

# **1. Bill of Materials**

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# **Section 1**

**Bill of Materials**

# 1. Compressor Building

## 1.1 Orenco Fiberglass Shelter

Quantity	MFG Part Number	Description
1	Compressor Building 1	Orenco Fiberglass Shelter

# 2. FCBS (Reservoir Site)

## 2.1 Orenco Building

Quantity	MFG Part Number	Description
1	Park 2022 Chlorine Building 1	Orenco Fiberglass Shelter

## 2.2 FCBS Control Panel

Quantity	MFG Part Number	Description
1	FP-1S-P1	FCBS Control Panel

## 2.3 TWM Mixer

Quantity	MFG Part Number	Description
1	TWM15-230-33-V4050-3	TWM Mixer w/NEMA 4

## 2.4 Depolox 400 M Analyzer

Quantity	MFG Part Number	Description
1	W3T441932	E02 MODULE ELECTRONIC 400 M
1	W3T440611	FLOW CELL MODULE VARIASENS
1	W3T441936	E02 Sensor MEASURING MODULE - FC2
1	W3T441938	E02 Sensor MEASURING MODULE - PH
1	W3T391868	ORP MEASUREMENT MODULE

## **2.5 Chemical Feed Skid**

Quantity	MFG Part Number	Description
1	DFXAUS0530SPTLQ100UDC130EN	Metering Pump
7	50021-005 (VIT)	1/2" PVC Type 546 TU Ball Valve
1	PRM2050-P-S	Pressure Relief Valve
1	CC1000-S-S	Calibration Column
1	CKM050VS-PV	Check Valve
1	FI-100-8SV	Flow Indicator
1	TG-25ST100SS-PVC	Pressure Gauge
1	TG-55STB424B100-PVC	Pressure Switch
1	Big Wave Junction Box (Single)	Big Wave Junction Box

## **2.6 Venturi Sample Recovery**

Quantity	MFG Part Number	Description
1	JP13-03-137	Grundfos Sample Pump
1	MAZZ 0484-X PVDF	Mazzei Injector
1	51091G-007	3/4" Check Valve
1	50611-005	1/2" Ball Valve
3	50611-007	3/4" Ball Valve
1	YS075-P-S	Wye Strainer
1	53161-005	Needle Valve

## **2.7 Chemical Storage Tank**

Quantity	MFG Part Number	Description
2	IMT0120X19/X19	120 GAL TANK
2	MK07	7" MANWAY
2	BHPVV200	2" BULKHEAD FOR LEVEL SENSOR
2	BHPVV075	3/4" BULKHEAD CONNECTOIN FOR PUMP SUCTION
2	UVAV8400	4" PVC SCH 80 U-VENT ASSY/VITON

## **2.8 ProMinent Radar Level Sensor**

Quantity	MFG Part Number	Description
2	DULCOLEVEL	Liquid Level Radar Sensor

## **2.9 Water Heater**

Quantity	MFG Part Number	Description
1	AP054480 EFD (EEMAX)	Tankless Electric Water Heater

## **2.10 Emergency Eyewash & Shower**

Quantity	MFG Part Number	Description
1	GFR1902 (GUARDIAN)	Freeze-Resistant Safety Station

# **3. FCBS (Well Site)**

## **3.1 Orenco Fiberglass Shelter**

Quantity	MFG Part Number	Description
1	Park 2024 Chlorine Building 1	Orenco Fiberglass Shelter

## **3.2 FCBS Control Panel**

Quantity	MFG Part Number	Description
1	FP-1S-P1	FCBS Control Panel

## **3.3 Analyzer**

Quantity	MFG Part Number	Description
1	W3T441932	E02 MODULE ELECTRONIC 400 M
1	W3T440611	FLOW CELL MODULE VARIASENS
1	W3T441936	E02 Sensor MEASURING MODULE - FC2
1	W3T441938	E02 Sensor MEASURING MODULE - PH
1	W3T391868	ORP MEASUREMENT MODULE

