

Flygt Compit Grinder Station Technology Provides Community Solutions

Problem: A Southern Michigan community was in violation of the State Clean Water Act and incurred fines due to their failing septic systems. They also incurred heavy costs on planning and engineering and sought the most cost effective long term solution to their problems. The community continued to provide pressure to their consultant, insisting on innovation and new

technology that would allow them to achieve their goals of efficiency, reliability & serviceability. After review of the Flygt Compit design, the concept was embraced with open arms by their operators and their consultant. The Compit innovative design reduces maintenance, increases efficiency (lower power consumption), reduces overnight emergency service requirements (due to the larger holding capacity) and has eliminated the safety concerns of polluting the environment.

Solution: The community installed 27 Flygt Compit polyethylene pump stations equipped with Flygt Progressive Cavity Grinder Pumps. The submersible Flygt pump is equipped with a robust grinder

mechanism which consists of high chrome steel for wear resistance that has been proven over the last 20 years. The grinder has the ability to shred all solids into very fine pieces that are easily passed through small pipe diameters. This solid passing capacity combined with the basins bowl shaped bottom eliminates sediment build up and keeps the station clean.

Compit Grinder Pump with 238 gallon holding capacity



Flygt Progressive Cavity Grinder Pumps



Flygt Compit Grinder Pump Station

Product Features:

- Reduces maintenance
- Increases efficiency
- Eliminates pollution safety concerns
- Reduces overnight emergency service requirements

The Compit also has a built in anti-flotation that ballasts the station without the added cost of concrete, saving the customer up to 10% on installation cost. The Compit has an overall storage capacity of 238 gallons, and working volume of 140 gallons versus 80 gallons often provided by other basins being installed today. Storage is important in the event of unforeseen

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weather events where power may be out for extended periods of time. This feature also eliminates the need for emergency night visits due to the ability to hold extra storage until personnel start their normal shift. Another innovative feature which makes the Flygt Compit so unique is its white pigment. This makes viewing station components easier in the dark. Operators love the bright white color feature for reducing the risk of personnel injury. Other

Compit Grinder pump station white pigment makes it easy to view the station



Remote mounted control panel for reduced life cycle cost



manufactures use black or dark colored basins that limit visual inspection.

The control installed is unique and innovative in the fact that it utilizes a small variable frequency drive to transform single phase power to three phase power. This results in higher starting torque and eliminates the need for capacitors that are typically considered a weak link in single phase systems. One of the most problematic occurrences in pre-manufactured residential grinder systems is the location of the single phase start and run capacitors. These capacitors are typically located in the pump requiring the pump to be removed and disassembled for a \$25 part. This is very costly to communities and can easily be eliminated with this control package design which will increase efficiency and reduce maintenance man hours. The control was paired with a three point level probe for monitoring station level which not only provides reliable level measurement but also reduces labor hours and life cycle cost by only having to maintain a single level device. The station comes equipped with a maintenance squeegee that allows for the probe to be cleaned and installed within seconds. This level device is also a separate component of the pump leading to easy replacement by not having to remove the pump or replace the pump as is the case with most outdated competitors. The Flygt Compit Grinder pump station has proven to increase efficiency and reduce overall life cycle cost for pressure sewer systems. The Compit stations provided value solving many community concerns.

MultiTrobe three sensor level device

