HEATmx MACHINES

Mexican technology with more than 40 years of experience, developed for the use of plastic waste after urban, agricultural and post industrial consumption; provides solid and resistant panels or boards to be applied in situations of bad weather, saline humidity, corrosion and high life needs, replacing materials such as wood, steel, aluminum, and others.

Versatile and easy to operate machine, capable of processing mixtures of different plastics even with impurities such as soil, labels, metals, glass, aluminum, wood etc; by means of a casting process without homogenization in an electric furnace and subsequent pressing with cooling. This feature allows the use of almost any thermoplastic; However, in order to obtain a product that is feasible to machine and resistant, it is recommended that 75% of the mixture be high-density polyethylene or polypropylene, materials that dominate worldwide use in packaging and packaging, approximately 70% between both.

The presentation of the raw material must be granular, so previous processes are required such as crushing in rigid waste and densification in films.

The use of: HDPE, LDPE, HMWPE, PP, ABS, EVA, PS and others is feasible. It should be mentioned that PET is not recommended because it crystallizes when heated causing it to be extremely fragile, however PET G is possible to take advantage of it.

The machines deliver panels with dimensions of 1250 mm x 2500 mm, with thicknesses from 8 mm to 60 mm. The board is worked with the same equipment used for wood and can be coated with paint and other types of materials.

ENVIRONMENT

The HEATmx process has proven to be the ideal one for a real use and transformation of the thousands of tons of plastic waste that are generated in all corners of the planet.

The simple fact of preventing plastics from reaching landfills, we would be reducing more than 50% of volume in them.

Plastic waste invades streets, fields, rivers and seas with negative consequences for humanity, fauna and flora.

The solution is not to avoid the use of plastic, but to transform it with sustainable recycling, making a universal product with a long life.

Another great ecological advantage that HEATmx technology offers is forest conservation, since by substituting irrationally used wood in packaging, its consumption is considerably reduced. It should be mentioned that the process does not use water constantly, only once to fill the cooling system, increasing its ecological benefit.

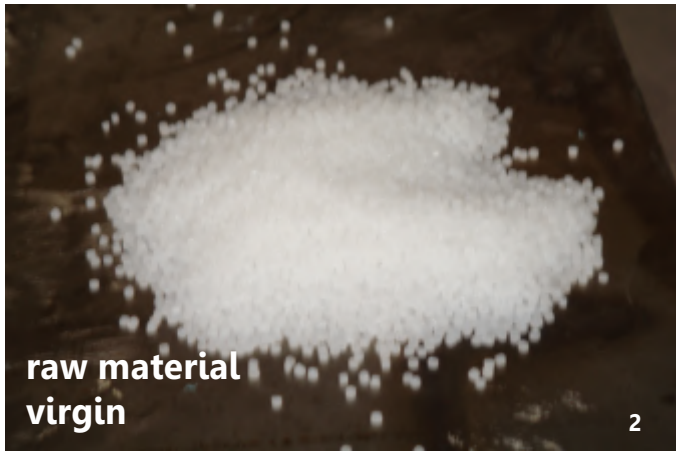
RAW MATERIAL

The nature of the process allows almost any thermoplastic to be used, however the best options for a tough, easy-to-machine board are high-density polyethylenes and polypropylenes.
It is totally feasible to use plastic waste from the landfill (photo) without separation by type, without washing or removing impurities such as waste and labels. This is due to the fact that 70% of this waste is olefins (PE and PP).
It is important to note that each inhabitant generates around 100 grams of plastic garbage a day.
The plastic raw material can be post industrial, post consumer and even virgin; with previous processes such as: grinding, agglutination and pelleting.


raw material ground


raw material agglutinated


raw material pelleted


raw material virgin

PLASTIC WASTE + HEATmx
PANEL UNIVERSAL

PROCESS

The HEATmx process consists of melting the plastic inside an open mold in an oven, and then pressing it and cooling it, obtaining a plastic board.
The production is based on the size of the mold and the dimensions of the oven. The mold is designed to obtain the dimensions of 1,250 mm x 2,500 mm, and consequently the oven adapts to those dimensions. Obtaining basically 60 kg / hr per oven.
Our technology allows us to have two casting systems, maintaining the essence of the process.

STATIC FOUNDRY

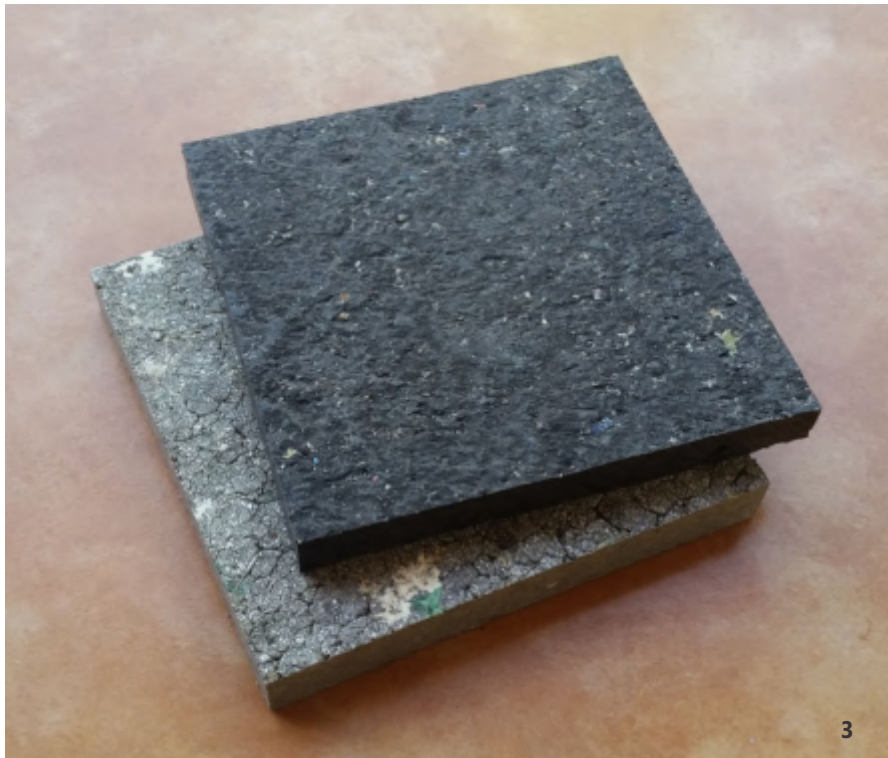
The plastic melts inside the oven without movement of the mold. The HEATmx60E machine has this system.

