MILK COOLING AND FARM EQUIPMENT

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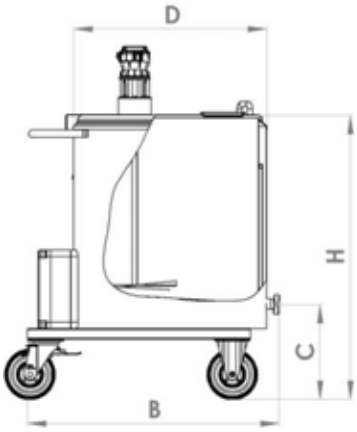
Pasteurizers for farmers PF 100 - 500

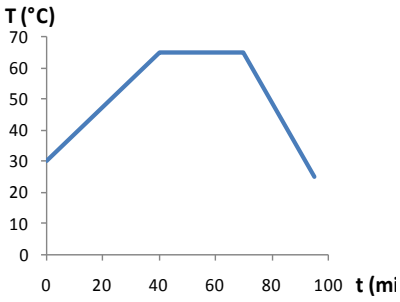
Pasteurizers for farmers PF have the following characteristics:

- Pasteurizers for farmers are used for the thermal treatment of milk for feeding calves
- Many research studies say that feeding calves with pasteurized milk instead of milk powder has a **positive influence** on their growth and **reduces the death rate** and the use of **antibiotics**. With pasteurization we reduce the number of bacteria in the milk without reducing its nutritional value
- Thermal treatment can be done in a temperature range **between 3 and 85°C**
- Pasteurizers are made in accordance with international standards, CE directives and the newest innovations in the dairy industry

Basic equipment - description:

- The kettle has a three part **insulated** coat of an open execution (heating system) with an inclined bottom toward the outflow and is entirely made of **stainless steel W.Nr.1.4301**
- Thermal energy for heating and cooling is exchanged directly through the coat and the bottom
- Pasteurizers for farmers heat the milk with **electrical heaters**
- Milk is cooled down with water from the pipe, collector or with **chilled water**. Using chilled water also **reduces water consumption** and cooling time
- The thermal treatment of milk is **automated with** the use of a controller on which we can **set, change and save** all the parameters of the processes of heating and cooling
- The device can be put on a stable support or on wheels (optional) for an easier transportation inside the farm





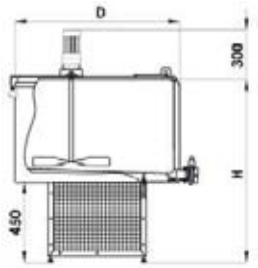
Pasteurization process: heating to 65°C, temperature maintenance for 30 minutes and cooling to 25°C. You can change this process to suit your needs.

Type (l)	Heating power – el. heater (kW)*	Dimensions (mm)				Weight (kg)	Code	Option - Support on wheels
		D	H	C	1.037. 20			
PF 100	6	Ø 770	860	380	1.037.	92	1.037.10	1.037.20
PF 200	9	Ø 770	1130	380	1.037.	110	1.037.11	1.037.20
PF 300	12	Ø 970	1090	380	1.037.	135	1.037.12	1.037.21
PF 500	18	Ø 1100	1200	300	**Supp**	180	1.037.13	1.037.22

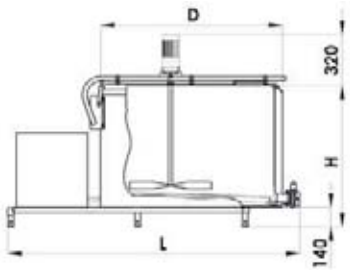
Stable cooling tanks for milk type HNP 100 - 2400

Description and basic equipment:

- entirely made of high quality **stainless steel W.Nr.1.4301 (AISI 304)**
- **integrated** spot welded evaporating body
- the inclined bottom allows a complete emptying of the tank
- insulated with an ecologically safe polyurethane (PUR) foam without CFC
- cover with springs for an easy opening
- height adjustable leveling feet
- mixer with 28rpm
- DN50 outflow (option - outflow valve)
- **cooling aggregate with air condenser**
- **electronic programmer** for setting and controlling the operation of the device and displaying the temperature of the milk in the tank



