

EXCEL

EXCEL FLUID GROUP, LLC



NOVAULT™ PACKAGE PUMP STATION

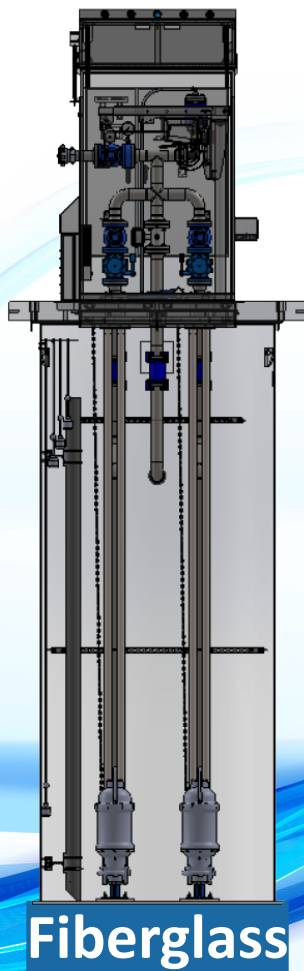
Product Overview

EXCEL FLUID GROUP is a premier manufacturer of complete vault-less pump station enclosures that give you full access and control of your lift station equipment without the hazards of confined space entry and arc-flash electrical concerns.

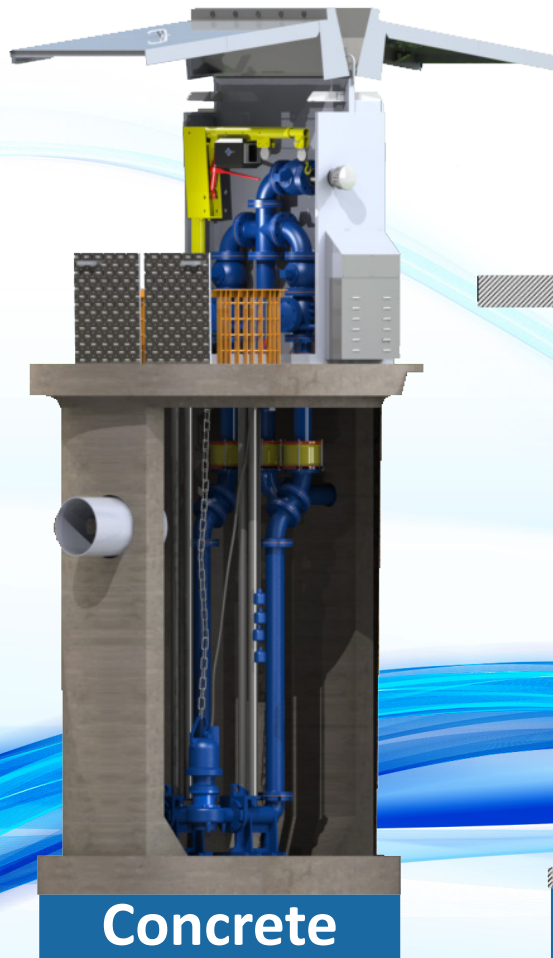
Built with a rugged aluminum housing and features designed for operational ease, the NoVault™ Pump Station is by design, one of the most service friendly pump stations on the market today.

The NoVault™ Pump Station provides an industry leading approach to Water and Wastewater Management. Our engineering team can modify standard construction features to fit almost any application.

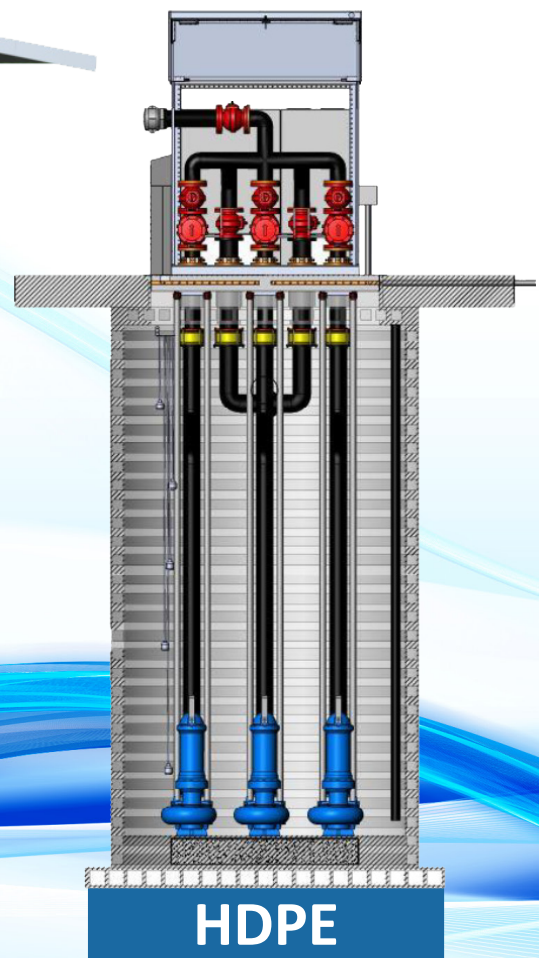
EXCEL FLUID GROUP provides the advantage of a single-source supplier accommodating all brands of pumps and the No-Vault Pump Station can be mounted on concrete, HDPE or fiberglass wet wells, with your choice of controls.



