

**ABSTRACT****TWIN CYLINDER IMPELLER PUMP**

A twin-cylinder impeller pump is disclosed. In the above pump, the twin cylinder runner is provided with an elastic sealing means for removing any gap from the junction between the runner and the throat of a pump casing with the runner being positioned at its upper or lower dead point. In a transmission gear mechanism of the above pump, the drive shaft does not directly engage with the driven shaft, but indirectly engages with the driven shaft through two idle gears. In each of the idle gears, both a circular concentric gear and an elliptical eccentric gear are commonly mounted to a shaft, thus forming a twin gear. The two elliptical eccentric gears engage with each other, while the two circular concentric gears engage with the drive and driven gears respectively, thus effectively reducing operational noises and vibrations during a pumping operation.