



**U.S. FILTER**  
DAVIS PROCESS

*Taking care of the world's water.*

CHEMICAL  
FEED  
AND  
STORAGE  
SYSTEMS

## SINGLE WALL ABOVE GROUND CHEMICAL STORAGE SYSTEMS

Single wall storage tanks and feed systems provide the most cost-effective method of chemical feed and storage for many applications. Each system includes a tank molded from high density, crosslinked polyethylene. This versatile chemically resistant material provides durable construction which will endure environmental stresses and resist cracking. Drop tested tough, these tanks are rugged, dependable and safe. No ruptures, cracks or leaks. Tanks and fittings are UV stabilized, and need no painting or other regular maintenance to preserve factory specifications. Each tank has an overflow protection gauge of 1-1/2" clear PVC, one threaded manway, one 2" PVC U vent with screen opening, one 2" PVC filler line on top of tank terminating with a 2" PVC ball valve and stainless steel camlock male coupling with PVC cap. Chemical feed pumps and controls are provided in the U.L. listed chemical feed and control unit.

### APPLICATIONS

Polyethylene tanks provide storage for a variety of corrosives, including hydrochloric, sulfuric and hydrofluoric acids, sodium hydroxide, alum and sodium hypochlorite, as well as water and less corrosive chemicals.

## IT-2 DOUBLE WALL ABOVE GROUND CHEMICAL STORAGE SYSTEMS FOR CORROSIVE AND HAZARDOUS CHEMICALS

### SAFE CHEMICAL STORAGE

Liability for environmental damage resulting from accidental chemical spills is a concern for every company using hazardous chemicals. In addition, federal, state and local regulatory agencies continue to require more chemical storage system installations to provide leak prevention via secondary containment and leak detection



systems. U.S. Filter/Davis Process has solved these problems for above ground storage with the IT-2 Double-Walled Chemical Storage System, which includes double-wall tank construction, leak monitors at critical points, alarms, spill containment and overflow protection.

Based on a tank-within-a-tank concept, the IT-2 tank is the basic component of a complete system which has been developed to address the needs of today, and to anticipate the regulations of tomorrow.

### APPLICATIONS

This system is appropriate for a wide range of corrosive and volatile chemicals, including mineral acids such as hydrochloric, sulfuric and phosphoric acid; alkalis such as sodium hydroxide, aqua ammonia and sodium hypochlorite; oxidizers such as hydrogen peroxide and nitric acid; and inorganic salt solutions such as ferrous sulfate and alum.

### DOUBLE PROTECTION AGAINST SPILLS

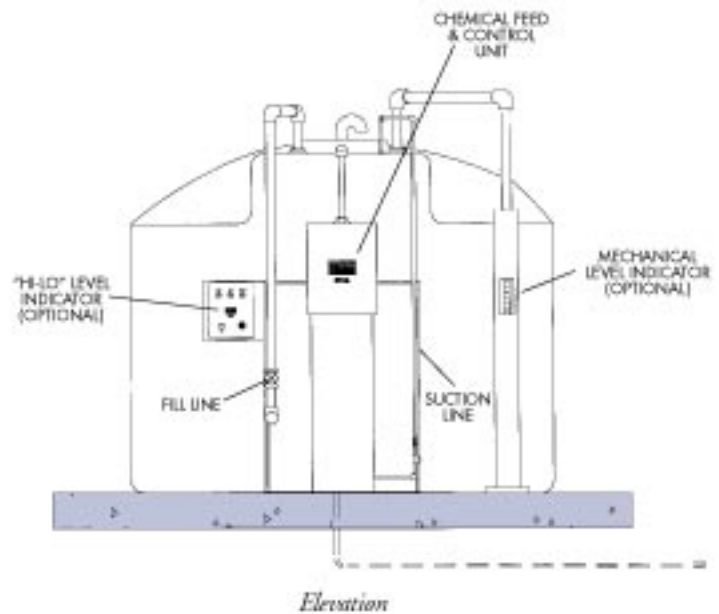
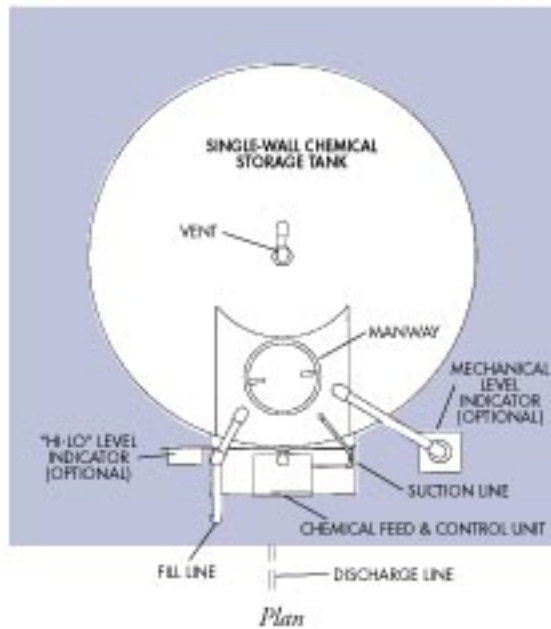
The security of double containment is extended from the fill port to the point of application. Throughout the system, leak detection devices alert personnel to leaks at any point in the system. Overflow protection prevents discharges to the environment during filling operations.

