

OPERATING MANUAL

TITLE
REVISION

CoolMaster K1 Series
F

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Disclaimer

The manufacturer reserves the right to change parts at any time to change, without prior or immediate notice to the customer. The contents of this manual may also be changed without prior warning. This is an original manual, and is valid for the machine in its standard version. For information on adjustments, maintenance and repair insofar as this guide does not provide it, please contact the technical department of your supplier. This manual was drawn up with the greatest possible care, however the manufacturer cannot accept any liability for any errors in this book or any consequences thereof. Finally, this manual is a personal and confidential communication to the user. No part of this publication may be reproduced, copied, altered or transmitted in any form or in any manner whatsoever without written permission from Dutch Thermal Engineering B.V.

1 Safety instructions and warnings

Always observe the following safety instructions and warnings!



WARNING!

Warning of possible damage to the device, environment or user



WARNING!

Warning of electricity and / or current threat



WARNING!

Warning of possible entrapment hazard

This user's manual was written for types similar to DTE **CoolMaster K** type machines. Therefore certain topics may not apply to your machine. For the same reason, the images may differ slightly from how your machine actually looks. The machine drawing is sent separately as an attachment with the correct dimensions and connections. For more information about the different types of **CoolMaster** machines, see chapter §1.1.



Compliance with the technical manual is a prerequisite for fault-free operation and the honouring of any warranty claims. Therefore please read the technical manual carefully before you start working with your device! The manual must therefore be kept near the machine. The **CoolMaster** is under pressure with a refrigerant, more information about this can be found in appendix 8.10.

1.1 Correct applications



ATTENTION! In no way the machine can be stacked or overturned. This during transport and storing as well during repairs and commissioning. Even when the machine is not used it should be perpendicular at all times.



ATTENTION! Not following these instruction can cause big damage to the machine.

The **CoolMaster K** may only be kept inside a cool, well-ventilated, frost-free building!

The minimum and maximum ambient temperature can be found in the relevant P&ID.

The **CoolMaster K** is only suitable for tap water of drinking quality.

Please consult the relevant P&ID for information on the minimum and maximum environmental temperature.

1.2 Incorrect applications



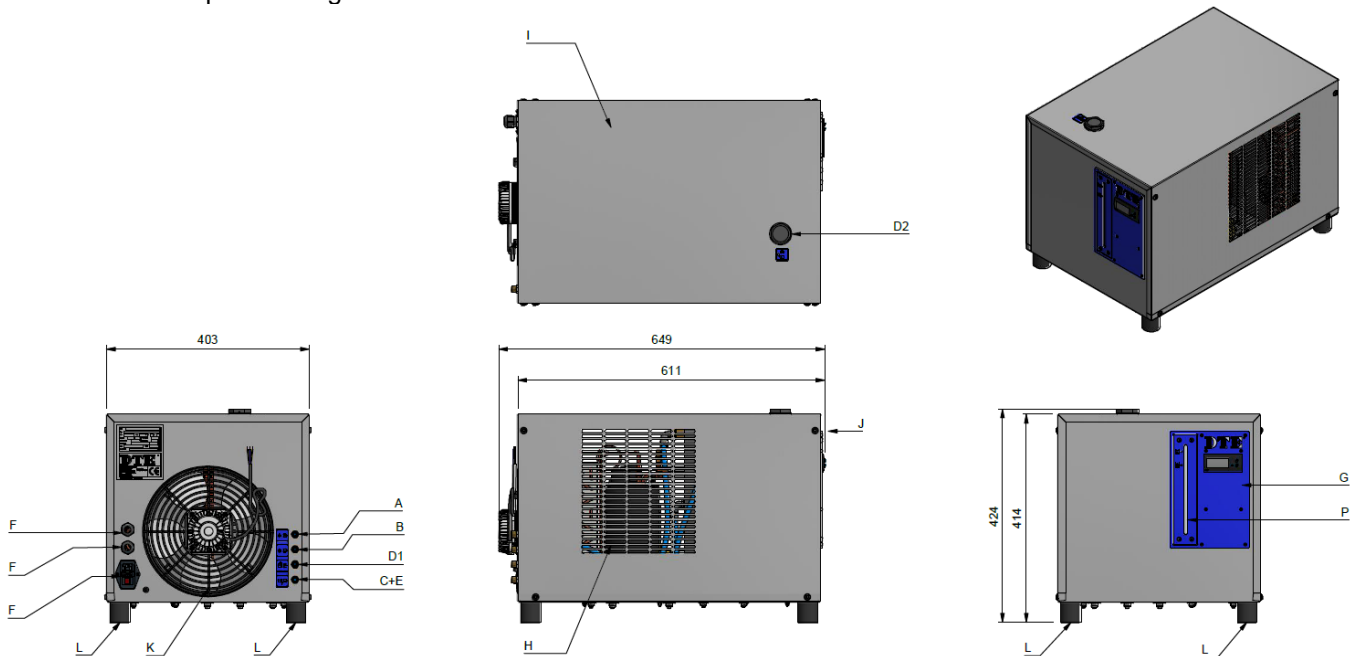
CAUTION! Application is **prohibited**:

