

R2K 55

Submittal



R2K 55 is a premier premix gas-fired combination boiler that complies with ANSI Z21.13 and CSA 4.9 GAS FIRED LOW PRESSURE STEAM AND HOT WATER BOILERS. The Radiant Combi-Tech R2K units are equipped with a revolutionary stainless steel exchanger, which features high efficiencies in all conditions. A larger coil tube with an inner diameter of 28 mm reduces the load losses, and prevents debris/limestone deposits and make it much easier on maintenance. The R2K 55 model features a 1:9 air/gas modulation which is important for energy savings and prevents frequent cycling of the boiler.

MAIN FEATURES

ANTI-FREEZE FUNCTION PROTECTION

OUTDOOR RESET

WIDE MODULATING RANGE

LOW NOX EMISSIONS

AUTOMATIC BY-PASS FITTED

PRE-WIRED ELECTRICAL LEAD

FULL GAS/AIR MODULATION

MIXED ZONE CARD (OPTIONAL)

SOLAR CARD CONTROL (OPTIONAL)

TIME AND TEMPERATURE CONTROLLERS (OPTIONAL)

TECHNICAL FEATURES

| MODEL | | R2K 55 |
|---|--------------------|------------------------------------|
| AFUE | | 96% |
| Maximum central heating input | btu/h - (kW) | 187667 - (55) |
| Maximum domestic hot water input | btu/h - (kW) | 187667 - (55) |
| Minimum central heating input | btu/h - (kW) | 18766 - (5.5) |
| Minimum domestic hot water input | btu/h - (kW) | 18766 - (5.5) |
| Adjustable central heating range | °F - (°C) | 86-176 / 77-113 (30-80 / 25-45) |
| Maximum operating temperature for central heating | °F - (°C) | 203 - (95) |
| Maximum operating pressure for central heating | psi - (bar) | 60 - (4.1) |
| Domestic hot water temperature range | °F - °C | 95-140 (35-60) |
| Maximum pressure for domestic hot water | psi - (bar) | 87 - (6) |
| Minimum pressure for domestic hot water | psi - (bar) | 7.25 - (0.5) |
| Continuous hot water flow rates: ΔT 54°F (30°C) | gal(US) - (litres) | 7.11 - (26.93) |
| Continuous hot water flow rates: ΔT 77°F (43°C) | gal(US) - (litres) | 4.97 - (18.8) |
| 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 |
| AFUE | % | 96 |

WARRANTY HEAT EXCHANGER: 12 YEARS;

WARRANTY COMPONENTS: 2 YEARS.

PROJECT NO.:

REPRESENTATIVE:

NAME:

DATE:

LOCATION:

SPECIFIER:

APPROVED BY:

CONTRACTOR:

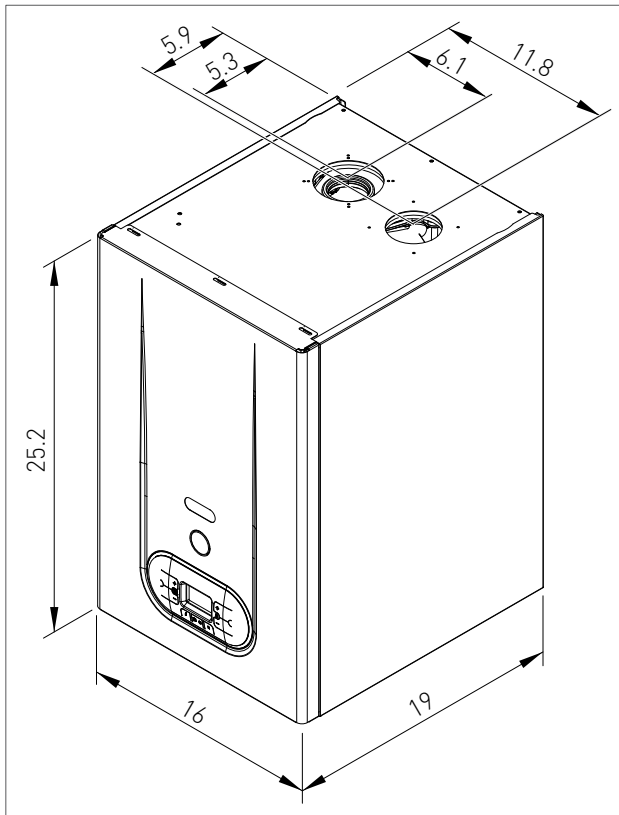
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1. R2K 55 SUBMITTAL

