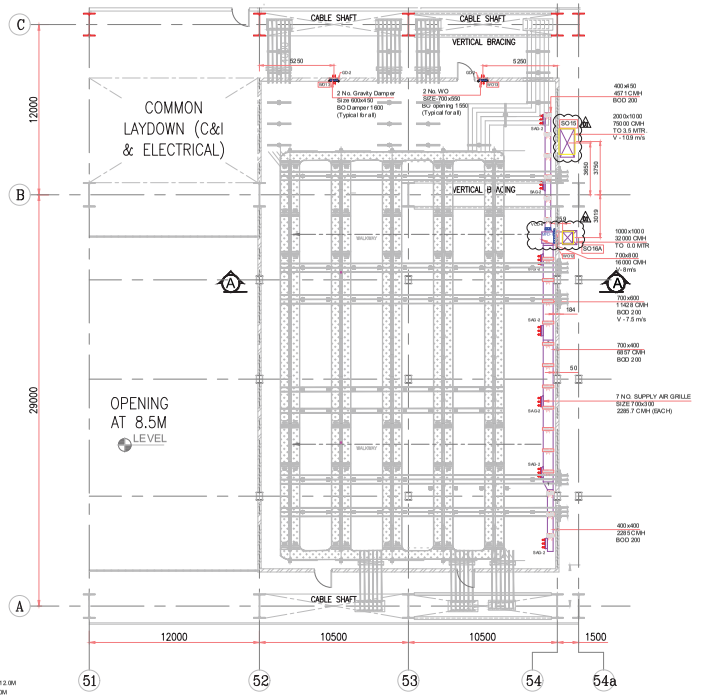

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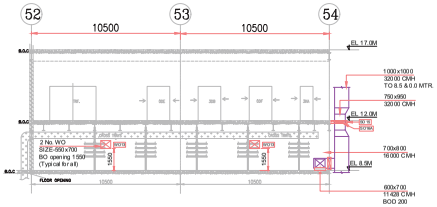
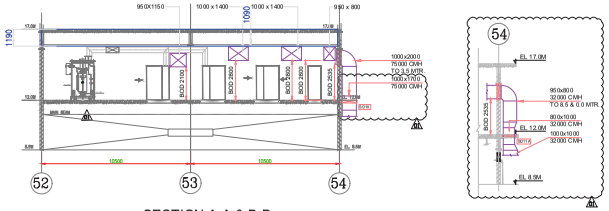


SECTION A-A



SECTION A-A & B-B

PCC PEDESTAL BY BHEL

TAG	SIZE	SIZE
P1 -	800x1000x1200H	11 Nos
P2 -	400x600x1200H	09 Nos

KEY PLAN

REFERENCE DOCUMENT/DRAWING

REFERENCE DOCUMENT NO.	REFERENCE DOCUMENT/DRAWING TITLE
POWER HOUSE BUILDING (ABWAY TG/GSA & RC DETAILS OF FLOOR AT EL (+)5.95/6FF.F.L.(U/MTHS2)	PE-00-417-611-C021
POWER HOUSE BUILDING (ABWAY TG/GSA & RC DETAILS OF FLOOR AT EL (+)17.25/6FF.F.L.(U/M TP &2)	PE-00-417-611-C030
AIR WASHER LAYOUT FOR 'A' ROW SIDE ALONG WITH FOUNDATION DETAILS - TG BUILDING (UNIT 3, 4 & 5)	PE-V0-417-559-A043
DATA SHEET & GA DRAWING FOR AIR WASHER & UAF ALONG WITH FAN & PUMP FOUNDATION DETAILS FOR VENTILATION SYSTEM	PE-V0-417-559-A009
P.I.D & SCHEME FOR AIR WASHER AND UAF UNIT FOR VENTILATION SYSTEM	PE-V0-417-559-A021
DATA SHEET OF Q AND MS SHEET FOR VENTILATION SYSTEM	PE-V0-417-554-A016
TG EQUIPMENT LAYOUT PLAN AT MEZZANINE FLOOR	PE-D0-417-100-M004
VENTILATION AND BUS DUCT SUPPORTING STRUCTURE UNIT # 4 ROW	PE-D0-417-612-C048
DETAIL OF DUCT SUPPORT & AIR WASHER FOUNDATION OUTSIDE A ROW (STAGE II)	PE-D0-417-644-C002

NOTES:

1. ALL DIMENSIONS ARE IN MM & LEVELS ARE IN METER UNLESS STATED OTHERWISE.
2. CONCRETE & MASONRY WORK/WALL CLADDING ARE IN BHEL SCOPE.
3. MINOR MODIFICATION IN DUCT CAN BE DONE AS SUIT AT SITE CONDITION.
4. DUCT SUPPORT INSIDE BUILDING WILL BE TAKEN FROM EXISTING SLAB/STRUCTURE TO SUIT AT SITE CONDITION.
5. MAXIMUM DUCT LOAD IS 150 KG PER RUNNING MTRS.
6. ALL BO TTOM LEVEL DIMENSIONS ARE GIVEN FROM FINISH FLOOR LEVEL.
7. LOCATION OF VENTILATION DUCT ROUTINGS ARE DONE AS PER BHEL INPUT DRAWINGS.
8. SPACING BETWEEN TWO SUPPORT/HANGER OF THE DUCT SHALL BE 2.0 M.

JOB NO.	417
STATUS	CONTRACT
DISTRIBUTION	

REV.	DATE	ALTD	CHD	APPD

VENTILATION DUCT LAYOUT FOR TG BUILDING -'A' ROW SIDE (Unit 3, 4 & 5)

PE-V0-417-554-A043

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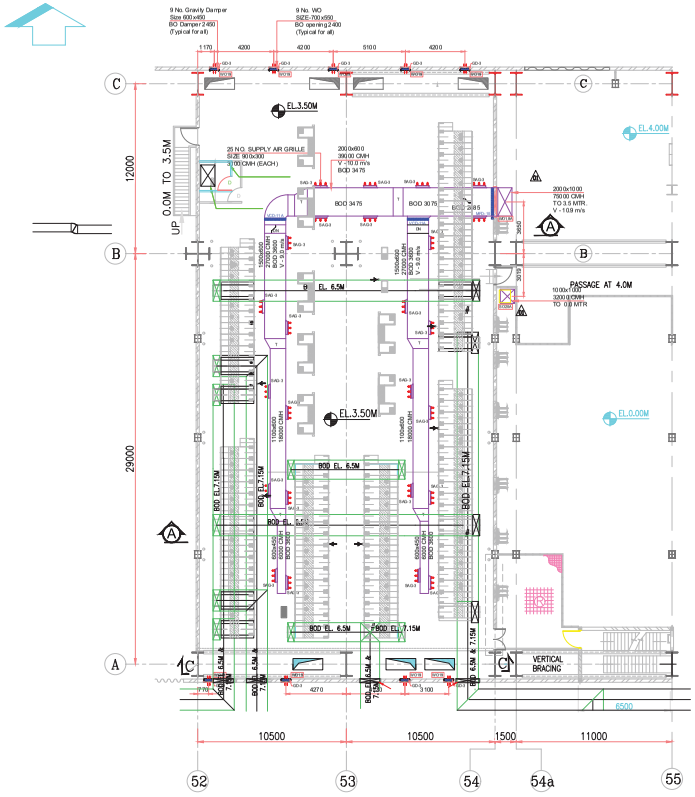
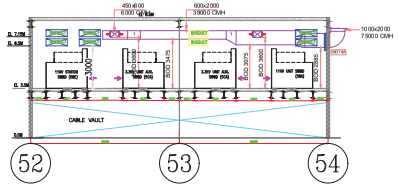
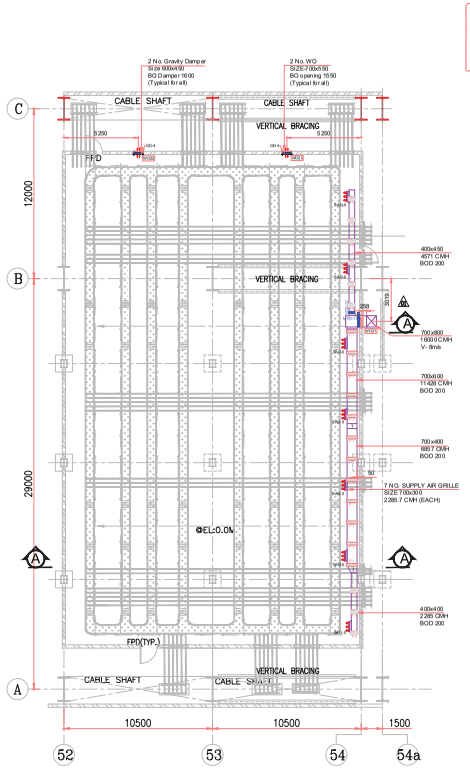
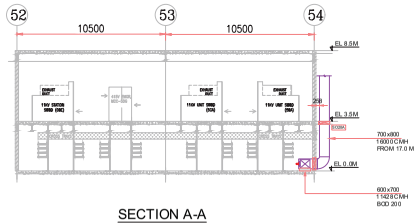


PLAN AT EL. 3.5M - UNIT 5





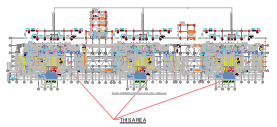
PLAN AT EL. 0.0M - UNIT 5



SECTION A-A

SECTION A-A

REV PLAN



REFERENCE DOCUMENT/DRAWING

REFERENCE DOCUMENT NO.	REFERENCE DOCUMENT/DRAWING TITLE
POWER HOUSE BUILDING (AB WAY-TG) GA & RCC DETAILS OF FLOOR AT EL (+)5500M(T.F.L.) (UNIT#3&2)	PE-DG-417-M1-DG21
POWER HOUSE BUILDING (AB WAY-TG) GA & RCC DETAILS OF FLOOR AT EL (+)7.150M(T.F.L.) (UNIT#1&0)	PE-DG-417-M1-DG30
AIR WASHER LAYOUT FOR "A ROW" SIDE ALONG WITH FOUNDATION DETAILS - TG BUILDING (UNIT 3, 4 & 5)	PE-VO-417-554-A040
DATA SHEET & GA DRAWING FOR AIR WASHER & UAF ALONG WITH PAN & PUMP FOUNDATION DETAILS FOR VENTILATION SYSTEM	PE-VO-417-554-A009
PID & SCHEME FOR AIR WASHER AND UAF UNIT FOR VENTILATION SYSTEM	PE-VO-417-554-A021
DATA SHEET OF GI AND MS SHEET FOR VENTILATION SYSTEM	PE-VO-417-554-A016
TG EQUIPMENT LAYOUT PLAN AT MEZZANINE FLOOR	PE-DG-417-100-M004
VENTILATION AND BUS DUCT SUPPORTING STRUCTURE UNIT # 1 A ROW	PE-DG-417-M3-DG63
DETAIL OF DUCT SUPPORT & AHU WASHER FOUNDATION OUTSIDE A ROW (STAGE I)	PE-DG-417-M6-DG02

NOTES:

1. ALL DIMENSIONS ARE IN MM & LEVELS ARE IN METER UNLESS STATED OTHERWISE.
2. CONCRETE & MASONRY WORK/WALL CLADDING ARE IN BHEL SCOPE.
3. MINOR MODIFICATION IN DUCT CAN BE DONE AS SUIT AT SITE CONDITION.
4. DUCT SUPPORT INSIDE BUILDING WILL BE TAKEN FROM EXISTING SLAB/STRUCTURE TO SUIT AT SITE CONDITION.
5. MAXIMUM DUCT LOAD IS 150 KG PER RUNNING MTRS.
6. ALL BOTTOM LEVEL DIMENSIONS ARE GIVEN FROM FINISH FLOOR LEVEL.
7. LOCATION OF VENTILATION DUCT ROUTINGS ARE DONE AS PER BHEL INPUT DRAWINGS.
8. SPACING BETWEEN TWO SUPPORT/HANGER OF THE DUCT SHALL BE 2.0 M.

JOB NO. 417
STATUS CONTRACT
DISTRIBUTION

REV.	DATE	ALTD	CHD	AP

VENTILATION DUCT LAYOUT FOR TG BUILDING - 'A' ROW SIDE (Unit 3, 4 & 5)

PE-V0-417-554-A043

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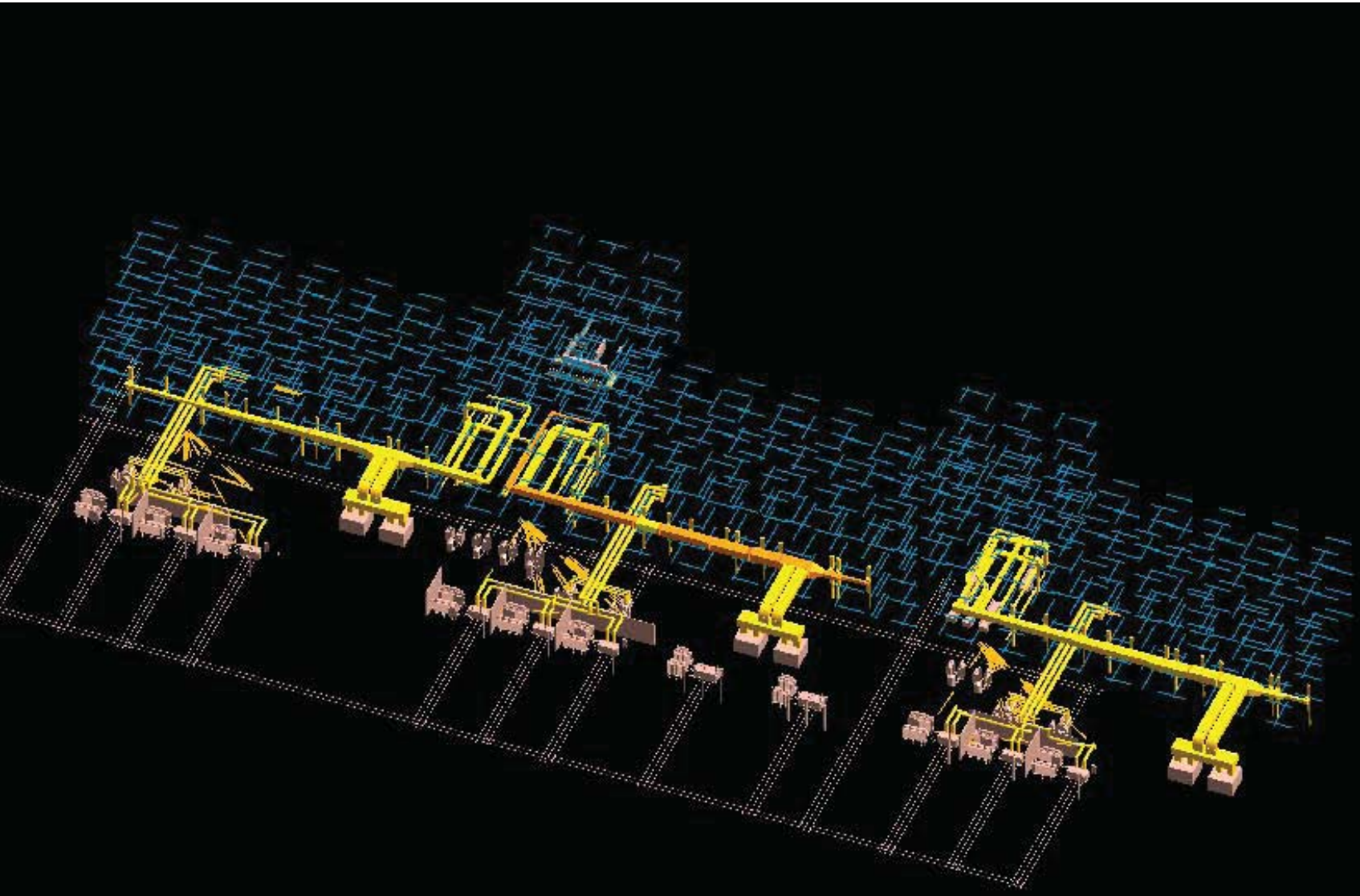
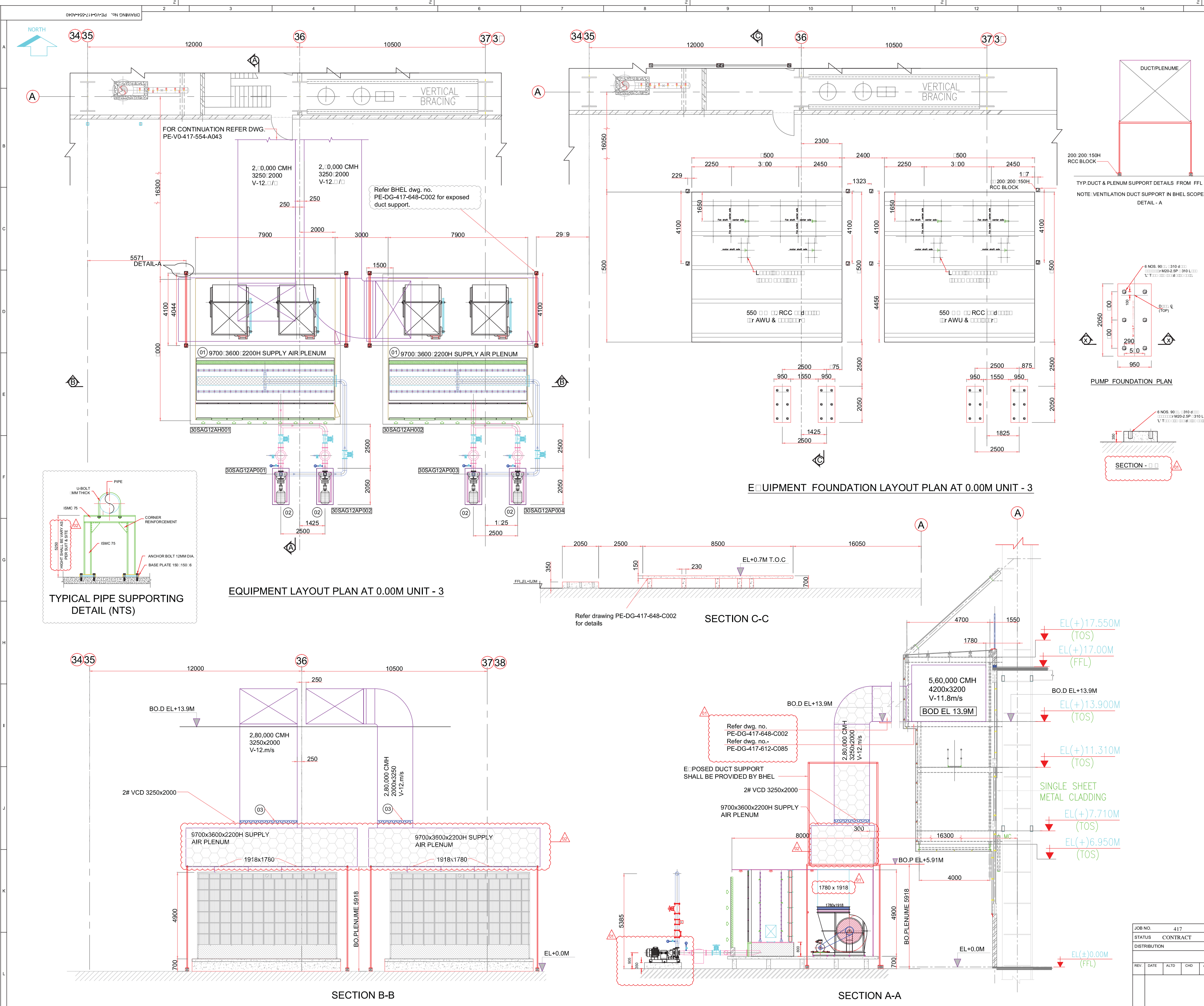
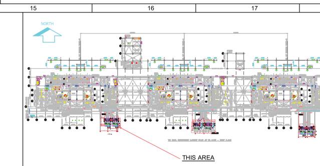


A Row ducting Stage 2





KEY PLAN

REFERENCE DOCUMENT/DRAWING

REFERENCE DOCUMENT/DRAWING TITLE	REFERENCE DOCUMENT NO.
DATA SHEET & GA DRAWING FOR AIR WASHER & UAF ALONG WITH FAN & PUMP FOUNDATION DETAILS FOR VENTILATION SYSTEM	PE-V0-417-554-A009
PID & SCHEME FOR AIR WASHER AND UAF UNIT FOR VENTILATION SYSTEM	PE-V0-417-554-A021
TG EQUIPMENT LAYOUT PLAN AT GROUND FLOOR	PE-DG-417-100-M003
DESIGN MEMORANDUM FOR VENTILATION SYSTEM	PE-DC-417-554-A001
VENTILATION DUCT LAYOUT FOR TG BUILDING - 'A' ROW SIDE (UNIT 3, 4 & 5)	PE-V0-417-554-A043
VENTILATION AND BUS DUCT SUPPORTING STRUCTURE 3 A r	PE-DG-417-612-C0 5
DETAIL OF DUCT SUPPORT & AIR WASHER FOUNDATION OUTSIDE A ROW (STAGE I I)	PE-DG-417-64 -C002

NOTES:

1. ALL EQUIPMENTS SHALL BE DESIGNED FOR CONTINUOUS DUTY.
2. ALL DIMENSIONS ARE IN MM, AND ELEVATIONS ARE IN MTRS. UNLESS OTHERWISE STATED.
3. AIR WASHER UNIT PIPING UP TO 150 SHALL BE GI MEDIUM CLASS AS PER IS 1239.
4. WATER DROPLETS / MIST ELIMINATORS SHALL BE MADE FROM RIGID PVC ESTRUDED PROFILES 6 BREAK TYPE. SATURATION EFFICIENCY OF AIR WASHER UNIT SHALL BE MINIMUM 90 .
5. ALL CIVIL WORK / SEALING WORK SHALL BE DONE AS PER AS TECHNICAL SPECIFICATION.
6. ITEM SHOWN IN THE BOX FOR ONE NO AWU.
7. FAN / AIR WASHER ENCLOSURE SHALL BE SHEET STEEL FABRICATED CONSTRUCTION WITH ADEQUATE STIFFENERS, BRACING ETC. (DULY SPRAY GALVANIZED/PAINTED WITH EPOXY RESIN BASED PAINT FROM INSIDE AND OUTSIDE).
8. TOP SURFACE OF THE AWU SHALL BE THERMALLY INSULATED WITH 13MM THICK ALUMINUM FACED NITRILE RUBBER (QTY. 64 SQ.M ONLY FOR ONE UNIT).
9. APPROXIMATE DUCT WEIGHT SHALL BE 250 KG/M.
10. REFER P & ID FOR VALVES & INSTRUMENTS DETAILS.
11. EXPOSED DUCT SUPPORT SHALL BE PROVIDED BY BHEL.

SUPPLY AIR FAN DETAIL	
AIR FLOW CAPACITY	2, 0,000 CMH
FAN STATIC PRESSURE	5 WC.
WATER PUMP DETAIL	
WATER FLOW CAPACITY	310 CMH
HEAD	30 Mtr.

LOAD DETAILS : LOCATION OF AWU - A ROW " SIDE

OPERATING LOAD OF AIR WASHER UNIT WITH WATER FILLED : 1 750 KG. (EACH)

Static Load of Fan Motor : 2200 Kg
Dynamic Load of Fan Motor : 3000 Kg
Static Load of Pump Motor : 60 Kg
Dynamic Load of Pump Motor : 1060 Kg

EQUIPMENTS SCHEDULE

TAG.NO.	DESCRIPTION	SIZE (mm)	QTY. (NOS.)
01	AIR WASHER UNIT	000 7900 4900	02
02	COOLING WATER CENTRIFUGAL PUMP	1750 650 955	04
03	VOLUME CONTROL DAMPER	3250 2000	02

LEGEND

	DESCRIPTION
V.DUCT -	VENTILATION DUCT
BO.PLENUM	BOTTOM OF PLENUM
BO.DUCT -	BOTTOM OF DUCT
C/L -	CENTER LINE
FFL. -	FINISH FLOOR LEVEL
	VOLUME CONTROL DAMPER
	VENTILATION DUCT

KKS TAGGING FOR AWU & PUMPS

TAG.NO.	DESCRIPTION	FOR UNIT	QTY. (NOS.)
30SAG12AP001 TO 004	COOLING WATER PUMP	UNIT 3	04
30SAG12AH001 TO 002	AIR WASHER UNIT	UNIT 3	02

UNIT 3

JOB NO.	417
STATUS	CONTRACT
DISTRIBUTION	

REV.	DATE	ALTD	CHD	APPD

TITLE: AIR WASHER LAYOUT OUTSIDE "A ROW" SIDE ALONG WITH FOUNDATION DETAILS - TG BUILDING (UNIT 3, 4 & 5)

DRN	DESIGN	CHD	APPD	DATE	SCALE
D.kaushik	L.PAL	A. GAUR	S .Verma	17.03.2021	1:100

DRAWING NO. PE-V0-417-554-A040

SHEET 1 OF 3 REV. 02

SIZE-A1

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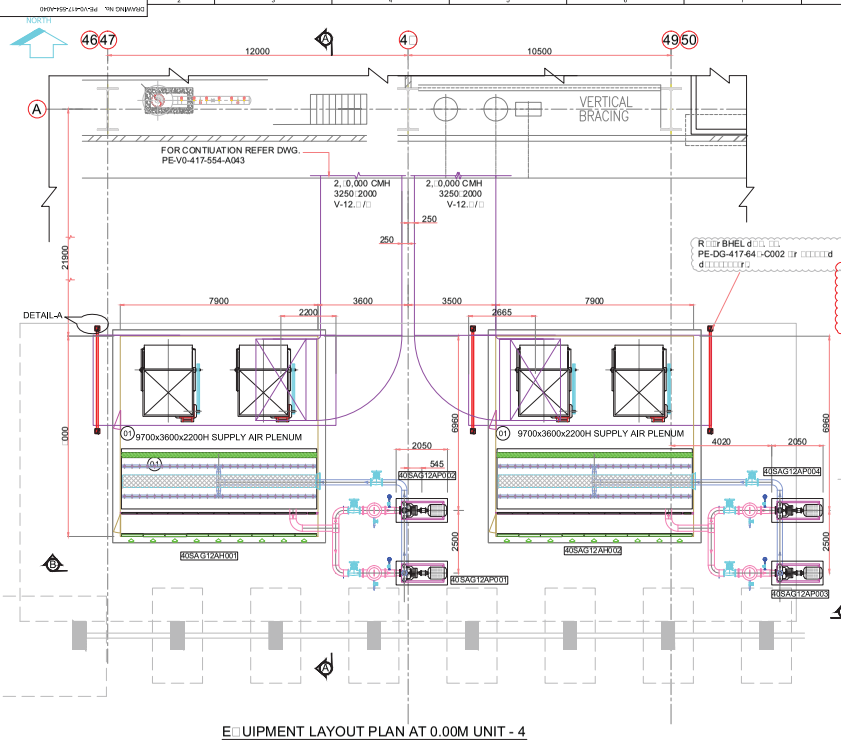
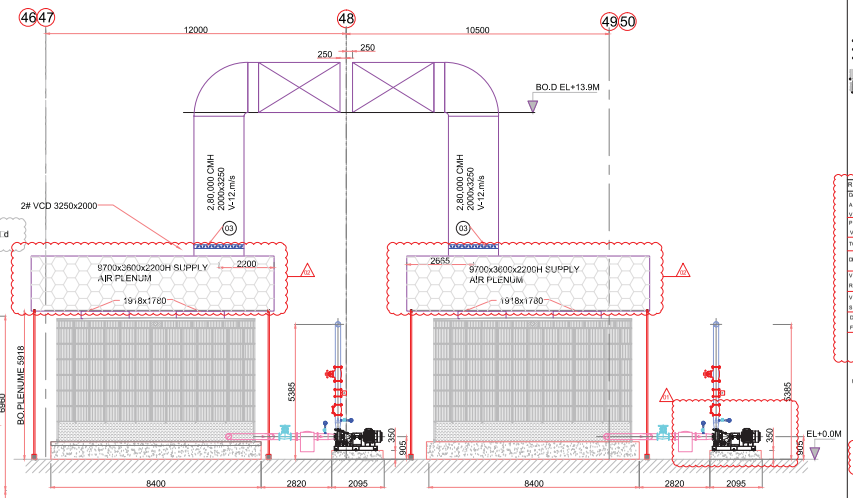
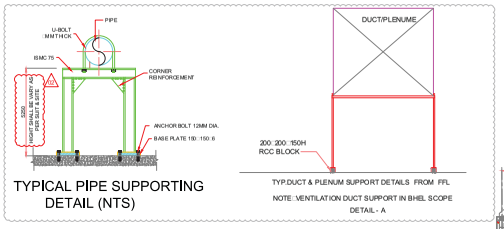


E□UIPMENT LAYOUT PLAN AT 0.00M UNIT - 4



SECTION B-B

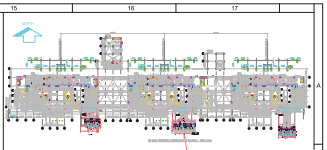


TYPICAL PIPE SUPPORTING DETAIL (NTS)

TYP.DUCT & PLENUM SUPPORT DETAILS FROM FFL

NOTE□VENTILATION DUCT SUPPORT IN BHEL SCOPE

DETAIL - A



REFERENCE DOCUMENT/DRAWING

REFERENCE DOCUMENT/DRAWING TITLE	REFERENCE DOCUMENT NO.
DATA SHEET & GA DRAWING FOR AIR WASHER & UAP ALONG WITH FAN & PUMP FOUNDATION DETAILS FOR VENTILATION SYSTEM	PE-V0-417-554-A009
P&D & SCHEME FOR AIR WASHER AND UAP UNIT FOR VENTILATION SYSTEM	PE-V0-417-554-A001
TG E□UIPMENT LAYOUT PLAN AT GROUND FLOOR	PE-DG-417-100-M003
DESIGN MEMORANDUM FOR VENTILATION SYSTEM	PE-DG-417-554-A001
VENTILATION DUCT LAYOUT FOR TG BUILDING□W ROW SIDE (U□□3, 4 & 5)	PE-V0-417-554-A043
VENTILATION AND BUS DUCT SUPPORTING STRUCTURE □□□ & A□□	PE-DG-417-612-CO□6
DETAIL OF DUCT SUPPRT & AIR WASHER FOUNDATION OUTSIDE AROW (STAGE I)	PE-DG-417-64□-C002

NOTES :

1. ALL E□UIPMENTS SHALL BE DESIGNED FOR CONTINUOUS DUTY.
2. ALL DIMENSIONS ARE IN MM. AND ELEVATIONS ARE IN MTRS. UNLESS OTHERWISE STATED.
3. AIR WASHER UNIT PIPING UP TO 150□□□ SHALL BE GI MEDIUM CLASS AS PER IS 1239.
4. WATER DROPLETS□MIST ELIMINATORS SHALL BE MADE FROM RIGID PVC□EXTRUDED PROFILES 6□BREAK TYPE. SATURATION EFFICIENCY OF AIR WASHER UNIT SHALL BE MINIMUM 90□□.
5. ALL CIVIL WORK□SEALING WORK□INSULATION WORK□ETC. SHALL BE DONE BY BHEL.
6. ITEMS SHOWN IN THE BOQ□FOR ONE NO.AWU.
7. FAN□AIR WASHER ENCLOSURE SHALL BE□SHEET STEEL FABRICATED CONSTRUCTION WITH ADE□QUATE STIFFENERS, BRACINGS ETC. (DULY SPRAY GALVANI□ED□PAINTED WITH EPO□□YRESIN BASED PAINT FROM INSIDE AND OUTSIDE).
8. TOP SURFACE OF THE AWU SHALL BE THERMALLY INSULATED WITH 5MM THICK ALUMINIUM FACED NITRILE RUBBER□(□TY. 64 S□□M ONLY FOR ONE UNIT).
9. APPRO□IMATE DUCT WEIGHT SHALL BE 250 KG/M
10. REFER P &□D FOR VALVES & INSTRUMENTS DETAILS
11. E□POSED DUCT SUPPORT SHALL BE PROVIDED BY BHEL.

SUPPLY AIR FAN DETAIL	
AIR FLOW CAPACITY	2,□0,000 CMH
FAN STATIC PRESSURE	□□□□ WC.
WATER PUMP DETAIL	
WATER FLOW CAPACITY	310 CMH
HEAD	20 M□

LOCATION OF AWU□A ROW□SIDE

LOAD DETAILS□□

OPRATING LOAD OF AIR WASHER UNIT WITH WATER FILLED □□ 1,750 KG. (EACH)

S□□EL□□d□P□□□M□□□□□2200 K□□
D□□□□EL□□d□P□□□M□□□□□3000 K□□
S□□EL□□R□P□□□M□□□□□60 K□□
D□□□□EL□□d□P□□□M□□□□□1000 K□□

E□UIPMENTS SCHEDULE

TAG.N□□	DESCRIPTION	SI□E (□□□)	□TY. (N□□□)
01	AIR WASHER UNIT	□□□0□7900□4900	02
02	COOLING WATER CENTRIFUGAL PUMP	1750□650□955	04
03	VOLUME CONTROL DAMPER	3250□2000	02

NOTE□Tagging Philosophy for other units
1. For 905 of unit 1 prefix 01 shall be used,
1. For 905 of unit 2 prefix 21 shall be used instead of 01,
2. For 905 of unit 3 prefix 31 shall be used instead of 01,
3. For 905 of unit 4 prefix 41 shall be used instead of 01,
4. For 905 of unit 5 prefix 51 shall be used instead of 01,

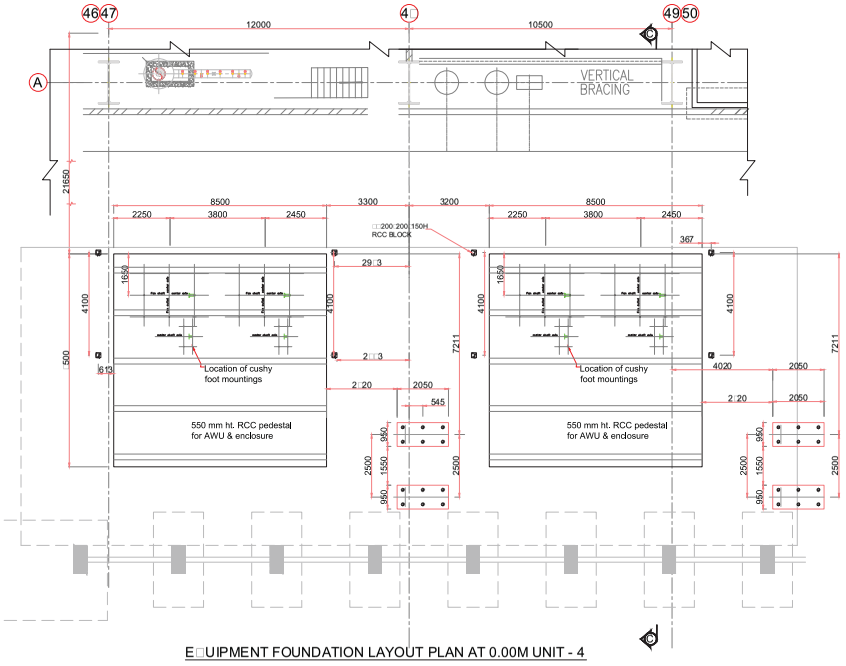
SYSTEM NO.□□□□□□ EQUIPMENT UNIT NO.□□□□□□ INSTRUMENT SERVICE EQUIPMENT SERIAL NO.□□□□□□ JOB NO.

LEGEND	DESCRIPTION
VDUCT□□	VENTILATION DUCT
BO.PLENUM□□	BOTTOM OF PLENUM
BO.DUCT□□	BOTTOM OF DUCT
CL□□	CENTER LINE
FFL□□	FINISH FLOOR LEVEL
	VOLUME CONTROL DAMPER
	VENTILATION DUCT

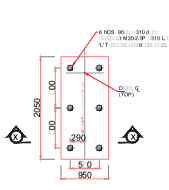
KKS TAGGING FOR AWU & PUMPS

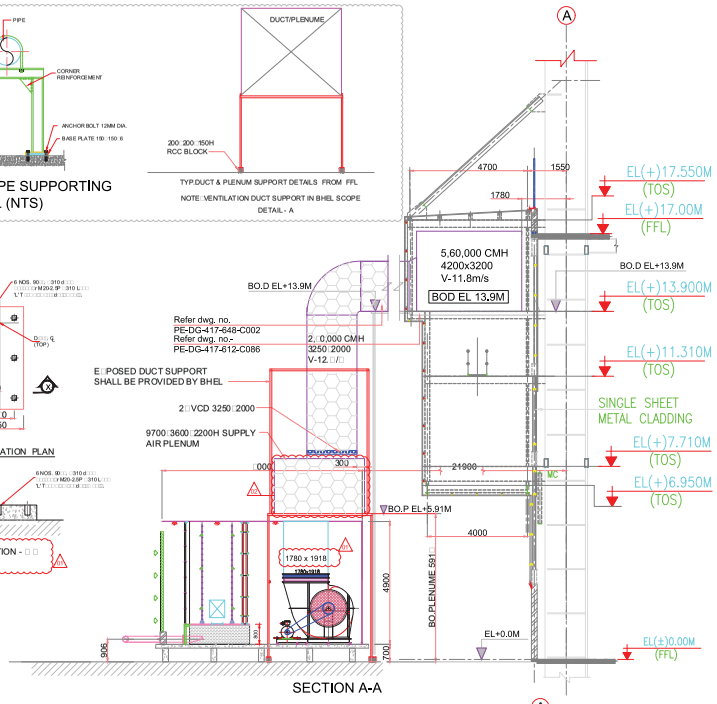
TAG.N□□	DESCRIPTION	FOR UNIT	□TY. (N□□□)
40SA GF12AP001 TO 004	COOLING WATER PUMP	UNIT□4	04
40SA GF12AH001 TO 002	AIR WASHER UNIT	UNIT□4	02

UNIT 4

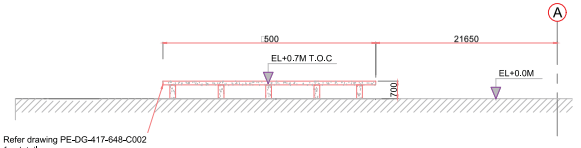


E□UIPMENT FOUNDATION LAYOUT PLAN AT 0.00M UNIT - 4





SECTION A-A



SECTION C-C

JOB NO.	417
STATUS	CONTRACT
DISTRIBUTION	

REV.	DATE	ALTD	CHD	APP

TITLE: AIR WASHER LAYOUT OUTSIDE "A ROW" SIDE ALONG WITH FOUNDATION DETAILS - TG BUILDING (U□□3,4 &5)

DRN	DESIGN	CHD	APP'D	DATE	SCALE	DRAWING NO.
S.kaushik	L.PAL	A.GAUR	S. verma	17.03.2015	1:100	PE-V0-417-554-A040

SHEET 2 OF 3 REV. 0

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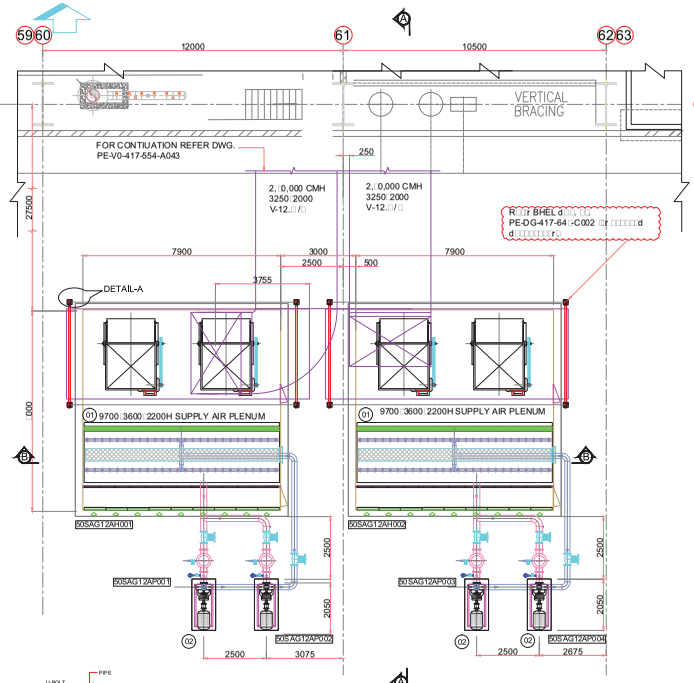
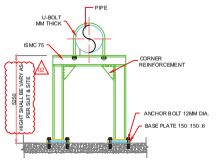
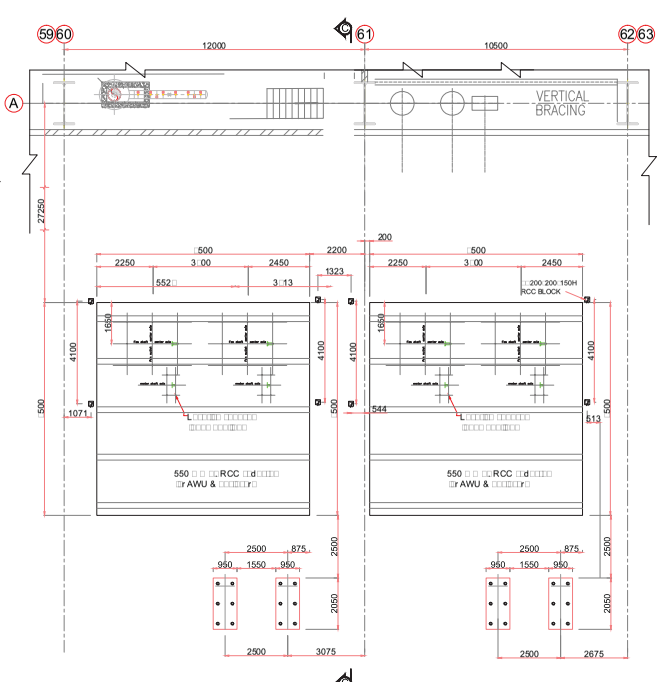


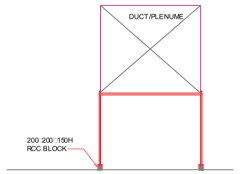
E□UIPMENT LAYOUT PLAN AT 0.00M UNIT - 5



TYPICAL PIPE SUPPORTING DETAIL (NTS)



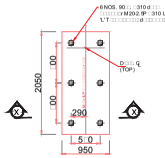
E□UIPMENT FOUNDATION LAYOUT PLAN AT 0.00M UNIT - 5



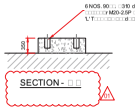
TYP.DUCT & PLENUM SUPPORT DETAILS FROM FFL

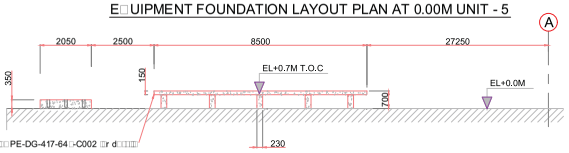
NOTE□VENTILATION DUCT SUPPORT IN BHEL SCOPE

DETAIL - A

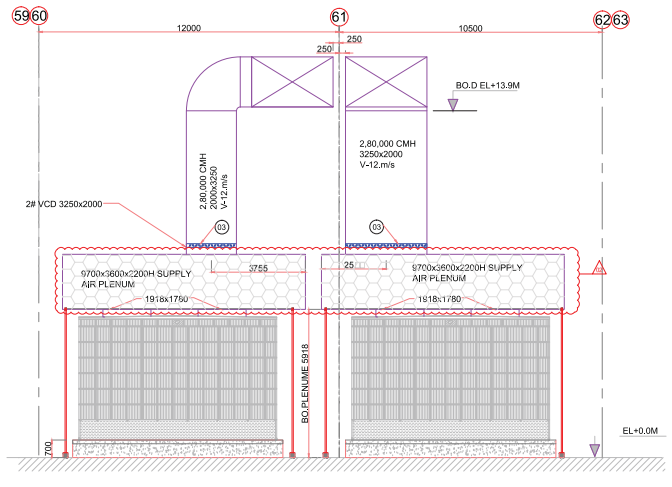


PUMP FOUNDATION PLAN

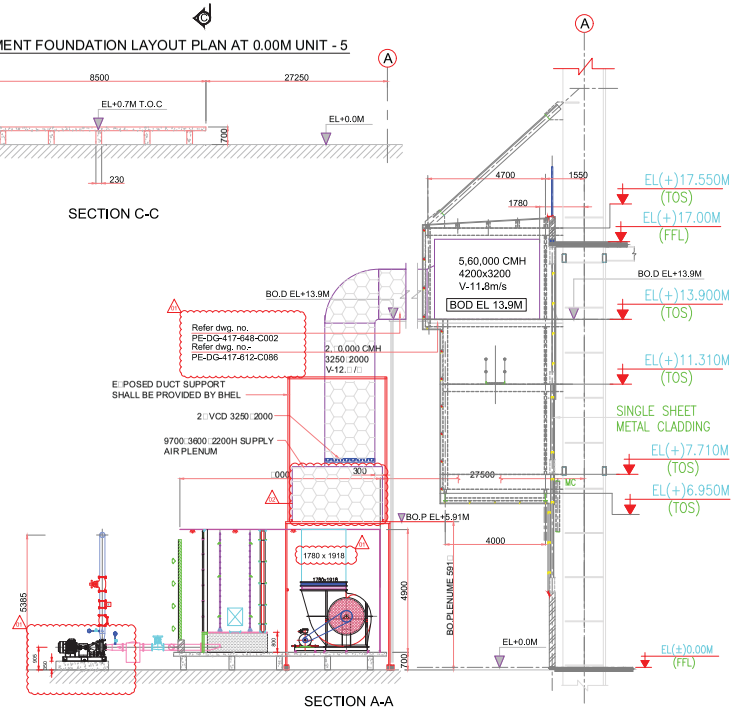




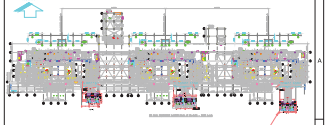
SECTION C-C



SECTION B-B



SECTION A-A



KEY PLAN

REFERENCE DOCUMENT/DRAWING

REFERENCE DOCUMENT/DRAWING TITLE	REFERENCE DOCUMENT NO.
DATA SHEET & GA DRAWING FOR AIR WASHER & UAP ALONG WITH FAN & PUMP FOUNDATION DETAILS FOR VENTILATION SYSTEM	PE-V0-417-554-A009
P&ID & SCHEME FOR AIR WASHER AND UAP UNIT FOR VENTILATION SYSTEM	PE-V0-417-554-A001
TG E□UIPMENT LAYOUT PLAN AT GROUND FLOOR	PE-DG-417-100-M003
DESIGN MEMORANDUM FOR VENTILATION SYSTEM	PE-DG-417-554-A001
VENTILATION DUCT LAYOUT FOR TG BUILDING□W ROW SIDE (U□□3, 4 & 5)	PE-V0-417-554-A043
VENTILATION AND BUS DUCT SUPPORTING STRUCTURE □□ SAX /	PE-DG-417-612-CO□6
DETAIL OF DUCT SUPPORT & AIR WASHER FOUNDATION OUTSIDE AROW (STAGE I)	PE-DG-417-64□-C002

NOTES

1. ALL E□UIPMENT SHALL BE DESIGNED FOR CONTINUOUS DUTY.
2. ALL DIMENSIONS ARE IN M.M. AND ELEVATIONS ARE IN MTRS. UNLESS OTHERWISE STATED.
3. AIR WASHER UNIT RPING UP TO 150□□□ SHALL BE GI MEDIUM CLASS AS PER IS-1239.
4. WATER DROPLET S□MIST ELIMINATORS SHALL BE MADE FROM FIBRE GLASS MOULDED PROFILES & BREAK TYPE SATURATION EFFICIENCY OF AIR WASHER UNIT SHALL BE MINIMUM 90□□.
5. ALL CIVIL WORK / SEALING WORK SHALL BE DONE AS PER AS TECHNICAL SPECIFICATION.
6. ITEM SHOWN IN THE BO□ FOR ONE NO. AWU.
7. UAP AIR WASHER ENCLOSURE SHALL BE SHEET S□NDWICH PANEL FABRICATED CHARACTERISTICS WITH ACC. UNIT STIFFENERS, BRACING ETC.
(DULY SPRAY GALVANI□ED PAINTED WITH EPO□Y RESIN BASED PAINT FROM INSIDE AND OUTSIDE).
~~8. Fan Suction Duct Connection Shall be Flexible Connection with Rubber Sheet Duly Vulcanized~~
RUBBER (T.Y. 6 4 S□□ MONLY FOR ONE UNIT).
9. APRO□IMATE DUCT WEIGHT SHALL BE 250 KGM.
10. REFER P & ID FOR VALVES & INSTRUMENTS DETAILS.
11. E□POSED DUCT SUPPORT SHALL BE PROVIDED BY BHEL.

SUPPLY AIR FAN DETAIL

AIR FLOW CAPACITY	□2,,0,000 CMH
FAN STATIC PRESSURE	□5□□WG

WATER PUMP DETAIL

WATER FLOW CAPACITY	□310 CMH
HEAD	□30 M□

LOCATION OF AWU - A ROW "B□DE

LOAD DETAILS□□

OPERATING LOAD OF AIR WASHER UNIT WITH WATER FILLED □□ 1,750 KG. (EACH)

S□□□L□d□P□□□M□□r □□2200 K□
D□□□L□d□P□□□M□□r □□3000 K□
S□□□L□d□P□□□□M□□r □□60 K□
D□□□L□d□P□□□□M□□r □□1060 K□

E□UIPMENTS SCHEDULE

TAG.N□□	DESCRIPTION	SI□E (□□□)	□TY. (N□□)
01	AIR WASHER UNIT	□000□7900□4900	02
02	COOLING WATER CENTRIFUGAL PUMP	1750□650□955	04
03	VOLUME CONTROL DAMPER	3250□2000	02

NOTE□Tagging Philosophy for other units
1. For 905 of unit 1 prefix 10 shall be used.
1. For 905 of unit 2 prefix 20 shall be used instead of 10.
2. For 905 of unit 3 prefix 30 shall be used instead of 10.
3. For 905 of unit 4 prefix 40 shall be used instead of 10.
4. For 905 of unit 5 prefix 50 shall be used instead of 10.

SYSTEM NO.□□□□□ EQUIPMENT TYPE□□□□ UNIT NO.□□□□ INSTRUMENT TYPE□□□□ SERIAL NO.□□□□

JOB NO.

LEGEND

	DESCRIPTION
V.DUCT□	VENTILATION DUCT
BO.PLENUM□	BOTTOM OF PLENUM
BO.DUCT□	BOTTOM OF DUCT
CL□	CENTER LINE
FFL□	FINISH FLOOR LEVEL
	VOLUME CONTROL DAMPER
	VENTILATION DUCT

KKS TAGGING FOR AWU & PUMPS

TAG.N□□	DESCRIPTION	FOR UNIT	□TY. (N□□)
50SAG10AP001 TO 004	COOLING WATER PUMP	UNIT□5	04
50SAG10AH001 TO 002	AIR WASHER UNIT	UNIT□5	02

UNIT 5

JOB NO.	417
STATUS	CONTRACT
DISTRIBUTION	

REV.	DATE	ALTD	CHD	APPD

TITLE: AIR WASHER LAYOUT OUTSIDE "A ROW" SIDE ALONG WITH FOUNDATION DETAILS - TG BUILDING (U□□3, 4 & 5)

DSN	DESIGN	CHD	APPD	DATE	SCALE	DRAWING NO.
S.kashi	L.PAL	A.GAUR	S. verma	17.03.2021	1:100	PE-V0-417-554-A040

SHEET 3 OF 3 REV. 02

ELECTRONIC FILE NAME :

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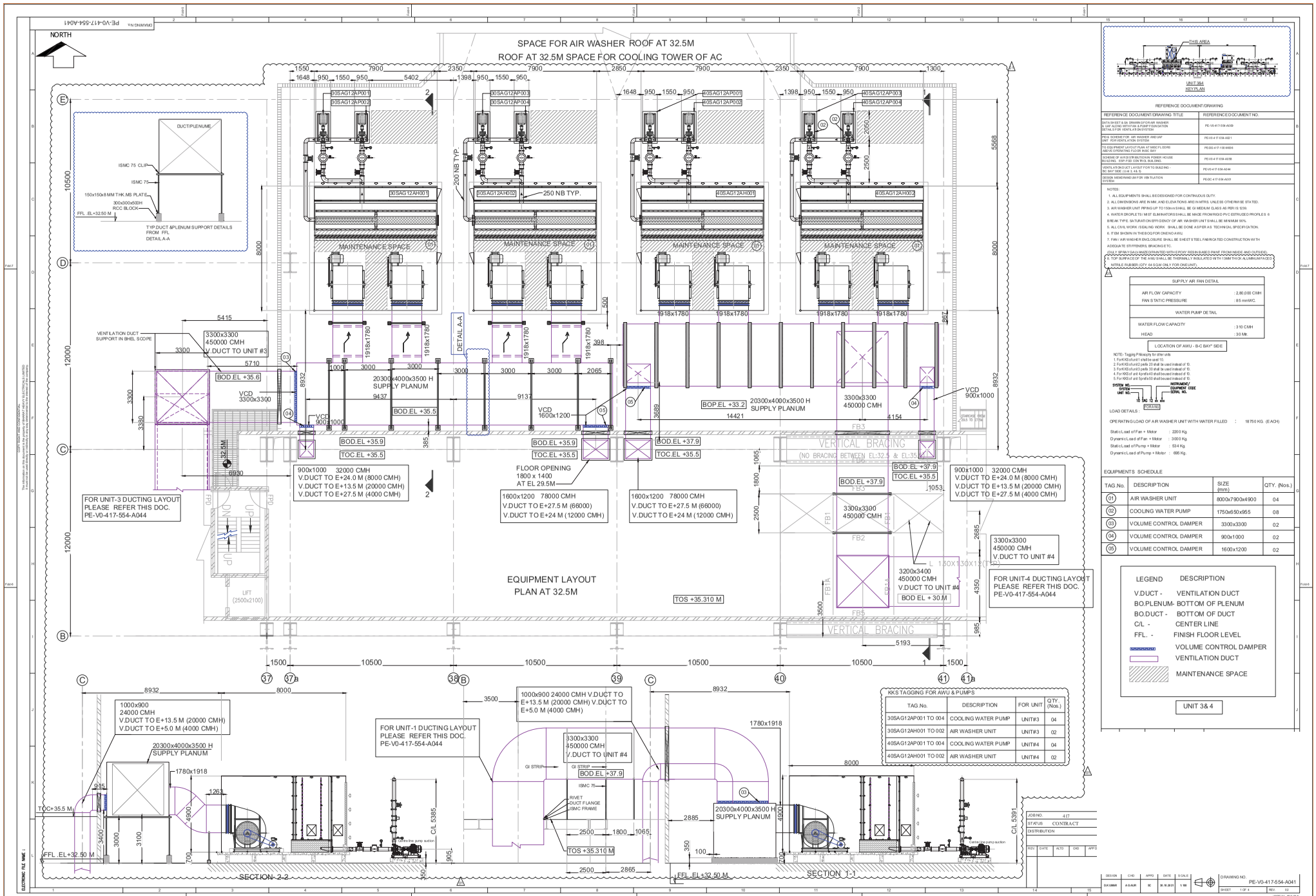

REFERENCE DOCUMENT/DRAWING

REFERENCE DOCUMENT/DRAWING TITLE	REFERENCED DOCUMENT NO.
DATA SHEET & GA DRAWING OF AIR WASHER & UAF ALONG WITH P/ID & FUNCTION DESCRIPTION DETAILS FOR VENTILATION SYSTEM	PE-V0-417-554-A009
P/ID & SCHEME FOR AIR WASHER AND UAF UNIT FOR VENTILATION SYSTEM	PE-V0-4 17-554-A021
TG EQUIPMENT LAYOUT PLAN AT MISC FLOORS ABOVE OPERATING FLOOR IN BG BAY	PE-0G-4 17-1 0-A0004
SCHEME OF AVS DISTRIBUTION IN POWER HOUSE BUILDING. EOP, FSD CON TROL BUILDING.	PE-V0-4 17-554-A058
VENTILATION DUCT LAYOUT FOR TG BUILDING - BC BAY SIDE (Unit 3 & 4)	PE-V0-4 17-554-A044
DESIGN MEMORANDUM FOR VENTILATION SYSTEM	PE-DC-4 17-554-A001

NOTES:
1. ALL EQUIPMENTS SHALL BE DESIGNED FOR CONTINUOUS DUTY.
2. ALL DIMENSIONS ARE IN MM. AND ELEVATIONS ARE IN MTRS. UNLESS OTHERWISE STATED.
3. AIR WASHER UNIT RPM UP TO 150m/s SHALL BE GI MEDIUM CLASS AS PER I.S 5239.
4. WATER DROPLETS / MIST ELIMINATORS SHALL BE MADE FROM RIGID PVC ESTRUDED PROFILES 6 BREAK TYPE. SATURATION EFFICIENCY OF AIR WASHER UNIT SHALL BE MINIMUM 90%.
5. ALL CIVIL WORK / DEALING WORK SHALL BE DONE AS PER AS TECHNICAL SPECIFICATION.
6. IT EM SHOWN IN THE BOO FOR ONE NO A WU.
7. FAN / AIR WASHER ENCLOSURE SHALL BE SHEET STEEL FABRICATED CONSTRUCTION WITH ADEQUATE STIFFENERS, BRACING ETC.
(DULY SPRAY (AU ANAZED PAINTED WITH EPOXY RESIN BASED PAINT FROM INSIDE AND OUTSIDE).
8. TOP SURFACE OF THE AWU SHALL BE THERMALLY INSULATED WITH 15MM THICK ALUMINIUM FACED NITRILE RUBBER (QTY. AS SIGN ONLY FOR ONE UNIT).

SUPPLY AIR FAN DETAIL	
AIR FLOW CAPACITY	: 2,80,000 CMH
FAN STATIC PRESSURE	: 85 mmWC.
WATER PUMP DETAIL	
WATER FLOW CAPACITY	: 310 CMH
HEAD	: 30 Mtr.

LOCATION OF AWU - B-C BAY* SIDE

NOTE- Tagging Philosophy for other units
1. For KKS of unit 1 shall be used 10.
2. For KKS of unit 2 prefix 20 shall be used instead of 10.
3. For KKS of unit 3 prefix 30 shall be used instead of 10.
4. For KKS of unit 4 prefix 40 shall be used instead of 10.
5. For KKS of unit 5 prefix 50 shall be used instead of 10.

SYSTEM NO. – INSTRUMENT/EQUIPMENT CODE
UNIT NO. – SERIAL NO.
10 SAG 12 AH 001

LOAD DETAILS :

OPERATING LOAD OF AIR WASHER UNIT WITH WATER FILLED : 18750 KG. (EACH)

Static Load of Fan + Motor : 2200 Kg.
Dynamic Load of Fan + Motor : 3000 Kg.
Static Load of Pump + Motor : 534 Kg.
Dynamic Load of Pump + Motor : 695 Kg.

EQUIPMENTS SCHEDULE

TAG.No.	DESCRIPTION	SIZE (mm)	QTY. (Nos.)
01	AIR WASHER UNIT	8000x7900x4900	04
02	COOLING WATER PUMP	1750x650x955	08
03	VOLUME CONTROL DAMPER	3300x3300	02
04	VOLUME CONTROL DAMPER	900x1000	02
05	VOLUME CONTROL DAMPER	1600x1200	02

LEGEND	DESCRIPTION
V.DUCT -	VENTILATION DUCT
BO.PLENUM-	BOTTOM OF PLENUM
BO.DUCT -	BOTTOM OF DUCT
C/L -	CENTER LINE
FFL. -	FINISH FLOOR LEVEL
	VOLUME CONTROL DAMPER
	VENTILATION DUCT
	MAINTENANCE SPACE

UNIT 3& 4

KKS TAGGING FOR AWU & PUMPS

TAG.No.	DESCRIPTION	FOR UNIT	QTY. (Nos.)
30SAG12AP001 TO 004	COOLING WATER PUMP	UNIT#3	04
30SAG12AH001 TO 002	AIR WASHER UNIT	UNIT#3	02
40SAG12AP001 TO 004	COOLING WATER PUMP	UNIT#4	04
40SAG12AH001 TO 002	AIR WASHER UNIT	UNIT#4	02

JOB NO.	417
STATUS	CONTRACT
DISTRIBUTION	

REV.	DATE	ALTD	CHD	APPD

DESIGN	CHD	APPD	DATE	SCALE
GAUNNA	ASAUR	SD	30.10.2013	1:100

DRAWING NO. PE-V0-417-554-A041
SHEET 1 OF 4 REV. 02
(SIZE:A1, 594x841)

DRAWING NO. PE-V0-417-554-A041

ELECTRONIC FILE NAME :

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DRAWING No. PE-V0-417-554-A041

NORTH

SPACE FOR AIR WASHER ROOF AT 32.5M

ROOF AT 32.5M SPACE FOR COOLING TOWER OF AC

30SAG12AP001
30SAG12AP002
30SAG12AP003
30SAG12AP004
40SAG12AP001
40SAG12AP002
40SAG12AP003
40SAG12AP004

550 mm ht. RCC pedestal for AWU & enclosure

Location of cushy foot mountings typ.

