CLAIMS:

~~1. A patient interface comprising:~~

~~a blower comprising an impeller, a motor for driving rotation of the impeller, a blower housing providing an impeller space for housing the impeller, a blower inlet and a blower outlet,~~

~~a cushion for contacting a user's face,~~

~~a mask body and/or a frame for supporting the cushion on a user's face, the cushion and/or the mask body or frame defining an interior space for receiving a flow of gases from the blower,~~

~~wherein the blower is mounted to the mask body or frame so that the blower is at least partially within the mask body or frame, and~~

~~wherein the blower substantially separates a high pressure side of the mask body or frame from a low pressure side of the mask body or frame and/or wherein the mask body or frame is substantially without a wall between the blower and the interior space.~~

~~2. A patient interface as claimed in claim 1, wherein the blower is mounted to the mask body or frame by a portion of the blower housing that is radially outside of and/or surrounding the impeller and impeller space.~~

~~3. A patient interface as claimed in claim 1 or 2, wherein the blower is mounted to the mask body or frame by an outer periphery or circumferential portion of the blower housing.~~

~~4. A patient interface as claims in any one of claims 1 to 3, wherein the blower is located substantially wholly within the mask body and/or the frame.~~

~~5. A patient interface as claimed in any one of the preceding claims, wherein the blower is bounded by a perimeter of the mask body around an open front or rear of the mask body.~~

~~6. A patient interface as claimed in any one of the preceding claims, wherein the mask body or frame comprises an inlet to the interior space, and wherein the blower is received within the inlet.~~

~~7. A patient interface as claimed in any one of the preceding claims, comprising the mask body and the frame, wherein the frame is a cushion frame integrated in a cushion module with the cushion, the cushion frame and/or cushion defining the interior space, and~~

~~the mask body configured to attach headgear to and support the cushion module on a user's face.~~

~~8. A patient interface as claimed in claim 7, wherein the blower is mounted to the mask body or the cushion frame to be at least partly received within the cushion module.~~

~~9. A patient interface as claimed in claim 7 or 8, wherein the mask body or frame comprises an inlet to the interior space, and wherein the blower is received within the inlet, and wherein the inlet surrounds the impeller and impeller space of the blower and/or the impeller and impeller space are radially within the inlet.~~

~~10. A patient interface as claimed in claim 9, wherein the inlet surrounds the motor and/or the motor is located radially within the inlet.~~

~~11. A patient interface as claimed in claim 9 or 10, wherein the blower is located substantially wholly within the inlet.~~

~~12. A patient interface as claimed in any one of claims 9 to 11, wherein the mask body comprises the inlet, and wherein the inlet extends into the cushion module so that the blower is at least partly within the cushion module.~~

~~13. A patient interface as claimed in claim 12, wherein the cushion frame comprises an aperture for gases entry into the interior space, and wherein the aperture receives the inlet to attach the cushion module to the mask body.~~

~~14. A patient interface as claimed in any one of claims 9 to 13, wherein the inlet comprises a ring for receiving the blower.~~

~~15. A patient interface as claimed in any one of claims 1 to 14, comprising a cover attached to the mask body or the frame or to the blower housing to cover the blower, the cover comprising a cover inlet to allow a flow of gases to the blower inlet.~~

~~16. A patient interface as claimed in any one of the preceding claims, wherein the only substantial pneumatic connection between the low and high pressure sides of the interface is via a flow path through the blower from the blower inlet to the blower outlet.~~

~~17. A patient interface as claimed in any one of the preceding claims, the patient interface comprising a seal between the blower housing and the mask body or the cushion frame.~~

~~18. A patient interface as claimed in claim 17, wherein the seal comprises a resilient and/or compliant sealing material provided to the blower housing or the mask body or the cushion frame.~~

~~19. A patient interface as claimed in claim 18, wherein the sealing material is over moulded to the blower housing or to the mask body or to the cushion frame.~~

~~20. A patient interface as claimed in claim 19, wherein the resilient material is over moulded to the cushion frame and is of the same material as the cushion.~~

~~21. A patient interface as claimed in claim 18 or 19, wherein the seal material and the cushion are integrally formed as a unitary member over moulded to the mask body or the cushion frame.~~

~~22. A patient interface as claimed in any one of the preceding claims, wherein a rotational axis of the impeller is approximately perpendicular to a user's face or coronal plane or extends towards the user's face.~~

~~23. A patient interface as claimed in any one of the preceding claims, wherein the diameter or an overall lateral dimension of the blower is substantially larger than an axial length of the blower.~~

