

# SFK 55 (Aqua<sup>2</sup>)

## Submittal



The SFK 55, named Aqua<sup>2</sup>, is a premix gas-fired condensing hot water heater that complies with ANSI Z21.10.3 • CSA 4.3 Gas-fired water heaters. The Aqua<sup>2</sup>, 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 Aqua<sup>2</sup> 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:

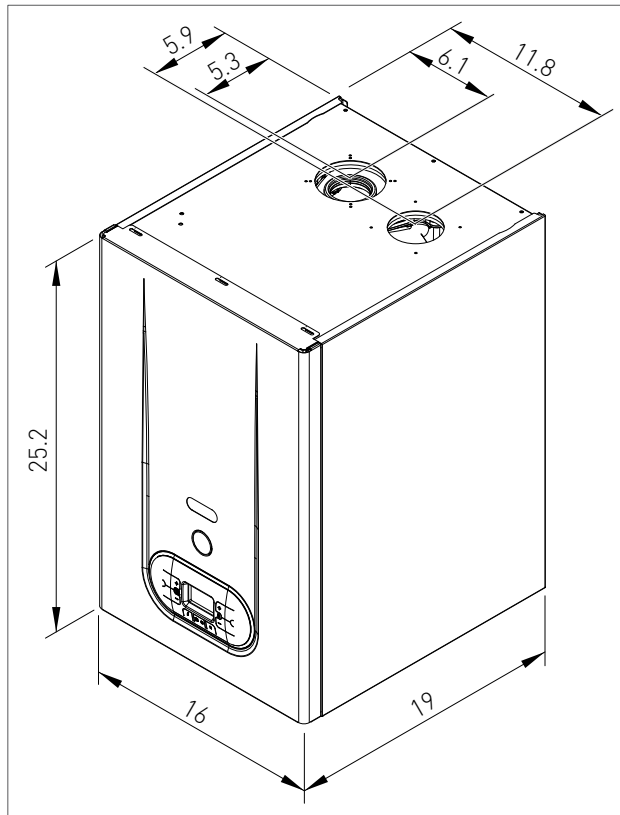
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## 1. SFK 55 SUBMITTAL

