



12a Replacement parts

Section assembly 55

Base 56

Jacket 58

Trim 60

Controls 61

▲WARNING

Replacement parts must be purchased through a local Weil-McLain distributor. When ordering, specify boiler model and size and include description and part number of replacement part. Results from using modified or other manufactured parts will not be covered by warranty and may damage boiler or impair operation.

NOTICE

Weil-McLain part numbers are found in **Weil-McLain Boilers and Controls Repair Parts Lists**.

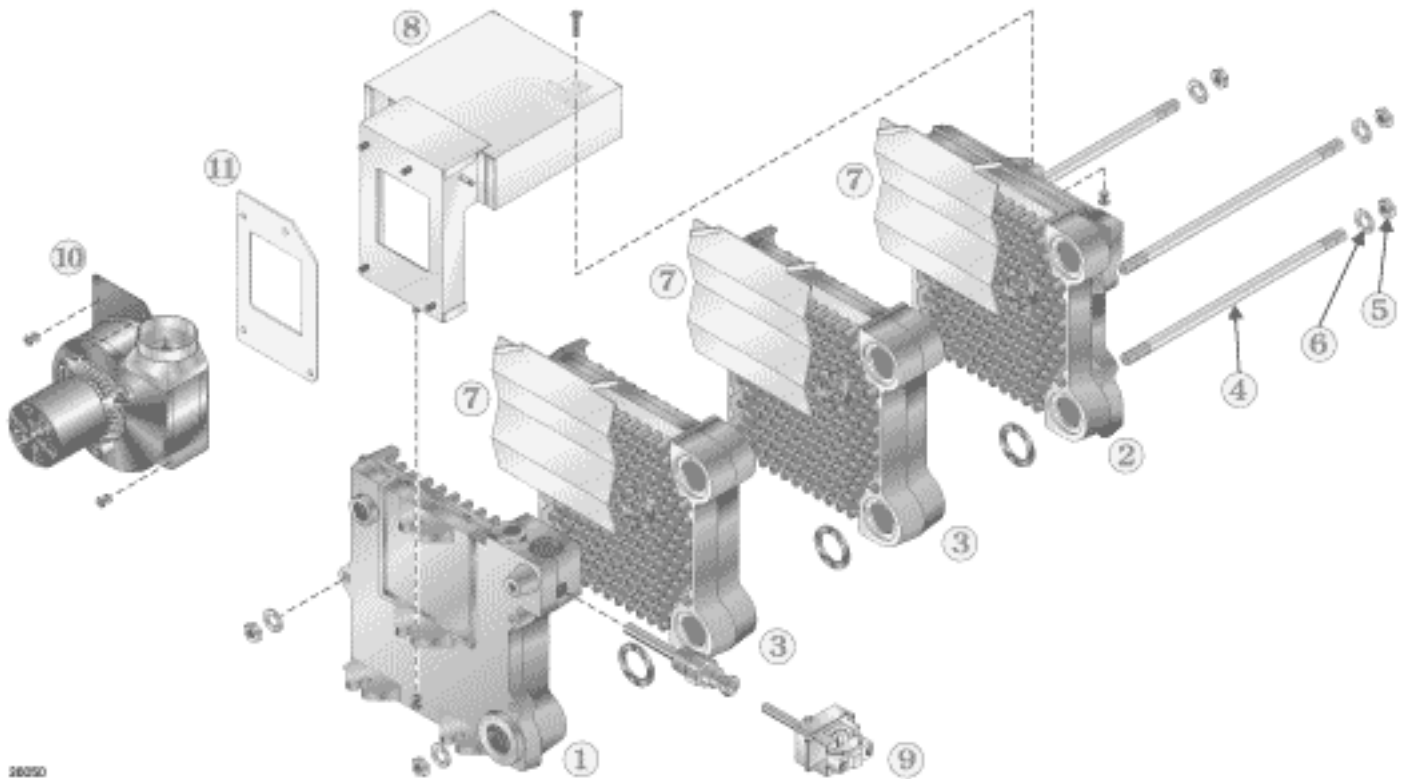
▲WARNING

The boiler contains ceramic fiber and fiberglass materials. Use care when handling these materials per instructions on **page 64** of this manual. Failure to comply could result in severe personal injury.



