CATALOGUE 2016

BREWING EQUIPMENT



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BREWERY






3 - 29

ICE BANKS




31 - 35







BREWERY

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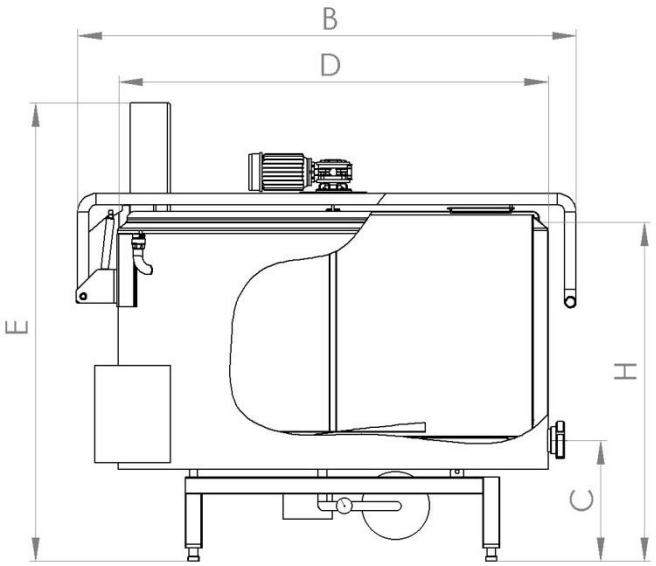
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Brewing kettle type BK 100 - 1500

Description of the article:

- vertical insulated cylindrical vessel
- material: stainless steel AISI 304/316
- one-part cover (with service hole) with a spring-hinge for an easier lifting of the cover
- pressure in the exchanger: max. 4 bar
- water circulation pump for the circulation of heating water, expansion vessel, safety valve, manometer (without heat exchanger for cooling on sizes 500l to 1500 l)
- heating with electrical heaters, hot water from external source or a combination of both
- Stable support with mechanism for the inclination of the kettle to the outflow (BK 100, 200 and 300) or inclined bottom against the outflow (BK 500, 650, 1000, 1500)
- outflow (up to 300l **DN50**, over 400l **DN65**) with a butterfly valve
- special stirrer with 40 rpm
- control panel with a GPC 145 processor for the **automatic regulation** of heating (possibility of setting 6 temperatures of heating and 5 duration times)







Type	Total volume (l)	Dimensions (mm)					Weight (kg)
		D	H	C	B	E	
BK 100	110	Ø 750	930	520	860	1350	125
BK 200	220	Ø 850	1010	475	980	1380	195
BK 300	325	Ø 1000	1010	475	1150	1450	230
BK 500	540	Ø 1130	1030	330	1270	1450	310
BK 650	700	Ø 1280	1010	330	1430	1500	360
BK 1000	1080	Ø 1540	1030	330	1750	1600	490
BK 1500	1620	Ø 1550	1350	330	1750	1750	

Executions:

EL – Heating up to 100°C

- heating with **electrical heaters** 9 – 90 kW
- power supply 400V 3N 50Hz

Type	Heating power (kW)*	Code	Delivery
BK 100 EL	9	2.000.01	
BK 200 EL	18	2.000.02	
BK 300 EL	20 (24)	2.000.03	
BK 500 EL	30 (36)	2.000.04	
BK 650 EL	36 (45)	2.000.05	
BK 1000 EL	45 (60)	2.000.06	
BK 1500 EL	60 (90)	2.000.07	

* Recommended heating power of electrical heaters (if allowed by the house electrical installation)

HW – Heating up to 100°C

- connections for **an external heating water system**
- electromotor / electro-magnetic valves
- power supply 230V 50Hz

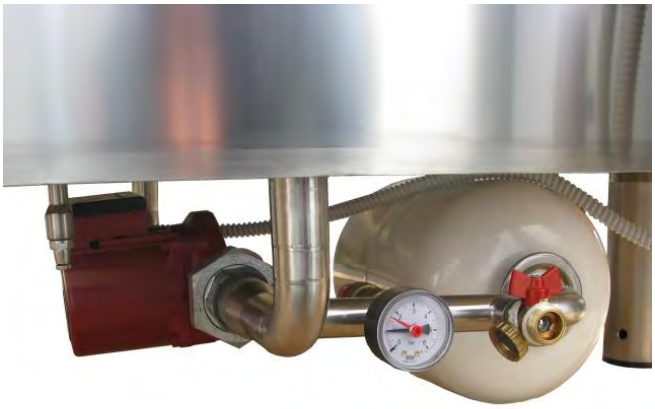
Type	Heating power (kW)**	Code	Delivery
BK 100 HW	35	2.000.10	
BK 200 HW	35	2.000.11	
BK 300 HW	35	2.000.12	
BK 500 HW	35/65	2.000.13	
BK 650 HW	65	2.000.14	
BK 1000 HW	65/95	2.000.15	
BK 1500 HW	95	2.000.16	

** Recommended power for the preparation of hot water with an oil or gas powered heating boiler. Preparation of hot water is not included.

EW – Heating up to 100°C

- heating with **electrical heaters** 9 – 90 kW
- connections for **an external heating water system**
- electromotor/electro-magnetic valves for the choice of the source of heating
- power supply 400V 3N 50Hz

Type	Heating power (kW)	Code	Delivery
BK 100 EW	9	2.000.20	
BK 200 EW	18	2.000.21	
BK 300 EW	20 (24)	2.000.22	
BK 500 EW	30 (36)	2.000.23	
BK 650 EW	36 (45)	2.000.24	
BK 1000 EW	45 (60)	2.000.25	
BK 1500 EW	60 (90)	2.000.26	



Water connections - type EL

Additional equipment - options:

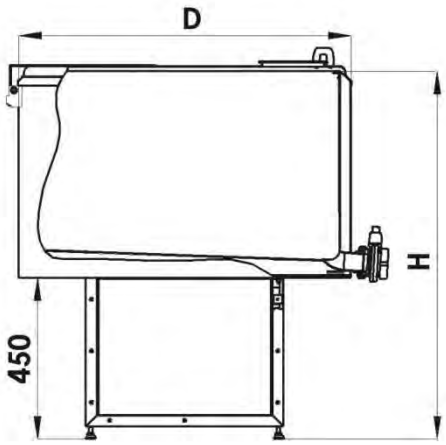
Kettle	Support on wheels	Working platform	Stirrer speed regulation	Stronger heating elements (EL, EW version)	Whirlpool module	Polished interior of the kettle	Protection over the motor of the stirrer	Wooden box
100 l	1.300.38	1.300.90	1.305.60	/	2.000.30	1.600.02	1.600.70	1.306.71
200 l	1.300.39	1.300.91	1.305.60	/	2.000.30	1.600.03	1.600.70	1.306.72
300 l	1.300.40	1.300.92	1.305.60	2.000.27	2.000.30	1.600.04	1.600.71	1.306.73
500 l	1.300.42	1.300.94	1.305.61	2.000.28	2.000.31	1.600.06	1.600.71	1.306.75
650 l	1.300.43	1.300.95	1.305.61	2.000.29	2.000.31	1.600.07	1.600.71	1.306.76
1000 l	1.300.45	1.300.97	1.305.62	2.006.22	2.000.32	1.600.09	1.600.72	1.306.78
1500 l	1.300.51	1.301.05	1.305.62	2.006.23	2.000.32	1.600.11	1.600.72	1.306.81

Equipment	Code
DN 65 outflow	1.304.34
DN 80 outflow	1.304.35
Controller BH2	1.305.80
Module for choosing the power of heating - 2 levels (type EL and EW)	1.305.36
Module for working without the controller	1.305.35
Stainless steel control panel	1.306.30
Stainless steel power box	1.306.34
Customization for 800mm doors (200 - 400l)	1.304.30
Customization for 900mm doors (500 - 1000l)	1.304.32

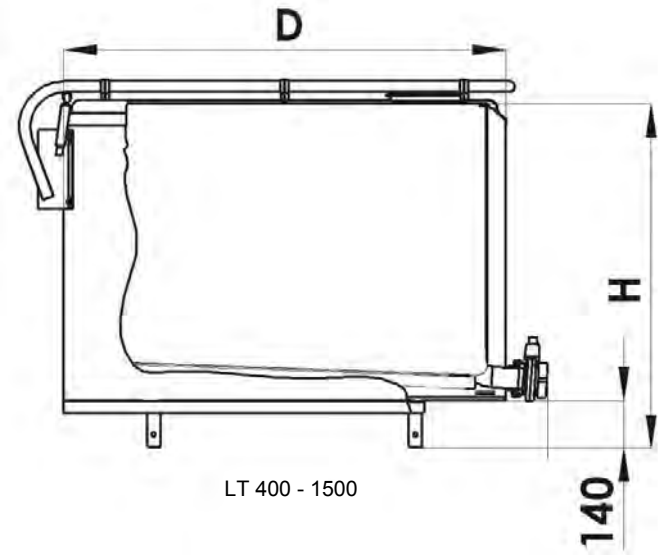


Lauter tank type LT 100 - 1500

Description of the article:
- vertical **insulated** cylindrical vessel on a stable support with an inclined bottom 2.5° against the outflow
- material: stainless steel AISI 304
- one-part cover (with service hole) with a spring-hinge for easier lifting of the cover
- **one-part / two-part perforated plate on the bottom (1,5 mm)**
- DN 50 outflow with butterfly valve
- **without** motoreducer, stirrer and control panel



LT 100 - 300

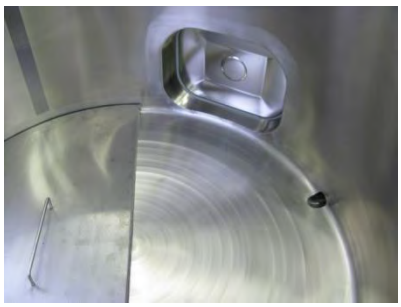


LT 400 - 1500

Type	Dimensions		Code	Side service door - option
	ΦD outside	H		
LT 100	620	1050	2.000.50	/
LT 200	760	1100	2.000.51	/
LT 300	1000	1100	2.000.52	2.005.01
LT 500	1100	880	2.000.54	2.005.03
LT 650	1280	880	2.000.55	2.005.04
LT 1000	1550	900	2.000.57	2.005.06
LT 1500	1550	1250	2.000.58	2.005.07







