

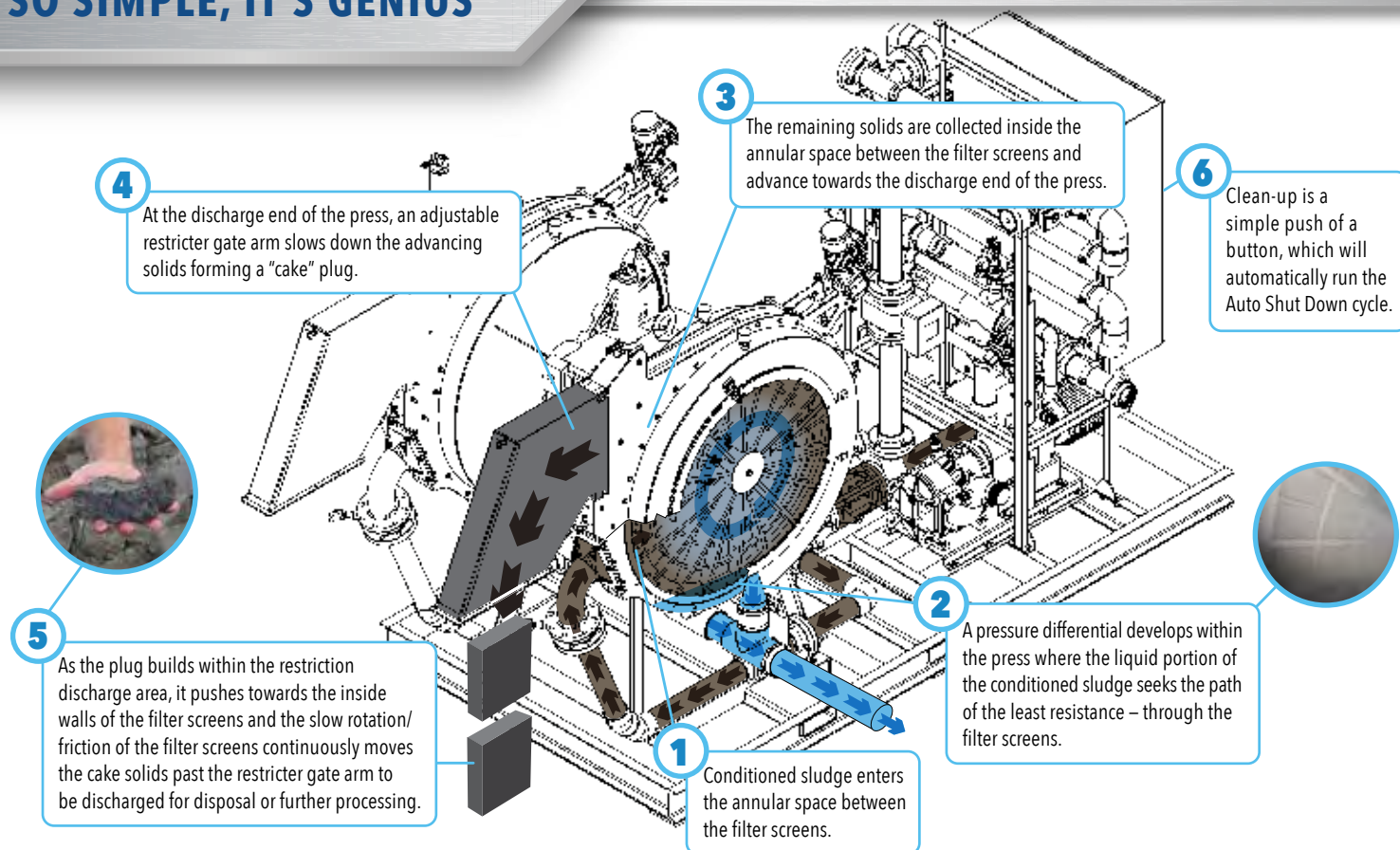
DEWATERING PERFORMANCE SIMPLIFIED



High-Performance, Cost-Effective Rotary Fan Press®

Prime Solution designs and manufactures advanced dewatering equipment. Engineered and built in Michigan, our technology serves industries around the globe.

