

Product Details

1. Product name

Diaphragm Pump

2. Short description

This product is a diaphragm pump suitable for reverse osmosis water purifiers, with significantly improved overall performance compared to similar products on the market. Firstly, the diaphragm pump innovatively adopts three sets of symmetrically distributed radial eccentric mechanisms, greatly reducing vibration during operation, and can operate smoothly at a head 1.3 times higher than the industry standard. Secondly, the pump has twice the number of working chambers as per industry standards, resulting in lower pressure fluctuations at the outlet. Finally, the diaphragm movement amplitude of the pump has been reduced by 70% compared to similar products, significantly reducing the fatigue stress of the diaphragm, and the diaphragm life is more than twice the industry standard.

3. Long description

Diaphragm pump in the reverse osmosis (RO) water purifier is used to increase water pressure going into RO filter, which is the main cause of noise during the operation of RO water purifier. With the increasing demand for a better life from consumers, diaphragm pumps with low noise is desperately desirable.

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This technology relates to a new type of diaphragm pump, which uses three sets of independent radial reciprocating motion mechanisms fixed on the motor shaft to form a variable volume chamber. In this group of motion mechanisms, the motion directions of the mechanisms on both sides are the same and always opposite to the direction in the middle, which results in zero resultant force on the motor shaft and greatly reduces the vibration and noise of the water pump. At the same time, the pump can be arranged with 12 working chambers, which is 200% higher than the existing technology and can effectively reduce outlet pressure pulsation. In addition, the movement range of the diaphragm of the pump is reduced by more than 70% and there is no friction or wear, which can effectively improve the service life of the diaphragm.

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