

that the heat exchanger or heat exchanger unit must be dismantled, the various elements cleaned and then reassembled.

An object of the present invention will therefore be to try to solve one or more of the aforementioned problems or disadvantages.

5 Another object of the present invention will be to provide a sheet material for heat exchange between fluids, thus inducing a phase change in the fluids, where the heat exchange efficiency of the sheet material over time is reduced to a less extent.

Yet another object of the present invention will be to provide a sheet material for heat exchange between fluids, thus inducing a phase change in the fluids, which is
10 maintenance friendly.

These objects are obtained with a sheet material for heat exchange between fluids, thus inducing a phase change in the fluids, as disclosed in the following independent claim, and where additional features of the invention are set forth in the dependent claims and the description below.

15 Phase changes in the fluids can increase the degree of soiling substantially compared with ordinary heat exchange between fluids, and the present invention is of major importance for use as evaporator.

The sheet material for heat exchange between fluids, thus inducing a phase change in the fluids, according to the present invention can conceivably be used in a
20 number of fields, in particular in connection with distillation, in so-called MED (Multi Effect Distillation), MED/TVC (Multi Effect Distillation/Thermal Vapour Compression) and/or MVC (Mechanical Vapour Compression) processes and/or systems.

An aspect of the present invention relates to sheet material for heat exchange
25 between liquid and steam to cause phase change in the liquid and steam, the liquid being evaporated and the steam being condensed over a length of the sheet material, which sheet material is folded to form a plurality of slits extending in the longitudinal direction of the sheet material, the folded sheet material being arranged horizontally, which slits constitute the flow paths of the liquid and steam, the slits
30 for the liquid being closed at a bottom, wherein the slits for the steam, at each end of the folded sheet material are sealed by an end seal, the slits for the steam thereby being closed off to through-flow of the steam through the end seals, while the slits for the liquid, through at least one seal, are fully or partly open for drainage of a residual liquid that has not evaporated over the length of the folded sheet material,
35 the liquid being delivered to an upper side of the folded sheet material and the steam being delivered to an underside of the folded sheet material.

An embodiment of the present invention relates to a sheet material for heat exchange with phase change in a first fluid and a second fluid, the sheet material being suitably folded to form a plurality of slits extending in the longitudinal

direction of the folded material, which slits form the flow paths of the fluids, the slits for a second fluid, for example, liquid, in at least one area of the sheet material, through at least one seal, being fully or partly open for through-flow of the liquid.

5 The slits for the first fluid, for example, steam, can in one or more areas of the folded sheet material, be closed off to through-flow of the steam by means of at least one seal.

10 The sealing of a slit according to the present invention should be understood to mean that the slit is made tight or closed such that a fluid is unable to flow or move across this sealing or closing. The sealing can, for example, be obtained by moulding, in that one short side of the folded sheet material is placed in a mould, after which a material that is to form an end seal is added to the mould. When the material has hardened, the folded sheet material is turned and the same process is