

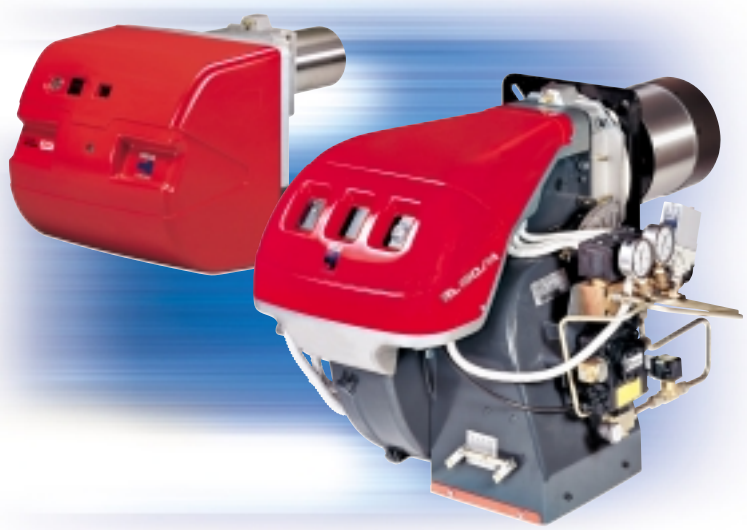


CE

MODULATING LIGHT OIL BURNERS

► RL/M SERIES

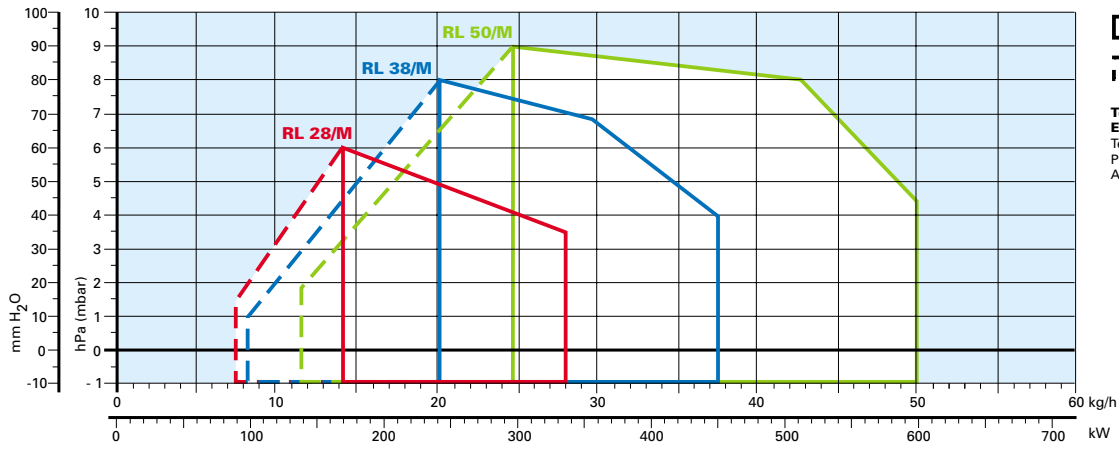
► RL 28/M	90/166 ÷ 332 kW
► RL 38/M	101/237 ÷ 450 kW
► RL 50/M	130/296 ÷ 593 kW
► RL 70/M	202/474 ÷ 1043 kW
► RL 100/M	332/711 ÷ 1482 kW
► RL 130/M	498/948 ÷ 1779 kW
► RL 190/M	534/1423 ÷ 2431 kW



The RL/M series of burners covers a firing range from 90 to 2431 kW, and they have been designed for use in hot or superheater water boilers, hot air or steam generators, diathermic oil boilers. Operation can be "two stage progressive" or, alternatively, "modulating" with the installation of a PID logic regulator and respective probes. RL/M series burners guarantees high efficiency levels in all the various applications, thus reducing fuel consumption and running costs. Optimisation of sound emissions is guaranteed by the use of fans with forward inclined blades and