12b Replacement parts — section assembly

Figure 26 Section assembly

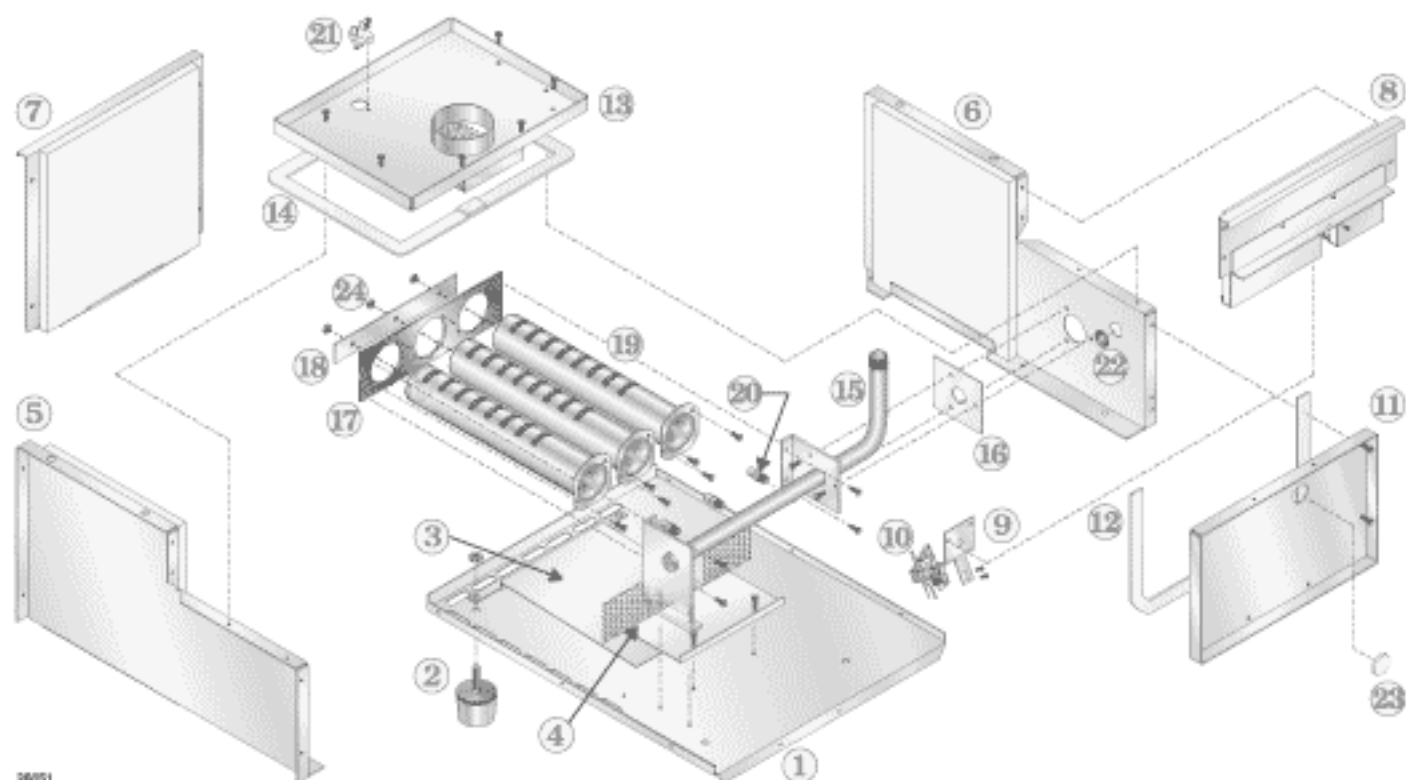


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Item number	Description	Weil-McLain part number
1	End section, left hand, 51124	311-103-830
2	End section, right hand 51128	311-103-821
3	Intermediate section, 51125	311-103-818
not shown	Replacement section assembly	CGs-3 321-114-345 CGs-4 321-114-346 CGs-5 321-114-347 CGs-6 321-114-348
not shown	Section replacement kit, includes seals and sealant for 1 joint	381-354-527
4	Tie rod, 7/16" without nut (3 per boiler):	CGs-3 560-234-500 CGs-4 560-234-501 CGs-5 560-234-502 CGs-6 560-234-503
5	Nut, 7/16" (2 per tie rod)	561-928-235
6	Washer, 7/16" (1 per tie rod)	562-248-684
7	Radiation plate (1 per joint)	460-003-700
8	Collector hood and transition assembly	CGs-3 450-020-511 CGs-4 450-020-512 CGs-5 450-020-513 CGs-6 450-020-514
9	High limit, 30' differential, with well	Honeywell L4080D1036 White-Rodgers 11B81-3 510-312-250
10	Inducer fan assembly kit, includes inducer fan assembly, gasket and nuts	381-356-499
11	Gasket, inducer	590-317-627

