RADIANT CEILING PANEL PERFORMANCE SCHEDULE

TAG	FLOW RATE (GPM)	HEATING OUTPUT (MBH)	EWT (°F.)	ROOM TEMP (°F.)	TUBES	WIDTH (IN)	LENGTH (IN)	VALVE	BASIS OF DESIGN - RITTLING	
									SERVICE	MODEL
RCP-1	2.0	0.95	160.0	70.0	2	12"	48"	N/A	HWS/R	LINEAR RADIANT

UNITS SCHEDULED MAY REPRESENT MULTIPLE UNITS, COORDINATE WITH DRAWINGS.

GAS BOILER PERFORMANCE SCHEDULE

TAG	HEATING INPUT (MBH)	HEATING OUTPUT (MBH)	MIN. HTG. CAPACITY (MBH)	FUEL	A.F.U.E. (%)	DOM. FLOW @ 75F RISE (GPM)	INTAKE/ VENT DIA.(IN)	ELECTRICAL REQUIREMENTS			BASIS OF DESIGN - RINNAI	
								HP	WATTS	V/PH/HZ	SERVICE	MODEL
B-1	110.0	101.0	26.0	NG	96.1	3.2	3"/3"	-	145	120/1/60	HWS/R	E110C

UNITS SCHEDULED MAY REPRESENT MULTIPLE UNITS, COORDINATE WITH DRAWINGS.

TEMPERATURE MIXING VALVE PERFORMANCE SCHEDULE

TAG	FLOW RATE (GPM)	INLET CONNECTION (INCHES)	OUTLET CONNECTION (INCHES)	W.P.D (PSIG)	SET POINT (DEGREES F)	PROVIDE SPARE CARTRIDGE (Y) OR (N)	BASIS OF DESIGN - SYMMONS		
							SERVICE	ARRANGEMENT	MODEL
TMV-1	4.0	½"	½"	5.0	110°F	Y	DOM HW	WALL	5-120-W

UNITS SCHEDULED MAY REPRESENT MULTIPLE UNITS, COORDINATE WITH DRAWINGS.

WALL HEATER PERFORMANCE SCHEDULE

HEATING PERFORMANCE BASED ON 160°F ENTERING WATER & 60°F ENTERING AIR TEMPERATURE

TAG	OUTPUT (MBH)	FLOW RATE (GPM)	W.P.D. (FT.W.G)	AIRFLOW (CFM)	ELECTRICAL REQUIREMENTS		BASIS OF DESIGN - BEACON MORRIS		
					AMPS	V/PH/HZ	VALVE	SERVICE	MODEL
KSH-1	3.5	2.0	1.5	115	1.5	120/1/60	N/A	HEAT	K42
KSH-2	7.1	2.0	1.5	115	1.5	120/1/60	N/A	HEAT	K84
WH-1	7.1	2.0	1.5	115	1.5	120/1/60	N/A	HEAT	W84
WH-2	3.5	2.0	1.5	115	1.5	120/1/60	N/A	HEAT	W42
WH-3	10.8	2.0	1.5	115	1.5	120/1/60	N/A	HEAT	W120
WH-4	3.5	2.0	1.5	115	1.5	120/1/60	N/A	HEAT	W42 (SURFACE MOUNT)