HNP 100 - 300



HNP 400 - 2400

2M - two milkings 4M - four milkings			Technical data								Code with inbuilt cooling unit	Code with separated cooling unit	Option - recuperation of waste energy
Type	Power supply		Connect. power (kW)	Cooling power (W)	Cooling (l/h)	Dimensions (mm)			Weight (kg)	Door (cm)			
	1x230V 50Hz	3x400V 50Hz				ΦD outside	H	L					
HNP 100 2M	*		0.5	900	25	610	1020	/	80	70	4.000.01	4.000.30	/
HNP 150 2M	*		0.6	1260	35	760	950	/	95	80	4.000.02	4.000.31	/
HNP 200 2M	*		0.65	1640	50	760	1100	/	105	80	4.000.03	4.000.32	/
HNP 260 2M	*		0.75	1860	55	760	1250	/	135	80	4.000.04	4.000.33	/
HNP 300 2M	*		1.00	1990	65 - 70	960	1100	/	155	100 (80)	4.000.05	4.000.34	/
HNP 400 2M	*	*	1.15	2360	70 - 85	1100	740	1900	175	90	4.000.06	4.000.35	4.003.30
HNP 400 4M	*	*	0.75	1860	55	1100	740	1900	165	90	4.000.07	4.000.36	4.003.30
HNP 500 2M	(*)	*	1.5	3950	90 - 115	1100	860	1900	190	90	4.000.08	4.000.37	4.003.30
HNP 500 4M	*	(*)	0.75	1860	55	1100	860	1900	180	90	4.000.09	4.000.38	4.003.30
HNP 650 2M	(*)	*	1.9	4230	110 - 135	1280	840	2050	210	90	4.000.10	4.000.39	4.003.30
HNP 650 4M	*	(*)	1.1	1990	65 - 75	1280	840	2050	195	90	4.000.11	4.000.40	4.003.30
HNP 800 2M	(*)	*	2	5990	150 - 180	1280	1050	2180	220	110	4.000.12	4.000.41	4.003.31
HNP 800 4M	(*)	*	1.15	3950	90 - 115	1280	1050	2180	205	110	4.000.13	4.000.42	4.003.31
HNP 1000 2M	(*)	*	2.5	5990	180 - 200	1550	880	2300	260	90	4.000.14	4.000.43	4.003.31
HNP 1000 4M	(*)	*	1.5	3950	90 - 115	1550	880	2300	245	90	4.000.15	4.000.44	4.003.31
HNP 1400 2M		*	3.0	6880	225 - 250	1550	1160	2400	330	110	4.000.16	4.000.45	4.003.31
HNP 1400 4M	(*)	*	2	4230	120 - 140	1550	1160	2400	305	110	4.000.17	4.000.46	4.003.31
HNP 1600 2M		*	4.5	10500	270 - 320	1550	1320	2500	355	160	4.000.18	4.000.47	4.003.32
HNP 1600 4M		*	2.5	5990	150 - 180	1550	1320	2500	325	160	4.000.19	4.000.48	4.003.32
HNP 2000 2M		*	5.2	12860	340 - 380	1900	1115	3000	425	195	4.000.20	4.000.49	4.003.32
HNP 2000 4M		*	3.0	6880	225 - 250	1900	1115	3000	395	195	4.000.21	4.000.50	4.003.32
HNP 2400 2M		*	6.2	15800	400 - 460	1900	1265	3000	480	195	4.000.22	4.000.51	4.003.32
HMP 2400 4M		*	3.0	6880	225 - 250	1900	1265	3000	440	195	4.000.23	4.000.52	4.003.32

Cooling - the quantity of milk that can be cooled form 35°C to 4°C in one hour at the room temperature of 32°C and condensation temperature of 40°C without MGV (recuperation of wasted energy)
Doors - minimal entrance doors width
(*) – optional
All the devices are placed in class I. and class II. according to standards ISO5708, DIN 8968 and EN13732 (design, capacity, cooling)

Additional equipment:

Designation	Code
Outflow valve DN 50	4.003.80

Stable cooling tank for milk type HNP 100 - 2400; kettle

(without cooling unit, stirrer and regulation)

Description and basic equipment:

- entirely made of high quality **stainless steel W.Nr.1.4301 (AISI 304)**
- **integrated** spot welded evaporating body
- the inclined bottom allows a complete emptying of the tank
- insulated with an ecologically safe polyurethane (PUR) foam without CFC
- cover with springs for an easy opening
- height adjustable leveling feet
- DN50 outflow

Type	Dimensions (mm)		Weight (kg)	Code	Delivery
	ΦD outside	H			
HNP 100 2M,4M	610	1020		4.000.70	
HNP 150 2M,4M	760	950		4.000.71	Optional
HNP 200 2M,4M	760	1100		4.000.72	
HNP 260 2M,4M	760	1250		4.000.73	
HNP 300 2M,4M	960	1100		4.000.74	
HNP 400 2M,4M	1100	740		4.000.75	
HNP 500 2M,4M	1100	860		4.000.76	
HNP 650 2M,4M	1280	840		4.000.77	
HNP 800 2M,4M	1280	1050		4.000.78	
HNP 1000 2M,4M	1550	880		4.000.79	
HNP 1400 2M,4M	1550	1160		4.000.80	
HNP 1600 2M	1550	1320		4.000.81	
HNP 1600 4M	1550	1320		4.000.82	
HNP 2000 2M	1900	1265		4.000.83	
HNP 2000 4M	1900	1115		4.000.84	
HNP 2400 2M	1900	1265		4.000.85	
HNP 2400 4M	1900	1265		4.000.86	

Additional equipment:

Designation	Code
Motor and stirrer for HNP 100 - 400	4.001.00
Motor and stirrer for HNP 500 - 1600	4.001.01
Motor and stirrer for HNP 2000 - 2400	4.001.02
Complete electronic regulation	4.001.10
Outflow valve DN 50	4.003.80

Portable tank - container type FV 100 - 1000

FV 100 – 580 l

Description and basic equipment:

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

The containers FV 750 and FV 1000 have a welded cover with an extra service opening ø420 mm with a rubber cover (2x)

Container type	Volume (l)	Dimensions (mm)		Weight (kg)	Code	Delivery	Type and width / length of trolleys and trailers (recommended combinations with containers)			
		Diameter - outside (mm)	Depth (mm)				RF 1	TF 2-6	TRF 3-10	PF 3-10
FV 100	100	470	800	40	4.002.00		1000/1900	670/750	/	/
FV 200	200	650	800	61	4.002.02		1100/1900	670/750	/	/
FV 300	300	810	800	76	4.002.04		1300/1900	840/1050	1250/1600	1500/2050
FV 400	400	810	1000	85	4.002.05		/	840/1050	1250/1600	1500/2050
FV 450	470	960	800	98	4.002.07		/	980/1050	1250/1600	1550/2150
FV 580	580	960	1000	108	4.002.08		/	980/1050	1250/1600	1550/2150
FV 750	780	1280	800	148	4.002.10		/	/	1500/1700	1800/2400
FV 1000	1050	1280	1000	170	4.002.12		/	/	1500/1700	1800/2400

Immersion cooler type HM

Description and basic equipment:

- 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 and the energy consumption is reduced

Immersion cooler type	HM 102 K	HM 202 K	HM 202 D	HM 302 K	HM 302 D	HM 402 K	HM 402D	HM 502 K	HM 502 D
Diameter of the evaporator (mm)	390	390	390	390	390	390	390	390	390
Power supply V-50Hz	230	230	230	230 (400)	230 (400)	400	400	400	400
Thermal switch of the compressor	/	/	/	*	*	*	*	*	*
Pressure protection of the comp.	/	/	/	*	*	*	*	*	*
Electrical power (kW)	0.65	1,1	1,1	1.5	1.5	1,9	1,9	2,5	2,5
Average cool. power (*ISO 5708*)(W)	1730	2700	2700	3750	3750	4560	4560	6260	6260
Quantity of milk (l) cooled in 1h	45 - 55	70 - 80	70 - 80	90 - 105	90 - 105	115 - 130	115 - 130	130 - 150	130 - 150
Stirrer speed (rpm)	46	46	46	46	46	46	46	46	46
Height of the evaporator (mm)	130	130	130	210	210	210	210	270	270
Weight of the evaporator (kg)	12	12	12	15	15	15	15	16	16
Cooler height (mm)	800	800	1000	800	1000	800	1000	800	1000
Height of the casing (mm)	440	440	440	480	480	480	480	580	580
Width of the casing (mm)	560	560	560	680	680	680	680	680	680
Depth of the casing (mm)	370	370	370	540	540	540	540	730	730
Weight - total (kg)	59	67	67	79	79	88	88	102	102
Code	4.002.30	4.002.31	4.002.32	4.002.33	4.002.34	4.002.35	4.002.36	4.002.37	4.002.38

