CLAIMS

1. A bag for a circuit of an installation for treatment of a biological liquid by chromatography, characterized in that it comprises:

- a plurality of connectors (11A-11R) and a network (12) for conveying liquid between the
- connectors (11A-11R), and
- two flexible films (65, 66) fastened to each other;

the network (12) being formed by a plurality of conduits (13A-13Q);

the conduits (13A-13Q) being formed between the two the flexible films (65, 66);

wherein a first conduit (13J) is provided with a first section (13J1), which has a first end (13J2) and a second end (13J3) which is an opposite end to the first end (13J1);

wherein a second conduit (13K) is provided with a first section (13K1), which has a first end (13K2) and a second end (13K3) which is an opposite end to the first end (13K2), the first section (13J1) of the first conduit (13J) and the first section (13K1) of the second conduit (13K) being opposite;

wherein a third conduit (13L) has a first end (13L1) and a second end (13L2) which is an opposite end to the first end (13L1), which third conduit (13L) links the respective first ends (13J2, 13K2) of the respective first sections (13J1, 13K1) of the first conduit (13J) and the second conduit (13K) respectively by its first end (13L1) and its second end (13L2);

wherein a fourth conduit (13M) has a first end (13M1) and a second end (13M2) which is an opposite end to the first end (13M1), which fourth conduit (13M) links the respective second ends (13J3, 13K3) of the respective first sections (13J1, 13K1) of the first conduit (13J) and the second conduit (13K) respectively by its first end (13M1) and its second end (13M2);

wherein a fifth conduit (13N) has a first end (13N1) and a second end (13N2) which is an opposite end to the first end (13N1), the fifth conduit (13N) linking both the second end (13J3) of the first section (13J1) of the first conduit (13J) and the first end (13M1) of the fourth conduit (13M) by its first end (13N1), and the fifth conduit (13N) linking both the first end (13K2) of the first section (13K1) of the second conduit (13K) and the second end (13L2) of the third conduit (13L) by its second end (13N2); and

the first conduit (13J) being connected to a chromatography column connector (11L) by the first end (13J2) of its first section (13J1), and the second conduit (13K) being connected to a chromatography column connector (11M) by the second end (13K3) of its first section (13K1);

whereby the bag is configured such that the liquid to treat passes into the chromatography column via one of the first (13J) and second (13K) conduits, exits via the other of the first (13J) and second (13K) conduits, and the liquid to treat may avoid the chromatography column by passing into the fifth conduit (13N).

2. A bag according to claim 1, characterized in that it comprises a sixth conduit (13A) between a feed pump connector (11A) and a waste container connector (11B).

3. A bag according to claim 2, characterized in that it comprises a seventh conduit (13D) which extends from a bubble trap connector (11D) until it enters the sixth conduit (13A).

4. A bag according to claim 3, characterized in that it comprises an eighth conduit (13C) which extends from a feed pump connector (11C) until it enters the seventh conduit (13D).

5. A bag according to any one of claims 1 to 4, characterized in that it comprises at least a ninth conduit (13E) which extends between a bubble trap connector (11E) and an instrumentation connector (11H).

6. A bag according to claim 5, characterized in that it comprises at least a tenth conduit (13H), (13I) which extends from a filter connector (11I, 11J) until it enters the ninth conduit (13E).

7. A bag according to any one of claims 1 to 4, characterized in that it comprises an eleventh conduit (13F) which extends between a bubble trap connector (11G) and an air connector (11F).

8. A bag according to any one of claims 1 to 4, characterized in that the first end (13K2) of the first section (13K1) of the second conduit (13K) is connected to at least one fraction container connector (11N-Q).

9. A bag according to claim 8, characterized in that it comprises a twelfth conduit (13B) which extends from a waste container connector (11R) until it enters the second conduit (13K).

10. A bag according to any one of claims 1 to 4, characterized in that the second end (13J3) of the first section (13J1) of the first conduit (13J) is connected to an instrumentation connector (11K).

11. A device for an installation for biological liquid treatment by chromatography, characterized in that it comprises a circuit (8) comprising:

- a bag (10) provided with a plurality of connectors (11A-11R) and a network (12) for conveying liquid between the connectors (11A-11R), the conveying network (12) being formed by a plurality of conduits (13A-13Q), the bag (10) further comprising two flexible films (65, 66) fastened to each other, the conduits (13A-13Q) being formed between the two flexible films (65, 66);
- a press (9) comprising a first shell (16) and a second shell (17) mounted on the first shell (16), the first shell (16) and second shell (17) cooperating with the bag (10) to form the conduits (13A-13B) of the conveying network (12) between the flexible films (65, 66), by clamping the bag (10) between the first shell (16) and the second shell (17); and
- a plurality of valves (125A-W);

wherein a first conduit (13J) is provided with a first section (13J1), which has a first end (13J2) and a second end (13J3) which is an opposite end to the first end (13J1);

wherein a second conduit (13K) is provided with a first section (13K1), which has a first end (13K2) and a second end (13K3) which is an opposite end to the first end (13K2), the first section (13J1) of the first conduit (13J) and the first section (13K1) of the second conduit (13K) being opposite;

wherein a third conduit (13L) has a first end (13L1) and a second end (13L2) which is an opposite end to the first end (13L1), which third conduit (13L) links the respective first ends (13J2, 13K2) of the respective first sections (13J1, 13K1) of the first conduit (13J) and the second conduit (13K) respectively by its first end (13L1) and its second end (13L2);

wherein a fourth conduit (13M) has a first end (13M1) and a second end (13M2) which is an opposite end to the first end (13M1), which fourth conduit (13M) links the respective second ends (13J3, 13K3) of the respective first sections (13J1, 13K1) of the first conduit (13J) and the second conduit (13K) respectively by its first end (13M1) and its second end (13M2);

wherein a fifth conduit (13N) has a first end (13N1) and a second end (13N2) which is an opposite end to the first end (13N1), the fifth conduit (13N) linking both the second end (13J3) of the first section (13J1) of the first conduit (13J) and the first end (13M1) of the fourth conduit (13M) by its first end (13N1), and the fifth conduit (13N) linking both the first end (13K2) of the

first section (13K1) of the second conduit (13K) and the second end (13L2) of the third conduit (13L) by its second end (13N2); and

the first conduit (13J) being connected to a chromatography column connector (11L) by the first end (13J2) of its first section (13J1), and the second conduit (13K) being connected to a chromatography column connector (11M) by the second end (13K3) of its first section (13K1); and

wherein a first valve (125L) is situated on the first section (13J1) of the first conduit (13J), a second valve (125N) is situated on the first section (13K1) of the second conduit (13K), a third valve (125P) is situated on the third conduit (13L), a fourth valve (125R) is situated on the fourth conduit (13M), and a fifth valve (125Q) is situated on the fifth conduit (13N).

12. A device according to claim 11, characterized in that it comprises a sixth valve (125M) situated on the first conduit (13J) between the first end (13J2) of its first section (13J1) and the chromatography column connector (11L).

13. A device according to claim 11 or 12, characterized in that it comprises a seventh valve (125O) situated on the second conduit (13K) between the second end (13K3) of its first section (13K1) and the chromatography column connector (11M).

14. A device according to claim 11 or 12, characterized in that the bag (10) comprises a sixth conduit (13A) between a feed pump connector (11A) and a waste container connector (11B), and the device comprises at least an eighth valve (125A, 125B) situated on the sixth conduit (13A).

15. A device according to claim 14, characterized in that the bag (10) comprises a seventh conduit (13D) which extends from a bubble trap connector (11D) until it enters the sixth conduit (13A), and the device comprises a ninth valve (125D) situated on the seventh conduit (13D).

16. A device according to claim 15, characterized in that the bag (10) comprises an eighth conduit (13C) which extends from a feed pump connector (11C) until it enters the seventh conduit (13D), and the device comprises a tenth valve (125C) situated on the eighth conduit (13C).

17. A device according to claim 11 or 12, characterized in that the bag (10) comprises a ninth conduit (13E) which extends between a bubble trap connector (11E) and an instrumentation connector (11H), and the device comprises at least an eleventh valve (125E), (125H), (125I) situated on the ninth conduit (13E).

18. A device according to claim 17, characterized in that the bag (10) comprises at least a tenth conduit (13H, 13I) which extends from a filter connector (11I, 11J) until it enters the ninth conduit (13E), and the device comprises at least a twelfth valve (125J, 125K) situated on the at least a tenth conduit (13H, 13I).

19. A device according to claim 11 or 12, characterized in that the bag (10) comprises an eleventh conduit (13F) which extends between a bubble trap connector (11G) and an air connector (11F), and the device comprises at least a thirteenth valve (125F) situated on the eleventh conduit (13F).

20. A device according to claim 11 or 12, characterized in that the first end (13K2) of the first section (13K1) of the second conduit (13K) is connected to at least one fraction container connector (11N-Q), and the device comprises a fourteenth valve (125W) situated on the second conduit (13K).

21. A device according to claim 11, characterized in that the bag (10) comprises a twelfth conduit (13B) which extends from a waste container connector (11R) until it enters the second conduit (13K), and the device comprises a fifteenth valve (125V) situated on the twelfth conduit (13B).

22. A device according to claim 17, characterized in that it comprises a pressure sensor (126) situated on the ninth conduit (13E).