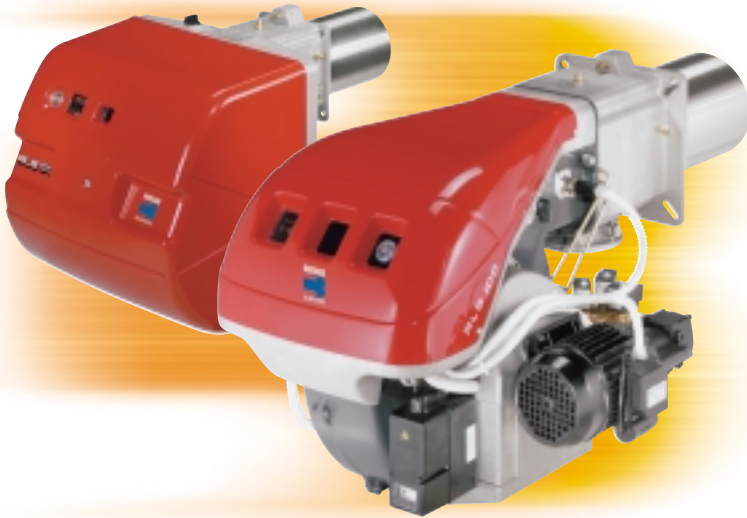




TWO STAGE DUAL FUEL BURNERS

► RLS SERIES

► RLS 28	100/163 ÷ 325 kW
► RLS 38	116/232 ÷ 442 kW
► RLS 50	145/290 ÷ 581 kW
► RLS 70	232/465 ÷ 814 kW
► RLS 100	349/698 ÷ 1163 kW
► RLS 130	465/930 ÷ 1395 kW

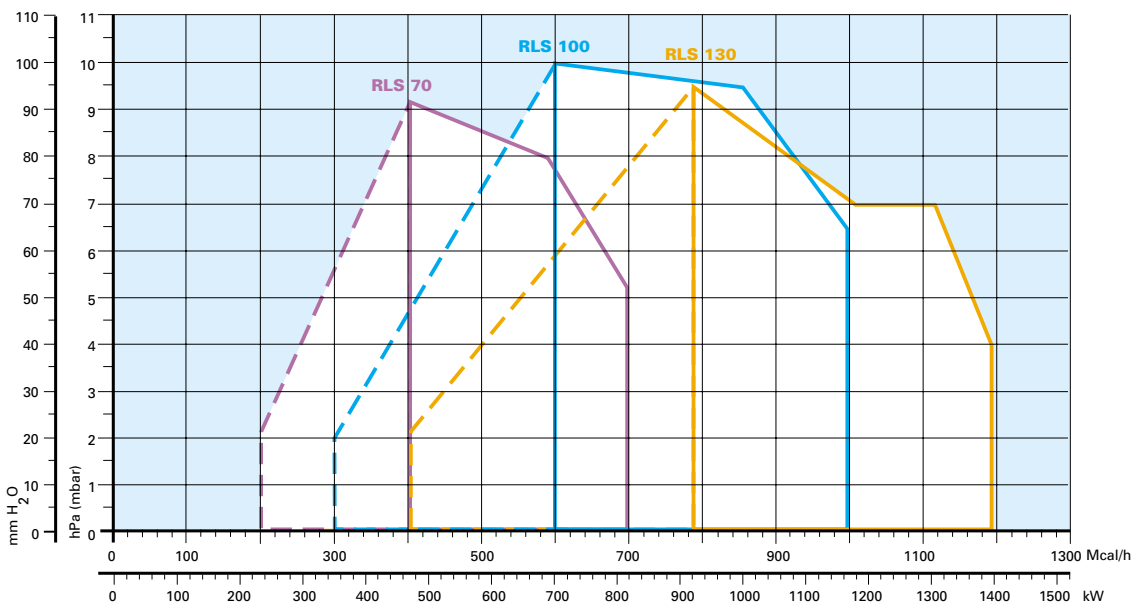
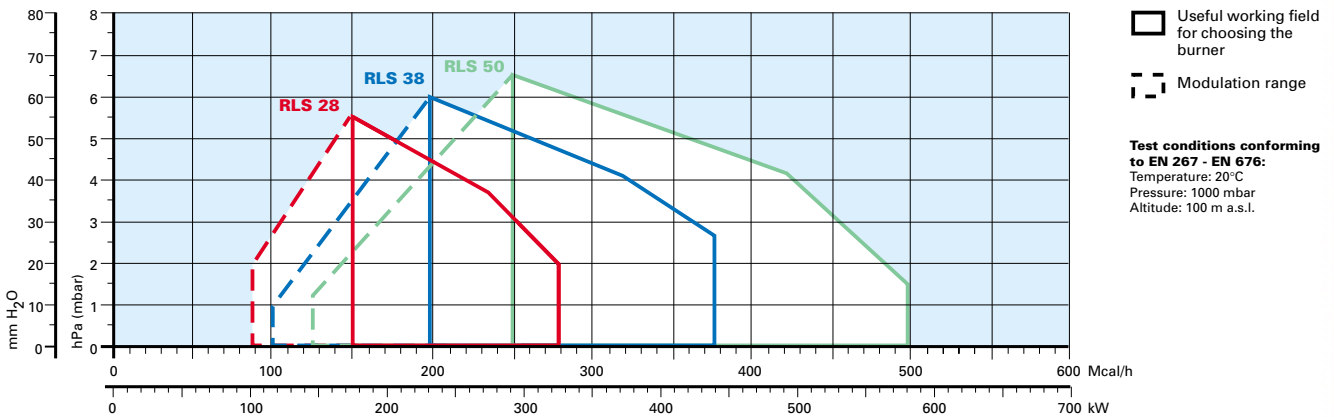