12c Replacement parts – base

Figure 27 Base assembly



26251



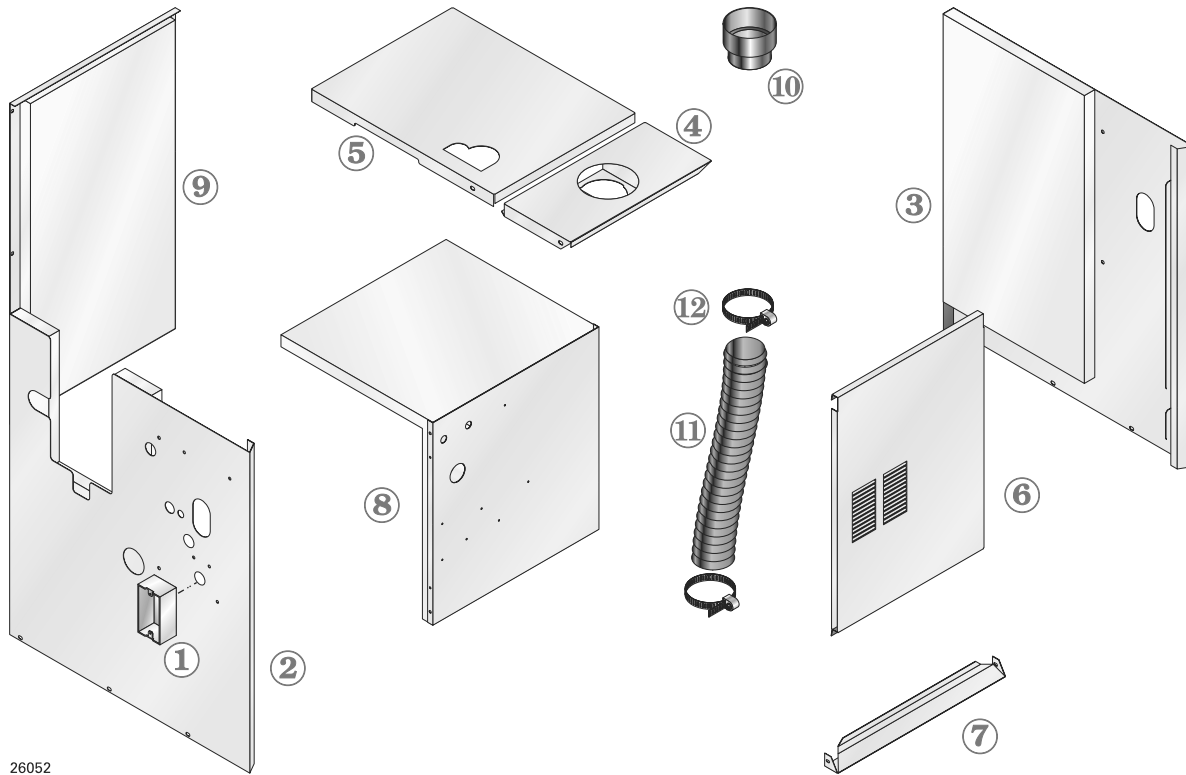
12c Replacement parts — base (continued)