08 Nos. 200x200x200H RCC BLOCK

16 Nos. 300x300x500H RCC BLOCK

11 Nos. 4200x200x350H PCC BLOCK

WO1 WO2 WO3 WO4 WO5 WO6

FO7 FO8

VERTICAL BRACING (NO BRACING BETWEEN EL:32.5 & EL:29.5)

FB1 FB1A FB2 FB5

L 150X130X12(TYP)

LIFT (2500x2100)

UP DN

EL:29.5M

EQUIPMENT FOUNDATION LAYOUT PLAN AT 32.5M

EQUIPMENT FOUNDATION LAYOUT @EL+32.5 M

FOUNDATION PLAN -2,80,000 CMH AIR WASHER UNIT

FOUNDATION ELEVATION -2,80,000 CMH AIR WASHER UNIT

90sq. x 310 deep pocket for M20 x 310 long foundation bolts.

PUMP FOUNDATION PLAN

SECTION -XX

THIS AREA

UNIT 3&4 KEY PLAN

REFERENCE DOCUMENT/DRAWING

REFERENCE DOCUMENT/DRAWING TITLE	REFERENCE DOCUMENT NO.
DATA SHEET & GA DRAWING FOR AIR WASHER & UAF ALONG WITH FAN & PUMP FOUNDATION DETAILS FOR VENTILATION SYSTEM	PE-V0-417-554-A009
P&ID SCHEME FOR AIR WASHER AND UAF UNIT FOR VENTILATION SYSTEM	PE-V0-4 17-554-A021
TG EQUIPMENT LAYOUT PLAN AT MISC FLOORS ABOVE OPERATING FLOOR IN BC BAY	PE-00-4 17-1 00-A0006
SCHEME OF AIR DISTRIBUTION IN POWER HOUSE BUILDING, ESP-FGD CONTROL BUILDING	PE-V0-4 17-554-A058
VENTILATION DUCT LAYOUT FOR TG BUILDING - TG BAY SIDE (Unit 3, 4 & 5)	PE-V0-4 17-554-A044

NOTES:

1. ALL EQUIPMENTS SHALL BE DESIGNED FOR CONTINUOUS DUTY.
2. ALL DIMENSIONS ARE IN MM. AND ELEVATIONS ARE IN MTRS. UNLESS OTHERWISE STATED.
3. AIR WASHER UNIT PIPING UP TO 150m h SHALL BE GI MEDIUM CLASS AS PER IS 3239.
4. WATER DROPLETS/ MIST ELIMINATORS SHALL BE MADE FROM RIGID PVC EBTRUDED PROFILES 6 BREAK TYPE. SATURATION EFFICIENCY OF AIR WASHER UNIT SHALL BE MINIMUM 90%.
5. ALL CIVIL WORK / DEALING WORK SHALL BE DONE AS PER AS TECHNICAL SPECIFICATION.
6. IT EM SHOWN IN THE DOG FOR ONE NO AWU.
7. FAN / AIR WASHER ENCLOSURE SHALL BE SHEET STEEL FABRICATED CONSTRUCTION WITH ADEQUATE STIFFENERS, BRACING ETC.
   - (A) ALL SPUN YOGALVANISED PAINTED WITH EPOXY RESIN BASED PAINT FROM INSIDE AND OUTSIDE.
   - (B) TOP SURFACE OF THE AHU SHALL BE THERMALLY INSULATED WITH 15MM THICK ALUMINUM FACED NITRILE RUBBER (GT) IN SQUIRE ONLY FOR ONE UNIT.

SUPPLY AIR FAN DETAIL

AIR FLOW CAPACITY	: 2,80,000 CMH
FAN STATIC PRESSURE	: 85 mmWC.

WATER PUMP DETAIL

WATER FLOW CAPACITY	: 310 CMH
HEAD	: 30 Mtr.

LOCATION OF AWU - B-C BAY" SIDE

LOAD DETAILS :

OPERATING LOAD OF AIR WASHER UNIT WITH WATER FILLED : 18750 KG. (EACH)

Static Load of Fan + Motor : 2200 Kg.
Dynamic Load of Fan + Motor : 3000 Kg.
Static Load of Pump + Motor : 534 Kg.
Dynamic Load of Pump + Motor : 686 Kg.

WALL& FLOOR OPENING SCHEDULE

S.NO.	DESCRIPTION	SIZE (mm)	QTY. (Nos.)	Bottom Elevation from (FFL)
WO1	FOR SA DUCT	3500x3500	01	EL. +35.5 Mtr
WO2	FOR SA DUCT	1100x1200	01	EL. +35.8 Mtr
WO3	FOR SA DUCT	1800x1400	01	EL. +35.8 Mtr
WO4	FOR SA DUCT	1800x1400	01	EL. +37.8Mtr
WO5	FOR SA DUCT	3500x3500	01	EL. +37.8Mtr
WO6	FOR SA DUCT	1100x1200	01	EL. +37.8Mtr
FO7	FOR SA DUCT	1100x1200	02	----
FO8	FOR SA DUCT	1800x1400	02	----

UNIT 3& 4

JOB NO. 417
STATUS CONTRACT
DISTRIBUTION

REV	DATE	ALTD	CHD	APP'D

TITLE: AIR WASHER LAYOUT FOR"B-C BAY" SIDE ALONGWITH FOUNDATION DETAILS - TG BUILDING (Unit 3, 4 & 5)

DESIGN	CHD	APP'D	DATE	SCALE
AKUMAR	ASAUR	JD	30.10.2021	1:100

DRAWING NO. PE-V0-417-554-A041

SHEET 3 OF 4 REV. 02

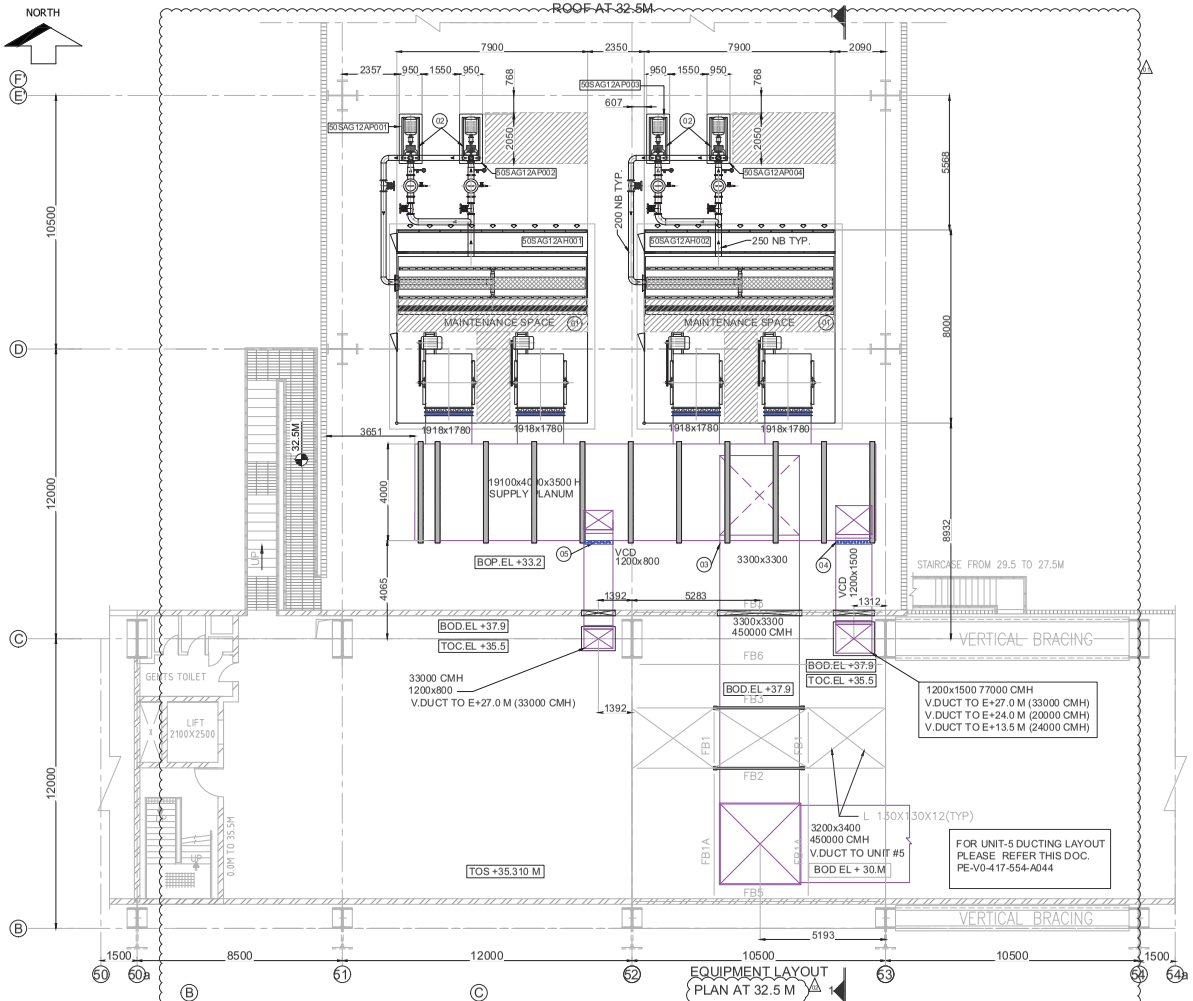
(SIZE:A1, 594x841)

ELECTRONIC FILE NAME :

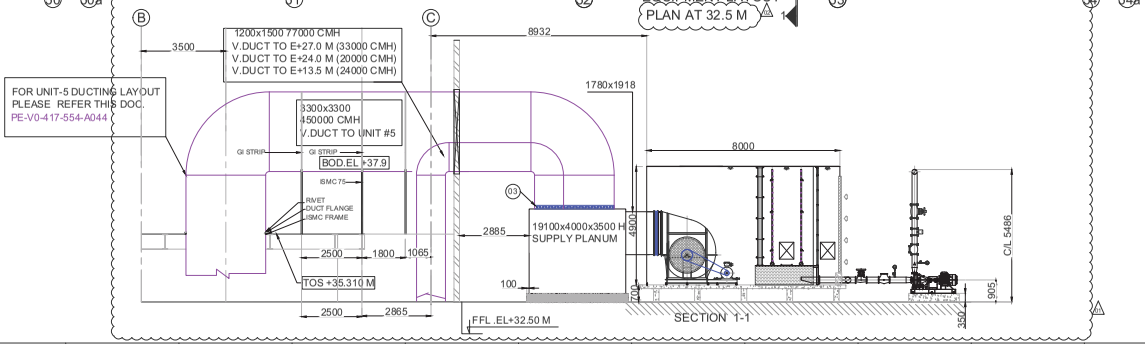
DRAWING No. PE-V0-417-554-A041

SPACE FOR AIR WASHER ROOF AT 32.5M

NORTH



EQUIPMENT LAYOUT PLAN AT 32.5 M



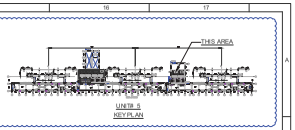
SECTION 1-1

DUCTING BOQ UNIT 1&2

S.NO.	GAUGE	DUCT QTY. (SQM.)	INSULATION QTY. (SQM.)
1.	20	426	2370
2.	18	1944	

KKS TAGGING FOR AWU & PUMPS

TAG.No.	DESCRIPTION	FOR UNIT	QTY. (Nos.)
50SAG12AP001 TO 004	COOLING WATER PUMP	UNIT#5	04
50SAG12AH001 TO 002	AIR WASHER UNIT	UNIT#5	02



REFERENCE DOCUMENT/DRAWING

REFERENCE DOCUMENT/DRAWING TITLE	REFERENCED DOCUMENT NO.
DATA SHEET & GA DRAWING FOR AIR WASHER & UAF ALONG WITH FAN & PUMP FOUNDATION DETAILS FOR VENTILATION SYSTEM	PE-V0-417-554-A039
P&ID & SCHEME FOR AIR WASHER AND UAF UNIT FOR VENTILATION SYSTEM	PE-V0-417-554-A051
TG EQUIPMENT LAYOUT PLAN AT MSG FLOORS AND VG STRETCHING FLOOR IN BG BAY	PE-DG-417-10-M0006
SCHEME OF AIR DISTRIBUTION IN POWER HOUSE BUILDING - EOT+VSD CONTROL BUILDING	PE-V0-417-554-A058
VENTILATION DUCT LAYOUT FOR TG BUILDING - BC BAY SIDE (Unit 1 & 2)	PE-V0-417-554-A044
DESIGN MEMORANDUM FOR VENTILATION SYSTEM	PE-DC-417-554-A001

NOTES:

1. ALL EQUIPMENTS SHALL BE DESIGNED FOR CONTINUOUS DUTY.
2. ALL DIMENSIONS ARE IN MM. AND ELEVATIONS ARE IN MTRS. UNLESS OTHERWISE STATED.
3. AIR WASHER UNIT RPM UP TO 150m/s SHALL BE G MEDIUM CLASS AS PER IS 5239.
4. WATER DROPLETS / MIST ELIMINATORS SHALL BE MADE FROM RIGID PVC ESTRUDED PROFILES 6 BREAK TYPE. SATURATION EFFICIENCY OF AIR WASHER UNIT SHALL BE MINIMUM 90%.
5. ALL CIVIL WORK / DEALING WORK SHALL BE DONE AS PER AS TECHNICAL SPECIFICATION.
6. IT EM SHOWN IN THE BOQ FOR ONE NO AWU.
7. FAN / AIR WASHER ENCLOSURE SHALL BE SHEET STEEL FABRICATED CONSTRUCTION WITH ADEQUATE STIFFENERS, BRACING ETC.

(DULY SPRAY GALVANIZED PAINTED WITH EPOXY RESIN BASED PAINT FROM INSIDE AND OUTSIDE). BOTTOM SURFACE OF THE AWU SHALL BE THERMALLY INSULATED WITH 10MM THICK ALUMINUM FACED NITRILE RUBBER (QTY. 64 SQ.M. ONLY FOR ONE UNIT).

SUPPLY AIR FAN DETAIL	
AIR FLOW CAPACITY	: 2,80,000 CMH
FAN S TATIC PRESSURE	: 85 mmWC.
WATER PUMP DETAIL	
WATER FLOW CAPACITY	: 310 CMH
HEAD	: 30 Mtr.

LOCATION OF AWU - B-C BAY* SIDE

NOTE- Tagging Philosophy for drive units
1. For KKS of unit 1 shall be used 10.
2. For KKS of unit 2 pells 20 shall be used instead of 10.
3. For KKS of unit 3 pells 30 shall be used instead of 10.
4. For KKS of unit 4 pells 40 shall be used instead of 10.
5. For KKS of unit 5 pells 50 shall be used instead of 10.

SYSTEM NO. — INSTRUMENT/EQUIPMENT CODE
UNIT NO. — SERIAL NO.
10 SAG 12 AH 002
FOR AHU

LOAD DETAILS :

OPERATING LOAD OF AIR WASHER UNIT WITH WATER FILLED : 18750 KG. (EACH)

Static Load of Fan + Motor : 2200 Kg.
Dynamic Load of Fan + Motor : 3000 Kg.
Static Load of Pump + Motor : 534 Kg.
Dynamic Load of Pump + Motor : 696 Kg.

EQUIPMENTS SCHEDULE

TAG.No.	DESCRIPTION	SIZE (mm)	QTY. (Nos.)
01	AIR WASHER UNIT	8000x7900x4900	02
02	COOLING WATER PUMP	1750x650x955	04
03	VOLUME CONTROL DAMPER	3300x3300	01
04	VOLUME CONTROL DAMPER	1200x1500	01
05	VOLUME CONTROL DAMPER	1200x800	01

LEGEND	DESCRIPTION
V.DUCT -	VENTILATION DUCT
BO.PLENUM-	BOTTOM OF PLENUM
BO.DUCT -	BOTTOM OF DUCT
C/L -	CENTER LINE
FFL. -	FINISH FLOOR LEVEL
	VOLUME CONTROL DAMPER
	VENTILATION DUCT
	MAINTENANCE SPACE

UNIT # 5

JOB NO. 417
STATUS CONTRACT
DISTRIBUTION

REV.	DATE	ALTD	CHD	APP

DESIGN	CHD	APPD	DATE	SCALE
GAURAV	ASAUR	SD	26.10.2021	1:100

DRAWING NO. PE-V0-417-554-A041
SHEET 1 OF 1 REV. 02
(SIZE:A1, 594x841)

ELECTRONIC FILE NAME :

DRAWING No. PE-V0-417-554-A041

NORTH

STAIRCASE 0.0M TO 32.5M

SPACE FOR AIR WASHER ROOF AT 32.5M

STAIRCASE FROM 29.5 TO 27.5M

VERTICAL BRACING

GENTS TOILET

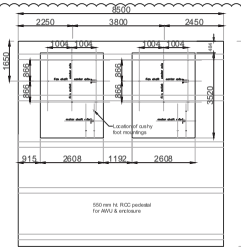
LIFT 2100X2500

0.0M TO 35.5M

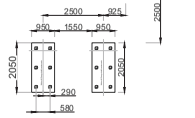
11 Nos. 4200x200x350H PCC BLOCK

L 130X130X12(TYP)

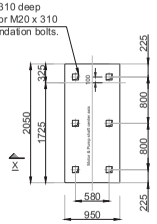
EQUIPMENT LAYOUT PLAN AT 32.5M



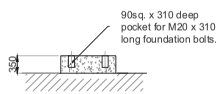
FOUNDATION PLAN -2,80,000 CMH AIR WASHER UNIT



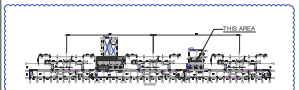
FOUNDATION ELEVATION -2,80,000 CMH AIR WASHER UNIT



PUMP FOUNDATION PLAN



SECTION -XX



REFERENCE DOCUMENT/DRAWING

REFERENCE DOCUMENT/DRAWING TITLE	REFERENCE DOCUMENT NO.
DATA SHEET & GA DRAWING OF AIR WASHER & UAF ALONG WITH FAN & PUMP FOUNDATION DETAILS FOR VENTILATION SYSTEM	PE-V0-417-554-A009
P&ID & SCHEME FOR AIR WASHER AND UAF UNIT FOR VENTILATION SYSTEM	PE-V0-417-554-A021
TG EQUIPMENT LAYOUT PLAN AT MISC FLOORS AND VE OPERATING FLOOR IN BC BAY	PE-00-417-10-A0006
SCHEME OF AIR DISTRIBUTION IN POWER HOUSE BUILDING. EOP-FOD CON TR DL BUILDING.	PE-V0-417-554-A058
VENTILATION DUCT LAYOUT FOR TG BUILDING - "BC BAY SIDE (Unit 3, 4 & 5)	PE-V0-417-554-A064

NOTES :

1. ALL EQUIPMENTS SHALL BE DESIGNED FOR CONTINUOUS DUTY.
2. ALL DIMENSIONS ARE IN MM. AND ELEVATIONS ARE IN MTRS. UNLESS OTHERWISE STATED.
3. AIR WASHER UNIT PIPING UP TO 150m n SHALL BE GI MEDIUM CLASS AS PER I.S 3239.
4. WATER DROPLETS/ MIST ELIMINATORS SHALL BE MADE FROM RIGID PVC EXTRUDED PROFILES 6 BREAK TYPE. SATURATION EFFICIENCY OF AIR WASHER UNIT SHALL BE MINIMUM 90%.
5. ALL CIVIL WORK / DEALING WORK SHALL BE DONE AS PER M.A.S. TECHNICAL SPECIFICATION.
6. ITEM SHOWN IN THE BOQ FOR ONE NO AWU
7. FAN / AIR WASHER ENCLOSURE SHALL BE SHEET STEEL FABRICATED CONSTRUCTION WITH ADEQUATE STIFFENERS, BRACING ETC. .
- ANALY SPUN GALVANISED PAINTED WITH EPOXY RESIN BASED PAINT FROM INSIDE AND OUTSIDE.
- ST OP SURFACE OF THE AWU SHALL BE THERMALLY INSULATED WITH 15MM THICK ALUMINUM FACED NITRILE RUBBER (QTY. AS SUN ONLY FOR ONE UNIT).

SUPPLY AIR FAN DETAIL	
AIR FLOW CAPACITY	: 2,80,000 CMH
FAN S TATIC PRESSURE	: 85 mmWC.
WATER PUMP DETAIL	
WATER FLOW CAPACITY	: 310 CMH
HEAD	: 30 Mtr.

LOCATION OF AWU - B-C BAY" SIDE

LOAD DETAILS :

OPERATING LOAD OF AIR WASHER UNIT WITH WATER FILLED : 18750 KG. (EACH)

Static Load of Fan + Motor : 2200 Kg.
Dynamic Load of Fan + Motor : 3000 Kg.
Static Load of Pump + Motor : 634 Kg.
Dynamic Load of Pump + Motor : 695 Kg.

WALL& FLOOR OPENING SCHEDULE

S.NO.	DESCRIPTION	SIZE (mm)	QTY. (Nos.)	Bottom Elevation from (FFL)
WO1	FOR SA DUCT	1400x1000	01	EL +37.8 Mtr
WO2	FOR SA DUCT	3500x3500	01	EL +37.8 Mtr
WO3	FOR SA DUCT	1700x1400	01	EL +37.8 Mtr
FO4	FOR SA DUCT	1400x1000	01	----
FO5	FOR SA DUCT	1700x1400	01	----

UNIT # 5

JOB NO. 417
STATUS CONTRACT
DISTRIBUTION

REV.	DATE	ALTD	CHD	APP

TITLE AIR WASHER LAYOUT FOR"B-C BAY" SIDE ALONGWITH FOUNDATION DETAILS - TG BUILDING (Unit 3, 4 & 5)

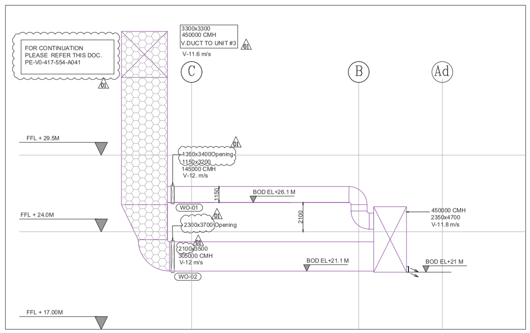
DESIGN	CHD	APPD	DATE	SCALE
AKUMAR	ASAUR	JD	30.10.2021	1:100

DRAWING NO. PE-V0-417-554-A041

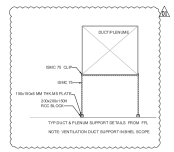
SHEET 4 OF 4 REV. 02

(SIZE A1, 594x841)

ELECTRONIC FILE NAME :

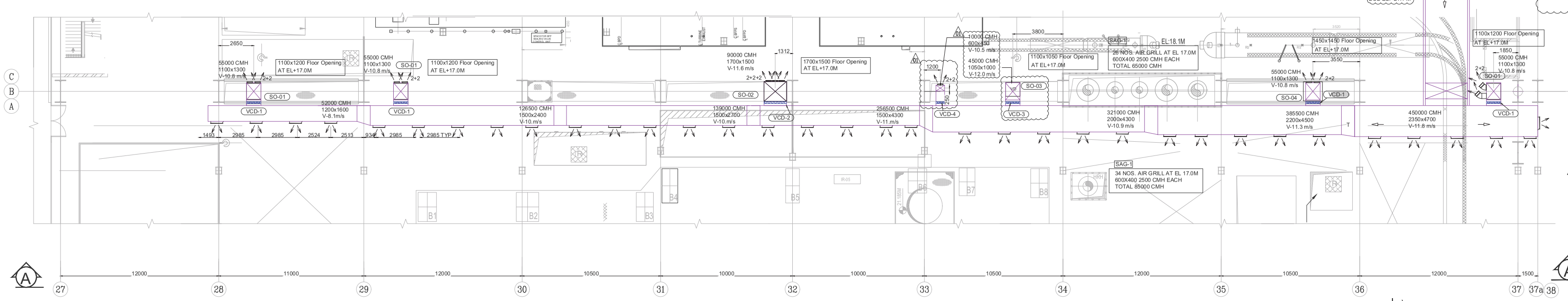


SECTION B-B

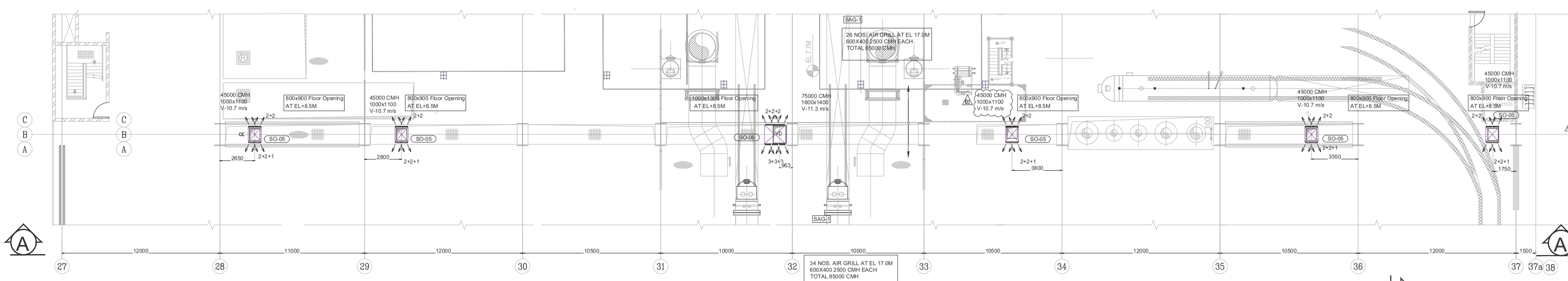


DUCTING BOQ

S.NO	GAUGE	DUCT QTY. (SQM.)	INSULATION QTY. (SQM.)
1.	20	5071	2272
2.	18	6823	

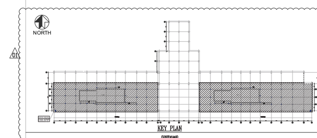


GA & RC PLAN AT EL.(+)17.000M (F.F.L.) (TYP. U.N)



GA & RC PLAN AT EL.(+)8.500 (F.F.L.) (TYP. U.N)

KEY PLAN



REFERENCE DOCUMENT/DRAWING

REFERENCE DOCUMENT NO.	REFERENCE DOCUMENT/DRAWING TITLE
POWER HOUSE BUILDING. (AB BAY-TG) GA & RC DETAILS OF FLOOR AT EL.(+)8.500M(F.F.L.)(UNIT#1&2)	PE-DG-417-611-C021
POWER HOUSE BUILDING. (AB BAY-TG) GA & RC DETAILS OF FLOOR AT EL.(+)17.000M(F.F.L.)(UNIT#1&2)	PE-DG-417-611-C030
AIR WASHER LAYOUT FOR "B-C BAY" SIDE ALONG WITH FOUNDATION DETAILS - TG BUILDING (UNIT 3, 4 & 5)	PE-VO-417-554-A041
DATA SHEET & GA DRAWING FOR AIR WASHER & UAF ALONG WITH FAN & PUMP FOUNDATION DETAILS FOR VENTILATION SYSTEM	PE-V0-417-554-A009
PID & SCHEME FOR AIR WASHER AND UAF UNIT FOR VENTILATION SYSTEM	PE-V0-417-554-A021
SCHEME OF AIR DISTRIBUTION IN POWER HOUSE BUILDING, ESP-FGD CONTROL BUILDING.	PE-V0-417-554-A058
TG EQUIPMENT LAYOUT PLAN AT MISC FLOORS ABOVE OPERATING FLOOR IN BC BAY	PE-DG-417-100-M006
TG EQUIPMENT LAYOUT PLAN AT MEZZANINE FLOOR	PE-DG-417-100-M004

NOTES:

1. ALL DIMENSIONS ARE IN MM & LEVELS ARE IN METER UNLESS STATED OTHERWISE.
2. CONCRETE & MASONRY WORK/WALL CLADDING ARE IN BHEL SCOPE.
3. MINOR MODIFICATION IN DUCT CAN BE DONE AS SUIT AT SITE CONDITION.
4. DUCT SUPPORT INSIDE BUILDING WILL BE TAKEN FROM EXISTING SLAB/STRUCTURE TO SUIT AT SITE CONDITION.
5. MAXIMUM DUCT LOAD IS 150 KG PER RUNNING MTRS.
6. ALL BOTTOM LEVEL DIMENSIONS ARE GIVEN FROM FINISH FLOOR LEVEL.
7. LOCATION OF VENTILATION DUCT ROUTINGS ARE DONE AS PER BHEL INPUT DRAWINGS.
8. SPACING BETWEEN TWO SUPPORT/HANGER OF THE DUCT SHALL BE 2.0 M.
9. DUCT SUPPORT SHALL BE PROVIDED BY BHEL.

LEGENDS

SYMBOLE	DESCRIPTION
[symbol]	Supply Air Grill
[symbol]	Volume Control Damper
[symbol]	Motorised Fire Damper
[symbol]	Gravity Damper
[symbol]	Wall Opening
SAG	Supply Air Grill
BOD	Bottom of Duct
WO	Wall Opening
BO	Bottom of
SO	Slab Opening
VCD	Volume Control Damper
MFD	Motorised Fire Damper
GD	Gravity Damper
AD	ACCESS DOOR
[symbol]	INSULATION

UNIT - 3

MOTORISED FIRE DAMPER B ROW SIDE UNIT # 2

TAG	SIZE(WxH)	QTY.	AREA OF LOCATIONS
MFD-01	1000x1100	04 Nos.	@EL+ 17.0 MTR
MFD-02	1600x1400	01 No.	
MFD-03	1050x1000	01 No.	

FLOOR OPENING SCHEDULE B ROW SIDE UNIT # 3

TAG	SIZE(WxH)	QTY.	AREA OF LOCATIONS
SO-01	1100x1200	03 Nos.	@EL+ 17.0 MTR
SO-02	1700x1500	01 No.	
SO-03	1100x1050	01 No.	
SO-04	1450x1450	01 No.	
SO-05	800x900	05 Nos.	@EL+ 8.5 MTR
SO-06	1000x1300	01 No.	

SUPPLY AIR GRILLE DAMPER SCHEDULE FOR VENTILATION SYSTEM
B ROW SIDE UNIT # 3

	TAG	SIZE(WxH)	QTY.	AIR QTY. CMH EACH	TOTAL AIR QTY. CMH	AREA OF LOCATIONS OF GRILLES
EL+ 17.M	SAG-1	600x400	26	2500	65000	B" TO C" SIDE
EL+ 17.M	SAG-1	600x400	34	2500	85000	B" TO A" SIDE
EL+ 8.5 M	SAG-1	600x400	26	2500	65000	B" TO C" SIDE
EL+ 8.5 M	SAG-1	600x400	34	2500	85000	B" TO A" SIDE
EL+ 0 M	SAG-1	600x400	26	2500	65000	B" TO C" SIDE
EL+ 0 M	SAG-1	600x400	34	2500	85000	B" TO A" SIDE

VOLUME CONTROL DAMPER SCHEDULE
B ROW SIDE UNIT # 3

TAG	SIZE(WxH)	QTY.	AREA OF LOCATIONS OF GRILLES
VCD-1	1100x1300	04 Nos.	B" TO C" SIDE EL +17 M
VCD-2	1700x1500	01 No.	B" TO C" SIDE EL +17 M
VCD-3	1050x1050	01 No.	B" TO C" SIDE EL +17 M
VCD-4	600x450	01 No.	B" TO C" SIDE EL +17 M

JOB NO.	417
STATUS	CONTRACT
DISTRIBUTION	

REV.	DATE	ALTD	CHD	APPD

VENTILATION DUCT LAYOUT FOR TG BUILDING - 'BC BAY' SIDE (Unit 3, 4 & 5)

DRN	DESIGN	CHD	APPD	DATE	SCALE
D.KUMAR	ANAND	S.DANGI	SCY	29.10.2021	1:125

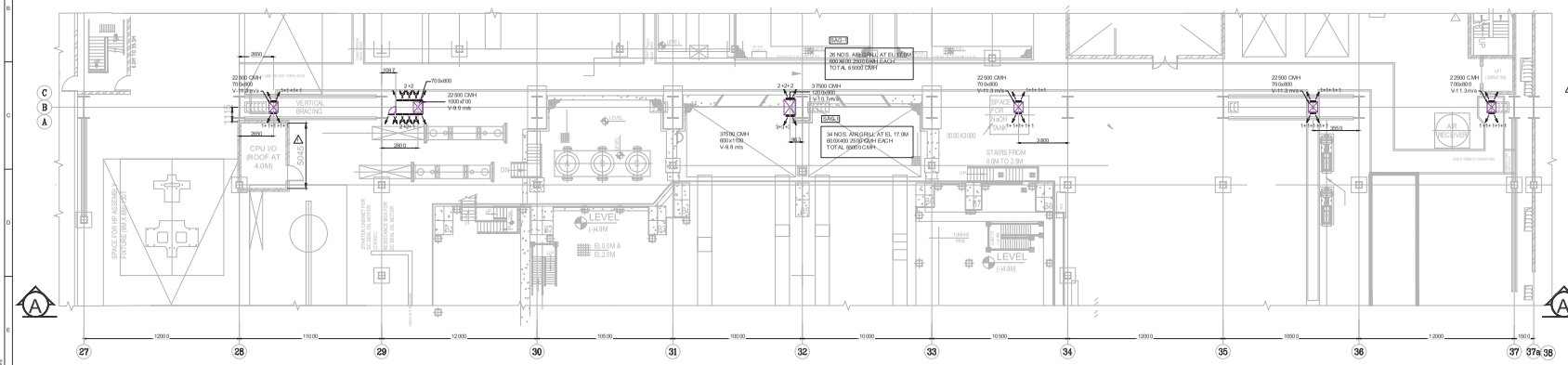
DRAWING NO. PE-V0-417-554-A044

SHEET 1 OF 10 REV. 02

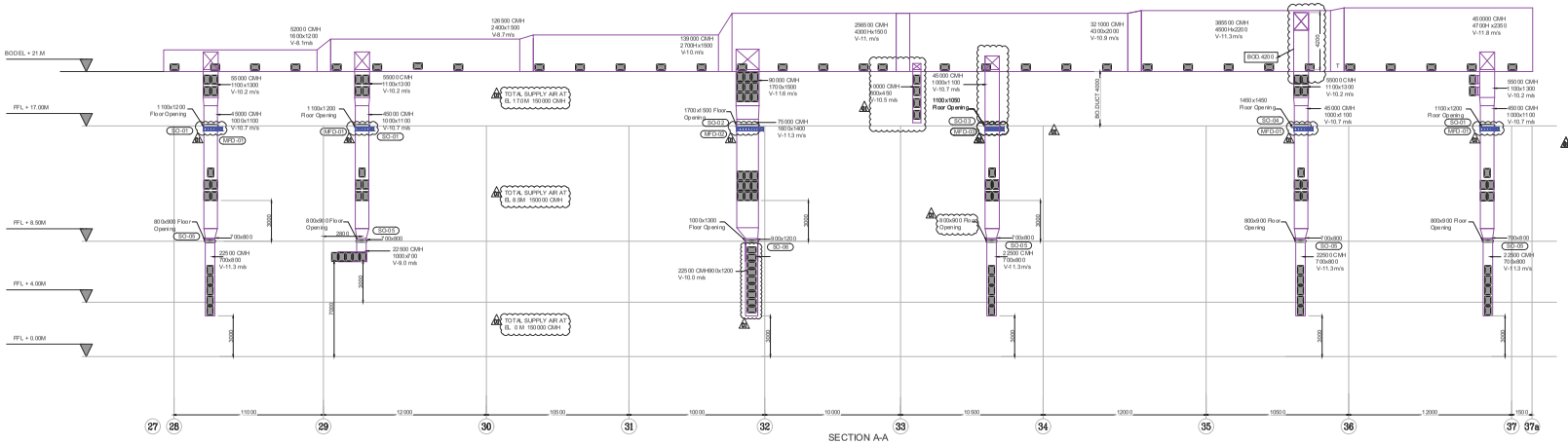
SIZE-A0

DRAWING No. PE-V0-417-554-A044 Rev. 02

NORTH

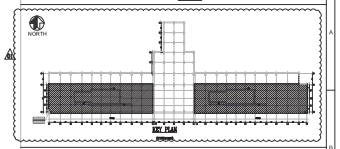


GA & RC PLAN AT EL.(+0.00 (F.F.L.) (TYP. U.N)



SECTION A-A

KEY PLAN



KEY PLAN

REFERENCE DOCUMENT/DRAWING

REFERENCE DOCUMENT NO.	REFERENCE DOCUMENT/DRAWING TITLE
POWER HOUSE BUILDING (AB/BAY-TG) GA & RC DETAILS OF FLOOR AT EL (+)5.50(M) F.F.L(UNIT#1&2)	PE-DG-417-611-C-G01
POWER HOUSE BUILDING (AB/BAY-TG) GA & RC DETAILS OF FLOOR AT EL (+)7.50(M) F.F.L(UNIT#3&4)	PE-DG-417-611-C-E00
AIR WASHER LAYOUT FOR TG CUBY SIDE ALONG WITH FOUNTAIN DISTRIBUTION DUCT - TG BUILDING (UNITS 4 & 5)	PE-V0-417-554-A041
TG SHEET & DUCTWORK FOR AIR WASHER & UAF ALONG WITH FAN & PUMP FOUNDATION DETAILS FOR VENTILATION SYSTEM	PE-V0-417-554-A039
P & D. SCHEME FOR AIR WASHER AND UAF UNIT FOR VENTILATION SYSTEM	PE-V0-417-554-A031
SCHEME OF AIR DISTRIBUTION IN POWER HOUSE BUILDING, 420 FVED CONTROL BUILDING.	PE-V0-417-554-A000
TG EQUIPMENT LAYOUT PLAN AT MISC FLOOR ABOVE OPERATING FLOOR IN BC BAY	PE-D-G-417-100-M006
TG EQUIPMENT LAYOUT PLAN AT MEZZANINE FLOOR	PE-D-G-417-100-M004

NOTES:

1. ALL DIMENSIONS ARE IN MM & LEVELS ARE IN METER UNLESS STATED OTHERWISE.
2. CONCRETE & MASONRY WORK/WALL CLADDING ARE IN BHEL SCOPE.
3. MINOR MODIFICATION IN DUCT CAN BE DONE AS SUIT AT SITE CONDITION.
4. DUCT SUPPORT INSIDE BUILDING WILL BE TAKEN FROM EXISTING SLAB/STRUCTURE TO SUIT AT SITE CONDITION.
5. MAXIMUM DUCT LOAD IS 150 KG PER RUNNING MTRS.
6. ALL BOTTOM LEVEL DIMENSIONS ARE GIVEN FROM FINISH FLOOR LEVEL.
7. LOCATION OF VENTILATION DUCT ROUTINGS ARE DONE AS PER BHEL INPUT DRAWINGS.
8. SPACING BETWEEN TWO SUPPORT/HANGER OF THE DUCT SHALL BE 2.0 M.
9.DUCT SUPPORT SHALL BE PROVIDED BY BHEL.

LEGENDS

SYMBOLE	DESCRIPTION
	Supply Air Grill
	Volume Control Damper
	Motorised Fire Damper
	Gravity Damper
	Wall Opening
SAG	Supply Air Grill
BOD	Bottom of Duct
WO	Wall Opening
BO	Bottom of
SO	Slab Opening
VCD	Volume Control Damper
MFD	Motorised Fire Damper
GD	Gravity Damper
AD	ACCESS DOOR

MOTORISED FIRE DAMPER B ROW SIDE UNIT # 3

TAG	SIZE(WXH)	QTY.	AREA OF LOCATIONS
MFD-01	1000x1100	04 Nos.	@EL+ 17.0 MTR
MFD-02	1600x1400	01 No.	
MFD-03	1050x1000	01 No.	

UNIT – 3

JOB NO. 417
STATUS CONTRACT
DISTRIBUTION

REV.	DATE	ALTD	CHD	APPD

VENTILATION DUCT LAYOUT FOR TG BUILDING - 'BC BAY' SIDE (Unit 3, 4 & 5)

D/RN	DESIGN	CHD	APPD	DATE	SCALE
DAUMAR	A NAND	S. DANGI	SCY	28.10.2020	1:100

DRAWING NO. PE-V0-417-554-A044
SHEET 2 OF 10 REV. 02
SIZE A0

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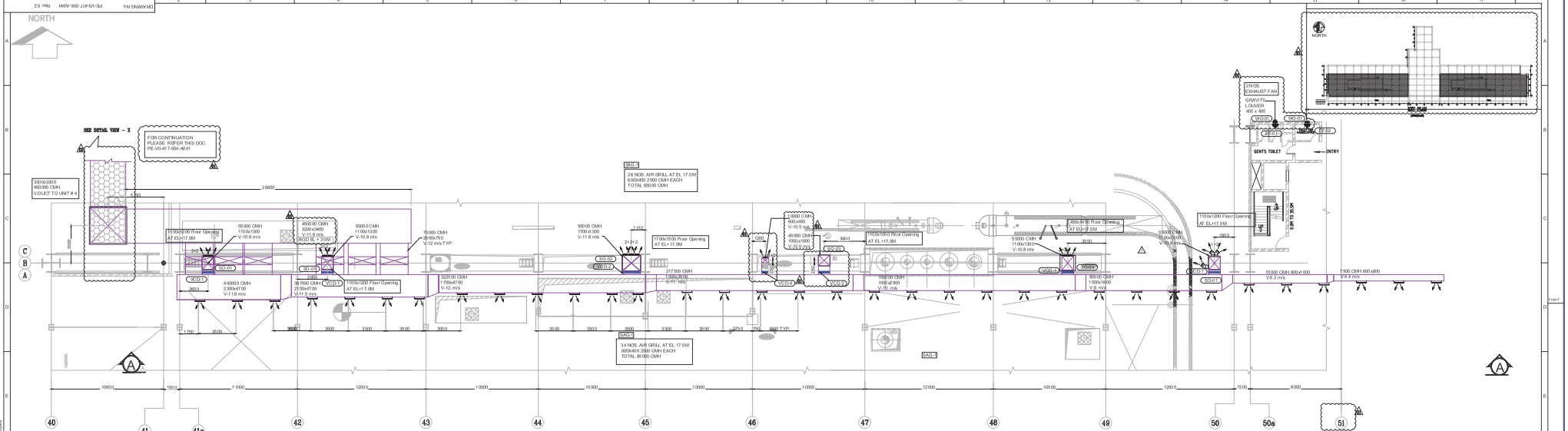
ELECTRONIC FILE NAME



REFERENCE DOCUMENT/DRAWING	
REFERENCE DOCUMENT NO.	REFERENCE DOCUMENT/DRAWING TITLE
POWER HOUSE BUILDING (ABWAY TO GH & RC DETAILS OF FLOOR AT EL.(+)8.500M(F.F.L.)UNIT#4&5)	PE-DG-417-611-C101
POWER HOUSE BUILDING (ABWAY TO GH & RC DETAILS OF FLOOR AT EL.(+)7.500M(F.F.L.)UNIT#4&5)	PE-DG-417-611-C100
GA DRAWING OF VENTILATION DUCT DUE BUILDING TO VENTILATION DETAILS - TG BUILDING BAY SIDE	PE-V0-417-554-A041
TG TK SHEET & DATA DRAWING FOR AIR WASHER & VAF ALONGWITH FAN & PUMP FOUNDATION DETAILS FOR VENTILATION SYSTEM	PE-V0-417-554-A039
P & ID SCHEME FOR AIR WASHER AND VAF UNIT FOR VENTILATION SYSTEM	PE-V0-417-554-A031
SCHEME OF AIR DISTRIBUTION IN POWER HOUSE BUILDING ELEVATION CONTROL BUILDING	PE-V0-417-554-A058
TG EQUIPMENT LAYOUT PLAN AT MISC FLOOR ABOVE OPERATING FLOOR IN BC BAY	PE-D-G-417-100-M006
TG EQUIPMENT LAYOUT PLAN AT MEZZANINE FLOOR	PE-D-G-417-100-M004

NOTES:
1. ALL DIMENSIONS ARE IN MM & LEVELS ARE IN METER UNLESS STATED OTHERWISE.
2. CONCRETE & MASONRY WORK/WALL CLADDING ARE IN BHEL SCOPE.
3. MINOR MODIFICATION IN DUCT CAN BE DONE AS SUIT AT SITE CONDITION.
4. DUCT SUPPORT INSIDE BUILDING WILL BE TAKEN FROM EXISTING SLAB STRUCTURE TO SUIT AT SITE CONDITION.
5. MAXIMUM DUCT LOAD IS 150 KG PER RUNNING MTRS.
6. ALL BOTTOM LEVEL DIMENSIONS ARE GIVEN FROM FINISH FLOOR LEVEL.
7. LOCATION OF VENTILATION DUCT ROUTINGS ARE DONE AS PER BHEL INPUT DRAWINGS.
8. SPACING BETWEEN TWO SUPPORT HANGER OF THE DUCT SHALL BE 2.0 M.
9. DUCT SUPPORT SHALL BE PROVIDED BY BHEL.

FLOOR OPENING SCHEDULE B ROW SIDE UNIT # 4 — UNIT - 4

TAG	SIZE(W×H)	QTY.	AREA OF LOCATIONS
SO-01	1100x1200	03 Nos.	@EL+ 17.0 MTR
SO-02	1700x1500	01 No.	
SO-03	1100x1050	01 No.	
SO-04	1400x1450	01 No.	
SO-05	800x900	05 Nos.	@EL+ 8.5 MTR
SO-06	1000x1300	01 No.	

SUPPLY AIR GRILLE DAMPER SCHEDULE FOR VENTILATION SYSTEM B ROW SIDE UNIT # 4

EL+	TAG	SIZE(W×H)		AIR QTY. CMH EACH	TOTAL AIR QTY. CMH	AREA OF LOCATIONS OF GRILLES
EL+ 17 M	SAG-1	600 x 400	26	2500	65000	B"TO C" SIDE
EL+ 17 M	SAG-1	600 x 400	34	2500	85000	B"TO A"SIDE
EL+ 8.5 M	SAG-1	600 x 400	26	2500	65000	B"TO C" SIDE
EL+ 8.5 M	SAG-1	600 x 400	34	2500	85000	B"TO A"SIDE
EL+ 0M	SAG-1	600 x 400	26	2500	65000	B"TO C" SIDE
EL+ 0M	SAG-1	600 x 400	34	2500	85000	B"TO A"SIDE

VOLUME CONTROL DAMPER SCHEDULE B ROW SIDE UNIT # 4

TAG	SIZE(W×H)	QTY.	AREA OF LOCATIONS OF GRILLES
VCD-1	1100 x1300	04 Nos.	B" TO C" SIDE EL +17 M
VCD-2	1700 x1500	01 No.	B" TO C" SIDE EL +17 M
VCD-3	1050 x1000	01 No.	B" TO C" SIDE EL +17 M
VCD-4	600x400	01 No.	B" TO C" SIDE EL +17 M

TOILET EXHAUST FAN SCHEDULE B ROW SIDE UNIT # 4

TAG	FAN SIZE(ØMM)	QTY.	AREA OF LOCATIONS
EF-01	Ø 300	01 Nos.	@EL+ 17.0 MTR
EF-02	Ø 300	01 Nos.	@EL+ 17.0 MTR

WALL OPENING SCHEDULE (IN TOILET) B ROW SIDE UNIT # 4

TAG	OPENING SIZE(ØMM)	QTY.	AREA OF LOCATIONS
WO-01	Ø 330	02 Nos.	@EL+ 17.0 MTR

LEGENDS

SYMBOLE	DESCRIPTION
SAG	Supply Air Grill
VCD	Volume Control Damper
MFD	Motorised Fire Damper
GD	Gravity Damper
WO	Wall Opening
SAG	Supply Air Grill
BOD	Bottom of Duct
WO	Wall Opening
BO	Bottom of
SO	Slab Opening
VCD	Volume Control Damper
MFD	Motorised Fire Damper
GD	Gravity Damper
AD	ACCESS DOOR

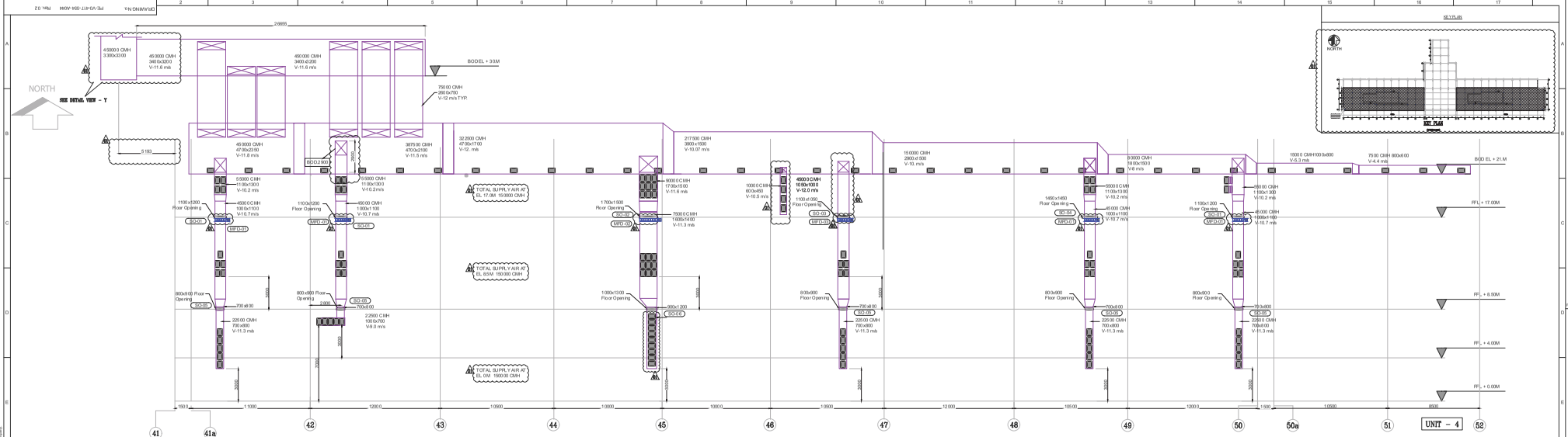
JOB NO. 417
STATUS CONTRACT
DISTRIBUTION

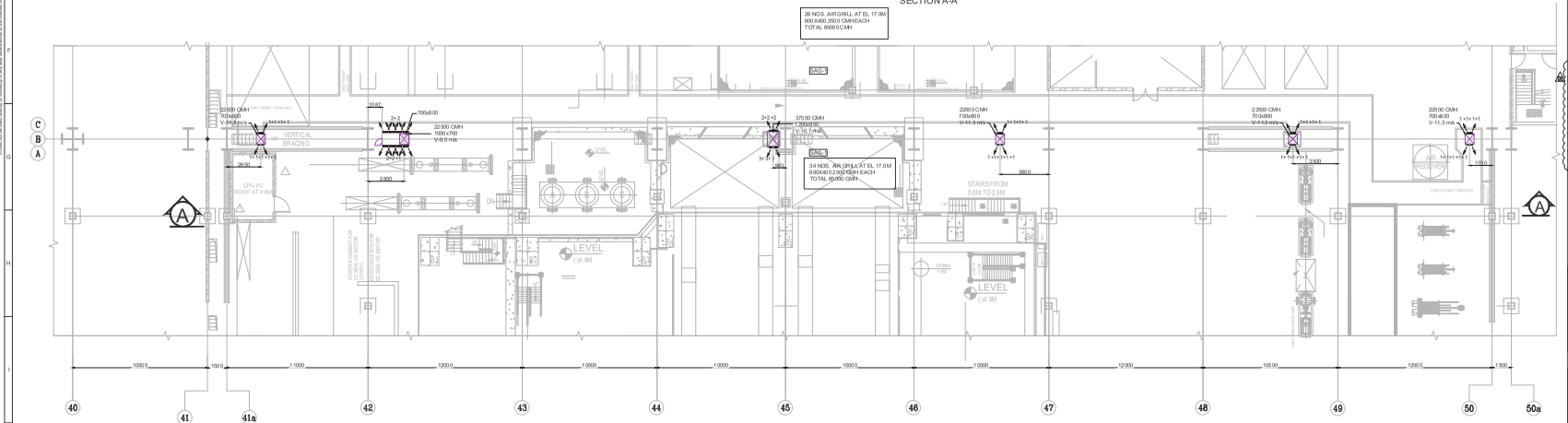
REV.	DATE	ALTD	CHD

VENTILATION DUCT LAYOUT FOR TG BUILDING - 'BC BAY' SIDE (Unit 3, 4 & 5)

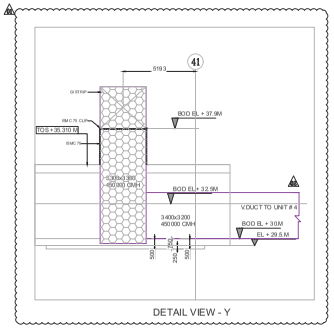
DRN	DESIGN	CHD	APPD	DATE	SCALE
DAUMAN	A NAND	S. DANGI	BOY	28.10.2021	1:100

DRAWING NO. PE-V0-417-554-A044
SHEET 3 OF 10 REV. 02
SIZE A0





GA & RC PLAN AT EL.(+0.00 (F.F.L.) (TYP. U.N)



DETAIL VIEW - Y

REFERENCED OCUMENT/DRAWING

REFERENCE DOCUMENT NO.	REFERENCE DOCUMENT/DRAWING TITLE
POWER HOUSE BUILDING (WEST TG BAY) TG GA & DETAILS OF FLOOR AT EL (+6.90(M.F.F.), (UNIT#1&2)	PE-DG-417-611-C-GE1
POWER HOUSE BUILDING (WEST TG BAY) TG GA & DETAILS OF FLOOR AT EL(+5.0(M)M.F.F.) (UNIT#3&4)	PE-DG-417-611-C-GS1
GA & DETAILS OF AIR WASHER LAYOUT FOR TG BAY SIDE ALONG WITH FOUNDATION DETAILS FOR BUILDING UNITS 3 & 5)	PE-VG-417-554-A041
DETAIL SHEET & GA DRAWING FOR AIR WASHER & UAF ALONG WITH FAN & PUMP FOUNDATION DETAILS FOR VENTILATION SYSTEM	PE-VG-417-554-A039
P & ID SCHEME FOR AIR WASHER AND UAF UNIT FOR VENTILATION SYSTEM	PE-VG-417-554-A021
SCHEME OF AIR DISTRIBUTION IN POWER HOUSE BUILDING, ESP/FGD CONTROL BUILDING	PE-VG-417-554-A058
TG EQUIPMENT LAYOUT PLAN AT MEZZ FLOORS ABOVE OPERATING FLOOR IN BC BAY	PE-DG-417-100-M008
TG EQUIPMENT LAYOUT PLAN AT MEZZANINE FLOOR	PE-D G-417-100-M004

NOTES:
1. ALL DIMENSIONS ARE IN MM & LEVELS ARE IN METER UNLESS STATED OTHERWISE.
2. CONCRETE & MASONRY WORK/WALL CLADDING ARE IN BHEL SCOPE.
3. MINOR MODIFICATION IN DUCT CAN BE DONE AS SUIT AT SITE CONDITION.
4. DUCT SUPPORT INSIDE BUILDING WILL BE TAKEN FROM EXISTING SLAB STRUCTURE TO SUIT AT SITE CONDITION.
5. MAXIMUM DUCT LOAD IS 150 KG/PER RUNNING MTRS.
6. ALL BOTTOM LEVEL DIMENSIONS ARE GIVEN FROM RNISH FLOOR LEVEL.
7. LOCATION OF VENTILATION DUCT ROUTINGS ARE DONE AS PER BHEL INPUT DRAWINGS.
8. SPACING BETWEEN TWO SUPPORTHANGER OF THE DUCT SHALL BE 2.0 M.
9.DUCT SUPPORT SHALL BE PROVIDED BY BHEL.

FLOOR OPENING SCHEDULE B ROW SIDE UNIT # 4

TAG	SIZE(W×H)	QTY.	AREA OF LOCATIONS
SO-01	1.100x1200	03 Nos.	@EL+ 17.0 MTR
SO-02	1.700x1500	01 No.	
SO-03	1.100x1050	01 No.	
SO-04	1.400x1450	01 No.	
SO-05	800x900	05 Nos.	@EL+ 8.5 MTR
SO-06	1.000x1300	01 No.	

SUPPLY AIR GRILLE DAMPER SCHEDULE FOR VENTILATION SYSTEM B ROW SIDE UNIT # 4

EL+	TAG	SIZE(W×H)	QTY.	AIR QTY. CMH EACH	TOTAL AIR QTY. CMH	AREA OF LOCATIONS OF GRILLES
EL+ 17 M	SAG-3	600 x400	26	2500	65000	B"TO C" SIDE
EL+ 17 M	SAG-1	600 x400	34	2500	85000	B"TO A" SIDE
EL+ 8.5 M	SAG-3	600 x400	26	2500	65000	B"TO C" SIDE
EL+ 8.5 M	SAG-1	600 x400	34	2500	85000	B"TO A" SIDE
EL+ 0M	SAG-3	600 x400	26	2500	65000	B"TO C" SIDE
EL+ 0M	SAG-1	600 x400	34	2500	85000	B"TO A" SIDE

UNIT – 4

MOTORISED FIRE DAMPER B ROW SIDE UNIT #4

TAG	SIZE(W×H)	QTY.	AREA OF LOCATIONS
MFD-01	1000 x1100	04 Nos.	@EL+ 17.0 MTR
MFD-02	1600 x1400	01 No.	@EL+ 17.0 MTR
MFD-03	1050 x1000	01 No.	

JOB NO. 417
STATUS CONTRACT
DISTRIBUTION

REV.	DATE	ALTD	CHD	APPD

VENTILATION DUCT LAYOUT FOR TG BUILDING - 'BC BAY' SIDE (Unit 3, 4 & 5)

D/RN	DESIGN	CHD	APPD	DATE	SCALE
DAUMAN	A NAND	S. DANGI	BOY	28.10.2021	1:100

DRAWING NO. PE-V0-417-554-A044
SHEET 4 OF 10 REV. 02
SIZE A0

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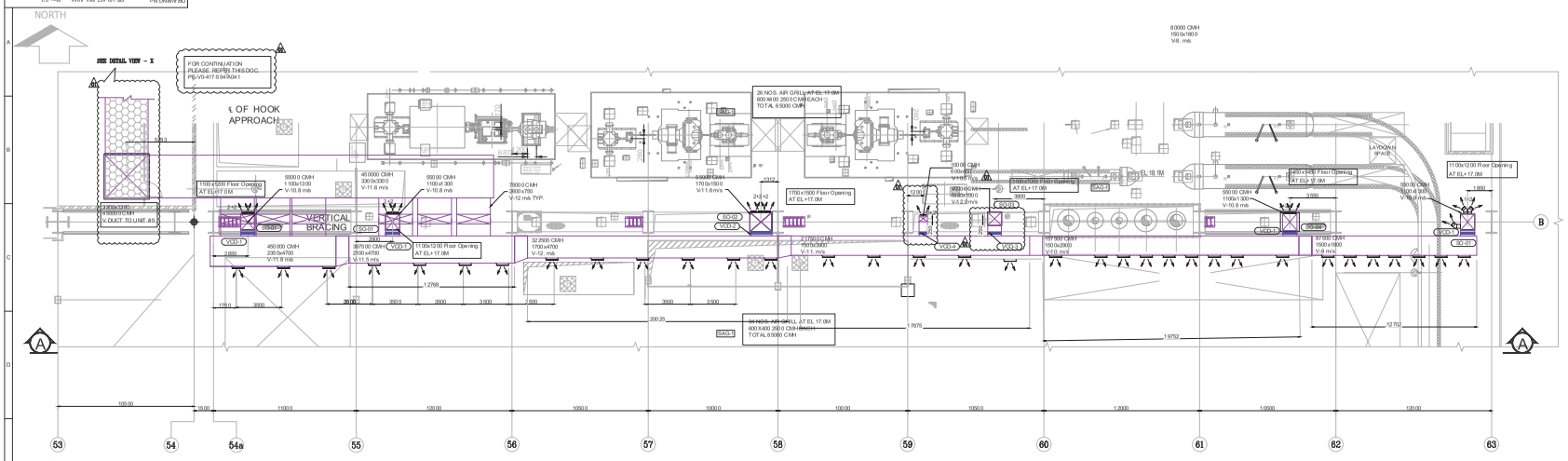

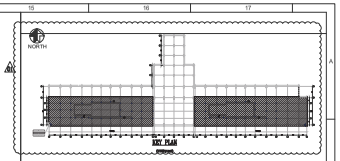

REFERENCE DOCUMENT/DRAWING

REFERENCE DOCUMENT NO.	REFERENCE DOCUMENT/DRAWING TITLE
POWER HOUSE BUILDING (AS BUILT) TG, GA & RC DETAILS OF FLOOR AT EL (+)8.500M(F.F.L.)UNIT#5&6	PE-D0-417-611-C-021
POWER HOUSE BUILDING (AS BUILT) TG, GA & RC DETAILS OF FLOOR AT EL (+)17.000M(F.F.L.)UNIT#5&6	PE-D0-417-611-C-030
AIR WASHER & UAF FOUNDATION PLAN & PART SECTIONS ALONG GRID 'B' TO 'F' & FOUNDATION DETAILS - TG BUILDING (UNITS 1, 4 & 5)	PE-V0-417-B04-A041
SEE 'B' SHEET & G.A.D DRAWING NO FOR AIR WASHER & UAF PLAN, CHILLER FAN & PUMP FOUNDATION DETAILS FOR VENTILATION SYSTEM	PE-V0-417-B04-A039
P & D SCHEME FOR AIR WASHER AND UAF UNIT FOR VENTILATION SYSTEM	PE-V0-417-B04-A021
SCHEME OF AIR DISTRIBUTION IN POWER HOUSE BUILDING ESP PGD CONTROL BUILDING	PE-V0-417-B04-A004
TG EQUIPMENT LAYOUT PLAN AT MISC FLOOR ABOVE OPERATING FLOOR IN BC BAY	PE-D0-417-100-M006
TG EQUIPMENT LAYOUT PLAN AT MEZZANINE FLOOR	PE-D0-417-100-M004

NOTES:

1. ALL DIMENSIONS ARE IN MM & LEVELS ARE IN METER UNLESS STATED OTHERWISE.
2. CONCRETE & MASONRY WORK/WALL CLADDING ARE IN BHEL SCOPE.
3. MINOR MODIFICATION IN DUCT CAN BE DONE AS SUIT AT SITE CONDITION.
4. DUCT SUPPORT INSIDE BUILDING WILL BE TAKEN FROM EXISTING SLAB/STRUCTURE TO SUIT AT SITE CONDITION.
5. MAXIMUM DUCT LOAD IS 150 KG PER RUNNING MTRS.
6. ALL BOTTOM LEVEL DIMENSIONS ARE GIVEN FROM FINISH FLOOR LEVEL.
7. LOCATION OF VENTILATION DUCT ROUTINGS ARE DONE AS PER BHEL INPUT DRAWINGS.
8. SPACING BETWEEN TWO SUPPORT/HANGER OF THE DUCT SHALL BE 2.0 M.
9 DUCT SUPPORT SHALL BE PROVIDED BY BHEL.