The overflow alarm signal is triggered when the tank becomes 90% full.

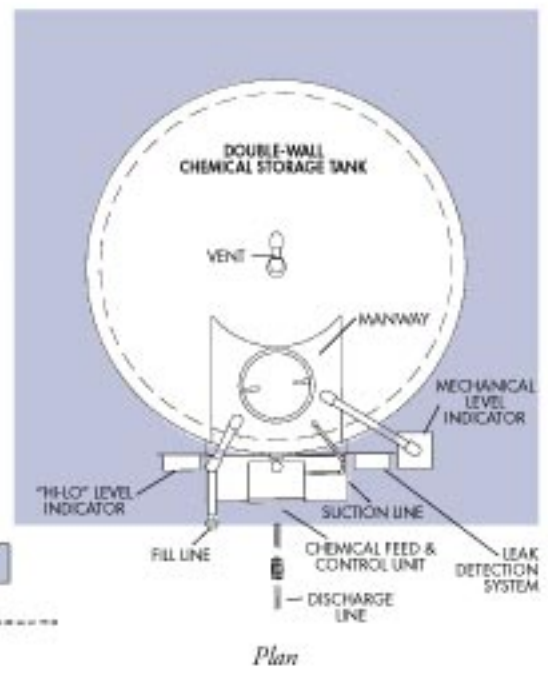
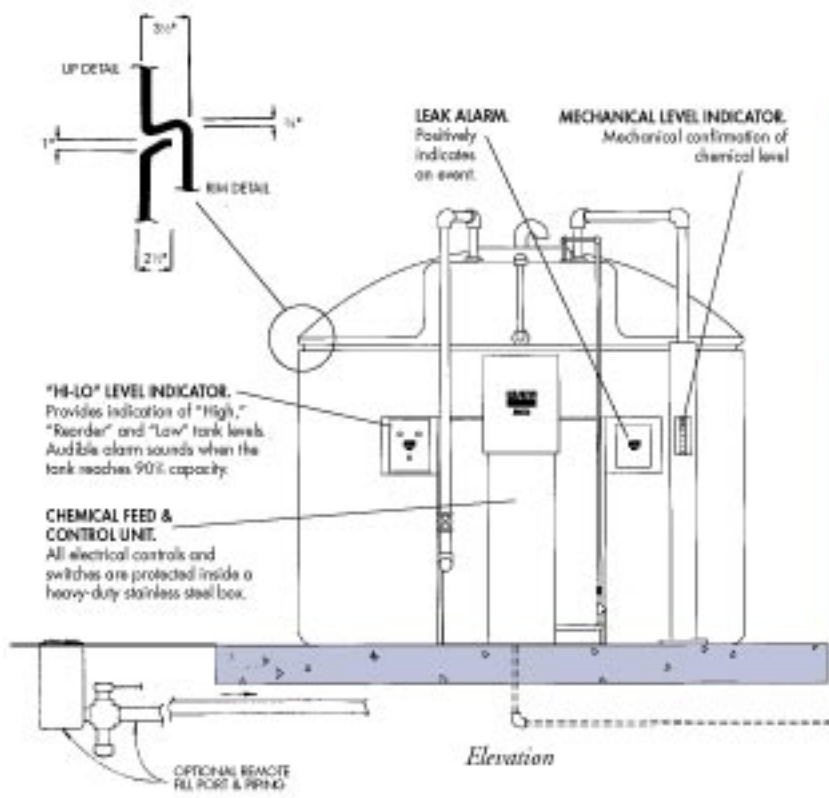
### SEAMLESS CONSTRUCTION - DOUBLE PROTECTION

