Technical description
Milk Cooling Tank Type RKC

RØ-KA INDUSTRI A/S

V. 09.18 UK

Technical Description

RKC cooling tanks are closed tanks in the form of horizontal cylinders ranging in size from 4.000 to 30.000 litres (standard dimensions). Non standard sizes are available to meet customers requirements.

Tanks with a capacity of more than 10.000 litres are made to suit customer specifications, with a type of designation that corresponds to their nominal content.

All the material used is stainless steel of the quality EN 1.4301 (AISI 304).
The inside container is made of 2mm stainless steel and the outside shell is made of 1.5 mm stainless steel.

The tanks are fitted with a 450 mm manhole at the outlet end and with 85 mm ventilation pipe at the opposite end. The ventilation pipe can be used as an input pipe, or milk can be pumped in through the tank outlet pipe. The tank outlet is 3" fitted with a butterfly valve.

The butterfly valve at the tank outlet can be fitted with various types of threads or couplings to ensure that it fits the tank suction hose.

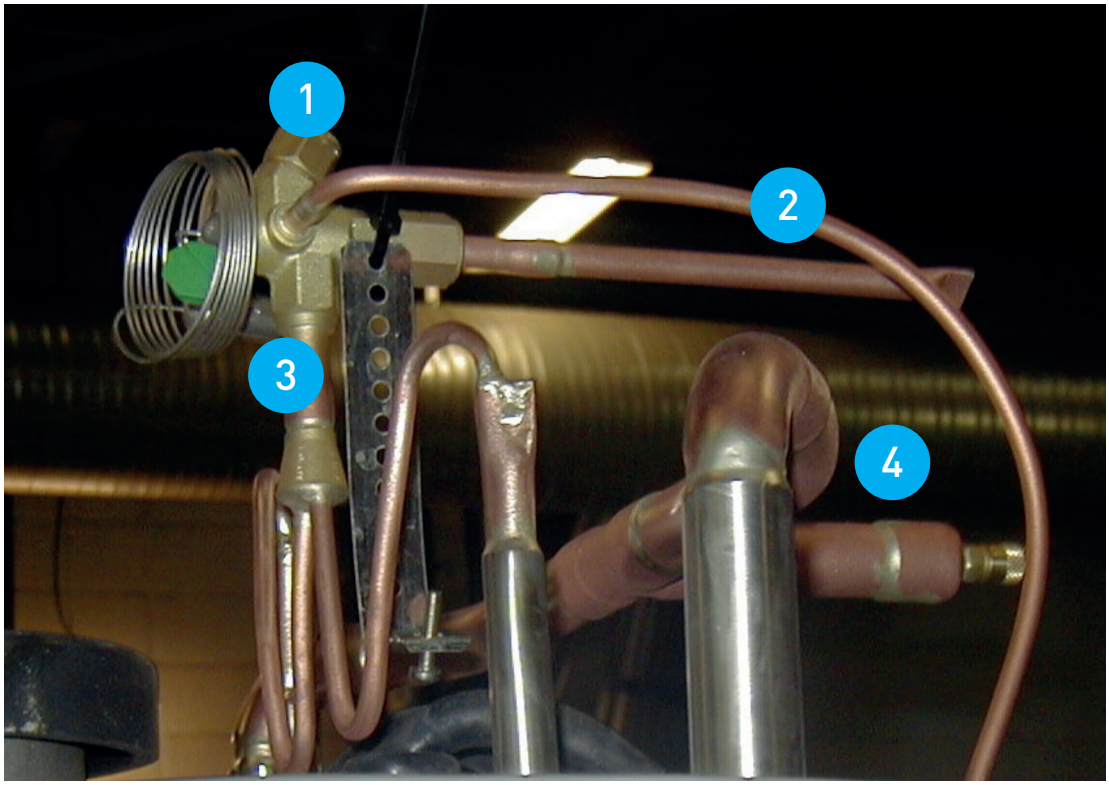
The insulation consists of polyurethane foam between the inner tank and the outer shell.

The height of the tank supporting legs is adjustable (0-50 mm).

The coolant connection pipes lead through the bottom of the tank at the end opposite the outlet.

The evaporator plate is welded to the inside tank and pressed into a channelling plate, the dimensions of which correspond to the cooling capacity of the tank type concerned. All connecting pipes are made of stainless steel. The evaporator system has been tested at 30 bars.

