



**baltur** **75**   
Energy for People 1950 - 2025



TBL 85 P



BT 75 DSPG

TBL 85 P	BT 75 DSPG
----------	------------

two-stage

mechanical two-stage progressive

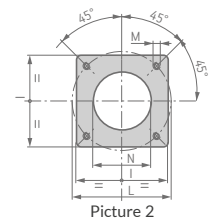
**Light oil burner. Operation:**

Modulation ratio:		1:2
Low NOx and CO emissions light oil burner according to European standard EN267:	class 2	
Adjusting the combustion head	•	•
Maintenance facilitated by the possibility of removing the mixing unit without having to remove the burner from the boiler	•	•
High ventilation efficiency, low electrical input, low noise	•	
Sliding boiler coupling flange to adapt the blast-pipe to the various types of boilers	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	hydraulic jack	mechanical cam
Fully closing air damper on shutdown to avoid loss of heat through the chimney		•
Fuel supply circuit made of gear pump with pressure adjustment, shut-off valves and safety valve	•	
Fuel supply circuit made of gear pump with pressure adjustment and control flow valve		•
Atomisation unit with solenoid valve for to control of the nozzle closing pin		•
Flame detection by photoresistance		•
Flame detection by photodiode	•	
Control panel with display diagram for working mode with indication lights	•	
Electric protection rating:	IP40	IP40

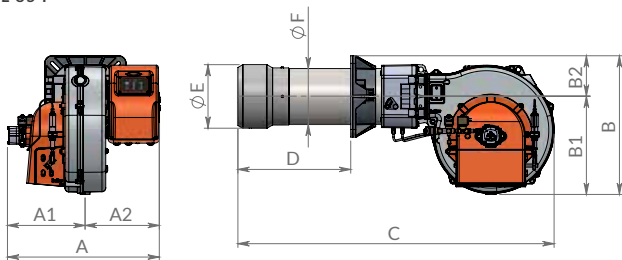
**LEGEND:**

- As standard

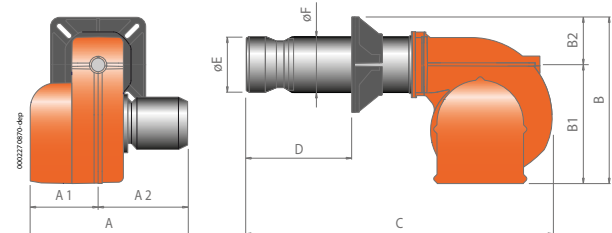
Flange dimensions and boiler drilling template.



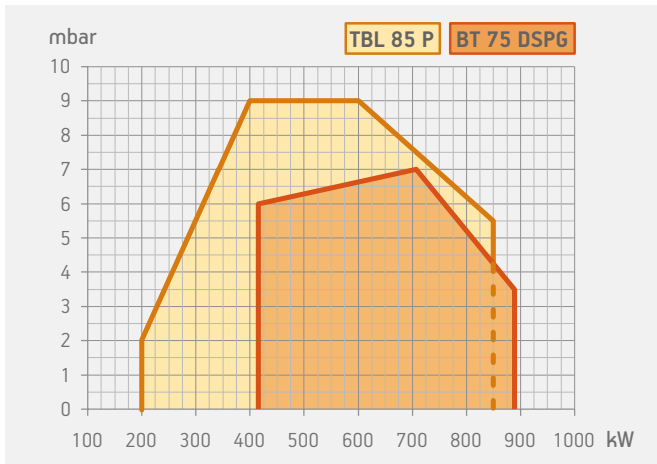
TBL 85 P



BT 75 DSPG



Model	A mm	A1 mm	A2 mm	B mm	B1 mm	B2 mm	C mm	D mm	E mm	F mm	I mm	L mm	M mm	N mm	Pic.
TBL 85 P	598	272	326	525	385	140	1200	200 ÷ 400	180	178	280	250 ÷ 325	M12	195	2
BT 75 DSPG	595	310	385	510	365	145	1215	130 ÷ 450	205	160	260	255 ÷ 300	M12	170	2