The heart of this system is a unique double-walled tank, currently available in capacities from 500 to 6,400 gallons, and fabricated of high-density, rotationally molded crosslinked polyethylene that requires no painting or other regular maintenance. Drop tested tough, these tanks are rugged, dependable and safe. No ruptures, cracks or leaks.

**SINGLE WALL ABOVE GROUND TANKS**



**DOUBLE WALL ABOVE GROUND TANKS**



## UNDERGROUND CHEMICAL STORAGE

U.S. Filter/Davis Process underground storage tanks are double wall, constructed of fiberglass reinforced plastic (FRP). Various capacity models are available according to the requirements of the particular application. The system features a primary (internal) tank and a secondary (external) tank. Both inner and outer tanks are equipped with 2" PVC screened vents to atmosphere and two 32" manways. Tank is anchored with two FRP anchor straps attached to concrete slab or deadman for flotation resistance.

## SAFETY

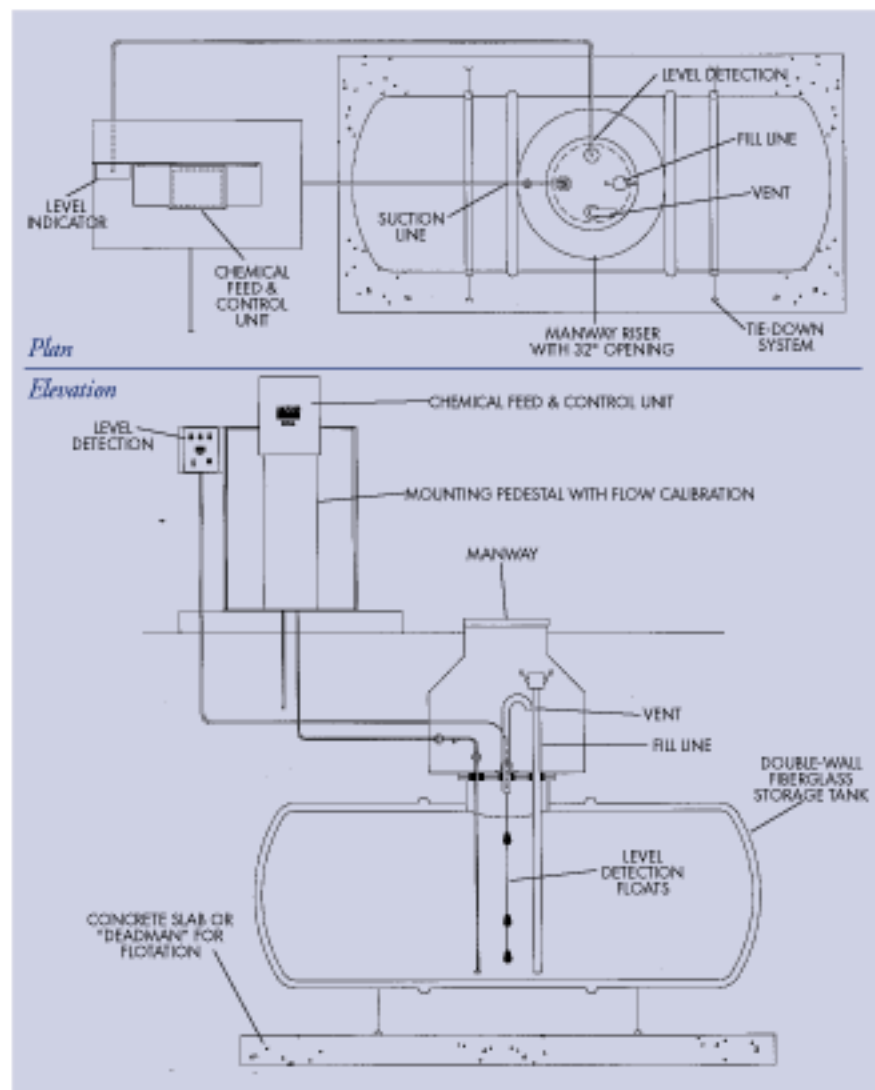
The system is equipped with an internal tank leak detection system. In addition the tanks and underground piping are equipped with audible and visible alarms to signal leaks. All underground piping uses a double wall configuration. The system is also equipped with overfill protection. Visible and audible alarms are triggered when the tank is 90% full or greater.

