

RL BLU SERIES

The new RL BLU series represents Riello's last step of innovation in terms of Low NOx technology applied to light oil burners.

The series includes three models, with an output ranging from 116 to 598 kW. Those burners have been e-designed for use in hot or superheated water boilers, hot air, steam generators or diathermic oil boilers.

A servomotor with three adjustable positions guarantees correct air output and air damper closing when the burner is turned off. The burners are fitted with a microprocessor-based control panel, which supplies indication of burner status and fault causes.

A new, more compact and handable case has been designed, keeping overall dimensions compact in order to ensure an easier servicing and maintenance.

The elevated performance of the forward-blades fan, together with a new innovative combustion head, guarantee flexibility of use and excellent working at all firing rates always with Low NOx emissions.



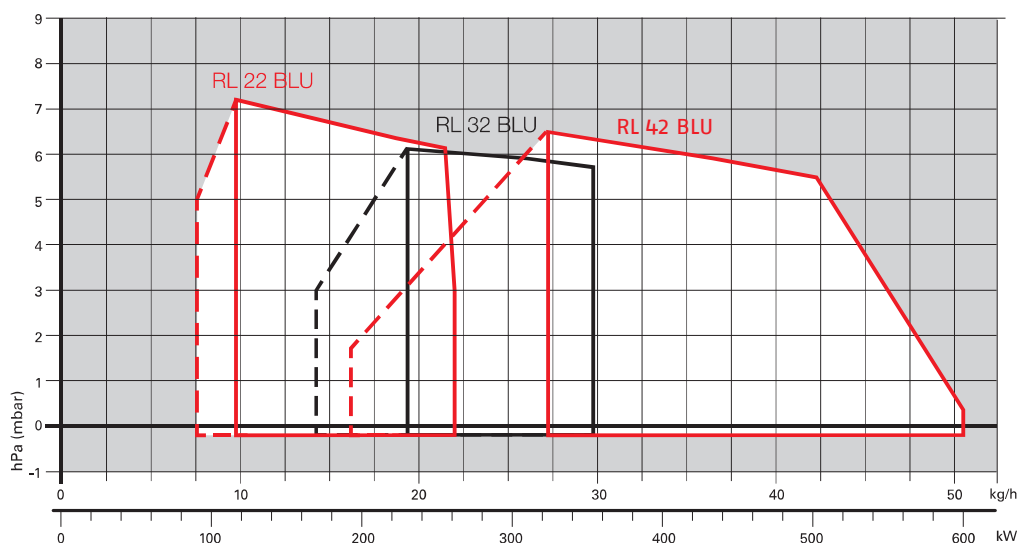
RL 22 BLU	89/116 ÷ 261 kW
RL 32 BLU	166/228 ÷ 356 kW
RL 42 BLU	191/323 ÷ 598 kW

Guidelines for installation of burners in conformity to EU Regulation:

A RIELLO burner (Heat Generator), where it is matched with a water-based boiler (Heater Housing) with a nominal output ≤ 400 kW, providing heat for heating purposes and heat to deliver sanitary hot water, can be installed:

- With boilers (heater housings) already in service in the field, for replacement of identical products, in conformity to Article 1, paragraph 2, point (G) of the EU Regulation No. 813/2013;
- With boilers (heater housings) on a new installation, if they have emissions complying with the requirement of Annex II, paragraph 4 of the EU regulation No. 813/2013.

FIRING RATES



Useful working field for choosing the burner



1st stage operation range

Test conditions conforming to EN267
 Temperature: 20°C
 Pressure: 1013,5 mbar
 Altitude: 0 m a.s.l.

