

SFK 55 (Aqua²)

Submittal



The SFK 55, named Aqua², is a premix gas-fired condensing hot water heater that complies with ANSI Z21.10.3 • CSA 4.3 Gas-fired water heaters. The Aqua², is equipped with a Flow-tech[®] stainless steel heat exchanger that consists of a single tube coil with a diameter of 28 mm. This larger coil tube reduces the pressure drop across the heat exchanger, and prevents debris/limestone deposits and makes it much easier on maintenance. The Aqua² features a 1:10 air/gas modulation which is important for energy savings and important in providing a wide range of desired flow rates and temperatures.

MAIN FEATURES

ANTI-FREEZE FUNCTION PROTECTION

OUTDOOR RESET

WIDE MODULATING RANGE

LOW NOX EMISSIONS

PRE-WIRED ELECTRICAL LEAD

FULL GAS/AIR MODULATION

SOLAR CARD CONTROL (OPTIONAL)

TIME AND TEMPERATURE CONTROLLERS (OPTIONAL)

TECHNICAL FEATURES

MODEL	SFK 55	
Maximum input	btu/h - (kW)	187667 - (55)
Minimum input	btu/h - (kW)	18766 - (5.5)
Adjustable temperature range	°F - °C	104-140 (40-60)
Maximum operating pressure	psi - (bar)	150 - (10.34)
Utilization Energy Factor (U.E.F.)		0.954
Continuous hot water flow rates: ΔT 54°F (30°C)	US gpm - (litres/min)	7.08 - (26.8)
Continuous hot water flow rates: ΔT 77°F (43°C)	US gpm - (litres/min)	5.1 - (19.3)
Width	in - (mm)	16.14 - (410)
Depth	in - (mm)	19.09 - (485)
Height	in - (mm)	25.19 - (640)
Gross weight	lb - (Kg)	110 - (50)
Electric consumption - normal	W	180
Electric consumption - Standby	W	3.5
Insulation rate	IP	X5D

WARRANTY HEAT EXCHANGER: 12 YEARS;

WARRANTY COMPONENTS: 2 YEARS.

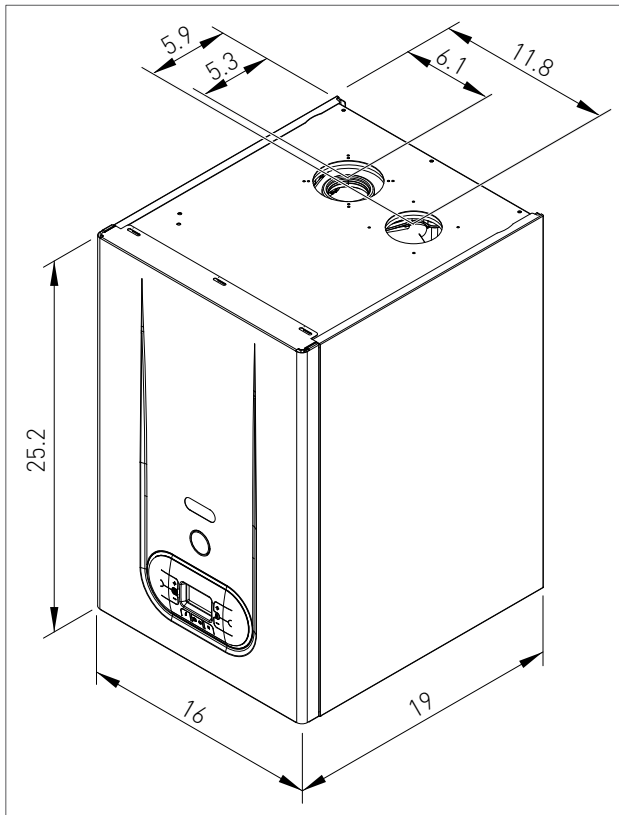
PROJECT NO.:	REPRESENTATIVE:
NAME:	DATE:
LOCATION:	
SPECIFIER:	APPROVED BY:
CONTRACTOR:	DATE:





1. SFK 55 SUBMITTAL

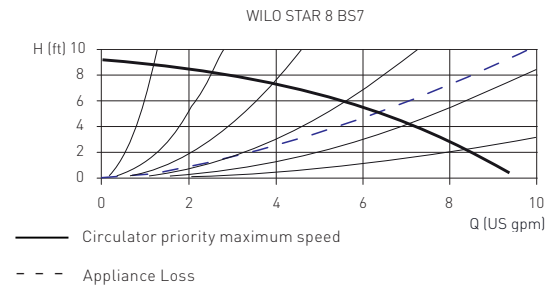
OVERALL DIMENSIONS (INCH)