LEGENDS

SYMBOLE	DESCRIPTION
SAG	Supply Air Grill
VCD	Volume Control Damper
MFD	Motorised Fire Damper
GD	Gravity Damper
WO	Wall Opening
SAG	Supply Air Grill
BOD	Bottom of Duct
WO	Wall Opening
BO	Bottom of
SO	Slab Opening
VCD	Volume Control Damper
MFD	Motorised Fire Damper
GD	Gravity Damper
AD	ACCESS DOOR

UNIT – 5

FLOOR OPENING SCHEDULE B ROW SIDE (UNIT # 5)

TAG	SIZE(W)x(H)	QTY.	AREA OF LOCATIONS
SO-01	1.100x1200	0.3 Nos.	@EL+ 17.0 MTR
SO-02	1.700x1500	0.1 No.	
SO-03	1.100x1090	0.1 No.	
SO-04	1.400x1450	0.1 No.	
SO-05	800x800	0.5 Nos.	@EL+ 8.5 MTR
SO-06	1.000x1300	01 No.	

SUPPLY AIR GRILLE DAMPER SCHEDULE FOR VENTILATION SYSTEM B ROW SIDE (UNIT # 5)

EL+	TAG	SIZE(W)x(H)		AIR QTY. CMH EACH	TOTAL AIR QTY. CMH	AREA OF LOCATIONS OF GRILLES
EL+ 17 M	SAG-1	600 x400	26	2500	65000	B"TO C" SIDE
EL+ 17 M	SAG-1	600 x400	34	2500	85000	B"TO A"SIDE
EL+ 8.5 M	SAG-1	600 x400	26	2500	65000	B"TO C" SIDE
EL+ 8.5 M	SAG-1	600 x400	34	2500	85000	B"TO A"SIDE
EL+ 0M	SAG-1	600 x400	26	2500	65000	B"TO C" SIDE
EL+ 0M	SAG-1	600 x400	34	2500	85000	B"TO A"SIDE

VOLUME CONTROL DAMPER SCHEDULE B ROW SIDE (UNIT # 5)

TAG	SIZE(W)x(H)	QTY.	AREA OF LOCATIONS OF GRILLES
VCD-1	1.100x1.300	06 Nos.	B"TO C" SIDE EL +17 M
VCD-2	1.700x1.500	01 No.	B"TO C" SIDE EL +17 M
VCD-3	1.090x1.090	01 No.	B"TO C" SIDE EL +17 M
VCD-4	600x450	01 No.	B"TO C" SIDE EL +17 M

JOB NO.	417
STATUS	CONTRACT
DISTRIBUTION	

REV.	DATE	ALTD	CHD	AP

VENTILATION DUCT LAYOUT PLAN TG BUILDING - BC BAY SIDE (UNIT 3, 4 & 5)

DRN	DESIGN	CHD	APPD	DATE	SCALE
DAUMAN	A.NAND	S.DANGI	SCY	28.10.2021	1:100

DRAWING NO. PE-V0-417-554-A044

SHEET 5 OF 10 REV. 01

SIZE A0

ELECTRONIC FILE NAME

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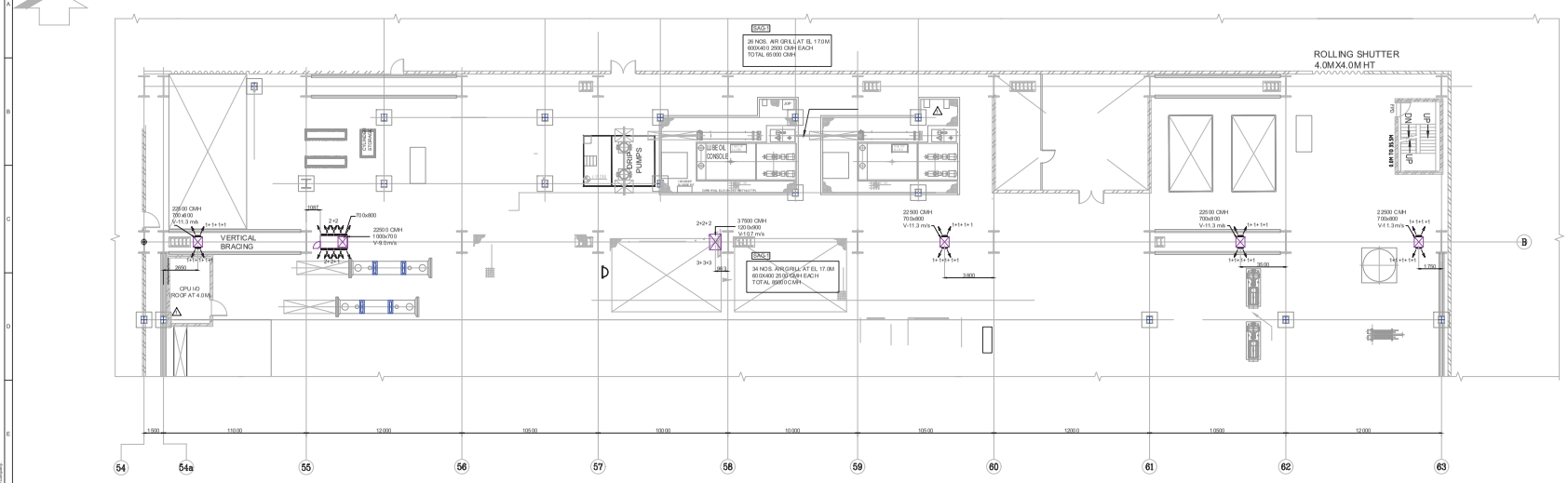
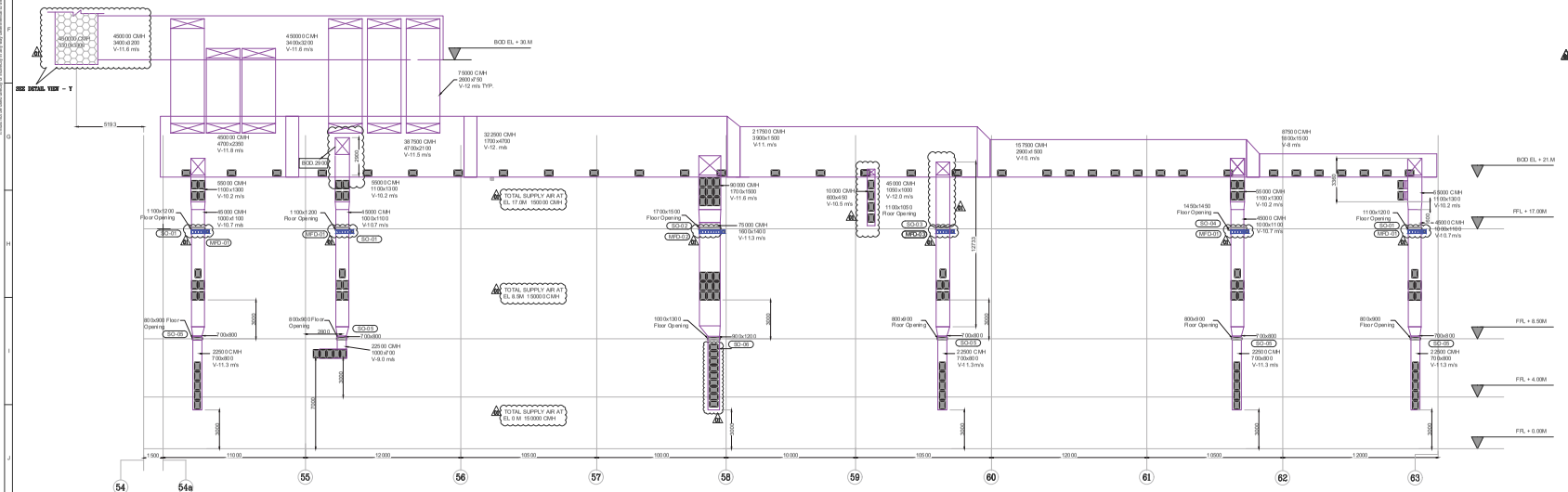


GA & RC PLAN AT EL.(+0.00 (F.F.L.) (TYP. U.N)



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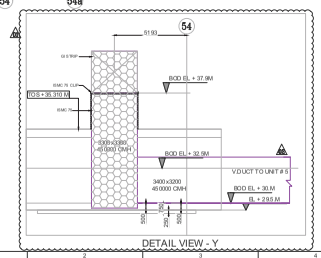
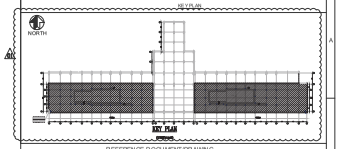


DETAIL VIEW - Y



REFERENCE DOCUMENT/DRAWING

REFERENCE DOCUMENT NO.	REFERENCE DOCUMENT/DRAWING TITLE
POWER HOUSE BUILDING (NEW)+ TG ON X-RY, DETAILS OF FLOOR AT EL (+0.00)M(F.F.L) UNIT#1&2)	PE-DG-417-611-C-021
POWER HOUSE BUILDING (NEW)+ TG ON X-RY, DETAILS OF FLOOR AT EL (+17.00)M(F.F.L) UNIT#1&2)	PE-DG-417-611-C-030
AIR WASHER & UNIT FOR BUILDING SIDE ALONG WITH FOUNDATION DETAILS - TG BUILDING (UNITS 1, 4 & 5)	PE-VD-417-554-A041
GA TR SHEET & GA DRAWING FOR AIR WASHER & UAF ALONG WITH FAN & PUMP FOUNDATION DETAILS FOR VENTILATION SYSTEM	PE-VD-417-554-A039
P & D, SCHEME FOR AIR WASHER AND UAF UNIT FOR VENTILATION SYSTEM	PE-VD-417-554-A021
SCHEME OF AIR DISTRIBUTION IN POWER HOUSE BUILDING, ESP PID CONTROL BUILDING	PE-VD-417-554-A004
TG EQUIPMENT LAYOUT PLAN AT MISC FLOOR ELABOVE OPERATING FLOOR IN BC BAY	PE-DG-417-100-M004
TG EQUIPMENT LAYOUT PLAN AT MEZZANINE FLOOR	PE-DG-417-100-M004

NOTES:

1. ALL DIMENSIONS ARE IN MM & LEVELS ARE IN METER UNLESS STATED OTHERWISE.
2. CONCRETE & MASONRY WORK/WALL CLADDING ARE IN BHEL SCOPE.
3. MINOR MODIFICATION IN DUCT CAN BE DONE AS SUIT AT SITE CONDITION.
4. DUCT SUPPORT INSIDE BUILDING WILL BE TAKEN FROM EXISTING SLAB/STRUCTURE TO SUIT AT SITE CONDITION.
5. MAXIMUM DUCT LOAD IS 190 KG PER RUNNING MTRS.
6. ALL BOTTOM LEVEL DIMENSIONS ARE GIVEN FROM FINISH FLOOR LEVEL.
7. LOCATION OF VENTILATION DUCT ROUTINGS ARE DONE AS PER BHEL INPUT DRAWINGS.
8. SPACING BETWEEN TWO SUPPORT/HANGER OF THE DUCT SHALL BE 2.0 M.
9. DUCT SUPPORT SHALL BE PROVIDED BY BHEL.

LEGENDS

SYMBOLE	DESCRIPTION
	Supply Air Grill
	Volume Control Damper
	Motorised Fire Damper
	Gravity Damper
	Wall Opening
SAG	Supply Air Grill
BOD	Bottom of Duct
WO	Wall Opening
BO	Bottom of
SO	Slab Opening
VCD	Volume Control Damper
MFD	Motorised Fire Damper
GD	Gravity Damper
AD	ACCESS DOOR

UNIT – 5

MOTORISED FIRE DAMPER B ROW SIDE UNIT # 5

TAG	SIZE(W×H)	QTY.	AREA OF LOCATIONS
MFD-01	1000x1100	04 Nos.	@EL+ 17.0 MTR
MFD-02	1600x1400	01 No.	
MFD-03	1050x1000	01 No.	

FLOOR OPENING SCHEDULE B ROW SIDE UNIT # 5

TAG	SIZE(W×H)	QTY.	AREA OF LOCATIONS
SO-01	1100x1200	03 Nos.	@EL+ 17.0 MTR
SO-02	1700x1500	01 No.	
SO-03	1100x1050	01 No.	
SO-04	1450x1400	01 No.	
SO-05	800x900	09 Nos.	@EL+ 8.5 MTR
SO-06	1000x1300	01 No.	

SUPPLY AIR GRILLE DAMPER SCHEDULE FOR VENTILATION SYSTEM B ROW SIDE UNIT # 5

EL+	TAG	SIZE(W×H)		AIR QTY. CMH EACH	TOTAL AIR QTY. CMH	AREA OF LOCATIONS OF GRILLES
EL+ 17.M	SAG-1	600 x400	26	2500	65000	B"TO C" SIDE
EL+ 17.M	SAG-1	600 x400	34	2500	85000	B"TO A"SIDE
EL+ 8.5 M	SAG-1	600 x400	26	2500	65000	B"TO C" SIDE
EL+ 8.5 M	SAG-1	600 x400	34	2500	85000	B"TO A"SIDE
EL+ 0M	SAG-1	600 x400	26	2500	65000	B"TO C" SIDE
EL+ 0M	SAG-1	600 x400	34	2500	85000	B"TO A"SIDE

VOLUME CONTROL DAMPER SCHEDULE B ROW SIDE UNIT # 5

TAG	SIZE(W×H)	QTY.	AREA OF LOCATIONS OF GRILLES
VCD-1	1100x1300	05 Nos.	B"TO C" SIDE EL +17 M
VCD-2	1700x1500	01 No.	B"TO C" SIDE EL +17 M

JOB NO.	417
STATUS	CONTRACT
DISTRIBUTION	

REV.	DATE	ALTD	CHD	APPD

VENTILATION DUCT LAYOUT FOR TG BUILDING - 'BC BAY' SIDE (Unit 3, 4 & 5)

DRN	DESIGN	CHD	APPD	DATE	SCALE
DAUMAN	A.NAND	S.DANGI	SCY	19.10.2021	1:100

DRAWING NO. PE-V0-417-554-A044

SHEET 6 OF 10 REV. 02

SIZE A0

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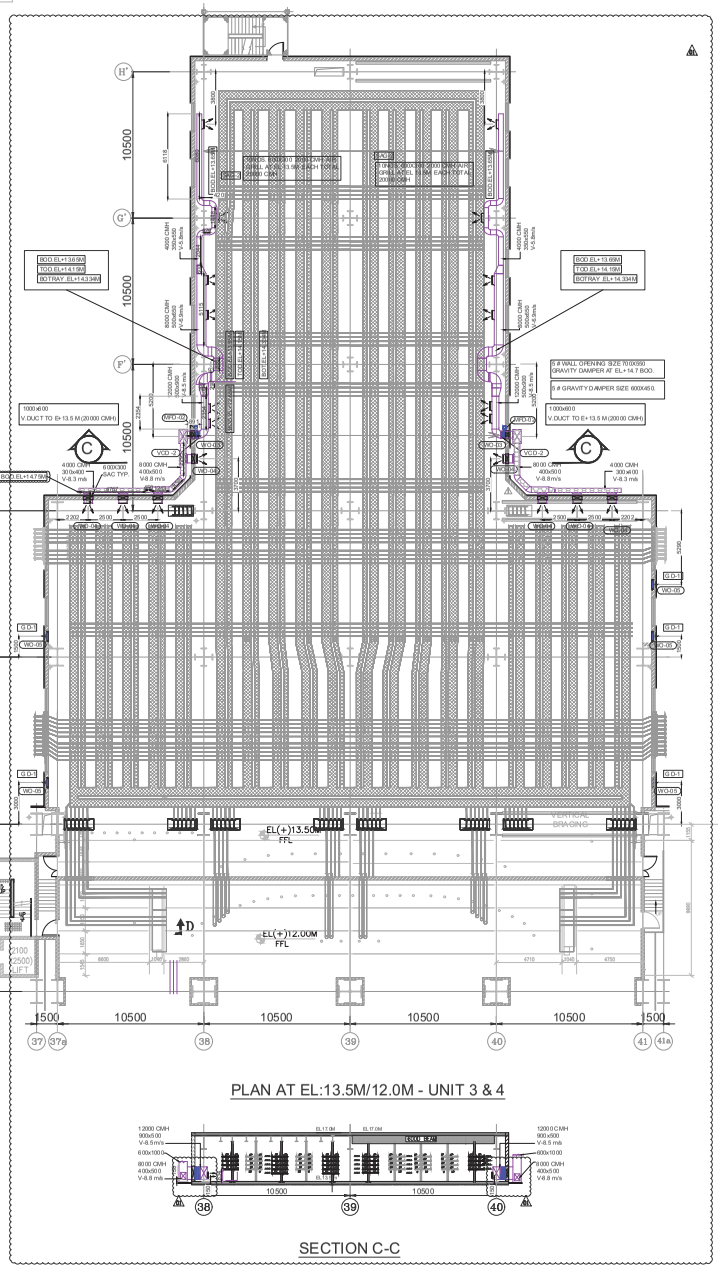
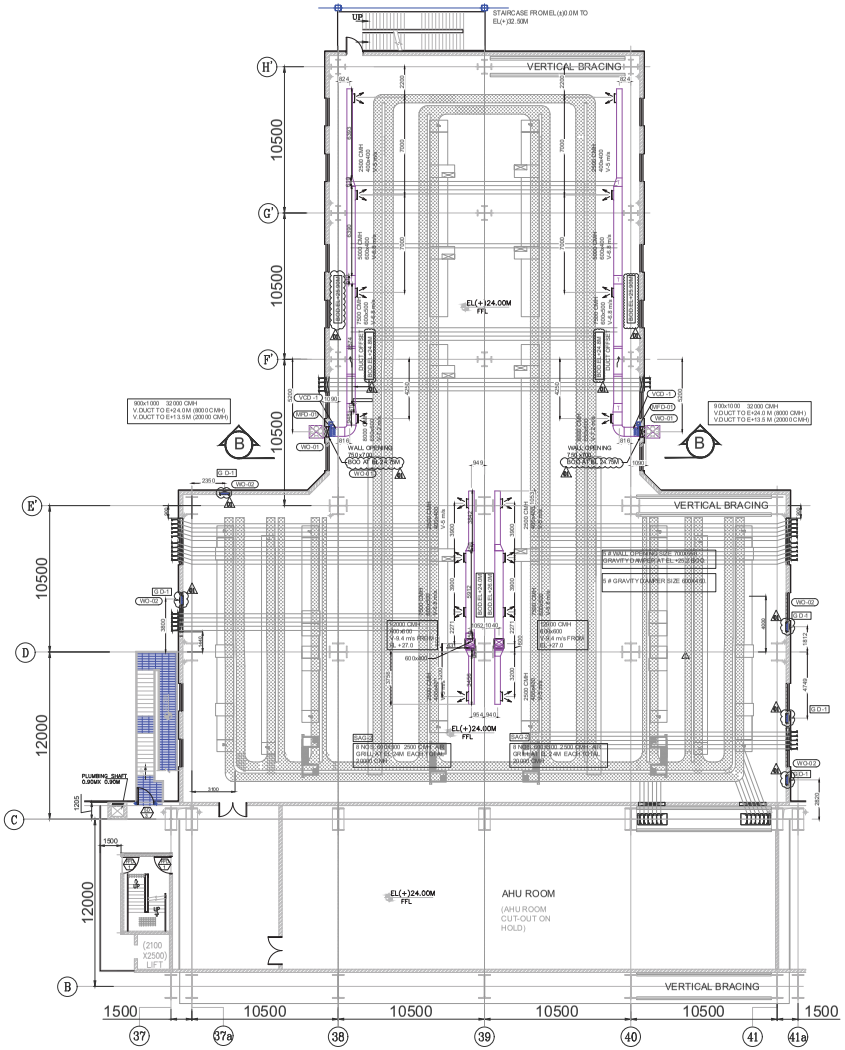
It must not be used directly or indirectly in any way detrimental to the interest of the company.

ELECTRONIC FILE NAME

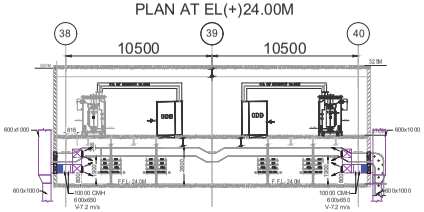


PLAN AT EL:13.5M/12.0M - UNIT 3 & 4

SECTION C-C



PLAN AT EL(+)24.00M



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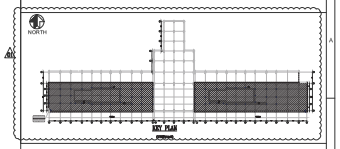


REFERENCE DOCUMENT/DRAWING

REFERENCE DOCUMENT NO.	REFERENCE DOCUMENT/DRAWING TITLE
POWER HOUSE BUILDING (AB/BAY-TG) GA &TC DETAILS OF FLOOR AT EL (+)6.90/6FT F.L.(UNIT#3&2)	PE-DG-417-611-C-G01
POWER HOUSE BUILDING (AB/BAY-TG) GA &TC DETAILS OF FLOOR AT EL (+)7.80/6&7 F.L.(UNIT#3&2)	PE-DG-417-611-C-E00
AIR WASHER LAYOUT FOR TG-CONT SIDE ALONG WITH FOUNDATION DETAILS - TG BUILDING (UNIT 1 & 2)	PE-VO-417-B64-A020
QA TS SHEET & GA DRAWING FOR AIR WASHER & UAF ALONG WITH FAN & PUMP FOUNDATION DETAILS FOR VENTILATION SYSTEM	PE-VO-417-B64-A039
P & ID SCHEME FOR AIR WASHER AND UAF UNIT FOR VENTILATION SYSTEM	PE-VO-417-B64-A021
SCHEME OF AIR DISTRIBUTION IN POWER HOUSE BUILDING, ESP-FGD CONTROL BUILDING	PE-VO-417-B64-A004
TG EQUIPMENT LAYOUT PLAN AT MISC FLOOR S ABOVE OPERATING FLOOR IN BC BAY	PE-DG-417-100-M004
TG EQUIPMENT LAYOUT PLAN AT MEZZANINE FLOOR	PE-DG-417-100-M004

NOTES:

1. ALL DIMENSIONS ARE IN MM & LEVELS ARE IN METER UNLESS STATED OTHERWISE.
2. CONCRETE & MASONRY WORK/WALL CLADDING ARE IN BHEL SCOPE.
3. MINOR MODIFICATION IN DUCT CAN BE DONE AS SUIT AT SITE CONDITION.
4. DUCT SUPPORT INSIDE BUILDING WILL BE TAKEN FROM EXISTING SLAB/STRUCTURE TO SUIT AT SITE CONDITION.
5. MAXIMUM DUCT LOAD IS 150 KG PER RUNNING MTRS.
6. ALL BOTTOM LEVEL DIMENSIONS ARE GIVEN FROM FINISH FLOOR LEVEL.
7. LOCATION OF VENTILATION DUCT ROUTINGS ARE DONE AS PER BHEL INPUT DRAWINGS.
8. SPACING BETWEEN TWO SUPPORT/HANGER OF THE DUCT SHALL BE 2.0 M.

LEGENDS

SYMBOLE	DESCRIPTION
	Supply Air Grill
MD	Volume Control Damper
MFD	Motorised Fire Damper
GD	Gravity Damper
WO	Well Opening
SAG	Supply Air Grill
BOD	Bottom of Duct
WO	Well Opening
BO	Bottom of
SO	Slab Opening
VCD	Volume Control Damper
MFD	Motorised Fire Damper
GD	Gravity Damper
AD	ACCESS DOOR

UNIT – 3 & 4

WALL OPENING SCHEDULE ES ROW SIDE

TAG	SIZE(W×H)	QTY.	BOTTOM OF OPENING	
WO-01	750 x700	02 Nos.	EL + 24.79M	@EL+ 24.0 MTR
WO-02	700 x950	06 Nos.	EL+ 25.2M	@EL+ 24.0 MTR
WO-03	600 x1000	02 Nos.	EL + 14.8 M	@EL+ 13.5 MTR
WO-04	700 x400	08 Nos.	EL + 14.75 M	@EL+ 13.5 MTR
WO-05	700 x950	05 Nos.	EL + 14.7 M	@EL+ 13.5 MTR

SUPPLY AIR GRILLE DAMPER SCHEDULE FOR VENTILATION SYSTEM
B ROW SIDE ELECTRIAL AREA

EL+	TAG.	SIZE(W&H)	QTY	AIR QTY. CMH EACH	TOTAL AIR QTY. CMH	AREA OF LOCATIONS OF GRILLES
EL+ 24 M	SAG-1	600 x0.00	8	2.500	20000	11,13 &. B,H GRID LINE
EL+ 24 M	SAG-1	600 x0.00	8	2.500	20000	13,15 a& B,H GRID LINE
EL+ 13.9M	SAG-1	600 x0.00	10	2.000	20000	13,15 a& B,H GRID LINE
EL+ 13.9M	SAG-1	600 x0.00	10	2.000	20000	13,15 a& B,H GRID LINE

VOLUME CONTROL & FIRE DAMPER SCHEDULE
B ROW SIDE ELECTRIAL AREA

TAG	DESCRIPTION	EL +	SIZE(W×H)	QTY.
VCD-1	VOLUME CONTROL DAMPER	EL + 24. M	65.0x600	02 Nos.
VCD-2	VOLUME CONTROL DAMPER	EL + 13.9M	1 50.0x2000	02 Nos.
MFD-01	FIRE DAMPER	EL + 25. 00M	65.0x600	02 Nos.
MFD-02	FIRE DAMPER	EL + 13.90M	1 50.0x2000	02 Nos.

GRAVITY DAMPER SCHEDULE FOR VENTILATION SYSTEM
B ROW SIDE ELECTRIAL AREA

@ EL+	TAG	SIZE(W&H)	QTY
EL+ 24.0M	G D-1	60.0x450	05 Nos
EL+ 13.9M	G D-1	60.0x450	05 Nos

JOB NO.	417			
STATUS	CONTRACT			
DISTRIBUTION				
REV.	DATE	ALTD	CHD	APPD

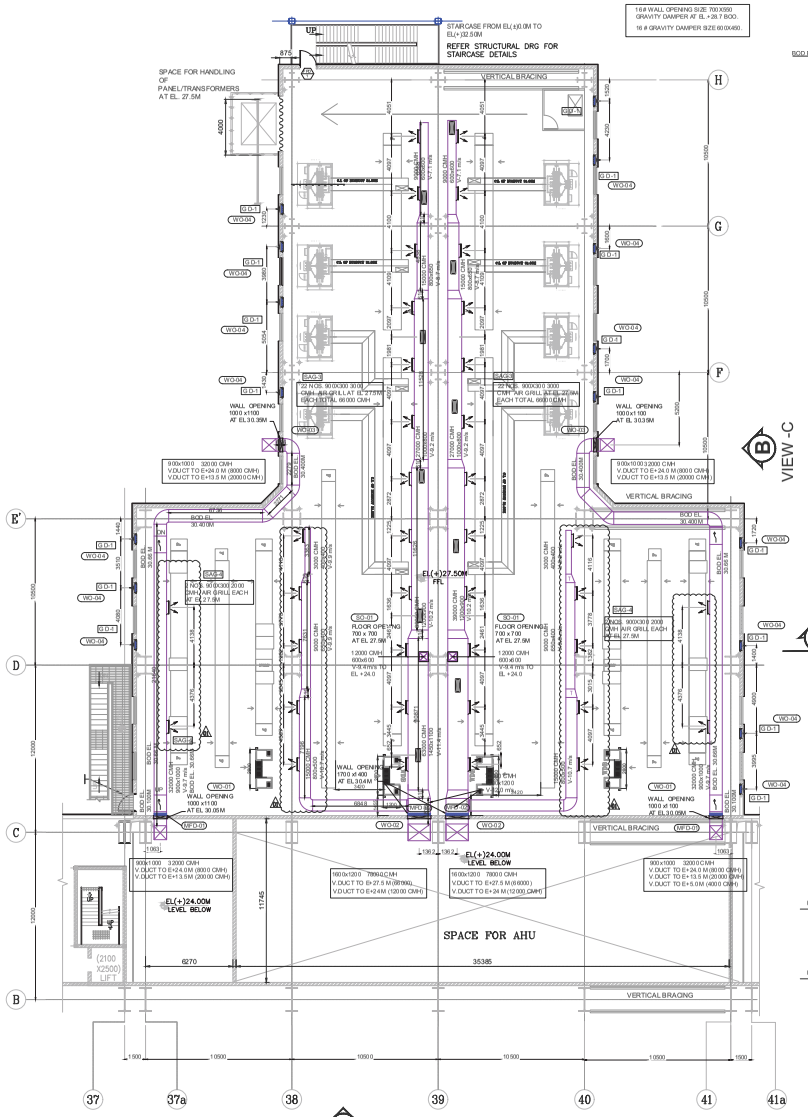
VENTILATION DUCT LAYOUT FOR TG BUILDING - 'BC BAY' SIDE (Unit 3, 4 & 5)

DRN	DESIGN	CHD	APPD	DATE	SCALE
DAUMAN	A.NAND	S.DANGI	BOY	28.10.2021	1:100

DRAWING NO. PE-V0-417-B64-A044

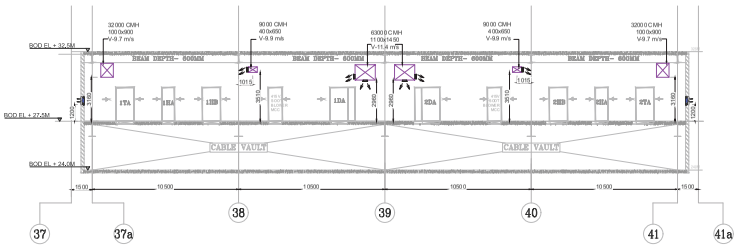
SHEET 7 OF 10 REV. 02

SIZE A0



VIEW -C

PLAN AT 27.5M (UNIT # 3 & 4)



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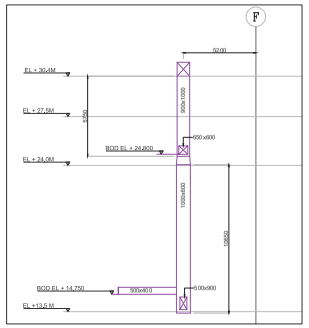

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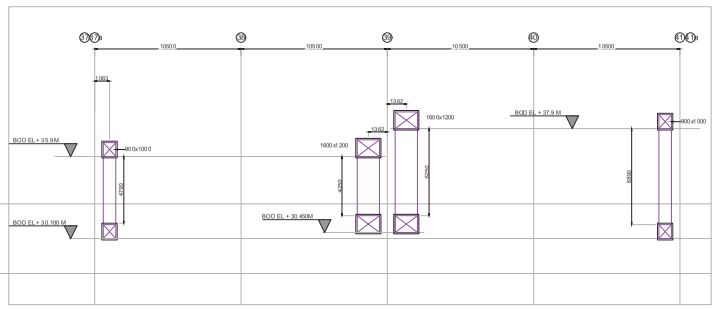

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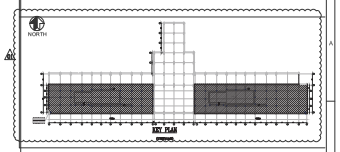


REFERENCE DOCUMENT/DRAWING

REFERENCE DOCUMENT NO.	REFERENCED DOCUMENT/DRAWING TITLE
POWER HOUSE BUILDING (AB BAY/TG) GA & RC DETAILS OF FLOOR AT EL (+)7.50MM F.L (UNIT#3&4)	PE-DG-417-01-1-0021
POWER HOUSE BUILDING (AB BAY/TG) GA & RC DETAILS OF FLOOR AT EL (+)7.50MM F.L (UNIT#1&2)	PE-DG-417-01-1-0030
EXPANSION JOINT DETAILS FOR TAG BAY SIDE ALONG WITH FOUNDATION DETAILS - TG BUILDING (UNIT 1 & 2)	PE-V0-417-01X-A003
DATA SHEET & GA DRAWING FOR AIR WASHER & UAF ALONG WITH FANS, PUMP FOUNDATION DETAILS FOR VENTILATION SYSTEM	PE-V0-417-01M-A009
PID & SCHEME FOR AIR WASHER AND UAF UNIT FOR VENTILATION SYSTEM	PE-V0-417-01X4-A021
SCHEME OF AIR DISTRIBUTION IN POWER HOUSE BUILDING, ESP-RGD CONTROL BUILDING	PE-V0-417-01M-A008
TG DUCT PENETRATION LAY OUT PLAN AT BBSC FLOORS ABOVE OPERATING FLOOR IN BC BAY	PE-DG-417-100-M006
TG EQUIPMENT LAYOUT PLAN AT MEZZANINE FLOOR	PE-DG-417-00-M004

NOTES:

1. ALL DIMENSIONS ARE IN MM & LEVELS ARE IN METER UNLESS STATED OTHERWISE.
2. CONCRETE & MASONRY WORK/WALL CLADDING ARE IN BHEL SCOPE.
3. MINOR MODIFICATION IN DUCT CAN BE DONE AS SUIT AT SITE CONDITION.
4. DUCT SUPPORT INSIDE BUILDING WILL BE TAKEN FROM EXISTING SLAB STRUCTURE TO SUIT AT SITE CONDITION.
5. MAXIMUM DUCT LOAD IS 150 KG PER RUNNING MTRS.
6. ALL BOTTOM LEVEL DIMENSIONS ARE GIVEN FROM FINISH FLOOR LEVEL.
7. LOCATION OF VENTILATION DUCT ROUTINGS ARE DONE AS PER BHEL INPUT DRAWINGS.
8. SPACING BETWEEN TWO SUPPORT/HANGER OF THE DUCT SHALL BE 2.0 M.

LEGENDS

SYMBOLE	DESCRIPTION
	Supply Air Grill
	Volume Control Damper
	Motorised Fire Damper
	Gravity Damper
	Wall Opening
SAG	Supply Air Grill
BOD	Bottom of Duct
WO	Wall Opening
BO	Bottom of
SO	Slab Opening
VCD	Volume Control Damper
MFD	Motorised Fire Damper
GD	Gravity Damper
AD	ACCESS DOOR

UNIT – 3 & 4

FLOOR OPENING SCHEDULE B ROW SIDE UNIT # 3 & 4

TAG	SIZE(WxH)	QTY.	AREA OF LOCATIONS
BO-01	700x700	02 Nos.	@EL+ 27.5MTR

WALL OPENING SCHEDULE B ROW SIDE UNIT # 3 & 4

TAG	SIZE(WxH)	QTY.	BOTTOM OF OPENING	AREA OF LOCATIONS
WO-01	1000 x1100	02 Nos.	EL + 30.05 M	@EL+ 27.5 MTR
WO-02	1700 x1400	02 Nos.	EL + 30.40 M	
WO-03	1000 x1100	02 Nos.	EL + 30.39 M	
WO-04	700x590	16 Nos.	EL + 28.7 M	

SUPPLY AIR GRILLE DAMPER SCHEDULE FOR VENTILATION SYSTEM
B ROW SIDE ELECTRIAL AREA

EL +	TAG	SIZE(WxH)	QTY	AIR QTY - CMH EACH	TOTAL AIR QTY. CMH	AREA OF LOCATIONS OF GRILLES
EL+ 27.5 M	SAG-1	900x300	22	3000	66000	38,39 & 8JH GRD LINE
EL+ 27.5 M	SAG-2	900x300	22	3000	66000	39,40 & 8JH GRD LINE
EL+ 27.5 M	SAG-3	900x300	04	2000	8000	37a,41 & C,E' GRID LINE

RIRE DAMPER SCHEDULE
B ROW SIDE ELECTRIAL AREA

TAG	DESCRIPTION	EL +	SIZE(WxH)	QTY.
MFD-01	RIRE DAMPER	EL + 27.5 M	900x1000	02 Nos.
MFD-02	RIRE DAMPER	EL + 24. M	1600 x1200	02 Nos.

GRAVITY DAMPER SCHEDULE FOR VENTILATION SYSTEM
B ROW SIDE ELECTRIAL AREA

@EL+	TAG	SIZE(WxH)	QTY
EL+ 27.5 M	GD-1	600x490	16 Nos

JOB NO. 417
STATUS CONTRACT
DISTRIBUTION

REV.	DATE	ALTD	CHD	APPD

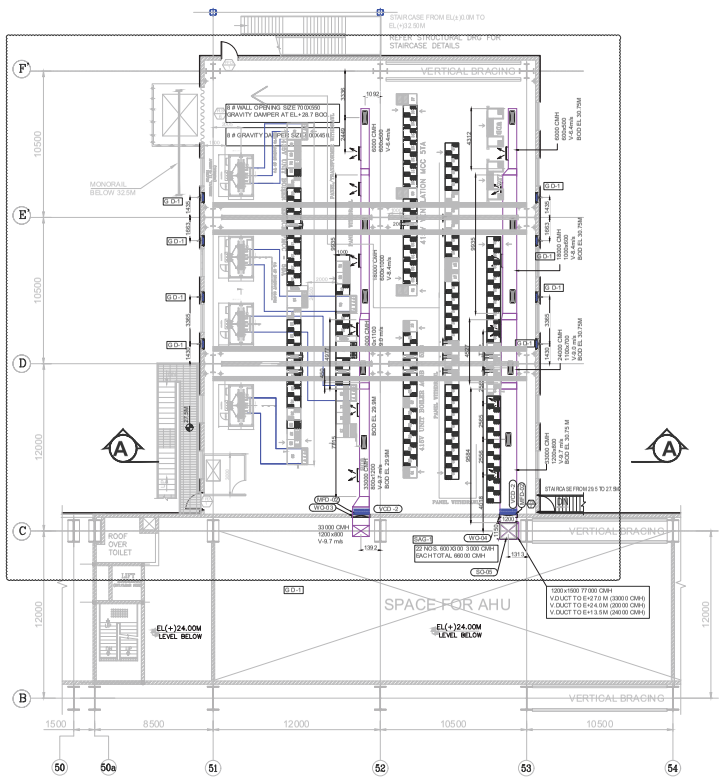
VENTILATION DUCT LAYOUT FOR TG BUILDING - 'BC BAY' SIDE (Unit 3, 4 & 5)

DRN	DESIGN	CHD	APPD	DATE	SCALE
BAUMAN	A.NAND	S.DANGI	BCY	28.06.21	1:100

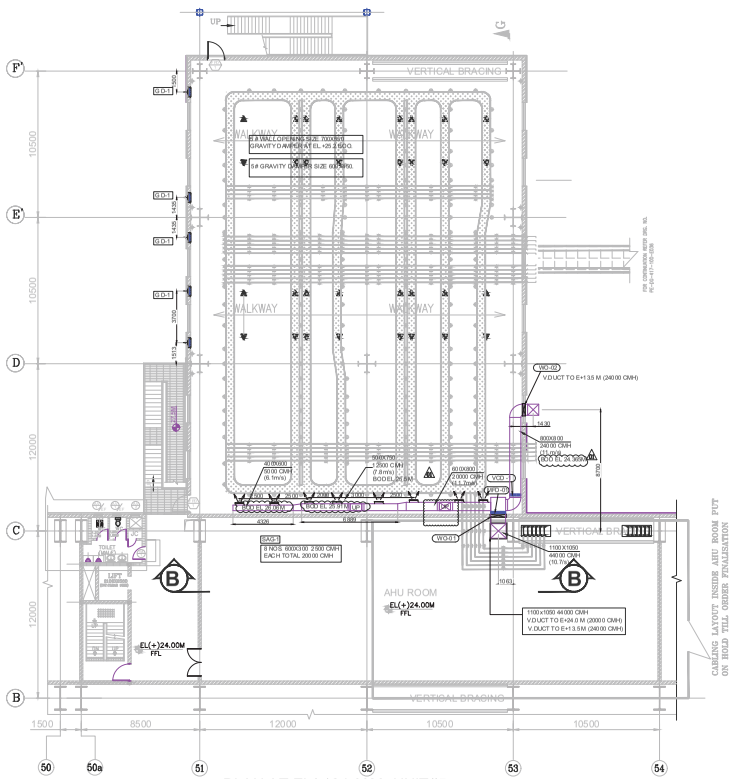
DRAWING NO. PE-V0-417-504-A044

SHEET 6 OF 10 REV. 02

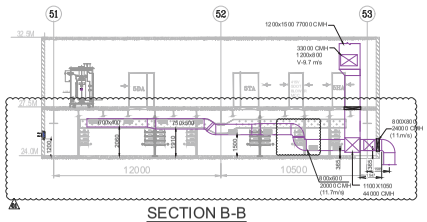
SIZE A0



PLAN AT 27.5M (UNIT # 5)



PLAN AT EL(+)24.00M -UNIT#5



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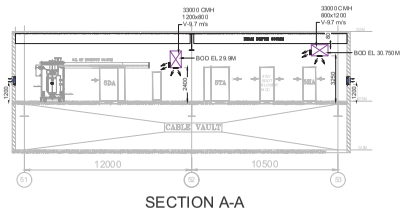

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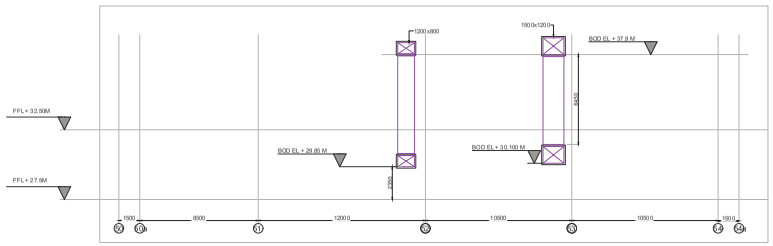


VIEW -C

REFERENCE DOCUMENT/DRAWING

REFERENCE DOCUMENT NO.	REFERENCE DOCUMENT/DRAWING TITLE
POWER HOUSE BUILDING AIR BAY/TG SIA & RC DETAILS OF FLOOR AT EL (+)7.50MM F.L (UNIT#5&6)	PE-DG-417-01-1-D021
POWER HOUSE BUILDING AIR BAY/TG SIA & RC DETAILS OF FLOOR AT EL (+)7.50MM F.L (UNIT#1&2)	PE-DG-417-01-1-D030
INTERCONNECTION DETAILS FOR TRF BAY CABLE ALONG WITH FOUNDATION DETAILS - TG BUILDING JUNIT 1 & 2)	PE-V0-417-004-A001
DATA SHEET & GA DRAWING FOR AIR WASHER & UAF ALONG WITH PANEL PUMP FOUNDATION DETAILS FOR VENTILATION SYSTEM	PE-V0-417-004-A009
PID & SCHEME FOR AIR WASHER AND UAF UNIT FOR VENTILATION SYSTEM	PE-V0-417-004-A021
SCHEME OF AIR DISTRIBUTION IN POWER HOUSE BUILDING, ESP-RGD CONTROL BUILDING	PE-V0-417-004-A058
TG EQUIPMENT LAY OUT PLAN AT MISC BUILDING ABOVE OPERATING FLOOR IN BC BAY	PE-DG-417-100-M006
TG EQUIPMENT LAYOUT PLAN AT MEZZ.NINE FLOOR	PE-DG-417-100-M004

NOTES:

1. ALL DIMENSIONS ARE IN MM & LEVELS ARE IN METER UNLESS STATED OTHERWISE.
2. CONCRETE & MASONRY WORK/WALL CLADDING ARE IN BHEL SCOPE.
3. MINOR MODIFICATION IN DUCT CAN BE DONE AS SUIT AT SITE CONDITION.
4. DUCT SUPPORT INSIDE BUILDING WILL BE TAKEN FROM EXISTING SLAB STRUCTURE TO SUIT AT SITE CONDITION.
5. MAXIMUM DUCT LOAD IS 150 KG PER RUNNING MTRS.
6. ALL BOTTOM LEVEL DIMENSIONS ARE GIVEN FROM FINISH FLOOR LEVEL.
7. LOCATION OF VENTILATION DUCT ROUTINGS ARE DONE AS PER BHEL INPUT DRAWINGS.
8. SPACING BETWEEN TWO SUPPORT/HANGER OF THE DUCT SHALL BE 2.0 M.

LEGENDS

SYMBOLE	DESCRIPTION
	Supply Air Grill
	Volume Control Damper
	Motorised Fire Damper
	Gravity Damper
	Wall Opening
SAG	Supply Air Grill
BOD	Bottom of Duct
WO	Wall Opening
BO	Bottom of
SO	Slab Opening
VCD	Volume Control Damper
MFD	Motorised Fire Damper
GD	Gravity Damper
AD	ACCESS DOOR

UNIT – 5

WALL OPENING SCHEDULE B ROW SIDE UNIT # 5

TAG	SIZE(W×H)	QTY.	BOTTOM OF OPENING	
WO-01	1200 x1190	01 No.	BL + 24.190M	@EL+ 24.0 MTR
WO-02	900 x900	01 No.	BL + 25.310M	@EL+ 24.0 MTR
WO-03	1300 x900	01 No.	EL + 29.80M	@EL+ 27.5 MTR
WO-04	1300 x900	01 No.	BL + 30.05M	@EL+ 27.5 MTR
SO-01	1200 x1190	01 No.	FLOOR OPENING	@EL+ 27.5 MTR

SUPPLY AIR GRILLE DAMPER SCHEDULE FOR VENTILATION SYSTEM
B ROW SIDE ELECTRIAL AREA

EL+	TAG	SIZE(W×H)	QTY	AIR QTY. CMH EACH	TOTAL AIR QTY. CMH	AREA OF LOCATIONS OF GRILLES
EL+24.0M	SAG-1	600x300	08	2500	20000	51.53 & B. GRID LINE
EL+ 27.5 M	SAG-1	600x300	22	3000	66000	51.53 & B.F GRID LINE

FIRE DAMPER SCHEDULE
B ROW SIDE ELECTRIAL AREA

TAG	DESCRIPTION	EL +	SIZE(W×H)	QTY.
VCD-01	VOLUME CONTROL DAMPER	EL + 24. M	800x800	01 No.
VCD-02	VOLUME CONTROL DAMPER	EL + 27.5 M	1200x800	02 Nos
MFD-01	FIRE DAMPER	EL + 24. M	1100x1050	01 No.
MFD-02	FIRE DAMPER	EL + 27.5 M	1200x800	02 Nos

GRAVITY DAMPER SCHEDULE FOR VENTILATION SYSTEM
B ROW SIDE ELECTRIAL AREA

@EL+	TAG	SIZE(W×H)	QTY
EL+ 27.5 M	GD-1	600x460	08 Nos
EL+ 24.0 M	GD-1	600x460	05 Nos

417
CONTRACT

REV.	DATE	ALTD	CHD	APPD

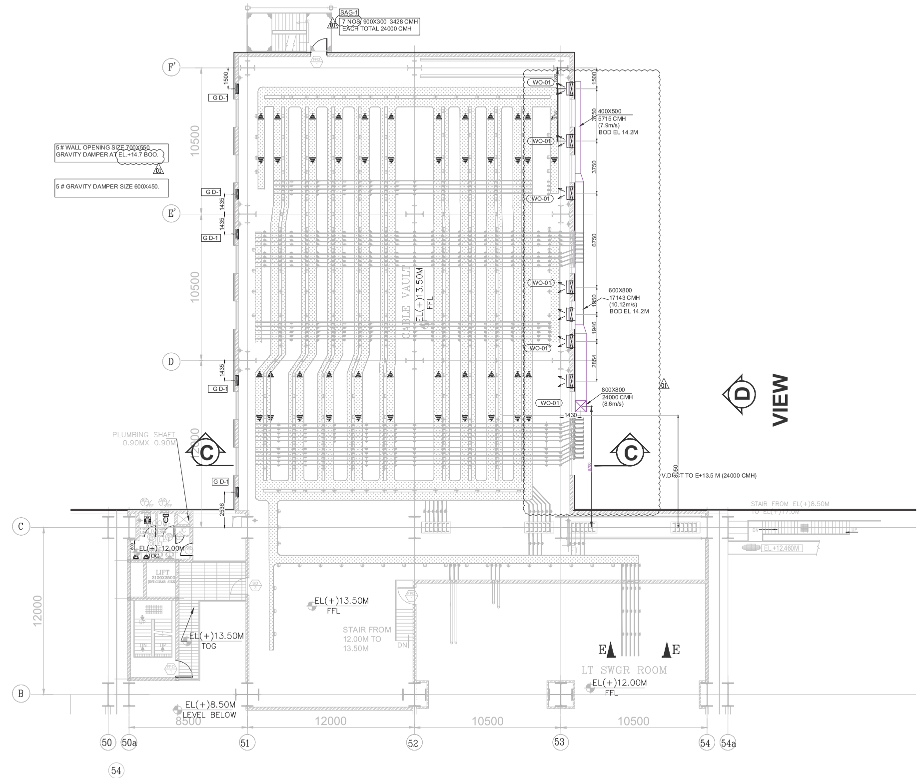
VENTILATION DUCT LAYOUT PLAN TG BUILDING - TRC BAY SIDE (UNIT 3, 4 & 5)

DRN	DESIGN	CHD	APPD	DATE	SCALE
DAUMAN	A.NAND	S.DANGI	BOY	19.10.2021	1:100

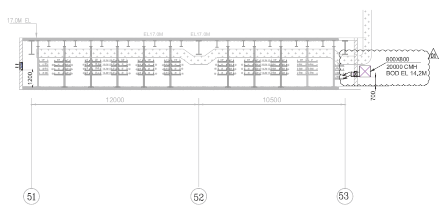
DRAWING NO. PE-V0-417-004-A044

SHEET 9 OF 10 REV. 02

SIZE A0



PLAN AT EL:13.5M/12.0M - UNIT 5



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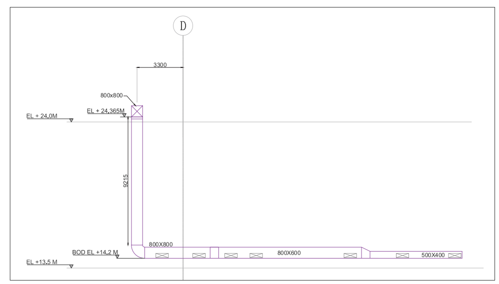

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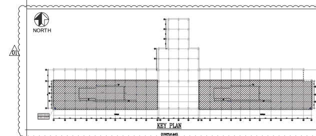

REFERENCE DOCUMENT/DRAWING

REFERENCE DOCUMENT NO.	REFERENCE DOCUMENT/DRAWING TITLE
POWER HOUSE BUILDING (AB BAY-TG) GA & RC DETAILS OF FLOOR AT EL.(+)8.500M(F.F.L.)(UNIT#1&2)	PE-DG-417-611-C021
POWER HOUSE BUILDING (AB BAY-TG) GA & RC DETAILS OF FLOOR AT EL.(+)17.000M(F.F.L.)(UNIT#1&2)	PE-DG-417-611-C030
AIR WASHER LAYOUT FOR "B-C BAY" SIDE ALONG WITH FOUNDATION DETAILS - TG BUILDING (UNIT 1 & 2)	PE-V0-417-554-A023
DATA SHEET & GA DRAWING FOR AIR WASHER & UAF ALONG WITH FAN & PUMP FOUNDATION DETAILS FOR VENTILATION SYSTEM	PE-V0-417-554-A009
PID & SCHEME FOR AIR WASHER AND UAF UNIT FOR VENTILATION SYSTEM	PE-V0-417-554-A021
SCHEME OF AIR DISTRIBUTION IN POWER HOUSE BUILDING, ESP-FGD CONTROL BUILDING.	PE-V0-417-554-A058
TG EQUIPMENT LAYOUT PLAN AT MISC FLOORS ABOVE OPERATING FLOOR IN BC BAY	PE-DG-417-100-M006
TG EQUIPMENT LAYOUT PLAN AT MEZZANINE FLOOR	PE-DG-417-100-M004

NOTES:

1. ALL DIMENSIONS ARE IN MM & LEVELS ARE IN METER UNLESS STATED OTHERWISE.
2. CONCRETE & MASONRY WORK/WALL CLADDING ARE IN BHEL SCOPE.
3. MINOR MODIFICATION IN DUCT CAN BE DONE AS SUIT AT SITE CONDITION.
4. DUCT SUPPORT INSIDE BUILDING WILL BE TAKEN FROM EXISTING SLAB/STRUCTURE TO SUIT AT SITE CONDITION.
5. MAXIMUM DUCT LOAD IS 150 KG PER RUNNING MTRS.
6. ALL BOTTOM LEVEL DIMENSIONS ARE GIVEN FROM FINISH FLOOR LEVEL.
7. LOCATION OF VENTILATION DUCT ROUTINGS ARE DONE AS PER BHEL INPUT DRAWINGS.
8. SPACING BETWEEN TWO SUPPORT/HANGER OF THE DUCT SHALL BE 2.0 M.

