Revision #003 / Sept. 2021

EXCEL FLUID GROUP, LLC

# **Aluminum NoVault**™ **Pump Station: EX-ALNV2**

Factory Assembled Turn-Key Submersible Pump Station

# **Duplex NoVault Pump Station**

## **Technical Specifications:**

#### **Enclosure**

6061-T6 Aluminum Tubing and the Exterior Sheet is Fabricated to a Mill Finish ASTM 3003 with 6061-T6 Aluminum, Minimum Sheet Thickness of 0.80. Station Baseplate is ASTM 6061-T6 Aluminum Plate and includes an Integral Hoist Davit. Aluminum Integral Water-tite Bulkhead Separates the Electrical Compartment from the Plumbing Compartment.

### **Enclosure Access Doors**

Aluminum Lockable Gull Wing Access Doors with Locking Gas Shocks and Stainless-Steel Hinges; includes Bug-Free Ventilation Covers.

### **Enclosure Hardware**

Two (2) Heavy Duty 300 Series Stainless Steel Keyed Handle that operates 2FMV#SS206 Approved Latches.

EX4 Four (4) High Power LED Waterproof Light Fixtures, Rigid Aluminum Housing, 12VDC Power Supply.

### **Enclosure Insulation**

Dow Super Tuff-R Poly Coated Closed Cell Foam, Sidewall has a Minimum Rating of R6.5 and the Roof has a Minimum Rating of R12.5.

### **Enclosure Liner**

Black "Rhino-Tuff" Spray Coating, Two-Component, 100% Solids Elastomeric Polyurethane/Polyurea Hybrid Lining.

### **Enclosure Ventilation**

Wall Mount Electric Cooling Fan, 120 VAC, 230 CFM, Aluminum Frame, Thermostatically Controlled.

### **Enclosure Heating**

Wall Mount Electric Radiant Heater, 120VAC, 1000 Watts, Thermostatically Controlled for Frost Protection.

### **Discharge Piping**

2in., 3 in., or 4in. Flanged Pipe and Fittings, Available in Ductile Iron, HDPE or PVC.

#### **Valves**

- Two (2) Fig. 340-W Lever and Weight Swing Check Valves, Flanged, AWWA C508, Ductile Iron ASTM A536 Body, NSF-61 Epoxy Coated.
- Three (3) Fig. 601 Eccentric Plug Valves, Flanged, AWWA C504, Cast Iron A126 Class B Body, Rubber Coated Ductile Iron Plug, Manufacturer Standard Coating.

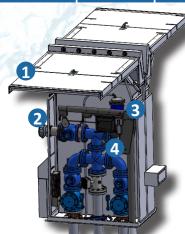
### **Emergency Bypass Connection**

Aluminum Quick Disconnect Fitting with Aluminum Dust Cap includes Plug Valve and Pipe Fittings.

### **Electrical Plugs/Receptacles**

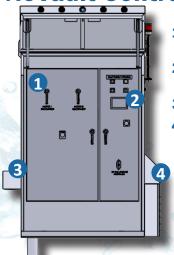
Electrical Pin and Sleeve Quick Disconnect Power Connections, Type 4X, Water and Gas Tight Design.





- 1) Gull-Wing Doors
- 2) Bypass Coupling
- 3) Stowaway Crane
- 4) Pipe Tree with **Check and Plug Valves**

### **NoVault Controls View**



- 1) High Voltage Control **Panel**
- 2) Low Voltage Control Panel + SCADA
- 3) Power Service Entry
- 4) Cord Cabinet

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# **Aluminum NoVault**<sup>™</sup> **Pump Station: EX-ALNV2**

Electrical Controls
"Arc-Sentry" Duplex Control Panel, NEMA 12, UL Listed
Enclosure, Contains High Voltage Compartment with Electrically Interlocked Door and a Low Voltage Compartment with all Operator 120VAC Controls. Multiple Control Options Available Including VFDs, NEMA Starters, PUMP Vision PLC Control with HMI Screen, Standard Lights, Pushbuttons and Switches. Includes External Flashing Alarm Light. Controls Primarily Designed to Reduce Electrical Hazards for Operators.

### Submersible Pumps

- Non-Clog Pumps: 3" or 4" Discharge, Range from
- 3 HP 60 HP, 208-230/460 V, 1 Phase or 3 Phase.

   Grinder Pumps: 1.5", 2" or 3" Discharge, Range from 2 HP 15 HP, 208-230/460V, 1 Phase or 3 Phase.
- Chopper Pumps: 3" or 4" Discharge, Range from 3 HP - 60 HP, 208-230/460 V, 3 Phase Only.

### **Wet Well Structure Options**

- Pre-Cast Concrete: Wet Well and Flat Top, 60" Minimum Diameter, Depth Sized per Application.
- Polymer Concrete: Wet Well and Flat Top, 60" Minimum Diameter, Depth Sized per Application.
- High Density Polyethylene (HDPE): Wet Well, 60" Minimum Diameter, Depth Sized per Application.
- Fiberglass Reinforced: Wet Well, 60" Minimum Diameter, Depth Sized per Application.

