

CLAIMS

1. A breathing assistance apparatus comprising:
 - a housing with a recess configured to removably receive a liquid chamber; and
 - a guard comprising a barrier, the barrier being movable between a covering position in which the barrier partly covers the recess and overlaps part of the liquid chamber when the liquid chamber is in the recess, and an access position in which the recess is less covered or is uncovered by the barrier and the barrier exposes the part of the liquid chamber, wherein the barrier is biased to the covering position, and wherein the barrier is configured to move from the covering position to the access position by moving the liquid chamber in a removal direction from the recess.
2. A breathing assistance apparatus according to claim 1, wherein the barrier is configured such that contact between the liquid chamber and a contact surface of the barrier as the liquid chamber is moved in the removal direction, moves the barrier from the covering position to the access position.
3. A breathing assistance apparatus according to claim 2, wherein the contact surface of the barrier is at a non-perpendicular angle of more than 90 degrees and less than 180 degrees relative to the removal direction, optionally between 100 degrees and 170 degrees relative to the removal direction, optionally between 110 degrees and 135 degrees relative to the removal direction, optionally between 120 degrees and 130 degrees relative to the removal direction, and optionally 125 degrees relative to the removal direction.
4. A breathing assistance apparatus according to claim 2 or 3, wherein said part of the liquid chamber comprises a front edge of a base flange of the liquid chamber, and wherein the contact surface is configured to contact substantially the entire front edge of the base flange as the liquid chamber is moved in the removal direction.

5. A breathing assistance apparatus according to claim 4, wherein the recess comprises a liquid chamber retention guide rail, and wherein the liquid chamber retention guide rail is forwardly open to enable the liquid chamber to be inserted into the recess with a back and sides of the base flange under the guide rail and with the front edge of the base flange exposed from the guide rail.
6. A breathing assistance apparatus according to any one of claims 2 to 5, wherein the contact surface has a constant angle throughout a contact area between the liquid chamber and the barrier, when viewed in side projection.
7. A breathing assistance apparatus according to any one of claims 1 to 6, wherein one or more biasing devices act between the housing and the guard to bias the barrier to the covering position.
8. A breathing assistance apparatus according to claim 7, wherein the one or more biasing devices act between the housing and the barrier.
9. A breathing assistance apparatus according to claim 7 or 8, wherein the barrier is linearly movable between the covering position and the access position.
10. A breathing assistance apparatus according to any one of claims 1 to 9, wherein part of the guard is resiliently flexible, to bias the barrier to the covering position.
11. A breathing assistance apparatus according to any one of claims 1 to 10, wherein the guard is integrally formed with the housing or is fastened to the housing.
12. A breathing assistance apparatus according to any one of claims 1 to 11, wherein the barrier of the guard extends from a base of the guard at a location that is distal to a mounting of the base of the guard to the housing.
13. A breathing assistance apparatus according to claim 12, wherein the barrier of the guard extends upwardly from a position at or adjacent a forward end of the base of the guard so as to be located at the front of the base.

14. A breathing assistance apparatus according to claim 12 or 13, wherein the housing comprises a projection and the base of the guard comprises a complementary aperture to receive the projection to resist horizontal movement of the base of the guard.
15. A breathing assistance apparatus according to claim 14, configured such that when the liquid chamber is removed from the recess, contact between the liquid chamber and the barrier applies force to the guard in a horizontal direction, and wherein the horizontal movement is prevented by the projection contacting a peripheral wall of the aperture.