LEGENDS

SYMBOLE	DESCRIPTION
	Supply Air Grill
	Volume Control Damper
	Motorised Fire Damper
	Gravity Damper
	Wall Opening
SAG	Supply Air Grill
BOD	Bottom of Duct
WO	Wall Opening
BO	Bottom of
SO	Slab Opening
VCD	Volume Control Damper
MFD	Motorised Fire Damper
GD	Gravity Damper
AD	ACCESS DOOR

UNIT – 5

WALL OPENING SCHEDULE B ROW SIDE UNIT # 5

TAG	SIZE(WxH)	QTY.	BOTTOM OF OPENING	
WO-01	1000 x 400	07 Nos.	EL+ 14.2M	@EL+ 13.5M

SUPPLY AIR GRILLE DAMPER SCHEDULE FOR VENTILATION SYSTEM
B ROW SIDE ELECTRIAL AREA

EL+	TAG	SIZE(WxH)	QTY.	AIR QTY. CMH EACH	TOTAL AIR QTY. CMH	AREA OF LOCATIONS OF GRILLES
EL+13.5M	SAG-1	900x300	07	3428	24000	PLAN AT EL:13.5M/12.0M - UNIT 5

GRAVITY DAMPER SCHEDULE FOR VENTILATION SYSTEM
B ROW SIDE ELECTRIAL AREA

@ EL+	TAG	SIZE(WxH)	QTY
EL+ 13.5M	GD-1	600x450	05 Nos

REV.	DATE	ALTD	CHD	APPD

417
CONTRACT

VENTILATION DUCT LAYOUT FOR TG BUILDING - 'BC BAY' SIDE (Unit 3, 4 & 5)

DRN	DESIGN	CHD	APPD	DATE	SCALE
D.KUMAR	ANAND	S.DANGI	SCY	29.10.2021	1:125

DRAWING NO. PE-V0-417-554-A044
SHEET 10 OF 10 REV. 02
SIZE-A0

DRAWING No. PE-V0-417-554-A044 Rev. 02

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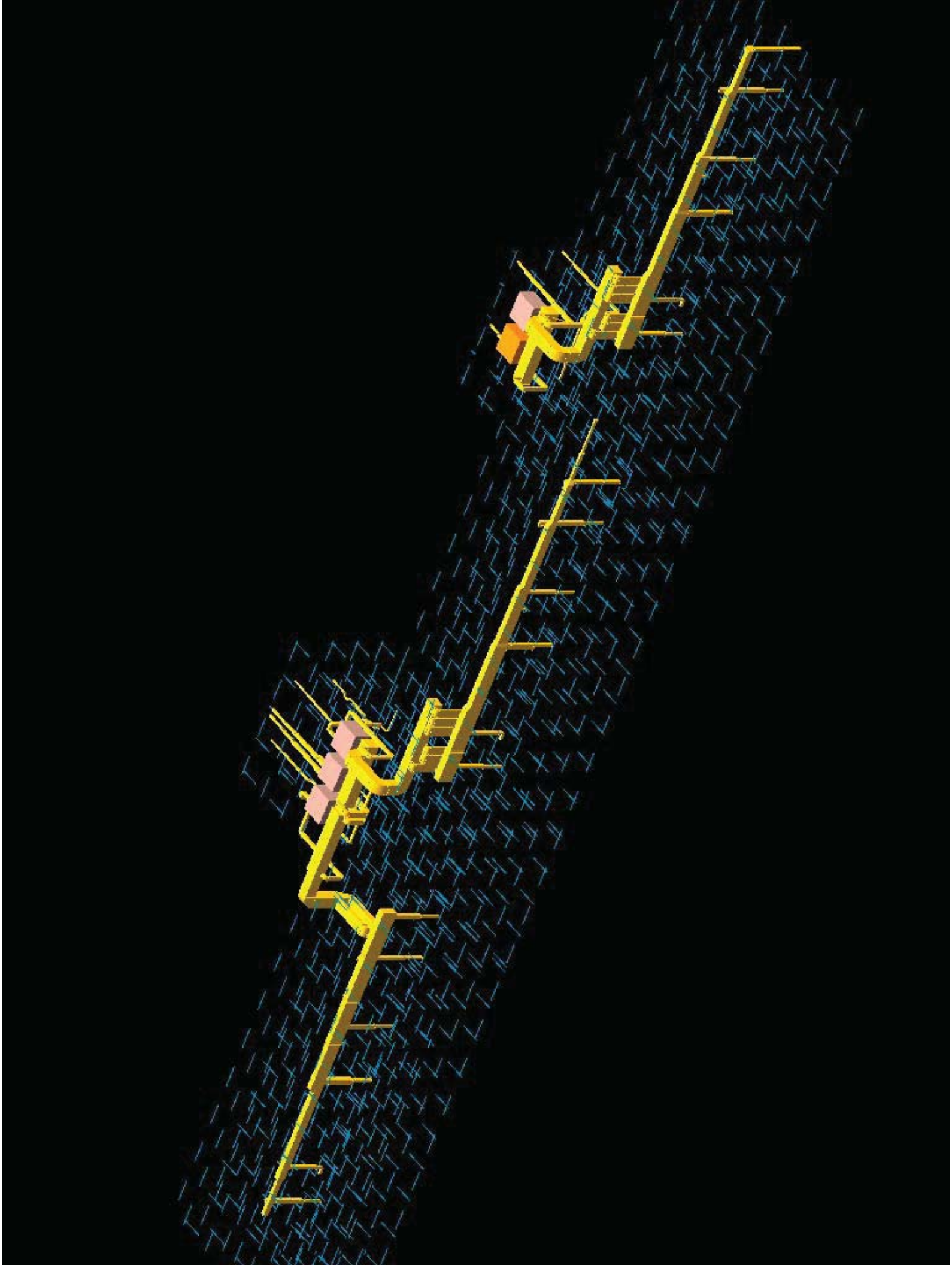
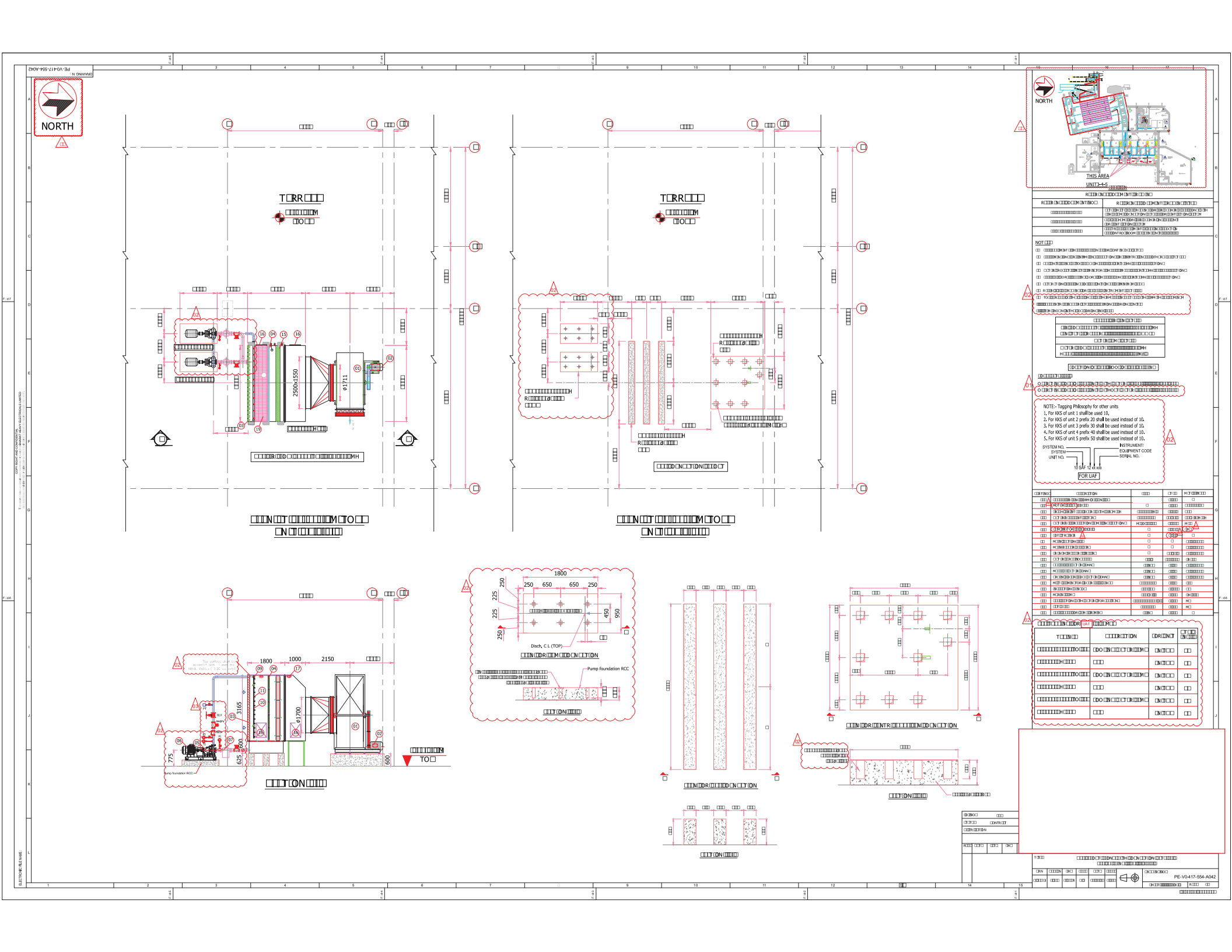
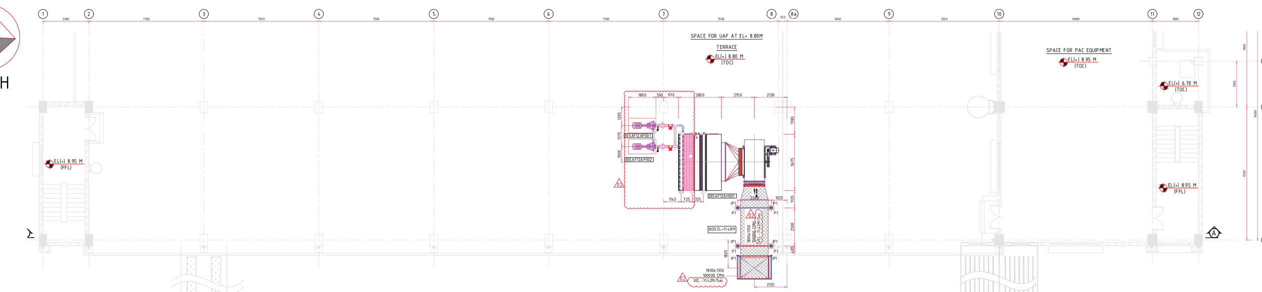
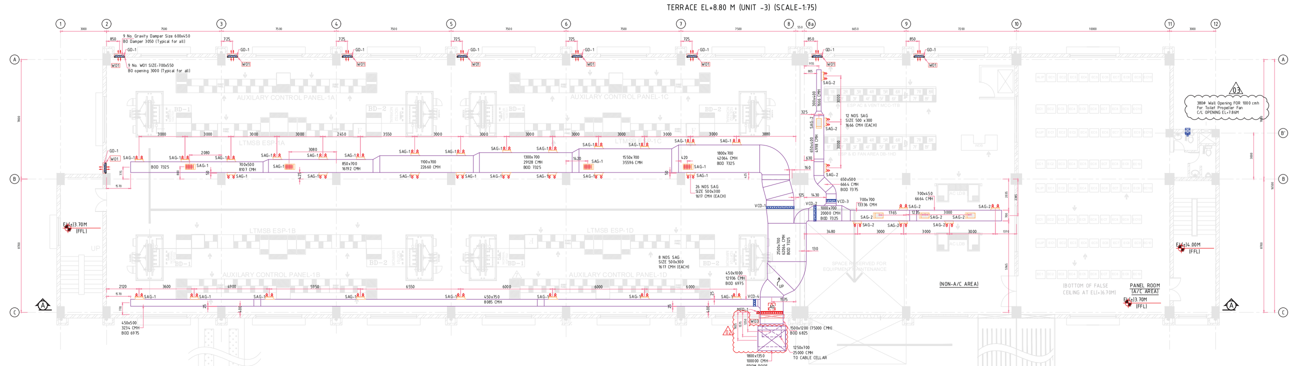


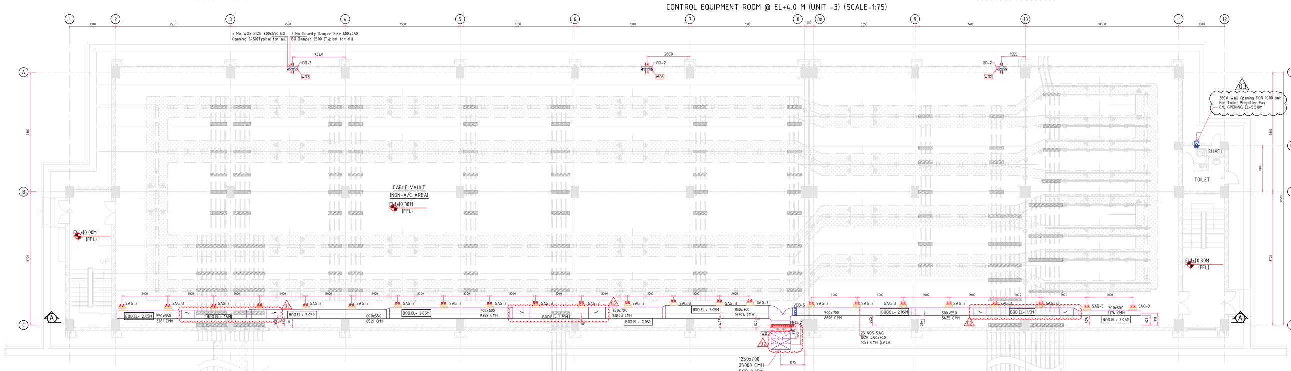

NORTH
THIS AREA
UNIT3-4-5
2500x1550
ø1711
1800
1000
2150
3165
ø1700
Disch. C.L (TOP)
Pump foundation RCC
PE-V0417-554-A042



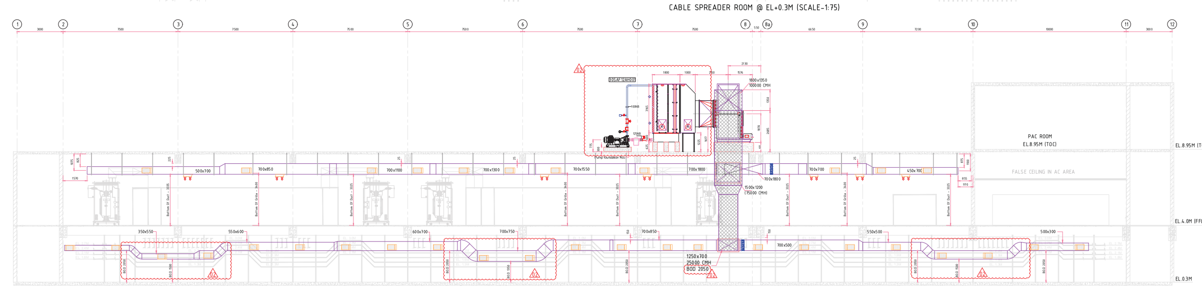
TERRACE EL+8.80 M (UNIT -3) (SCALE-1:75)



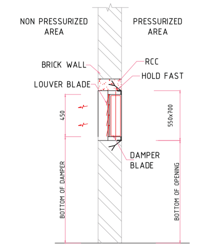
CONTROL EQUIPMENT ROOM @ EL+4.0 M (UNIT -3) (SCALE-1:75)



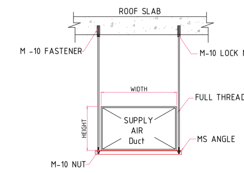
CABLE SPREADER ROOM @ EL+0.3M (SCALE-1:75)



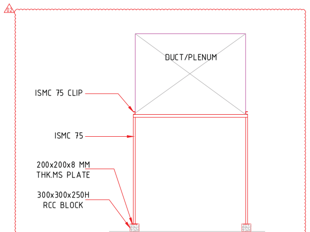
SECTION A-A (SCALE-1:75)



TYPICAL GRAVITY DAMPER DETAIL



TYPICAL DUCT SUPPORT FROM ROOF



TYPICAL DUCT/PLENUM SUPPORT DETAILS FROM FFL

WALL OPENING SCHEDULE

S.NO.	DESCRIPTION	SIZE (mm)	QTY.	Bottom Elevation from (EL)
W01	For Gravity Damper	700x550	9	EL.+6.70 Mtr
W02	For Gravity Damper	700x550	3	EL.+2.75 Mtr
W03	For Supply Air Duct	1650x1350	1	EL.+6.75 Mtr
W04	For Supply Air Duct	1400x850	1	EL.+1.975 Mtr

BOQ OF SUPPLY AIR GRILLS

S.NO.	DESCRIPTION	SIZE (mm)	QTY.	FLOW (CMH) (Each)
SAG-1	SUPPLY AIR GRILL	500x300	34	1617
SAG-2	SUPPLY AIR GRILL	500x300	12	1666
SAG-3	SUPPLY AIR GRILL	450x300	23	1087

DUCTING BOQ UNIT 3

S.NO.	GAUGE	DUCT QTY. (SQM.)	INSULATION QTY. (SQM.)
1.	24	370	126
2.	22	240	
3.	20	200	
4.	18	30	

BOQ OF VOLUME CONTROL DAMPERS

S.NO.	DESCRIPTION	SIZE (mm)	QTY.	FLOW (CMH)
VCD-1	Volume Control Damper	1800x700	1	42064
VCD-2	Volume Control Damper	1000x700	1	20000
VCD-3	Volume Control Damper	650x500	1	6664
VCD-4	Volume Control Damper	450x1000	1	12936
VCD-5	Volume Control Damper	500x700	1	8696

BOQ OF MOTORISED FIRE DAMPERS

S.NO.	DESCRIPTION	SIZE (mm)	QTY.	FLOW (CMH)
MFD-1	Motorised Fire Damper	1500x1200	1	75000
MFD-2	Motorised Fire Damper	1250x700	1	25000

BOQ OF GRAVITY DAMPERS

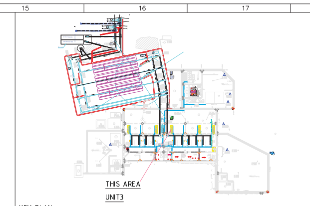
S.NO.	DESCRIPTION	SIZE (mm)	QTY.	Elevation from (FFL)
GD-1	Gravity Damper	600x450	9	EL.+6.75 Mtr
GD-2	Gravity Damper	600x450	3	EL.+2.8 Mtr

BOQ OF INSERT PLATE

S.NO.	DESCRIPTION	SIZE (mm)	QTY.	REMARKS
IP1	Insert Plate	200x200x8	6	ALL PLATE PROVIDE BY BHEL

RCC BLOCK SCHEDULE

S.NO.	DESCRIPTION	SIZE (MM) (LxWxH)	QTY. (Nos.)	REMARKS
P1	FOR SUPPLY AIR DUCT	300x300x250	4	



KEY PLAN

REFERENCE DOCUMENT/DRAWING

REFERENCE DOCUMENT NO.	REFERENCE DOCUMENT/DRAWING TITLE
PE-V0-417-554-A009	DATA SHEET & GA DRAWING FOR AIR WASHER & UAF ALONG WITH FAN & PUMP FOUNDATION DETAILS FOR VENTILATION SYSTEM
PE-V0-417-554-A021	PID & SCHEME FOR AIR WASHER AND UAF UNIT FOR VENTILATION SYSTEM
PE-DG-417-100-E008	ELECTRICAL EQUIPMENT & CABLING LAYOUT IN ESP CONTROL ROOM BUILDING UNIT 1,2,3,4 & 5
PE-V0-417-554-A019	TYPICAL Details DUCT FABRICATION DRAWING / SUPPORT / EREC.FOR VENTILATION SYSTEM INSULATION OF DUCT / PIPING & EQUIPMENTS
PE-V0-417-554-A012	DATA SHEET FOR INSULATION FOR VENTILATION SYSTEM
PE-V0-417-554-A042	UAF LAYOUT ALONGWITH FOUNDATION DETAILS - ESP BUILDING. (Unit 3, 4 & 5)
PE-DC-417-554-A001	DESIGN MEMORANDUM FOR VENTILATION SYSTEM
PE-DG-417-619-C001 TO C004	ESP CONTROL BUILDING ARCHITECTURAL PLAN, ELEVATION & SECTIONS FOR UNIT 1,2,3,4 & 5)
PE-DG-417-619-C010	ESP CONTROL BUILDING (UNIT- 1 TO 5) GA & RC DETAILS OF ROOF BEAMS
PE-DG-417-100-M001	PLOT PLAN

NOTES:

1. ALL DIMENSIONS ARE IN MM & LEVELS ARE IN METER UNLESS STATED OTHERWISE.
2. CONCRETE & MASONRY WORK/WALL CLADDING ARE IN BHEL SCOPE.
3. MINOR MODIFICATION IN DUCT CAN BE DONE AS SUIT AT SITE CONDITION.
4. DUCT SUPPORT INSIDE BUILDING WILL BE TAKEN FROM EXISTING SLAB/STRUCTURE TO SUIT AT SITE CONDITION.
5. MAXIMUM DUCT LOAD IS 150 KG PER RUNNING MTRS.
6. ALL BOTTOM LEVEL DIMENSIONS ARE GIVEN FROM FINISH FLOOR LEVEL.
7. LOCATION OF UFA & VENTILATION DUCT ROUTINGS ARE DONE AS PER BHEL INPUT DRAWINGS.
8. SPACING BETWEEN TWO SUPPORT/HANGER OF THE DUCT SHALL BE 2.0 M
9. REFER P & ID DRAWING FOR VALVES & INSTRUMENTS DETAILS.
10. TOP SURFACE OF THE UAF SHALL BE THERMALLY INSULATED WITH 13MM THICK ALUMINUM FACED NITRILE RUBBER (QTY: 10.5 SQ.M ONLY FOR ONE UNIT).

LEGENDS:-

SYMBOLE	DESCRIPTION
[symbol]	Supply Air Grill
[symbol]	Volume Control Damper
[symbol]	Motorized Fire Damper
[symbol]	Gravity Damper
[symbol]	Wall Opening
AD	Access Door
[symbol]	Insulation
SAG	Supply Air Grille
BOD	Bottom of Duct
WO	Wall Opening
VCD	Volume Control Damper
MFD	Motorised Fire Damper
GD	Gravity Damper

NOTE:- Tagging Philosophy for other units
1. For KKS of unit 1 shall be used 10.
2. For KKS of unit 2 prefix 20 shall be used instead of 10.
3. For KKS of unit 3 prefix 30 shall be used instead of 10.
4. For KKS of unit 4 prefix 40 shall be used instead of 10.
5. For KKS of unit 5 prefix 50 shall be used instead of 10.

SYSTEM NO. / SYSTEM / UNIT NO. / INSTRUMENT/EQUIPMENT CODE / SERIAL NO.
10 SAF 12 xx xxx
FOR UAF

KKS TAGGING FOR UAF & PUMPS

TAG.No.	DESCRIPTION	FOR UNIT	QTY. (Nos.)
30SAF12AP001 TO 002	COOLING WATER PUMP	UNIT#3	02
30SAF12AH001	UAF	UNIT#3	01

JOB NO.	417
STATUS	CONTRACT
DISTRIBUTION	

REV.	DATE	ALTD	CHD

VENTILATION DUCT LAYOUT FOR ESP BUILDINGS (Unit 3, 4 & 5)

DRN	DESIGN	CHD	APPD	DATE	SCALE	DRAWING NO.
H.S	L.PAL	A GAUR	S.V	02.04.21	1:150	PE-V0-417-554-A045

SHEET 1 OF 3 REV. 04

(SIZE:A0,841x1189)

DRAWING No. PE-V0-417-554-A045

ELECTRONIC FILE NAME:

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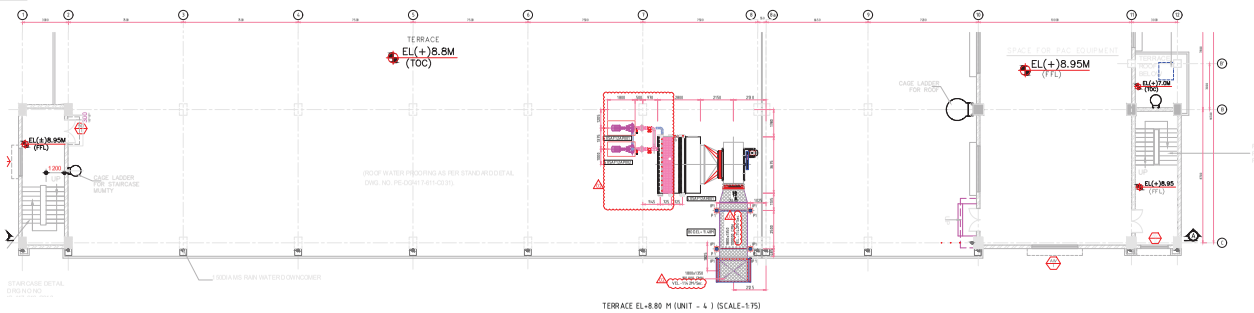
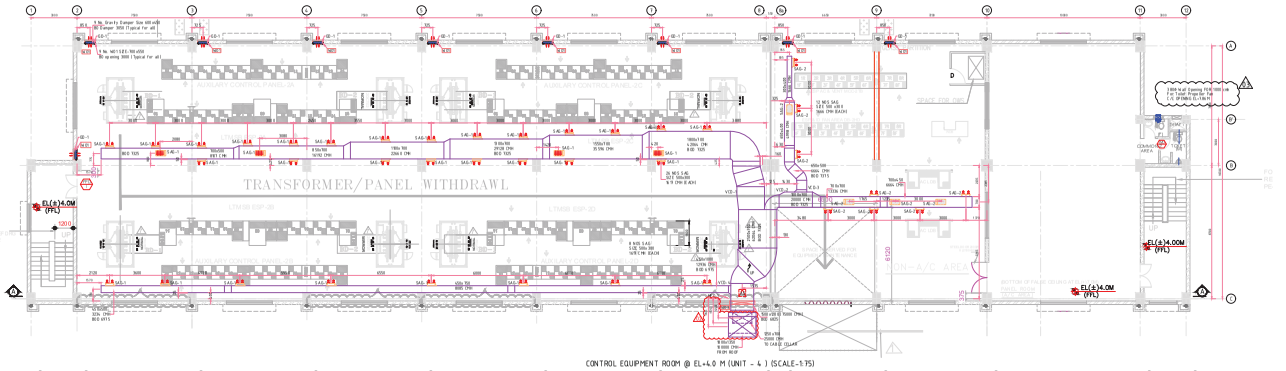
DRAWING No. PE-V0-4-17-554-A045

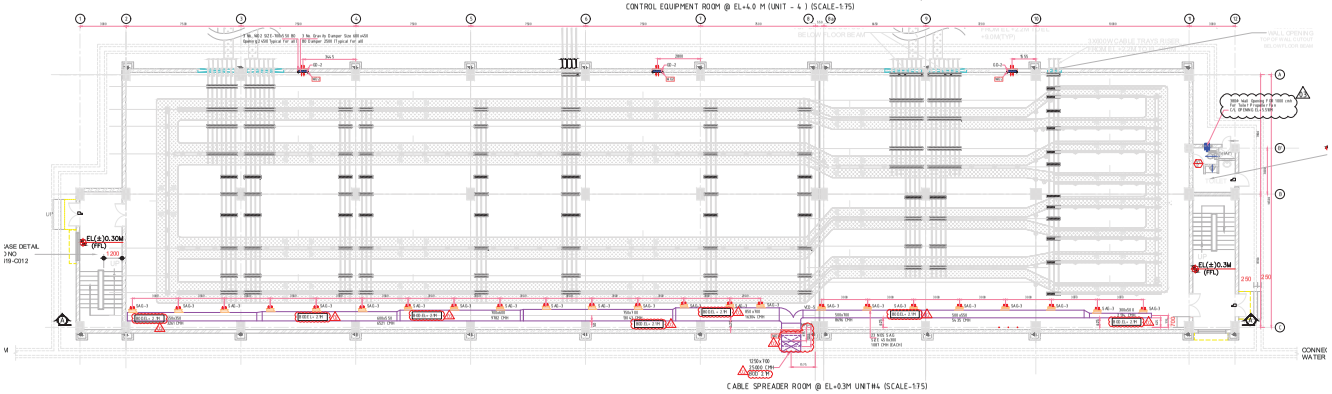
NORTH



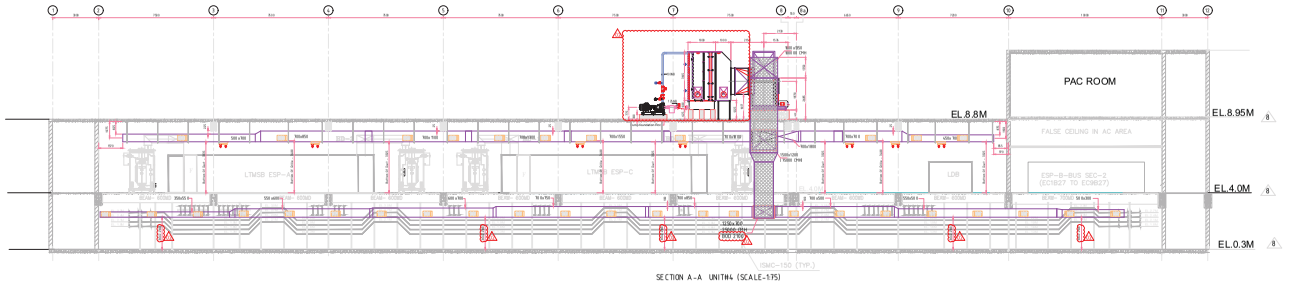
TERRACE EL+8.80 M (UNIT – 4) (SCALE-1:75)



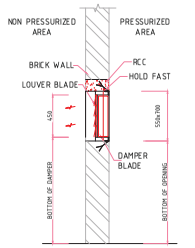
CONTROL EQUIPMENT ROOM @ EL+4.0 M (UNIT – 4) (SCALE-1:75)



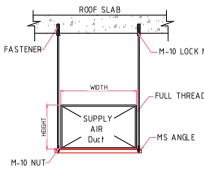
CABLE SPREADER ROOM @ EL+0.3M UNIT#4 (SCALE-1:75)



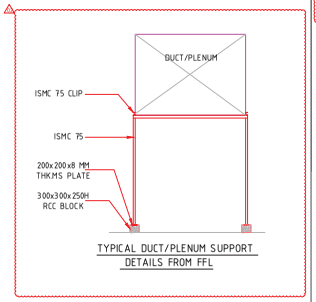
SECTION A-A UNIT#4 (SCALE-1:75)



TYPICAL GRAVITY DAMPER DETAIL



TYPICAL DUCT SUPPORT FROM ROOF



TYPICAL DUCT/PLENUM SUPPORT DETAILS FROM FFL

WALL OPENING SCHEDULE

S.NO.	DESCRIPTION	SIZE (mm)	QTY.	Bottom Elevation from (EL)
WO1	For Gravity Damper	700x550	9	EL.+6.70 Mtr
WO2	For Gravity Damper	700x550	3	EL.+2.75 Mtr
WO3	For Supply Air Duct	1650x1350	1	EL.+6.75 Mtr
WO4	For Supply Air Duct	1400x850	1	EL.+2025 Mtr

BOQ OF SUPPLY AIRGRILLS

S.NO.	DESCRIPTION	SIZE (mm)	QTY.	FLOW (CMH) (Each)
SAG-1	SUPPLY AIR GRILL	500x 300	34	1617
SAG-2	SUPPLY AIR GRILL	500x 300	12	1666
SAG-3	SUPPLY AIR GRILL	450x300	23	1089

BOQ OF VOLUME CONTROL DAMPERS

S.NO.	DESCRIPTION	SIZE (mm)	QTY.	FLOW (CMH)
VCD-1	Volume Control Damper	1800x700	1	42084
VCD-2	Volume Control Damper	1000x700	1	20000
VCD-3	Volume Control Damper	650x500	1	6646
VCD-4	Volume Control Damper	450x 1000	1	12936
VCD-5	Volume Control Damper	500x700	1	8696

BOQ OF MOTORISED FIRE DAMPERS

S.NO.	DESCRIPTION	SIZE (mm)	QTY.	FLOW (CMH)
MFD-1	Motorised Fire Damper	1500x1200	1	75000
MFD-2	Motorised Fire Damper	1250x700	1	25000

BOQ OF GRAVITY DAMPERS

S.NO.	DESCRIPTION	SIZE (mm)	QTY.	Elevation from (PFL)
GD-1	Gravity Damper	6.00x450	9	EL.+6.75 Mtr
GD-2	Gravity Damper	6.00x450	3	EL.+2.8 Mtr

BOQ OF INSERT PLATE

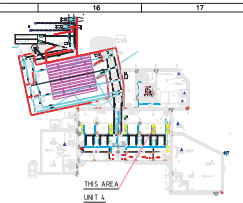
S.NO.	DESCRIPTION	SIZE (mm)	QTY.	REMARKS
IP1	Insert Plate	200x200x8	6	ALL PLATE PROVIDE BY BHEL

RCC BLOCK SCHEDULE

S.NO.	DESCRIPTION	SIZE (MM) (L x W x H)	QTY. (Nos.)	REMARKS
P1	FOR SUPPLY AIR DUCT	300x 300x 250	4	

DUCTING BOQ UNIT 4

S.NO.	GAUGE	DUCT QTY. (SQM.)	INSULATION QTY. (SQM.)
1.	24	330	
2.	22	240	
3.	20	200	126
4.	18	30	



KEY PLAN

REFERENCE DOCUMENT/DRAWING

REFERENCE DOCUMENT NO.	REFERENCE DOCUMENT/DRAWING TITLE
PE-V0-4-17-554-A009	DATA SHEET & GA DRAWING FOR AIR WASHER & UAF ALONG WITH FAN & PUMP FOUNDATION DETAILS FOR VENTILATION SYSTEM
PE-V0-4-17-554-A021	P&ID SCHEME FOR AIR WASHER AND UAF UNIT FOR VENTILATION SYSTEM
PE-DG-4-17-100-E008	ELECTRICAL EQUIPMENT & CABLING LAYOUT IN ESP CONTROL ROOM BUILDING UNIT 1,2,3& 4, 5
PE-V0-4-17-554-A019	TYPICAL Details DUCT FABRICATION DRAWING / SUPPORT / ERECTION VENTILATION SYSTEM INSULATION OF DUCT / PIPING & EQUIPMENTS
PE-V0-4-17-554-A012	DATA SHEET FOR INSULATION FOR VENTILATION SYSTEM
PE-V0-4-17-554-A042	UAF LAYOUT ALONGWITH FOUNDATION DETAILS
PE-DC-4-17-554-A001	DESIGN PHILOSOPHY FOR VENTILATION SYSTEM
PE-DG-4-17-619-C001 TO C004	ESP CONTROL BUILDING ARCHITECTURAL PLAN, ELEVATION & SECTIONS FOR UNIT 1,2,3,4, & 5
PE-DG-4-17-619-C010	ESP CONTROL BUILDING (UNIT- 1 TO 5) GA & RC DETAILS OF ROOF BEAMS
PE-DG-4-17-100-P001	PLOT PLAN

NOTES:

1. ALL DIMENSIONS ARE IN MM & LEVELS ARE IN METER UNLESS STATED OTHERWISE.
2. CONCRETE & MASONRY WORK/WALL CLADDING ARE IN BHEL SCOPE.
3. MINOR MODIFICATION IN DUCT CAN BE DONE AS SUIT AT SITE CONDITION
4. DUCT SUPPORT INSIDE BUILDING WILL BE TAKEN FROM EXISTING SLAB/STRUCTURE TO SUIT AT SITE CONDITION
5. MAXIMUM DUCT LOAD IS 150 KG PER RUNNING MTRS.
6. ALL BOTTOM LEVEL DIMENSIONS ARE GIVEN FROM FINISH FLOOR LEVEL.
7. LOCATION OF UFA & VENTILATION DUCT ROUTINGS ARE DONE AS PER BHEL INPUT DRAWINGS.
8. SPACING BETWEEN TWO SUPPORT/HANGER OF THE DUCT SHALL BE 2.0 M
9. REFER P & ID DRAWING FOR VALVES & INSTRUMENTS DETAILS.
10. TOP SURFACE OF THE UAF SHALL BE THERMALLY INSULATED WITH 19MM THICK ALUMINUM FACED NITRILE RUBBER (QTY. 10.5 SQM ONLY FOR ONE UNIT).

LEGENDS:-

SYMBOLE	DESCRIPTION
SAG	Supply Air Grill
VCD	Volume Control Damper
MFD	Motorised Fire Damper
GD	Gravity Damper
WO	Wall Opening
AD	Access Door
INSUL	Insulation
SAG	Supply Air Grille
BOD	Bottom of Duct
WO	Wall Opening
VCD	Volume Control Damper
MFD	Motorised Fire Damper
GD	Gravity Damper

NOTE: Tagging Philosophy for other units

1 For FRS of unit 1 prefix 1 shall be used instead of 'X'.
2 For FRS of unit 2 prefix 2 shall be used instead of 'X'.
3 For FRS of unit 3 prefix 3 shall be used instead of 'X'.
4 For FRS of unit 4 prefix 4 shall be used instead of 'X'.
5 For FRS of unit 5 prefix 5A shall be used instead of 'X'.

SYSTEM NO. : INSTRUMENT/ SYSTEM/ EQUIPMENT CODE
UNIT NO. : SERIAL NO.
FOR UAF

FRS TAGGING FOR UAF & PUMPS

TAG No.	DESCRIPTION	FOR UNIT	QTY. (No.s)
4.05.AP12.AP001 TO 002	COOLING WATER PUMP	UNIT#4	02
4.05.AP12.AH001	UAF	UNIT#4	01

REV.	DATE	DESCRIPTION	DRWN BY	CHKD BY	APPD BY
04	31.10.2022	ISSUED FOR APPROVAL	H.S	A.GAUR	S.V
03	26.09.2022	ISSUED FOR APPROVAL	H.S	A.GAUR	S.V
02	30.06.2022	ISSUED FOR APPROVAL	H.S	A.GAUR	S.V
01	05.08.2021	ISSUED FOR APPROVAL	HIMANSHU	A.GAUR	S.V
0	02.04.2021	ISSUED FOR APPROVAL	H.S	A.GAUR	S.V

CUSTOMER:	TELANGANA STATE POWER GENERATION CORPORATION LTD TELANGANA, INDIA 5x800 MW YADADRI TPS, NALGONDA
CONSULTANT:	TATA CONSULTING ENGINEERS LIMITED BANGALORE INDIA
	BHARAT HEAVY ELECTRICALS LTD POWER SECTOR PROJECT ENGINEERING MANAGEMENT NOIDA
	ADVANCE VENTILATION PRIVATE LIMITED KHASRA NO.-22//21/ 1&2 NATHUPUR INDUSTRIAL AREA (SONEPAT) JOB NO - PE1/DEL-069/BHEL

JOB NO.	417
STATUS	CONTRACT
DISTRIBUTION	

REV.	DATE	ALTD	CHD	APPD

TITLE: VENTILATION DUCT LAYOUT FOR ESP BUILDINGS (Unit 3, 4 & 5)

DRN	DESIGN	CHD	APPD	DATE	SCALE
H.S	L.PAL	A. GAUR	S.V	02.04.21	1:50

DRAWING NO. PE-V0-4-17-554-A045

SHEET 2 OF 3 REV. 04

(SIZE: A0,841x1189)

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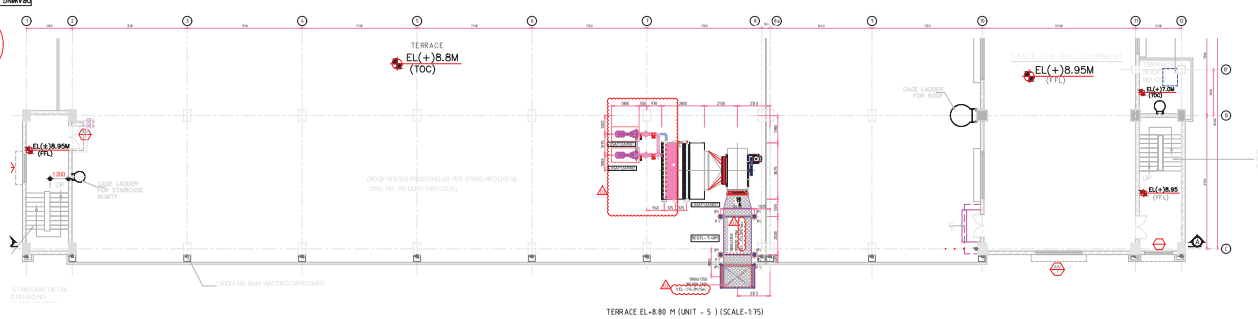
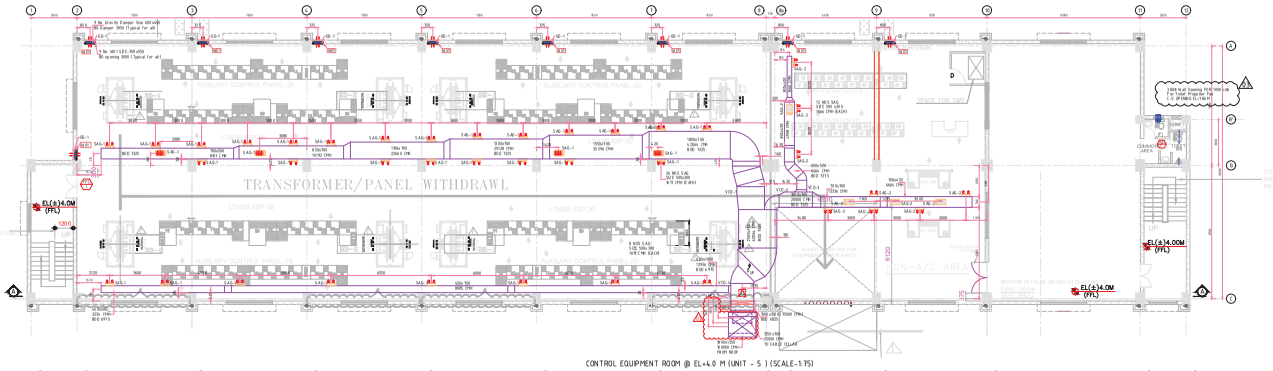
ELECTRONIC FILE NAME:

DRAWING No. PE-V0-4-17-554-A045

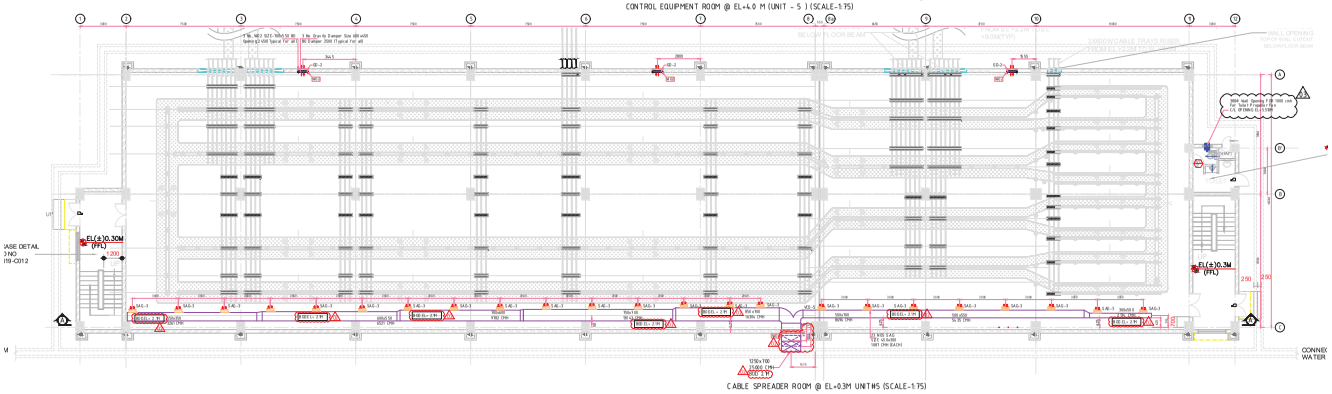
NORTH



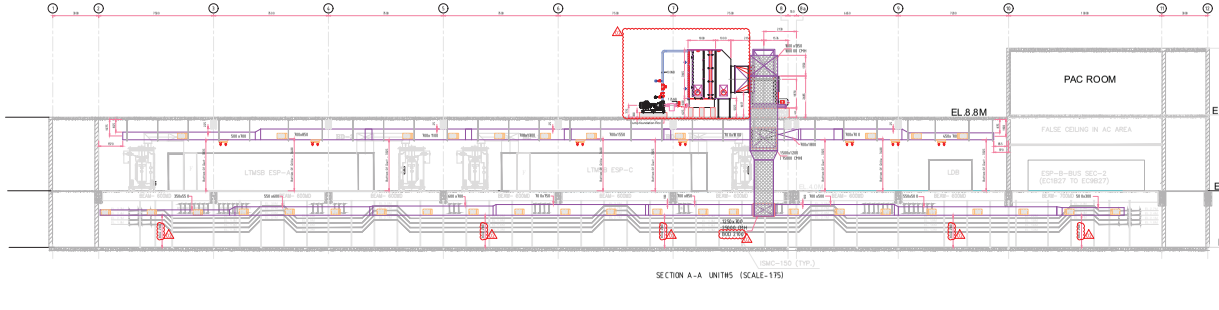
TERRACE EL+8.80 M (UNIT – 5) (SCALE-1:75)



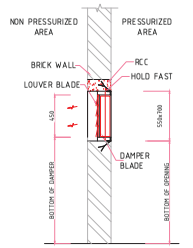
CONTROL EQUIPMENT ROOM @ EL+4.0 M (UNIT – 5) (SCALE-1:75)



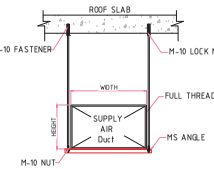
CABLE SPREADER ROOM @ EL+0.3M UNITH5 (SCALE-1:75)



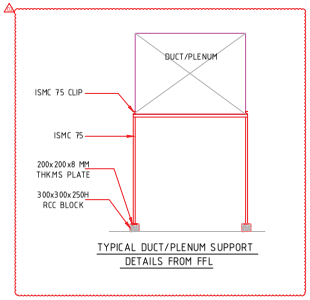
SECTION A-A UNITH5 (SCALE-1:75)



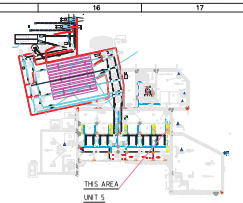
TYPICAL GRAVITY DAMPER DETAIL



TYPICAL DUCT SUPPORT FROM ROOF



TYPICAL DUCT/PLENUM SUPPORT DETAILS FROM FFL



KEY PLAN

REFERENCE DOCUMENT/DRAWING	
REFERENCE DOCUMENT NO.	REFERENCE DOCUMENT/DRAWING TITLE
PE-V0-4-17-554-A009	DATA SHEET & GA DRAWING FOR AIR WASHER & UAF ALONG WITH FAN & PUMP FOUNDATION DETAILS FOR VENTILATION SYSTEM
PE-V0-4-17-554-A021	P&I & SCHEME FOR AIR WASHER AND UAF UNIT FOR VENTILATION SYSTEM
PE-DG-4-17-100-E008	ELECTRICAL EQUIPMENT & CABLING LAYOUT IN ESP CONTROL ROOM BUILDING UNIT 1,2,3,4, & 5
PE-V0-4-17-554-A019	TYPICAL Details DUCT FABRICATION DRAWING / SUPPORT / ERECTION VENTILATION SYSTEM INSULATION OF DUCT / PIPING & EQUIPMENTS
PE-V0-4-17-554-A012	DATA SHEET FOR INSULATION FOR VENTILATION SYSTEM
PE-V0-4-17-554-A042	UAF LAYOUT ALONGWITH FOUNDATION DETAILS
PE-DC-4-17-554-A001	ESP BUILDING 1 Unit 3, 4 & 5)
PE-DG-4-17-619-C001 TO C004	DESIGN MEMORANDUM FOR VENTILATION SYSTEM
PE-DG-4-17-619-C010	ESP CONTROL BUILDING ARCHITECTURAL PLAN, ELEVATION & SECTIONS FOR UNIT 1,2,3,4, & 5
PE-DG-4-17-100-P001	ESP CONTROL BUILDING UNIT- 1 TO 5) GA & RC DETAILS OF ROOF BEAMS
	PLOT PLAN

NOTES:

1. ALL DIMENSIONS ARE IN MM & LEVELS ARE IN METER UNLESS STATED OTHERWISE.
2. CONCRETE & MASONRY WORK/WALL CLADDING ARE IN BHEL SCOPE.
3. MINOR MODIFICATION IN DUCT CAN BE DONE AS SUIT AT SITE CONDITION
4. DUCT SUPPORT INSIDE BUILDING WILL BE TAKEN FROM EXISTING SLAB/STRUCTURE TO SUIT AT SITE CONDITION
5. MAXIMUM DUCT LOAD IS 150 KG PER RUNNING MTRS.
6. ALL BOTTOM LEVEL DIMENSIONS ARE GIVEN FROM FINISH FLOOR LEVEL.
7. LOCATION OF UFA & VENTILATION DUCT ROUTINGS ARE DONE AS PER BHEL INPUT DRAWINGS.
8. SPACING BETWEEN TWO SUPPORT/HANGER OF THE DUCT SHALL BE 2.0 M
9. REFER P & ID DRAWING FOR VALVES & INSTRUMENTS DETAILS.
10. TOP SURFACE OF THE UAF SHALL BE THERMALLY INSULATED WITH 19MM THICK ALUMINUM FACED NITRILE RUBBER (QTY. 10.5 SQM ONLY FOR ONE UNIT).

LEGENDS:-

SYMBOLE	DESCRIPTION
SAG	Supply Air Grill
VOLUME CONTROL DAMPER	Volume Control Damper
MOTORISED FIRE DAMPER	Motorised Fire Damper
GRAVITY DAMPER	Gravity Damper
WO	Wall Opening
ACCESS DOOR	Access Door
INSULATION	Insulation
SAG	Supply Air Grille
BOD	Bottom of Duct
WO	Wall Opening
VCD	Volume Control Damper
MFD	Motorised Fire Damper
GD	Gravity Damper

NOTE:- Tagging Philosophy for other units

1. For AHS of unit 1 shall be used 1A
2. For AHS of unit 2 prefix 2A shall be used instead of 1A
3. For AHS of unit 3 prefix 3A shall be used instead of 1A
4. For AHS of unit 4 prefix 4A shall be used instead of 1A
5. For AHS of unit 5 prefix 5A shall be used instead of 1A

SYSTEM NO. / SYSTEM UNIT NO. / INSTRUMENT / EQUIPMENT CODE / SERIAL NO.

FOR UAF

AHS TAGGING FOR UAF & PUMPS

TAG No.	DESCRIPTION	FOR UNIT	QTY (Nos.)
505AP12AP001 TO 002	COOLING WATER PUMP	UNIT#5	02
505AP12AH001	UAF	UNIT#5	01

WALL OPENING SCHEDULE

S.NO.	DESCRIPTION	SIZE (mm)	QTY.	Bottom Elevation from (EL)
WO1	For Gravity Damper	700x550	9	EL.+6.70 Mtr
WO2	For Gravity Damper	700x550	3	EL.+2.75 Mtr
WO3	For Supply Air Duct	1650x1350	1	EL.+6.75 Mtr
WO4	For Supply Air Duct	1400x850	1	EL.+2025 Mtr

BOQ OF SUPPLY AIRGRILLS

S.NO.	DESCRIPTION	SIZE (mm)	QTY.	FLOW (CMH) (Each)
SAG-1	SUPPLY AIR GRILL	500x 300	34	1617
SAG-2	SUPPLY AIR GRILL	500x 300	12	1666
SAG-3	SUPPLY AIR GRILL	450x300	23	1089

BOQ OF VOLUME CONTROL DAMPERS

S.NO.	DESCRIPTION	SIZE (mm)	QTY.	FLOW (CMH)
VCD-1	Volume Control Damper	1800x700	1	42084
VCD-2	Volume Control Damper	1000x700	1	20000
VCD-3	Volume Control Damper	650x500	1	6654
VCD-4	Volume Control Damper	450x 1000	1	12936
VCD-5	Volume Control Damper	500x700	1	8696

DUCTING BOQ UNIT 5

S.NO.	GAUGE	DUCT QTY (SQM)	INSULATION QTY. (SQM)
	24	370	
	22	240	
	20	200	126
	18	30	

BOQ OF MOTORISED FIRE DAMPERS

S.NO.	DESCRIPTION	SIZE (mm)	QTY.	FLOW (CMH)
MFD-1	Motorised Fire Damper	1500x1200	1	75000
MFD-2	Motorised Fire Damper	1250x700	1	25000

BOQ OF GRAVITY DAMPERS

S.NO.	DESCRIPTION	SIZE (mm)	QTY.	Elevation from (PFL)
GD-1	Gravity Damper	6.00x450	9	EL.+6.75 Mtr
GD-2	Gravity Damper	6.00x450	3	EL.+2.8 Mtr

BOQ OF INSERT PLATE

S.NO.	DESCRIPTION	SIZE (mm)	QTY.	REMARKS
IP1	Insert Plate	200x200x8	6	ALL PLATE PROVIDE BY BHEL

RCC BLOCK SCHEDULE

S.NO.	DESCRIPTION	SIZE (MM) (L x W x H)	QTY. (Nos.)	REMARKS
P1	FOR SUPPLY AIR DUCT	300x 300x 250	4	

JOB NO.	417
STATUS	CONTRACT
DISTRIBUTION	

REV.	DATE	ALTD	CHD	APPD

DRN	DESIGN	CHD	APPD	DATE	SCALE
N.S	L.PAL	A GAUR	S.V	02.04.21	1:150

DRAWING NO. PE-V0-4-17-554-A045

SHEET 3 OF 3 REV. 04

(SIZE: A0,841x1189)

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ELECTRONIC FILE NAME

ELECTRICAL SCOPE BETWEEN BHEL AND VENDOR

PACKAGE: VENTILATION SYSTEM

S.NO	DETAILS	SCOPE SUPPLY	SCOPE E&C	REMARKS
1	415V MCC	BHEL	BHEL	240 V AC (supply feeder)/415 V AC (3 PHASE 4 WIRE) supply shall be provided by BHEL based on load data provided by vendor at contract stage for all equipment supplied by vendor as part of contract. Any other voltage level (AC/DC) required will be derived by the vendor.
2	Local Push Button Station (for motors)	BHEL	BHEL	Located near the motor.
3	Power cables, control cables and screened control cables for a) both end equipment in BHEL's scope b) both end equipment in vendor's scope c) one end equipment in vendor's scope	 BHEL BHEL BHEL	 BHEL Vendor BHEL	1. For 3.b) & c): Sizes of cables required shall be informed by vendor at contract stage (based on inputs provided by BHEL) in the form of cable listing. Finalisation of cable sizes shall be done by BHEL. Vendor shall provide lugs & glands accordingly. 2. Termination at BHEL equipment terminals by BHEL. 3. Termination at Vendor equipment terminals by Vendor.
4	Junction box for control & instrumentation cable	Vendor	Vendor	Number of Junction Boxes shall be sufficient and positioned in the field to minimize local cabling (max 10-12 mtrs) and trunk cable.
5	Any special type of cable like compensating, co-axial, prefab, MICC, fibre optical etc.	Vendor	Vendor	Refer C&I portion of specification for scope of fibre Optical cables if used between PLC/ microprocessor & DCS.
6	Cable trays, accessories & cable trays supporting system 100/ 50 mm cable trays/ Conduits/ Galvanised steel cable troughs for local cabling	BHEL Vendor	BHEL Vendor	Local cabling from nearby main route cable tray (BHEL scope) to equipment terminal (vendor's scope) shall be through 100/ 50 mm. cable trays/ conduits/ Galvanised steel cable troughs, as per approved layout drawing during contract stage.
7	Cable glands ,lugs and bimetallic strip for equipment supplied by Vendor	Vendor	Vendor	1. Double compression Ni-Cr plated brass cable glands 2. Solder less crimping type heavy duty tinned copper lugs for power and control cables.
8	Conduit and conduit accessories for cabling between equipments supplied by vendor	Vendor	Vendor	Conduits shall be medium duty, hot dip galvanised cold rolled mild steel rigid conduit as per IS: 9537.
9	Lighting	BHEL	BHEL	
10	Equipment grounding & lightning protection	BHEL	BHEL	Refer note no. 4 for electronic earthing
11	Below grade grounding	BHEL	BHEL	
12	LT Motors with base plate and foundation hardware	Vendor	Vendor	Makes shall be subject to customer/ BHEL approval at contract stage.
13	Mandatory spares	Vendor	-	Vendor to quote as per specification.
14	Recommended O & M spares	Vendor	-	As specified elsewhere in specification

ELECTRICAL SCOPE BETWEEN BHEL AND VENDOR

PACKAGE: VENTILATION SYSTEM

S.NO	DETAILS	SCOPE SUPPLY	SCOPE E&C	REMARKS
15	Any other equipment/material/service required for completeness of system but not specified above (to ensure trouble free and efficient operation of the system).	Vendor	Vendor	
16	a) Input cable schedules (Control & Screened Control Cables) b) Cable interconnection details for above c) Cable block diagram	Vendor Vendor Vendor	- - -	Cable listing for Control and Instrumentation Cable and electronic earthing cable in enclosed excel format shall be submitted by vendor during detailed engineering stage.
17	Electrical Equipment & cable tray layout drawings	Vendor	-	For ensuring cabling requirements are met, vendor shall furnish Electrical equipment layout & cable tray layout drawings (both in print form as well as in AUTOCAD) of the complete plant (including electrical area) indicating location and identification of all equipment requiring cabling, and shall incorporate cable trays routing details marked on the drawing as per PEM interface comments. Cabling arrangement of the same (wherever overhead cable trays, trenches, cable ducts, conduits etc.) shall be decided during contract stage. Electrical equipment layout & cable tray layout drawing shall be subjected to BHEL/ customer approval without any commercial implications to BHEL.
18	Electrical Equipment GA drawing	Vendor	-	For necessary interface review.

NOTES:

1. Make of all electrical equipment/ items supplied shall be reputed make & shall be subject to approval of BHEL/customer after award of contract.
2. All QPs shall be subject to approval of BHEL/customer after award of contract without any commercial implication.
3. In case the requirement of Junction Box arises on account of Power Cable size mis-match due to vendor engineering at later stage, vendor shall supply the Junction Box for suitable termination.
4. Vendor shall indicate location of Electronic Earth pit in their Civil assignment drawing.

PUROMATIC
Committed to Excellence

Technical Data Sheet

ITEM	PRE FILTER (SS)	ANNEXURE	Page 1 of 6
CUSTOMER	TSGENCO R1	REF	2103092-TDS-A
PROJECT	5X800 MW YADADRI TPS	DATE	09.03.2021
PACKAGE	VENTILATION SYSTEMS	REV	R2
		DATE	10.03.2021

S.No.	Description	Specification
1	Manufacturer	As Per Approved Vendor R1
2	Frame type	Cassette/ Flange
3	Frame material	Al sheet 18 G (1.25 ± 0.12 mm) R1
4	Filter Media	Multiple layers of SS 316 wire mesh (mesh aperature 0.025mm max. and wire Dia 0.16 mm)
5	Media sealing	Epoxy R2
6	Test standard	BS:6540/ASHRAE-52-76/EN779
7	Face velocity	2.5 m/sec
8	Initial pressure drop	≤ 5 mm of WC
9	Final pressure drop	Up to 12 mm of WC R1
10	Average synthetic dust wt. arrestance (Equivalent Efficiency)	65% to 80% (90% down to 10 microns)
11	Aesthetics	Clean external surface, No adhesive on frame
12	Filter cleaning R1	Cleanable type with water spray

S.No.	Overall dimensions (mm) (H X W X D)	Flange Type Filter Face Area (mm)	Rated Flow (CMH)		Qty (Nos) R1
			For Cassette	For Flange	
1	610 X 610 X 50	550x550	3350	2733	PE-V0-417-554-A009 1

NOTE: As per the Test Standard the testing of filters will be done only for Average Synthetic Dust Weight Arrestance .

10/3/21

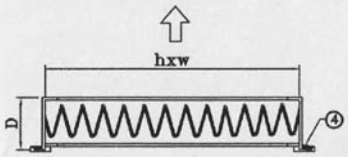
Puromatic Filters (P) Ltd. ★ 12 DSIDC Scheme-2, Okhla Ph-II ★ Authenticated By New Delhi-20 011-26388013-14

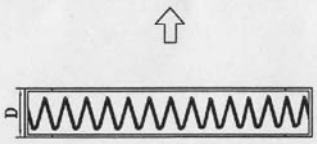
Puromatic Filters Pvt. Ltd.
12,DSIDC,Scheme-2,Okhla Industrial Area
Phase-2,New Delhi-110020,India
Telefax: +91-11-26388013,14,26389158
Email: sales@puromaticfilters.in
filters@puromaticfilters.in
Website: www.puromaticfilters.in

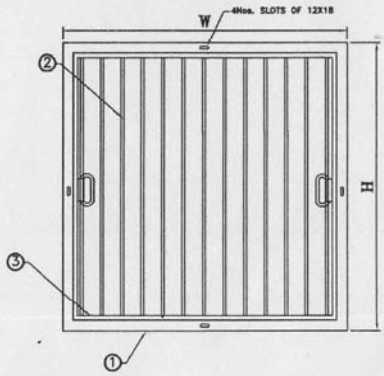
S.No.	ITEM	MATERIAL	QTY.	REMARKS
4.	GASKET	SOFTSPONGE FOAM	1 Set.	
3.	SEALING	EPOXY		
2.	FILTER MEDIA	SS WIRE MESH	1 Set.	
1.	FILTER FRAME	AL. SHEET 18 G	1 No.	

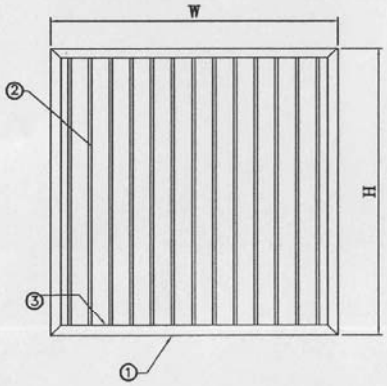
BILL OF MATERIAL

R1









Filter Media (2)

R1

NOTE:-

Sheet Thickness: Al. Sheet 18 G - 1.25 ± 0.12 mm

Filter Media: SS 316 Wire mesh, Multiple layers

(Aperture 0.025mm Max wire dia 0.16 mm)

R2

DIMENSIONS FOR CASSETTE TYPE

H''	W''	D''
610	610	50

DIMENSIONS FOR FLANGE TYPE

H''	W''	h''	w''	D''
610	610	550	550	50

Puromatic Filters (P) Ltd. * Authenticated By New Delhi-20 011-26388013-14 12, DSIDC Scheme-2, Okhla Ph-II *

PROJECT: 5X800 MW YADADRI TPS	ITEM: PRE FILTER (SS)
PACKAGE: VENTILATION SYSTEMS	TYPE: CASSTTE/FLANGE

PUROMATIC FILTERS PVT.LTD.
12,DSIDC,Scheme-2,Okhla Industrial Area
Phase-2,New Delhi-110020,India
Telefax:+91-11-26388013,14,26389158
Email:sales@puromaticfilters.in
filters@puromaticfilters.in
web:www.puromaticfilters.in
CIN- U74899DL1992PTC048328

ALL DIMENSIONS ARE IN MM.			
DRWN. BY	MD	CHKD. BY	
DRG NO.2103092-GAD-A			
DATE: 09.03.2021			
REV: 01		DATE:10.03.2021	
Sheet No. 2 of 6			

1

Technical Data Sheet

ITEM	PRE FILTER	ANNEXURE	Page 3 of 6
CUSTOMER	TSGENCO R1	REF	2103092-TDS-B
PROJECT	5X800 MW YADADRI TPS	DATE	09.03.2021
PACKAGE	VENTILATION SYSTEMS	REV	R2
		DATE	10.03.2021

S.No.	Description	Specification
1	Manufacturer	As Per Approved Vendor R1
2	Frame type	Cassette / Flange
3	Frame material	GI sheet 18 G (1.25 ± 0.12 mm)
5	Spacers	Al sheet 20 G (0.91 ± 0.08 mm)
6	Filter Media	Synthetic non woven(fire retardant and resistant to moisture, fungi ,bacteria & frost) progressive density filter media having high dust holding capacity at lesser pressure drop with HDPE mesh on air entry side & Al expanded mesh on air exit side.
7	Filter Media Basic Weight/ Thickness	120 ± 10% GSM / > 4 mm
8	Media sealing	Epoxy
9	Test standard	BS:6540/ASHRAE-52-76/EN779
10	Face velocity	2.5 m/sec.
11	Initial pressure drop	≤ 5 mm of WC
12	Final pressure drop	Up to 10 mm of WC R1
13	Average synthetic dust wt. arrestance (Equivalent Efficiency)	65% to 80% (90% down to 10 microns)
14	Aesthetics	Clean external surface, No adhesive on frame
15	Filter cleaning	By compressed air/ water

S.No.	Overall dimensions (mm) (H X W X D)	Flange Type Filter Face Area (mm)	Rated Flow (CMH)		Qty (Nos) R1
			For Cassette	For Flange	
1	610 X 610 X 50	550x550	3350	2733	PE-V0-417-554-A008

NOTE: As per the Test Standard the testing of filters will be done only for Average Synthetic Dust Weight Arrestance

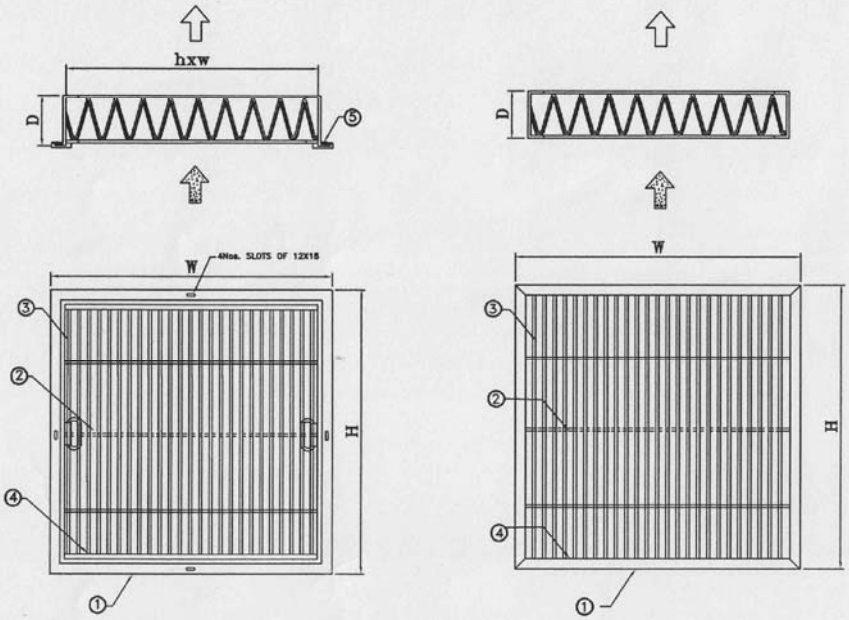
10/3/21

Puromatic Filters (P) Ltd. ★ 12 DSIDC Scheme-2, Okhla Ph-II ★
Authenticated By New Delhi-20 011-26388013-14

Puromatic Filters Pvt. Ltd.
12,DSIDC,Scheme-2,Okhla Industrial Area
Phase-2,New Delhi-110020,India
Telefax: +91-11-26388013,14,26389158
Email: sales@puromaticfilters.in
filters@puromaticfilters.in
website: www.puromaticfilters.in

S.No.	ITEM	MATERIAL	QTY.	REMARKS
5	GASKET	SOFTSPONGE FOAM		
4.	SEALING	EPOXY		
3.	FILTER MEDIA	SYN. NONWOVEN	1 Set	
2.	SPACERS	AL. Sheet 20 G	As per list	
1.	FILTER FRAME	GI. Sheet 18 G	1 No.	