UNITS SCHEDULED MAY REPRESENT MULTIPLE UNITS, COORDINATE WITH DRAWINGS.
INSTALL WALL HEATERS WITH BOTTOM OF UNIT 8" AFF

PLUMBING FIXTURE CONNECTION SCHEDULE

TAG	DESCRIPTION	SAN	VENT	CW	HW
P-1	FLOOR MOUNTED TT WC	3"	2"	1/2"	-
P-1A	ADA FLOOR MOUNTED TT WC	3"	2"	1/2"	-
P-2	COUNTERTOP LAVATORY	1-1/2"	1-1/2"	1/2"	1/2"
P-2A	ADA COUNTERTOP LAVATORY	1-1/2"	1-1/2"	1/2"	1/2"
P-2B	ADA WALL HUNG LAV	1-1/2"	1-1/2"	1/2"	1/2"
P-2C	WALL HUNG LAV	1-1/2"	1-1/2"	1/2"	1/2"
P-3	TUB/SHOWER	2"	2"	1/2"	1/2"
P-3A	ADA TUB/SHOWER	2"	2"	1/2"	1/2"
P-4	SINGLE BOWL SS KITCHEN SINK*	1-1/2"	1-1/2"	1/2"	1/2"
P-4A	ADA SINGLE BOWL SS KITCHEN SINK*	1-1/2"	1-1/2"	1/2"	1/2"
P-5	WASHING MACHINE HOOK-UP	2"	1-1/2"	1/2"	1/2"
FD-1	FLOOR DRAIN (W/ TRAP PRIMER)	2"	1-1/2"	1/2"	-
FPHB	FREEZE PROOF HOSE BIBB	-	-	3/4"	-

MINIMUM SIZE OF BELOW SLAB SANITARY & VENT PIPING SHALL BE 2".
PROVIDE TRAP PRIMERS ON FLOOR DRAINS, CONNECT TO NEAREST FIXTURE.
UNITS SCHEDULED MAY REPRESENT MULTIPLE UNITS, COORDINATE WITH DRAWINGS.
* - PROVIDE DISHWASHER CONNECTIONS, PIPING AND CONNECT TO DISHWASHER

FAN PERFORMANCE SCHEDULE

TAG	AIRFLOW (CFM)	T.S.P (IN.W.G)	NOISE (SONES)	RPM	DRIVE	ELECTRICAL REQUIREMENTS					BASIS OF DESIGN - PANASONIC(P), BROAN (B)		
						HP	BHP	WATTS	AMPS	V/PH/HZ	SERVICE	ARRANGEMENT	MODEL
FL-1	70	0.25	1.5	-	DIRECT	-	-	84.0	0.7	120/1/60	BATHROOM	CEILING	144FL(B)
EF-1	40-80	0.25	0.3	-	DIRECT	-	-	22.0	0.2	120/1/60	BATHROOM	CEILING	FV-08VKI(P)
EF-2	94	0.25	0.8	-	DIRECT	-	-	31.0	0.3	120/1/60	BATHROOM	CEILING	FV-11VQ3(P)

EF-1 - CONTINUOUS OPERATION AT 40CFM AND SWITCHED OPERATION AT 82CFM WITH A 5-MINUTE DELAY TIMER PRIOR TO REVERTING BACK TO THE LOWER RATE.
EF-2 - PROVIDE WITH A 5-MINUTE DELAY TIMER TO KEEP THE FAN OPERATING AFTER SWITCHED OFF.
UNITS SCHEDULED MAY REPRESENT MULTIPLE UNITS, COORDINATE WITH DRAWINGS.

PUMP PERFORMANCE SCHEDULE

TAG	FLOW RATE (GPM)	HEAD (FT.W.G)	IMPEL SIZE	RPM	EFF %	ELECTRICAL REQUIREMENTS					BASIS OF DESIGN - TACO		
						HP	BHP	WATTS	AMPS	V/PH/HZ	SERVICE	ARRANGEMENT	MODEL
CP-1	2.0	15.0	-	3250	-	1/40	-	-	0.52	120/1/60	ZONE 1	INLINE CART	008
CP-2	2.0	15.0	-	3250	-	1/40	-	-	0.52	120/1/60	ZONE 2	INLINE CART	008
CP-3	2.0	15.0	-	3250	-	1/40	-	-	0.52	120/1/60	ZONE 3	INLINE CART	008
CP-4	2.0	15.0	-	3250	-	1/40	-	-	0.52	120/1/60	ATTIC MECH RM*	INLINE CART	008

UNITS SCHEDULED MAY REPRESENT MULTIPLE UNITS, COORDINATE WITH DRAWINGS.
* - ADD ALTERNATE #4

BFP PERFORMANCE SCHEDULE

* - BODY STYLE DESIGNATIONS REFERENCED ARE AS FOLLOWS (DC) = DOUBLE CHECK, (DDC) = DOUBLE DETECTION CHECK, (DCA) = DOUBLE CHECK WITH ATMOSPHERIC VENT, (RPZ) = DOUBLE CHECK W. REDUCED PRESSURE ZONE RELIEF VALVE.