Brewing cistern type BC 500 - 4000



Description of the article:

- vertical **insulated** cylindrical tank
- **energy saving, laser welded bottom and wall exchanger**
- material: stainless steel AISI 304/316
- inclined bottom 2.5° against the outflow (500l – 1500l) or conical bottom with central outflow (2000l – 4000l)
- cover with service manhole
- pressure in the tank: atmospheric, 0 bar
- pressure in the exchanger: max. 4 bar
- inlet connection for product
- connection for whirlpool (option)
- connection for CIP with spray ball
- outflow connection with a butterfly valve
- water circulation pump for the circulation of heating water, expansion vessel, safety valve, manometer (without heat exchanger for cooling)
- electromotor with special stirrer and stirrer speed regulation
- control panel with a color **touch screen** processor for the **automatic regulation** of process heating (possibility of setting 6 programs with 5 temperatures of heating and 5 duration times)

Type	Net Volume (l)	Total volume (l)	Dimensions (mm)				Total outflow	Side outflow	Inlet	CIP	Hot water connections	Weight (kg)
			Diameter D	Manhole H	Outflow C	Height E						
BC 500	500	600	1140	1100	350	1520	DN65	/	DN25	DN25	1''	
BC 650	650	780	1300	1100	350	1600	DN65	/	DN25	DN25	1''	
BC 1000	1000	1200	1560	1250	350	1800	DN65	DN50	DN25	DN25	5/4''	
BC 1500	1500	1800	1560	1860	350	2110	DN65	DN50	DN25	DN32	6/4''	
BC 2000	2000	2400	1730	1800	350	2390	DN65	DN50	DN32	DN32	6/4''	
BC 3000	3000	3600	1940	1620	350	2850	DN80	DN65	DN32	DN32	2''	
BC 4000	4000	4800	2150	1940	350	3170	DN80	DN65	DN40	DN40	2''	

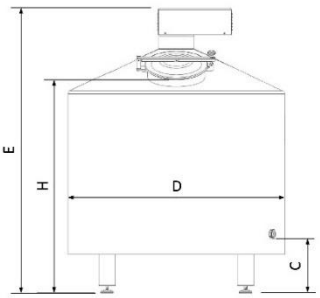
Executions:

EL – Heating up to 100°C

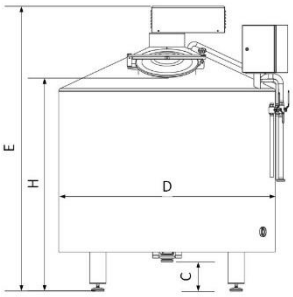
- heating with **electrical heaters** 30 – 180 kW
- power supply 400V 3N 50Hz

Type	Heating power (kW)*	Code	Delivery
BC 500 EL	30 (36)	2.001.10	
BC 650 EL	36 (45)	2.001.11	
BC 1000 EL	45 (60)	2.001.12	
BC 1500 EL	60 (90)	2.001.13	
BC 2000 EL	90 (120)	2.001.14	
BC 3000 EL	120 (180)	2.001.15	

* Recommended heating power of electrical heaters (if allowed by the house electrical installation)



BC 500 – 1500
(inclined bottom,
side outflow)



BC 2000 – 4000
(conical bottom,
central and side outflow)

HW – Heating up to 100°C

- connections for **an external heating water system**
- electromotor valves
- power supply 230V 50Hz

Type	Heating power (kW)**	Code	Delivery
BC 500 HW	65	2.001.20	
BC 650 HW	65	2.001.21	
BC 1000 HW	100	2.001.22	
BC 1500 HW	100	2.001.23	
BC 2000 HW	130	2.001.24	
BC 3000 HW	180	2.001.25	
BC 4000 HW	230	2.001.26	

** Recommended power for the preparation of hot water with an oil or gas powered heating boiler. Preparation of hot water is not included.

EW – Heating up to 100°C

- heating with **electrical heaters** 30 – 180 kW
- connections for **an external heating water system**
- electromotor valves for the choice of the source of heating
- power supply 400V 3N 50Hz

Type	Heating power (kW)	Code	Delivery
BC 500 EW	30 (36)	2.001.30	
BC 650 EW	36 (45)	2.001.31	
BC 1000 EW	45 (60)	2.001.32	
BC 1500 EW	60 (90)	2.001.33	
BC 2000 EW	90 (120)	2.001.34	
BC 3000 EW	120 (180)	2.001.35	

Additional equipment - options:

Kettle	Stronger heating elements (type EL and EW)	Working platform	Whirlpool module – manual lift of the stirrer	Whirlpool module – automatic lift (helix)	Carter around support	Steam condenser - with energy recuperation	Steam condenser - without energy recuperation	Wooden box
500 l	2.000.28	1.300.94	2.001.41	2.001.48	2.006.47	2.006.14	2.006.32	1.306.75
650 l	2.006.22	1.300.95	2.001.41	2.001.48	2.006.47	2.006.14	2.006.32	1.306.76
1000 l	2.006.22	1.300.97	2.001.42	2.001.49	2.006.48	2.006.15	2.006.33	1.306.78
1500 l	2.006.23	1.300.99	2.001.43	2.001.49	2.006.48	2.006.16	2.006.34	1.306.81
2000 l	2.006.38	1.301.00	2.001.43	2.001.38	2.006.49	2.006.30	2.006.35	1.306.82
3000 l	2.006.24	1.301.03	/	2.001.39	2.006.50	2.006.31	2.006.36	
4000 l	/		/	2.001.40	/	2.006.31	2.006.36	

Equipment	Code
DN 80 outflow with blind nut	2.006.37
Module for choosing the power of heating - 2 levels	1.305.36
Module for choosing the power of heating - 3 levels	1.305.33
Module for working without the controller BH2	2.006.11
Pre-masher with funnel	2.006.18
Conical bottom on BC 1000, 1500	2.001.46
Conical bottom on BC 500	2.001.47
Level indicator glass 500 - 1000	2.006.17
Level indicator glass 1500 - 4000	2.006.44

Hot water boilers:

Equipment	Code
Central heating boiler 95kW/h BASIC	2.006.65
Central heating boiler 135kW/h BASIC	2.006.66
Central heating boiler 190kW/h BASIC	2.006.67
Central heating boiler 230kW/h BASIC	2.006.68
Central heating boiler 120kW/h PRO	2.006.70
Central heating boiler 180kW/h PRO	2.006.71
Central heating boiler 230kW/h PRO	2.006.72



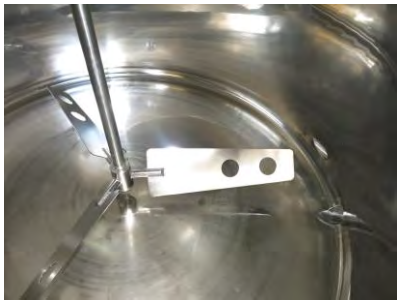
Controller BH2



Pre masher with funnel



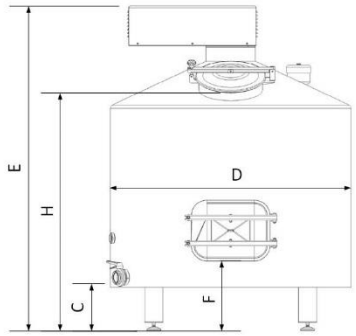
Steam condenser - with energy recuperation



Whirlpool module
(tangential entry for the product, liftable stirrer)

Lauter cistern type LC 500 - 4000

Description of the article:
- **insulated kettle**, made of stainless steel W.Nr.1.4301 (AISI 304) on a stable support, with an inclined bottom 2° against the outflow
- welded cover with service opening
- spray ball
- outflow with butterfly valve
- multi-part perforated filter plate with 1,5 mm holes (LC 500, 650) or **line cut filter plate** (LC 1000 - 3000)) on the bottom
- service opening on the side for emptying the malt (440x330 mm - LC500, 650) (555x430 mm - LC1000, 4000)
- **electromotor with rake stirrer and stirrer speed regulation**
- temperature display





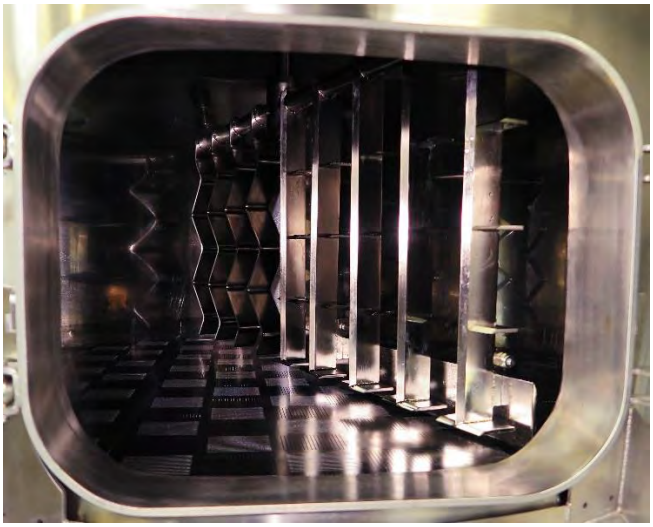
Type	Net volume	Total volume	Dimensions (mm)					Outflow	Inlet	CIP	Code
			Diameter D	Manhole H	Outflow C	Side door F	Height E				
LC 500	500	600	1100	1100	360	460	1520	DN65	DN32	DN25	2.001.57
LC 650	650	780	1300	1100	360	460	1700	DN65	DN32	DN25	2.001.58
LC 1000	1000	1200	1550	1250	340	490	1800	DN65	DN40	DN25	2.001.59
LC 1500	1500	1800	1550	1860	340	490	2110	DN65	DN40	DN32	2.001.60
LC 2000	2000	2400	1720	1700	320	500	2290	DN65	DN50	DN32	2.001.61
LC 3000	3000	3600	2150	1520	350	560	2750	DN80	DN50	DN32	2.001.62
LC 4000	4000	4800	2150	1840	350	560	3070	DN80	DN65	DN40	2.001.63