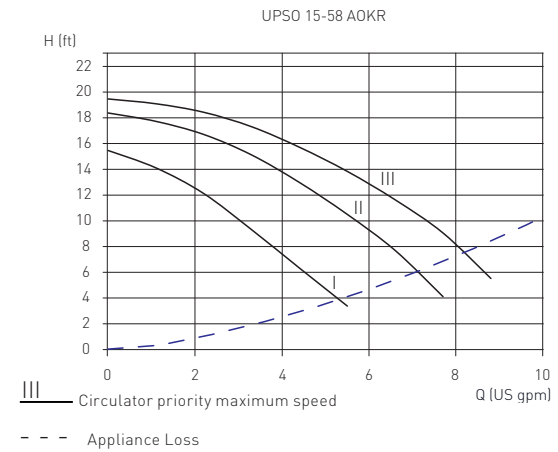
OVERALL DIMENSIONS (INCH)



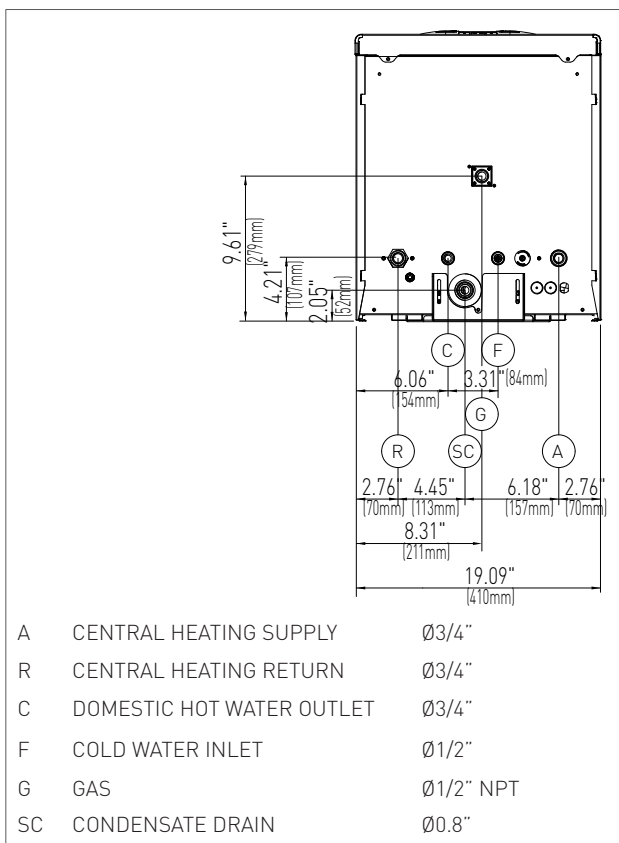
TYPES OF EXHAUST SYSTEMS

- > 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.

