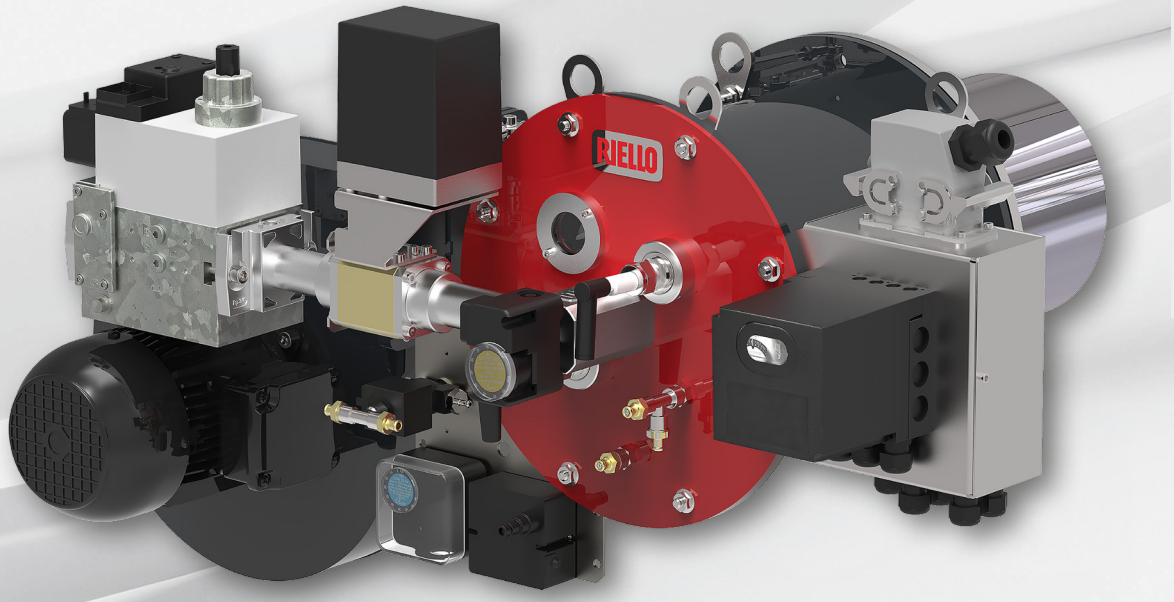
HTDR 200÷800

PRODUCT OVERVIEW



High turndown ratio gas burners for process applications

A Carrier Company

RIELLO
Energy For Life

www.riello.com

High turndown ratio gas burners
HTDR 200÷800

With many years of experience in the design and manufacture of burners, Riello has developed a new range of industrial products; the new HTDR gas burner series with high turndown ratio (up to 58:1) dedicated to process applications.

The light and compact burner structure is made in carbon steel; the elements in direct contact with the flame are manufactured with highly resistant materials, such as refractory steel and nickel-chrome alloys.

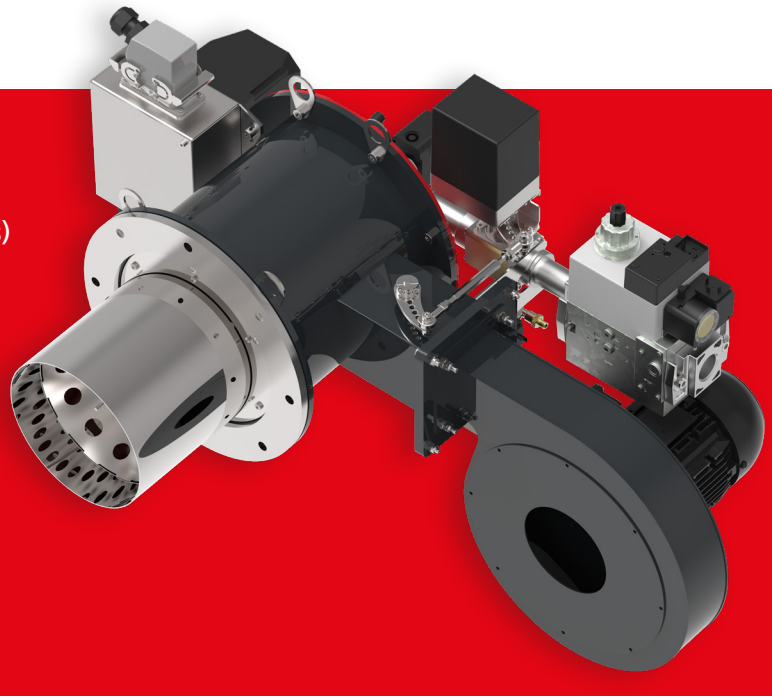
HTDR configuration includes the combustion head and the components necessary for proper operation, consisting of: gas train, air fan, gas modulator, control panel and pressure switches. The control panel is available in two different versions: standard and upgraded. The standard control panel is designed for applications requiring a more compact overall structure with a multi-burner configuration (i.e. textile stenters), while the upgraded control panel version can be supplied in case of processes needing completely independent burners (as generally required by ceramic industry).
Other burner configurations (including different component displacement and/or orientation) are available on demand.