BILL OF MATERIAL



NOTE:-

FILTER MEDIA : Thickness >4 mm
Basic Weight -120 ± 10% GSM
Sheet Thickness: GI Sheet 18 G -1.25 ± 0.12 mm
AL.Sheet 20 G-0.91 ± 0.08 mm

10/3/21

Puromatic Filters (P) Ltd. ★ 12 DSIDC Scheme-2, Okhla Ph-II ★
Authenticated By New Delhi-20 011-26388013-14

DIMENSIONS FOR CASSETTE TYPE

H^{0}_{-5}	W^{0}_{-5}	D^{+2}	No. of Pleats(± 1)	No. of Spacers
610	610	50	22	3

DIMENSIONS FOR FLANGE TYPE

H^{0}_{-5}	W^{0}_{-5}	h^{0}_{-5}	w^{0}_{-5}	D^{+2}	No. of Pleats(± 1)	No. of Spacers
610	610	550	550	50	20	3

PROJECT: 5X800 MW YADADRI TPS	ITEM: PRE FILTER
PACKAGE: VENTILATION SYSTEMS	TYPE: CASSTTE/FLANGE

PUROMATIC FILTERS PVT.LTD.
12,DSIDC,Scheme-2,Okhla Industrial Area
Phase-2,New Delhi-110020,India
Telefax:+91-11-26388013,14,26389158
Email:sales@puromaticfilters.in
filters@puromaticfilters.in
web:www.puromaticfilters.in
CIN- U74899DL1992PTC048328

ALL DIMENSIONS ARE IN MM.

DRWN. BY	MD	CHKD. BY

DRG NO.2103092-GAD-B
DATE: 09.03.2021
REV: 01 DATE: 10.03.2021

Technical Data Sheet

ITEM	FINE FILTER	ANNEXURE	Page 5 of 6
CUSTOMER	TSGENCO R1	REF	2103092-TDS-C
PROJECT	5X800 MW YADADRI TPS	DATE	09.03.2021
PACKAGE	VENTILATION SYSTEMS	REV	R2
		DATE	10.03.2021

S.No.	Description	Specification
1	Manufacturer	As Per Approved Vendor R1
2	Frame type	Cassette / Flange
3	Frame material	GI sheet 18 G (1.25 ± 0.12 mm)
5	Spacers	Al sheet 20 G (0.91 ± 0.08 mm)
6	Filter Media	Synthetic non woven(fire retardant and resistant to moisture, fungi ,bacteria & frost) progressive density filter media having high dust holding capacity at lesser pressure drop with HDPE mesh on air entry side & Al expanded mesh on air exit side.
7	Filter Media Basic Weight/ Thickness	200 ± 10% GSM / > 1.5 mm
8	Media sealing	Epoxy
9	Test standard	BS:6540/ASHRAE-52-76/EN779
10	Face velocity	2.4 m/sec.
11	Initial pressure drop	≤ 10 mm of WC
12	Final pressure drop	Up to 18 mm of WC
13	Average synthetic dust wt. arrestance (Equivalent Efficiency)	>90% (99% down to 5 microns)
14	Aesthetics	Clean external surface, No adhesive on frame
15	Filter cleaning	By compressed air/ water

S.No.	Overall dimensions (mm) (H X W X D)	Flange Type Filter Face Area (mm)	Rated Flow (CMH)		Qty (Nos) R1
			For Cassette	For Flange	
1	610 X 610 X 305	550x550	3215	2613	PE-V0-417-554-A008

NOTE: As per the Test Standard the testing of filters will be done only for Average Synthetic Dust Weight Arrestance

Puromatic Filters (P) Ltd. ★ 12 DSIDC Scheme-2 Okhla Ph-II ★ Authenticated By New Delhi-20 011-26388013-14

Puromatic Filters Pvt. Ltd.
12,DSIDC,Scheme-2,Okhla Industrial Area
Phase-2,New Delhi-110020,India
Telefax: +91-11-26388013,14,26389158
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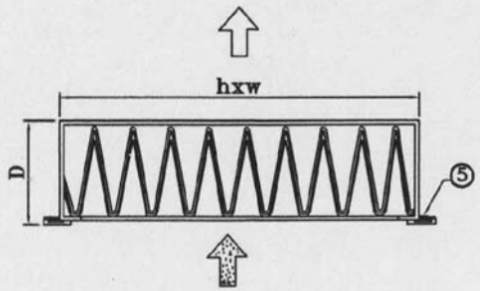
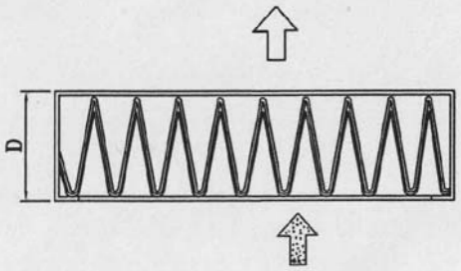
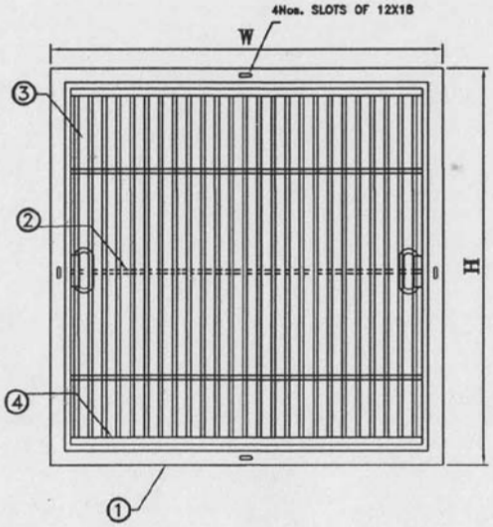
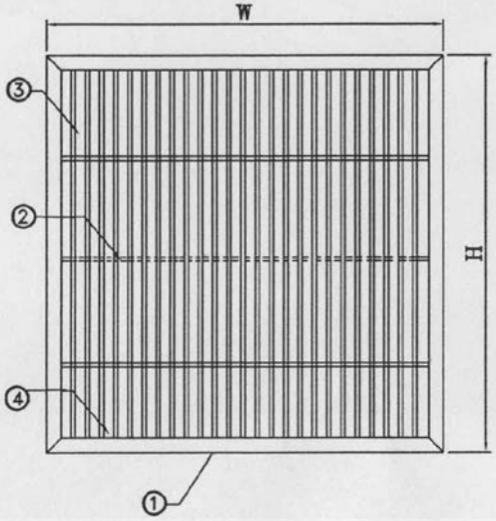
filters@puromaticfilters.in
website: www.puromaticfilters.in

S.No.	ITEM	MATERIAL	QTY.	REMARKS
	BILL OF MATERIAL			
5	GASKET	SOFTSPONGE FOAM		
4.	SEALING	EPOXY		
3.	FILTER MEDIA	SYN. NONWOVEN	1 Set	
2.	SPACERS	AL. Sheet 20 G	As per list	
1.	FILTER FRAME	GI. Sheet 18 G	1 No.	









NOTE:-

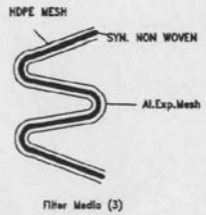
FILTER MEDIA : Thickness >1.5 mm
Basic Weight -200 ± 10% GSM
Sheet Thickness: GI Sheet 18 G -1.25 ± 0.12 mm
AL.Sheet 20 G-0.91 ± 0.08 mm

DIMENSIONS FOR CASSETTE TYPE

H^{+5}_{-3}	W^{+5}_{-3}	$D^{\pm 2}$	No. of Pleats(± 1)	No. of Spacers
610	610	305	22	3

DIMENSIONS FOR FLANGE TYPE

H^{+5}_{-3}	W^{+5}_{-3}	h^{+5}_{-3}	w^{+5}_{-3}	$D^{\pm 2}$	No. of Pleats(± 1)	No. of Spacers
610	610	550	550	305	20	3



Puromatic Filters (P) Ltd. ★ 12, DSIDC Scheme-2, Okhla Ph-II ★
Authenticated By New Delhi-20 011-26388013-14

PROJECT: 5X800 MW YADADRI TPS	ITEM: FINE FILTER
PACKAGE: VENTILATION SYSTEMS	TYPE: CASSTTE/FLANGE

PUROMATIC FILTERS PVT.LTD.
12,DSIDC,Scheme-2,Okhla Industrial Area
Phase-2,New Delhi-110020,India
Telefax:+91-11-26388013,14,26389158
Email:sales@puromaticfilters.in
filters@puromaticfilters.in
web:www.puromaticfilters.in
CIN- U74899DL1992PTC048328

ALL DIMENSIONS ARE IN MM.		
DRWN. BY	MD	CHKD. BY
DRG NO.2103092-GAD-C		
DATE: 09.03.2021		
REV: 01	DATE: 10.02.2021	
Sheet No. 6 of 6		

Name of Project	**YADADRI TPS 5 X 800 MW (TELANGANA)**
Package	**, Ventilation System**
Document title	**Data Sheet of Insulation for Ventilation System** R1

S.N	Description	Specification
1	Manufacturer	As per Approved Sub - Vendor List R1
2	Material	XLPE with UV barrier film lamination
3	Thickness	13 mm thick Aluminium Foil Faced R1
4	Density	33 Kg/m3
5	Form	Roll
6	Thermal conductivity	Shall not be exceeding 0.035 W/mk
7	Final Finish	UV Protection Coating
8	Service Temperature Range	-40 to 115 deg C
9	Flammability	Class B1
10	Fire Properties	Self- extinguishing and non-dripping properties against fire attack

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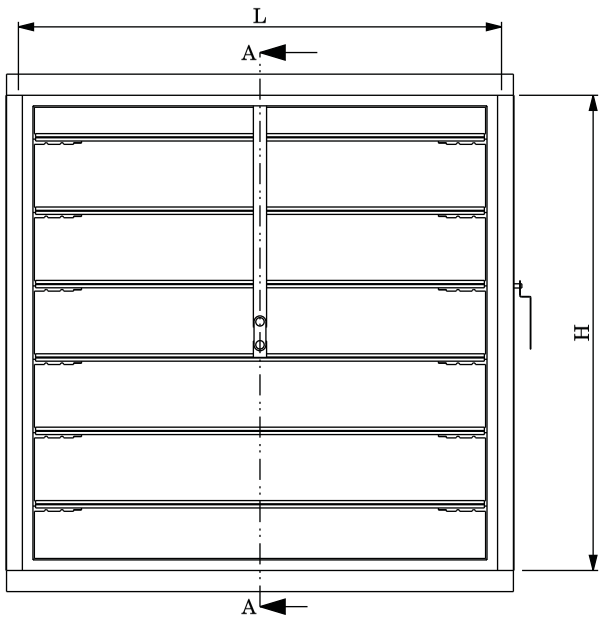
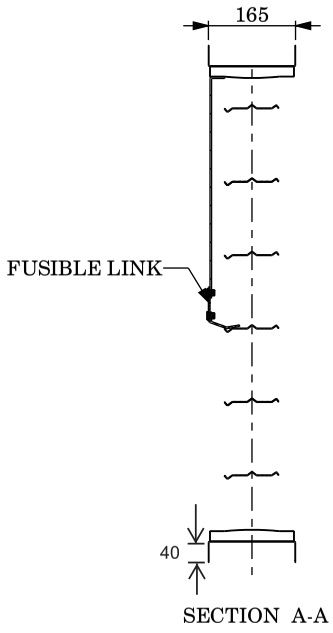
TECHNICAL DATA SHEET

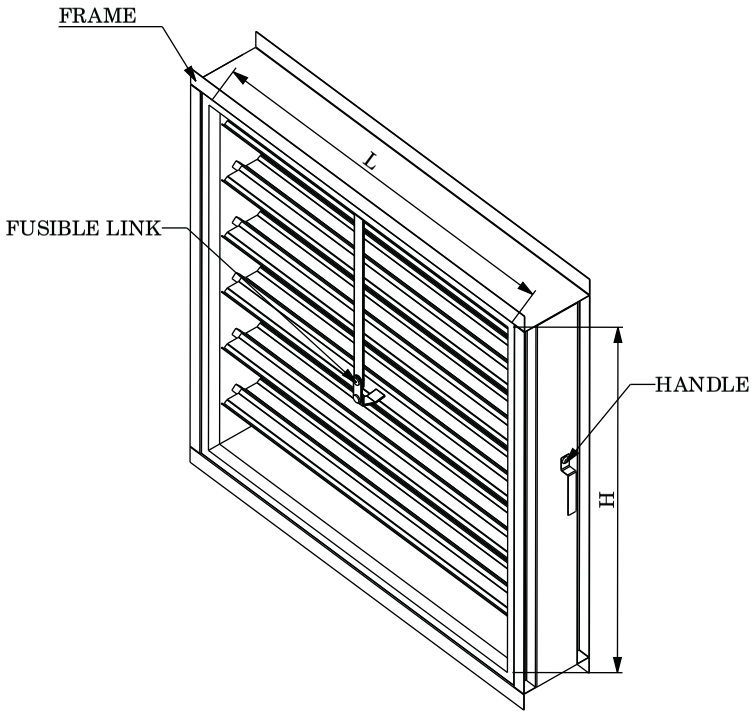
DUCT MOUNTED TYPE FIRE DAMPER (FUSIBLE LINK TYPE) 03

S.No.	DESCRIPTION	DETAILS
1	MAKE	SYSTEMAIR (RAVISTAR)
2	SIZE	AS PER FINAL DUCTING LAYOUT
3	MODEL	WGD
4	REFERENCE CODE/ STANDARD	AS PER UL-555,1995 (CERTIFIED BY CBRI)
5	FIRE RATING	120 MINUTES
6	MOUNTING	DUCT MOUNTED
7	BLADE CONSTRUCTION	V- TYPE; MULTILEAF TYPE BLADE
8	LINKAGES /HANDLE	SELF LUBRICATING BRONZE BUSHES, SS SIDE SEAL, MS LINKAGES ONE SIDE ONLY , MANUAL TYPE
9	MATERIAL OF DAMPER	GALVANIZED SHEET
10	THICKNESS OF DAMPER	FRAME -16 G, BLADE- 16G V-TYPE
11	MAKE OF SHEET	JINDAL/NATIONAL/ESSAR (120GSM)
12	Fusible link	UL listed, 73 deg. C, ELSIE MAKE, Model A
13	WIDE	MINIMUM SIZE 300 X 300 MM (NECK) MAXIMUM SIZE 1200 X 1200 MM (NECK) SIZES ABOVE 1200 X 1200 WILL BE IN PARTITION
14	Application/ Location	Battery Room/ Refer VENT. ARRANGEMENT FOR BATTERY ROOM Unit 1&2 - doc.No(PE-V0-417-554-A031) and Unit 3,4 & 5 (doc.no-PE-V0-417-554-A047) 03

ALL DIMENSIONS ARE IN M.M. (IF IN DOUBT PLS. ASK DON'T SCALE THE DRAWING)







PART/No.:-	MATERIAL:-	DATE:-	DRAWING No.:-
FIRE DAMPER WITH FUSIBLE LINK	G.I.	13-Nov-2018	

TOLERANCE:-	SCALE:-	DRN. BY:-	CHD. BY:-	APPD. BY:-
±2	N.T.S.	SAGAR		

No. of SC/CC	
SC	
CC	

systemair

SYSTEMAIR INDIA PVT.LTD.

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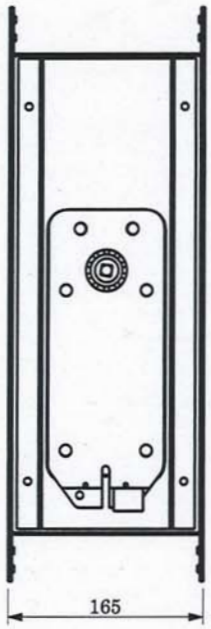
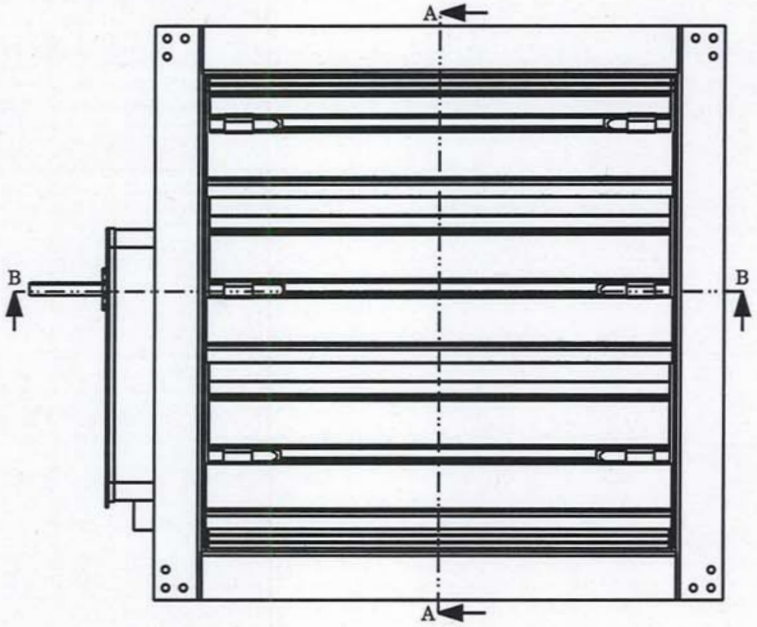
TECHNICAL DATASHEET		
FIRE DAMPER WITHOUT SLEEVE (MOTORIZED)		
S.NO.	**DESCRIPTION**	**DETAILS**
1	MAKE	SYSTEM AIR
2	SIZE	AS PER REQUIREMENT
3	MODEL	WGD
4	REFERENCE CODE/ STANDARD	AS PER UL-555,1995 (CERTIFIED BY CBRI)
5	FIRE RATING	120 MINUTES, WITH STAND TEMPERATURE -90 DEGREES CELSIUS.
6	MOUNTING	DUCT MOUNTED
7	BLADE CONSTRUCTION	V-TYPE
8	SHAFT	18mmx 14mm DIA CIRCULAR RODE code. IS-9550 GRI
9	MATERIAL OF DAMPER	GALVANIZED SHEET, IS277 03
10	THICKNESS OF DAMPER	FRAME-16 G, ;LOUVER-16 G
11	MAKE OF SHEET	JINDAL/ TATA/BHUSHAN
12	LINKAGE/ BUSH	U TYPE LINKAGE, STEEL IS-9550 FLAT CHROME PLATED HANDLE FOR ACTUATOR 03
13	ACTUATOR	BELIMO MAKE ACTUATOR, SRPING RETURN TYPE MODEL NFAS2,10NM TORQUE, IP54 PROTECTION,24-230V AC/DC 03
14	CONTROL PANEL	OPERATING VOLTAGE-220V AC, FREQUENCY 50 Hz, INDICATION OF POWER ON/ OFF CONNECT WITH AWU / FIRE SIGNAL ETC.
15	TYPE OF DAMPER	MOTORIZED
16	SIZE	MINIMUM SIZE 300 X 300 MM (NECK) MAXIMUM SIZE 1000 X 1000 MM (NECK) SIZES ABOVE 1000X 1000 WILL BE IN PARTITION
17	DAMPER CLOSING	SPRING RETURN ACTION FROM ACTUATOR ON POWER FAILURE
18	03 APPLICATION/ LOCATION	AT AWU/UAF DUCT LEADING TO TG BUILDING/ ESP BUILDING / 1.VENTILATION DUCT LAYOUT FORTG BUILDING - 'A' ROW SIDE (Unit 1 & 2) (PE-V0-417-554-A026). 2.VENTILATION DUCT LAYOUT FORTG BUILDING - 'BC BAY' SIDE(Unit 1 & 2) (PE-V0-417-554-A027). 3.VENTILATION DUCT LAYOUT FOR ESP BUILDINGS (Unit 1 & 2) -(PE-V0-417-554-A028). 4.AIR WASHER LAYOUT OUTSIDE "A ROW" SIDEALONGWITH FOUNDATION DETAILS - TG BUILDING (Unit 3, 4 & 5) (PE-V0-417-554-A040). 5.AIR WASHER LAYOUT FOR"B-C BAY" SIDEALONGWITH FOUNDATION DETAILS - TG BUILDING (Unit 3, 4 & 5) (PE-V0-417-554-A041). 6.UAF LAYOUT ALONGWITH FOUNDATION DETAILS - ESP BUILDING. (Unit 3, 4 & 5) (PE-V0-417-554-A042)

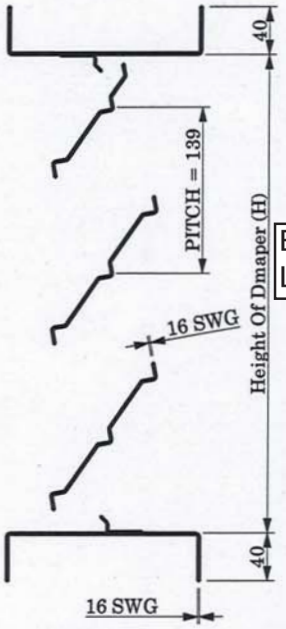
FORMAT NO: SIPL/7.3/12A/R1

UNLESS OTHERWISE SPECIFIED ALL DIMENSION ARE IN m.m.

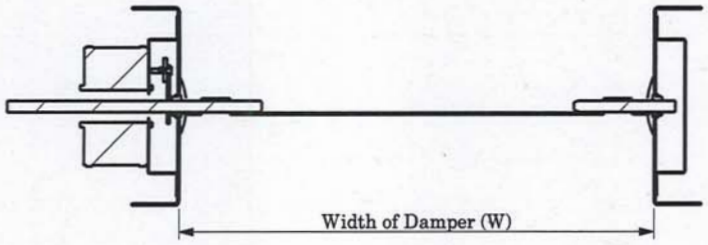
REV NO.	DATE	REVISION	REV. BY





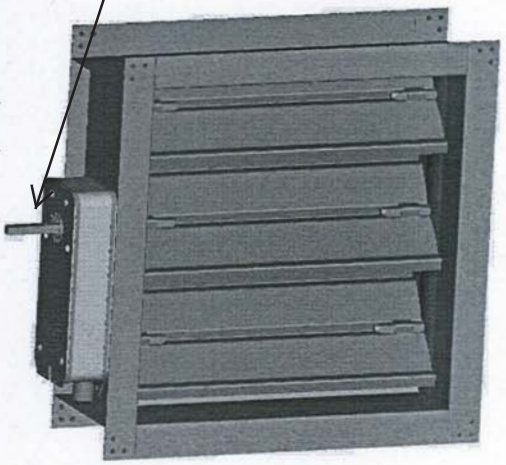


SECTION A-A



SECTION B-B

Electric actuated Link



Systemair India Private Limited Plot No. 3, Sector 31, Kasna Greater Noida

PART DESCRIPTION:				REMOVE SHARP EDGES	DRAWING No.:	REV NO.:
WGD - WITHOUT SLEEVE - MOTORIZED				DATE: 13-Nov-2018	SIPL/ADP/GA/2604	00
MATERIAL:	M. STANDARD:	SCALE:	DRN. BY:	CHKD. BY:	APPD. BY:	
-	-	N.T.S.	AMIR	DALIP	A.BHARDWAJ	

MASS PROPERTIES:	
VOLUME (mm³)	-
WEIGHT (kg)	-
No. of SC/CC	
SC	-
CC	0

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TOLERANCE LIMIT UNLESS SPECIFIED	
0.5 - 6 = ±0.3	>120 - 400 = ±2.0
>6 - 30 = ±0.5	>400 - 1000 = ±3.0
>30 - 120 = ±0.8	>1000 - 2000 = ±4.0

systemair

SYSTEMAIR INDIA PVT.LTD.

FILE PATH: Y:\Plants\Greater_Noida\CAD_Team\Amir Ansari\2. ADP\GA DRAWINGS\WGD-WITHOUT SLEEVE-MOTORIZED

A3 OCT 15 A

1.0. The main objectives of the Ventilation System are as per below :

1.1 To effectively remove the hot and stale air from the indoor space of the respective conditioned building.

1.2 To check and verify the designed / guaranteed parameters of the ventilation equipment.

2.0. Demonstration Methodology

The respective set of ventilation equipment and system is checked for the correctness of its mechanical installation and the electrical installation.

Now, the plant and equipments are put ON/started and the preliminary setting/adjusting of air volume control damper is completed. We shall continue for smooth and proper running of the plant equipment for next 30 minutes; before we start the measurement readings/ observations to be noted.

Following operational / performance parameters are to be recorded through the demonstration.

2.1 Current and voltage drawn by motor.

2.2 Bearing temperature of motors, fans and pumps to be measured.

2.3 Pressure develop by pump shall be measured and flow will be taken based on the shop witnessed characteristic curves. Necessary speed correction shall be done.

2.4 The air flow quantity shall be calculated by measuring velocity with help of anemometer / velometer in front of suction filters in a direction perpendicular to filter planes and at 1'' distance from the filter. Air washer room shall be closed while taking reading on Anemometer/Velometer. Velocity shall be measured at 5-7 transverse points across the filters to compute average velocity for flow calculation.

Test Capacity = Inlet suction Area x Average velocity.

2.5 Dry bulb temperature, wet bulb temperature of entering air before the air washer and leaving air just after the eliminators.

2.6 Vibration and noise level of centrifugal fans and associated motors to be measured.

The limit shall be as per QAP/Relevant standard.

2.7 Fan speed by tachometer of class +/-1% accuracy.

2.8 Noise level measurement for all tube axial fans. The limit shall be as per QAP/Relevant standard.

2.9 Auxiliary power consumption.

03. Test Instruments required :

a. Voltage and current shall be measured using tong tester of +/- 1% accuracy class.

b. Bearing temperature to be measured using thermometer of +/- 1% accuracy.

c. Dry bulb / wet bulb temperature shall be measured using sling psychrometer having thermometer of +/- 0.5% accuracy with a least count of 0.5 Deg. C.

d. Air flow of Centrifugal fans to be measured by Anemometer / Velometer.

e. Inclined -Tube Manometer for pressure drop across filters.

f. Calibration certificates for all test instruments shall be submitted.

ADVANCE VENTILATION (P) LIMITED * NFW DELHI *

04. Method of Calculation :

a. Saturation Efficiency % $= \frac{Te - T1}{Te - te} \times 100$

Design saturation efficiency for Air Washer & UAF shall be 90% and 60%

Where,
Te = Dry bulb temperature of air entering the Air Washer.
T1 = Dry bulb temperature of air leaving the Air Washer.
te = Wet bulb temperature of air entering the Air Washer.

Dry bulb & Wet bulb temperature measured by sling physchrometer shall be taken through moving air and continued till thermometer reading becomes steady.

Enclosure : "Record Form" for recording dry bulb/ wet bulb temp.
Note : Saturation (efficiency) measurement shall be done for other Air Washer also.

b. Power Consumption Calculation
Power measurement shall be by 3 phase clam on meter

P = W1 + W2
Whereas
P = Total Power
W1 = Power for Phase - 1
W2 = Power for Phase - 2

c. Vibration of various equipment:
Vibration level shall be measured by vibration level meter.

	Plane - X	Plane - Y	Plane - Z
D.E.			
N.D.E.			

d. Recording of noise of various equipment with the help of noise level meter, noise level shall be <85 db measured at 1.5 mtr. Distance.

OBSERVATIONS AND READINGS:

Bearing Temperature (deg. C)				
Time		FAN # 1	FAN # 2	
	DE			
	NDE			
Bearing Temperature (deg. C)				
Time		PUMP # 1	PUMP # 2	
	DE			
	NDE			
Sound Level (dbA)				
Time		FAN # 1	FAN # 2	
Fan Speed (rpm)				
Time		FAN # 1	FAN # 2	
Pressure drop across the filter (MM WC)				

Sr. No	**Guarantees Power Consumption**	**No. Of Equipment (working)**	**Total KW**
1	Air Washer Fan		
2	Air Washer Pump		
3	UAF Fan		
4	UAF Pump		
	Total :		

OBSERVATIONS AND READINGS:

Axial / R E Fan Readings. (Current & Noise Lvl.)				
Fan Capacity / Size	R	Y	B	Noise (db)

01. Outside Atmospheric Conditions :

Dry Bulb Temperature (DBT oa) :

Wet Bulb Temperature (WBT oa) :

02. Temperature conditions noted,
after the air washer / in the fan chamber :
Dry Bulb temperature (DBT a/aw)) :
Wet Bulb temperature (WBT a/aw) :

Designed Saturation efficiency	**90%**

So, Saturation Efficiency = $\frac{\text{DBT oa – DBT a/aw}}{\text{DBT oa – WBT a/aw}} \times 100$

= $\frac{\quad}{\quad} \times 100$

= %

03. Air flow rate of evaporative air cooling machine / system.

Average velocity of air on air prefilters = $\frac{\quad}{12}$

= M/sec

Filter face area (cross section) = Sq. mts.

So, air quantity handled; CMH =

Designed Air flow rate, CMH	

Current drawn by individual motor of the machine :

Blower # 01, Amps. :

Blower # 02, Amps. :

Pump unit # 01, Amps. :

Pump unit # 02, Amps :

Rated current Amps.	
Rated current Amps.	
Rated current Amps.	
Rated supply voltage	415 volts.

Supply Voltage ; Volts. :

DRAWING No.PE-V0-417-554-A019

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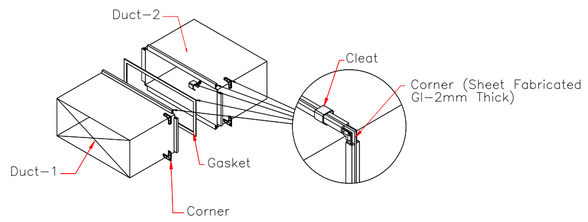
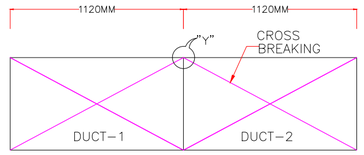
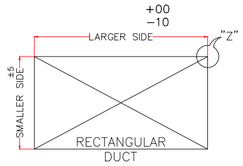


TYPICAL TDF JOINT DETAIL – X
FACTORY FABRICATED DUCTING



DUCT JOINT (TYPE-A)

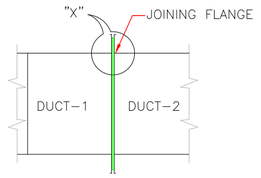


DUCT JOINT (CORNER DETAIL)
(FOR ALL DUCT)

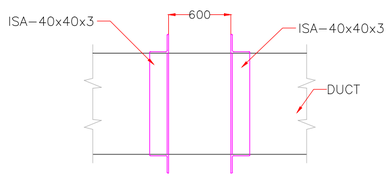
NOTE:–
ALL RECTANGULAR DUCT SHALL BE FLAT ON FACE AND DOUBLE SEAM JOINT (DETAIL–2) ON CORNER OF DUCT

NOTES:

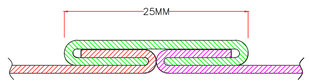
1. DUCT FABRICATION SHALL BE AS PER LATEST RELEVANT BIS/SMACNA STANDARD.
2. ALL FLANGE JOINTS SHALL HAVE 6 MM THK. RUBBER GASKET.
3. GI SHEET FOR DUCT SHALL BE AS PER IS:655 GRD 275 GSM. AS PER IS:277.
4. DUCT SUPPORT TO BE TAKEN PREFERABLY EXISTING ROOF, BEAMS, COLUMNS & WALL BEAMS.
5. DUCT SUPPORT & BRACING ANGLES ARE TO BE PRIMER PAINTED.
6. DISTANCE BETWEEN TWO DUCT SUPPORT ARE 2400 MM MAX.
7. TYPE OF TRANSVERSE JOINTS SHALL BE 40 MM X 40 MM X6 MM M.S. ANGLE CONNECTION.
8. SUITABLE DRAIN POINT WITH WATER TRAP SHALL BE PROVIDED FOR ALL WASHED AIR DUCT ROUTING AT SUITABLE PLACES, PREFERABLY AFTER AIR WASHER UNITS.
9. HANGERS FOR ALL DUCTS GREATER THAN2250 MM SHALL BE WITH 50 X 50 X 5 ANGLES AND RODS NOT LESS THAN 16 MM DIA.



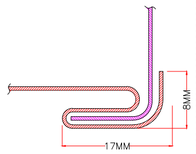
DUCT JOINT (TYPE-B)



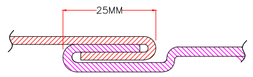
DETAILS OF STIFFENER BRACING



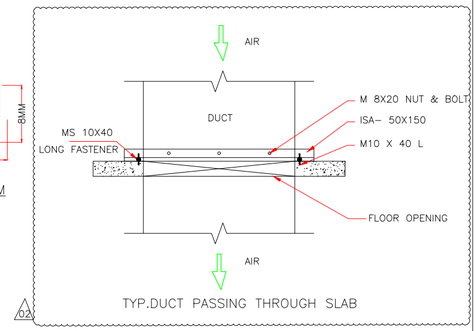
1D DRIVE SLIP
DETAIL–Y



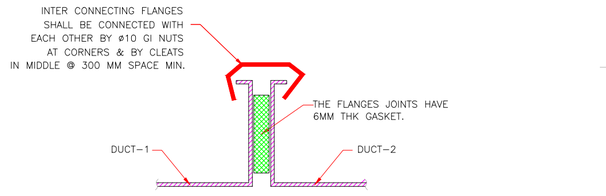
1J DOUBLE SEAM
DETAIL–Z



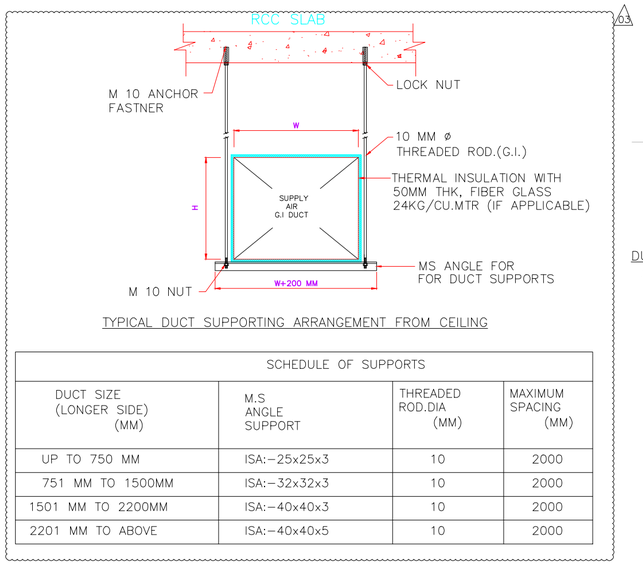
1A GROOVED SEAM
DETAIL–Y



02
TYP.DUCT PASSING THROUGH SLAB

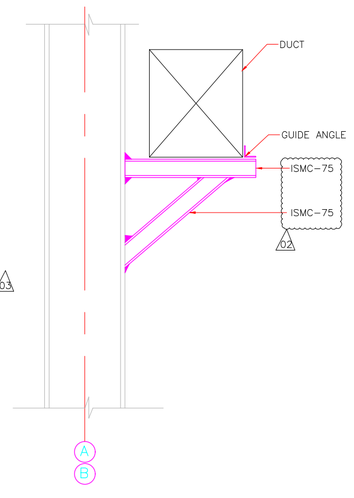


FLANGE JOINT
DETAIL–X

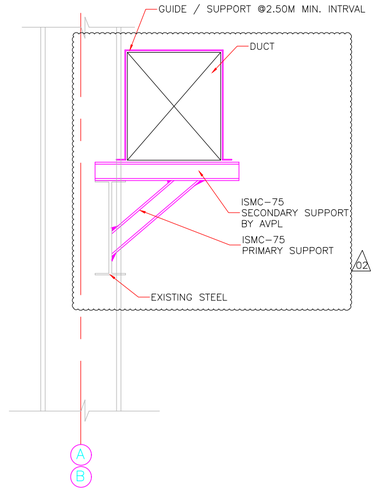


03
TYPICAL DUCT SUPPORTING ARRANGEMENT FROM CEILING

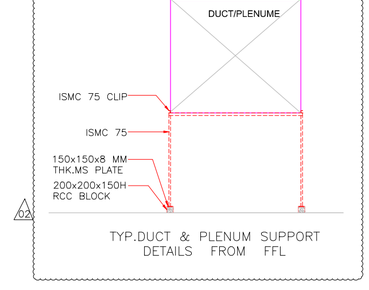
SCHEDULE OF SUPPORTS			
DUCT SIZE (LONGER SIDE) (MM)	M.S ANGLE SUPPORT	THREADED ROD.DIA (MM)	MAXIMUM SPACING (MM)
UP TO 750 MM	ISA:–25x25x3	10	2000
751 MM TO 1500MM	ISA:–32x32x3	10	2000
1501 MM TO 2200MM	ISA:–40x40x3	10	2000
2201 MM TO ABOVE	ISA:–40x40x5	10	2000



02
DUCT SUPPORT FROM
BUILDING COLUMN



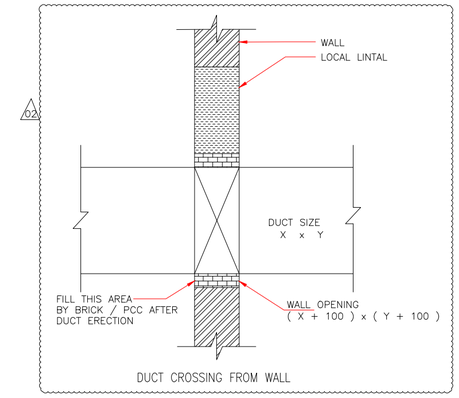
02
DUCT SUPPORT BETWEEN COLUMN



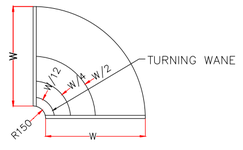
02
TYP.DUCT & PLENUM SUPPORT
DETAILS FROM FFL

DETAIL OF DUCT SUPPORT		
LARGER SIDE OF DUCT	ANGLE	ø ROD (M.S)
UPTO 2250	ISA–40x40x6	10
ABOVE 2250	ISA–50x50x6	16

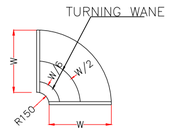
THICKNESS OF DUCT (G.I)	
LARGER SIDE OF DUCT	THICKNESS
UPTO 750	24G (0.63mm)
751 TO 1000	22G (0.8mm)
1001 TO 1500	22G (0.8mm)
1501 TO 2250	20G (1.0mm)
2251 & LARGER	18G (1.25mm)



02
DUCT CROSSING FROM WALL



"W" OVER 1000



"W" OVER 500 UP TO 1000 MM

"W" UP TO 500 MM

JOB NO.	417
STATUS	CONTRACT
DISTRIBUTION	

REV.	DATE	ALTD	CHD	APPD

CUSTOMER: TELANGANA STATE POWER GENERATION CORPORATION LTD
TELANGANA, INDIA
5x800 MW YADADRI TPS, NALGONDA

CONSULTANT: TATA CONSULTING ENGINEERS LIMITED
BANGALORE INDIA

BHARAT HEAVY ELECTRICALS LTD
POWER SECTOR
PROJECT ENGINEERING MANAGEMENT
NOIDA

TITLE: TYPICAL DETAILS DUCT FABRICATION DRG/SUPPORT/EREC. FOR VENTILATION SYSTEM. INSULATION OF DUCT/PIPING & EQUIPMENT PIPE ERECTION

DRN	DESIGN	CHD	APPD	DATE	SCALE
U.S	A.GAUR	L.PAL	S.V.	04.01.2020	NTS

DRAWING NO. PE-V0-417-554-A019
SHEET 1 OF 2 REV. 03
SIZE-A2

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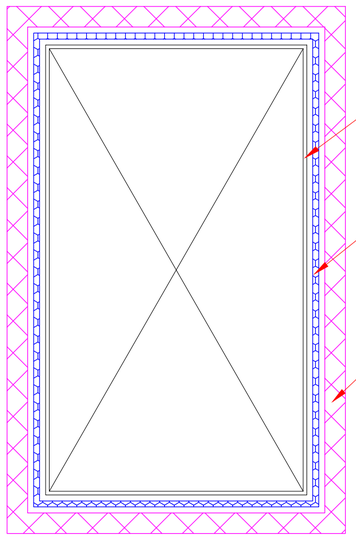
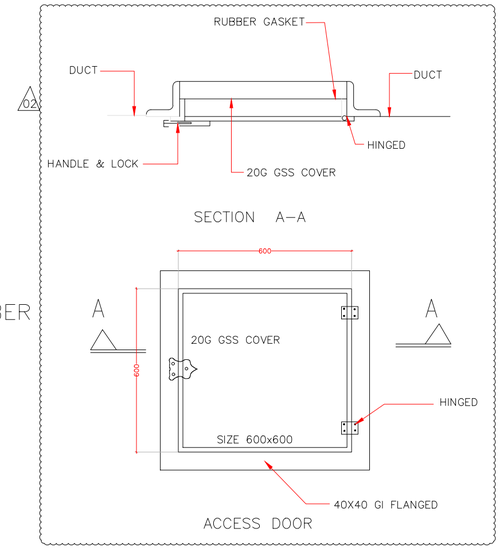
It must not be used directly or indirectly in any way detrimental to the interest of the BHARAT HEAVY ELECTRICALS LIMITED

DRAWING No.PE-V0-417-554-A019

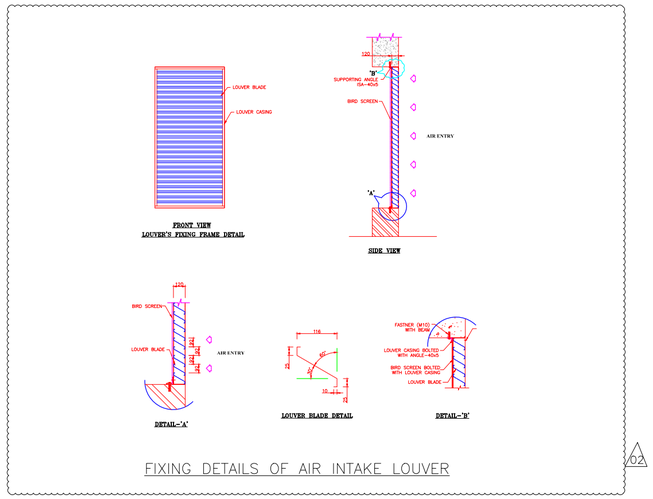


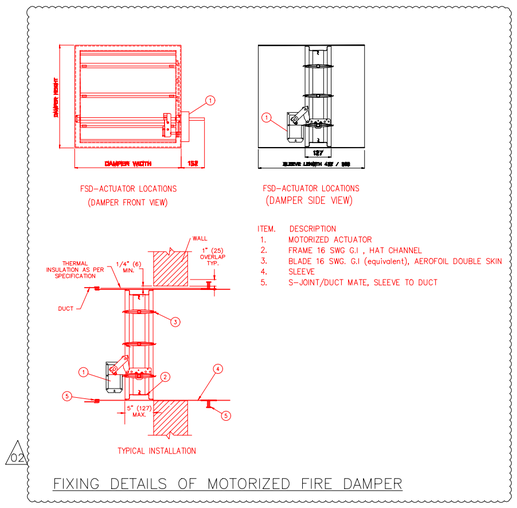
APPLICATION OF THERMAL INSULATION ON SUPPLY AIR EXPOSED DUCT (FOR VENTILATION DUCT OUTDOOR APPLICATION)

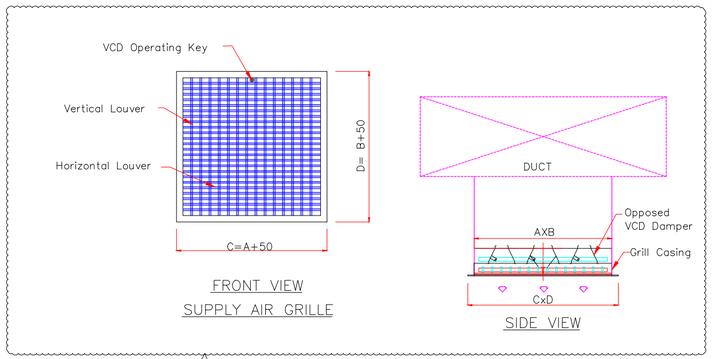


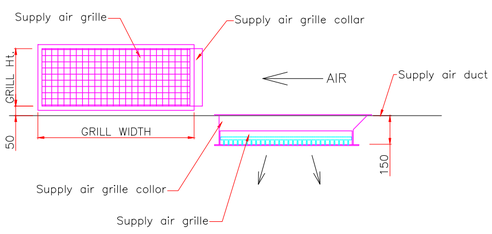
LEGEND :

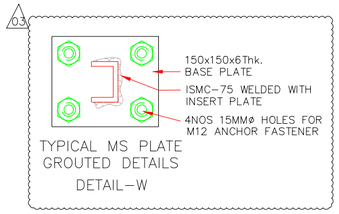
1. CPRX Product
2. Insulation Layer

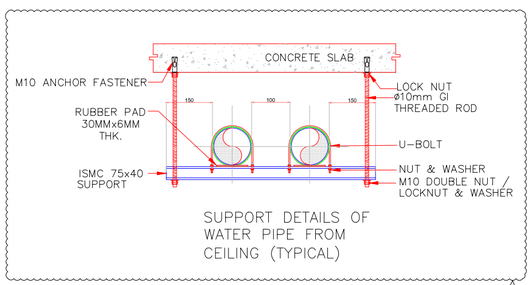


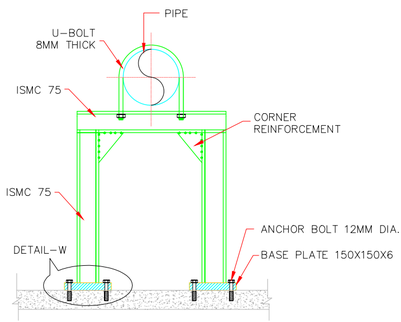












CUSTOMER:	TELANGANA STATE POWER GENERATION CORPORATION LTD TELANGANA, INDIA 5x800 MW YADADRI TPS, NALGONDA
CONSULTANT:	TATA CONSULTING ENGINEERS LIMITED BANGALORE INDIA
	BHARAT HEAVY ELECTRICALS LTD POWER SECTOR PROJECT ENGINEERING MANAGEMENT NOIDA

JOB NO.	417
STATUS	CONTRACT
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REV.	DATE	ALTD	CHD	APPD

TITLE: TYPICAL DETAILS DUCT FABRICATION DRG/SUPPORT/EREC. FOR VENTILATION SYSTEM, INSULATION OF DUCT/PIPING & EQUIPMENT PIPE ERECTION

DRN	DESIGN	CHD	APPD	DATE	SCALE	DRAWING NO.
U.S.	A.GAUR	L.PAL	S.V.	04.01.2020	NTS	PE-V0-417-554-A019

SHEET 2 OF 2 | REV. 03

SIZE-A2

ELECTRONIC FILE NAME :

Typical Fan Schedule for Louver Damper sizes.(stage 2 drawings applicable)

VENTILATION FAN SCHEDULE								Yadadri 5x800 MW							Doc no.		PE-V0-417-554-A008		Rev 04	Date 28.06.22				
S No	AREA		Dimension (M)			Volume	Air Changes	Air Qty as per Air Change	Total Heat Dissipation	Heat Load Basis Q/ C*(Δ T)	Selected	Capacity of each fan	Static Pr. of each fan											
		Type of Ventilation	L (in m)	W (in m)	H (in m)	Gross (m^3)	ACH	CMH	KW	CMH	CMH	CMH	CMH	Type of Fan	No . Of FAN	Motor rating (KW)	Power supply Phase	Opening	Louvers Size (LXB) mm	Number of Louvers	Gravirty Damper Size (LXB) mm	Number of Gravity Dampers	Building Drawing number/Remarks	Tag No.
A	**TG-PowerHouse#1#2**																						PE-DG-417-611-C060 PE-DG-417-611-C061, PE-DG-417-611-C062 PE-DG-417-611-C063 PE-DG-417-611-C065 PE-DG-417-611-C068 PE-DG-417-611-C071 PE-DG-417-611-C074 PE-DG-417-611-C076	
1	PowerHouse area RE unit	Evaporative						**1344000**			**1350000**	**50000**	**15**	**RE unit**	**27**	**5.5**	**3 Phase**	**1256mm dia (Circular)**	NA	NA	NA	NA	**Washed air Supply for Power house (Stage I)=2x1120000 CMH Exhaust air considering 60 pc exhaust = 0.6x2x1120000=13,44,000CMH**	**00SAG12AN041-067**
2	INERT GAS ROOM AT EL. 0.0 M unit #1 and #2	Exhaust fan with inlet Louver	10.5	11	4.5	520	20	11435	**NA**	**NA**	12000	6000	15	Spark proof construction with flame proof motor	2	1.1	3 Phase	700x700	1300x1300	1	NA	NA		**00SAG12AN110-111**
3	LUBE OIL ROOM AT EL. 8.5 M #1	Exhaust fan with inlet Louver	16	12	5	960	20	19200	**13.62**	**13525**	30000	15000	15	Spark proof construction with flame proof motor	2	2.2	3 Phase	1000x1000	1200x1200	3	NA	NA		**00SAG12AN112-113**
4	LUBE OIL ROOM AT EL. 8.5 M #2	Exhaust fan with inlet Louver	16	12	5	960	20	19200	**13.62**	**13525**	30000	15000	15	Spark proof construction with flame proof motor	2	2.2	3 Phase	1000x1000	1200x1200	3	NA	NA		**00SAG12AN114-115**
5	AC plant Room 0.0m	Exhaust fan with inlet Louver	21	11	8	1848	10	18480	**15.11**	**15008**	20000	10000	10	AXIAL FLOW EXHAUST FAN	2	0.75	3 Phase	900x900	1200x1200	2	NA	NA		**00SAG12AN406-407**
6	GAS CYLINDER ROOM AT EL. 0.0 M #1	Exhaust fan with inlet Louver	12	4	4.5	216	20	4752	**NA**	**NA**	6000	6000	15	Spark proof construction with flame proof motor	1	1.1	3 Phase	700x700	1000x1000	1	NA	NA		**00SAG12AN116**
7	GAS CYLINDER ROOM AT EL. 0.0 M #2	Exhaust fan with inlet Louver	12	4	4.5	216	20	4752	**NA**	**NA**	6000	6000	15	Spark proof construction with flame proof motor	1	1.1	3 Phase	700x700	1000x1000	1	NA	NA		**00SAG12AN117**
8	Oil Purification room	Exhaust fan with inlet Louver	21	10.2	6	1285	20	25704	**NA**	**NA**	30000	15000	15	Spark proof construction with flame proof motor	2	2.2	3 Phase	1000x1000	1200x1200	3	NA	NA		**00SAG12AN118-119**
9	MCC ROOM NEAR AC PLANT ROOM	Supply fan with gravity Damper	21	10.2	4.5	964	15	14459	**4.98**	**4952**	15000	7500	30	Supply fan with pre filter and fine filter	2	1.5	3 Phase	1000X1000	NA	NA	700s550(ht)	2		**00SAG12AN120-121**
10	TOILET -0.0m-Unit #1	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	4	0.1	1 Phase	380MM(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
11	TOILET -0.0m-Unit #2	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	5	0.1	1 Phase	380MM(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
12	TOILET -8.5m Unit #1	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	2	0.1	1 Phase	380MM(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
13	TOILET -8.5m Unit #2	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	2	0.1	1 Phase	380MM(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
14	TOILET -17m Unit #1	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	5	0.1	1 Phase	380MM(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
15	TOILET -17m Unit #2	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	5	0.1	1 Phase	380MM(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
16	TOILET -24m Unit #1	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	6	0.1	1 Phase	380MM(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
17	TOILET -24m Unit #2	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	6	0.1	1 Phase	380MM(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
B	**TG-PowerHouse#3#4##5**																						PE-DG-417-611-C066 PE-DG-417-611-C067 PE-DG-417-611-C069 PE-DG-417-611-C072 PE-DG-417-611-C073 PE-DG-417-611-C075 PE-DG-417-611-C099 PE-DG-417-611-C100	

VENTILATION FAN SCHEDULE								Yadadri 5x800 MW							Doc no.		PE-V0-417-554-A008		Rev 04	Date 28.06.22				
S No	AREA		Dimension (M)			Volume	Air Changes	Air Qty as per Air Change	Total Heat Dissipation	Heat Load Basis Q/ C*(Δ T)	Selected	Capacity of each fan	Static Pr. of each fan											
		Type of Ventilation	L (in m)	W (in m)	H (in m)	Gross (m^3)	ACH	CMH	KW	CMH	CMH	CMH	CMH	Type of Fan	No . Of FAN	Motor rating (KW)	Power supply Phase	Opening	Louvers Size (LXB) mm	Number of Louvers	Gravirty Damper Size (LXB) mm	Number of Gravity Dampers	Building Drawing number/Remarks	Tag No.
1	PowerHouse area (RE unit)	Evaporative						**2016000**			**2050000**	**50000**	**15**	**RE unit**	**41**	**5.5**	**3 Phase**	**1256mm dia (Circular)**	NA	NA	NA	NA	**Washed air Supply for Power house (Stage II)=3x1120000 CMH Exhaust air considering 60 pc exhaust = 0.6x3x1120000=20,16,000CMH**	**00SAG12AN068-108**
2	INERT GAS ROOM AT EL. 0.0 M Unit #3#4	Exhaust fan with inlet Louver	10.5	11	4.5	520	20	11435	**NA**	**NA**	12000	6000	15	Spark proof construction with flame proof motor	2	1.1	3 Phase	700x700	1300x1300	1	NA	NA		**00SAG12AN122-123**
3	INERT GAS ROOM AT EL. 0.0 M Unit #5	Exhaust fan with inlet Louver	10.5	11	4.5	520	20	11435	**NA**	**NA**	12000	6000	15	Spark proof construction with flame proof motor	2	1.1	3 Phase	700x700	1300x1300	1	NA	NA		**00SAG12AN124-125**
4	LUBE OIL ROOM AT EL. 8.5 M unit #3	Exhaust fan with inlet Louver	15.8	12	5	948	20	18960	**13.62**	**13525**	30000	15000	15	Spark proof construction with flame proof motor	2	2.2	3 Phase	1000x1000	1200x1200	3	NA	NA		**00SAG12AN126-127**
5	LUBE OIL ROOM AT EL. 8.5 M unit #4	Exhaust fan with inlet Louver	15.8	12	5	948	20	18960	**13.62**	**13525**	30000	15000	15	Spark proof construction with flame proof motor	2	2.2	3 Phase	1000x1000	1200x1200	3	NA	NA		**00SAG12AN128-129**
6	LUBE OIL ROOM AT EL. 8.5 M unit #5	Exhaust fan with inlet Louver	15.8	12	5	948	20	18960	**13.62**	**13525**	30000	15000	15	Spark proof construction with flame proof motor	2	2.2	3 Phase	1000x1000	1200x1200	3	NA	NA		**00SAG12AN130-131**
7	AC plant Room 0.0m unit #3and #4	Exhaust fan with inlet Louver	21	11	8	1848	10	18480	**15.11**	**15008**	20000	10000	10	AXIAL FLOW EXHAUST FAN	2	0.75	3 Phase	900x900	1200x1200	2	NA	NA		**00SAG12AN132-133**
8	AC plant Room 0.0m unit #5	Exhaust fan with inlet Louver	21	11	8	1848	10	18480	**8.66**	**8600**	20000	10000	10	AXIAL FLOW EXHAUST FAN	2	0.75	3 Phase	900x900	1200x1200	2	NA	NA		**00SAG12AN134-135**
9	GAS CYLINDER ROOM AT EL. 0.0 M Unit #3	Exhaust fan with inlet Louver	12	4	4.5	216	20	4752	**NA**	**NA**	6000	6000	15	Spark proof construction with flame proof motor	1	1.1	3 Phase	700x700	1000x1000	1	NA	NA		**00SAG12AN136**
10	GAS CYLINDER ROOM AT EL. 0.0 M Unit #4	Exhaust fan with inlet Louver	12	4	4.5	216	20	4752	**NA**	**NA**	6000	6000	15	Spark proof construction with flame proof motor	1	1.1	3 Phase	700x700	1000x1000	1	NA	NA		**00SAG12AN137**
11	GAS CYLINDER ROOM AT EL. 0.0 M Unit #5	Exhaust fan with inlet Louver	12	4	4.5	216	20	4752	**NA**	**NA**	6000	6000	15	Spark proof construction with flame proof motor	1	1.1	3 Phase	700x700	1000x1000	1	NA	NA		**00SAG12AN138**
12	Central Lube Oil Purification room	Exhaust fan with inlet Louver	21	10.2	6	1285	20	25704	**NA**	**NA**	30000	15000	15	Spark proof construction with flame proof motor	2	2.2	3 Phase	1000x1000	1200x1200	3	NA	NA		**00SAG12AN139-140**
13	MCC ROOM NEAR AC PLANT ROOM #3#4	Supply fan with gravity Damper	21	10.2	4.5	964	15	14459	**4.98**	**4952**	15000	7500	30	Supply fan with pre filter and fine filter	2	1.5	3 Phase	1000X1000	NA	NA	700s550	2		**00SAG12AN141-142**
14	MCC ROOM NEAR AC PLANT ROOM #5	Supply fan with gravity Damper	10	10.2	4.5	459	15	6885	**4.98**	**4952**	7500	7500	30	Supply fan with pre filter and fine filter	1	1.5	3 Phase	1000X1000	NA	NA	700s550	1		**00SAG12AN143**
15	TOILET -0.0m-Unit #3	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	4	0.1	1 Phase	380MM(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
16	TOILET -0.0m-Unit #4	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	5	0.1	1 Phase	380MM(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
17	TOILET -0.0m-Unit #5	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	5	0.1	1 Phase	380MM(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
18	TOILET -8.5m Unit #3	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	2	0.1	1 Phase	380MM(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
19	TOILET -8.5m Unit #4	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	2	0.1	1 Phase	380MM(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
20	TOILET -8.5m Unit #5	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	2	0.1	1 Phase	380MM(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
21	TOILET -17m Unit #3	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	5	0.1	1 Phase	380MM(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
22	TOILET -17m Unit #4	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	5	0.1	1 Phase	380MM(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
23	TOILET -17m Unit #5	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	5	0.1	1 Phase	380MM(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
24	TOILET -24m Unit #3	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	1	0.1	1 Phase	380MM(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	

VENTILATION FAN SCHEDULE								Yadadri 5x800 MW							Doc no.		PE-V0-417-554-A008		Rev 04	Date 28.06.22				
S No	AREA		Dimension (M)			Volume	Air Changes	Air Qty as per Air Change	Total Heat Dissipation	Heat Load Basis Q/ C*(Δ T)	Selected	Capacity of each fan	Static Pr. of each fan											
		Type of Ventilation	L (in m)	W (in m)	H (in m)	Gross (m^3)	ACH	CMH	KW	CMH	CMH	CMH	CMH	Type of Fan	No . Of FAN	Motor rating (KW)	Power supply Phase	Opening	Louvers Size (LXB) mm	Number of Louvers	Gravirty Damper Size (LXB) mm	Number of Gravity Dampers	Building Drawing number/Remarks	Tag No.
25	TOILET -24m Unit #4	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	1	0.1	1 Phase	380MM(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
26	TOILET -24m Unit #5	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	1	0.1	1 Phase	380MM(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
C	**Battery room powerhouse #1#2**																						PE-DG-417-611-C065	
1	Battery Room-Powerhouse 8.5m bw 3-4	Exhaust fan with inlet Louver	31.5	22.3	5	3512	20	152910	**NA**	**NA**	160000	20000	25	Spark proof construction with flame proof motor	16	3.7	3 Phase	1000x1000	1000x1100	21	NA	NA	**8W+8S**	**00SAG12AN001-016**
			10.5	43.3	5	2273	20																	
			12	31	5	1860	20																	
D	**Battery room powerhouse #3#4**																						PE-DG-417-611-C066	
1	Battery Room-Powerhouse 8.5m bw 3-4	Exhaust fan with inlet Louver	31.5	22.3	5	3512	20	152910	**NA**	**NA**	160000	20000	25	Spark proof construction with flame proof motor	16	3.7	3 Phase	1000x1000	1000x1100	21	NA	NA	**8W+8S**	**00SAG12AN017-032**
			10.5	43.3	5	2273	20																	
			12	31	5	1860	20																	
E	**Battery room powerhouse #5**																						PE-DG-417-611-C067	
1	Battery Room-Powerhouse #5	Exhaust fan with inlet Louver	32.6	12	5	1956	20	64018	**NA**	**NA**	75000	15000	25	Spark proof construction with flame proof motor	**10**	3.7	3 Phase	1000x1000	1000x1100	10	NA	NA	**5W+5S**	**50SAG12AN001-010**
			21.65	11.5	5	1245	20																	
F	**ESP Building#1**																						PE-DG-417-619-C001	
1	TOILET 0M/4M	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	3	0.1	1 Phase	380MM(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
G	**ESP Building#2**																						PE-DG-417-619-C002	
1	TOILET 0M/4M	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	3	0.1	1 Phase	380MM(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
H	**ESP Building#3**																						PE-DG-417-619-C003	
1	TOILET 0M/4M	s	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	3	0.1	1 Phase	380MM(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
I	**ESP Building#4**																						PE-DG-417-619-C004	
1	TOILET 0M/4M	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	3	0.1	1 Phase	380MM(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
J	**ESP Building#5**																						PE-DG-417-619-C005	
1	TOILET 0M/4M	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	3	0.1	1 Phase	380MM(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
K	**CPU-Regeneration Building**																						PE-DG-417-639-C001 PE-DG-417-639-C002 PE-DG-417-639-C003	
1	MRSV	Exhaust fan with inlet Louver	5.5	13	13	930	15	100869	**19.10**	**18977**	105000	7500	10	AXIAL FLOW EXHAUST FAN	14	0.55	3 Phase	700x700	1500x800	12	NA	NA		**00SAG12AN144-157**
2	SCRV		22	13	10	2860	15																	
3	HWT		5.5	13	6.5	465	15																	
4	ADP -ALDP		22	13	6.5	1859	15																	
5	Electrical Lab	Exhaust fan with inlet Louver	13	9.1	4.25	503	15	8296	**1.21**	**1200**	10000	10000	10	AXIAL FLOW EXHAUST FAN	1	**0.75**	3 Phase	900x900	1200x1200	1	NA	NA		**00SAG12AN158**
6	TOILET +Tool room	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	5	0.1	1 Phase	380mm(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
7	MCC ROOM	Supply fan	10	25	4.5	1328	15	21904	**9.50**	**9432**	22500	7500	30	Supply fan with pre filter and fine filter	3	1.5	3 Phase	1000x1000						**00SAG12AN159-161**
		Exhaust fan						14625		**6130.8**	15000	15000	15	Spark proof construction with flame proof motor	1	2.2	3 Phase	1000x1000					Appx 60 percent of Supply air considered for Exhaust fan capacity	**00SAG12AN162**
L	**RAW WATER PUMP HOUSE BUILDING**																						PE-DG-417-654-C007 PE-DG-417-654-C008	