## PIPING & APPURTENANCES

U.S. Filter/Davis Process Chemical Feed & Storage Systems typically use 1/2" schedule 80 PVC for all suction and discharge. All primary pipes, valves, fittings and connectors are Schedule 80 PVC. All secondary piping is Schedule 40 PVC. Fill lines have a 2" stainless steel male camlock with a 2" female plastic camlock cap. There is a poly spill containment basin and a piping sump for the fill port.

## APPLICATIONS

The U.S. Filter/Davis Process Underground Storage Tanks are compatible with a wide variety of materials including Ferrous Sulfate. Other materials include corrosives such as hydrochloric, sulfuric and hydrofluoric acids, hydroxide, alum and sodium hypochlorite.



## BELLOWS PUMPS



Standard, 1", 1-1/2" and 2-1/2" Totally Enclosed Fan Cooled (TEFC) Models. Pump is self-priming with variable flow rate. Heavy duty motor has ball bearing crank and quick change parts. Gear motor RPM and bellows size determine pulsing and rate of flow. Flows available from 3.0 to 2337.5 ml per minute. Discharge pressure - 1" bellows, 40 psi; 1-1/2" bellows, 20 psi; 2-1/2" bellows, 10 psi.

### APPLICATIONS & SPECIFICATIONS

U.S. Filter/Davis Process TEFC pumps may be used in environments that normally prohibit use of an open shaded pole gear motor.

1. Bellows size (diameter) and full stroke capacity:

Diameter:	1"	1-1/2"	2-1/2"
Approx. Capacity:	5.0 ml	10.5 ml	55.5 ml

2. Poppet valves can handle fine slurries and permit no backflow of liquid.
3. Heavy slurries should be flushed out of bellows module before shutdown of pump.
4. Maximum liquid viscosity should not exceed 5,000 centistokes.
5. At full stroke with bellows dry, the pumps will prime lift up to 7 feet. Full of liquid, they will prime lift up to 20 feet.
6. Pumps pull 1/4 atmosphere of vacuum when pumping air or gases.

