**CLAIMS**

1. A humidification chamber configured to be received in a compartment of a respiratory assistance device, the humidification chamber configured to humidify a pressurized gases stream generated by a blower of the respiratory assistance device, the humidification chamber comprising:

a water tub configured to receive a volume of water, the water tub comprising a base surface, a perimeter wall that extends upwardly from the base surface and a perimeter rim extending from an upper edge of the perimeter wall;

a lid, the lid being operable between a closed configuration in which the lid is secured to the water tub to create an enclosed chamber and an open configuration in which the lid is displaced away from the water tub to open the chamber for access;

the lid comprising a perimeter wall, a ledge extending from the perimeter wall, a lower perimeter wall portion of the lid below the ledge having clearance from an adjacent surface of the perimeter wall of the water tub below the water tub perimeter rim when the lid is positioned in the closed configuration with respect to the water tub;

the lid further comprising a gases inlet configured to be sealingly connected to a gases inlet of the compartment of the respiratory assistance device, wherein the gases inlet of the lid is provided with an associated inlet conduit that extends into the interior volume of the humidification chamber; and

the lid further comprising a gases outlet configured to be sealingly connected to a gases outlet of the compartment, wherein the gases outlet of the lid is provided with an outlet conduit extending into the interior volume of the humidification chamber;

and wherein the humidification chamber comprises:

a flexible seal provided about a perimeter of the humidification chamber between the lid and the water tub, the flexible seal sealingly engaging the perimeter rim of the water tub and the ledge of the lid when the humidification chamber is in the closed configuration to seal the humidification chamber.

2. The humidification chamber of claim 1, wherein the lid and water tub are pivotally connected such that the lid pivots away from the water tub when in the open configuration.

3. The humidification chamber of any one of the preceding claims, wherein the inlet conduit directs the inlet gases flow stream into a central zone or region of the lid.

4. The humidification chamber of any one of the preceding claims, wherein the inlet conduit comprises one or more bends or turns.

5. The humidification chamber of any one of the preceding claims, wherein the inlet conduit is located at or toward the top of the lid.

6. The humidification chamber of any one of the preceding claims, wherein the outlet conduit extends into a central zone or region of the lid.

7. The humidification chamber of any one of the preceding claims, wherein a flow directing formation is provided at the exit of the inlet conduit to direct the gases stream exiting the inlet conduit.

8. The humidification chamber of claim 7, wherein the flow direction formation comprises a vertical flow panel which extends downwardly from the lid.

9. The humidification chamber of any one of the preceding claims, further comprising one or more clips configured to engage with a complementary catch for securing the lid in the closed position; wherein the one or more clips comprises an engagement aperture on the lid and its complementary catch is a protrusion or formation that is aligned with the clip such that it engages into the engagement aperture of the clip when the clip is in an engaged position to secure the lid in the closed position.

10. The humidification chamber of claim 9, wherein the protrusion or formation comprises a camming surface that is configured to cause its respective clip to pivot or flex outwardly before snapping into the fully engaged position with the complementary catch, when the lid is moved into the closed position without the user needing to operate the clip in order to engage it with the complementary catch.

11. The humidification chamber of claim 9 or claim 10, wherein downward pressure, in addition to that created by the clip(s), is applied on the lid when the humidification chamber is received within the compartment of the respiratory assistance device.

12. The humidification chamber of any one of the preceding claims, wherein the water tub is provided with a heat transfer contact surface that protrudes from the underside of the water tub base surface.

13. The humidification chamber of claim 12, wherein the heat transfer contact surface is configured to rest on a heater base within the humidification compartment of the respiratory assistance device when the humidification chamber is received within the compartment.

14. The humidification chamber of claim 12 or claim 13, wherein the heat transfer contact surface of the water tub is substantially aligned with a complementary aperture of the chamber.

15. The humidification chamber of any one of claims 12 to 14, wherein the shape of the heat transfer contact surface is square or rectangular.

16. The humidification chamber of any one of the preceding claims, wherein the humidification chamber is provided with a protrusion that extends from the surface of the perimeter wall, the protrusion being configured to engage with aligned rails on the compartment.

17. The humidification chamber of any one of the preceding claims, wherein the rim of the water tub is continuous.

18. The humidification chamber of any one of the preceding claims, wherein the rim of the water tub extends substantially horizontally.

19. The humidification chamber of any one of the preceding claims, wherein the rim of the water tub extends outwardly from the perimeter wall of the water tub.

20. The humidification chamber of any one of the preceding claims, wherein the ledge of the lid is provided about the entire perimeter wall of the lid.

21. The humidification chamber of any one of the preceding claims, wherein the ledge of the lid extends in a substantially horizontal direction.

22. The humidification chamber of any one of the preceding claims, wherein the ledge of the lid extends outwardly from the perimeter wall of the lid.

23. The humidification chamber of any one of the preceding claims, comprising a hinge between the lid and water tub, the hinge being configured such that the lid can be displaced away from the water tub.