- In explosive atmospheres.
- In environments with hazardous oils, acids, gases, fumes, substances, radiation, etc.
- Corrosive environment.

2 General description

The **CoolMaster** is a complete plug and play water cooler with integrated water cooler tank, pump, condenser and controls. Is built for perfect cooling in closed industrial process water systems.

CoolMaster sample drawing*:










*The machine drawing is sent separately as an attachment with the correct dimensions and connections!

Overview of the most common connections on the machine:



NOTE! POSITION THE COVER (I) BEFORE SWITCHING ON THE MACHINE!


A	=		Cooling water inlet, see P&ID
B	=		Cooling water outlet, see P&ID
C+E	=		Drainage/overflow water tank, see P&ID
D1	=		Filling water connection, see P&ID
D2	=		Manual filling device, see P&ID
F	=		Bushing coupling electrical supply cable
G	=		Control panel
H	=		Incoming condenser air
I	=		Removable cover
J	=		Fixing bolts cover
K	=		Air grille outgoing condenser air
L	=		Rubber legs
P	=		Sight glass
			Maximum water level
			Minimum water level

2.1 Identification

The identification plate is located on the left above the fan. (Figure 2.1)



- A = Machine number/ serial number
- B = Machine type
- C = Voltage
- D = Maximum Current
- E = Number of phases
- F = Frequency in Hz.
- G = Refrigerant type
- H = Refrigerant mass
- I = Maximum ambient temperature
- J = CO2 equivalent
- K = GWP-values
- L = Thermostat Temperature range
- M = Maximum pressure
- N = Compressor lubrication
- O = Compressor oil volume
- P = Built
- Q = Weight
- R = Cooling capacity

Man. Nr.	A									
Type	B									
Volt.	C	V	I max.	D	A	Ph.	E	Hz.	F	
Refrigerant	G		H	kg	Max. Ambient		I	°C		
CO2 equivalent	J			ton	GWP-values			K		
Min./Max. Output	L			°C	Max. Pressure			M	Bar	
Compressor Oil	N							O	cm ³	
Built	P	MM - YYYY	Weight		Q	kg				
Capacity Unit	R kW									



cooling & heating

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COUNTRY OF ORIGIN: The Netherlands

Figure 2.1

3 Transport and storage



These actions are general and have to be carried out, of course, if applicable for the application by qualified personal!

3.1 Draining water from CoolMaster K



For packaging, transport and storage, first follow the following steps;

Step 1: Switch off the **CoolMaster** via the connection (F) with an ON-OFF switch on the rear.

Step 2: Close the filling connection (D1).

Step 3: Drain the water tank of the cooling system by opening the drainage valve.

Step 4: Dry clean all connections and water tank with a wet vacuum cleaner.

3.2 Packing, transport and storage instructions



ATTENTION! Before transport the machine has to be protected with the delivered cardboard box or has to be wrapped with bubble wrap. The machine has to be transported and stored vertically at all times on its fundament on the provided pallet!

The machine has to be placed vertically on its fundament at all times.



ATTENTION! In no way the machine can be stacked or overturned. This applies during transport and storing as well during repairs and commissioning. Even when the machine is not used it should be vertically at all times.



ATTENTION! Not following these instruction can cause severe damage to the machine.

Always use the correct type of transportation equipment, such as a pallet truck and a forklift truck.

4 Commissioning



These actions are general and have to been carried out, of course, if applicable for the application by qualified personal!



