RL/B MZ SERIES

RL/B MZ series burners are characterised by a modular monoblock structure that means all necessary components can be combined in a single unit thus making installation easier, faster and, above all, more flexible.

The series covers a firing range from 1250 to 4450 kW, and they have been designed for use in hot water boilers, overheated water boilers as well as steamboilers.
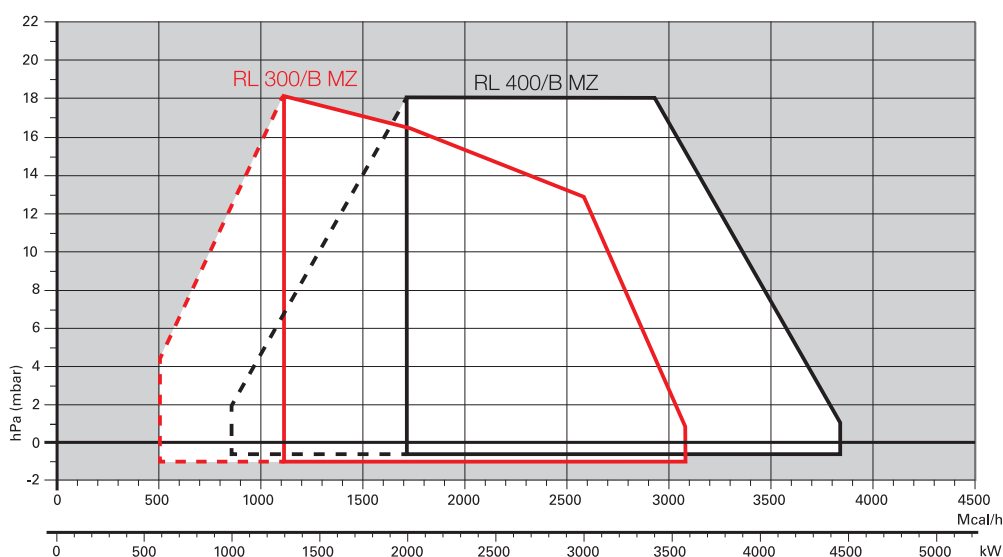
Operation is 2 stages.

The innovative combustion head is able to reach good performances in term of Low NOx and helps in reducing noise emissions.

LIGHT OIL

RL 300/B MZ	600/1250 ÷ 3550 kW
RL 400/B MZ	1000/2000 ÷ 4450 kW

FIRING RATES

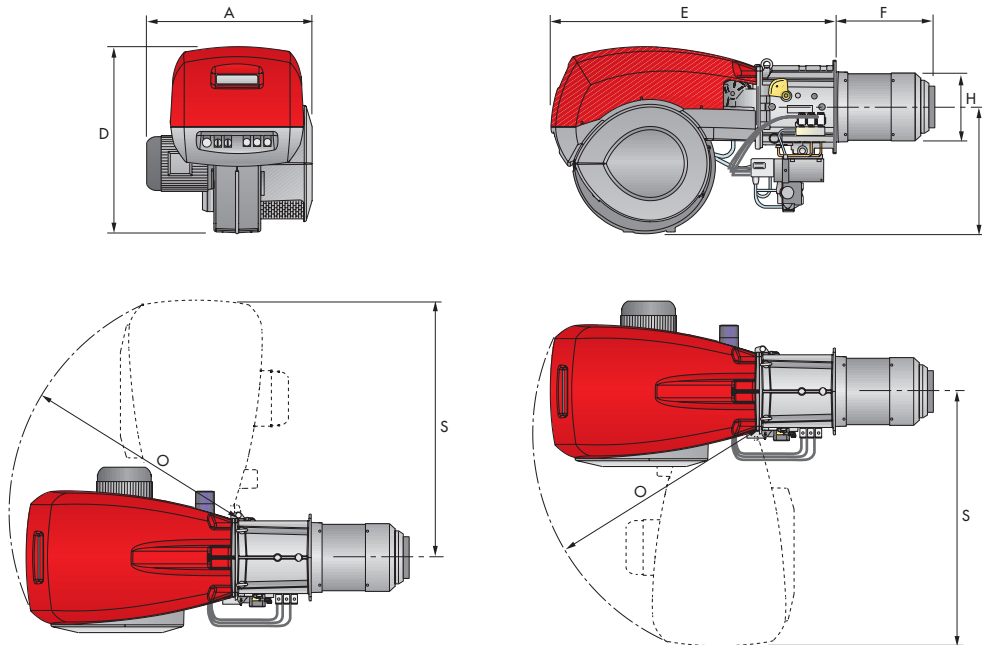Useful working field for choosing the burner

