

Title (en)
LEAKAGE DETECTING METHOD FOR PIPES AND PIPE SYSTEMS

Title (de)
VERFAHREN ZUR LECKPRÜFUNG VON ROHREN UND ROHRSYSTEMEN

Title (fr)
PROCEDE DE DETECTION DE FUITE POUR TUYAUX ET SYSTEMES DE TUYAUX

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Application
EP 03757809 A 20030909

Priority

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- EP 0309998 W 20030909

Abstract (en)
[origin: WO2004025241A1] The invention relates to a leakage detection method for pipes and pipe systems, in particular for closed pipe systems which are place in the form of a closed circuit in the ground underneath an airfield, such as hydrant circuits. The inventive method consists in determining a pressure fluctuation $\Delta P = P_2 - P_1$ and a temperature variation $\Delta T = T_2 - T_1$ in successive measuring intervals ΔT , and an absolute volume change is calculated in relation to the measuring intervals ΔT in order to determine a leakage rate ΔV ($\Delta T = t_2 - t_1$) by combination with a specific volume change which is pressure-related. In order to reduce measuring time and improve the accuracy of measurements, the detected values of temperature and/or pressure measurements are filtered. A trend curve R4 is determined using the filtered R1, R2, R3 and R4 values of temperature and/or pressure measurements. The accurate temperature and/or pressure value is obtained from the trend curve R4 for each moment in time and the leakage rate ΔV is rapidly determined on the basis of the values of temperature and/or pressure measurements which are determined by using the trend curve R4.

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G01M 3/2815 (2013.01); **G01M 3/2892** (2013.01)

Citation (search report)
See references of WO 2004025241A1

Citation (examination)

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