



# MILLGRAIN MACHINERY INDUSTRIES

## Diary Pouching Products





## MILK PROCESSING MACHINERY



Milk Processing Plant & Machinery Shiva Engineers supplies integral processing and packaging solutions for the dairy industry, from milk reception and transformation processes to filling and packaging solutions.

Millgrain covers the entire process and manages each stage, including product design, process definition, line layout, machinery selection, installation, and commissioning and production accompaniment during the start-up period.

Millgrain has the know-how and technical expertise for the design, integration and manufacture of production plants to transform fresh milk into a wide variety of dairy products:

- Pasteurized, sterilized and UHT milk, with different fat content
- Cream: raw, pasteurized and prepared creams
- Butter
- Cultured milk products: yogurt, kefir, others
- Others such as casein, whey

We are manufacturer of milk cooling tanks and milk processing machines, all necessities for a full technology cycle. Millgrain involved in design and manufacturing of milk cooling tanks and milk processing machines, all necessities for a full technology cycle including reception and cooling of milk, pasteurization, separation, fermentation, packing of ready products. Our Processing technologies include:

- Fresh milk reception units & Tank farm equipment
- Aseptic technologies, UHT plants, Pasteurization and sterilization technologies
- Product recovery systems
- Product deaeration technology
- Separators
- Homogenization units
- Mixing, weighing, dosification and control technology
- Powder dissolution units
- Tanks and storage tanks
- Evaporators (falling film, forced recirculation, other.)
- Filtration systems
- Filling and packaging lines
- CIP & SIP systems

# Milk Homogenizer

**Model NO.: MG- 1001**

## Description



- Having good blending speed.
- Ensure corrosion resistance and wear resistance.
- Saves costs on energy.
- Easy to operate and handle.
- Light-weight, can be moved easily.

Homogenizer is a special equipment of the liquid material thinning and high pressure transportation.

This equipment is widely used in the production, scientific research and technical development of a lot of areas, such as: food, beverage, dairy, drink, pharmacy, chemical industry, biological technology and so on.

It is used as high pressure homogenizer. It can cause the material thinning and mixture under the three actions of extruding, strong impacting and decompression inflating. It is an important equipment of food, dairy food, drink processing and so on.

For the production of ice cream and other products, can improve the fineness of feed solution and porosity, making it the intrinsic quality has improved significantly.

Used for juice, sauce and other production fluids, can serve to prevent or reduce the liquid in the layer, the role of improving the appearance of solid to liquid to make it more vivid color, smell degrees thicker, more alcohol taste.

Compared with other homogenizing devices, it has the following features: High efficiency, energy can be utilized completely Flow rate is large, pressure can be adjusted. Stainless steel pump can bear corrosion, suitable for all kinds of material. Good tinning effect, kernels in liquid can be tinned to less than 1 micron.

# Millgrain pasteurizer

**Model NO.: MG- 1002**



## Description

The pasteurizer consists of plate heat exchanger, balance tank, pump, hot water circulation system (including: mixer of steam and water or steam-water plate heat exchanger, hot water pump, steam adjusting valve and water level control, etc) Temperature control, this is used in heating and cooling raw material.

The pasteurizer is usually used in the processes of milk, ice-cream, milk powder, fruit juice, beverage, etc which is sensitive to heat.

The material is pumped to the plate heat exchanger, then been preheating, holding, heat energy recover, cooling and all this can keep the products original physical nature and taste.

If the temperature is below the set temperature, it can be sensed by the temperature transmitter. A signal activates flow diversion valve and the material flows back to the balance tank, then the material is pasteurized again.

# Millgrain Milk Cooling Tank

Model NO.: MG- 1003



## Specification

**Circular vertical tanks: - 300 ltrs, 500 ltrs, 1000 ltrs. Horizontal**

**semi Cylindrical Tank: - 1000 ltrs, 2500 ltrs, 3000 ltrs Horizontal**

**Cylindrical Tank: - 3000 ltrs, 4000 ltrs, 5000 ltrs -- 10000 ltrs.**

## Description

We offer a range of Bulk Milk Coolers

Milk cooling tank is mainly used in preserving and storing fresh raw milk.

