

# Front Range Farms

Front Range Farms, located near Fairfield, Montana, encompasses about 2,000 acres of irrigated farmland, owned by Mark Coverdell. With the help of his brother-in-law, Dean Pearson, Mark grows primarily malt barley and winter wheat. One of America's largest brewers contracts their two-row barley to produce premium beers. Fairfield is prime barley growing country, and doing it right makes farming profitable.

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TOPIC:  
Front Range Farms

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LOCATION:  
USA

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COMPANY:  
Front Range Farms

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## The Situation

In 2006, Mark and Dean decided to increase their flood irrigation production by putting three new systems on a farm they had just purchased. For the previous 16 years, Mark's father-in-law had farmed the land on a lease basis. All of the farms that they irrigated were gravity fed to their system, and this one was no exception. An idea for the newly purchased land was to install a 1,784 foot REINKE center pivot on one of the larger fields. This field had a drop of 77 feet from the canal, and the 259 acres required a flow of 2,100 gpm. So, a 15-inch PVC mainline was installed 4,800 feet down to the pivot. The pivot was a 12-tower system consisting of 10 towers of 10-inch galvanized steel, one tower of 8-5/8-inch galvanized steel, and one tower of 6-5/8-inch galvanized steel. This tower system required 35 psi at the system head, so a small booster pump was needed even though there was a drop of 77 feet.

## The Grundfos Solution

To solve the problem, Scott Unruh of RPH Irrigation Services, Inc. selected a 25 hp PACO 8012-5/6 KP split case pump for the job. This pump was chosen based on its 87% efficiency rate, and turns at a nice, slow speed of 1,187 rpm. The pivot system puts one inch of water on the large field in only 56.3 hours, and does it with high efficiency and low cost of operation. "The quietness of this pump, and the fact that we have no vibration as we had with other pumping systems that were designed with less efficiency

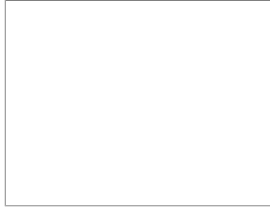
and higher speed make this site very nice to operate,” said Mark. He added, “Also, the fact that a split case is in line and designed to be used for booster systems makes the system look neat.”

#### The Outcome

Mark Coverdell is thrilled with the new pump. “This PACO split case is a great fit for optimum operation of the new system. It saves us approximately one-third the amount of water that we used with the previous gravity and wheel line irrigation system on this field.” Mark continued, “Our energy cost is probably the lowest on the farm because of the efficiency of the pump.” In order to have a profitable farm and continue to supply barley for one of America’s largest brewers, an efficient, reliable, and costeffective PACO pump is the answer.

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