

FNDP 190/M-EL - FNDP 250/M-EL

Heavy-oil burners two stages progressive and/or modulating (PID fully modulating) if equipped with the additional optional accessories: modulation kit and sensor.

Suitable for operation with heavy-oil min 5° max 60°Engler@50°Centigrades.

Composed of: air blower with high pressurisation, combustion head high efficiency and high flame stability with adjustment, multistage preheating tank with flanged heating elements, cylindrical filter with metal mesh, preheating temperature regulation system with high precision electronic thermostats, 2 motors : specific motor combustion air blower + specific pump motor with 4P pump version working at 1440 rpm rotation suitable for operation with high viscosity fuels and for a longer life of the pump.

BMS with electronic control system and interactive LCD display.

Compact overall dimensions and optimized layout of the components with accessibility facilitated for easy and quick operations during setting and maintenance.

Standard scope of supply includes : insulation Isomart flange for installation on combustion chamber, nozzle, flexible hoses, pre-heated line filter, degasser tank.



Fig. 1 FNDP 190/M-EL



Fig. 2 FNDP 250/M-EL

CONTROL BOX LAMTEC BT3

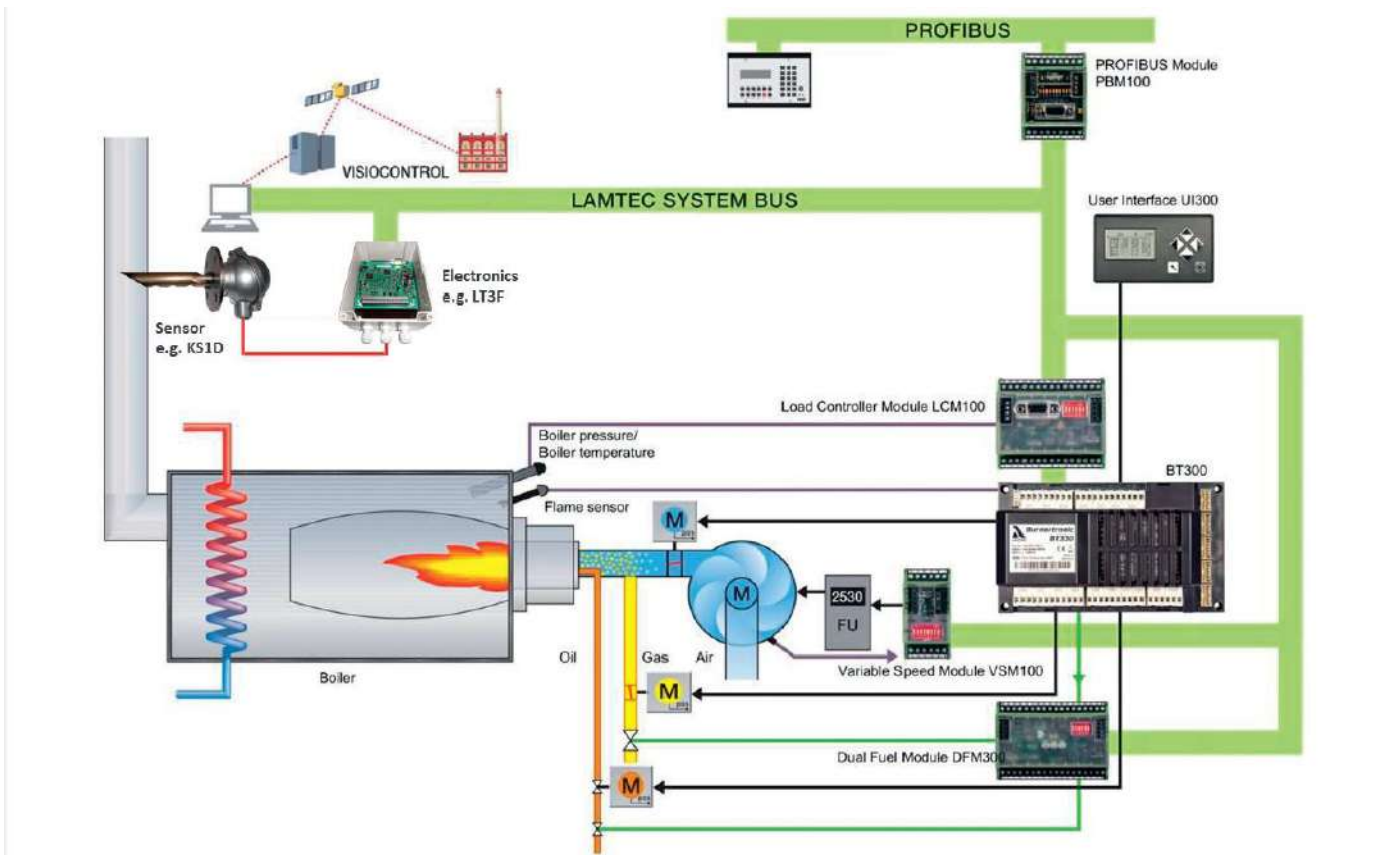


Fig. 3 Control box Lamtec BT3

TECHNICAL DATA FNDP 190/M-EL - FNDP 250/M-EL

MODEL		FNDP 190/M-EL	FNDP 250/M-EL
Flow 1st stage / min. 2nd stage - max. 2nd stage *	[kg/h]	40/80-206	50/100-250
Thermal power min. 1°st. / min. 2°st. - max. 2°st. *	[Mcal/h]	392/784-2018	490/980-2450
Thermal power min. 1°st. / min. 2°st. - max. 2°st. *	[kW]	456/911-2347	570/1139-2849
Fuel: HEAVY-OIL 5°-60°E a 50°C			
Intermitted working operation (min. 1 stop every 24 hours) two stages progressive or modulating			
Environmental conditions operation / storage:	-15...+40°C / -20...+70°C, rel. humidity max. 80%		
Max. temperature combustion air	[°C]	60	60
Nominal electric power	[kW]	24.8	29.3
Fan motor	[kW]	5.5	7.5
Pump motor	[kW]	1.1	1.1
Resistances	[kW]	15	20
Nominal motor current absorption	[A]	15	17
Nominal auxiliary absorption	[A]	0.8	0.8
Power supply:	3~400V, 1N~230V - 50Hz		
Electric protection degree:		IP 40	IP 40
Burner weight	[kg]	206	210

* Reference conditions: Environment temperature 20°C - Barometric pressure 1013 mbars - Altitude 0 metre (sea level).

