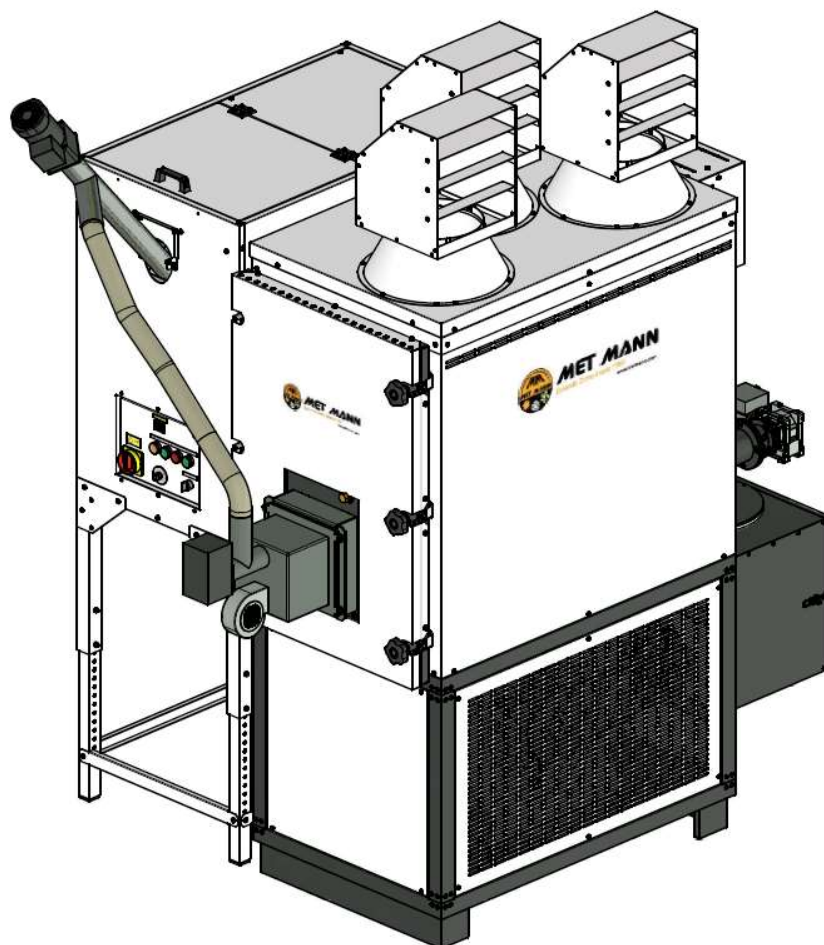




MET MANN®



INSTALLATION, OPERATION AND MAINTENANCE MANUAL FOR HOT AIR GENERATORS - PELLET

MODELS

BM-050/070/105/160/200/300

- MI-BM-EN
- Revision 3 – October 2023
- Subject to technical modifications for product improvement.
- Copying in whole or in part without prior approval by MET MANN is prohibited.



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RECOMMENDATIONS



Before proceeding with the installation and use of the appliance, carefully read the following recommendations:

- Read this manual carefully, paying special attention to the instructions and warnings described in the different sections, since they provide important indications regarding the safety of the installations, their use and maintenance.
- It is very important to read this manual before installing the generators. Read carefully the installation, use and maintenance instructions for the burners.
- The manufacturer is not responsible for any possible manipulation carried out on the generators.
- The installation must be realized in accordance with the regulations in force in the country where it will be used, according to the manufacturer's instructions, by professionally qualified personnel or by the Assistance Center authorized by the manufacturer. An error in the installation can cause damage to people, pets and objects, for which the manufacturer will not be responsible.
- The generators must be installed in sufficiently ventilated places. Consult the "**Installation instructions**" section, especially the "**required quantity of air**" section.
- The BM generators are designed for pellet operation.
- The combustion of pellets generates ash and waste that must be removed. Consult the "Cleaning and maintenance instructions" section where the tasks to be carried out to guarantee the proper functioning of the equipment are indicated.
- The silo and the pellet feed system to the burner must also be cleaned regularly since the pellet, when transported, generates particles that adhere to the walls of the ducts. The section "Cleaning and maintenance instructions" mentioned above also includes the cleaning tasks to be carried out to guarantee the proper functioning of the pellet feeding system.
- It is important to ensure the quality of the consumed pellet, that there are no nails, stones or residues that could damage the equipment.
- Check the packaging and the integrity of the content. In case of doubt, do not use the generator and return it to the supplier.
- Do not leave the packaging elements within the reach of children as they represent a source of danger.
- Keep the suction grids free.
- In case of a breakdown or malfunction of the appliance, deactivate it, refraining from any attempt to repair it, and request the intervention of the installer.
- Once it is decided that the generator must not be used anymore, it should be disabled because some parts of the generator could constitute a source of danger.
- This generator must only be used for its intended use. Any other use is inappropriate and it can be dangerous.
- Make sure that these instructions always accompany the generator.
- If the generator is located near children, pets or incapacitated people, it must be placed in such a way that it is not easily accessible.

WARNING

- ! This appliance is for professional use only qualified personnel can use this appliance.
- ! Modification, removal or lack of maintenance of the equipment or its components voids the equipment warranty, and poses a risk of accident.
- ! The manufacturer is not responsible for any damage caused to the equipment with any modification or elimination made without prior and express authorization from the manufacturer, as well as the lack of maintenance of the equipment and its components.
- ! The parts that have been handled by the manufacturer and his representative must NOT be handled by the installer and the user.

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1. GENERAL DESCRIPTION OF THE GENERATORS

1.1. FUNCTIONAL FEATURES

The **BM** hot air generator is a device that allows heating the ambient air using the thermal energy produced by the combustion of pellet, with the advantage that the combustion products keep separated from the ambient air.

Heat exchange occurs by passing an airflow generated by a centrifugal fan through the heat exchanger surfaces, without any intermediate fluid.

The gas products of the combustion are expelled through a chimney.

The solid products (ashes) are transported with a screw to a removable drawer.

The hot air generators are designed for heating environments where there is an influx of people (churches, gyms, sales establishments, etc.) and in industrial environments.

Attention: The hot air generators cannot be installed in direct contact with atmospheric agents.

1.2. CONSTRUCTIVE FEATURES

The constructive features of the generator are:

- The **combustion oven**, formed by the combustion chamber, the heat exchanger, the smoke extractor and the ash extractor.
- The **ventilation train**, which can have, depending on the model, one or more centrifugal fans.
- The **external Box**, which allows the burner to be coupled to the combustion chamber.

The pellet deposit and the pellet feeding device are coupled next to the BM generator.

The generator's and the burner's control panel are located in the front part of the pellet deposit.

1.2.1. Combustion Oven

The set is tuned according to European standards. It allows easy inspection for normal cleaning and maintenance operation. Its main parts are:

- The Combustion Chamber, cylindrical in shape, made of AISI-304 quality stainless steel sheet, of adequate design and volume according to the heating power.
- The heat exchanger, with a large surface area and made of carbon steel tubes with a circular section, allows high thermal performance of around 90% to be obtained.
- The Smoke Extractor, which includes the chimney connector, in which the combustion products pass to later send them through the chimney to the outside of the enclosure.
- The Ash Extractor, where an auger collects the combustion ash towards the removable drawer where the ash is accumulated.

1.2.2. Ventilation Train

The ventilation train contains up to two high-flow centrifugal fans driven by an electric motor. Consult the "**Technical Features**" section of the purchased model for more information.

1.2.3. External Box.

The product offers a modern and pleasant aesthetic line, designed to facilitate inspection and cleaning tasks.

The box is made up of removable oven-painted galvanized steel panels; anti-radiant thermo-acoustic insulation is applied to the surfaces most exposed to radiation from the burner and exchanger.

The access door to the combustion chamber is located on the front part of the generator. The burner is coupled to the door and it also has a flame inspection window. The control thermostats and the ash extractor drawer are located at the rear.

The external box also allows to connect transformation ducts or hoppers.

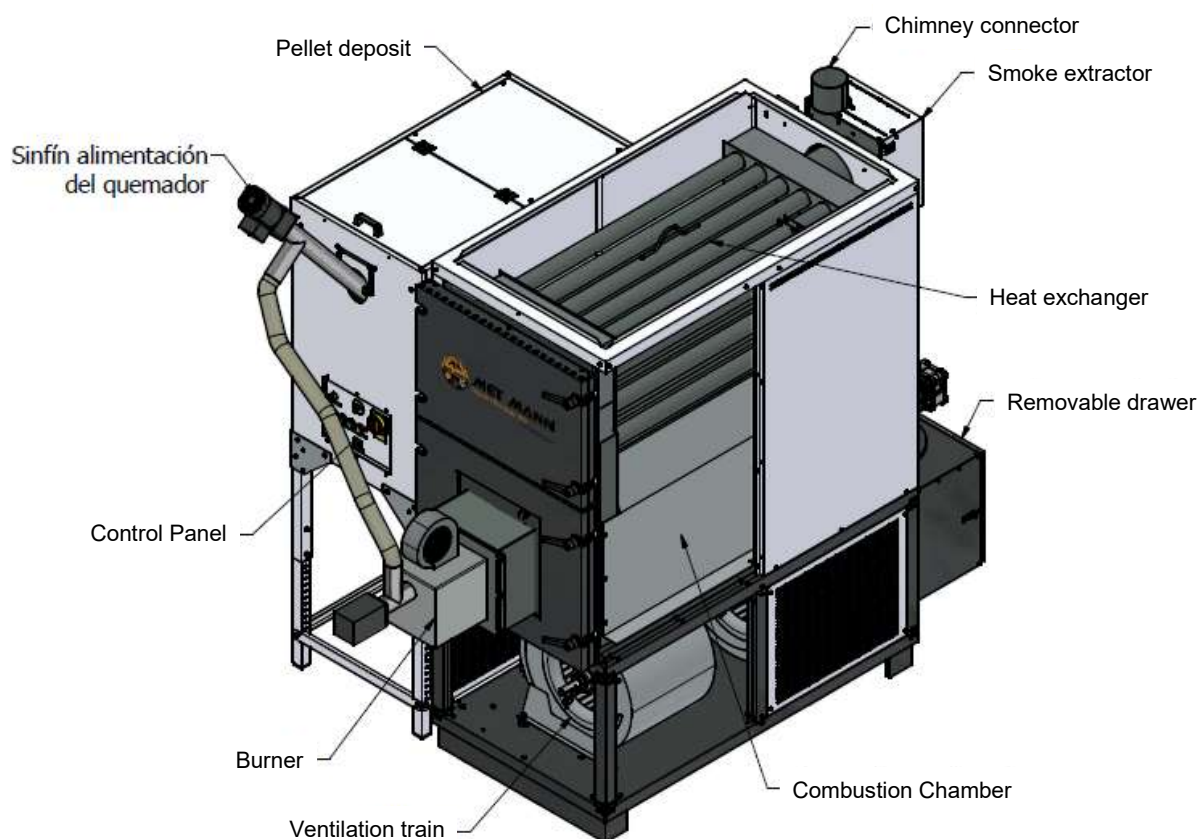
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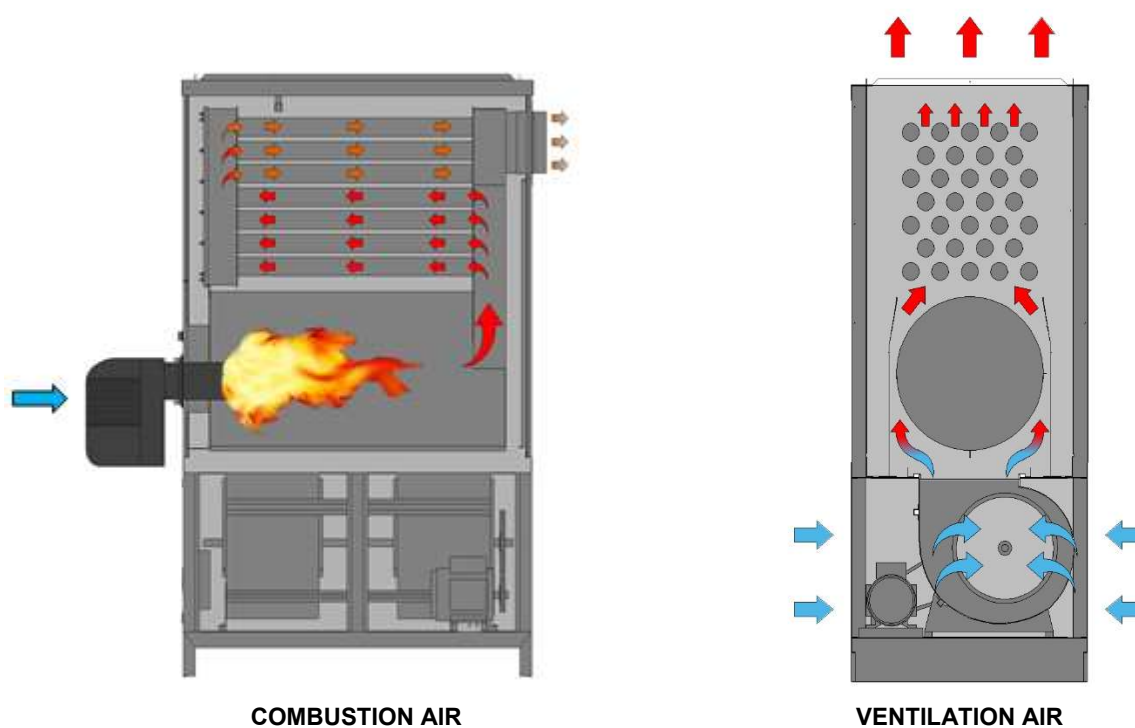
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1.3. CONSTRUCTIVE ELEMENTS



1.4. FUNCTIONAL SCHEME



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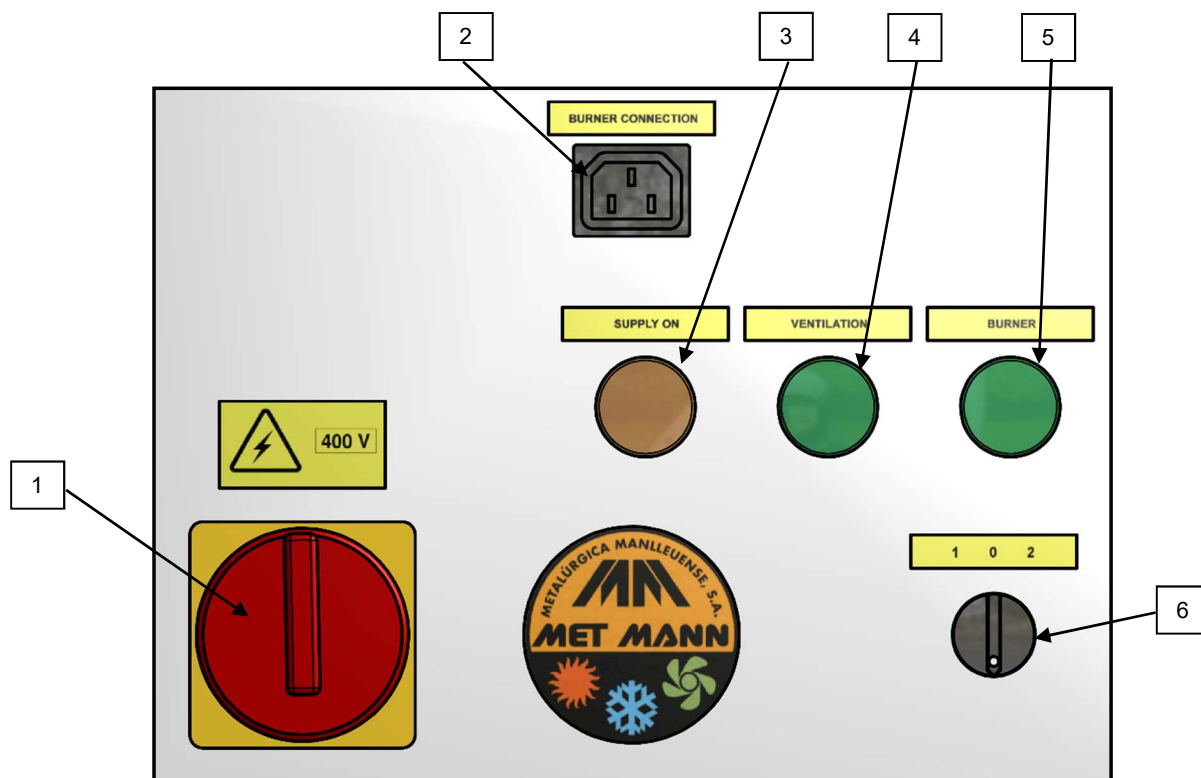
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1.5. CONTROL PANEL

The control panel of the equipment is the same electrical panel of the equipment, and its components are the following:
(Note: the attached image corresponds to a generic picture. it may vary depending on the generator model).



- | | |
|-----------------------------|---------------------------------------|
| 1- General Switch | 4- Fan light (it can be 1 or 2 light) |
| 2- Burner connection | 5- Burner light |
| 3- Electrical voltage light | 6- Maneuver switch |

1.5.1. Maneuver Switch

The Maneuver Switch allows switching between the fan/burner/stop positions.

- **Position I** = Turns on the fan at the maximum rated airflow.
- **Position 0** = Stops the machine completely after the combustion chamber has been cooled.
- **Position II** = Turns on the generator and it starts flowing hot air.