Additional equipment:

Designation	Code
Recuperation of waste energy (for HM 302, HM 402 in HM 502) without the water container	4.003.31

Recommended combinations of portable containers type FV with the immersion coolers type HM considering the number of milkings (2M - two milkings; 4M - four milkings):

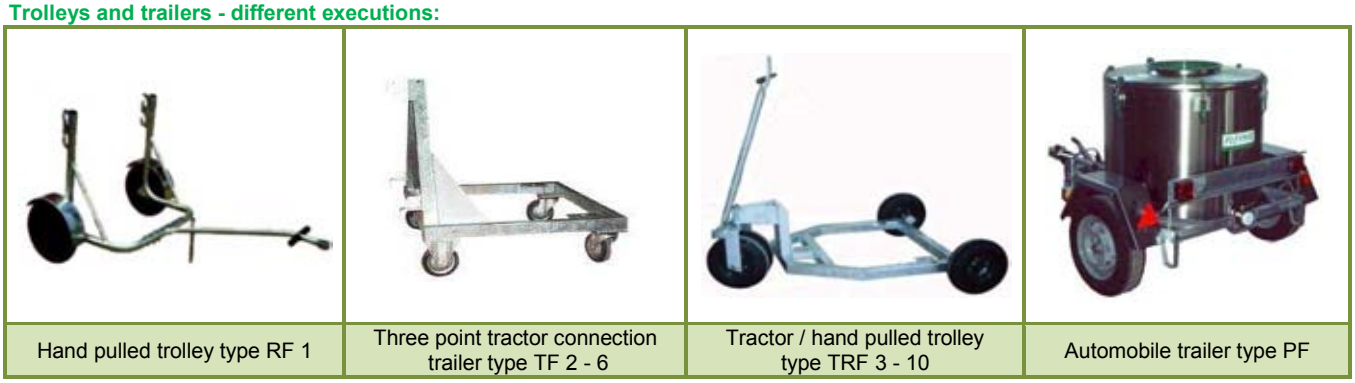
Container type	Immersion cooler type
FV 100 2M	HM 102
FV 200 2M	HM 202
FV 200 4M	HM 102
FV 300 2M	HM 302
FV 300 4M	HM 202
FV 400 2M	HM 302
FV 400 4M	HM 202
FV 450 2M	HM 402
FV 450 4M	HM 202
FV 580 2M	HM 502
FV 580 4M	HM 302
FV 750 2M	HM 502
FV 750 4M	HM 402
FV 1000 4M	HM 502

Additional equipment - trolleys and trailers (RF, TF, TRF, PF):

Container	RF 1	TF 2-6	TRF 3-10	PF 3-10
FV 100	4.003.50	4.003.53	/	/
FV 200	4.003.51	4.003.53	/	/
FV 300	4.003.52	4.003.54	4.003.56	4.003.58
FV 400	/	4.003.54	4.003.56	4.003.58
FV 450	/	4.003.55	4.003.56	4.003.59
FV 580	/	4.003.55	4.003.56	4.003.59
FV 750	/	/	4.003.57	4.003.60
FV 1000	/	/	4.003.57	4.003.60

Designation	Code
DN 50 outflow valve	4.003.80

Trolleys and trailers - different executions:



Hand pulled trolley type RF 1	Three point tractor connection trailer type TF 2 - 6	Tractor / hand pulled trolley type TRF 3 - 10	Automobile trailer type PF

Portable cooling tank type PBV-I 400 - 1400

Description and basic equipment:
- the tank is entirely made of **stainless steel** W.Nr.1.4301 (AISI 304)
- the tank is **entirely insulated** with an environmentally safe polyurethane foam without CFC
- welded cover with one or two holes ø400 mm closed with a rubber cover (option - stainless steel cover)
- DN 50 outflow with butterfly valve
- connections for cooling water 1"
- stirrer
- washing head for CIP

