

## **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. The centrifugal force from the impeller then helps propel the water through the system, ensuring a steady flow to the required destination. This dual action allows the pump to draw water from deeper depths than standard pumps, making them ideal for residential, agricultural, and industrial water supply systems. Considering that jet unit is not an independent unit, the pump has been designated as 'centrifugal Jet Pump'.

The standard 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.

The standard covers requirements for three types of jet arrangements in jet centrifugal pumps (Twin type, Duplex type, and Packer type), which include constructional features, material of construction, pressure testing, performance characteristics including average efficiency. 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.