In units that have an Ambiance Thermostat, the equipment will stop automatically once the room temperature reaches the thermostat's assigned temperature.

1.5.2. Regulating Thermostats

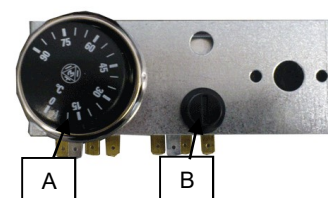
The regulation of the equipment is carried out by means of a room thermostat that activates the equipment if the room temperature is lower than the temperature of the thermostat. In addition, the equipment has on the back of the equipment:

A- Fan Thermostat

When the burner turns on, the fan keeps off until the burning chamber reaches the selected temperature (set 35°C)

B- Security Thermostat

Stops and blocks the equipment if its internal temperature reaches 110 °C. To unlock the equipment, take off the cover and press the little red button.



Additionally, the generator door incorporates a safety micro switch that prevents the equipment from starting up if the door is open.

If a CO detection probe is required (not included), the electrical panel has two terminals for its connection.

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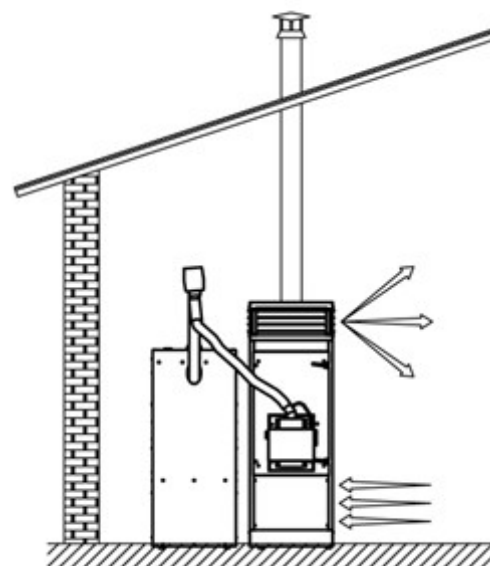
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1.6. INSTALLATION EXAMPLES

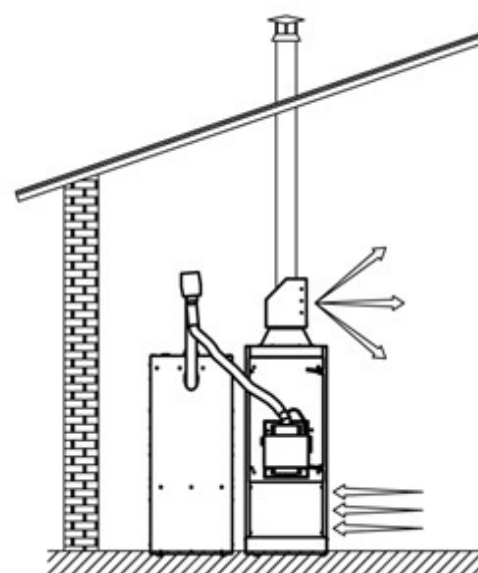
INSTALLATION TYPE "C1"

- Room-suctioning air intake.
- Discharge of combustion products with exit through the roof through an insulated stainless steel chimney (approved).
- Hot air discharge through **plenum box with 4-sided grilles**.



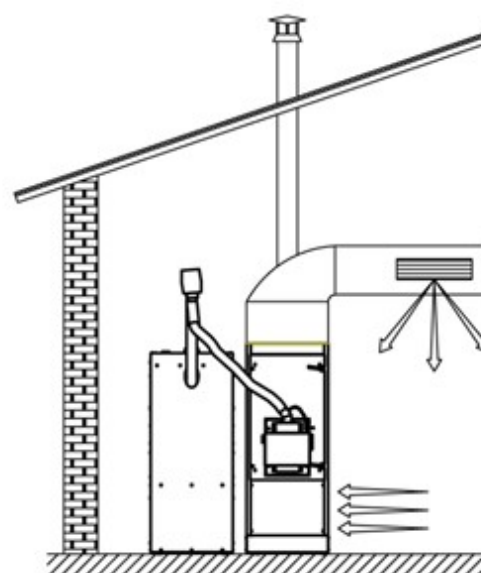
INSTALLATION TYPE "C2"

- Room-suctioning air intake.
- Discharge of combustion products with exit through the roof through an insulated stainless steel chimney (approved).
- Hot air discharge through **rotary outlets**.



INSTALLATION TYPE "C3"

- Room-suctioning air intake.
- Discharge of combustion products with exit through the roof through an insulated stainless steel chimney (approved).
- Hot air discharge through **ducts**.



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2. USER INSTRUCTIONS

2.1. GENERAL STANDARDS

- Qualified personnel must only use this appliance.
- A qualified installer in thermal installations must carry out the installation of the equipment.
- The combustion of biomass (pellet) generates ash that must be cleaned regularly. Consult the cleaning and maintenance section to ensure the proper functioning of the equipment.
- To carry out maintenance, cleaning or repairs, the fuel supply must be turned off.
- Modification, removal or lack of maintenance of any device of the appliance increases the risk of accidents. Periodic checks are recommended, in accordance with the regulations in force in the country where the appliance is installed.
- The manufacturer is not responsible for any damage related to using the appliance after any modification, elimination or lack of maintenance of its components, except those carried out with express authorization from the manufacturer.

2.2. EMPLOYMENT

This appliance intendance is heating suitable buildings for commercial, craft, industrial, recreational, domestic use, etc.



IT CANNOT BE INSTALLED IN CONTACT WITH ATMOSPHERIC AGENTS.

2.3. START-UP AND OPERATION

For start-up, it is important to become familiar with the components of the Control Panel (see section 1.5.). Also indicate that the regulation thermostats (burner, safety and fan) do not need to be manipulated during the normal operation of the installation.

- Verify that there is pellet inside the pellet deposit.
- Turn on the general switch
- Set the room's thermostat to the desired temperature.
- Switch the maneuver to "I" position to turn on the fan. Switch back to "0" position.
- Switch the maneuver to "II" position: the burner should start burning.
- Once the burning chamber's temperature reaches 35 ° C, the fan should start up automatically.
- As soon as the room's temperature reaches the thermostat's temperature, the burner should stop until the room's temperature falls again below the thermostat's temperature.
- The internal cycle is automatically repeated each time the room temperature drops below the value set in the room thermostat.



IF THE BURNER DOES NOT TURN ON THE FIRST TIME (TRY IT TWO MORE TIMES), AND IF THE EQUIPMENT STILL DOES NOT TURN ON AFTER 5 MINUTES, CONTACT THE TECHNICAL SERVICE.

2.4. MOMENTARY DETENTION

To stop the operation of the generator, act exclusively on the machine switch, or also on the room thermostat (in devices that have a room thermostat).



NEVER REMOVE THE VOLTAGE WHEN THE APPLIANCE IS HOT AND THE FAN RUNNING.

The removal of voltage with the appliance hot causes the thermal energy accumulated in the exchanger to trigger the safety thermostat (limiter), with the consequent need for manual release. Moreover, it may cause overheating of the heat exchanger.

2.5. SEASON END OPERATION

Disconnect the device and proceed with a preventive cleaning & maintenance.

2.6. TECHNICAL SERVICE

YOU CAN REQUEST THE INTERVENTION OF A TECHNICIAN DIRECTLY FROM YOUR DEALER, OR BY CONTACTING METMANN S.A., WHO WILL PROVIDE YOU THE NEAREST ASSISTANCE-SERVICE ADDRESS.

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3. NAME PLATE

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Nº FABRICACIÓN Nº PRODUCTION MODELO MODEL SERIE SERIES FECHA FABRICACIÓN PRODUCTION DATE Nº PIN CERTIFICADO CE CE CERTIFICATE PIN NR. CAUDAL (m³/h) AIR FLOW (m³/h) MOTOR VENTILADOR (kW) FAN MOTOR (kW)	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	CONSUMO NOMINAL CALORIFICO (Hi) kW NOMINAL POWER (Hi) kW TENSION (Voltios) ELECTRICAL TENSION (Volt) AMPERIOS / Hz AMPERES / Hz PAIS COUNTRY GAS GAS CATEGORIA CATEGORY PRESION (mbar) PRESSURE (mbar)	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>		
¡ATENCIÓN! Este aparato se instalará de acuerdo con las normas en vigor, y se utilizará únicamente en lugares suficientemente ventilados. Consultar las instrucciones antes de la instalación y el uso de este aparato.				 0370 / 2009	
FABRICANTE Nº 8 / 81590		MADE IN SPAIN			

4. PELLET

4.1. RECOMMENDED PELLET QUALITY

The pellet to be consumed must be **EN/plus-A1**. The indicative values of this quality are:

EN/plus-A1 QUALITY PELLET VALUES <i>Data from ENplus</i>						
Diameter mm	Length mm	Humidity % mass	Ash % mass	< 3,15 mm % mass	Additives % mass	Heat power kWh/kg
6 ± 1	3,15 < L ≤ 40	≤ 10	≤ 0,7	≤ 1,0	≤ 2	≥ 4,6

In case of doubt consult METMANN.



4.2. OTHER BIOFUEL

BM generators allow the usage other granulated (crushed) fuels, according to the following table.

INDICATIVE COMPOSITION OF THE BIOFUEL <i>Data from BIOmasud®</i>							
Properties	Units	Olive pints	Almonds Shells	Hazelnut Shells	Pine nut Shells	Pistachio Shells	Walnut Shells
Class	-	A1	A1	A1	A1	A1	A1
Humidity	% mass	≤ 12	≤ 12	≤ 12	≤ 12	≤ 12	≤ 12
Ash	% mass	≤ 0.7	≤ 0.7	≤ 0.7	≤ 1.3	≤ 0.7	≤ 0.7
Heat Power	MJ/kg	≥ 15.7	≥ 15.0	≥ 15.0	≥ 16.0	≥ 15.0	≥ 16.0
Density	kg/m ³	≥ 700	≥ 500	≥ 500	≥ 470	≥ 300	≥ 250
N	% mass.	≤ 0.3	≤ 0.4	≤ 0.4	≤ 0.4	≤ 0.4	≤ 0.4
S	% mass.	≤ 0.03	≤ 0.03	≤ 0.03	≤ 0.03	≤ 0.03	≤ 0.03
Cl	% mass	≤ 0.03	≤ 0.02	≤ 0.02	≤ 0.02	≤ 0.02	≤ 0.02

Consult METMANN to verify its compatibility with the BM generator.

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5. INSTALLATION INSTRUCTIONS

5.1. WARNINGS

- It is very important to read this manual before installing the device.
- The installer must be a qualified installer in thermal installations.
- The installer must check previously all the regulations in force in the destination country of the installation.
- It is necessary to check the power supply conditions before installing the device.
- The installer must adjust the burner to obtain the power indicated on the generator's name plate for optimal combustion.
- Respect all installation requirements, measures and safety distances.

5.2. PACKAGING AND TRANSPORTATION

The hot air generators are shipped with cardboard packaging. Accessories are packed separately. Transport, unloading and handling must be carried out with the utmost care to avoid any possible damage.

5.3. INSTALLATION CONDITIONS

The following indications must be taken into account before placing the hot air generator:

- Devices must be installed on the floor, verifying its stability.
- The device does not have to fit into niches.
- Do not obstruct the suction grilles. Leave a space of at least 50cm.
- Avoid the hot air falling directly over the people in the heated area.
- The device must not have obstacles near that may prevent the hot air diffusion.
- Laws and the Safety Standards for gas-heating devices must be respected.
- The minimum distance between the device and a wall must be respected.
- Maintenance and cleaning operations should be carried out easily.
- Review all requirements & instructions related to the burner.

5.4. POWER SUPPLY

- The generator's electrical parts are designed according to the essential safety requirements from directive 2014-35-EU, and they require 400 V/AC III 50Hz power supply (or 230V 50Hz AC for single-phase generator).
- The connection must be realized scrupulously respecting the electrical diagram and using the related plug.
- It is recommended to install a fixed-connection way by means of a magneto-thermal switch of the appropriate power with 3mm opening contact. The switch and any other plug (connection by cable and plug) must be accessible.

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5.5. AIR REQUIREMENTS

The amount of new air requirements is determined by the natural ventilation requirements of the chamber where the device will be placed, including the related country's gas regulations.

5.5.1. Combustion & Ventilation air

- An adequate air intake must be provided for the perfect combustion of the fuel and for the enclosure's general ventilation.
- The air intake can be achieved through holes in contact with the outside or through ducts. In both cases they must be protected with a grid to prevent the entry of elements that may obstruct or flood them, and dimensioned according the required air flow.
- The protection grids must be greater or equal to the measurements of the ducts.
- When the air inflow is not ensured by means of natural ventilation (either because it is not possible or because it is insufficient) a forced-ventilation system must be installed.
- The ventilation openings of the engine room (where the generator is placed) cannot be realized to areas with stairs or elevators, except if the area has an entrance door protected with a security compartment.
- The air-intake opening must be arranged so that its upper edge is at 50cm from the floor and at 50cm from any other opening.
- In order to improve the air inflow it is recommended to place the openings in both sides of the engine room.
- An automatic control must be provided for gas burners in order to cut off the gas supply in case of an air-inflow failure.

5.5.2. Dimensions: surface and inflow requirements

The total free section of the air-inflow openings must be **5cm² for each rated power kW** of the generators (1kW = 860 kcal/h).

The surface and flow requirements to obtain the air necessary for combustion and for ventilation in the engine room must be adjusted according to the attached table criteria.

		Air supply by natural means		Air supply by mechanical means	
Bottom opening	Wall-hole	Air supplied for ventilation & combustion $S = 5 \times P$	Air supplied** for only ventilation: $S = 20 \times A$	Air supplied for ventilation & combustion (regular inflow) $Q = 10 \times A + 2 \times P$	Air supplied for ventilation & combustion (extended inflow) $Q = 20 \times A + 2 \times P$
	Duct*	Air supplied for ventilation & combustion $S = 7,5 \times P$	Air supplied** for only ventilation: $S = 30 \times A$		
Top opening	Wall-hole	$S = 10 \times A$ (at least 250 cm ²)			
	Duct*	$S = H / 2$ (at least 250 cm ²)			
<p>$S =$ Total minimum free section required for circular openings, expressed in cm². In case openings are rectangular, the minimum free section must be increased by 5% and the long side cannot be greater than 1.5 times the short side of the rectangle.</p> <p>$Q =$ Air inflow, expressed in m³/h.</p> <p>$A =$ Engine room surface, expressed in m²</p> <p>$P =$ Nominal heat consumption sum of the installed generators, expressed in kW.</p> <p>$H =$ Sum of the sections of the combustion-products evacuation ducts of all the generators installed in the engine room, expressed in cm².</p>					
<p>* In case of horizontal ducts, their length cannot be longer than 10 m.</p> <p>** In case he burners have their own duct that supply air directly from the outside, openings must be realized for the engine room's ventilation according to the data in the table.</p>					

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5.6. COMBUSTION GASES EVACUATION

The combustion gases evacuation must be carried out through chimneys. The chimneys must be approved and isolated according to current regulations, and they must have a draft regulator.

The following formulas indicate the dimensions of the chimneys:

5.6.1. Chimney draft and dimensions

The chimney's **draft** must be designed according to:

$$T = H \times (YA - YB)$$

T= Chimney draft in mm.c.a.

H= Chimney height in m.

YA= Air's specific weight in kg/m³.

YB= Combustion gases' specific weight in kg/m³.

The chimney's **section** must be designed according to:

$$S = 8,61 \times Q / H^{1/2}$$

S= Chimney section in cm²

Q= Burner heating power in kW/h.

H= Reduced height, in m.

The chimney's **reduced height** must be designed according to:

$$Hr = H - (N \times 0,5 + L + R)$$

Hr= Reduced height, in m.

H= Real height, in m.

N= Number of direction changes of the chimney.

L= Horizontal length

R= Generator's resistance.

R= 1mm up to 50.000 kcal/h.

R= 2mm up to 160.000 kcal/h.

These values should be increased by 6% for every 500 meters above sea level.

In case the chimney has an horizontal part, it must be designed according to:

$$A = 0,55 \times S \times (L / H + 1)$$

A= Section in cm² of the horizontal part.

S= Section in cm² of the vertical part.

L= Length of the horizontal part in m. Moreover, it must achieve $L < H / 3$

H= Chimney's height in m.

If case chimney is rectangular, the ratio between sides must not be greater than 1.5.

5.6.2. Connection between the chimney and the generator.

The generator has a circular collar where the chimney can be safely connected & fixed.

The chimney and the connection must be:

- Equal diameter or greater than the generator's collar and without diameter reductions.
- Be isolated and approved.
- Have an approved external anti-wind terminal.

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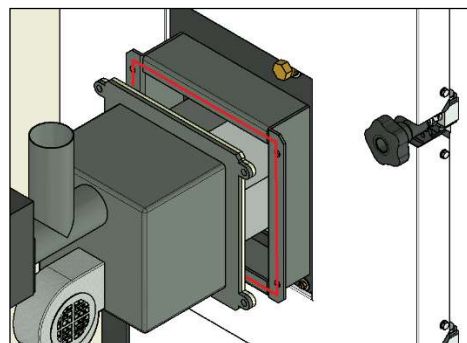
5.7. INSTALLATION OF THE BURNER AND THE PELLET DEPOSIT

5.7.1. Natural Fire Burner

BM generators recommend the installation of Natural Fire burners. Review the burner documentation and make the electrical connection according to the electrical diagrams.