Modulation range

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

Overall dimensions (mm)

BURNER

MODEL	A	D	E	F	H	I	O	S
▶ RL 300/B MZ	720	890	1325	510	313	605	1055	1175
▶ RL 400/B MZ	775	890	1325	510	313	605	1055	1175

BURNER - BOILER MOUNTING FLANGE
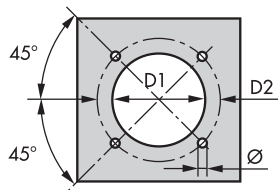
MODEL	D1	D2	Ø
▶ RL 300/B MZ	350	452	M18
▶ RL 400/B MZ	350	452	M18

PACKAGING
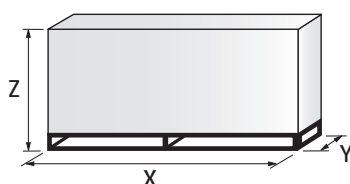
MODEL	X	Y	Z	kg
▶ RL 300/B MZ	1960	970	1100	235
▶ RL 400/B MZ	1960	970	1100	245

Specification

DESIGNATION OF SERIES

Series : R

Fuel : S Natural gas
L Light oil
LS Light oil / Natural gas
N Heavy oil

Size

Setting :	/1	Single stage	/E	Electronic cam
	/B	Two stage	/P	Proportioning air/gas valve
	/M	Modulating	/EV	Electronic cam predisposed for variable speed (with inverter)
	/BP	Two stage oil / Proportioning air/gas valve		

Emission : ...	Class 1 EN267 – EN676
MZ	Class 2 EN267 – EN676
BLU	Class 3 EN267 – EN676
MX	Class 2 EN267
	Class 3 EN676

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	3/220V/60Hz – 3N/380V/60Hz

Auxiliary voltage :	
230/50-60	230V/50-60Hz
110/50-60	110V/50-60Hz

ID : Differential switch

R	L	300	/B	MZ	TC	FS1	3/400/50	230/50-60	

BASIC DESIGNATION

EXTENDED DESIGNATION

RL/B MZ SERIES

Specification

RL/B MZ SERIES - STATE OF SUPPLY

Monoblock forced draught gas burner with "two stage progressive" operation, fully automatic, made up of:
- Fan with reverse curve blades high performance with low sound emissions
- Air suction circuit lined with sound-proofing material
- Air damper for air setting controlled by a high precision servomotor
- Air pressure switch
- Fan starting motor at 2800 rpm, three-phase 230/400 - 400/690 V with neutral, 50Hz
- Low emission combustion head, that can be set on the basis of required output, fitted with:
  - stainless steel end cone, resistant to corrosion and high temperatures
  - ignition electrodes
  - flame stability disk
- Burner safety control box for controlling the system safety
- Star/delta starter for the fan motor (only for RL 400/B MZ model)
- Main electrical supply terminal board
- Burner on/off switch
- Auxiliary voltage led signal
- Burner working led signal
- Contacts motor and thermal relay with release button
- Motor internal thermal protection
- Motor failure led signal
- Burner failure led signal and lighted release button
- Emergency button
- Coded connection plugs-sockets
- Burner opening hinge
- Lifting rings
- IP 54 electric protection level
- Gears pump for high pressure fuel supply
- Pump starting motor
- Oil safety valves
- Three oil valves (1st and 2nd stage 3nd safety valve)
- Photocell for flame detection
- Flame inspection window.

Standard equipment:
- 1 flange gasket
- 4 screws for fixing the flange
- 1 thermal screen
- 4 screws for fixing the burner flange to the boiler
- 2 flexible pipes for connection to the oil supply network
- 2 nipples for connection to the pump with gaskets.
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

RIELLO

Available models

RL/B MZ SERIES - Burners

CODE	MODEL		HEAT OUTPUT		TOTAL ELECTRICAL POWER	CERTIFICATION	NOTE
			(kW)	(kg/h)	(kW)		
3478410	RL 300/B MZ TC FS1	3/230-400/50 230/50-60	600/1250-3550	50/105-301	6	CE-0440/B	
3478512	RL 400/B MZ TC FS1	3/400/50 230/50-60	1000/2000-4450	84/169-378	9	CE-0440/B	

Net calorific value: 11,8 kWh/kg - 10200 kcal/kg - Viscosity at 20°C: 4-6 mm²/s (cSt)
The burners of RL/B MZ series are in according to 2004/108 - 2006/95- 2006/42 EC Directive and EN 267 Norm.

