

CLAIMS

1. A method, performed by a control device (100), for cleaning an evaporative humidifier and cooler apparatus (1) for humidification and cooling of air, the apparatus (1) comprises:
- a cooling and humidification media (2), which is configured to receive and evaporate a fluid (4);
 - a fluid distribution element (6), which is configured to distribute the fluid (4) to the cooling and humidification media (2); and
 - a tray (8) arranged to collect fluid (4) downstream of the cooling and humidification media (2);
- wherein the fluid (4) distributed by the fluid distribution element (6) is collected from the tray (8);
- wherein the method comprises:
- determining (s101) the condition of the cooling and humidification media (2) based on data from a sensor device (10) arranged in fluid communication with the fluid (4) downstream of the cooling and humidification media (2); and
 - supplying (s102) at least one cleaning fluid (12; 14) to the cooling and humidification media (2) dependent on the condition of the cooling and humidification media (2).
2. The method according to claim 1, wherein determining (s101) the condition of the cooling and humidification media (2) comprises determining the pH-value, hardness, turbidity, salt content, and/or presence of bacteria/fungi in the fluid (4) downstream of the cooling and humidification media (2).
3. The method according to claim 1 or 2, wherein supplying (s102) at least one cleaning fluid (12; 14) to the cooling and humidification media (2) dependent on the condition of the cooling and humidification media (2) comprises determining a dosage of the at least one cleaning fluid (12; 14) based on the condition of the cooling and humidification media (2).

4. The method according to any one of the preceding claims, wherein supplying (s102) at least one cleaning fluid (12; 14) to the cooling and humidification media (2) comprises supplying the at least one cleaning fluid (12; 14) to the tray (8).
5. The method according to any one of the preceding claims, wherein supplying (s102) the at least one cleaning fluid (12; 14) to the cooling and humidification media (2) comprises supplying the at least one cleaning fluid (12; 14) to the fluid distribution element (6).
6. The method according to any one of the preceding claims, wherein determining (s101) the condition of the cooling and humidification media (2) comprises circulating fluid from the tray (8) to a container (16) comprising the sensor device (10).
7. The method according to any one of the preceding claims, wherein supplying (s102) the at least one cleaning fluid (12; 14) to the cooling and humidification media (2) comprises supplying a first cleaning fluid (12) when the cooling and humidification media (2) has a condition requiring de-scaling of the cooling and humidification media (2).
8. The method according to any one of the preceding claims, wherein supplying (s102) the at least one cleaning fluid (12; 14) to the cooling and humidification media (2) comprises supplying a second cleaning fluid (14) when the cooling and humidification media (2) has a condition requiring disinfection of the cooling and humidification media (2).
9. A computer program (P) comprising instructions which, when the program is executed by a computer (100; 500), cause the computer (100; 500) to carry out the method according to any one of the preceding claims.
10. A computer-readable medium comprising instructions, which when executed by a computer (100; 500), cause the computer (100; 500) to carry out the method according to any one of claims 1-8.

11. A system (200) comprising an evaporative humidifier and cooler apparatus (1) for humidification and cooling of air, a control device (100) and a sensor device (10) arranged in communication with the control device (100), the apparatus (1) comprising:
a cooling and humidification media (2), which is configured to receive and
5 evaporate a fluid (4);
a fluid distribution element (6), which is configured to distribute the fluid (4) to the cooling and humidification media (2); and
a tray (8) arranged to collect fluid (4) downstream of the cooling and humidification media (2);
10 wherein the fluid (4) distributed by the fluid distribution element (6) is collected from the tray (8); and wherein the control device (100) is configured to determine the condition of the cooling and humidification media (2) based on data from the sensor device (10) arranged in fluid communication with the fluid (4) downstream of the cooling and humidification media (2); and supply at least one cleaning fluid (12; 14) to the
15 cooling and humidification media (2) dependent on the condition of the cooling and humidification media (2).
12. The system (200) according to claim 11, wherein the control device (100) is configured to determine the condition of the cooling and humidification media (2) by determining the pH-value, hardness, turbidity, salt content, and/or presence of bacteria/fungi in the fluid (4) downstream of the cooling and humidification media (2).
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13. The system (200) according to claim 11 or 12, wherein the control device (100) is configured to supply the at least one cleaning fluid (12; 14) to the cooling and humidification media (2) dependent on the condition of the cooling and humidification media (2) by determining a dosage of the at least one cleaning fluid (12; 14) based on the condition of the cooling and humidification media (2).
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14. The system (200) according to any one of claims 11 - 13, wherein the control device (100) is configured to supply the at least one cleaning fluid (12; 14) to the cooling and humidification media (2) by supplying the at least one cleaning fluid (12; 14) to the tray (8).
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15. The system (200) according to any one of claims 11 - 14, wherein the control device (100) is configured to supply the at least one cleaning fluid (12; 14) to the cooling and humidification media (2) by supplying the at least one cleaning fluid (12; 14) to the fluid distribution element (6).

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16. The system (200) according to any one of claims 11 - 15, further comprising a container (16) comprising the sensor device (10), the container (16) being arranged in fluid communication with the tray (8), wherein the control device (100) is configured to circulate fluid (4) from the tray (8) to the container (16).

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17. The system (200) according to any one of claims 11 - 16, wherein the control device (100) is configured to supply the at least one cleaning fluid (12; 14) to the cooling and humidification media (2) comprises supplying a first cleaning fluid (12) when the cooling and humidification media (2) has a condition requiring de-scaling of the cooling and humidification media (2).

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18. The system (200) according to any one of claims 11 - 17, wherein the control device (100) is configured to supply the at least one cleaning fluid (12; 14) to the cooling and humidification media (2) comprises supplying a second cleaning fluid (14) when the cooling and humidification media (2) has a condition requiring disinfection of the cooling and humidification media (2).

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