The RLS series of burners covers a firing range from 100 to 1395 kW, and they have been designed for use in hot or superheater water boilers, hot air or steam generators, diathermic oil boilers. Operation is "two stage"; the burners are fitted with an electronic device LED PANEL, that, in every moment, shows burner operational modes. 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 elevated performance of the fans and combustion head guarantee flexibility of use and excellent working at all firing rates.

The exclusive design ensures reduced dimensions, simple use and maintenance. A wide range of accessories guarantees elevated working flexibility.

FIRING RATES

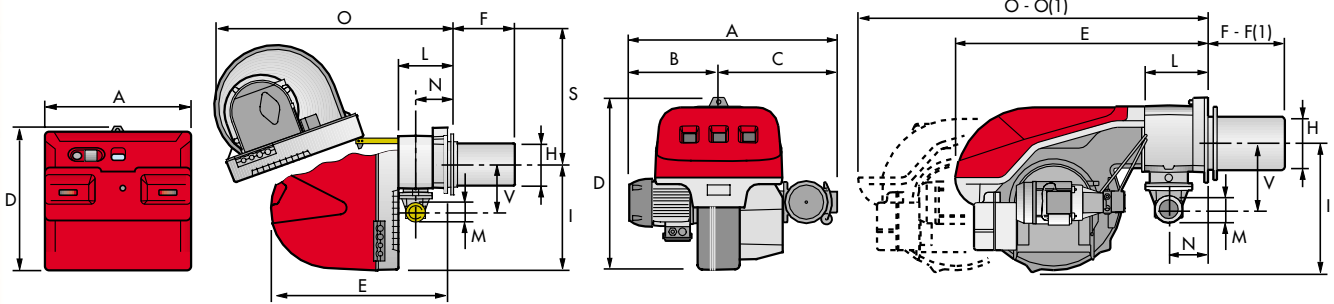


RLS series - OVERALL DIMENSIONS (mm)