Low NOx Two Stage Light Oil Burners

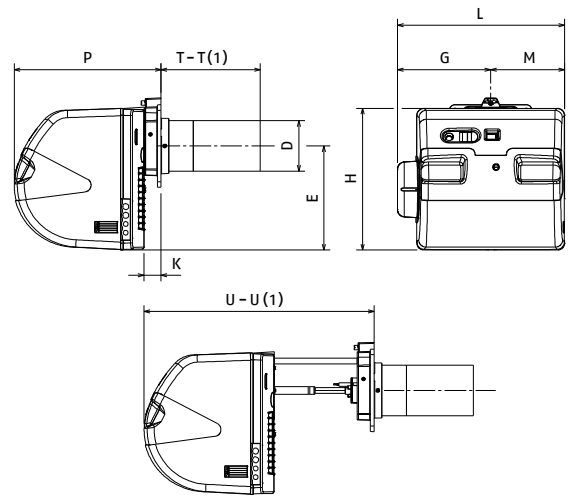
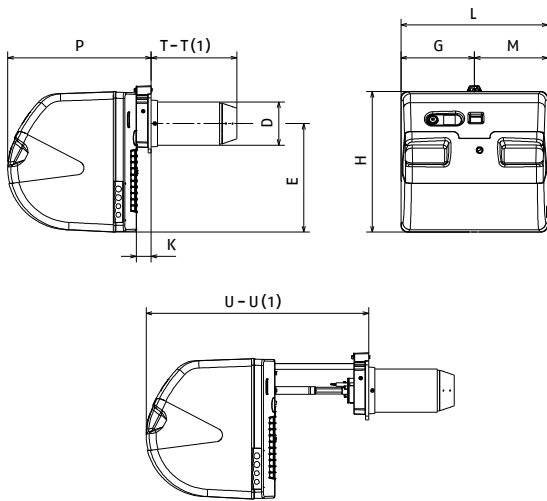
RL BLU SERIES

Overall dimensions (mm)

BURNER

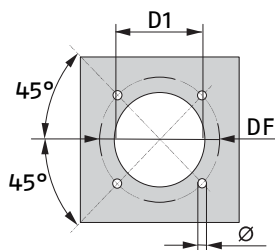
RL 22 BLU - RL 32 BLU

RL 42 BLU



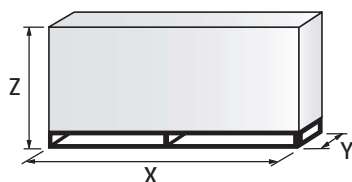
MODEL	B	D	E	G	K	L	M	H	P	T	T (1)	U (1)
▶ RL 22 BLU	-	140	352	238	52	476	238	474	468	197	276	604 - 739
▶ RL 32 BLU	-	140	352	238	52	476	238	474	468	217	293	604 - 739
▶ RL 42 BLU	-	163	335	300	60	533	238	490	680	291	430	680 - 815

BURNER - BOILER MOUNTING FLANGE



MODEL	D1	DF	Ø
▶ RL 22 BLU	160	224	M8
▶ RL 32 BLU	160	224	M8
▶ RL 42 BLU	185	275-325	M12

PACKAGING



MODEL	X	Y	Z	kg
▶ RL 22 BLU	850	540	550	40
▶ RL 32 BLU	850	540	550	41
▶ RL 42 BLU	1200	560	520	42

RL BLU SERIES

Specification

DESIGNATION OF SERIES

Series : R									
Fuel : S Natural gas									
L Light oil									
LS Light oil / Natural gas									
N Heavy oil									
Size									
Operation : /1 One stage									
... Two stage									
/M Modulating									
/E Electronic cam									
/P Proportioning air/gas valve									
/EV Electronic cam predisposed for variable speed (with inverter)									
Emission : ... Class 1 EN267									
MZ Class 2 EN267									
BLU Class 3 EN267									
MX Class 2 EN267									
Head : TC Standard head									
TL Extended head									
Flame control system :									
FS1 Standard (1 stop every 24 h)									
FS2 Continuous working (1 stop every 72 h)									
Electrical supply to the system :									
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 voltage :									
230/50-60		230V/50-60Hz							
110/50-60		110V/50-60Hz							
ID : Differential switch									

R	L	22		BLU	TC	FS1	1/230/50	230/50-60	
BASIC DESIGNATION					EXTENDED DESIGNATION				

Low NOx Two Stage Light Oil Burners

RL BLU SERIES

Specification

STATE OF SUPPLY

Monoblock forced draught Low NOx oil burner with completely automatic two stage operation, made up of:

- Air suction circuit lined with sound-proofing material
- Fan with reverse curve blades (RL 22-32 BLU models) or forward blades (RL 42 BLU model)
- Air damper for air setting, driven by the adjustable servomotor
- Low emission combustion head, that can be set on the basis of required output
- Gears pump for high pressure fuel supply
- Two oil valves fitted directly on to the pump
- UV sensor for flame detection
- Microprocessor-based burner safety control box, with diagnostic function
- Burner on/off switch
- Manual high/low flame switch
- Flame inspection window
- Slide bars for easier installation and maintenance
- Protection filter against radio interference
- IP 44 electric protection level.

