

PORTABLE COOLING TANKS - CISTERNS



LET'S ADD VALUE TO MILK

Modern portable cooling devices with electronic control are indispensable for the production of high quality and bacteriologically safe milk in remote areas.

All our devices are made of **environmentally friendly materials**, work with **ecological coolants**, have **low energy consumption**, are **efficient** and are made for **long-term use**.

PLEVNIK

We offer you:

- Modern technical devices on which you can set the turn-off temperature, the periodical start of the stirrer and which after the initial cooling maintain the milk temperature and milk homogeneity.
- Cooling devices that are made according to ISO 5708 and EN 13732 standards.

Portable tanks (type FV) and immersion milk coolers (type HM)

Immersion coolers

The new type of evaporator allows the use of an environmentally safe cooling mean.

- the welded cooling body with a small volume needs a **smaller quantity of cooling mean and it's easier to maintain.**
- **automatic control** of operation of the cooling device gives us **the most efficient cooling of the milk** in different ambient temperatures.
- the specially designed stirrer is efficient even with small quantities of milk.
- because to the **big surface of the cooling body**:
 - the cooling time shortens
 - the energy consumption is reduced



Immersion cooler HM

Technical data (**IMMERSION MILK COOLERS** – direct cooling) type **HM**

Type of cooling aggregate	HM 102 K	HM 202 K	HM 302 K	HM 402 K	HM 502 K
		HM 202 D	HM 302 D	HM 402D	HM 502 D
Diameter of the evaporator (mm)	390	390	390	390	390
Power supply V-50Hz, +N, +Z	230	230	230 (400)	400	400
Thermal switch	/	/	*	*	*
Pressure protection	/	/	*	*	*
Needed electrical power kW	0.65	1,1	1.5	1,9	2,5
Average cooling power (ISO 5708) W	1730	2700	3750	4560	6260
Quantity of milk (l) cooled in 1 hour	45-55 l	70 – 80 l	90 -105 l	115 -130 l	140 – 150 l
Rounds per minute of the stirrer	46	46	46	46	46
Height of the evaporator mm	130	130	210	210	270
Height (mm)	440	440	480	480	580
Width (mm)	560	560	680	680	680
Depth (mm)	370	370	540	540	730
Weight of the evaporator (kg)	12	12	15	15	16
Teža - skupna (kg)	59	67	79	88	102

K – cooler height 800 mm, D – cooler height 1000 mm

Portable tanks (FV)

The portable tanks (FV) is entirely made of **stainless steel W.Nr.1.4301** and is **insulated** with an environmentally safe polyurethane foam without CFC. Types of tanks **FV** and suitable trolleys

Tanks type and dimensions					Type and width / lenght of the trolley (suitable combinations with tanks)			
Type	Volume (l) 2M (4M)	Diameter - outside (mm)	Depth (mm)	Weight (kg)	RF 1	TF 2-6	TRF 3-10	PF 3-10
FV 100	100	470	800	40	1000/1900	670/750	/	/
FV 150	150	570	800	51	1000/1900	670/750	/	/
FV 200	200	650	800	61	1100/1900	670/750	/	/
FV 250	250	650	1000	67	1100/1900	670/750	/	/
FV 300	300	810	800	76	1300/1900	840/1050	1250/1600	1500/2050
FV 400	400	810	1000	85	/	840/1050	1250/1600	1500/2050
FV 470	470 (450)	960	800	98	/	980/1050	1250/1600	1550/2150
FV 580	580	960	1000	108	/	980/1050	1250/1600	1550/2150
FV 780	780 (750)	1280	800	148	/	/	1500/1700	1800/2400
FV 1050	1050 (980)	1280	1000	170	/	/	1500/1700	1800/2400



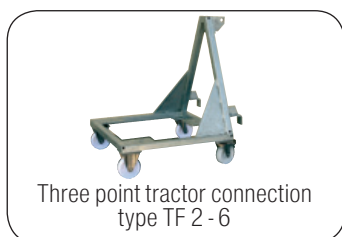
Tank FV 580

Trolleys - trailers

Different types of trolleys and trailers allow you to choose the best way of transportation of milk to the milk collection point.