BURNER

RLS 28 - 38 - 50

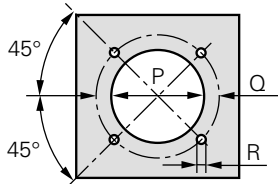
RLS 70 - 100 - 130



Model	A	B	C	D	E	F - F(1)	H	I	L	M	N	O - O(1)	S	V
▶ RLS 28	476	-	-	474	580	191 - 326	140	352	164	1"1/2	108	810 - 810	367	168
▶ RLS 38	476	-	-	474	580	201 - 336	152	352	164	1"1/2	108	810 - 810	367	168
▶ RLS 50	476	-	-	474	580	216 - 351	152	352	164	1"1/2	108	810 - 810	367	168
▶ RLS 70	691	296	395	555	840	250 - 385	179	430	214	2"	134	1161-1361	-	221
▶ RLS 100	707	312	395	555	840	250 - 385	189	430	214	2"	134	1161-1361	-	221
▶ RLS 130	733	338	395	555	840	250 - 385	189	430	214	2"	134	1161-1361	-	221

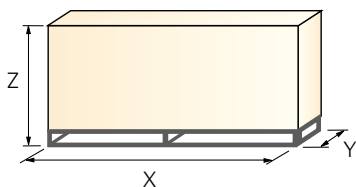
(1) Length with extended combustion head

BURNER - BOILER MOUNTING FLANGE



Model	P	Q	R
▶ RLS 28	160	224	M8
▶ RLS 38	160	224	M8
▶ RLS 50	160	224	M8
▶ RLS 70	185	275-325	M12
▶ RLS 100	195	275-325	M12
▶ RLS 130	195	275-325	M12

