

CASE STUDY



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CUSTOMER

Dee Zee, Inc., Des Moines, IA

OVERVIEW

Dee Zee, a leading manufacturer of automotive accessories, recently opened a new production facility in Des Moines, Iowa. The facility included a newly installed industrial parts washer, generating process wastewater that required compliant handling before discharge to the municipal sewer system.

To ensure reliable operation and compliance with local wastewater discharge regulations, Electric Pump designed and installed a complete wastewater management solution tailored to the application.

PROBLEM

The system needed to effectively:

- Capture and transfer wastewater from a floor drainage pit
- Temporarily store the used water in holding tanks
- Automatically regulate pH levels to meet municipal discharge standards
- Operate reliably in a wet, industrial environment with minimal operator intervention

SOLUTION

Electric Pump provided a fully integrated, custom-engineered solution that included mechanical, electrical, and control components:

1. Wastewater Transfer
 - Installed (2) self-priming pumps to efficiently transfer used water from the floor drain pit to the holding tanks.
2. Storage & Equalization
 - Provided (2) 750-gallon holding tanks for buffering and staged treatment of wastewater prior to discharge.
3. Chemical Metering & pH Control
 - Built a custom stainless steel cabinet to house (4) Blue-White metering pumps, allowing precise, automated dosing of pH adjustment chemicals.
 - Incorporated real-time pH monitoring with feedback to the dosing system to ensure water was within acceptable pH limits before discharge.
4. Custom Controls
 - Designed and built a custom control panel in a stainless steel enclosure, suited for the facility's industrial environment.
 - Integrated automation logic for pump sequencing, level control, chemical dosing, and alarm functions for a hands-off, reliable operation.

RESULTS

Since commissioning, the system has delivered:

- Consistent discharge compliance, with automated pH adjustment
- Streamlined operations with minimal manual involvement
- Durability and reliability thanks to industrial-grade components and custom stainless steel enclosures
- A scalable foundation for future facility or process expansion

