

Title (en)

Device for regulating the spill of water from a rain reservoir or a canal duct.

Title (de)

Anlage zur Regelung des Wasserabflusses aus einem Regenbecken oder einem Kanalrohr.

Title (fr)

Dispositif pour réguler l'évacuation d'eau d'un réservoir d'eau pluviale ou d'un canal.

Publication

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Application

EP 86107051 A 19860523

Priority

DE 3518943 A 19850525

Abstract (en)

1. An installation for regulating the discharge through a discharge pipe, which is without siphons, of waste water from a rain tank (10) or a sewer pipe (30) of a waste-water sewer system, having a regulator (23) for temporarily regulating, at a predetermined nominal value, by means of a throttling member (14) associated with the discharge pipe and displaceable by means of an adjusting member, the through-flow through the discharge pipe (13), the actual value of the through-flow being measured with the discharge pipe (13) full of waste water in the area of the flow measuring-point located upstream of the throttling member (14) and by means of a flowmeter sensing the flow speed of the waste water in the discharge pipe (13), and furthermore there being provided a second water-level sensor (25) for sensing a predetermined, second water level (W2) at which the discharge pipe (13) is full of water in the area of the flow measuring-point and, the regulator (23) being put into operation to regulate the nominal value of the waste-water discharge if, by means of a rise in the water-level in the rain tank (10) or sewer pipe (30), the second water level is reached, characterized in that the discharge pipe (13) is normally shut off by means of the throttling member (14), and in that there is provided either a first water-level sensor (24) for sensing a predetermined first water level (W1) at which, although lower than the second water level, the discharge pipe (13) remains full of waste water in the area of the flow measuring-point (33), and when there is a fall below this first water level (W1) regulating of the nominal value of the waste-water discharge is brought to an end and the discharge pipe (13) for the waste-water discharge is shut off and regulating of the nominal value is begun again when the predetermined, second, higher water level (W2) is reached, or in that a time-switch device (32) is provided which in the wake of the start of the regulating of the nominal value of the waste-water discharge serves to stop, in a time controlled manner, the regulating of the waste-water discharge gain, the time control being planned in such a manner that during the regulating of the nominal value of the waste-water discharge the level in the rain tank (10) or sewer pipe (30) cannot fall below a predetermined, first water level (W1) at which the flow measuring-point (33) area of the discharge pipe does still remain full of waste water, this first water level (W1) being however considerably lower than the second water level (W2) ; and that the discharge pipe (13) is shut off again when the regulating of the nominal value of the waste-water discharge is brought to an end and regulating of the nominal value is begun again when the predetermined second water level (W2) is subsequently reached.

Abstract (de)

Verfahren zur Regelung des durch ein ungedücktes Abflußrohr (13) erfolgenden Abflusses aus einem Regenbecken oder einem Kanalrohr einer Kanalisation, sowie eine Anlage zur Durchführung des Verfahrens. Beim Erreichen eines zweiten Wasserstandes (W2) im Regenbecken oder Kanalrohr wird der Regler (23) zur Regelung eines Nennwertes des Durchflusses des Abflußrohres eingeschaltet. Der Regler (23) wird bei einem vorbestimmten niedrigeren ersten Wasserstand oder zeitgesteuert wieder ausgeschaltet und das Abflußrohr wieder abgesperrt, wobei das Abflußrohr jedoch im Bereich der Durchflußmeßstelle (33) noch voll mit Abwasser gefüllt ist.

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E03F 5/10

IPC 8 full level

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