

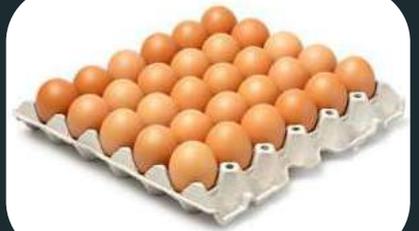
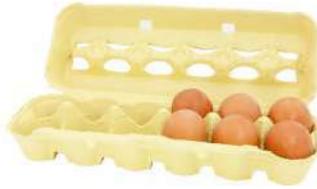


AMC MACHINERY



EGG TRAY PRODUCTION LINE

Model ZMZ-20-48



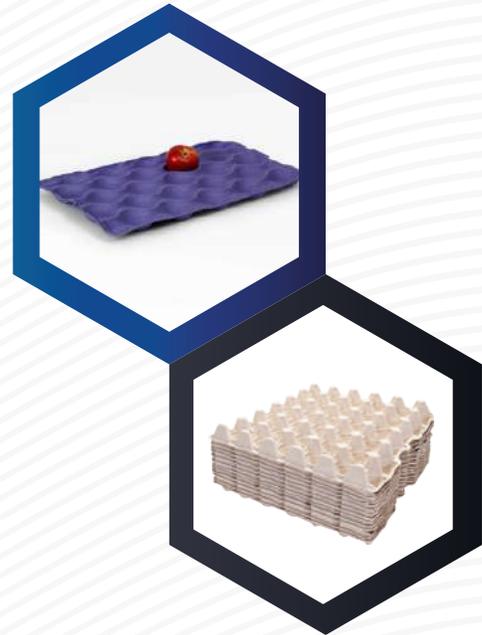


Molded pulp products (MPPs) are an eco-friendly packaging that has gained commercial importance in recent years.

MPPs, also referred to as molded pulp or molded fiber products are made of recycled paperboard, currently, molded pulp is being used as a green statement by some industries and the applications are broader in many fields, Industrial Packaging and Egg and Fruit trays.

Molded pulp is also used as a cushioning material for the protection of a product during transportation, this material can replace wood and plastics.

For many applications, molded pulp is less expensive and 100% eco-friendly in compare to expanded polystyrene (EPS), vacuumed formed PET and PVC, and foams.



Moulded pulp is generally considered a sustainable packaging material, it is produced from recycled materials and can be recycled again after its life cycle.

Moulded pulp products can be made waterproof with the addition of a chemical agent. In general, moulded pulp production involves depositing an aqueous suspension of fibres into a screened mould.



Pulp Moldings are made from 100% recycled materials and are 100% recyclable.



