CLAIMS

1. Non-invasive pulsatile circulatory support device (1;10;500;600) intended to promote circulation of a blood volume in at least a part (Z) of a subject's body, the device comprising:
    - a flexible structure (15), arranged so as to be applied on at least the part of the subject's body, including:
        i. a distribution layer (13) comprising a first series of paired adjacent pouches (130) extending along one another, one of the paired adjacent pouches at least partially covering the other of the paired adjacent pouches;
        ii. a generation layer (14), covering the distribution layer (13), comprising a second series of paired adjacent pouches (140) extending along one another; and,
    - means (200) for generating a pulsation fluidically connected to the flexible structure in a leak-tight manner and arranged so as to create pulsation waves in the second series of pouches of the generation layer between the inner and outer layers,

    characterised in that the second series of pouches (140) of the generation layer includes a series of paired adjacent inflatable pads (140) extending along one another, the first series of paired pouches (130) of the repartition layer including pouches filled with an incompressible fluid enabling the propagation of the pulsation waves created within the generation layer by the means (200) for generating.

2. Device according to claim 1, characterised in that the pouches of the second series of pouches are mounted in a scaled structure.

3. Device according to claim 1 or 2, characterised in that each of the pouches of the second series of pouches (140) comprises an elastic flexible inner layer (102) on the side of the patient's body and a more rigid outer layer (104).

4. Device according to one of claims 1 to 3, characterised in that each of the inflatable pads includes a pulsation fluid intake duct (114) fluidically connected with means for generating a pulsation.

5. Device according to one of claims 1 to 4, characterised in that the flexible structure (15) includes a non-stretch flexible outer layer (11).

6. Device according to one of claims 1 to 5, characterised in that it includes a mask (500) arranged so as to be disposed on at least a part of a subject's face.

7. Device according to one of claims 1 to 5, characterised in that it includes pants (600).

8. Device according to one of claims 1 to 5, characterised in that it includes a jacket.

9. Device according to one of claims 1 to 5, characterised in that it includes a glove.

10. Device according to one of claims 1 to 5, characterised in that it includes a boot (606) or a stocking.

11. Non-invasive pulsatile circulatory support assembly covering several parts of a subject's body, characterised in that it comprises at least one device according to one of claims 1 to 10 for each of the parts of the subject's body.