TAG	SIZE	FLOW RATE (GPM)	W.P.D (PSI)	MAX. WORK'G. TEMPERATURE (DEGREES F)	MAX. WORK'G. PRESSURE (PSI)	TESTABLE (Y) OR (N)	BASIS OF DESIGN - WATTS		
							BODY STYLE*	SERVICE	MODEL
BFP-1	3/4"	20.0	13.0	180.0	175	Y	RPZ	WATER ENTRANCE	957
BFP-2	½"	10.0	15.0	180.0	175	Y	RPZ	BOILER FILL	957

UNITS SCHEDULED MAY REPRESENT MULTIPLE UNITS, COORDINATE WITH DRAWINGS.
UNITS MUST BE SUITABLE FOR USE IN A VERTICAL CONFIGURATION.

EXPANSION TANK PERFORMANCE SCHEDULE

TAG	TANK VOLUME (GAL)	ACCEPTANCE VOLUME (GAL)	MIN. REQ'D. ACCEPT.VOL. (GAL)	MAX. WORK'G. TEMPERATURE (DEG F)	MAX. WORK'G. PRESSURE (PSI)	WEIGHT (LBS)	BASIS OF DESIGN - AMTROL		
							MOUNTING	SERVICE	MODEL
ET-1	7.6	2.5	2.3	240	100	18	INLINE	HWS/R	III-P/I-1/4

ET-1 - FILL-TROL PACKAGED EXPANSION TANK WITH AIR SEPARATOR AND VENT.
UNITS SCHEDULED MAY REPRESENT MULTIPLE UNITS, COORDINATE WITH DRAWINGS.

LOUVER PERFORMANCE SCHEDULE

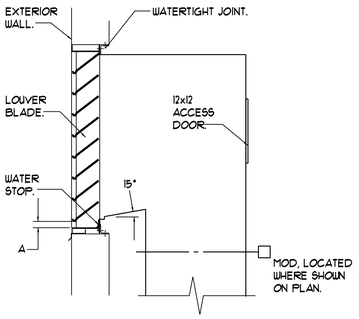
TAG	AIR FLOW (CFM)	SP LOSS (IN.W.G)	AIR VEL. (FPM)	SIZE (INCHES) (W x H)	FREE AREA (SQ.FT)	DRAINABLE (Y) OR (N)	BLADE ANGLE & FRAME DEPTH	BASIS OF DESIGN - RUSKIN	
								SERVICE	MODEL
L-1	210	0.01	308.7	24x12	0.68	Y	35°, 6"	EF EXHAUST	ELF6375DX
L-2	140	0.01	205.8	24x12	0.68	Y	35°, 6"	EF EXHAUST	ELF6375DX
L-3	140	0.01	205.8	24x12	0.68	Y	35°, 6"	EF EXHAUST	ELF6375DX

FINTUBE PERFORMANCE SCHEDULE

HEATING PERFORMANCE BASED ON 160°F AVERAGE WATER TEMP. & 60°F ENTERING AIR TEMPERATURE

TAG	OUTPUT (MBH/FT)	FLOW RATE (GPM)	MOUNT'G. HEIGHT(IN)	ENCLOSURE HEIGHT(IN)	ELEMENT LENGTH(FT)	ENCLOSURE LENGTH(FT)	BASIS OF DESIGN - STERLING			
							TUBE SIZE(IN)	FINS/FOOT	VALVE TAG	MODEL
FTR-1	0.56	2.0	0	9-13/16"	*	**	3/4"	55	N/A	SENIOR

