

# WEIL-McLAIN

**SGO**Oil-Fired  
Steam Boiler  
with tankless opening

an ISO 9001 Certified Company

**SGO**

GOLD Series 3

## OIL-FIRED Steam Boiler WITH TANKLESS HEATER OPENING

### Ratings — (8 sizes)

354 – 921 SQ FT NET STEAM  
0.95 – 2.55 GPH #2 FUEL OIL

- 2 **Specifically designed for steam**  
Large water content; longer steaming times
- 2 **High efficiency**  
Save fuel with 85% & higher AFUE
- 2 **Convertible flue (rear/top)**  
Easy switch from rear to top flue
- 2 **Swing-away burner door**  
Easy to open or remove; full access to chamber
- 2 **Easy inspection & cleaning**  
Quick-open cover; top cleaning full width
- 2 **Factory-wired circulator**  
Circulator harness wired; circulator ships loose
- 2 **Service switch**  
Easy power disconnect for servicing boiler
- 2 **Recessed target wall**  
Design protects target wall from flue brush
- 2 **Captured seal nipple port design**  
Grooves protect seals from contaminants
- 2 **Burner shipped separately**  
... for maximum flexibility



# WEIL-McLAIN *... Heating America!*

**Presenting . . .** the Weil-McLain **SGO GOLD** — a residential oil-fired steam boiler, designed specifically for steam systems — with a tankless heater opening, large water content, long steaming time, large tapplings (2½"), and all the features installers and homeowners have asked for — **Outstanding performance . . . innovative design . . . easier to install and service . . . top or back venting . . . limited lifetime warranty . . .** just a few of the advantages that make the SGO GOLD boiler the industry's best value. And best of all, the SGO GOLD boiler is made by Weil-McLain, America's leading name in cast iron boilers for over a century.

The SGO GOLD is available packaged or knockdown. Burners are ordered and shipped separately — to give you maximum flexibility. Use any of the approved burners from Weil-McLain, including Beckett AFG, Carlin EZ and Riello.

**P-SGO** *Packaged* — Factory assembled and wired with jacket and controls (SGO-2 through -6).

**A-SGO** *Knockdown* — Factory assembled sections with jacket installed (except A-SGO-7, -8 & -9), controls packed separately (SGO-2 through -9). A-SGO-7 through A-SGO-9 blocks are skidded for shipment. For easier handling, these units can be separated into two blocks since short draw rods are used in the middle of the assembly.



## Convertible flue (rear or top)



As shipped (rear flue)

The SGO has two flue outlets — one in back, one on top — to provide complete venting flexibility. The boiler is shipped ready for back venting with an aluminized steel cap on the top flue outlet. If top venting is desired, the flue cap can be quickly removed and attached to the back outlet. Two special L-brackets are supplied to make it easy to connect flue pipe to either outlet.



Converted (top flue)

## Easy inspection/top cleaning



Flueways can be visually inspected without taking apart the vent pipe by removing the jacket cap and flue outlet cap from the unused flue outlet.

Removing the flue collector hood provides complete access to all flueways for fast, thorough cleaning. And the placement of the heat pins provides specific paths for flue brush travel. No stuck brushes!





# OIL-FIRED Steam Boiler WITH TANKLESS HEATER OPENING

# SGO

## Swing-away burner door/recessed target wall

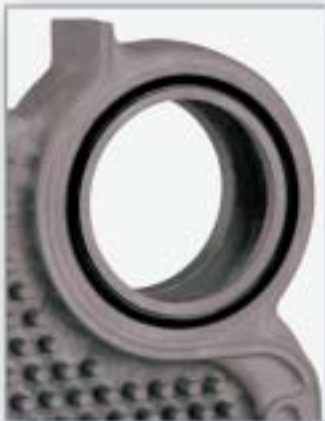


The full swing-away burner door provides easy access to the entire combustion area to simplify inspection, cleaning and burner servicing. If desired, the door can be easily removed from the hinges. A quick-disconnect plug breaks power to burner when door is open.