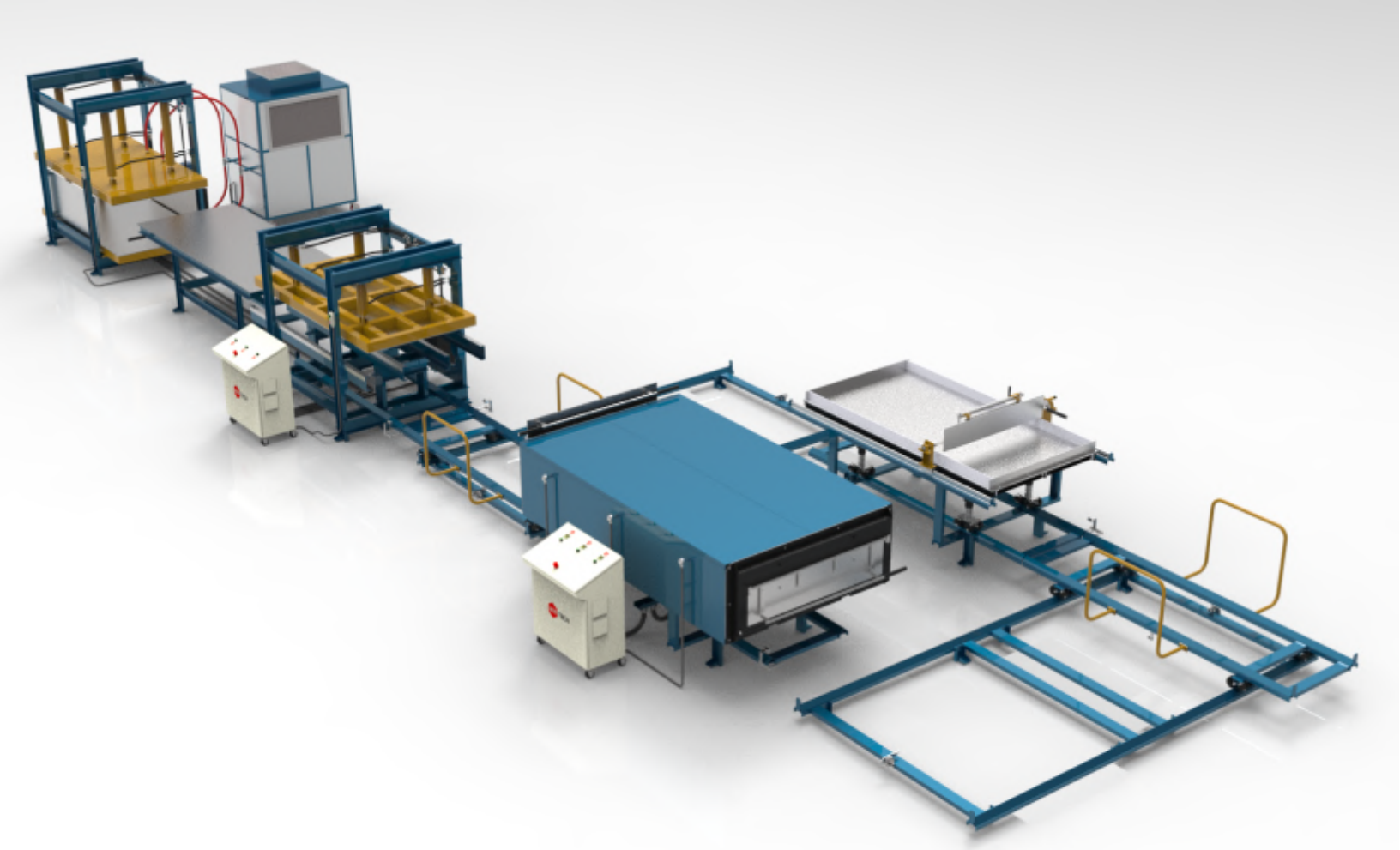
DYNAMIC FOUNDRY

The plastic melts with movement of the mold at low speed through an adjustable motorized traction system, through several furnaces that make up a heat tunnel. The HEATmx240D and HEATmx360D machines work with this system.

APPEARANCE

An important characteristic of this process is that the plastic does not form a homogeneous mass when melted, resulting in a board with the colors and shapes that the raw material presents.
Due to the manufacturing process, the board has one smooth side and the other slightly rough, depending on the hardness of the plastic. However, the thickness of the panels is uniform, with no air bubbles or caverns. In other words, the panels are solid, without porosity and highly resistant.





Data Sheet

HEATmx60 E

Machine to produce ECO5 PANEL with post-consumer and post-industrial plastic waste; with dimensions of 1250mm x 2500mm, thickness from 8mm to 60mm.

PRODUCTION

60kg / hr.

