

ABSTRACT

VANE-CELL MACHINE AND METHOD FOR WASTE-HEAT
UTILIZATION USING VANE-CELL MACHINES

The invention relates to a vane-type machine (100). The housing (101) has a largely cylindrical space for accommodating the vane cells (102 - 113) and an inlet opening (114) and an outlet opening (115). A shaft (116) is eccentrically arranged in the housing. A first and a second guide plate (117) arranged largely parallel to one another are provided on the shaft. Slides (119 - 129) displaceable largely radially to the shaft (116) in the direction of the inner wall (118) of the housing (101) are guided by the guide plates, wherein a vane cell (102 - 113) is formed with the participation of two respective adjacent slides (119, 120; 120, 121; ...) of the adjacent region of the inner wall (118) of the housing and the volume of the vane cells in the region of the inlet opening (114) differs from the volume of the vane cells in the region of the outlet opening (115). To increase the speed of the shaft (116) and the temperature of the medium used and thus to increase the efficiency, it is proposed that the slides (119 - 129) preferably be lubricated by pressure oil and that they be radially and axially guided by a guideway (130), and that the guideway be fixed with respect to the housing (101) and likewise preferably lubricated by pressure oil.

Figure 1