



PRODUCT CATALOGUE





## Open & closed type milk cooling tanks



### SETTING THE STANDARDS FOR MILK PRESERVATION

MILKPLAN's milk cooling tanks provide reliability and efficiency in cooling and milk quality. The top quality manufacture of the stainless steel milk cooling tank in accordance with the international standards ( ISO 5708/EN 13732, EN 60335-2-24, EN 60529/91 LVD73/23, CE) and the lowest possible production cost which the cutting edge technology that we use offer to us, gives the possibility to us to satisfy effectively the needs of modern farmers .

### STRICT QUALITY CONTROL

MILKPLAN guarantees the quality of its constructions in compliance with the strict quality standards and methods. Production quality control for:

1. Raw materials with material AISI 304 (DIN 1.4301) as defined by the standards 10088-2:95
2. Electronic control of the final cutting dimensions by laser machines with acceptance limits  $\pm 0,15$  mm.
3. Milk cooling tank evaporator plate control for leakage in four different stages. Crash test : 60 Bar.
4. Welding of direct expansion evaporator plates by Laser technology.
5. Polishing of welding with roughness  $Ra \geq 1$  mm as defined by the standard EN ISO 4287: 1998.
6. Electronic control of vacuum level, refrigerant leakage, injection of refrigerant quantity, fully controlled by Pirani sensors, temperature sensors and injectors type V2B0.9.
7. Traceability of all manufactured products and record keeping of traceability for 10 years.
8. Final quality control of all products (100%) for their functionality and safety

### HIGH QUALITY SPECIFICATIONS

The inclined bottom of the tank vessel, the elevated position of the agitation motor and the removable stainless steel butterfly type valve facilitate the effective cleaning of the system which contributes to the high degree of milk hygiene.

The adjustable legs of the milk cooling tanks support facilitate the ultimate leveling of the system on uneven floors which is essential both for good and problem-free operation of the condensing unit and for the precise measurement of milk volume that tank contains.

The electronic thermometer with precision thermostat that is placed inside a stainless steel protective cover has a special program of agitation and adjustment of the desired milk temperature.

The excellent insulation of the tank vessel is ensured by controlled injection of high density, environmentally-friendly, CFC-free polyurethane foam, so just a few minutes of the condensing unit operation are enough to maintain the milk chilled.

All these characteristics and features make the milk cooling tanks of MILKPLAN effective, reliable and very easy to use.

**EXPORTS TO 45 COUNTRIES,  
ON 4 CONTINENTS**



**EUROPE / ASIA / LATIN AMERICA / AFRICA**

### MILKPLAN GLOBAL POWER

- PRESENCE IN 4 CONTINENTS
- PRODUCTION IN EUROPE AND ASIA (GREECE - INDIA)
- CUSTOMERS IN 45 COUNTRIES WORLDWIDE





#### [50-300lt]

MILKPLAN offers open cylindrical milk cooling tanks 50-300lt for livestock farms with low milk production. They are vertical with the cooling unit located under the cooling tank. The tank condensing unit is protected by stainless steel perforated covers. These perforated sides can be easily and quickly disassembled for the facilitation of condensing unit maintenance for all MILKPLAN milk cooling tanks sizes.



#### [400-2500lt]

For medium-sized livestock farms, MILKPLAN produces open milk cooling tanks with capacity from 400 lt to 2000 lt. The condensing unit of these tanks is located next to the tank vessel. The tank vessel and the condensing unit are mounted on a stable galvanized hot-dip base. The condensing unit is protected on all sides by perforated sides and on top with a solid cover. The perforated sides and the covers can be easily and quickly disassembled to make the maintenance of the condensing unit easier.



#### [1200-14200lt]

MILKPLAN produces horizontal cylindrical close type milk cooling tanks for large livestock farms with capacities from 1200lt to 14200lt which include:

- manhole  $\varnothing$  400 -  $\varnothing$  500 with a side-swiveling and elevation holding lid
- stainless steel external pressure equalizer
- agitator with a powerful agitation motor stainless steel
- rotary sprayer for effective cleaning
- peristaltic pumps and level control for precise dosage of detergents and disinfectants
- water level and temperature control at each stage of washing

The tank has a central console with a digital multi-functional screen which farmers can use to program and control its rapid cooling and absolute cleaning while also making it possible to identify any major faults.



## Milking systems



MILKPLAN produces, installs and guarantees the proper operation of developed stalls and automatic milking systems for sheep, goats and cows, tested on hundreds of farms.

All the company's milking systems incorporate the cutting edge automation technology (PLC, inverters, pulsators etc.) in collaboration with the leading European companies. These meet strict the European standards, designed and industrially manufactured using highly advanced laser technology for cutting and shaping of tubes and controlled meticulously at all stages of production so as to provide durable, economical and efficient solutions to the modern farmer.