OVEN

An oven with electric resistance heating with electronic control, three heat zones and double ceramic fiber insulation. Maximum temperature of 350 ° C. A stainless steel swing door.

PRESS

A pressing station with 4-cylinder hydraulic system and dividing valve; with a maximum pressure of 60 tn. 3 hp pump. Stainless steel platen plate.

WAREHOUSE PRESS

A pressing station for storage of finished panels, with 4-cylinder hydraulic system and dividing valve; with a maximum pressure of 60 tn. 3 hp power source. Stainless steel sinker plate.

COOLING

Cooling incorporated to both presses by circulating cold water through the plates. It has a 5-ton cooling water cooler.

MOLD

It has 2 stainless steel molds, with spring suspension, 16 wheels inclined at 45 ° and removable covers.

SPATULA TABLE

Table with sliding stainless steel spatula, to remove the panel from the mold.

CHANGE OF TRACK

Manual system to move the mold between the main track and the return track. One pieces are included.

RAW MATERIAL LEVELER

Aluminum ruler for the uniform arrangement of the raw material inside the mold, with adjustable vertical movement by means of a spindle, and transversal movement through linear bearings.

ELECTRICAL CONSUMPTION

Nominal 54,2 kwh; Real 42,4 kwh; 220 v three phase

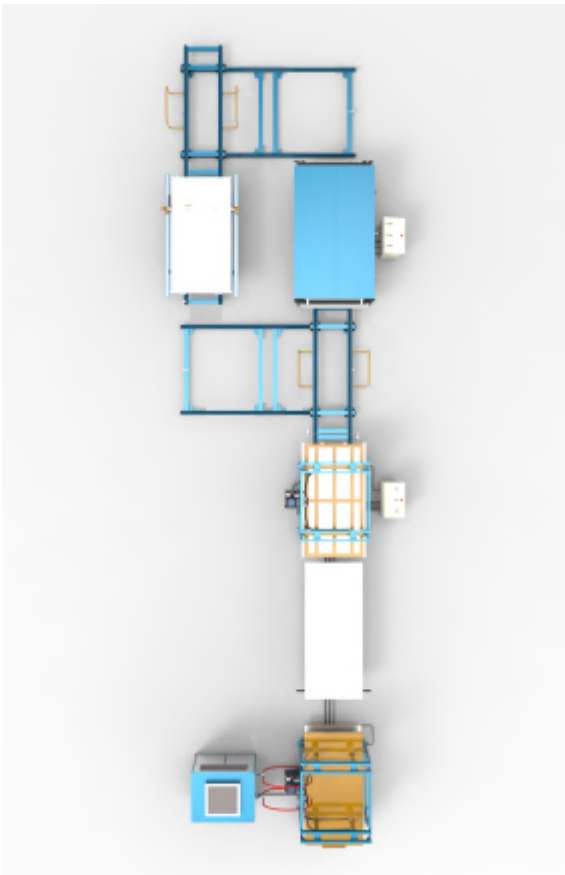
DIMENSIONS

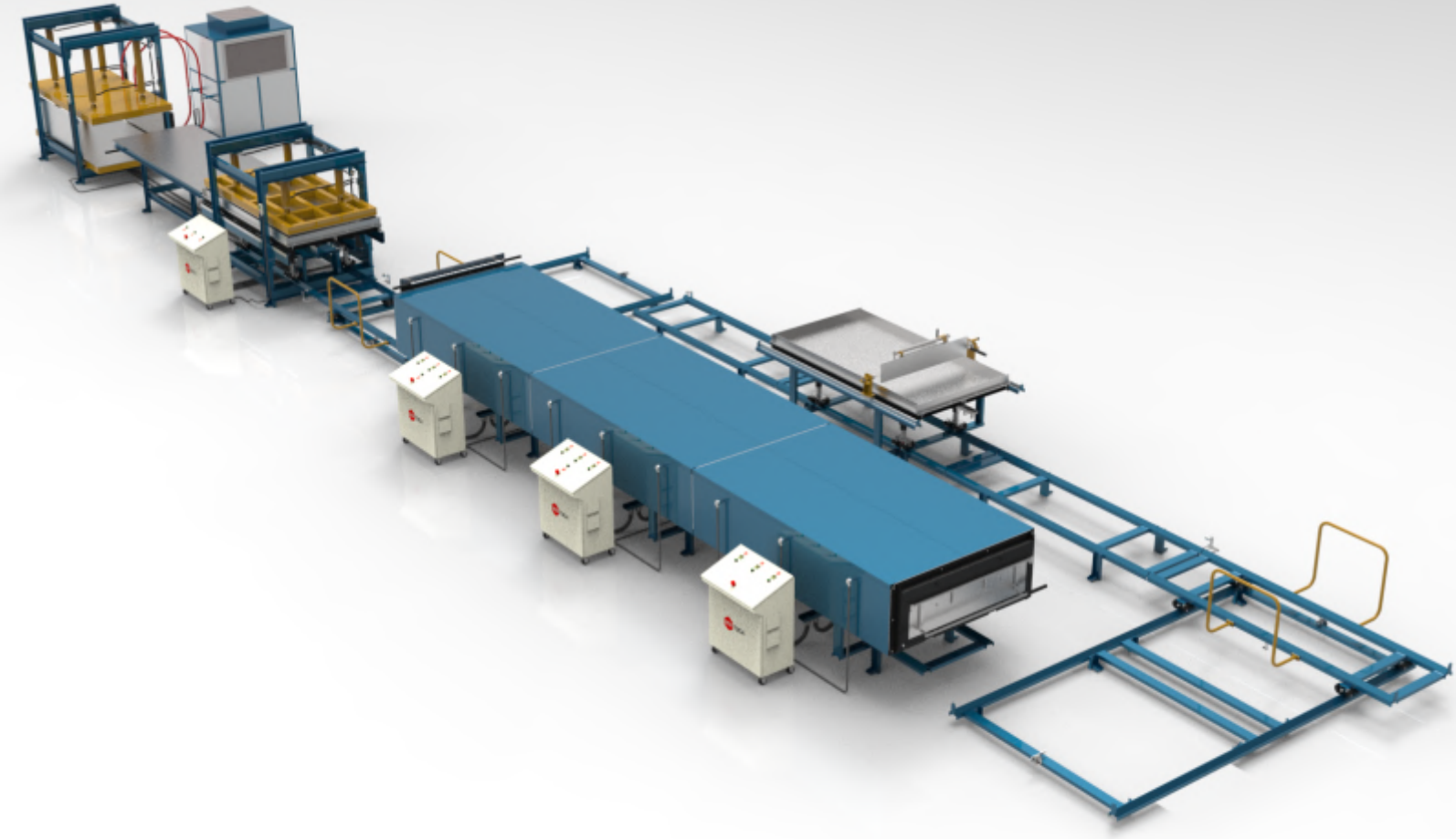
Height 2,29 m
Width 5,45 m
Length 18,35 m