Evaporator System and Pipe Connection



1. TES2 or TES5 Thermal valve.
2. Inlet pipe ½" cu.
3. Distributor head
4. Suction line 5/8" – 7/8" or 1 1/8" cu pipe

Ext. pressure equalizing in ¼ " cu pipe or cap tube

The evaporator system is devided in 2 or 4 systems, depending on the model and the size of the tank.

The evaporator system is connected outside the tank depending on the numbers of cooling units

Size of the thermal valve and nozle are depending of the cooling unit type.

Dimensions

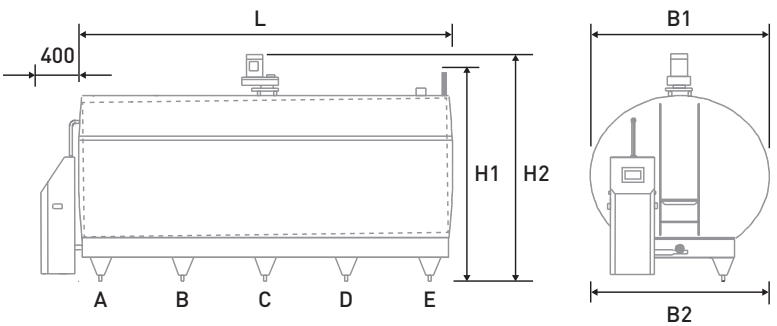
Ø 1.400	L mm	H1 mm	H2 mm	A mm	B mm	C mm	D mm	E mm	B1 mm	B2 mm
4.000 L	2.865	1.872	2.072	155	1.421	2.721			1.586	1.100
5.000 L	3.517	1.872	2.072	155	1.746	3.229			1.586	1.100
6.000 L	4.168	1.872	2.072	155	2.069	3.988			1.586	1.100

Ø 1.650	L mm	H1 mm	H2 mm	A mm	B mm	C mm	D mm	E mm	B1 mm	B2 mm
5.000 L	2.643	2.143	2.343	189	1.320	2.444			1.847	1.260
6.000 L	3.103	2.143	2.343	189	1.150	2.921			1.847	1.260
7.000 L	3.564	2.143	2.343	189	1.781	3.377			1.847	1.260
8.000 L	4.034	2.143	2.343	189	2.017	3.854			1.847	1.260
9.000 L	4.474	2.143	2.343	189	1.522	2.925	4.287		1.847	1.260
10.000 L	4.960	2.143	2.343	189	1.683	3.249	4.771		1.847	1.260

Ø 1.800	L mm	H1 mm	H2 mm	A mm	B mm	C mm	D mm	E mm	B1 mm	B2 mm
7.000 L	3.046	2.293	2.493	188	1.521	2.861			1.995	1.405
8.000 L	3.436	2.293	2.493	188	1.715	3.251			1.995	1.405
9.000 L	3.828	2.293	2.493	188	1.913	3.645			1.995	1.405
10.000 L	4.224	2.293	2.493	188	2.104	4.046			1.995	1.405
11.000 L	4.620	2.293	2.493	188	1.587	3.017	4.435		1.995	1.405
12.000 L	5.058	2.293	2.493	188	1.718	3.291	4.847		1.995	1.405

Ø 2.000	L mm	H1 mm	H2 mm	A mm	B mm	C mm	D mm	E mm	B1 mm	B2 mm
12.000 L	4.138	2.488	2.688	198	2.064	3.927			2.199	1.505
13.000 L	4.439	2.488	2.688	198	1.534	2.910	4.252		2.199	1.505
14.000 L	4.758	2.488	2.688	198	1.637	3.123	4.568		2.199	1.505
15.000 L	5.077	2.488	2.688	198	1.743	3.336	4.889		2.199	1.505
16.000 L	5.397	2.488	2.688	198	1.837	3.548	5.209		2.199	1.505
17.000 L	5.714	2.488	2.688	198	1.959	3.746	5.526		2.199	1.505
18.000 L	6.036	2.488	2.688	198	2.065	3.976	5.853		2.199	1.505
19.000 L	6.349	2.488	2.688	198	1.661	3.174	4.687	6.163	2.199	1.505
20.000 L	6.661	2.488	2.688	198	1.739	3.330	4.921	6.479	2.199	1.505