VENTILATION FAN SCHEDULE								Yadadri 5x800 MW							Doc no.		PE-V0-417-554-A008		Rev 04	Date 28.06.22				
S No	AREA		Dimension (M)			Volume	Air Changes	Air Qty as per Air Change	Total Heat Dissipation	Heat Load Basis Q/ C*(Δ T)	Selected	Capacity of each fan	Static Pr. of each fan											
		Type of Ventilation	L (in m)	W (in m)	H (in m)	Gross (m^3)	ACH	CMH	KW	CMH	CMH	CMH	CMH	Type of Fan	No . Of FAN	Motor rating (KW)	Power supply Phase	Opening	Louvers Size (LXB) mm	Number of Louvers	Gravirty Damper Size (LXB) mm	Number of Gravity Dampers	Building Drawing number/Remarks	Tag No.
1	PUMP HOUSE-PUMP AREA	Supply fan with gravity Damper	29.5	8.5	17.5	4388	10	43881	82.21	**81668**	90000	15000	20	Supply fan with pre filter	6	2.2	3 Phase	1000x1000	NA	NA	700s550	12		**00SAG12AN163-168**
2	SWITCH GEAR/MCC AREA	Supply fan with gravity Damper	11.4	8.5	5	485	15	7268	3.99	**3962**	10000	10000	30	Supply fan with pre filter and fine filter	1	2.2	3 Phase	1000x1000	NA	NA	700s550	2		**00SAG12AN169**
3	BATTERY ROOM	Exhaust fan with inlet Louver	4	8.5	5	170	20	3400	**NA**	**NA**	4000	4000	15	Spark proof construction with flame proof motor	**2**	0.75	3 Phase	700X700	800x800	1	NA	NA	**1W+1S**	**00SAG12AN170-171**
4	Raw Water Pump House Toilets (G+L)	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	2	0.1	1 Phase	380mm(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
M	**CW Pump House Building-I**																						PE-DG-417-653-C002 PE-DG-417-653-C003 PE-DG-417-653-C004	
1	Pump House Area	Re unit with inlet Louver	80	13	19	19760	10	197600	80.55	**80013**	220000	20000	15	RE unit	11	2.2	3 Phase	1000 (circular)	1300x900	26	NA	NA		**00SAG12AN172-182**
2	Battery Room	Exhaust fan with inlet Louver	4	4.5	3.6	65	30	1944	**NA**	**NA**	2000	2000	15	Spark proof construction with flame proof motor	2	0.55	3 Phase	500x500	500x500	1	NA	NA	**1W+1S**	**00SAG12AN183-184**
3	Pump House Toilets (G+L)	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	2	0.1	1 Phase	380mm(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
N	**CW Pump House Building-II**																						PE-DG-417-653-C021 PE-DG-417-653-C022 PE-DG-417-653-C023	
1	Pump House Area	Re unit with inlet Louver	114	14	19	30324	10	303240	121.90	**121090**	340000	20000	15	RE unit	17	2.2	3 Phase	1000 (circular)	1300x900	34	NA	NA		**00SAG12AN185-191**
2	Battery Room	Exhaust fan with inlet Louver	4	4.5	3.6	65	30	1944	**NA**	**NA**	2000	2000	15	Spark proof construction with flame proof motor	**2**	0.55	3 Phase	500x500	500x500	1	NA	NA	**1W+1S**	**00SAG12AN192-193**
3	Pump House Toilets (G+L)	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	2	0.1	1 Phase	380mm(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
O	**Clarified Water Pump House Building**																						PE-DG-417-635-C001 PE-DG-417-635-C002	
1	MCC Area	Supply fan with gravity Damper	33	12.5	4.5	1999	15	29989	19.94	**19809**	30000	10000	30	Supply fan with pre filter and fine filter	3	2.2	3 Phase	1000x1000	NA	NA	700s550	4		**00SAG12AN194-196**
2	PUMP HOUSE- AREA	Supply fan with gravity Damper	80	10.25	9.5	7790	10	77900	**129**	**128000**	165000	15000	20	Supply fan with pre filter	11	2.2	3 Phase	1000x1000	NA	NA	700s550	20		**00SAG12AN197-207**
3	Toliets	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	2	0.1	1 Phase	380mm(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
P	**DM Plant**																						PE-DG-417-635-C012 PE-DG-417-635-C013 PE-DG-417-635-C014	
1	Battery room	Exhaust fan with inlet Louver	7.2	6.7	4.5	217	20	4342	**NA**	**NA**	6000	6000	15	Spark proof AXIAL FLOW EXHAUST FAN	2	1.1	3 Phase	700x700	900x900	1	NA	NA	**1W+1S**	**00SAG12AN208-209**
2	MCC Area	Supply fan with gravity Damper	43	15	4.5	2903	15	43538	19.94	**19809**	50000	10000	30	Supply fan with pre filter and fine filter	5	2.2	3 Phase	1000x1000	NA	NA	700s550	6		**00SAG12AN210-214**
3	Toliets	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	2	0.1	1 Phase	380mm(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
4	DM plant Store	Exhaust fan with inlet Louver	4.4	4.2	4.5	83	20	1663	**NA**	**NA**	2000	2000	10	AXIAL FLOW EXHAUST FAN	2	0.37	3 Phase	500x500	500x500	1	NA	NA		**00SAG12AN215-216**
5	DM plant area	Exhaust fan with inlet Louver	65	47.3	7.5	24214	10	242138	**108**	**107264**	255000	15000	10	AXIAL FLOW EXHAUST FAN	17	1.1	3 Phase	900x900	1200x1200	24	NA	NA		**00SAG12AN217-233**
Q	**Fuel Oil Pressurizing Building**																						PE-DG-417-634-C013 PE-DG-417-634-C014 PE-DG-417-634-C015	
1	Fuel Oil Pressuzing Area	Exhaust fan with inlet Louver	82.5	16.5	7.6	10346	20	206910	60.10 **0** **0**	**59707**	210000	15000	15	Spark proof AXIAL FLOW EXHAUST FAN with flame proof motor with fusible link damper	14	2.2	3 Phase	1000x1000	1200x1200	18	NA	NA		**00SAG12AN234-247**
2	Toliets	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	2	0.1	1 Phase	380mm(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
3	MCC	Supply fan with gravity Damper	10	22	4.5	990	15	14850	6.98	**6933**	20000	10000	30	Supply fan with pre filter and fine filter	2	2.2	3 Phase	1000x1000	NA	NA	700s550	3		**00SAG12AN248-249**

VENTILATION FAN SCHEDULE								Yadadri 5x800 MW							Doc no.		PE-V0-417-554-A008		Rev 04	Date 28.06.22				
S No	AREA		Dimension (M)			Volume	Air Changes	Air Qty as per Air Change	Total Heat Dissipation	Heat Load Basis Q/ C*(Δ T)	Selected	Capacity of each fan	Static Pr. of each fan											
		Type of Ventilation	L (in m)	W (in m)	H (in m)	Gross (m^3)	ACH	CMH	KW	CMH	CMH	CMH	CMH	Type of Fan	No . Of FAN	Motor rating (KW)	Power supply Phase	Opening	Louvers Size (LXB) mm	Number of Louvers	Gravirty Damper Size (LXB) mm	Number of Gravity Dampers	Building Drawing number/Remarks	Tag No.
4	BATTERY ROOM	Exhaust fan with inlet Louver	6	16.5	4.5	446	20	8910	NA	NA	10000	10000	15	Spark proof construction with flame proof motor	2	1.5	3 Phase	800X800	850x850	24	NA	NA	1W+1S	00SAG12AN250-251
R	Mill Tripper Floor																						PE-DG-417-616-C015 PE-DG-417-616-C016 PE-DG-417-616-C012	
1	Mill Bay area unit #1	Re unit with inlet Louver	46.2	15.5	11.2	8020	30	240610	NA	NA	250000	50000	15	RE unit	5	5.5	3 Phase	1256 (circular)	1200x1200	24	NA	NA		00SAG12AN252-256
2	Mill Bay area unit #1	Re unit with inlet Louver	46.2	15.5	11.2	8020	30	240610	NA	NA	250000	50000	15	RE unit	5	5.5	3 Phase	1256 (circular)	1200x1200	24	NA	NA		00SAG12AN257-261
3	Mill Bay area unit #2	Re unit with inlet Louver	46.2	15.5	11.2	8020	30	240610	NA	NA	250000	50000	15	RE unit	5	5.5	3 Phase	1256 (circular)	1200x1200	24	NA	NA		00SAG12AN262-266
4	Mill Bay area unit #2	Re unit with inlet Louver	46.2	15.5	11.2	8020	30	240610	NA	NA	250000	50000	15	RE unit	5	5.5	3 Phase	1256 (circular)	1200x1200	24	NA	NA		00SAG12AN267-271
5	Mill Bay area unit #3	Re unit with inlet Louver	46.2	15.5	11.2	8020	30	240610	NA	NA	250000	50000	15	RE unit	5	5.5	3 Phase	1256 (circular)	1200x1200	24	NA	NA		00SAG12AN272-276
6	Mill Bay area unit #3	Re unit with inlet Louver	46.2	15.5	11.2	8020	30	240610	NA	NA	250000	50000	15	RE unit	5	5.5	3 Phase	1256 (circular)	1200x1200	24	NA	NA		00SAG12AN277-281
7	Mill Bay area unit #4	Re unit with inlet Louver	46.2	15.5	11.2	8020	30	240610	NA	NA	250000	50000	15	RE unit	5	5.5	3 Phase	1256 (circular)	1200x1200	24	NA	NA		00SAG12AN282-286
8	Mill Bay area unit #4	Re unit with inlet Louver	46.2	15.5	11.2	8020	30	240610	NA	NA	250000	50000	15	RE unit	5	5.5	3 Phase	1256 (circular)	1200x1200	24	NA	NA		00SAG12AN287-291
9	Mill Bay area unit #5	Re unit with inlet Louver	46.2	15.5	11.2	8020	30	240610	NA	NA	250000	50000	15	RE unit	5	5.5	3 Phase	1256 (circular)	1200x1200	24	NA	NA		00SAG12AN292-296
10	Mill Bay area unit #5	Re unit with inlet Louver	46.2	15.5	11.2	8020	30	240610	NA	NA	250000	50000	15	RE unit	5	5.5	3 Phase	1256 (circular)	1200x1200	24	NA	NA		00SAG12AN297-301
S	BOP SWITCHGEAR - STAGE I																						PE-DG-417-653-C038	
1	MCC Area	Supply fan with gravity Damper	23.5	10.5	5	1234	15	18506	11.97	11886	20000	10000	30	Supply fan with pre filter and fine filter	2	2.2	3 Phase	1000x1000	NA	NA	700s550	3		00SAG12AN302-303
T	BOP SWITCHGEAR - STAGE II																						PE-DG-417-653-C043	
1	MCC Area	Supply fan with gravity Damper	35.5	7.5	5	1331	15	19969	7.98	7924	22500	7500	30	Supply fan with pre filter and fine filter	3	1.5	3 Phase	1000x1000	NA	NA	700s550	3		00SAG12AN304-306
U	AUX BOILER MCC																						PE-DG-417-631-C002	
1	MCC Area	Supply fan with gravity Damper	26	8	5.5	1287	15	19305	5.98	5943	22500	7500	30	Supply fan with pre filter and fine filter	3	1.5	3 Phase	700x700	NA	NA	700s550	3		00SAG12AN408-409
2	Battery room	Exhaust fan with inlet Louver	4	6	5.5	132	20	2640	NA	NA	4000	4000	15	Spark proof AXIAL FLOW EXHAUST FAN	2	0.75	3 Phase	700x700	800x800	1	NA	NA	1W+1S	00SAG12AN309-310
V	Compressor House-I																						PE-DG-417-647-C001 PE-DG-417-647-C002	
1	Compressor House-Area	Supply fan with gravity Damper	32.3	13	8.5	3712	15	55682	48.18	47861	60000	10000	20	Supply fan with pre filter	6	1.5	3 Phase	1000x1000	NA	NA	700s550	12		00SAG12AN311-316
2	Toliets	Exhaust	5	2.5	3.2	40	20	800	NA	NA	1200	1200	5	Propeller fan	2	0.1	1 Phase	380mm(circular)					Inlet of Toilets shall be though door undercut/Door louvers.	
W	Compressor House-II																						PE-DG-417-647-C007 PE-DG-417-647-C008	
1	Compressor House-Area	Supply fan with gravity Damper	36.85	15	8.5	4841	15	72621	69.99	69531	80000	10000	20	Supply fan with pre filter	8	1.5	3 Phase	1000x1000	NA	NA	700s550	10		00SAG12AN317-324
2	Toliets	Exhaust	5	2.5	3.2	40	20	800	NA	NA	1200	1200	5	Propeller fan	2	0.1	1 Phase	380mm(circular)					Inlet of Toilets shall be though door undercut/Door louvers.	
3	MCC Area	Supply fan with gravity Damper	20	6.2	5.5	825	15	12375	5.48	5448	15000	7500	30	Supply fan with pre filter and fine filter	2	1.5	3 Phase	1000x1000	NA	NA	700s550	2		00SAG12AN325-326
X	Fire Water Pump House																						PY-DA-1-M081-1250-01	
1	PUMP HOUSE AREA	Supply fan with gravity Damper	44	9	8.1	3351	10	33506	14.25	14158	37500	7500	20	Supply fan with pre filter	5	1.1	3 Phase	1000x1000	NA	NA	700s550	6		00SAG12AN327-331
2	MCC Area	Supply fan with gravity Damper	5	9	5	368	15	5520	1.99	1981	7500	7500	30	Supply fan with pre filter and fine filter	1	1.5	3 Phase	1000x1000	NA	NA	700s550	1		00SAG12AN332

VENTILATION FAN SCHEDULE								Yadadri 5x800 MW							Doc no.		PE-V0-417-554-A008		Rev 04	Date 28.06.22				
S No	AREA		Dimension (M)			Volume	Air Changes	Air Qty as per Air Change	Total Heat Dissipation	Heat Load Basis Q/ C*(Δ T)	Selected	Capacity of each fan	Static Pr. of each fan											
		Type of Ventilation	L (in m)	W (in m)	H (in m)	Gross (m^3)	ACH	CMH	KW	CMH	CMH	CMH	CMH	Type of Fan	No . Of FAN	Motor rating (KW)	Power supply Phase	Opening	Louvers Size (LXB) mm	Number of Louvers	Gravirty Damper Size (LXB) mm	Number of Gravity Dampers	Building Drawing number/Remarks	Tag No.
3	BATTERY ROOM	Exhaust fan with inlet Louver	7.5	6.5	5	244	20	4875	NA	NA	6000	6000	15	Spark proof construction with flame proof motor	2	1.1	3 Phase	700X700	800x800	2	NA	NA	1W+1S	00SAG12AN333-334
4	Toliets	Exhaust	5	2.5	3.2	40	20	800	NA	NA	1200	1200	5	Propeller fan	2	0.1	1 Phase	380mm(circular)					Inlet of Toilets shall be though door undercut/Door louvers.	
Y	DG Building																						PE-DG-417-642-C001 PE-DG-417-642-C008	
1	DG Area #buiilding 1	Exhaust fan with inlet Louver	16.5	27	9.5	4232	10	42323	NA	NA	45000	15000	10	AXIAL FLOW EXHAUST FAN	3	1.1	3 Phase	900x900	1100x1100	5	NA	NA		00SAG12AN335-337
2	DG Area #buiilding 2	Exhaust fan with inlet Louver	16.5	27	9.5	4232	10	42323	NA	NA	45000	15000	10	AXIAL FLOW EXHAUST FAN	3	1.1	3 Phase	900x900	1100x1100	5	NA	NA		00SAG12AN338-340
3	DG Area #buiilding 3	Exhaust fan with inlet Louver	16.5	19	9.5	2978	10	29783	NA	NA	30000	10000	10	AXIAL FLOW EXHAUST FAN	3	0.75	3 Phase	900x900	1200x1200	3	NA	NA		00SAG12AN341-343
Z	DM Transfer Pump House																						PE-DG-417-635-C006	
1	PUMP HOUSE AREA	Supply fan with gravity Damper	50	6	7.1	2273	10	22730	10.22	10152	42000	6000	20	Supply fan with pre filter	7	1.1	3 Phase	600x600	NA	NA	700s550	6		00SAG12AN344-350
AA	Admin Building																						PE-DG-417-641-C001 PE-DG-417-641-C002 PE-DG-417-641-C003 PE-DG-417-641-C004	
1	Toliets/Pantry- Ground floor	Exhaust							NA	NA	1200	1200	5	Propeller fan	6	0.1	1 Phase	380mm(circular)					Inlet of Toilets shall be though door undercut/Door louvers.	
2	MCC Area	Supply fan with gravity Damper	20	10	4.75	1093	15	16395	5.98	5943	20000	10000	30	Supply fan with pre filter and fine filter	2	2.2	3 Phase	1000x1000	NA	NA	700s550	3		00SAG12AN351-352
3	Toliets/Pantry- first floor	Exhaust	5	2.5	3.2	40	20	800	NA	NA	1200	1200	5	Propeller fan	7	0.1	1 Phase	380mm(circular)					Inlet of Toilets shall be though door undercut/Door louvers.	
4	Toliets/Pantry- Secnd floor	Exhaust	5	2.5	3.2	40	20	800	NA	NA	1200	1200	5	Propeller fan	13	0.1	1 Phase	380mm(circular)					Inlet of Toilets shall be though door undercut/Door louvers.	
BB	Pt plant- Chemical House																						1-WT-221-02111,12,13,14	
1	Chemical House Area	Exhaust fan with inlet Louver	57.5	25	5.5	7906	20	158125	77.05	76586	165000	15000	10	AXIAL FLOW EXHAUST FAN	11	1.1	3 Phase	900x900	1100x1100	20	NA	NA		00SAG12AN353-363
2	Toliets	Exhaust	5	2.5	3.2	40	20	800	NA	NA	1200	1200	5	Propeller fan	3	0.1	1 Phase	380mm(circular)					Inlet of Toilets shall be though door undercut/Door louvers.	
3	MCC	Supply fan with gravity Damper	30	9	4	1080	15	16200	NA	5943	20000	10000	30	Supply fan with pre filter and fine filter	2	2.2	3 Phase	1000x1000	NA	NA	700s550	3		00SAG12AN364-365
4	BATTERY ROOM	Exhaust fan with inlet Louver	6.5	7	4	182	20	3640	NA	NA	4000	4000	15	Spark proof construction with flame proof motor	2	0.75	3 Phase	700X700	800x800	1	NA	NA	1W+1S	00SAG12AN366-367
CC	CST Pump House 1																						PE-DG-417--638-C001	
1	PUMP HOUSE AREA	Supply fan with gravity Damper	19.5	7.25	5.2	878	10	8782	5.43	5398	10000	10000	20	Supply fan with pre filter	1	1.1	3 Phase	1000x1000	NA	NA	700s550	2		00SAG12AN368
DD	CST Pump House 2																						PE-DG-417-638-C001	
1	PUMP HOUSE AREA	Supply fan with gravity Damper	25	7.25	5.2	1086	10	10855	5.85	5814	12000	6000	20	Supply fan with pre filter	2	1.1	3 Phase	600x600	NA	NA	700s550	2		00SAG12AN369-370
EE	ETP																						1-WT-221-02125 1-WT-221-02126	
1	ETP AREA	Exhaust fan with inlet Louver	24 12.5	20 20	4.5 10	4660	10	46600	NA	NA	50000	10000	10	AXIAL FLOW EXHAUST FAN	5	0.75	3 Phase	1000x1000	1200x1200	5	NA	NA		00SAG12AN371-375
2	MCC Area	Supply fan with gravity Damper	20.3	5.4	4.5	636	15	9544	8.97	8914	10000	10000	30	Supply fan with pre filter and fine filter	1	2.2	3 Phase	1000x1000	NA	NA	700s550	2		00SAG12AN376

VENTILATION FAN SCHEDULE								Yadadri 5x800 MW							Doc no.		PE-V0-417-554-A008		Rev 04	Date 28.06.22				
S No	AREA		Dimension (M)			Volume	Air Changes	Air Qty as per Air Change	Total Heat Dissipation	Heat Load Basis Q/ C*(Δ T)	Selected	Capacity of each fan	Static Pr. of each fan											
		Type of Ventilation	L (in m)	W (in m)	H (in m)	Gross (m^3)	ACH	CMH	KW	CMH	CMH	CMH	CMH	Type of Fan	No . Of FAN	Motor rating (KW)	Power supply Phase	Opening	Louvers Size (LXB) mm	Number of Louvers	Gravirty Damper Size (LXB) mm	Number of Gravity Dampers	Building Drawing number/Remarks	Tag No.
3	BATTERY ROOM	Exhaust fan with inlet Louver	5.3	4	4.5	95	20	1908	NA	NA	2000	2000	15	Spark proof construction with flame proof motor	2	0.55	3 Phase	700X700	600x600	1	NA	NA	1W+1S	00SAG12AN377-378
4	Toliets	Exhaust	5	2.5	3.2	40	20	800	NA	NA	1200	1200	5	Propeller fan	2	0.1	1 Phase	380mm(circular)					Inlet of Toilets shall be though door undercut/Door louvers.	
FF	Heavy fuel oil Unloading Pump house																						PE-DG-417-634-C005 PE-DG-417-634-C006 PE-DG-417-634-C007	
1	Pump House area	Exhaust fan with inlet Louver	33.5	10	4.5	1508	20	36650	16.71	16614	40000	10000	15	Spark proof AXIAL FLOW EXHAUST FAN with flame proof motor with fusible link damper	4	1.5	3 Phase	1000x1000	1200x1200	4	NA	NA		00SAG12AN379-382
			5	10	6.5	325	20																	
2	Toliets/Pantry	Exhaust	5	2.5	3.2	40	20	800	NA	NA	1200	1200	5	Propeller fan	3	0.1	1 Phase	380mm(circular)					Inlet of Toilets shall be though door undercut/Door louvers.	
GG	CW Treatment unit 1,2																						1-WT-221-02140 1-WT-221-02141	
1	MCC Area	Supply fan with gravity Damper	38.5	7.5	4.5	1631	15	24465	8.97	8914	30000	10000	30	Supply fan with pre filter and fine filter	3	2.2	3 Phase	1000x1000	NA	NA	700s550	4		00SAG12AN383-385
			13.4	5.5	4.5																			
2	Toliets	Exhaust	5	2.5	3.2	40	20	800	NA	NA	1200	1200	5	Propeller fan	3	0.1	1 Phase	380mm(circular)					Inlet of Toilets shall be though door undercut/Door louvers.	
3	Chemical Store	Exhaust fan with inlet Louver	11	5.2	5	286	20	5720	NA	NA	7500	7500	15	Spark proof AXIAL FLOW EXHAUST FAN	1	1.1	3 Phase	1000x1000	1000x1000	1	NA	NA		00SAG12AN386
HH	CW Treatment unit 3,4.5																						1-WT-221-02148 1-WT-221-02149	
1	MCC Area	Supply fan with gravity Damper	38.5	7.5	4.5	1631	15	24465	5.98	5943	30000	10000	30	Supply fan with pre filter and fine filter	3	2.2	3 Phase	1000x1000	NA	NA	700s550	4		00SAG12AN387-389
			13.4	5.5	4.5																			
2	Toliets	Exhaust	5	2.5	3.2	40	20	800	NA	NA	1200	1200	5	Propeller fan	3	0.1	1 Phase	380mm(circular)					Inlet of Toilets shall be though door undercut/Door louvers.	
3	Chemical Store	Exhaust fan with inlet Louver	11	5.2	5	286	20	5720	NA	NA	7500	7500	15	Spark proof AXIAL FLOW EXHAUST FAN	1	1.1	3 Phase	1000x1000	1000x1000	1	NA	NA		00SAG12AN390
II	Service Building (Stage I)																						PE-DG-417-640-C001 PE-DG-417-640-C002 PE-DG-417-640-C003 PE-DG-417-640-C004 PE-DG-417-640-C005	
1	Toliets/Pantry- Ground floor	Exhaust	5	2.5	3.2	40	20	800	NA	NA	1200	1200	5	Propeller fan	6	0.1	1 Phase	380mm(circular)					Inlet of Toilets shall be though door undercut/Door louvers.	
2	MCC Area	Supply fan with gravity Damper	22	10	4.75	1188	15	17820	8.97	8914	20000	10000	30	Supply fan with pre filter and fine filter	2	2.2	3 Phase	1000x1000	NA	NA	700s550	3		00SAG12AN391-392
3	Toliets/Pantry- first floor	Exhaust	5	2.5	3.2	40	20	800	NA	NA	1200	1200	5	Propeller fan	7	0.1	1 Phase	380mm(circular)					Inlet of Toilets shall be though door undercut/Door louvers.	
4	Toliets/Pantry- Secnd floor	Exhaust	5	2.5	3.2	40	20	800	NA	NA	1200	1200	5	Propeller fan	13	0.1	1 Phase	380mm(circular)					Inlet of Toilets shall be though door undercut/Door louvers.	
5	AC Plant room area	Exhaust fan with inlet Louver	15.6	6.8	5	530	10	5304	NA	NA	7500	7500	10	AXIAL FLOW EXHAUST FAN	1	0.55	3 Phase	700x700	1000x1000	1	NA	NA		00SAG12AN393
6	Battery room	Exhaust fan with inlet Louver	4.5	5.4	5	122	15	1823	NA	NA	2000	2000	15	AXIAL FLOW EXHAUST FAN Spark proof	2	0.55	3 Phase	700x700	700x700	1	NA	NA	1W+1S	00SAG12AN394-395
JJ	Service Building (Stage II)																						PE-DG-417-640-C040 PE-DG-417-640-C041 PE-DG-417-640-C042 PE-DG-417-640-C043 PE-DG-417-640-C044	
1	Toliets/Pantry- Ground floor	Exhaust	5	2.5	3.2	40	20	800	NA	NA	1200	1200	5	Propeller fan	6	0.1	1 Phase	380mm(circular)					Inlet of Toilets shall be though door undercut/Door louvers.	
2	MCC Area	Supply fan with gravity Damper	22	10	4.75	1188	15	17820	6.48	6438	20000	10000	30	Supply fan with pre filter and fine filter	2	2.2	3 Phase	1000x1000	NA	NA	700s550	3		00SAG12AN396-397

VENTILATION FAN SCHEDULE								Yadadri 5x800 MW							Doc no.		PE-V0-417-554-A008		Rev 04	Date 28.06.22				
S No	AREA		Dimension (M)			Volume	Air Changes	Air Qty as per Air Change	Total Heat Dissipation	Heat Load Basis Q/ C*(Δ T)	Selected	Capacity of each fan	Static Pr. of each fan											
		Type of Ventilation	L (in m)	W (in m)	H (in m)	Gross (m^3)	ACH	CMH	KW	CMH	CMH	CMH	CMH	Type of Fan	No . Of FAN	Motor rating (KW)	Power supply Phase	Opening	Louvers Size (LXB) mm	Number of Louvers	Gravirty Damper Size (LXB) mm	Number of Gravity Dampers	Building Drawing number/Remarks	Tag No.
3	Toliets/Pantry- first floor	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	7	0.1	1 Phase	380mm(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
4	Toliets/Pantry- Secnd floor	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	13	0.1	1 Phase	380mm(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
5	AC Plant room area	Exhaust fan with inlet Louver	15.6	6.8	5	530	10	5304	**NA**	**NA**	7500	7500	10	AXIAL FLOW EXHAUST FAN	1	0.55	3 Phase	700x700	1000x1000	1	NA	NA		**00SAG12AN398**
6	Battery room	Exhaust fan with inlet Louver	4.5	5.4	5	122	15	1823	**NA**	**NA**	2000	2000	15	AXIAL FLOW EXHAUST FAN Spark proof	2	0.55	3 Phase	700x700	700x700	1	NA	NA	**1W+1S**	**00SAG12AN399-400**
KK	**STP**																						1-WT-221-02127	
1	MCC Area	Supply fan with gravity Damper	12	6	4.5	467	15	7005	**1.99**	**1981**	10000	10000	30	Supply fan with pre filter and fine filter	1	2.2	3 Phase	1000x1000	NA	NA	700s550	2		**00SAG12AN401**
2	BATTERY ROOM	Exhaust fan with inlet Louver	5	6	4.5	135	20	2700	**NA**	**NA**	4000	4000	15	Spark proof construction with flame proof motor	2	0.75	3 Phase	700X700	800x800	1	NA	NA	**1W+1S**	**00SAG12AN402-403**
3	Toliets	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	2	0.1	1 Phase	380mm(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
LL	**Booster pump house Fire water**																						PY-DA-1-M081-1250-02	
1	PUMP HOUSE Area	Exhaust fan with inlet Louver	18.5	8	5	883	10	8830	**5.49**	**5450**	10000	10000	10	AXIAL FLOW EXHAUST FAN	**1**	0.75	3 Phase	900x900	1200x1200	1	NA	NA		**00SAG12AN404**
2	Toliets	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	2	0.1	1 Phase	380mm(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	
MM	**Foam Pump house**																						PY-DA-1-M081-1250-03	
1	PUMP HOUSE Area	Supply fan with gravity Damper	13.7	8.3	4.5	655	10	6547	**4.11**	**4084**	7500	7500	20	Supply fan with pre filter	1	1.1	3 Phase	1000x1000	NA	NA	700s550	3		**00SAG12AN405**
2	Toliets	Exhaust	**5**	**2.5**	**3.2**	**40**	**20**	800	**NA**	**NA**	1200	1200	5	Propeller fan	2	0.1	1 Phase	380mm(circular)					**Inlet of Toilets shall be though door undercut/Door louvers.**	

Instrument Schedule (Stage2 i..e unit 3,4, 5 applicable)

Make of Instrument shall be as per approved vendor list

Sr. No	Area	Abbr.	KKS Code No.	Instrument_Type	Service	Line size (mm)	Location	Manufacturer /Vendor Name	Instrument Range	PROCESS RANGE	SET POINT/CALIBRATION	Model Number	REF_P&ID_NO
GRID 8,10 -UNIT -1 A ROW SIDE									R3		R3		
1	HVAC	DPT	10SAG12CP019	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-1 For AWU-1	250	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
2	HVAC	DPT	10SAG12CP020	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-2 For AWU-1	250	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
3	HVAC	PT	10SAG12CP011	Pressure Transmitter(DP Type)	PT AT PUMP -1 For AWU-1	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
4	HVAC	PT	10SAG12CP012	Pressure Transmitter(DP Type)	PT AT PUMP -2 For AWU-1	200	MPH Building	Honeywell	0-6 kg /cm2	0-6kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
5	HVAC	PT	10SAG12CP013	Pressure Transmitter(DP Type)	PT-1 AT Pump Discharge Header For AWU-1	200	MPH Building	Honeywell	0-6 kg /cm2	0-6kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
6	HVAC	PT	10SAG12CP014	Pressure Transmitter(DP Type)	PT-2 AT Pump Discharge Header For AWU-1	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
7	HVAC	PT	10SAG12CP015	Pressure Transmitter(DP Type)	PT-1 AT Air Washer Plenum For AWU-1	--	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
8	HVAC	PT	10SAG12CP016	Pressure Transmitter(DP Type)	PT-2 AT Air Washer Plenum For AWU-1	--	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
9	HVAC	PT	10SAG12CP017	Pressure Transmitter(DP Type)	PT-1 AT Outlet Of Centrifugal Air Fan For AWU-1	--	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
10	HVAC	PT	10SAG12CP018	Pressure Transmitter(DP Type)	PT-2 AT Outlet Of Centrifugal Air Fan For AWU-1	--	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
11	HVAC	TG	10SAG12CT503	Temperature Gauge (Bimetallic Type)	TG at Pump Discharge AWU-1	200	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
12	HVAC	HS	10SAG12CU001	Humidity Sensor	HS AT LV Switchgear Room For AWU-1	NA	MPH Building	SIEMENS	0 - 100 %	0 - 100 %	0.6	QFM2171	PE-V0-417-554-A021
13	HVAC	HS	10SAG12CU002	Humidity Sensor	HS AT LV Switchgear Room For AWU-1	NA	MPH Building	SIEMENS	0 - 100 %	0 - 100 %	0.6	QFM2171	PE-V0-417-554-A021
14	HVAC	HS	10SAG12CU003	Humidity Sensor	HS AT MV Switchgear Room For AWU-1	NA	MPH Building	SIEMENS	0 - 100 %	0 - 100 %	0.6	QFM2171	PE-V0-417-554-A021
15	HVAC	HS	10SAG12CU004	Humidity Sensor	HS AT MV Switchgear Room For AWU-1	NA	MPH Building	SIEMENS	0 - 100 %	0 - 100 %	0.6	QFM2171	PE-V0-417-554-A021
16	HVAC	FM	10SAG12FM011	Flow Meter (Glass Tube Rotameter Type)	FM AT Makeup Line For AWU-1	NA	MPH Building	INSTRUMENTATION ENGINEERS	0-15cmh	0-4cmh	8cmh	1140	PE-V0-417-554-A021
17	HVAC	LT	10SAG12CL011	(DP Type)Level Transmitter	LT -1 AT AWU Tank For AWU-1	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKPT03V5-2ACYY-0Y	PE-V0-417-554-A021
18	HVAC	LT	10SAG12CL012	(DP Type)Level Transmitter R3	LT -2 AT AWU Tank For AWU-1	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKPT03V5-2ACYY-0Y	PE-V0-417-554-A021
19	HVAC	PI	10SAG12CP503	Pressure Indicator	PI -1 AT PUMP SUCTION AWU-1	250	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
20	HVAC	PI	10SAG12CP504	Pressure Indicator	PI -2 AT PUMP DISCHARGE AWU-1	200	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
21	HVAC	PI	10SAG12CP505	Pressure Indicator	PI -3 AT PUMP SUCTION AWU-1	250	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
22	HVAC	PI	10SAG12CP506	Pressure Indicator	PI -4 AT PUMP DISCHARGE AWU-1	200	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
23	HVAC	TI	10SAG12CT501	Temperature Indicator	TI -1 AT Pump Discharge AWU-1	200	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021

24	HVAC	TI	10SAG12CT502	Temperature Indicator	TI -2 AT Pump Discharge AWU-1	200	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
GRID 8,10 -UNIT -1 A ROW SIDE													
Sr. No	**Area**	**Abbr.**	**KKS Code No.**	**Instrument_Type**	**Service**	**Line size (mm)**	**Location**	**Manufacturer /Vendor Name**		**PROCESS RANGE**	**SET POINT/CALIBRATION**	**Model Number**	**REF_P&ID_NO**
1	HVAC	DPT	10SAG13CP019	DPT Diaphagram (Blind Type)	DPT Across Pot Strainer-1 For AWU-2	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
2	HVAC	DPT	10SAG13CP020	DPT Diaphagram (Blind Type)	DPT Across Pot Strainer-2 For AWU-2	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
3	HVAC	PT	10SAG13CP011	Pressure Transmitter(DP Type)	PT AT PUMP -1 For AWU-2	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
4	HVAC	PT	10SAG13CP012	Pressure Transmitter(DP Type)	PT AT PUMP -2 For AWU-2	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
5	HVAC	PT	10SAG13CP013	Pressure Transmitter(DP Type)	PT-1 AT Pump Discharge Header For AWU-2	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
6	HVAC	PT	10SAG13CP014	Pressure Transmitter(DP Type)	PT-2 AT Pump Discharge Header For AWU-2	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
7	HVAC	PT	10SAG13CP015	Pressure Transmitter(DP Type)	PT-1 AT Air Washer Plenum For AWU-2	NA	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
8	HVAC	PT	10SAG13CP016	Pressure Transmitter(DP Type)	PT-2 AT Air Washer Plenum For AWU-2	NA	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
9	HVAC	PT	10SAG13CP017	Pressure Transmitter(DP Type)	PT-1 AT Outlet Of Centrifugal Air Fan For AWU-2	NA	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
10	HVAC	PT	10SAG13CP018	Pressure Transmitter(DP Type)	PT-2 AT Outlet Of Centrifugal Air Fan For AWU-2	NA	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
11	HVAC	FM	10SAG13FM011	Flow Meter (Glass Tube Rotameter Type)	FM AT Makeup Line For AWU-2	NA	MPH Building	INSTRUMENTATION ENGINEERS	0-15cmh	0-4cmh	8cmh	1140	PE-V0-417-554-A021
12	HVAC	LT	10SAG13CL011	(DP Type)Level Transmitter	LT -1 AT AWU Tank For AWU-2	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKPT03V5-2ACYY-0Y	PE-V0-417-554-A021
13	HVAC	LT	10SAG13CL012	(DP Type)Level Transmitter	LT -2 AT AWU Tank For AWU-2	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKPT03V5-2ACYY-0Y	PE-V0-417-554-A021
14	HVAC	TG	10SAG13CT503	Temperature Gauge (Bimetallic Type)	TG at Pump Discharge AWU-2	200	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
15	HVAC	PI	10SAG12CP503	Pressure Indicator	PI -1 AT PUMP SUCTION AWU-2	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
16	HVAC	PI	10SAG12CP504	Pressure Indicator	PI -2 AT PUMP DISCHARGE AWU-1	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
17	HVAC	PI	10SAG12CP505	Pressure Indicator	PI -3 AT PUMP SUCTION AWU-2	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
18	HVAC	PI	10SAG12CP506	Pressure Indicator	PI -4 AT PUMP DISCHARGE AWU-2	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
19	HVAC	TI	10SAG12CT501	Temperature Indicator	TI -1 AT Pump Discharge AWU-2	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021

20	HVAC	TI	10SAG12CT502	Temperature Indicator	TI -2 AT Pump Discharge AWU-2	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
GRID 21,23 -UNIT -2 A ROW SIDE													
Sr. No	**Area**	**Abbr.**	**KKS Code No.**	**Instrument_Type**	**Service**	**Line size (mm)**	**Location**	**Manufacturer /Vendor Name**		**PROCESS RANGE**	**SET POINT/CALIBRATION**	**Model Number**	**REF_P&ID_NO**
1	HVAC	DPT	20SAG12CP019	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-1 For AWU-1	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
2	HVAC	DPT	20SAG12CP020	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-2 For AWU-1	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
3	HVAC	PT	20SAG12CP011	Pressure Transmitter(DP Type)	PT AT PUMP -1 For AWU-1	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
4	HVAC	PT	20SAG12CP012	Pressure Transmitter(DP Type)	PT AT PUMP -2 For AWU-1	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
5	HVAC	PT	20SAG12CP013	Pressure Transmitter(DP Type)	PT-1 AT Pump Discharge Header For AWU-1	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
6	HVAC	PT	20SAG12CP014	Pressure Transmitter(DP Type)	PT-2 AT Pump Discharge Header For AWU-1	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
7	HVAC	PT	20SAG12CP015	Pressure Transmitter(DP Type)	PT-1 AT Air Washer Plenum For AWU-1	NA	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
8	HVAC	PT	20SAG12CP016	Pressure Transmitter(DP Type)	PT-2 AT Air Washer Plenum For AWU-1	NA	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
9	HVAC	PT	20SAG12CP017	Pressure Transmitter(DP Type)	PT-1 AT Outlet Of Centrifugal Air Fan For AWU-1	NA	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
10	HVAC	PT	20SAG12CP018	Pressure Transmitter(DP Type)	PT-2 AT Outlet Of Centrifugal Air Fan For AWU-1	NA	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
11	HVAC	FM	20SAG12FM011	Flow Meter (Glass Tube Rotameter Type)	FM AT Makeup Line For AWU-1	NA	MPH Building	INSTRUMENTATION ENGINEERS	0-15cmh	0-4cmh	8cmh	1140	PE-V0-417-554-A021
12	HVAC	LT	20SAG12CL011	(DP Type)Level Transmitter	LT -1 AT AWU Tank For AWU-1	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
13	HVAC	LT	20SAG12CL012	(DP Type)Level Transmitter	LT -2 AT AWU Tank For AWU-1	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
14	HVAC	TG	20SAG12CT503	Temperature Gauge (Bimetallic Type)	TG at Pump Discharge AWU-1	200	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
15	HVAC	PI	20SAG12CP503	Pressure Indicator	PI -1 AT PUMP SUCTION AWU-1	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
16	HVAC	PI	20SAG12CP504	Pressure Indicator	PI -2 AT PUMP DISCHARGE AWU-1	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
17	HVAC	PI	20SAG12CP505	Pressure Indicator	PI -3 AT PUMP SUCTION AWU-1	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
18	HVAC	PI	20SAG12CP506	Pressure Indicator	PI -4 AT PUMP DISCHARGE AWU-1	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
19	HVAC	TI	20SAG12CT501	Temperature Indicator	TI -1 AT Pump Discharge AWU-1	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
20	HVAC	TI	20SAG12CT502	Temperature Indicator	TI -2 AT Pump Discharge AWU-1	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
GRID 21,23 -UNIT -2 A ROW SIDE													
Sr. No	**Area**	**Abbr.**	**KKS Code No.**	**Instrument_Type**	**Service**	**Line size (mm)**	**Location**	**Manufacturer /Vendor Name**				**Model Number**	**REF_P&ID_NO**
1	HVAC	DPT	20SAG13CP019	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-1 For AWU-2	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
2	HVAC	DPT	20SAG13CP020	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-2 For AWU-2	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
3	HVAC	PT	20SAG13CP011	Pressure Transmitter(DP Type)	PT AT PUMP -1 For AWU-2	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
4	HVAC	PT	20SAG13CP012	Pressure Transmitter(DP Type)	PT AT PUMP -2 For AWU-2	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
5	HVAC	PT	20SAG13CP013	Pressure Transmitter(DP Type)	PT-1 AT Pump Discharge Header For AWU-2	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
6	HVAC	PT	20SAG13CP014	Pressure Transmitter(DP Type)	PT-2 AT Pump Discharge Header For AWU-2	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021

7	HVAC	PT	20SAG13CP015	Pressure Transmitter(DP Type)	PT-1 AT Air Washer Plenum For AWU-2	NA	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
8	HVAC	PT	20SAG13CP016	Pressure Transmitter(DP Type)	PT-2 AT Air Washer Plenum For AWU-2	NA	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
9	HVAC	PT	20SAG13CP017	Pressure Transmitter(DP Type)	PT-1 AT Outlet Of Centrifugal Air Fan For AWU-2	NA	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
10	HVAC	PT	20SAG13CP018	Pressure Transmitter(DP Type)	PT-2 AT Outlet Of Centrifugal Air Fan For AWU-2	NA	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
11	HVAC	FM	20SAG13FM011	Flow Meter (Glass Tube Rotameter Type)	FM AT Makeup Line For AWU-2	NA	MPH Building	INSTRUMENTATION ENGINEERS	0-15cmh	0-4cmh	8cmh	1140	PE-V0-417-554-A021
12	HVAC	LT	20SAG13CL011	(DP Type)Level Transmitter	LT -1 AT AWU Tank For AWU-2	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
13	HVAC	LT	20SAG13CL012	(DP Type)Level Transmitter	LT -2 AT AWU Tank For AWU-2	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
14	HVAC	TG	20SAG13CT503	Temperature Gauge (Bimetallic Type)	TG at Pump Discharge AWU-2	200	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
15	HVAC	PI	20SAG13CP503	Pressure Indicator	PI -1 AT PUMP SUCTION AWU-2	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
16	HVAC	PI	20SAG13CP504	Pressure Indicator	PI -2 AT PUMP DISCHARGE AWU-2	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
17	HVAC	PI	20SAG13CP505	Pressure Indicator	PI -3 AT PUMP SUCTION AWU-2	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
18	HVAC	PI	20SAG13CP506	Pressure Indicator	PI -4 AT PUMP DISCHARGE AWU-2	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
19	HVAC	TI	20SAG13CT501	Temperature Indicator	TI -1 AT Pump Discharge AWU-2	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
20	HVAC	TI	20SAG13CT502	Temperature Indicator	TI -2 AT Pump Discharge AWU-2	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021

GRID 35,37 -UNIT -3 AROW SIDE

Sr. No	Area	Abbr.	KKS Code No.	Instrument_Type	Service	Line size (mm)	Location	Manufacturer /Vendor Name				Model Number	REF_P&ID_NO
1	HVAC	DPT	30SAG12CP019	DPT Diaphagram (Blind Type)	DPT Across Pot Strainer-1 For AWU-1	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
2	HVAC	DPT	30SAG12CP020	DPT Diaphagram (Blind Type)	DPT Across Pot Strainer-2 For AWU-1	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
3	HVAC	HS	30SAG12CU001	Humidity Sensor	HS AT LV Switchgear Room For AWU-1	NA	MPH Building	SIEMENS	0 - 100 %	0 - 100 %	60%	QFM2171	PE-V0-417-554-A021
4	HVAC	HS	30SAG12CU002	Humidity Sensor	HS AT LV Switchgear Room For AWU-1	NA	MPH Building	SIEMENS	0 - 100 %	0 - 100 %	60%	QFM2171	PE-V0-417-554-A021
5	HVAC	HS	30SAG12CU003	Humidity Sensor	HS AT MV Switchgear Room For AWU-1	NA	MPH Building	SIEMENS	0 - 100 %	0 - 100 %	60%	QFM2171	PE-V0-417-554-A021
6	HVAC	HS	30SAG12CU004	Humidity Sensor	HS AT MV Switchgear Room For AWU-1	NA	MPH Building	SIEMENS	0 - 100 %	0 - 100 %	60%	QFM2171	PE-V0-417-554-A021
7	HVAC	PT	30SAG12CP011	Pressure Transmitter(DP Type)	PT AT PUMP -1 For AWU-1	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
8	HVAC	PT	30SAG12CP012	Pressure Transmitter(DP Type)	PT AT PUMP -2 For AWU-1	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
9	HVAC	PT	30SAG12CP013	Pressure Transmitter(DP Type)	PT-1 AT Pump Discharge Header For AWU-1	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
10	HVAC	PT	30SAG12CP014	Pressure Transmitter(DP Type)	PT-2 AT Pump Discharge Header For AWU-1	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
11	HVAC	PT	30SAG12CP015	Pressure Transmitter(DP Type)	PT-1 AT Air Washer Plenum For AWU-1	NA	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
12	HVAC	PT	30SAG12CP016	Pressure Transmitter(DP Type)	PT-2 AT Air Washer Plenum For AWU-1	NA	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021

13	HVAC	PT	30SAG12CP017	Pressure Transmitter(DP Type)	PT-1 AT Outlet Of Centrifugal Air Fan For AWU-1	NA	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
14	HVAC	PT	30SAG12CP018	Pressure Transmitter(DP Type)	PT-2 AT Outlet Of Centrifugal Air Fan For AWU-1	NA	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
15	HVAC	FM	30SAG12FM011	Flow Meter (Glass Tube Rotameter Type)	FM AT Makeup Line For AWU-1	NA	MPH Building	INSTRUMENTATION ENGINEERS	0-15cmh	0-4cmh	8cmh	1140	PE-V0-417-554-A021
16	HVAC	LT	30SAG12CL011	(DP Type)Level Transmitter	LT -1 AT AWU Tank For AWU-1	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
17	HVAC	LT	30SAG12CL012	(DP Type)Level Transmitter	LT -2 AT AWU Tank For AWU-1	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
18	HVAC	TG	30SAG12CT503	Temperature Gauge (Bimetallic Type)	TG at Pump Discharge AWU-1	200	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
19	HVAC	PI	30SAG12CP503	Pressure Indicator	PI -1 AT PUMP SUCTION AWU-1	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
20	HVAC	PI	30SAG12CP504	Pressure Indicator	PI -2 AT PUMP DISCHARGE AWU-1	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
21	HVAC	PI	30SAG12CP505	Pressure Indicator	PI -3 AT PUMP SUCTION AWU-1	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
22	HVAC	PI	30SAG12CP506	Pressure Indicator	PI -4 AT PUMP DISCHARGE AWU-1	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
23	HVAC	TI	30SAG12CT501	Temperature Indicator	TI -1 AT Pump Discharge AWU-1	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
24	HVAC	TI	30SAG12CT502	Temperature Indicator	TI -2 AT Pump Discharge AWU-1	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021

GRID 35,37 -UNIT -3 AROW SIDE

Sr. No	Area	Abbr.	KKS Code No.	Instrument_Type	Service	Line size (mm)	Location	Manufacturer /Vendor Name				Model Number	REF_P&ID_NO
1	HVAC	DPT	30SAG13CP019	DPT Diaphagram (Blind Type)	DPT Across Pot Strainer-1 For AWU-2	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
2	HVAC	DPT	30SAG13CP020	DPT Diaphagram (Blind Type)	DPT Across Pot Strainer-2 For AWU-2	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
3	HVAC	PT	30SAG13CP011	Pressure Transmitter(DP Type)	PT AT PUMP -1 For AWU-2	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
4	HVAC	PT	30SAG13CP012	Pressure Transmitter(DP Type)	PT AT PUMP -2 For AWU-2	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
5	HVAC	PT	30SAG13CP013	Pressure Transmitter(DP Type)	PT-1 AT Pump Discharge Header For AWU-2	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
6	HVAC	PT	30SAG13CP014	Pressure Transmitter(DP Type)	PT-2 AT Pump Discharge Header For AWU-2	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
7	HVAC	PT	30SAG13CP015	Pressure Transmitter(DP Type)	PT-1 AT Air Washer Plenum For AWU-2	NA	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
8	HVAC	PT	30SAG13CP016	Pressure Transmitter(DP Type)	PT-2 AT Air Washer Plenum For AWU-2	NA	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
9	HVAC	PT	30SAG13CP017	Pressure Transmitter(DP Type)	PT-1 AT Outlet Of Centrifugal Air Fan For AWU-2	NA	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
10	HVAC	PT	30SAG13CP018	Pressure Transmitter(DP Type)	PT-2 AT Outlet Of Centrifugal Air Fan For AWU-2	NA	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
11	HVAC	FM	30SAG13FM011	Flow Meter (Glass Tube Rotameter Type)	FM AT Makeup Line For AWU-2	NA	MPH Building	INSTRUMENTATION ENGINEERS	0-15cmh	0-4cmh	8cmh	1140	PE-V0-417-554-A021
12	HVAC	LT	30SAG13CL011	(DP Type)Level Transmitter	LT -1 AT AWU Tank For AWU-2	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
13	HVAC	LT	30SAG13CL012	(DP Type)Level Transmitter	LT -2 AT AWU Tank For AWU-2	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
14	HVAC	TG	30SAG13CT503	Temperature Gauge (Bimetallic Type)	TG at Pump Discharge AWU-2	200	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
15	HVAC	PI	30SAG13CP503	Pressure Indicator	PI -1 AT PUMP SUCTION AWU-2	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
16	HVAC	PI	30SAG13CP504	Pressure Indicator	PI -2 AT PUMP DISCHARGE AWU-2	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021

17	HVAC	PI	30SAG13CP505	Pressure Indicator	PI -3 AT PUMP SUCTION AWU-2	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
18	HVAC	PI	30SAG13CP506	Pressure Indicator	PI -4 AT PUMP DISCHARGE AWU-2	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
19	HVAC	TI	30SAG13CT501	Temperature Indicator	TI -1 AT Pump Discharge AWU-2	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
20	HVAC	TI	30SAG13CT502	Temperature Indicator	TI -2 AT Pump Discharge AWU-2	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021

GRID47,49 -UNIT -4 AROW SIDE

Sr. No	Area	Abbr.	KKS Code No.	Instrument_Type	Service	Line size (mm)	Location	Manufacturer /Vendor Name				Model Number	REF_P&ID_NO
1	HVAC	DPT	40SAG12CP019	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-1 For AWU-1	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
2	HVAC	DPT	40SAG12CP020	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-2 For AWU-1	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
3	HVAC	PT	40SAG12CP011	Pressure Transmitter(DP Type)	PT AT PUMP -1 For AWU-1	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
4	HVAC	PT	40SAG12CP012	Pressure Transmitter(DP Type)	PT AT PUMP -2 For AWU-1	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
5	HVAC	PT	40SAG12CP013	Pressure Transmitter(DP Type)	PT-1 AT Pump Discharge Header For AWU-1	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
6	HVAC	PT	40SAG12CP014	Pressure Transmitter(DP Type)	PT-2 AT Pump Discharge Header For AWU-1	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
7	HVAC	PT	40SAG12CP015	Pressure Transmitter(DP Type)	PT-1 AT Air Washer Plenum For AWU-1	NA	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
8	HVAC	PT	40SAG12CP016	Pressure Transmitter(DP Type)	PT-2 AT Air Washer Plenum For AWU-1	NA	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
9	HVAC	PT	40SAG12CP017	Pressure Transmitter(DP Type)	PT-1 AT Outlet Of Centrifugal Air Fan For AWU-1	NA	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
10	HVAC	PT	40SAG12CP018	Pressure Transmitter(DP Type)	PT-2 AT Outlet Of Centrifugal Air Fan For AWU-1	NA	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
11	HVAC	FM	40SAG12FM011	Flow Meter (Glass Tube Rotameter Type)	FM AT Makeup Line For AWU-1	NA	MPH Building	INSTRUMENTATION ENGINEERS	0-15cmh	0-4cmh	8cmh	1140	PE-V0-417-554-A021
12	HVAC	LT	40SAG12CL011	(DP Type)Level Transmitter	LT -1 AT AWU Tank For AWU-1	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
13	HVAC	LT	40SAG12CL012	(DP Type)Level Transmitter	LT -2 AT AWU Tank For AWU-1	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
14	HVAC	TG	40SAG12CT503	Temperature Gauge (Bimetallic Type)	TG at Pump Discharge AWU-1	200	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
15	HVAC	PI	40SAG12CP503	Pressure Indicator	PI -1 AT PUMP SUCTION AWU-1	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
16	HVAC	PI	40SAG12CP504	Pressure Indicator	PI -2 AT PUMP DISCHARGE AWU-1	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
17	HVAC	PI	40SAG12CP505	Pressure Indicator	PI -3 AT PUMP SUCTION AWU-1	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
18	HVAC	PI	40SAG12CP506	Pressure Indicator	PI -4 AT PUMP DISCHARGE AWU-1	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
19	HVAC	TI	40SAG12CT501	Temperature Indicator	TI -1 AT Pump Discharge AWU-1	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
20	HVAC	TI	40SAG12CT502	Temperature Indicator	TI -2 AT Pump Discharge AWU-1	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021

GRID47,49 -UNIT -4 AROW SIDE

Sr. No	Area	Abbr.	KKS Code No.	Instrument_Type	Service	Line size (mm)	Location	Manufacturer /Vendor Name				Model Number	REF_P&ID_NO
1	HVAC	DPT	40SAG13CP019	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-1 For AWU-2	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021

2	HVAC	DPT	40SAG13CP020	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-2 For AWU-2	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
3	HVAC	PT	40SAG13CP011	Pressure Transmitter(DP Type)	PT AT PUMP -1 For AWU-2	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
4	HVAC	PT	40SAG13CP012	Pressure Transmitter(DP Type)	PT AT PUMP -2 For AWU-2	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
5	HVAC	PT	40SAG13CP013	Pressure Transmitter(DP Type)	PT-1 AT Pump Discharge Header For AWU-2	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
6	HVAC	PT	40SAG13CP014	Pressure Transmitter(DP Type)	PT-2 AT Pump Discharge Header For AWU-2	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
7	HVAC	PT	40SAG13CP015	Pressure Transmitter(DP Type)	PT-1 AT Air Washer Plenum For AWU-2	NA	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
8	HVAC	PT	40SAG13CP016	Pressure Transmitter(DP Type)	PT-2 AT Air Washer Plenum For AWU-2	NA	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
9	HVAC	PT	40SAG13CP017	Pressure Transmitter(DP Type)	PT-1 AT Outlet Of Centrifugal Air Fan For AWU-2	NA	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
10	HVAC	PT	40SAG13CP018	Pressure Transmitter(DP Type)	PT-2 AT Outlet Of Centrifugal Air Fan For AWU-2	NA	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
11	HVAC	FM	40SAG13FM011	Flow Meter (Glass Tube Rotameter Type)	FM AT Makeup Line For AWU-2	NA	MPH Building	INSTRUMENTATION ENGINEERS	0-15cmh	0-4cmh	8cmh	1140	PE-V0-417-554-A021
12	HVAC	LT	40SAG13CL011	(DP Type)Level Transmitter	LT -1 AT AWU Tank For AWU-2	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
13	HVAC	LT	40SAG13CL012	(DP Type)Level Transmitter	LT -2 AT AWU Tank For AWU-2	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
14	HVAC	TG	40SAG13CT503	Temperature Gauge (Bimetallic Type)	TG at Pump Discharge AWU-2	200	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
15	HVAC	PI	40SAG13CP503	Pressure Indicator	PI -1 AT PUMP SUCTION AWU-2	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
16	HVAC	PI	40SAG13CP504	Pressure Indicator	PI -2 AT PUMP DISCHARGE AWU-2	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
17	HVAC	PI	40SAG13CP505	Pressure Indicator	PI -3 AT PUMP SUCTION AWU-2	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
18	HVAC	PI	40SAG13CP506	Pressure Indicator	PI -4 AT PUMP DISCHARGE AWU-2	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
19	HVAC	TI	40SAG13CT501	Temperature Indicator	TI -1 AT Pump Discharge AWU-2	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
20	HVAC	TI	40SAG13CT502	Temperature Indicator	TI -2 AT Pump Discharge AWU-2	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
GRID 60,62 -UNIT -5 A ROW SIDE													
Sr. No	**Area**	**Abbr.**	**KKS Code No.**	**Instrument_Type**	**Service**	**Line size (mm)**	**Location**	**Manufacturer /Vendor Name**				**Model Number**	**REF_P&ID_NO**
1	HVAC	DPT	50SAG12CP019	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-1 For AWU-1	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
2	HVAC	DPT	50SAG12CP020	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-2 For AWU-1	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
3	HVAC	HS	50SAG12CU001	Humidity Sensor	HS AT LV Switchgear Room For AWU-1	NA	MPH Building	SIEMENS	0 - 100 %	0 - 100 %	60%	QFM2171	PE-V0-417-554-A021
4	HVAC	HS	50SAG12CU002	Humidity Sensor	HS AT LV Switchgear Room For AWU-1	NA	MPH Building	SIEMENS	0 - 100 %	0 - 100 %	60%	QFM2171	PE-V0-417-554-A021
5	HVAC	HS	50SAG12CU003	Humidity Sensor	HS AT MV Switchgear Room For AWU-1	NA	MPH Building	SIEMENS	0 - 100 %	0 - 100 %	60%	QFM2171	PE-V0-417-554-A021
6	HVAC	HS	50SAG12CU004	Humidity Sensor	HS AT MV Switchgear Room For AWU-1	NA	MPH Building	SIEMENS	0 - 100 %	0 - 100 %	60%	QFM2171	PE-V0-417-554-A021
7	HVAC	PT	50SAG12CP011	Pressure Transmitter(DP Type)	PT AT PUMP -1 For AWU-1	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
8	HVAC	PT	50SAG12CP012	Pressure Transmitter(DP Type)	PT AT PUMP -2 For AWU-1	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
9	HVAC	PT	50SAG12CP013	Pressure Transmitter(DP Type)	PT-1 AT Pump Discharge Header For AWU-1	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
10	HVAC	PT	50SAG12CP014	Pressure Transmitter(DP Type)	PT-2 AT Pump Discharge Header For AWU-1	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021