WEIGHT

Approximately 7.330 kg.

24 panels of 19 mm thickness every 24 hr (1.440 kg)
600 19mm thick panels every 25 days (36.000 kg)





Data Sheet

HEATmx180 D

72 panels of 19 mm thickness every 24 hr (4.320 kg)
21.800 19mm thick panels every 25 days (108.000 kg)

Machine to produce ECO5 PANEL with post-consumer and post-industrial plastic waste; with dimensions of 1250mm x 2500mm, thickness from 8mm to 60mm.

PRODUCTION
180kg / hr.

OVEN
Three electronically controlled electric resistance heating ovens, three heat zones and double ceramic fiber insulation. Maximum temperature of 350 ° C. Stainless steel folding doors.
Two of the ovens with a motorized mold traction system.

PRESS
A pressing station with 4-cylinder hydraulic system and dividing valve; with a maximum pressure of 60 tn. 3 hp pump. Stainless steel platen plate.

WAREHOUSE PRESS
A pressing station for storage of finished panels, with 4-cylinder hydraulic system and dividing valve; with a maximum pressure of 60 tn. 3 hp power source. Stainless steel sinker plate.

COOLING
Cooling incorporated to both presses by circulating cold water through the plates. It has a 5-ton cooling water cooler.

MOLD
It has 5 stainless steel molds with traction rack, with spring suspension, 16 wheels inclined at 45 ° and removable covers.

SPATULA TABLE
Table with sliding stainless steel spatula, to remove the panel from the mold.

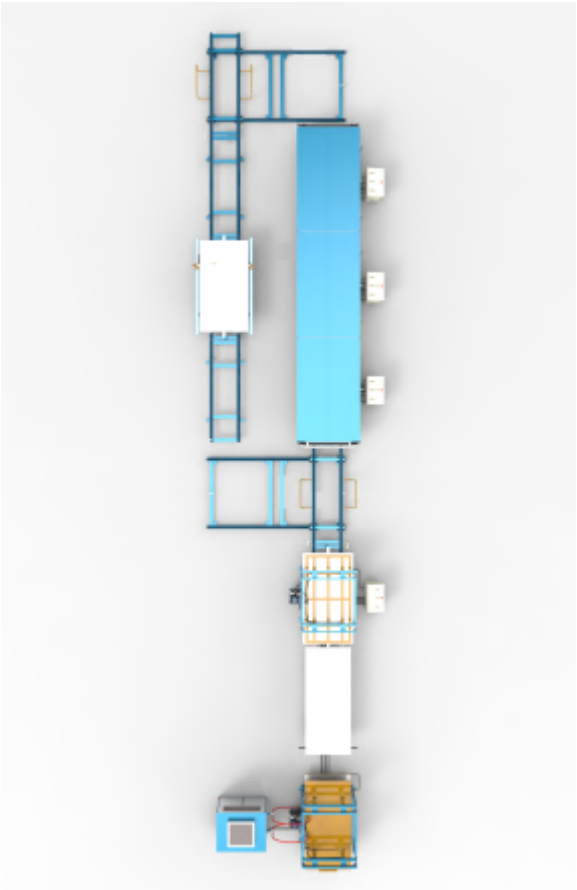
CHANGE OF TRACK
Manual system to move the mold between the main track and the return track. Two pieces are included.

