



# R SERIES

Gas and dual fuel burners  
New Commercial Range

Product Overview

# R series new Commercial Range

Riello has been producing and selling burners for over 90 year and has been present in the North American market for over 30 years. Now due to our experience of the North American market, Riello is introducing a new Commercial Product Series developed specifically for the North American Market.

Thousands of R Series burners are sold every year all around the World. The New R Series burners for the American market contain the same combustion technology which brings strong reliability to the whole product family, however they are designed to accomodate the many different controls and options desired in the North American market.

An unmistakable design and style, utilising high technology solutions and high levels of industrialisation, distinguish the R Series product from the competition in today's market.

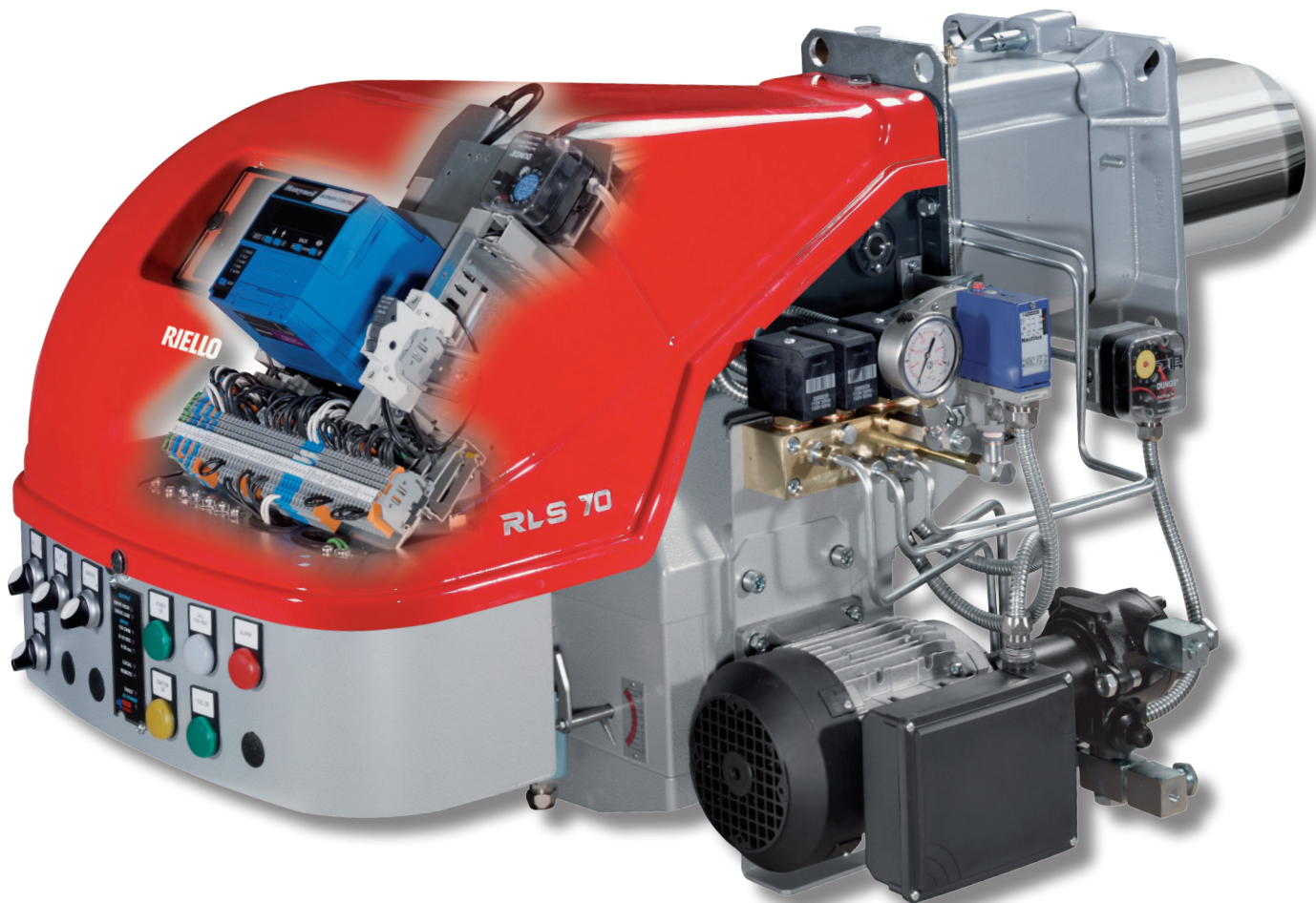
## THE NEW R SERIES



With many years of experience in the design and manufacture of Burners, Riello has developed a new Commercial range of product, the New R Series. This new series offers a high degree of flexibility in order to satisfy the needs of applications in the North American market whilst maintaining an integrated design.