Item	Description		Weil-McLain part number
	Base insulation kit (includes insulation for all base parts above plus gasket material needed between block assembly and base)	CGs-3 CGs-4 CGs-5 CGs-6	381-356-515 381-356-516 381-356-517 381-356-518
	Base assembly kit (includes base panels items 1, 2, 3, 4, 5, 6, 7, 8, 11, 13, 22 and 23 plus insulation, Air box gaskets, and hardware)	CGs-3 CGs-4 CGs-5 CGs-6	381-356-522 381-356-523 381-356-524 381-356-525
	Inlet air box top panel kit (includes items 13 and 14)	CGs-3 CGs-4 CGs-5 CGs-6	381-356-501 381-356-502 381-356-503 381-356-504
	Inlet air box front panel kit (includes items 11, 12 and 23)	CGs-3 CGs-4 CGs-5 CGs-6	381-356-508 381-356-509 381-356-510 381-356-511
1	Base pan (in Base assembly)		
2	Boiler leg kit		550-320-219
3	Heat shield (in Base assembly)		
4	Burner baffle (in Base assembly)		
5	Base left side panel (in Base assembly)		
6	Base right side panel (in Base assembly)		
7	Base back panel (in Base assembly)		
8	Base front cross-tie assembly (in Base assembly)		
9	Pilot bracket		450-003-689
10	Pilot burner assembly — Natural gas Pilot burner assembly — Propane gas		511-330-080 511-330-081
11	Inlet air box front panel (in Inlet air box front panel kit)		
12	Inlet air box front panel gasket (Use Gasket kit)		
13	Inlet air box top panel (in Inlet air box top panel kit)		
14	Inlet air box top panel gasket (Use Gasket kit)		
15	Manifold (per size)	CGs-3 CGs-4 CGs-5 CGs-6	591-126-722 591-126-723 591-126-724 591-126-725
16	Manifold mounting gasket		590-317-406
17	Burner mounting panel	CGs-3 CGs-4 CGs-5 CGs-6	450-003-690 450-003-691 450-003-692 450-003-693
18	Rear spacer strip	CGs-3 CGs-4 CGs-5 CGs-6	550-320-160 550-320-161 550-320-162 550-320-163
19	Burner		512-200-076
20	Burner orifice — Natural gas, sea level Burner orifice — Propane gas, sea level		560-529-077 560-529-078
21	Thermal fuse element		512-050-230
22	Grommet for sealing pilot tubing/wiring opening to Air box		591-850-064
23	Inspection port clear plug		591-491-216
24	Hex nut for burner end stud, 5 mm		550-320-170
	Gasket (for Air inlet box covers), 8-foot length		590-317-400



12d Replacement parts — jacket

Figure 28 Jacket assembly



26052



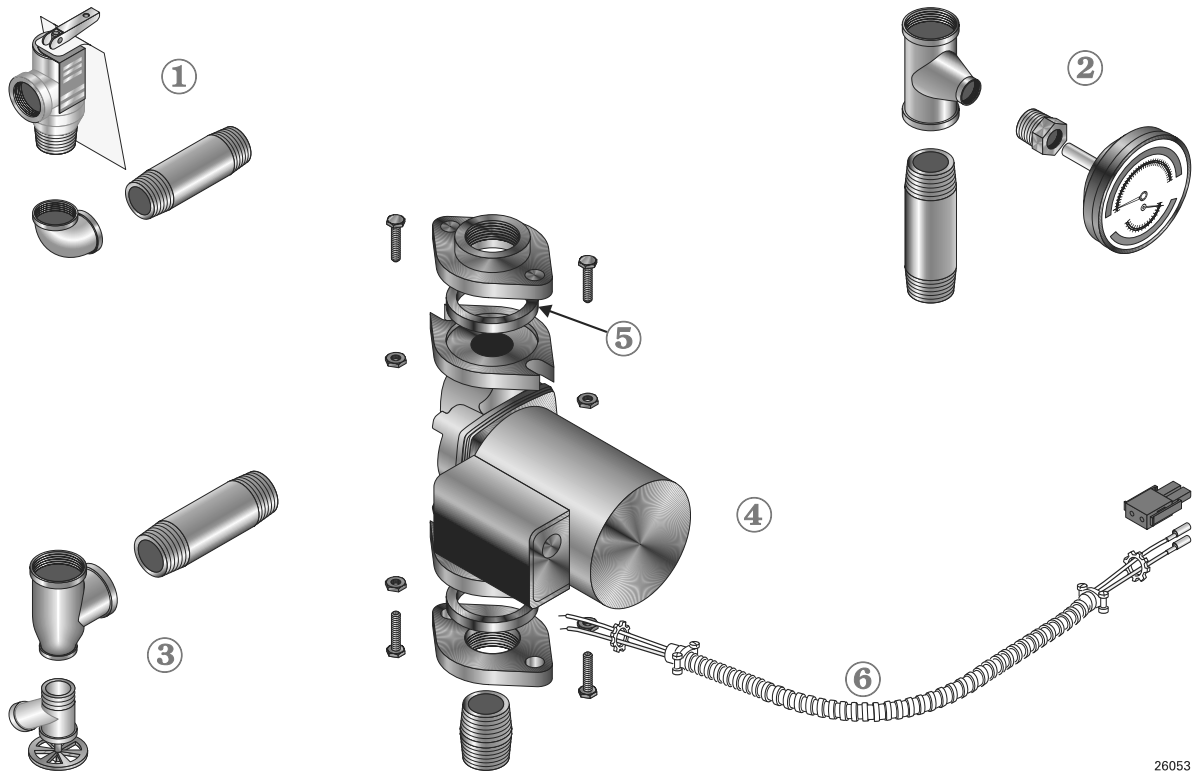
12d Replacement parts — jacket (continued)