Fiberglass



Concrete



HDPE

Advantages



Aluminum Enclosure

Eliminates Confined Space Safety Hazards and reduces Real Estate Requirements



Cable/Wire Trough

Simplifies Pump Installation and Maintenance and Eliminates the Need for Underground Electronic Conduit or Junction Box in Wet Well



ArcSentry™ Control Panel

Design Reduces Arc Flash Hazards and Includes User Friendly Controls

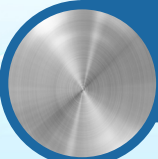


Electrical Plugs and Receptacles

Eliminates Confined Space Safety Hazards and reduces Real Estate Requirements

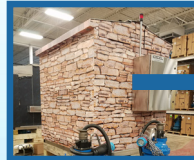
Exterior Coverings

The NoVault™ Pump Station is offered with custom aesthetics to blend into its surrounding environment. This makes it a first choice for many developers, engineers and communities



Aluminum

If no option is selected, NoVault™ Pump Station will come with a standard Aluminum exterior finish.



Sandstone



Arborvitae

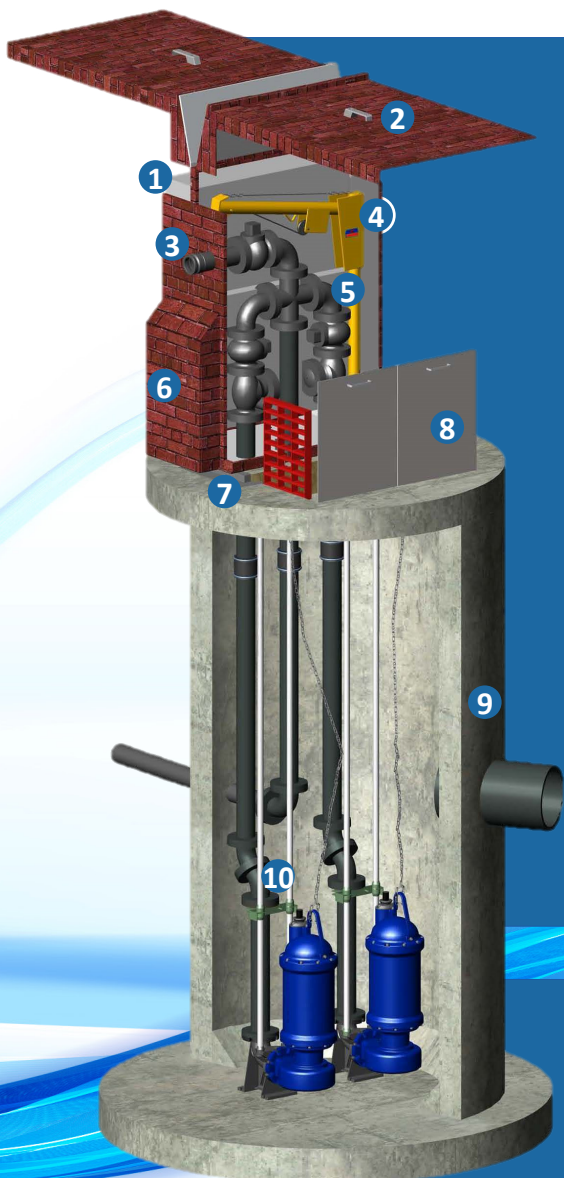


Red Brick

Package Pump Systems

A sewage wet well is a very dangerous confined space that has claimed many lives in years past. According to OSHA, about 90 deaths involving confined spaces occur every year. This places a special obligation and responsibility on all those involved in the selection and design of pump stations, as well as servicing and installing pump stations. In addition, Safety and Service Directors are responsible for the safety of their Maintenance Personnel which obligates them to eliminate as many hazards as possible from their collection systems.

EXCEL FLUID GROUP has worked with clients to develop the Excel NoVault™ Pump Station to minimize risk by providing a well designed, safe pump station where maintenance can be performed without entering the wet well and eliminates the below grade valve vault.