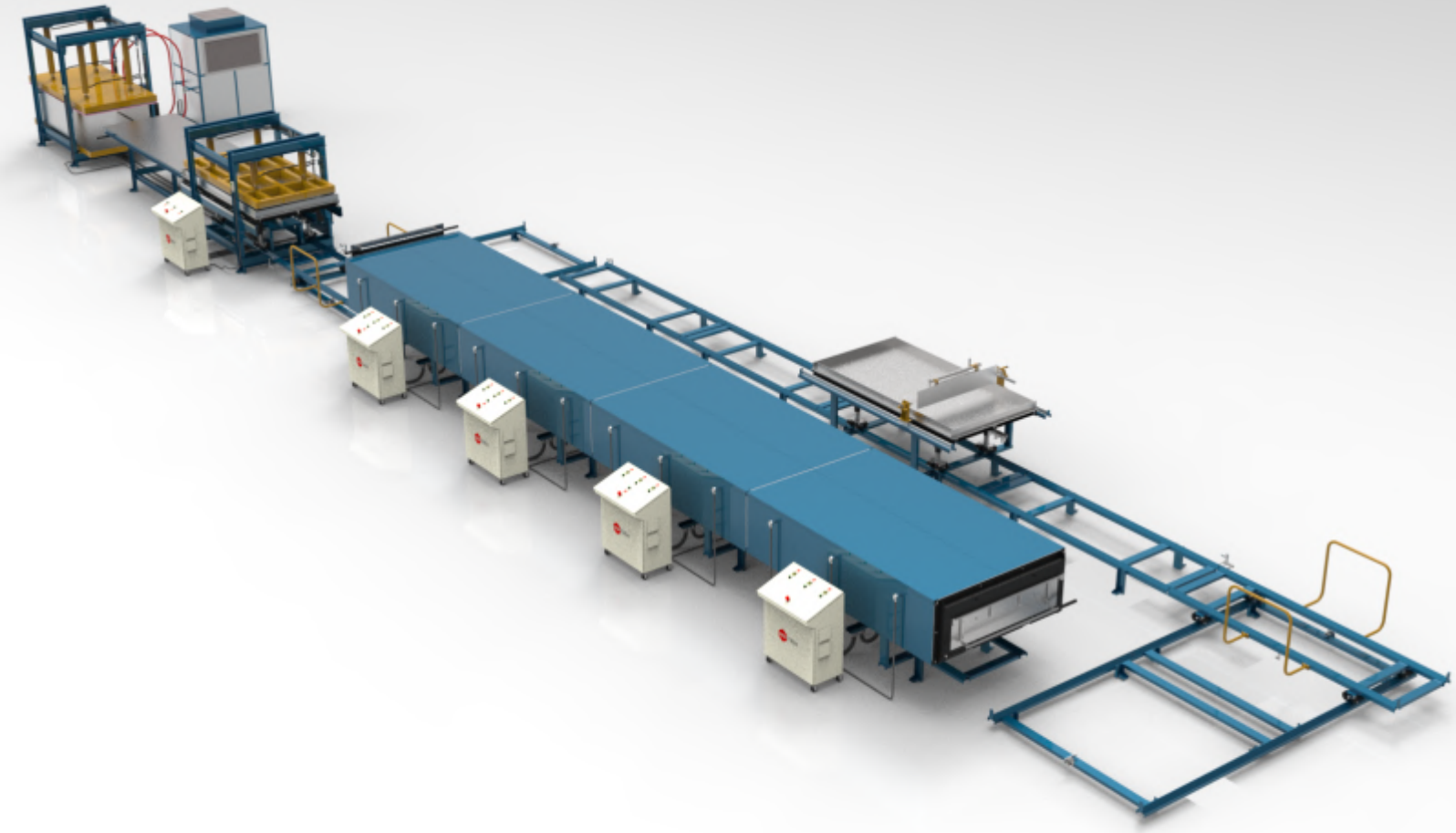
RAW MATERIAL LEVELER
Aluminum ruler for the uniform arrangement of the raw material inside the mold, with adjustable vertical movement by means of a spindle, and transversal movement through linear bearings.

ELECTRICAL CONSUMPTION
Nominal 140,4 kwh; Real 111,9 kwh; 220 v three phase

DIMENSIONS
Height 2,29 m
Width 5,45 m
Length 24,35 m

WEIGHT
Approximately 11.120 kg.





Data Sheet

HEATmx240 D

96 panels of 19 mm thickness every 24 hr (5.760 kg)
2.400 19mm thick panels every 25 days (144.000 kg)

Machine to produce ECO5 PANEL with post-consumer and post-industrial plastic waste; with dimensions of 1250mm x 2500mm, thickness from 8mm to 60mm.

PRODUCTION
240kg / hr.

OVEN
Four electronically controlled electric resistance heating ovens, three heat zones and double ceramic fiber insulation. Maximum temperature of 350 ° C. Stainless steel folding doors.
Three of the ovens with a motorized mold traction system.

PRESS
A pressing station with 4-cylinder hydraulic system and dividing valve; with a maximum pressure of 60 tn. 3 hp pump. Stainless steel platen plate.

WAREHOUSE PRESS
A pressing station for storage of finished panels, with 4-cylinder hydraulic system and dividing valve; with a maximum pressure of 60 tn. 3 hp power source. Stainless steel sinker plate.

COOLING
Cooling incorporated to both presses by circulating cold water through the plates. It has a 5-ton cooling water cooler.

MOLD
It has 6 stainless steel molds with traction rack, with spring suspension, 16 wheels inclined at 45 ° and removable covers.

SPATULA TABLE
Table with sliding stainless steel spatula, to remove the panel from the mold.

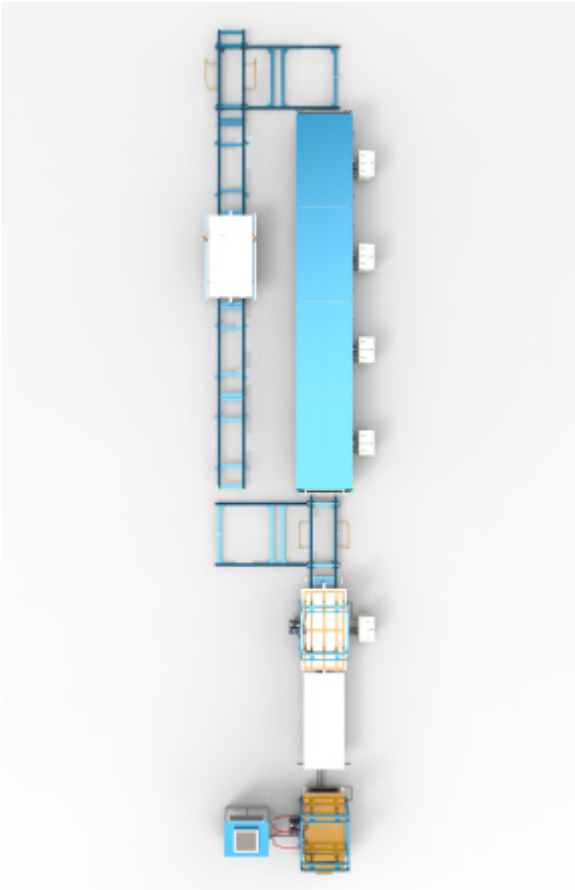
CHANGE OF TRACK
Manual system to move the mold between the main track and the return track. Two pieces are included.