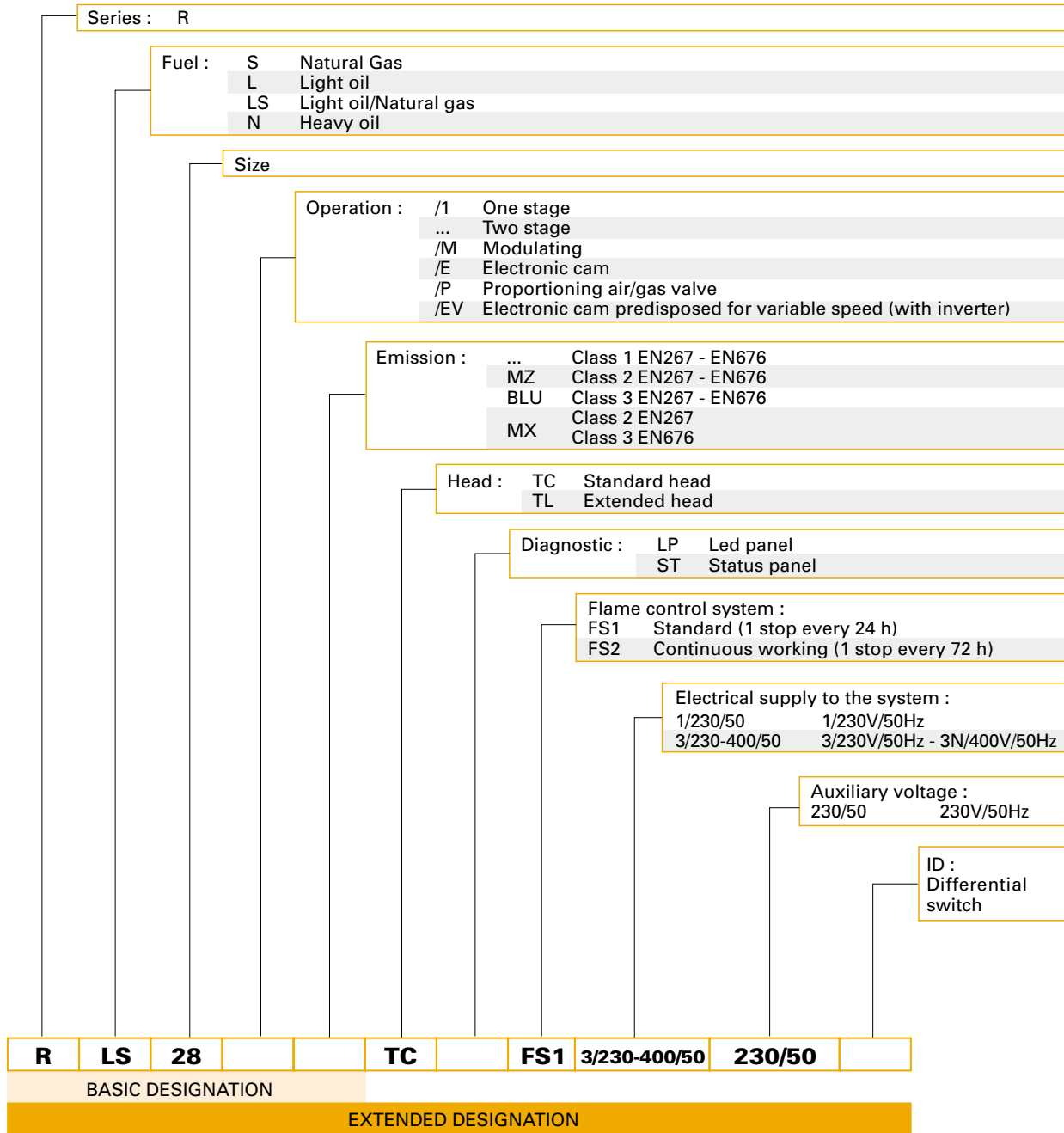
PACKAGING



Model	X	Y	Z	kg
▶ RLS 28	872	540	550	43
▶ RLS 38	872	540	550	45
▶ RLS 50	872	540	550	46
▶ RLS 70	1190	692	740	70
▶ RLS 100	1190	692	740	73
▶ RLS 130	1190	692	740	76

RLS series - SPECIFICATION

DESIGNATION OF SERIES



► RLS series - STATE OF SUPPLY

Monobloc forced draught dual fuel burner, two stage operation, made up of:

- Air suction circuit lined with sound-proofing material
- Fan with reverse curve blades
- Fan starting motor
- Air damper for air setting controlled by a servomotor
- Minimum air pressure switch
- Combustion head, that can be set on the basis of required output
- Gears pump for high pressure fuel supply
- Pump starting motor
- Oil safety valves
- Two oil valves (1st and 2nd stage)
- Flame control panel
- Electronic device to check all burners operational modes (Led Panel)
- UV photocell for flame detection
- Burner on/off switch
- Oil/Gas selector
- Manual 1st and 2nd stage switch
- Plugs for electrical connections (RLS 28-38-50)
- Flame inspection window
- Slide bars for easier installation and maintenance
- Protection filter against radio interference
- IP 44 electric protection level.

Standard equipment:

- 1 gas train gasket
- 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
- Kit for transformation to LPG
- Fairleads for electrical connections (for RLS 28-38-50 model)
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

► RLS series - AVAILABLE BURNER MODELS

Code	Model	Heat output			Total electrical power (kW)	Certification	Note	Price
		(kW)	Light oil (kg/h)	Natural Gas (Nm ³ /h)				
3483201	RLS 28 TC LP FS1 1/230/50 230/50	100/163-325	8,5/13,7-27,4	10/16-33	0,53	(1)		
3484101	RLS 38 TC LP FS1 1/230/50 230/50	116/232-442	9,8/19,6-37,3	12/23-44	0,76	(1)		
3484601	RLS 50 TC LP FS1 3/230-400/50 230/50	145/290-581	12,3/24,5-49	15/29-58	0,91	(1)		
3485001	RLS 70 TC LP FS1 3/230-400/50 230/50	232/465-814	19/39-69	23/47-81	1,8	(2)		
3485201	RLS 100 TC LP FS1 3/230-400/50 230/50	349/698-1163	29,5/59-98	35/70-116	2,2	(2)		
3485401	RLS 130 TC LP FS1 3/230-400/50 230/50	465/930-1395	39/78-118	47/93-140	3,0	(2)		

(1) CE 0063AR4637.

