

SYSTEM OF ENERGY-EFFICIENT AND CONSTANT-PRESSURE PARALLEL-COUPLED FLUID-TRANSPORT MACHINES

ABSTRACT

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The present invention discloses a system of energy-efficient and constant-pressure parallel-coupled fluid-transport machines, which can flexibly and massively provide gas and water to every fabrication unit. The system of the present invention comprises: variable-frequency
10 centrifugal fluid-transport machines, pressure gauges, power meters, flow meters, and controllers. The performance curves of the abovementioned system of parallel-coupled fluid-transport machines and the system impedance curves of the loads are analyzed theoretically and built in the controllers together with the equal-efficiency curves provided by the
15 manufacturer. When the system is operating, the data detected by the pressure gauges, power meters, and flow meters are compared with the built-in data to obtain the optimal energy-efficient conditions as the operational criteria of the system of the present invention.

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Fig. 15