TSURUMI PUMP™

EXPERT INSIGHT
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When Dewatering Gets Tough: Matching the Pump to the Material

Understanding slurry conditions can help operators select the right submersible pump for demanding industrial applications





Photos: Tsurumi KRS Series dewatering pumps in action in demanding, abrasive slurry environments. The agitator helps loosen and suspend settled solids so they can be drawn into the pump.

Not all dewatering applications are created equal. Water containing light silt at a construction site presents a very different pumping challenge from settled sand in a quarry or abrasive slurry containing larger, harder solids. As conditions become more demanding, selecting a pump based on flow and head alone may not be enough.

One important consideration is the material being pumped. In applications where sand, mud or other solids settle at the bottom of a pit or sump, an agitator can help loosen and suspend the settled material so it can be drawn into the pump. Tsurumi offers agitator-equipped submersible pumps ranging from portable dewatering models to high-powered slurry pumps for demanding quarry, mining and heavy construction applications.

For lighter-duty applications involving silt, earth and other particulate matter, compact pumps such as Tsurumi's KTV agitator models combine portability with an agitator for handling settled material. Where greater durability and slurry-handling capability are required, KRS agitator pumps use a high-chromium cast iron agitator, impeller and suction plate to withstand abrasive operating conditions.

The characteristics of the solids also matter. For fine sandy water and applications with fewer stones or other hard objects, Tsurumi recommends KRS agitator pumps, particularly where installation space is limited. For applications where pumps may encounter harder foreign material and greater impact, the GPN Series provides a more rugged alternative, incorporating a chromium-molybdenum steel shaft and high-chromium cast iron wear components.

At the heavy-duty end of the spectrum, Tsurumi's GPN and GSD pumps are engineered for severe slurry applications.

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Tsurumi offers agitator-equipped submersible pumps for a range of solids-laden applications, from portable dewatering to heavy-duty slurry pumping.

Features such as high-chromium cast iron wear components, water-jacketed motor cooling and adjustable suction components on selected models help address the abrasion, continuous operation and performance loss that can accompany demanding slurry pumping.

There is no single pump for every solids-laden application. Understanding whether the job involves fine silt, settled sand, abrasive slurry or larger hard material—and considering site conditions alongside required flow and head—can help operators select a pump designed for the actual material being moved.

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Founded in 1979, Tsurumi (America), Inc. is a subsidiary of Tsurumi Manufacturing Co., Ltd., a global leader in pumping technology since 1924. Headquartered in Glendale Heights, Illinois, Tsurumi serves customers throughout North America with reliable pumping and water management solutions for construction, mining, industrial, municipal wastewater, sewage treatment, flood control, and water feature applications. Backed by a global presence spanning more than 45 countries, Tsurumi is recognized for product reliability, engineering expertise, and a strong distribution network.