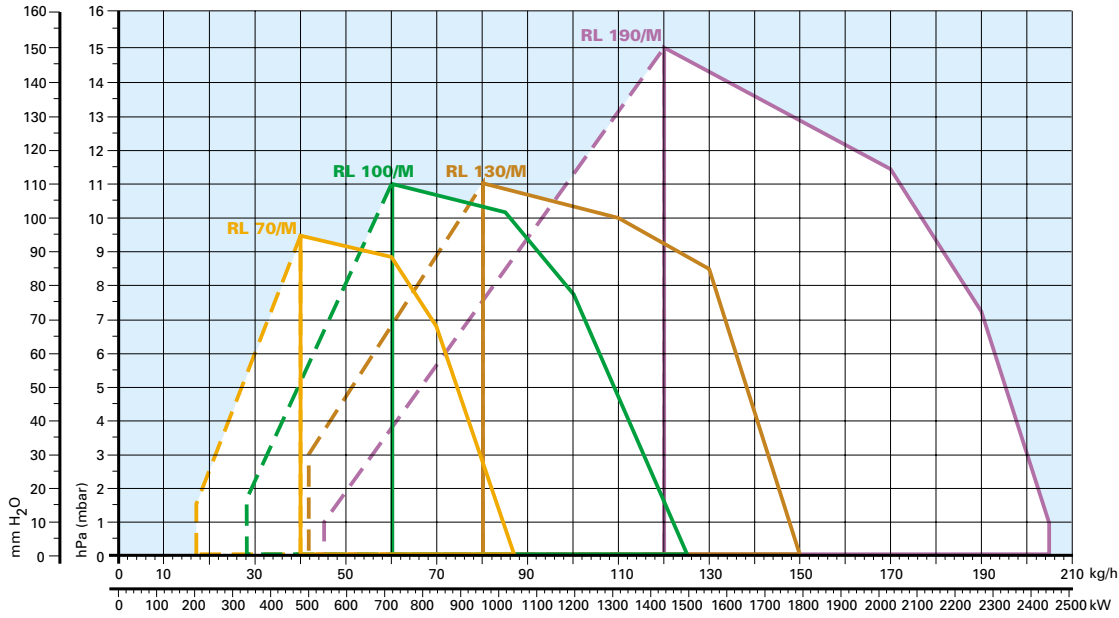
sound deadening material incorporated in the air suction circuit. The exclusive design ensures reduced dimensions, simple use and maintenance. A wide range of accessories guarantees elevated working flexibility.

FIRING RATES



□ Useful working field for choosing the burner
 - - - Modulation range

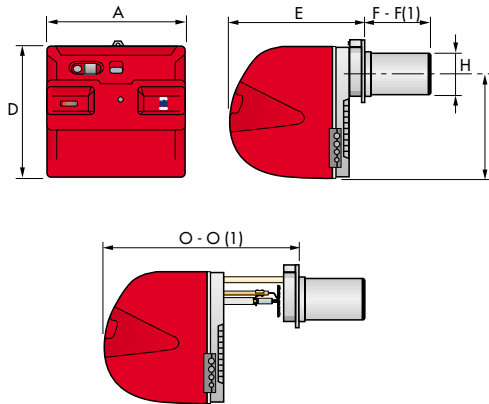
Test conditions conforming to EN 267:
 Temperature: 20°C
 Pressure: 1000 mbar
 Altitude: 100 m a.s.l.