Tank type	Diameter - outside (mm)	Height (mm)	Weight (kg)	Code
PBV-i 400	1100	780	165	4.002.70
PBV-i 500	1100	880	178	4.002.71
PBV-i 650	1100	980	198	4.002.73
PBV-i 800	1280	880	242	4.002.74
PBV-i 1000	1280	1080	260	4.002.75
PBV-i 1400	1530	1080	325	4.002.76

Additional equipment:

Designation	Code
Pump for a simple CIP cleaning	4.003.81
Independent CIP - washing machine with programmer	4.003.83

Portable cooling cistern type HCT 650 - 2500

Basic equipment :

- the tank is entirely made of **stainless steel** W.Nr.1.4301 (AISI 304) and **insulated** with an environmentally safe polyurethane foam without CFC
- service opening ø400mm with stainless steel cover
- washing head and connections to a CIP washing system
- stirrer
- DN50 outflow with butterfly valve
- connections for cooling water 1"

Cistern type	Diameter - outside (mm)	Length (mm)	Weight (kg)	Code	Delivery
HCT 650	1120	1050	245	4.002.90	
HCT 800	1120	1200	260	4.002.91	
HCT 1000	1120	1420	298	4.002.92	
HCT 1250	1120	1760	350	4.002.93	
HCT 1500	1290	1620	395	4.002.94	
HCT 1750	1290	1800	430	4.002.95	
HCT 2000	1290	2050	465	4.002.96	
HCT 2500	1290	2450	545	4.002.97	

(dimensions without trailer)

Cooling aggregate with iced water - solar (glycol) type HMV

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	HMV 703
Power supply V-50Hz	400	400	400	400	400
Thermal switch for the compressor	*	*	*	*	*
Pressure protection for the compressor	*	*	*	*	*
Electrical power - device (kW)	2,3	2,7	3.4	4,6	5,2
Electrical power - compressor (kW)	1,5	1,9	2,6	3,5	4,0
Average cooling power (ISO 5708) (W)	3610	4870	5420	7212	9140
Quantity of milk (l) cooled in 1h (from 35°C to 4°C)	95	120 - 140	150 - 170	175 - 205	200 - 240
Automatic working of the stirrer	*	*	*	*	*
Connections for the cooling water BPS	1"	1"	1"	1"	1"
Dimensions of the cooling aggregate:					
Height (mm)	1450	1450	1450	1550	1700
Width (mm)	800	800	800	900	900
Depth (mm)	550	550	550	750	750
Weight (kg)	82	95	102	120	138
Code	4.003.20	4.003.21	4.003.22	4.003.23	4.003.24

Additional equipment:

Designation	Code
Recuperation of waste energy HMV 303, HMV 403 in HMV 503	4.003.31
Recuperation of waste energy HMV 603 in HMV 703	4.003.32

Recommended combinations of portable cooling tanks PBV-I and cooling aggregates with iced water HMV with regard to the number of milkings:

Tank type	Cooling aggregate with iced water type
PBV-i 400 2M	**HMV 303**
PBV-i 400 4M	**HMV 303**
PBV-i 500 2M	**HMV 303**
PBV-i 500 4M	**HMV 303**
PBV-i 650 2M	**HMV 403**
PBV-i 650 4M	**HMV 303**
PBV-i 800 2M	**HMV 503**
PBV-i 800 4M	**HMV 303**
PBV-i 1050 2M	**HMV 603**
PBV-i 1050 4M	**HMV 403**
PBV-i 1400 2M	**HMV 703**
PBV-i 1400 4M	**HMV 503**

Cooling cistern for milk (on enquiry)
1000 - 16000l

Type FC 1100 - 3200l; cylindrical cistern

Type HCP–H 1000 – 5000l

Type FE 3550 - 8100l, oval cistern

Type HCP 1000 – 5000l

Type FEC 10000 - 16000l, oval cistern

In the process of constant improvements we reserve the rights to make technical and aesthetic modifications without prior notice.
Pictures are symbolic

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