

SYSTEM AND METHOD OF PUMPING WHILE REDUCING SECONDARY FLOW EFFECTS

ABSTRACT

A technique improves the pumping performance of a centrifugal pump in a cost-effective manner. The centrifugal pump comprises a pumping component having one or more vanes defining fluid flow paths. A passage is formed through at least one vane such that an end of the passage is exposed to a low energy flow, i.e. secondary flow, region. Each passage enables the flow of a small amount of fluid from the low energy region to an opposite side of the vane to reduce the secondary flow effects and improve pumping efficiency.

Fig. 1