CAUTION! The Declaration of Incorporation of Partly Completed Machinery (if applicable) may not be put into service until a declaration of conformity to the provisions of the Machinery Directive 2006/42/EC is available for the finished machine in which it will be installed.

4.1 Installation CoolMaster K



Place the **CoolMaster** at a level position and at least **1 meter** from a wall. For a good functioning of the **CoolMaster** we recommend keeping the distance between the **CoolMaster** and the user to a minimum. The cooling water pipes between the **CoolMaster** and the user should not be longer than 20 meters.

4.2 Connecting cooling water pipes*



ATTENTION! Before making any connections to the **CoolMaster**, clean the external pipes. Dirt must be prevented from entering the **CoolMaster**. It may cause serious damage to the system and the **CoolMaster**.



ATTENTION! The diameter of the pipes/hoses must at least match with the connections on the **CoolMaster**.

The hoses must be reinforced with braided fibre to prevent kinking the hose.

The tubes must be suitable for use in the same conditions as those for which the **CoolMaster** is suitable (pressure and temperature). Consult the P&ID for this information.

See for the connections chapter 2 on the **CoolMaster**. For diameters see the corresponding P&ID.

Connect the following pipes:

- Cooling water pipes (A) and (B) between **CoolMaster** and the user.
- D1: If you wish to fill automatically.

Step 1:

1. Install the ball valve (BVS-1) on the cooling water inlet (A), (see appendix §8.1).
2. Install cooling water pipe between **CoolMaster** and user, (see appendix §8.1).

The ball valve must be kept closed, unless otherwise indicated!

Step 2:

1. Install the ball valve (BVS-2) on the cooling water outlet (B), (see appendix §8.1).
2. Install the ball valve (BVS-3) on the T-piece (central section), (see appendix §8.1).
3. Install the cooling water pipe between **CoolMaster** (on the T-piece) and the user, (see appendix §8.1).

The ball valves (BVS-2 and (BVS-3) must be kept closed, unless otherwise indicated!

Step 3:

1. Connect the cooling water pipes between **CoolMaster** and user to ball valves on the cooling water inlet (A) and T-piece (central section), (see appendix §8.1).
2. Connect (D1) to a water tap if you wish to fill automatically.

Ball valves are not supplied as standard!

4.3 Connecting drainage/overflow pipe (C+E)

Connect the drainage/overflow pipe (C+E). To enable good outflow of superfluous water, the overflow pipe must be able to flow out into the open sewer without any foreseeable obstructions. The length of the overflow pipe should be kept to a minimum. The pipe should also flow downwards, from the perspective of the **CoolMaster** (C+E).

4.4 Connecting power supply



Switch off the **CoolMaster** via the connection (F) with an ON-OFF switch on the rear.
Connect your electrical power supply cable to the appropriate terminals in the control box via the cable entry (F).

Consult the type plate for the correct voltage.



ATTENTION! Ensure the voltage as stated on the type plate is also the voltage on each phase wire.



Of no less importance is the mains frequency (50 or 60 Hz) corresponding to the frequency on the type plate. The maximum voltage deviation is +6% and –10% from the voltage indicated on the type plate.

4.5 Connecting external contacts

Also connect the electrical cables for the external contact(s).
See for supplied electrical diagram.

4.6 Water quality



CAUTION! The *CoolMaster* is not suitable for use with demineralized water or water containing high levels of minerals or iron.

The filling water which is used must be of good quality. It must at least be of drinking water quality and the water must not contain high levels of lime and/or iron, as it may cause serious damage.

You must check the water regularly.

The minimum filling pressure must be 2,5 bar.

See appendix §8.2 for extra information.

See appendix §8.3 for directive water quality.

4.7 Filling of (external) pipes and systems CoolMaster K



CAUTION! Do not use automatic air vents!

Step 1:

1. All the connections must be made in accordance with §4.2.
2. Turn the air vent(s) in your system to "open".
(*The venting must take place at the highest point(s) in pipe(s).*)
3. Connecting the filling water (min. 2.5 Bar) to ball valve (BVS-3), (see appendix §8.1).
4. Turn the ball valve (BVS-3) to "open".

Step 2:

Excess air will be released from the pipe(s) through the air release valve(s).

If the water spills from the air release valve(s), the external pipes/systems are filled with water.

