AIR COOLED CHILLER SCHEDULE

MARK	ACC-1	
MANUFACTURER/MODEL	TRANE / RTAF-170	
REFRIGERANT	R-134A	
MIN. CAPACITY	170 TONS	
	EVAPORATOR	
EWT (°F)	54.0	
LWT (°F)	44.0	
FLOW RATE (gpm)	375	
PRESSURE DROP (ft)	12.20	
FLUID TYPE (%)	30% ETHYLENE GLYCOL, 70% PURE WATER	
CIRCUIT NO.	2	
FOULING FACTOR (ft² °F hr/ Btu)	0.00010	
CONNECTION SIZE	5"	
NO. COMPRESSOR	2	
DESIGN WORKING PRESSURE (psig)	150	
	CONDENSER	
ENTERING AIR (°F)	95.0	
	PERFORMANCE DATA	
TOTAL KW	174.6	
COMPRESSOR KW	162.9	
FAN KW	10.91	
RATED EER	10.63	
IPLV EER	177.82	
SOUND DATA	COMPRESSOR SOUND	
A-WEIGHTED SOUND PRESS. / POWER	73 dBA / 101 dBA	
	ELECTRICAL	
	CIRCUIT 1	CIRCUIT 2
RLA PER COMPRESSOR	136.00	115.00
FAN QTY	12	
MIN. CIRCUIT AMPACITY (AMPS)	321	
MAX FUSE / BREAKER	450	
VOLTAGE / PHASE / HZ	480/3/60	
TYPE STARTER	WYE-DELTA	
	OTHER	
OPERATING WT. (lbs)	10,159	
REFRIGERANT WT.	158.9 LBS	

1. PROVIDE INDEPENDENT REFRIGERANT CIRCUIT FOR EACH COMPRESSOR.
2. PROVIDE A SINGLE POINT POWER CONNECTION THAT FEEDS CHILLER & CONTROL TRANSFORMER.
3. UNIT SHALL BE 1-PIECE OR PROVIDE NECESSARY TRIM KIT TO CONNECT THE PIECES AS WELL AS ALL INTERCONNECTING PIPING AND WIRING.
4. UNLOAD FROM 100% TO 25%.
5. PROVIDE FACTORY MOUNTED AND WIRED CONTROL TRANSFORMER.
6. PROVIDE MAIN POWER SUPPLY DISCONNECT.
7. 1 YEAR REFRIGERANT WARRANTY.
8. INCLUDE ANALOG INPUT (0-10 VDC OR 4-20MA) FOR REMOTE SET POINT RESET.
9. PROVIDE NEOPRENE TYPE ISOLATORS.
10. PROVIDE 120/1 CIRCUIT FOR PIPE HEAT TRACING.

PUMP SCHEDULE

MARK	MANUFACTURER MODEL NO.	SERVICE	TYPE	GPM	HEAD (FT.)	BHP/RPM	MOTOR HP	NPSH	ELECTRICAL	WEIGHT (LBS)	REMARKS
P 4	TACO FI3013D	CHILLED WATER	END SUCTION	440	130	20.03 / 1760	25.0	7.0 FT	480/3	1,092	1
P 5	TACO FI3013D	CHILLED WATER	END SUCTION	440	130	20.03 / 1760	25.0	7.0 FT	480/3	1,092	1

1 MECHANICAL CONTRACTOR TO PROVIDE VARIABLE FREQUENCY DRIVE WITH INTEGRAL DISCONNECT SWITCH. ELECTRICAL CONTRACTOR TO INSTALL. VARIABLE FREQUENCY DRIVE TO BE USED FOR SYSTEM BALANCING AND LOCKED AT CONSTANT SPEED ONCE SYSTEM IS BALANCED.