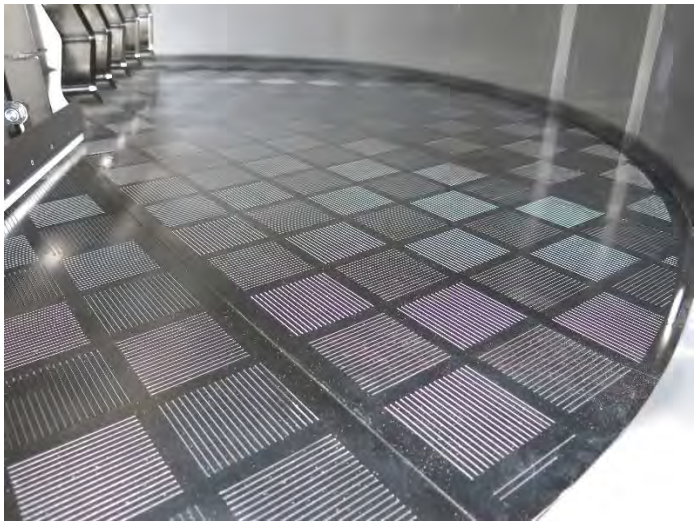
Type	Pneumatic lifting of the rake stirrer	Slotted filter bottom (water cut)	Carter around support	Higher support (up to +600 mm)	Pre-masher (for single temperature infusion mashing)
LC 500	2.005.80	2.005.55	2.006.47	2.006.40	2.006.18
LC 650	2.005.80	2.005.56	2.006.47	2.006.40	2.006.18
LC 1000	2.005.80	included	2.006.48	2.006.41	2.006.18
LC 1500	included	included	2.006.48	2.006.41	2.006.18
LC 2000	included	included	2.006.49	2.006.42	2.006.18
LC 3000	included	included	2.006.50	2.006.43	2.006.18
LC 4000	included	included	2.006.50	2.006.43	2.006.18

Additional equipment - options:

Equipment	Code
DN 80 outflow	1.304.35
Outflow micro valve DN65	2.005.75
Outflow micro valve DN80	2.005.76
Buffer tank 60l	2.006.45
Buffer tank 100l	2.006.46
Level indicator glass 500 - 1000	2.006.17
Level indicator glass 1500 - 4000	2.006.44



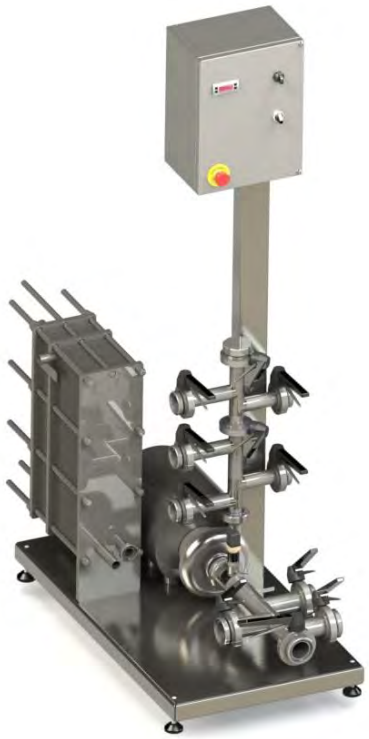




Module for pumping

Central base with centrifugal pump, wort cooler, pipes, valves… To connect the BC and LC. Optionally you can add a HWT tank.

Type	Pump		Number of tanks	Code	Option: two part wort cooler (cooling with tap water and ice water)
	Power / flow	Pipeline suction / pressure			
BC/LC 500	0,75kW / 5000l/h at 1,5 bar	40/32	3	2.006.75	2.006.79
BC/LC 650	0,75kW / 5000l/h at 1,5 bar	40/32	3	2.006.75	2.006.79
BC/LC 1000	1,1kW / 9000 l/h at 1,5 bar	40/32	3	2.006.76	2.006.79
BC/LC 1500	1,1kW / 9000 l/h at 1,5 bar	40/32	3	2.006.76	2.006.79
BC/LC 2000	2,2kW / 15000l/h at 1,8 bar	50/40	3	2.006.77	included
BC/LC 3000	2,2kW / 15000l/h at 1,8 bar	50/40	3	2.006.77	included
BC/LC 4000	3kW / 28000 l/h at 2 bar	50/40	3	2.006.78	included







Hot water tank HWT 750 - 4500

Heating up to 80°C

Description of the article:
- vertical **insulated** cylindrical tank
- material: stainless steel AISI 304
- cover with service manhole
- pressure in the tank: atmospheric, 0 bar
- pressure in the exchanger: max. 3 bar
- 2x inlet connection (cold water, hot water from recuperation)
- outflow connection with butterfly valve
- spray ball with connections for CIP
- level indication glass
- temperature indication
- simple temperature regulation (if electrically heated)
- power supply: option 400V 3N 50Hz for the electrically heated versions







Type	Total volume (l)	Recommended with BC	Dimensions (mm)			Inlet	Outlet	Hot water	Code
			Outside diameter D	Inside diameter d	Total height H				
HWT 750	750	500	850	730	1850	DN32	DN40	1''	2.001.65
HWT 1000	1000	650	1150	1030	1950	DN32	DN40	1''	2.001.66
HWT 1500	1400	1000	1150	1030	2500	DN32	DN40	1''	2.001.67
HWT 2200	2250	1500	1300	1180	2550	DN40	DN50	5/4''	2.001.68
HWT 3000	3000	2000	1550	1430	2700	DN40	DN50	5/4''	2.001.69
HWT 4500	4500	3000	1990	1800	2700	DN50	DN65	6/4"	2.001.70

Additional equipment - option:

Type	Heating with electrical heaters, simple temperature regulation				Wall exchanger for heating with hot water	Simple temperature regulation for hot water heating
	Standard electrical heaters (kW)	Standard electrical heaters code	Stronger electrical heaters (kW)	Stronger electrical heaters code		
HWT 750	18	Included	30	2.006.20	2.001.85	2.001.91
HWT 1000	20	Included	30	2.006.20	2.001.86	2.001.91
HWT 1500	30	Included	45	2.006.21	2.001.87	2.001.92
HWT 2200	45	Included	60	2.006.51	2.001.88	2.001.92
HWT 3000	60	2.006.51	90	2.006.28	Included	2.001.93
HWT 4500	90	2.006.28	/	/	Included	2.001.93

Cold water tank CWT 750 - 4500



Description of the article:

- vertical **uninsulated** cylindrical tank
- material: stainless steel AISI 304
- cover with service manhole
- pressure in the tank: atmospheric, 0 bar
- inlet connection
- outflow connection with butterfly valve
- spray ball with connections for CIP

Type	Dimensions (mm)			Total volume (l)	Code	Inlet	Outlet	Insulation coat (option)	Temperature indication (option)
	Outside diameter D	Inside diameter d	Total height H						
CWT 750	850	730	1850	750	2.001.78	DN32	DN40	2.001.94	2.006.29
CWT 1000	1150	1030	1950	1000	2.001.79	DN32	DN40	2.001.95	2.006.29
CWT 1500	1150	1030	2500	1500	2.001.80	DN32	DN40	2.001.96	2.006.29
CWT 2200	1300	1180	2550	2250	2.001.81	DN40	DN50	2.001.97	2.006.29
CWT 3000	1300	1180	2700	3000	2.001.82	DN40	DN50	2.001.98	2.006.29
CWT 4500	1550	1430	2700	4500	2.001.83	DN50	DN65	2.001.99	2.006.29

Whirlpool tank WT 500 - 4000

Description of the article:

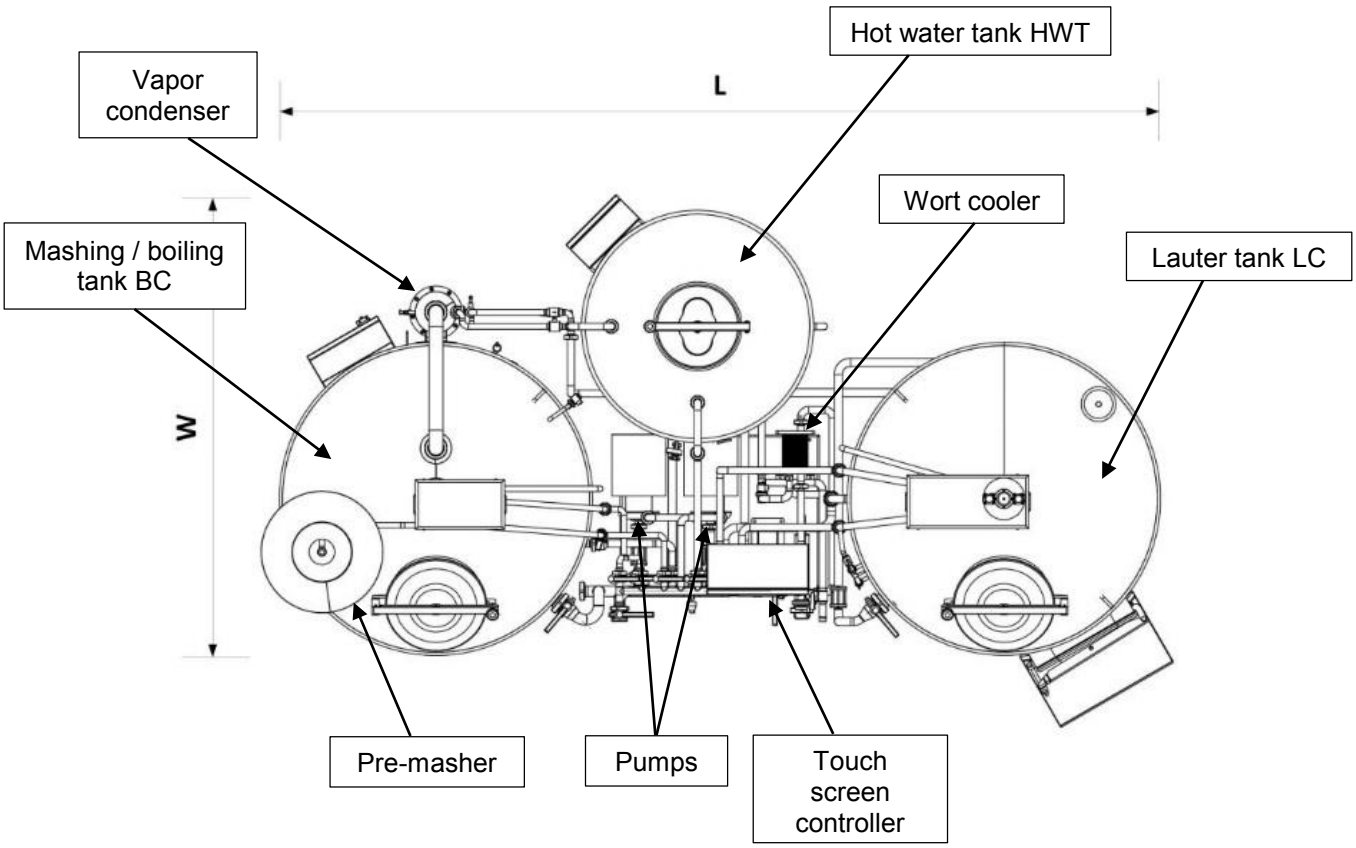
- vertical **insulated** cylindrical tank
- material: stainless steel AISI 304
- cover with service manhole
- conical bottom
- pressure in the tank: atmospheric, 0 bar
- tangential inlet connection with butterfly valve
- spray ball with connections for CIP
- side outflow connection with butterfly valve for clear product
- central outflow connection with butterfly valve for the hops and trub

