SwimEx

# Architectural Guidelines

# Four-piece Residential

# Architect Installation Guidelines

## RESIDENTIAL INSTALLATIONS FOUR PIECE UNITS

## GENERAL LAYOUT

- ❑ Call SwimEx at 800-877-7946 to receive AutoCad® Drawings of the SwimEx Model that you will be installing. These drawings can be placed directly into your pool room layout and site drawings.

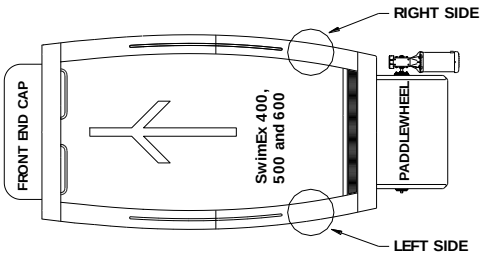
- ❑ SwimEx pools are available in different versions to accommodate new or existing construction situations.
  - ❑ Four Piece Models: Model 500S, 480S, 600S and 800S are standard in four pieces.
    *Optional assembly at the factory is available.*
    Assembled pools are delivered on a flat-bed carrier; sectional pools on common carrier.
    ** On-site assembly (by owner) typically requires 4 men for two days.

- ❑ Provide a flat & level concrete surface for pool to sit on with a load-bearing capacity of: 425 lbs./sq ft (2074.31 kg/m2) for 500S, 460 lbs./sq ft (2245 kg/m2) for 480S & 600S, 789 lbs./sq ft (3850.79 kg/m2) for 800S. ***Footprint of pool must be level within ¼", while the remainder of pit or area can be sloped to drain water*. 500S - 2,600 Gallons (9841 l); 480S&600S - 3,200 Gallons (12,112 l); 800S - 4,900 Gallons (18,546 l)

- ❑ Below-ground installation requires a minimum pit of 12'wide (3.66m) by 20' long (6.1m) and 68.5" deep (1.74m) for models 480S & 600S. *Model 800S needs 92.5"(2.35m) and Model 500S needs 58.5" (1.49m). The pit side walls provide no structure for the pool; they are only retaining walls. (+/- ½" or 13mm for all dimsensions).

- ❑ Above-ground installation requires a minimum ceiling height of 10' ((3.04m) with no obstructions above the pool (Lights, vents, ducts, beams) ** Check local building codes for minimum ceiling height and required decking area.

- ❑ Every SwimEx comes standard with an entrance ladder. Based on the orientation of the pool within the room, the ladder needs to be placed in the optimum location. The ladder, motor and plumbing connections can be placed on either side of the unit for no charge, so long as the order indicates the location. (These items are formed in the molding process; thus we must know the desired location at the time the order is placed.)




- ❑ Allow access to equipment and pool via access hatch for in-ground, or access panels for above-ground installations. A ladder should be provided to access the pump, filter and heater located within the pit.

SWIMEX

## DELIVERY REQUIREMENTS:

- ❑ Clear passage for 18-wheel tractor trailer truck to deliver, and forklift on site to off-load pool from truck. ** Please review Shipping Section of Manual. If site is not accessible by tractor trailer, this must be specified for special freight quotes.

- ❑ Clear passage from entry to the final location of pool. For the Model 480S and 600S, door openings must be 48" (1.21m) wide by 84" (2.13m) tall with a clear area on both sides of the door. For doors leading to corridors, the door and corridor must each be 70" (1.77m) wide by 84" (2.13m) tall. ** Please review Site Preparation Section of Manual. If you have the Model 800S, a minimum opening of 96" (2.43m) x 96" (2.43m) and a frame width of no more than 3' (91.4cm) with no obstructions on either side (i.e. corridors, walls, etc.), you should have no problem brining in any of the pieces.

- ❑ SwimEx units are available assembled at the factory. In these cases, the pool will arrive in one piece and will be craned into position. Planning must be done so that this can occur early in the construction process when complete access to the area is available. Typically, this is the most cost-effective way for new construction installations. (Crane provided by owner)

- ❑ A clear, unobstructed work area in and around the pit must be provided for movement of the parts into the pit, and for pool assembly. ****No decking shall be constructed until the pool has been filled and water tested.**

- ❑ Once the pool has been filled and water tested, the decking will need to be constructed around the SwimEx. This is not part of the SwimEx assembly; Please refer to Deck Construction Section of the Manual for instructions. (500S: 2,600 Gallons; 480S&600S: 3,200 Gallons; 800S: 4,900 Gallons)

## Electrical Requirements:

- ❑ Standard pool configuration requires 220/240 Volt, single phase, 105 Amps
- ❑ GFCI Breakers for Paddlewheel Econodrive controller, Heater, and Pump.
- ❑ Paddlewheel Econodrive Controller: 50 Amp, 208-240V Single Phase (38 FLA)
  - ❑ 5HP & 7.5HP Paddlewheel Gearmotor
- ❑ Heater: 30 Amp, 240V Single Phase (50 Amp heater for 208V available upon order)
- ❑ Pump: 15 Amp, 115V Single Phase (plug in unit)
  ** Pump and Heater can be put on a timer to run 8 hrs. per day (By owner)
- ❑ Must provide sub panel with appropriate GFCI breakers for equipment
  *Please refer to Electrical Schematic in Electrical Section of the Manual*
- ❑ Variable speed controller takes 208-240Volt single phase in and converts to 3 phase to drive the gearmotor.
- ❑ Electrician, in accordance with local and national electric codes, must make all connections between equipment and circuit breakers.
- ❑ Connections to be made dealing with the SwimEx Pool are from the breaker panel to the variable speed controller then the controller to the gearmotor, breaker panel to heater, and breaker panel to pump. These must be done on site by an electrician contracted by owner.