The cooled raw milk can reach rapidly needed temperature of 4-5°C and keeps constant, which can prevent the generation of bacteria and make raw milk as a grade cream.

This is an excellent bulk milk cooler, which helps in improving milk quality by cooling it at collection centre itself before it gets transported to the dairies. With MBC, the milk can be chilled to 4 degree centigrade, in very short duration.

# Millgrain Storage Tank

Model NO.: MG- 1004

## Specification

Application	Water, Food, fruit processing & Pharma industries
Condition	New
Configuration	Vertical, Horizontal
Design	As per customer requirement
Material	Metal, Stainless Steel
Storage Capacity	500L, 750L, 1000L, 1500L, 2000L
Warranty	12 months against manufacturing defect



## Description

Dairy plants require storage system for the receiving, processing and keeping the milk or finish product before packing or further processing. Milk storage tanks and silos are one of the key equipment in the dairy industry. We Manufactured from SS AISI 304 or 316, these tanks are available in horizontal or vertical design suitable for indoor or outdoor installation. Storage tanks are designed and manufactured in flat or conical bottom and mounted on legs or structure. Effective insulation makes storage tanks suitable for keeping milk, cream and other dairy products fresh for a long time.

The tanks are available in double walled or tripled walled insulated and jacketed design. Jackets are plain, dimple, corrugated or limpet coil. The tanks are free standing and designed for indoor and outdoor installation.

# Automatic Milk Packing Machine

Model NO.: MG- 1005



## Specification

Filling Principle: Pressure

Structure: Rotary

Packaging: Bag

Packaging Material: Film

Filling Range: 100-500ml

Voltage: AC220V/50Hz Ac380

Packaging Container Lifting Structure: Chute Lifting

Paper-Offering Motor: 250W/220V

Packing Film Size: 320mm/240mm

Size of Bag(Mm)L: 30-145mm(L)

Size of Bag(Mm)W: 110-150mm(W)

Main Motor Power: 370W/380V/220V

Dimension: 890\*850\*2000mm

Weight: 320kg

Transport Package: Carton

Specification: SGS

# Fully Automatic High Speed Double Head

Mechanical Operated With PLC Contriles



**Double / Single Head  
High Speed & Normal Speed**

**Model NO.: MG- 1006**

## Specification

Product to pack	Milk/Butter Milk/ Lassic
Type of Machine	Fully automatic twin head mechanically controls through PLC,FFS
Model	MG-1101 (High Speed)
Feeding systems	Gravity Flow
Packaging range	200/500/1000 ml only.
Accuracy in volume	+/- 0.5% of the Quantity Packed.
Accuracy in length	+/- 1mm for all width
Speed of the Machine	70-80/minute/head up to 500ml only.
Packing Material	LLDP/LLDPE 3 color printed
Film thickness	40 to 50 microns of good quality5/7/9 multi layer
Film Width 322 +/-1mm	
Film roll weight	15 to 22 kgs
Type of seal	Vertical overlap/ Horizontal round import
Material of construction	S.S/ M.S / Aluminum
Injection system	As per industrial standard
Horizontal seal	Impulse system
Vertical seal	Impulse System
Electric control panel	As per indudtrial standard
Movement / operation	Servo motor and servo drive system
Motor / Gear box	Standard Make
Electric supply	3 Phase with regulated voltage and neutral
Cooling Water requirement	200 Lts / Hour @ 5 degree centigrade
Air pressure requirement	i) For pneumatic injection 6Mtr3/Hour at 6kg/cm2 ii) Magnetic Injection systems also provide as per the customers demand (i.e) no air required
Machine Power Consumption	4.5 K.W / Hour



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