### CHOOSE THE TYPE THAT SUITS YOU

MILKPLAN develops continually the different types of stalls systems so as to offer the possibility to farmer to choose the suitable milking system that meets his needs.

#### For sheep and goats:

**Quick exit:** Parallel quick exit stalls with or without headlocks with modular structure in multiples of 8, 10 or 12 positions of single or double row with individual independent feeders. There is possibility for installation of feeding tank for automatic feeding.

**Stable stall:** Simple galvanized stable stalls with double headlocks for sheep and goats, with stainless steel or galvanized individual feeders. Modular structure at multiples of 6, 8, 10 and 12 positions of single or double row. There is possibility of installation of feeding tank for automatic feeding.

#### For cows:

**Quick exit:** Parallel stalls in modular structure at multiples of 4 or 5 positions of single or double row.

**Herringbone stall:** Stalls in modular structure available at multiples of 2 positions of single or double row.

All systems are produced from stainless steel (AISI 304) or galvanized hot-dip metal and are accompanied from a full range of ready-to-deliver spare parts.





### Milking systems for cows with parallel quick exit stalls

Ergonomic construction designed by MILKPLAN with tubes of cylindrical lumen in order not to hurt the animals. It allows to the farmer the full control of animals and especially the absolute visual contact with the udders during milking. The two adaptable to the system ladders facilitate the quick and convenient access of milkers to the milking pit while the mechanism for the release of cows operates pneumatically and automatically offering the possibility to the animals to be released all together simultaneously and quickly.



### Milking system for sheep and goats with quick exit stalls

Systems effectively respond to the habits and the behavior of sheep and goats. These are differentiated for the easy access and the convenient sorting of animals to the stalls. The door opening of each position is being done sequentially, one by one; in order not any obstacle in the way of animals at their entrapment to be created. Due to these circumstances the relief of animals from stress, the greater efficiency, the better quality of milk and finally higher profits for the farmer are succeeded. Once milking is finished, the barrier in front of animals is lifted by an elevation system which operates pneumatically, in order to allow the animals to be released simultaneously.







## Farming and dairy equipment



The constant contact with the world of milk production and its needs led MILKPLAN to the production and marketing of farming and dairy equipment.

All the products of MILKPLAN meet the international standards and have been carefully checked concerning the quality and the value for money.

### Dairy equipment

Utilizing its industrial wing of INOXPLAN, MILKPLAN proceeded in manufacturing of stainless steel shelves systems for cheese dipping in brine, cheese maturing and storage, special lockers for dairy employees as well as other specially commissioned constructions offering outsourcing services to the largest companies in Greece.



### Sheep and goats quick exit stalls

Quick exit stainless steel or galvanized stalls for sheep and goats are with or without headlocks and possibility of automatic feeding. These are available from 8 to 72 positions.



### Simple stalls for goat / sheep with stainless steel feeding troughs

Simple galvanized stalls for goat / sheep with stainless steel or galvanized individual feeding troughs and double headlocks.



### Cow group watering trough

MILKPLAN's cow group watering trough is ergonomically designed to prevent injuries to animals, of heavy construction and is solidly built to avoid it being toppled over. It is wholly manufactured from 2mm stainless steel (AISI 304). It has a float valve that maintains the water level constant and a built-in tipping mechanism for the water tank to allow it to be easily and effectively cleaned. There is possibility of temperature control of drinking water.



### Portable milking system

The flexibility and the reliable operation of the portable system makes it the most close and essential partner for the farmer. The almost silent operation of portable milking system ensures milking under normal conditions with animals being calm and relaxed and higher milk yields. The system equipment with one or two buckets and lines for two or four sheep/goats offers the possibility of choice to the farmers. The system can also be used for cows by proportionate adaptation of clusters, pulses and pressure.



### Sheep and goat feeding belt

This system is fitted with a belt speed adjuster and a photocell that controls the supply of food from the silo or distributor. It is possible to control speed per meter to control the quantity of food provided to different groups of animals (boxing). The feeding belt is made of suitable PVC with two belts making it extremely weather resistant. The design is ergonomic for the easy access of animals to food. It is available with or without headlocks for the entrapment of animals. There is easy trapping and release of animals per side. Number of trapped animals per meter: 6m (3 on the right and 3 on the left). At 70m long of feeding belt, 420 animals are fed with very simple process. Using the feeding belt, feeding of animals is fast and easy.



### Individual plastic drinking bowl for sheep and goats

The drinking bowl is made of a very durable plastic. It has a float valve that maintains the water level constant. Each drinking bowl is 240mm wide and 330mm deep. The central dimensions of the opening are 100 x 180mm. Each drinking bowl weighs around 1 kilo. Water supply: 20lt / minute at 5 bar pressure.