The burner is supplied together with a feed screw that supplies the necessary fuel flow for the burner.

When placing the burner into the generator, it is necessary to apply temperature-resistant silicone to seal the joint between the burner and the generator.



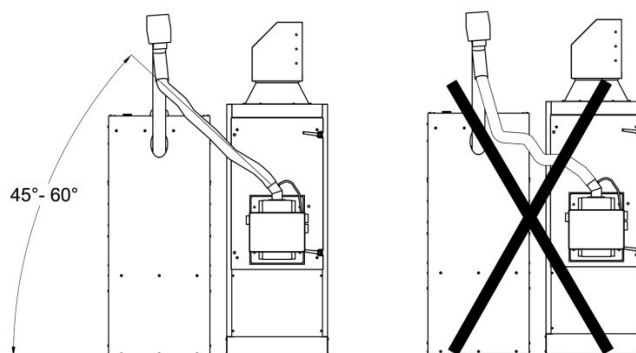
5.7.2. Other brands

Consult METMANN for compatibility with the equipment and review the burner's documentation.

5.7.3. Pellet discharge tube

The pellet discharge tube (which joins the feeding auger with the burner) must form an angle between 45° and 60° with respect to the horizontal of the ground.

In addition, it must be verified that the tube does not form pockets that could hinder or obstruct the passage of the pellet towards the burner.



5.7.4. Pellet Deposit

The pellet deposit has an approximate capacity of 155kg and allows the burner feed auger to be coupled.

Its location must be close to the equipment so that the feeding system works correctly (angle of the pellet discharge tube).

In addition, the generator and burner control panels are located in the front side of the deposit.

Remember that the pellet deposit and the discharge pipe must be periodically cleaned in accordance with the indications of "**Cleaning and maintenance**" section.

5.7.5. Silo (optional)

Optionally, a silo can be installed to increase the pellet storage capacity.

Consult METMANN for more information.

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5.8. SAFETY CHECK

Once the appliance has been installed and before putting it into operation, the installer must carry out the following safety checks:

- Switch the maneuver switch to position "I" and check the fan's rotating direction.
- In case the fan is rotating in the wrong direction, check the fan's electrical connection.
- Check the Thermostats' integrity and operating:
 - **Fan Thermostat:**
Starting from position 0, set the fan thermostat to minimum, then set the maneuver switch to position II, and check that, once the burner starts up, the fan starts up immediately.
 - **Security Thermostat**
Starting from position 0, set the fan thermostat and the burner thermostat to maximum, then set the maneuver switch to position II. This will cause the burner to start up, but the machine fan does not turn on until it reaches the set temperature, which, being the maximum allowed by the fan thermostat, will cause the temperature to reach the maximum allowed, thus activating the safety thermostat or limiter.
Manually reset the safety thermostat or limiter.
 - In each of the above operations and when the machine is stopped, notice that the fan continues to work even if the burner is switched off until the temperature set by the fan thermostat is reached (in order to guarantee proper cooling of the combustion chamber).
- Check that if the generator door is open, the equipment does not start (be it position I or II).

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6. WARRANTY

- Products for industrial use, due to the demanding working conditions, are guaranteed for a period of ONE YEAR, against any manufacturing defect, counting from the date of the invoice and will be conditional on the installation and start-up of the product in question is carried out by what current legislation defines as qualified and competent personnel. Otherwise, the guarantee will be canceled and the client must assume the responsibilities derived from such cancellation.
- Defects and damage caused by an improper installation or handling of the equipment will not be covered.
- Defects and damage caused by an improper usage of the equipment will not be covered.
- Prior to the acceptance of a claim under guarantee, the issued parts will be reviewed and evaluated by METMANN personnel, or by the technical service that will be determined in each case. In case there has been any type of negligence, the client will assume the responsibilities derived from the replacement.
- All concepts other than the material to be replaced, such as transport, labor, travel, diets, etc., are excluded from the guarantee. (condition established by METMANN).
- Any manipulation, intervention or repair carried out by the client without the consent of METMANN will be considered at the client's own risk and expense. Thus, METMANN will not accept any type of responsibility derived from such actions.
- Anomalies or defects that occurred prior to the installation of the product, but after receipt of the product, will lead to the cancellation of the guarantee (Ex: exposure to atmospheric agents, impact with a forklift, etc.)
- The warranty will not cover damage caused by natural disasters, wars, theft, riots, fire, earthquakes, floods, lightning, or power surges.
- The warranty will not cover damage caused by incorrect installation of the equipment, both from a mechanical point of view and from an electrical point of view. Nor will it cover the effects derived from a choice (of the equipment or equipment) based on the under-sizing or oversizing of the necessary features.
- The guarantee will be void in the event that the equipment has been handled negligently; has been used for purposes other than those established; has been used incorrectly or abnormally; has been damaged; or has been powered by an electrical source other than the intended one.
- Failure to pay entails the immediate loss of the guarantee.

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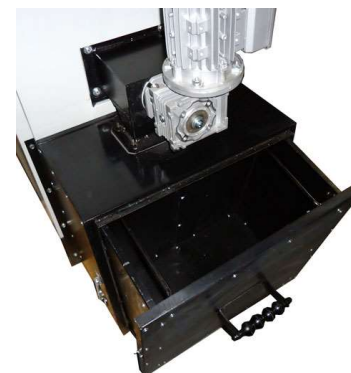
7. CLEANING AND MAINTENANCE

For regular operation and good conservation of the appliance, it is recommended that qualified technical personnel carry out periodic maintenance operations at least once a year, preferably at the end of the season.

Any intervention in the devices under said title, will be carried out cold, first disconnecting from the electrical current and turning off the pellet feeder.

7.1. DAILY TASKS

It is recommended to clean the ash drawer, using a brush and an industrial vacuum cleaner.



7.2. WEEKLY TASKS

It is recommended to proceed with the following tasks once a week.

- Disconnect the burner power cables and open the oven access door.
- Remove the retainers from the exchanger tubes (depending on the model) and clean & vacuum the exchanger tubes, using a brush and an industrial vacuum cleaner, ensuring that the ashes fall to the combustion chamber's rear part.
- Clean & vacuum the combustion chamber, especially the auger that extracts the ashes towards the ash drawer.



- Place again the exchanger retainers and close the door. Verify that the door is sealed
- Open the smoke extractor's lid and clean & vacuum it.
- Clean, vacuum and empty the removable ash drawer.
- Visually check if it is necessary to clean the pellet feeding system.
 - If necessary, first empty the pellet deposit, the auger and the tube. Vacuum all surfaces with an industrial vacuum cleaner.
- Check if it is necessary to clean the burner. If so, follow the manufacturer's instructions.
- Finally reconnect the burner power cables.

7.3. MAINTENANCE TASKS AT THE SEASON END

- Completely empty all the pellets from the machine, and proceed with a complete cleaning of all the equipment, including all the actions mentioned in the previous points.
- Change, if necessary, the lining of the inspection door to ensure perfect sealing.
- Check the ventilation train and clean it with a brush or compressed air. Check and grease the bearings.
- Check engine and transmission. Clean it with a brush or compressed air. Check and grease the bearings.
- Clean the exterior of the equipment, grids, panels, etc.
- Proceed also with a cleaning of the chimney.
- **Turn on the equipment to verify the proper functioning of the control panel and the safety elements.**

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7.4. OPERATING IRREGULARITIES – CAUSES & SOLUTIONS

In case of anomalies during the operating of the generator, verify that:

- There is no lack of power.
- Power does not exceed from +10% or -15%
- Fuses are working properly.

Otherwise, please check the following table:

Irregularities	Probable causes	Solutions
The burner does not turn on.	Lack of power.	- Check the main switch. - Check the general line. - Check the connections. - Check the fuses. - Check the manufacturer's burner manual for more detailed information.
	Burner's general switch in OFF position	- Turn ON the burner's general switch.
The burner does not restart after a short stop.	Pellet feeding system failure.	- The pellet feeder is clogged. - The tube that connects the auger with the burner forms pockets or the inclination is not correct (45-60°), so the tube must be installed correctly. - Check that the feed auger rotates. - Check that the feed auger is clean. - Verify that the auger motor and reducer are working and that the auger turns.
	No pellet.	- Add pellet to the pellet deposit.
The burner cannot reach the room's set temperature even working constantly.	The required room heating power is higher than the equipment's power.	- Replace or complement the existing equipment.
	Heat exchanger may be dirty.	- Clean it
	Pellet consumption adjustment is lower than required.	- Adapt it to the capacity indicated on the characteristics plate. Consult the burner manual and modify the "fuel" parameter.
	Pellet has a poor heating power.	- Use the recommended pellet quality.
The fan does not turn on.	Damaged motor.	- Repair or replace.
	The equipment does not reach the minimum temperature.	- Check the burner's manual and adjust the "fuel" parameter.
The ash extractor does not turn on or move.	Stuck auger.	- Check that there are no foreign objects blocking the auger, and proceed to clean & vacuum the auger.
	Damaged motor or gear.	- Repair or replace.
The smoke extractor does not turn on.	Lack of power	- Check the electrical connections.
	Damaged device	- Repair or replace.



WARNING

Any repairs must be carried out only by qualified technical personnel using original spare parts.

It is forbidden to open or manipulate the generator's components unless those parts foreseen in the maintenance



8. SPARE PARTS

We enclose a list of the most vulnerable parts to be replaced due to natural wear and tear.

8.1. REGULATING ELEMENTS

MODEL	REGULATING THERMOSTAT	SECURITY THERMOSTAT	ENVIRONMENT THERMOSTAT
ALL THE MODELS	1203540359	12075541777	1203TB04

8.2. TRANSMISSION ELEMENTS

MODEL	FAN	MOTOR	TRANSMISSION BAND	FAN'S PULLEY	MOTOR'S PULLEY
BM-050	0801D3333M6J	-	-	-	-
BM-070	0801D3333M6J	-	-	-	-
BM-105	08011515TDLC	07011020	1301SPZ01387	13092001Z	13091001Z
BM-160	08011212T2LC	07101030	1301SPZ01187	13091402Z	13091002Z
BM-200	08011515T2LC	07103055	1301SPA01432	1305200A2	1305106A2
BM-300	08011818T2SC	07103055	1301SPA01657	1305200A2	1305090A2

For other spare parts, check the following spare parts layout.

8.3. SMOKE AND ASH EXTRACTOR SPARE PARTS



MODEL	SMOKE EXTRACTOR'S FAN	ASH EXTRACTOR'S MOTOR	ASH EXTRACTOR'S REDUCER (GEAR)
BM-050	0823050302550	07012001	07018001
BM-070	0823050000044	07012001	07018001
BM-105	0823050000044	07012001	07018001
BM-160	0823050000051	07012001	07018001
BM-200	0823050000051	07012001	07018001
BM-300	0823050000051	07012001	07018001

8.4. BURNER'S SPARE PARTS

Contact METMANN.

METMANN S.A.
 C/ Fontcuberta, 32-36
 Tel. (34) 93 851 15 99
 E-mail: metmann@metmann.com
<http://www.metmann.com>
 08560 MANLLEU (Barcelona) SPAIN

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TECHNICAL SPECIFICATIONS

TECHNICAL DATA			GENERATOR					
			BM-050	BM-070	BM-105	BM-160	BM-200	BM-300
Rater heat input Q_h (Hi)	kW		43	69	100	145	200	300
Thermal performance	$\eta\%$		90	90	90	90	90	90
Max. Consumption	Pellet heating power (approx. value) PCI: 4,6 kWh/kg	kg/h	9,3	15	21,7	31,5	43,5	50
TREATED AIR	Inflow at +20°C	m ³ /h	3.900	4.400	7.100	9.400	16.500	22.500
	Static P available	Pa	100	100	150	100	100	120
	Thermal gap	°C	28°	38°	34°	32°	29°	33°
Fan		N°	1	1	1	2	2	2
Power Supply	V / F / Hz		230V / I / 50Hz			400V / III / 50Hz		
Fan's motor installed power	kW		0,76	0,76	1,50	2,20	4,00	4,00
Ash-extractor motor's power	kW		0,18	0,18	0,18	0,18	0,18	0,18
Smoke-extractor motor's power	kW		0,03	0,03	0,03	0,03	0,03	0,03
Burner motor's power	kW		0,006	0,025	0,025	0,09	0,09	0,09
Auger motor's power	kW		0,006	0,025	0,025	0,09	0,09	0,09
Total electrical installed power	kW		0,98	1,02	1,76	2,59	4,39	4,39
Sound level (at 3 m.)	dB (A)		60	64	64	75	79	71
Weight	kg		335	365	540	665	985	1430
Required air inflow for combustion	m ³ /h		59	95	137	199	275	411
Minimum temperature	°C		35°	35°	35°	35°	35°	35°
Maximum temperature	°C		90°	90°	90°	90°	90°	90°

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DIMENSIONS SUMMARY TABLE



MODEL	ASSEMBLY	REQUIRED SURFACE	GENERATOR HEIGHT	PLENUM BOX HEIGHT	ROTARY OUTLET HEIGHT	AUGER HEIGHT	Ø & HEIGHT SMOKE OUTLET	VENTILATION SUPPLY DUCT
BM-050	1970 x 1250	2400 x 1250	1350	+280 (1630)	+485 (1835)	2020	Ø80 (1426)	650 x 490
BM-070	2125 x 1280	2700 x 1280	1510	+280 (1790)	+485 (2000)	2020	Ø120 (1530)	900 x 540
BM-105	2240 x 1350	2780 x 1350	1785	+280 (2065)	+580 (2645)	2270	Ø120 (1875)	990 x 600
BM-160	2815 x 1450	3350 x 1450	1930	+280 (2210)	+855 (2790)	2270	Ø150 (2030)	1340 x 696
BM-200	3195 x 1590	3770 x 1590	2125	2145	+855 (2980)	2650	Ø150 (2050)	1670 x 815
BM-300	3715 x 1855	4335 x 1855	2220	2470	+855 (3075)	2685	Ø150 (2330)	1970 x 1010

FEEDING DEPOSIT	DIMENSIONS	HEIGHT	CAPACITY
DP-155	1000 x 600	1860	155 kg
DP-400	1300 x 900	2200	400 kg

NOTES:

- The indicated dimensions indicated are based according to the following layouts. In case of divergence of values, the values indicated in the layouts will prevail.
- The indicated dimensions are based on the installation of the METMANN generators with NATURAL FIRE burners and their respective Pellet feeding auger.
- The ASSEMBLY dimensions include the generator, the pellet deposit, the burner, the feed auger and the ash tank.
- The necessary area corresponds to the area to be able to open the generator door and to extract the ash drawer.
- It is recommended to leave a corridor around the equipment to facilitate cleaning tasks.
- The "generator height" is related only to the generator. There may be other elements higher than the generator depending on the model.
- The measures indicated as "Ventilation Supply" are for the ventilation air outlet in the duct.
- If additional measures are required, contact the supplier.
- If the electrical diagram in high resolution is required, contact the supplier.