Burner operation can be on on-off, high-low flame and modulating (gas only or air and gas) with the installation of a PID logic regulator and respective probes. With modulating operation, a turndown ratio up to 58:1 can be achieved with neutral combustion chamber.

Main features:
- 5 burner models, with max burner output between 200 and 931 kW
- High turndown ratio (up to 58:1)
- Highly resistant structure
- Natural gas and LPG operation
- Wide range of application (both direct and indirect heat exchange)

Main applications:

- Textile (stenters, dryers, polymerisers)
- Ceramic (roller/tunnel dryers)
- Agriculture (fodder dryers, grain dryers, tobacco dryers, ...)
- Food (cereal dryers, roasters)
- Coating and printing industry (air heaters, dryers)
- Industrial cloth washing
- Automotive industry
- Building materials industry



Technical data

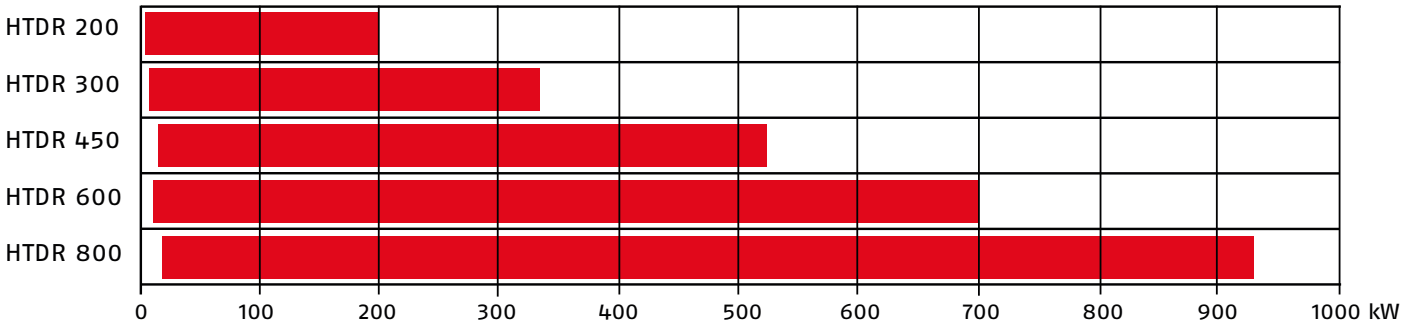
Model	Standard control panel version	Upgraded control panel version	Min. heat output [kW]	Max. heat output [kW] (1)	Max. turndown ratio	Fuel	Max. gas network pressure [mbar]	Min. gas network pressure [mbar] (2)	Min. chamber wall hole diameter [mm] (3)	Main electrical supply	Blower electrical power [kW]	Notes
HTDR 200	■	■	5	200	1:40	Natural gas/LPG	360	23	155	1ph/230V/50Hz	0,25	(4)(5)
HTDR 300	■	■	9	336	1:37	Natural gas/LPG	360	29	200	1ph/230V/50Hz	0,25	(4)(5)
HTDR 450	■	■	18	525	1:29	Natural gas/LPG	360	33	230	1ph/230V/50Hz	0,75	(4)(5)
HTDR 600	O	■	12	700	1:58	Natural gas/LPG	360	37	230	3ph/400V/50Hz	1,1	(4)(5)
HTDR 800	O	■	19	931	1:50	Natural gas/LPG	360	47	230	3ph/400V/50Hz	1,5	(4)(5)