24. A respiratory assistance device configured to provide a heated and humidified gases stream, comprising:

a gases inlet configured to receive a supply of therapeutic gases;

a blower configured to generate a pressurized gases stream from the supply of gases at an outlet of the blower;

a humidification compartment comprising a heater base;

a humidification chamber configured to be received by the humidification compartment, the humidification chamber comprising:

a water tub configured to receive a volume of water, the water tub comprising a base surface, a perimeter wall that extends upwardly from the base surface and a perimeter rim extending from an upper edge of the perimeter wall;

a lid, the lid being operable between a closed configuration in which the lid is secured to the water tub to create an enclosed chamber and an open configuration in which the lid is displaced away from the water tub to open the chamber for access;

the lid comprising a perimeter wall, a ledge extending from the perimeter wall, a lower perimeter wall portion of the lid below the ledge having clearance from an adjacent surface of the perimeter wall of the water tub below the water tub perimeter rim when the lid is positioned in the closed configuration with respect to the water tub;

the lid further comprising a gases inlet configured to be sealingly connected to a gases inlet of the compartment of the respiratory assistance device, wherein the gases inlet of the lid is provided with an associated inlet conduit that extends into the interior volume of the humidification chamber; and

the lid further comprising a gases outlet configured to be sealingly connected to a gases outlet of the compartment, wherein the gases outlet of the lid is provided with an outlet conduit extending into the interior volume of the humidification chamber;

and wherein the humidification chamber comprises:

a flexible seal provided about a perimeter of the humidification chamber between the lid and the water tub, the flexible seal sealingly engaging the perimeter rim of the water tub and the ledge of the lid when

the humidification chamber is in the closed configuration to seal the humidification chamber.

wherein the humidification chamber is configured to be received in the humidification compartment of the respiratory assistance device such that the water tub rests upon the heater base within the compartment.

25. The respiratory assistance device of claim 24, wherein the lid and water chamber are pivotably connected such that the lid pivots away from the water tub when in the open configuration.

26. The respiratory assistance device of claim 24 or 25, wherein the inlet conduit directs the inlet gases flow stream into a central zone or region of the lid.

27. The respiratory assistance device of any one of claims 24 to 26, wherein the inlet conduit comprises one or more bends or turns.

28. The respiratory assistance device of any one of claims 24 to 27, wherein the inlet conduit is located at or toward the top of the lid.

29. The respiratory assistance device of any one of claims 24 to 28, wherein the outlet conduit extends into a central zone or region of the lid.

30. The respiratory assistance device of any one of claims 24 to 29, wherein a flow directing formation is provided at the exit of the inlet conduit to direct the gases stream exiting the inlet conduit.

31. The respiratory assistance device of claim 30, wherein the flow direction formation comprises a vertical flow panel which extends downwardly from the lid.

32. The respiratory assistance device of any one of claims 24 to 31, comprising one or more clips configured to engage with a complementary catch for securing the lid in the closed position; wherein the one or more clips comprises an engagement aperture on the lid and its complementary catch is a protrusion or formation that is aligned with the clip such that it engages into the engagement aperture of the clip when the clip is in an engaged position to secure the lid in the closed position.

33. The respiratory assistance device of claim 32, wherein the protrusion or formation comprises a camming surface that is configured to cause its respective clip to pivot or flex outwardly before snapping into the fully engaged position with the complementary catch, when the lid is moved into the closed position without the user needing to operate the clip in order to engage it with the complementary catch.

34. The device of claim 32 or claim 33, wherein downward pressure, in addition to that created by the clip(s), is applied on the lid when the humidification chamber is received within the humidification compartment of the respiratory assistance device

35. The respiratory assistance device of any one of claims 24 to 34, wherein the water tub is provided with a heat transfer contact surface that protrudes from the underside of the water tub base surface.

36. The respiratory assistance device of claim 35, wherein the heat transfer contact surface is configured to rest upon a heater base within the humidification compartment of the respiratory assistance device when the humidification chamber is received within the humidification compartment.

37. The respiratory assistance device of claim 35 or claim 36, wherein the heat transfer contact surface of the water tub is substantially aligned with a complementary aperture of the humidification chamber.

38. The respiratory assistance device of any one of claims 35 to 37, wherein the shape of the heat transfer contact surface is square or rectangular.

39. The respiratory assistance device of any one of claims 24 to 38, wherein the chamber is provided with a protrusion that extends from the surface of the perimeter wall, the protrusion being configured to engage with aligned rails on the humidification compartment.

40. The respiratory assistance device of any one of claims 24 to 39, wherein the rim of the water tub is continuous.

41. The respiratory assistance device of any one of claims 24 to 40, wherein the rim of the water tub extends substantially horizontally.

42. The respiratory assistance device of any one of claims 24 to 41, wherein the rim of the water tub extends outwardly from the perimeter wall of the water tub.

43. The respiratory assistance device of any one of claims 24 to 42, wherein the ledge of the lid is provided about the entire perimeter wall of the lid.

44. The respiratory assistance device of any one of claims 24 to 43, wherein the ledge of the lid extends in a substantially horizontal direction.

45. The respiratory assistance device of any one of claims 24 to 44, wherein the ledge of the lid extends outwardly from the perimeter wall of the lid.

46. The respiratory assistance device of any one of claims 24 to 45, wherein the humidification compartment is an open or exposed compartment.

47. The respiratory assistance device of any one of claims 24 to 46, comprising a hinge between the lid and water tub, the hinge being configured such that the lid can be displaced away from the water tub.