The new R series burners will start to be phased-in during the beginning of 2010 starting with the dual fuel models, and with the other burners models to follow during the year, until all variants are available.

The current product series will remain available along side the new for our customer applications which have been designed with a European style control strategy.

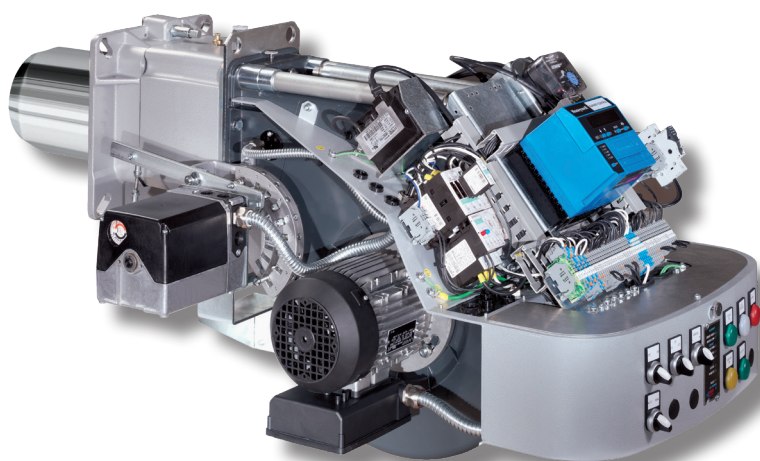
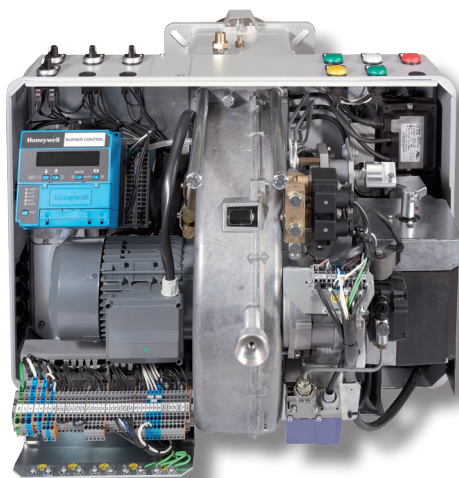




## NEW ELECTRICAL PANEL

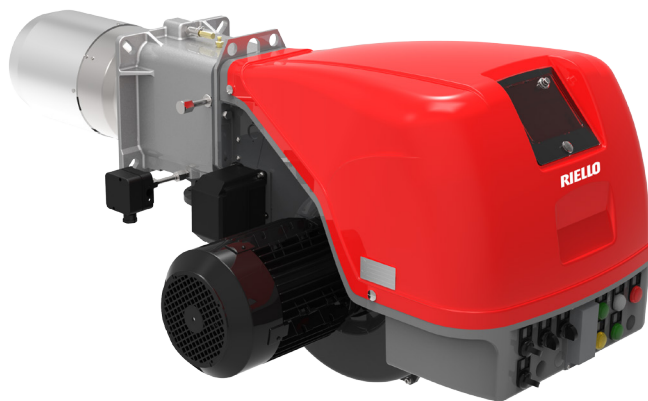
The Burner models of New R Series have been developed with a new Electrical Panel to increase flexibility; and despite the integrated layout, various flame safeguards can be used and many useful accessories such as switches, indicator lights, alarm horns etc. etc. can be fitted.

On the new RS and RLS models, all the components for basic burner operation are included in the Electrical Panel as standard equipment, optional accessories can easily be fitted on request.