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BM-050
EXPLODED VIEW

VISTA A
DETALLE TERMOSTATOS

VISTA B
DETALLE VENTILADOR

Pos.	Cant.	Código	Denominación
0	1	0801D3333M6J	CONJUNTO VENTILADOR
1	1	040104050008	BASE MAQUINA BM-050
2	1	0119DP155	DEPOSITO PELLET 155 Kgs.
3	1	0409656	SOPORTE SONDA
4	1	040111050001P	CUADRO ANALOGICO GDM030 PARA BM
5	1	07451	CAJA DE ELEMENTOS REGULACION
6	1	07452	ACOPLAMIENTO ELEMENTOS REGUL.
7	1	1203540359	TERMOSTATO REGULABLE 0/90° KIT
8	1	12075541777	TERMOSTATO LIMITADOR 110° 1,0M
9	1	030111050003	EXTRACTOR HUMOS BM-050
10	1	18943	REJA CENIZA BM-050 (NO VISIBLE)
11	9	09758	REDUCTOR DE GASES (NO VISIBLE)
12	1	0823050302550	VENTILADOR EXT. HUMOS (NO VISIBLE)

BM-050 (GENERADOR DE AIRE CALIENTE A PELLET)		Diseño de D. MOLIST	Aprobado D. PEREZ
METALURGICA		Fecha Creación 17/01/2013	Escala COTAS ORIENTATIVAS
MANLLEUENSE S.A.		Fecha Mod. 15/07/2022	Rev. REV. 4
1/4 - DESPIECE SIN ACCESORIOS		Maquina BM-050	
011105001-MAN			

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BM-050 EXPLODED VIEW WITH ACCESSORIES

BM-050 (GENERADOR DE AIRE CALIENTE A PELLET)		Diseño de D. MOLIST	Aprobado D. PEREZ
METALURGICA MANLLEUENSE S.A.		Fecha Creación 17/01/2013	Escala COTAS ORIENTATIVAS
Código 011105001-MAN		Fecha Mod. 15/07/2022	Rev. REV. 4

CONJUNTO BM-050	
Pos.	Denominación
1	011105001 BM-050 (GENERADOR DE AIRE CALIENTE)
2	2404MMY050 QUEMADOR Y-50CT
3	SINFIN1500D60 SINFIN PARA Y-50CT
4	030111050001 DESCARGA AUTO. CENIZAS BM-050
DESPIECE EXTRACTOR CENIZA	
5	07012001 MOTOR 0,18 kW
6	07018001 REDUCTOR D40R80
7	07010018 ACOPLAMIENTO ELASTICO ALTA Tª

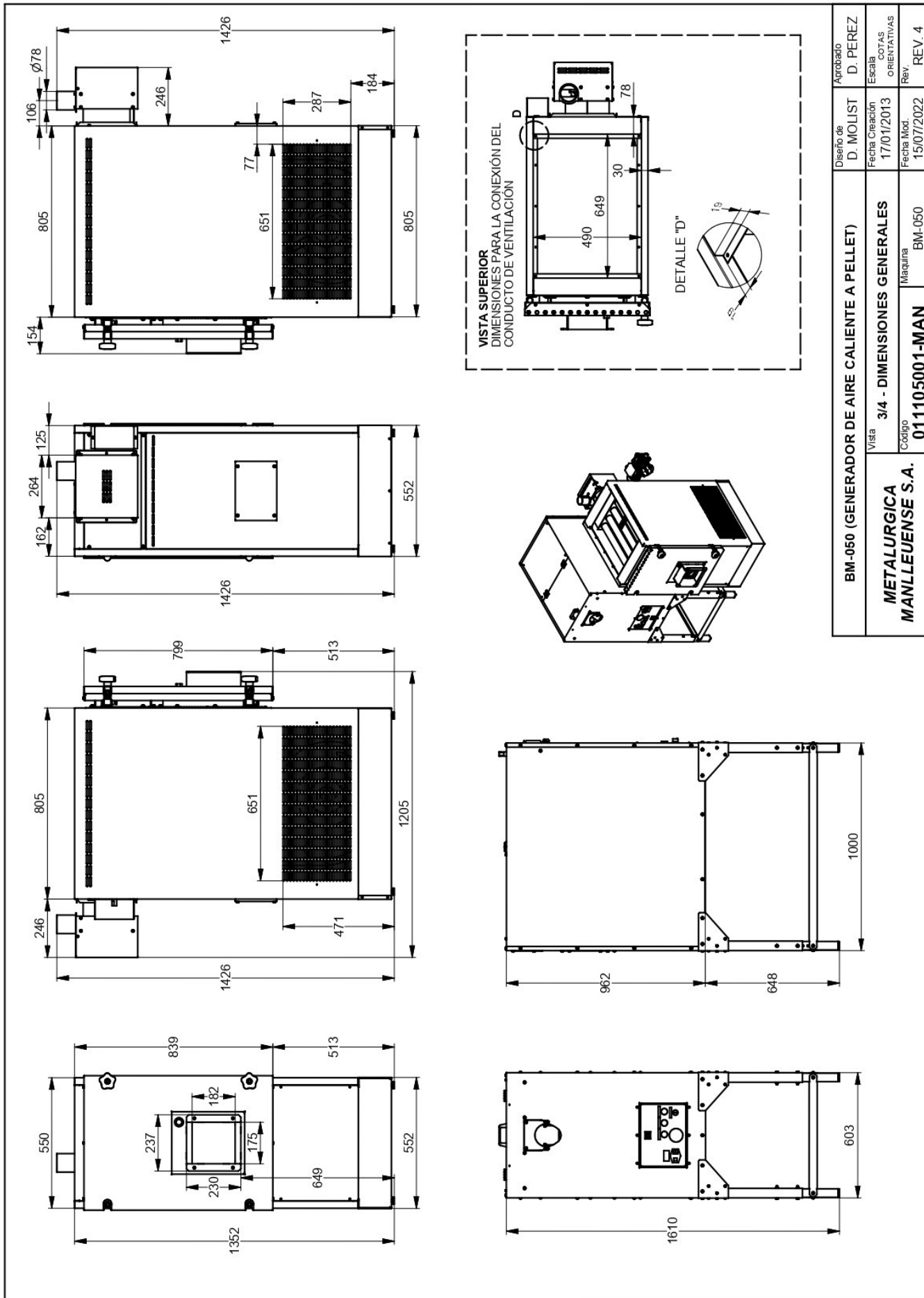
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BM-050
GENERAL DIMENSIONS



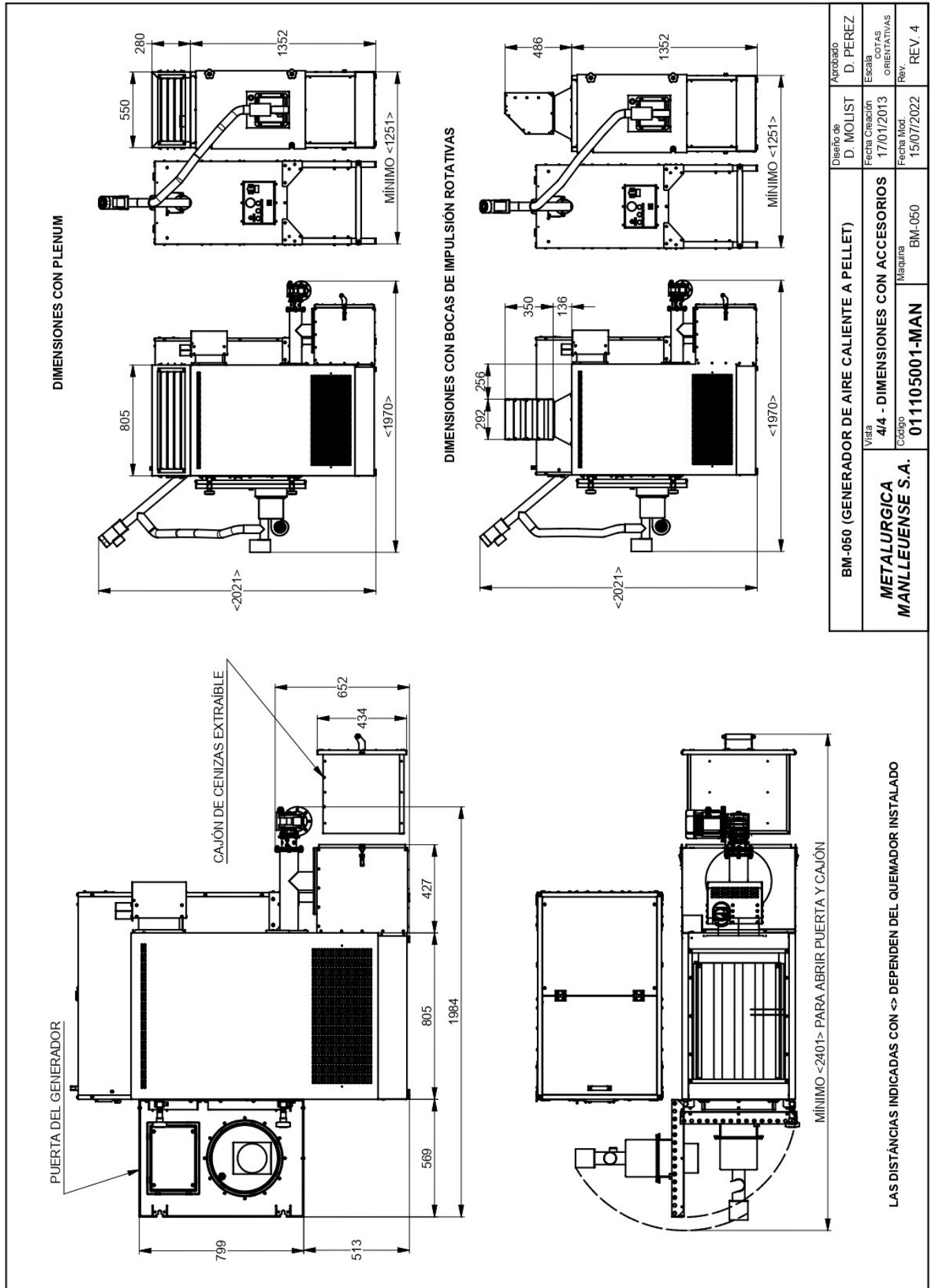
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BM-050
ACCESSORIES DIMENSIONS



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BM-070
EXPLODED VIEW

BM-070 (GENERADOR)		Diseño de D. MOLIST	Aprobado D. PEREZ
METALURGICA MANLLEUENSE S.A.		Fecha Creación 16/05/2013	Escala COTAS ORIENTATIVAS
1/4 - DESPIECE SIN ACCESORIOS		Fecha Mod. 30/08/2022	Rev. REV. 3
011107001-MAN		Marca BM-070	

Pos.	Cant.	Código	Denominación
0	1	0801D333M6J	CONJUNTO VENTILADOR MOTORIZADO
1	1	040111070005	BASE MAQUINA BM-070
2	1	0119DP155	DEPOSITO PELLET 155 Kgs.
3	1	0409656	SOPORTE SONDA
4	1	040111050001P	CUADRO ANALÓGICO CDM030 PARA BM
5	1	07451	CAJA DE ELEMENTOS REGULACIÓN
6	1	07452	ACOPAMIENTO ELEMENTOS REGUL.
7	1	1203540359	TERMOSTATO REGULABLE 0/90° KIT
8	1	12075541777	TERMOSTATO LIMITADOR 110° 1,0M
9	1	030111070002	EXTRACTOR HUMOS BM-070/105
10	1	18943	REJA CENIZA (NO VISIBLE)
11	12	09758	REDUCTOR DE GASES (NO VISIBLE)
12	1	0823050000044	VENTILADOR EXTRACTOR HUMOS D180

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BM-070 EXPLODED VIEW WITH ACCESSORIES

BM-070 (GENERADOR)		Aprobado D. PEREZ
Diseño de D. MOLIST	Fecha Creación 16/05/2013	Escala COTAS ORIENTATIVAS
2/4 - DESPIECE CON ACCESORIOS		Rev 30/08/2022
Vista Código 011107001-MAN	Marca BM-070	
METALURGICA MANLLEUENSE S.A.		

CONJUNTO BM-070		
Pos.	Cant.	Código Denominación
1	1	011107001 BM-070 (GENERADOR)
2	1	2404MMY070 QUEMADOR Y-70CT
3	1	SINFIN1500D60 SINFIN PARA Y-70CT
4	1	030111070001 DESCARGA AUTO. CENZAS BM-070
DESPIECE EXTRACTOR CENZA		
5	1	07012001 MOTOR 0,18 KW
6	1	07018001 REDUCTOR D40R80
7	1	07010018 ACOPLAMIENTO ELASTICO ALTA Tª

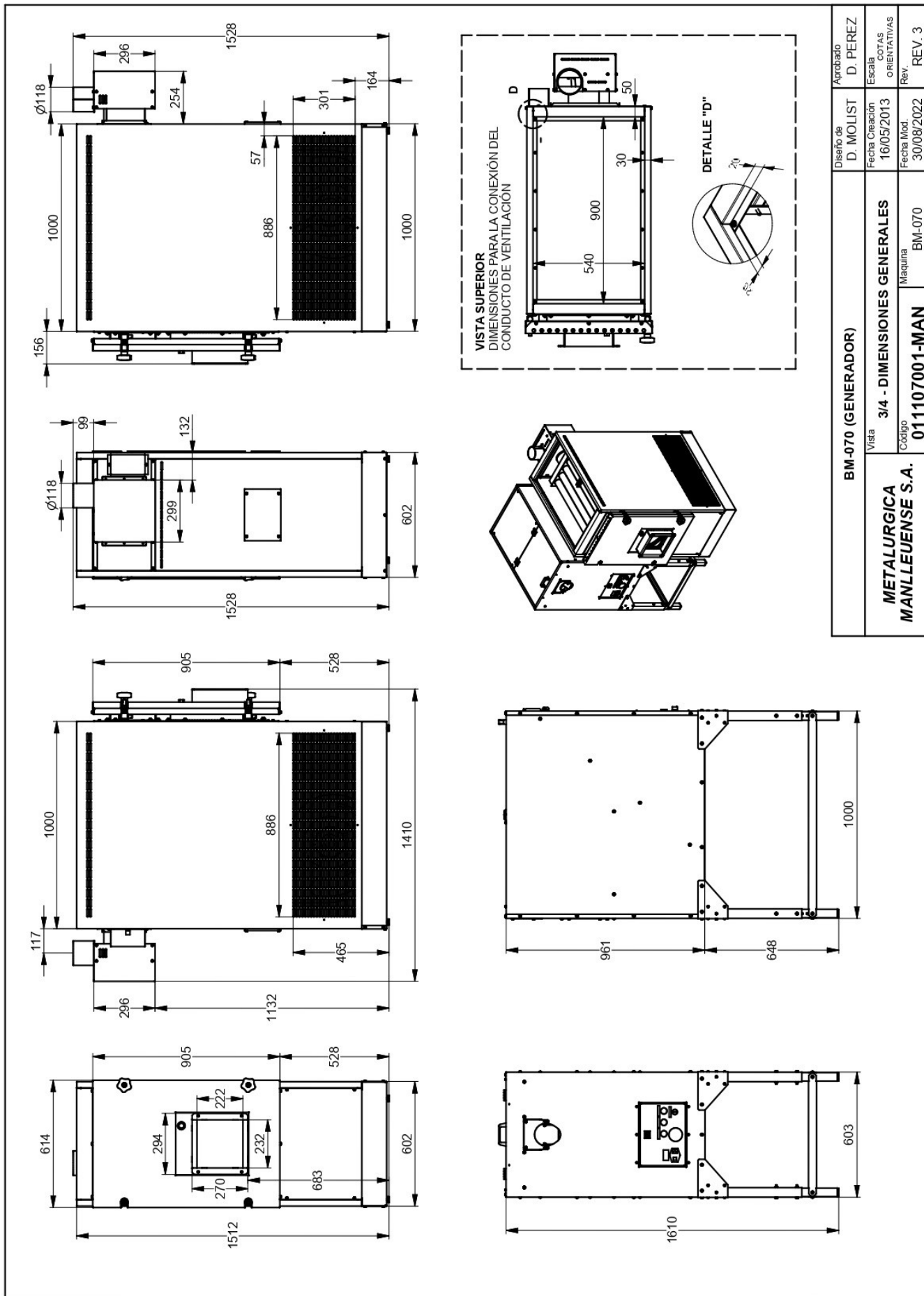
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BM-070 GENERAL DIMENSIONS



