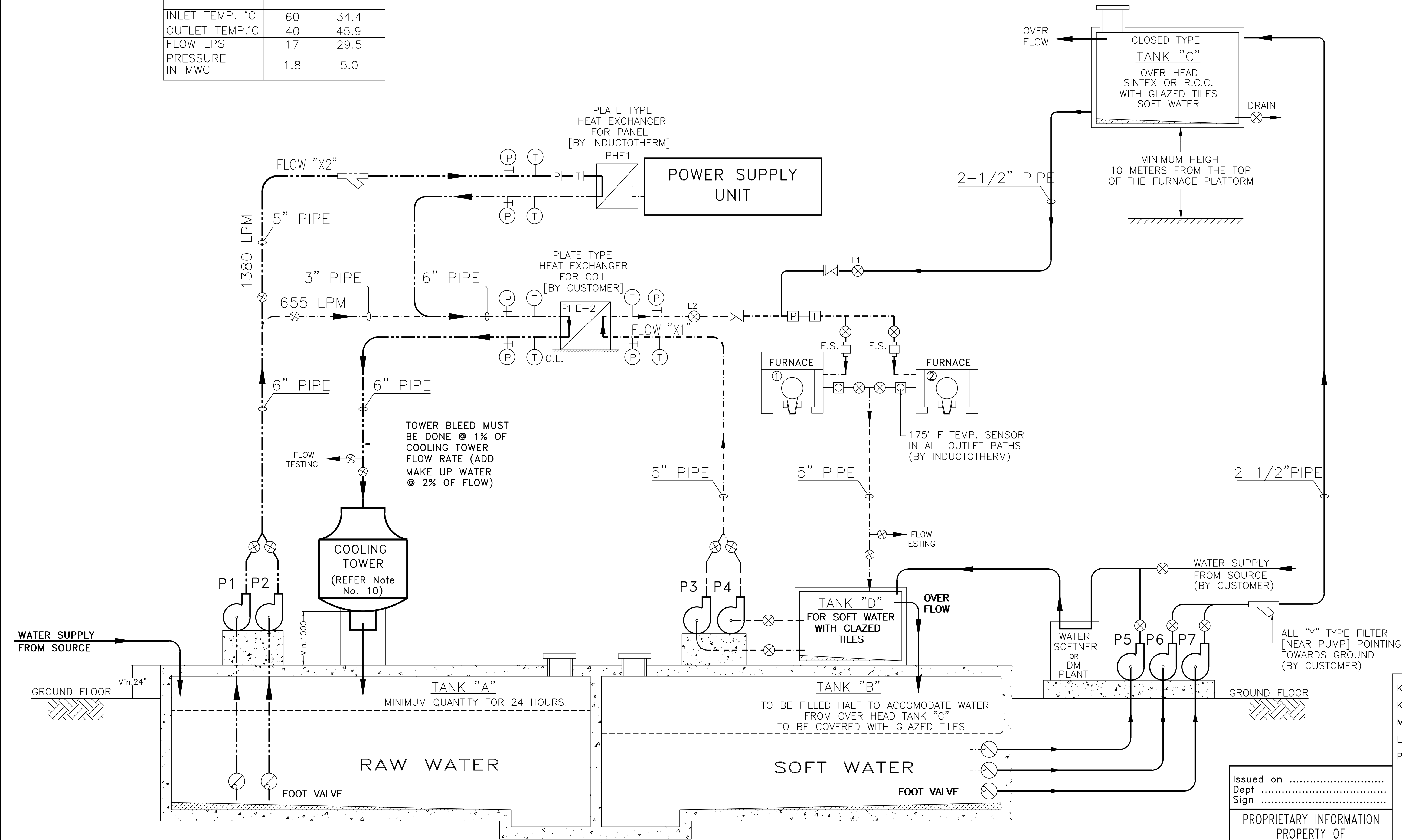


CAPACITY OF FURNACE	DETAILS OF PLATE TYPE TWIN HEAT EXCHANGER	FLOW OF SOFT/DM WATER FOR FURNACE COIL "X1"	FLOW OF RAW WATER "X2"	EMERGENCY FLOW	CAPACITY OF COOLING TOWER	PUMP FOR OVER HEAD TANK P6,P7	SOFT/DM WATER PUMP FOR COIL P3,P4	PUMP FOR SOFTNER/DM PLANT P5	RAW WATER PUMP P1,P2	CAPACITY OF TANK "A"	CAPACITY OF TANK "B"	CAPACITY OF TANK "C"	CAPACITY OF TANK "D"
4000 KW PT-R WITH 10000 Kg. x 2Nos. DURALINE FURNACE	GEA MAKE VT-20HL 101PLATES	1020LPM	1770 LPM	150 LPM PER FCE.	FLOW-2050 LPM INLET TEMP. =47°C OUTLET TEMP. =32°C	P6=DIESEL P7=ELECTRIC 420 LPM 20 MWC 28 PSI KDS 325 + 3 H.P. 65 SUC. 50 DEL.	1170 LPM 42 MWC 58 PSI KDS2050+ 20 H.P. 100 SUC. 80 DEL.	KDS 128 + 1 H.P. 50 SUC. 40 DEL.	2040 LPM 28 MWC 39 PSI	50000 Ltrs	50000 Ltrs	25000 Ltrs FOR 75 Min. (Approx.)	2000 Ltrs

HEAT EXCHANGER DATA		
	PRODUCT	SERVICE
INLET TEMP. °C	60	34.4
OUTLET TEMP.°C	40	45.9
FLOW LPS	17	29.5
PRESSURE IN MWC	1.8	5.0



IMPORTANT NOTES :