11	HVAC	PT	50SAG12CP015	Pressure Transmitter(DP Type)	PT-1 AT Air Washer Plenum For AWU-1	NA	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
12	HVAC	PT	50SAG12CP016	Pressure Transmitter(DP Type)	PT-2 AT Air Washer Plenum For AWU-1	NA	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
13	HVAC	PT	50SAG12CP017	Pressure Transmitter(DP Type)	PT-1 AT Outlet Of Centrifugal Air Fan For AWU-1	NA	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
14	HVAC	PT	50SAG12CP018	Pressure Transmitter(DP Type)	PT-2 AT Outlet Of Centrifugal Air Fan For AWU-1	NA	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
15	HVAC	FM	50SAG12FM011	Flow Meter (Glass Tube Rotameter Type)	FM AT Makeup Line For AWU-1	NA	MPH Building	INSTRUMENTATION ENGINEERS	0-15cmh	0-4cmh	8cmh	1140	PE-V0-417-554-A021
16	HVAC	LT	50SAG12CL011	(DP Type)Level Transmitter	LT -1 AT AWU Tank For AWU-1	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
17	HVAC	LT	50SAG12CL012	(DP Type)Level Transmitter	LT -2 AT AWU Tank For AWU-1	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
18	HVAC	TG	50SAG12CT503	Temperature Gauge (Bimetallic Type)	TG at Pump Discharge AWU-1	200	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
19	HVAC	PI	50SAG12CP503	Pressure Indicator	PI -1 AT PUMP SUCTION AWU-1	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
20	HVAC	PI	50SAG12CP504	Pressure Indicator	PI -2 AT PUMP DISCHARGE AWU-1	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
21	HVAC	PI	50SAG12CP505	Pressure Indicator	PI -3 AT PUMP SUCTION AWU-1	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
22	HVAC	PI	50SAG12CP506	Pressure Indicator	PI -4 AT PUMP DISCHARGE AWU-1	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
23	HVAC	TI	50SAG12CT501	Temperature Indicator	TI -1 AT Pump Discharge AWU-1	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
24	HVAC	TI	50SAG12CT502	Temperature Indicator	TI -2 AT Pump Discharge AWU-1	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
GRID 60,62 -UNIT -5 A ROW SIDE													
Sr. No	**Area**	**Abbr.**	**KKS Code No.**	**Instrument_Type**	**Service**	**Line size (mm)**	**Location**	**Manufacturer /Vendor Name**				**Model Number**	**REF_P&ID_NO**
1	HVAC	DPT	50SAG13CP019	DPT Diaphragm (Blind Type)	DPT Across Pot Strainer-1 For AWU-2	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
2	HVAC	DPT	50SAG13CP020	DPT Diaphragm (Blind Type)	DPT Across Pot Strainer-2 For AWU-2	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
3	HVAC	PT	50SAG13CP011	Pressure Transmitter(DP Type)	PT AT PUMP -1 For AWU-2	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
4	HVAC	PT	50SAG13CP012	Pressure Transmitter(DP Type)	PT AT PUMP -2 For AWU-2	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
5	HVAC	PT	50SAG13CP013	Pressure Transmitter(DP Type)	PT-1 AT Pump Discharge Header For AWU-2	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
6	HVAC	PT	50SAG13CP014	Pressure Transmitter(DP Type)	PT-2 AT Pump Discharge Header For AWU-2	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
7	HVAC	PT	50SAG13CP015	Pressure Transmitter(DP Type)	PT-1 AT Air Washer Plenum For AWU-2	NA	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
8	HVAC	PT	50SAG13CP016	Pressure Transmitter(DP Type)	PT-2 AT Air Washer Plenum For AWU-2	NA	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
9	HVAC	PT	50SAG13CP017	Pressure Transmitter(DP Type)	PT-1 AT Outlet Of Centrifugal Air Fan For AWU-2	NA	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
10	HVAC	PT	50SAG13CP018	Pressure Transmitter(DP Type)	PT-2 AT Outlet Of Centrifugal Air Fan For AWU-2	NA	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
11	HVAC	FM	50SAG13FM011	Flow Meter (Glass Tube Rotameter Type)	FM AT Makeup Line For AWU-2	NA	MPH Building	INSTRUMENTATION ENGINEERS	0-15cmh	0-4cmh	8cmh	1140	PE-V0-417-554-A021
12	HVAC	LT	50SAG13CL011	(DP Type)Level Transmitter	LT -1 AT AWU Tank For AWU-2	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
13	HVAC	LT	50SAG13CL012	(DP Type)Level Transmitter	LT -2 AT AWU Tank For AWU-2	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
14	HVAC	TG	50SAG13CT503	Temperature Gauge (Bimetallic Type)	TG at Pump Discharge AWU-2	200	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021

15	HVAC	PI	50SAG13CP503	Pressure Indicator	PI -1 AT PUMP SUCTION AWU-2	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
16	HVAC	PI	50SAG13CP504	Pressure Indicator	PI -2 AT PUMP DISCHARGE AWU-2	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
17	HVAC	PI	50SAG13CP505	Pressure Indicator	PI -3 AT PUMP SUCTION AWU-2	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
18	HVAC	PI	50SAG13CP506	Pressure Indicator	PI -4 AT PUMP DISCHARGE AWU-2	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
19	HVAC	TI	50SAG13CT501	Temperature Indicator	TI -1 AT Pump Discharge AWU-2	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
20	HVAC	TI	50SAG13CT502	Temperature Indicator	TI -2 AT Pump Discharge AWU-2	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021

GRID 54,50 -UNIT -5 BC BAY													
Sr. No	**Area**	**Abbr.**	**KKS Code No.**	**Instrument_Type**	**Service**	**Line size (mm)**	**Location**	**Manufacturer /Vendor Name**				**Model Number**	**REF_P&ID_NO**
1	HVAC	DPT	50SAG14CP019	DPT Diaphagram (Blind Type)	DPT Across Pot Strainer-1 For AWU-3	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
2	HVAC	DPT	50SAG14CP020	DPT Diaphagram (Blind Type)	DPT Across Pot Strainer-2 For AWU-3	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
3	HVAC	HS	50SAG14CU001	Humidity Sensor	HS AT Auxilary Boiler MCC For AWU-3	NA	MPH Building	SIEMENS	0 - 100 %	0 - 100 %	60%	QFM2171	PE-V0-417-554-A021
4	HVAC	HS	50SAG14CU002	Humidity Sensor	HS AT Auxilary Boiler MCC For AWU-3	NA	MPH Building	SIEMENS	0 - 100 %	0 - 100 %	60%	QFM2171	PE-V0-417-554-A021
5	HVAC	PT	50SAG14CP011	Pressure Transmitter(DP Type)	PT AT PUMP -1 For AWU-3	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2.5kg	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
6	HVAC	PT	50SAG14CP012	Pressure Transmitter(DP Type)	PT AT PUMP -2 For AWU-3	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2.5kg	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
7	HVAC	PT	50SAG14CP013	Pressure Transmitter(DP Type)	PT-1 AT Pump Outlet Header For AWU-3	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2.5kg	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
8	HVAC	PT	50SAG14CP014	Pressure Transmitter(DP Type)	PT-2 AT Pump Outlet Header For AWU-3	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2.5kg	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
9	HVAC	PT	50SAG14CP015	Pressure Transmitter(DP Type)	PT-1 AT Air Washer Plenum For AWU-3	NA	MPH Building	Honeywell	0-6 kg /cm2	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
10	HVAC	PT	50SAG14CP016	Pressure Transmitter(DP Type)	PT-2 AT Air Washer Plenum For AWU-3	NA	MPH Building	Honeywell	0-6 kg /cm2	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
11	HVAC	PT	50SAG14CP017	Pressure Transmitter(DP Type)	PT-1 AT Outlet Of Centrifugal Air Fan For AWU-3	NA	MPH Building	Honeywell	0-6 kg /cm2	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
12	HVAC	PT	50SAG14CP018	Pressure Transmitter(DP Type)	PT-2 AT Outlet Of Centrifugal Air Fan For AWU-3	NA	MPH Building	Honeywell	0-6 kg /cm2	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
13	HVAC	FM	50SAG14FM011	Flow Meter (Glass Tube Rotameter Type)	FM AT Makeup Line For AWU-3	NA	MPH Building	INSTRUMENTATION ENGINEERS	0-15cmh	0-4cmh	8cmh	1140	PE-V0-417-554-A021
14	HVAC	LT	50SAG14CL011	(DP Type)Level Transmitter	LT -1 AT AWU Tank For AWU-3	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
15	HVAC	LT	50SAG14CL012	(DP Type)Level Transmitter	LT -2 AT AWU Tank For AWU-3	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
16	HVAC	TG	50SAG14CT503	Temperature Gauge (Bimetallic Type)	TG at Pump Discharge AWU-3	200	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
17	HVAC	PI	50SAG14CP503	Pressure Indicator	PI -1 AT PUMP SUCTION AWU-3	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
18	HVAC	PI	50SAG14CP504	Pressure Indicator	PI -2 AT PUMP DISCHARGE AWU-3	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
19	HVAC	PI	50SAG14CP505	Pressure Indicator	PI -3 AT PUMP SUCTION AWU-3	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
20	HVAC	PI	50SAG14CP506	Pressure Indicator	PI -4 AT PUMP DISCHARGE AWU-3	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
21	HVAC	TI	50SAG14CT501	Temperature Indicator	TI -1 AT Pump Discharge AWU-3	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
22	HVAC	TI	50SAG14CT502	Temperature Indicator	TI -2 AT Pump Discharge AWU-3	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021

GRID 54,50 -UNIT -5 BC BAY													
Sr. No	**Area**	**Abbr.**	**KKS Code No.**	**Instrument_Type**	**Service**	**Line size (mm)**	**Location**	**Manufacturer /Vendor Name**				**Model Number**	**REF_P&ID_NO**
1	HVAC	DPT	50SAG15CP019	DPT Diaphagram (Blind Type)	DPT Across Pot Strainer-1 For AWU-4	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
2	HVAC	DPT	50SAG15CP020	DPT Diaphagram (Blind Type)	DPT Across Pot Strainer-2 For AWU-4	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
3	HVAC	PT	50SAG15CP011	Pressure Transmitter(DP Type)	PT AT PUMP -1 For AWU-4	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
4	HVAC	PT	50SAG15CP012	Pressure Transmitter(DP Type)	PT AT PUMP -2 For AWU-4	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
5	HVAC	PT	50SAG15CP013	Pressure Transmitter(DP Type)	PT-1 AT Pump Discharge Header For AWU-4	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
6	HVAC	PT	50SAG15CP014	Pressure Transmitter(DP Type)	PT-2 AT Pump Discharge Header For AWU-4	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
7	HVAC	PT	50SAG15CP015	Pressure Transmitter(DP Type)	PT-1 AT Air Washer Plenum For AWU-4	NA	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
8	HVAC	PT	50SAG15CP016	Pressure Transmitter(DP Type)	PT-2 AT Air Washer Plenum For AWU-4	NA	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
9	HVAC	PT	50SAG15CP017	Pressure Transmitter(DP Type)	PT-1 AT Outlet Of Centrifugal Air Fan For AWU-4	NA	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
10	HVAC	PT	50SAG15CP018	Pressure Transmitter(DP Type)	PT-2 AT Outlet Of Centrifugal Air Fan For AWU-4	NA	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021

11	HVAC	FM	50SAG15FM011	Flow Meter (Glass Tube Rotameter Type)	FM AT Makeup Line For AWU-4	NA	MPH Building	INSTRUMENTATION ENGINEERS	0-15cmh	0-4cmh	8cmh	1140	PE-V0-417-554-A021
12	HVAC	LT	50SAG15CL011	(DP Type)Level Transmitter	LT -1 AT AWU Tank For AWU-4	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
13	HVAC	LT	50SAG15CL012	(DP Type)Level Transmitter	LT -2 AT AWU Tank For AWU-4	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
14	HVAC	TG	50SAG15CT503	Temperature Gauge (Bimetallic Type)	TG at Pump Discharge AWU-4	200	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
15	HVAC	PI	50SAG15CP503	Pressure Indicator	PI -1 AT PUMP SUCTION AWU-4	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
16	HVAC	PI	50SAG15CP504	Pressure Indicator	PI -2 AT PUMP DISCHARGE AWU-4	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
17	HVAC	PI	50SAG15CP505	Pressure Indicator	PI -3 AT PUMP SUCTION AWU-4	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
18	HVAC	PI	50SAG15CP506	Pressure Indicator	PI -4 AT PUMP DISCHARGE AWU-4	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
19	HVAC	TI	50SAG15CT501	Temperature Indicator	TI -1 AT Pump Discharge AWU-4	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
20	HVAC	TI	50SAG15CT502	Temperature Indicator	TI -2 AT Pump Discharge AWU-4	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021

GRID 11,15 -UNIT -1 BC BAY													
Sr. No	**Area**	**Abbr.**	**KKS Code No.**	**Instrument_Type**	**Service**	**Line size (mm)**	**Location**	**Manufacturer /Vendor Name**				**Model Number**	**REF_P&ID_NO**
1	HVAC	DPT	10SAG14CP019	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-1 For AWU-3	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
2	HVAC	DPT	10SAG14CP020	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-2 For AWU-3	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
3	HVAC	HS	10SAG14CU001	Humidity Sensor	HS AT Auxilary Boiler MCC For AWU-3	NA	MPH Building	SIEMENS	0 - 100 %	0 - 100 %	60%	QFM2171	PE-V0-417-554-A021
4	HVAC	HS	10SAG14CU002	Humidity Sensor	HS AT Auxilary Boiler MCC For AWU-3	NA	MPH Building	SIEMENS	0 - 100 %	0 - 100 %	60%	QFM2171	PE-V0-417-554-A021
5	HVAC	PT	10SAG14CP011	Pressure Transmitter(DP Type)	PT AT PUMP -1 For AWU-3	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
6	HVAC	PT	10SAG14CP012	Pressure Transmitter(DP Type)	PT AT PUMP -2 For AWU-3	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
7	HVAC	PT	10SAG14CP013	Pressure Transmitter(DP Type)	PT-1 AT Pump Outlet Header For AWU-3	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
8	HVAC	PT	10SAG14CP014	Pressure Transmitter(DP Type)	PT-2 AT Pump Outlet Header For AWU-3	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
9	HVAC	PT	10SAG14CP015	Pressure Transmitter(DP Type)	PT-1 AT Air Washer Plenum For AWU-3	NA	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
10	HVAC	PT	10SAG14CP016	Pressure Transmitter(DP Type)	PT-2 AT Air Washer Plenum For AWU-3	NA	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
11	HVAC	PT	10SAG14CP017	Pressure Transmitter(DP Type)	PT-1 AT Outlet Of Centrifugal Air Fan For AWU-3	NA	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
12	HVAC	PT	10SAG14CP018	Pressure Transmitter(DP Type)	PT-2 AT Outlet Of Centrifugal Air Fan For AWU-3	NA	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
13	HVAC	FM	10SAG14FM011	Flow Meter (Glass Tube Rotameter Type)	FM AT Makeup Line For AWU-3	NA	MPH Building	INSTRUMENTATION ENGINEERS	0-15cmh	0-4cmh	8cmh	1140	PE-V0-417-554-A021
14	HVAC	LT	10SAG14CL011	(DP Type)Level Transmitter	LT -1 AT AWU Tank For AWU-3	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
15	HVAC	LT	10SAG14CL012	(DP Type)Level Transmitter	LT -2 AT AWU Tank For AWU-3	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
16	HVAC	TG	10SAG14CT503	Temperature Gauge (Bimetallic Type)	TG at Pump Discharge AWU-3	200	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
17	HVAC	PI	10SAG14CP503	Pressure Indicator	PI -1 AT PUMP SUCTION AWU-3	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
18	HVAC	PI	10SAG14CP504	Pressure Indicator	PI -2 AT PUMP DISCHARGE AWU-3	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
19	HVAC	PI	10SAG14CP505	Pressure Indicator	PI -3 AT PUMP SUCTION AWU-3	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
20	HVAC	PI	10SAG14CP506	Pressure Indicator	PI -4 AT PUMP DISCHARGE AWU-3	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
21	HVAC	TI	10SAG14CT501	Temperature Indicator	TI -1 AT Pump Discharge AWU-3	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
22	HVAC	TI	10SAG14CT502	Temperature Indicator	TI -2 AT Pump Discharge AWU-3	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021

GRID 11,15 -UNIT -1 BC BAY													
Sr. No	**Area**	**Abbr.**	**KKS Code No.**	**Instrument_Type**	**Service**	**Line size (mm)**	**Location**	**Manufacturer /Vendor Name**				**Model Number**	**REF_P&ID_NO**
1	HVAC	DPT	10SAG15CP019	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-1 For AWU-4	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
2	HVAC	DPT	10SAG15CP020	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-2 For AWU-4	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
3	HVAC	PT	10SAG15CP011	Pressure Transmitter(DP Type)	PT AT PUMP -1For AWU-4	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
4	HVAC	PT	10SAG15CP012	Pressure Transmitter(DP Type)	PT AT PUMP -2 For AWU-4	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
5	HVAC	PT	10SAG15CP013	Pressure Transmitter(DP Type)	PT-1 AT Pump Outlet Header For AWU-4	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
6	HVAC	PT	10SAG15CP014	Pressure Transmitter(DP Type)	PT-2 AT Pump Outlet Header For AWU-4	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
7	HVAC	PT	10SAG15CP015	Pressure Transmitter(DP Type)	PT-1 Air Washer Plenum For AWU-4	NA	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
8	HVAC	PT	10SAG15CP016	Pressure Transmitter(DP Type)	PT-2 AT Washer Plenum For AWU-4	NA	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
9	HVAC	PT	10SAG15CP017	Pressure Transmitter(DP Type)	PT-1 AT Outlet Of Centrifugal Air Fan For AWU-4	NA	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
10	HVAC	PT		Pressure Transmitter(DP Type)	PT-2 AT Outlet Of Centrifugal Air Fan For AWU-4	NA	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
11	HVAC	FM	10SAG15FM011	Flow Meter (Glass Tube Rotameter Type)	FM AT Makeup Line For AWU-4	NA	MPH Building	INSTRUMENTATION ENGINEERS	0-15cmh	0-4cmh	8cmh	1140	PE-V0-417-554-A021
12	HVAC	LT	10SAG15CL011	(DP Type)Level Transmitter	LT -1 AT AWU Tank For AWU-4	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
13	HVAC	LT	10SAG15CL012	(DP Type)Level Transmitter	LT -2 AT AWU Tank For AWU-4	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
14	HVAC	TG	10SAG15CT503	Temperature Gauge (Bimetallic Type)	TG at Pump Discharge AWU-4	200	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
15	HVAC	PI	10SAG15CP503	Pressure Indicator	PI -1 AT PUMP SUCTION AWU-4	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
16	HVAC	PI	10SAG15CP504	Pressure Indicator	PI -2 AT PUMP DISCHARGE AWU-4	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
17	HVAC	PI	10SAG15CP505	Pressure Indicator	PI -3 AT PUMP SUCTION AWU-4	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
18	HVAC	PI	10SAG15CP506	Pressure Indicator	PI -4 AT PUMP DISCHARGE AWU-4	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
19	HVAC	TI	10SAG15CT501	Temperature Indicator	TI -1 AT Pump Discharge AWU-4	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
20	HVAC	TI	10SAG15CT502	Temperature Indicator	TI -2 AT Pump Discharge AWU-4	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021

GRID 11,15 -UNIT -2 BC WAY													
Sr. No	**Area**	**Abbr.**	**KKS Code No.**	**Instrument_Type**	**Service**	**Line size (mm)**	**Location**	**Manufacturer /Vendor Name**				**Model Number**	**REF_P&ID_NO**
1	HVAC	DPT	20SAG14CP019	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-1 For AWU-3	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
2	HVAC	DPT	20SAG14CP020	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-2 For AWU-3	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
3	HVAC	PT	20SAG14CP011	Pressure Transmitter(DP Type)	PT AT PUMP -1For AWU-3	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
4	HVAC	PT	20SAG14CP012	Pressure Transmitter(DP Type)	PT AT PUMP -2 For AWU-3	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
5	HVAC	PT	20SAG14CP013	Pressure Transmitter(DP Type)	PT-1 AT Pump Outlet Header For AWU-3	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
6	HVAC	PT	20SAG14CP014	Pressure Transmitter(DP Type)	PT-2 AT Pump Outlet Header For AWU-3	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
7	HVAC	PT	20SAG14CP015	Pressure Transmitter(DP Type)	PT-1 AT Air Washer Plenum For AWU-3	NA	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
8	HVAC	PT	20SAG14CP016	Pressure Transmitter(DP Type)	PT-2 AT Washer Plenum For AWU-3	NA	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
9	HVAC	PT	20SAG14CP017	Pressure Transmitter(DP Type)	PT-1 AT Outlet Of Centrifugal Air Fan For AWU-3	NA	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
10	HVAC	PT	20SAG14CP018	Pressure Transmitter(DP Type)	PT-2 AT Outlet Of Centrifugal Air Fan For AWU-3	NA	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021

11	HVAC	FM	20SAG14FM011	Flow Meter (Glass Tube Rotameter Type)	FM AT Makeup Line For AWU-3	NA	MPH Building	INSTRUMENTATION ENGINEERS	0-15cmh	0-4cmh	8cmh	1140	PE-V0-417-554-A021
12	HVAC	LT	20SAG14CL011	(DP Type)Level Transmitter	LT -1 AT AWU Tank For AWU-3	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
13	HVAC	LT	20SAG14CL012	(DP Type)Level Transmitter	LT -2 AT AWU Tank For AWU-3	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
14	HVAC	TG	20SAG14CT503	Temperature Gauge (Bimetallic Type)	TG at Pump Discharge AWU-3	200	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
15	HVAC	PI	20SAG14CP503	Pressure Indicator	PI -1 AT PUMP SUCTION AWU-3	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
16	HVAC	PI	20SAG14CP504	Pressure Indicator	PI -2 AT PUMP DISCHARGE AWU-3	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
17	HVAC	PI	20SAG14CP505	Pressure Indicator	PI -3 AT PUMP SUCTION AWU-3	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
18	HVAC	PI	20SAG14CP506	Pressure Indicator	PI -4 AT PUMP DISCHARGE AWU-3	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
19	HVAC	TI	20SAG14CT501	Temperature Indicator	TI -1 AT Pump Discharge AWU-3	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
20	HVAC	TI	20SAG14CT502	Temperature Indicator	TI -2 AT Pump Discharge AWU-3	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021

GRID 11,15 -UNIT -2 BC WAY													
Sr. No	**Area**	**Abbr.**	**KKS Code No.**	**Instrument_Type**	**Service**	**Line size (mm)**	**Location**	**Manufacturer /Vendor Name**				**Model Number**	**REF_P&ID_NO**
1	HVAC	DPT	20SAG15CP019	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-1 For AWU-4	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
2	HVAC	DPT	20SAG15CP020	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-2 For AWU-4	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
3	HVAC	PT	20SAG15CP011	Pressure Transmitter(DP Type)	PT AT PUMP -1For AWU-4	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
4	HVAC	PT	20SAG15CP012	Pressure Transmitter(DP Type)	PT AT PUMP -2 For AWU-4	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
5	HVAC	PT	20SAG15CP013	Pressure Transmitter(DP Type)	PT-1 AT Pump Outlet Header For AWU-4	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
6	HVAC	PT	20SAG15CP014	Pressure Transmitter(DP Type)	PT-2 AT Pump Outlet Header For AWU-4	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
7	HVAC	PT	20SAG15CP015	Pressure Transmitter(DP Type)	PT-1 Air Washer Plenum For AWU-4	NA	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
8	HVAC	PT	20SAG15CP016	Pressure Transmitter(DP Type)	PT-2 AT Washer Plenum For AWU-4	NA	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
9	HVAC	PT	20SAG15CP017	Pressure Transmitter(DP Type)	PT-1 AT Outlet Of Centrifugal Air Fan For AWU-4	NA	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
10	HVAC	PT	20SAG15CP018	Pressure Transmitter(DP Type)	PT-2 AT Outlet Of Centrifugal Air Fan For AWU-4	NA	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
11	HVAC	FM	20SAG15FM011	Flow Meter (Glass Tube Rotameter Type)	FM AT Makeup Line For AWU-4	NA	MPH Building	INSTRUMENTATION ENGINEERS	0-15cmh	0-4cmh	8cmh	1140	PE-V0-417-554-A021
12	HVAC	LT	20SAG15CL011	(DP Type)Level Transmitter	LT -1 AT AWU Tank For AWU-4	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
13	HVAC	LT	20SAG15CL012	(DP Type)Level Transmitter	LT -2 AT AWU Tank For AWU-4	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
14	HVAC	TG	20SAG15CT503	Temperature Gauge (Bimetallic Type)	TG at Pump Discharge AWU-3	200	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
15	HVAC	PI	20SAG15CP503	Pressure Indicator	PI -1 AT PUMP SUCTION AWU-4	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
16	HVAC	PI	20SAG15CP504	Pressure Indicator	PI -2 AT PUMP DISCHARGE AWU-4	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
17	HVAC	PI	20SAG15CP505	Pressure Indicator	PI -3 AT PUMP SUCTION AWU-4	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
18	HVAC	PI	20SAG15CP506	Pressure Indicator	PI -4 AT PUMP DISCHARGE AWU-4	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
19	HVAC	TI	20SAG15CT501	Temperature Indicator	TI -1 AT Pump Discharge AWU-4	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
20	HVAC	TI	20SAG15CT502	Temperature Indicator	TI -2 AT Pump Discharge AWU-4	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
GRID 37,41 -UNIT -3 BC BAY													
Sr. No	**Area**	**Abbr.**	**KKS Code No.**	**Instrument_Type**	**Service**	**Line size (mm)**	**Location**	**Manufacturer /Vendor Name**				**Model Number**	**REF_P&ID_NO**
1	HVAC	DPT	30SAG14CP019	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-1 For AWU-3	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
2	HVAC	DPT	30SAG14CP020	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-2 For AWU-3	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
3	HVAC	HS	30SAG14CU001	Humidity Sensor	HS AT Auxilary Boiler MCC For AWU-3	NA	MPH Building	SIEMENS	0 - 100 %	0 - 100 %	60%	QFM2171	PE-V0-417-554-A021
4	HVAC	HS	30SAG14CU002	Humidity Sensor	HS AT Auxilary Boiler MCC For AWU-3	NA	MPH Building	SIEMENS	0 - 100 %	0 - 100 %	60%	QFM2171	PE-V0-417-554-A021
5	HVAC	PT	30SAG14CP011	Pressure Transmitter(DP Type)	PT AT PUMP -1 For AWU-3	200	MPH Building	FUJI Electric	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
6	HVAC	PT	30SAG14CP012	Pressure Transmitter(DP Type)	PT AT PUMP -2 For AWU-3	200	MPH Building	FUJI Electric	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
7	HVAC	PT	30SAG14CP013	Pressure Transmitter(DP Type)	PT-1 AT Pump Outlet Header For AWU-3	200	MPH Building	FUJI Electric	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
8	HVAC	PT	30SAG14CP014	Pressure Transmitter(DP Type)	PT-2 AT Pump Outlet Header For AWU-3	200	MPH Building	FUJI Electric	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
9	HVAC	PT	30SAG14CP015	Pressure Transmitter(DP Type)	PT-1 AT Air Washer Plenum For AWU-3	NA	MPH Building	FUJI Electric	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021

10	HVAC	PT	30SAG14CP016	Pressure Transmitter(DP Type)	PT-2 AT Air Washer Plenum For AWU-3	NA	MPH Building	FUJI Electric	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
11	HVAC	PT	30SAG14CP017	Pressure Transmitter(DP Type)	PT-1 AT Outlet Of Centrifugal Air Fan For AWU-3	NA	MPH Building	FUJI Electric	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
12	HVAC	PT	30SAG14CP018	Pressure Transmitter(DP Type)	PT-2 AT Outlet Of Centrifugal Air Fan For AWU-3	NA	MPH Building	FUJI Electric	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
13	HVAC	FM	30SAG14FM011	Flow Meter (Glass Tube Rotameter Type)	FM AT Makeup Line For AWU-3	NA	MPH Building	INSTRUMENTATION ENGINEERS	0-15cmh	0-4cmh	8cmh	1140	PE-V0-417-554-A021
14	HVAC	LT	30SAG14CL011	(DP Type)Level Transmitter	LT -1 AT AWU Tank For AWU-3	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
15	HVAC	LT	30SAG14CL012	(DP Type)Level Transmitter	LT -2 AT AWU Tank For AWU-3	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
16	HVAC	TG	30SAG14CT503	Temperature Gauge (Bimetallic Type)	TG at Pump Discharge AWU-3	200	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
17	HVAC	PI	30SAG14CP503	Pressure Indicator	PI -1 AT PUMP SUCTION AWU-3	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
18	HVAC	PI	30SAG14CP504	Pressure Indicator	PI -2 AT PUMP DISCHARGE AWU-3	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
19	HVAC	PI	30SAG14CP505	Pressure Indicator	PI -3 AT PUMP SUCTION AWU-3	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
20	HVAC	PI	30SAG14CP506	Pressure Indicator	PI -4 AT PUMP DISCHARGE AWU-3	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
21	HVAC	TI	30SAG14CT501	Temperature Indicator	TI -1 AT Pump Discharge AWU-3	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
22	HVAC	TI	30SAG14CT502	Temperature Indicator	TI -2 AT Pump Discharge AWU-3	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021

GRID 37,41 -UNIT -3 BC BAY													
Sr. No	**Area**	**Abbr.**	**KKS Code No.**	**Instrument_Type**	**Service**	**Line size (mm)**	**Location**	**Manufacturer /Vendor Name**				**Model Number**	**REF_P&ID_NO**
1	HVAC	DPT	30SAG15CP019	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-1 For AWU-4	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
2	HVAC	DPT	30SAG15CP020	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-2 For AWU-4	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
3	HVAC	PT	30SAG15CP011	Pressure Transmitter(DP Type)	PT AT PUMP -1For AWU-4	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
4	HVAC	PT	30SAG15CP012	Pressure Transmitter(DP Type)	PT AT PUMP -2 For AWU-4	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
5	HVAC	PT	30SAG15CP013	Pressure Transmitter(DP Type)	PT-1 AT Pump Outlet Header For AWU-4	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
6	HVAC	PT	30SAG15CP014	Pressure Transmitter(DP Type)	PT-2 AT Pump Outlet Header For AWU-4	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
7	HVAC	PT	30SAG15CP015	Pressure Transmitter(DP Type)	PT-1 Air Washer Plenum For AWU-4	NA	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
8	HVAC	PT	30SAG15CP016	Pressure Transmitter(DP Type)	PT-2 AT Washer Plenum For AWU-4	NA	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
9	HVAC	PT	30SAG15CP017	Pressure Transmitter(DP Type)	PT-1 AT Outlet Of Centrifugal Air Fan For AWU-4	NA	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
10	HVAC	PT	30SAG15CP018	Pressure Transmitter(DP Type)	PT-2 AT Outlet Of Centrifugal Air Fan For AWU-4	NA	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
11	HVAC	FM	30SAG15FM011	Flow Meter (Glass Tube Rotameter Type)	FM AT Makeup Line For AWU-4	NA	MPH Building	INSTRUMENTATION ENGINEERS	0-15cmh	0-4cmh	8cmh	1140	PE-V0-417-554-A021
12	HVAC	LT	30SAG15CL011	(DP Type)Level Transmitter	LT -1 AT AWU Tank For AWU-4	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
13	HVAC	LT	30SAG15CL012	(DP Type)Level Transmitter	LT -2 AT AWU Tank For AWU-4	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
14	HVAC	TG	30SAG15CT503	Temperature Gauge (Bimetallic Type)	TG at Pump Discharge AWU-4	200	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
15	HVAC	PI	30SAG15CP503	Pressure Indicator	PI -1 AT PUMP SUCTION AWU-4	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
16	HVAC	PI	30SAG15CP504	Pressure Indicator	PI -2 AT PUMP DISCHARGE AWU-4	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
17	HVAC	PI	30SAG15CP505	Pressure Indicator	PI -3 AT PUMP SUCTION AWU-4	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
18	HVAC	PI	30SAG15CP506	Pressure Indicator	PI -4 AT PUMP DISCHARGE AWU-4	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
19	HVAC	TI	30SAG15CT501	Temperature Indicator	TI -1 AT Pump Discharge AWU-4	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
20	HVAC	TI	30SAG15CT502	Temperature Indicator	TI -2 AT Pump Discharge AWU-4	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
GRID 37,41 -UNIT -4 BC BAY													
Sr. No	**Area**	**Abbr.**	**KKS Code No.**	**Instrument_Type**	**Service**	**Line size (mm)**	**Location**	**Manufacturer /Vendor Name**				**Model Number**	**REF_P&ID_NO**
1	HVAC	DPT	40SAG14CP019	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-1 For AWU-3	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
2	HVAC	DPT	40SAG14CP020	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-2 For AWU-3	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
3	HVAC	PT	40SAG14CP011	Pressure Transmitter(DP Type)	PT AT PUMP -1For AWU-3	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
4	HVAC	PT	40SAG14CP012	Pressure Transmitter(DP Type)	PT AT PUMP -2 For AWU-3	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
5	HVAC	PT	40SAG14CP013	Pressure Transmitter(DP Type)	PT-1 AT Pump Outlet Header For AWU-3	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
6	HVAC	PT	40SAG14CP014	Pressure Transmitter(DP Type)	PT-2 AT Pump Outlet Header For AWU-3	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
7	HVAC	PT	40SAG14CP015	Pressure Transmitter(DP Type)	PT-1 Air Washer Plenum For AWU-3	NA	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
8	HVAC	PT	40SAG14CP016	Pressure Transmitter(DP Type)	PT-2 AT Washer Plenum For AWU-3	NA	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
9	HVAC	PT	40SAG14CP017	Pressure Transmitter(DP Type)	PT-1 AT Outlet Of Centrifugal Air Fan For AWU-3	NA	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
10	HVAC	PT	40SAG14CP018	Pressure Transmitter(DP Type)	PT-2 AT Outlet Of Centrifugal Air Fan For AWU-3	NA	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
11	HVAC	FM	40SAG14FM011	Flow Meter (Glass Tube Rotameter Type)	FM AT Makeup Line For AWU-3	NA	MPH Building	INSTRUMENTATION ENGINEERS	0-15cmh	0-4cmh	8cmh	1140	PE-V0-417-554-A021
12	HVAC	LT	40SAG14CL011	(DP Type)Level Transmitter	LT -1 AT AWU Tank For AWU-3	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
13	HVAC	LT	40SAG14CL012	(DP Type)Level Transmitter	LT -2 AT AWU Tank For AWU-3	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021

14	HVAC	TG	40SAG14CT503	Temperature Gauge (Bimetallic Type)	TG at Pump Discharge AWU-3	200	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
15	HVAC	PI	40SAG14CP503	Pressure Indicator	PI -1 AT PUMP SUCTION AWU-3	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
16	HVAC	PI	40SAG14CP504	Pressure Indicator	PI -2 AT PUMP DISCHARGE AWU-3	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
17	HVAC	PI	40SAG14CP505	Pressure Indicator	PI -3 AT PUMP SUCTION AWU-3	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
18	HVAC	PI	40SAG14CP506	Pressure Indicator	PI -4 AT PUMP DISCHARGE AWU-3	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
19	HVAC	TI	40SAG14CT501	Temperature Indicator	TI -1 AT Pump Discharge AWU-3	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
20	HVAC	TI	40SAG14CT502	Temperature Indicator	TI -2 AT Pump Discharge AWU-3	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021

GRID 37,41 -UNIT -4 BC BAY													
Sr. No	**Area**	**Abbr.**	**KKS Code No.**	**Instrument_Type**	**Service**	**Line size (mm)**	**Location**	**Manufacturer /Vendor Name**				**Model Number**	**REF_P&ID_NO**
1	HVAC	DPT	40SAG15CP019	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-1 For AWU-4	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
2	HVAC	DPT	40SAG15CP020	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-2 For AWU-4	NA	MPH Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
3	HVAC	PT	40SAG15CP011	Pressure Transmitter(DP Type)	PT AT PUMP -1For AWU-4	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
4	HVAC	PT	40SAG15CP012	Pressure Transmitter(DP Type)	PT AT PUMP -2 For AWU-4	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
5	HVAC	PT	40SAG15CP013	Pressure Transmitter(DP Type)	PT-1 AT Pump Outlet Header For AWU-4	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
6	HVAC	PT	40SAG15CP014	Pressure Transmitter(DP Type)	PT-2 AT Pump Outlet Header For AWU-4	200	MPH Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
7	HVAC	PT	40SAG15CP015	Pressure Transmitter(DP Type)	PT-1 Air Washer Plenum For AWU-4	NA	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
8	HVAC	PT	40SAG15CP016	Pressure Transmitter(DP Type)	PT-2 AT Washer Plenum For AWU-4	NA	MPH Building	Honeywell	0-500mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
9	HVAC	PT	40SAG15CP017	Pressure Transmitter(DP Type)	PT-1 AT Outlet Of Centrifugal Air Fan For AWU-4	NA	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
10	HVAC	PT	40SAG15CP018	Pressure Transmitter(DP Type)	PT-2 AT Outlet Of Centrifugal Air Fan For AWU-4	NA	MPH Building	Honeywell	0-1000mmwc	0-200mmwc	85mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
11	HVAC	FM	40SAG15FM011	Flow Meter (Glass Tube Rotameter Type)	FM AT Makeup Line For AWU-4	NA	MPH Building	INSTRUMENTATION ENGINEERS	0-15cmh	0-4cmh	8cmh	1140	PE-V0-417-554-A021
12	HVAC	LT	40SAG15CL011	(DP Type)Level Transmitter	LT -1 AT AWU Tank For AWU-4	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
13	HVAC	LT	40SAG15CL012	(DP Type)Level Transmitter	LT -2 AT AWU Tank For AWU-4	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
14	HVAC	TG	40SAG15CT503	Temperature Gauge (Bimetallic Type)	TG at Pump Discharge AWU-3	200	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
15	HVAC	PI	40SAG15CP503	Pressure Indicator	PI -1 AT PUMP SUCTION AWU-4	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
16	HVAC	PI	40SAG15CP504	Pressure Indicator	PI -2 AT PUMP DISCHARGE AWU-4	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
17	HVAC	PI	40SAG15CP505	Pressure Indicator	PI -3 AT PUMP SUCTION AWU-4	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
18	HVAC	PI	40SAG15CP506	Pressure Indicator	PI -4 AT PUMP DISCHARGE AWU-4	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021

19	HVAC	TI	40SAG15CT501	Temperature Indicator	TI -1 AT Pump Discharge AWU-4	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
20	HVAC	TI	40SAG15CT502	Temperature Indicator	TI -2 AT Pump Discharge AWU-4	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021

BHEL - YADRADRI (UAF Unit) UNIT-1 ESP BUILDING

Sr. No	Area	Abbr.	KKS Code No.	Instrument_Type	Service	Line size (mm)	Location	Manufacturer /Vendor Name				Model Number	REF_P&ID_NO
1	HVAC	DPT	10SAF12CP019	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-1 Of UAF	NA	ESP Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
2	HVAC	DPT	10SAF12CP020	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-2 Of UAF	NA	ESP Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
3	HVAC	HS	10SAF12CU001	Humidity Sensor	HS AT UAF Fan Outlet Of UAF	NA	ESP Building	SIEMENS	0 - 100 %	0 - 100 %	60%	QFM2171	PE-V0-417-554-A021
4	HVAC	HS	10SAF12CU002	Humidity Sensor	HS AT UAF Fan Outlet Of UAF	NA	ESP Building	SIEMENS	0 - 100 %	0 - 100 %	60%	QFM2171	PE-V0-417-554-A021
5	HVAC	PT	10SAF12CP011	Pressure Transmitter(DP Type)	PT AT Pump -1 Of UAF	100	ESP Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
6	HVAC	PT	10SAF12CP012	Pressure Transmitter(DP Type)	PT ATPump -2 Of UAF	100	ESP Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
7	HVAC	PT	10SAF12CP013	Pressure Transmitter(DP Type)	PT-1 AT Pump Outlet Header Of UAF	100	ESP Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
8	HVAC	PT	10SAF12CP014	Pressure Transmitter(DP Type)	PT-2 AT Pump Outlet Header Of UAF	100	ESP Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
9	HVAC	PT	10SAF12CP015	Pressure Transmitter(DP Type)	PT-1 AT UAF Fan Outlet Of UAF	NA	ESP Building	Honeywell	0-1000mmwc	0-150mmwc	65mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
10	HVAC	PT	10SAF12CP016	Pressure Transmitter(DP Type)	PT-2 AT UAF Fan Outlet Of UAF	NA	ESP Building	Honeywell	0-1000mmwc	0-150mmwc	65mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
11	HVAC	FM	10SAF12FM011	Flow Meter (Glass Tube Rotameter Type)	FM AT Makeup Line For Of UAF	NA	ESP Building	INSTRUMENTATION ENGINEERS	0-15cmh	0-4cmh	8cmh	1140	PE-V0-417-554-A021
12	HVAC	LT	10SAF12CL011	(DP Type)Level Transmitter	LT -1 AT Sump Tank Of UAF	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
13	HVAC	LT	10SAF12CL012	(DP Type)Level Transmitter	LT -2 AT Sump Tank Of UAF	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
14	HVAC	TG	10SAF12CT503	Temperature Gauge (Bimetallic Type)	TG at Pump Discharge AWU-3	200	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
15	HVAC	PI	10SAF12CP503	Pressure Transmitter(DP Type)	PI -1 AT PUMP SUCTION UAF	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
16	HVAC	PI	10SAF12CP504	Pressure Transmitter(DP Type)	PI -2 AT PUMP DISCHARGE UAF	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
17	HVAC	PI	10SAF12CP505	Pressure Transmitter(DP Type)	PI -3 AT PUMP SUCTION UAF	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
18	HVAC	PI	10SAF12CP506	Pressure Transmitter(DP Type)	PI -4 AT PUMP DISCHARGE UAF	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
19	HVAC	TI	10SAF12CT501	Temperature Indicator	TI -1 AT Pump Discharge UAF	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
20	HVAC	TI	10SAF12CT502	Temperature Indicator	TI -2 AT Pump Discharge UAF	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021

UAF UNIT -2 ESP BUILDING

Sr. No	Area	Abbr.	KKS Code No.	Instrument_Type	Service	Line size (mm)	Location	Manufacturer /Vendor Name				Model Number	REF_P&ID_NO
1	HVAC	DPT	20SAF12CP019	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-1 Of UAF	NA	ESP Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
2	HVAC	DPT	20SAF12CP020	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-2 Of UAF	NA	ESP Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
3	HVAC	HS	20SAF12CU001	Humidity Sensor	HS AT UAF Fan Outlet Of UAF	NA	ESP Building	SIEMENS	0 - 100 %	0 - 100 %	60%	QFM2171	PE-V0-417-554-A021
4	HVAC	HS	20SAF12CU002	Humidity Sensor	HS AT UAF Fan Outlet Of UAF	NA	ESP Building	SIEMENS	0 - 100 %	0 - 100 %	60%	QFM2171	PE-V0-417-554-A021
5	HVAC	PT	20SAF12CP011	Pressure Transmitter(DP Type)	PT AT Pump -1 Of UAF	100	ESP Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
6	HVAC	PT	20SAF12CP012	Pressure Transmitter(DP Type)	PT ATPump -2 Of UAF	100	ESP Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
7	HVAC	PT	20SAF12CP013	Pressure Transmitter(DP Type)	PT-1 AT Pump Outlet Header Of UAF	100	ESP Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
8	HVAC	PT	20SAF12CP014	Pressure Transmitter(DP Type)	PT-2 AT Pump Outlet Header Of UAF	100	ESP Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
9	HVAC	PT	20SAF12CP015	Pressure Transmitter(DP Type)	PT-1 AT UAF Fan Outlet Of UAF	NA	ESP Building	Honeywell	0-1000mmwc	0-150mmwc	65mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021

10	HVAC	PT	20SAF12CP016	Pressure Transmitter(DP Type)	PT-2 AT UAF Fan Outlet Of UAF	NA	ESP Building	Honeywell	0-1000mmwc	0-150mmwc	65mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
11	HVAC	FM	20SAF12FM011	Flow Meter (Glass Tube Rotameter Type)	FM AT Makeup Line Of UAF	NA	ESP Building	INSTRUMENTATION ENGINEERS	0-15cmh	0-4cmh	8cmh	1140	PE-V0-417-554-A021
12	HVAC	LT	20SAF12CL011	(DP Type)Level Transmitter	LT -1 AT Sump Tank Of UAF	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
13	HVAC	LT	20SAF12CL012	(DP Type)Level Transmitter	LT -2 AT Sump Tank Of UAF	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
14	HVAC	TG	20SAF12CT503	Temperature Gauge (Bimetallic Type)	TG at Pump Discharge Of UAF	200	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
15	HVAC	PI	20SAF12CP503	Pressure Indicator	PI -1 AT PUMP SUCTION UAF	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
16	HVAC	PI	20SAF12CP504	Pressure Indicator	PI -2 AT PUMP DISCHARGE UAF	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
17	HVAC	PI	20SAF12CP505	Pressure Indicator	PI -3 AT PUMP SUCTION UAF	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
18	HVAC	PI	20SAF12CP506	Pressure Indicator	PI -4 AT PUMP DISCHARGE UAF	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
19	HVAC	TI	20SAF12CT501	Temperature Indicator	TI -1 AT Pump Discharge UAF	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
20	HVAC	TI	20SAF12CT502	Temperature Indicator	TI -2 AT Pump Discharge UAF	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021

UAF UNIT -3 ESP BUILDING													
Sr. No	**Area**	**Abbr.**	**KKS Code No.**	**Instrument_Type**	**Service**	**Line size (mm)**	**Location**	**Manufacturer /Vendor Name**				**Model Number**	**REF_P&ID_NO**
1	HVAC	DPT	30SAF12CP019	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-1 Of UAF	NA	ESP Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
2	HVAC	DPT	30SAF12CP020	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-2 Of UAF	NA	ESP Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
3	HVAC	HS	30SAF12CU001	Humidity Sensor	HS AT UAF Fan Outlet Of UAF	NA	ESP Building	SIEMENS	0 - 100 %	0 - 100 %	60%	QFM2171	PE-V0-417-554-A021
4	HVAC	HS	30SAF12CU002	Humidity Sensor	HS AT UAF Fan Outlet Of UAF	NA	ESP Building	SIEMENS	0 - 100 %	0 - 100 %	60%	QFM2171	PE-V0-417-554-A021
5	HVAC	PT	30SAF12CP011	Pressure Transmitter(DP Type)	PT AT Pump -1 Of UAF	100	ESP Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
6	HVAC	PT	30SAF12CP012	Pressure Transmitter(DP Type)	PT AT Pump -2 Of UAF	100	ESP Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
7	HVAC	PT	30SAF12CP013	Pressure Transmitter(DP Type)	PT-1 AT Pump Outlet Header Of UAF	100	ESP Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
8	HVAC	PT	30SAF12CP014	Pressure Transmitter(DP Type)	PT-2 AT Pump Outlet Header Of UAF	100	ESP Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
9	HVAC	PT	30SAF12CP015	Pressure Transmitter(DP Type)	PT-1 AT UAF Fan Outlet Of UAF	NA	ESP Building	Honeywell	0-1000mmwc	0-150mmwc	65mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
10	HVAC	PT	30SAF12CP016	Pressure Transmitter(DP Type)	PT-2 AT UAF Fan Outlet Of UAF	NA	ESP Building	Honeywell	0-1000mmwc	0-150mmwc	65mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
11	HVAC	FM		Flow Meter (Glass Tube Rotameter Type)	FM AT Makeup Line Of UAF	NA	ESP Building	INSTRUMENTATION ENGINEERS	0-15cmh	0-4cmh	8cmh	1140	PE-V0-417-554-A021
12	HVAC	LT	30SAF12CL011	(DP Type)Level Transmitter	LT -1 AT Sump Tank Of UAF	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
13	HVAC	LT	30SAF12CL012	(DP Type)Level Transmitter	LT -2 AT Sump Tank Of UAF	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
14	HVAC	TG	30SAF12CT503	Temperature Gauge (Bimetallic Type)	TG at Pump Discharge Of UAF	200	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
15	HVAC	PI	30SAF12CP503	Pressure Indicator	PI -1 AT PUMP SUCTION UAF	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
16	HVAC	PI	30SAF12CP504	Pressure Indicator	PI -2 AT PUMP DISCHARGE UAF	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
17	HVAC	PI	30SAF12CP505	Pressure Indicator	PI -3 AT PUMP SUCTION UAF	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
18	HVAC	PI	30SAF12CP506	Pressure Indicator	PI -4 AT PUMP DISCHARGE UAF	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
19	HVAC	TI	30SAF12CT501	Temperature Indicator	TI -1 AT Pump Discharge UAF	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
20	HVAC	TI	30SAF12CT502	Temperature Indicator	TI -2 AT Pump Discharge UAF	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021

UAF UNIT -4 ESP BUILDING													
Sr. No	**Area**	**Abbr.**	**KKS Code No.**	**Instrument_Type**	**Service**	**Line size (mm)**	**Location**	**Manufacturer /Vendor Name**				**Model Number**	**REF_P&ID_NO**
1	HVAC	DPT	40SAF12CP019	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-1 Of UAF	NA	ESP Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
2	HVAC	DPT	40SAF12CP020	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-2 Of UAF	NA	ESP Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
3	HVAC	HS	20SAF12CU001	Humidity Sensor	HS AT UAF Fan Outlet Of UAF	NA	ESP Building	SIEMENS	0 - 100 %	0 - 100 %	60%	QFM2171	PE-V0-417-554-A021
4	HVAC	HS	20SAF12CU002	Humidity Sensor	HS AT UAF Fan Outlet Of UAF	NA	ESP Building	SIEMENS	0 - 100 %	0 - 100 %	60%	QFM2171	PE-V0-417-554-A021
5	HVAC	PT	40SAF12CP011	Pressure Transmitter(DP Type)	PT AT Pump -1 Of UAF	100	ESP Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
6	HVAC	PT	40SAF12CP012	Pressure Transmitter(DP Type)	PT AT Pump -2 Of UAF	100	ESP Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
7	HVAC	PT	40SAF12CP013	Pressure Transmitter(DP Type)	PT-1 AT Pump Outlet Header Of UAF	100	ESP Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
8	HVAC	PT	40SAF12CP014	Pressure Transmitter(DP Type)	PT-2 AT Pump Outlet Header Of UAF	100	ESP Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
9	HVAC	PT	40SAF12CP015	Pressure Transmitter(DP Type)	PT-1 AT UAF Fan Outlet Of UAF	NA	ESP Building	Honeywell	0-1000mmwc	0-150mmwc	65mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021

10	HVAC	PT	40SAF12CP016	Pressure Transmitter(DP Type)	PT-2 AT UAF Fan Outlet Of UAF	NA	ESP Building	Honeywell	0-1000mmwc	0-150mmwc	65mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
11	HVAC	FM	40SAF12FM011	Flow Meter (Glass Tube Rotameter Type)	FM AT Makeup Line Of UAF	NA	ESP Building	INSTRUMENTATION ENGINEERS	0-15cmh	0-4cmh	8cmh	1140	PE-V0-417-554-A021
12	HVAC	LT	40SAF12CL011	(DP Type)Level Transmitter	LT -1 AT Sump Tank Of UAF	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
13	HVAC	LT	40SAF12CL012	(DP Type)Level Transmitter	LT -2 AT Sump Tank Of UAF	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
14	HVAC	TG	40SAF12CT503	Temperature Gauge (Bimetallic Type)	TG at Pump Discharge Of UAF	200	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
15	HVAC	PI	40SAF12CP503	Pressure Indicator	PI -1 AT PUMP SUCTION UAF	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
16	HVAC	PI	40SAF12CP504	Pressure Indicator	PI -2 AT PUMP DISCHARGE UAF	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
17	HVAC	PI	40SAF12CP505	Pressure Indicator	PI -3 AT PUMP SUCTION UAF	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
18	HVAC	PI	40SAF12CP506	Pressure Indicator	PI -4 AT PUMP DISCHARGE UAF	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
19	HVAC	TI	40SAF12CT501	Temperature Indicator	TI -1 AT Pump Discharge UAF	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
20	HVAC	TI	40SAF12CT502	Temperature Indicator	TI -2 AT Pump Discharge UAF	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021

UAF UNIT -5 ESP BUILDING													
Sr. No	Area	Abbr.	KKS Code No.	Instrument_Type	Service	Line size (mm)	Location	Manufacturer /Vendor Name				Model Number	REF_P&ID_NO
1	HVAC	DPT	50SAF12CP019	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-1 Of UAF	NA	ESP Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
2	HVAC	DPT	50SAF12CP020	DPT Diaphragram (Blind Type)	DPT Across Pot Strainer-2 Of UAF	NA	ESP Building	Honeywell	0-6 kg /cm2	0 - 1 kg /cm2	0.5 kg /cm2	STD820-E1AC4AS-1-C-AHC-11C-F-11A0-F1,(PT)-0000	PE-V0-417-554-A021
3	HVAC	HS	20SAF12CU001	Humidity Sensor	HS AT UAF Fan Outlet Of UAF	NA	ESP Building	SIEMENS	0 - 100 %	0 - 100 %	60%	QFM2171	PE-V0-417-554-A021
4	HVAC	HS	20SAF12CU002	Humidity Sensor	HS AT UAF Fan Outlet Of UAF	NA	ESP Building	SIEMENS	0 - 100 %	0 - 100 %	60%	QFM2171	PE-V0-417-554-A021
5	HVAC	PT	50SAF12CP011	Pressure Transmitter(DP Type)	PT AT Pump -1 Of UAF	100	ESP Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
6	HVAC	PT	50SAF12CP012	Pressure Transmitter(DP Type)	PT AT Pump -2 Of UAF	100	ESP Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
7	HVAC	PT	50SAF12CP013	Pressure Transmitter(DP Type)	PT-1 AT Pump Outlet Header Of UAF	100	ESP Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
8	HVAC	PT	50SAF12CP014	Pressure Transmitter(DP Type)	PT-2 AT Pump Outlet Header Of UAF	100	ESP Building	Honeywell	0-6 kg /cm2	0-6 kg/cm2	2kg/cm2	YSTG74L-E1G000-1-C-AHC-11C-B-51A0-F1(PT)-0000	PE-V0-417-554-A021
9	HVAC	PT	50SAF12CP015	Pressure Transmitter(DP Type)	PT-1 AT UAF Fan Outlet Of UAF	NA	ESP Building	Honeywell	0-1000mmwc	0-150mmwc	65mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
10	HVAC	PT	50SAF12CP016	Pressure Transmitter(DP Type)	PT-2 AT UAF Fan Outlet Of UAF	NA	ESP Building	Honeywell	0-1000mmwc	0-150mmwc	65mmwc	YSTD810-E1AC4AS-1-C-AHC-11C-B-11A0-F1(PT)-0000	PE-V0-417-554-A021
11	HVAC	FM	50SAF12FM011	Flow Meter (Glass Tube Rotameter Type)	FM AT Makeup Line Of UAF	NA	ESP Building	INSTRUMENTATION ENGINEERS	0-15cmh	0-4cmh	8cmh	1140	PE-V0-417-554-A021
12	HVAC	LT	50SAF12CL011	(DP Type)Level Transmitter	LT -1 AT Sump Tank Of UAF	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
13	HVAC	LT	50SAF12CL012	(DP Type)Level Transmitter	LT -2 AT Sump Tank Of UAF	NA	MPH Building	Honeywell	0-600mm	0 - 500 mmwc	150mmwc	FKCT33V5-2ACYY-AA	PE-V0-417-554-A021
14	HVAC	TG	50SAF12CT503	Temperature Gauge (Bimetallic Type)	TG at Pump Discharge Of UAF	200	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
15	HVAC	PI	50SAF12CP503	Pressure Indicator	PI -1 AT PUMP SUCTION UAF	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
16	HVAC	PI	50SAF12CP504	Pressure Indicator	PI -2 AT PUMP DISCHARGE UAF	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
17	HVAC	PI	50SAF12CP505	Pressure Indicator	PI -3 AT PUMP SUCTION UAF	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
18	HVAC	PI	50SAF12CP506	Pressure Indicator	PI -4 AT PUMP DISCHARGE UAF	NA	MPH Building	GIC	0-6kg/cm2	0-3 KG/CM2	0-6 KG	BSPG-V-150-S4S-S6S-S6S-S4S-T15NTM-(0-6)-KSC-L	PE-V0-417-554-A021
19	HVAC	TI	50SAF12CT501	Temperature Indicator	TI -1 AT Pump Discharge UAF	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021
20	HVAC	TI	50SAF12CT502	Temperature Indicator	TI -2 AT Pump Discharge UAF	NA	MPH Building	GIC	0-80 deg C	25-33 deg C	30 deg C	DT-V-15-S4S-C-50-S6S-15NTM- 0~80-DGC TW(TWBT-01-S6S-30-20-11-T15NTF T20NTM-150-50-4-0)	PE-V0-417-554-A021

Name of Project	**TSGENCO -YADADRI TPS 5 x 800 MW AT VEERLAPALEM**
Package	**Ventilation System**
Document Title	**DATA SHEET OF PIPE FOR VENTILATION SYSTEM**

<table>
<tr><th>Sl. No.</th><th>DESCRIPTION</th><th colspan="3">SPECIFICATION</th></tr>
<tr><td>1.</td><td>Make</td><td colspan="3">As per approved Item Catagorisation and Sub Vendor List</td></tr>
<tr><td>2.</td><td>Material</td><td colspan="3">MS Heavy Class Galvanised,MS Black & GI,Seamless Carbon Steel</td></tr>
<tr><td>3.</td><td>Conforming To</td><td colspan="3">IS: 1239 upto 150 NB Pipe IS: 3589
beyond 150 NB and Fe 410 grade 2
IS:4736 for drain piping.</td></tr>
<tr><td rowspan="7">4.</td><td rowspan="7">Thickness</td><td colspan="3">As per IS: 3589 & Fe 410 grade 2</td></tr>
<tr><td>Nominal Pipe (mm)</td><td>Outside Diameter (mm)</td><td>Min Wall Thickness (mm)</td></tr>
<tr><td>200 NB</td><td>219.1</td><td>6</td></tr>
<tr><td>250 NB</td><td>273</td><td>6</td></tr>
<tr><td>300 NB</td><td>323.9</td><td>6</td></tr>
<tr><td>350 NB</td><td>355.6</td><td>6</td></tr>
<tr><td>400 NB</td><td>406.4</td><td>6</td></tr>
<tr><td colspan="4"></td></tr>
</table>

5.	Thickness	As per IS : 1239 GI Pipe Heavy Grade 150 NB or below

Nominal Pipe (mm)	Outside Diameter (mm)		Wall Thickness (mm)
	Max	Min	
150 NB	166.5	163.9	5.4
125 NB	140.8	138.5	5.4
100 NB	115.0	113.1	5.4
80 NB	89.5	88	4.8
65 NB	76.6	75.3	4.5
50 NB	60.8	59.7	4.5
40 NB	48.8	47.8	4
32 NB	42.9	42	4

6.	Thickness	As per IS 4736 MS Heavy (Drain Pipe)

Nominal Pipe (mm)	Outside Diameter (mm)		Wall Thickness (mm)
	Max	Min	
100 NB	115.0	113.1	5.4
80 NB	89.5	88	4.8
65 NB	76.6	75.3	4.5
50 NB	60.8	59.7	4.5
40 NB	48.8	47.8	4
32 NB	42.9	42	4

Sl. No.	DESCRIPTION	SPECIFICATION
7.	Density of pipe	7850 Kg/m3
8.	Pipe sizes	As per approved P & ID : PE- V0- 417-554-A021
9.	Quantity	Refer Air Washer & UAF Layout : PE-V0-417-554-A022/A023/ A024/A025/A040/A041/A042

Note: Tolerance shall be as per IS code : 1239/3589/4736.
Tolerance As per IS 1239/3589/4736=+-10%

Name of Project	**YADADRI TPS 5 X 800 MW (TELANGANA)**
Package	**, Ventilation System**
Document title	**Data Sheet of Insulation for Ventilation System** R1

S.N	Description	Specification
1	Manufacturer	As per Approved Sub - Vendor List R1
2	Material	XLPE with UV barrier film lamination
3	Thickness	13 mm thick Aluminium Foil Faced R1
4	Density	33 Kg/m3
5	Form	Roll
6	Thermal conductivity	Shall not be exceeding 0.035 W/mk
7	Final Finish	UV Protection Coating
8	Service Temperature Range	-40 to 115 deg C
9	Flammability	Class B1
10	Fire Properties	Self- extinguishing and non-dripping properties against fire attack

Data sheet for Ducts

Sl. No.	DESCRIPTION	SPECIFICATION
01	Application	Low pressure air duct
02	Make	As per Approved Sub- Vendor List
03	Type	GI Sheet, Lock forming quality (LFQ)
04	Grade	Conforming to class 275 of IS : 277
05	Form factors	Conforming to IS : 655
06	Coating	180 GSM
07	Shape	Rectangular
08	Flange type	TDF / TDC, as applicable
09	Gauge wise thickness	0 to 2250 mm – 20 G 2251 to above – 18 G

2

Note: For Battery room MS duct (as per IS: 513) with epoxy paint shall be provided

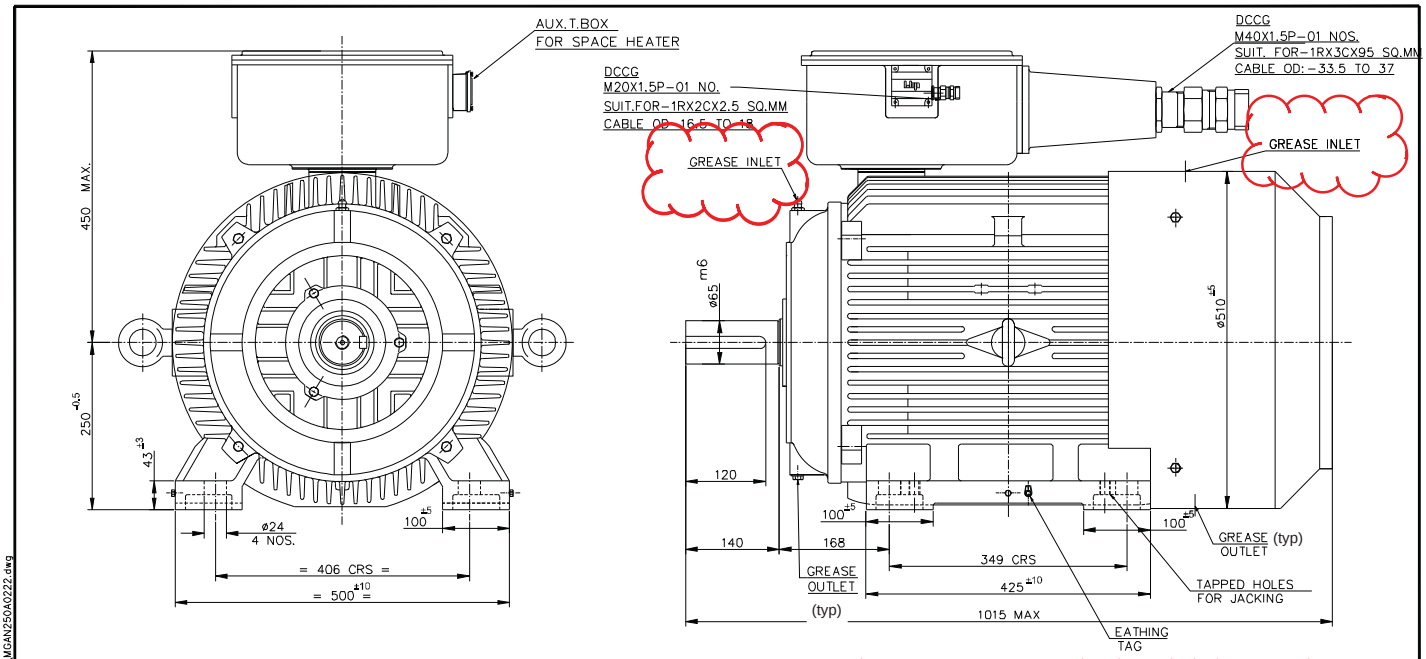
2

Typical Motor data sheet for 55 KW fan motor similar shall be for 45KW pump motor

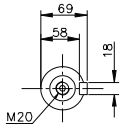
S. No.	Description	Data
A.	**General**	
1	Manufacturer & country of origin	LHPL INDIA
2	Motor type	SQIM
3	Type of starting	DOL
4	Name of the equipment driven by motor & Quantity	AWU FAN
5	Design ambient temperature	50°C
B.	**Design and Performance Data**	
1	Frame size & type designation	250M
2	Type of duty	CONTINUOUS (S1)
3	Rated Voltage	415V
4	Permissible variation for	
5	a Voltage	±10%
6	b Frequency	+3, -5%
7	c) Combined voltage & frequency	10%(ABSOLUTE)
8	Rated output at design ambient temp (by resistance method)	55KW
9	Synchronous speed & Rated slip	1500 & 0.013
10	Minimum permissible starting voltage	353V(85%)
11	Starting time in sec with mechanism coupled	
12	a) At rated voltage	2 SEC(LOAD GD^2=MOTOR GD^2)
13	b) At min starting voltage	3 SEC(LOAD GD^2=MOTOR GD^2)
14	Locked rotor current as percentage of FLC (including IS tolerance)	900%
15	Torque	
	a) Starting	215%
	b) Maximum	280%
16	Permissible temp rise at rated output over ambient temp & method	70°C BY RESISTANCE METHOD
17	Noise level at 1.0 m (dB	AS PER I.S.-12065
18	Amplitude of vibration	AS PER I.S.-12075
19	Efficiency & P.F. at rated voltage & frequency	IE3
	a) At 100% load	94.6% & 0.87
	c) At 75% load	93.6% & 0.85

S. No.	Description	Data
	c) At starting	N.A & 0.5
C.	**Constructional Features**	
1	Method of connection of motor driven equipment	DIRECT COUPLING
2	Applicable Standard	IS-12615-2011, IS/IEC 60034-1
3	DOP of Enclosure	I.P.-55
4	Method of cooling	TEFC
5	Class of insulation	CLASS 'F', WITH TEMP RISE LIMITED TO CLASS 'B'……R1
6	Main terminal box	
	a) Type	IP:55
	b) Power Cable details (Conductor, size, armour/unarmour)	AS PER GAD
	c) Cable Gland & lugs details (Size, type & material)	:AS PER GAD
	d) Permissible Fault level (kArms & duration in sec)	50KA FOR 0.25 SEC
7	Space heater details (Voltage & watts)	75W,240V,1PH
8	Flame proof motor details (if applicable)	
	a) Enclosure	TEFC
	b) suitability for hazardous area	
	i Zone	N.A.
	ii Group	N.A.
9	No. of Stator winding	6 LEAD
10	Winding connection	DELTA
11	Kind of rotor winding	SQIM
12	Kind of bearings	DGBB
13	Direction of rotation when viewed from NDE	BIDIRECTIONAL
14	Paint Shade & type	692 of IS-5
15	Net weight of motor	Approx. 687 KG
16	Outline mounting drawing No (To be enclosed as annexure)	ENCLOSED
D.	**Characteristic curves/ drawings** (To be enclosed for motors of rating 1.5KW)	
	a) Torque speed characteristic	ENCLOSED
	b) Thermal withstand characteristic	ENCLOSED
	c) Current vs time	ENCLOSED
	d) Speed vs time	ENCLOSED

NOTE : 1. ALL PERFORMANCE FIGURES ARE SUBJECT TO IEC 60034-1 TOLERANCES.
2. Bearing Lubrication is Pre-Lubricated with external lubrication system.
3. Motor is designed to run at 75% rated voltage for 300 sec.



