

IS 12225:1997, Centrifugal Jet Pumps – Specification

Centrifugal jet pumps are widely used in water applications, particularly for drawing water from deep wells or ensuring a constant supply over long distances. Their unique design, which combines centrifugal pumping with jet action, makes them ideal for situations where standard centrifugal pumps may fall short. A centrifugal jet pump uses both centrifugal force and a jet (or ejector) to draw and lift water. In these applications, the pump creates a low-pressure zone through the jet mechanism, pulling water up from a well or source.

Mostly Centrifugal Jet Pumps are used for domestic needs, farming, gardening, industrial water supply systems and civil applications. These pumps are expected to have strong suction capacity (discharge) in a vertical depth from deep wells above 25 feet and energy efficient.

IS 12225:1997 specifies the requirements of single and multistage jet centrifugal pump used for pumping water from well beyond suction capacity of horizontal/ vertical end suction centrifugal pumps.

This standard covers requirement for three types of jet arrangements in jet centrifugal pumps (Twin type, Duplex type, and Packer type), which include constructional features, material of components, pressure testing, performance characteristics including discharge at various levels of heads, power input and average efficiency. The construction features of the centrifugal pumps may conform to IS 6595 (Part-1) or IS 9079. The centrifugal jet described in this standard are those type of pumps, which are capable to of lifting ground water from the depths beyond eight-meter suction lift.