(1) Burner head max burner output, Net Calorific Value; for correct burner matching based on chamber pressure, please ask for specific quotation.
(2) Burner version compatible with lower gas network pressure available on demand
(3) Necessary for correct burner head insertion through the chamber wall
(4) Auxiliary electrical supply: 1ph/230V/50Hz
(5) Different electrical supply standards available on demand

Key to simbols:

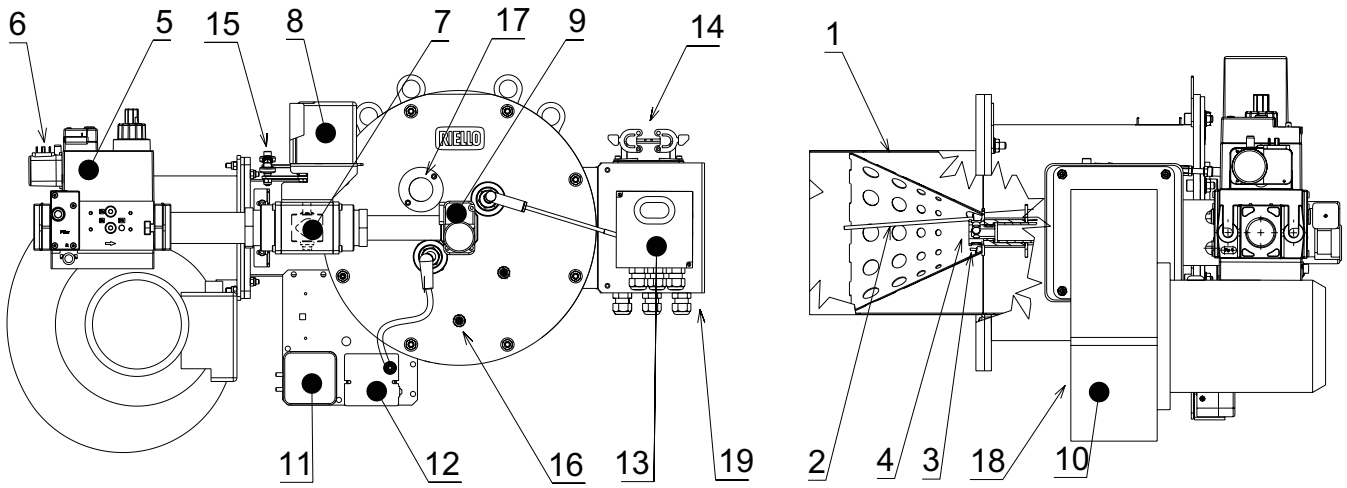
■ Available as standard model
O On demand