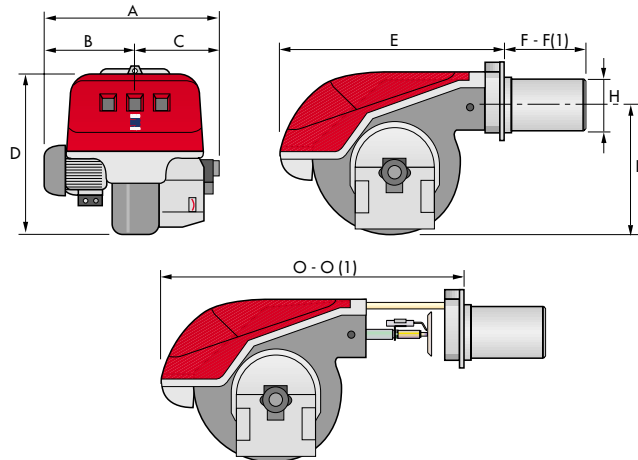
RL/M series - OVERALL DIMENSIONS (mm)

BURNER

RL 28/M - 38/M - 50/M



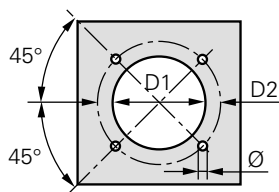
RL 70/M - 100/M - 130/M - 190/M



Model	A	B	C	D	E	F - F (1)	H	I	O - O (1)
▶ RL 28/M	476	-	-	474	468	241 - 351	140	352	672 - 807
▶ RL 38/M	476	-	-	474	468	241 - 351	140	352	672 - 807
▶ RL 50/M	476	-	-	474	468	241 - 351	152	352	672 - 807
▶ RL 70/M	663	296	367	555	680	272 - 385	179	430	951 - 1086
▶ RL 100/M	679	312	367	555	680	272 - 385	179	430	951 - 1086
▶ RL 130/M	705	338	367	555	680	272 - 385	189	430	951 - 1086
▶ RL 190/M	813	366	447	555	696	370	222	430	1102

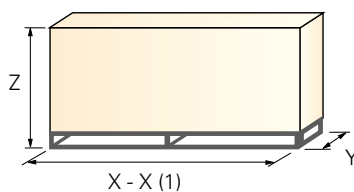
(1) Length with extended combustion head

BURNER - BOILER MOUNTING FLANGE



Model	D1	D2	Ø
▶ RL 28/M	160	224	M8
▶ RL 38/M	160	224	M8
▶ RL 50/M	160	224	M8
▶ RL 70/M	185	275-325	M12
▶ RL 100/M	185	275-325	M12
▶ RL 130/M	195	275-325	M12
▶ RL 190/M	230	325-368	M16

