

CLAIMS

1. A respiratory mask system (1) comprising:
 - a patient interface (2) comprising:
 - a seal (4) and a frame (5), and
 - a headgear (3) comprising:
 - a front strap including a yoke (9) configured to connect to the patient interface (2) and a pair of side arms (8), each side arm (8) configured to extend from a lateral side of the yoke (9) and across a cheek and above an ear of a user;
 - a top strap (7) configured in use to extend across the top of the user's head joining the pair of side arms (8); and
 - a rear strap (10) configured to extend between the pair of side arms (8) around the rear of the user's head;
 - the front strap including a region of increased thickness and at least one frame retaining feature (515,615), the at least one frame retaining feature (515,615) being configured to engage a corresponding headgear retaining feature on the frame (5), the at least one frame retaining feature (515,615) comprising a projection (515,615) on the front strap;
 - wherein the front strap and top strap (7) comprise a plastic core and a textile outer casing at least partially surrounding the plastic core, and
 - the region of increased thickness comprises a pad surrounding the at least one frame retaining feature (515,615), the pad having a greater thickness than a remainder of the front strap.
2. The respiratory mask system (1) of claim 1, wherein the projection (515,615) is generally circular.
3. The respiratory mask system (1) of claim 1 or claim 2, wherein the projection (515,615) comprises a channel separating the projection (515,615) into two portions.
4. The respiratory mask system (1) of claim 1 or claim 2, wherein the projection (515,615) has a horse-shoe or "U" shaped cross-section.
5. The respiratory mask system (1) of any of claims 1 to 4, wherein the pad extends laterally outward from the at least one frame retaining feature (515,615).
6. The respiratory mask system (1) of any of claims 1 to 5, wherein the at least one frame retaining feature (515,615) is integrally formed with the front strap.

7. The respiratory mask system (1) of any of claims 1 to 6, further comprising a buckle (526,626) at a lateral end of each side arm (8), the buckles (526,626) configured to receive the rear strap (10), preferably wherein the buckles (526,626) are over-molded onto the lateral ends of each side arm (8).

8. The respiratory mask system (1) of claim 7, wherein a lower edge of each side arm (8) and a lower edge of each buckle (526,626) are aligned to form a continuous lower edge.

9. The respiratory mask system (1) of any of claims 1 to 8, wherein the frame (5) comprises:
a body having an exterior surface (102), an interior surface (103) and extending from a first lateral edge (126) to a second lateral edge (128),
an inlet collar (114) extending from the exterior surface (102), the inlet collar (114) defining an aperture (115) and configured to be coupled to a gas conduit in use; and
an outlet collar (137) extending from the interior surface (103);
wherein the body comprises a first headgear retaining feature (450) positioned laterally at least partially between the inlet collar (114) and the first lateral edge (126) and a second headgear retaining feature (450) positioned laterally at least partially between the inlet collar (114) and the second lateral edge (128).

10. The respiratory mask system (1) of claim 9, wherein the frame (5) and headgear retaining features (450) are configured such that the first headgear retaining feature (450) can be engaged with a corresponding first frame retaining feature (515,615) on a headgear (3) and then the frame (5) and headgear (3) can be rotated relative to each other about the headgear retaining feature (450) to align the second headgear retaining feature (450) with a corresponding second frame retaining feature (515,615) on the headgear (3).

11. The respiratory mask system (1) of claim 9 or claim 10, wherein the inlet collar (114) further comprises a conduit retaining projection (122) extending radially inwards from a periphery of the inlet collar (114).

12. The respiratory mask system (1) of claim 11, wherein the conduit retaining projection (122) comprises a lip around a periphery of the inlet collar (114), preferably wherein the lip is continuous or intermittent.

13. The respiratory mask system (1) of any of claims 1 to 12, wherein the front and top straps (7) comprise a semi-rigid or plastic material.