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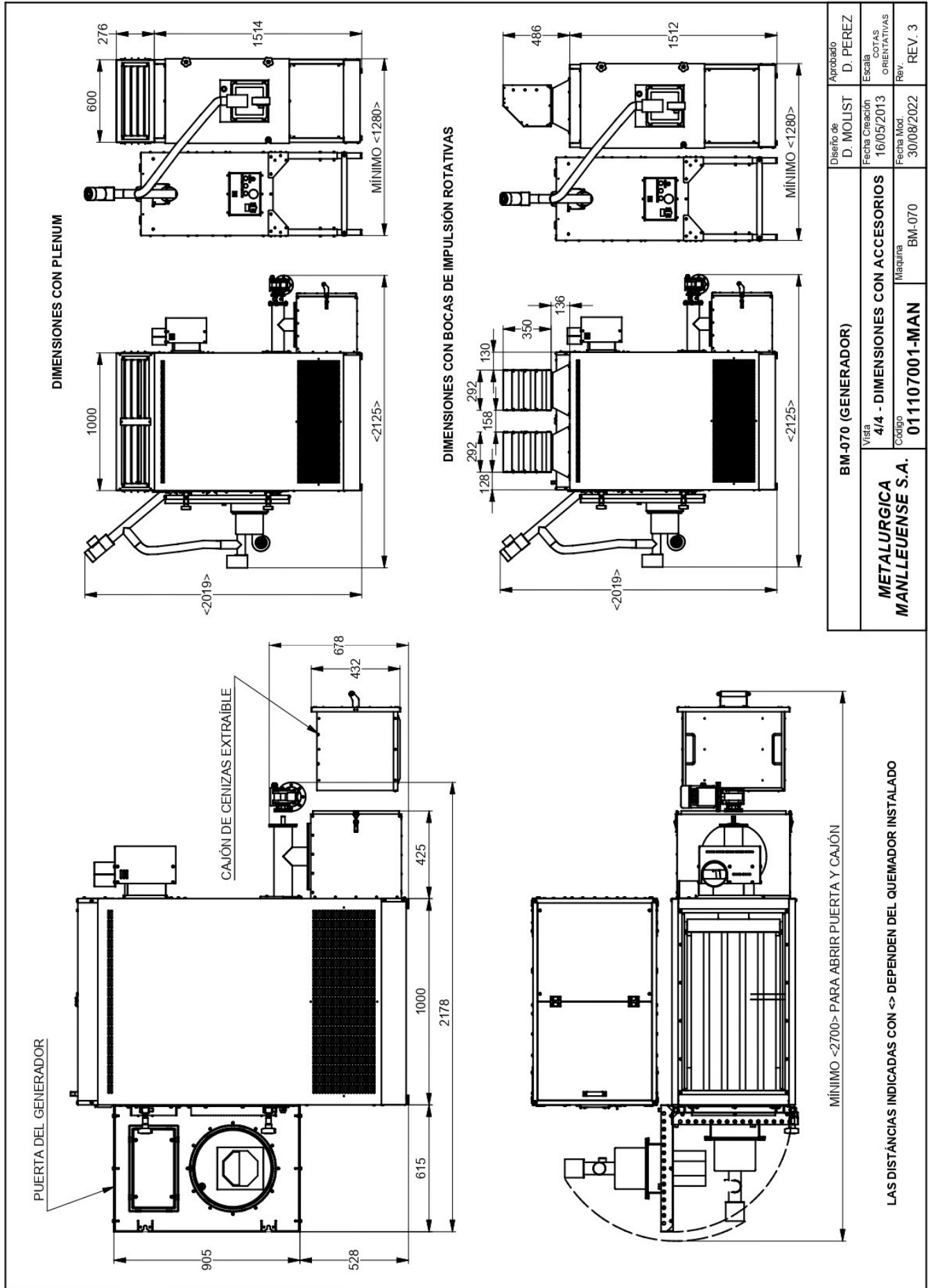
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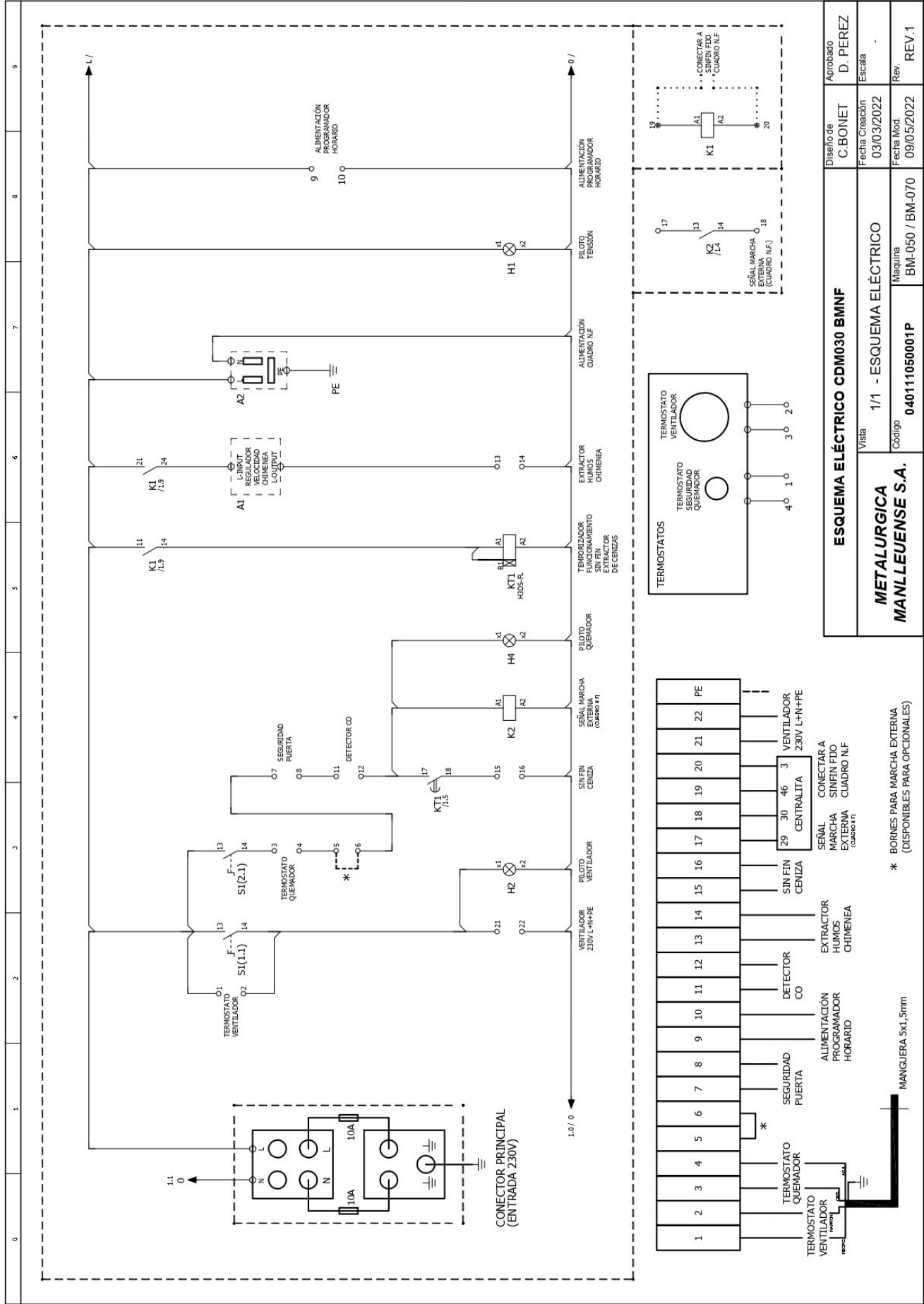
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BM-070
ACCESSORIES DIMENSIONS



BM-070 ELECTRICAL SCHEME



BM-105
EXPLODED VIEW

Pos.	Cant.	Código	Denominación
0	1	08011515TDLC	CONJUNTO VENTILADOR
1	1	011110501S	BM-105 (STOCK)
2	1	0119DP155	DEPOSITO PELLETT 155 Kgs.
3	1	040104080018P	CUADRO ANALÓGICO CDM090 PARA BM
4	1	030111070002	EXTRACTOR HUMOS BM-070/105
5	1	07451	CAJA DE ELEMENTOS REGULACIÓN
6	1	07452	ACOPLAMIENTO ELEMENTOS REGUL.
7	1	1203540359	TERMOSTATO REGULABLE 0/90° KIT
8	1	12075541777	TERMOSTATO LIMITADOR 110° 1,0M
9	1	0409656	SOPORTE SONDA
10	1	07011020	MOTOR 1,50 KW
11	1	1301SPZ01387	CORREA TRAPEZOIDAL SPZ 1387
12	1	13091001Z	POLEA "TAPER" Ø100 1SPZ
13	1	13092001Z	POLEA "TAPER" Ø200 1SPZ
14	1	1306121024	CASQUILLO CÓNICO REF. 1210 Ø24
15	1	1306201225	CASQUILLO CÓNICO REF. 2012 Ø25
16	1	18943	REJA CENIZA (NO VISIBLE)
17	19	09758	REDUCTOR DE GASES 638 (NO VISIBLE)
18	1	0823050000044	VENTILADOR EXTRACTOR HUMOS (NO VISIBLE)

BM-105 (GENERADOR BIOMASA)		Diseño de	D. PEREZ
		Fecha Creación	02/12/2013
		Fecha Mod.	31/08/2022
		Revisión	REV. 2
		Maquina	BM-105
		Código	011110501-MAN
		Vista	1/4 - DESPIECE SIN ACCESORIOS
		Escala	COTAS ORIENTATIVAS
		Aprobado	D. PEREZ

Get In Touch

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Our Address

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BM-105 EXPLODED VIEW WITH ACCESSORIES

BM-105 (GENERADOR BIOMASA)		Diseño de D. MOLIST	Aprobado D. PEREZ
METALURGICA MANLLEUENSE S.A.		Fecha Creación 02/12/2013	Escala COTAS ORIENTATIVAS
2/4 - DESPIECE CON ACCESORIOS		Fecha Mod. 31/08/2022	Rev. REV. 2
011110501-MAN		Maquina BM-105	

CONJUNTO BM-105		
Pos.	Cant.	Denominación
1	1	011110501 BM-105 (GENERADOR BIOMASA)
2	1	2404MMY100 QUEMADOR Y-100
3	1	SINFIN1500D60 SINFIN PARA Y-100
4	1	030111105001 DESCARGA AUTO. CENIZAS BM-105
DESPIECE EXTRACTOR CENIZA		
5	1	07012001 MOTOR 0,18 KW
6	1	07018001 REDUCTOR
7	1	07010018 ACOPLAMIENTO ELASTICO ALTA Tª

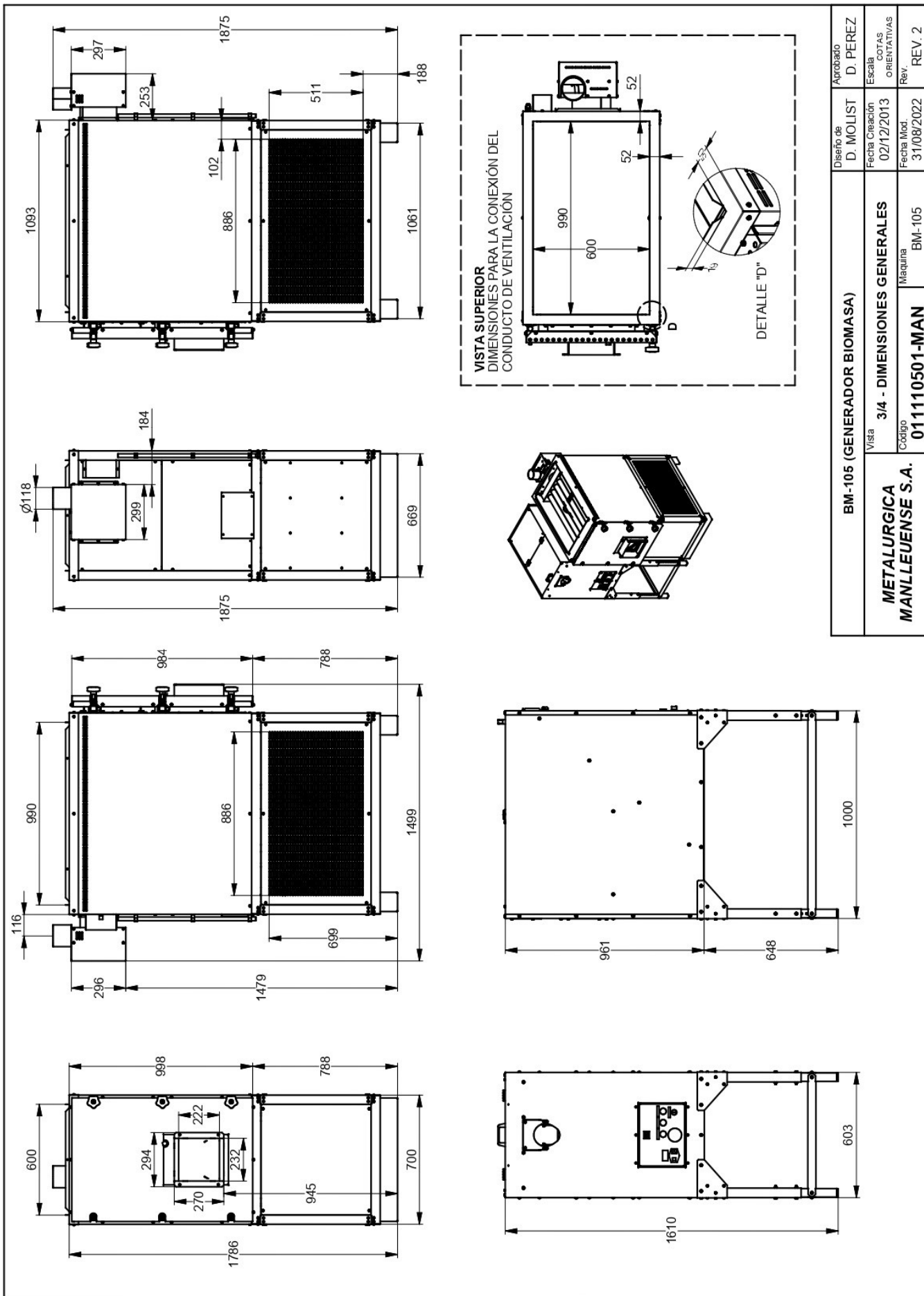
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BM-105 GENERAL DIMENSIONS



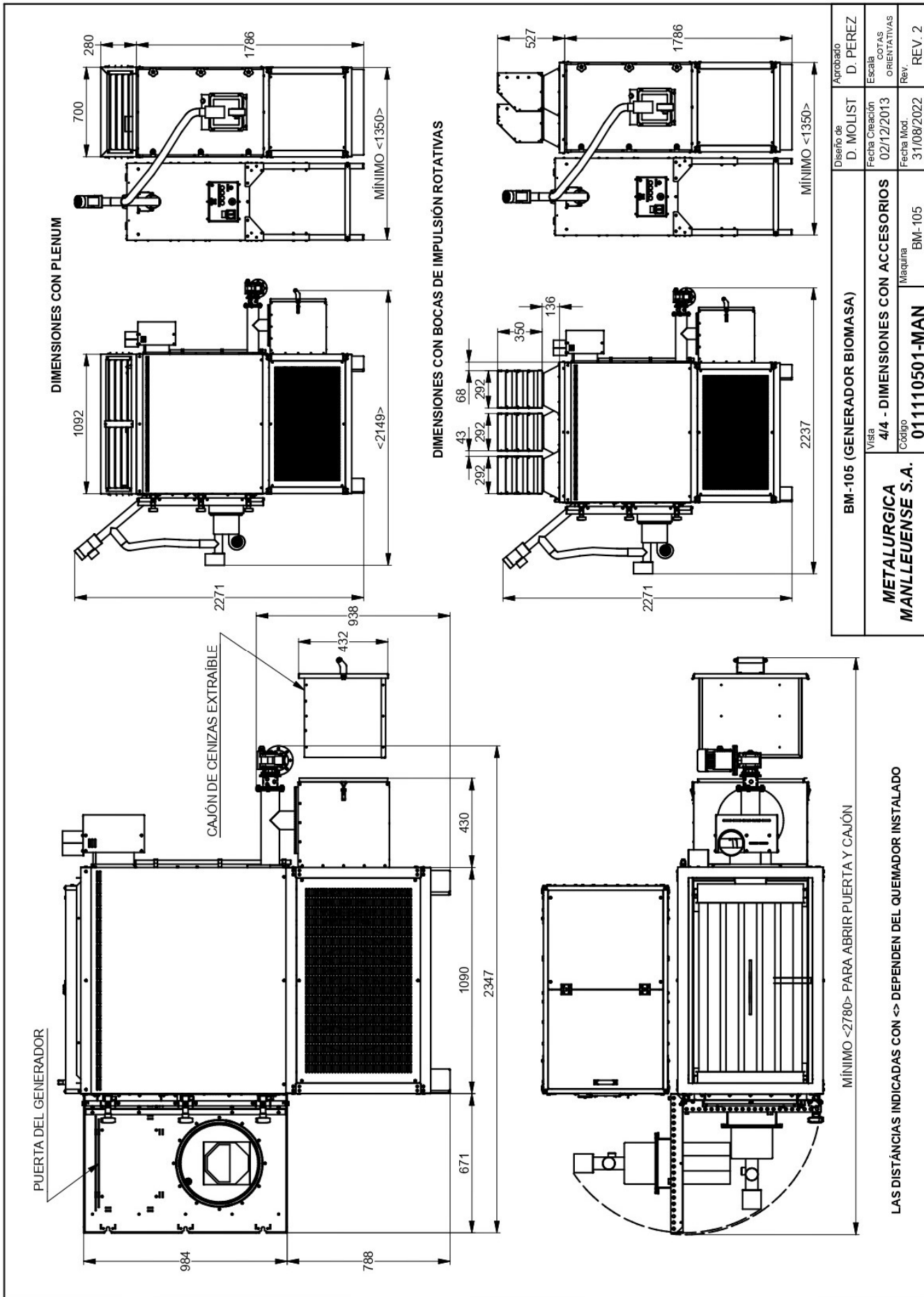
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BM-105 ACCESSORIES DIMENSIONS



BM-105 (GENERADOR BIOMASA)		Diseño de D. MOLIST	Aprobado D. PEREZ
Vista 4/4 - DIMENSIONES CON ACCESORIOS	Fecha Creación 02/12/2013	Fecha Mod. 31/08/2022	Escala COTAS ORIENTATIVAS
Código 011110501-MAN	Máquina BM-105	Rev. REV. 2	
METALURGICA MANLLEUENSE S.A.			