SO SIMPLE, IT'S GENIUS



With its slow-moving (<2 RPM), fully enclosed design and minimal maintenance requirements, this compact dewatering technology delivers lasting, efficient results. The unit features PLC and touchscreen controls, enabling precise, infinitely adjustable operation and detailed refinement of all parameters. Operators can manage the dewatering process from sludge feed through sludge cake transfer, seamlessly interlocking the system for semi-automatic operation.

Not all dewatering equipment is created equal.

The Prime Rotary Fan Press® is an advanced, low-shear dewatering system engineered for simplicity, efficiency, and long-term value. Its patented internal mixing element optimizes polymer contact, producing drier cake solids and cleaner filtrate while maintaining gentle handling of biosolids. Proprietary screen technology enables higher throughput capacity, providing greater process flexibility and measurable space savings per square foot.

From an operational standpoint, the system reduces power and wash water consumption, directly lowering utility costs and supporting sustainability goals. With fewer wear parts than traditional dewatering equipment, maintenance downtime and aftermarket expenses are significantly reduced.

Operators appreciate the press for its reliability and unattended operation, which frees staff to focus on other critical plant functions. At the end of each cycle, the unit can automatically shut down, perform a complete cleanout, and reset itself for the next day of processing—ensuring consistent performance with minimal oversight.

The result is a robust, cost-effective dewatering solution that balances technical performance with real-world operational savings.



Build America, Buy America Act - Made in the USA

On May 14, 2022, the requirements for The Build America, Buy America (BABA) officially took effect. Prime Solution's equipment has always been designed, sourced, and manufactured in the US. We believe in supporting our fellow Americans through strengthening the economy and providing jobs that allow people to earn a living wage and balance their work/family responsibilities.

Prime Solution's products consistently meet BABA standards without the need for waivers or added costs.

FAMILY FARM TO TRUSTED NAME



Rotary Fan Press assembly, Otsego, MI

With over 40 years of experience and more than 250 installations worldwide.

Prime Solution is recognized throughout the wastewater treatment industry as one of the most reliable manufacturers, known for delivering superior performance and unmatched customer service. From its humble beginnings in a Midwest barn, Prime has grown into a trusted name with a proven record of excellence, providing advanced, operator-friendly dewatering solutions.

Our mission is simple: to design and manufacture systems that consistently meet or exceed customer expectations. By focusing on reliability, ease of operation, and measurable performance, Prime continues to set the standard for effective, sustainable dewatering solutions.

- Headquartered in Otsego, MI
- Sourced, assembled, and manufactured in the US
- 40+ years of experience in the industry
- Skid, press only, trailer and container systems available
- Feasibility testing
- On-site pilots
- Dedicated customer service



More time running, less money spent.

We engineer from an operator's perspective – simple is better.

At Prime Solution, we design for maximum performance and long-term reliability. As sludge processes and dewatering methods have evolved, the Rotary Fan Press® has continuously adapted to meet new requirements while exceeding industry expectations. Supported by more than 40 patents worldwide, our engineering team and continuous improvement specialists actively engage with customers and industry leaders, transforming feedback into innovative design enhancements.

The result is a system that combines technical excellence with real-world performance—delivering higher efficiency, greater reliability, and superior value for operators and facilities alike.

The Rotary Fan Press® utilizes patented screen technology that combines a simple pressure differential with controlled friction resistance to achieve superior dewatering performance at a lower operating cost and with extended service life. Operating at speeds of ≤ 2 RPM, the fully enclosed system minimizes wear on bearings, gears, seals, and motors. Unlike higher-RPM equipment that generates vibration—leading to fatigue, misalignment, and excessive noise—the Rotary Fan Press delivers quiet, stable, and highly reliable performance.

Testimonial

"I am very satisfied with the RFP. It has proven to be one of the best decisions I have made while here. It has saved countless hours and dollars, and has proven itself to be an integral part of the system. We are shorthanded and this has freed up time for us to pursue other issues. When it is running it is quiet. It does not use a lot of water or power."