### **3.4 Chemical Feed Skid**

Quantity	MFG Part Number	Description
1	GMXA1602PVE2Q00UDC0300EN	Gamma X Diaphragm Pump
7	50021-005 (VIT)	1/2" PVC Type 546 TU Ball Valve
1	PRM2050-P-S	Pressure Relief Valve
1	CC1000-S-S	Calibration Column
1	CKM050VS-PV	Check Valve
1	FI-100-8SV	Flow Indicator
1	TG-25ST100SS-PVC	Pressure Gauge
1	TG-55STB424B100-PVC	Pressure Switch
1	BPM050-P-S	Back Pressure Valve
1	PD0012PH01S	Pulsation Dampener
1	Big Wave Junction Box (Single)	Big Wave Junction Box

### **3.5 Venturi Sample Recovery**

Quantity	MFG Part Number	Description
1	ICT0040X19	40 GAL TANK
1	Smart Trak AX23	Flow Line Level Sensor
1	JP13-03-137	Grundfos Sample Pump
1	MAZZ 0484-X PVDF	Mazzei Injector
2	839-101	3/4" X 1/2" MPT x FPT Reducer Bushings
1	51091G-007	3/4" Check Valve
1	50611-005	1/2" Ball Valve
3	50611-007	3/4" Ball Valve
2	3857S-805	1/2" Unions (PVC, EPDM)
1	YS075-P-S	Wye Strainer
1	53161-005	Needle Valve

### **3.6 Sodium Hypo Tank**

Quantity	MFG Part Number	Description
1	IMT0250X19/X19	250 GAL TANK
1	MK07	7" MANWAY
1	BHPVV200	2" BULKHEAD FOR LEVEL SENSOR
1	BHPVV075	3/4" BULKHEAD CONNECTION FOR PUMP SUCTION
1	UVAV8400	4" PVC SCH 80 U-VENT ASSY/VITON
1	DWTDMV100	1" DOUBLE MALE OUTLET

### **3.7 Prominent Radar Level Sensor**

Quantity	MFG Part Number	Description
1	DULCOLEVEL	Liquid Level Radar Sensor

### **3.8 Water Heater**

Quantity	MFG Part Number	Description
1	AP054480 EFD (EEMAX)	Tankless Electric Water Heater

### **3.9 Emergency Eyewash & Shower**

Quantity	MFG Part Number	Description
1	GFR1902 (GUARDIAN)	Freeze-Resistant Safety Station

### **3.10 Static Flow Mixer**

Quantity	MFG Part Number	Description
1	8-10S-3-3-7.I(.50)	8" KOFLO Static Mixer
1	QR-.5S-.5PV-4.5	KOFLO Injection Quill

## **2. Skids**



# CHEMICAL FEED SKIDS



***High Quality Skids for all Water and Wastewater Applications***

**(760) 722-6893**

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

Our chemical feed skids are engineered from the highest quality materials and are completely customizable to meet any specification. Our skids are designed for simple installation and are operator friendly with easy component access. All chemical feed skids are pressure tested prior to leaving the factory and guaranteed to be leak-free.

## STANDARD FEATURES

- Single, dual, and triple pump systems
- Manufactured from marine grade high density polyethylene with 100% UV inhibitor
- Built-in spill containment
- Socket welded joints and unions
- 5 year leak free warranty

## STANDARD COMPONENTS

- Pressure Relief Valve
- Check Valve
- Flow Indicator
- Calibration Cylinder
- Pressure Gauge

## OPTIONAL COMPONENTS

- Inlet Y Strainer
- Pulsation Dampener
- Flow Verification Sensor
- Flow Meters
- Pressure Switch





## CUSTOMIZABLE OPTIONS

- Size (height x width)
- Custom control panels
- Piping material (PVC, CPVC, PFA, PTFE)
- Mounting options
- Doors, covers, enclosures
- Product manufacturer preference
- Standard or customer preferred accessories



## PRODUCT APPLICATIONS

Aluminum Sulfate (Alum), Ammonium Sulfate (LAS), Brine Solutions, Calcium Hypochlorite 20%, Ferric Chloride, Hypochlorous Acid, Sodium Hydroxide 50%, Sodium Bisulfite, Sodium Hypochlorite 12.5%, Sulfuric Acid up to 98%, and more

