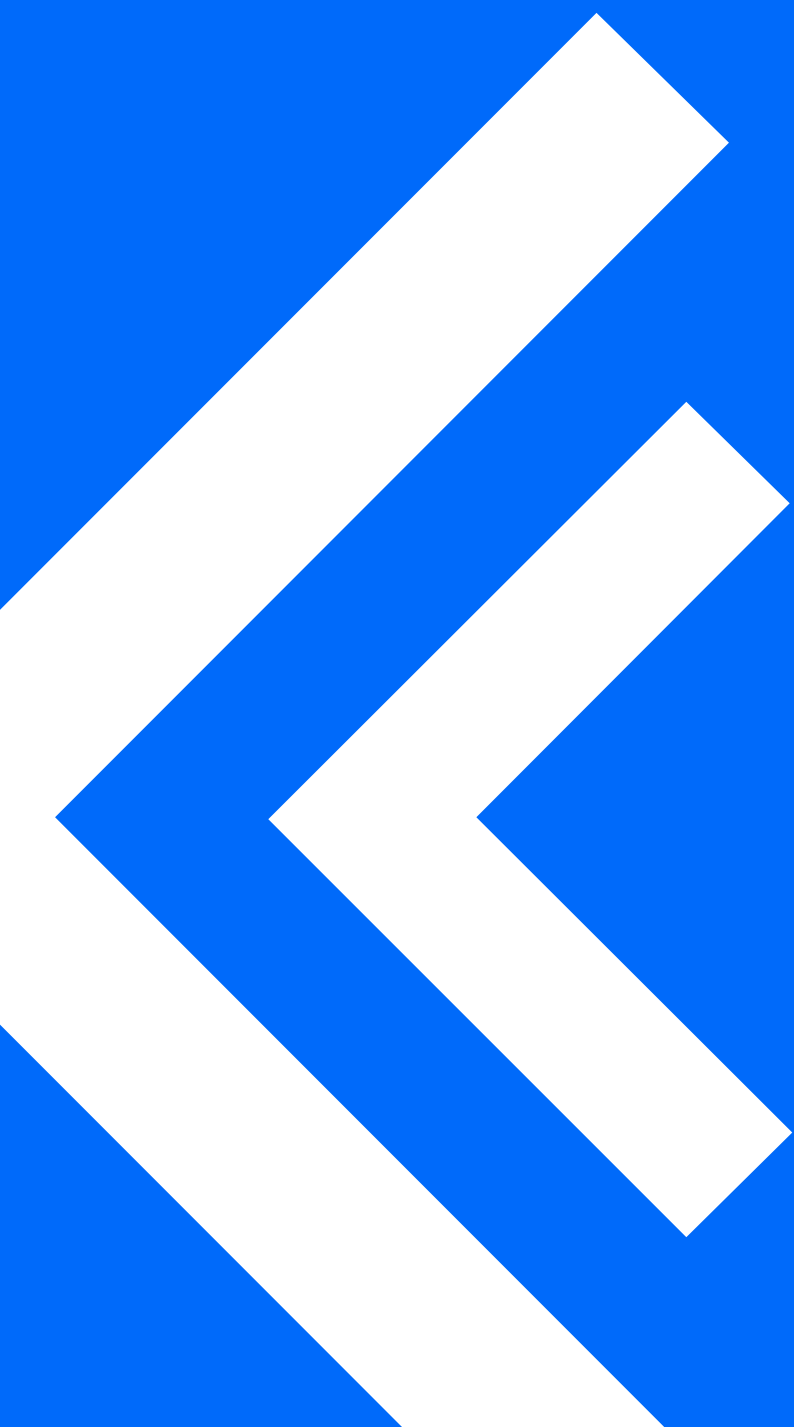


iCoolsport

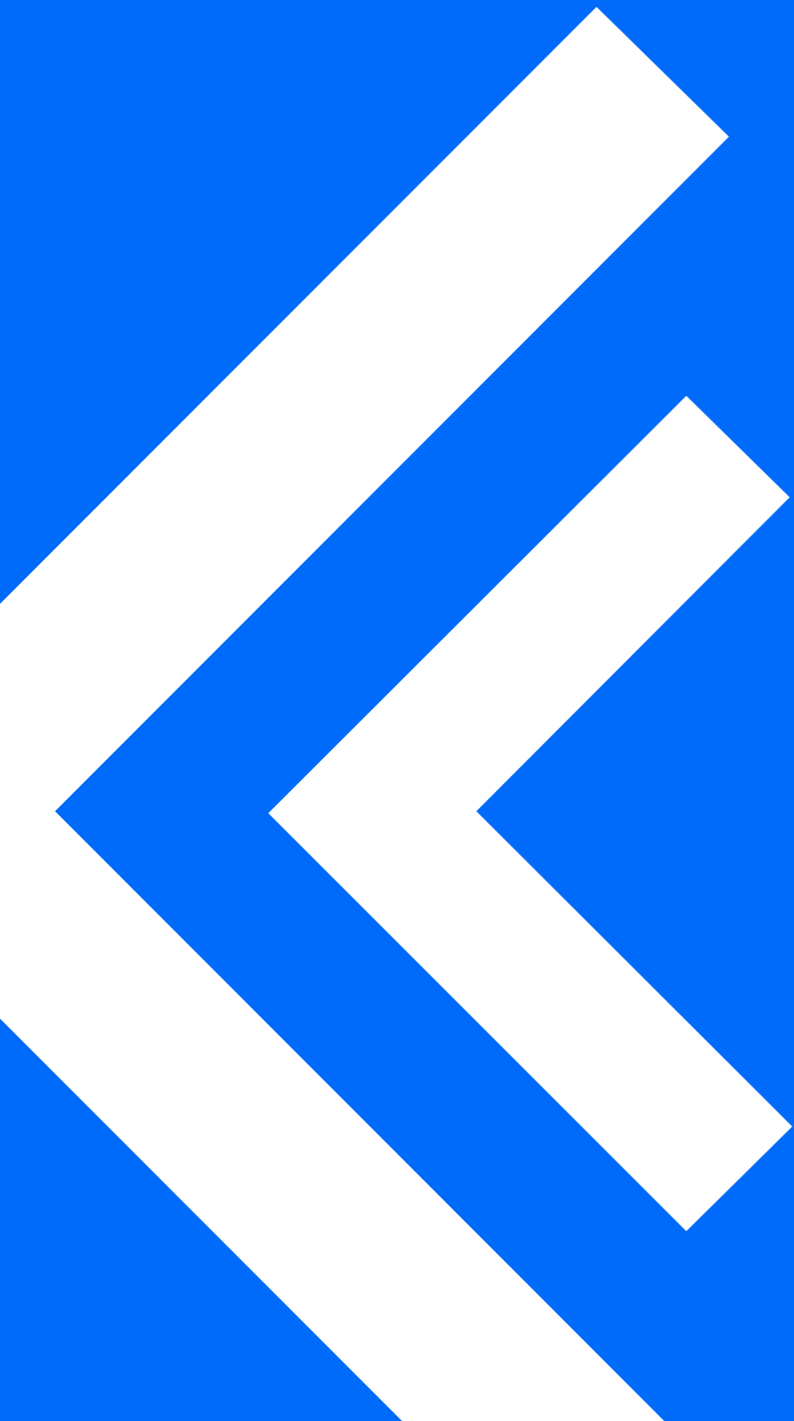
Installation Instructions
TurboCool & Team Recovery Pools



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01

Product Overview

Product Description

The iCool TurboCool is designed to provide both cooling and heating for large recovery pools and spa baths. It is now the most popular machine in the world for this purpose. A large number are already operating successfully in stadiums, colleges and sporting clubs in many countries. The TurboCool's performance perfectly matches our iCool Team Recovery Pool range.

Technology

The TurboCool is a unique and original new design using the latest heat pump technology for maximum efficiency. In fact each TurboCool is actually 2 completely separate heat pump systems built inside a single cabinet. Therefore, it is very reliable and can continue to operate even if one side is out of service for any reason. The biggest advantage of the twin engine design is that it saves a lot of electricity compared to ordinary chillers. With the built in digital power management system it has the lowest running cost of any similar power water chiller or heater and of course it has the user friendly iCool colour touch screen interface remote control that is so popular with users around the world. The operation is fully automatic, "just set and forget".