NoVault™ NV2 benefits and features:

- 1) ArcSentry Control Panel with Multiple Compartment Design to Reduce the Risk of Injury Resulting from Arc Flash and Electric Shock
- 2) Gull-Wing Doors Provide Shelter from Inclement Weather, with Overhead LED Lighting
- 3) Bypass Port with Cam-Lock Fitting
- 4) Optional Lifting Crane with Electric Winch Stores Inside the Enclosure
- 5) 2 in., 3 in., or 4 in. Pipe Tree with Check Valves & Plug Valves, available in Ductile Iron, HDPE or PVC
- 6) Wet Well Louvered Vent
- 7) Cable/Wire Trough for Pump & Float Cables
- 8) Double door aluminum hatch with safety grates
- 9) Optional Wet Well Materials: Concrete, HDPE, or Fiberglass
- 10) Guide rail mounted pumps for ease of removal without entering the wet well

Upgrade to a NoVault™ NV3 or NV4 for:

- 6 in., 8 in., 10 in., or 12 in. Piping
- Simplex-Quadraplex Configurations

Application and Design

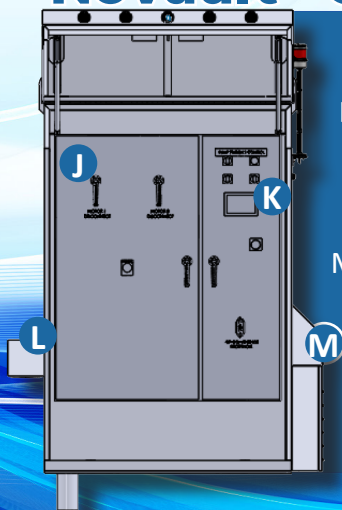
The Excel NoVault™ design incorporates the valves and lift station controls within the footprint of the main wet well. For installation in areas with limited space the Excel NoVault™ provides all of the features commonly found in conventional lift stations.

EXCEL FLUID GROUP invites you to discuss specific projects that are in initial planning or design stage, and our engineering team will assist you by providing the following services:

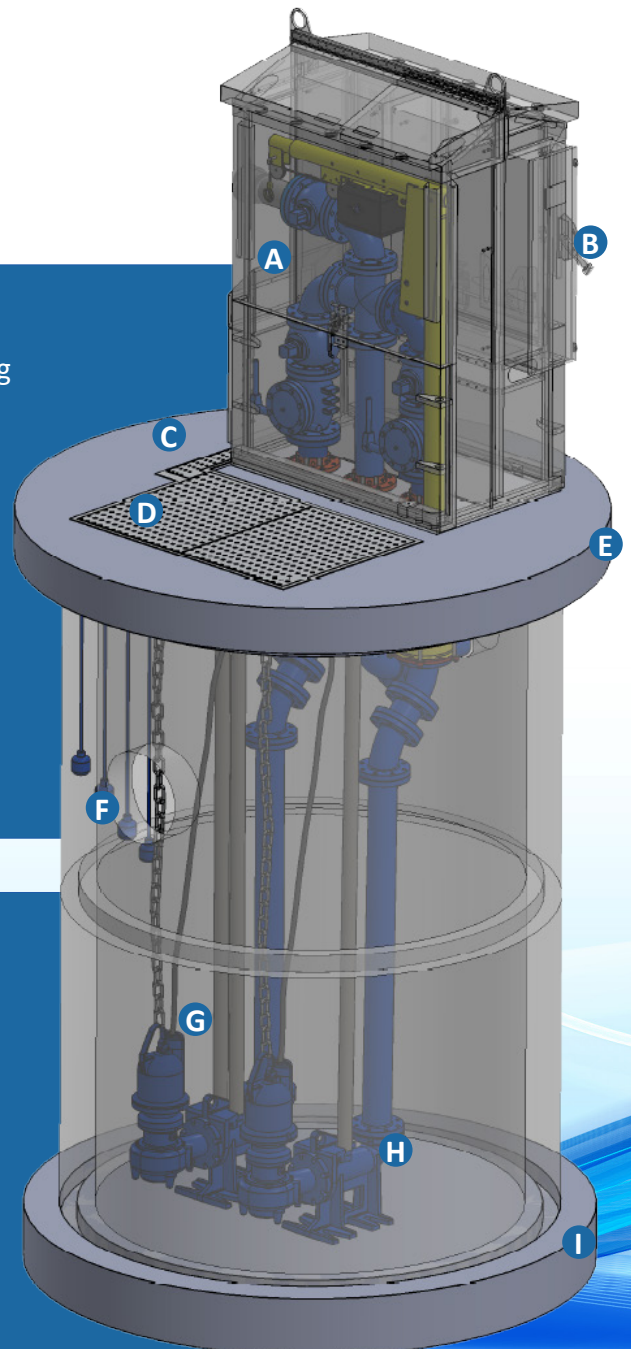
- 3-D Drawings and Renderings
- Project Specifications
- Design & Application Assistance
- Budget Proposals
- EPA & PTI Assistance
- In-house UL Certification