~~24. A patient interface as claimed in any one of the preceding claims, wherein the blower comprises an axial outlet, or an axial inlet and an axial outlet.~~

~~25. A patient interface as claimed in any one of claims 1 to 23, wherein the blower comprises a radial outlet, or an axial inlet and a radial outlet.~~

~~26. A patient interface as claimed in claim 25, wherein the radial outlet is positioned inwards from a side wall of the mask body or frame or cushion so that there is a gap between the outlet and the side wall.~~

1. A patient interface comprising:

a blower comprising an impeller, a motor for driving rotation of the impeller about a rotational axis of the impeller, a blower housing providing an impeller space for housing the impeller, a blower inlet and a blower outlet,

a cushion for contacting a user’s face,

a mask body and/or a frame for supporting the cushion on a user’s face, the cushion and/or the mask body or frame defining an interior space for receiving a flow of gases from the blower, the mask body or frame comprising an inlet to the interior space,

wherein the blower is mounted or received within the inlet of the mask body or frame by a portion of the blower housing that is radially outside of and/or surrounding

the impeller and impeller space so that the blower is at least partially within the mask body or frame, and

wherein the blower substantially separates a high pressure side of the mask body or frame from a low pressure side of the mask body or frame,

and wherein the mask body or frame is substantially without a wall between the blower and the interior space such that the blower outlet of the blower opens directly into the interior space.

2. A patient interface as claimed in claim 1, wherein the blower is mounted to the mask body or frame by an outer periphery or circumferential portion of the blower housing, and/or wherein the blower is bounded by a perimeter of the mask body around an open front or rear of the mask body.

3. A patient interface as claimed in claim 1 or claim 2, comprising the mask body and the frame, wherein the frame is a cushion frame integrated in a cushion module with the cushion, the cushion frame and/or cushion defining the interior space, and

the mask body configured to attach headgear to and support the cushion module on a user's face.

4. A patient interface as claimed in claim 3, wherein the inlet surrounds the impeller and impeller space of the blower and/or the impeller and impeller space are radially within the inlet, and wherein the inlet surrounds the motor and/or the motor is located radially within the inlet.

5. A patient interface as claimed in claim 4, wherein the mask body comprises the inlet, and wherein the inlet extends into the cushion module so that the blower is at least partly within the cushion module.

6. A patient interface as claimed in claim 4 or claim 5, wherein the inlet comprises a ring for receiving the blower.

7. A patient interface as claimed in any one of claims 3-6, the patient interface comprising a seal between the blower housing and the mask body or the cushion frame.

8. A patient interface as claimed in claim 7, wherein the seal comprises a resilient and/or compliant sealing material provided to the blower housing or the mask body or the cushion frame.

9. A patient interface as claimed in claim 8, wherein the sealing material is over moulded to the blower housing or to the mask body or to the cushion frame.

10. A patient interface as claimed in claim 9, wherein the sealing material is over moulded to the cushion frame and is of the same material as the cushion.

11. A patient interface as claimed in claim 8 or claim 9, wherein the sealing material and the cushion are integrally formed as a unitary member over moulded to the mask body or the cushion frame.

12. A patient interface as claimed in claim 1 or claim 2, the patient interface comprising a seal between the blower housing and the mask body.

13. A patient interface as claimed in any one of claims 1-12 wherein the blower housing further comprises a volute housing providing a volute space for receiving air from the impeller space via a passage between the impeller space and the volute space, the blower delivering a flow of air from the volute space via the blower outlet, and wherein the impeller space and the volute space are separated by a dividing wall, and the passage is a gap between an edge of the dividing wall and a side wall of the volute housing, and wherein the blower housing further comprises a motor space for housing the motor, and wherein the volute space is annular and surrounds the motor, the motor located radially within the annular volute space.

14. A patient interface as claimed in any one of claims 1-13 wherein the blower inlet is an axial inlet into the impeller space, and the blower outlet is an axial outlet or a

radial outlet, and wherein the blower outlet is located at a radial position that is radially outwards of the axial blower inlet.

15. A patient interface as claimed in any one of claims 1-14 further comprising a filter or diffuser medium or HME material between the blower or blower outlet and the interior space of the interface.

16. A patient interface as claimed in any one of claims 1-15 wherein the blower is releasably mounted or received within the inlet of the mask body or frame.

17. A patient interface as claimed in claim 16 wherein the blower is attached to the mask body or frame by either a screw or rotational engagement or a push fit or snap fit engagement.