

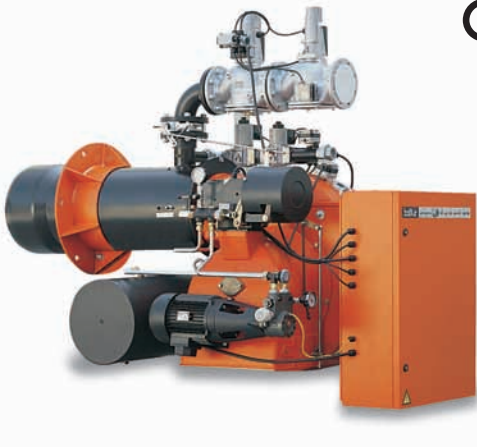
GI MIST...DSPNM-D

From 1581 to 5522 kW

Conform to:
E.M.C. Directive 89/336/CEE
L.V. Directive 73/23/CEE
Reference standard: EN676



Two-stage progressive/modulating gas/extra heavy oil dual fuel burners

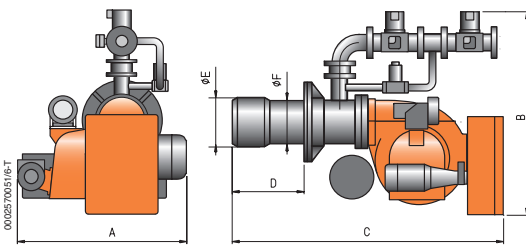


TECHNICAL AND FUNCTIONAL CHARACTERISTICS

- Alternate natural gas/heavy oil burner.
- Two-stage progressive output operation.
- Continuous modulation operation by installing P.I.D. controller on control panel (to be ordered separately with modulating kit).
- Air-gas mixing at blast-pipe and 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 mixing unit and 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.
- On request it is possible to add to the burner a supplementary heavy oil pre-heater using steam, which means the fuel can be heated by the steam from the boiler to provide an energy saving.
- Valves tightness control device compliant with European standard EN676.
- Prepared for automatic fuel switching.
- Equipped with one flange and one insulating seal for boiler fastening, 2 flexible hoses, one self-cleaning line filter with resistance; nozzle not included, to be ordered separately depending on the required flow.
- On request: steam pre-heater.

CONSTRUCTION CHARACTERISTICS

- Combustion air intake with air flow adjustment device.
- Sliding boiler coupling flange to adapt the head protrusion to the various types of boilers.
- Air pressure switch to ensure the presence of combustion air.
- Electric servomotor with mechanical cam for simultaneous regulation of combustion air and fuel.
- In the CE version the gas train is complete with regulator, operating, safety and pilot valves, valve tightness control, minimum pressure switch, pressure regulator and gas filter; in the EXPORT version gas train is complete with regulator, operating, safety device and pilot valves, valve tightness control and minimum pressure switch.
- Gear pump with pressure regulator.
- Heating resistor for the pump, regulator valve and the atomisation unit.
- Atomisation unit with magnet to control the outlet/nozzle return pins.
- Electrical fuel preheater comprising antigas valve, filter, thermometer, regulation thermostats and minimum safety device.
- Automatic control and command equipment for the burner, compliant with European standard EN298.
- Flame detection by UV photo-electric cell.
- On-board panel comprising stop/go switch, automatic/manual and minimum/maximum selector, fuel change switch and operation, block, pre-heating resistors on and fuel indicators.
- 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.



Model	A mm	B mm	C mm	D mm	E mm	F mm
GI MIST 350 DSPNM-D	1345	1590	1970	230 ÷ 600	335	325
GI MIST 420 DSPNM-D	1345	1530	2030	320 ÷ 625	400	355

Thermal output kW	Model	Part no.	Max visc. °E at 50°C	Gas type	P.Gas** mbar	Regulator with incorporated filter Part no.	Pic.	Electrical supply	Motors kW	Size of packaging L x P x H mm	Weight kg	Notes
-------------------	-------	----------	----------------------	----------	--------------	---	------	-------------------	-----------	--------------------------------	-----------	-------

CE version - Frequency 50 Hz

1581 ÷ 4743	GI MIST 350 DSPNM-D	6705050	50	N.G.	500	97390374	D5	3N AC 50Hz 400V	15,0 + 2,2	2260 x 1520 x 1150	802	4) 8) 13)
1840 ÷ 5522	GI MIST 420 DSPNM-D	6708050	50	N.G.	500	97390383	D5	3N AC 50Hz 400V	18,5 + 3,0	2260 x 1520 x 1150	847	4) 8) 13)

