

# Automatic Starch Cooker

**ProFlow makes it easy to reduce process variability & operate more efficiently.**

When you want greater control over your end paper product and your bottom line, ProFlow's Automatic Starch Cooker makes internal sizing, surface sizing, and coating processes efficient.

- ✓ Proven designs
- ✓ Control with PLC
- ✓ Improve formation
- ✓ Enhance tensile strength
- ✓ Improve fiber fines, filler and chemical retention
- ✓ Improve drainage
- ✓ Increase dry strength properties
- ✓ Improve surface quality
- ✓ Minimize linting and dusting



## Lower Process Variability, Better Paper Quality, & Reduced Operating Costs.

ProFlow's Automatic Starch Cooking System simplifies the starch cooking process. The process is initiated by simply dialing a desired starch concentration in to the starch cooker, for automatic results, with no calculations, manual adjustments, or inconsistencies.

The Automatic Starch Cooking System was designed for superior usability. Using the interface on the integrated PLC, the operator sets the starch concentration. From there, the system sets the necessary feed rates.

Throughout the run, the closed-loop controls maintain consistent product delivery, even with fluctuations in the steam or water supply.

This virtually eliminates costly starch overfeeds and underfeeds that can waste other high-cost additives downstream.

### Starch Cooking Chambers

Q-Jet DSI Mixing Jet Cooker, the ProFlow line of starch cooking systems, offers unparalleled starch cooking capabilities. With a wide range of options and models, the Q-Jet can accommodate a wide range of size press and coatings applications.

For more than 20 years, ProFlow has delivered dependable, reliable systems in paper mills. ProFlow is recognized worldwide for our industry expertise, project management, and turnkey engineering and fabrication capabilities.

## ProFlow's Starch Cookers Improve Efficiency, Reduce Energy Usage, and Deliver Operational Excellence

### Convenience

Operator-friendly controls allow direct setting of starch concentration, eliminating the potential for errors caused by manual calculations and frequent adjustments.

### Process Stability

Closed-loop controls maintain set concentration throughout the run—lowering process variability, regardless of fluctuations in steam or water supply. Uniform starch concentration allows optimization of application rates.

### Cost Savings

ProFlow's starch cookers lower operating costs by enhancing reliability and maintaining tighter control over the process.

### Controllability

The PLC-based control system integrates with the mill's DCS. It is possible to set starch concentration and monitor and control the operation locally from the operator interface terminal or through a secure remote connection. The Q-Jet Dual Control Mixing Jet Cooker allows in-process tuning via the mixing tube adjustment to eliminate noise and damage due to "steam hammering".

### Dependability

Rugged components, proven designs, and decades of experience in building critical fluid handling systems for the paper industry ensure trouble-free operation and maximum uptime. ProFlow starch cooker systems use Waukesha rotary pumps that will start without damage when filled with settled starch slurry and can run dry without harm so long as the seals are properly flushed.

### Availability

In-stock supplies of key components enable ProFlow to quickly fabricate standard and custom systems to meet the needs of our customers.

### Support

A comprehensive manual simplifies system operation and maintenance. Start-up service, remote modem diagnostics, on board help screens and on-call, around-the-clock emergency service promote peak productivity from day one—and every day thereafter.

### Starch Options

ProFlow's starch cookers are equally efficient in cooking a variety of starches, including corn, potato, tapioca, wheat, waxy maize, and others.

### Results

ProFlow's unmatched performance helps our customers produce better paper at a lower cost. When all the benefits are factored in—from labor and material savings to lower maintenance costs, lower downtime and higher customer satisfaction—nothing else equals ProFlow's automatic starch cooker system.

ProFlow has designed, engineered, fabricated, and tested critical process equipment for the paper industry for over 20 years.

Our presence in hundreds of mills worldwide confirms our ability to exceed our customer's expectations—every job, every time.

Other systems are available to accommodate size press, coatings, and custom designs.

***When the system must be right, the choice must be ProFlow.***