Type	Total volume (l)	Dimensions (mm)			Code	Inlet	Outlet	Temperature indication (option)
		Outside diameter D	Inside diameter d	Total height H				
WT 500	600	1140	1030	1270	2.002.00	DN32	DN65	2.006.29
WT 650	780	1300	1190	1400	2.002.01	DN32	DN65	2.006.29
WT 1000	1200	1560	1430	1500	2.002.02	DN32	DN65	2.006.29
WT 1500	1800	1730	1600	1800	2.002.03	DN40	DN65	2.006.29
WT 2000	2400	1730	1600	2000	2.002.04	DN40	DN65	2.006.29
WT 3000	3600	2150	2000	2200	2.002.05	DN50	DN80	2.006.29
WT 4000	4800	2150	2000	2500	2.002.06	DN50	DN80	2.006.29

Brewing block type BHM 3 / 500 – 3000
types EL, HW and EW



Type	Includes	Volume mash cistern (l)	Volume lauter cistern (l)	Volume hot water tank (l)	Dimensions (mm)			Weight (kg)
					L	W	H	
BHM 3 500	BC 500 / LC 500 / HWT 750	600	600	750	3850	2200	2350	1500
BHM 3 1000	BC 1000 / LC 1000 / HWT 1500	1200	1200	1400	5000	3000	2600	2000
BHM 3 2000	BC 2000 / LC 2000 / HWT 3000	2400	2400	3000	4950	3900	3050	2500
BHM 3 3000	BC 3000 / LC 3000 / HWT 4500	3600	3600	4500	5600	4550	3250	3100



Advantages of the BHM 3

- Minimal space requirement
- Easy and fast installation
- Different brewing processes possible (multi-rest mashing, single temperature infusion mashing, decoction mashing)
- Energy efficient, wort cooling and boiling energy can be used for heating the water for the next brew
- Automatic temperature control, manual valves for pumping

How to brew in the BHM 3 brewing block – MULTI STEP MASHING

1. Heat the water in the hot water tank or **use hot water from a previous brew** (see point 4 and 6)
2. Start pumping the hot water in the mashing tank through the **pre-masher.** Pour the crushed malt into the pre-masher to mix it with hot water before it enters the mashing tank. The mixture of malt and water is called mash. Using the pre-masher we can achieve the **best mixing of malt and water** so there is no dry malt floating on top of the mash inside the mashing tank. In the mashing tank the mash is heated according to the recipe you can enter on the **touch screen controller**. You can set 6 different programs of **multi-rest mashing**. Each program allows setting 5 mashing temperatures and 5 holding times.
3. After the mashing process is done pump the entire mash into the lauter tank. In the lauter tank the malt will fall down to the **laser cut filter plate** to make a grain bed that will self-filter the mash. The result will be a sweet clear liquid called wort. At this point to get as much sugar from the grains you **sparge** the grain bed with hot water from the hot water tank. The wort coming from the lauter tank goes by **gravity** to a buffer tank and from there it is pumped into the boiling tank. The **rake stirrer** inside the lauter tank helps to achieve a more **uniform filter bed** and in case of a blocked filter bed it can be used to cut the filter bed and restart the flow of wort.
4. After all the wort is in the boiling tank you can start heating the wort up to **100°C**. When the boiling point is reached you can add the hops and other additions to your beer. A lot of energy is used for boiling and with the use of a **vapor condenser** you can use this energy to **heat water for the next** brew and store it in the hot water tank.
5. After boiling the wort is cleared by **whirlpooling** inside the boiling tank. The wort is pumped out from the outflow of the boiling tank and back inside through the whirlpool (tangential) connection. To achieve a better whirlpool effect the **stirrer is lifted** with the use of a special mechanism. After whirlpooling the hops and trub accumulate on the center of the tank and only clear wort can be pumped to the next step.
6. The final step is to pump the clear wort through the wort cooler (plate heat exchanger) where it is cooled **from 100°C down to 25°C**. From the wort cooler the wort goes directly to the fermentation tank. The cooling water will be heated by the wort and can be **stored for the next brew** in the hot water tank.



1



2



3



4



5



6

How to brew in the BHM 3 brewing block – SINGLE TEMPERATURE INFUSION MASHING

1. Heat the water in the hot water tank or **use hot water from a previous brew** (see point 4 and 6)
2. Start pumping the hot water in the **lauter tank** through the **pre-masher.** Pour the crushed malt into the pre-masher to mix it with hot water before it enters the lauter tank. The mixture of malt and water is called mash. Using the pre-masher we can achieve the **best mixing of malt and water** so there is no dry malt floating on top of the mash inside the lauter tank. Let the mash rest inside the insulated lauter tank.
3. In the lauter tank the malt will fall down to the **laser cut filter plate** to make a grain bed that will self-filter the mash. The result will be a sweet clear liquid called wort. At this point to get as much sugar from the grains you **sparge** the grain bed with hot water from the hot water tank. The wort coming from the lauter tank goes by **gravity** to a buffer tank and from there it is pumped into the boiling tank. The **rake stirrer** inside the lauter tank helps to achieve a more **uniform filter bed** and in case of a blocked filter bed it can be used to cut the filter bed and restart the flow of wort.
4. After all the wort is in the boiling tank you can start heating the wort up to **100°C**. When the boiling point is reached you can add the hops and other additions to your beer. A lot of energy is used for boiling and with the use of a **vapor condenser** you can use this energy to **heat water for the next** brew and store it in the hot water tank.
5. After boiling the wort is cleared by **whirlpooling** inside the boiling tank. The wort is pumped out from the outflow of the boiling tank and back inside through the whirlpool (tangential) connection. To achieve a better whirlpool effect the **stirrer is lifted** with the use of a special mechanism. After whirlpooling the hops and trub accumulate on the center of the tank and only clear wort can be pumped to the next step.
6. The final step is to pump the clear wort through the wort cooler (plate heat exchanger) where it is cooled **from 100°C down to 25°C**. From the wort cooler the wort goes directly to the fermentation tank. The cooling water will be heated by the wort and can be **stored for the next brew** in the hot water tank.



1



2



3



4



5



6

Description of the article:

Mashing/boiling tank – BC type EL:

Heating with electrical heaters up to 100°C.

Description and contains:
- vertical **insulated** cylindrical tank
- **energy saving, laser welded bottom and wall exchanger**
- material: stainless steel AISI 304/316
- inclined bottom 2.5° against the outflow (500l – 1000l) or conical bottom with central outflow (2000l – 3000l)
- cover with service manhole
- pressure in the tank: atmospheric, 0 bar
- pressure in the exchanger: max. 4 bar
- spray ball with connections for CIP
- inlet connection for product
- outflow with butterfly valve
- **electrical heaters**
- **module for choosing heating power**
- whirlpool module (tangential entry, adapted stirrer)
- water circulation pump for the circulation of heating water, expansion vessel, safety valve, manometer
- electro motor with special stirrer and stirrer speed regulation
- stirrer size 75% of the diameter of the tank
- temperature probe in the product

Mashing/boiling tank – BC type HW:

Heating with hot water up to 100°C. (preparation of hot water in heat room is not in calculated)

Description and contains:
- vertical **insulated** cylindrical tank
- **energy saving, laser welded bottom and wall exchanger**
- material: stainless steel AISI 304/316
- inclined bottom 2.5° against the outflow (500l – 1000l) or conical bottom with central outflow (2000l – 3000l)
- cover with service manhole
- pressure in the tank: atmospheric, 0 bar
- pressure in the exchanger: max. 4 bar
- spray ball with connections for CIP
- inlet connection for product
- outflow with butterfly valve
- **connections for an external heating system**
- **electromotor/electro-magnetic valves for heating water**
- whirlpool module (tangential entry, adapted stirrer)
- water circulation pump for the circulation of heating water, expansion vessel, safety valve, manometer
- electro motor with special stirrer and stirrer speed regulation
- stirrer size 75% of the diameter of the tank
- temperature probe in the product

Mashing/boiling tank – BC type EW:

Heating with a hot water and electrical heaters up to 100°C. (preparation of hot water in heat room is not in calculated)

Description and contains:
- vertical **insulated** cylindrical tank
- **energy saving, laser welded bottom and wall exchanger**
- material: stainless steel AISI 304/316
- inclined bottom 2.5° against the outflow (500l – 1000l) or conical bottom with central outflow (2000l – 3000l)
- cover with service manhole
- pressure in the tank: atmospheric, 0 bar
- pressure in the exchanger: max. 4 bar
- spray ball with connections for CIP
- inlet connection for product
- outflow with butterfly valve
- **connections for an external heating system**
- **electrical heaters**
- **electromotor/electro-magnetic valves for the choice of the source of heating**
- whirlpool module (tangential entry, adapted stirrer)
- **module for choosing heating power**
- water circulation pump for the circulation of heating water, expansion vessel, safety valve, manometer
- electro motor with special stirrer and stirrer speed regulation
- stirrer size 75% of the diameter of the tank
- temperature probe in the product

Lauter cistern LC:

The cistern is designed for filtering wort using gravity.
Description and contains:
- vertical **insulated** cylindrical tank
- material: stainless steel AISI 304/316
- inclined bottom 2° towards the outflow.
- cover with service opening
- spray ball with connections for CIP
- spreader nozzle for spreading hot water on the mash
- multi-part line cut filter plate (minimum distance from the bottom)
- service opening on the side for cleaning
- outflow with butterfly valve
- electric motor
- rake stirrer with speed regulation
- mechanism for the pneumatic lifting of the rake stirrer
- double volume indicator (two glass tubes on the side of the tank) for controlling the pressure difference under and over the filter plate during lautering

Hot water tank HWT:

Heating up to 80°C
Description and contains:
- vertical **insulated** cylindrical tank
- material: stainless steel AISI 304
- cover with manhole
- spray ball with connections for CIP
- combined heating with hot water from external source + electrical heaters
- temperature probe in the water
- simple temperature regulation
- tank volume indicator (glass tube on the side of the tank)

Central plateau with pipelines, pumps, plate heat exchanger, buffer...

