



For Moving Harsh Fluids in Power Plant Applications, Finish Thompson Pumps Are Up to the Challenge

“Power plants use a variety of corrosive chemicals for their processes,” explains Pete Scantlebury, VP of Development for Finish Thompson. “The most common being cooling and water treatment. Our pumps were designed with these types of harsh environments in mind.”

What do sodium hydroxide, sulfuric acid, hydrochloric acid and formic acid have in common? They’re all used in the power generation process. What else do they have in common? They are harsh substances that require heavy-duty pumps for safe and efficient handling. Finish Thompson’s product line offers ideal solutions.

Heavy-Duty Solutions for Heavy-Duty Jobs

Two features make Finish Thompson pumps perfect for power plant applications.

Mag-drive design: Scantlebury notes, “The sealless design eliminates significant maintenance, cost and downtime. Plant operators never have to worry about a leaking seal, because there is no seal. Our powerful neodymium magnets deliver leak-free operation with no environmental emissions, no mechanical seal costs and no seal support systems.”

Chemical resistance: Finish Thompson pumps are built from the ground up to handle the harshest chemicals. Ultra-durable ULTRAChem® pumps feature EFTE linings and tough ductile iron construction to make these pumps ideal for the most demanding applications.

Where Can You Find Finish Thompson Pumps in a Power Plant?

Cooling Systems Treatment

Thermal power plants produce significant waste heat as a byproduct, necessitating a corresponding cooling system. Scantlebury reports, “In the U.S. alone, power generation cooling systems use trillions of gallons of water annually, and that water must be treated. If left untreated, organic growth, fouling, scaling and corrosion can reduce plant productivity, cause plant downtime and require costly equipment replacements.”

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Common treatment methods combine coagulation, flocculation and ion exchange resin to create high-purity water to be released as steam. Cooling systems also require neutralization and de-scaling chemicals. Scantlebury adds, "These processes require reliable pumps to handle the harsh chemicals involved, which is where Finish Thompson comes in."

Boiler Systems Treatment

In a power plant, the primary function of the boiler is to transfer massive amounts of heat from the source of combustion into steam to drive turbines. Once the water evaporates inside the boiler, dissolved salt leaves scale deposits on the heat transfer surfaces.

"Scale has much lower heat transfer capacity than the steel boiler," notes Scantlebury, "At least, the scale build-up causes inefficiencies from reduced flow, and at worst, causes overheating and potential failure of the boiler tubes. Plant managers must control these scale deposits as well as provide corrosion control in the boilers, condensers and heat exchangers. This requires the use of harsh chemicals, which Finish Thompson pumps are designed to handle."

The Right Pump for the Job

Scantlebury points to two of Finish Thompson's product lines as ideal solutions for power plant operations. He reports, "Our drum pumps efficiently move treatment chemicals from drums and totes / IBCs. In addition, our DB/SP Series sealless mag-drive centrifugal pumps are ideal for bulk transfer and recirculation, meeting the demands for these harsh environments. They are perfectly suited for the tasks."

Drum & Barrel Pumps

- Wide range of tube lengths for use in drums, barrels, totes, IBCs and other containers
- PP, PVDF or 316SS tubes – Specify based on application needs
- Built-in hose and cord clips on selected models
- Explosion-proof/ATEX performance – With the proper motor, pumps can transfer flammable alcohol-based fluids and are suitable for use in hazardous locations



Finish Thompson Inc. designs and manufactures pumps for the safe transfer of a wide variety of corrosive fluids. Products include sealless mag-drive centrifugal pumps with run-dry capability, mechanically sealed pumps, drum/barrel pumps, vertical mag-drive pumps, multi-stage pumps and the FTI Air line of air operated double diaphragm (AODD) pumps.



Finish Thompson Inc.

921 Greengarden Road
Erie, PA 16501 USA
Tel: (800) 934-9384
Fax: (814) 459-3460

FINISHTHOMPSON.COM