

Title (en)

FLUID ENERGY MACHINE HAVING A TANDEM DRY GAS SEAL

Title (de)

FLUIDENERGIEMASCHINE MIT TANDEM-TROCKENGASDICHTUNG

Title (fr)

MACHINE À ÉNERGIE FLUIDIQUE COMPORTANT UN JOINT À GAZ SEC TANDEM

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Application

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Abstract (en)

[origin: WO2015193269A1] The invention relates to a fluid energy machine (FEM) and to a method for operating said machine, wherein a tandem dry gas seal (TDGS) comprises an inner seal (SLI) and an outer seal (SLO), wherein the outer seal (SLO) has a first sealing-gas supply (SGS1), wherein the shaft seal (SLS) has a primary vent (PV). In order that the machine operates reliably and with little sealing gas, the first sealing-gas supply (SGS1) according to the invention has a first control element (V1) for controlling the sealing gas, wherein the primary vent (PV) has a second control element (V2) for controlling a primary venting fluid (PVF), wherein the first control element (V1) and the second control element (V2) are matched to each other, that, in a first step, initially the open position of the second control element (V2) is controlled in order to control the first pressure (P1) and the first control element (V1) is closed and, in a second step, if the first pressure (P1) remains less than the first set pressure (P1SET) while the second control element (V2) is in the closed state, the first control element (V1) is opened while the second control element (V2) is in the closed state and the open position of the first control element (V1) is controlled in order to control the first pressure (P1) until the first pressure (P1) is adjusted to the first set pressure (P1SET) and, in a third step, if the first pressure (P1) remains greater than the first set pressure (P1SET) while the first control element (V1) is in the closed state, the first step is initiated again.

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