

## Radiant Floor Heating

The Electro-Boiler provides an ideal water heating energy source for radiant floor tubing applications. An electric boiler system means lower equipment cost and off-peak electric rates makes the electric boiler your best economical value. As a compact wall mounted boiler, less space is required. Simplified controls will also reduce installation cost without compromising quality.

### Standard Features

100% efficient

Boiler system status lights

Element staging

Pressure/temp gauge

Off-peak ready

20-year element warranty

2-year parts warranty

Built in accordance with the requirements of the ASME Boiler and Pressure Vessel Code

Strong factory support



#### Mini-Boiler Models

	Preset Temp*	Outdoor Reset**	kW size	Btu/h size
EMB-S-1	✓		1.1	3,754
EMB-S-2	✓		2.5	8,532
EMB-S-4	✓		5	17,065
EMB-†-5	✓		4.5	15,358
EMB-†-7	✓		7	23,891
EMB-†-9	✓		9	30,717

† = S or H



#### TS Midsize Models

	Preset Temp*	Outdoor Reset**	kW size	Btu/h size
EB-MS-10	✓		10	34,000
EB-MS-15	✓		15	51,000
EB-MS-20	✓		20	68,000
EB-MO-10		✓	10	34,000
EB-MO-15		✓	15	51,000
EB-MO-20		✓	20	68,000



#### TS Standard Models

	Preset Temp*	Outdoor Reset**	kW size	Btu/h size
EB-S-13	✓		13.5	46,000
EB-S-18	✓		18	61,000
EB-S-23	✓		22.5	77,000
EB-S-27	✓		27	92,000
EB-WO-13		✓	13.5	46,000
EB-WO-18		✓	18	61,000
EB-WO-23		✓	22.5	77,000
EB-WO-27		✓	27	92,000



#### TS Commercial Models

	Preset Temp*	Outdoor Reset**	kW size	Btu/h size
<u>240V Single Phase</u>				
EB-CA-31	✓		31.5	107,500
EB-CA-36	✓		36	123,000
EB-CA-40	✓		40	136,000
EB-CA-44	✓		44	150,000
EB-CO-31		✓	31.5	107,500
EB-CO-36		✓	36	123,000
EB-CO-40		✓	40	136,000
EB-CO-44		✓	44	150,000

\*Maintains desired output water temperature.

\*\*Output water temperature varies depending upon outside temperature.

# Hydronics Radiant Floor, with Electro-Boiler™

Application suggestions (average residential, size):

	EMB-S	EMB-H	EB-*S	EB-*A	EB-*O
1. Lower level, 1 zone - warm floor - with forced air heating system	✓				
2. Lower level, small and large zones - warm floor - with forced air		✓			
3. Garage, residential, 1,000 sq. ft. max.	✓				
4. Lower level, large zones - warm floor - with forced air heating system			✓		
5. Lower level, large, many zones - warm floor - with forced air			✓†	✓	
6. Slab on grade - only heating system				✓	
7. Slab on grade, unequal, many zones - only heating system			✓†	✓	
8. Whole house, zones - all radiant, two temp. requirement				✓†	
9. Whole house hydronics, zones - air handler coil, etc. - two temp. req.					✓†
10. Garage or shop, one zone - only heating system			✓		
11. Garage or shop, unequal, many zones - only heating system			✓†	✓	
12. Large building, multi-boilers, large and many small zones - add EB-C-STG5			✓†		✓†
13. Dual heat, standby gas boiler					✓

† Suggest adding EB-Z\*\*-\* zone controller board.

Off-peak electric rate, placement of tubing, spacing, etc. - application sheet BL002 has cross-section drawings

Electro Industries has installation training sessions or guides for various applications, request training schedule or assistance. In summary, for paragraphs 1 through 5 tubing can be in the concrete or under, preferably under. For paragraphs 6 through 13 tubing should be in the sand in order to effectively store heat and qualify for off-peak rates.

## Accessories and Options

In addition to the Electro-Boiler itself, Electro Industries can provide you with accessories and installation packages leading up to the loop manifold. Our accessories and external controls are designed to match the Electro-Boiler features. Added system performance and long-term reliability is **improved** when matching controls and accessories to the same manufacturer's boiler.

**Slab stat** - for off-peak/storage application and almost all radiant floor applications, we strongly recommend using a remote sensing room thermostat. Electro Industries part number ES-24-BR.

**Zone controller** - some models can be installed directly within the TS boiler cabinet. Zone controllers feature easy installation, simplified wiring, and troubleshooting lights. In addition to these industry standard features, the Electro zone controller actually communicates with the boiler control and is used as a **staging mechanism**.

**Two supply water temperature requirement** - the two pump zone controller and the basic four zone valve controller include the ability to condition the TS Series boiler for a two temperature application. Priority zone operates at 150° or 176°, the remaining zone(s) operates at preset temp. This can eliminate mixing valves or injection pump requirements.

**Plumbing kit** - depending upon model series, there are four installation kits which provide all the necessary fittings, valves, expansion tank, etc. in a carton.

**Circulating pump** - two basic sizes, convenient to purchase item with plumbing kit.

**Switching relay** - sometimes needed for zone pumps and other control combinations.



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