

SPXFLOW

Pumps in Action

Ammonia Nitrate

Issued By: Jeff Sporer, Global Product Sales Manager
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**Waukesha
Cherry-Burrell®**

Pump:

Waukesha Cherry-Burrell Brand – [Universal 1 Series](#)

Industry:

Chemical – Ammonia Nitrate Processing

Application:

Ammonia Nitrate at 80°C, typically between 150,000 and 200,000 cps. Product crystallization occurs at 60°C.

Problem:

Previously installed Progressive Cavity (PC) pumps experienced excessive wear from the crystalized product and required frequent shut-downs for repair.

The wear problems with the PC pumps created lost production time that created a significant cost of ownership increase that was dissatisfying to the customer.

Solution:

The gentle handling of the product by the [External Circumferential Piston \(“ECP”\) style rotors](#) of the Universal Series pumps allowed for the processing of the crystalized product without wear in the pump. The pump’s cleanable design was also a critical benefit to the customer and helped ensure that no residue was left in the pump between production runs. An added feature of the Universal Series pumps was reduced floor space; the PD pumps occupied significantly less space compared to the PC pumps.

The successful performance of the Universal Series pump has led the customer to install multiple Universal Series pumps since the first pump was installed in 2005.