Boiler Model	1	2		3	4	5	6	Boiler Model
	Junction box, 2 x 4	Panel, left side, with insulation		Panel, right side, with insulation	Panel, top front, with insulation	Panel, top rear, with insulation	Panel, door	
		Natural Gas	Propane Gas					
Weil-McLain part number								
CGs-3 CGs-4 CGs-5 CGs-6	(Available at local supply house)	381-355-701 381-355-708 381-355-715 381-355-722	381-355-729 381-355-732 381-355-735 381-355-738	381-355-699 381-355-699 431-223-311 431-223-311	381-355-403 381-355-413 381-355-420 381-355-427	381-355-706 381-355-713 381-355-720 381-355-727	381-355-707 381-355-714 381-355-721 381-355-728	CGs-3 CGs-4 CGs-5 CGs-6
Boiler Model	7	8	9	10	11	12	Not shown	Boiler Model
	Cross tie, bottom front	Panel, interior, with insulation	Panel, rear, with insulation	Air inlet fitting	Inlet air hose	Hose clamp 3"	Gold touch-up paint	
	Weil-McLain part number							
CGs-3 CGs-4 CGs-5 CGs-6	431-223-325 431-223-326 431-223-327 431-223-328	381-355-540 381-355-552 381-355-559 381-355-566	431-223-300 431-223-301 431-223-302 431-223-303	560-907-635	562-302-573	591-850-068	592-000-000	CGs-3 CGs-4 CGs-5 CGs-6