CIRCULATOR PREVALENCE/FLOW DIAGRAM

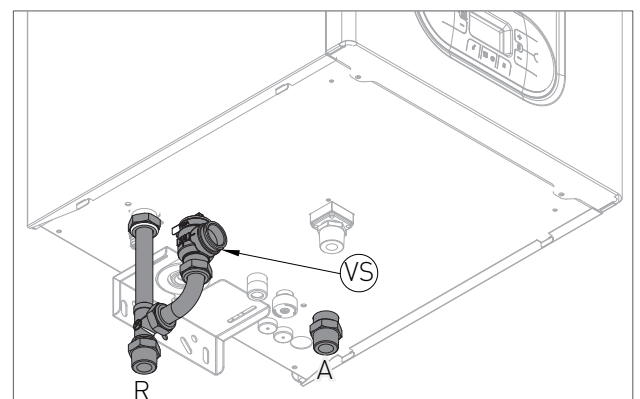


JIG



PRESSURE RELIEF VALVE KIT

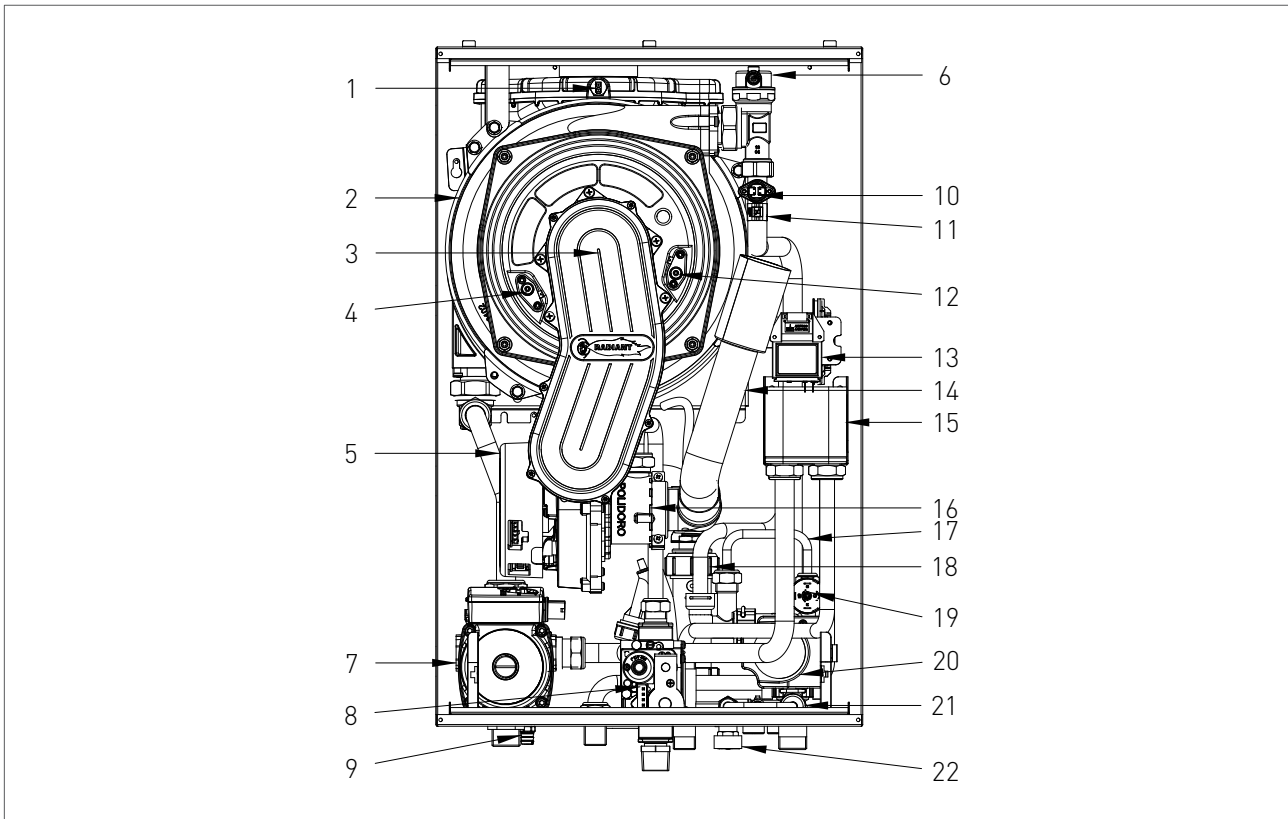
An hydraulic kit equipped with hydraulic connections and safety valve (see 'VS') is available and supplied by RADIANT.