PACKAGING

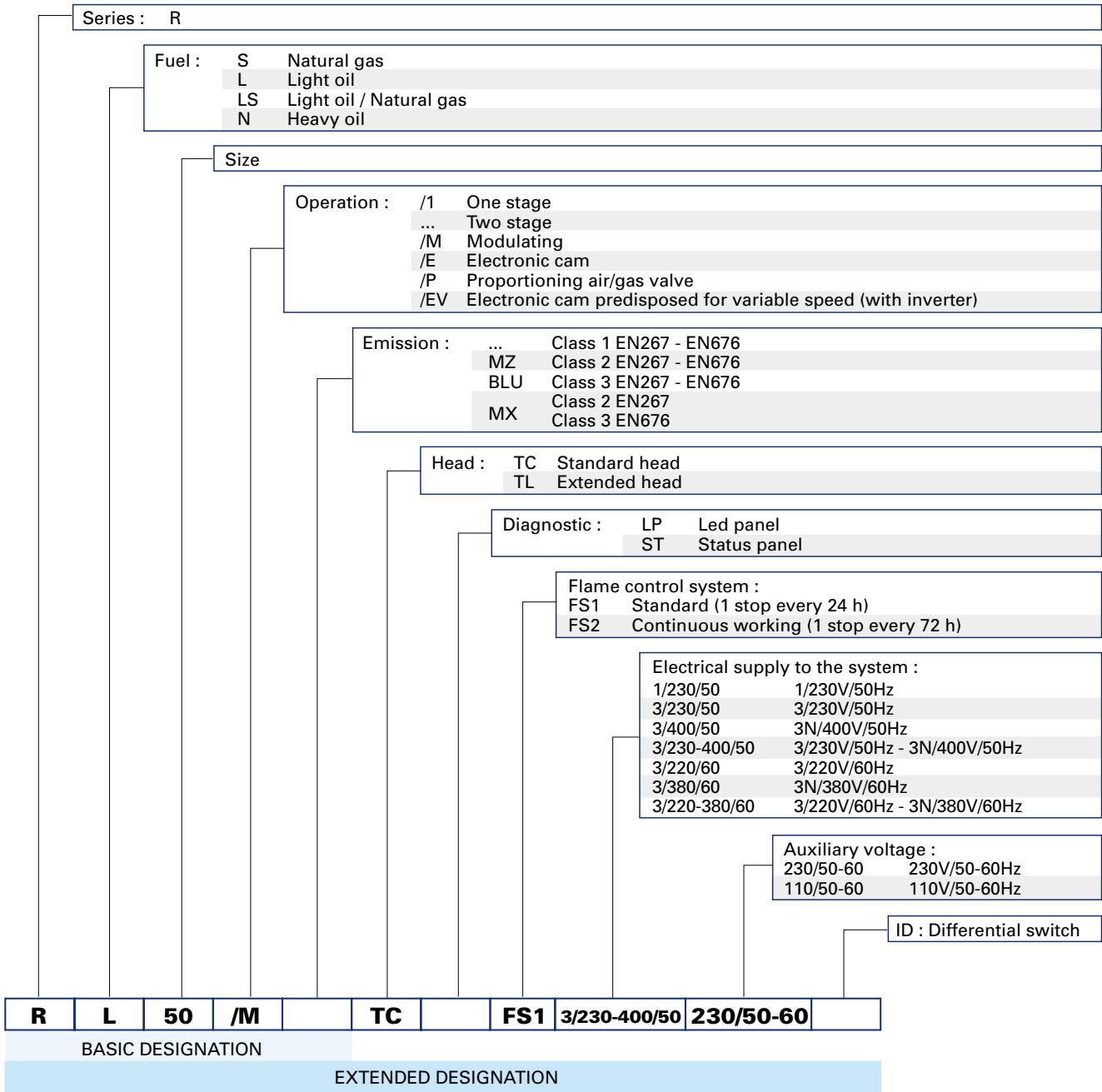


Model	X - X (1)	Y	Z	kg
▶ RL 28/M	1000	540	550	39
▶ RL 38/M	1000	540	550	41
▶ RL 50/M	1000	540	550	42
▶ RL 70/M	1180	792	600	65
▶ RL 100/M	1180	792	600	68
▶ RL 130/M	1180	792	600	71
▶ RL 190/M	1200	800	850	95

(1) Length with extended combustion head

RL/M series - SPECIFICATION

DESIGNATION OF SERIES



RL/M series - STATE OF SUPPLY

Monoblock forced draught oil burners, two stage progressive or modulating operation with a kit, made up of:

- Air suction circuit lined with sound-proofing material
- Fan with reverse curve blades (forward curve blades on the 190/M model)
- Air damper for air setting and automatic oil output regulator controlled by a servomotor with variable cam
- Combustion head, that can be set on the basis of required output
- Gears pump for high pressure fuel supply
- Valve unit with a double oil safety valve on the output circuit and safety valve on the return circuit; double safety valve on the return circuit for models RL 100/M, RL 130/M, RL 190/M and for all models in the TRD-72, NBN version
- Safety oil pressure switch
- Minimum oil pressure switch in the output circuit for the TRD-72, NBN versions
- Photocell for flame detection
- Flame control panel
- Burner on/off switch
- Flame inspection window
- Manual or automatic output increase/decrease switch
- 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
- 4 screws for fixing the burner flange to the boiler
- 1 thermal screen
- Wiring loom fittings for electrical connections
- 2 slide bar extensions (for the extended head models and the RL 190/M model)
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