Burner accessories

Nozzles type 60° B

The nozzles must be ordered separately. The following table shows the features and codes on the basis of the maximum required fuel output.

NOTE: each burner needs N° 2 nozzles.

BURNER	NOZZLE TYPE	GPH	RATED OUTPUT (kg/h)			NOZZLE CODE
			at 10 bar	at 12 bar	at 14 bar	
▶ RL/B MZ	HAGO 60° SS	12,00	44,2	48,7	53,0	3009950
▶ RL/B MZ	HAGO 60° SS	13,00	47,8	52,8	57,4	3009951
▶ RL/B MZ	HAGO 60° SS	14,00	51,5	56,9	61,8	3009952
▶ RL/B MZ	HAGO 60° SS	15,00	55,2	60,9	66,2	3009953
▶ RL/B MZ	HAGO 60° SS	16,00	58,9	65,0	70,6	3009954
▶ RL/B MZ	HAGO 60° SS	17,00	62,6	69,0	75,0	3009955
▶ RL/B MZ	HAGO 60° SS	18,00	66,2	73,1	79,4	3009956
▶ RL/B MZ	HAGO 60° SS	19,00	69,9	77,2	83,5	3009957
▶ RL/B MZ	HAGO 60° SS	20,00	73,6	81,2	88,3	3009958
▶ RL/B MZ	HAGO 60° SS	22,00	81,0	89,3	97,1	3009959
▶ RL/B MZ	HAGO 60° SS	24,00	88,3	97,5	105,9	3009960
▶ RL/B MZ	HAGO 60° SS	26,00	95,7	105,6	114,7	3009961
▶ RL/B MZ	HAGO 60° SS	28,00	103,1	113,7	123,6	3009962
▶ RL/B MZ	HAGO 60° SS	30,00	110,4	121,8	132,4	3009963
▶ RL/B MZ	HAGO 60° LC	35,00	128,8	142,1	154,5	3009964
▶ RL/B MZ	HAGO 60° LC	40,00	147,2	162,4	176,5	3009965
▶ RL/B MZ	HAGO 60° LC	45,00	165,6	182,7	198,6	3009966
▶ RL/B MZ	HAGO 60° LC	50,00	184,0	203,0	220,7	3009967
▶ RL/B MZ	HAGO 60° LC	55,00	202,4	223,4	242,7	3009968
▶ RL/B MZ	HAGO 60° LC	60,00	220,8	243,7	264,8	3009969
▶ RL/B MZ	HAGO 60° LC	65,00	239,2	264,0	286,9	3009970
▶ RL/B MZ	HAGO 60° LC	70,00	257,6	284,3	309,0	3009971

Burner accessories

Sound proofing box
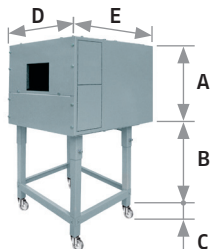
If noise emission needs reducing even further, sound-proofing boxes are available.
In case of generator heights, where a lower dimension "B" is required, ask for the
Box Support Kit code 20065135. The useful dimensions are 40 mm less than the total
dimensions indicated in the table (A, D, E). Not suitable for outdoor use.

BURNER	BOX TYPE	A (mm)	B (mm) min-max	C (mm)	D (mm)	E (mm)	[dB(A)] (*)	BOX CODE
▶ RL/B MZ	C7	1255	160 – 980	110	1140	1345	10	3010376

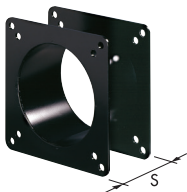(*) Average noise reduction according to EN 15036-1 standard

PC Interface kit

To connect the control box to a personal computer for the transmission of operation,
fault signals and detailed service information, an interface adapter with PC software
are available.

BURNER	KIT CODE
▶ RL/B MZ	3002719

Spacer kit

If burner head penetration into the combustion chamber needs reducing, varying
thickness spacers are available, as given in the following table:

BURNER	SPACER THICKNESS S (mm)	KIT CODE
▶ RL/B MZ	180	20008903