- pipelines connecting all three vessels
- common suction pipeline with valves battery
- product pressure pipeline with valves battery
- cleaning pressure pipeline with valves battery
- butterfly valves
- butterfly micro valves
- no-return valve on whirlpool line
- sight glass
- connections for an additional boiling tank
- plate heat exchanger for cooling the wort
- stainless steel line filter with filter net
- centrifugal pump for the product
- centrifugal pump for water / cleaning agent
- buffer vessel with automatic operation (2x level sensor) under the lauter tank

Control panel:

- electric box with a 10,4" touch screen controller BH3 for the automatic regulation of heating, temperature displays for setting, controlling and monitoring the process of beer making
- schematic representation of the brewery
- guiding the user through the processes of mashing, lautering, boiling, whirlpooling, cooling and cleaning
- automatic operation of the pump during lautering
- speed regulation of the stirrer, rake stirrer and both pumps
- automatic control of the level of liquid in the buffer vessel
- flowmeter for measuring the quantity of water filled in the brewing cistern
- module for choosing the power of electrical heating - 2 levels
- module for working without the controller - urgent module
- power supply 400V 3N 50Hz



PLEVNIK

Heating power:

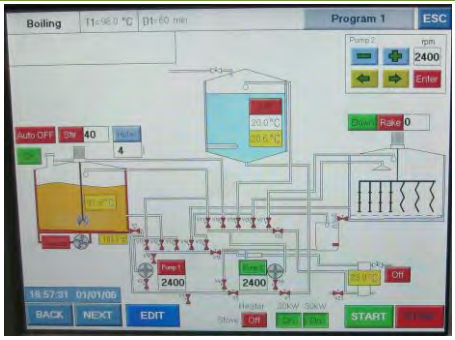
Type	Type EL			Type HW			Type EW			
	Electrical heaters in BC (kW)	Electrical heaters in HWT (kW)	Code	Electrical heaters in HWT (kW)	Recommended hot water boiler (kW)	Code	Electrical heaters in BC (kW)	Electrical heaters in HWT (kW)	Recommended hot water boiler (kW)	Code
BHM 3 500	36	18	2.003.54	18	65	2.003.60	36	18	65	2.003.72
BHM 3 1000	60	30	2.003.55	30	100	2.003.61	60	30	100	2.003.73
BHM 3 2000	120	60	2.003.56	60	130	2.003.62	120	60	130	2.003.75
BHM 3 3000	180	90	2.003.57	90	180	2.003.63	180	90	180	2.003.76

Additional equipment:

Size	Pre-masher with funnel	Conical bottom on BC	Level indicator glass on BC	Steam condenser - with energy recuperation	Steam condenser - without energy recuperation	Wooden box
500 l	2.006.18	2.001.47	2.006.17	2.006.14	2.006.32	1.306.75
1000 l	2.006.18	2.001.46	2.006.17	2.006.15	2.006.33	1.306.78
2000 l	2.006.18	included	2.006.44	2.006.30	2.006.35	1.306.82
3000 l	2.006.18	included	2.006.44	2.006.31	2.006.36	

Hot water boilers:

Equipment	Max working temperature / pressure	Code
Central heating boiler 93kW/h BASIC	115°C / 4 bar	2.006.65
Central heating boiler 135kW/h BASIC	115°C / 4 bar	2.006.66
Central heating boiler 190kW/h BASIC	115°C / 4 bar	2.006.67
Central heating boiler 230kW/h BASIC	115°C / 4 bar	2.006.68
Central heating boiler 120kW/h PRO	130°C / 5 bar	2.006.70
Central heating boiler 180kW/h PRO	130°C / 5 bar	2.006.71
Central heating boiler 230kW/h PRO	130°C / 5 bar	2.006.72



Controller BH3



Pre masher with funnel



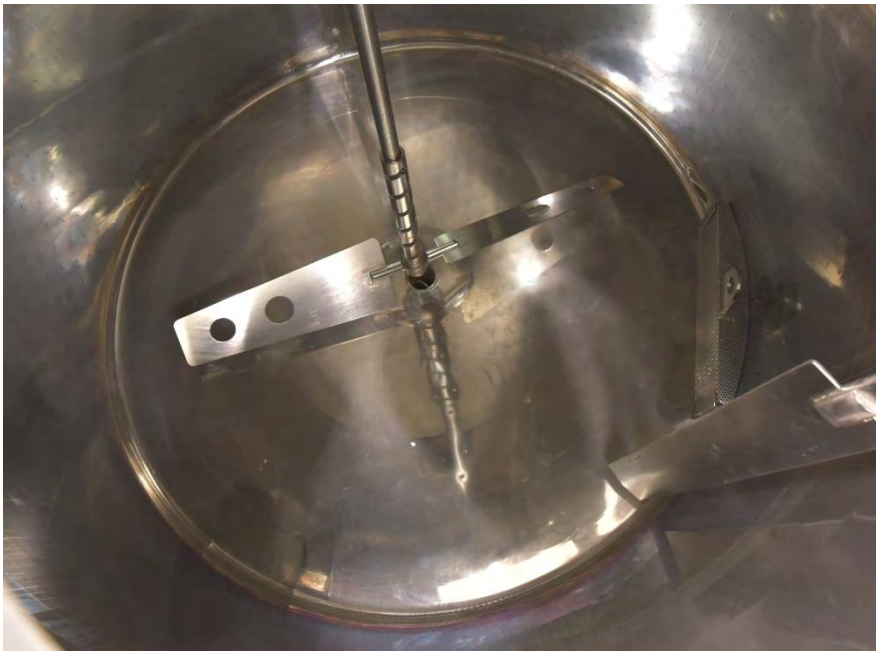
Steam condenser - with energy recuperation



Whirlpool module
(tangential entry for the product, liftable stirrer)













Brewing block type BHM 4 / 500 – 3000
Brewing block type BHM 5 / 500 – 3000
Brewing block type BHM 6 / 500 – 3000
types EL, HW and EW

BC, LC, HWT, BC
BC, LC, HWT, WT



Adding a second **BC** as a **mashing tank** will allow you to start the second brew before the first one is finished. This way you can do more brews per day than with the three vessel setup.

BC, LC, HWT, BC, WT

Adding a dedicated **whirlpool tank WT** will shorten the time for the wort inside the boiling tank which will further shorten the overall brewing time.

BC, LC, HWT, CWT, BC, WT

The full setup with six tanks includes the **cold water tank CWT** to always have the right amount of cold water ready for your brewing process – for cooling, cleaning…

Brewing block type BH 100, 250

Description of the article:



Mashing / boiling kettle:
- Vertical cylindrical insulated tank
- **Energy saving, laser welded bottom and wall exchanger**
- Made from stainless steel AISI 304/316
- Bottom is inclined 2,5% to the direction of the outlet
- support on wheels
- cover with service manhole
- steam chimney
- outflow with butterfly valve
- heating with electrical heaters (closed system)
- pump for the circulation of heating water
- motoreducer for the special stirrer
- stirrer speed regulation
- heating up to **100°C**

Lauter tank:
- insulated coat of the kettle, made of stainless steel W.Nr.1.4301 (AISI 304) with a conical bottom
- cover with service manhole
- without heating
- DN 40 outflow with butterfly valve
- steam chimney
- two part perforated plate for draining the wort
- service door by side (option)

Pipeline:
- connections DIN 11 851
- pump with flexible impeller for pumping the wort
- pipelines, manual valves and other equipment for the connection between tanks
- plate heat exchanger for cooling the wort down to **25°C**

Control panel:
- electric box with a controller GPC 145 for **the automatic regulation of heating,** temperature displays and switches for setting, controlling and monitoring the process of beer making
- power supply 400V 3N 50Hz

Type	Power of electrical heaters (kW)	Volume mash kettle (l)	Volume lauter tank (l)	Dimensions (mm)			Weight (kg)	Code	Option - Wooden box
				Length	Width	Height			
BH 100	12	170	140	2000	860	1900		2.003.50	2.005.x0
BH 250	24	400	340	2480	1070	1900		2.003.51	2.005.x1



Control panel



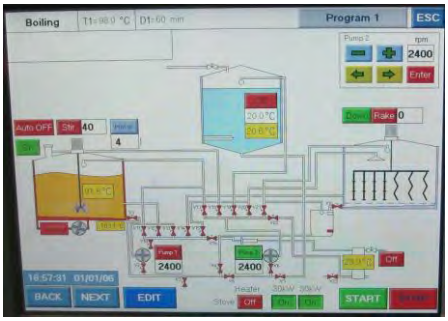
Stirrer in the mash kettle



Lauter tank - inside



Lauter tank - two part perforated plate



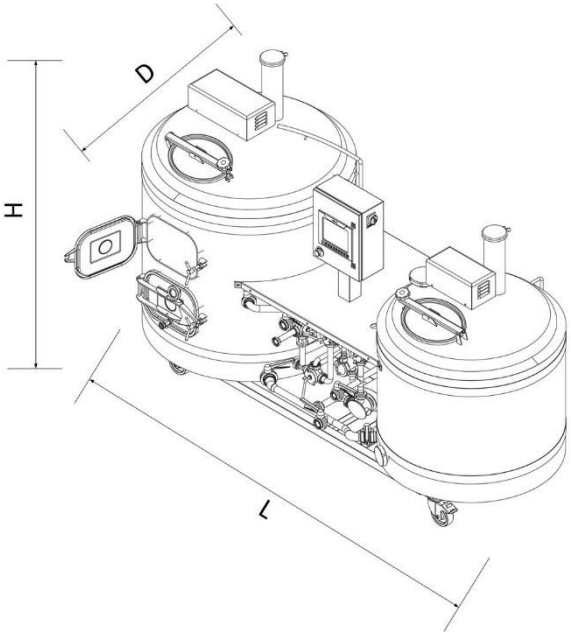
Option - controller BH3
2.006.02

Brewing block type BHW 500, 1000

Description of the article:



Mashing / boling kettle:
- Vertical cylindrical insulated tank
- **Energy saving, laser welded bottom and wall exchanger**
- Made from stainless steel AISI 304/316
- The inside area is made from 2B, welds are cleaned-sharpened; outside area is made from SB, welds are cleaned-sharpened
- Bottom is inclined 2,5% to the direction of the outlet
- Cover with service manhole
- Outlet connection with butterfly valve
- CIP cleaning ball 1x
- Vapor chimney
- Propeller stirrer with holes
- Hops filter
- Connection for influx of water 3/4"
- Heating with el. heaters with circulation pump for the circulation of heating water, security valve, expansion vessel
- Motoreducer for the stirrer



Lauter tank:
Intend for draining - filtering and collect of clear wort in collection vessel under the lauter tun
- Vertical cylindrical insulated tank (without heating section)
- Made from stainless steel AISI 304
- Treat inside area is made from 2b, welds are cleaned-sharpened; outside area is made from SB, welds are cleaned-sharpened
- Bottom in the lauter tun is inclined to the outflow 2%, bottom in collection vessel a bit concave upward with outlet by side
- Welded basic cover and service manhole on top of lauter tun + tank door by side 500x400 (for empting of worth) with removable channel
- Service tank door 500x400 by side on collection tank with inspection glass window
- Outlet connections are DN 40 / 50 with butterfly valve
- Filtering bottom – multi part perforated plate (holes 1,5mm)
- CIP cleaning ball in lauter tun and in whirlpool
- Rake stirrer

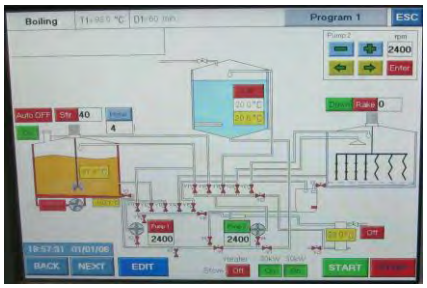
Pipelines block between Mash kettle, Lauter tun and Whirpool:
- Three way plug valves
- Butterfly valves
- Tubes/ pipelines DN 40, 32 connections DIN 11 851
- Centrifugal pump - rubber impeller for pumping worth, beer, water, CIP
- Inspection glass window with lamp 1x
- SS Plate heat exchanger for cooling of the beer
- Water cooled tube for sampling
- Line tube filter with holes ø1mm (DN40)
- Main connection for fresh water 3/4'' (1'')
- Connection for hot water 3/4'' (1'')
- Flow meter for hot and cold water

Control panel
Stainless steel electro steering case with:
- electric box with a 10,4" touch screen controller BH3 for the automatic regulation of heating, temperature displays for setting, controlling and monitoring the process of beer making
- Variable speed control for stirrer in mash kettle
- Variable speed control for rake stirrer
- Variable speed control for centrifugal pump
- Contactors, relays, safety switches, . .
- Emergency STOP

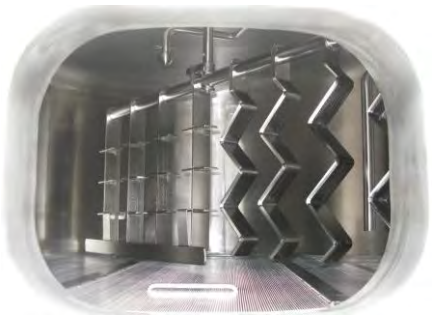
Power supply: 400V 3N 50Hz

Type	Heaters power (kW)	Volume mash kettle (l)	Volume lauter tank (l)	Volume whirlpool (l)	Dimensions (mm)			Cold water connection	Hot water connection	Weight (kg)	Code
					L	D	H				
BHW 500	36	650	600	600	3120	1370	1960	3/4''	3/4''		2.003.67
BHW 1000	60	1250	1050	1050	3800	1550	2600	3/4''	3/4''		2.003.68

Type	Additional outlet for emptying the hops DN 80 (on mash kettle, whirlpool)	Combined heating (hot water + electricity)	Pneumatic lifting of the rake stirrer	Slotted filter bottom (water cut)	Pre-masher	Steam condenser - with energy recuperation	Steam condenser - without energy recuperation	Wooden box
BHW 500	2.006.37	2.005.70	2.005.80	2.005.55	2.006.18	2.006.14	2.006.32	
BHW 1000	2.006.37	2.005.71	2.005.80	2.005.58	2.006.18	2.006.15	2.006.33	

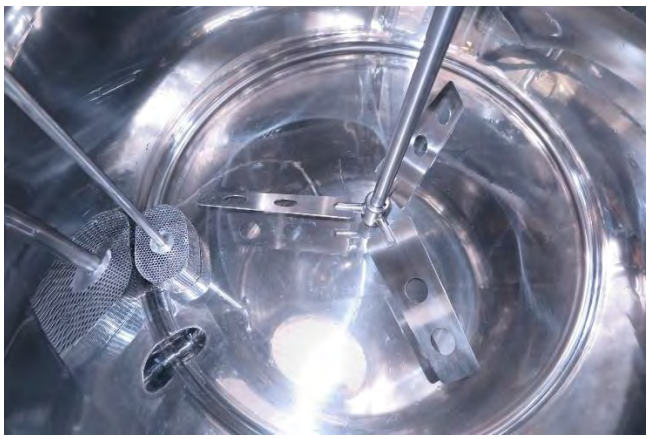


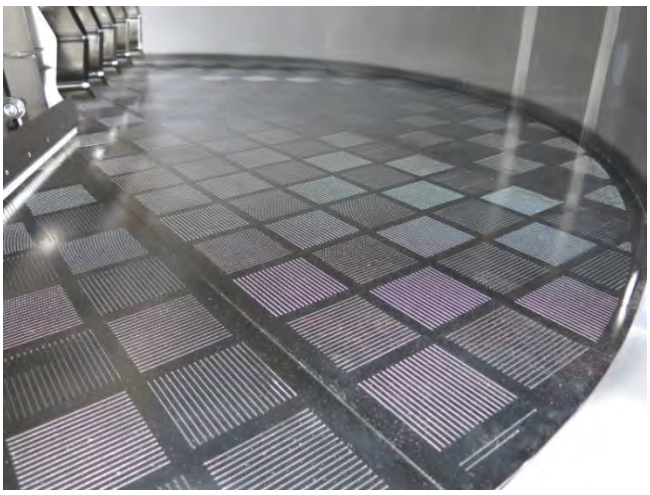
Controller BH3



Rake stirrer









Controller BH2 for BK, BC and BH3 for BH, BHW

BH2





- Touch screen color display 4,3" with 480×272 resolution
- Graphic display of the brewing cistern
- Allows the programming of 6 programs with 5 different mashing temperatures and duration times, the start of the stirrer for every duration time (on/off) and allows at all times to manually start/stop the stirrer and change the stirrer direction and speed
- Changing the working parameters during the use

BH3



- Touch screen display 10.4" with 800×600 resolution (SVGA)
- Graphic display of the brewing block
- Guides the user through the process of beer-making with a graphic display of the process and of the position of the valves.
- Allows the programming of 5 different mashing temperatures and duration times, the start of the stirrer for every duration time (on/off) and allows at all times to manually start/stop the stirrer and change the stirrers direction and speed
- Changing the working parameters during the use

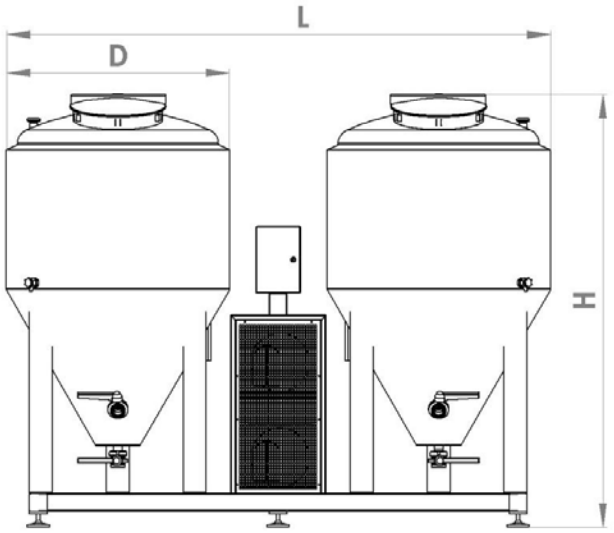
Fermentation tank for beer type FU(P) 2×100 - 2×1000

With inbuilt cooling unit



Description of the article:

- vertical **insulated tank** , made of stainless steel W.Nr.1.4301 (AISI 304) with a conical bottom
- atmospheric FU (maximum pressure in the vessel 0 bar) and pressure FUP (maximum pressure in the vessel 2.5 bar) executions
- support on wheels (FU 2×100 in FU2×250) or adjustable feet (FU 2×500 and FU 2×1000)
- service manhole
- inlet connection
- outflow connection with butterfly valve on the bottom of the cone
- outflow connection with butterfly valve on the front side of the cone
- side tap for examination
- connection for CIP and spray ball
- connection for an air valve (atmospheric version)
- cooling unit and electronic temperature regulation for each tank
- cooling area - wall and cone
- vacuum valve (on pressure execution FTP)
- power supply 230V 50Hz





Type	Dimensions (mm)			Weight	Inlet	CIP	Total outflow	Side outflow	Atmospheric execution FU	Pressure execution FUP	Pressure regulation valve on FUP - option	Option - wooden box
	D	L	H									
FU(P) 2×100	650	1650	1520	250	DN32	DN25	DN40	DN32	2.004.51	2.003.90	2.004.51	2.005.y5
FU(P) 2×250	760	2350	1800	450	DN32	DN25	DN40	DN32	2.004.51	2.003.91	2.004.51	2.005.y6
FU(P) 2×500	1000	2460	1950	580	DN32	DN25	DN40	DN32	2.004.51	2.003.92	2.004.51	2.005.y7
FU(P) 2×1000	1200	2950	2550	840	DN32	DN25	DN40	DN32	2.004.51	2.003.93	2.004.51	2.005.y8