Ø 2.300	L mm	H1 mm	H2 mm	A mm	B mm	C mm	D mm	E mm	B1 mm	B2 mm
12.000 L	3.152	2.795	2.995	156	1.564	2.961			2.493	1.505
13.000 L	3.391	2.795	2.995	156	1.683	3.202			2.493	1.505
14.000 L	3.636	2.795	2.995	156	1.806	3.445			2.493	1.505
15.000 L	3.875	2.795	2.995	156	1.927	3.687			2.493	1.505
16.000 L	4.117	2.795	2.995	156	2.048	3.929			2.493	1.505
17.000 L	4.353	2.795	2.995	156	1.484	2.849	4.171		2.493	1.505
18.000 L	4.599	2.795	2.995	156	1.562	3.007	4.411		2.493	1.505
19.000 L	4.838	2.795	2.995	156	1.646	3.172	4.654		2.493	1.505
20.000 L	5.078	2.795	2.995	156	1.714	3.329	4.886		2.493	1.505
22.000 L	5.558	2.795	2.995	156	1.586	3.649	5.369		2.493	1.505
25.000 L	6.284	2.795	2.995	156	1.622	3.127	4.631	6.091	2.493	1.505
30.000 L	7.488	2.795	2.995	156	1.923	3.729	5.537	7.297	2.493	1.505



Agitation

Tanks from 4.000 to 9.000 litres are fitted with 1 agitator. Tanks from 10.000 to 25.000 litres are fitted with 2 agitators. Tanks over 30.000 litres are fitted with 3 agitators.

The gear motor is mounted on a bracket with 4 support bolts which are welded to the shell. The shaft passes through a 51 mm pipe leading all the way up to the gear motor, thereby ensuring optimum sealing between the tank and agitator.

Specification:

MOTOR

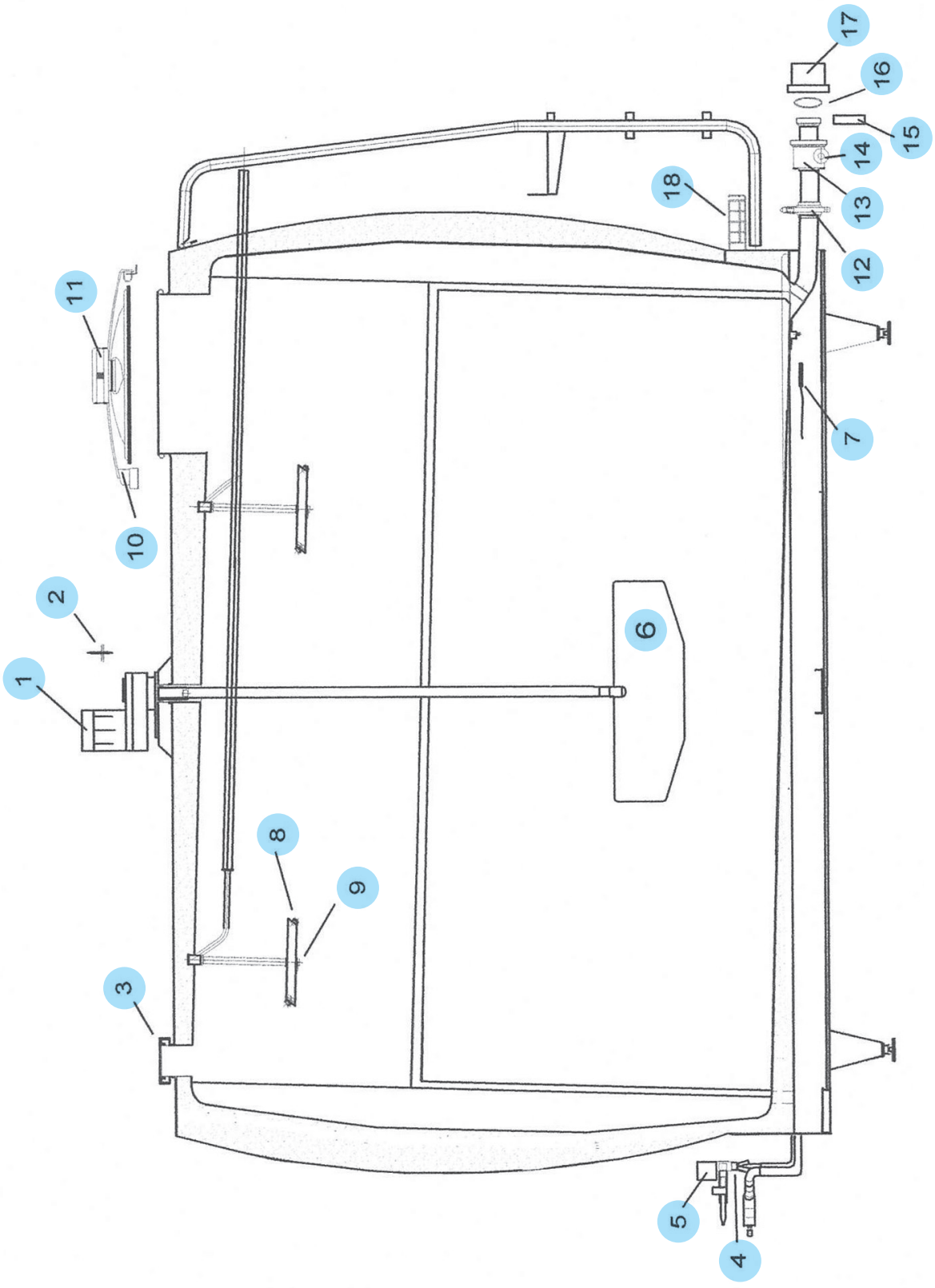
Type	R 1C 245 NSB
Power input	110 W
R.p.m. n1	2750
Current consumption at 220 V	1.0 Amp.
Voltage	1 x 220 V, A.C.
Available in any required voltage and frequency	
Sealing	IP54

