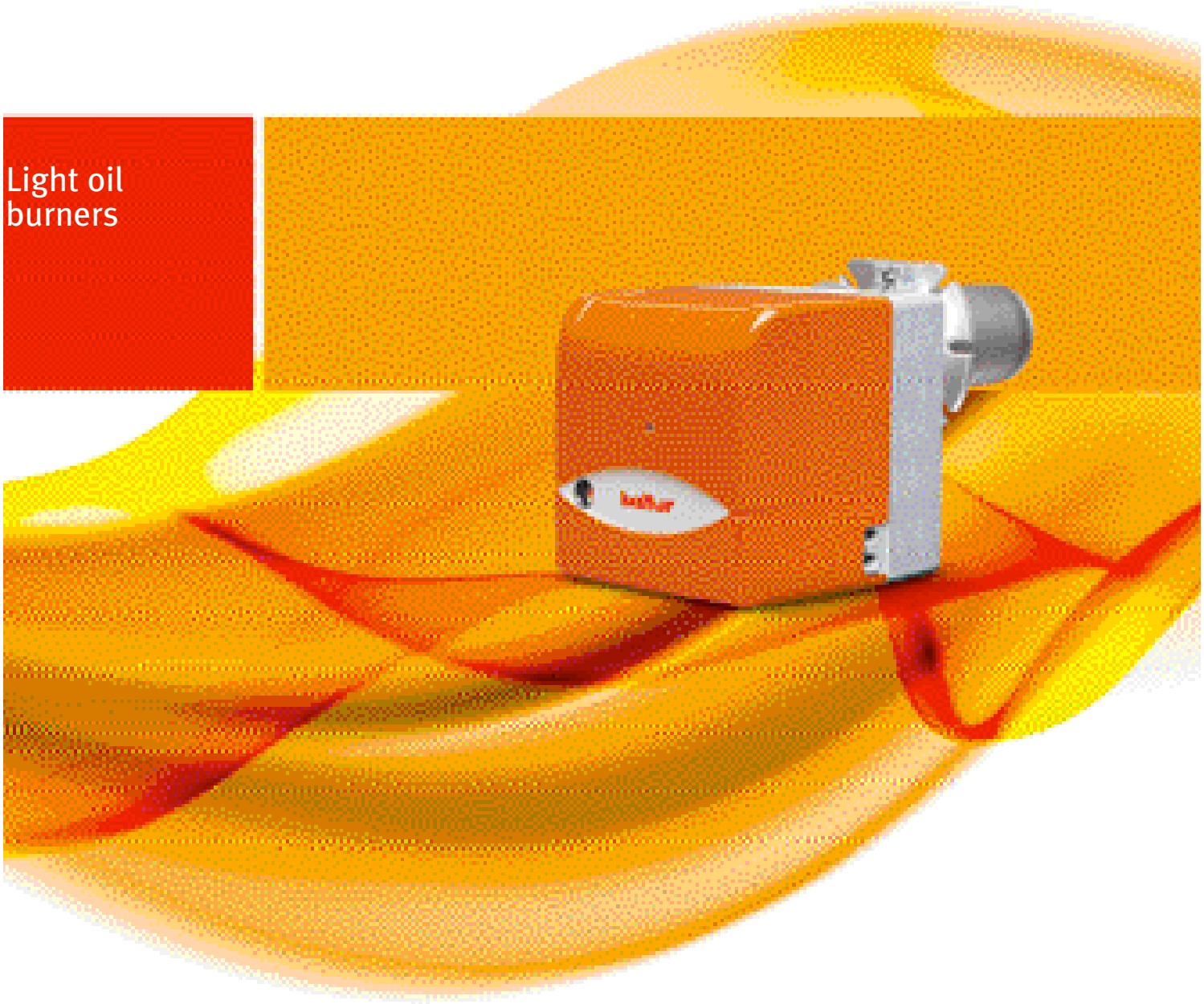
BTL to 17,8 from 118 kW
SERIES

Light oil burners



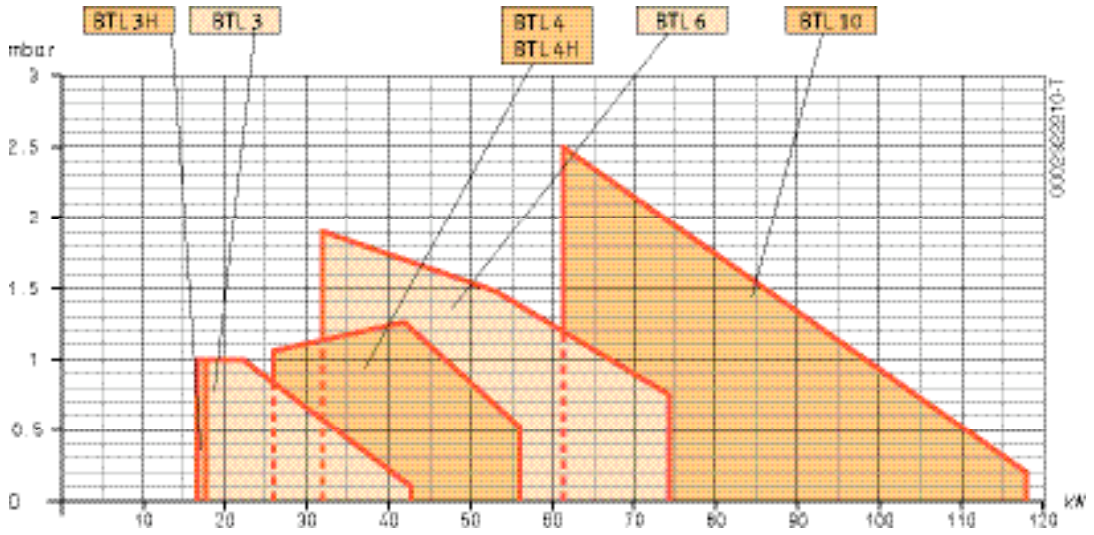
baltur

BTL to 17,8 from 118 kW SERIES

Product range

The main features of BTL series point out that these burners have been developed to meet the requirements both of installers and users.
BTL burners are suitable for boilers with a zero or a low back pressure value.
Safety, reliability, low noise level and utter flame stability are the result of an excellent design, both technical and aesthetic.
The burners are made of light aluminium alloy, with the fan plan perpendicular to the combustion head axis, and stand out for their compactness and reduced dimensions.
The combustion head, which can be taken out without opening the burner, the possible air regulation from the outside (BTL 3) and the easy access to the components (electric motor, fan, pump, ignition transformer, control box and combustion head) allow an easy and quick installation, regulation and service.
The burners are protected by a plastic cover with a hole granting an easy access to the ON/OFF switch.
The standard models with preheater (BTL 3H/0H/4H) are equipped with a drop stop device in the nozzle group.
According to the most restrictive European regulations this device decreases dramatically the quantity of unburnt hydrocarbons (CxHy) which are produced everytime the burner is ignited or switched off.

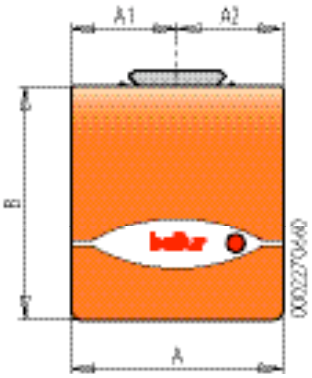
The diagrams are purely illustrative and refer to tests using test boilers as per current standards and legislation.
In practice, there may be considerable differences due to the following factors:
a) The capacity of the burner to exceed the overpressure when switched ON (not strictly related to the operating pressure) which varies from boiler to boiler.
b) The considerable thermal load of the combustion chamber (ratio between the thermal power of the combustion chamber and the corresponding volume - kcal/h/m³) which means the burner fan might not be operating within the full operating range.