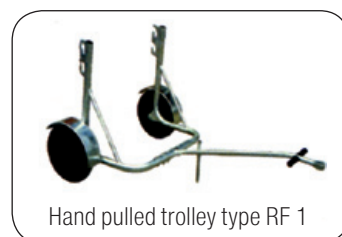
Trailer type PF



Three point tractor connection
type TF 2 - 6



Tractor / hand pulled trolley
type TRF 3 - 10



Hand pulled trolley type RF 1

Potrable cooling tanks / cisterns for milk with indirect cooling (400 – 2500 l)

They are made for the transport of **bigger quantities of milk** (from 400 to 2500 l). The cooling mean used is solar - glycol which has the freezing point at -15°C so there is no **danger of freezing**. The cooling is highly efficient in every temperature condition.

Portable cooling tanks type PBV

They are insulated on the wall and bottom, have one or two openings Ø400 with a rubber cover (stainless steel cover is optional), a DN50 outflow with a butterfly valve and connections for the cooling liquid.

Type (l)	Diameter - outside (mm)	Height (mm)	Weight (kg)
PBV 400	1100	780	165
PBV 500	1100	880	178
PBV 650	1100	980	198
PBV 800	1280	880	242
PBV 1000	1280	1080	260
PBV 1400	1530	1080	325

* Height of the automobile trailer from the ground to the landing is 450 - 550mm

Optional: PBV-I (insulated cover, stirrer and CIP washing heads)



Typ PBV-I



PBV uninsulated cover

Portable cooling cisterns type HCT

They are entirely insulated, have a Ø400mm service opening, a washing head for CIP washing, a stirrer, an outflow DN50 with a butterfly valve and connections for the cooling liquid.

Type (l)	Diameter - outside (mm)	Lenght (mm)	Weight (kg)
HCT 650	1120	1050	245
HCT 800	1120	1200	260
HCT 1000	1120	1420	298
HCT 1250	1120	1760	350
HCT 1500	1290	1620	395
HCT 1750	1290	1800	430
HCT 2000	1290	2050	465
HCT 2500	1290	245	545

(dimensions without the trailer)



HCT on an car trailer



Washing head

Cooling aggregates with iced water - solar (glycol)

Cooling aggregates with different powers allow you to choose the best aggregate according to your needs and the volume of your tank. The cooling mean is a mixture of glycol (solar) which prevents the freezing of the cooling mean in cold outside temperatures.

Type	HMV 303	HMV 403	HMV 503	HMV 603
Power supply V-50Hz, +N, +Z	400	400	400	400
Thermal switch	*	*	*	*
Pressure protection	*	*	*	*
Needed electrical power - device (kW)	2,3	2,7	3,2	3,6
Needed electrical power - compressor (kW)	1,5	1,9	2,4	2,8
Average cooling power (ISO 5708) W	3610	4870	5420	7212
Quantity of milk (l) cooled in 1 hour (from 35°C to 4°C)	95	120 - 140	150 - 170	175 - 205
Automatic stirrer	*	*	*	*
Cooling water connections BPS	1"	1"	1"	1"
Dimensions of the cooling unit:				
Height (mm)	1450	1450	1450	1550
Width (mm)	800	800	800	900
Depth (mm)	550	550	550	750
Weight (kg)	82	95	102	120