The SGO target wall fits securely into the recess in the wide back section. Flue brushes can't contact the target wall because of the unique rear section heat exchanger design.



## Cast iron sections/captured seals



- Rely on SGO boilers — SGO boilers use cast iron sections, proven for durability and long life. Weil-McLain boilers have often provided 35 years or more of reliable service.
- The SGO's heat pin design yields high efficiency, yet is more tolerant of varying job conditions and makes cleaning faster and easier.
- High-temperature rope compressed between the sections makes a gas-tight seal in the flueways.
- Weil-McLain captured seal — Boiler sections want room to move as they heat and cool. The SGO's modern elastomer seals provide the ultimate freedom for the cast iron to flex (unlike rigid metal push nipples), preventing leaks caused by expansion and contraction. And the precision-machined port grooves secure the seals in place and protect them from contaminants in the water.

## High-capacity tankless heater option



You can purchase a Weil-McLain high-capacity tankless heater and tankless temperature control for use in the SGO GOLD boiler.

The side-mounted dual-coil design of the Weil-McLain tankless heater provides exceptional performance.

Weil-McLain's tankless temperature control design allows operation of the tankless heater throughout the year — maintaining hot water in the boiler without producing steam when there is no space heating demand from the system.

# Ratings



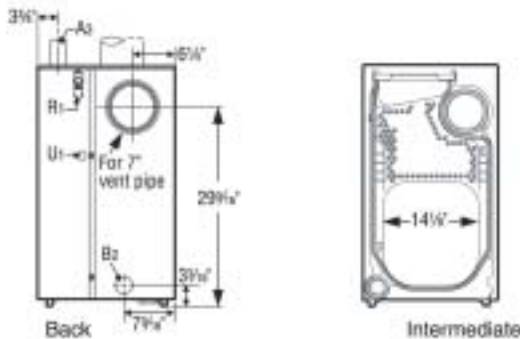
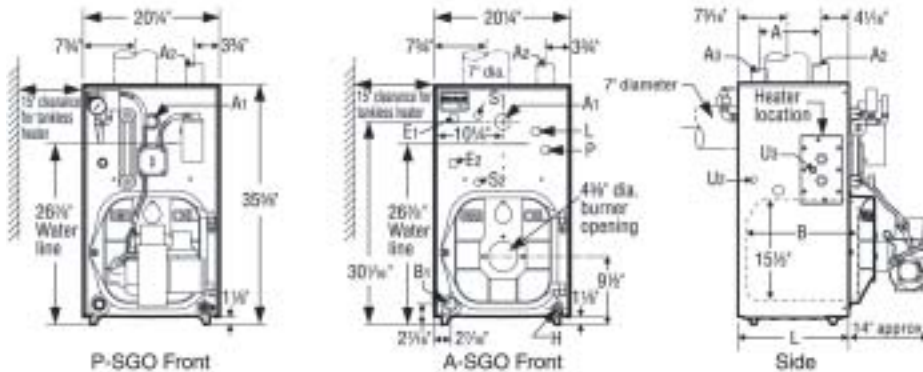
Boiler model number	I=B=R burner capacity		DOE heating capacity MBH		Net I=B=R ratings (Notes 3 & 5)		DOE seasonal efficiency % AFUE		Tankless heater intermittent draw	Draft loss through boiler (Notes 6 & 7)	Minimum I=B=R chimney size		
	UPH	Notes 2, 3, 4	Steam	Water	Steam	Water	Steam	Water			Rectangular (Notes 8 & 9)	Round	Height
	Notes 1	Notes 2, 3, 4	BTU/hr	MBH	BTU/hr	MBH	BTU/hr	MBH					
*SGO-3**	0.95	114	115	354	85	100	84.1	85.3	3.25	.020	6 x 6	6	15
*SGO-4**	1.20	144	145	450	108	126	84.0	85.0	3.75	.010			
*SGO-5**	1.45	174	175	546	131	152	83.9	85.0	4.00	.015			
*SGO-6**	1.75	210	212	658	158	184	83.7	85.0	4.25	.015			
*SGO-7**	2.00	240	242	750	180	210	83.6	85.0	5.50	.015	8 x 12	8	20
*SGO-8**	2.30	266	268	833	200	231	--	--	5.75	.020			
*SGO-9**	2.55	295	295	921	221	257	--	--	6.00	.030			

