

GRUNDFOS



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## CAR WASH MTRE BOOSTER CASE STORY

# GRUNDFOS' NEW MTRE BOOSTER DESIGN, THE PERFECT FIT FOR CAR WASH RECYCLED WATER CHALLENGES

## INTRODUCTION

*Grundfos Product Quality & Capabilities Strengthen a Relationship Leading to Pump Sales in North America Ensuring Continuity in the Car Wash Business*

With the goal to deliver measurably better fluid handling products to their customers, Hydra-Flex, a privately held Minnesota company, founded in 2002, recently reaffirmed and fortified their relationship with Grundfos as one of their main suppliers of products and solutions because of Grundfos' consistent commitment to product quality and innovation. With a commitment to purchase approximately 1500+ units of CRE and MTRE products in 2021 and 2022, they will be able to help hundreds of car wash owners throughout the United States. One entity that has already reaped the benefits of this strong relationship is Sandwich Car Wash in Sandwich, Massachusetts serving what is known as the Upper Cape Cod.

## SITUATION

Sandwich Car Wash was using a combination of Hydra-Miners equipped with Dosatrons as the backbone of their system where 100% of the water was recycled and recirculated in a closed loop reclaim and mixed with chemicals purifiers before being used to wash cars. This equipment was failing because it could not handle the hot temperatures of recycled water. It was also taking up unnecessary space and costing the company money in downtime. To fix these issues, Sandwich Car Wash requested the help of Hydra-Flex, a company known for building complete and customized fluid innovation systems and Auto Wash Technologies, a company specializing in

distributing advanced technologies specifically for vehicle car wash systems. Because of Hydra-Flex's existing relationship with Grundfos and familiarity with the quality and capabilities of their products a solution was born integrating Grundfos products.

## SOLUTION

A special variant of the Grundfos MTRE-20 GPM at 200 PSI and 5 HP with integrated motor, variable frequency drive and wall mounting capabilities was created for this build to reduce the overall footprint. "Sandwich Car Wash needed a long-term solution that was constructed with the highest quality materials that could handle fluctuating temperatures of the recycled water reducing the need for significant maintenance and repair. That's why we choose this pump. The pump head and base are cast iron, all internal wetted parts are stainless steel and it is outfitted with a 3-phase, fan-cooled, permanent magnet synchronous motor that made this product ideal. It was also important that the build be a foreman fit and able to fit perfectly in the space. The integration of the variable frequency drive, solidified enhanced smart system capability, and allowed them to control and monitor their system. Flow and pressure requirements could be adjusted based on water demand remotely. This is a priceless addition and necessary in allowing them to control and properly dispense their chemicals while giving them access to a potential of 10% in energy efficiency savings."

- Tracy Whitaker, Lead Sales Engineer, Grundfos

"A key advantage of this pump was Grundfos ability to provide it as a wall-mounted pump. Especially in the northeast we have seen our customers use every inch of space. You will see pumps mounted

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underneath stairs, half-sideways, half-vertical, and more, they make use of every inch they have. There are not many competitors that have the wall-mount option so that was critical to us in working with Grundfos.” - *Justin Jovle, Chief Operating Officer, Hydra-Flex*

“With this build and the fit, we were essentially able to consolidate the backroom for Sandwich Car Wash with the Grundfos pump replacing multiple Hydra-Miner and Dosatron pumps. We used a Grundfos pump to provide the water through our chemical dispensing panel, Aqua-Lab. The Grundfos pump was used to pressurize the water that mixes with the chemistry so that we could get better applications out in the car wash bay with less waste. To wash the cars there were approximately seven chemicals that needed to be dispensed and pushed out to the bay using recycled water.”

- *Todd Wood, Vehicle Care Account Manager, Hydra-Flex*

“Our prior system operated with a bladder tank and fluctuated between 40-60 PSI. The pump came on at 40 PSI and shut off at 60 PSI. This affected the chemical delivery in the car wash tunnel. At the lower PSI the chemical dispersion was less than the chemical dispersed at the higher PSI so we needed a system that not only took into account temperatures but also gave us the consistency we needed to disperse chemicals properly. This pump did this and we were able to save money. We were using reclaimed water, which does have a very fine sediment in it, so we wondered if the pump we put in place of our existing system would be able to handle the wear and tear. The Grundfos pump has been in place for 18 months now with no issue and is still performing as it did on day one. The reclaimed water is not a problem at all for this pump.” - *Darold Evans, Owner, Sandwich Car Wash*

#### RESULTS:

As a result of integrating the special variant of the Grundfos MTR – 20 GPM at 200 PSI and 5 HP with integrated motor, variable frequency drive and wall mounting capabilities, Sandwich Car Wash was able to ensure reliable, cost saving and consistent operations. The variable frequency drive provided the ability to ensure appropriate pressures leading to properly dispersed chemicals maximizing the car wash experience for their customers. A fully operational pump restored their operations to full capacity.

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