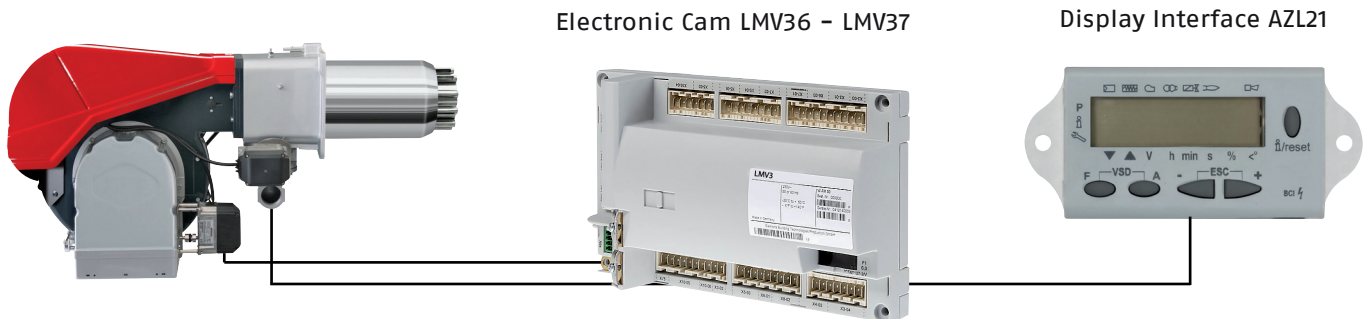
Example of RLS, dual fuel model electrical equipment specification:

- Flame Safe Guard Honeywell 7840 (other control type on demand)
- Servomotor Siemens SQM50
- Independent ignition for gas and oil
- Single point 3 ph power connection with integrated Control Circuit Transformer Installed
- 5 indicator lights, Power ON, Main Fuel ON, Call for Heat, Ignition, Flame failure.
- 3 pre-punched holes for extra indicator lights/switches
- 1 three way switch: off/local/remote
- 1 jog switch: up & down
- 1 three way switch fuel selection : Gas/Off/Oil - Auto/Off/Oil (Keyspan)
- 1 Alarm Horn
- 1 Alarm silence push-button



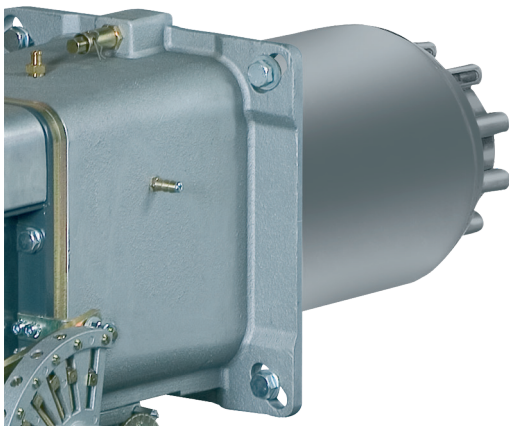
## ELECTRONIC CAM

The RS and RLS Burners are also available with fully modulating operation achieved with the new LMV3 Digital Linkageless Burner Management System, which is able to manage the air-fuel ratio by independent servomotors in order to obtain a perfect output control and to assure a correct combustion and safe operation over all the modulation range.



## SAFE AND GREEN

Riello experience in combustion technology is very well demonstrated in the combustion head of New RS – RLS burner models and assures smooth ignition, safe operation, and environmentally friendly emissions. Riello burners excels in producing burners which perform well with minimal excess air, this enhances system efficiency and reduces greenhouse gas emissions such as CO<sub>2</sub>. With oxygen levels of only 3% (\*) typical in the products of combustion and turndown ratios of up to 10-1 (\*) on natural gas, system efficiencies are truly maximised. In addition to our standard product we also have available Low NO<sub>x</sub> models which use an Advanced Combustion Technology in order to reach NO<sub>x</sub> values of less than 30ppm (\*) during the combustion of natural gas without the requirement of Flue Gas Recirculation; this enhances system efficiency in comparison with traditional FGR systems and reduces system/installation costs.