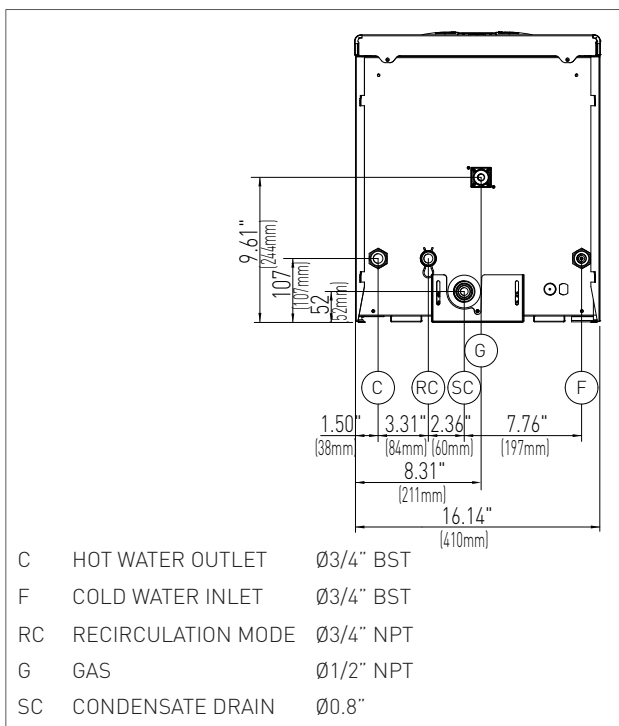
TYPES OF EXHAUST SYSTEMS

- > COLLINEAR VENT, CO-AXIAL VENT AND SINGLE VENT.
- > PVC, CPVC AND POLYPROPYLENE FOR SIZES 2", 3" AND 4" DIAMETERS.
- > FOR CANADA USE GAS VENTING SYSTEMS CERTIFIED TO ULC S636.