\* Substitute "P" for package steam boiler (SGO 3 through SGO-6 only) — Packaged water boiler not available. Substitute "A" for boiler only.  
 \*\* Add "W" for SGO boiler with water trim.  
 1. No. 2 fuel oil — Commercial Standard Spec. C575-58. Heat value of oil — 142,000 BTU/Gal.  
 2. Based on standard test procedures prescribed by the United States Department of Energy at combustion conditions of 130% CO<sub>2</sub> and 1.02" W.G. draft.  
 3. MBH refers to thousands of BTU per hour.  
 4. Rating under "DOE Heating Capacity" for SGO-6 and -9 is I=B=R gross output. DOE ratings do not apply to boilers above 300 MBH.  
 5. Net I=B=R 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 1.35; water ratings on an allowance of 1.15. An additional allowance should be made for unusual piping and pickup loads. Consult a Well-McLain representative.  
 6. All boiler sizes use number 29-5-29 tankless heater. Tankless heater rating is in gallons water per minute, heated from 40°F to 140°F with 200°F boiler water temperature — tested in accordance with I=B=R Testing and Rating Standard for Indirect Tankless Water Heaters Test with Boilers.  
 7. Listed draft losses are for standard burner settings.

# Dimensions

Boiler model number	Supply "C" (inches)		Return (inches)		Dimensions (inches)			Approximate shipping weight (lbs) (Note 1)	Tankless heater # 29-5-29 Tappings
	Steam	Water	Steam	Water	A	B	L		
SGO-3						13 1/4	16 1/4	600	Inlet and outlet "N" x "N"
SGO-4	1-2 1/4	1-1 1/4	2	1 1/4		16 1/4	20	755	
SGO-5						19 1/4	23 1/4	820	
SGO-6					19	23	26 1/4	820	Temperature control tapping "N" x "N"
SGO-7	2-2 1/4	1-1 1/4	2	1 1/4	22 1/4	26 1/4	29 1/4	990	
SGO-8					25 1/4	29 1/4	32 1/4	1,080	
SGO-9					28 1/4	32 1/4	35 1/4	1,185	

Crane Dimensions: Height — 39" Width — 23" Length (\*SGO-3, -4, -5) / (\*SGO-6, -7, -8, -9)  
 Note 1. Weights based on P-SGO units 3-6 and A-SGO units 7-9 with all components including burner.



Tapping	Size	Steam	Water
A <sub>1</sub>	1 1/4"	Skin tapping	Supply
A <sub>2</sub>	2"	Supply	Piping to expansion tank or outdoors air vent
A <sub>3</sub>	2"	Supply (SGO-6 thru 9)	Plugged
B <sub>1</sub>	1 1/4"	Plugged	Return
B <sub>2</sub>	2"	Return	Plugged
E <sub>1</sub>	1/2"	Pressure gauge & limit control (when probe LVCO is used)	Pressure/temperature gauge
E <sub>2</sub>	1/2"	Low water cutoff (float-type)	-
F	1/2"	Drain valve	Drain valve
L	1/2"	Pressure gauge & limit control (when float LVCO is used)	High limit/circulator control
P	1/2"	Low water cutoff (probe-type)	Plugged
R <sub>1</sub>	1/2"	Relief valve	Relief valve
S <sub>1</sub> & S <sub>2</sub>	1/2"	Gauge glass	Plugged
U <sub>1</sub>	1"	Turn-off for indirect fired water heater or separate zone	Plugged
U <sub>2</sub>	1/2"	Tankless heater operating control (SGO-6 thru 9)	Plugged
U <sub>3</sub>	1/2"	Tankless heater operating control (SGO-3 thru 5)	Tankless heater operating control

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



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