

Title (en)

SYSTEM AND METHOD FOR TESTING THE INTEGRITY OF POROUS ELEMENTS.

Title (de)

VORRICHTUNG UND VERFAHREN ZUM TESTEN DER INTEGRITÄT PORÖSER ELEMENTE.

Title (fr)

SYSTEME ET PROCEDE DE VERIFICATION DE L'INTEGRITE D'ELEMENTS POREUX.

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Application

EP 94900561 A 19931108

Priority

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Abstract (en)

[origin: WO9411721A1] An ultrasonic detection apparatus (1) is disclosed for detecting defects in filters (3). The apparatus (1) operates on a wetted filter (3) and includes a housing (2). The wetted filter (3) divides the housing (2) into an inlet side (7) and an outlet side (8). Both the inlet side (7) and the outlet side (8) may be filled with a gas as with a standard forward flow test apparatus. A microphone (4) is disposed in the vicinity of the wetted filter (3). The microphone (4) receives acoustic signals generated within the chamber (any combination of inlet side (7), outlet side (8), inlet tube (5), or outlet tube (6)) as a result of the increased pressure on the inlet side (7). A signal processing device (9) is also included for analyzing the acoustic signals received by the microphone (4) for determining whether a filter (3) is defective. The invention includes multiple methods for determining whether a filter (3) is defective. One method may include the steps of placing a wetted filter (3) in a test housing (2) to divide the test housing (2) into an inlet side (7) and an outlet side (8), pressurizing the inlet side (7) with gas, measuring both the gas flow and the sound volume on the outlet side (8), and thereby determine whether the filter (3) is defective.

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Citation (search report)

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