1. Turn the ball valve (BVS-3) on the T-piece (central section) to "closed".
2. Turn the air release valve(s) in your system to the "closed" position.
3. Turn the water fill line to "closed".
4. Remove the fill water line which is mounted on the (BVS-3).

Step 3:

1. Turn the ball valve (BVS-1) on the cooling water inlet (A) to "open".
2. Turn the ball valve (BVS-2) on the cooling water outlet (B) to "open".

When these steps have been completed correctly, the entire system will be filled with water.

4.8 Filling of the system CoolMaster K



CAUTION! To add any chemicals or other substances, please consult the supplier.

Fill the **CoolMaster** with water (fill automatically or manually):

1. Auto fill (D1) (a power supply is required; a minimum filling pressure of 2.5 bar is required).
2. Manual fill (D2).

External systems must be filled via an external filling point.
See chapter §4.7 for instructions.

4.9 Deaerating



CAUTION! DO NOT START THE PUMP BEFORE IT IS FILLED WITH LIQUID AND DEAERATED!

This machine is fitted with a bypass and will therefore automatically be deaerated.



CAUTION! Ensure the compressor is disabled when starting up for the first time!

By starting the pump the system automatically be deaerated.

4.10 Setting thermostat (if applicable)



CAUTION! COVER(I) MUST BE PLACED, BEFORE STARTING UP THE MACHINE!



CAUTION! It is important that the values in the P&ID are adhered to, otherwise damage to the compressor may occur! When temperatures set incorrectly the guarantee claim may expire!



CAUTION! This machine is equipped with a bypass, which is erected between water supply and water return pipe inside the *CoolMaster*. The minimum flow is already factory defined and may not be hanged!

Switch on the *CoolMaster* via the connection (F) with an ON-OFF switch on the rear.

Set the thermostat to the correct value, which is on the front of the control panel (G).

See enclosed P&ID for the settings.

The *CoolMaster* is now ready for use.

4.11 Commissioning after long standstill



CAUTION! The Declaration of Incorporation of Partly Completed Machinery (if applicable) may not be put into service until a declaration of conformity to the provisions of the Machinery Directive 2006/42/EC is available for the finished machine in which it will be installed.



CAUTION! First follow the steps from chapters §4.1 till 4.10.



CAUTION! BEFORE OPENING THE MACHINE, ALWAYS ENSURE POWER SUPPLY IS COMPLETELY DISCONNECTED!

Check the machine for any defects including damages before starting the machine.



Clean the condenser fins with compressed air and/or vacuum cleaner/brush if necessary. **(ATTENTION: the fins can be sharp! Use the correct PPE) Always brush in the direction of the fins! (See Figure 4.1)**

Check the visual checks of the minimum inspection-interval schedule, see chapter §6.1.

For locked water pump after a long period of stand still, see appendix §8.4.



Figure 4.1

5 Fault analysis

Have all checks and repairs performed by a certified technician!		
Fault →	Possible cause →	Check and solution
1. Unit does not start	1.1. Faulty wiring 1.2. Components down to earth 1.3. Faulty main switch 1.4. Controls incorrectly set	1.1. Check wiring and connections 1.2. Check and replace 1.3. Check and replace 1.4. Check, see electric diagram
2. Fan(s) run but compressor will not start	2.1. Faulty wiring 2.2. Faulty security 2.3. Faulty compressor	2.1. Check wiring and connections 2.2. Check components 2.3. Check and replace
3. Compressor starts but no air is delivered over the condenser	3.1. Fan loose on shaft 3.2. Faulty fan motor 3.3. Faulty wiring 3.4. Blocked air flow	3.1. Tighten fixing screw 3.2. Check and replace 3.3. Check wiring and connections 3.4. Clean the condenser
4. Compressor switches off	4.1. Electricity supply 4.2. Faulty thermostat 4.3. Faulty security 4.4. Internal security activated	4.1. Check electricity supply 4.2. Check and replace 4.3. Check and replace 4.4. Water and/or ambient temperature too high. Check cleanliness of condenser and clean it
5. Unit does not cool	5.1. Shortage of refrigerant 5.2. Faulty compressor 5.3. Faulty thermostat 5.4. Faulty pump	5.1. Refill refrigerant 5.2. Check and replace 5.3. Check and replace 5.3. Check and replace
6. Water pump gives no water	6.1. Water pump not de-aerated 6.2. Impeller of water pump is stuck 6.3. Faulty security	6.1. De-aerate water pump 6.2. See appendix §8.4 6.3. Check components
7. Shortage of refrigerant	7.1. Leak in the refrigerant system	7.1. Check the refrigerant system for leakage and repair

6 Maintenance and cleaning



WARNING!

