



CONDEXA PRO

EXCELLENCE AND FLEXIBILITY



RIELLO
Energy For Life

CONDEXA PRO

Riello Condexa PRO is a condensing pre-mixed, fan-induced modulating wall-hung boiler, designed both for stand-alone and cascade applications up to 702 kW. It is suitable for a wide variety of installations, from office buildings and sports facilities to schools and hotels.

It is available in two models, each of which can be combined in cascade systems up to six units:

CONDEXA PRO 75 NA

CONDEXA PRO 117 NA

- CASCADE UP TO 6 UNITS
- INTEGRATED MANAGING/DEPENDENT CONTROL (NON CODE DIFFERENTIATION)
- CASCADE MANAGEMENT INCLUDED IN THE INTERFACE BOARD CONTROL
- BOILER INCLUDES BUILT-IN CIRCULATING PUMP
- 4" FLUE EXIT / AIR INTAKE ADAPTERS SUPPLIED AS STANDARD
- ROOM SEALED COMBUSTION
- NPT CONNECTIONS
- GAS CATEGORY: TYPE A (NATURAL GAS) – TYPE E (LPG) ACCORDING CSA REQUIREMENTS
- LOW EMISSIONS – SOUTH COAST AQMD CERTIFICATE



RIELLO HEAT EXCHANGER TECHNOLOGY

Heat exchanger in stainless steel:
2 sizes, 75 kW (255,902 Btu/h) and 117 kW (399,204 Btu/h)

Ultra high efficiency AFUE > 95%

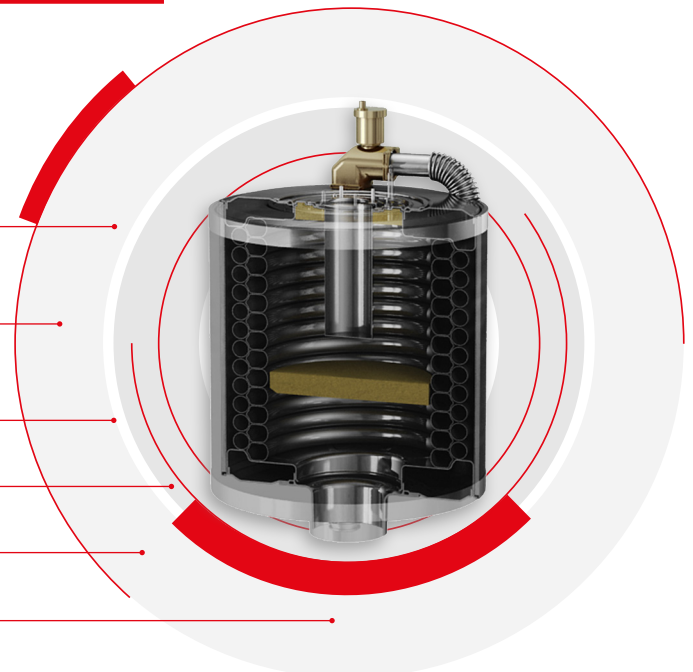
Double pipe coil, with smooth tube in stainless steel and patented profile

Premix burner with high modulation range and low NOx emissions

Low hydraulic losses

High fan speed

RIELLO design and manufacturing



RIELLO

HOW IT IS MADE

MAX OPERATING TEMPERATURE:

Max operating temperature (set point) 194 °F (90 °C)
Safety thermostat set @ 203 °F (95 °C)

WATER FLOW METER:

Water flow meter on water pipe outlet, for flow rate control on the boiler circuit.

WATER PRESSURE SWITCH/RETURN SENSOR:

Minimum pressure switch and return water sensor for heat exchanger safety protection

FLUE SENSOR:

Flue sensor for combustion analysis and alerts for heat exchanger cleaning

FLUE GAS PRESSURE SENSOR:

Air/flue differential pressure switch

GAS VALVE:

Pneumatic gas valve
Turndown ratio 10:1



NOTE: this picture is only representative

DISPLAY AND INTEGRATED ELECTRONIC



THE SYSTEM BRAIN

Condexa PRO electronic control has complex functions. It monitors and quickly processes data originating from the generators and from the installation, producing optimum comfort for the user, while ensuring minimal energy waste and maximum operation safety. The Condexa PRO control features exceptional calculation programs, intuitive learning capabilities and high modulation ratios. The operation logic of the boiler in "managing" or "depending" mode, in a cascade application, is integrated into the board, ensuring maximum application flexibility. The interface display is back-lit, intuitive and multilingual, simplifying communication between the unit and the users. The electronic control is built into each boiler as well as cascade system applications, eliminating the need for a separate remote control panel.

RIELLO

THE INGREDIENTS OF SUCCESS

MIXER WITH HIGH RANGE OF HEAT CAPACITY TURNDOWN RATIO

The MIXER has two Venturi, one of which has a flue gas check valve; this closes it, due to gravity, at low power.