(2) CE 0063AS4863 - DIN 5G835/97 M.

Net calorific value light oil: 11,8 kWh/kg; 10.200 kcal/kg - Viscosity at 20°C: 4-6 mm²/s (cSt).

Net calorific value G20 gas: 10 kWh/Nm³; 8.600 kcal/Nm³ - Density: 0,71 kg/Nm³.

The burners of RLS series are in according to 90/396 - 89/336 - 73/23 - 92/42 CEE Directive and EN 267 - 676 Norm.

RLS series - AVAILABLE GAS TRAIN MODELS

Gas train code*	Gas train model	Natural gas		LPG		Note	Gas train price
		Burner (type)	Adapter** (code)	Burner (type)	Adapter** (code)		
3970046	MBZRDLE 407	RLS 28	3000824	RLS 28	3000824	(1)	
3970079	MBZRDLE 410	RLS 28 RLS 38 RLS 50	3000824 3000824 3000824	RLS 28 RLS 38 RLS 50	3000824 3000824 3000824	(1)	
3970152	MBZRDLE 412	RLS 28 RLS 38 RLS 50	- - -	RLS 28 RLS 38 RLS 50	- - -	(1)	
3970183	MBZRDLE 415	RLS 28 RLS 38 RLS 50 RLS 70 RLS 100 RLS 130	- - - 3000843 3000843 3000843	RLS 28 RLS 38 RLS 50 RLS 70 RLS 100 RLS 130	- - - 3000843 3000843 3000843	(1)	
3970184	MBZRDLE 420	RLS 28 RLS 38 RLS 50 RLS 70 RLS 100 RLS 130	3000822 3000822 3000822 - - -	RLS 28 RLS 38 RLS 50 RLS 70 RLS 100 RLS 130	3000822 3000822 3000822 - - -	(1)	
3970185	MBZRDLE 420 CT	RLS 28 RLS 38 RLS 50 RLS 70 RLS 100 RLS 130	3000822 3000822 3000822 - - -	RLS 28 RLS 38 RLS 50 RLS 70 RLS 100 RLS 130	3000822 3000822 3000822 - - -	(2)	
3970153	CB 40/2	RLS 28 RLS 38 RLS 50 RLS 70 RLS 100 RLS 130	- - - 3000843 3000843 3000843	RLS 28 RLS 38 RLS 50 RLS 70 RLS 100 RLS 130	- - - 3000843 3000843 3000843	(1)	
3970154	CB 50/2	RLS 28 RLS 38 RLS 50 RLS 70 RLS 100 RLS 130	3000822 3000822 3000822 - - -	RLS 28 RLS 38 RLS 50 RLS 70 RLS 100 RLS 130	3000822 3000822 3000822 - - -	(1)	
3970166	CB 50/2 CT	RLS 28 RLS 38 RLS 50 RLS 70 RLS 100 RLS 130	3000822 3000822 3000822 - - -	RLS 28 RLS 38 RLS 50 RLS 70 RLS 100 RLS 130	3000822 3000822 3000822 - - -	(2)	
3970155	CBF 65/2	RLS 70 RLS 100 RLS 130	3000825 3000825 3000825	RLS 70 RLS 100 RLS 130	3000825 3000825 3000825	(1)	
3970167	CBF 65/2 CT	RLS 70 RLS 100 RLS 130	3000825 3000825 3000825	RLS 70 RLS 100 RLS 130	3000825 3000825 3000825	(2)	
3970156	CBF 80/2	RLS 70 RLS 100 RLS 130	3000826 3000826 3000826	RLS 70 RLS 100 RLS 130	3000826 3000826 3000826	(1)	
3970168	CBF 80/2 CT	RLS 70 RLS 100 RLS 130	3000826 3000826 3000826	RLS 70 RLS 100 RLS 130	3000826 3000826 3000826	(2)	

* gas train are 230V/50Hz - 220V/60Hz electrical supply

** the adapter price is available in the "Gas train accessories" section

(1) Seal control Accessory

(2) Seal control Incorporated

The following table shows the frequently matching between RLS burners and the gas train, referred to different inlet gas pressure.