12e Replacement parts — trim

Figure 29 Trim assembly



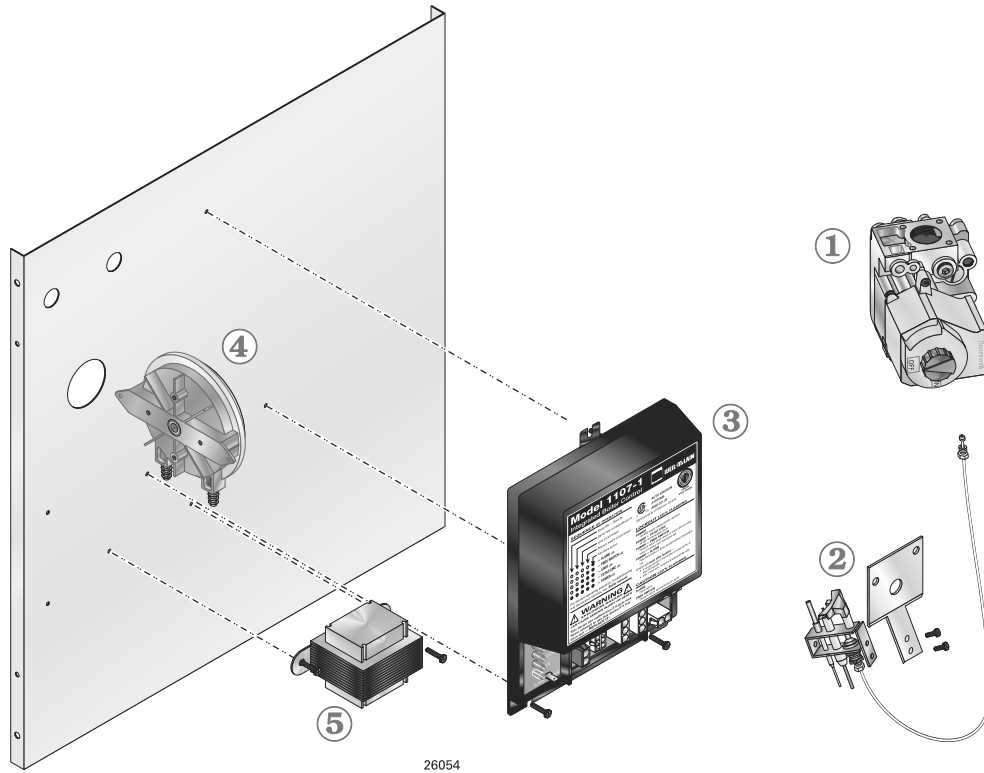
26053

Item number	Description	Manufacturer	Manufacturer's part number	Weil-McLain part number
1	Pressure relief valve, ASME, 30 PSIG, 3/4" male inlet Pressure relief valve, ASME, 30 PSIG, 3/4" female inlet <i>(Fittings shown are factory-installed on boiler.)</i>	Conbraco Watts Conbraco Watts	10-407-10 M330 10-408-05 335	511-546-920 511-546-924
2	Combination pressure-temperature gauge, 3 1/8" diameter, short shank <i>(Fittings shown are shipped loose with boiler.)</i>	Weil-McLain		380-000-000
3	Drain valve, 3/4" <i>(Fittings shown are included with boiler.)</i>	Conbraco Hammond Valve Matco-Norca Watts	31-606-01 710 205F04 BD-2C	511-210-423 511-246-392 511-246-392 511-246-392
4	Circulator <i>(Fittings shown are shipped loose with boiler.)</i>	Bell & Gossett Grundfos Taco	NRF-22-103253 UP15-42FR-TB4 007	511-405-118 511-405-126 511-405-113
5	Circulator gasket, universal (2 per boiler)	Weil-McLain		590-317-535
not shown	Circulator hardware kit, includes: 1 flange, 2 nuts, 2 screws, 1 gasket — 1" NPT — CGs-3 through CGs-5 1 1/4" NPT — CGs-6	Weil-McLain		381-300-494 381-300-495
6	Circulator wiring harness kit, with Molex <i>(loose)</i>			381-354-528



12f Replacement parts — controls

Figure 30 Gas control assembly



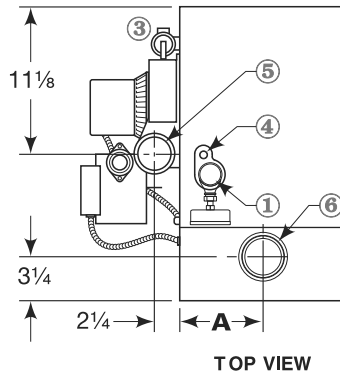
Item number	Description	Manufacturer	Manufacturer's part number	Weil-McLain part number
Natural gas components				
1	Gas valve, ½" x ½", CGs-3 through CGs-6	Honeywell	VR8204A2001	511-044-381
2	Pilot assembly kit with orifice and aluminum pilot gas tubing	Weil-McLain		511-330-080
Propane gas components				
1	Gas valve, ½" x ½", CGs-3 through CGs-6	Honeywell	VR8204M2701	511-044-354
2	Pilot assembly kit with orifice and aluminum pilot gas tubing	Weil-McLain		511-330-081
Natural gas and propane gas components				
3	Control module	United Technologies	1107-1	511-330-090
not shown	Wiring harness	Weil-McLain		591-319-795
4	Air pressure switch 1.79 I.W.C. — CGs-3 1.48 I.W.C. — CGs-4 1.22 I.W.C. — CGs-5 0.95 I.W.C. — CGs-6	Tri-Delta	PPS10171-3013 PPS10171-3014 PPS10171-3015 PPS10171-3016	511-624-401 511-624-402 511-624-403 511-624-404
5	Control transformer			511-842-370
not shown	Tubing, air pressure switch, 0.12 I.D. silicone red, to collector hood white, to transition	Lydall		590-317-650 590-317-651



13a Dimensions

Figure 31 Dimensional drawing

- ① Supply piping (note 1)
- ② Return piping (note 1)
- ③ Relief valve, 3/4" NPT
- ④ 1/2" NPT to expansion tank/air vent
- ⑤ 3" Diameter vent