### Individual dispenser for dry feed

This system of individual dispensers can be expanded to meet the need of any milking parlor. There is possibility of flow adjustment per 50 gr. Feed is sent through distribution line from the silo or a hopper manufactured by MILKPLAN.

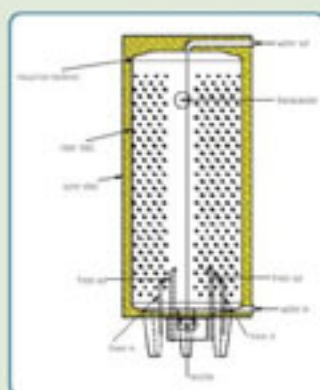




## HEAT RECOVERY (WATER HEATERS)



Heat recovery device



Heat recovery layout



Heat recovery evaporator plate section

Water heaters are heat recovery devices that exploit the released heat from the condenser of milk cooling tank and use it to heat water which can be used for the wash of milking system, farm, milk cooling tank, for the needs of the staff etc.

### ADVANTAGES:

- The installation of heat recovery device is made on a stainless steel raised base for easier cleaning of the location
- Anode use / installation is not required
- Periodic maintenance is not required as there are no moving parts
- Very simple resistance and thermometer replacement and repositioning
- Hot water temperature from 60°C to 75°C (depending on the usage conditions of cooling unit of milk cooling tank)
- No unfavorable influence in the cooling system
- Energy saving for the boiler water heating that can reach 100%

## HEAT EXCHANGER



heat exchanger

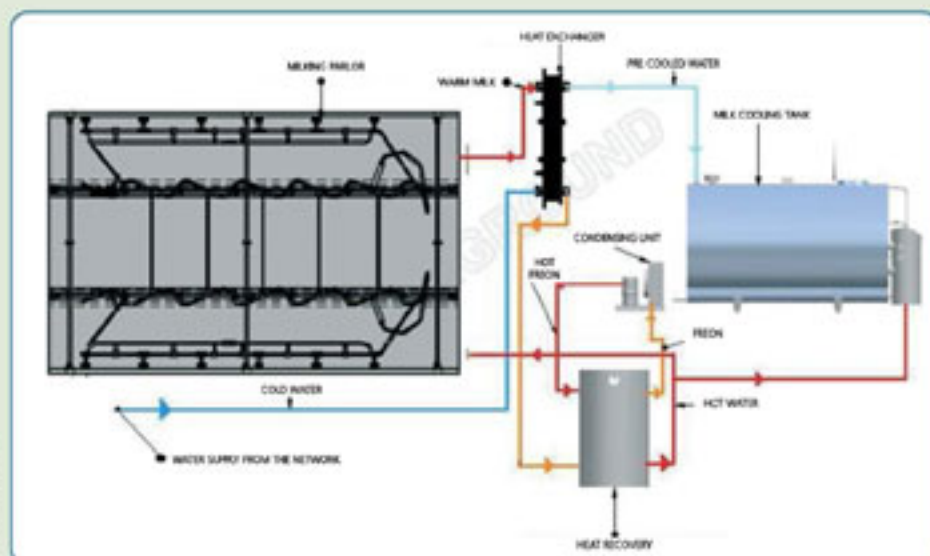
Heat exchanger is the device that used to transfer heat between two fluids of different temperature.

It is constructed from stainless steel suitable for food and can be used in all applications that may require pre cooling or pre heating of a liquid.

The heat exchangers of Milkplan are self-cleaning and require no additional maintenance after their installation.

Energy saving: up to 50% from the function of milk cooling tank.

Connection combination of heat recovery device and heat exchanger in a milking parlor with milk cooling tank







Milking systems, milk cooling tanks, farming and dairy equipment with the guarantee of one of the largest European companies, of MILKPLAN.

In modern livestock farming, the advanced technology determines the productivity level and the degree of the end product's hygiene and safety. MILKPLAN, one of the largest European companies of farming equipment, utilizes its extensive know-how and industrial capacity to offer high level technological solutions to the farmer. These solutions such as the milk cooling tanks and the stainless steel quick exit stalls increase yield at farms while ensure the quality of the milk and help farmers to make the best of their efforts.

These advanced solutions designed by MILKPLAN and produced by INOXPLAN S.A. using cutting edge CAD/CAM design systems and high precision engineering equipment such as cutting machines of cylindrical and square tubes and laser welding of sheet and tubes. Complete line of robotic laser cutting and sheet metal stacking, high precision perforation systems, etc. The products comply with the strict international standards and are designed to meet the complex needs of modern farms while also being excellent value for money. It is therefore not accidental that they are accepted by farmers in 45 countries!

