Title (en)
METHOD AND DEVICE FOR DETERMINING FOULING IN A HEAT EXCHANGER

Title (de)
VERFAHREN UND VORRICHTUNG ZUR ERMITTLUNG VON FOULING BEI EINEM WÄRMETAUSCHER

Title (fr)
PROCÉDÉ ET DISPOSITIF DE DÉTERMINATION D'ENCRASSEMENT DANS ÉCHANGEUR DE CHALEUR

Publication
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Application
EP 21711796 A 20210305

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Abstract (en)
[origin: WO2021180581A1] According to the invention, in order to increase accuracy in the determination of fouling in a heat exchanger (1), in which heat is transferred from a first medium (S) to a second medium (P), a value for a variable (R f) characterizing the fouling is determined from a value for a first variable (k) influenced by the fouling and a value for a second variable (X). A change in the first variable (k) caused by a change in a flow (FS, FP) of the first medium (S) and/or of the second medium (P) through the heat exchanger (1) is at least partially compensated for by the second variable (X). The first variable can be a thermal transmission resistance or a thermal transmittance (or a thermal transmission coefficient (k-value)), wherein the first variable and the second variable are determined from values measured for temperatures and flows of the first medium and of the second medium without using material properties of the first medium and of the second medium and structural properties of the heat exchanger in the determination of the first and second variables.

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