Firing rates

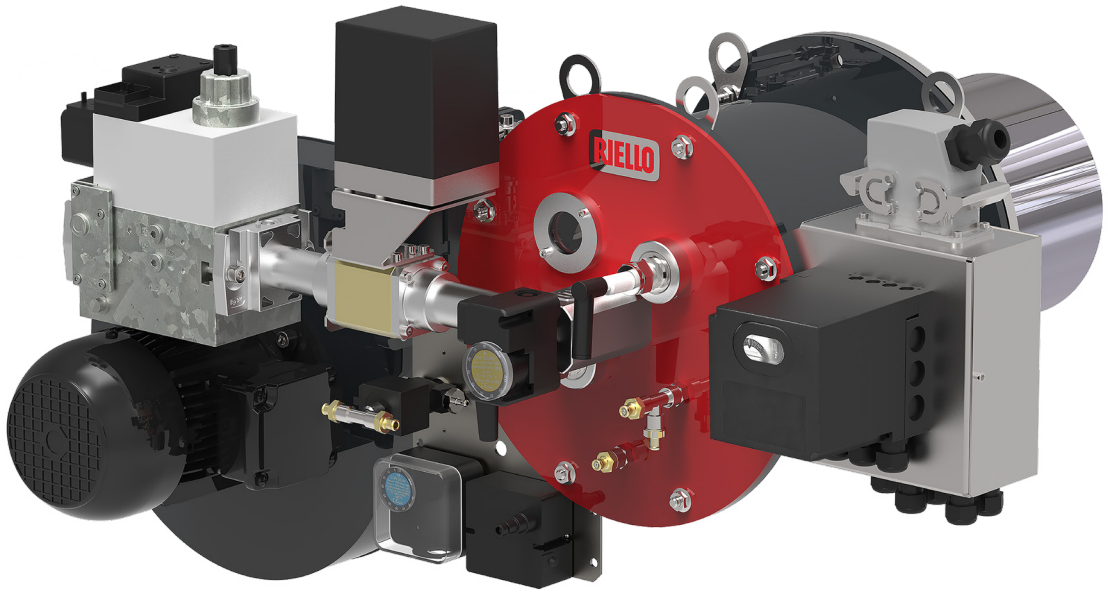


Burner description

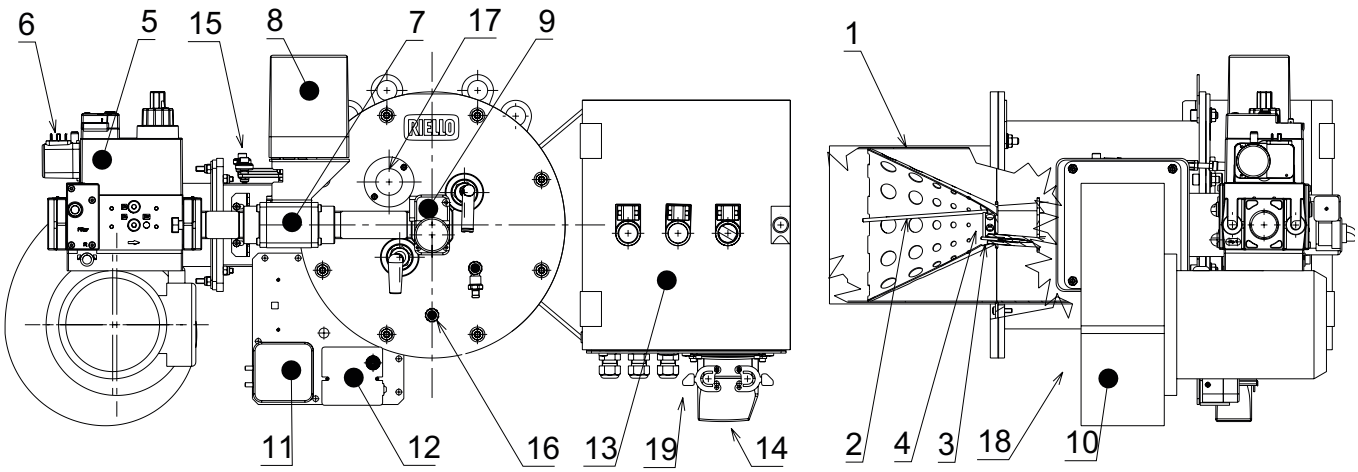
Standard control panel version



1. Combustion head
2. Flame sensor probe
3. Ignition electrode
4. Gas nozzle
5. Gas train (complete with filter, pressure stabilizer and double-valve)
6. Minimum gas pressure switch
7. Gas modulator
8. Servomotor
9. Maximum gas pressure switch
10. Fan
11. Air pressure switch
12. Ignition transformer
13. Control box
14. Industrial plug-socket
15. Lever for air/gas ratio setting
16. Air pressure test point
17. Flame inspection window
18. Air inlet
19. Standard control panel



