

**SEGMENT**

Waste Water  
Treatment Plants

**SOLUTION**

Rotary Fan Press

**LOCATION**

Eagle Mountain, UT



**PRIME SOLUTION ROTARY FAN PRESS®  
PROVIDES EFFICIENCY AND EXPANDABILITY, TWICE.**

**“After running dewatering equipment for the past 14 years (belt press, gravity belt, screw press, centrifuge, etc.), I recognized Prime Solutions Rotary Fan Press® 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. Prime Solutions Rotary Fan Press® is like nothing else in the dewatering industry”**

**— Jacob Hansen, Plant Superintendent**

**Plant Challenges**

In July 2018, the Wastewater Treatment Plant in Eagle Mountain, managing 2 million gallons per day (MGD), faced the need for efficient mechanical dewatering equipment. The facility, which operates an anaerobic process with secondary sludge, required a solution that could process 19 gallons per minute (gpm) or 1,272 dry solid pounds per day, within an eight-hour shift.

**Solution**

After careful consideration, and anticipating future growth, The Eagle Mountain facility selected the Prime Solution Model RFP-2.0-36 Single Skid, designed with an option for future expansion to meet the plant’s evolving needs. They chose the Rotary Fan Press® for its flexibility and proven performance. By 2022, the plant was ready to upgrade its capacity, taking advantage of the system’s modular design. The Prime Solution team swiftly installed two additional channels, increasing the machine’s capacity to 57 gpm, or 3,816 dry solid pounds per day, ensuring the plant could meet its growing demands.

**Eagle Mountain City's wastewater department manages the city's wastewater treatment plant and provides for safe and efficient operation of the facility in compliance with state regulations.**

Eagle Mountain Wastewater Treatment Plant (Eagle Mountain) is an activated sludge wastewater treatment plant. Influent for the plant comes from the collection system and is first treated through screening and an anoxic zone, then to an oxidation ditch. Wastewater from the oxidation ditch goes to a clarifier before discharging to a rapid infiltration basin. The activated sludge from the clarifier goes through a drum screen and is returned to the ditch or wasted.

Currently, wasted biosolids sludge from the drum screen is sent to a fan press. The biosolids are dewatered and hauled to the Intermountain Regional Landfill (IRL) by Eagle Mountain City. Solids from the headworks and drum screen are hauled to the Intermountain Regional Landfill (IRL) by Ace Disposal. Eagle Mountain estimates they will produce and dispose of 158 dry metric tons of biosolids per year 2.4 MGD plant. They are currently treating 1.3 - 1.5 MGD, with 200,000 gallons of WAS per week.

**Energy and water usage is low for the Rotary Fan Press.**

On average the press uses 11.33 kW. Washing of the patented Stainless Steel filtration elements can be done constantly, or intermittently. It is set to the customers' preference. Washing can occur simultaneously with operation; and will not impact the performance of the machine.

**Small Footprint, Big Output.**

The size of the Rotary Fan Press was also important, as the size of any equipment matters; square footage equals dollars. Prime Solution worked closely with the customer to make sure the machine not only fit into their building but added the ability to easily expand the operation.

**“We were confident the upgrade would be successful and are pleased with how quickly the Prime team installed the upgrade and the great results we see every day. We've had a great experience and customer service with Prime Solution,”**

— Jacob Hansen, Plant Superintendent

**Build America, Buy America Act**

Prime Solution, a U.S.-based Build America, Buy America (BABA) compliant manufacturer, has over 200 installations and 22 years of experience providing mechanical dewatering solutions. Known for delivering simple, successful, and sustainable systems, Prime Solution helps treatment plants reduce their operational footprint, lower operating costs, and minimize operator time. The Rotary Fan Press® is available in various sizes and configurations to meet the needs of different facilities. Prime Solution, the nicer people to work with.

**SPECS**

- 24, 36, and 48 inch diameter
- Sludge Cake Conveyors
- One to Six Dewatering Channels
- Emulsion Polymer Systems
- Free Standing/Skid Mounted/Mobile

**APPLICATIONS**

- Municipalities
- Food and Beverage
- Industrial
- Agricultural