- [01] ALL TANKS SHOULD BE COMPLETELY COVERED FROM ALL SIDES.
- [02] BASIN OF COOLING TOWER TO BE CLOSED BY WOODEN BOARDS.
- [03] TOP OF UNDER GROUND TANKS TO BE MADE TWO FEET OR MORE ABOVE THE GROUND LEVEL TO PREVENT ENTRY OF RAIN/FLOOD WATER INTO THE TANK.
- [04] TANK "D" TO BE MADE ABOVE THE GROUND LEVEL.
- [05] USE G.I. PIPES LINE ONLY. DO NOT USE M.S. BLACK PIPES.
- [06] ALL "Y" TYPE LINE FILTERS TO BE CLEANED PERIODICALLY.
- [07] IT IS ASSUMED THAT COOLING TOWER IS PLACED AT ONE MTR. ABOVE ON TOP OF THE RAW WATER TANK. ACCORINGLY THE HEAD OF RAW WATER PUMPS ARE SUGGESTED. INCASE OF CHANGE IN LEVEL ADD THE DIFFERENCE IN PUMPS' HEAD.
- [08] DISTILLED WATER IS TO BE USED IN PANEL.
- [09] FOOT VALVE TO BE FITTED ABOVE ONE FEET OR MORE FROM BOTTOM OF THE TANK. FRICTIONLESS WITH FULL OPENING FOOT VALVE SHOULD BE USED.
- [10] THE MINIMUM CLEARANCE FOR AIR SUCTION AND AIR DELIVERY OF COOLING TOWER SHOULD BE MINIMUM 3 METERS (10 FEET).
- [11] ALL MATERIALS BY CUSTOMER EXCEPT MENTIONED BY "INDUCTOTHERM"
- [12] PUMP & PIPE LINE SELECTION BASED ON 100mtrs. LENGTH (TO & FRO) IF YOU PIPE LINE MORE THAN 100mtrs. PLEASE CONSULT PROJECT DEPT., INDUCTOTHERM (I) PVT. LTD., AHMEDABAD

MOST IMPORTANT NOTE FOR COIL PROTECTION :

- (01) MAKE PROVISION OF KEEPING THE OVER HEAD TANK FULL BY INSTALLING ALARMS OR WATER LEVEL CONTROLLER (BY CUSTOMER).
- (02) DURING NORMAL OPERATION BOTH VALVES L1 & L2 SHOULD BE IN OPEN POSITION.
- (03) VALVE L1 IS TO BE CLOSED WHEN FURNACE IS NOT OPERATING TO AVOID EMPTYING THE OVERHEAD TANK.
- (04) VALVE L1 & L2 SHOULD BE INSTALLED NEAR THE FURNACE PLATFORM FOR EASY & PROMPT OPERATION.
- (05) CHECK NON RETURN VALVES OPERATIONS BEFORE STARTING THE FURNACE.

DESCRIPTION OF SYMBOLS :

- ① -TEMP. GAUGE 0°-100° C (BY CUSTOMER)
- Ⓟ -PRESSURE GAUGE 0-100 PSI WITH ISOLATOR (BY CUSTOMER)
- ⊗ -LINE VALVE (BY CUSTOMER)
- Y - "Y" TYPE FILTER (BY CUSTOMER)
- NRV -NON RETURN VALVE (BY CUSTOMER).
- FOV - FOOT VALVE (BY CUSTOMER)
- PS -PRESSURE SWITCH 0-100 PSI (BY INDUCTOTHERM)
- TS -TEMP. SWITCH 0°-100° C (BY INDUCTOTHERM)
- FS - F.S. - FLOW SWITCH (BY INDUCTOTHERM)
- TS -TEMP. SENSOR 175° F (BY INDUCTOTHERM)

"X1" SOFT WATER FLOW- FOR FURNACE COIL THROUGH HEAT EXCHANGER.

"X2" RAW WATER FLOW FOR COOLING SOFT WATER & DISTILLED WATER THROUGH HEAT EXCHANGER

SPECIFICATION OF WATER :

- DISTILLED WATER (FOR PANEL) :-
CONDUCTIVITY SHOULD BE LESS THAN 10 Micro mhos/cm
TOTAL UNDISSOLVED (SUSPENDED) SOLIDS SHOULD BE NIL.
PH VALUE - 7 .
- SOFT OR DM WATER (FOR COIL) :-
MAXIMUM HARDNESS SHOULD LESS THAN 50 PPM.
MAXIMUM CONDUCTIVITY SHOULD BE LESS THAN 350 Micro mhos/cm.
TOTAL UNDISSOLVED (SUSPENDED) SOLIDS SHOLD BE LESS THAN 10 PPM.
PH VALUE BETWEEN 7.2 TO 7.8
- RAW WATER (FOR COOLING TOWER CIRCUIT) :-
AVAILABLE FROM SOURCE BUT CLEAN AND FREE FROM CHEMICALS AND INSOLUBLE IMPURITIES.

KW : 4000KW PT-R

KG. : 10000 x 2

METAL : STEEL/IRON

LINE VOLTAGE : 575 VOLTS

PANEL LOCATION : UNDER

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PROPRIETARY INFORMATION

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Code	Zone	Brief Record	Date	Drn.	Chd.	Appd
Revision Details						
INDUCTOTHERM (INDIA) PVT. LTD., AHMEDABAD						
Customer:						
Title: TYPICAL WATER SCHEMATIC FOR 4000KW PT-R						
Drn. by		04.06.05	Drawing No.			Rev.
Chd. by		04.06.05	D-91569			B
Appd. by		04.06.05	Used on/Drng. No.			
Scale	SCHMATIC		Sheet No.	1	OF	1