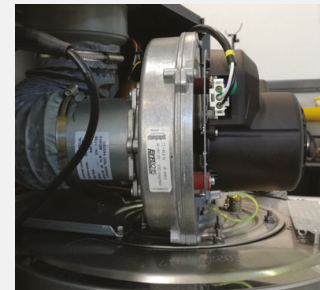
This creates a variable throat, doubling the turndown ratio from 5:1 to 10:1

Condexa Pro has an ionisation flame control combined with a zero governor combustion.



ADVANTAGES OF A 10:1 TURNDOWN RATIO

- produces energy savings by minimizing on/off cycles
- makes the boiler more suitable for coupling with renewable heat production, and allows an overall lower CO₂ emission for a more environmentally responsible system
- broadens the work field allowing a reduction in the number of variants
- reduces the value of weighted emissions, increasing the turndown ratio



TECHNICAL DRAWINGS

ONE SIZE:

(same values for both models)

W (Width): 23.62 in (600 mm)

D (Depth): 17.12 in (435 mm)

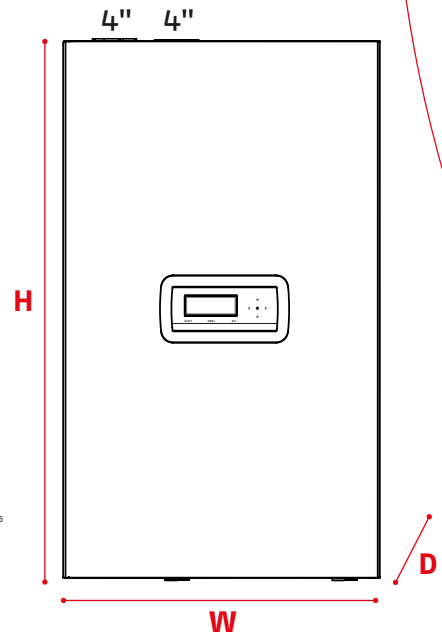
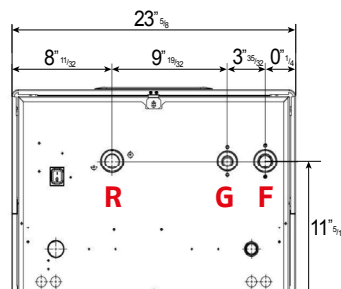
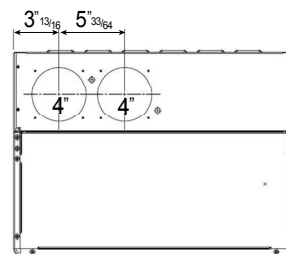
H (Height): 39.37 in (1000 mm)

HYDRAULIC CONFIGURATION:

G (Gas): 1" 1/4 NPT

F (Flow): 1" 1/2 NPT

R (Return): 1" 1/2 NPT



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CONDEXA PRO

ONE PRODUCT, A THOUSAND SOLUTIONS



STAND ALONE UNIT

POSSIBILITY OF STAND-ALONE APPLICATION, WHERE THE FRAME CAN SUPPORT THE UNIT ALSO IN CASE OF FREE-STANDING INSTALLATION, WHEN THE WALL-HUNG INSTALLATION IS NOT POSSIBLE OR WHEN THE SOLUTION WITH PLATE HEAT EXCHANGER IS CHOSEN.



LINEAR CASCADE CONFIGURATION

CONDEXA PRO UNIT IS DESIGNED TO WORK IN CASCADE HIGH POWER SYSTEMS. THE INTEGRATED MANAGING-DEPENDENT LOGIC ENABLES THE INTERCHANGEABILITY OF THE UNITS AND ENSURES THE CONTINUOUS OPERATION OF THE SYSTEM.



BACK-TO-BACK CASCADE CONFIGURATION

THE BACK-TO-BACK CONFIGURATION SAVES SPACE IN THE PLANT ROOM, WHILE CREATING HIGH POWER SOLUTIONS. IN THE CASCADE INSTALLATIONS THE INTERFACE BETWEEN PRIMARY AND SECONDARY CIRCUIT CAN BE ACHIEVED BOTH VIA HYDRAULIC SEPARATOR AND PLATE HEAT EXCHANGER.



CONDEXA PRO IS THE SOLUTION, ALWAYS
CONDEXA PRO IS CHARACTERIZED BY HIGH FLEXIBILITY OF INSTALLATION. THE TWO MODELS 75 NA AND 117 NA, BESIDES STAND ALONE APPLICATION, CAN BE COMBINED IN LINEAR AND BACK-TO-BACK CASCADE CONFIGURATIONS, ALLOWING 20 DIFFERENT COMBINATIONS FOR DIFFERENT NEEDS.



WHY CHOOSE A CONDEXA PRO CASCADE SYSTEM?



Here are ten reasons why Condexa PRO boilers are the ideal choice for cascade system. Its modularity and specific features make Condexa PRO the best solution for commercial applications, both in new builds and as a replacement for less efficient boiler systems.

