



INDUSTRIAL  
FLOW  
SOLUTIONS

# OverWatch™

## Direct In-Line Pumping Technology





**The OverWatch™ Series of Direct In-Line Pumps eliminates the possible dangers and difficulties associated with wet well installations. Our system is designed to decrease backups and blockages which may lead to environmental and safety risks. OverWatch™ also utilizes patented technology to keep a careful watch on the system, so you don't have to.**

## Maximize Safety; Minimize Risk

Eliminating the need for a wet well prevents hazards associated with a confined space. Build up of gases such as hydrogen sulfide and methane directly impact the environment, the health of those exposed, and presents a possible danger of explosion when combined with a source of ignition.

Designed with the only patented system to lift effluent directly at the point of entry, without water loading or a wet well, OverWatch™ prevails over the drawbacks of retained volumes of effluent, including the exposure to dangerous gases and smells.

- Constant monitoring prevents the environmental, health, and safety risks associated with clogged pumps and overflowing lift stations
- Minimize safety risks for operating personnel due to reduced structure depths and equipment that operate in a healthier environment



**35**  
**YEARS**  
**TRUSTED**  
**SAFETY**  
**& SERVICE**

# Increase Operational Efficiency; Reduce Maintenance Costs

Grease, fibrous materials, “flushables” and other solids continue to plague the operational efficiency of a traditional wet well.

A traditional wet well collects wastewater and then pumps once the system's predetermined level is reached. A technology dating back to the early 1930s, this process enables the collection of materials to potentially clog the impellers. Not only is there a risk of damage to the impellers, equipment, and structures, they may erode from the build-up of abrasive materials and acidic and caustic solutions - All leading to premature wear, pump failures, and extensive maintenance and replacement costs.

Specifically designed to absorb the air/fluid mix flowing in from the gravity lines, OverWatch™ is driven by variable speed drives. Operation is based on continuous and modulated pumping directly from the effluent inlet. OverWatch™ utilizes a sensor at the inlet combined with variable speed drives to adjust in-line with the incoming flow; eliminating hydraulic surges while automatically adapting to constantly changing flow rates and load reduction. This unique operating mode enables materials to move through the system without causing blockages and provides a long term durable solution, with minimal need to replace, repair, or maintain your wastewater system.

**OverWatch™ constantly watches over the pumping units to determine if there is a clog. Should one be detected, the unit will reverse itself to clear. This is especially effective when combined with the patented impeller which exposes razor sharp teeth to shred any rags or wipes which may have caused the clog.**





**POWERFUL  
PUMP  
SOLUTIONS**

# Simplified Installation

As part of a station project, the simplified installation of the OverWatch™ system enables civil engineering costs to be significantly reduced:

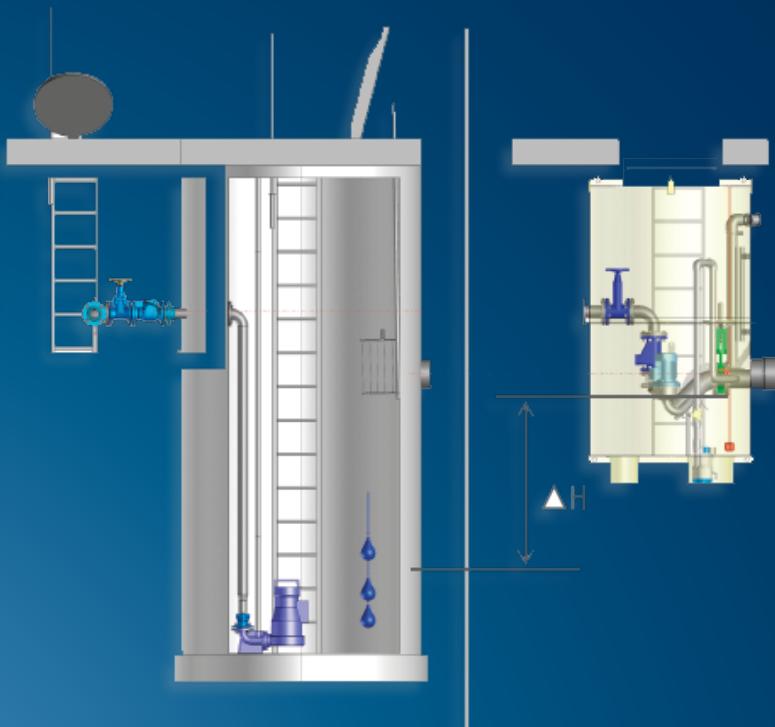
- ❖ Groundworks require, at least, three feet less in foundation depth and concrete
- ❖ Eliminates sedimentation deposits reducing structure height to 1.5 ft below the water stream intake
- ❖ Commercially available ducting and prefabricated basins or concrete piping are more than adequate to contain the system's equipment and valve systems
- ❖ Dry installation enables the valving to be installed without the need for a separate valve chamber - A single inspection port is required



# Unparalleled Protection; Unmatched Performance

## OverWatch™

The modern day solution for the most ecological and economical sewage and wastewater system.