- R - CENTRAL HEATING RETURN Ø 3/4 NPT
- A - CENTRAL HEATING SUPPLY Ø 3/4 NPT



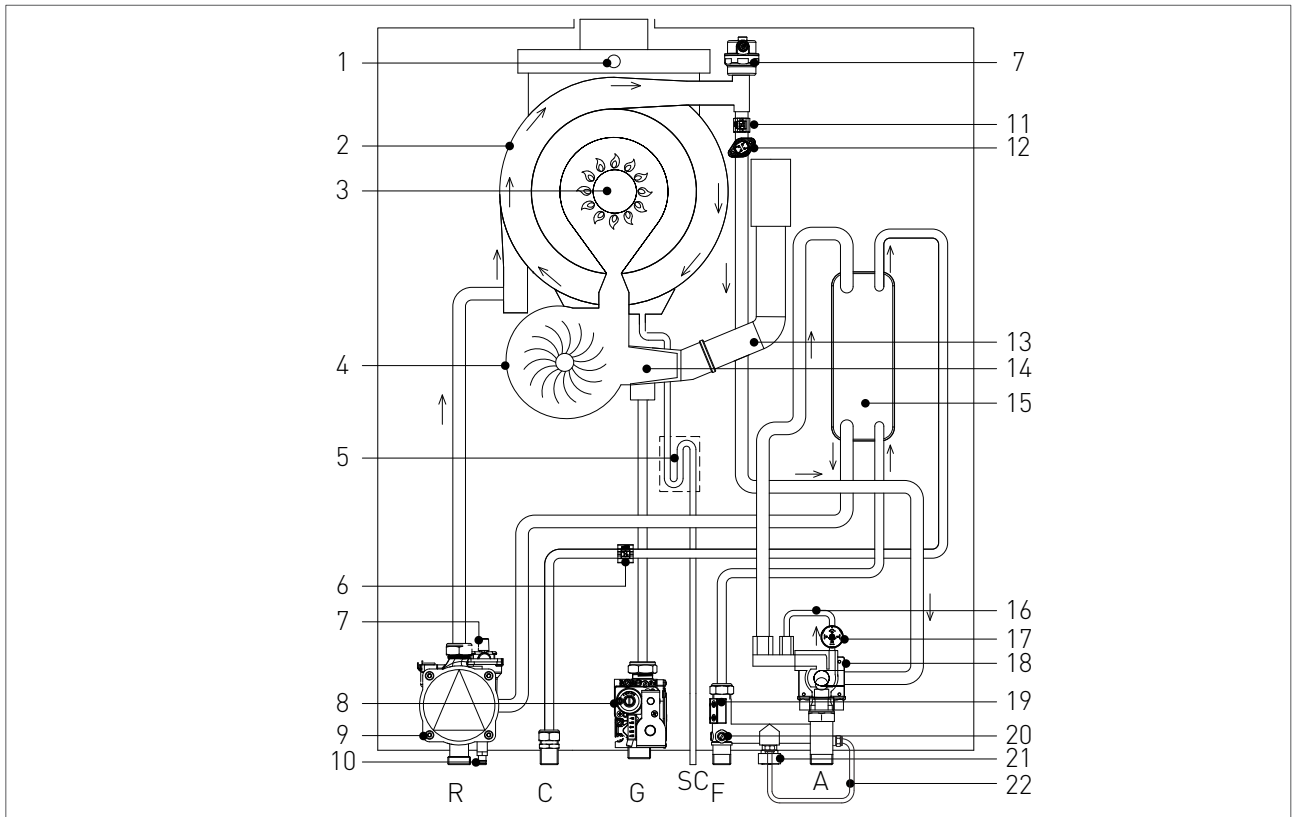
TECHNICAL ASSEMBLY



KEY

1. EXHAUST SAFETY HIGH LIMIT SWITCH
2. INTEGRATED HEAT EXCHANGER
3. BURNER UNIT
4. IONIZATION ELECTRODE
5. COMBUSTION BLOWER
6. AIR ELIMINATOR
7. CIRCULATOR
8. GAS VALVE
9. SYSTEM DRAINING TAP
10. WATER TEMPERATURE HIGH LIMIT SWITCH
11. CENTRAL HEATING TEMPERATURE PROBE
12. SPARK ELECTRODE
13. IGNITION TRANSFORMER
14. AIR SUCTION TUBE
15. D.H.W. EXCHANGER
16. PROPORTIONAL VENTURI
17. BY-PASS
18. CONDENSATE COLLECTION SIPHON
19. WATER PRESSURE TRANSDUCER
20. DIVERTER VALVE
21. CHECK VALVE
22. SYSTEM FILLING TAP