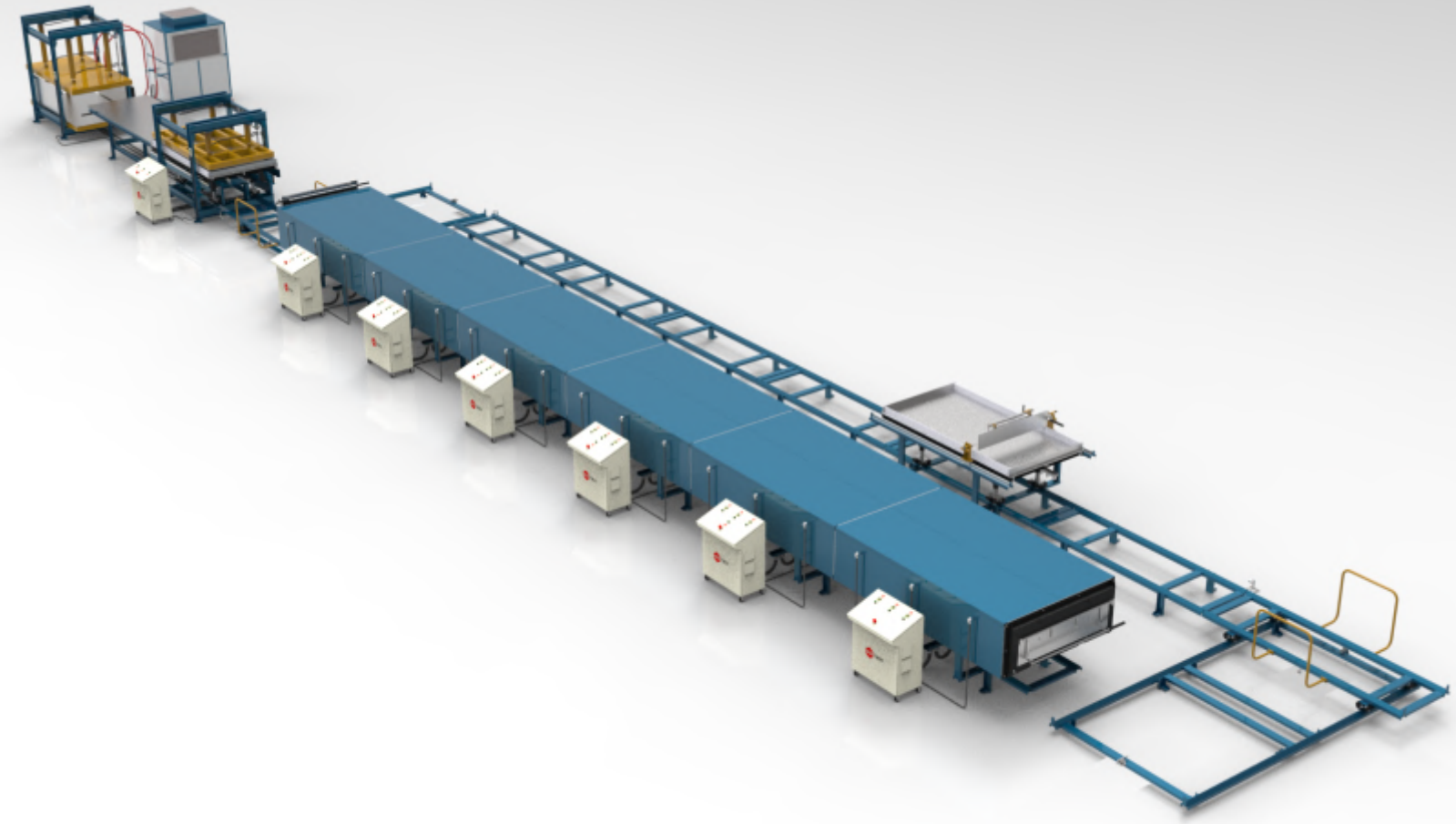
RAW MATERIAL LEVELER
Aluminum ruler for the uniform arrangement of the raw material inside the mold, with adjustable vertical movement by means of a spindle, and transversal movement through linear bearings.

ELECTRICAL CONSUMPTION
Nominal 183,5 kwh; Real 146,6 kwh; 220 v three phase

DIMENSIONS
Height 2,29 m
Width 5,45 m
Length 27,35 m

WEIGHT
Approximately 12.720 kg.





Data Sheet

HEATmx360 D

144 panels of 19 mm thickness every 24 hr (8.640 kg)
3.600 19mm thick panels every 25 days (216.000 kg)

Machine to produce ECO5 PANEL with post-consumer and post-industrial plastic waste; with dimensions of 1250mm x 2500mm, thickness from 8mm to 60mm.

PRODUCTION
360kg / hr.

OVEN
Six electronically controlled electric resistance heating ovens, three heat zones and double ceramic fiber insulation. Maximum temperature of 350 ° C. Stainless steel folding doors. Three of the ovens with a motorized mold traction system.

