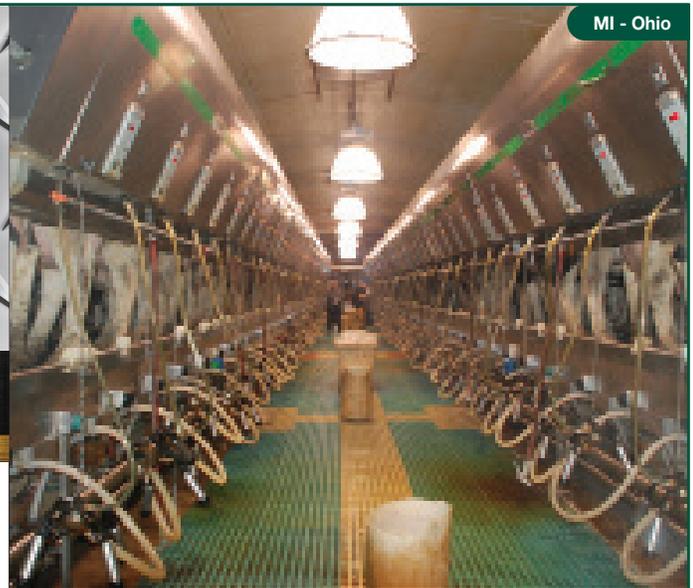


# MONSTER INDUSTRIAL™



*The 3-HYDRO-IX was brought in to make this green dairy farm's waste processing more efficient.*



## Monster Solutions

### HYDRO Manure Grinder Improves Methane Digester Efficiency At Bridgewater Dairy

By Cynthia Guardia - Cia Communications, Inc.

Using manure for the production of electricity and reuse as cow bedding has become a very sustainable system for dairy farms. The main Bridgewater Dairy facility, located in Montpelier, Ohio, has successfully stayed on top of implementing green systems in line with EPA manure management regulations.

One of their green systems is a manure digester that converts cow waste into methane gas to produce electricity. With this system, Bridgewater Dairy can produce between 400-600 KW per hour. That's enough power to run roughly 400 average American homes for one full day. Additionally, a Post Digester separates solids for reuse as cow bedding for some 4,000 cows.

According to Chris Weaver, Bridgewater Dairy owner, "any foreign material other than actual manure that gets in the Methane Digester, gets hung up on the heat tubes, heat exchanger or blower plates – this makes the whole system less efficient." Debris entering the Post Digester plugs up the screw presses causing frequent removal and cleaning of the mechanical screens used to catch large solids.

To improve on this, Weaver looked into equipment that would help break up the solids in the first phase of the manure digester as well as solids entering the screw presses further downstream. Weaver had seen the successful use of JWC Environmental's HYDRO In-line Grinder at a neighboring dairy and decided to install one at Bridgewater Dairy.

JWCE's model 3-HYDRO-IX-1208 was installed at Bridgewater Dairy in June 2013. The HYDRO Manure Grinder cuts



**PROBLEM:** Unwanted debris plugging up screw presses

**SOLUTION:** 3-HYDRO-IX dual-shafted waste grinder

through rocks, wood, clothing, plastics, bone and many other solids. This is accomplished with its two rows of sharp, steel cutters that rotate slowly and at high-torque. The two shafts of the shredder rotate at different speeds. This allows the two intermeshing steel cutters to act like a pair of scissors, effectively cutting up the manure and solids into tiny particles that flow smoothly through manure pumps, heat exchangers and other systems without clogging.

"We were really tired of dealing with the mechanical screens," says Weaver. "On average the HYRDO Grinder saves us about 20 hours of extra work a week. The HYDRO Grinder keeps the presses running longer and there is less need to have to spend time with the screens"

A lot of debris does end up mixed in with the manure - everything from foot wraps used on cow injuries, 2x4s from construction work, to other miscellaneous refuse from day to day operations.

Before the HYDRO Grinder installation, debris larger than 1-2 inches (2.54 cm - 5.08cm) in size would tend to plug up the screw presses in the Post Digester. "We had to tear them down over and over again to clean them out," explains Weaver. "The screw press tolerances are pretty small and getting the screens out is a half day project. Now everything just runs more efficiently."