### Polymer Concrete Flattop with Access Hatch and Safety Grate

- Castinite Polymer Concrete Flattop, 18,000 PSI Compressive Strength, 90%-94% High Purity Quartz Aggregate with High Strength Resin Epoxy, Minimum 84"x84" Square.
- Aluminum Channel Frame Access Cover with Lockable Dual Hatch Doors, Stainless Steel Hinges and Hardware. Includes Safety Grate, Aluminum "I" Bar Construction, Safety Orange Powder-Coated Finish, 316SS Hardware, Tamper Proof SS Hinge Bolts, 300# PSF Load Rated, With Locking Capability.

  ◆ Cable Tray 6"x36", Aluminum Slip-Resistant Removable
- Cover, Designed to House All Power Cables, Level Control Cables and Serve as The Wet Well Vent.

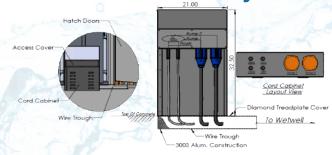
### **Guide Rail Assembly**

- Two (2) Cast Iron Base Elbow Stationary Fittings, Bolted to Wet Well Floor with Stainless Steel Studs. Size Range From 2" (In.) – 4" (In.) Flanged Base Elbow Fittings.
- Two (2) Cast Iron Upper Guide Rail Brackets, Mounted on Wet Well Access Cover Frame.
- 1" or 2" 304 Stainless Steel Guide Rails.
- Two (2) Cast Iron Moveable Fittings, Mounted on Pump Discharges, Allow Pumps to be Removed Without Entering Wet Well
- Includes Intermediate Guide Rail Brackets if Wet Well Depth is Greater Than 20' (Ft.) Deep.

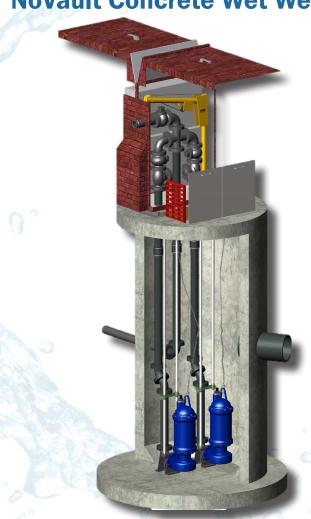
### **Level Controls**

Standard Float Switch Level Controls or Primary Level Transducer with Back-Up Float Switch Level Controls.

## **Cord Cabinet Layout**



## **NoVault Concrete Wet Well**



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# **Aluminum NoVault**<sup>™</sup> **Pump Station: EX-ALNV2**

Warranty
Two (2) Years from Date of Shipment; Designed to Resist UV Damage, Covers Corrosion from Moisture, Soil, Septic Fluid and Gas, or Structural Failures Occurring in Normal Service, When Station is Installed in Accordance with Manufacturer's Recommendations.

### **Options:**

### **Stowaway Crane**

Steel Construction, 30 ft. of 1/4" Stainless Steel Cable with Galvanized Safety Hook, Adjustable Boom, 120VAC Electric Winch with Remote Hand-Held Pendulum and Manual Hand Crank, Rated for 800 Lbs

### **Flow Meter**

Electromagnetic Flow Sensor, Carbon Steel Flanges, Ebonite Hard Rubber Liner, Hastelloy Electrode, Remote Transmitter with Display per Application.

### **Inlet Drop Bowl**

Reliner Inside Drop System, Polyester Resin Drop Bowl with SCH80 PVC Drop Pipe, Includes Flexible External Sleeve.

### Trash Basket

Aluminum Construction, Perforated Screening Style, With Aluminum Guide Rail System and Stainless-Steel Chain.

### **Service Power Pedestal**

Weather Resistant Electrical Enclosure that includes a Utility Pull Section with Optional Meter Socket and End User Section for Disconnect and Transfer Switch. NEMA 3R Steel Construction, with Lockable Access Doors and Compact Footprint.

### **Meter Base**

Single Position Sockets: 100/125 Amp, Ringless, 4 Terminals.

### **Automatic or Manual Transfer Switch**

Interlocked Main Double Circuit Breaker, Outdoor General Purpose, NEMA 4X, Stainless Steel Enclosure, UL98 Listed.

### **Generator Receptacle**

Outdoor General Purpose, Load Rated.

### **Stand-By Power Systems**

Natural Gas or Diesel Generators Available, Sized Per Application.

### SCADA Compatibility

Ethernet Module for Control and Status to External System.

Vinyl Exterior Finish with Red Brick Look, Tan Brick Look, Tan Rustic Stone Look or Green Pine Tree Look; Resistant to Mild Alkalis, Mild Acids and Temperatures from -65° to 225° F.

### **FOG/Odor Control System**

Wet Well Wizard Aeration System with 1.5HP Regenerative Blower, HDPE 3" Tube with HDPE Cleaving Disks, 10lb. Stainless-Steel Support Base, PVC Air Hose with Connection Hardware.

### **Service Power Pedestal**

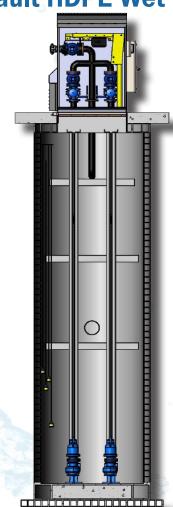


- Electric Meter
- Utility connection side separate from customer connection side

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- Main Service Disconnect
- Space to house ATS or MTS

## **NoVault HDPE Wet Well**



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