PRESS
A pressing station with 4-cylinder hydraulic system and dividing valve; with a maximum pressure of 60 tn. 3 hp pump. Stainless steel platen plate.

WAREHOUSE PRESS
A pressing station for storage of finished panels, with 4-cylinder hydraulic system and dividing valve; with a maximum pressure of 60 tn. 3 hp power source. Stainless steel sinker plate.

COOLING
Cooling incorporated to both presses by circulating cold water through the plates. It has a 5-ton cooling water cooler.

MOLD
It has 8 stainless steel molds with a traction rack, with spring suspension, 16 wheels inclined at 45 ° and removable covers.

SPATULA TABLE
Table with sliding stainless steel spatula, to remove the panel from the mold.

CHANGE OF TRACK
Manual system to move the mold between the main track and the return track. Two pieces are included.

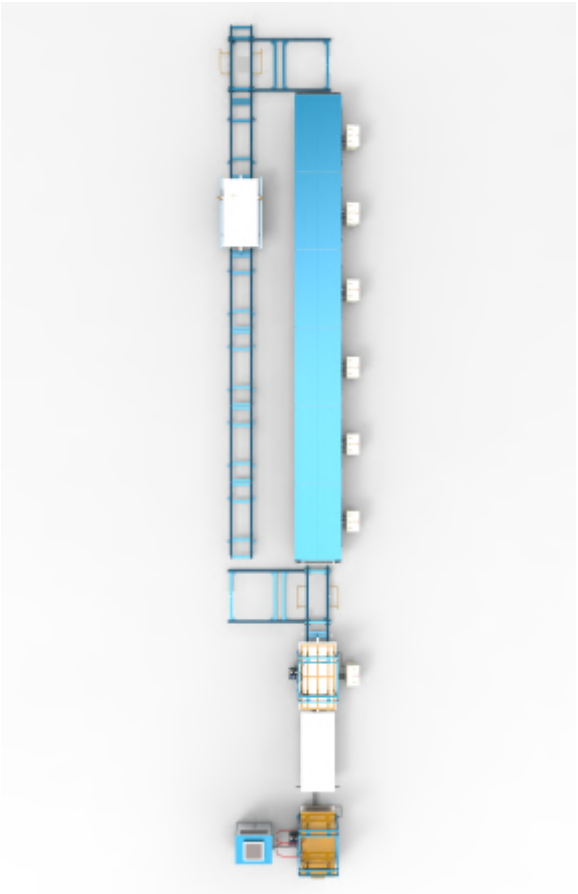
RAW MATERIAL LEVELER
Aluminum ruler for the uniform arrangement of the raw material inside the mold, with adjustable vertical movement by means of a spindle, and transversal movement through linear bearings.

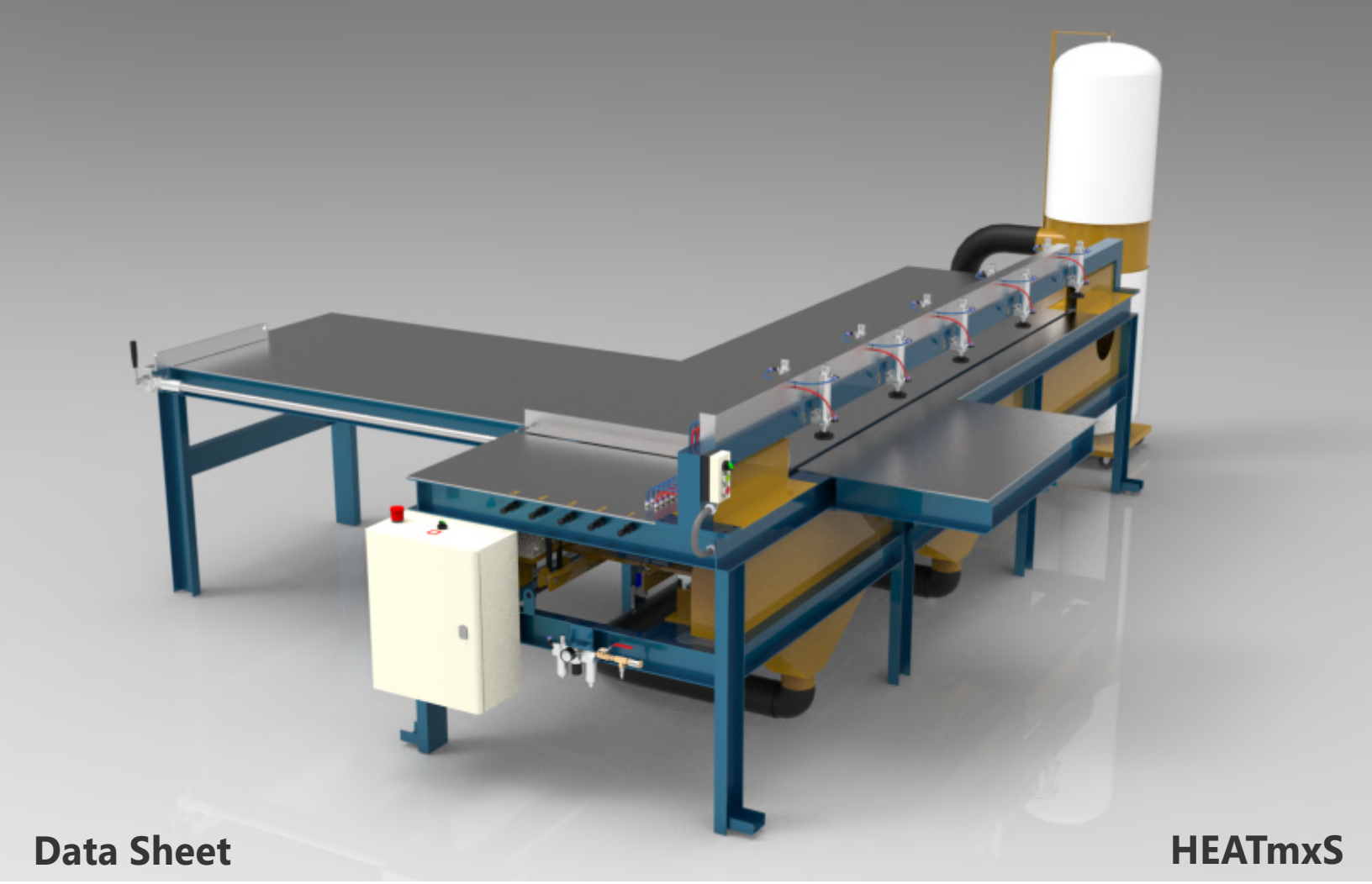
ELECTRICAL CONSUMPTION
Nominal 269,8 kwh; Real 216,0 kwh; 220 v three phase