– Dale Vanderhoof, Superintendent, Larned Water Recycling Center, Larned, KS



Larned Water Recycling Center, Larned, KS

Distinctive Benefits

- **Proven, Reliable Technology**
Trusted performance you can count on
- **High Cake Solids & Capture Rates**
Maximize separation efficiency
- **Low Maintenance & Operating Costs**
Minimal upkeep, maximum savings
- **Ultra-Slow Operation (<2 RPM)**
Gentle handling, reduced wear
- **Seamless Automation**
Easily integrates into existing systems
- **Retrofit Ready**
Upgrade without facility expansion
- **Expandable Throughput**
Scale as your process demands
- **Exceptional ROI**
High performance drives long-term value



Testimonials

"After running dewatering equipment for the past 14 years (belt press, gravity belt, screw press, centrifuge, etc.), I recognized Prime Solution's RFP is a unique piece of process control equipment for solids dewatering. I have recommended the equipment to other plant managers because of the quality of solids it creates, the compact clean footprint and the easy operations. It's like nothing else in the dewatering industry."

– Jacob Hansen, Plant Superintendent, Eagle Mountain, UT

"It's pretty much paid for itself, in a short amount of time."

– Chris Jamiel, Superintendent, Water Pollution Control Center, Cambridge, OH

"Once you get it set, it's as easy as coming in and pressing the start button. No babysitting at all. Once you get it started and going, it runs itself."

– Doug Frye, Waste Water Superintendent, Barnesville, OH

"Every time I see it running, I think to myself: how can such a small machine do such a big job; and do it so well? I am amazed!"

– Dale Vanderhoof, Superintendent, Larned Water Recycling Center, Larned, KS

Typical Results

Typical Application	Avg. Feed (% TS)	Avg. Polymer (lbs/d.t.)	Avg. Capture (% TSS)	Avg. Cake (% TS)
Primary 100%	2 - 6	4-8	95 - 98	28 - 38
Anaerobic	1 - 4	8-12	95 - 98	18 - 26
Aerobic	1 - 3	10-14	95 - 98	15 - 22
Primary/Sec. Mix	1 - 4	8-10	95 - 98	20 - 32
WAS	1 - 3	9-15	92 - 98	15 - 22
SBR	0.75 - 2	9-15	92 - 98	15 - 20
Alum Treated WAS	1 - 3	8-14	92 - 96	12 - 16
PAC Treated WAS	1 - 3	8-14	92 - 96	12 - 16
Lime Sludge	5 - 9	8-14	95 - 98	28 - 45
Septage	3 - 7	7-10	95 - 98	28 - 38
Grease Trap (lime treated)	1 - 5	9-15	92 - 96	28 - 40
DAF	3 - 6	8-14	92 - 96	20 - 28
Coal Refuse	3 - 5	4-8	95 - 98	28 - 45
Concrete Reclaim	5 - 15	7-10	95 - 98	28 - 45
Swine	1 - 4	7-10	94 - 97	18 - 24

SIZES & CAPABILITIES

Model	Channels	Screen Dia. (in)	Filtration Area (ft ²)	Combined Power (hp)	Feed Inlet (in)	Filtrate Outlet (in)	Water Inlet (in)	Hydraulic Flow (gpm)	Max. Solids Loading (d.s. lbs/hr)	Approx. Dims. L x W x H (ft)	Approx. Weight (lbs)
RFP2.0-24S	1	24	4.50	1.75	2	3	1.5	5 - 15	225	5.5 x 4.5 x 5	900
RFP2.0-24D	2	24	9.00	2.00	2	3	1.5	10 - 30	450	5.5 x 4.5 x 5	1,400
RFP2.0-36S	1	36	11.00	3.25	3	4	1.5	12 - 36	550	7.5 x 5 x 7	3,000
RFP2.0-36D	2	36	22.00	3.50	3	4	1.5	24 - 72	1,100	7.5 x 5 x 7	4,000
RFP2.0-48S	1	48	20.00	5.25	3	4	1.5	22 - 65	1,000	9 x 5.5 x 8	4,400
RFP2.0-48D	2	48	40.00	5.50	3	4	1.5	44 - 130	2,000	9 x 6 x 8	6,300
RFP2.0-48DE	2	48	40.00	8.00	4	4	1.5	44 - 130	2,000	10 x 6 x 8.5	7,800
RFP2.0-48T	3	48	60.00	8.25	4	4	1.5	66 - 195	3,000	10 x 6 x 8.5	9,200
RFP2.0-48Q	4	48	80.00	8.50	4	4	1.5	88 - 260	4,000	10 x 9 x 8.5	10,950
RFP2.0-48P	5	48	100.00	16.25	6	4	1.5	110 - 325	5,000	10 x 10 x 8.5	13,200
RFP2.0-48HX	6	48	120.00	16.50	6	4	1.5	132 - 390	6,000	10 x 11.5 x 8.5	14,700