RECIRCULATION MODE CIRCULATOR PREVALENCE/FLOW DIAGRAM

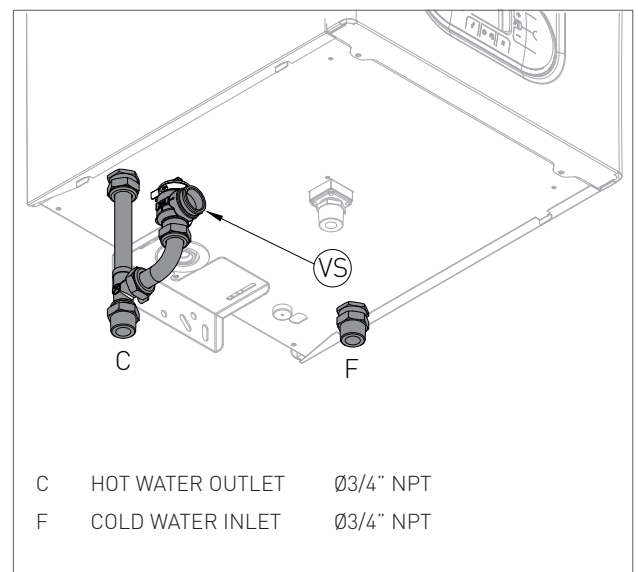


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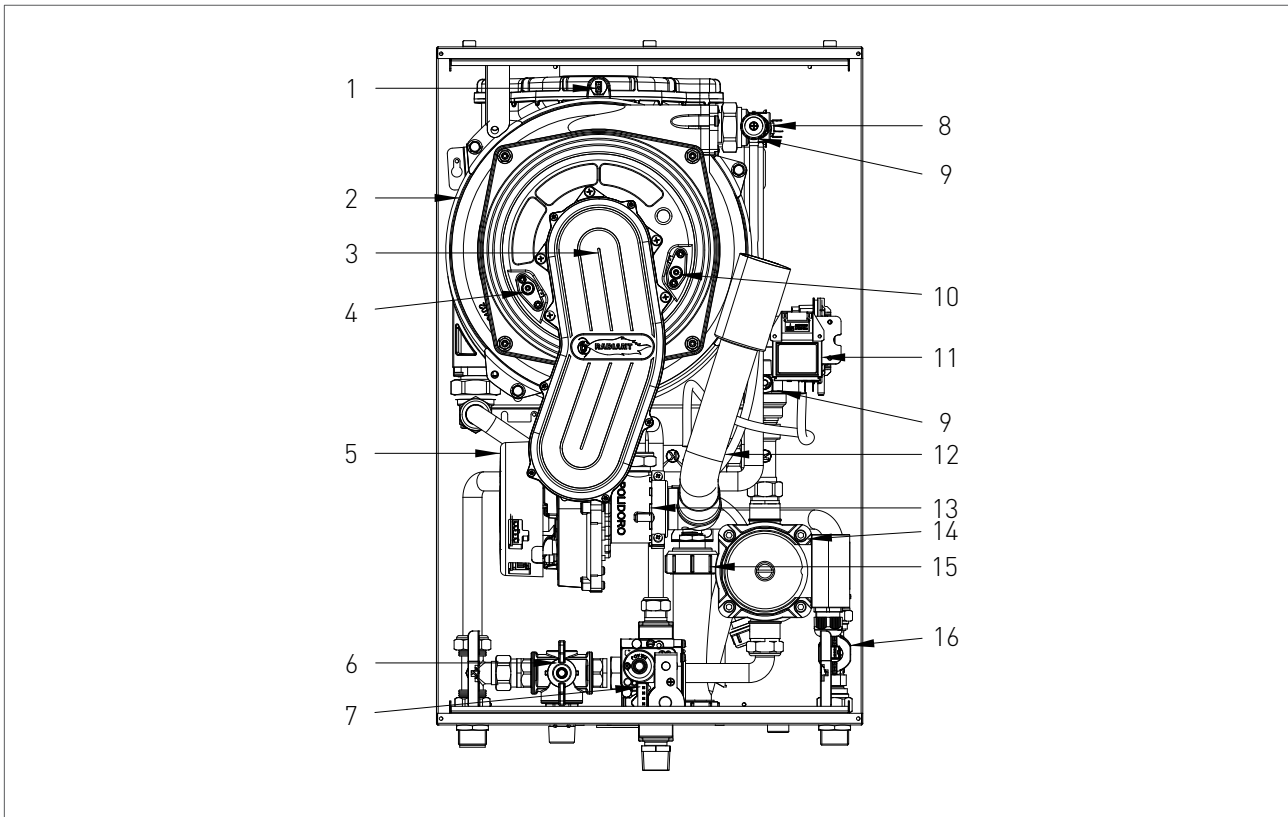


PRESSURE RELIEF VALVE KIT

A water connection kit equipped with water connections and safety valve (see 'VS') is shipped loose with each unit.