Traditional Wet Well

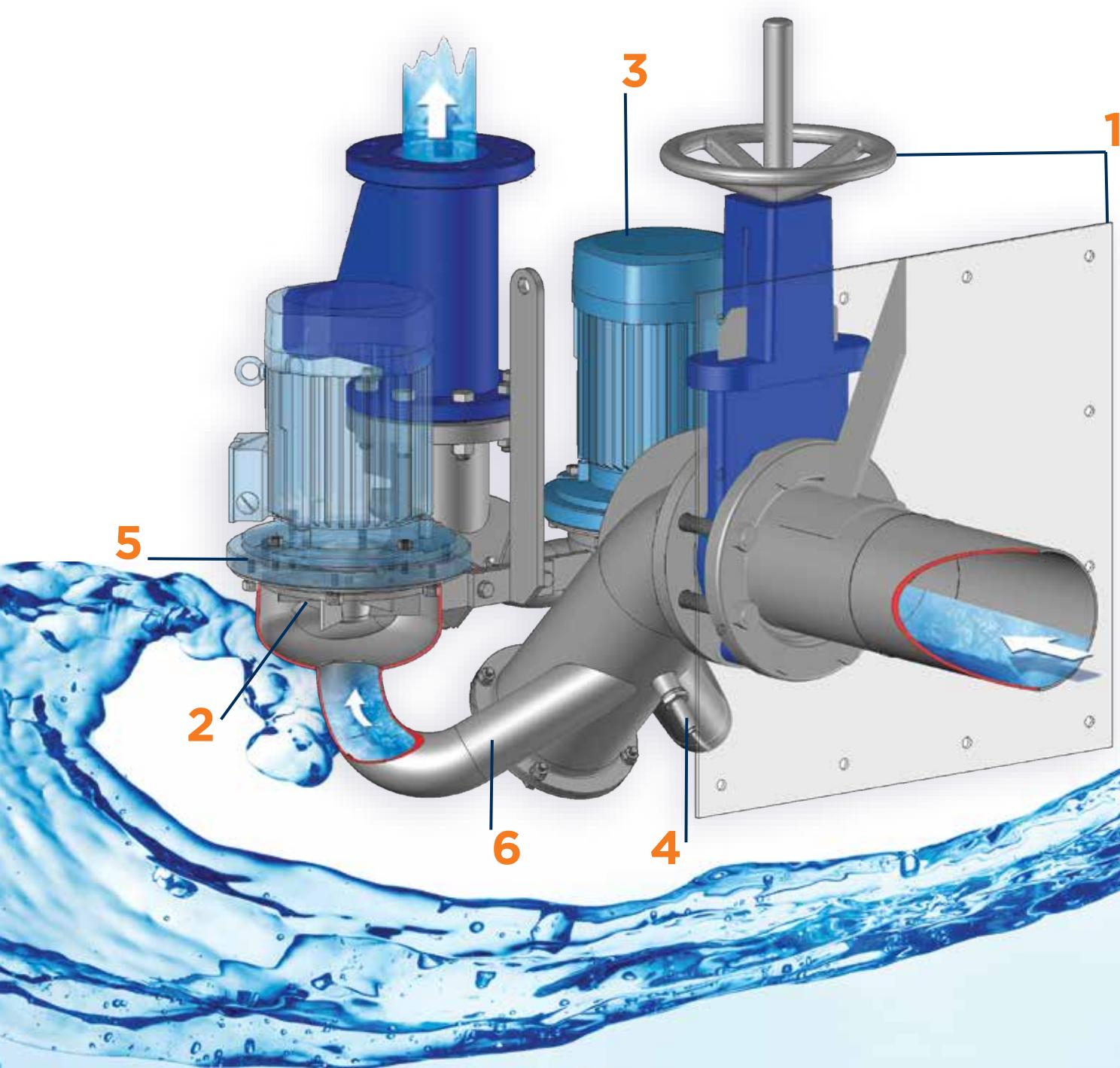
OverWatch™ Direct In-Line Pump



**VS**



# A Complete and Customizable Engineered System





## **1. WALL FLANGE & MAINS SECTIONING VALVE:**

Designed for ease of shutting off the wastewater inlet to allow for maintenance.