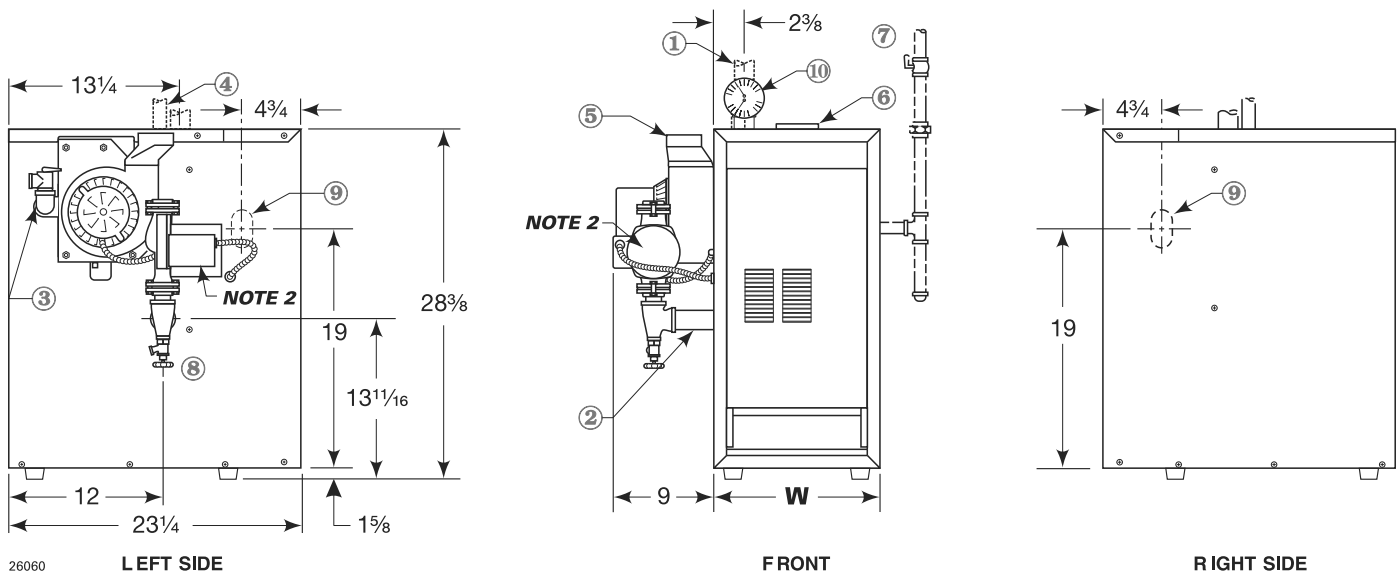


- ⑥ 3"/3 1/2" Dia. air pipe connection
- ⑦ Gas supply piping
- ⑧ Drain valve
- ⑨ Gas supply entrance (right or left side)
- ⑩ Pressure/temperature gauge

Note 1: Boiler supply and return tapings are both 1/4" NPT. See **Table 3**, page 14 for recommended system supply and return piping sizes.

Note 2: Boiler circulator is shipped loose. Circulator may be mounted on either boiler supply or return piping. Circulator flange provided with boiler is same size as recommended pipe size in **Table 3**, page 14.

ALL DIMENSIONS IN INCHES



26060

Boiler model number	Supply tapping (inches NPT)	Return tapping (inches NPT)	Gas connection size Note 3 (inches NPT)	Gas manifold size Note 3 (inches NPT)	" A " Air inlet pipe center (inches)	" W " Jacket width (inches)
CGs-3	1 1/4	1 1/4	1/2	1/2	6 1/2	13
CGs-4	1 1/4	1 1/4	1/2	1/2	8	16
CGs-5	1 1/4	1 1/4	1/2	1/2	9 1/2	19
CGs-6	1 1/4	1 1/4	1/2	1/2	11	22

Note 3: Gas piping from meter to boiler to be sized per local utility requirements.



