



# SMARTPLATE INDIRECT FIRED WATER HEATER INSTALLATION FORM

Please complete **ONE (1) form for each SITE** at the site and return to AERCO for warranty validation within 30 days of start-up. After completion, e-mail this form to: **STARTUP@AERCO.COM**.

Completed By: \_\_\_\_\_ Date: \_\_\_\_\_

## Site Location

Installation Name: \_\_\_\_\_ SST Technician: \_\_\_\_\_

Street Address: \_\_\_\_\_ Company: \_\_\_\_\_

City, State, Zip: \_\_\_\_\_ Phone #: \_\_\_\_\_

AERCO Sales Rep: \_\_\_\_\_

## Equipment Classification

### SmartPlate Single-Wall Heaters

Unit Type:     SP23         SP33         SP45         SP69         SP150

Unit Serial Number(s)	<input type="checkbox"/> SP23	<input type="checkbox"/> SP33	<input type="checkbox"/> SP45	<input type="checkbox"/> SP69	<input type="checkbox"/> SP150
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

### SmartPlate Double-Wall Heaters

Unit Type:     SPDW23     SPDW32     SPDW42     SPDW61     SPDW113

Unit Serial Number(s)	<input type="checkbox"/> SPDW23	<input type="checkbox"/> SPDW32	<input type="checkbox"/> SPDW42	<input type="checkbox"/> SPDW61	<input type="checkbox"/> SPDW113
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Add additional units in ADDITIONAL NOTES if needed

## General Installation

1. Is the condensate disposal system adequately sized and does it drain properly?  Yes  No
2. Is the condensate disposal system installed in accordance with the instructions in the latest version of the SmartPlate O&M?  Yes  No
3. Is the relief valve piped to drain or within 12" of floor?  Yes  No
4. Is there an electrical service switch at or near the unit?  Yes  No
5. Does any electrical conduit, ductwork or piping impede the serviceability of the unit or the ability to remove the sheet metal covers?  Yes  No
6. Is there an adequately sized condensate neutralizer kit installed?  Yes  No
7. Have all electrical components been verified for proper grounding?  Yes  No
8. Has all communication wire been properly shielded?  Yes  No
9. Does each unit have a strainer installed in inlet to the water heater?  Yes  No
10. What is the strainer mesh size? \_\_\_\_\_
11. What is the system pressure? \_\_\_\_\_ PSI
12. The system application is:
- Potable Water     Process     Storage tank     Other \_\_\_\_\_
13. Are all units installed in accordance with the clearances defined in the SmartPlate O&M?  Yes  No
- a. If not, why not? \_\_\_\_\_

## Water Heater Installation

1. Are isolation valves installed in the inlet piping?  Yes  No
2. Are isolation valves installed in the outlet piping?  Yes  No
3. Is a hose bib installed in the outlet piping?  Yes  No
4. Are check valves installed in the cold water inlet?  Yes  No
5. Are check valves installed in the recirculation line?  Yes  No
6. Building recirculation is piped to:  Inlet Side of Heater  None
7. Record distance of building connections (ft) \_\_\_\_\_ & cold water feed (ft) \_\_\_\_\_ to the bank of unit(s)
8. What are the maximum/minimum design flow rates through the unit? Max \_\_\_\_\_ GPM, Min \_\_\_\_\_ GPM
  - a. Were the maximum & minimum flow rates verified?  Yes  No
9. What is the design system flow rate? \_\_\_\_\_ GPM
10. What is the design plant delta T? \_\_\_\_\_ °F
11. Is there a buffer tank used with the SmartPlate Heater?  Yes  No
  - a. If Yes, Is buffer tank supplied by AERCO?  Yes  No
  - b. Number of buffer tank ports:  2 ports  4 ports
  - c. Buffer tank volume: \_\_\_\_\_ Gallons
12. What is the setpoint? \_\_\_\_\_
13. What is the high limit set to? \_\_\_\_\_
14. What boiler water temp is being supplied? \_\_\_\_\_
15. What is the boiler water pressure? \_\_\_\_\_
16. Is the boiler water control valve installed in 2-way or 3-way mode?  2-Way  3-Way
17. Does the SmartPlate have a dedicated boiler pump?  Yes  No
18. What is the flow rate of the pump? \_\_\_\_\_ GPM
19. Has the flow been verified?  Yes  No

