

Dry and submersible screw pumps for low and medium pressure, no noise applications up to 1160.30 psi specifically designed for USA custom units

SMAT pumps are three screw pumps for industrial use at low and medium pressure (up to 1160.30 psi). SMAT pumps are the reliable and no noise solution for industrial applications where long life and very smooth fluid flow are required. SMAT pump is a priming pump assembled into a pump body. The pump body and the design of the screws avoids any axial load. The functional pressure develops some tolerance between the balancing piston of the main screw and the surrounding body. This creates a balancing hydrodynamic force of the screws and, at the same time, lubricates and cools down the sealing parts. The torque needed to move the lateral screws is transmitted hydraulically by the pumped fluid. This means that the screws rotate with no possibility of mechanical wearing.

The advanced design and high precision of screw manufacturing ensure a very low level of acoustic emissions and pulsations.

The geometry and high precision machining of the three screws create sealing chambers. During the rotation of the screws, the main screw creates a cavity that holds the fluid and drives it smoothly in the axial direction from the inlet to the outlet port.

SMAT pumps may have internal or external safety relief valves.