All proceedings must be performed:

- By expert qualified personnel
- With a user manual under easy reach
- Separated from the electrical network and guards against arming!

Weekly checks, user maintenance may be performed by the user of the machine.

All maintenance proceedings (with an interval >weekly) serve must always be performed by qualified personnel!



A technical person with managerial position is responsible for determination of the maintenance interval. NEN3140 prescribes that this person must be the installation manager.



The determination of these interval serves with reference to:

- User manual
- Authority (competent bodies, policy, regulation etc.)
- Conditions of parts (exposure and/or corrosion)
- Results of previous inspections



DTE recommends a minimum inspection interval as given in chapter (§6.1).



If a problem and/or advise is needed from our technical staff, please always mention:

- Serial number
- Ambient temperature
- What is shown at the display of the thermostat (if applicable)
- What is the setpoint of the thermostat (if applicable)

In this case a helpful advice can be given to solve quickly the present problem.

All maintenance jobs should be executed when the **CoolMaster** is completely voltage-free.

NOTE: The minimal distance of service area should be 1 meter.

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6.1 Minimum Inspection-interval scheme



All inspections should be performed by an authorized technician!



CAUTION! BEFORE OPENING THE MACHINE, ALWAYS ENSURE POWER SUPPLY IS COMPLETELY DISCONNECTED!

Inspection points	Inspection interval			
	Weekly	monthly	Every 6 months	Every 12 months
Mechanical				
Visual check on damage outside of the unit	X			
Visual check fans motor(s) and fan blade(s) on damage and prevalence	X			
Visual (and auditive) check on defects	X			
Visual check water level of the water tank at the sight glass (P) or (S)	X			
Visual check water quality		X		
Visual check for water leaks		X		
Cleaning condenser by using with compressed air or vacuum cleaner (ATTENTION! The fins can be sharp! Use the correct PPE) Always brush in the direction of the fins!		X		
Cleaning the compressor with damp cloth.				X
Visual check quality of the insulation material				X
Electrical				
Visual check power consumption			X	
Visual check all wiring for damage			X	
Visual check electrical components and contactors			X	
Visual check all potential equalisation and earthings				X

The maintenance and leak-tightness checks should be carried out, according to the local legislation.

For the Dutch guidelines, the maintenance and leak-tightness checks should be carried out according to the table below.

Only certified companies employing qualified technicians are allowed to carry out refrigeration work or inspections of refrigeration installations.

CO ₂ -equivalent	Number of inspections each year	NOTE: for installations with a leak detection system, the frequency can be halved
5 – 50 ton CO ₂ -equivalent:	1 x	
50 – 500 ton CO ₂ -equivalent:	2 x	
> 500 ton CO ₂ -equivalent * :	4 x	

** automatic leak detection mandatory*

CO₂ equivalent content is stated on the nameplate and corresponding P&ID.

6.2 Cleaning of the machine



CAUTION! ONLY APPLIES TO THE EXTERIOR CASING!



Step 1: Before cleaning the machine, make sure you completely disconnect the power supply.



Step 2: To clean the machine use a soft brush, with lukewarm water with a non-aggressive cleaner.

Step 3: Then rub the machine dry with a soft, dry cloth. Unless explicitly stated otherwise the machine must not be cleaned with a high-pressure cleaner and/or other powerful water jets!

Step 4: For additional cleaning instructions, see appendix 8.2 Water Treatment.

7 Removal

The **CoolMaster** consists primarily of stainless steel, copper, brass and aluminium. The **CoolMaster** is also compressed with a refrigerant which is specified in the “P&ID” and the relevant safety data sheet.

Removal of the **CoolMaster** must be carried out in accordance with local or national legislation. Contact your government for instructions.