## For SmartPlate Heaters Using a Storage Tank

1. Domestic Storage tank is:  Stratified  Accumulator
2. Does tank have?  Baffle  Dispersion Tube
3. What is the storage tank's volume? \_\_\_\_\_ Gallons
4. What is the heater outlet temperature? \_\_\_\_\_ °F
5. Position of aquastat:  Upper 1/3  Middle 1/3  Lower 1/3  No aquastat
6. What is the aquastat temperature setting? \_\_\_\_\_ °F
7. Does the aquastat control the pump between the tank and heater?  Yes  No
8. Is a throttling valve installed between the pump and heater?  Yes  No
9. Is there a bypass loop around the pump?  Yes  No
10. What is the capacity of pump between the tank and heater? \_\_\_\_\_ GPM

## Mode of Operation

If Network (MODBUS), the network type is (choose one):

Gateway

Other: \_\_\_\_\_

ProtoNode

If Building Automation System (BAS) Protocol is in use (choose one):

BACNet (choose one):

IP (ProtoNode Only)

MS/TP

PTP

ARC156 (XPC Model Only)

Johnson Controls - N2

LonWorks

## Water Quality

AERCO recommends that a sample of the unit's input water supply be tested to determine if it will have an adverse effect on the unit. Testing can be via a standard water quality test kit, widely available at retail hardware and home improvement stores. The following questions can be answered by such test kits.

1. What is the pH of the water? \_\_\_\_\_ (a pH between 6.5 to 9.5 is recommended)
2. What is the hardness of the water? \_\_\_\_\_ Grains per Gallon (1-10 is recommended)
3. What is the TSD (Total Dissolved Solids) of the water? \_\_\_\_\_ PPM (less than 350 is recommended)
4. Is there a water softening or treatment system installed?  Yes  No
  - a. If yes, what type?  
 Salt  No Salt  Chemical Injection  Other \_\_\_\_\_

## Summary

1. Are the water heater(s) installed in accordance with AERCO guidelines and industry best practices?  Yes  No

a. If No, please describe the issues.

\_\_\_\_\_

b. Who has been contacted? Please provide name & number for each person contacted (check all that apply)?

<input type="checkbox"/> AERCO Applications Engineer: _____	<input type="checkbox"/> General Contractor: _____
<input type="checkbox"/> Mechanical Contractor: _____	<input type="checkbox"/> Building Owner: _____
<input type="checkbox"/> Design Engineer: _____	<input type="checkbox"/> Plumber: _____
<input type="checkbox"/> Controls Engineer: _____	<input type="checkbox"/> Electrician: _____

2. Is there any conflict between the Installation & the Engineer's Specification or Design Plans?  Yes  No

a. If Yes, please describe the issues.

\_\_\_\_\_

b. Who has been contacted? Please provide name & number for each person contacted (check all that apply)?

<input type="checkbox"/> AERCO Applications Engineer: _____	<input type="checkbox"/> General Contractor: _____
<input type="checkbox"/> Mechanical Contractor: _____	<input type="checkbox"/> Building Owner: _____
<input type="checkbox"/> Design Engineer: _____	<input type="checkbox"/> Plumber: _____
<input type="checkbox"/> Controls Engineer: _____	<input type="checkbox"/> Electrician: _____

3. Are there any conflicts or physical restrictions that will prevent the water heaters from receiving proper preventative maintenance in the future?  Yes  No

a. If Yes, please describe the issues.

\_\_\_\_\_

b. Who has been contacted? Please provide name & number for each person contacted (check all that apply)?

<input type="checkbox"/> AERCO Applications Engineer: _____	<input type="checkbox"/> General Contractor: _____
<input type="checkbox"/> Mechanical Contractor: _____	<input type="checkbox"/> Building Owner: _____
<input type="checkbox"/> Design Engineer: _____	<input type="checkbox"/> Plumber: _____
<input type="checkbox"/> Controls Engineer: _____	<input type="checkbox"/> Electrician: _____

4. Please outline any exceptions that have been granted by AERCO Applications Engineering for this installation.

\_\_\_\_\_

a. AERCO Application Engineering Sign Off:

\_\_\_\_\_

**ADDITIONAL NOTES:**