Control panel



Cooling unit



Pressure execution FUP - Safety valve



DN40 outflows on the cone

Fermentation tank for beer type FT and FTP 500 - 6000

Description of the article:
- vertical **insulated tank**, made of stainless steel W.Nr.1.4301 (AISI 304) with a **conical bottom**
- atmospheric FT (maximum pressure in the vessel 0 bar) and pressure FTP (maximum pressure in the vessel 2.5 bar) executions
- support on adjustable feet
- service manhole
- inlet connection
- outflow connection with butterfly valve on the bottom of the cone
- outflow connection with butterfly valve on the front side of the cone
- side tap for examination
- connection for CIP and spray ball
- connection for an air valve (atmospheric version)
- connections for cooling water on the side and cone
- tube for temperature probe Ø6 mm
- 1/2'' temperature probe connection (without probe) - OPTION
- vacuum valve (on pressure execution FTP)



Type	Total volume (l)	Dimensions (mm)			Inlet	CIP	Total outflow	Side outflow	Water connections	Approx. weight (kg)
		Inside diameter d	Outside diameter D	Height H						
FT(P) 500	600	Ø 900	Ø 1010	2000	DN32	DN25	DN40	DN32	2x 3/8"	220
FT(P) 1000	1200	Ø 1100	Ø 1210	2300	DN32	DN25	DN40	DN32	2x 3/8"	320
FT(P) 2000	2400	Ø 1300	Ø 1440	3150	DN40	DN25	DN40	DN40	2x 1/2"	500
FT(P) 3000	3600	Ø 1430	Ø 1570	3600	DN40	DN32	DN40	DN40	2x 3/4"	750
FT(P) 4000	4800	Ø 1600	Ø 1740	4000	DN40	DN32	DN50	DN40	2x 3/4"	850
FT(P) 5000	6000	Ø 1600	Ø 1740	4600	DN50	DN32	DN50	DN40	3x 3/4"	1000
FT(P) 6000	7200	Ø 1600	Ø 1740	5200	DN50	DN32	DN50	DN40	3x 3/4"	1150

Atmospheric execution FT	Code	Pressure execution FTP	Code	Pressure regulation valve on FTP - option	Service door on the side - option
FT 500	2.004.05	**FTP 500**	2.004.15	2.004.51	/
FT 1000	2.004.00	**FTP 1000**	2.004.10	2.004.51	2.004.53
FT 2000	2.004.01	**FTP 2000**	2.004.11	2.004.51	2.004.53
FT 3000	2.004.02	**FTP 3000**	2.004.12	2.004.51	2.004.53
FT 4000	2.004.03	**FTP 4000**	2.004.13	2.004.51	Included
FT 5000	2.004.04	**FTP 5000**	2.004.14	2.004.51	Included
FT 6000	2.004.06	**FTP 6000**	2.004.16	2.004.51	Included

Maturation tank for beer type MT and MTP 500 - 6000

Description of the article:
- vertical **uninsulated tank**, made of stainless steel W.Nr.1.4301 (AISI 304) with a **concave bottom**
- atmospheric MT (maximum pressure in the vessel 0 bar) and pressure execution MTP - safety valve - maximum pressure in the vessel 2.5 bar
- support on adjustable feet
- service manhole
- inlet connection
- outflow connection with butterfly valve on the bottom
- outflow connection with butterfly valve on the front side
- tap for examination
- connection for CIP and spray ball
- connections for cooling water
- tube for temperature probe Ø6 mm
- 1/2'' temperature probe connection (without probe) – OPTION
- with a modification can be used as a fermentation tank - OPTION



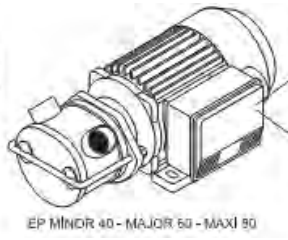
Type	Total volume (l)	Dimensions (mm)			Inlet	Total outflow	Side outflow	CIP	Water connections	Approx. weight (kg)
		Inside diameter d	Outside diameter D*	Height H						
MT(P) 500	575	Ø 750	Ø 850	1550	DN32	DN32	DN32	DN25	1/2"	190
MT(P) 1000	1150	Ø 1030	Ø 1150	2150	DN32	DN32	DN32	DN25	1/2"	270
MT(P) 2000	2300	Ø 1200	Ø 1300	3000	DN40	DN40	DN40	DN32	1/2"	450
MT(P) 3000	3450	Ø 1200	Ø 1300	3700	DN40	DN40	DN40	DN32	3/4"	650
MT(P) 4000	4600	Ø 1400	Ø 1520	3600	DN40	DN40	DN40	DN32	3/4"	750
MT(P) 5000	5750	Ø 1600	Ø 1740	3700	DN50	DN40	DN40	DN32	1"	880
MT(P) 6000	6900	Ø 1600	Ø 1740	4200	DN50	DN40	DN40	DN32	1"	1000

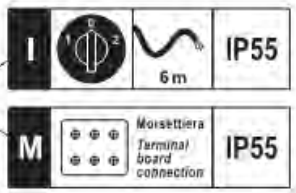
* outside diameter of insulated execution

Type	Code MT	Type	Code MTP	Pressure regulation valve on MTP - option	Insulation coat - option	Service door on the side - option
MT 500	2.004.20	**MTP 500**	2.004.30	2.004.51	2.004.40	/
MT 1000	2.004.21	**MTP 1000**	2.004.31	2.004.51	2.004.41	2.004.53
MT 2000	2.004.23	**MTP 2000**	2.004.33	2.004.51	2.004.43	2.004.53
MT 3000	2.004.24	**MTP 3000**	2.004.34	2.004.51	2.004.44	2.004.53
MT 4000	2.004.25	**MTP 4000**	2.004.35	2.004.51	2.004.45	Included
MT 5000	2.004.26	**MTP 5000**	2.004.36	2.004.51	2.004.46	Included
MT 6000	2.004.27	**MTP 6000**	2.004.37	2.004.51	2.004.47	Included

Self priming pumps with flexible impeller type EP









Type	Fittings	Sealing	Power supply	Power [kW]	Speed [rpm]	Max. flux [l/h]		Code	Delivery
EP MINI 3/4"	DN 25	Ker.-Graf.-NBR	230V 50Hz	0,37	900	1000	I	5.002.01	
EP MINI 3/4"	DN 25	Ker.-Graf.-NBR	230V 50Hz	0,56	1400	1620	I	5.002.03	
EP MIDEX 1 1/4"	DN 32	Ker.-Graf.-NBR	400V 3N 50Hz	0,75	1400	5760	I	5.002.06	
EP MIDEX 1 1/4"	DN 32	Ker.-Graf.-NBR	230V 50Hz	0,75	1400	5760	I	5.002.07	
EP MINOR 40	DN 40	Ker.-Graf.-NBR	400V 3N 50Hz	1,5	900	6900	I	5.002.09	
EP MINOR 40	DN 40	Ker.-Graf.-NBR	230V 50Hz	1,5	900	6900	I	5.002.10	
EP MINOR 40	DN 40	Ker.-Graf.-NBR	400V 3N 50Hz	1,5	1400	10000	I	5.002.11	

Additional equipment:

Type	Material	For pump model	Code	Delivery
"L" handle	AISI 304	EP MINI	5.002.40	
"U" handle	AISI 304	EP MIDEX, EP MINOR	5.002.41	
Trolley 280×200	Zinc steel	EP MINI, EP MIDEX, EP MINOR	5.002.42	
Trolley 330×240	AISI 304	EP MINI, EP MIDEX, EP MINOR	5.002.43	

Centrifugal pumps type PL/CA





Type	Fittings	Sealing	Power supply	Power [kW]	Speed [rpm]	Liquid flow [m^3/h]	Code	Delivery
PL/CA 10-80	DN40 / DN32	ceramic / graphite / epdm	400V 3N 50Hz	0,75	2800	5 m3/h at 1.5 bar	5.002.35	
PL/CA 15-80	DN40 / DN32	ceramic / graphite / epdm	400V 3N 50Hz	1,1	2800	9 m3/h at 1.5 bar	5.002.36	
PL/CA 20-90	DN50 / DN40	ceramic / graphite / epdm	400V 3N 50Hz	1,5	2800	15 m3/h at 1.7 bar	5.002.37	
PL/CA 30-90	DN50 / DN40	ceramic / graphite / epdm	400V 3N 50Hz	2,2	2800	15 m3/h at 1,8 bar	5.002.38	
PL/CA 40-100	DN50 / DN40	ceramic / graphite / epdm	400V 3N 50Hz	3	2800	28 m3/h at 2 bar	5.002.39	
PL/CA 55-112	DN50 / DN40	ceramic / graphite / epdm	400V 3N 50Hz	4	2800	35 m3/h at 2 bar	5.002.40	

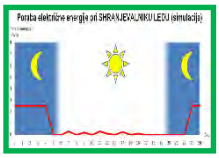
In the process of constant improvements we reserve the right to make technical and aesthetic modifications without prior notice!
Pictures are symbolic





ICE BANKS

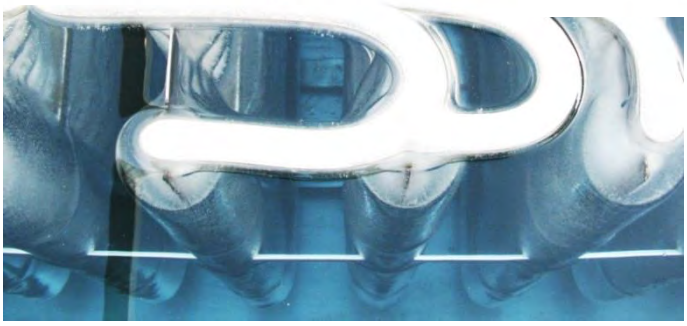
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ICE BANKS with cooling aggregates