Upgraded control panel version



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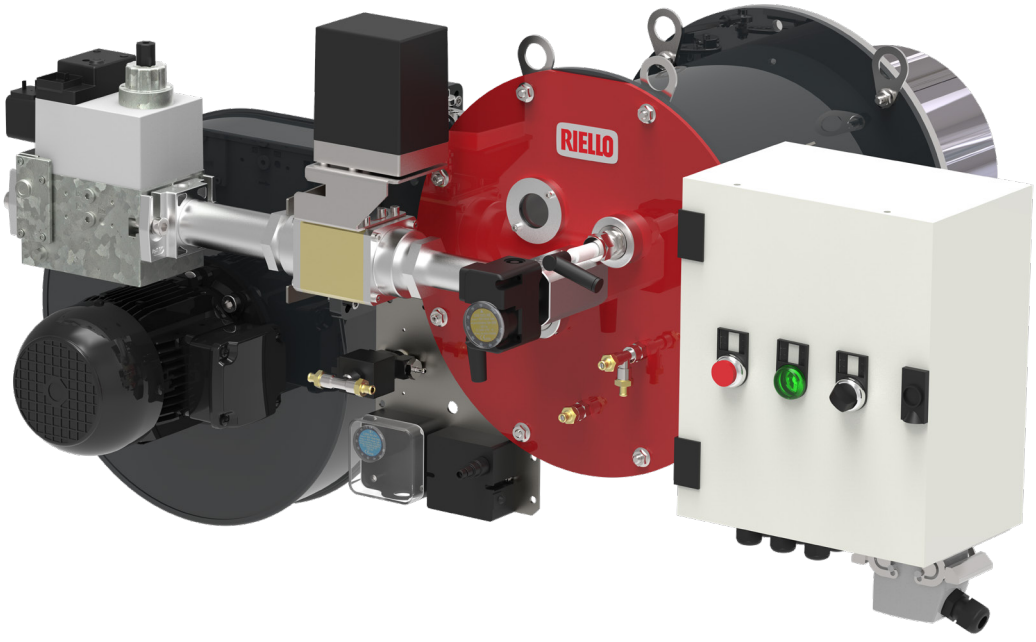
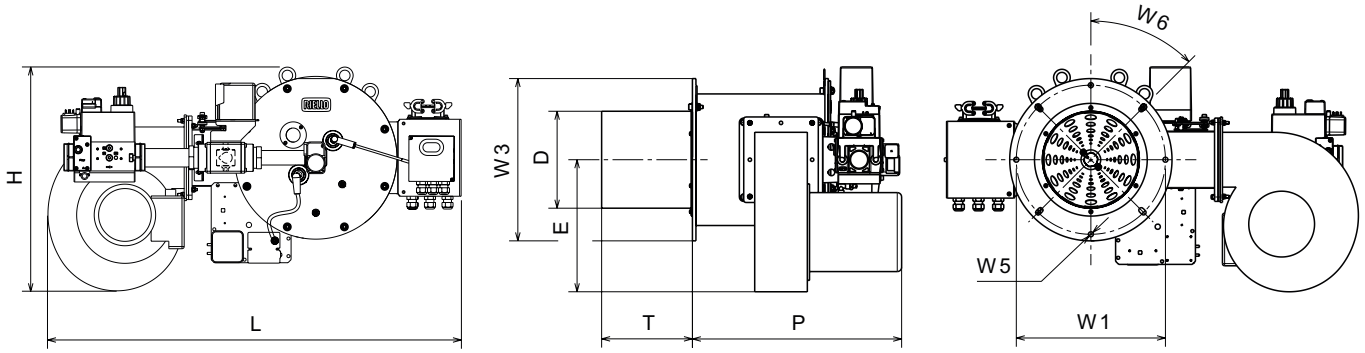