8.1 Connection diagram filling the system

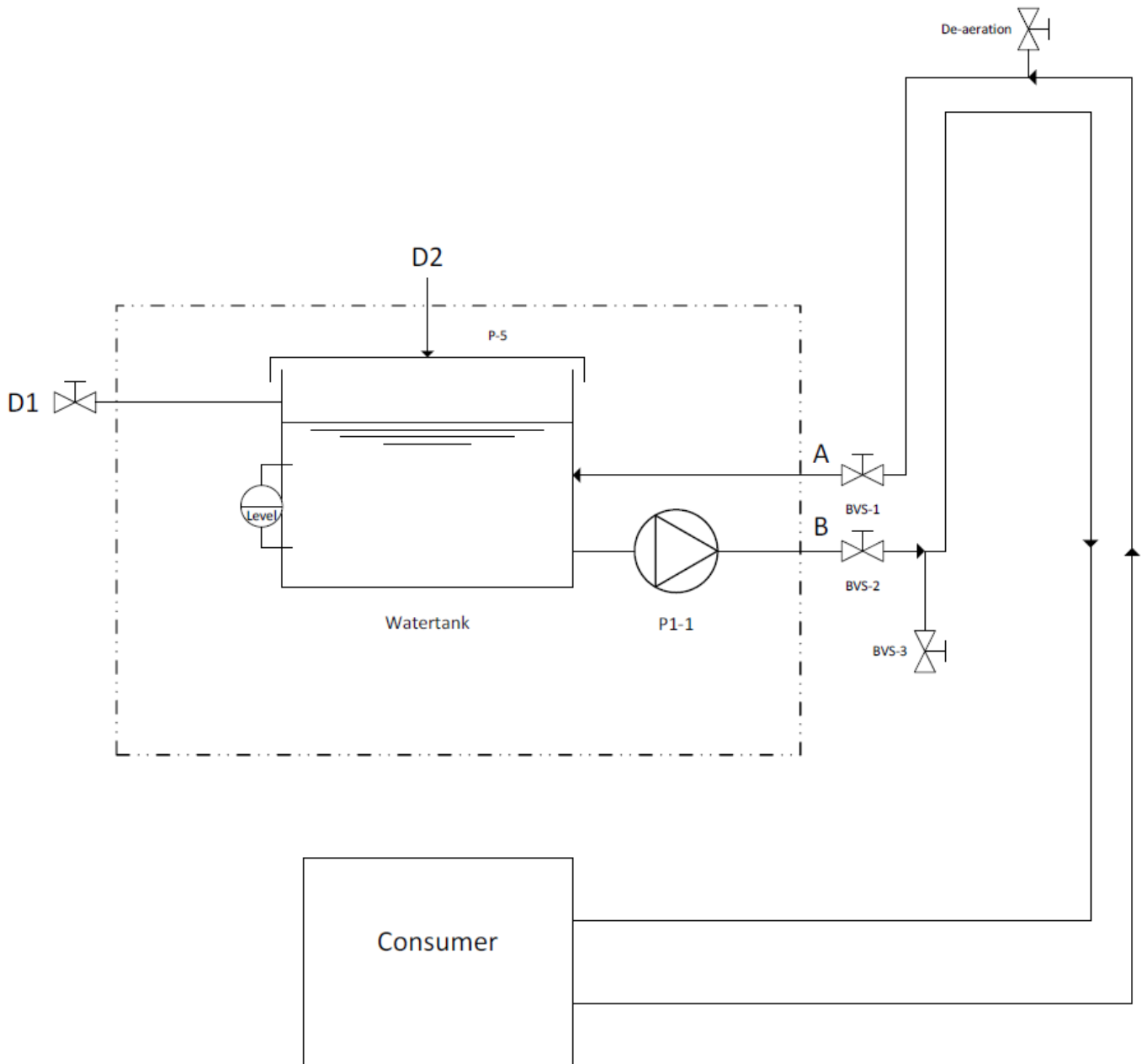


Figure 8.1

8.2 Water treatment

INTRODUCTION

Semi-closed and closed cooling systems are used in many processes.

An efficient and effective cooling system is needed for a process to function without problems.

Generally such cooling systems contain between 0.5 and 5.0 m³ water, which is normally topped up with tap water. The tap water available is often, technically speaking, of poor quality:

- contains limescale and/or
- is corrosive

The system may contain many different materials with which the cooling water comes into contact. Such as:

- steel/cast iron
- copper/brass
- aluminium
- synthetics/sealants

PROBLEM DEFINITION

Corrosion problems can occur in cooling systems, which have different causes.