RL/M series - AVAILABLE BURNER MODELS

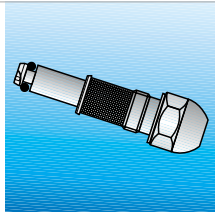
Code	Model				Heat output		Total electrical power (kW)	Certification	Note	Price
					(kW)	(kg/h)				
3471002	RL 28/M	TC FS1	1/230/50	230/50-60	90/166-332	7,5/14-28	0,4	-		
3471003	RL 28/M	TL FS1	1/230/50	230/50-60	90/166-332	7,5/14-28	0,4	-		
3471402	RL 38/M	TC FS1	3/230-400/50	230/50-60	101/237-450	8,5/20-38	0,6	-		
3471403	RL 38/M	TL FS1	3/230-400/50	230/50-60	101/237-450	8,5/20-38	0,6	-		
3471602	RL 50/M	TC FS1	3/230-400/50	230/50-60	130/296-593	11/25-50	0,8	-		
3471603	RL 50/M	TL FS1	3/230-400/50	230/50-60	130/296-593	11/25-50	0,8	-		
3477012	RL 70/M	TC FS1	3/230-400/50	230/50-60	202/474-1043	17/40-88	1,4	DIN 5G975/2001		
3477013	RL 70/M	TL FS1	3/230-400/50	230/50-60	202/474-1043	17/40-88	1,4	DIN 5G975/2001		
3477022	RL 70/M	TC FS2	3/230-400/50	230/50-60	202/474-1043	17/40-88	1,4	DIN 5G975/2001		
3477023	RL 70/M	TL FS2	3/230-400/50	230/50-60	202/474-1043	17/40-88	1,4	DIN 5G975/2001		
3477212	RL 100/M	TC FS1	3/230-400/50	230/50-60	332/711-1482	28/60-125	1,8	DIN 5G976/2001		
3477213	RL 100/M	TL FS1	3/230-400/50	230/50-60	332/711-1482	28/60-125	1,8	DIN 5G976/2001		
3477222	RL 100/M	TC FS2	3/230-400/50	230/50-60	332/711-1482	28/60-125	1,8	DIN 5G976/2001		
3477223	RL 100/M	TL FS2	3/230-400/50	230/50-60	332/711-1482	28/60-125	1,8	DIN 5G976/2001		
3477412	RL 130/M	TC FS1	3/230-400/50	230/50-60	498/948-1779	42/80-150	2,6	DIN 5G977/2001		
3477413	RL 130/M	TL FS1	3/230-400/50	230/50-60	498/948-1779	42/80-150	2,6	DIN 5G977/2001		
3477422	RL 130/M	TC FS2	3/230-400/50	230/50-60	498/948-1779	42/80-150	2,6	DIN 5G977/2001		
3477423	RL 130/M	TL FS2	3/230-400/50	230/50-60	498/948-1779	42/80-150	2,6	DIN 5G977/2001		
3477811	RL 190/M	TC FS1	3/230-400/50	230/50-60	534/1423-2431	45/120-205	5,5	DIN 5G978/2001		
3477822	RL 190/M	TC FS2	3/230-400/50	230/50-60	534/1423-2431	45/120-205	5,5	DIN 5G978/2001		

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

The burners of RL series are in according to 89/336 - 73/23 - 98/37 - 92/42 EEC Directive and EN 267 Norm.

RL/M series - BURNER ACCESSORIES

Return nozzles type A3 45°

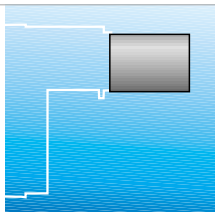


The following list shows the features and codes on the basis of the maximum required fuel output.

NOTE: each burner needs N° 1 nozzle.