Model	Size of packaging			Weight kg
	L	P mm	H	
TBL 85 P	1070	800	700	79
BT 75 DSPG	1730	1030	880	140

	Emissions class	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
Frequency 50 Hz								
	class 2	200 ÷ 850	<b>TBL 85 P</b>	<b>35830010</b>	1,5	3N AC 50Hz 400V	1,10	
		415 ÷ 889	<b>BT 75 DSPG</b>	<b>35100010</b>	1,5	3N AC 50Hz 400V	1,10	4)
Frequency 60 Hz								
	class 2	200 ÷ 850	<b>TBL 85 P</b>	<b>35835410</b>	1,5	3N AC 60Hz 380V	1,10	
		415 ÷ 889	<b>BT 75 DSPG</b>	<b>35105410</b>	1,5	3N AC 60Hz 380V	1,5+0,65	4)

### TO COMPLETE THE BURNER

#### DESCRIPTION

BT 75 DSPG: nozzle with 1 ÷ 3 ratio (see page 5)

### MODULATING MODE

#### DESCRIPTION

BT 75 DSPG: modulation kit PART NO. 98000055

BT 75 DSPG: modulating probe (see page 4)

### ACCESSORIES AVAILABLE ON REQUEST

#### DESCRIPTION

#### PART NO.

TBL 85 P: biodiesel operation (see note 5 page 12 of the Burners Catalogue)

TBL 85 P: soundproof burner cover (see page 6) 97980053

BT 75 DSPG: soundproof burner cover (see page 6) 97980055

TBL 85 P long head L500 **NEW** 1) 98000463

### BURNER ACCESSORIES

TBL 85 P: line filter, flex hoses, nozzles, boiler coupling kit, plug for wiring

BT 75 DSPG: line filter, flex hoses, boiler coupling kit.

### NOTE

3 Sound proof lid on burner air intake.

4 Equipped with automatic air closure device.

Net calorific value of light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.

### N.B.

1) Conversion kit, for standard burner, by installer.

For supply of the product in long head version, please contact the sales department.

# MODULATION

The two stage progressive burners, by installing the PID load controller and related modulating kit, can operate as modulating burners with the ability to adjust the thermic load according to boiler needs. The load adjustment is possible between the minimum and maximum burner's operating point.

### How to choose the modulating kit components:

According to the parameter that it's necessary to control: temperature (°C) or pressure (bar) it's necessary to choose the range kit according to boiler operating range.

In case the value is included in two ranges it's necessary to select the lower range.

### Example:

In case the required hot water boiler set point is 100°C it's necessary to select the temperature probe kit with operating range between 0 ÷ 130°C.

In case the steam boiler must operate with 8bar outlet steam pressure it's necessary to select the pressure probe kit with operating range between 0 ÷ 10 bar.



### Automatic proportional modulation regulator PID

Part no.	Kit	Burners
98000055	Modulation kit LC3	TBG 450 ÷ 2000 MC
98000056	Modulation kit LC3	TBG 35 MC
98000057	Modulation kit LC3	TBML 80 ÷ 360 MC
98000058	Modulation kit LC3	TBG 45 ÷ 60 MC
98000059	Modulation kit LCM 100	ME models
98000065	Modulation kit LC4	TBG 80 ÷ 360 MC

### Temperature probe for LC3 modulation

Part no.	Temperature	Type robe	Probe length	Male coupling
98000023	0 °C ÷ 130 °C	PT 1000	85 <sup>1)</sup>	R 1/2"
98000021	0 °C ÷ 500 °C	PT 1000	200 <sup>1)</sup>	G 1/2"
98000022	0 °C ÷ 1100 °C	Thermocouple	425 <sup>1)</sup>	R 1/2"



### Temperature probe for LCM 100 modulation

Part no.	Temperature	Type robe	Probe length	Male coupling
98000023	0 °C ÷ 130 °C	PT 1000	85 <sup>1)</sup>	R 1/2"
98000021	0 °C ÷ 500 °C	PT 1000	200 <sup>1)</sup>	G 1/2"