- **Other Equipment Considerations:**
  - **Optional SwimEx Equipment:**
    *Please refer to **Other Equipment Assemblies Section** of the Manual*
  - EDGE Tablet Drive (Upgrade from Econodrive Controller): 208-240V Single Phase, 50-Amp Feed (GFCI Included in Edge Control Box) Conduit needed for an ethernet cable from the Variable Speed Controller to poolroom for location of a WiFi access point for the EDGE Touch Screen Tablet. The WiFi access point can be mounted anywhere in the pool room, but you may want it higher up on the wall, so it is a bit more out of sight.
  - Treadmill Option – will run off the Edge Tablet Drive and require an additional 20-Amp feed (70 total).
  - Ozonator Option, 240V hardwired unit. Should be connected through same line or shut off as Pump to ensure that it shuts off when pump is turned off.
  - Underwater Lights, 110 Volt plug in unit on right or left side of pool. Provided with a mounted air button switch to turn on/off and change color selection.
  - Jet Option: 230V, Single Phase 15 Amp, 2 HP Jet pump controlled through ES Combo Switch
    - Electrician wires 240 Volt to ES Combo Switch controller and makes 3 wire connection to jet pump. (Pump, ES Combo, and Air Button control provided.)

- **Non SwimEx Equipment provided by owner**
  - Sump Pump: Plumber will locate a sump pump within pit area.
  - Lights under deck or in pit area: Pit area must have lights for future maintenance.
  - Ventilation and exhaust requirements.
  - Solar heat and other heat means can be tied into the filtration loop via a bypass placed after the filter and prior to the standard electric heater.

## MECHANICAL REQUIREMENTS:

**Please read and familiarize yourself with the Plumbing Section of the Manual

### Plumbing:

- Pool is pre-plumbed with all eyeball and suction fittings. On-site plumber (contracted by owner) must make connections between pool and provided pool equipment. All connections are PVC and will vary depending on location. Typical connections are schedule 40/80 PVC and range from 1" (2.54cm) to 3" (7.62cm) in diameter.

### Water fill:

- ¾" (1.9cm) Cold Water fill line for pool (Tempered water can be provided but is not required.) The fill line must be protected by backflow preventers, as required by local codes.
- Valve for water fill should be located within poolroom so that operator can see water level as pool is being filled.

### Drain:

- The SwimEx comes with a 2" (50mm) drain from the front of the pool with a shutoff valve. A floor drain or sump pump and pit must be provided for semi-annual draining of the pool. Drain from pool is elevated approximately 3 ½"(88.9mm) from floor. A small sump pump (not supplied) may be used to remove the remaining water in the pool.
- Drain will have approximate flow of 80 GPM (5.05 l/min) when pool is full. If sump can't handle that flow rate, the shut-off can be throttled back.

## ☐ HVAC:

- ❑ SwimEx recommends the use of a small dehumidifier within the pit area to keep moisture out, this area is generally below ground and occasionally gets wet due to splashing. This can be tied to the sump drain.
- ❑ The SwimEx pool room should have a minimum of an exhaust fan. If the room is conditioned, we recommend that there be no air return to the rest of the home. The air should be exhausted directly outside.
- ❑ Ventilation and exhaust from pool room: Because the pool has a small water surface area this eliminates the need for large dehumidification systems. Typical water loss due to evaporation is in the range of 4-5lbs/ hour for a standard SwimEx pool.
- ❑ It is recommended to maintain the pool room air temperature to within 2 -5 degrees of the pool water temperature (up to a maximum of 86 degrees room temperature).

## ❑ Hose Bibs:

- ❑ A hose bib is recommended (and required within some jurisdictions) within the SwimEx pool area for semi annual cleaning of the pool interior.

# Standard Pool Equipment

## The following is the standard equipment for the Model 480S and 600S

**Pump/Filter**

**Pentair Pool Products**

Filtration Pump: Optiflo 1HP Pump
Cartridge Filter: Clean and Clear 75 sq.ft. Cartridge filters
Connections 2”, & 1 ½” PVC Glue Unions
Electrical Requirements:
15 Amp, 115V single phase, Plug-In unit. (10.5 FLA) GFCI breaker
Removal of cover req. 39” (990.6mm) Height for 75 sq. ft.

**Heater**

Electric Heater: Coates Model 12406ST 5.5 kW Electric Spa Heater
30 Amps, 240V. (FLA 23 Amps) GFCI Breaker.
Note: 11 KW heater recommended for some outdoor installs (check with SwimEx)
Dimensions 17 1/2” (444.5mm) x 4” (101.6mm) x 14 ½” (368.3mm)
Option for 208 Volt Electrical: Coates Model 12008ST 8 kW Electric Spa Heater
50 Amps @ 208V. (FLA 39 Amps)
OPTIONAL Upgrade: Natural Gas or Propane Heaters are available