



APPLICATION STORIES

APPLICATION: SEWAGE TREATMENT

The Maquoketa, Iowa sewage treatment facility uses a twin disc type reciprocating pump to transfer pre-treated sewage sludge from a clarifier to a digester. The twin disc pump is ideal for this application because this type of pump has no valves that can clog or restrict flow. Each disc of the pump transfers about one gallon of liquid with each stroke.

PROBLEM:

The reciprocating action of the pump causes the discharge pipe and other components in the system to vibrate. This constant shaking causes joint leakage and premature failure of instrumentation. Pipe support brackets have been pulled loose from the wall.



SOLUTION:

A BLACOH SENTRY 5 gallon pulsation dampener was installed at the discharge of the pump. The BLACOH dampener contains a rubber bladder inside to separate the sludge from a compressed air charge. The air charge in the dampener alternately compresses and expands as the pump strokes, and allows the dampener to act as a shock absorber and remove the shake from the pipe system.

RESULT:

Since the SENTRY 5 gallon pulsation dampener has been installed, vibration in the system has been reduced, system pressure has stabilized, and no joint leakage or instrument failure has occurred.

SUBMITTED BY:

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