EXPORT version - Frequency 50 Hz

1581 ÷ 4743	GI MIST 350 DSPNM-D	6705050	50	N.G.	140	-	DE5	3N AC 50Hz 400V	15,0 + 2,2	2260 x 1520 x 1150	802	4) 8) 13)
1840 ÷ 5522	GI MIST 420 DSPNM-D	6708050	50	N.G.	140	-	DE5	3N AC 50Hz 400V	18,5 + 3,0	2260 x 1520 x 1150	847	4) 8) 13)

EXPORT version - Frequency 60 Hz **ON REQUEST**

To complete the burner

Nozzle with 1-3 ratio (see page 229)

Modulating mode

Part.no

98000055 Modulation kit (see page 228)

Modulating probe kit (see page 228)

Optionals

Description

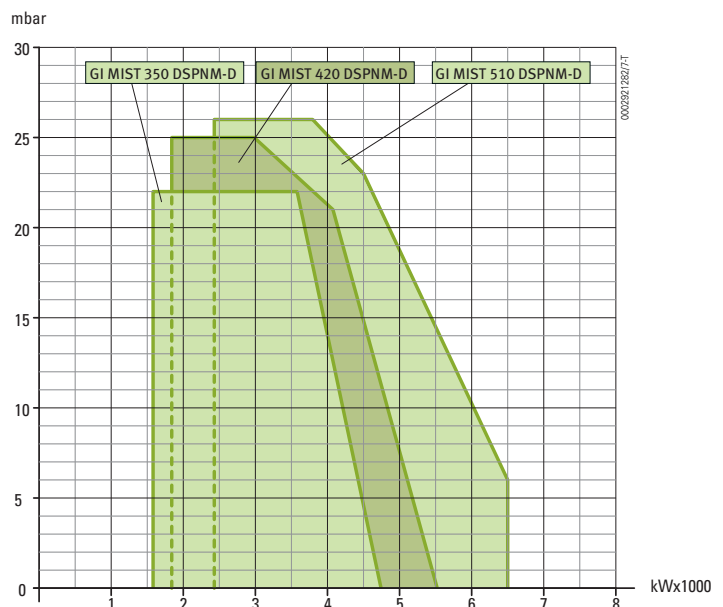
Steam pre-heater

Dual fuel burner accessories

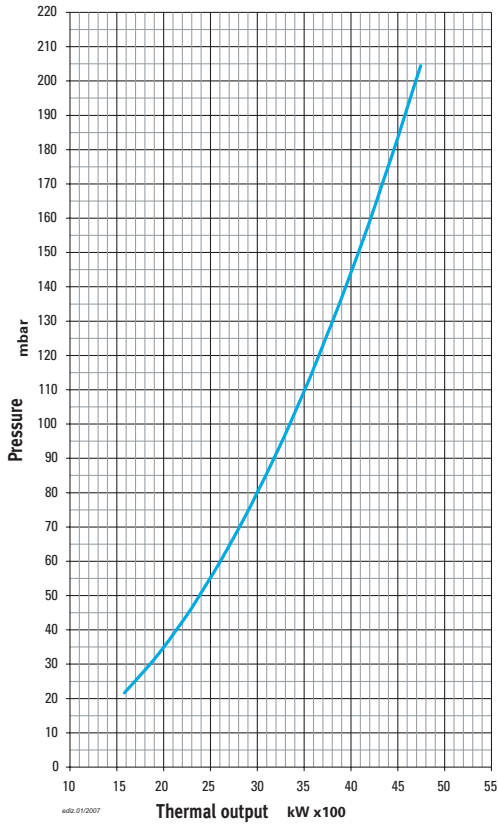
Line filter - Flex hoses - Boiler coupling kit