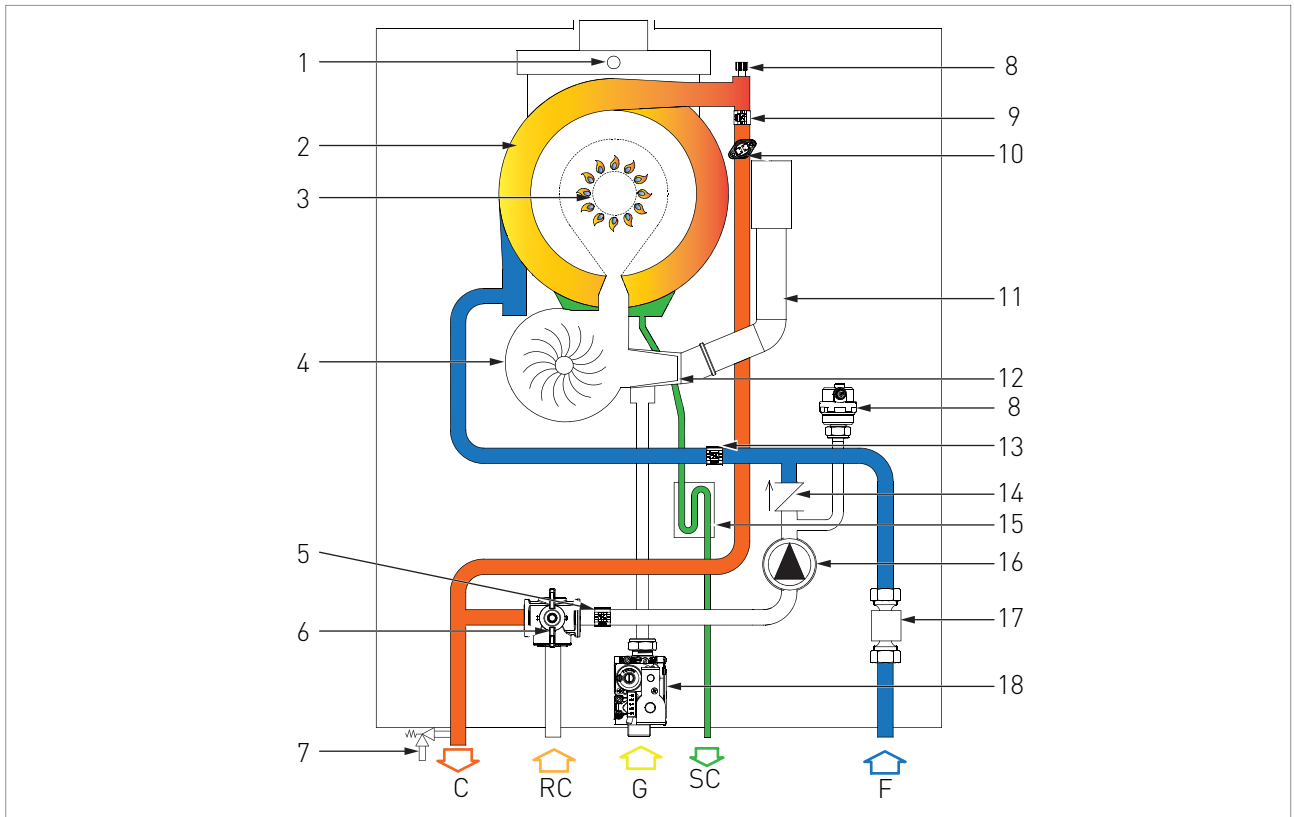
TECHNICAL ASSEMBLY



KEY

1. EXHAUST SAFETY HIGH LIMIT SWITCH
2. INTEGRATED HEAT EXCHANGER
3. BURNER UNIT
4. IONIZATION ELECTRODE
5. COMBUSTION BLOWER
6. 3-WAY VALVE - RECIRCULATION MODE
7. GAS VALVE
8. WATER TEMPERATURE HIGH LIMIT SWITCH
9. AIR ELIMINATOR
10. SPARK ELECTRODE
11. IGNITION TRANSFORMER
12. AIR SUCTION TUBE
13. PROPORTIONAL VENTURI
14. CIRCULATOR
15. CONDENSATE COLLECTION SIPHON
16. FLOW SWITCH