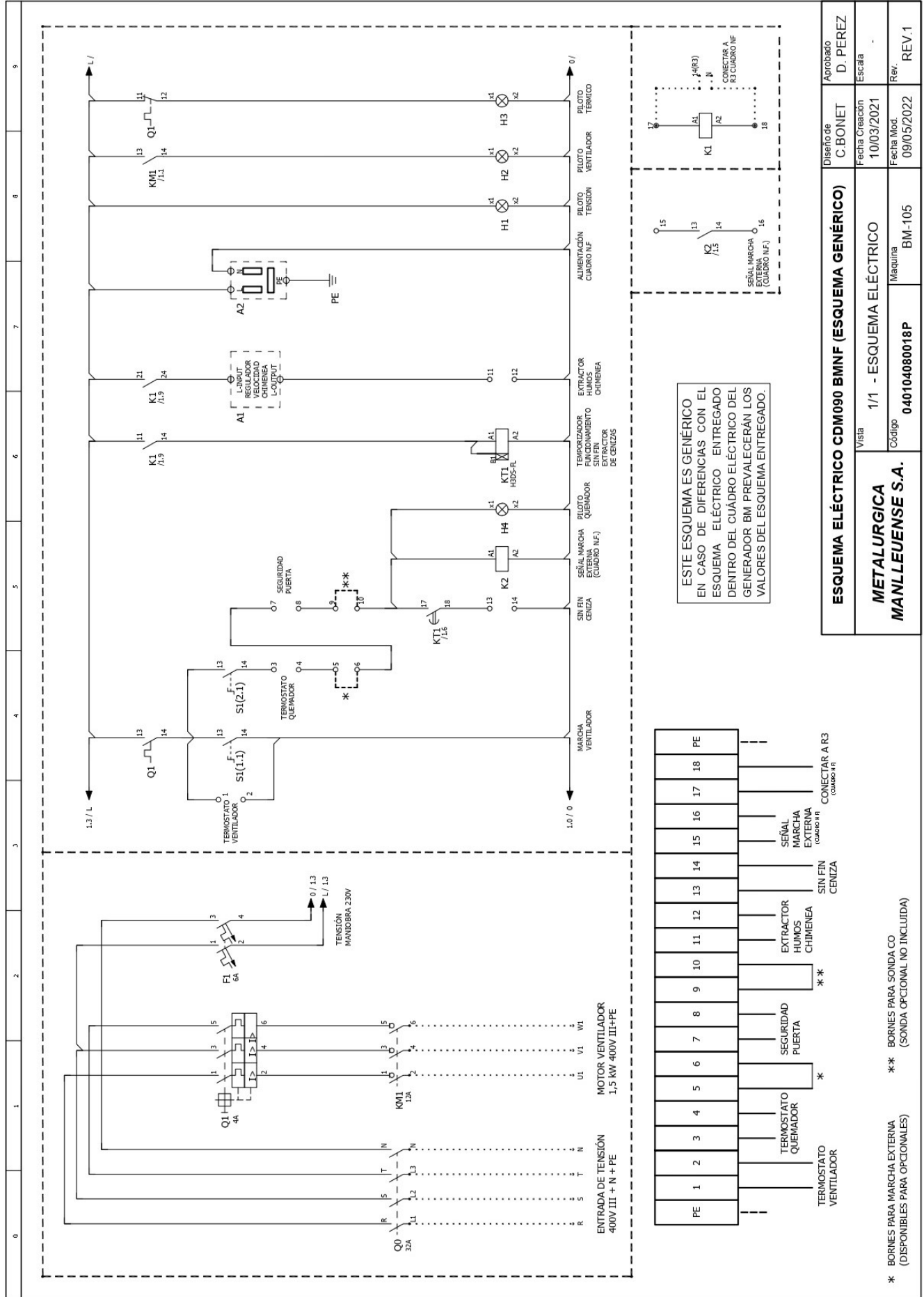
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BM-105 ELECTRICAL SCHEME



ESQUEMA ELÉCTRICO CDM090 BMNF (ESQUEMA GENÉRICO)		Aprobado D. PEREZ
Vista 1/1 - ESQUEMA ELÉCTRICO	Diseño de C. BONET	Escala
Código 040104080018P	Fecha Creación 10/03/2021	Rev.
Maquina BM-105	Fecha Mod. 09/05/2022	REV.1

* BORNES PARA MARCHA EXTERNA (DISPONIBLES PARA OPCIONALES)
 ** BORNES PARA SONDA CO (SONDA OPCIONAL NO INCLUIDA)



BM-160 EXPLODED VIEW

BM-160 (GENERADOR BIOMASA)		Diseño de D. MOLIST	Aprobado D. PEREZ
METALURGICA MANLLEUENSE S.A.		Fecha Creación 29/1/2014	Escala OCTAS ORIENTATIVAS
1/4 - DESPIECE SIN ACCESORIOS		Fecha Mod. 14/2/2023	Rev. REV. 4
011116001-MAN		Código 011116001-MAN	Maquina BM-160

Pos.	Cant.	Código	Denominación
0	1	0801121212LC	CONJUNTO VENTILADOR
1	1	011116001S	BM-160 (STOCK)
2	1	0119DP155	DEPOSITO PELLETT 155 Kgs.
3	1	040111160010	CUADRO ANALÓGICO CDM140 PARA BM
4	1	030111160002	EXTRACTOR HUMOS BM-160/200
5	1	07451	CAJA DE ELEMENTOS REGULACIÓN
6	1	07452	ACOPLAMIENTO ELEMENTOS REGUL.
7	1	1203540359	TERMOSTATO REGULABLE 0/90° KIT
8	1	12075541777	TERMOSTATO LIMITADOR 110° 1,0M
9	1	0409656	SOPORTE SONDA
10	1	07101030	MOTOR 2,2 kW
11	2	1301SPZ01187	CORREA TRAPEZOIDAL SPZ 1187
12	1	1305100Z2	POLEA "TAPER" Ø100 2SPZ
13	1	1305140Z2	POLEA "TAPER" Ø140 2SPZ
14	1	1306161025	CASQUILLO CÓNICO REF. 1610 Ø25
15	1	1306161028	CASQUILLO CÓNICO REF. 1610 Ø28
16	20	09758	REDUCTOR DE GASES (NO VISIBLE)
17	2	16429	CHAPA PROT. CENIZA (NO VISIBLE)
18	1	0823050000051	VENT. EXTR. HUMOS BM-160/200/300

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Our Address

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BM-160 EXPLODED VIEW WITH ACCESSORIES

CONJUNTO BM-160		Denominación	
Pos.	Cant.	Código	Denominación
1	1	011116001	BM-160 (GENERADOR BIOMASA)
2	1	2404MMY200	QUEMADOR Y-200
3	1	SINFIN1500D60	SINFIN PARA BM-160
4	1	030111160001	DESCARGA AUTO. CENIZAS BM-160
DESPIECE EXTRACTOR CENIZA			
5	1	07012001	MOTOR 0,18 KW
6	1	07018001	REDUCTOR
7	1	07010018	ACOPLAMIENTO ELASTICO ALTA Tª 18mm

BM-160 (GENERADOR BIOMASA)		Aprobado D. PEREZ
METALURGICA MANLLEUENSE S.A.	Diseño de D. MOLLIST	Escala COTAS ORIENTATIVAS Rev. REV. 4
Vista 2/4 - DESPIECE CON ACCESORIOS	Fecha Creación 29/1/2014	Fecha Mod. 14/2/2023
Código 011116001-MAN	Maquina BM-160	

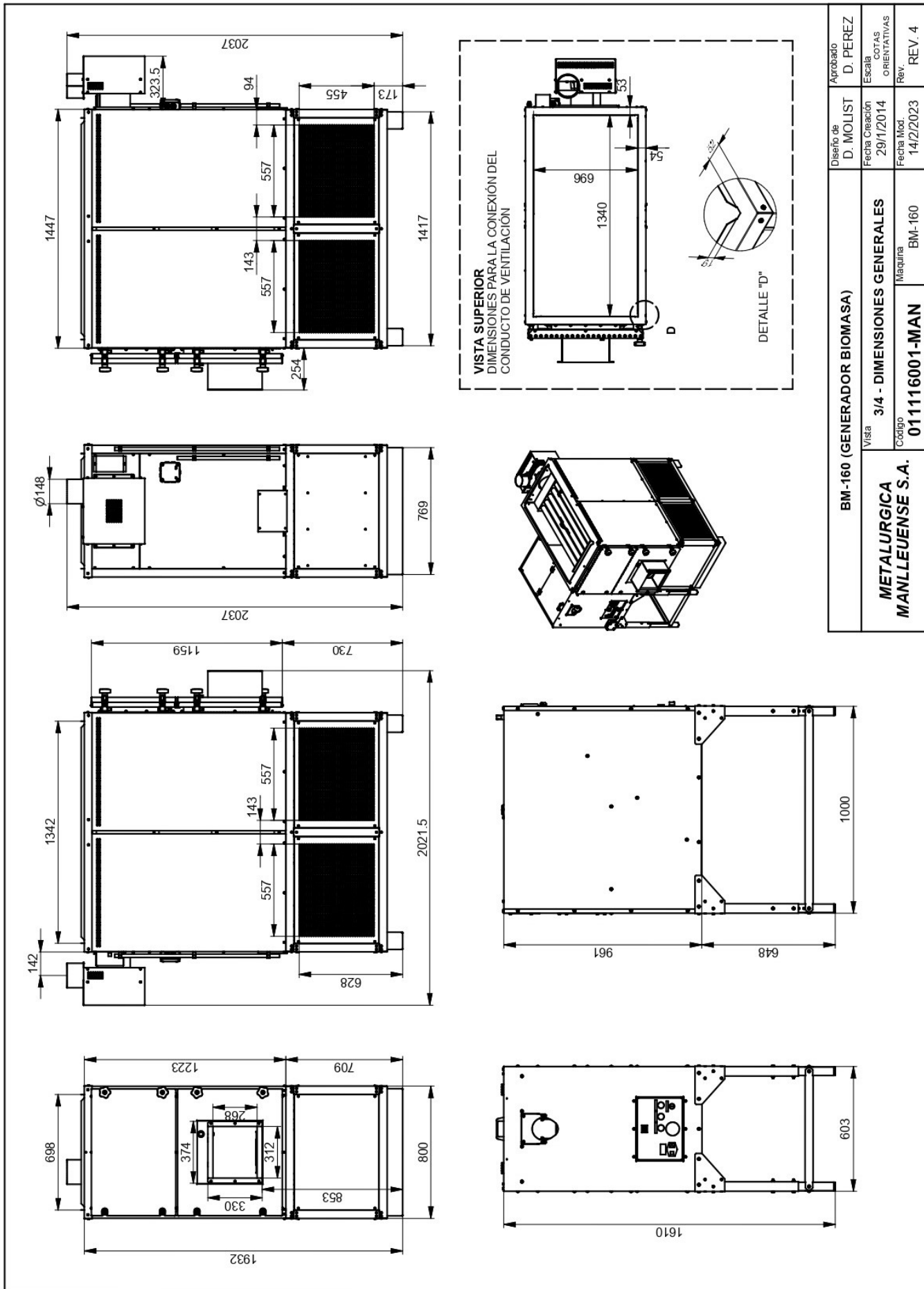
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BM-160 GENERAL DIMENSIONS



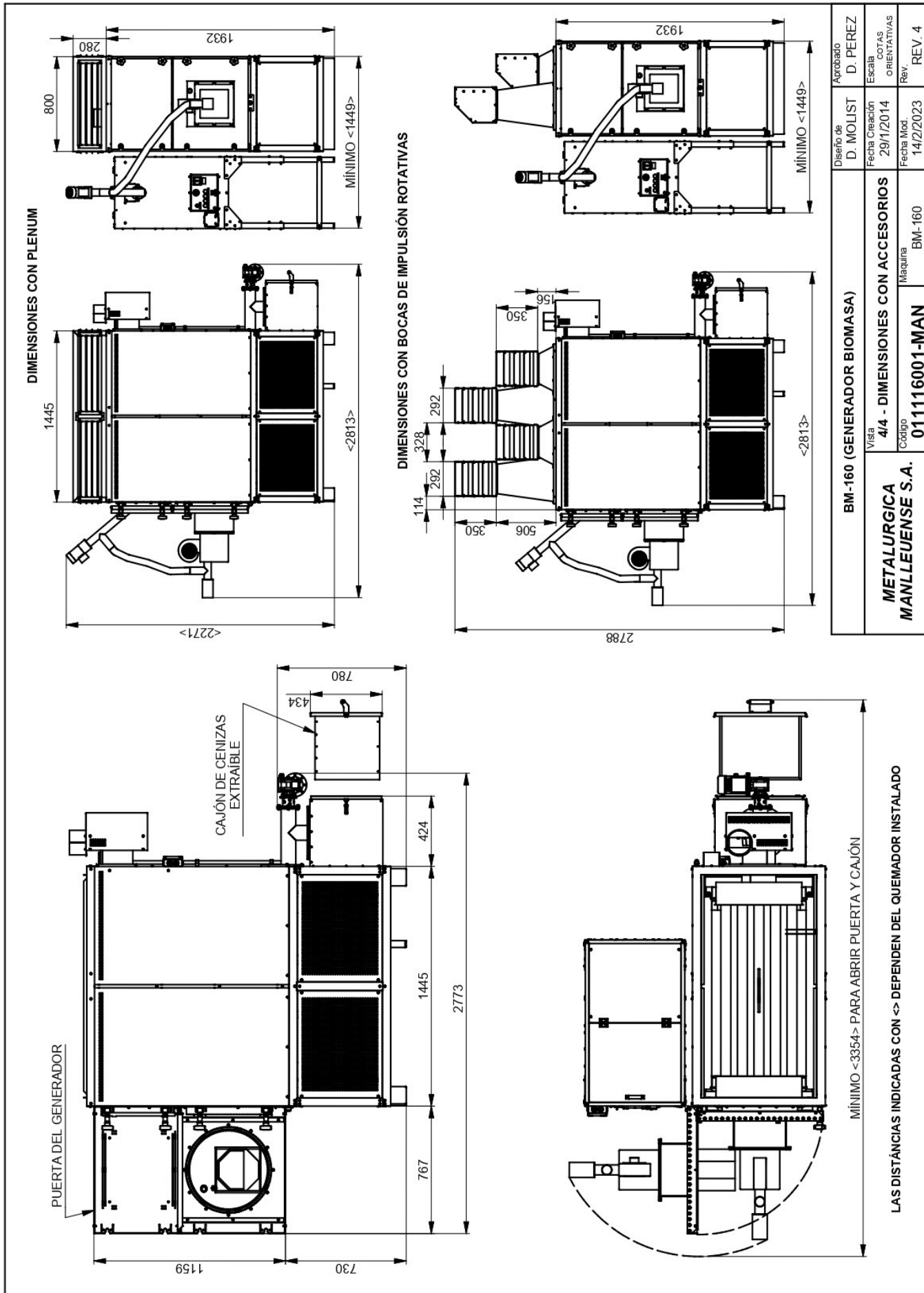
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BM-160
ACCESSORIES DIMENSIONS



BM-160 (GENERADOR BIOMASA)		Diseño de D. MOLLIST	Aprobado D. PEREZ
METALURGICA MANLLEUENSE S.A.		Fecha Creación 29/1/2014	Escala ROTAS ORIENTATIVAS
4/4 - DIMENSIONES CON ACCESORIOS		Fecha Mod. 14/2/2023	Rev. REV. 4
011116001-MAN		Máquina BM-160	

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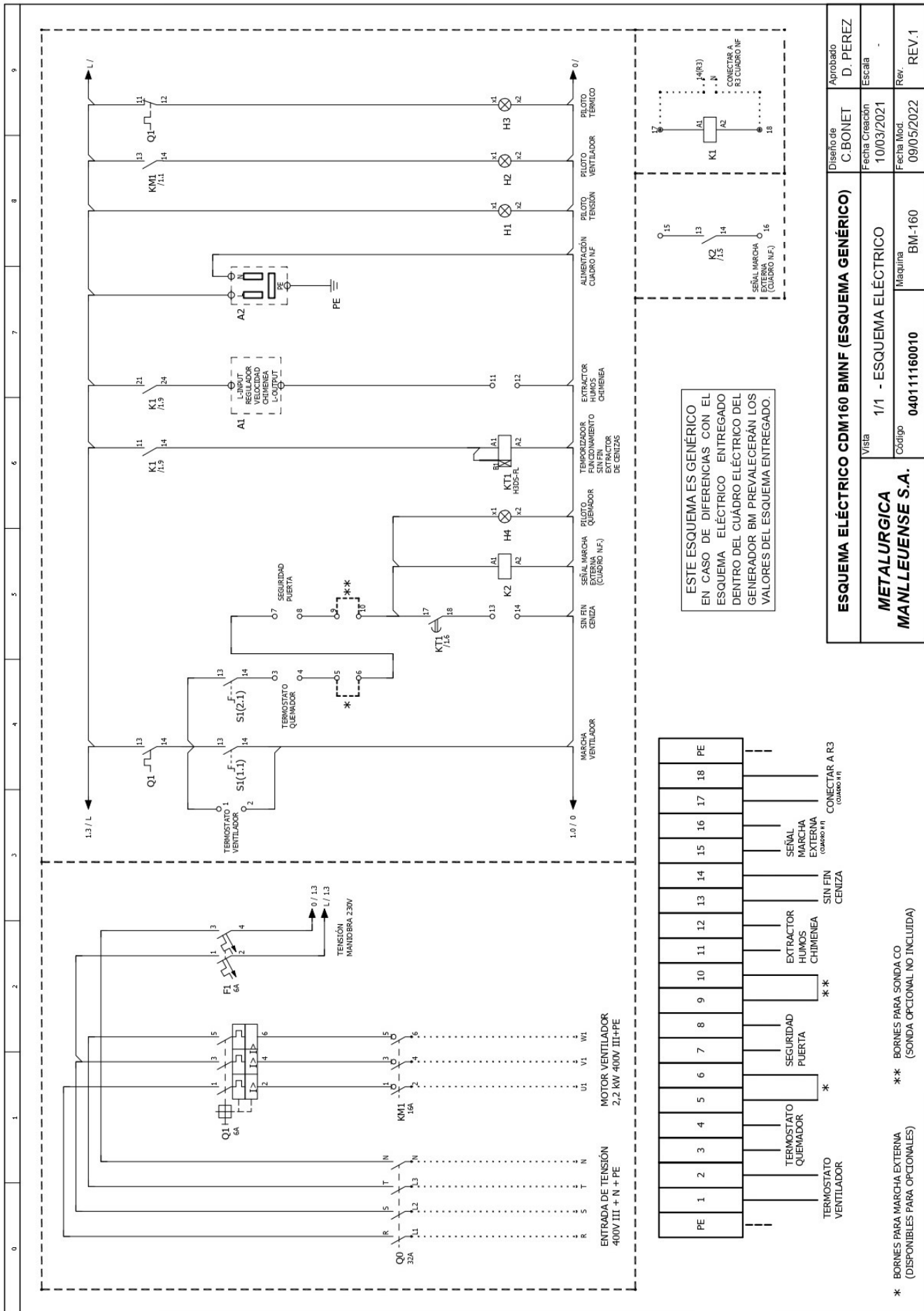
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BM-160 ELECTRICAL SCHEME



ESQUEMA ELÉCTRICO CDM160 BMNF (ESQUEMA GENÉRICO)		Diseño de C.BONET	Aprobado D. PEREZ
Vista 1/1 - ESQUEMA ELÉCTRICO		Fecha Creación 10/03/2021	Escala -
Código 040111160010		Máquina BM-160	Fecha Mod. 09/05/2022
METALURGICA MANLLEUENSE S.A.		Rev. REV.1	

* BORNES PARA MARCHA EXTERNA (DISPONIBLES PARA OPCIONALES)
 ** BORNES PARA SONDA CO (SONDA OPCIONAL NO INCLUIDA)

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Our Address

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BM-200
EXPLODED VIEW

BM-200 (GENERADOR BIOMASA)		Aprobado D. PEREZ
Diseño de D. MOLIST		Escala COTAS ORIENTATIVAS
Fecha Creación 25/6/2013		Rev REV. 5
Fecha Mod 17/10/2023		
Vista 1/4 - DESPIECE SIN ACCESORIOS		
METALURGICA	Código 011120001-MAN	Maquina BM-200
MANLLEUENSE S.A.		

