



> STRONG POINTS:

- High power condensing heat generator with a **modulation range of up to 1/40**. Designed for installation in a central heating plant or **unprotected outdoors**.
- Heat exchange unit made up of a **string of aluminium-silicon alloy elements** designed to obtain maximum exchange efficiency and low pressure drops on the water circuit. Each element is complete with circulation unit and burner.
- The combustion units are of the complete premixing type, with a micro-flame burner with very low polluting emissions (Class 6 according to EN 15502-1). The generator can run on **Methane gas or LPG**
- Generator protection systems: Double sensor (delivery and return) system for operation at **constant ΔT** / Flue gas safety sensor / Water pressure switch with minimum threshold at 0.8 bar
- Hydraulic unit with **three-way shut-off valve for discharge into the atmosphere** on the return circuit and non-return valve on the delivery
- Air / Flue gas circuit with suction at the installation site and **clapet flue gas non-return valve** for sizing the pressurised manifold
- Four sturdy **floating wheels fitted as standard** to facilitate unloading and movements within the thermal power plant. All wheels are equipped with adjustment and locking systems.

> ADVANTAGES OF MACH:

- MACH has been designed to be installed **both indoors and outdoors even without any weather protection**. It can be connected to the system on the right or left side and it is delivered complete with blind flanges.
- The electronic control supplied as standard with MACH is able to:
 - * **configure the switch-on** and switch-off sequence of the individual heating units.
 - * manage a heating system with **two direct zones or one direct zone and a DHW storage tank**
 - * adjust the power or temperature with the **0 - 10V signal**
 - * remote the signal of any safety locks
 - * restore normal operation remotely
- Combined with the **THETA+** temperature control kit, it is possible to manage:
 - * **up to eight generators in cascade**
 - * a system with three heating circuits (of which **two mixed and one direct**)
 - * the production of domestic hot water with an **external storage tank**
 - * a second energy source (solar thermal, biomass...)

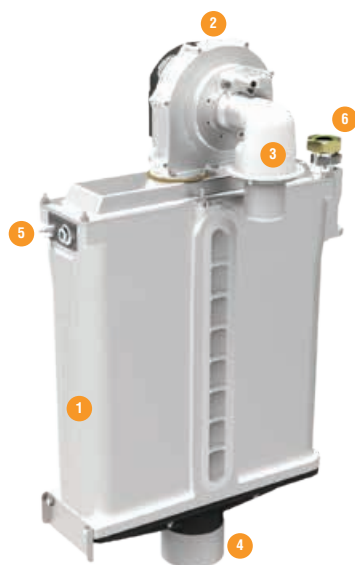


MODEL			120	150	225	300	370	450	520	600
Heat input	Max/Min	kW	115.0 / 14.0	142 / 15.5	213 / 15.5	284 / 15.5	355 / 15.5	426 / 15.5	497 / 15.5	568 / 15.5
Heat output (80°C/-60°C)	Max/Min	kW	112.8 / 13.7	139.2 / 13.7	208.8 / 13.7	278.4 / 13.7	348.1 / 13.7	417.7 / 13.7	487.3 / 13.7	556.9 / 13.7
Max heat output (50°C/-30°C)	Max/Min	kW	120.2 / 15.1	148.4 / 15.1	222.6 / 15.1	296.8 / 15.1	371 / 15.1	445.2 / 15.1	519.4 / 15.1	593.6 / 15.1
Modulation ratio	Max/Min		8 / 1	10 / 1	15 / 1	20 / 1	25 / 1	30 / 1	35 / 1	40 / 1
Efficiency 80°C-60°C	Pmax%/Pmin%		98.0 / 97.7							
Efficiency 50°C-30°C	Pmax%/Pmin%		104.5 / 108.2							
Reduced load 30%	%		108.8							
NOx class			6							
Weighted NOx (O ₂ = 0%)		mg/kWh	42							
Weighted CO (O ₂ = 0%)		mg/kWh	19							
Operating pressure	Pmax/Pmin	bar	6 / 0.8							
Degree of protection		IP	X05							
Power supply		V/Hz	230V - 50Hz							
Net weight		kg	215	220	260	295	360	400	470	505
CODE			OMCMEAWA	OMCMFAWA	OMCMJAWA	OMCMLAWA	OMCMMAWA	OMCMNAWA	OMCMPAWA	OMCMQAWA



MACH

- 1 Heat exchanger with aluminium-silicon alloy elements
- 2 Total premix combustion unit
- 3 System return unit
- 4 System flow unit
- 5 Air bleed valve
- 6 Hydraulic pressure safety sensor