**ProMinent®**



**Blue-White®  
Industries, Ltd.**



**+GF+**



**HAYWARD®**

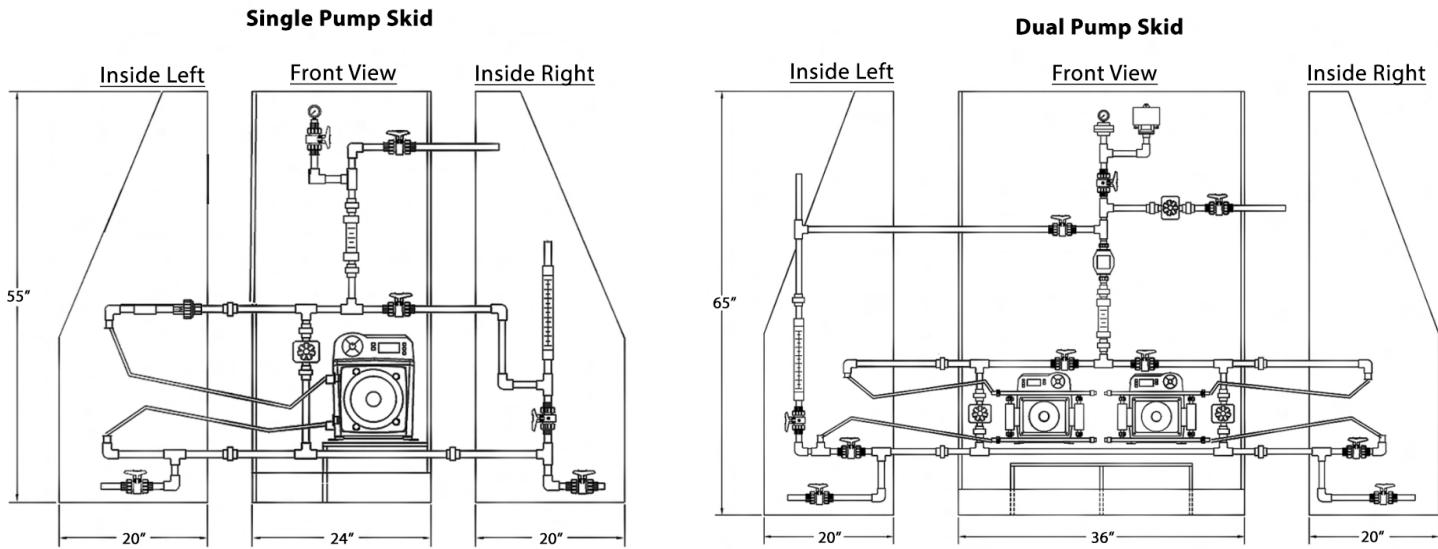


# STANDARD SKID SPECIFICATIONS

## STANDARD DIMENSIONS:

Single pump skid: 24" (w) x 55" (h) x 20" (d)

Dual pump skid: 36" (w) x 65" (h) x 20" (d) - 24" (d) with larger pumps)



**PIPING:** SCH80 PVC or CPVC - other materials are available upon request

**UNIONS:** PVC body, SCH80, Viton or EPDM seals

**BALL VALVES:** True union ball, PVC body, PTFE shaft bearings and seats, Viton or EPDM seals

**PRESSURE RELIEF VALVE:** Built-in pressure relief for safety to prevent system over-pressurization

**CHECK VALVE:** Protects the pump and user from back-flow

**FLOW INDICATOR:** Machine cast acrylic, PVC connection, ceramic ball, polypropylene ball stop, polypropylene half unions, Viton or EPDM seals

**CALIBRATION CYLINDER:** Polypropylene, PVC, or glass cylinders

**PRESSURE GAUGE:** Liquid filled, stainless steel, optional guards

**MAXIMUM WORKING PRESSURE:** 175 PSI (MC-2/MC-3)

**OPERATING TEMPERATURES:** 14F to 115F (-10C to 45C)