Note: The motor are supplied with lubricated bearings and also have the provision for external greasing.



SHAFT END DETAILS

SPECIFICATION:-

KW/HP	55/75
POLE	4
BEARING DE SIDE	6314.C3
BEARING NDE SIDE	6214.C3

MATERIAL OF CONSTRUCTION:-

FRAME	CAST IRON
END COVER (DE)	CAST IRON
END COVER (NDE)	CAST IRON
T. BOX	CAST IRON/M.S
T. BOX COVER	CAST IRON/M.S
SHAFT	CARBON STEEL

REV. NO.	DETAIL OF CHANGE	DATE.	INTL.
02			
01			

UNMENTIONED TOLERANCES ARE AS PER IS:2102-1/ ISO 2768-1

LINEAR DIMNS.	OVER & UPTO	0.5-3	3-6	6-30	30-120	120-400	400-1000	1000-2000
	TOLERANCE	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3
ANGULAR DIMNS.	PERMISSIBLE DEVIATIONS FOR LENGTHS OF THE SHORTER SIDE OF THE ANGLE.							
	OVER & UPTO	0-10	10-50	50-120	120-400	400.....		
	TOLERANCE	±1°	±0°30'	±0°20'	±0°10'	±0°5'		

TITLE

GENERAL ARRANGEMENT DRAWING FOR 250M FRAME FOOT MOUNTED MOTOR(SP)

Laxmi Hydraulics Pvt.Ltd. SOLAPUR
Website : www.lhp.co.in

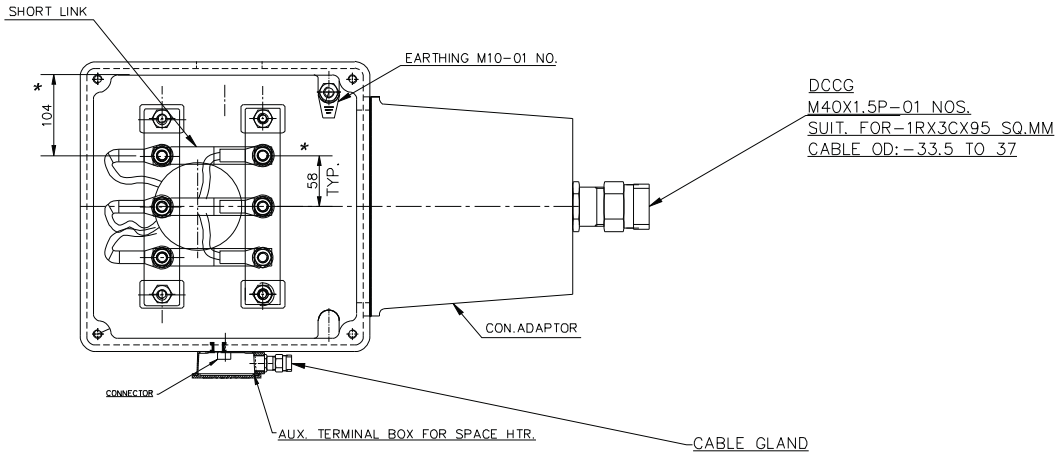
UNLESS OTHERWISE SPECIFIED ALL DIMNS. ARE IN MM. | DO NOT SCALE THE DRAWING.

	NAME.	DATE.
DGN.		
DRN.	VIVEK	28.10.18
CHD.		28.10.18
APPD.		28.10.18

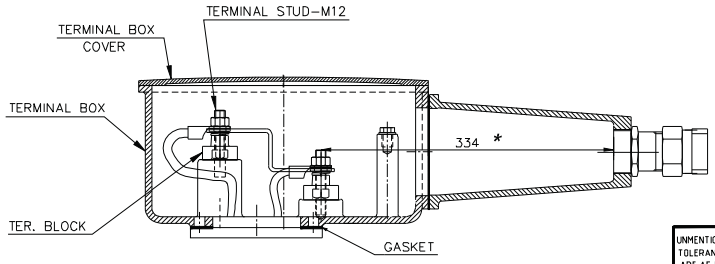
SCALE :--1:1
SHEET NO.:- 01/02

DRG. NO. MGAN250A0222
ISSUE NO. 01 | REV.NO. 00

\\Pdc\d\LHPL DRAWING FILES\DRGS 3\G.A.DWG\MGAN\250\B3\MGAN250A0222.dwg



TOP VIEW SHOWING TERMINAL BOX WITHOUT COVER



NOTE:- * MARKED DIMN.S ARE APPROX..

UNMENTIONED TOLERANCES ARE AS PER IS:2102-1/ ISO 2768-1									
LINEAR DIMNS.	OVER & UPTO	0.5-3	3-6	6-30	30-120	120-400	400-1000	1000-2000	
	TOLERANCE	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	
ANGULAR DIMNS.	PERMISSIBLE DEVIATIONS FOR LENGTHS OF THE SHORTER SIDE OF THE ANGLE.								
	OVER & UPTO	0-10	10-50		50-120	120-400	400.....		
	TOLERANCE	±1°	±0°30'		±0°20'	±0°10'	±0°5'		

TITLE

T. BOX ARRANGEMENT DRAWING FOR 250M FRAME FOOT MOUNTED MOTOR

	NAME.	DATE.
DGN.		
DRN.	VIVEK	28.10.18
CHD.		28.10.18
APPD.		28.10.18

SCALE :--1:1

SHEET:- 2 OF 2

Laxmi Hydraulics Pvt.Ltd. SOLAPUR

Website : www.lhp.co.in

UNLESS OTHERWISE SPECIFIED ALL DIMNS. ARE IN MM. DO NOT SCALE THE DRAWING.

DRG. NO. *MGAN250A0222*

ISSUE NO. 01 REV.NO. 00

REV. NO.	DETAIL OF CHANGE	DATE.	INTL.
03			
02			
01			

\\Ppk\d\LHPL DRAWING FILES\DRGS 3\G.A.DWG\MGAN 250\B3\MGAN250A0222.dwg

Typical Cable Schedule with JB listing for an unit

UNITCABLENO	FROM (alongwith Loaction)	TO (alongwith Loaction)	PURPOSE	REMARKS	CABLESIZE
30SAG12CP501	DPT Across Pot Strainer-1 For AWU-1, 'GRID 35,37 -UNIT -3 OUTSIDE A ROW SIDE'	**AJB-AWU-1, , 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'**	Control / Interlock		D02V0.5
30SAG12CP502	DPT Across Pot Strainer-2 For AWU-1, 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'	**AJB-AWU-1, , 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'**	Control / Interlock		D02V0.5
30SAG12CP011	PT AT PUMP -1 For AWU-1, 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'	**AJB-AWU-1, , 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'**	Control / Interlock		D02V0.5
30SAG12CP012	PT AT PUMP -2 For AWU-1, 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'	**AJB-AWU-1, , 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'**	Control / Interlock		D02V0.5
30SAG12CP013	PT-1 AT Pump Discharge Header For AWU-1, 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'	**AJB-AWU-1, , 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'**	Control / Interlock		D02V0.5
30SAG12CP014	PT-2 AT Pump Discharge Header For AWU-1 , 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'	**AJB-AWU-1, , 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'**	Control / Interlock		D02V0.5
30SAG12CP015	PT-1 AT Air Washer Plenum For AWU-1, 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'	**AJB-AWU-1, , 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'**	Control / Interlock		D02V0.5
30SAG12CP016	PT-2 AT Air Washer Plenum For AWU-1, 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'	**AJB-AWU-1, , 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'**	Control / Interlock		D02V0.5
30SAG12CP017	PT-1 AT Outlet Of Centrifugal Air Fan For AWU-1, 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'	**AJB-AWU-1, , 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'**	Control / Interlock		D02V0.5
30SAG12CP018	PT-2 AT Outlet Of Centrifugal Air Fan For AWU-1, 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'	**AJB-AWU-1, , 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'**	Control / Interlock		D02V0.5
30SAG12FM101	FM AT Makeup Line For AWU-1, 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'	**AJB-AWU-1, , 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'**	Control / Interlock		D02V0.5
30SAG12CL011	LT -1 AT AWU Tank For AWU-1, 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'	**AJB-AWU-1, , 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'**	Control / Interlock		D02V0.5
30SAG12CL012	LT -2 AT AWU Tank For AWU-1, 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'	**AJB-AWU-1, , 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'**	Control / Interlock		D02V0.5
30SAG12JB001	**AJB-AWU-1, , 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'**	**AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M)**	Control / Interlock		D20W0.5
30SAG12AN001	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Centrifugal Fan -1 Motor Of AWU-1 (Start, Stop, Feedback, MCC Dist.)	D08V0.5

30SAG12AN001	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Centrifugal Fan -1 Motor Of AWU-1 (Current Feedback)	D02V0.5
30SAG12AN002	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Centrifugal Fan -2 Motor Of AWU-1 (Start, Stop, Feedback, MCC Dist.)	D08V0.5
30SAG12AN002	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Centrifugal Fan -2Motor Of AWU-1 (Current Feedback)	D02V0.5
30SAG12AP001	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Pump 1, Motor Of AWU-1 (Current Feedback)	D08V0.5
30SAG12AP001	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Pump 1, Motor Of AWU-1 (Current Feedback)	D02V0.5
30SAG12AP002	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Pump 2, Motor Of AWU-1 (Current Feedback)	D08V0.5
30SAG12AP002	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Pump 2, Motor Of AWU-1 (Current Feedback)	D02V0.5
30SAG12AA101	Motorized Valve AT Pump-1 Dishcharge Of AWU-1, GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Command	D05J2.5
30SAG12AA101	Motorized Valve AT Pump-1 Dishcharge Of AWU-1, GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Feedback	D04V0.5
30SAG12A102	Motorized Valve AT Pump-2 Dishcharge Of AWU-1, GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Command	D05J2.5
30SAG12A102	Motorized Valve AT Pump-2 Dishcharge Of AWU-1, GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Feedback	D04V0.5

30SAG12CU001	HS AT LV Switchgear Room For AWU-1	**BJB-AWU-1, , 'LT SWITCH GEAR GRID -UNIT -3 OUTSIDE A ROWSIDE '**	Control / Interlock		D04V0.5
30SAG12CU002	HS AT LV Switchgear Room For AWU-1	**BJB-AWU-1, , 'LT SWITCH GEAR GRID -UNIT -3 OUTSIDE A ROWSIDE '**	Control / Interlock		D04V0.6
30SAG12CU003	HS AT MV Switchgear Room For AWU-1	**BJB-AWU-1, , 'LT SWITCH GEAR GRID -UNIT -3 OUTSIDE A ROWSIDE '**	Control / Interlock		D04V0.7
30SAG12CU004	HS AT MV Switchgear Room For AWU-1	**BJB-AWU-1, , 'LT SWITCH GEAR GRID -UNIT -3 OUTSIDE A ROWSIDE '**	Control / Interlock		D04V0.8
30SAG12JB002	**BJB-AWU-1, , 'LT SWITCH GEAR GRID -UNIT -3 OUTSIDE A ROWSIDE '**	**AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M)**	Control / Interlock		D08W0.5
30SAG12A003	Fire Damper-1 Of AWU-1 (A row TG Hall Between grid 28-29 17.0m)	**AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M)**	Control / Interlock	Open and Close Command	D03J2.5
30SAG12A003	Fire Damper-1 Of AWU-1 ((A row TG Hall Between grid 28-29 17.0m)	**AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M)**	Control / Interlock	Open and Close Feedback	D04V0.5
30SAG12AA004	Fire Damper-2 Of AWU-1 (A row TG Hall Between grid 29-30 17.0m)	**AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M)**	Control / Interlock	Open and Close Command	D03J2.5
30SAG12AA004	Fire Damper-2 Of AWU-1 (A row TG Hall Between grid 29-30 17.0m)	**AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M)**	Control / Interlock	Open and Close Feedback	D04V0.5
30SAG12AA005	Fire Damper-3 Of AWU-1 ((A row TG Hall Between grid 30-31 17.0m)	**AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M)**	Control / Interlock	Open and Close Command	D03J2.5
30SAG12AA005	Fire Damper-3 Of AWU-1 (A row TG Hall Between grid 30-31 17.0m)	**AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M)**	Control / Interlock	Open and Close Feedback	D04V0.5
30SAG12AA006	Fire Damper-4 Of AWU-1 (A row TG Hall Between grid 30-31 17.0m)	**AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M)**	Control / Interlock	Open and Close Command	D03J2.5
30SAG12AA006	Fire Damper-4 Of AWU-1 (A row TG Hall Between grid 30-31 17.0m)	**AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M)**	Control / Interlock	Open and Close Feedback	D04V0.5
30SAG12AA007	Fire Damper-5 Of AWU-1 (A row TG Hall Between grid 31-32 17.0m)	**AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M)**	Control / Interlock	Open and Close Command	D03J2.5
30SAG12AA007	Fire Damper-5 Of AWU-1 (A row TG Hall Between grid 31-32 17.0m)	**AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M)**	Control / Interlock	Open and Close Feedback	D04V0.5
30SAG12AA008	Fire Damper-6 Of AWU-1 (A row TG Hall Between grid 32-33 17.0m)	**AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M)**	Control / Interlock	Open and Close Command	D03J2.5

30SAG12AA008	Fire Damper-6 Of AWU-1 (A row TG Hall Between grid 32-33 17.0m)	**AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M)**	Control / Interlock	Open and Close Feedback	D04V0.5
30SAG12AA009	Fire Damper-7 Of AWU-1 (A row TG Hall Between grid 33-34 17.0m)	**AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M)**	Control / Interlock	Open and Close Command	D03J2.5
30SAG12AA009	Fire Damper-7 Of AWU-1 (A row TG Hall Between grid 33-34 17.0m)	**AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M)**	Control / Interlock	Open and Close Feedback	D04V0.5
30SAG12AA010	Fire Damper-8 Of AWU-1 (A row TG Hall Between grid 34-35 17.0m)	**AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M)**	Control / Interlock	Open and Close Command	D03J2.5
30SAG12AA010	Fire Damper-8 Of AWU-1 (A row TG Hall Between grid 34-35 17.0m)	**AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M)**	Control / Interlock	Open and Close Feedback	D04V0.5
30SAG12AA011	Fire Damper-9 Of AWU-1 (A row TG Hall Between grid 35-36 17.0m)	**AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M)**	Control / Interlock	Open and Close Command	D03J2.5
30SAG12AA011	Fire Damper-9 Of AWU-1 (A row TG Hall Between grid 35-36 17.0m)	**AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M)**	Control / Interlock	Open and Close Feedback	D04V0.5
30SAG12AA012	Fire Damper-10 Of AWU-1 (A row TG Hall Between grid 36-37 17.0m)	**AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M)**	Control / Interlock	Open and Close Command	D03J2.5
30SAG12AA012	Fire Damper-10 Of AWU-1 (A row TG Hall Between grid 36-37 17.0m)	**AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M)**	Control / Interlock	Open and Close Feedback	D04V0.5
30SAG12AA013	Fire Damper-11 Of AWU-1 (A row TG Hall Between grid 36-37 17.0m)	**AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M)**	Control / Interlock	Open and Close Command	D03J2.5
30SAG12AA013	Fire Damper-11 Of AWU-1 (A row TG Hall Between grid 36-37 17.0m)	**AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M)**	Control / Interlock	Open and Close Feedback	D04V0.5
30SAG13CP501	DPT Across Pot Strainer-1 For AWU-2, 'GRID 35,37 -UNIT -3 OUTSIDE A ROW SIDE'	**AJB-AWU-2, , 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'**	Control / Interlock		D02V0.5
30SAG13CP502	DPT Across Pot Strainer-2 For AWU-2, 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'	**AJB-AWU-2, , 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'**	Control / Interlock		D02V0.5
30SAG13CP011	PT AT PUMP -1 For AWU-2, 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'	**AJB-AWU-2, , 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'**	Control / Interlock		D02V0.5
30SAG13CP012	PT AT PUMP -2 For AWU-2, 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'	**AJB-AWU-2, , 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'**	Control / Interlock		D02V0.5
30SAG13CP013	PT-1 AT Pump Discharge Header For AWU-2, 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'	**AJB-AWU-2, , 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'**	Control / Interlock		D02V0.5

30SAG13CP014	PT-2 AT Pump Discharge Header For AWU-2 , 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'	**AJB-AWU-2, , 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'**	Control / Interlock		D02V0.5
30SAG13CP015	PT-1 AT Air Washer Plenum For AWU-2, 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'	**AJB-AWU-2, , 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'**	Control / Interlock		D02V0.5
30SAG13CP016	PT-2 AT Air Washer Plenum For AWU-2, 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'	**AJB-AWU-2, , 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'**	Control / Interlock		D02V0.5
30SAG13CP017	PT-1 AT Outlet Of Centrifugal Air Fan For AWU-2, 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'	**AJB-AWU-2, , 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'**	Control / Interlock		D02V0.5
30SAG13CP018	PT-2 AT Outlet Of Centrifugal Air Fan For AWU-2, 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'	**AJB-AWU-2, , 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'**	Control / Interlock		D02V0.5
30SAG13FM101	FM AT Makeup Line For AWU-2, 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'	**AJB-AWU-2, , 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'**	Control / Interlock		D02V0.5
30SAG13CL011	LT -1 AT AWU Tank For AWU-2, 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'	**AJB-AWU-2, , 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'**	Control / Interlock		D02V0.5
30SAG13CL012	LT -2 AT AWU Tank For AWU-2, 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'	**AJB-AWU-2, , 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'**	Control / Interlock		D02V0.5
30SAG12JB003	**AJB-AWU-2, , 'GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'**	**AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M)**	Control / Interlock		D20W0.5
30SAG13AN001	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Centrifugal Fan -1 Motor Of AWU-2 (Start, Stop, Feedback, MCC Dist.)	D08V0.5
30SAG13AN001	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Centrifugal Fan -1 Motor Of AWU-2 (Current Feedback)	D02V0.5
30SAG13AN002	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Centrifugal Fan -2 Motor Of AWU-2 (Start, Stop, Feedback, MCC Dist.)	D08V0.5
30SAG13AN002	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Centrifugal Fan -2Motor Of AWU-2 (Current Feedback)	D02V0.5

30SAG13AP001	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Pump 1, Motor Of AWU-2 (Current Feedback)	D08V0.5
30SAG13AP001	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Pump 1, Motor Of AWU-2 (Current Feedback)	D02V0.5
30SAG13AP002	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Pump 2, Motor Of AWU-2 (Current Feedback)	D08V0.5
30SAG13AP002	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Pump 2, Motor Of AWU-2 (Current Feedback)	D02V0.5
30SAG13AA101	Motorized Valve AT Pump-1 Dishcharge Of AWU-2, GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Command	D05J2.5
30SAG13AA101	Motorized Valve AT Pump-1 Dishcharge Of AWU-2, GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Feedback	D04V0.5
30SAG13A102	Motorized Valve AT Pump-2 Dishcharge Of AWU-2, GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Command	D05J2.5
30SAG13A102	Motorized Valve AT Pump-2 Dishcharge Of AWU-2, GRID 35,37 -UNIT -3 OUTSIDE A ROWSIDE 0.0m'	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Feedback	D04V0.5

30SAG14CP501	DPT Across Pot Strainer-1 For AWU-3, 'GRID 37,41 -UNIT -3 BCE BAY ROOF'	**AJB-AWU-3, , 'GRID 37,41 -UNIT -3 BCE BAY ROOF'**	Control / Interlock		D02V0.5
30SAG14CP502	DPT Across Pot Strainer-2 For AWU-3, 'GRID 37,41 -UNIT -3 BCE BAY ROOF	**AJB-AWU-3, , 'GRID 37,41 -UNIT -3 BCE BAY ROOF'**	Control / Interlock		D02V0.5
30SAG14CP011	PT AT PUMP -1 For AWU-3, 'GRID 37,41 -UNIT -3 BCE BAY ROOF	**AJB-AWU-3, , 'GRID 37,41 -UNIT -3 BCE BAY ROOF'**	Control / Interlock		D02V0.5
30SAG14CP012	PT AT PUMP -2 For AWU-3, 'GRID 37,41 -UNIT -3 BCE BAY ROOF	**AJB-AWU-3, , 'GRID 37,41 -UNIT -3 BCE BAY ROOF'**	Control / Interlock		D02V0.5
30SAG14CP013	PT-1 AT Pump Discharge Header For AWU-3, 'GRID 37,41 -UNIT -3 BCE BAY ROOF	**AJB-AWU-3, , 'GRID 37,41 -UNIT -3 BCE BAY ROOF'**	Control / Interlock		D02V0.5
30SAG14CP014	PT-2 AT Pump Discharge Header For AWU-3 , 'GRID 37,41 -UNIT -3 BCE BAY ROOF	**AJB-AWU-3, , 'GRID 37,41 -UNIT -3 BCE BAY ROOF'**	Control / Interlock		D02V0.5
30SAG14CP015	PT-1 AT Air Washer Plenum For AWU-3, 'GRID 37,41 -UNIT -3 BCE BAY ROOF	**AJB-AWU-3, , 'GRID 37,41 -UNIT -3 BCE BAY ROOF'**	Control / Interlock		D02V0.5
30SAG14CP016	PT-2 AT Air Washer Plenum For AWU-3, 'GRID 37,41 -UNIT -3 BCE BAY ROOF	**AJB-AWU-3, , 'GRID 37,41 -UNIT -3 BCE BAY ROOF'**	Control / Interlock		D02V0.5

30SAG14CP017	PT-1 AT Outlet Of Centrifugal Air Fan For AWU-3, 'GRID 37,41 -UNIT -3 BCE BAY ROOF	**AJB-AWU-3, , 'GRID 37,41 -UNIT -3 BCE BAY ROOF'**	Control / Interlock		D02V0.5
30SAG14CP018	PT-2 AT Outlet Of Centrifugal Air Fan For AWU-3, 'GRID 37,41 -UNIT -3 BCE BAY ROOF	**AJB-AWU-3, , 'GRID 37,41 -UNIT -3 BCE BAY ROOF'**	Control / Interlock		D02V0.5
30SAG14FM101	FM AT Makeup Line For AWU-3, 'GRID 37,41 -UNIT -3 BCE BAY ROOF	**AJB-AWU-3, , 'GRID 37,41 -UNIT -3 BCE BAY ROOF'**	Control / Interlock		D02V0.5
30SAG14CL011	LT -1 AT AWU Tank For AWU-3, 'GRID 37,41 -UNIT -3 BCE BAY ROOF	**AJB-AWU-3, , 'GRID 37,41 -UNIT -3 BCE BAY ROOF'**	Control / Interlock		D02V0.5
30SAG14CL012	LT -2 AT AWU Tank For AWU-3, 'GRID 37,41 -UNIT -3 BCE BAY ROOF	**AJB-AWU-3, , 'GRID 37,41 -UNIT -3 BCE BAY ROOF'**	Control / Interlock		D02V0.5
30SAG12JB004	**AJB-AWU-3, , 'GRID 37,41 -UNIT -3 BCE BAY ROOF'**	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock		D20W0.5
30SAG14AN001	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Centrifugal Fan -1 Motor Of AWU-3 (Start, Stop, Feedback, MCC Dist.)	D08V0.5
30SAG14AN001	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Centrifugal Fan -1 Motor Of AWU-3 (Current Feedback)	D02V0.5
30SAG14AN002	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Centrifugal Fan -2 Motor Of AWU-3 (Start, Stop, Feedback, MCC Dist.)	D08V0.5
30SAG14AN002	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Centrifugal Fan -2Motor Of AWU-3 (Current Feedback)	D02V0.5
30SAG14AP001	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Pump 1, Motor Of AWU-3 (Current Feedback)	D08V0.5
30SAG14AP001	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Pump 1, Motor Of AWU-3 (Current Feedback)	D02V0.5

30SAG14AP002	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Pump 2, Motor Of AWU-3 (Current Feedback)	D08V0.5
30SAG14AP002	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Pump 2, Motor Of AWU-3 (Current Feedback)	D02V0.5
30SAG14AA101	Motorized Valve AT Pump-1 Dishcharge Of AWU-3, GRID 37,41 -UNIT -3 BCE BAY ROOF	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Command	D05J2.5
30SAG14AA101	Motorized Valve AT Pump-1 Dishcharge Of AWU-3, GRID 37,41 -UNIT -3 BCE BAY ROOF	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Feedback	D04V0.5
30SAG14A102	Motorized Valve AT Pump-2 Dishcharge Of AWU-3, GRID 37,41 -UNIT -3 BCE BAY ROOF	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Command	D05J2.5
30SAG14A102	Motorized Valve AT Pump-2 Dishcharge Of AWU-3, GRID 37,41 -UNIT -3 BCE BAY ROOF	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Feedback	D04V0.5
30SAG14CU001	HS AT Boiler MCC For AWU-3	**BJB-AWU-3, , 'BOILER MCC - UNIT -3 BCE BAY**	Control / Interlock		D04V0.5
30SAG14CU002	HS AT Boiler MCC For AWU-3	**BJB-AWU-3, , 'BOILER MCC - UNIT -3 BCE BAY**	Control / Interlock		D04V0.6
30SAG12JB005	**BJB-AWU-3, , 'BOILER MCC -UNIT -3 BCE BAY**	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock		D08W0.5
30SAG14A003	Fire Damper-1 Of AWU-3 (B row TG Hall Between grid 28-29 17.0m)	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Command	D03J2.5
30SAG14A003	Fire Damper-1 Of AWU-3 ((B row TG Hall Between grid 28-29 17.0m)	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Feedback	D04V0.5
30SAG14AA004	Fire Damper-2 Of AWU-3 (B row TG Hall Between grid 29-30 17.0m)	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Command	D03J2.5
30SAG14AA004	Fire Damper-2 Of AWU-3 (B row TG Hall Between grid29-30 17.0m)	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Feedback	D04V0.5
30SAG14AA005	Fire Damper-3 Of AWU-3 ((B row TG Hall Between grid 31-32 17.0m)	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Command	D03J2.5
30SAG14AA005	Fire Damper-3 Of AWU-3 (B row TG Hall Between grid 31-32 17.0m)	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Feedback	D04V0.5

30SAG14AA006	Fire Damper-4 Of AWU-3 (B row TG Hall Between grid 33-34 17.0m)	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Command	D03J2.5
30SAG14AA006	Fire Damper-4 Of AWU-3 (B row TG Hall Between grid 33-34 17.0m)	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Feedback	D04V0.5
30SAG14AA007	Fire Damper-5 Of AWU-3 (B row TG Hall Between grid 35-36 17.0m)	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Command	D03J2.5
30SAG14AA007	Fire Damper-5 Of AWU-3 (B row TG Hall Between grid 35-36 17.0m)	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Feedback	D04V0.5
30SAG14AA008	Fire Damper-6 Of AWU-3 (B row TG Hall Between grid 36-37 17.0m)	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Command	D03J2.5
30SAG14AA008	Fire Damper-6 Of AWU-3 (B row TG Hall Between grid 36-37 17.0m)	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Feedback	D04V0.5
30SAG15CP501	DPT Across Pot Strainer-1 For AWU-4, 'GRID 37,41 -UNIT -3 BCE BAY ROOF'	**AJB-AWU-4, , 'GRID 37,41 -UNIT -3 BCE BAY ROOF'**	Control / Interlock		D02V0.5
30SAG15CP502	DPT Across Pot Strainer-2 For AWU-4, 'GRID 37,41 -UNIT -3 BCE BAY ROOF	**AJB-AWU-4, , 'GRID 37,41 -UNIT -3 BCE BAY ROOF'**	Control / Interlock		D02V0.5
30SAG15CP011	PT AT PUMP -1 For AWU-4, 'GRID 37,41 -UNIT -3 BCE BAY ROOF	**AJB-AWU-4, , 'GRID 37,41 -UNIT -3 BCE BAY ROOF'**	Control / Interlock		D02V0.5
30SAG15CP012	PT AT PUMP -2 For AWU-4, 'GRID 37,41 -UNIT -3 BCE BAY ROOF	**AJB-AWU-4, , 'GRID 37,41 -UNIT -3 BCE BAY ROOF'**	Control / Interlock		D02V0.5
30SAG15CP013	PT-1 AT Pump Discharge Header For AWU-4, 'GRID 37,41 -UNIT -3 BCE BAY ROOF	**AJB-AWU-4, , 'GRID 37,41 -UNIT -3 BCE BAY ROOF'**	Control / Interlock		D02V0.5
30SAG15CP014	PT-2 AT Pump Discharge Header For AWU-4 , 'GRID 37,41 -UNIT -3 BCE BAY ROOF	**AJB-AWU-4, , 'GRID 37,41 -UNIT -3 BCE BAY ROOF'**	Control / Interlock		D02V0.5
30SAG15CP015	PT-1 AT Air Washer Plenum For AWU-4, 'GRID 37,41 -UNIT -3 BCE BAY ROOF	**AJB-AWU-4, , 'GRID 37,41 -UNIT -3 BCE BAY ROOF'**	Control / Interlock		D02V0.5
30SAG15CP016	PT-2 AT Air Washer Plenum For AWU-4, 'GRID 37,41 -UNIT -3 BCE BAY ROOF	**AJB-AWU-4, , 'GRID 37,41 -UNIT -3 BCE BAY ROOF'**	Control / Interlock		D02V0.5
30SAG15CP017	PT-1 AT Outlet Of Centrifugal Air Fan For AWU-4, 'GRID 37,41 -UNIT -3 BCE BAY ROOF	**AJB-AWU-4, , 'GRID 37,41 -UNIT -3 BCE BAY ROOF'**	Control / Interlock		D02V0.5
30SAG15CP018	PT-2 AT Outlet Of Centrifugal Air Fan For AWU-4, 'GRID 37,41 -UNIT -3 BCE BAY ROOF	**AJB-AWU-4, , 'GRID 37,41 -UNIT -3 BCE BAY ROOF'**	Control / Interlock		D02V0.5
30SAG15FM101	FM AT Makeup Line For AWU-4, 'GRID 37,41 -UNIT -3 BCE BAY ROOF	**AJB-AWU-4, , 'GRID 37,41 -UNIT -3 BCE BAY ROOF'**	Control / Interlock		D02V0.5
30SAG15CL011	LT -1 AT AWU Tank For AWU-4, 'GRID 37,41 -UNIT -3 BCE BAY ROOF	**AJB-AWU-4, , 'GRID 37,41 -UNIT -3 BCE BAY ROOF'**	Control / Interlock		D02V0.5
30SAG15CL012	LT -2 AT AWU Tank For AWU-4, 'GRID 37,41 -UNIT -3 BCE BAY ROOF	**AJB-AWU-4, , 'GRID 37,41 -UNIT -3 BCE BAY ROOF'**	Control / Interlock		D02V0.5
30SAG12JB006	**AJB-AWU-4, , 'GRID 37,41 -UNIT -3 BCE BAY ROOF'**	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock		D20W0.5

30SAG15AN001	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Centrifugal Fan -1 Motor Of AWU-4 (Start, Stop, Feedback, MCC Dist.)	D08V0.5
30SAG15AN001	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Centrifugal Fan -1 Motor Of AWU-4 (Current Feedback)	D02V0.5
30SAG15AN002	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Centrifugal Fan -2 Motor Of AWU-4 (Start, Stop, Feedback, MCC Dist.)	D08V0.5
30SAG15AN002	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Centrifugal Fan -2Motor Of AWU-4 (Current Feedback)	D02V0.5
30SAG15AP001	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Pump 1, Motor Of AWU-4 (Current Feedback)	D08V0.5
30SAG15AP001	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Pump 1, Motor Of AWU-4 (Current Feedback)	D02V0.5
30SAG15AP002	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Pump 2, Motor Of AWU-4 (Current Feedback)	D08V0.5
30SAG15AP002	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Pump 2, Motor Of AWU-4 (Current Feedback)	D02V0.5
30SAG15AA101	Motorized Valve AT Pump-1 Dishcharge Of AWU-4, GRID 37,41 -UNIT -3 BCE BAY ROOF	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Command	D05J2.5
30SAG15AA101	Motorized Valve AT Pump-1 Dishcharge Of AWU-4, GRID 37,41 -UNIT -3 BCE BAY ROOF	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Feedback	D04V0.5

30SAG15A102	Motorized Valve AT Pump-2 Dishcharge Of AWU-4, GRID 37,41 -UNIT -3 BCE BAY ROOF	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Command	D05J2.5
30SAG15A102	Motorized Valve AT Pump-2 Dishcharge Of AWU-4, GRID 37,41 -UNIT -3 BCE BAY ROOF	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Feedback	D04V0.5
30SAF12CP501	DPT Across Pot Strainer-1 For UAF-3, 'GRID 7,8 -UNIT -3 ESP ROOF'	**AJB-UAF-3, , 'GRID 7,8 -UNIT -3 ESP ROOF'**	Control / Interlock		D02V0.5
30SAF12CP502	DPT Across Pot Strainer-2 For UAF-3, 'GRID 7,8 -UNIT -3 ESP ROOF'	**AJB-UAF-3, , 'GRID 7,8 -UNIT -3 ESP ROOF'**	Control / Interlock		D02V0.5
30SAF12CP011	PT AT PUMP -1 For UAF-3, 'GRID 7,8 -UNIT -3 ESP ROOF'	**AJB-UAF-3, , 'GRID 7,8 -UNIT -3 ESP ROOF'**	Control / Interlock		D02V0.5
30SAF12CP012	PT AT PUMP -2 For UAF-3, 'GRID 7,8 -UNIT -3 ESP ROOF'	**AJB-UAF-3, , 'GRID 7,8 -UNIT -3 ESP ROOF'**	Control / Interlock		D02V0.5
30SAF12CP013	PT-1 AT Pump Discharge Header For UAF-3, 'GRID 7,8 -UNIT -3 ESP ROOF'	**AJB-UAF-3, , 'GRID 7,8 -UNIT -3 ESP ROOF'**	Control / Interlock		D02V0.5
30SAF12CP014	PT-2 AT Pump Discharge Header For UAF-3 , 'GRID 7,8 -UNIT -3 ESP ROOF'	**AJB-UAF-3, , 'GRID 7,8 -UNIT -3 ESP ROOF'**	Control / Interlock		D02V0.5
30SAF12CP015	PT-1 AT Air Washer Plenum For UAF-3, 'GRID 7,8 -UNIT -3 ESP ROOF'	**AJB-UAF-3, , 'GRID 7,8 -UNIT -3 ESP ROOF'**	Control / Interlock		D02V0.5
30SAF12CP016	PT-2 AT Air Washer Plenum For UAF-3, 'GRID 7,8 -UNIT -3 ESP ROOF'	**AJB-UAF-3, , 'GRID 7,8 -UNIT -3 ESP ROOF'**	Control / Interlock		D02V0.5
30SAF12FM201	FM AT Makeup Line For UAF-3, 'GRID 7,8 -UNIT -3 ESP ROOF'	**AJB-UAF-3, , 'GRID 7,8 -UNIT -3 ESP ROOF'**	Control / Interlock		D02V0.5
30SAF12CL011	LT -1 AT AWU Tank For UAF-3, 'GRID 7,8 -UNIT -3 ESP ROOF'	**AJB-UAF-3, , 'GRID 7,8 -UNIT -3 ESP ROOF'**	Control / Interlock		D02V0.5
30SAF12CL012	LT -2 AT AWU Tank For UAF-3, 'GRID 7,8 -UNIT -3 ESP ROOF'	**AJB-UAF-3, , 'GRID 7,8 -UNIT -3 ESP ROOF'**	Control / Interlock		D02V0.5
30SAG12JB007	**AJB-UAF-3, , 'GRID 7,8 -UNIT -3 ESP ROOF'**	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock		D20W0.5
30SAF12AN001	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Centrifugal Fan -1 Motor Of UAF-3 (Start, Stop, Feedback, MCC Dist.)	D08V0.5
30SAF12AN001	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Centrifugal Fan -1 Motor Of UAF-3 (Current Feedback)	D02V0.5
30SAF12AP001	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Pump 1, Motor Of UAF-3 (Current Feedback)	D08V0.5

30SAF12AP001	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Pump 1, Motor Of UAF-3 (Current Feedback)	D02V0.5
30SAF12AP002	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Pump 2, Motor Of UAF-3 (Current Feedback)	D08V0.5
30SAF12AP002	MCC BY BHEL	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Pump 2, Motor Of UAF-3 (Current Feedback)	D02V0.5
30SAF12AA201	Motorized Valve AT Pump-1 Dishcharge Of UAF-3, GRID 7,8 -UNIT -3 ESP ROOF'	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Command	D05J2.5
30SAF12AA201	Motorized Valve AT Pump-1 Dishcharge Of UAF-3, GRID 7,8 -UNIT -3 ESP ROOF'	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Feedback	D04V0.5
30SAF12A202	Motorized Valve AT Pump-2 Dishcharge Of UAF-3, GRID 7,8 -UNIT -3 ESP ROOF'	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Command	D05J2.5
30SAF12A202	Motorized Valve AT Pump-2 Dishcharge Of UAF-3, GRID 7,8 -UNIT -3 ESP ROOF'	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Feedback	D04V0.5
30SAF12CU001	HS AT Switchgear Room For UAF-3	**BJB-UAF-3, , ' SWITCH GEAR GRID 7,8 -UNIT -3 ESP'**	Control / Interlock		D04V0.5
30SAF12CU002	HS AT Switchgear Room For UAF-3	**BJB-UAF-3, , ' SWITCH GEAR GRID 7,8 -UNIT -3 ESP'**	Control / Interlock		D04V0.5
30SAG12JB008	**BJB-UAF-3, , ' SWITCH GEAR GRID 7,8 -UNIT -3 ESP'**	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock		D08W0.5
30SAF12A003	Fire Damper-1 Of UAF-3 (ESP BUILDING C ROW GRID 7-8 3.7m)	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Command	D03J2.5
30SAF12A003	Fire Damper-1 Of UAF-3 (ESP BUILDING C ROW GRID 7-8 3.7m)	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Feedback	D04V0.5
30SAF12AA004	Fire Damper-2 Of UAF-3 (ESP BUILDING C ROW GRID 7-8 0.0m)	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Command	D03J2.5
30SAF12AA004	Fire Damper-2 Of UAF-3 (ESP BUILDING C ROW GRID 7-8 0.0m)	AC-PLC STAGE-2 (TG BLDG)-GRID FG-39-40, 0.0M	Control / Interlock	Open and Close Feedback	D04V0.5

TYPICAL GA OF JUNCTION BOX

YADADRI TPS (5X800 MW)

CUSTOMER: M/S TSGENCO and CONSULTANT: M/S TATA CONSULTING ENGINEERS LTD, BANGALORE

Data Sheet for Junction Box

GENERAL SPECIFICATIONS	Description	**Pyrotech Make Metal Junction Box**
	Manufacturer	**Pyrotech Electronics Pvt. Ltd.,UNIT # II**
	Dimensions	196WAY - 760(H) X 635(W) X 210(D) mm - 02Nos.
		164WAY - 600(H) X 635(W) X 210(D) mm - 01No.
		128 WAY- 425 (H) X 635 (W) X 180 (D) mm – 19 Nos.
		108 WAY- 425 (H) X 635 (W) X 180 (D) mm – 01 No.
		96WAY- 400 (H) X 635 (W) X 180 (D) mm – 12 Nos.
		72 WAY- 400 (H) X 470 (W) X 160 (D) mm – 02Nos.
		64 WAY- 400 (H) X 470 (W) X 160 (D) mm – 07 Nos.
		48 WAY- 325 (H) X 470 (W) X 160 (D) mm – 16 Nos.
		32 WAY- 400 (H) X 285 (W) X 130 (D) mm – 05 Nos.
		24 WAY- 325 (H) X 285 (W) X 130 (D) mm – 03 Nos.
		16 WAY- 250 (H) X 285 (W)X 130 (D) mm – 01 No.
	Construction Features:	
	1) MOC:	CRCA MS SHEET
	1.1) Thickness :	
	a) Front Door:	3mm thick
	b) Side & Rear Sheet:	3mm thick
	c) Top Sheet:	3mm thick
	d) CG Plate:	3mm thick
	e) Canopy:	3mm thick
	2) Finish:	Hot Dip Galvanized Min. 86 micron & Epoxy based Powder Coating, Semi Glossy Finish, 80-120 Microns DFT.
	Colour Shade for External:	OPALINE GREEN SHADE 275 IS:5
	Colour Shade for Internal:	Brilliant White (Glossy finish)
	3) Accessories :	
	a) Lock :	IP Lock, Triangular Insert Type Die - casted Lock with Cam.
	b) Mountings :	Bracket suitable for mounting on wall, Coloumn and 2" pipe stanchion with M10 X 40MM Bolt (MOC - SS)
	c) Earth Bolt:	MS, M6x25mm (03 Nos.)
	d) Gasket:	Neoprene gasket all around the door and Flat 20X5mm Gasket will be provided at Bottom.
	e) MS Door Handle:	01 Nos.
	4) Electrical Accessories:	
	a) Terminal:	Suitable for 2.5 sq. mm Conductor
	Type:	CAGE CLAMP Type (ployamide 6.6)
	Make:	WAGO (CAT NO.: 280-901, Colour: Grey)
	Quantity	16, 24, 32, 48, 64, 72, 96, 108, 128, 164, 196 Ways
	b) Cu (25X3X150mm) bus bar	Height Wise on Side
	Quantity	01 No.
	c) Ferrules and Lugs	Loose Supply (MOC - Copper)
	5) Protection Class:	IP65
	6) Other Construction Features:	
	a) Door	Front Door shall be Lockable Right Hand Hingable and screwable at all four corner.
	b) Bottom gland plate	Neoprene Flat 20X5mm Gasket will be provided at Bottom Gland Plate.

ID.NO.5 4 004474 1 HVA-202150-GA

NOTE: ALL DIMENSIONS ARE IN mm
OVERALL TOLERANCE ± 2mm

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FILE NAME: HVA-202150-GA

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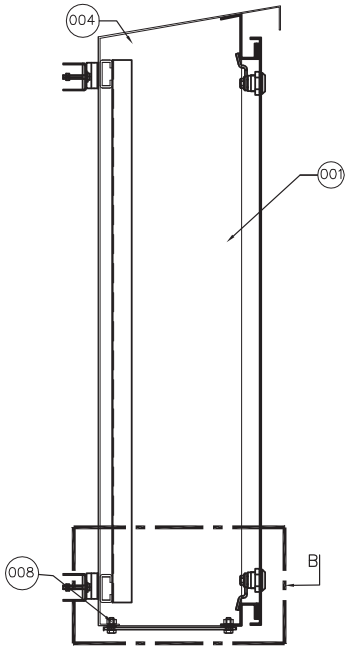
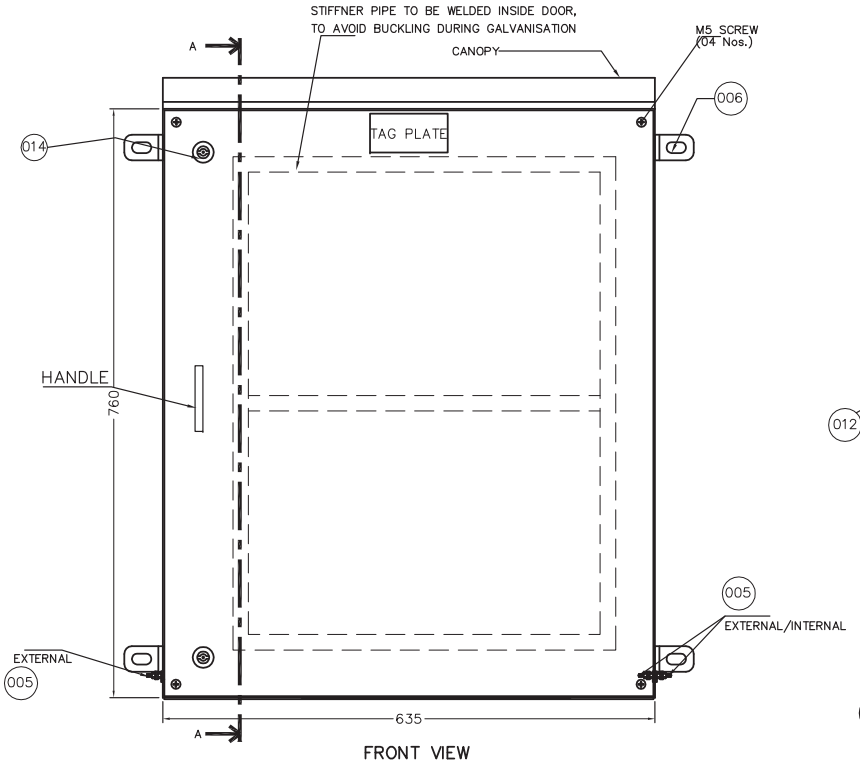
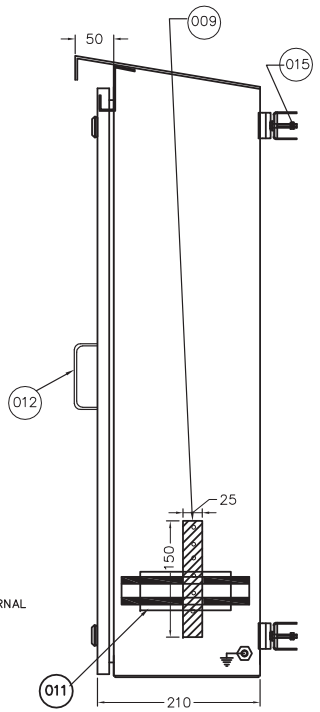


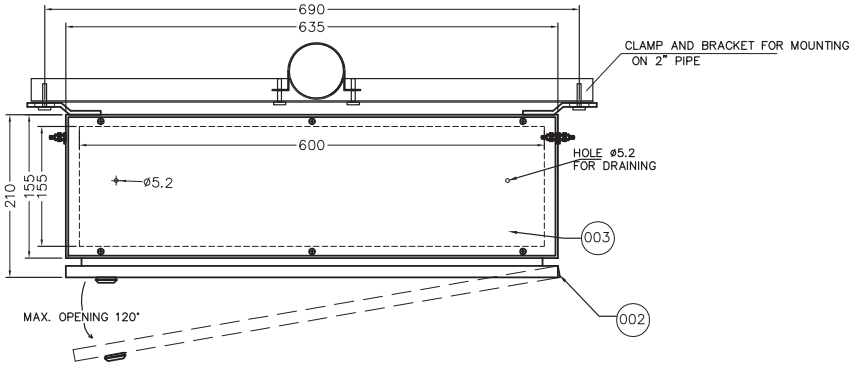
SECTIONAL VIEW (A-A)



FRONT VIEW



SIDE VIEW



BOTTOM VIEW

CONSULTANT: –					PROJECT: –					END USER: –		
REV	DRN.BY:	CHD.BY:	DATE:	APP.BY:	REMARKS	DRN.BY:	DIVESH	PO NO.:	HVAC/5399/LOI/AG	PROJECTION	PYROTECH ELECTRONICS PVT.LTD. UNIT#2, UDAIPUR 313003	DRAWING No. 202150	01
01	DIVESH		21/04/23		AFTER RECIVING PO	CHD.BY:		PROJ.NO.:	B202150/0		TITLE: – G.A. DRAWING OF 196 WAY JUNCTION BOX		
						APP.BY:		DEPT:	DESIGN				
						DATE:	21/04/23	SCALE:	NTS		CUSTOMER: –	SHEET 01 OF 33	REV.

NOTE: ALL DIMENSIONS ARE IN mm
OVERALL TOLERANCE ± 2mm

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FILE NAME: HVA-202150-GA

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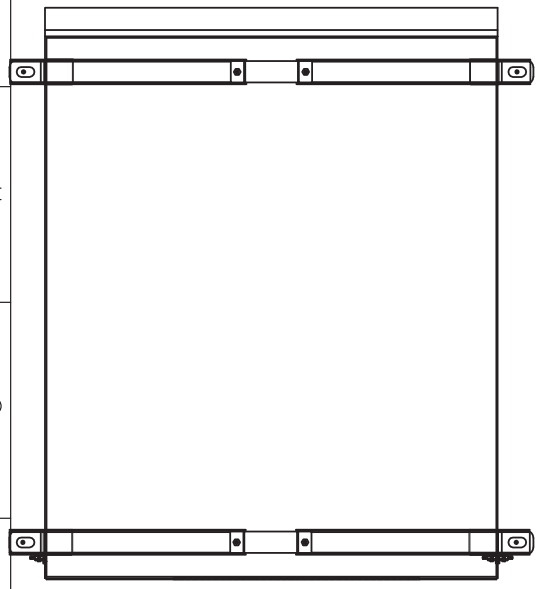
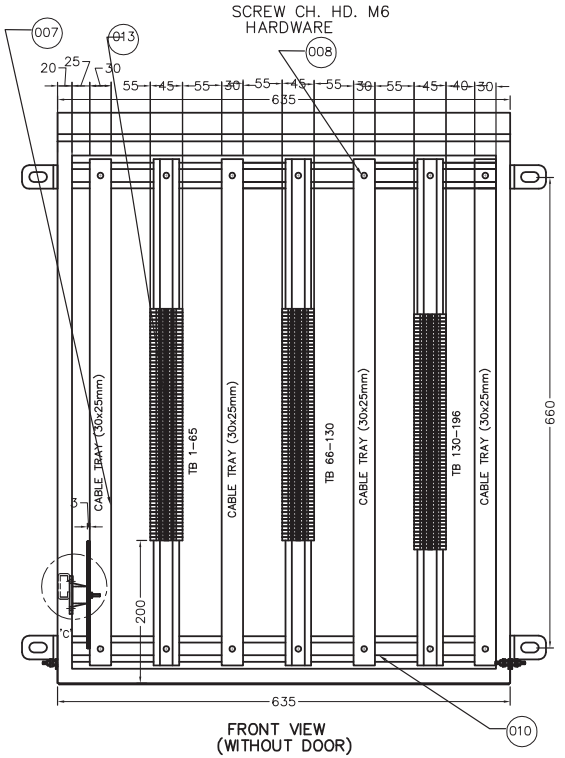
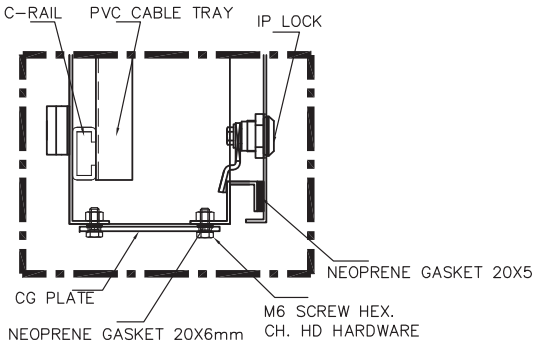


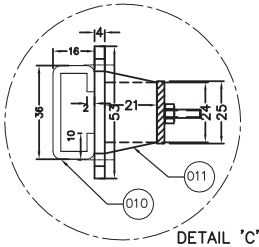
REAR VIEW



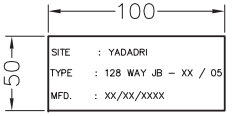
FRONT VIEW
(WITHOUT DOOR)



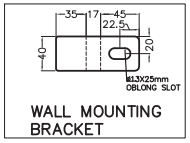
DETAIL – B



DETAIL 'C'



TAG PLATE DETAIL



WALL MOUNTING
BRACKET

NOTES: –

1. J.B. MADE OF WELDED CONSTRUCTION SYSTEM USING 3mm Th. CRCA MS SHEET.
2. C.G. PLATE WILL BE OF 3mm TH. CRCA MS SHEET.
3. CANOPY WILL BE OF 3mm TH. CRCA MS SHEET.
4. FINISH: HOT DIP GALVANISED, MIN.86 MICRONS. & 2nd COAT (80–120 MICRONS TH.)
   COLOUR SHADE EXTERNAL– OPALINE GREEN SHADE 275 OF IS:5
   COLOUR SHADE INTERNAL– BRILLIANT WHITE (GLOSSY)
5. 196 Nos. TERMINALS ARE WAGO MAKE, TYPE –2.5 SQ.mm CAGE CLAMP
6. SIZE OF THE CABLE TRAYS IN ALL THE J.Bs SHALL BE ADEQUATE TO HOUSE ALL THE WIRES TO BE CONNECTED TO THE TBs IN THE JUNCTION BOX.
7. ALL JB METALLIC PART (DOOR) SHOULD BE CONNECTED TO EARTH BUS BAR BAR WITH 2.5 SQ.MM. COPPER GREEN WIRES.
8. TBs STOPPER/END CLAMPS SHALL BE PROVIDED TO HOLD THE TBs.
9. EARTH BOLT M6, EXTERNAL 02 Nos., INTERNAL 01 No.
10. NEOPRENE GASKET WILL BE PROVIDED ALL AROUD THE DOOR.
11. PROTECTION CLASS – IP65
12. QTY: 02 No. BOXES.
13. TOLERANCE AS PER IS 2102 (PART 1) : 1993
    – TABLE No. – 1 (FOR LINEAR DIMENSIONS)
    – DESIGNATION "C"
14. TAG PLATE WILL BE MADE OF SS.
15. JUNCTION BOXES ARE SUITABLE FOR MOUNTING ON WALL, COLOUMN AND 2" PIPE STANCHION WITH MOUNTING ACCESORIES (BOLT HEX M10X50MM, NUT HEX M10 (BRASS)
16. 2 NOS. FERRULES AND 2 NOS. LUGS FOR EARTH BOLT SUITABLE FOR 2.5 SQ.MM. WIRE WILL BE PROVIDED IN EACH BOX.

CONSULTANT: –					PROJECT: –					END USER: –		
REV	DRN.BY:	CHD.BY:	DATE:	APP.BY:	REMARKS	DRN.BY:	DIVESH	PO NO./5399/LOI/AG	PROJECTION	PYROTECH ELECTRONICS PVT.LTD. UNIT#2, UDAIPUR 313003	DRAWING No.	
01	DIVESH		21/04/23		AFTER RECIVING PO	CHD.BY:		PROJ.NO.: 202150/0		TITLE: – G.A. DRAWING OF 196 WAY JUNCTION BOX	202150	01
						APP.BY:		DEPT: DESIGN				
						DATE:	21/04/23	SCALE: NTS		CUSTOMER: –	SHEET 02 OF 33	REV.

ID.NO.5 4 004474 1 HVA-202150-GA

NOTE: ALL DIMENSIONS ARE IN mm
OVERALL TOLERANCE ± 2mm

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FILE NAME: HVA-202150-GA

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BOM IN PYROTECH SCOPE

S.No.	DESCRIPTION	ITEM NO.	QTY. PER BOX
01	JUNCTION BOX BODY	001	01 No.
02	FRONT DOOR	002	01 No.
03	CG PLATE	003	01 No.
04	TOP CANOPY	004	01 No.
05	EARTH BOLT (SIZE:– M6 X 25mm, NICKEL PLATED BRASS WITH GREEN SCREW HEAD)	005	03 Nos.
06	WALL MOUNTING BRACKET	006	04 Nos.
07	PVC CABLE TRAY	007	AS REQ.
08	FIXING HARDWARE	008	AS REQ.
09	Cu EARTH BUS BAR (25X3X150MM) SUITABLE FOR 2.5 SQ.MM. TERMINAL WIRE	009	01 No.
10	C–RAIL	010	AS REQ.
11	BLACK INSULATOR	011	01 No.
12	MS DOOR HANDLE	012	01 No.
13	TERMINALS ARE WAGO MAKE, TYPE –2.5 SQ.mm , WILL BE 6.6 POLYMIDE AND METALLIC PORTION SHALL BE COATED AGAINST RUST/CORROSION CAGE CLAMP (CAT NO.: 280 101 COLOUR : GREY) (WITH 20% SPARE)	013	196 Nos.
14	IP LOCK	014	02 Nos.
15	PIPE MOUNTING BRACKET WITH HEX BOLT M10X50MM. WITH NUT M10 (BRASS)	015	02 SETS.

CONSULTANT: –

PROJECT: –

END USER: –

REV	DRN.BY:	CHD.BY:	DATE:	APP.BY:	REMARKS
01	DIVESH		21/04/23		AFTER RECIVING PO

DRN.BY: DIVESH
CHD.BY:
APP.BY:
DATE: 21/04/23

PROJ.NO: HVAC/5399/LOI/AG
PROJ.NO: 202150/0
DEPT: DESIGN
SCALE: NTS

PROJECTION

PYROTECH ELECTRONICS PVT.LTD. UNIT#2, UDAIPUR 313003

TITLE: – G.A. DRAWING OF 196 WAY JUNCTION BOX

CUSTOMER: –

DRAWING No. 202150 01

SHEET 03 OF 33 REV.