SPECIFICATIONS

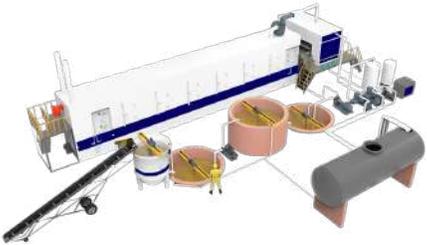
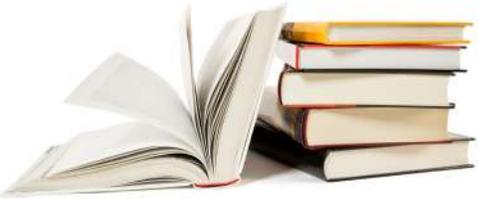
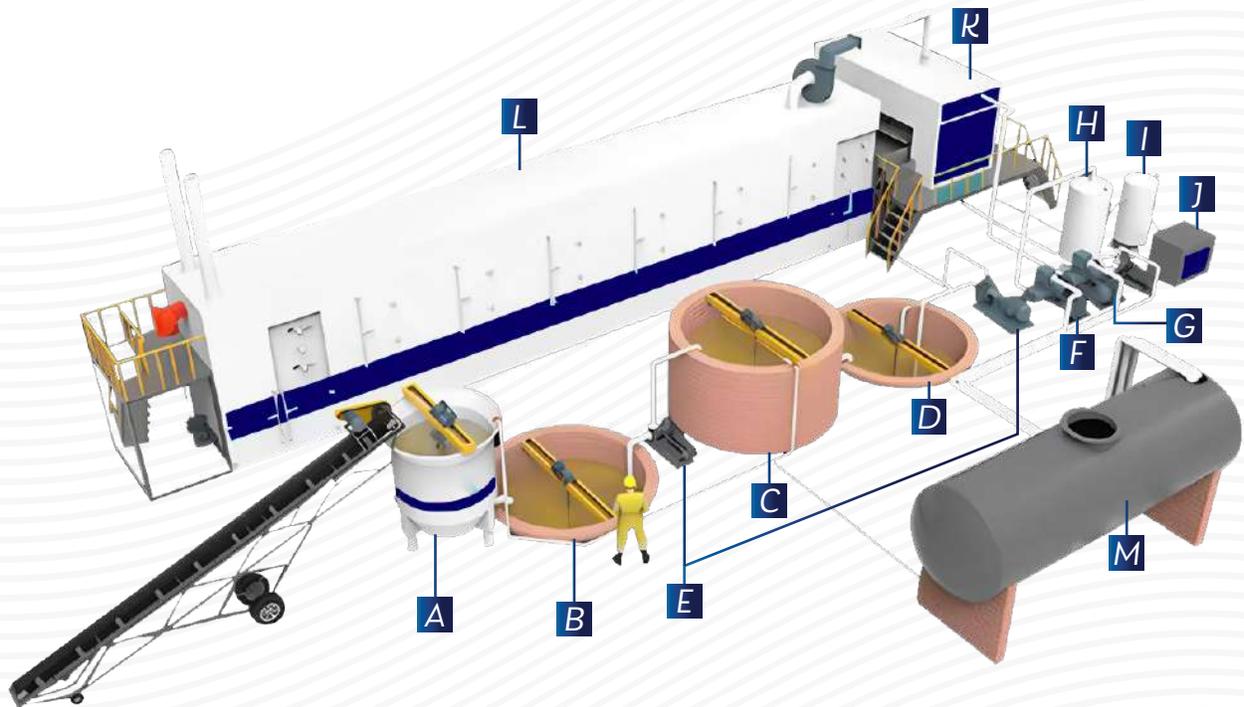
Egg Tray Production Line Model ZMZ-20-48			
Electrical Requirerments <i>*Can be customised</i>		Product	Egg Tray Production Line
		Brand	AMC
Voltage	380 - 440 V	Model	ZMZ-20-48
Phase	3PH + PE	Origin	China
Frequency	50 Hz	Application	Egg Tray Production
Dimensions			
		Length	50000 mm
		Width	20000 mm
		Height	6000 mm
		Weight	50000Kg
Technical Specifications			
Power		319 KW	
Pulp Concentration for Moulding Machine		0.8% - 1%	
Pressure of Compressed Air		0.5 - 0.7MPa	
Vacuum Negative Pressure		Minus 0.035 - minus 0.045Mpa	
Output		6,000 PCS/Hour	
Water Consumption		1000 KG/H	
Electricity Consumption		180 KW/H	
Natural gas consumption		150 M3/H	
Raw material		800 KG/H	
Operators		6 Persons	



Image	Raw Material Name	Quantity
	Waste newspaper	100% Waste newspaper
	Old corrugated carton	≥50% Waste newspaper + Old corrugated carton 100% Old corrugated carton
	Old magazines paper	≥50% Waste newspaper + Old corrugated carton + Old magazines paper
	Old book paper	100% Paper overcut y Old book paper
	Paper overcut	



SYSTEMS



Code	Description
A	Hydrapulper
B	Pulp Storage Pool
C	Pulp Mixing Pool
D	Pulp Supplying Pool
E	Pulp Supplying Pump
F	Vaccum Pump 1
G	Vaccum Pump 2
H	Negative Pressure Tank (For Vaccum)
I	Compressed Air Storage Tank
J	Air Compressor
K	Egg Tray Forming Unit
L	Egg Tray Drying Unit
M	Clean Water Storage Tank (Customer Prepare)



Pulp System

Its main function is to process recycled materials to obtain the pulp that will be used for forming the egg trays.

The recycled materials feed into the hydrapulper via a conveyor, mixing the paper fibers and creating a swirling effect. After going through a refining and filtering process, the pulp reaches the ideal consistency and is then pumped to the dosing tank. Here, the amount of pulp is automatically adjusted and subsequently pumped to the supply tank, ready for use in the forming system.

The machine mixes the paper fibers into pulp, creating a swirling effect within a chamber filled with water and used paper.

The special material used in the cutter (impeller) ensures an aggressive cutting action with reduced power input and time. The cutter operates with an electric motor.



Name	Description	Quantity
Operation Platform	It is a platform for the operation of the Hidrapulper.	1 Set
Hydrapulper	Circular tank containing water in which the fibres of the recycled material are broken into pulp.	1 Unit
Deflaker	Device used to defibrate and break the fibres of the recycled material	1 Unit
Agitator	Mixes the pulp to avoid sediment formation.	2 Sets
Pump 1 & 4	Power: 7.5KW	2 Units
Pump 2 & 3	Power: 4.0 KW	2 Units
Water Pump 1	Power: 7.5 KW	1 Unit
Optional Modules		
Feed Conveyor	Conveys recycled material to the Hydrapulper	1 Set
Vibrating Filter	Filter that removes impurities by vibration	1 Unit
Consistency Controller	Controller that automatically adjusts pulp consistency	1 Unit
Accessories for Automatic Control Systems	Automatic control system	1 Set
Control Cabinet	Electrical cabinet that controls the system through a touch screen, from the supply of recycled material to pumping for the next process.	1 Set



Forming System

The moulding system serves to transform the wet pulp into finished products through a moulding and drying process. This process ensures that the egg trays have the right shape, rigidity and strength to protect the eggs during transport and storage.