- A) Aluminum NoVault Enclosure
- B) Disconnect Manual Transfer Switch and Generator Plug
- C) Cable/Wire Trough
- D) Access Hatches with Safety Grates
- E) Top Elevation
- F) Level Control Switches or Optional Transducer
- G) Submersible Pumps
- H) Base Elbow and Guide Pipe Assembly
- I) Bottom Elevation

NoVault™ Controls View



- J) High Voltage Control Panel
- K) Low Voltage Control Panel and SCADA
- L) Power Service Entry
- M) Cord Cabinet

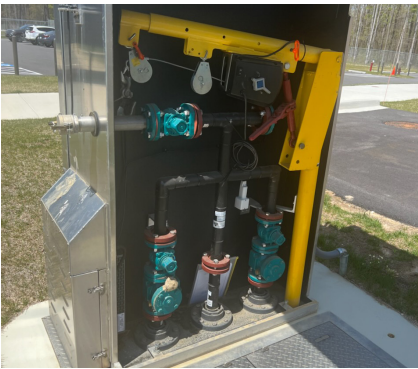


Installation References

Central Pump Station - Dayton International Airport, OH

Duplex NoVault™ Pump Station and HDPE Wet Well

- Barnes SH Series submersible chopper 60 HP pumps
- 8 ft. diameter x 28 ft. deep HDPE wet well topped with a polymer concrete flattop with aluminum hatch door, safety grates, and cable transition tray with lockable cover
- The motor controller is Allen Bradley CompactLogix 5370 L2 PLC with an Allen Bradley PanelView Plus 6700 Operator Interface



21 Point Firing Range - Joint Base Andrews, MD

Wastewater Pump Station with HDPE Wet Well

- Barnes 2 in. submersible explosion proof grinder pumps with a flow rate of 80 GPM at 53 TDH
- 5 ft. x 11.25 ft. deep HDPE wet well with Polymer Concrete flat top
- ArcSentry™ duplex control panel with PumpVision™ PV600 PLC programmed by Excel Fluid Group

Claywood Park - Little Kanawka, WV

Elevated Duplex NoVault™ Pump Station and Concrete Wet Well

- Barnes 3 in. submersible solid handling pumps with a flow rate of 180 GPM at 143 TDH
- Raised wet well ensured the pump station was above the 100-year flood level while providing a larger flat top which doubles as a service platform
- ArcSentry™ control panel with touch screen interface with customers supplied SCADA system



NEORSD Stone Levee - Cleveland, OH

Duplex Pump Station and Concrete Wet Well

- Barnes 4 in. submersible pumps with a flow rate of 468 GPM at 53 TDH
- 10 ft. diameter x 23 ft. Concrete Wet Well with an 6 ft. x 6 ft. aluminum NV4 Enclosure
- ArcSentry™ control panel complete with float backup to transducer VFD's, GFI receptacles, designed to interface

Maintenance Plus

Is it difficult for you and your team to remember to complete your regular pump maintenance? Have peace of mind with our Maintenance Plus plan. Depending on your plan, we will complete a full service on your pump system annually, semi-annually, or quarterly. If anything goes wrong with your pump, we have the resources to repair, replace, or maintain your pump station for seamless downtime and ideal upkeep. We want to be there for you to help prevent when you'll need us most.

Our pump station preventative maintenance checks include seal and overhaul kits with:

- A detailed pump station electronic inspection report
- Clean and check the level of operations of the controls
- A pump down test for each pump and record of the level drop
- Amperages drawn and checked from each pump
- Each pump motor megged to test the motor's insulation
- An ohm check on each seal fail resistor
- And more!

Maintenance Plus can help with:

Planning downtime and avoiding long delays

Knowing your pump station is running efficiently

Preventative maintenance

Extending your pump station's lifespan

Overall pump station knowledge through training



Common Wastewater Industry Challenges

- Increasing Asset Ownership Cost from Maintenance of Ageing Infrastructure
- Inflated Installation Costs of Traditional Concrete Pump Stations
- Traditional Concrete Stations are Compromised by Hydrogen Sulfide (H₂S) Corrosion, unless protected by an interior coating that is costly to install and maintain.
- Groundwater Infiltration (I&I) Into Sanitary Sewer System
- Service Hazards of Confined Space Entry and Injury from Electrical Shock

**Contact Us for a NoVault™
Package Pump Station Solution**

Design Criteria for NoVault™ Package Pump Stations

- What is the average daily flow rate in gallons per minute (GPM) into the pump station?
- What is the proposed forcemain size, length to discharge point and construction?
- What is the grade elevation at the proposed pump station location?
- What is the high point elevation at the proposed forcemain?
- What is the gravity sewer invert pipe elevation?
- Confirm the jobsite electrical service details.
- Advise if emergency power connection or standby power service is required.
- Advise if remote communication system is required.



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