

Surfactants

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Waukesha
Cherry-Burrell®

Pump:

Waukesha Cherry-Burrell Brand - [Model 320](#) Tru-fit Universal 2 Series

Industry:

Surfactant (Palmfonate – Methyl Esters Sulphonate)

Application:

Product viscosity of 20,000 cP and differential pumping pressure of 145 psi (10 bar). Pumping temperature was 300°F (149°C).



Problem:

The irregular output from the reactor caused the previously installed Progressive Cavity (PC) pumps to fail due to dry running of the pumps.

Solution:

The SPX Universal Series Pumps can be run dry due to the unique features of the [External Circumferential Piston \("ECP"\) style rotors](#) and [Spur Gears](#). The design of the spur gears provide timing for the liquid end of the pump, ensuring there is no rotor contact and preventing damage inside the pump when running dry. In order to protect the seals from failing during dry run conditions, it is required that double mechanical flushed seals be used (a standard option on this pump series). An additional benefit of Universal Series pumps is the reduced floor space required compared to a PC pump.

The successful performance of the pump in this application has led to multiple pump purchases at the customer since the Universal 2 was installed in 2012.