DIMENSIONS

Height	2,29 m
Width	5,45 m
Length	33,35 m

WEIGHT
Approximately 15.920 kg.





Data Sheet

HEATmxS

Table circular saw, special for cutting ECO5 PANEL, supports and cuts 1250 mmx 2500 mm panels, up to 60 mm thick

CUTTING POWER
The blade disc is connected to a 5 hp high speed motor.

CUT
Controlled by a 1/2 hp variable speed gearmotor with chain drive and 1 1/2 "linear bearings
SIDE TABLE
It has two auxiliary tables, one with dimension adjustment; both with stainless steel surface.

SQUAD
Adjustable with aluminum angle.

DIMENSION ADJUSTMENT
Made of stainless steel, with movement by means of a 1 "linear bearing. It has a metric scale.

PANEL FASTENING
The loaves are fixed to the main table, either longitudinally or transversely, by means of 10 pneumatic cylinders regulated in pairs. Allowing to hold any measure.

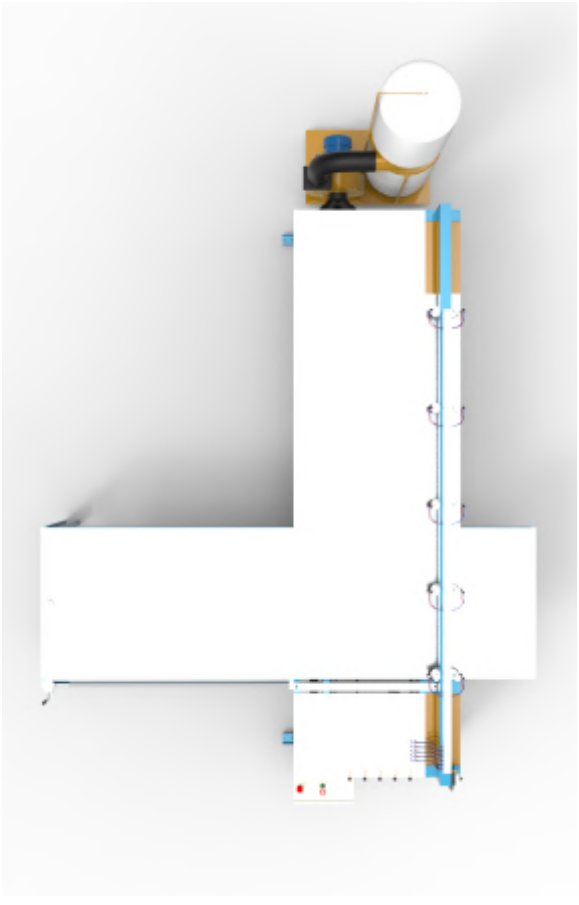
DUST AND CHIP COLLECTOR
It has an integrated dust and chip collection system with a 3 hp motor

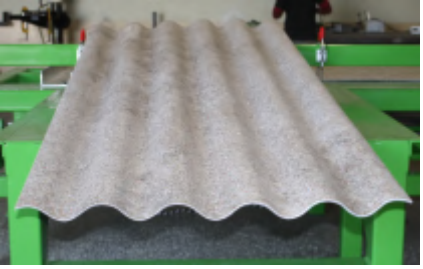
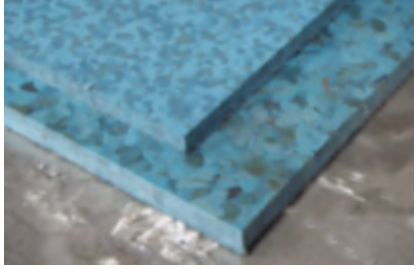
AIR COMPRESSOR
Includes 3 hp air compressor for the panel fastening system and machine cleaning

ELECTRICAL CONSUMPTION
Nominal 9.2 kwh; 220 v three phase

DIMENSIONS
Height 1.23 m
Width 3.30 m
Length 4.70 m

WEIGHT
Approximately 1,200 kg.














ECO5 PANEL Fabricated Products

SALES
It is sent anywhere on the planet
WARRANTY
The machines have a two-year warranty, except for electrical and electronic components (6 months).
TERMS
70% is required at the time of ordering + 30% before boarding.
The delivery time is 8 to 12 weeks, depending on the equipment and quantity.
The machine is placed in our plant in the city of Guadalajara, Mexico.
Does not include expenses for maneuvers, crane and civil and electrical installation at the destination.
The expenses of the technical personnel for installation and training are paid by the customer.
5 business days for installation and training are estimated; the client must have its infrastructure installed and functional, in addition to sufficient raw material.
IMPORTANT
We reserve the right to modify the engineering, design and prices of the equipment, without prior notice.

HEATmx

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