

CLAIMS

1. A device for a biological liquid treatment installation, ~~characterized in that it comprises~~comprising:

- a base (2) having a front face (5);
- a moveable or removable door (20), said device having a closed door position;

and

- in the closed door position, a circuit (8) comprising a plurality of connectors (11) and a network (12) for conveying liquid between said connectors (11), which circuit (8) comprises a bag (10) comprising two flexible films (65, 66) and said conveying network connectors (11), which circuit (8) further comprises a press (9) comprising a first shell (16) disposed on said front face (5) of said base (2) and a second shell (17) disposed in said door (20), said first and second shells each being of a solid block of rigid material;

said bag (10) being clamped between said first shell (16) and said second shell (17) in a state in which conduits (13) of said network (12) for conveying liquid are formed between said films (65, 66).

2. A device according to claim 1, ~~characterized in that~~wherein it has a position other than said closed door position in which said bag (10) is carried only by the first shell (16).

3. A device according to ~~one of claims 1 and 2~~, ~~characterized in that~~wherein the two said flexible films (65, 66) of said bag (10) are joined to each other and delimit a zone (67) for treatment of said liquid according to a closed outline, said conveying network connectors (11) emerging on the inside and on the outside of at least one side (68, 69, 70) of said outline.

4. A device according to ~~any one of claims 1 to 3~~, ~~characterized in that~~wherein said base (2) of said device (1) comprises, on its front face (5), a console-forming inclined chassis (25) on which is disposed the first shell (16), which chassis (25) comprises hooking claws (26), and the first shell (16) comprises dowels (100) engaged in said hooking claws (26).

5. A device according to ~~any one of claims 1 to 4~~, ~~characterized in that~~wherein said bag (10) comprises first through apertures (73) on a side (71) of said

bag (10) for its positioning, and said first shell (16) comprises studs (106) for hooking said bag (10) which pass through said first through apertures (73) of said bag (10).

6. A device according to ~~any one of claims 1 to 5, characterized in that it comprises~~further comprising a hinge system hinging said door (20) relative to said base (2), said hinge system being disposed only on one side of said door (20) so as to form, in said closed door position, lateral clearances between said door (20) and said base (2) over the rest of a perimeter of said door (20), so as to enable free access to connectors (11) of said bag (20).

7. A device according to claim 6, ~~characterized in that~~wherein said hinge system comprises a single hinge (42) disposed at a corner of said door (20), and said hinge (42) comprises a first hinge portion (43) fastened to said corner of said door (20) and a second hinge portion (44) fastened to a lateral face (3) of said device (2), which lateral face (3) is connected to said front face (5).

8. A device according to claim 7, ~~characterized in that~~wherein the axis of said hinge (42) is offset from a joining plane (P) formed between said first shell (16) and said second shell (17) in the closed door position.

9. A device according to ~~any one of claims 1 to 8, characterized in that it comprises~~further comprising a first locking system (55) for fastening said second shell (17) into a frame (35) of said door (20), which first locking system (55) comprises:

- at least one jack (56) disposed in said frame (35);
 - at least one spring (59) disposed in said frame (35);
 - at least one rod (57) linked to said at least one jack (56) by a first end and to at least one spring (59) by a second end that is an opposite end to the first end, said at least one rod (57) comprising at least one locking bolt (58) and having an unlocked position and a locked position; and
 - at least one lock strike (89) arranged in a recess of said second shell (17);
- said at least one jack (56) being configured to actuate the passage of said at least one rod (57) between its locked position and its unlocked position;

said at least one spring (59) being configured to actuate the passage of said at least one rod (57) between its unlocked position and its locked position; and

said at least one locking bolt (58) being engaged in said at least one lock strike (89) in the locked position of said rod (57) and being disengaged from said at least one lock strike (89) in the unlocked position of said rod (57).

10. A device according to ~~any one of claims 1 to 9, characterized in that it comprises~~further comprising a second locking system configured such that it locks together said first shell (16) and said second shell (17) in the closed door position.

11. A device according to claim 10, ~~characterized in that said second shell (17) has a first hole (88), wherein~~ said bag (10) comprises first through apertures on a side of said bag for its positioning, wherein said second shell has a first hole, said bag comprises at least one second through aperture (75) in a treatment zone (67) of said liquid, and said second locking system comprises at least one ball-lock pin (110) provided with a body (111), a head (114) and balls (119) and having an unlocked state and a locked state, said ball-lock pin (110) being fastened to said first shell (16), said head (114) passing through said first shell (16) and said second through aperture (75) and emerging into said first hole (88) of said second shell (17) in the closed door position, said balls (119) entering said head (114) in said unlocked state of said pin (110) and projecting from said head (114) in said locked state of said pin (110).

12. A device according to ~~any one of claims 1 to 11, characterized in that~~wherein said bag (10) comprises at least one third through aperture (77) on a side (70, 71) of said bag (10), said first shell (16) comprises at least one dowel (107), and said second shell (17) comprises at least one second hole (87), wherein, in the closed door position, said at least one dowel (107) passes through said third through aperture (77) of said bag (10) and said at least one second hole (87) receives said dowel (107) of said first shell (16).

13. A device according to ~~any one of claims 1 to 12, characterized in that~~wherein said circuit (8) comprises instruments (125, 126) necessary for the treatment of said biological liquid, in particular comprising valves (125) to allow or prevent the passage of said liquid in said conduits, and/or sensors (126) of physico-

chemical values of said liquid, and said instruments (125, 126) are integrated into said first shell (16).

14. A device according to claim 13, ~~characterized in that~~wherein said first shell (16) comprises a first connector (130) at the back, and said base (2) of said device (1) comprises a second connector (135) configured such that it connects to said first connector (130) to power said instruments (125, 126) integrated into said first shell (16).

15. A device according to claim 14, ~~characterized in that~~wherein said front face (5) of said base (2) comprises a frame (35) provided with an opening (138), and said second connector (135) is configured such that it passes through said opening (138) to connect to said first connector (130).

16. A device for a biological liquid treatment installation, comprising:
a base (2) having a front face;
a moveable or removeable door (20), said device having a closed door position;
and

in the closed door position, a circuit (8) comprising a plurality of connectors and a network for conveying liquid between said connectors, which circuit comprises a bag (10) comprising two flexible films (65, 66) and said conveying network connectors (11), which circuit further comprises a press comprising a first shell (11) disposed on said front face of said base and a second shell (17) disposed in said door;

said bag being clamped between said first shell (11) and said second shell (17) in a state in which conduits of said network for conveying liquid are formed between said films (65,66);

wherein said base of said device comprises, on its front face, a console-forming inclined chassis (23) on which is disposed the first shell (11), which chassis comprises hooking claws (26), and the first shell comprises dowels (100) engaged in said hooking claws.