EXPANSION TANK SCHEDULE

MARK	MANUFACTURER MODEL NO.	SERVICE	SIZE	DIMENSIONS	INSTALLATION	SHIPPING WGT. LBS.
ET 2	TACO CA215-125	CHILLED WATER	57 GAL.	20" DIA. x 59" H	VERTICAL	290

AIR SEPARATOR SCHEDULE

MARK	MANUFACTURER MODEL NO.	LISTED GPM MAX.	SERVICE	PD @ LISTED GPM	SHIPPING WGT. LBS.	PIPE SIZE
AS 2	TACO ACT08F-125	440	CHILLED WATER	0.50 FT	430	8"

DIFFUSER & GRILLE SCHEDULE

MARK	CFM RANGE	NECK SIZE	THROW	OVERALL SIZE	MFG.	MODEL	MOUNT	REMARKS
SD-1 ---	---	FIELD VERIFY	4-WAY	24x24	TITUS	OMNI	LAY-IN	1 2 3
SD-2 ---	0-150	6"Ø	4-WAY	12x12	TITUS	OMNI	SURFACE	1 2 3
SD-3 ---	0-175	6"Ø	4-WAY	24x24	TITUS	OMNI	SURFACE	1 2 3
SD-4 ---	155-300	8"Ø	4-WAY	24x24	TITUS	OMNI	SURFACE	1 2 3
SD-5 ---	---	FIELD VERIFY	1-WAY	FIELD VERIFY	TITUS	ML39	SURFACE	1 2 3
SG-1 ---	---	FIELD VERIFY	DOUBLE DEFLECT	FIELD VERIFY	TITUS	300RL	SURFACE	1 2 3
RG-1 ---	965-2000	22"x22"	---	24"x24"	TITUS	50F	LAY-IN	1 3
RG-2 ---	---	FIELD VERIFY	---	FIELD VERIFY	TITUS	300RLHD	SURFACE	1 3
RG-3 ---	---	FIELD VERIFY	---	FIELD VERIFY	TITUS	MLR-39	SURFACE	1 3
EG-1 ---	0-400	10"x10"	---	12"x12"	TITUS	50F	SURFACE	1 3

FLUE DRAFT INDUCER SCHEDULE

MARK	MFR MODEL	SERVICE	AIRFLOW (CFM)	E.S.P. (IN WC)	FRPM	MOTOR (HP)	OPERATING POWER (HP)	ELECTRIC	WEIGHT (LBS)	REMARKS
DI 1	TJERNLUND VSAD10-230	BOILER FLUE DRAFT INDUCER	1440	0.18"	2300	1.0	---	208/3	101	1 2 3 4

REMARKS:

1. PROVIDE WITH MODULATING PRESSURE CONTROLLER, TJERNLUND MODEL MPCI.
2. PROVIDE WITH MULTIPLE APPLIANCE CONTROLLER , TJERNLUND MODEL MAC1E.
3. PROVIDE WITH VARIABLE FREQUENCY DRIVE, TJERNLUND MODEL VFP-1HP208 MPC.
4. DRAFT INDUCER SIZING BASED ON 1800 MBH BOILERS (ONE OPERATING / ONE SPARE). EXISTING 20"Ø FLUE THAT RUNS 77 FT HORIZONTAL AND 26 FT VERTICAL WITH (2) 90° BENDS AND (2) 45° BENDS.

CHECKING PRINT
DESIGNER DATE: CHECKED: DATE: CORRECTED: DATE:
DRAWN DATE: BACKCHECKED: DATE: APPROVED: DATE:

GPD GROUP
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NO.	REVISIONS	BY	DATE
-	95% CD SUBMITTAL	-	02.26.20
-	BID DOCUMENTS REISSUED	-	08.20.20
1	ADDENDUM NO. 3	-	10.23.20

DESIGNED AAA CHECKED AAA
DRAWN AAA IN CHARGE AAA

LORAIN

MECHANICAL SCHEDULES

M.P. 139.5

PROJECT 53-20-02/03

SP5
M-601

OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION