



SWIMEX

RESIDENTIAL PLUNGE TANKS

INSTALLATION MANUAL

SMALL (SXT-7.5), MEDIUM (SWT-9), LARGE (SXT-12) & EXTRA LARGE (SWT-14)

1) SITE PREPARATION

a) MOVEMENT OF TANKS

- i) For standard size plunge tanks, openings should be no less than 8' wide x 8' high with no obstructions, narrow hallways or stairs. Tanks come with an integral frame that is adhered to the tank for support of the tank. The tank and frame can be set onto furniture type dollies and wheeled into place. If necessary, the tank can be lifted vertically to be moved into place, with care being taken not to damage jet fittings on any side or bottom drains.



- ii) For Sectional pools, a 5' wide x 8' high door will be recommended but please consult with SwimEx for exact measurements.



b) PIT/SLAB REQUIREMENT

i) SUPPORT REQUIREMENT

The SwimEx plunge tank is designed to sit on a flat level surface; however, it can be leveled by shimming the frame of the tank. The surface which the pool sets upon should have a load bearing capacity of 200 lbs./sq.ft. which is typically a 4-6" slab.

ii) IN GROUND APPLICATION

The SwimEx plunge pool can be installed for a flush with floor or in ground look. We recommend a pit that is a minimum of 2' larger than the tank being used. This allows for room for piping runs to be sent to an equipment room. SwimEx recommends not filling in open deck area until unit has been water tested. Fill in decking will be covered further into manual.



iii) ABOVE GROUND APPLICATION

The SwimEx Plunge pool can be installed above grade with a deck built around. Decks are independent and are not provided with the SwimEx unit. Deck construction can be of wood or composite wood.



iv) PARTIALLY IN GROUND APPLICATION

As with in ground applications semi in ground applications, the pit should extend at least 2' on all sides with the exception of the stair entry, that can be adjacent to a pit wall.



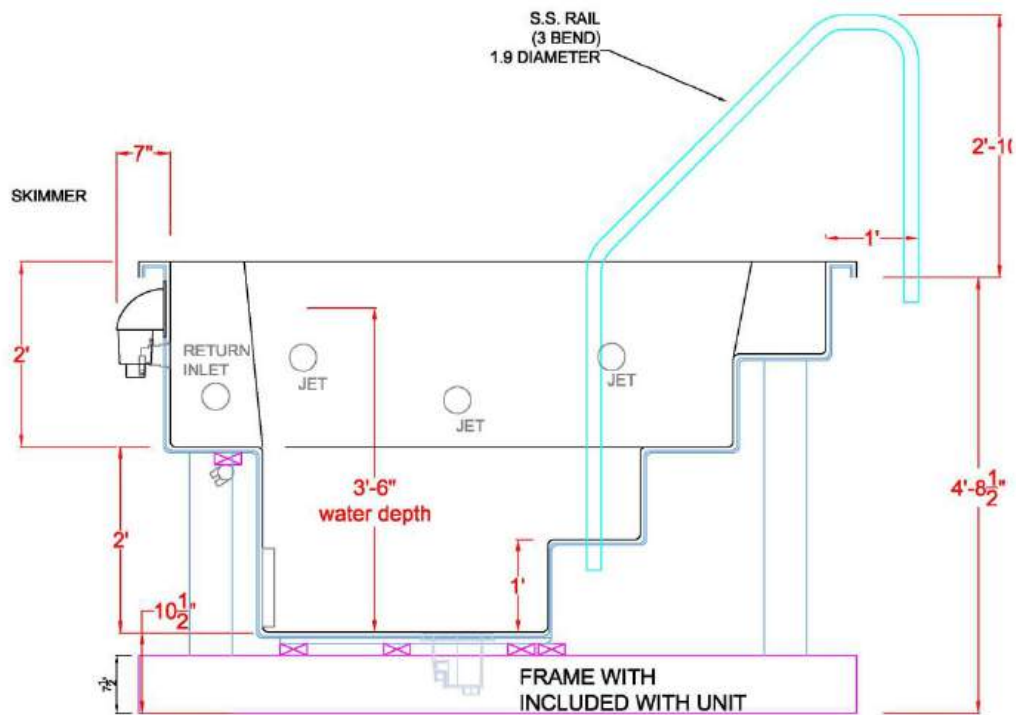
2) DECKING/FLOORING

SwimEx recommends a deck be constructed around the perimeter of the unit and tucked under or sealed against the side wall of the 2" lip. This will prevent water from dripping around the unit. Deck construction is not included and can be of various methods. SwimEx recommends that a floor drain be placed in the area of the stairs for entry and exit from the unit.

Some examples of decking are:

- Poured in place concrete
- Steel frame with thin gauge metal pan and concrete over
- Wood frame with tile or epoxy

All standard SwimEx tanks have a dimension of 4'8 1/2" from slab which pool sets to bottom of lip.



3) PLUMBING SCOPE OF WORK

All units come partially factory pre-plumbed to one suction connection and one return connection for both the filtration and Jet system.

Jobsite plumbing is by others for piping from the vessel itself to the equipment location. Diagrams are provided with each unit for plumbing per general health department requirements. It is highly recommended to check with your local authorities. **Check for local code requirements.**

A "P" trap with air gap, to floor sink or sump for draining the unit, must be provided.

Potable water hook-up requires an approved anti-backflow device.

NOTE: All plumbing should be tested prior to constructing deck around unit.

Filtration equipment can be located next to the unit or as far as 50 feet away. If equipment is located below waterline, check valves and/or ball valves must be installed, to prevent siphoning and to isolate equipment. All pumps are gravity (self) priming. Unions should be installed to isolate pump and filter for cleaning, or removal for repair. **DO NOT ATTEMPT TO OPERATE SYSTEM WHILE THESE VALVES ARE CLOSED. DAMAGE MAY OCCUR.**

Sample pipe diagrams for field piping are attached.

c) **FILTRATION**

The tank circulation systems will be provided with a cartridge filter. If filter is installed below deck, allow top clearance equal to or exceeding the height of the filter for servicing of filter elements for cleaning, or installation of cartridges. Filter dimensions: **Vertical clearance of 46" minimum**

Each filtration system will have main drains from under the unit that will be pre-installed. From the main drains you will "T" in the line from the skimmer, continue through the pump, through filter, add in heating or cooling bypass loop and then back to the return inlet on the pool.

We recommend against the use of salt sanitizers. If not balanced properly it will lead to excess chloramines being produced. This can cause fluctuation in Ph and will make your water corrosive. It can also cause corrosion to any metals that are in the pool area.

d) HEATING / COOLING

i) Hot Units:

- (1) Unless otherwise requested, all units come with a 5.5 kW or 11 kW heater. It is a compact heater and is piped inline on the filtration system after the filter. It is recommended to provide a bypass piping arrangement to control flow of water through the heater.

For Small and Medium Plunge Tanks: 5.5 KW heater

For Larger and Extra-Large Plunge Tanks 11 KW heater

Size of electric heater is determined by gallons in tank. If a gas heater is utilized, a gas line should be run directly from gas meter to heater. Heater unit can be placed with the filtration equipment. Gas heaters do require a vent pipe and combustion air (please read gas heater installation manual).

ii) Cold Units:

- (1) The standard cold unit is provided with a split chiller with a remote condenser. The remote condenser will need to be within 75 ft. of the chiller unit which is typically in the pit area. The condenser must be in an area not prone to overheating and with full ventilation in that up to 3 tons of warm air will need to be dispersed.

For Small and Medium Tanks: MT 1 Split Chiller

For Large and Extra-Large Tanks: MT 3 Split Chiller

- (2) The standard chiller cut sheet and installation manual is attached, if ordered. For optional chiller arrangements please contact us.

iii) Jet System

- (1) The standard hot plunge pool comes with hydro jets which has a separate piping loop. The Jet system will have two distinct labeled suctions and connect back to a manifold to provide to each individual jet. All piping should be 2" PVC or larger on the jet loop

4) ELECTRICAL

The total amperage requirements vary from 60 to 120 amps, depending on the number of pumps and electrical equipment installed. A sub-panel should be located in the equipment area. One emergency cut-off switch is required for all equipment. All railings and equipment must be bonded together by an un-insulated, #8 copper wire. All bonding should be done per the National Electrical code and local electrical codes. All equipment runs off 208-230 V single phase (Additional voltages available). A licensed electrician should complete this work.

A: Heater

Wire the heater, to a 240 Volt AC, 60-Hz-single phase power. The heater size will determine your amperage rating using a 2 pole GFI breaker.

For a 5.5KW heater it requires a 30-amp circuit

For an 11 KW heater it requires a 60-amp circuit

For gas units, use a 15-amp, 2 pole GFI breaker.

B: Filtration Pump

Wire the 1 HP filtration pump to a 115 Volt AC, 60- Hz-single phase power using a 15 amp, 2 pole GFI breaker. This unit must be properly grounded. Refer to manufacturer's instructions included with this unit. SwimEx recommends operating the filtration pump at least 8 hours per day.

C: Jet pump

Each unit is equipped with two(2) two (2) HP Jet pumps which are controlled by an ASV Combo timed switch. The pump should be wired 208-240V, 60 Hz 1 phase, 15 Amp, GFCI breaker. In the line between the breaker and the pump you will install the ASV Combo timed switch

D: Chiller Options for Cold Plunge Pool:

Standard: Air Cooled chiller with remote condenser.

Cold plunge units come standard with either an MT-1 or MT-3 split chiller and

condenser, depending on the size of the tank. The chiller is powered via a 24V line (18/3 wire) that is taken off the remote condenser and run to the chiller location.

The chiller condenser requires 208-240V, 1 Phase, 20 Amps for MT-1 (30 Amps for MT-3) circuit to the chiller condenser location.

5) EQUIPMENT AREA

Provide a room to allow for two (2) pumps, a filter, heater, control and electrical panels.

Note that NEC requires three (3) ft. clear in front of the electrical panels. In most cases, a room six (6) ft. by eight (8) ft. will work. It is important to note that if a gas heater is specified, it must be vented to the outside with fresh air intakes to comply with building and safety codes and typically a 5" vertical vent is required.

Note: Piping from filter to floor sink must have air gap (do not hard plumb into drain). In addition, install one ball valve prior to entering floor sink to control flow.

6) VENTILATION

In an indoor tank installation, an exhaust fan designed for pool systems should be installed to vent chlorine vapors and humid air to the outside. It should not be tied into the building air conditioning/ventilation system. A dehumidifier may be necessary depending on the size of the unit. Bromine can be substituted for chlorine, to reduce the harshness and odor, but it can affect the stainless steel rails if PH is not controlled.

7) TESTING

As the factory has no way of knowing if the vessel or its piping has been damaged during shipment or when it is lifted in place, the contractor shall go by the following recommendations.

1. Make sure the tank is level
2. Run rough piping back to equipment area, stub up and plug. Fill vessel with water, and then check all connections for leaks. Additional pressure tests may be required by local code.

If all are secure, complete hookups. After all approvals by local authorities have been obtained, start decking construction.

NOTES: Check all local codes for possible additional requirements before completing final installation and back-filling.

Use only schedule 40 and 80 PVC pipes on all plumbing.

Cut all pipes squarely, prime with PURPLE PRIMER, and use proper CEMENT.

Keep bends to minimum. Use 45 degree ells, instead of 90 degree ells, on return piping or whenever possible.

All tanks from **SwimEx** are partially pre-plumbed with main drains, jet fittings, and jet suction installed.

Advisory assistance is available during installation from our technical support staff.

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SWIMEX

PROVIDED EQUIPMENT
INSTALLATION MANUALS

