
Flange Mounting Dimensions

L	M	N
233	M12	210

TECHNICAL AND FUNCTIONAL CHARACTERISTICS

- Light oil burner.
- Two-stage progressive output operation.
- Ability to operate with output modulation by means of automatic RWF40 regulator mounted on the control panel (to be ordered separately with the modulation kit).
- Ability to operate with any type of combustion chamber.
- High pressure mechanical atomisation of fuel using nozzle.
- Ability to obtain optimal combustion values by regulating combustion air and blast-pipe.
- Maintenance facilitated by the fact that the atomisation unit can be removed without having to remove the burner from the boiler.
- Minimum and maximum air flow regulation for first and second stage by means of electric servomotor with pause closure of gate to prevent any heat dispersion to flue.
- Equipped with one flange and one insulating seal for boiler fastening, 2 flexible hoses and one line filter; nozzle not included, to be ordered separately depending on the required flow.

CONSTRUCTION CHARACTERISTICS

The burner consists of:

- Light aluminium alloy fan part.
- High performance centrifugal fan.
- Combustion air intake with air flow adjustment device.
- Sliding boiler coupling flange to adapt the head protrusion to the various types of boilers.
- Adjustable blast-pipe with stainless steel nozzle and deflector disk in steel.
- Three-phase electric motor to run fan and pump.
- Electric servomotor with mechanical cam for simultaneous regulation of combustion air and fuel.
- Gear pump with pressure regulator.
- Atomisation unit with magnet to control the outlet/nozzle return pins.
- Automatic control and command equipment for the burner compliant with European standard EN230.
- Flame detection by photoresistance.
- Control panel comprising stop/go switch, automatic/manual and minimum/maximum selector, operation and block indicator.
- Terminal block for the electrical and thermostatic connections to the burner and to control the second stage of working or for the connection of the electronic output regulator.
- Electrical protection rating IP40.

 Conform to
 E.M.C. Directive 89/336/CEE
 L.V. Directive 73/23/CEE

Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	A mm	B mm	C mm	D mm	F mm	Size of packaging L x P x H mm	Weight kg	Notes
415 - 889	BT 75	3510010	1.5	3N AC 50Hz 400V	1.1	595	510	1215	130 - 450	160	1730 x 1030 x 880	140	4)

To complete the burner

Nozzle with 1-3 ratio

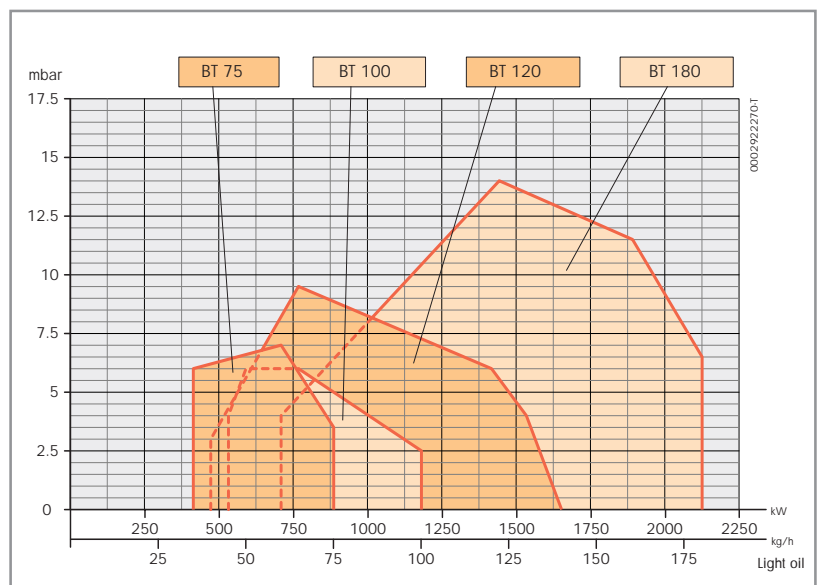
Modulating mode

Complete the burner with the automatic RWF40 regulator and the modulation kit.

Light oil burner accessories

Line filter - Flex hoses - Boiler coupling kit

Notes

 4) Equipped with automatic device for air closing.
 Net calorific value of light oil: Hi = 42.70 MJ/kg = 10200 kcal/kg.




By inserting the RWF40 kit and the modulating kit into the two progressive stage burners, these are transformed into modulating burners, that is, with the capacity to provide thermal power which can be varied continuously in accordance with the specific needs of the boiler. Naturally, the thermal power level varies only within the "minimum" and "maximum" limits applying to the burner.

Selecting modulation kit components

With reference to parameter: temperature (°C) or pressure (bar), select the regulation range corresponding to the operating value of the boiler. When the value falls within two different setting ranges, select the lower of the two.

Example:

If the temperature of the water in the boiler is to be 100°C, choose the modulation kit corresponding to range 0 - 130°C. If the pressure of the steam in the boiler is to be 8 bar, select the modulation kit in the regulation range 0 - 10 bar.

RWF 40 electronic regulator for all modulating burners, used to regulate temperature or pressure.

Automatic proportional modulation regulator

Part no.	Model
98000051	Kit RWF 40
98000052	Kit RWF 40 for BGS 30 LX



Temperature modulation kit

Part no.	Temperature	Type probe	Probe length	Male coupling
98000020	0 °C - 130 °C	NI 1000	100 1)	R 1/2"
98000021	0 °C - 500 °C	PT 1000	200 1)	G 1/2"
98000022	0 °C - 1100 °C	Thermocouple	425 1)	R 1/2"



Steam pressure modulation kit

Part no.	Steam pressure	Male coupling
98000025	0 - 1 bar	G 1/2"
98000026	0 - 10 bar	G 1/2"
98000027	0 - 16 bar	G 1/2"
98000028	0 - 25 bar	G 1/2"
98000029	0 - 40 bar	G 1/2"

Notes

For different modulation values please contact our Technical Assistance Service.
1) Different lengths on request.

Burner nozzles for light oil and heavy oil (ratio 1:3) for progressive/modulating two-stage burners and two-stage burners for heavy oil (GI 1000 excluded).



Part no.	Rated flow-rate kg/h	Flow-rate angle
98000201	50	45°
98000202	60	45°
98000203	70	45°
98000204	80	45°
98000205	90	45°
98000206	100	45°
98000207	125	45°
98000208	150	45°
98000209	175	45°
98000210	200	45°
98000211	225	45°
98000212	250	45°
98000213	275	45°
98000214	300	45°
98000215	325	45°
98000216	350	45°
98000217	375	45°

Part no.	Rated flow-rate kg/h	Flow-rate angle
98000218	400	45°
98000219	425	45°
98000220	450	45°
98000221	475	45°
98000222	500	45°
98000223	525	45°
98000224	550	45°
98000225	575	45°
98000226	600	45°
98000227	650	45°
98000228	700	45°
98000229	750	45°
98000230	800	45°
98000231	850	45°
98000232	900	45°
98000233	1000	45°

Return nozzle with 1:3 modulation ratio for light oil/heavy oil modulating, two-stage progressive burners and heavy oil two-stage burners. This type of nozzle maintains pump pressure constant and varies fuel flow rate on the basis of nozzle return pressure.

Goods supplied:

To be ordered together with burner at the time of the order itself according to the power requested for the application.