Pos.	Cant.	Código	Denominación
0	1	08011515T2LC	CONJUNTO VENTILADOR
1	1	011120001S	BM-200 (STOCK)
2	1	0119DP155	DEPOSITO PELLETT 155 Kgs.
3	1	040111200002	CUADRO ANALÓGICO CDM200 PARA BM
4	1	030111600002	EXTRACTOR HUMOS BM-160/200
5	1	07451	CAJA DE ELEMENTOS REGULACIÓN
6	1	07452	ACOPLAMIENTO ELEMENTOS REGUL.
7	1	1203540359	TERMOSTATO REGULABLE 0/90° KIT
8	1	12075541777	TERMOSTATO LIMITADOR 110° 1,0M
9	1	0409656	SOPORTE SONDA
10	1	07103055	MOTOR 4,0 KW
11	2	1301SPA01432	CORREA TRAPEZOIDAL SPA 1432
12	1	1305106A2	POLEA "TAPER" Ø106 2SPA
13	1	1305200A2	POLEA "TAPER" Ø200 2SPA
14	1	1306161028	CASQUILLO CÓNICO REF. 1610 Ø28
15	1	1306251725	CASQUILLO CÓNICO REF. 2517 Ø25
16	3	16429	CHAPA PROT. CENIZA (NO VISIBLE)
17	1	0823050000051	VENTILADOR EXTR. HUMOS (NO VISIBLE)

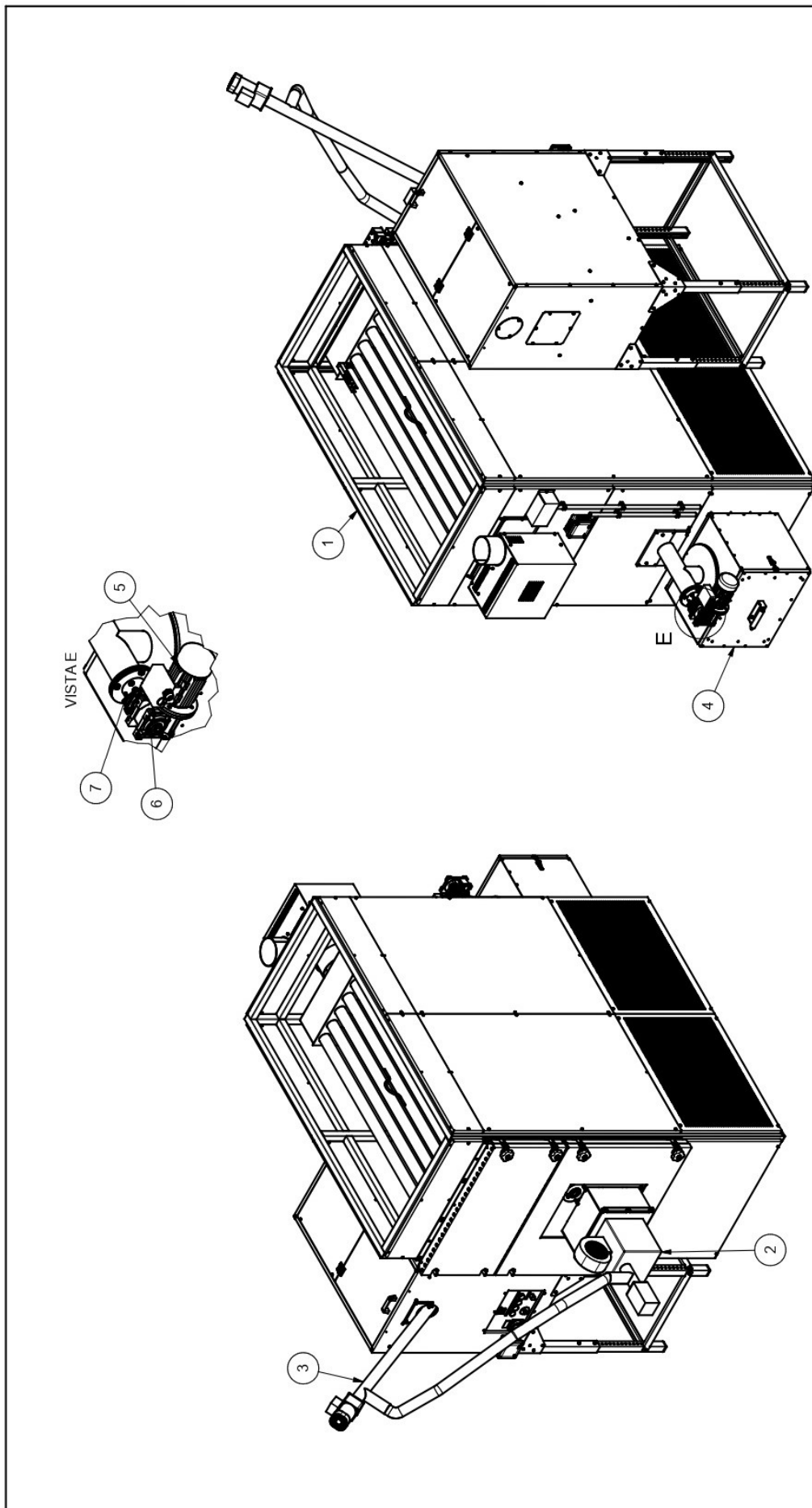
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Our Address

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BM-200 EXPLODED VIEW WITH ACCESSORIES



Pos.	Cant.	Código	Denominación
1	1	011120001	BM-200 (GENERADOR BIOMASA)
2	1	2404MMY200	QUEMADOR Y-200
3	1	SINFIN2000D60	SINFIN PARA BM-200
4	1	03011200001	DESCARGA AUTO. GENIZAS BM-200
DESPIECE EXTRACTOR GENIZA			
5	1	07012001	MOTOR 0,18 KW
6	1	07018001	REDUCTOR
7	1	07010018	ACOPPLAMIENTO ELASTICO ALTA Tª

BM-200 (GENERADOR BIOMASA)		Aprobado D. PEREZ
Diseño de D. MOLIST	Fecha Creación 25/06/2013	Escala COTAS ORIENTATIVAS
Vista 2/4 - DESPIECE CON ACCESORIOS	Fecha Mod. 1/10/2023	Rev. REV. 5
Código 011120001-MAN	Maquina BM-200	
METALURGICA MANLLEUENSE S.A.		

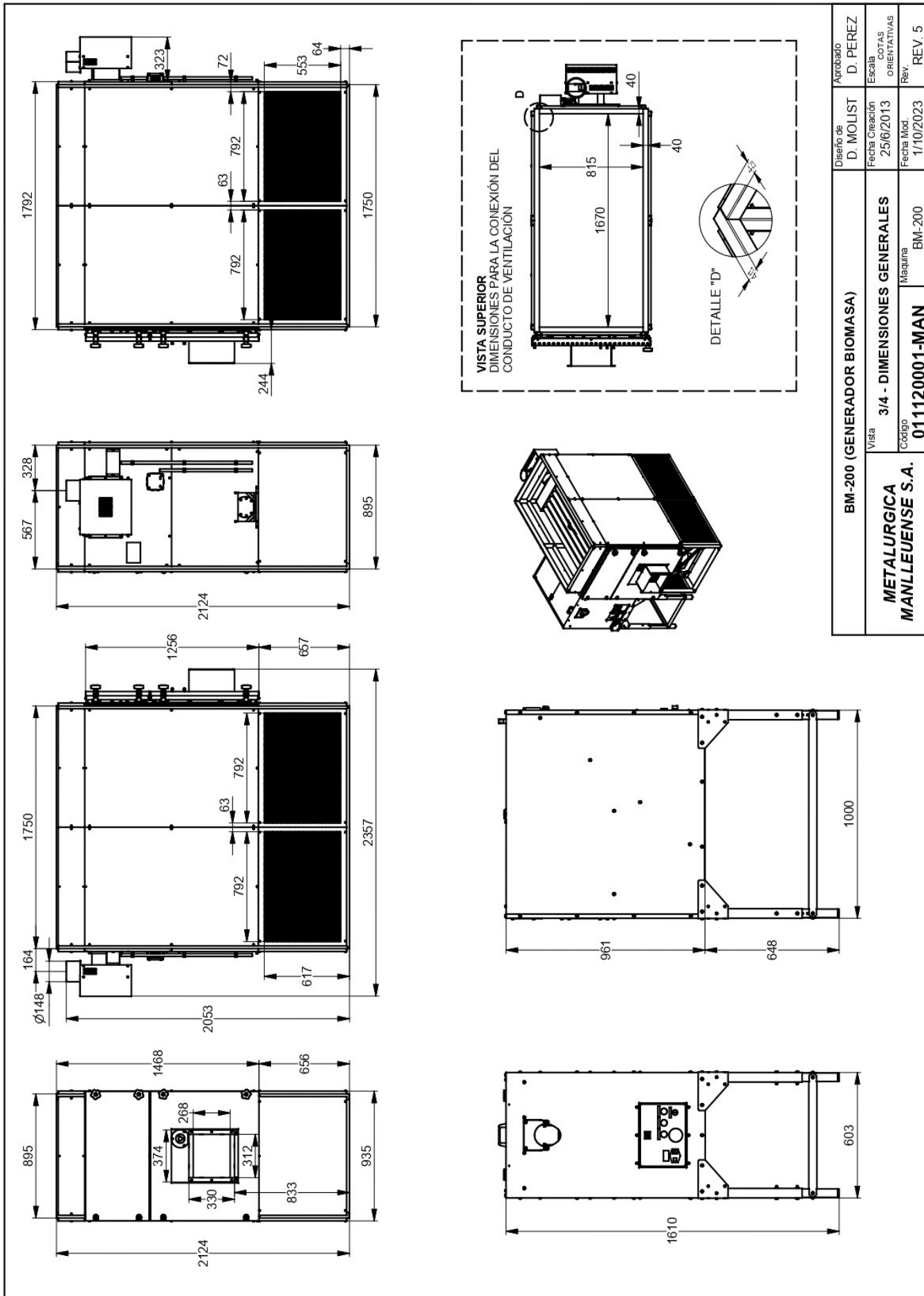
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BM-200
GENERAL DIMENSIONS



Get In Touch

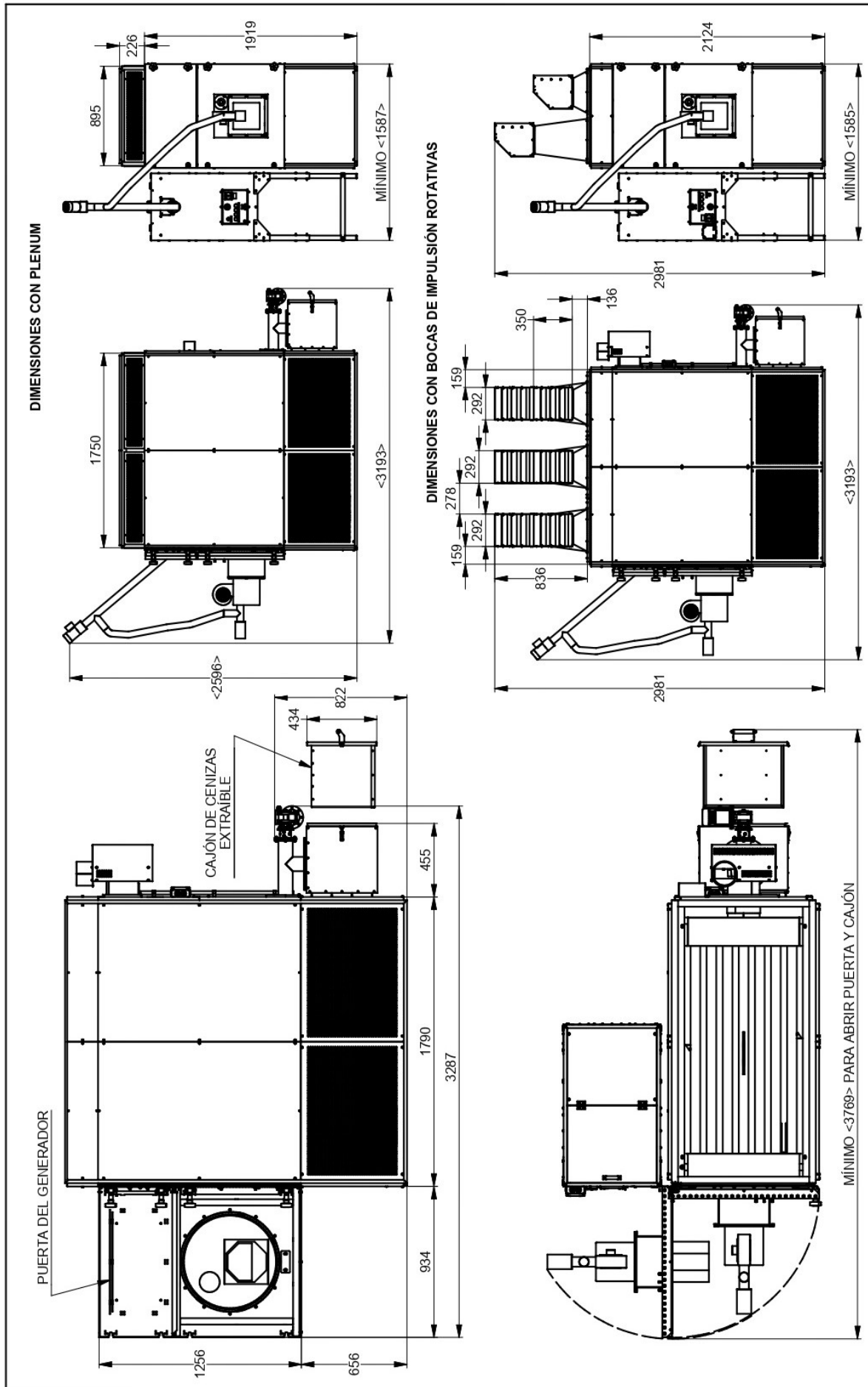
Call: 01729 824108
Email: info@puravent.co.uk

Our Address

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BM-200
ACCESSORIES DIMENSIONS



BM-200 (GENERADOR BIOMASA)		Diseño de D. MOLIST	Aprobado D. PEREZ
Vista 4/4 - DIMENSIONES CON ACCESORIOS		Fecha Creación 25/6/2013	Escala COTAS ORIENTATIVAS
Código 011120001-MAN		Fecha Mod. 17/10/2023	Rev. REV. 5
METALURGICA MANLLEUENSE S.A.		Maquina BM-200	