Notes

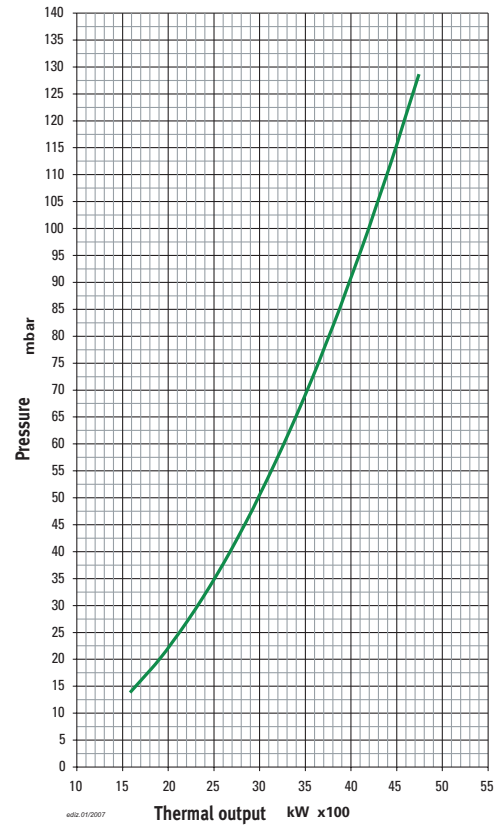
- 4) Equipped with automatic device for air closing.
8) Can be used for automatic fuel switching.
13) Equipped with valve tightness control.
**) Maximum gas inlet pressure at pressure regulator in CE version, at gas train for EXP version.
- Net calorific value: Natural gas $H_i = 35,80 \text{ MJ/m}^3 = 8550 \text{ kcal/m}^3$, at reference conditions of 0°C, 1013 bar;
Heavy oil $H_i = 40,19 \text{ MJ/kg} = 9600 \text{ kcal/kg}$.



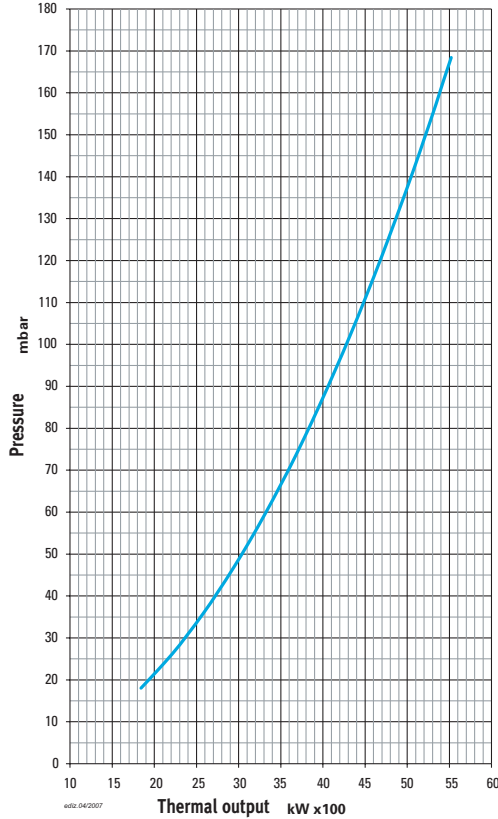
Pressure drop (combustion head + gas train + pressure regulator) **GI MIST 350DSPGM/DSPNM-D CE**



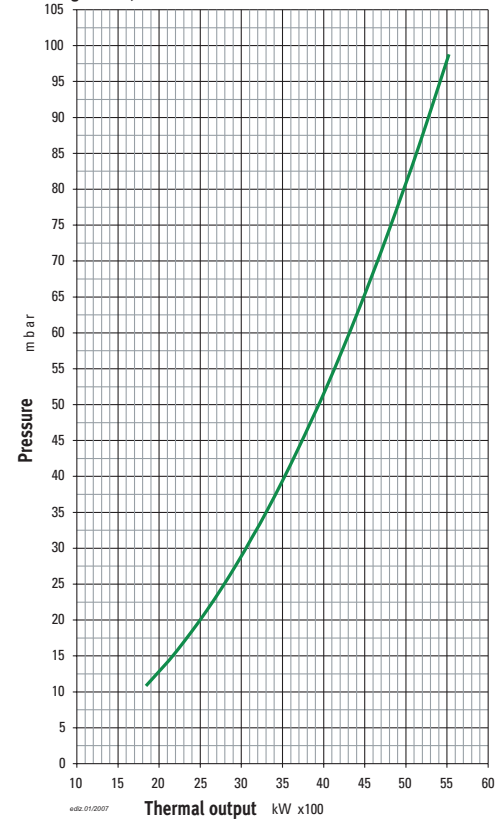
Pressure drop (combustion head + gas train) **GI MIST 350DSPGM/DSPNM-D EXP**



Pressure drop (combustion head + gas train + pressure regulator) **GI MIST 420DSPGM/DSPNM-D CE**



Pressure drop (combustion head + gas train) **GI MIST 420DSPGM/DSPNM-D EXP**



To check the standard gas train output see page 10
 For information on the structure, composition, and size of the gas train please refer to the diagrams on page 232.