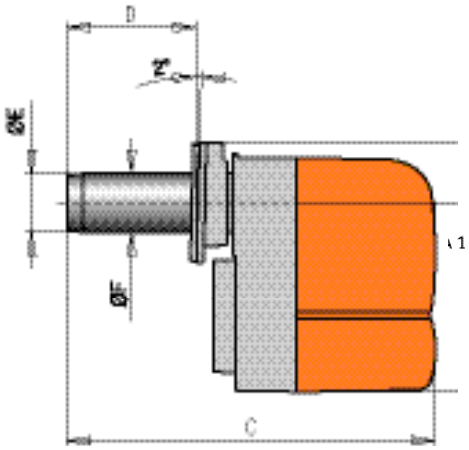


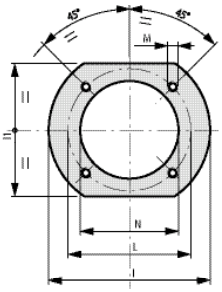
Model	Part no.	Heat output		Capacity *)		Max visc. °E at 20°C	Power supply electric	Motor kW	Notes
		min. kW	max. kW	min. kg/h	max kg/h				
Single-stage light oil burners									
BTL 3	35450010	17,8	42,7	1,50	3,6	1,5	1N AC 50Hz 230V	9	1)
BTL 3 H	35450011	16,6	42,7	1,40	3,6	1,5	1N AC 50Hz 230V	9	1) 2)
BTL 0	35470010	21,3	42,7	1,80	3,6	1,5	1N AC 50Hz 230V	12	1)
BTL 0 H	35470011	18,6	42,7	1,57	3,6	1,5	1N AC 50Hz 230V	12	1) 2)
BTL 4	35490010	26,0	56,1	2,20	4,7	1,5	1N AC 50Hz 230V	12	1)
BTL 4 H	35490011	26,0	56,1	2,20	4,7	1,5	1N AC 50Hz 230V	12	1) 2)
BTL 6	35510010	31,9	74,3	2,70	6,3	1,5	1N AC 50Hz 230V	12	1)
BTL 10	35530010	60,2	118,0	5,10	10,0	1,5	1N AC 50Hz 230V	12	1)
Two-stage light oil burners									
BTL 4 P	35500010	26,0	56,1	2,2	4,7	1,5	1N AC 50Hz 230V	12	1)
BTL 6 P	35520010	31,9	74,3	2,7	6,3	1,5	1N AC 50Hz 230V	12	1)
BTL 10 P	35540010	60,2	118,0	5,1	10,0	1,5	1N AC 50Hz 230V	12	1)

NOTES:
*) Net calorific value of light oil: 10 200 kcal/kg = 11,8 kWh/kg.
1) Equipped with air shut-off device.
2) Equipped with light oil pre-heater with drop-stop device.

Same models are suitable for 60Hz.





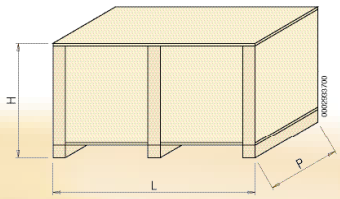


Dimensions

On request BTL 3 burners can be supplied with sliding flange

Model	A mm	A1 mm	A2 mm	B mm	B1 mm	B2 mm	C mm	D min mm	D max mm	F mm	I mm	I1 mm	L min mm	L max mm	M mm	N mm
BTL 3 - 3H	250	120,0	130,0	217,5	170,0	72	330	90	–	80	170	144	135	161	M8	85
BTL 0 - 0H	245	122,5	122,5	270,0	218,5	70	410	50	105	80	170	140	130	155	M8	85
BTL 4 - 4H - 4P	245	122,5	122,5	270,0	218,5	70	410	50	105	80	170	140	130	155	M8	85
BTL 6 - 6H - 6P	245	122,5	122,5	270,0	218,5	70	455	50	150	90	170	140	130	155	M8	95
BTL 10 - 10H - 10P	245	122,5	122,5	270,0	218,5	70	480	50	158	90	170	140	130	155	M8	95

Model	Package dimensions mm L	P	H	Weights kg
BTL 3 - 3H	400	280	280	9
BTL 0 - 0H	540	300	320	12
BTL 4 - 4H - 4P	540	300	320	12
BTL 6 - 6H - 6P	540	300	320	12
BTL 10 - 10H - 10P	540	300	320	12



BTL to 17,8 from 118 kW
SERIES

PLUS

Characteristics

Excellent value for money

Very compact

Combustion head fully accessible without the need to remove the burner

Sliding flange (excluding BTL 3 - 3H) for best connection of any type of combustion chamber