Standard equipment:

- 2 flexible pipes for connection to the oil supply network
- 2 gaskets for the flexible pipes
- 2 nipples for connection to the pump
- 1 thermal screen
- 4 screws for fixing the burner flange to the boiler
- Wiring loom fittings for electrical connections
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

Available models

Burners

CODE	MODEL					HEAT OUTPUT		TOTAL ELECTRICAL POWER (kW)	NOTE
						(kW)	(kg/h)		
20027479	RL 22 BLU	TC	FS1	1/230/50	230/50-60	89/116 - 261	7.5/9.8 - 22	0,6	
20029408	RL 22 BLU	TL	FS1	1/230/50	230/50-60	89/116 - 261	7.5/9.8 - 22	0,6	
20027481	RL 32 BLU	TC	FS1	1/230/50	230/50-60	166/228 - 356	14/19.2 - 30	0,6	
20029415	RL 32 BLU	TL	FS1	1/230/50	230/50-60	166/228 - 356	14/19.2 - 30	0,6	
20027567	RL 42 BLU	TC	FS1	3/230-400/50	230/50-60	191/323-598	16.1/27.2 - 50.6	1,4	

Net calorific value: 11,8 kWh/kg - 10200 kcal/kg - Viscosity at 20°C: 4-6 mm²/s (cSt)

The burners of RL BLU series are in according to 2014/30/EU - 2014/35/EU - 2006/42 EC Directive and EN 267.

RL BLU SERIES

Burner accessories

Nozzles



The nozzles of RL 22 - 32 and 42 BLU burners are chosen on the basis of the maximum output required from the application.

NOTE: each burner needs N° 1 nozzle.

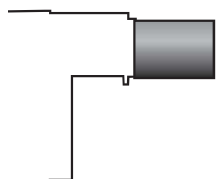
RL 22-32 BLU

GPH	RATED DELIVERY [kg/h] AT 8 bar	RATED DELIVERY [kg/h] AT 20 bar	DELAVAN 60°A CODE	MONARCH 60°PLP CODE
2.25	7.4	11.9	3042134	3041132
2.50	8.2	13.4	3042144	3041142
3.00	9.9	16.1	3042148	3041152
3.50	11.5	18.8	3042164	3041162
4.00	13.2	21.5	3042174	3041172
4.50	14.8	24.0	3042184	3041182
5.00	16.5	26.8	3042194	3041192
5.50	18.1	29.5	3042204	3041202
6.00	19.8	32.2	3042214	3041212

RL 42 BLU

GPH	RATED DELIVERY [kg/h] AT 8 bar	RATED DELIVERY [kg/h] AT 20 bar	DELAVAN 45°A CODE
6.00	20.4	31.7	20011679
6.50	22.1	34.5	20024162
7.00	23.8	37.1	20024163
7.50	25.5	40.0	20024164
8.00	27.2	42.5	20024165
8.50	28.9	45.5	20024166
9.00	30.6	48.0	20024167
9.50	32.3	51.0	20024168
10.00	34.0	53.5	20024169

Extended head kit



"Standard head" burners can be transformed into "extended head" versions, by using the special kit.

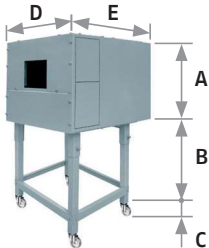
BURNER	STANDARD HEAD LENGTH (mm)	EXTENDED HEAD LENGTH (mm)	KIT CODE
▶ RL 22 BLU	197	276	3010204
▶ RL 32 BLU	217	293	3010205
▶ RL 42 BLU	295	430	20024155

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Burner accessories

Sound proofing box



If noise emission needs reducing even further, sound-proofing boxes are available. When a lower "B" dimension is required, it is available the Box Support Kit code 20065135 which allows to reduce it at the fixed dimension of 55 mm. The sound-proofing boxes are not suitable for outdoor use.

BURNER	BOX TYPE	A (mm)	B (mm) min-max	C (mm)	D (mm)	E (mm)	[dB(A)] (*)	BOX CODE
▶ RL 22 BLU RL 32 BLU	C1/3	650	372 - 980	110	690	770	10	3010403
▶ RL 42 BLU	C4/5	850	160 - 980	110	980	930	10	3010404

(*) Average noise reduction according to EN 15036-1 standard

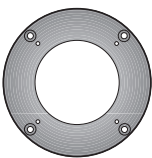
Degasing unit



To solve problem of air in the oil sucked, two versions of degasing unit are available.

BURNER	FILTER	FILTERING DEGREE (µm)	DEGASING UNIT CODE
▶ All models	With filter	50 - 75	3010055
▶ All models	Without filter	-	3010054

Connection flange kit



A kit is available for use where the burner opening on the boiler is of excessive diameter.

BURNER	(mm)	KIT CODE
▶ RL 22 BLU - RL 32 BLU	170 (internal diameter) 300 (external diameter)	3010138