

Liquid-liquid jet pumps and liquid-air jet pumps in water conservancy and hydropower engineering

Jet pumps, due to the different states of power medium and pumping medium, have many types and various names, such as jet, jet pump, ejector and so on. Its structure is simple, no running parts, the safety and reliability of operation is much higher than mechanical pumps, has a wide range of applications. With mechanical pumps driven by electricity is different, jet pumps are powered fluid as the driving force, especially suitable for surplus power fluid or recyclable fluid power in the field.

The technical water supply of hydroelectric generating units is suitable for the use of jet pumps. High-pressure water in front of the dam is used as the driving force to pump downstream river water and supply water at medium pressure without other forms of energy conversion, without running parts and with high efficiency, which also ensures the reliability of the water supply in the event of power cuts.

It uses high pressure water in front of the dam or snail shell as power to pump sewage sludge from each collection well. Jet pump is the best accidental drainage equipment in hydropower station. It does not need electricity, is trouble-free, not easy to be clogged, and can be placed underwater in the catchment wells, which is suitable for harsh sewage working conditions. Make-up air jet pump. Turbines under part-load conditions can have tailpipe cavity worm bands, leading to strong pressure fluctuations. Make-up air to the tailpipe is an effective measure to destroy the snail band and eliminate pressure pulsations. Due to the static pressure in the tailpipe, it is impossible to make up air naturally, and then it is necessary to rely on the jet pump to make up air forcibly.

Jet pumps can also be used for large and medium-sized pumps and hydraulic turbines pumping and filling water to start, the unit phase pressure water, etc

Water conservancy hub in the lock filling, can also use jet pumps to shorten the filling time, reduce the discharge flow, reduce the energy dissipation and anti-washout equipment, and safe, reliable, without maintenance.



Jet pumps can also be used to build water conservancy projects with sluice gates and dams to cross the fish. Because of the fish migration channel is blocked, need to build fish ladder, collect and transport fish boats or fish lifting machine for replenishment of water to induce fish crossing equipment. Jet pumps are the key equipment for replenishing water to attract fish, without damaging fish, and with simple and reliable operation.

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email:lzx@cd-greenwater.com