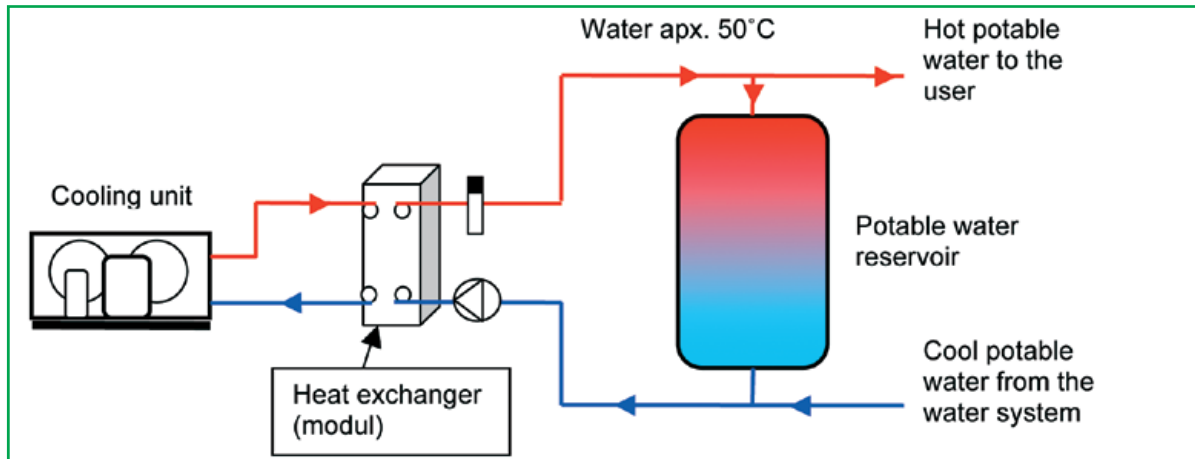
ECONOMIC ENERGY TREATMENT during milk cooling (options)

A. Conversion of the waste energy of cooling for heating potable water: heat pump - recuperation

The system for heating potable water using the »waste« energy of the cooling unit or the heat from fresh milk.

Advantages:

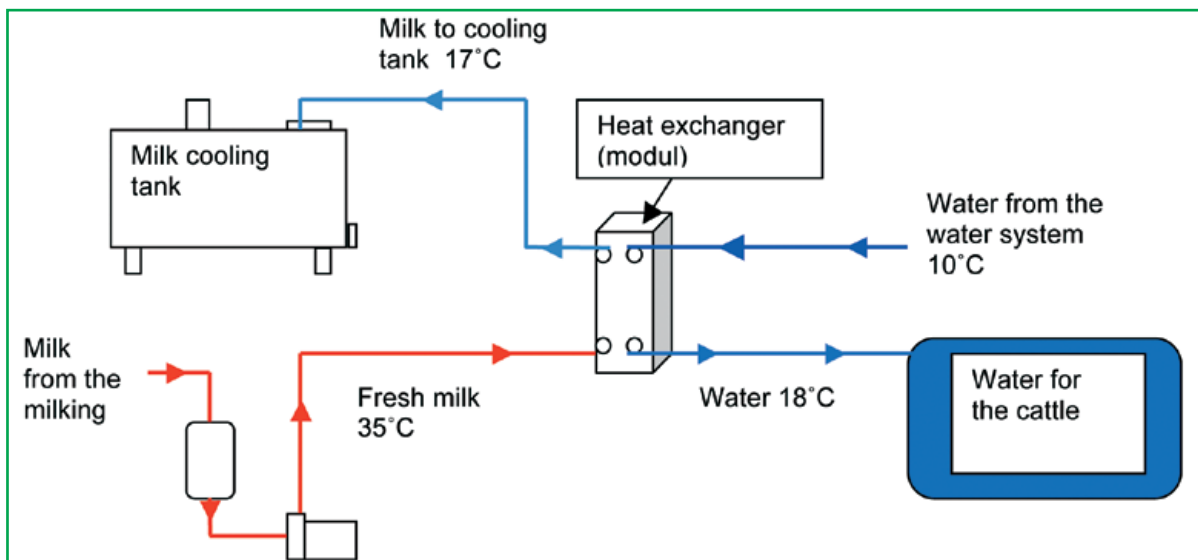
- **We relieve the cooling unit** - better condensation in the warmer part of the year - shortens the time of milk cooling
- **Warming the potable water without additional electrical energy consumption.** The warmed water (cca. 45°C - 50°C) can be used for washing the milking equipment and cow udder, watering the cattle... the surplus water can be used for other home uses. At full load 1l of cooled milk can warm 0.7l - 0.8l of potable water up to cca. 50°C.



B. Precooling of milk

Advantages:

- With the water from the water system we can pre-cool the milk by cca. 20°C. Doing so we **reduce electrical energy consumption for milk cooling**.
- During this process the water warms up and we can use it to **water the cattle**. Warmed water affects beneficially the health of the cattle - especially in the cold part of the year. Lowering the temperature difference between the cattle's body temperature and the water temperature **lowers the risk of diseases**.



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