### OVERALL DIMENSIONS (INCH)



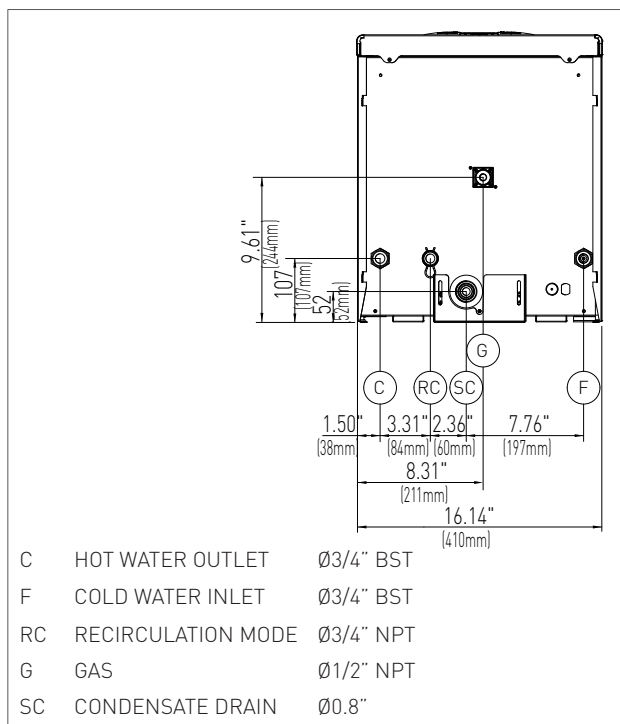
### TYPES OF EXHAUST SYSTEMS

- › 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

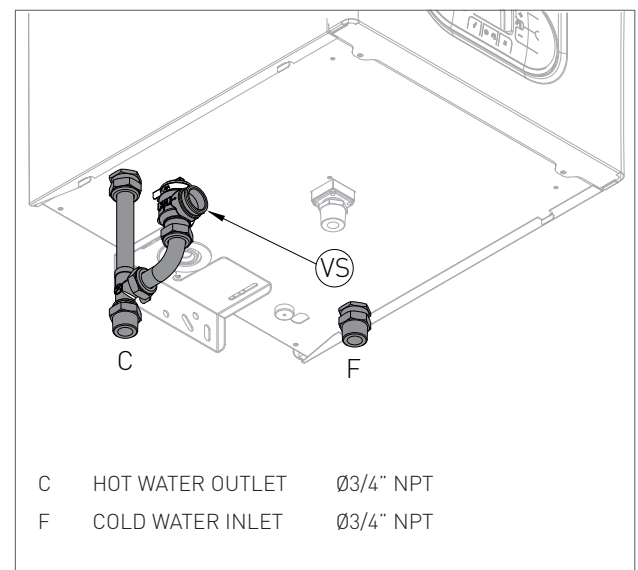


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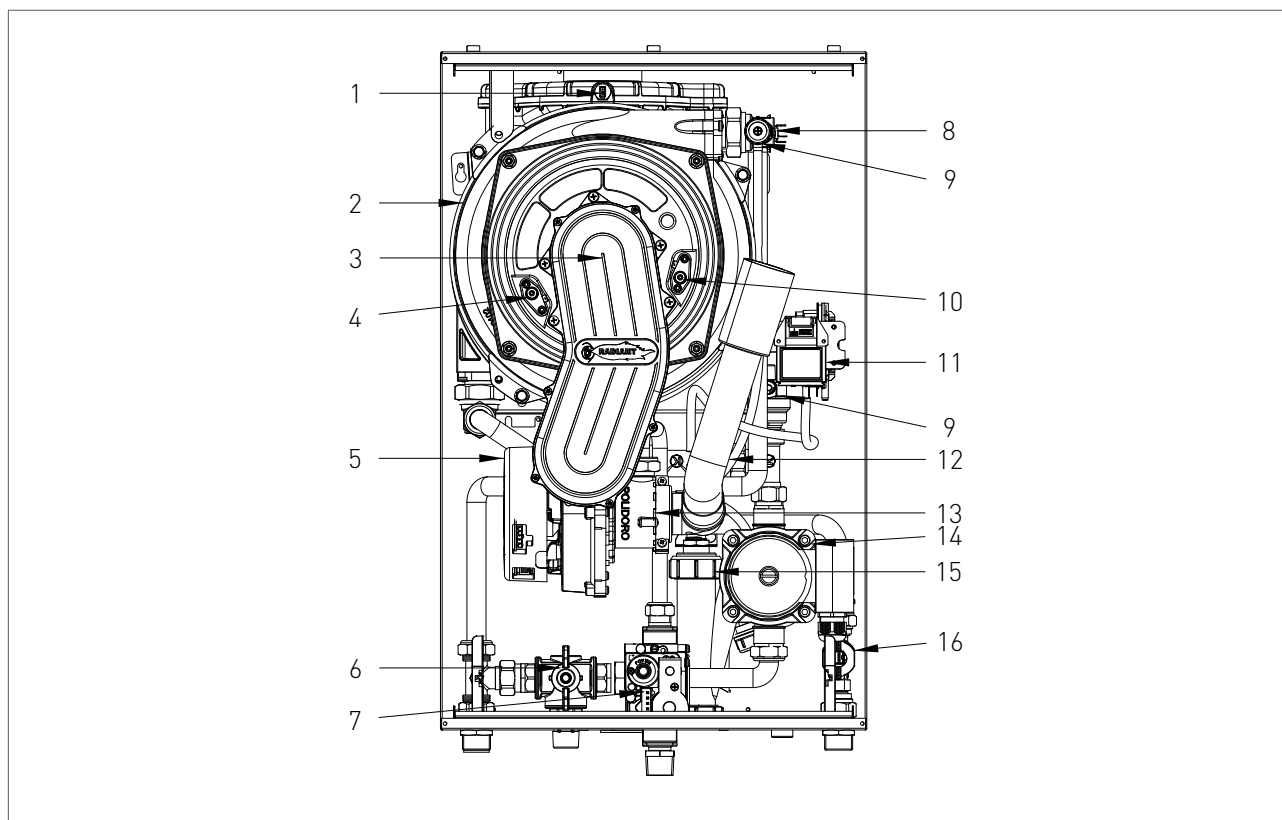


