

Flygt Dry Pit Submersible Pumps End Years of Unscheduled Repair

Problem: The township was experiencing budget crushing repair bills for their main pump station. Their existing pumps were very complex and had many moving parts to maintain. Each assembly included a main pump assembly, seal pot mechanical seal system connected to an air compressor, couplings, shafting with pillow block bearings, shaft guards and vertical electric motors on the top floor. The maintenance of these machines was quite a job in itself but when vibration and seal fails started to surface a new way of thinking was required to stop the expensive repairs and maintenance.

Solution: The township in conjunction with their engineering firm contacted Kennedy Industries for assistance. Based on Kennedy Industries extensive experience with Flygt dry pit submersibles a recommendation was made to install three (3) Flygt model NT-3315, 130HP dry pit submersible pumps to deliver 1,400 GPM at 205' TDH. The pumps were changed out one unit at a time by the townships mechanical contractor.



Sand bags were placed on the pumps to decrease vibration



Shafting, coupling guards, seal system, compressor, bearings and hydraulically operated valves required constant maintenance and repair

Newly Installed Flygt Dry Pit Submersible Pumps

The contractor first removed one of the old pumps, shafting, pillow block bearings, guards, seal water pots, seal water piping, air compressor lines, air compressor and vertical motors on the grade floor. Installation of the Flygt dry pit submersible was a breeze as the Flygt dry pit submersible does not require installation of a seal water system, shafting, coupling, guards, or any other auxiliary items. The Flygt dry pit submersible also provided maintenance advantages over the townships existing pumps which will save the township money. Maintenance items that were once performed are now a thing of the past. Since the pumps are submersible if the station floods there would be no damage done to the pumps unlike the old style pumps. The safety of the operators will definitely be improved due to the lack of maintaining 25' long shafting and having the pumps constantly pulled and sent out for repair.



Closed loop cooling of the motors eliminated seal water piping, seal pots and the compressor



Standard air cushioned check valves and ITT Pumpsmart VFD's allowed for the elimination of the old style hydraulic oil operated valves decreasing complexity of the system.

The customer was amazed at the difference between the two different style pumps with regards to the running vibration level and noise. The Flygt dry pit submersible ran smooth, cool and quiet. One of the operators reached into his pocket and pulled out a nickel. He then stood it vertically on end while the pump was running; hours later the nickel was still in the exact same position. It is without a doubt that the three (3) Flygt dry pit submersible pumps supplied to the township will provide them with maintenance, operations, and repair savings both now and for decades to come.