CLAIMS

1. A static mixer for homogenizing a mixture of at least two liquids, in particular after injection of an auxiliary liquid into a main liquid, said mixer comprising:
- a container (1) closed by walls comprising a top (1a), a bottom (1b) and lateral walls;
- an input duct (3), starting from a first wall of the container, and extending as far as the vicinity of the opposite wall; and
- an output duct (4), substantially parallel to the input duct, which starts in the vicinity of the first wall and extends as far as the opposite wall,
each duct being provided with a device (3a, 4a) for connection to the exterior through a wall of the container,
wherein the container is relatively flat, and has a thickness, according to a direction orthogonal to the plane of the axes of the input duct and of the output duct, the ratio of which to the width of the container is between 0.3 and 0.7.

2. The mixer as claimed in claim 1, wherein the first wall is formed by the top (1a) of the container, and the opposite wall is formed by the bottom (1b), the input duct (3) being vertical when the mixer is in the position of work, starting from the top and extending as far as the vicinity of the bottom, whereas the output duct (4) starts in the vicinity of the top and extends as far as the bottom.

3. The mixer as claimed in claim 1, wherein the input duct is horizontal, as is the output duct.

4. The mixer as claimed in any one of the preceding claims, wherein the input duct (3) is arranged in

the vicinity of the wall of the container (1), and in particular against the wall.

5. The mixer as claimed in any one of the preceding claims, wherein the output duct (4) is arranged in the vicinity of the input duct (3), and in particular against the input duct.

6. The mixer as claimed in claim 2, wherein in the lower part the input duct (3) has a partially open transverse cross-section (3b), the open part of this cross-section being closed substantially by the wall of the container.

7. The mixer as claimed in any one of the preceding claims, wherein the container (1) has an oval horizontal cross-section, which in particular is elliptical, and the input duct (3) is situated in the vicinity of an end of the large axis (8) of the cross-section, whereas the output duct (4) is situated substantially against the input duct, on the side of the center of the cross-section.

8. The mixer as claimed in claim 7, wherein the plane of the parallel axes of the input duct (3) and of the output duct (4) contains the large axis (8) of the horizontal cross-section of the mixer.

9. The mixer as claimed in any one of the preceding claims, wherein the bottom (1b) and the top (1a) of the container are curved.

10. The mixer as claimed in any one of the preceding claims, wherein it is produced with two identical half-parts, which are turned and assembled head-to-tail.

11. A dosing device (D) for introduction of an auxiliary liquid (L1) into a flow of main liquid (L) circulating in a duct (C), comprising a dosing pump (9) with a differential piston with reciprocal motion in order to collect the auxiliary liquid from a container, this pump comprising a first input (11) for receipt of a flow of main liquid which ensures that the pump is driven, a second input (12) for collection of the auxiliary liquid, and an output (14) for mixing of auxiliary liquid and main liquid, wherein the dosing device (D) comprises a static mixer (M) arranged at the output (14) of the pump, the static mixer being intended for homogenizing a mixture of at least two liquids, in particular after injection of an auxiliary liquid into a main liquid, said mixer comprising:
- a container (1) closed by walls comprising a top (1a), a bottom (1b) and lateral walls;
- an input duct (3), starting from a first wall of the container, and extending as far as the vicinity of the opposite wall; and
- an output duct (4), substantially parallel to the input duct, which starts in the vicinity of the first wall and extends as far as the opposite wall,
each duct being provided with a device (3a, 4a) for connection to the exterior through a wall of the container.

12. The dosing device as claimed in claim 11, wherein the static mixer is in accordance with any one of claims 1 to 10.

13. The dosing device as claimed in claims 11 or 12, comprising a flow divider (V) installed inside the main liquid duct (C), with the dosing pump (9) being connected in parallel to the flow divider, the first input (11) of the pump being connected

by a first pipe (16) to the input of the flow divider, whereas the output (14) of the pump is connected by a second pipe (15) to a neck of the flow divider, wherein the mixer (M) is arranged on the second pipe (15) between the output of the pump and the connection to the neck of the flow divider.

14. The dosing device as claimed in claims 11, 12 or 13, wherein the volume of the container (1) is three times the capacity of the dosing pump (9), or more.