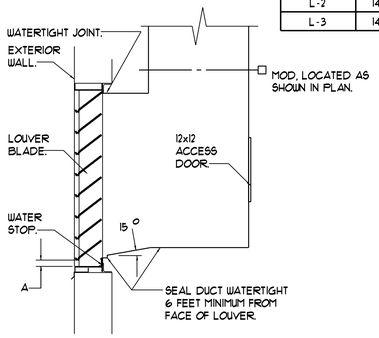
* - ELEMENT LENGTH SHALL BE AS REQUIRED TO MEET LOAD INDICATED ON DRAWINGS.
** - ENCLOSURE LENGTH SHALL BE ELEMENT LENGTH PLUS 12" OR WALL TO WALL.
UNITS SCHEDULED MAY REPRESENT MULTIPLE UNITS, COORDINATE WITH DRAWINGS.



LOUVER DETAIL WITH DUCT FROM BELOW

NTS

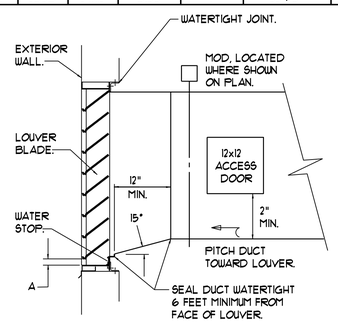
NOTE IF DIMENSION "A" IS LESS THAN 1 INCH SEE MODIFIED LOUVER DETAIL THIS SHEET.



LOUVER DETAIL WITH DUCT FROM ABOVE

NTS

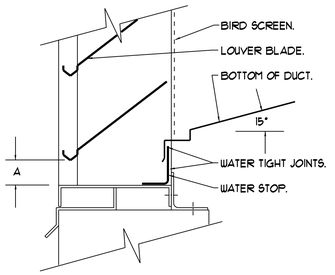
NOTE IF DIMENSION "A" IS LESS THAN 1 INCH SEE MODIFIED LOUVER DETAIL THIS SHEET.



LOUVER DETAIL WITH HORIZONTAL DUCT

NTS

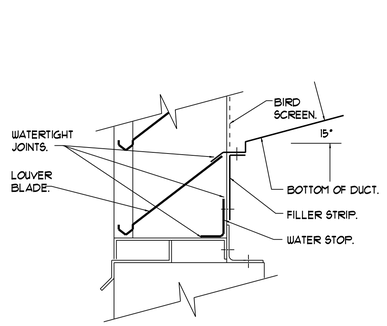
NOTE IF DIMENSION "A" IS LESS THAN 1 INCH SEE MODIFIED LOUVER DETAIL THIS SHEET.



LOUVER CONNECTION DETAIL

NTS

NOTE TYPICAL FOR LOUVERS AND BLOCK VENTS. IF DIMENSION "A" IS LESS THAN 1 INCH SEE MODIFIED LOUVER DETAIL AT RIGHT (LOUVERS ONLY).



MODIFIED LOUVER DETAIL

NTS

MECHANICAL AND PLUMBING SYMBOLS AND ABBREVIATIONS LEGEND

NOTE - USE SYMBOLS AND ABBREVIATIONS AS APPLICABLE FOR THIS MECHANICAL DRAWING SET. SOME SYMBOLS AND ABBREVIATIONS IN THIS LEGEND MAY NOT APPLY.