Automatic air damper closing

Quiet running

BTL SERIES

TECHNICAL-FUNCTIONAL CHARACTERISTICS

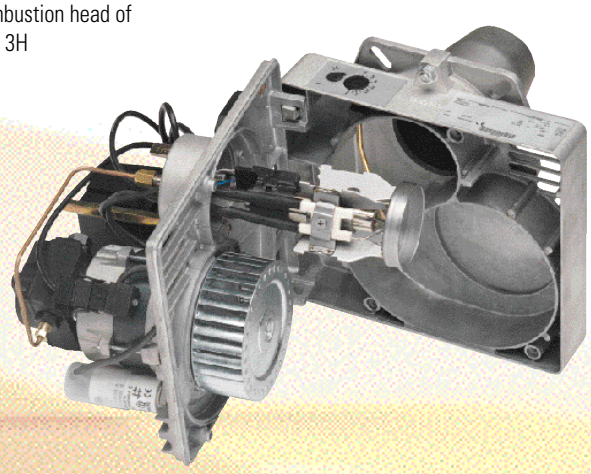
- Light oil burner.
- Single stage operation (on/off).
- Ability to operate with any type of combustion chamber.
- High pressure mechanical atomisation of fuel using nozzle.
- Ability to obtain optimal combustion values by regulating combustion air and blast-pipe.
- Maintenance facilitated by the fact that the atomisation unit can be removed without having to remove the burner from the boiler.
- Manual air flow adjustment.
- When using biodiesel (fuel of vegetable origin), the burner must be built with specific components: flexible hoses, line filter and pump.
- Equipped with one 7-pole connector, one flange and one insulating seal for boiler fastening, 2 flexible hoses, one line filter and one nozzle.
- On request: longer blast tube, operation on biodiesel.

CONSTRUCTION CHARACTERISTICS

The burner consists of:

- Light aluminium alloy fan part.
- High performance centrifugal fan.
- Combustion air inlet with device to adjust the air flow; automatically closing air gate.
- Sliding coupling flange to adapt the head protrusion to the various types of boilers (with the exception of BTL 3, BTL 3H).
- Adjustable combustion head complete with steel blast tube and deflector disk.
- Monophase electric motor to run fan and pump.
- Gear pump with pressure regulator and fuel stop-cock valve.
- Variable output fuel preheater (H version).
- Automatic control and command equipment for the burner compliant with European standard EN230.
- Flame detection by photoresistance.
- 7-pole outlet for burner electrical and thermostat supply.
- Electrical protection rating IP40.
- Sound-proof plastic protective cover.

Inside of the burner and combustion head of BTL 3H



Characteristics

BTL... P SERIES

TECHNICAL-FUNCTIONAL CHARACTERISTICS

- Light oil burner.
- Two-stage operation (high/low flame).
- 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.
- 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.
- When using biodiesel (fuel of vegetable origin), the burner must be built with specific components: flexible hoses, line filter and pump.
- Equipped with one 4 and 7-pole connector, one flange and one insulating seal for boiler fastening, 2 flexible hoses, one line filter and one nozzle.
- On request: longer blast tube, operation on biodiesel.

CONSTRUCTION CHARACTERISTICS

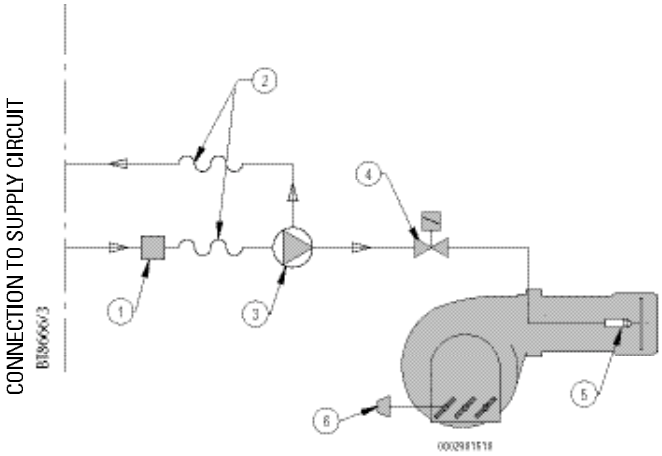
The burner consists of:

- Light aluminium alloy fan part.
- High performance centrifugal fan.
- Combustion air inlet with device to adjust the air flow; automatically closing air gate.
- Sliding boiler coupling flange to adapt the head protrusion to the various types of boilers.
- Adjustable combustion head complete with steel blast tube and deflector disk.
- Monophase electric motor to run fan and pump.
- Gear pump with pressure regulator and fuel stop-cock valves.
- Automatic control and command equipment for the burner compliant with European standard EN230.
- Flame detection by photoresistance.
- 7-pole outlet for burner electrical and thermostat connections, and 4-pole outlet for second stage control.
- Electrical protection rating IP40.
- Sound-proof plastic protective cover.

