

METERING DEVICE FOR INTRODUCING A LIQUID ADDITIVE INTO A
STREAM OF MAIN LIQUID

ABSTRACT

Metering device for introducing a liquid additive into a stream of main liquid flowing along a pipe, comprising a pump (3) having a reciprocating differential piston for withdrawing the additive (A) from a container (2) and metering it, this pump comprising a first inlet (8) to receive a flow of main liquid which drives the pump, a second inlet (9) for picking up the additive and an outlet (10) for the mixture of additive and main liquid, the device comprising a Venturi (11) installed in the pipe, the pump (3) being connected in parallel with the Venturi (11), the first inlet (8) of the pump being connected by a first line (12) to the inlet of the Venturi while the outlet (10) of the pump is connected by a second line (13) to the throat (11c) of the Venturi; the device comprises a means (E) for varying the restriction at the neck (11c) of the Venturi, and a means (G) sensitive to the pressure drop across the pump (3) for controlling the means (E) of restricting the neck of the Venturi in order to reduce the bore section when the pressure drop across the pump increases, and to increase the bore section when the pressure drop across the pump decreases.

Fig. 1