The presence of different materials can result in galvanic corrosion, which is where the least precious metal is dissolved. The action of oxygen on iron and steel causes oxygen corrosion and the formation of iron oxide or silt. Natural silt accumulation can lead to "under deposit corrosion". High flow-speeds can lead to erosion corrosion. The quality of the cooling water plays a significant role in this.

GENERAL MEASURES

Contamination	Measure
Mechanical contamination caused by iron oxides or silt	Install filters, depending on contamination
High hardness	Soften water via ion exchange
Minor contamination caused by presence of oxides and hardness	Use water treatment in the form of hardness stabilisation and corrosion inhibitors
Biological contamination caused by presence of algae and slime bacteria	Use water treatment in the form of biocides

WATER TREATMENT

Specific water treatment should be used if one or more values cannot be maintained or achieved.

Water treatment products can be used for a wide variety of applications in this case. DTE has a water treatment in the form of PollutionMaster. This product can optionally be supplied. If the temperature of the water exceeds approx. 40°C, (partial) water softening must in general be applied.

A complete water treatment proposal can be drawn up after the water quality has been assessed on site.

CLEANING

If the cooling system is already very contaminated, we recommend cleaning the system with a suitable cleaning product. The cleaning solution can be pumped around using the system pump or an cleaning pump. For the best cleaning result, at least some flow should be established across all components. The cleaning progress can be monitored through visual inspection and using pH test strips.

Systems with considerable biological contamination should be rinsed thoroughly first. A bio-dispergator can also be used for this purpose.

The cleaning method and costs will be assessed and determined per situation.

Note: You can contact DTE anytime.

8.3 Guideline for water quality in DTE installations

Water quality for use in all DTE installations is prescribed in this general guideline. Water quality used in DTE installations should meet this standard at all times.

Standard values for water quality:

- Acidity: PH 7 < PH 9,5
- Chloride: < 50mg / L
- Conductivity: 150 μ S < 350 μ S
- Bicarbonate (HCO_3): 80mg/L < 100mg/L
- Hardness: 2dH° < 8dH°

This directive is a general directive which also applies to systems in which water with a percentage of glycol is used.

In cases where a water-glycol mixture is to be applied, the quality of water must first be analysed to be ensured the water quality is within the norm values. Subsequently, a water-glycol mixture may be prepared that must be tested on mixing ratio before use.

In the system the absorption of oxygen must be prevented to keep the hydrogen carbonate (HCO_3) level within the acceptable range. In case of doubt, this should be tested with a sufficient frequency.

8.4 Manual for locked water pump after a long period of stand still



CAUTION! BEFORE OPENING MACHINE, ALWAYS ENSURE POWER SUPPLY IS COMPLETELY DISCONNECTED!

DTE uses renowned components in her products, which will reduce the chance of failure of a machine.

This also applies to the water pump. These pumps are made with a stainless steel fan, a high quality pump house and a "Mechanical seal" to seal the axis.

The mechanical seal is a seal from polished hard metal. This will guarantee a good sealing in even the hardest circumstances. The mechanical seal will lubricate itself by a small liquid layer supplied from the pumped fluid.



Figure 8.2

Cause:

When the machine has not been used for a long period it could be possible that the water pump will not run. The cause of this problem is cohesion between the both polished seals. The seals will stick together.

Solution:

- This problem can be solved easily by rotating the pump axis by hand. It depends of the pump type how this can be done.
- The rotation of the Speck water pump axis can be done there a screwdriver on the axis of the pump.
- At the backside of the pump is a hole. (See Figure 8.2).
- When a screwdriver is put on the axis and is turned a bit, the seals will be loosened and the pump will run by a machine start.

8.5 User manual thermostat (if applicable)*

KLT12ID:

SETPOINT CHANGE

- Push **"SET"** once (set point will be displayed flashing).
- Change the set point by pressing **"UP"** and **"DOWN"**.
- Confirm the changed set point with **"SET"**.