Burner	Reference combustion chamber pressure (mbar)	Natural gas G20 (20 mbar)		Natural gas G20 (300 mbar)		LPG (35 mbar)		LPG (150 mbar)	
		Gas train	Reference output (kW)	Gas train	Reference output (kW)	Gas train	Reference output (kW)	Gas train	Reference output (kW)
RLS 28	3,5	MBZRDLE 412	270	MBZRDLE 407	270	MBZRDLE 407	270	MBZRDLE 407	270
RLS 38	4,0	MBZRDLE 420	370	MBZRDLE 410	370	MBZRDLE 410	370	MBZRDLE 410	370
RLS 50	4,0	CB 50/2	480	MBZRDLE 410	480	MBZRDLE 410	480	MBZRDLE 410	480
RLS 70	8,0	-	700	CB 40/2	700	CB 40/2	700	CB 40/2	700
RLS 100	9,0	-	1010	CB 40/2	1010	MBZRDLE 415	1010	CB 40/2	1010
RLS 130	7,5	-	1240	CB 40/2	1240	CB 50/2	1240	CB 40/2	1240

RLS series - BURNER ACCESSORIES

Nozzles type 60° B

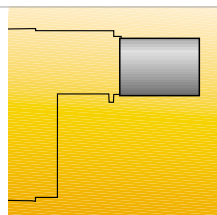


The nozzles must be ordered separately. The following table shows the features and codes on the basis of the maximum required fuel output.

NOTE: each burner needs N° 2 nozzles.

Burner	Rated delivery (kg/h) at 12 bar	GPH	Nozzle code	Price
RLS 28	8,5	2,00	3042126	
RLS 28-38	10,6	2,50	3042140	
RLS 28-38-50	12,7	3,00	3042158	
RLS 28-38-50	14,8	3,50	3042162	
RLS 38-50	17	4,00	3042172	
RLS 38-50	19,1	4,50	3042182	
RLS 38-50-70	21,2	5,00	3042192	
RLS 50-70	23,3	5,50	3042202	
RLS 50-70	25,5	6,00	3042212	
RLS 50-70	27,6	6,50	3042222	
RLS 70-100	29,7	7,00	3042232	
RLS 70-100	31,8	7,50	3042242	
RLS 70-100	33,9	8,00	3042252	
RLS 70-100	36,1	8,50	3042262	
RLS 70-100-130	40,3	9,50	3042282	
RLS 70-100-130	42,4	10,00	3042292	
RLS 70-100-130	46,7	11,00	3042312	
RLS 100-130	50,9	12,00	3042322	
RLS 100-130	55,1	13,00	3042332	
RLS 100-130	59,4	14,00	3042352	
RLS 100-130	63,6	15,00	3042362	
RLS 100-130	67,9	16,00	3042382	
RLS 130	72,1	17,00	3042392	

Extended head kit



"Standard head" burners can be transformed into "extended head" versions, by using the special kit. The kits available for the various burners, giving the original and the extended lengths, are listed below.

Burner	Standard head length (mm)	Extended head length (mm)	Kit code	Price
RLS 28	191	326	3010154	
RLS 38	201	336	3010155	
RLS 50	216	351	3010156	
RLS 70	250	385	3010162	
RLS 100	250	385	3010163	
RLS 130	250	385	3010164	

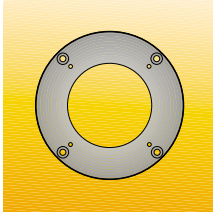
Degasing unit



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

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

Connection flange kit



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

Burner	Kit code	Price
RLS 28 - 38 - 50	3010138	

RLS series - GAS TRAIN ACCESSORIES

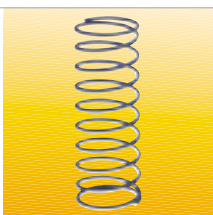
Seal control kit



To test the valve seals on the gas train, a special "seal control kit" is available.

