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# Mark Lacher's Farm

## The Situation

Originally, Mark used another pump on the site of this field. Poor suction inlet design caused cavitation damage with this high speed (3600 RPM) pump. These issues were brought to his attention in 1999, when Mark was running two wheel lines and irrigating approximately 100 acres. Due to the cavitation, there were maintenance issues that had to be addressed. Additionally, there were more energy costs, due to the low efficiency of the pump. All of these issues led to more dollars spent, and, therefore, very high life cycle costs.

## The Grundfos Solution

To solve his high life cycle costs and overall problems, Mark purchased a PACO 3012-7 which provided solutions immediately. The PACO pump, with better overall design, provided improved suction and inlet characteristics. This new pump produced water at 600 gpm at 125 feet of head. Additionally, the system also resulted in higher pressure for the wheel lines, giving him a pump efficiency of 78%, saving him energy costs. The pump worked very well and, in 2002, Mark upgraded from wheel line irrigation to center pivot. This made the work of the pump much easier, and provided a less labor-intensive use of irrigating.

Because Mark was used to routine maintenance on his pumps, he asked Scott Unruh of RPH Irrigation Services, Inc. of Choteau, MT (local PACO dealer) to have the PACO pump taken in and serviced in the spring of 2007. To the surprise of everyone, there was very little wear on any of the parts of the pump, considering the service condition as well as the silt in the canal which was being pumped from it. The only major service done to the nearly 10-year-old pump was a routine motor "dip and bake." Scott also freshened up the tolerances on the eye of the impeller, along with giving it new packing. The pump was then reinstalled and is still

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TOPIC:

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LOCATION:

USA

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COMPANY:

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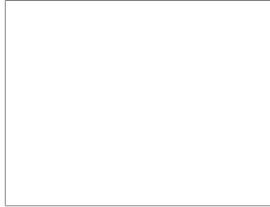
running, good as new. Mark was impressed with the service of the pump to that point. “The pump worked very well and I thought we would have more wear, but maintenance was minimal,” he said.

#### The Outcome

With a majority of the U.S. population no longer farming, there is less labor to do the same amount of work required. In the future, Mark will need to rely on his children to carry on the farm. He knows the use of long-lasting, reliable pumps will be important to the continued success of irrigating his barley fields in Fairfield. More efficient pumps lead to lower energy usage, which ultimately lead to more profits. As Mark indicates, “Children are the future of agriculture in this country, and that is something everyone must realize. Using reliable, more profitable pumps like PACO will help keep irrigating going strong.”

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