#### About Bridgewater Dairy

A family owned business founded in 1998, Bridgewater

*The 3-HYDRO-IX is considered one of the most reliable pieces of equipment for inline waste processing*



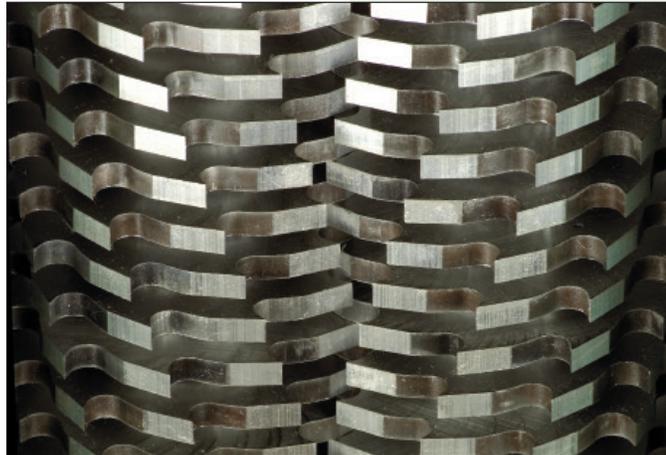
Dairy has grown to include four separate entities: Bridgewater Dairy LLC, Bridgewater-Indiana Dairy LLC, Bridgewater Farming LLC, and Oakshade Dairy LLC. Together the operations milk over 5000 Holstein Dairy Cows, and farm over 5000 acres of ground in Northwest Ohio. Approximately 26,000 gallons of milk are marketed daily to bottlers and supermarket chains in the midwest and southeastern U.S. based upon premium quality standards and excellent customer service. Learn more at [www.bridgewaterdairy.com](http://www.bridgewaterdairy.com).

**About JWC Environmental**

Founded in 1973, JWC Environmental is a global leader in high-efficiency, dual-shafted waste grinders. We've built and shipped over 35,000 Monster shredders, screens and compaction systems to customers around the world. We offer over 200 different shredder configurations. Our commitment to quality and reliability makes Monster grinders legendary in many industries.

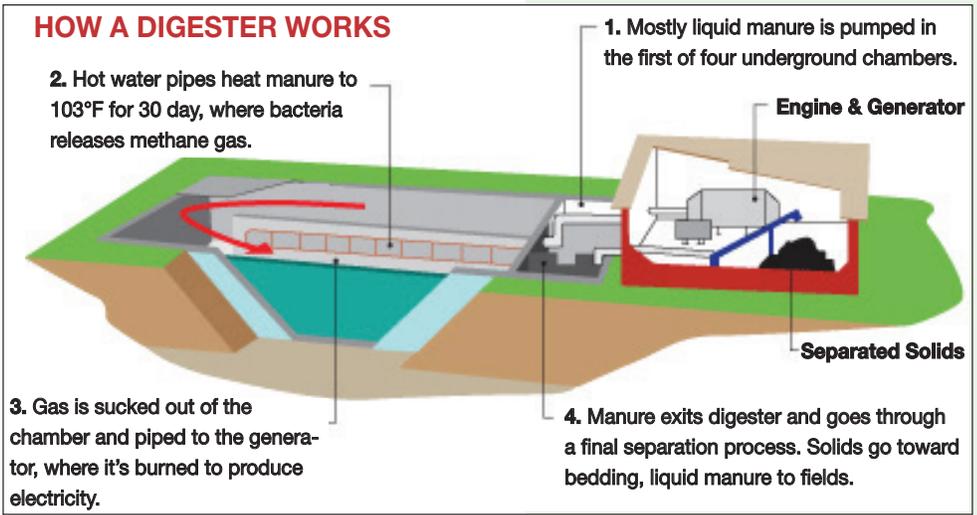
Our line of HYDRO grinders are designed to reduce the size of solids in a liquid solution. Our SHRED series is built for reducing tough solids in wet or dry hopper fed systems. Our team will find, or custom build, the Monster Industrial shredder that's right for your application. Don't waste it – grind it with Monster Industrial. For further information contact JWC Environmental, 290 Paularino Ave., Costa Mesa, CA 92626, USA, Tel: 949-833-3888, Toll-free 800-331-2277, Fax: 949-833-8858, E-mail: [jwce@jwce.com](mailto:jwce@jwce.com), Web: [www.jwce.com](http://www.jwce.com).

*“On average the HYRDO Grinder saves us about 20 hours of extra work a week.”*



*The 3-HYDRO-IX chomps down on manure waste*

**HOW A DIGESTER WORKS**



**Headquarters**  
290 Paularino Ave.  
Costa Mesa, CA 92626 USA  
Toll Free: (800) 331-2277  
Phone: (949) 833-3888  
Fax: (949) 833-8858  
[jwce@jwce.com](mailto:jwce@jwce.com)

**Western Service**  
2600 S. Garnsey St.  
Santa Ana, CA 92707, USA  
Toll Free: (800) 331-8783  
Phone: (770) 271-2106  
Fax: (770) 925-9406  
[jwce@jwce.com](mailto:jwce@jwce.com)

**Eastern Service**  
4485 Commerce Dr, Ste 109  
Buford, GA 30518, USA  
Toll Free: (800) 331-8783  
Phone: (770) 271-2106  
Fax: (770) 925-9406  
[jwce@jwce.com](mailto:jwce@jwce.com)