DISPLAY MESSAGE:

In normal operation the probe temperature selected by P5 will be displayed. But the following messages may also appear:

- | | | |
|---------|---|--|
| - "Err" | - | Memory reading error |
| - "Erp" | - | Probe error, not viewed in display |
| - "Eri" | - | Internal parameter error. In this case, enter the above DTE-configuration |
| - "ALH" | - | High temperature alarm |
| - "ALL" | - | Low temperature alarm (temperature is 5 degrees lower then "SET") |
| - "ALE" | - | External alarm |
| - "AEL" | - | High and external alarm |
| - "000" | - | Probe open |
| - "___" | - | Probe short-circuited |
| - "DON" | - | Defrosting activated |
| - "DOF" | - | Defrosting de-activated, or cannot be done |
| - "CON" | - | Continuous cold cycle |
| - "COF" | - | Continuous cold cycle de-activated, or cannot be done |
| - "-d-" | - | Thermostat on defrosting |
| - "OFF" | - | Thermostat switched OFF, can be switched on by pressing the "UP" and "DOWN"-button simultaneously for at least 8 seconds |

MAINTENANCE

- Cleaning
Clean the surface of the controller with a soft, damp cloth. **NEVER use abrasive detergents, alcohol or solvents.**
- Repairs/Programming
All repairs and the programming of the thermostat must be carried out by authorised professional.

*When deviating from the standard, the user manual of the thermostat will be sent as an appendix!

8.6 Instructions of Partly Completed Machinery (if applicable)



CAUTION! ONLY APPLICABLE TO THE OUTSIDE OF THE CASING!



CAUTION! When there is an Partly Completed Machinery, the machine must be equipped with an external thermal protection and main switch with the correct range to ensure safety!



CAUTION! The Declaration of Incorporation of Partly Completed Machinery may not be put into service until a declaration of conformity to the provisions of the Machinery Directive 2006/42/EC is available for the finished machine in which it will be installed.

8.7 Declaration of conformity*

EU declaration:

Manufacturer: D.T.E. B.V.
Address: Westerbroekstraat 18
7011 EX GAANDEREN / HOLLAND



Hereby certifies that:

The **CoolMaster** meets the requirements of the Machinery Directive
(Directive 2006/42/EC, as amended),
and the national legislation implementing this Directive;

Meets the provisions of the following other EC directives.

- 2014/35/EU Low voltage directive
- 2014/30/EU EMC-directive
- 2014/68/EU Pressure Equipment Directive (PED)

And certify that:

The following (parts of) harmonized standards are applied:

- NEN-EN-IEC 60204-1:2018
- NEN-EN-ISO 12100:2010
- NEN-EN 378-2:2016
- NEN-EN-ISO 13857:2019

The following (parts of) national technical standards and specifications are used:

- Regulation EU 517/2014

Made in Gaanderen on 01-01-2024

.....
M. Bril

Managing Director

***This is an example, the original declaration will delivered with the machine!**

UKCA declaration:

Manufacturer: D.T.E. B.V.
Address: Westerbroekstraat 18
7011 EX GAANDEREN / HOLLAND



Hereby certifies that:

The **CoolMaster** meets the requirements of the Machinery Directive (Directive Supply of Machinery (Safety) Regulations 2008, as amended), and the national legislation implementing this Directive;

Meets the provisions of the following other UKCA directives:

- Electrical Equipment (Safety) Regulations 2016
- Electromagnetic Compatibility Regulations 2016
- Pressure Equipment (Safety) Regulations 2016

And certify that:

The following (parts of) harmonized standards are applied:

- NEN-EN-IEC 60204-1:2018
- NEN-EN-ISO 12100:2010
- NEN-EN 378-2:2016
- NEN-EN-ISO 13857:2019

The following (parts of) national technical standards and specifications are used:

- Regulation EU 517/2014

Made in Gaanderen on 01-01-2024

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8.8 Guarantee

One or more components in this **CoolMaster** could be sealed.

Breaking these seals or adjusting components which are not sealed, may void your guarantee.

Always contact your supplier. When claiming one or more components under the guarantee, these components must be returned to the supplier uncleaned and in their original state.

Otherwise, the guarantee conditions on this machine apply as described in the general conditions of delivery and payment. These were deposited at the Chamber of Commerce in Arnhem on 05-06-1989, a copy of which is available upon request.

8.9 Comments

This image shows a single page of white paper with horizontal black lines, resembling notebook paper. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

8.10 Technical information*

- **Machine drawing**
- **P&ID**
- **Spare parts list**
- **Electrical diagram**
- **Safety data sheet refrigerant**
- **Other**

***Technical information is sent as an attachment to the technical operating instructions!**