OPERATING RANGE DIAGRAM FNDP 190/M-EL - FNDP 250/M-EL

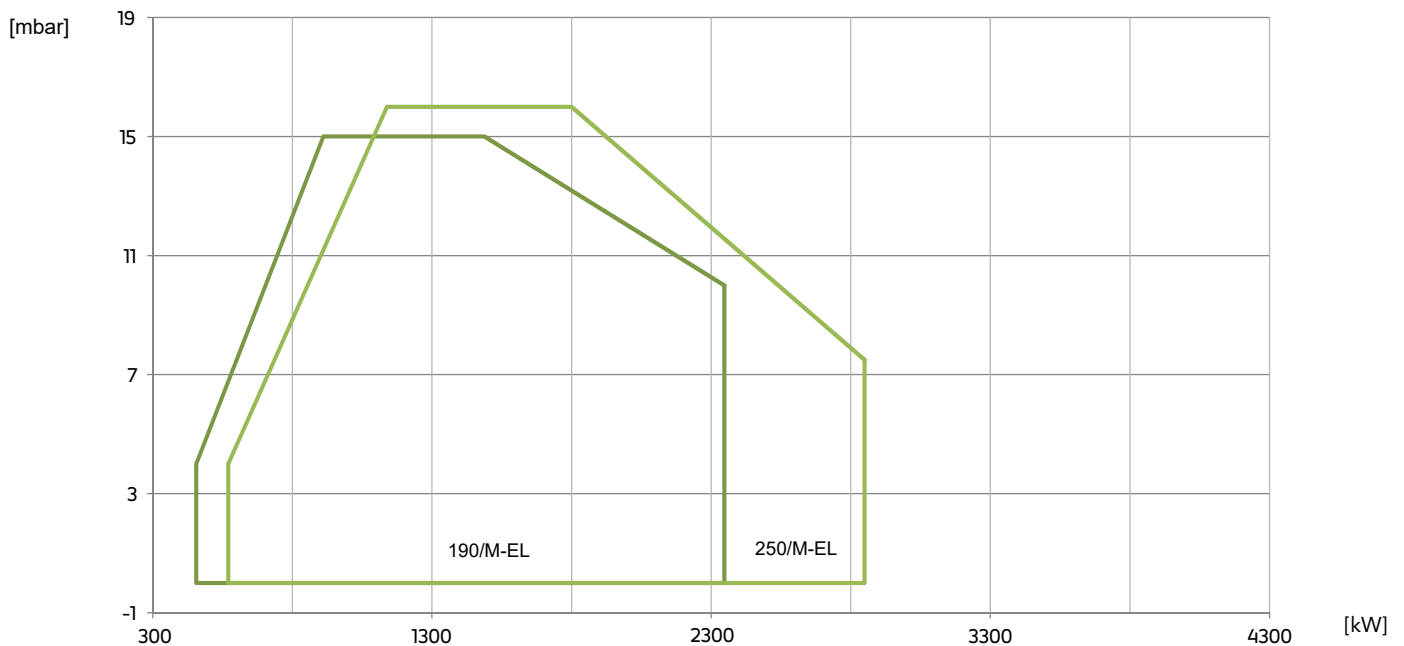


Fig. 4 X = Flow Y = Pression in the combustion chamber

The firing rates has been obtained based on test boilers in accordance with EN267 standards and are indicative of matching the burner