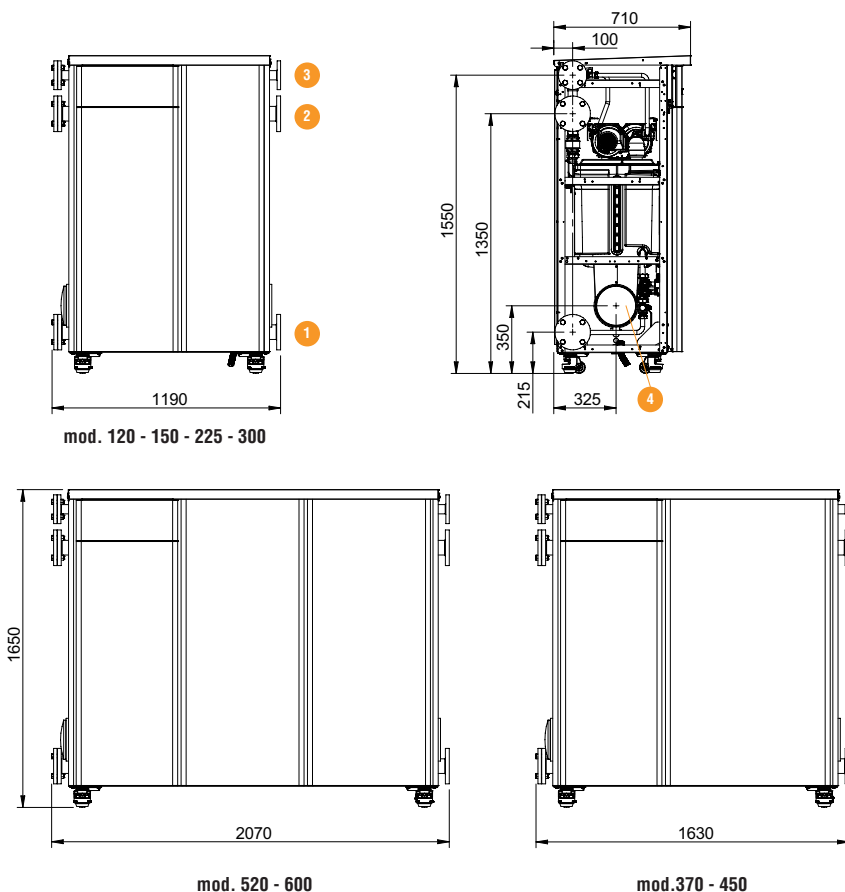
THERMAL MODULE

- 1 High performance heat exchanger with aluminium-silicon alloy elements. Each element can exchange up to 75 kW
- 2 Premix type combustion unit with modulating fan. Front burner with micro-flame and very low polluting emissions (NOx class 6).
- 3 Flue gas non-return valve. On the suction circuit there is a valve with a mobile damper which prevents the flue gases from going back into the room through the boiler. This allows for the combustion gases to be discharged while pressurised and, consequently, for the flue system to have a smaller diameter compared to traditional vacuum systems.
- 4 Condensation collection collector
- 5 Ignition electrodes and flame sensor
- 6 Delivery temperature sensor



SYSTEM CIRCULATION / RETURN UNIT

- 1 High-efficiency modulating circulator. Max. head 8 metres
- 2 3-way valve with discharge into the atmosphere on each thermal module for safe disconnection.
- 3 System return temperature sensor



ACCESSORIES

ON REQUEST FOR CONFIGURATION ACCORDING TO THE DESIGN SPECIFICATIONS

DESCRIPTION	CODE
 additional sensor for boiler and/or system delivery for cascade configurations with and without hydraulic separator	cable 2 m 1KWMA11W
	cable 5 m 043005X0
 Empty technical cabinet for outdoor use	046062X0
 external probe	013018X0
 Hydraulic separator DN 40 (up to 150 kW)	042086X0
 Hydraulic separator DN 65 (from 151 kW up to 300 kW)	042078X0
 Hydraulic separator connection kit (from 151 kW up to 300 kW)	042089X0
 Hydraulic separator DN 65 (from 301 kW up to 600 kW)	042080X0
 Hydraulic separator connection kit (from 301 kW up to 600 kW)	042088X0

DESCRIPTION	CODE
 INAIL connection (complete with equipment) DN65 PN16	042057X0
 kit for the management of a DHW boiler with a thermostat (not supplied)	013017X0
 PPS smoke pipe M/F length 500 mm - 200 mm	041076X0
 PPS smoke pipe M/F length 1000 mm - 200 mm	041062X0
 90° elbow M/F, PPS - 200 mm	041060X0
 Plate exchanger. The installer is responsible for the hydraulic connection between the generator and the exchanger. For correct sizing, see the chapter SYSTEM COMPONENTS	
 Temperature control - Water treatment - Plates in the chapter SYSTEM COMPONENTS and WATER TREATMENT	
 neutralisers (see the chapter on condensation neutralisers for condensing boilers)	