It works when the paper pulp is transported to the forming mould. In addition, with the help of the vacuum pump, the pulp is pressed and adsorbed to the forming mould closely.

Meanwhile, most of the pulp water is pumped to the wastewater pool for recycling. Finally, the pulp is moulded according to the moulding dies.

The advanced control design features independent control circuits for all operating units and the conveniently located remote control operation ensures that the operator works comfortably and has close supervision of the process. Most of the sensitive operations are logically controlled and fail-safe.

The forming machine has a 4-sided rotary structure, the product is wetted by suction forming, and then automatically transferred to the drying system to be dried.



*Forming Unit for 4000 pcs/hour

Name	Description	Quantity
Forming Machine	To form wet products and preheat	1 Unit
Vacuum Pump	To offer vacuum to the forming machine, to finish the suction forming and product transfer	2 Units
Cleanlily Water Pump	Is used to pump the water in the vacuum tank to the pool and to the automatic cleaning pipe devices above the host to achieve the purpose of water recycling.	1 Unit
Auto Drain System	Consist of Air Container, Air Receptacle and Water Receptacle To separate the air and water, then send the white water to the white water tank for circulation.	1 Unit
Air Compressor	Equipment that presses air into a smaller space so that it can be used under high pressur	1 Set
Autospray	It is a device to automatically clean the molding mold.	1 Unit
Automatic Cleaning Machine	A high pressure water system to wash forming mold and clear out the rough edges of the products	1 Unit
Water Purification System	To filter white water for the use by high pressure water system	1 Unit
Operation Platform	For operation over forming machine and incoming section of the drying system	1 Unit
Underground Pulp Supply Tank	To collect and temporarily keep in stock the overflow pulp from forming machine (Customer has to build this tank, it is not included)	1 Piece

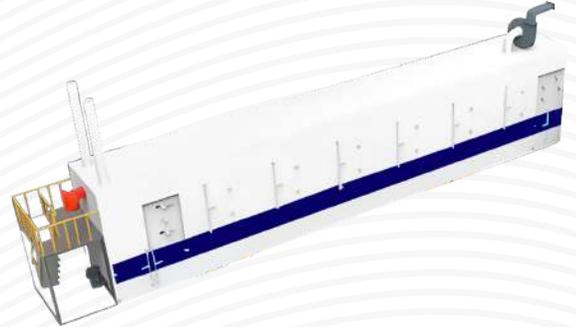


Drying System

The drying system removes moisture from the freshly moulded egg trays and expels it through the tunnel type conveyor, with separate metal trays with a heat resistant coating and supports driven by an automatic indexable conveyor chain. This process is essential to ensure that the trays have the necessary durability to protect the eggs during transport and storage. This process also improves storage and transport efficiency, as the dried trays are more manageable.

The entire drying chamber is made of a sturdy structure and the walls are insulated to minimize radiation losses.

Both sides can be easily opened for general maintenance and inspection. The inner walls and ducts are protected with heat resistant materials for a long service life.



Name	Description	Quantity
Frame	Made of Steel	24 meters
Blower	Power: 90 KW	1 Unit
Blower	Power: 5.5 KW	1 Unit
Burner	It is responsible for generating combustion to spread the heat	1 Unit
Chain	Drag motion chain for drying system	350 meters
Front Drive	Front gear	1 Unit
Back Drive	Back gear	1 Unit
Conveyor System	Conveyor plate chain for egg trays	390 Units



Electric Control System

The electrical control system manages and coordinates all automatic operations of the pulp egg tray production line. This includes machine management and process monitoring to ensure efficient operation.

This system serves to automate and optimise the production process, ensuring that all stages (from pulp preparation to the final drying of the trays) are carried out in a synchronised and efficient manner. It also allows operators to control and monitor the entire process, facilitating preventive maintenance and troubleshooting.

It features PLC and touch screen to automatically control the forming system, drying system, vacuum system and automatic drainage system.



Name	Description	Quantity
Pulp System Control Cabinet	Controls the automation in the pulping system	1 Unit
Forming System Control Cabinet	Controls the automation in the forming system	1 Unit
Drying System Control Cabinet	Controls the automation in the drying system	1 Unit



OPTIONAL MACHINES

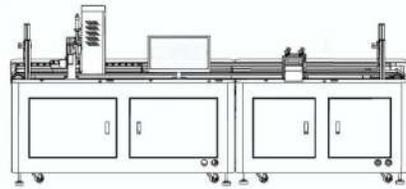
Labeling Machine

To add labels to egg tray



Digital Printing Machine

To print labels for egg tray



Hot-Press Machine

To give a smooth finish to egg trays



Sleeving Machine

To inserts a tray egg into pre-glued sleeves



BOX



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