13b Ratings



DOE



(Note 5)

Table 7 Boiler ratings

Boiler model number	DOE Heating capacity (Btuh)	0-2,000 feet		2,000-4,500 feet		Net I=B=R ratings (Btuh)	Boiler water content (gallons)	DOE Seasonal efficiency (% AFUE)	Vent size
		Input (Btuh)	Output (Btuh)	Input (Btuh)	Output (Btuh)				
(Note 1)	(Note 2)					(Note 3)		(Note 5)	(Note 4)
CGs-3 (Note 5)	57,000	67,000	57,300	60,300	51,600	50,000	1.5	85.3	3"
CGs-4	85,000	100,000	85,000	90,000	76,500	74,000	2.1	84.6	3"
CGs-5	112,000	133,000	112,400	119,000	100,600	97,000	2.7	84.0	3"
CGs-6	140,000	167,000	140,300	150,300	126,300	122,000	3.3	83.4	3"
Notes	1. Add "PIN" for natural gas boiler - "PIL" for propane gas boiler.								
	2. Based on standard test procedures prescribed by the United States Department of Energy.								
	3. 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. Ratings are based on a piping and pickup allowance of 1.15. An additional allowance should be made for unusual piping and pickup loads.								
	4. CGs boilers require special venting, consistent with Category III or IV boiler. Use only the vent materials and methods specified in CGs vent supplements. CGs boilers may be direct-vented (using 3" diameter air piping) as specified in the direct vent supplements.								
	5. As an Energy Star Partner, Weil-McLain has determined that the CGs-3 meets the Energy Star guidelines for energy efficiency.								

NOTICE

CGs boilers for residential radiant panel systems, converted gravity heating systems or other low water temperature applications should be installed with balancing valves and bypass piping equal to the supply and return size to avoid excessive flue gas condensation due to lower operating water temperatures. For alternate piping, contact your Weil-McLain sales office. CSA design certified for installation on combustible flooring. Tested for 50 psi working pressure.



Handling ceramic fiber and fiberglass materials

REMOVAL OF COMBUSTION CHAMBER LINING OR BASE PANELS

WARNING

The combustion chamber lining or base insulation panels in this product contain ceramic fiber materials. Ceramic fibers can be converted to cristobalite in very high temperature applications. The International Agency for Research on Cancer (IARC) has concluded, "Crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1).":

Precautionary measures

- Avoid breathing fiberglass dust and contact with skin or eyes.
 - Use NIOSH certified dust respirator (N95). This type of respirator is based on the OSHA requirements for fiberglass wool at the time this document was written. Other types of respirators may be needed depending on the job site conditions. Current NIOSH recommendations can be found on the NIOSH web site at <http://www.cdc.gov/niosh/homepage.html>. NIOSH approved respirators, manufacturers, and phone numbers are also listed on this web site.
 - Wear long-sleeved, loose fitting clothing, gloves, and eye protection.
- Apply enough water to the combustion chamber lining or base insulation to prevent airborne dust.
- Remove combustion chamber lining or base insulation from the boiler and place it in a plastic bag for disposal.
- Wash potentially contaminated clothes separately from other clothing. Rinse clothes washer thoroughly.

NIOSH stated First Aid.

- Eye: Irrigate immediately.
- Breathing: Fresh air.

REMOVAL OF FIBERGLASS WOOL

or

INSTALLATION OF FIBERGLASS WOOL, COMBUSTION CHAMBER LINING OR BASE PANELS:

WARNING

This product contains fiberglass jacket insulation and ceramic fiber materials in combustion chamber lining or base panels in gas fired products. Airborne fibers from these materials have been listed by the State of California as a possible cause of cancer through inhalation.

Precautionary measures

- Avoid breathing fiberglass dust and contact with skin or eyes.
 - Use NIOSH certified dust respirator (N95). This type of respirator is based on the OSHA requirements for fiberglass wool at the time this document was written. Other types of respirators may be needed depending on the job site conditions. Current NIOSH recommendations can be found on the NIOSH web site at <http://www.cdc.gov/niosh/homepage.html>. NIOSH approved respirators, manufacturers, and phone numbers are also listed on this web site.
 - Wear long-sleeved, loose fitting clothing, gloves, and eye protection.
- Operations such as sawing, blowing, tear out, and spraying may generate airborne fiber concentration requiring additional protection.
- Wash potentially contaminated clothes separately from other clothing. Rinse clothes washer thoroughly.

NIOSH stated First Aid.

- Eye: Irrigate immediately.
- Breathing: Fresh air.