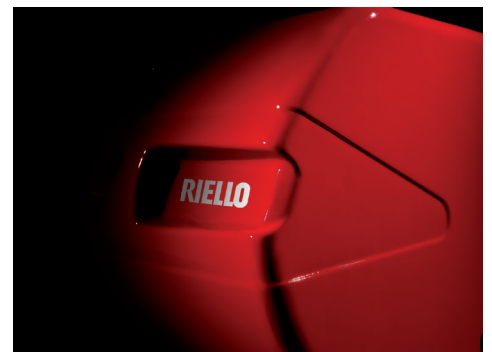
(\*) NO<sub>x</sub> emissions and Modulation ratios are verified in our Research Center; not all field applications allow similar performance. If guaranteed emissions and/or turndown are required please contact Riello Burners Commercial and Technical Department.

Specifically designed combustion head configurations are available for low gas supply pressure applications. Please contact Riello Commercial and Technical Department, our Application Engineers will be pleased to help you.

## DESIGN AND STYLE

Since the beginning of our industrial development, Riello has looked for a relationship between Industry and Style in order to help maintain the reputation of Italian design on the world stage.

Once again the New R Series preserves the marriage between Performance and Design, giving the product range an unmistakable Style.



# Wide Product variants

In order to satisfy market requirements the New R Series is available for many different fuels and modes of operation. All models are approved and conform to the applicable North American standards. The table below shows the various models of New R Series burners.

| MODEL           | CERTIFICATION | FUEL          | MAX OUTPUT   | OPERATION                 | EMISSIONS                 |
|-----------------|---------------|---------------|--------------|---------------------------|---------------------------|
| RS45/E BLU      | UL            | Gas           | 2037 Mbtu/H  | Modulating Electronic Cam | <b>LOW NO<sub>x</sub></b> |
| RS68/E BLU      | UL            | Gas           | 3258 Mbtu/H  | Modulating Electronic Cam | <b>LOW NO<sub>x</sub></b> |
| RS120/E BLU     | UL            | Gas           | 4924 Mbtu/H  | Modulating Electronic Cam | <b>LOW NO<sub>x</sub></b> |
| RS160/E BLU     | UL            | Gas           | 7046 Mbtu/H  | Modulating Electronic Cam | <b>LOW NO<sub>x</sub></b> |
| RS200/E BLU     | ETL           | Gas           | 9090 Mbtu/H  | Modulating Electronic Cam | <b>LOW NO<sub>x</sub></b> |
| RS28/M          | UL            | Gas           | 1232 Mbtu/H  | Modulating Mechanical Cam | Standard                  |
| RS38/M          | UL            | Gas           | 1665 Mbtu/H  | Modulating Mechanical Cam | Standard                  |
| RS50/M          | UL            | Gas           | 2201 Mbtu/H  | Modulating Mechanical Cam | Standard                  |
| RS70/M          | UL            | Gas           | 3084 Mbtu/H  | Modulating Mechanical Cam | Standard                  |
| RS100/M         | UL            | Gas           | 4405 Mbtu/H  | Modulating Mechanical Cam | Standard                  |
| RS130/M         | UL            | Gas           | 5545 Mbtu/H  | Modulating Mechanical Cam | Standard                  |
| RS190/M         | UL            | Gas           | 8673 Mbtu/H  | Modulating Mechanical Cam | Standard                  |
| RS250/M         | ETL           | Gas           | 10034 Mbtu/H | Modulating Mechanical Cam | Standard                  |
| RS50/E          | UL            | Gas           | 2201 Mbtu/H  | Modulating Electronic Cam | Standard                  |
| RS70/E          | UL            | Gas           | 3084 Mbtu/H  | Modulating Electronic Cam | Standard                  |
| RS100/E         | UL            | Gas           | 4405 Mbtu/H  | Modulating Electronic Cam | Standard                  |
| RS130/E         | UL            | Gas           | 5545 Mbtu/H  | Modulating Electronic Cam | Standard                  |
| RS190/E         | UL            | Gas           | 8673 Mbtu/H  | Modulating Electronic Cam | Standard                  |
| RS 250/E        | ETL           | Gas           | 10034 Mbtu/H | Modulating Electronic Cam | Standard                  |
| RLS 68/E - /EV  | UL            | Gas-Light Oil | 3258 Mbtu/H  | Mod. Oil/ Mod. Gas (1)    | <b>LOW NO<sub>x</sub></b> |
| RLS 120/E - /EV | UL            | Gas-Light Oil | 4924 Mbtu/H  | Mod. Oil/ Mod. Gas (1)    | <b>LOW NO<sub>x</sub></b> |
| RLS 160/E - /EV | UL            | Gas-Light Oil | 7046 Mbtu/H  | Mod. Oil/ Mod. Gas (1)    | <b>LOW NO<sub>x</sub></b> |
| RLS 28/M        | UL            | Gas-Light Oil | 1232 Mbtu/H  | 2 stage Oil/Mod. Gas (2)  | Standard                  |
| RLS 38/M        | UL            | Gas-Light Oil | 1666 Mbtu/H  | 2 stage Oil/Mod. Gas (2)  | Standard                  |
| RLS 50/M        | UL            | Gas-Light Oil | 2198 Mbtu/H  | 2 stage Oil/Mod. Gas (2)  | Standard                  |
| RLS 70/M        | UL            | Gas-Light Oil | 3044 Mbtu/H  | Mod. Oil/ Mod. Gas (2)    | Standard                  |
| RLS 100/M       | UL            | Gas-Light Oil | 4396 Mbtu/H  | Mod. Oil/ Mod. Gas (2)    | Standard                  |
| RLS 130M        | UL            | Gas-Light Oil | 5292 Mbtu/H  | Mod. Oil/ Mod. Gas (2)    | Standard                  |
| RLS 190/M       | UL            | Gas-Light Oil | 7560 Mbtu/H  | Mod. Oil/ Mod. Gas (2)    | Standard                  |
| RLS 70/E        | UL            | Gas-Light Oil | 3044 Mbtu/H  | Modulating Electronic Cam | Standard                  |
| RLS 100/E       | UL            | Gas-Light Oil | 4396 Mbtu/H  | Modulating Electronic Cam | Standard                  |
| RLS 130/E       | UL            | Gas-Light Oil | 5292 Mbtu/H  | Modulating Electronic Cam | Standard                  |
| RLS 190/E       | UL            | Gas-Light Oil | 7560 Mbtu/H  | Modulating Electronic Cam | Standard                  |
| RLS 250/E       | ETL           | Gas-Light Oil | 10034 Mbtu/H | Modulating Electronic Cam | Standard                  |