Burner	Gas train	Kit code	Price
RLS 28	MBZRDLE 407 - MBZRDLE 410 - MBZRDLE 412	3010123	
	MBZRDLE 415 - MBZRDLE 420 - CB 40/2 - CB 50/2	3010125	
RLS 38	MBZRDLE 410 - MBZRDLE 412	3010123	
	MBZRDLE 415 - MBZRDLE 420 - CB 40/2 - CB 50/2	3010125	
RLS 50	MBZRDLE 410 - MBZRDLE 412	3010123	
	MBZRDLE 415 - MBZRDLE 420 - CB 40/2 - CB 50/2	3010125	
RLS 70	MBZRDLE 415 - MBZRDLE 420	3010125	
	CB 40/2 - CB 50/2 - CBF 65/2 - CBF 80/2		
RLS 100	MBZRDLE 415 - MBZRDLE 420	3010125	
	CB 40/2 - CB 50/2 - CBF 65/2 - CBF 80/2		
RLS 130	MBZRDLE 415 - MBZRDLE 420	3010125	
	CB 40/2 - CB 50/2 - CBF 65/2 - CBF 80/2		

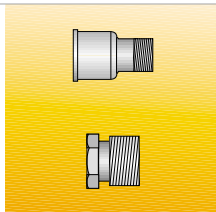
Stabiliser spring



























Accessory springs are available to vary the pressure range of the gas train stabilisers.

Gas train	Spring	Code	Price
CBF 65/1 - CBF 80/1	Red from 25 to 55 mbar	3010133	
CBF 65/1 - CBF 80/1	Black from 60 to 110 mbar	3010135	
CBF 65/1 - CBF 80/1	Pink from 100 to 150 mbar	3090456	

Adapters



When the diameter of the gas train is different from the set diameter of the burners, an adapter must be fitted between the gas train and the burner.

Burner	Gas train	Dimensions	Adapter code	Price
RLS 28	MBZRDLE 407 MBZRDLE 410	3/4"  1" 1/2	3000824	
	CB 50/2 - CB 50/2 CT MBZRDLE 420 MBZRDLE 420 CT	2"  1" 1/2	3000822	
RLS 38	MBZRDLE 410	3/4"  1" 1/2	3000824	
	MBZRDLE 420 MBZRDLE 420 CT	2"  1" 1/2	3000822	
	CB 50/2 - CB 50/2 CT			
RLS 50	MBZRDLE 410	3/4"  1" 1/2	3000824	
	MBZRDLE 420 MBZRDLE 420 CT	2"  1" 1/2	3000822	
	CB 50/2 - CB 50/2 CT			
	MBZRDLE 415 - CB 40/2	1" 1/2  2"	3000843	
RLS 70	CBF 65/2 - CBF 65/2 CT	DN 65  2" 1/2  1" 1/2  2"	3000825	
	CBF 80/2 - CBF 80/2 CT	DN 80  2" 1/2  2"	3000826	
	MBZRDLE 415 - CB 40/2	1" 1/2  2"	3000843	
RLS 100	CBF 65/2 - CBF 65/2 CT	DN 65  2" 1/2  1" 1/2  2"	3000825	
	CBF 80/2 - CBF 80/2 CT	DN 80  2" 1/2  2"	3000826	
	MBZRDLE 415 - CB 40/2	1" 1/2  2"	3000843	
RLS 130	CBF 65/2 - CBF 65/2 CT	DN 65  2" 1/2  1" 1/2  2"	3000825	
	CBF 80/2 - CBF 80/2 CT	DN 80  2" 1/2  2"	3000826	