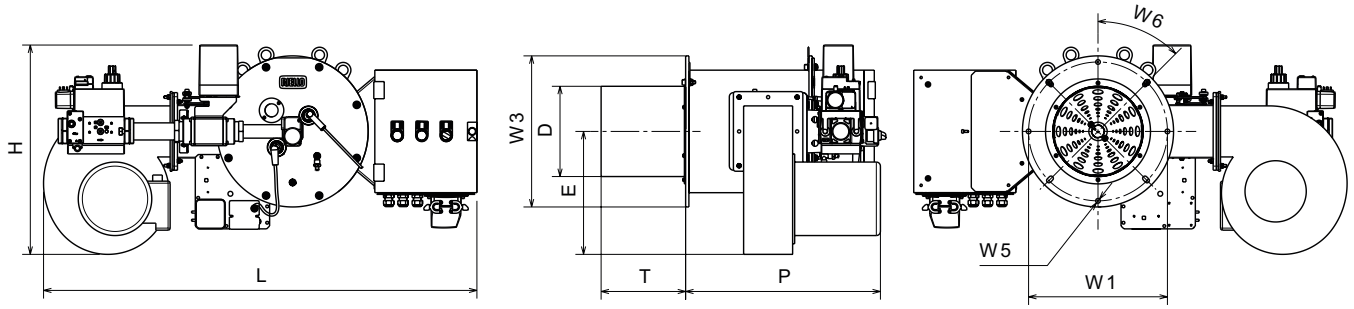
Burner dimensions

Standard control panel version



MODEL	H	L	P	T	D	E	W1	W3	W5	W6
HTDR 200	440	750	385	205	146	235	226	250	M8	45°
HTDR 300	440	815	415	203	190	235	285	320	M10	45°
HTDR 450	515	945	477	207	221	305	340	370	M10	45°

Upgraded control panel version



MODEL	H	L	P	T	D	E	W1	W3	W5	W6
HTDR 200	440	875	385	205	146	235	226	250	M8	45°
HTDR 300	440	945	415	203	190	235	285	320	M10	45°
HTDR 450	515	1070	477	207	221	305	340	370	M10	45°
HTDR 600	550	1145	540	207	221	335	340	370	M10	45°
HTDR 800	550	1145	540	207	221	335	340	370	M10	45°

Designation of Series

Series: HTDR

Size: 200
300
450
600
800

Fuel: S Natural gas
P LPG

Setting: M Modulating - Mechanical cam (air & gas)
MG Modulating - Gas rate only
E Modulating - Electronic cam

Control panel version: B Standard
U Upgraded control panel

Fan blades type: ... Forward curved blades
R Radial blades

Chamber purging mode: ... Intermittent ventilation
CV Continuous ventilation

Head length: TC Standard head
TL Extended head

Fan Position: A0 below
A90 right
A180 above
A270 left

Optional variations: P Pilot ignition

Flame control system: FS1 Intermittent operation (at least 1 stop every 24 h)
FS2 Continuous operation

Main electrical supply:

1/230/50	1/230V/50Hz
3/230/50	3/230V/50Hz
3/400/50	3N/400V/50Hz
3/230-400/50	3/230V/50Hz - 3N/400V/50Hz
3/220/60	3/220V/60Hz
3/380/60	3N/380V/60Hz
3/220-380/60	3/220/60Hz - 3N/380V/60Hz

Auxiliary electrical supply:

230/50-60	230V/50-60Hz
110/50-60	110V/50-60Hz

HTDR	600	S	M	U	R		TC	A90	P	FS1	3/400/50	230/50-60

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RIELLO ENERGY FOR A HEALTHY LIFE


[1]


[2]

[1] BURNERS PRODUCTION PLANT
S. PIETRO, LEGNAGO (VERONA) – ITALY

[2] HEADQUARTER BURNERS DIVISION
S. PIETRO, LEGNAGO (VERONA) – ITALY

MORE THAN 100 YEARS EXPERIENCE

Each RIELLO burner is the result of a long experience in design and manufacture, coupled with leading technology and flexible burner design. RIELLO has always believed and invested in the search for new materials and in the development of more advanced combustion technology.

OUR PRESENCE

RIELLO, World Leader in the production of gas, oil, dual fuel and Low NOx burners delivers outstanding performance across the full range of residential and commercial heating applications, as well as in industrial processes.

The RIELLO Combustion Research Centre represents one of the most modern facilities 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-structured and efficient sales network, alongside many important Training Centres located in various countries to meet its customers' needs.

With headquarters in Legnago (Northern Italy), RIELLO has been manufacturing premium quality burners for more than 100 years.

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.

Carrier

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