### PRESSURE RELIEF VALVE KIT

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



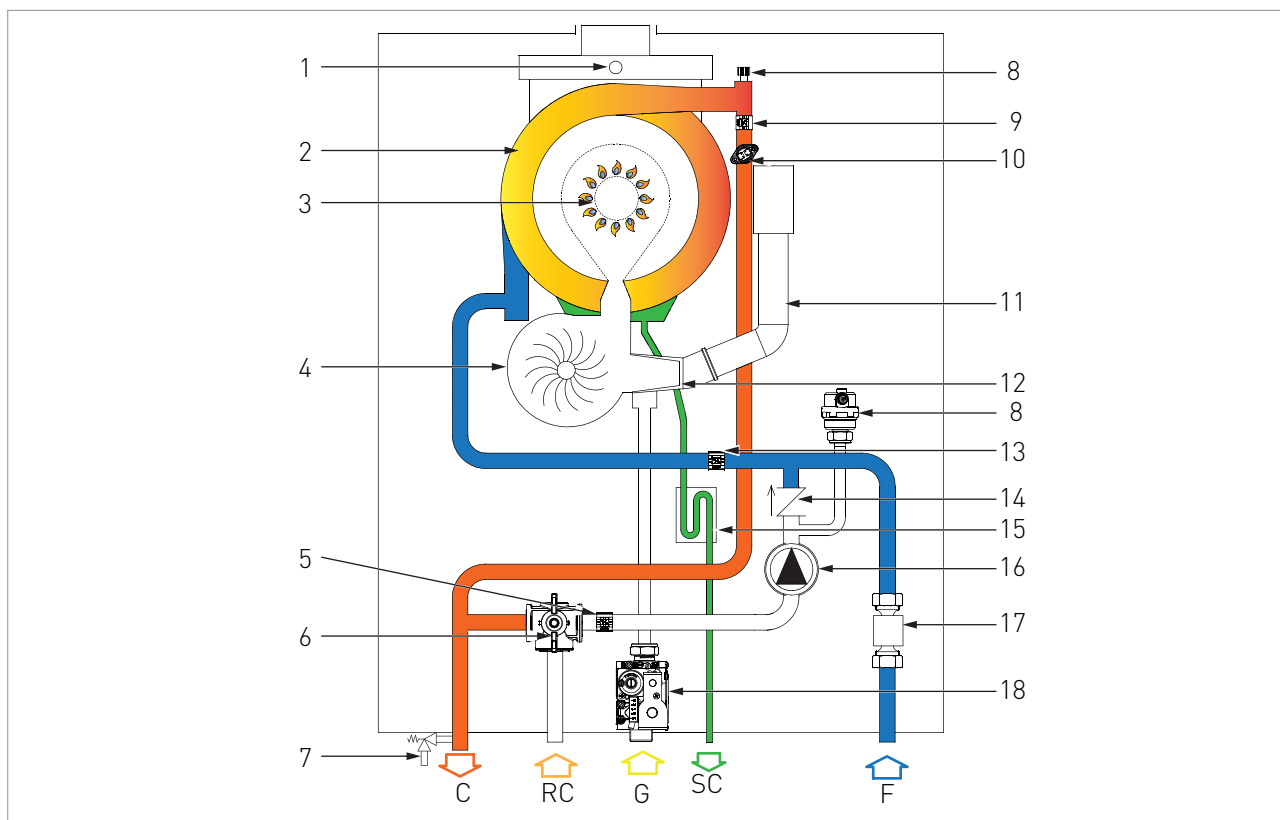
## TECHNICAL ASSEMBLY



## 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



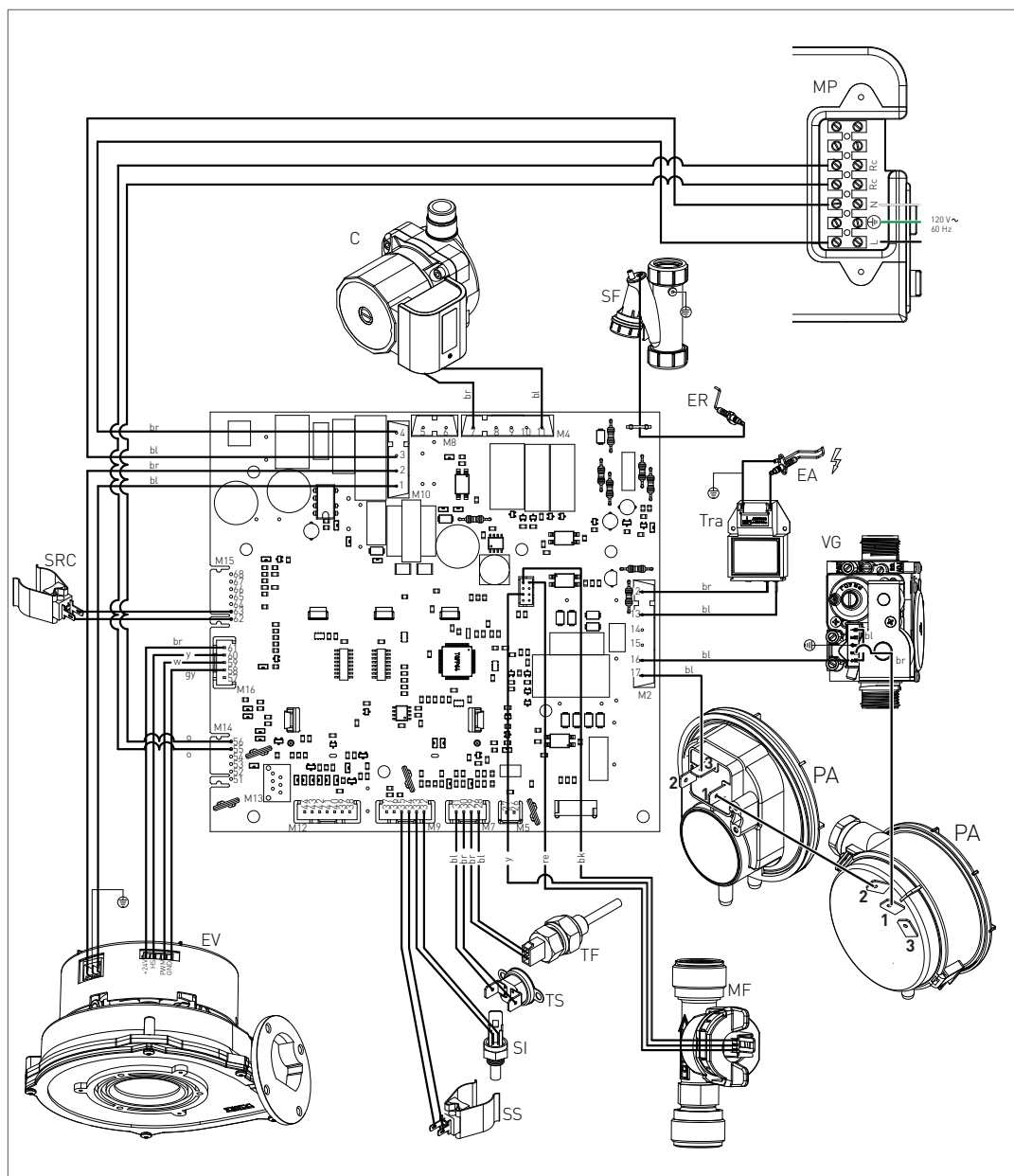
#### KEY

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

EA: SPARK ELECTRODE

C: CIRCULATOR

VG: GAS VALVE

TRA:IGNITION TRANSFORMER

TF: EXHAUST SAFETY HIGH LIMIT

SWITCH\_(102°C)

SRC: RECIRCULATION TEMPERATURE  
PROBE

RC: DOMESTIC HOT WATER PRE-HEATING

DEACTIVATION TIMER

TS: WATER TEMPERATURE HIGH LIMIT SWITCH

PACQ:WATER PRESSURE TRANSDUCER

MF: MICRO-FLOW SWITCH

SI: DOMESTIC TEMPERATURE PROBE INLET

SS: DOMESTIC TEMPERATURE PROBE

EV: COMBUSTION BLOWER

PA: AIR PRESSURE SWITCH

MP: PANEL TERMINAL

L: LINE

N: NEUTRAL

RE: RED

BK: BLACK

G: GREEN

BL: BLUE

BR: BROWN

O: ORANGE

Y: YELLOW

W: WHITE

GY: GREY

SF: CONDENSATE  
COLLECTION SIPHON