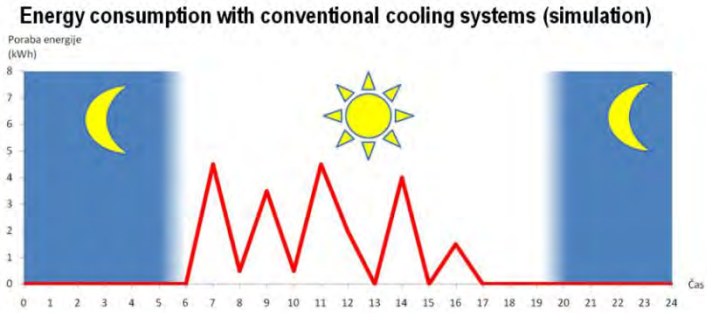


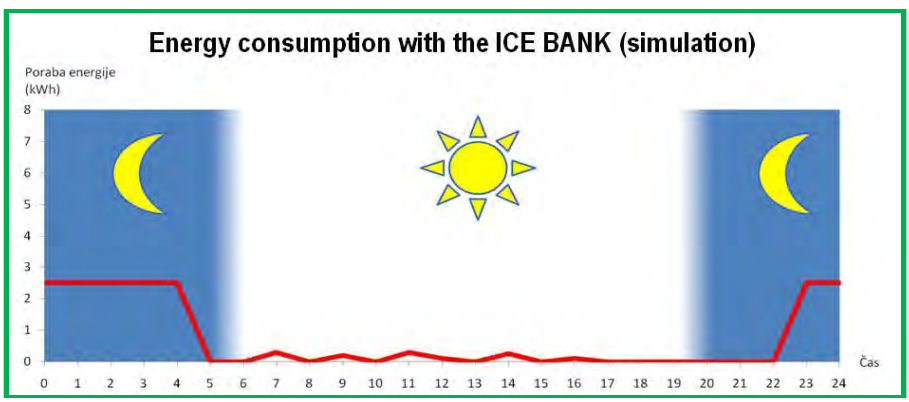




ADVANTAGES of the ice bank with cooling unit:

- It works during the night **when the energy costs are low** and uses the accumulated cooling energy during the day
- It uses a **smaller cooling aggregate** than conventional cooling systems because it operates with constant power over a predefined time range. The **cooling aggregate** has a **much smaller cooling power** than the peaks of cooling energy used during the process
- By cooling by night we achieve a **smaller load of the electric network** in the daytime (cheaper energy)
- Possibility of storing cooling energy from 20% to 100% of the capacity of the tank
- The water cools down to 0,5°C (optional -10°C)
- Thanks to the uniform ice surface the temperature of the water remains the same until the end of the melting

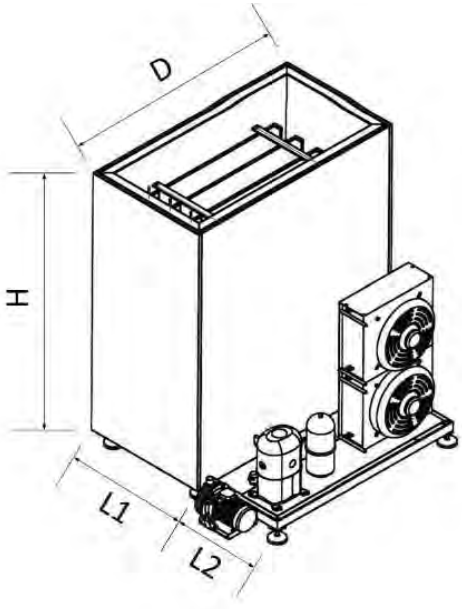




Ice bank with cooling aggregate type SHL 20 - 80

Assembly of the ice bank:

- Inside of the tank made from stainless steel W.Nr.1.4301
- Outside and cover of the tank made from stainless steel W.Nr.1.4301 (optional - outside of the tank made from zinced steel or lacquered)
- Thickness of insulation 60/75mm
- Framework and evaporator plates made from stainless steel W.Nr.1.4301
- Cooling aggregate with air condensing unit working with an **ecological coolant** (R404A)
- Control panel with an electronic thermostat for **setting and monitoring** the working parameters of the device
- Power supply: MF 230V 50Hz or TF 400V 3N 50Hz





Type SHL	Volume (l)	Capacity (kWh)	Amount of ice* (kg)	Melting capacity (0°C - 6°C) (kWh)	Type of cooling unit**	Cooling power*** (kW)	Supply power (V / kW)	Dimensions (mm)		
								D	H	L1 + L2
20	500	20	225	1,58	HGZ 22	2,3	MF/TF / 1,6	1100	1150	790 + 500
30	710	30	375	2,63	HGZ 28	3,3	TF / 2,0	1350	1680	600 + 500
40	1030	40	500	3,5	HGZ 36	4,5	TF / 2,7	1350	1680	810 + 500
50	1280	50	625	4,38	HGZ 50	6,5	TF / 3,7	1350	1680	960 + 600
60	1530	60	750	5,25	HGZ 50	6,5	TF / 3,7	1350	1680	1120 + 600
80	2030	80	1000	7	HGZ 64	8,2	TF / 4,8	1350	1680	1400 + 600

* When ice thickness is 50mm
** Labels and dimensions of the cooling units are only informative
***Making the full capacity of ice in 8-10h

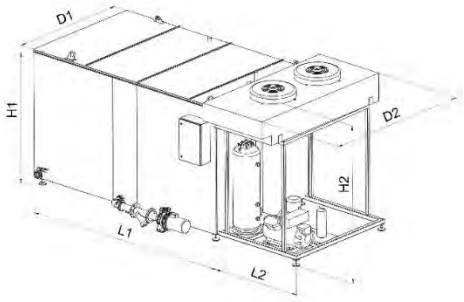
Type SHL	Code for inbuilt cooling unit	Code for separate cooling unit	Options		
			Waste heat recovery*	Scroll compressor	Ice water pump
20	3.000.04	3.000.33	3.001.00	/	3.000.73
30	3.000.07	3.000.36	3.001.01	3.001.40	3.000.74
40	3.000.08	3.000.37	3.001.01	3.001.41	3.000.75
50	3.000.09	3.000.38	3.001.01	3.001.42	3.000.76
60	3.000.10	3.000.39	3.001.02	3.001.42	3.000.77
80	3.000.11	3.000.40	3.001.02	3.001.43	3.000.78

* Without hot water tank

Additional equipment:

Equipment	Code
Water tank 100 L	3.001.10
Water tank 200 L	3.001.11
Water tank 300 L	3.001.12
Water tank 500 L	3.001.13
Electric heater 2kW for Water tank	3.001.30
Electric heater 3kW for Water tank	3.001.31
Air blower – for a more uniform ice consumption	3.001.04

Ice bank with cooling aggregate type SHL 100 - 1000





Assembly of the ice bank:

- Inside of the tank made from stainless steel W.Nr.1.4301
- Outside and cover of the tank made from stainless steel W.Nr.1.4301 (optional - outside of the tank made from zinced steel or lacquered)
- Thickness of insulation 75mm
- Framework end evaporator plates made from stainless steel W.Nr.1.4301
- Cooling aggregate with air condensing unit working with an **ecological coolant** (R404A)
- Control panel with an electronic thermostat for **setting and monitoring** the working parameters of the device
- Power supply: 400V 3N 50Hz

Type SHL	Volume (l)	Capacity (kWh)	Amount of ice* (kg)	Melting capacity (0°C - 6°C) (kWh)	Length L1 (mm)	Width D1 (mm)	Height H1 (mm)	Volume of cooling plates (l)	Code	Recommended cooling unit**
100	2300	100	1035	7,2	920	1900	2000	25	3.002.02	CA10
120	2750	120	1242	8,7	1100	1900	2000	30	3.002.03	CA12
160	3680	160	1712	11,6	1380	1900	2000	40	3.002.04	CA16
200	4600	200	2140	14,5	1750	1900	2000	50	3.002.05	CA20
280	6450	280	2996	21,8	2400	1900	2000	70	3.002.06	CA28
400	9200	400	4230	29	3320	1900	2000	100	3.002.07	CA40
500	12400	500	5382	37,8	4200	1900	2000	120	3.002.08	CA50
600	15180	600	6420	46,5	4950	1950	2050	150	3.002.09	2x CA28
800	17950	800	8560	55,2	6600	1950	2050	200	3.002.10	2x CA40
1000	24000	1000	10764	75,5	7850	1950	2050	240	3.002.11	2x CA50

*When ice thickness is 50mm
**Calculated for making the ice in 9-11 hour

Cooling unit***	Cooling power (kW)	Supply power (kW)	Length L2 (mm)	Width D2 (mm)	Height H2 (mm)	Code for inbuilt cooling unit	Option	
							Scroll compressor	Waste heat recovery****
CA10	8,9	3,5	800	1300	2000	3.002.35	3.002.95	3.003.95
CA12	11,4	4,4	1200 (800)	1500	2000	3.002.36	3.002.96	3.003.96
CA16	17,8	7	1300 (800)	1900	2100	3.002.38	3.002.98	3.003.98
CA20	22,8	8,8	1000	2300	2400	3.002.39	3.002.99	3.003.99
CA28	27,4	10,8	1250	2400	2400	3.002.40	3.003.00	3.004.00
CA40	45,6	17,6	1400	2420	2450	3.002.42	3.003.02	3.004.02
CA50	54,8	21,6	1400	3500	3600	3.002.43	3.003.03	3.004.03
2x CA28	54,8	21,6	1400	3500	3600	3.002.44	3.003.04	3.004.04
2x CA40	93	35,2	1400	4000	3800	3.002.46	3.003.06	3.004.06
2x CA50	110	44,7	1400	4800	3800	3.002.47	3.003.07	3.004.07

** Labels and dimensions of the cooling units are only informative
*** Without hot water tank

Equipment	Code
Air blower – for a more uniform ice consumption	3.001.05
Centrifugal pump for iced water, 10m3/h	3.003.60
Centrifugal pump for iced water, 20m3/h	3.003.61
Centrifugal pump for iced water, 30m3/h	3.003.62
Centrifugal pump for iced water, 40m3/h	3.003.63
Centrifugal pump for iced water, 50m3/h	3.003.64
Centrifugal pump for iced water, 60m3/h	3.003.65
Centrifugal pump for iced water, 70m3/h	3.003.66
Centrifugal pump for iced water, 80m3/h	3.003.67
Centrifugal pump for iced water, 90m3/h	3.003.68
Centrifugal pump for iced water, 100m3/h	3.003.69

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