to the boiler. For the correct operation of the burner, combustion chamber dimensions must be in accordance with current regulation. In case of non-compliance, contact the manufacturer.

DIMENSIONS [MM]

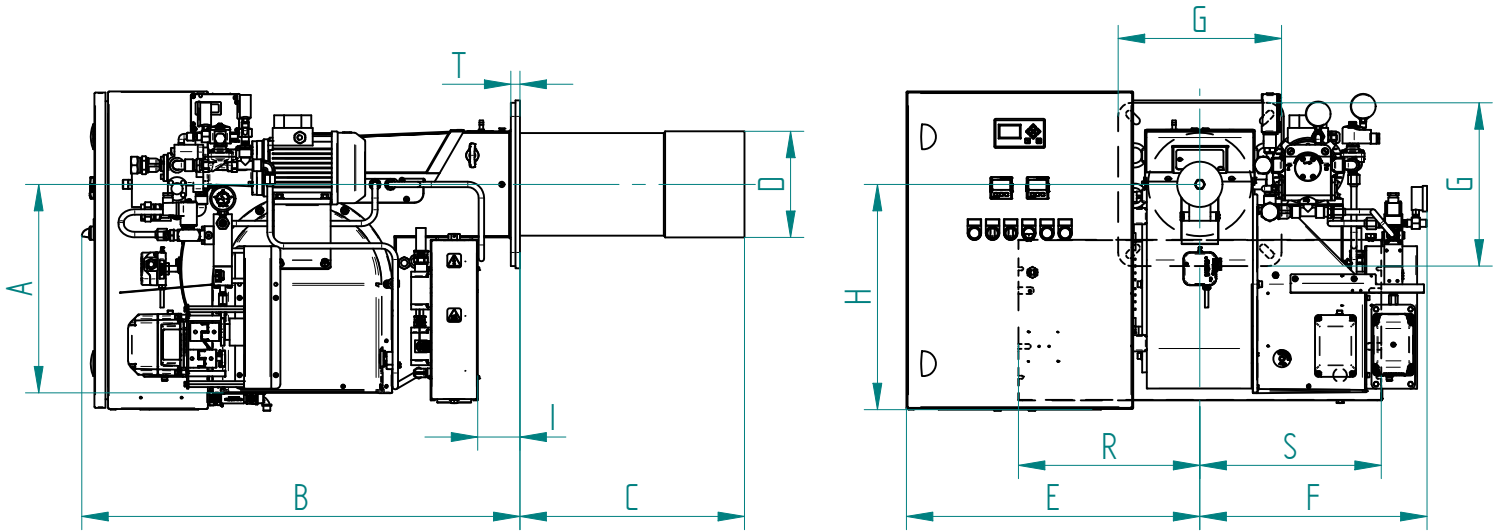
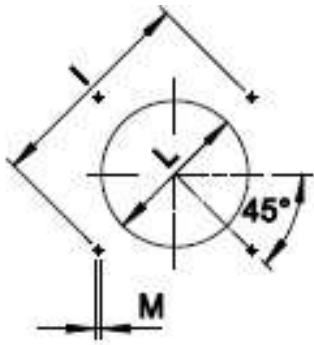