Burner	Rated output kg/h	Nozzle code	Price
RL 28/M	15	3009850	
RL 28/M - 38/M	20	3009851	
RL 28/M - 38/M - 50/M	30	3009852	
RL 38/M - 50/M - 70/M	40	3009853	
RL 50/M - 70/M	50	3009854	
RL 70/M - 100/M	60	3009855	
RL 70/M - 100/M	70	3009856	
RL 100/M - 130/M	80	3009857	
RL 100/M - 130/M	90	3009858	
RL 100/M - 130/M	100	3009859	
RL 130/M	110	3009860	
RL 130/M - 190/M	120	3009861	
RL 130/M - 190/M	130	3009862	
RL 190/M	140	3009863	
RL 190/M	160	3009864	
RL 190/M	180	3009865	
RL 190/M	200	3009866	

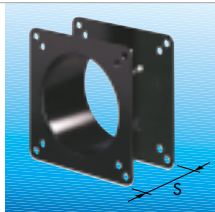
Extended head kit



"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	Price
RL 28/M	241	351	3010120	
RL 38/M	241	351	3010121	
RL 50/M	241	351	3010122	
RL 70/M	272	385	3010159	
RL 100/M	272	385	3010160	
RL 130/M	272	385	3010161	
RL 190/M	370	-	-	

Spacer kit



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

Burner	Spacer thickness S (mm)	Kit code	Price
RL 28/M - 38/M - 50/M	90	3010095	
RL 70/M - 100/M - 130/M	135	3010129	
RL 190/M	110	3000722	

Sound proofing box



If noise emission needs reducing even further, sound-proofing boxes are available.

Burner	Box type	Average noise reduction [dB(A)]	Box code	Price
RL 28/M - 38/M - 50/M	C2	11	3000777	
RL 70/M - 100/M - 130/M	C3	14	3000778	
RL 190/M	C4	14	3000779	

Degasing unit



Burner	Filter	Filtering degree (µm)	Degasing unit code	Price
RL 28/M - 38/M - 50/M RL 70/M - 100/M	With filter	50 - 75	3010055	
RL 28/M - 38/M - 50/M RL 70/M - 100/M	Without filter	-	3010054	

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

Head kit for "reverse flame chamber"



Burner	Standard head length with cylinder(mm)	Extended head length with cylinder(mm)	Kit code	Price
RL 28/M - 38/M	319	429	3010178	
RL 50/M	319	429	3010179	
RL 70/M - 100/M	375	488	3010180	
RL 130/M	375	488	3010183	
RL 190/M	493	-	3010241	

In certain cases, the use of the burner on reverse flame boilers can be improved by using an additional cylinder.

Accessories for modulating operation



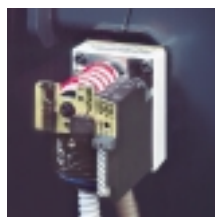
Burner	Regulator type	Regulator code	Price
RL 28/M - 38/M - RL 50/M RL 70/M - 100/M - 130/M - 190/M	RWF 40	3010212	

To obtain modulating operation, the RL/M series of burners requires a regulator.



Probe type	Range (°C) (bar)	Probe code	Price
Temperature PT 100	-100 ÷ 500°C	3010110	
Pressure 4 ÷ 20 mA	0 ÷ 2,5 bar	3010213	
Pressure 4 ÷ 20 mA	0 ÷ 16 bar	3010214	

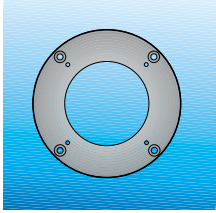
The relative temperature or pressure probes fitted to the regulator, must be chosen on the basis of the application.



Burner	Potentiometer kit code	Price
RL 28/M - 38/M - 50/M	3010109	
RL 70/M - 100/M - 130/M - 190/M	3010021	

Depending on the servomotor fitted to the burner, a three-pole potentiometer (1000 Ω) can be installed to check the position of the servomotor.

Connection flange kit



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

Burner	Kit code	Price
RL 28/M - 38/M - 50/M	3010138	