HYDRAULIC BOARD

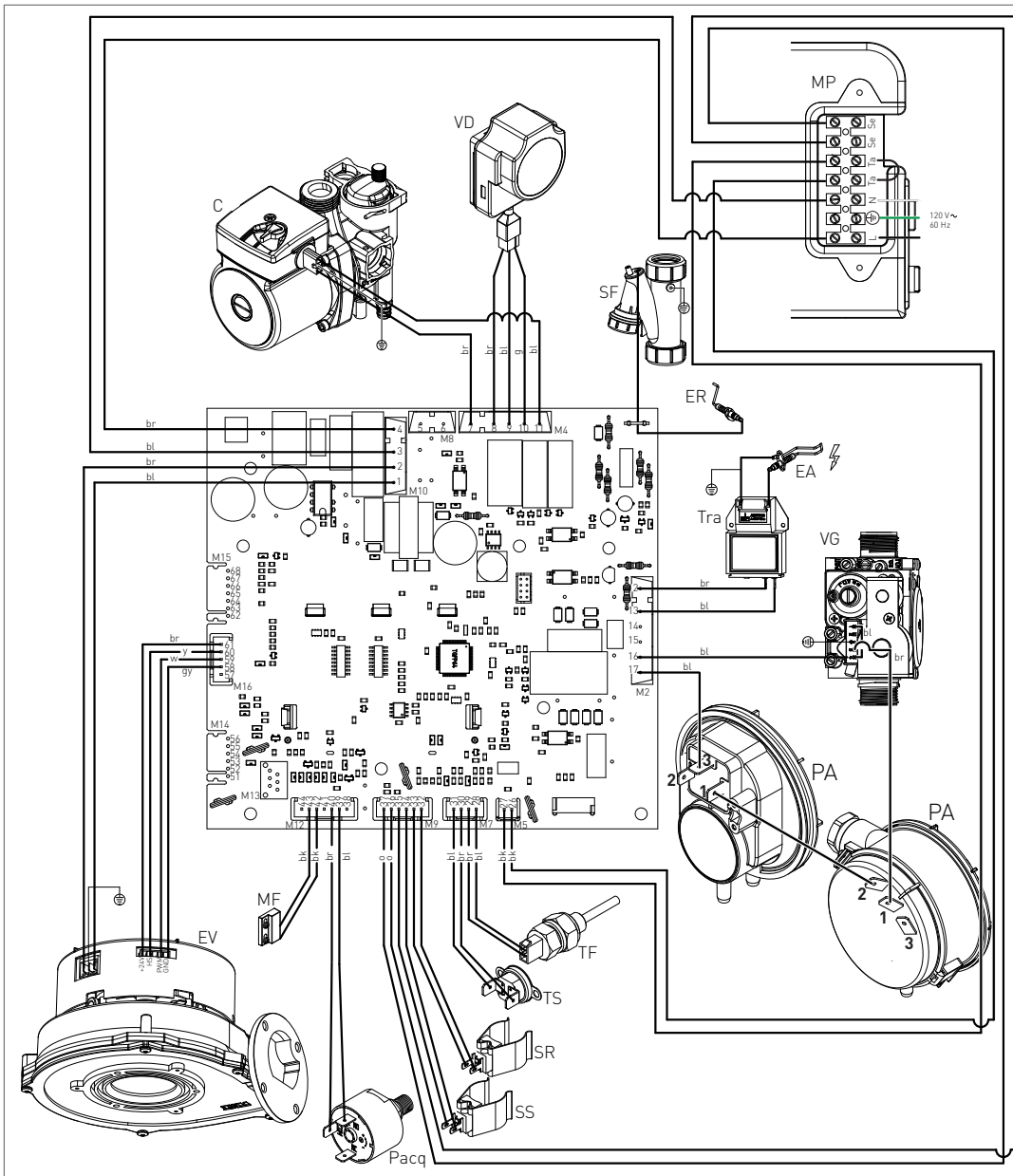


KEY

- | | |
|-------------------------------------|---|
| R. CENTRAL HEATING RETURN | 8. GAS VALVE |
| C. DOMESTIC HOT WATER OUTLET | 9. CIRCULATOR |
| G. GAS INLET | 10. SYSTEM DRAINING TAP |
| SC. CONDENSATE DRAIN | 11. CENTRAL HEATING TEMPERATURE PROBE |
| F. COLD WATER INLET | 12. WATER TEMPERATURE HIGH LIMIT SWITCH |
| A. CENTRAL HEATING SUPPLY | 13. AIR SUCTION TUBE |
| 1. EXHAUST SAFETY HIGH LIMIT SWITCH | 14. PROPORTIONAL VENTURI |
| 2. INTEGRATED HEAT EXCHANGER | 15. D.H.W. EXCHANGER |
| 3. BURNER UNIT | 16. BY-PASS |
| 4. COMBUSTION BLOWER | 17. WATER PRESSURE TRANSDUCER |
| 5. CONDENSATE COLLECTION SIPHON | 18. DIVERTER VALVE |
| 6. DOMESTIC TEMPERATURE PROBE | 19. FLOW SWITCH |
| 7. AIR ELIMINATOR | 20. FLOW LIMITER |
| | 21. SYSTEM FILLING TAP |
| | 22. CHECK VALVE |



WIRING DIAGRAM



| | | | |
|--|---|----------------------------|----------------------------------|
| ER: IONIZATION ELECTRODE | TS: WATER TEMPERATURE HIGH LIMIT SWITCH | MP: PANEL TERMINAL | BL: BLUE |
| EA: SPARK ELECTRODE | PACQ: WATER PRESSURE TRANSDUCER | SE: OUTDOOR TEMPERATURE | BR: BROWN |
| C: CIRCULATOR | MF: MICRO-FLOW SWITCH | TA: ENVIRONMENT THERMOSTAT | O: ORANGE |
| VG: GAS VALVE | SR: CENTRAL HEATING TEMPERATURE PROBE | L: LINE | Y: YELLOW |
| TRA: IGNITION TRANSFORMER | SS: DOMESTIC TEMPERATURE PROBE | N: NEUTRAL | W: WHITE |
| TF: EXHAUST SAFETY HIGH LIMIT SWITCH (102°C) | EV: COMBUSTION BLOWER | BK: BLACK | GY: GREY |
| VD: DIVERTER VALVE | PA: AIR PRESSURE SWITCH | G: GREEN | SF: CONDENSATE COLLECTION SIPHON |