Fig. 5 Dimensions FNDP 190/M-EL - FNDP 250/M-EL

MODEL	A	B	C	D	E	F	G	H	I	R	S	T
FNDP 190/M-EL	460	965	495	234	647	500	360	496	93	400	400	20
FNDP 250/M-EL	460	965	500	271	647	500	360	496	93	400	400	20

BOILER PLATE



* Suggested dimension of connection between burner and generator.

Fig. 6 Boiler plate

MODEL		I min	I *	I max	L min	L *	L max	M
FNDP 190/M-EL	mm	396	424	438	245	280	320	M14
FNDP 250/M-EL	mm	396	424	438	280	280	320	M14

PRODUCT SPECIFICATION**SHORT DESCRIPTION**

Heavy-oil burners two stages progressive and/or modulating (PID fully modulating) if equipped with addition of optional modulation kit and probe. Suitable for combustion of heavy-oil till 60°E at 50°C.

DETAILED SPECIFICATION

Heavy-oil burner from 5 to 60°E at 50°C, two stages progressive and/or modulating (PID fully modulating) if equipped with addition of optional modulation kit and probe, composed by:

- Steel burner body;
- Fan at high pressurisation;
- Combustion head with adjustment at high performance and elevated flame stability complete with steel blast tube and steel flame disk;
- Flange and insulating gasket for fixing at boiler;
- Heavy-oil pump driven by a dedicated motor;
- Two high-precision electronic thermostats for the control of fuel heaters;
- Low-density flanged heaters (anticracking);
- Three-phase power supply;
- UV photocell for flame detection;
- Electronic control system for controlling and command the burner LAMTEC BT3;
- IP 40 electric protection level;
- Resistances (always on) for pump, nozzle and fuel valve;
- Safety air pressure switch to stop the burner in case of failed or anomalous fan operation;
- Maximum oil pressure switch to stop the burner in case of the oil pressure on the return is higher than the set point value;
- Servomotor for air shutter;
- Servomotor for the pressure regulator;
- Thermocouples for detecting the oil temperature;
- Button for the manual tank load;
- Nozzle assembly with magnet to control inlet/return needle nozzle;
- Easy extraction of combustion head without get off the burners by boiler;
- Set up for the additional specific kit that transforms burner operation as modulating i.e. the modulating kit allows to supply any power between the minimum and the maximum value based on instantaneous loading request.

CONFORMING TO:

- CE rules;
- 2014/30/UE Directive EMC;
- 2014/35/UE Directive LV;
- 2006/42/CE - 2006/42/EG - 2006/42/EC Directive MD;
- (art.4, par.3) 2014/68/EU Directive PED;
- Reference rules: EN267 (liquid fuel) - EN746-2 (industrial thermoprocessing equipment).

STANDARD EQUIPMENT

- Degaser tank;
- Flexible hoses for connection;
- Line filter;
- Isomart gasket;
- Nozzle;
- Flange with insulating gasket;
- Burner nameplate;
- Warranty;
- Instruction handbook for installation, use and maintenance.

OPTIONAL

- Power modulating kits for temperatures;
- Power modulating kits for pressures;
- Temperature probe 0°C-400°C (PT 100 a 0° C);
- Temperature probe 0°C-1200°C (K probe);
- Pressure probe 0-3 bar, 0-6 bar, 0-16 bar, 0-20 bar, 0-30 bar;
- Noise protection.