



# SGO

## APPLICATIONS INCLUDE:

- Residential
- Light Commercial
- Multiple Boilers
- Indirect-fired Water Heating
- Radiant Heating



**B100**  
CERTIFIED

*When Used with  
Beckett & Carlin  
Approved Oil Burners*

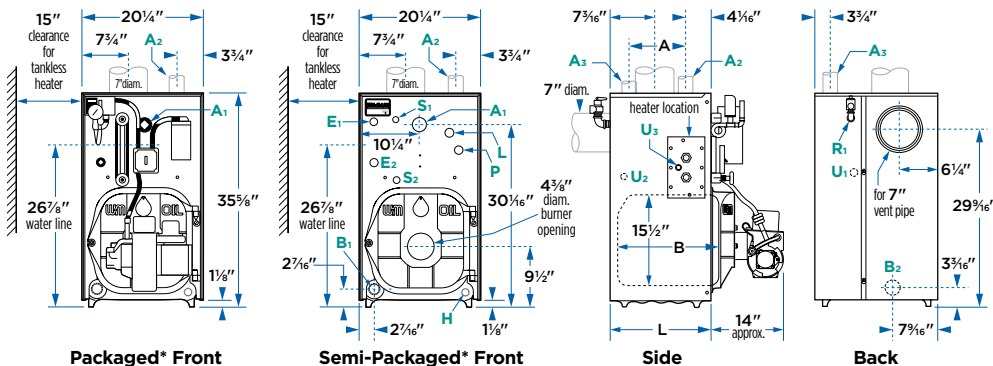
<sup>†</sup>Model Dependent

**CAST TO LAST**

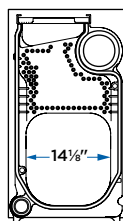


**HEAT EXCHANGER  
MADE IN THE USA**

## DIMENSIONS



| Tapping Location                | Size (in.) | Steam                                                     |
|---------------------------------|------------|-----------------------------------------------------------|
| A <sub>1</sub>                  | 1½         | Skim tapping                                              |
| A <sub>2</sub>                  | 2½         | Supply                                                    |
| A <sub>3</sub>                  | 2½         | Supply (SGO-6 through 9)                                  |
| B <sub>1</sub>                  | 1½         | Plugged                                                   |
| B <sub>2</sub>                  | 2          | Return                                                    |
| E <sub>1</sub>                  | ½          | Pressure gauge & limit control (when probe LWCO is used)  |
| E <sub>1</sub> & E <sub>2</sub> | ½          | Low water cutoff (float-type)                             |
| H                               | ¾          | Drain valve                                               |
| L                               | ¾          | Pressure gauge & limit control (when probe LWCO is used)  |
| P                               | ¾          | Low water cutoff (probe-type)                             |
| R <sub>1</sub>                  | ¾          | Relief valve                                              |
| S <sub>1</sub> & S <sub>2</sub> | ½          | Gauge glass                                               |
| U <sub>1</sub>                  | 1          | Take-off for indirect-fired water heater or separate zone |
| U <sub>2</sub>                  | ¾          | Tankless heater operating control (SGO-6 through 9)       |
| U <sub>3</sub> *                | ¾          | Tankless heater operating control (SGO-3 through 5)       |



Intermediate

| Model | Supply (in.) | Return (in.) | Dimension (in.) |     |     | Tankless Heater #35-S-29   |                          |
|-------|--------------|--------------|-----------------|-----|-----|----------------------------|--------------------------|
|       | Steam        | Steam        | A               | B   | L   | Inlet & Outlet (NPT) (in.) | Temp Control (NPT) (in.) |
| SGO-3 | 1-2½         | 2            | -               | 13½ | 16⅞ | ¾                          | ¾                        |
| SGO-4 | 1-2½         | 2            | -               | 16⅞ | 20  | ¾                          | ¾                        |
| SGO-5 | 1-2½         | 2            | -               | 19⅞ | 22⅞ | ¾                          | ¾                        |
| SGO-6 | 2-2½         | 2            | 19              | 23  | 26¼ | ¾                          | ¾                        |
| SGO-7 | 2-2½         | 2            | 22⅞             | 26⅞ | 29⅜ | ¾                          | ¾                        |
| SGO-8 | 2-2½         | 2            | 25¼             | 29¼ | 32½ | ¾                          | ¾                        |
| SGO-9 | 2-2½         | 2            | 28⅜             | 32⅜ | 35⅝ | ¾                          | ¾                        |