- Stainless steel 304L or 316L providing a sealed connection to main inlet
- Compatible with round and square inlets and can be configured for multiple connections
- System isolation enables system to be cut off from the incoming flow

## **2. IMPELLERS:**

The two conical vortex impellers are protected against clogging. Sealing equipment can be fully turned when dry, without causing damage.

Available in 3 options:

### Conical Vortex Impeller:

- Perfect for raw effluent with entrained gas and abrasives
- Allows most fibrous and solid materials such as clothes, bandages, plastics, and debris to pass through

### T4 Impeller:

- Multi-channel open impeller, made of AISI 304L or 316L stainless steel
- Wide flow section offering optimal water flow efficiency
- Fitted to larger models
- Coupled to the IE3 Premium motor

### DIPCUT Impeller:

- Patented technology allows the impeller to provide either flow or shredding capability depending on rotation
- Changes rotational direction automatically when needed to cut through long fibrous materials and rags, easily shredding and eliminating these materials

## **3. MOTORS:**

Two units are connected by a hydraulic body.

- Standard motors- IP67 and IE3 efficiency class compatible with regular industrial motors
- IP67 "immersible" motors fitted with armored cable epoxy potted connections

## **4. LEVEL GAUGE:**

The upstream level is measured by a pressure sensor, fitted in the water stream of the effluent inlet.

- High resistance to wear and deposit build-up
- Constantly measures height of fluid at the inlet
- Stainless steel flush membrane
- IP67 protection with 50 ft of cable on all models

## **5. SEALING UNIT:**

- No oil chamber
- Ability to operate dry - up to 150 hours
- Large capacity; operates under pressure

## **6. SHARED HYDRAULIC BODY:**

Connected to the two motors, the AISI 304L stainless steel hydraulic body is specially designed to be able to receive effluent directly.

- Takes advantage of the flow speed from the gravity-driven inlet
- Bottom of the hydraulic body serves as a stone trap with inspection port and draining valve
- Clapper box dispenses with the need for collection pipework between the two pumps
- Clapper box acts as a check valve with 3 valve positions: right, left, central; preventing the flow from circulating back through the pump which is not in operation
- Joint discharge has code compliant flange and pressure measuring socket

# CONTROL PANEL

## (Advanced Level Control, A.L.C.)

Based on the associated principles of hydraulic regulation and variable speed, the operation of the system uses an electronic control system which is just as complete as it is straightforward to use.

OverWatch™ performs all the functionality of a traditional lifting station without the need for additional equipment. Speed variation and simplified control levels on the same panel allow regulation in all configurations, including the most complex combined sewage systems.

- Automatic alteration
- Emergency stop
- Automatic backup
- Manual control
- Automatic rotation direction reversal for clearing
- Auto-setting of operational limits

Utilizing a ramp on start-up and a deceleration ramp (before each pumping unit stops), eliminates valve knocking. During diphasic pumping (liquid & gas), water hammer can also be reduced.

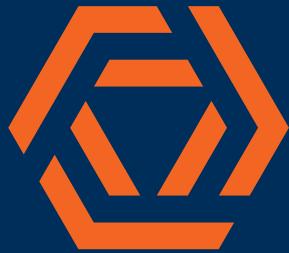
Providing regulation for all configurations, including those of a complex combined sewage system, OverWatch offers a high level of monitoring and control.

- Over current, over voltage, and under voltage
- Sensor faults
- Internal faults
- Ground faults
- Auto-diagnostic
- Impeller blockage
- Fault log
- Phase loss
- Emergency stop
- Phase direction



# The Pumps and Controls you Need, **GUARANTEED**





INDUSTRIAL  
FLOW  
SOLUTIONS

## IS YOUR TRUSTED PARTNER

Keeping your industrial, municipal, and dewatering operations running efficiently requires the right partner. Unifying the experience and expertise of BJM Pumps® and Stancor™ Pump & Control Solutions, Industrial Flow Solutions is the trusted partner who delivers the solution you need when you need it. We maximize your efficiency and profitability through our portfolio of BJM and Stancor products and industry-leading customer support.

You can depend on Industrial Flow Solutions to continue offering the quality equipment you have come to trust. Our commitment to our customers remains with the same people and products you have relied upon to get the job done. Experienced, responsive customer service representatives match your challenge to the right product, and deliver it quickly.

**Industrial Flow Solutions**

**860.399.5937**

**[www.flowsolutions.com](http://www.flowsolutions.com)**