LAS DISTANCIAS INDICADAS CON \leftrightarrow DEPENDEN DEL QUEMADOR INSTALADO

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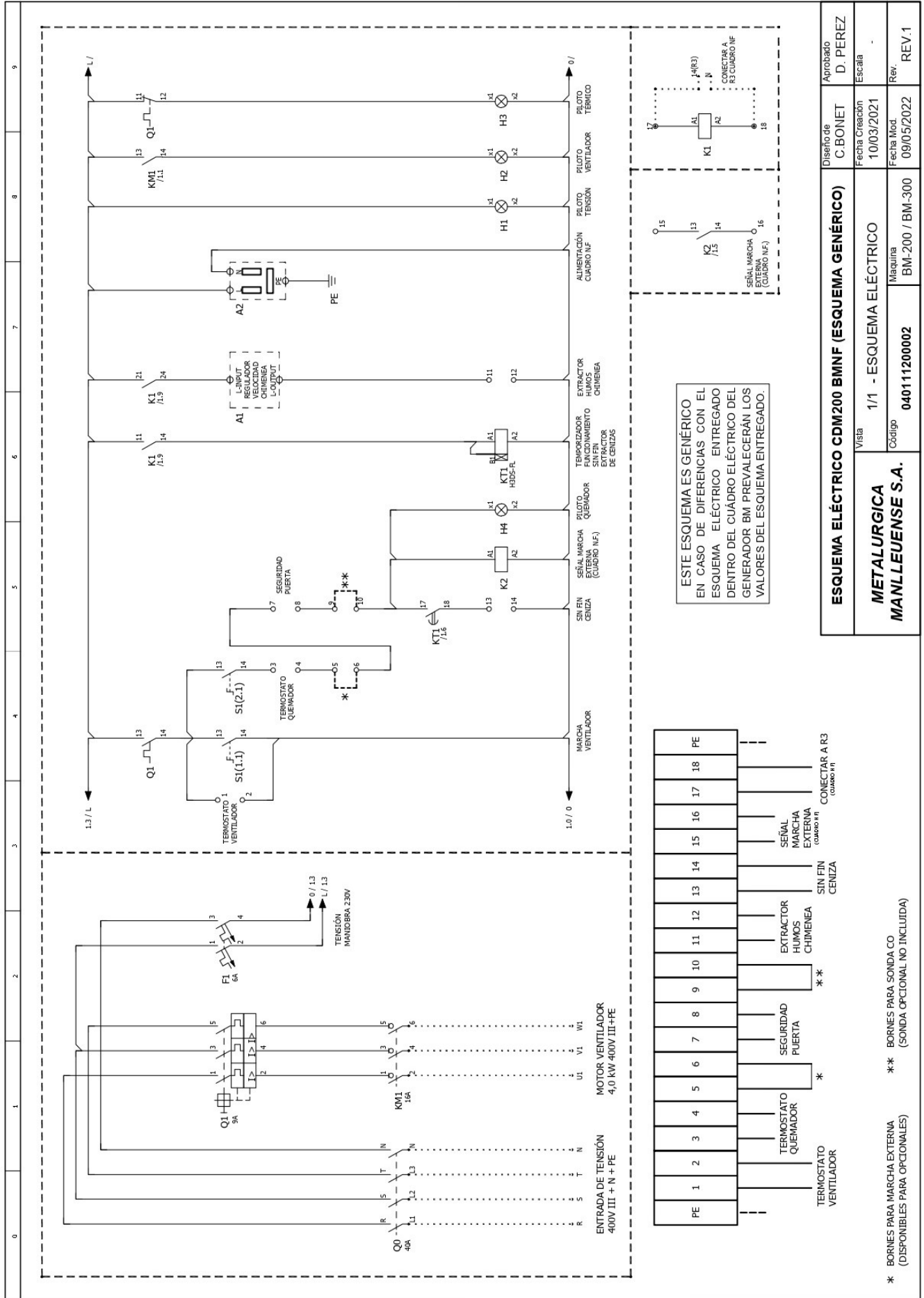
Call: 01729 824108
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Our Address

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BM-200 ELECTRICAL SCHEME



Get In Touch

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 Email: info@puravent.co.uk

Our Address

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BM-300
EXPLODED VIEW

Pos.	Cant.	Código	Denominación
0	1	08011818R2TCE	GRUPO VENTILADOR
1	1	011130001S	BM-300 (STOCK)
2	1	0119DP155	DEPOSITO PELLETT 155 Kgs.
3	1	040111200002	CUADRO ANALÓGICO GDM200 PARA BM
4	1	030111300002	EXTRACTOR HUMOS BM-300
5	1	07451	CAJA DE ELEMENTOS REGULACIÓN
6	1	07452	ACOPLEMENTO ELEMENTOS REGUL.
7	1	1203540359	TERMOSTATO REGULABLE 0/90° KIT
8	1	12075541777	TERMOSTATO LIMITADOR 110° 1,0M
9	1	0409656	SOPORTE SONDA (NO VISIBLE)
10	1	07103055	MOTOR 4,0 kW
11	2	1301SPA01657	CORREA TRAPEZOIDAL SPA 1657
12	1	1305090A2	POLEA "TAPER" Ø090 2SPA
13	1	1305200A2	POLEA "TAPER" Ø200 2SPA
14	1	1306161028	CASQUILLO CONICO REF. 1610 028
15	1	1306251740	CASQUILLO CONICO REF. 2517 040
16	4	15188	REJIA CENIZA (NO VISIBLE)
17	1	0823050000051	VENTILADOR EXTR. HUMOS (NO VISIBLE)

BM-300 (GENERADOR BIOMASA)		Diseño de D. MOLIST	Aprobado D. PEREZ
Vista 1/4 - DESPIECE SIN ACCESORIOS		Fecha Creación 19/10/2018	Escala COTAS ORIENTATIVAS
Código 011130001-MAN		Fecha Mod 17/10/2023	Rev. REV. 3
METALJURGICA MANLLEUENSE S.A.		Maquina BM-300	

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BM-300
EXPLODED VIEW WITH ACCESSORIES

BM-300 (GENERADOR BIOMASA)		Diseño de D. MOLLIST	Aprobado D. PEREZ
Vista 2/4 - DESPIECE CON ACCESORIOS		Fecha Creación 19/10/2018	Escala COTAS ORIENTATIVAS
Código 011130001-MAN		Fecha Mod 17/10/2023	Rev. REV. 3
METALURGICA MANLLEUENSE S.A.		Máquina BM-300	

Pos.	Cant.	Código	Denominación
1	1	011130001	BM-300 (GENERADOR BIOMASA)
2	1	2404MMY300	QUEMADOR Y-300
3	1	SINFIN2000D84	SINFÍN PARA BM-300
4	1	030111300001	DESCARGA AUTO. CENIZAS BM-300
DESPIECE EXTRACTOR CENIZA			
5	1	07012001	MOTOR 0,48 KW
6	1	07018001	REDUCTOR
7	1	07010018	ACOPPLAMIENTO ELASTICO ALTA Tª

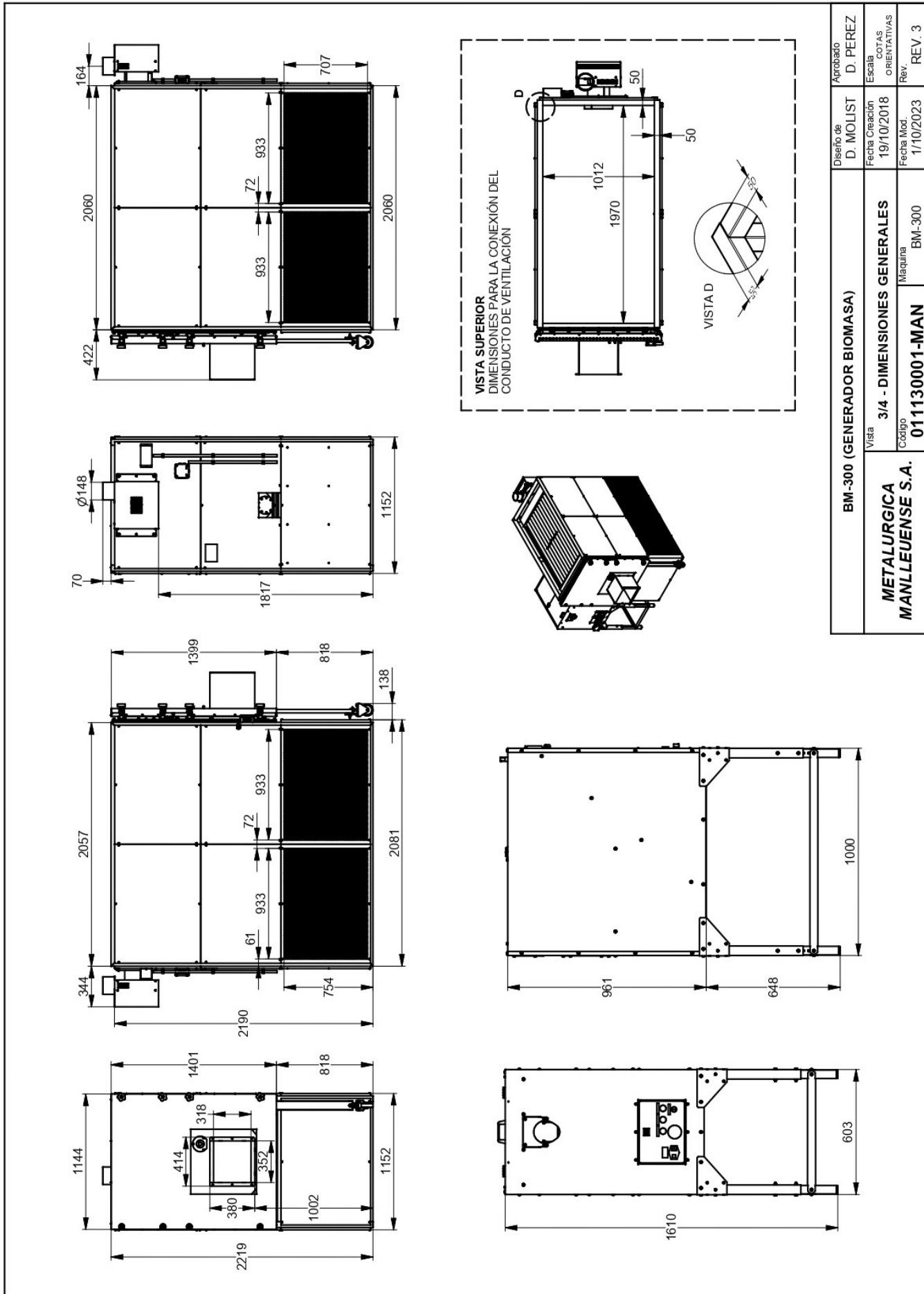
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Our Address

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BM-300
GENERAL DIMENSIONS



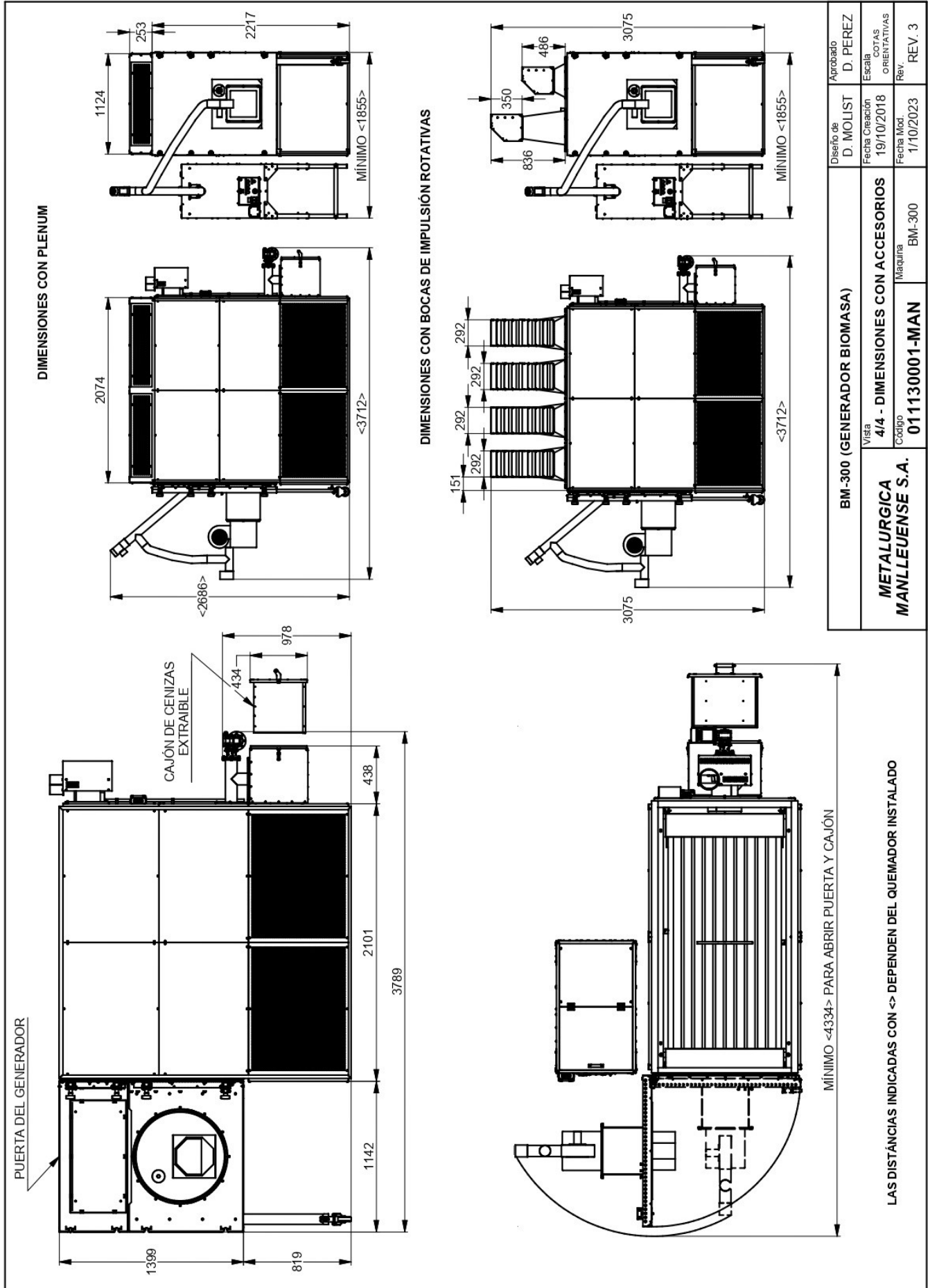
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BM-300
ACCESSORIES DIMENSIONS



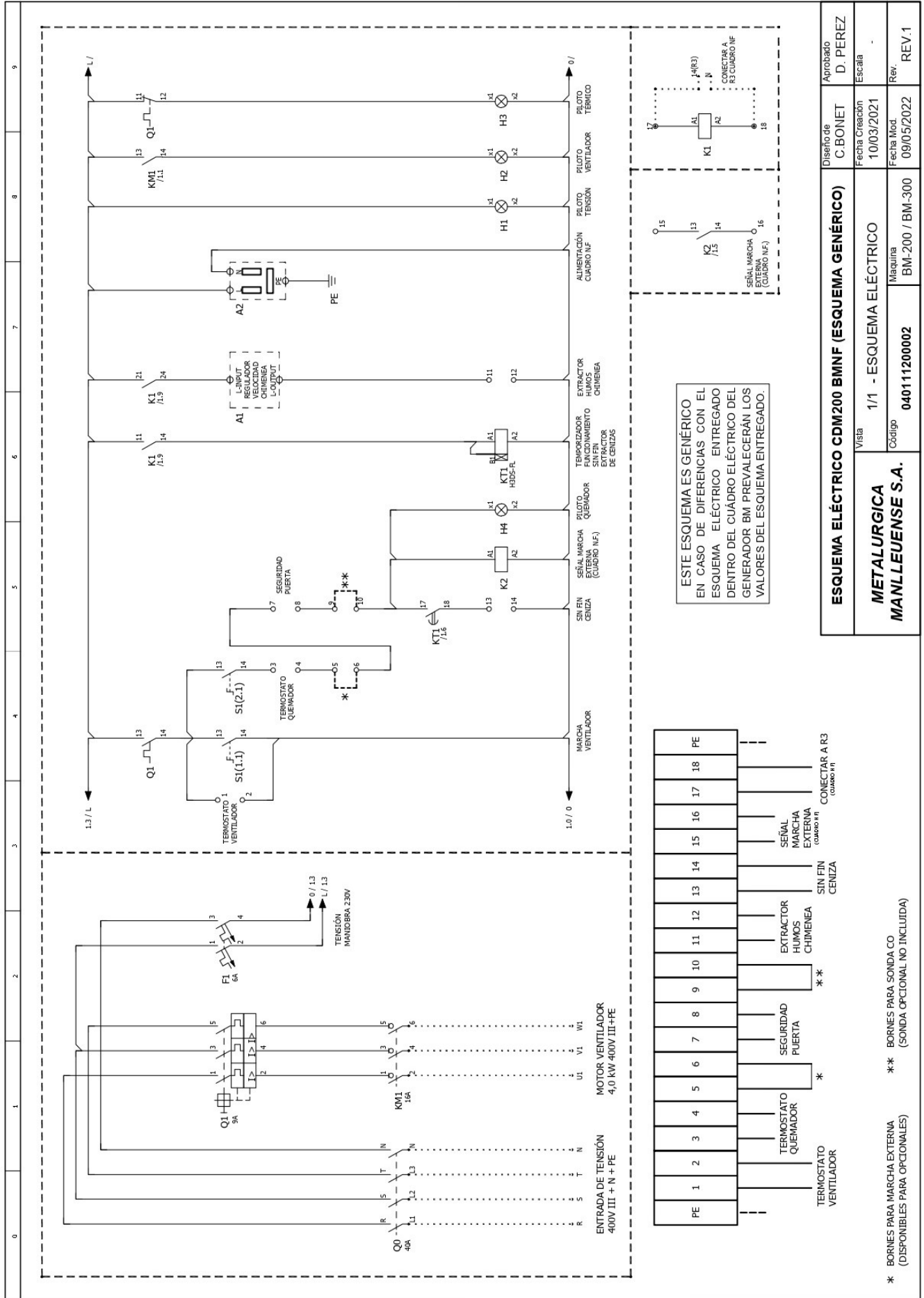
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BM-300 ELECTRICAL SCHEME



ESQUEMA ELÉCTRICO CDM200 BMNF (ESQUEMA GENÉRICO)	Diseño de C.BONET	Aprobado D. PEREZ
METALURGICA MANLLEUENSE S.A.	Vista 1/1 - ESQUEMA ELÉCTRICO	Fecha Creación 10/03/2021
04011200002	Código 04011200002	Fecha Mod. 09/05/2022
	Maquina BM-200 / BM-300	Rev. REV.1

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WARNING

The manufacturer is not responsible for any modification unrelated to the device's standard set.

The manufacturer is not responsible for any breakdown caused by an inappropriate usage of the device.

The manufacturer is not responsible for the operation and quality of the device if this implies non-observance of this **INSTALLATION, USE AND MAINTENANCE MANUAL**.

Consult the manufacturer about changes not foreseen in the instructions.





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