APPLICATIONS

- Municipalities
- Food and Beverage
- Industrial
- Agricultural

SPECS

- 24, 36, and 48 inch diameter
- Sludge Cake Conveyors
- One to Six Dewatering Channels
- Emulsion Polymer Systems
- Skid Mounted, Press Only, Mobile and Container Systems

Max solids loading listed above is based on primary sludge at 3% feed solids. Type and variation of sludge/process, feed and volatile solids concentration, and polymer selection will impact capacity and results.

Testimonials

"We have had our Rotary Fan Press since February 2018 and are very happy with the performance. We haven't had any issues, and it is performing as designed. It is a solid, heavy-duty piece of equipment. It is a very valuable tool that allows us to meet our dewatering capability with low maintenance. We have had to do very little with it. It does its job. It just works. It's a great unit."

– Michael May, Facilities Manager, Russian River Brewery, Windsor, CA

"Adding a second press not only cut down time on dewatering, but allowed the city to save money. We went from running 10-12 hours per day, 7 days a week to 8 hours a day five days a week. Also, the ease of use and low maintenance allow us to easily train operators and meet plant requirements with fewer hours required."

– Shari Haynes, Plant Superintendent, Tybee Island, GA

"I have nothing but respect for Prime Solution's service technicians. They have answered every question I have ever had. They respond immediately unless they are on an airplane. There is not any problem we have had that we were not able to work out over the phone."

– Tony Scarborough, Senior Wastewater Operator for MUD District 165 and H2O Consulting, Harris Co., TX



WWT Plant, MUD District 165, Harris Co., TX



WWT Plant, Tybee Island, GA

SERVICES & ANCILLARY EQUIPMENT



Prime Labs

Want to confirm that the Prime Rotary Fan Press® is the right solution for your dewatering needs before making a capital investment? Our no-cost wet lab testing allows us to evaluate performance with your actual sludge. We even provide sample containers free of charge, making it simple to determine if the Rotary Fan Press is the ideal fit for your application.



Pilot Testing

Once feasibility has been confirmed, Prime Solution can provide a pilot demonstration of the Prime Rotary Fan Press® directly at your facility. Our mobile trailer brings the press on-site, allowing you to observe its performance on your own sludge under real operating conditions. Following the demonstration, we conduct a full laboratory analysis of cake solids and filtrate, helping you identify the optimal chemistry and equipment configuration to achieve maximum results. A comprehensive performance report is then provided—at no cost.



Prime Customer Services

At Prime Solution, exceptional customer service is at the heart of everything we do. We are committed to being responsive, knowledgeable, and proactive, providing hands-on support from the first inquiry through the full lifecycle of your equipment. Our service offerings include customized preventive maintenance (PM) programs, new employee and refresher training, equipment upgrades, and on-site technical support to ensure your system operates at peak efficiency. We also offer Channel Adders, which allow you to expand the capacity of previously purchased equipment—delivering greater value and extended service life.



Prime Conveyors

Prime Solution can customize your solids transfer system, offering a variety of conveyor sizes and styles tailored to your application. When durability meets precision, you get more than a conveyor—you gain a competitive advantage. Our steel conveyor systems are engineered for reliability and long-term performance, ensuring consistent operation and delivering results you can count on.



PRIMEBLEND™ Polymer Preparation System

The PrimeBlend emulsion poly system is a compact, self-contained solution designed to optimize polymer preparation while minimizing polymer usage and maximizing efficiency.

Our BABA-compliant system delivers proven performance and reliability, backed by a quality design that offers considerable cost savings.

Originally developed as a key component of Prime's Rotary Fan Press® package, the PrimeBlend offers a simple, cost-effective polymer solution that meets a wide range of mechanical dewatering needs.

To begin the ordering process for a PRIMEBLEND™ system call (269) 694-6666



Please contact us if you would like to learn more about Prime Solution and the revolutionary Rotary Fan Press®.

610 S. Platt St. | Otsego, MI 49078 | (269) 694-6666 | psirotary.com