MAXIMUM EFFICIENCY AT ALL TIMES

The efficiency of a Condexa PRO cascade system is significantly higher than a traditional single boiler installation with the same output. By automatically controlling the number of boilers in operation, the system can optimize the heat supply according to demand at any particular time. For instance, in spring and autumn when the heat request is lower, or in buildings like hotels and restaurants where the heat request is not constant, the system can switch individual boilers on and off, ensuring optimum efficiency.

PEACE OF MIND

A Condexa PRO cascade system is more reliable than a traditional boiler installation as each boiler in the cascade can be individually serviced and maintained without interrupting the system's performance.

SIGNIFICANT SAVINGS

The high efficiency of the cascade system, enhanced by the intelligent condensing technology of the boilers, allows you to reduce the costs of the heating system and achieve payback within several years. Also, reduced installation time and quick servicing produce savings for the end user.

INTELLIGENT CONTROL

The Condexa PRO hard-wired remote control interface unit (via BAC net and LAN communication) can replace the need for an expensive BMS (Building Management System) as it controls the functionality of each boiler and multiple zones.

EASE OF SERVICING

The Condexa PRO range is designed so that all components can be easily serviced and maintained from the front. Each boiler in the cascade can be individually serviced and maintained, while the other units continue to operate.

SPACE SAVINGS

The cascade system IS designed to provide a space-saving and versatile solution for light commercial buildings or large domestic properties. A Condexa PRO cascade installation can be tailored to meet the space requirements of the customer as there are three different possibilities of composing the cascade: wall-hung installation, free-standing side-by-side installation and back-to-back installation. Also, thanks to the modularity of the system, the total output can be accurately sized to meet the space and energy requirements of the building.

EASE OF INSTALLATION

A Condexa PRO cascade system involves a simple installation process. The installer can lift each unit separately, and the boiler fits through most doorways. Plus, the system can be assembled on-site in the boiler room in both new-build and refurbished plant rooms.

ULTIMATE RELIABILITY

By choosing a Riello Condexa PRO system, you ensure that all components of your cascade work in harmony with one another, flow volumes are balanced, and hydraulic performance is optimized so that you experience reliability and savings from your heating system.

TURNDOWN RATIO

Condexa PRO electronic configuration can manage up to 64 units with a turndown ratio down to only 7.5 kW. To configure multi-boiler cascades, all components of the cascade must be accurately sized and selected with the help of a design engineer specialist.

GENUINE COMMITMENT TO THE ENVIRONMENT

A Condexa PRO cascade system can also automatically control the number of boilers in operation according to heat demand, saving energy and reducing emissions.

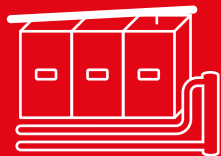
INSTALLATION OPTIONS

STAND ALONE APPLICATIONS



CASCADE APPLICATIONS

LINEAR CASCADE



BACK-TO-BACK CASCADE



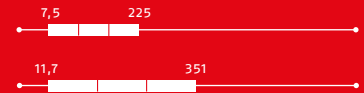
150 kW
511,804 BTU
234 kW
798,408 BTU

CONDEXA PRO 75 NA
(2 PCS)
CONDEXA PRO 117 NA
(2 PCS)



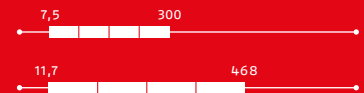
225 kW
767,706 BTU
351 kW
1,197,612 BTU

CONDEXA PRO 75 NA
(3 PCS)
CONDEXA PRO 117 NA
(3 PCS)



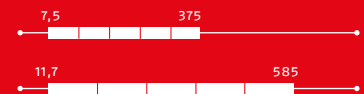
300 kW
1,023,608 BTU
468 kW
1,596,816 BTU

CONDEXA PRO 75 NA
(4 PCS)
CONDEXA PRO 117 NA
(4 PCS)



375 kW
1,279,510 BTU
585 kW
1,996,020 BTU

CONDEXA PRO 75 NA
(5 PCS)
CONDEXA PRO 117 NA
(5 PCS)



450 kW
1,535,412 BTU
702 kW
2,395,224 BTU

CONDEXA PRO 75 NA
(6 PCS)
CONDEXA PRO 117 NA
(6 PCS)



ABOUT RIELLO

Founded in 1922, Riello is a leading manufacturer of products and services for heating, air-conditioning and energy efficiency. Headquartered in Legnago (Verona), Italy, Riello operates in over 120 countries. Riello is a part of UTC Climate, Controls & Security, a unit of United Technologies Corp., a leading provider to the aerospace and building systems industries worldwide. For more information, visit

www.riello.com

NORTH AMERICAN DISTRIBUTOR:

Evergreen Products International Inc.

1815 Sismet Rd.

Mississauga, ON L4W 1P9

CANADA

Technical Support Hotline: **1.844.387.4663**

Email: info@egproductsolutions.com

Professional Resources: egproductsolutions.com

The Company is constantly working to perfect all of its production processes, therefore the aesthetics and size, technical data, equipment and accessories of the products may be subject to change.

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