- (1) Modulating Electronic Cam  
(2) Modulating Mechanical Cam

Specific Burner configurations are available to meet the BAR/DEP and Keyspan requirements of NYC. Other Product configurations are available on demand, please contact Riello Burners Commercial and Technical Department, our Application Engineers will be pleased to help you.

# Riello Burners a world of experience in every burner we sell.

04/2017

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Across the world, Riello sets the standard in reliable and high efficiency burner technology.

With burner capacity from 17 thousand to 163 million Btu/hr, Riello gas, oil, dual fuel and Low Nox burners deliver unbeatable performance across the full range of residential and commercial heating applications, as well as in industrial processes.

With headquarter in Legnago, Italy, Riello has been manufacturing premium quality burners for over 90 year. The manufacturing plant is equipped with the most innovative systems of assembling lines and modern manufacturing cells for a quick and flexible response to the market.

Besides, the Riello Combustion Research Centre, located in Angiari, Italy, represents one of the most modern facility in Europe and one of the most advanced in the world for the development of the combustion technology.

Today, the company's presence on worldwide markets is distinguished by a well-constructed and efficient sales network, alongside many important Training Centres located in various countries to meet its customers' needs. Riello has 13 operational branches abroad (in Europe, America and Asia), with customers in over 60 countries.

[ 1 ] BURNERS PRODUCTION PLANT  
S. PIETRO, LEGNAGO (VERONA) - ITALIA

[ 2 ] HEADQUARTER BURNERS DIVISION  
S. PIETRO, LEGNAGO (VERONA) - ITALIA

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