### Temperature probe for ETAMATIC OEM control box

Part no.	Temperature	Type robe	Probe length	Male coupling
98000035	0 °C ÷ 500 °C	PT 100	100 <sup>1)</sup>	G 1/2"



### Steam pressure probe (for all types of automatic regulator)\*

Part no.	Pressure steam	Signal output	Male coupling
98000045	0 ÷ 1 bar	4 ÷ 20 mA	G 1/2"
98000046	0 ÷ 10 bar	4 ÷ 20 mA	G 1/2"
98000047	0 ÷ 16 bar	4 ÷ 20 mA	G 1/2"
98000048	0 ÷ 25 bar	4 ÷ 20 mA	G 1/2"
98000049	0 ÷ 40 bar	4 ÷ 20 mA	G 1/2"

\*) In the case of using applications where temperatures exceed 90°C you need to match the kit codes: 98000062

**NOTE: In combination with the LC4 modulation kit for MC models, a 12V power supply kit is mandatory.**

98000482	12V power supply kit
----------	----------------------

### External climate regulation

Part no.	Description	Temperature
85060070	Temperature probe PT100	-50 °C ÷ 90 °C
98000061	Interface module for LC3	

### Power signal converter (TBG 45÷360 MC / LX MC)

Part no.	Description
98000063	Converter kit 0 ÷ 10 V / 4 ÷ 20 mA

### UV safe kit

Part no.	Description
98000443	UV SAFE KIT TBG 80-360 FGR
98000444	UV SAFE KIT TBG 450-750 FGR
98000445	UV SAFE KIT TBG 800 FGR
98000446	UV SAFE KIT TBG 1200 FGR

Note: For different modulation values please contact our Technical Assistance Service.

1) Different lengths on request.

## RETURN NOZZLES

Nozzle with fuel return for diesel and mixed series two-stage progressive / modulating and modulating burners. This kind of nozzle, while keeping the pump pressure constant, varies the amount of

fuel supplied according to the return pressure of the nozzle. To be ordered together with the burner when placing the order according to the power required by the application.

### Nozzles for light oil (ratio 1÷3) excluded burners: TBML 800

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°



### Nozzles for light oil (ratio 1÷4) for burners TBML 450÷900 - TBL 450÷750 - TBL 1000

Part no.	Rated flow-rate kg/h	Flow-rate angle
98000264	200	45°
98000265	225	45°
98000266	250	45°
98000267	275	45°
98000268	300	45°
98000269	330	45°
98000270	360	45°
98000272	400	45°
98000274	450	45°
98000275	500	45°

Part no.	Rated flow-rate kg/h	Flow-rate angle
98000277	550	45°
98000278	600	45°
98000279	650	45°
98000271	700	45°
98000273	750	45°
98000276	800	45°
98000286	800	50°
98000287	850	50°
98000288	900	50°



### Nozzles for light oil (ratio 1÷5) for burners TBML 800 - TBL 1000

Part no.	Rated flow-rate kg/h	Flow-rate angle
98000238	200	45°
98000239	225	45°
98000240	250	45°
98000241	275	45°
98000242	300	45°
98000243	325	45°
98000244	350	45°
98000245	375	45°
98000246	400	45°
98000247	425	45°
98000248	450	45°

Part no.	Rated flow-rate kg/h	Flow-rate angle
98000249	475	45°
98000250	500	45°
98000251	525	45°
98000252	550	45°
98000253	575	45°
98000254	600	45°
98000255	650	45°
98000256	700	45°
98000257	750	45°
98000258	800	45°
98000259	850	45°
98000260	900	45°



### Nozzles for heavy oil (ratio 1÷5) - Type W4

Part no.	Rated flow-rate kg/h	Flow-rate angle
98000500	300	45°
98000501	325	45°
98000502	350	45°
98000503	375	45°
98000504	400	45°
98000505	425	45°
98000506	450	45°
98000507	475	45°

Part no.	Rated flow-rate kg/h	Flow-rate angle
98000508	500	45°
98000509	525	45°
98000510	550	45°
98000511	600	45°
98000512	650	45°
98000513	700	45°
98000514	750	45°

