

AT MAXIMUM BTU/HR INPUT,  
 MAINTAIN MINIMUM  
 GAS PRESSURE AT 4.0" W.C.  
 MAX. GAS PRESSURE=14" W.C.

\* MANUAL GAS  
 SHUTOFF  
 GAS REGULATOR  
 (SEE NOTE 9)

HIGH TEMP. SYSTEM  
 RETURN (i.e. 140°F)  
 LOW TEMP. SYSTEM  
 RETURN (i.e. 100°F)

SHELL DRAIN  
 VALVE

DHW SYSTEM  
 PUMP

AUTOMATIC AIR  
 VENT

BUFFER  
 TANK

RELIEF VALVE

(NOTE 4)

HEADER SENSOR  
 (SEE NOTE 6)  
 2 TO 10 FEET  
 (SEE NOTE 6)

SYSTEM AIR  
 SEPARATOR

SYSTEM PUMP

PRESSURE  
 REDUCING  
 FILL VALVE

WATER  
 SUPPLY

DIAPHRAGM  
 TYPE  
 EXPANSION  
 TANK

SYSTEM  
 SUPPLY

NOTES:

1. FOR ACTUAL SIZES AND LOCATIONS OF PIPING AND OTHER CONNECTIONS TO THE HEATER, SEE DIMENSIONAL DRAWING.
2. SHELL DRAIN VALVE AND CONDENSATE HOSE SHOULD BE ARRANGED TO PERMIT THE FLUIDS TO DRAIN FREELY, BY GRAVITY, TO A FLOOR DRAIN. RELIEF VALVE DISCHARGE SHOULD BE PIPED TO THE NEAREST FLOOR DRAIN. WHEN NO FLOOR DRAIN IS AVAILABLE, THE RELIEF VALVE DISCHARGE SHOULD BE PIPED VERTICALLY TO A HEIGHT 18" ABOVE THE FLOOR.
3. ALL (\*) ITEMS ARE INCLUDED SEPARATELY IN SHIPMENT.
4. LOCATE WATER INLET AND OUTLET FITTINGS (i.e. UNIONS, ELBOWS, ETC.) A MINIMUM OF 6" FROM HEATER FITTINGS, TO PREVENT INTERFERENCE WITH REMOVAL OF BOILER PANELS AND COVERS. ALL PIPING AND ELECTRIC CONNECTIONS (SERVICE SWITCHES, CONDUIT BOXES) SHOULD LIKEWISE BE 6" AWAY FROM SIDE PANELS.
4. REFER TO SMARTPLATE APPLICATIONS GUIDE, SP-1010, FOR BUFFER TANK SIZING.
5. REFER TO SMARTPLATE INSTALLATION DRAWINGS FOR RECOMMENDED DOMESTIC PIPING INSTALLATION:  
 SD-A-772, SD-A-773, SD-A-774, SD-A-775, SD-A-776, SD-A-777
6. BOILER PUMP MUST BE SIZED TO PROVIDE THE APPROPRIATE FLOW AT THE DESIGN  $\Delta T$  OF BOILER PLANT. MAXIMUM  $\Delta T$  ACROSS BOILER IS 100°F. BOILER PUMP MUST MAINTAIN BENCHMARK BOILER(S) REQUIRED MINIMUM FLOW OF 40 GPM.
7. THIS IS A TYPICAL INSTALLATION DRAWING. LOCAL CODES AND AUTHORITIES SHOULD BE CONSULTED.
8. WHEN USING THE AERCO CONDENSATE NEUTRALIZER TANK, FOR PROPER CONDENSATE DRAINAGE, THE NEUTRALIZER TANK MUST BE INSTALLED IN A PIT OR THE BOILER AND THE AERCO CONDENSATE TRAP MUST BE ELEVATED HIGHER THAN 4" ABOVE THE FLOOR. SEE CONDENSATE TANK INSTRUCTIONS TID-0074 FOR DETAILS.
9. AT 14" W.C. OR BELOW, A GAS REGULATOR IS OPTIONAL UNLESS REQUIRED BY LOCAL CODE.
10. HEADER SENSOR MUST BE INSTALLED BETWEEN 2 TO 10 FEET FROM JUNCTION AND FROM LAST UNIT.
11. THE DHW SYSTEM PUMP MAY BE ENABLED/DISABLED BY ACS SYSTEM CONTROL.

**AERCO** INTERNATIONAL, INC.  
 Blauvelt, NY 10913

BENCHMARK 2500-3000 MBH MULTI UNIT  
 INSTALLATION WITH SPACE HEATING, DHW  
 SMARTPLATE & BUFFER TANK

DWN. BY K.S. DATE 110515  
 SCALE NTS  
 APPD. \_\_\_\_\_ DATE \_\_\_\_\_

SD-A-1092

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