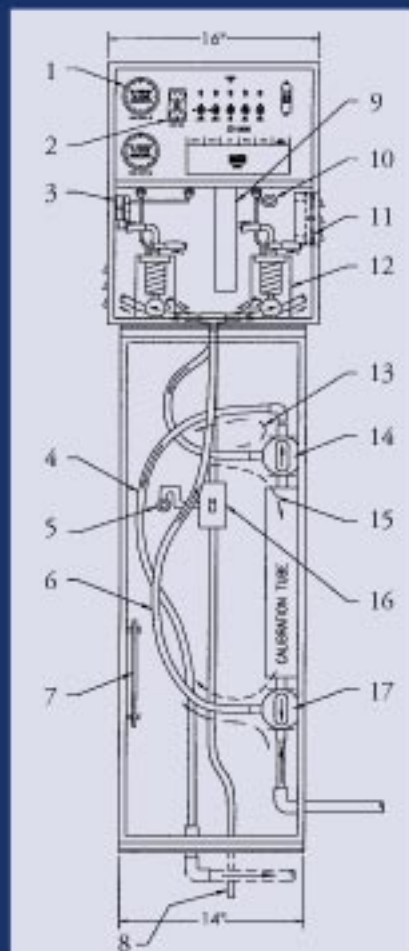
7. All standard bellows pump motors, 115 or 240 volt ( $\pm 10\%$ ) are 50/60 Hz. For special applications, 12, 24 or 115 volt dc motors are available in single order quantities of 100 pumps or more. All models have a 30" cord.
8. Not applicable in liquids over 140°F. Reduce maximum psi rating by 50% for temperatures over 120°F.
9. A positive head on suction side of pump can cause siphoning through pump. Anti-siphoning valve springs are installed in pumps.
10. Optimum operating conditions for the pumps should include a minimum 6" of lift on suction side and a discharge head of not less than 6".
11. All modules are independently adjustable down to 10% of stroke. Greatest accuracy is at 50% or more of stroke length.
12. Connector fittings are designed for use with soft vinyl and similar tubing only.

### P U M P S P E C I F I C A T I O N S

Standard Single Model Number	Bellows Module Dia.	Discharge Strokes RPM	Flow Min. ML PER MIN.	Gallons (LITERS) PER HR.	Max. PRESS.	Physical DIMENSIONS	Electrical	
							WATTS	AMPS
15907-001	1 (25.4)	10	50.00	.792 (3.0)	40 (2.8)	8-1/4 x 7-3/4 x 4 (209, x 196, x 101.)	25	2.6
15907-002	1 (25.4)	24	120	1.9 (7.2)	40 2.8	8-1/4 x 7-3/4 x 4 (209, x 196, x 101.)	25	2.6
15908-001	1 1/2 (38.1)	60	630	10.0 (37.8)	20 (1.4)	8-1/4 x 7-3/4 x 4 (209, x 196, x 101.)	25	2.6
15908-002	1 1/2 (38.1)	100	1050.0	16.64 (6.3)	20 1.4	8-1/4 x 7-3/4 x 4 (209, x 196, x 101.)	25	2.6
15908-003	1 1/2 (38.1)	144	1512	23.96 (90.7)	20 (1.4)	8-1/4 x 7-3/4 x 4 (209, x 196, x 101.)	25	2.6

## CHEMICAL FEED AND CONTROL UNIT

The U.S. Filter/Davis Process Chemical Feed and Control Unit is activated and programmed by two 96 position, 15 minute increment timers which enable system pumps to automatically turn on and off by timed cycle. The system is U.L. listed. It requires 115 volt, 60 Hz, 15 amp, single phase electrical service.



1. Timer
2. GFCI Outlet
3. Heater (Optional)
4. 1/2" Diameter Discharge
5. Thermostat (Optional)
6. 1/2" Diameter Suction
7. Heater (Optional)
8. Power Conduit by Other
9. Wiring Conduit
10. Thermostat (Optional)
11. Fan
12. Chemical Feed Pump (2)
13. Normal Flow Path
14. 3-way Valve
15. Calibration Flow Path
16. Power On/Off Switch
17. 3-way Valve

### OUTSTANDING SERVICE SINCE 1938 IS YOUR ASSURANCE OF SATISFACTION

Davis Water & Waste Industries, Inc. was founded in 1938 and has been an industry leader in the design, manufacture and distribution of products that help to meet the world demand for clean water. U.S. Filter, with corporate headquarters in Palm Desert, California, acquired Davis and all its Divisions in 1996, and offers the world's most comprehensive range of technologies, products and services for water treatment,

wastewater treatment, filtration and special separations, water management and resource recovery. The size, strength and stellar reputation of both Davis and U.S. Filter represent your guarantee that U.S.

Filter/Davis Process will continue to provide thorough service, ethical business practice, effective products and service after the sale.

*Strategically located facilities place our products at your disposal.*

#### DISTRIBUTION LOCATIONS

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