## RATINGS

| Model*                                                      | SGO-3             | SGO-4 | SGO-5 | SGO-6 | SGO-7 | SGO-8          | SGO-9          |
|-------------------------------------------------------------|-------------------|-------|-------|-------|-------|----------------|----------------|
| AHRI Burner Capacity (GPH) <sup>1</sup>                     | 0.95              | 1.20  | 1.45  | 1.75  | 2.00  | 2.30           | 2.55           |
| Input Rating (MBH) <sup>3</sup>                             | 133               | 168   | 203   | 245   | 280   | 322            | 357            |
| DOE Heating Capacity (MBH) <sup>1,2</sup>                   | 114               | 144   | 175   | 211   | 242   | 266            | 295            |
| AFUE                                                        | 85.0%             | 85.0% | 85.0% | 85.0% | 85.0% | — <sup>4</sup> | — <sup>4</sup> |
| Net AHRI Steam Ratings (MBH) <sup>3</sup>                   | 86                | 108   | 131   | 158   | 182   | 200            | 221            |
| Steam (Sq. Ft.) <sup>5</sup>                                | 358               | 450   | 546   | 658   | 758   | 833            | 921            |
| Tankless Heater Intermittent Draw Rating (GPM) <sup>6</sup> | 3.25              | 3.50  | 3.75  | 4.00  | 4.00  | 4.00           | 4.00           |
| Draft Loss Through Boiler (in. w/c) <sup>7</sup>            | .020              | .010  | .015  | .015  | .015  | .025           | .030           |
| Chimney Size                                                | Rectangular (in.) | 8 x 8 | 8 x 8 | 8 x 8 | 8 x 8 | 8 x 12         | 8 x 12         |
|                                                             | Round (in.)       | 6     | 6     | 7     | 7     | 8              | 8              |
|                                                             | Height (Ft.)      | 15    | 15    | 15    | 15    | 20             | 20             |
| Approx. Shipping Weight (Lbs.)                              | 600               | 705   | 820   | 920   | 990   | 1090           | 1195           |

\*Boiler order options include

Packaged boiler: Assembled block with jacket, collector hood and controls installed (order burner separately); sizes 3-6.

Semi-packaged boiler: Assembled block with jacket and collector hood installed (order burner and trim separately); sizes 3-6.

Knocked-down boiler: Assembled block, all other components are cartoned and shipped separately; all sizes.



DOE



## STANDARD EQUIPMENT:

### BOILER

- Factory tested and assembled cast iron section assembly (jacket and collector hood are not assembled on 7, 8 and 9 section blocks)
- Insulated steel jacket
- Aluminized steel flue collector hood with flue cap on top outlet (convertible to rear outlet)
- Swing-away burner mounting door
- Refractory blanket and target wall in combustion area
- Tankless heater opening cover plate
- Electrical junction box with wiring harnesses
- Junction box cover plate with service switch
- Two vent pipe brackets
- Drain valve
- Barometric damper
- Oil vent damper
- High limit pressure control
- Low water cutoff; Packaged units only (float or probe type)
- 15 PSI ASME relief valve
- Steam pressure gauge
- Siphon
- Gauge glass, cocks and guard

### OPTIONAL EQUIPMENT:

- High-efficiency flame-retention Oil Burner (Beckett AFG, Carlin EZ or Riello). Specify 2-stage fuel unit (optional, Beckett) if required.
- Tankless heaters and controls
- Low water cutoffs (float or probe type)
- Weil-McLain five- and ten-year homeowner protection plan
- Weil-McLain indirect-fired water heaters

### LIMITED TRANSFERABLE WARRANTY:

- Residential: 10 Years Heat Exchanger; 2 Years Parts
- Commercial: 10 Years Heat Exchanger; 1 Year Parts

<sup>1</sup>No. 2 fuel oil-Commercial Standard Specification CS75-56. Heating value of oil-140,000 BTU/Gal.

<sup>2</sup>Based on standard test procedures prescribed by the United States Department of Energy—see ratings chart in boiler manual for further detail.

<sup>3</sup>MBH refers to thousands of BTU per hour.

<sup>4</sup>Rating under "DOE Heating Capacity" for SGO-8 and -9 is AHRI gross output. DOE ratings do not apply to boilers above 300 MBH.

<sup>5</sup>Net AHRI ratings are based on net installed radiation of sufficient quantity for the requirements of the building and nothing need be added for normal piping and pickup. Steam ratings are based on a piping and pickup allowance of 1.333. An additional allowance should be made for unusual piping and pickup loads.

<sup>6</sup>All boiler sizes use number 35-S-29 tankless heater. Tankless heater rating is in gallons of water per minute, heated from 40°F to 140°F with 200°F boiler water temperature-tested in accordance with I-W-H Testing and Rating Standard for Indirect Tankless Water Heaters Test with Boilers.

<sup>7</sup>Listed draft losses are for standard burner settings.

In the interest of continual improvement in product and performance, Weil-McLain reserves the right to change specifications without notice.