GEAR

R.p.m. n2	25
Shaft material	18/8 stainless steel
Shaft dimensions	M28/2 threaded pin

Equipment for Washing

All RKC Cooling Tanks are fitted with built-in pipes and sprinkler for connection to the washing unit. Usually the washing unit is built-on, it can however also be supplied as a loose component.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Component List

Pos. No.	No.	Part. No.	Designation
1	1	332250	Agitator motor Sirem R1C 245
2	1	340130	Cogwheel for agitator motor R1C 245
3	1	322180	Rubber ventilation cover
4	1-2	322040	Distributor head 5/8*4
5	1-2	308240	TES 5 thermal valve
5.1.a.	1-2	308270	Housing TES 5
5	1-2	308370	TES 2 Thermal valve
5.1.b.	1-2	306170	Adaptor T2
6	1-2	116440	Agitator blade ø1650
6	1-2	116460	Agitator blade ø1800
6	1-2	116470	Agitator blade ø2000
6	1-2	116490	Agitator blade ø2300
7	1	310000	NI 100 sensor
8	2-8	305140	Nozzle for sprinkler
9	1	110170	T-Sprinkler
10	1	322160	Manhole lid, complete
11	1	322170	V-cover for manhole
12	1	336220	2" Butterfly valve
12a	1	336280	3" Butterfly valve
13a	1	130685	Outlet 3" - 2" nipple
14	1	312160	Rubber cap, 37mm
14	1	225480	Rubber cap ø51
16	1		Gasket (different numbers)
17	1	115683	NW 80 plastic outlet cap
17	1	308685	Pom outlet cap 3''
18	1	322825	Basket, big

* Please notice: Pos. 4 – 6 -19 different types

About RØ-KA

RØ-KA Industri has for many years accumulated valuable know-how and expertise in the production of bulk milk tanks.

The factory, which was founded in 1950, began production of the first generation of RØ-KA bulk milk tanks in 1967, and is today a well-known supplier to quality-conscious dairy farmers in many countries.

RØ-KA is renowned for high quality craftsmanship and the possibility of individual sizing of most tank dimensions.

RØ-KA exports a large number of tanks, and sales are supported by service teams in all countries. Besides standard bulk milk tanks, our product range includes silo tanks, iced-water cooling and heat recovery systems as well as refrigerated tanks for other liquids, blood for instance.

RØ-KA tanks can be connected to refrigeration units that use alternative refrigerants such as ammonia or iced water, and can be supplied with electric equipment as required.

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