SYMBOL	DESCRIPTION
—CA—	COMPRESSED AIR PIPING (CA)
—C—	CONDENSATE DRAIN PIPING (C)
—G—	GAS PIPING (G)
—HWR—	HOT WATER RETURN PIPING (HWR)
—HWS—	HOT WATER SUPPLY PIPING (HWS)
—RL—	REFRIGERANT LIQUID PIPING (RL)
—RG—	REFRIGERANT GAS PIPING (RG)
- - - - -	SANITARY PIPING BELOW FLOOR (SAN)
———	SANITARY PIPING ABOVE FLOOR (SAN)
— — — —	SANITARY VENT PIPING
—RWL—	RAINWATER LEADER ABOVE SLAB (RWL)
—·—·—	COLD WATER PIPING (CW)
—·—·—	HOT WATER PIPING (HW)
·····	RECIRCULATED HOT WATER PIPING (RHW)
	PIPE CAP
	DIRECTION OF FLUID FLOW
	ELBOW UP
	ELBOW DOWN
	PIPE TEE UP
	PIPE TEE DOWN
	PIPE REDUCER
	PIPE WITH GUIDE
	PIPE WITH ANCHOR
	BUTTERFLY VALVE
	OS & Y GATE VALVE

SYMBOL	DESCRIPTION
	BACKFLOW PREVENTER (BFP)
	CHECK VALVE
	BALANCING VALVE (ADJUSTABLE)
	AUTOMATIC FLOW CONTROL VALVE
	RELIEF VALVE (RV)
	BALL VALVE
	BALL VALVE
	3/4" BALL VALVE WITH 3/4" HOSE END
	GATE VALVE
	PRESSURE REDUCING VALVE
	FUSIBLE VALVE
	STRAINER W/BLOWDOWN BALL VALVE
	2-WAY CONTROL VALVE
	SOLENOID VALVE
	3-WAY CONTROL VALVE
	3-WAY CONTROL VALVE (TOP VIEW)
	TRIPLE-DUTY VALVE
	UNION
	PIPE FLANGE
	PUMP WITH FLANGES
	CARTRIDGE TYPE INLINE PUMP
	VERTICAL INLINE PUMP
FC	FLEXIBLE PIPE CONNECTION (FC)
	PITCH DOWN
	PETCOCK

SYMBOL	DESCRIPTION
(PG)	PRESSURE GAGE WITH GAGE COCK
(T)	THERMOMETER IN WELL
(WFS)	WATER FLOW SWITCH
(PS)	PRESSURE SWITCH OR SENSOR
(EHS)	EMERSION TEMPERATURE SENSOR
(SD)	DUCT MOUNTED SMOKE DETECTOR
(RS)	ROOM TEMPERATURE SENSOR
(T) (S)	THERMOSTAT OR SENSOR ON WALL
(T) G	TSTAT OR SENSOR W/ TAMPERPROOF GUARD
(V)	MANUAL AIR VENT
(2)	NOTE TAG (NUMBER)
(A) 250	AIR DEVICE TAG (LETTER) WITH CFM
(2)	ROOM NUMBER
	TURNING VANES
	DUCT W/MANUAL DAMPER
	DUCT W/SQUARE-TO-ROUND TRANSITION
	FLEXIBLE DUCT
MOD	MOTOR OPERATED DAMPER
	AIRFLOW OUT
	AIRFLOW IN
ϕ	DIAMETER OR FLAT OVAL
	FIRE DAMPER
	ROUND OR FLAT OVAL DUCT DOWN
	ROUND OR FLAT OVAL DUCT UP
	SUPPLY DIFFUSER
	RETURN GRILLE
	WATER HAMMER ARRESTOR

ABBREVIATION	DESCRIPTION
AAV	AUTOMATIC AIR VENT
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AMPS	AMPERES
AP	ACCESS PANEL
APD	AIR PRESSURE DROP
AS-*	AIR SEPARATOR TAG
ATC	AUTOMATIC TEMPERATURE CONTROL
B-*	BOILER TAG
BFP-*	BACKFLOW PREVENTER TAG
BHP	BRAKE HORSEPOWER
BTUH	BRITISH THERMAL UNITS PER HOUR
CFM	CUBIC FEET PER MINUTE
CO	CLEANOUT
CUH-*	CABINET UNIT HEATER TAG
CP-*	CIRCULATING PUMP TAG
Cv	VALVE COEFFICIENT
CW	COLD WATER
DB	DRY BULB
DC	DOUBLE CHECK
DCA	DOUBLE CHECK ATMOSPHERIC
DEG F	DEGREES FAHRENHEIT
DIA	DIAMETER
DIW	DOWN IN WALL
DN	DOWN
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE

ABBREVIATION	DESCRIPTION
EDB	ENTERING DRY BULB
EER	ENERGY EFFICIENCY RATIO
EF-*	EXHAUST FAN TAG
EFF	EFFICIENCY
ESP	EXTERNAL STATIC PRESSURE
ET-*	EXPANSION TANK TAG
EWB	ENTERING WET BULB
EWT	ENTERING WATER TEMPERATURE
EXG	EXISTING
EXH	EXHAUST
FC	FLEXIBLE CONNECTION
FCO	FLOOR CLEANOUT
FD	FIRE DAMPER
FD-*	FLOOR DRAIN TAG
FLA	FULL LOAD AMPS
FPHB	FROST PROOF HOSE BIBB
FPM	FEET PER MINUTE
FPYH	FROST PROOF YARD HYDRANT
FT	FEET
FTR-*	FINTUBE RADIATION TAG
GA.	GAGE
GAL	GALLONS
GPM	GALLONS PER MINUTE
HC-*	HEATING COIL TAG
HP	HORSEPOWER
HW	HOT WATER
HWS/R	HOT WATER SUPPLY AND RETURN

ABBREVIATION	DESCRIPTION
I=B=R	INSTITUTE OF BOILER AND RADIATOR MANUFACTURERS
IFWH-*	INDIRECT FIRED WATER HEATER TAG
IN.	INCHES
L-*	LOUVER TAG
LAT	LEAVING AIR TEMPERATURE
LB	POUNDS
LRA	LOCKED ROTOR AMPS
LWCO	LOW WATER CUTOUT
LWT	LEAVING WATER TEMPERATURE
MAX	MAXIMUM
MBH	THOUSANDS OF BTU PER HOUR
MCA	MINIMUM CIRCUIT AMPACITY
MIN	MINIMUM
NC	NOISE CRITERION
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OA	OUTSIDE AIR
O.D.	OUTSIDE DIAMETER
OPD	OVERCURRENT PROTECTIVE DEVICE
P-*	PLUMBING FIXTURE TAG
PSIA	POUNDS PER SQUARE INCH ABSOLUTE
PSIG	POUNDS PER SQUARE INCH GAGE
PVC	POLYVINYL CHLORIDE (PIPE)
RA	RETURN AIR
RD	ROOF DRAIN
RHW	RECIRCULATED HOT WATER

ABBREVIATION	DESCRIPTION
RLA	RUNNING LOAD AMPS
RPM	REVOLUTIONS PER MINUTE
RPZ	REDUCED PRESSURE ZONE
RTU	ROOM TEMPERATURE SENSOR
RV	RELIEF VALVE
RWL	RAINWATER LEADER
SA	SUPPLY AIR
SAN	SANITARY (DRAIN & WASTE)
SP	STATIC PRESSURE
SQFT	SQUARE FEET
ΔT	TEMPERATURE DIFFERENTIAL
TEMP.	TEMPERATURE
TCP	TEMPERATURE CONTROL PANEL
TMV-*	THERMOSTATIC MIXING VALVE TAG
TSP	TOTAL STATIC PRESSURE
TYP	TYPICAL
VB	VACUUM BREAKER
VFD	VARIABLE FREQUENCY INVERTER DRIVE
VTR	VENT THRU ROOF
V/PH/HZ	VOLTS/PHASES/HERTZ
WB	WET BULB
WCO	WALL CLEANOUT
WG	WATER GAGE
WPD	WATER PRESSURE DROP
WSA	WIRE SIZING AMPS
WTD	WATER TEMPERATURE DROP
W/	WITH

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SHEET
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