

## Pulp Tank Pump Annual Inspection Application Matrix - Pulp & Paper Manufacturing

## **GPM Solution Spotlight**

A pulp and paper manufacturing facility located in the upper Midwest faced persistent issues with their dry end pulper pit sump pump. Seeking a solution, the paper manufacturer reached out to GPM for assistance in finding and fitting a suitable replacement pump. After conducting a comprehensive assessment of the application and carefully calculating the specific pumping requirements, including factors such as flow rate, head pressure, and the nature of the fluid being pumped, GPM concluded that a robust submersible pump from the GPM-Eliminator<sup>™</sup> series (specifically, the SBGT2S5-6T4-9 model) was the ideal choice for the task at hand.

The dry-end pulper pit sump typically operated at its normal level for approximately 360 days each year. However, during the annual five-day maintenance outage, the sump played a crucial role in emptying the pulp tank for inspection and repairs. The existing equipment struggled to handle the thick "sludge" or "pulp" encountered during this period, frequently causing blockages in the discharge line and leading to sump overflows on the factory floor. These blockages could disrupt or even halt the unit evacuation process, resulting in the reassignment of additional personnel from other outage tasks to clean the area and clear the clogged lines. In severe cases, the pump had to be replaced with an alternative pumping system. Dealing with such clogs in the sump and piping system required the facility to rent a vacuum truck and hire extra personnel, resulting in an estimated maintenance cost of \$30,000 per occurrence.

The experienced professionals at GPM determined that a 5hp heavy-duty submersible GPM-Eliminator™ sump pump was well-suited to meet the flow and head requirements while efficiently handling the contents of the sump. The installation of the Eliminator took place during the mill's annual maintenance outage. Given the challenging conditions that had previously caused significant issues, the Eliminator was expected to not only resolve the recurring and costly maintenance problems but also ensure reliable pumping of the challenging pulp and sludge mixture.

After being put to the test for the 10 day mill outage, the GPM-Eliminator demonstrated its exceptional durability and reliability through its Made Tough™ design. As a result, similar mill applications have since been converted to the Eliminator and have ran successfully for 8-12 years without failure.







## Pulp & Paper Applications Matrix for GPM-Eliminator™ Pumps







	Submersible	Horizontal	Extended Shaft
Clarifier Sumps	<b>✓</b>		✓
Clay Pumps		✓	
Coating Pumps		✓	
Dry End Pulper Pit Sumps	✓		<b>✓</b>
Effluent Sumps	✓		✓
Filter Plant Sumps	✓		<b>~</b>
Finish Room Pulper Pit Sumps	✓		✓
Grit Sumps	✓		✓
Lift Stations	✓		✓
Lime Kiln Area Sumps	✓		<b>~</b>
Lime Mud Sumps	✓		<b>~</b>
Recaust Lime Pit Sumps	✓		✓
Process Pumps		✓	
Process Sumps	✓		<b>✓</b>
Pulp Mill Liquor Sumps	✓		✓
Sewage Pumps	✓		<b>~</b>
Sludge Pumps	✓		<b>~</b>
Woodroom Sumps	<b>~</b>		<b>~</b>
Woodyard Sumps	✓		<b>✓</b>