HYDRAULIC BOARD



KEY

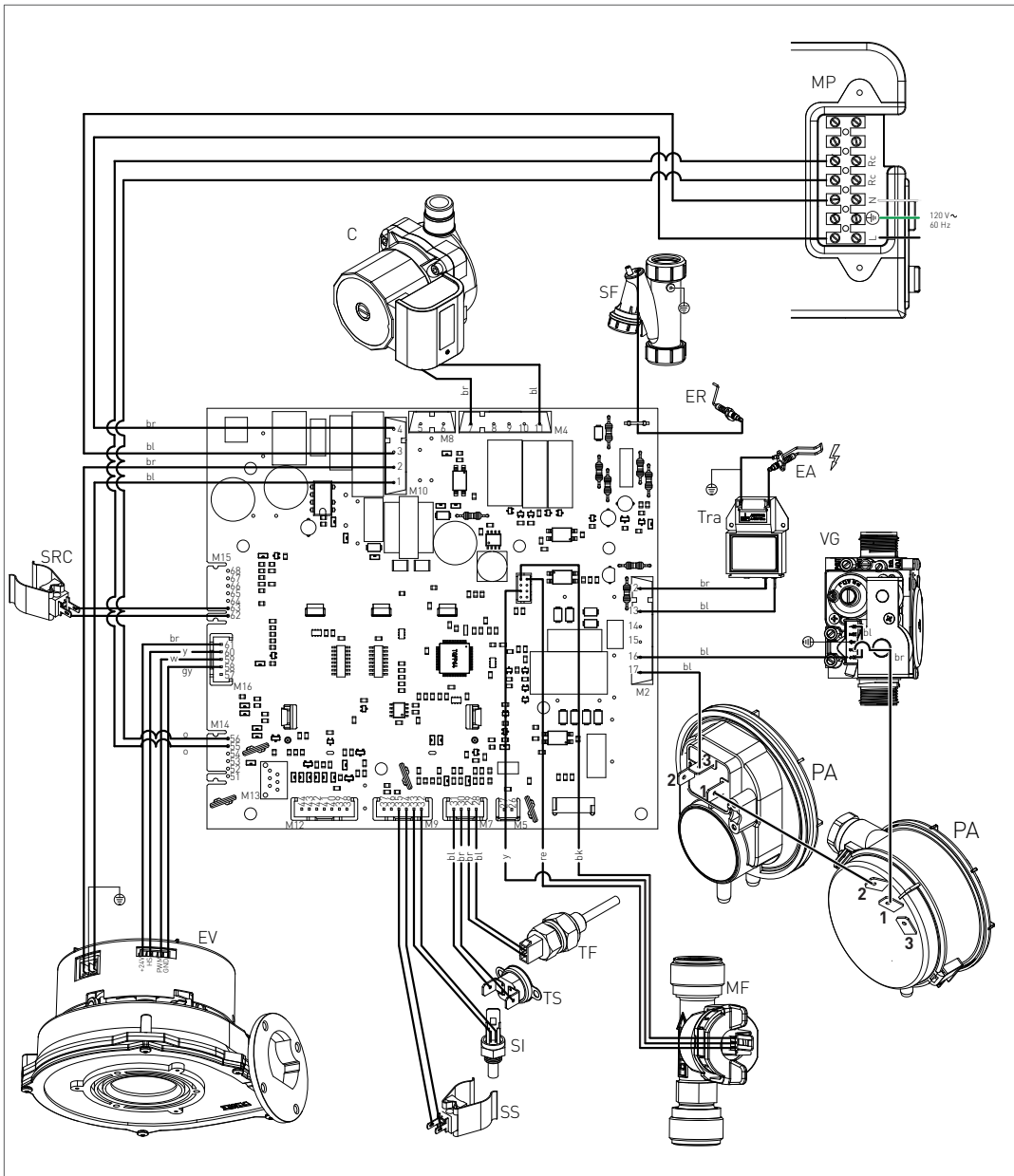
- C. DOMESTIC HOT WATER OUTLET
- F. COLD WATER INLET
- RC. RECIRCULATION MODE
- G. GAS INLET
- SC. CONDENSATE DRAIN

- 1. EXHAUST SAFETY HIGH LIMIT SWITCH
- 2. INTEGRATED HEAT EXCHANGER
- 3. BURNER UNIT
- 4. COMBUSTION BLOWER
- 5. RECIRCULATION PROBE

- 6. 3-WAY VALVE - RECIRCULATION MODE
- 7. PRESSURE RELIEF VALVE
- 8. AIR ELIMINATOR
- 9. DOMESTIC TEMPERATURE PROBE OUTLET
- 10. WATER TEMPERATURE HIGH LIMIT SWITCH
- 11. AIR SUCTION TUBE
- 12. PROPORTIONAL VENTURI
- 13. DOMESTIC TEMPERATURE PROBE INLET
- 14. CHECK VALVE
- 15. CONDENSATE COLLECTION SIPHON
- 16. CIRCULATOR
- 17. FLOW SWITCH
- 18. GAS VALVE



WIRING DIAGRAM



- | | | | |
|---|---|--------------------|----------------------------------|
| ER: IONIZATION ELECTRODE | TS: WATER TEMPERATURE HIGH LIMIT SWITCH | MP: PANEL TERMINAL | BL: BLUE |
| EA: SPARK ELECTRODE | PACQ: WATER PRESSURE TRANSDUCER | L: LINE | BR: BROWN |
| C: CIRCULATOR | MF: MICRO-FLOW SWITCH | N: NEUTRAL | O: ORANGE |
| VG: GAS VALVE | SI: DOMESTIC TEMPERATURE PROBE INLET | RE: RED | Y: YELLOW |
| TRA: IGNITION TRANSFORMER | SS: DOMESTIC TEMPERATURE PROBE | BK: BLACK | W: WHITE |
| TF: EXHAUST SAFETY HIGH LIMIT SWITCH_(102°C) | EV: COMBUSTION BLOWER | G: GREEN | GY: GREY |
| SRC: RECIRCULATION TEMPERATURE PROBE | PA: AIR PRESSURE SWITCH | | |
| RC: DOMESTIC HOT WATER PRE-HEATING DEACTIVATION TIMER | | | |
| | | | SF: CONDENSATE COLLECTION SIPHON |