Possible air regulation from outside (BTL 3)

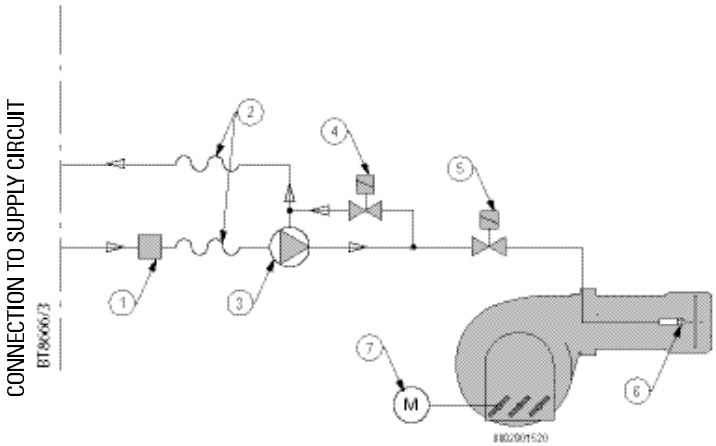
Functional diagram

SINGLE-STAGE BURNERS



SINGLE-STAGE BURNERS
Legend

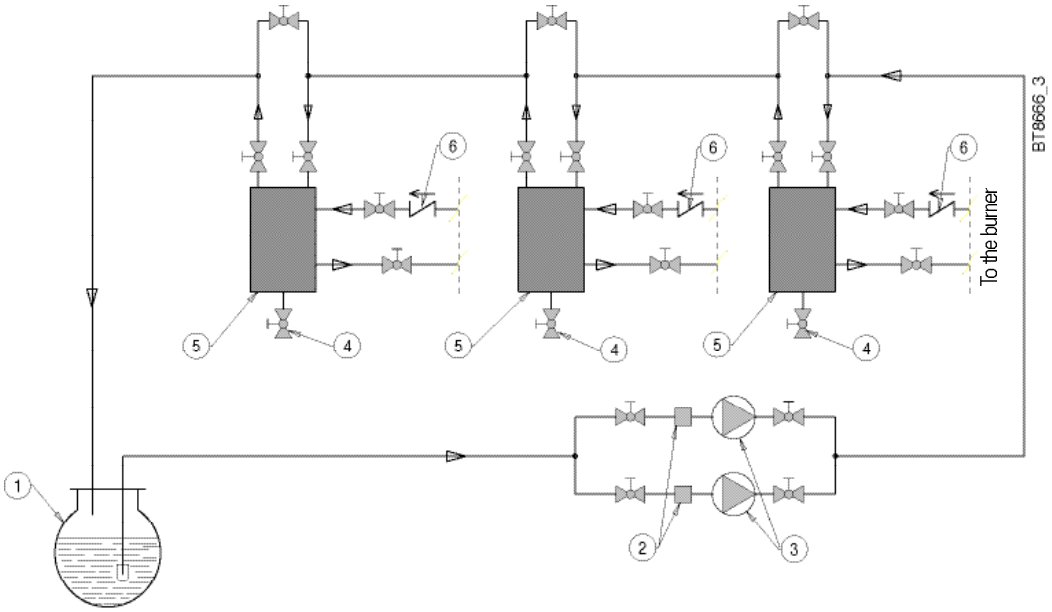
1 Filter.
2 Flexible pipe
3 Burner pump.
4 1st stage safety solenoid valve (normally closed).
5 Nozzle.
6 Manual air adjustment switch



TWO-STAGE BURNERS
Legend

1 Filter.
2 Flexible pipe
3 Burner pump.
4 2nd stage safety solenoid valve (normally open).
5 1st stage safety solenoid valve (normally closed).
6 Nozzle.
7 Air adjustment servomotor.

HYDRAULIC CIRCUIT DIAGRAM FOR ONE OR MORE LIGHT OIL BURNERS (BT8666/3)



Lihgt oil supply connection

Legenda

1 Main tank
2 Filter.
3 Circulation pump.
4 Water and plant discharging.
5 Recovery and degassing tank.
6 Nonreturn valve.

N.B.
The fuel recycling tank (diameter 150 mm, height 400 mm) must be installed as close as possible to the burner and at least 0.5m higher than its pump.

Note
To make a correct circuit, please ask for information from our sales offices.

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Cod. 0001101108 - Rev. 3 - Ediz. 10/07 - 2.000 - Stampa