Long Lasting Durability

- › The 2 heat exchanger tanks are made from the highest quality Titanium tubing, which means they can withstand all normal pool chemicals and even salt water. However, we recommend against using highly corrosive bromide based chemicals.
- › All metal work is manufactured in Australia from marine grade aluminum with a double layer of epoxy paint coating for a long life outdoors.
- › The two powerful rotary compressors in each machine are manufactured by the highly respected Mitsubishi company.
- › Electronic components and systems software are designed and manufactured in Australia.
- › Cooling air fans are manufactured in Europe and designed for long service life and low noise.



Basic Information

The iCool TurboCool range is the only product available that was designed from the beginning specifically for the efficient automatic chilling or heating and management of large ice baths.

Years Of Experience

TurboCools are now the world standard for commercial ice baths and are installed in stadiums, clubs and sporting facilities all over the world.

Class Leading Power To Weight & Size

The 2019 iCool TurboCools produce an extremely impressive chilling and heating performance of 15,800 of heat pumping from a compact easy to install package that takes up much less space and weighs a lot less than any comparable machine, allowing for ceiling, wall or floor mounting even in confined spaces.

Simple Low Cost Installation

Requires only standard single phase power, one flow and one return water pipe and a data cable [supplied] to connect the attractive wall mounted remote control box.

Maximum Installation Flexibility

The TurboCool can be mounted anywhere within 70 meters [230 ft] of your pool and can be either level with the pool or up to 12 meters [40 ft] above or below the pool using an optional high lift pump.

Lowest Possible Operating Cost

The TurboCool has a sophisticated computer control system that senses and manages all parameters necessary to reduce electric power consumption to the minimum possible while still maintaining your set temperature accurately and sporting facilities all over the world.

Operation Can Usually Continue Even If A Fault Occurs

The TurboCool is the only machine of it's kind that can prevent recovery pool down time. This is because each TurboCool is actually 2 completely independent heat pumps in the single cabinet. In the unlikely event of a component fault in one heat pump the second heat pump can continue to chill or heat your pool effectively until the fault is diagnosed or floor mounting even in confined spaces.



Cabinet

Cabinet is constructed from high quality marine grade aluminium to prevent rust and save weight. All metal parts are coated with high grade heat cured epoxy paint to resist extreme conditions.

Mounting Bars

Extra strong mounting bars with slots to fit standard floor, wall or ceiling mounting hardware.



Lifting Handles

Built in strong lifting handles for ease of placement.

Sealed Electrical Box

All electronics and electrical components are protected in a sealed in a separate metal box and easily accessed behind this smoked glass cover.

Wall Mounted Remote Control

An attractive wall mounted remote control box with large colour touch screen controls all functions and settings and provides complete information on temperatures, modes of operation and diagnostics. A session timer is also included automatic chilling or heating and management of large ice baths.

*The Remote Control can be mounted in to a cavity wall so that the attractive 4mm thick metal face plate is flush with the wall or it can be mounted on the surface of the wall, in which case the face plate appears to float off the wall.



Drip Tray

A drip tray is recommended to catch condensation. Condensation occurs mostly in the heating mode. The amount depends on the humidity in the air.

Power Connection Box

Weather proof power connection box. Requires only low cost single phase power.

Quick Connection Port

Industry standard 40mm PVC pressure pipe quick connection port to return chilled or heated water to the pool.

Quick Connection Port

Industry standard 40mm PVC pressure pipe quick connection port to collect water from the pool for chilling or heating.



Water Connections

Only 2 pipes are required as shown here. Both pipes should be 40mm pool grade PVC pressure pipes. A water pump of between 250 & 700 watts is required. Do not use pumps of higher power or efficiency will be compromised. Also the maximum allowable pressure in the titanium heat exchangers could be exceeded. Maximum 5 Bar or 72PSI. It is essential that the pipes be well insulated otherwise a great deal of energy will be lost.

Water Safety

By law there must be at least 2 suction points that collect the water from the pool. Usually one of these is the skimmer box and the second is a suction fitting elsewhere in the pool such that a person can not reach both of them at the same time.

Water Quality Control

Bacteria control can be as simple as hand dosing with chlorine or various types of automatic chlorinators or chemical dosing system and Ph controllers can be connected. There are many options available. iCool can provide advice.

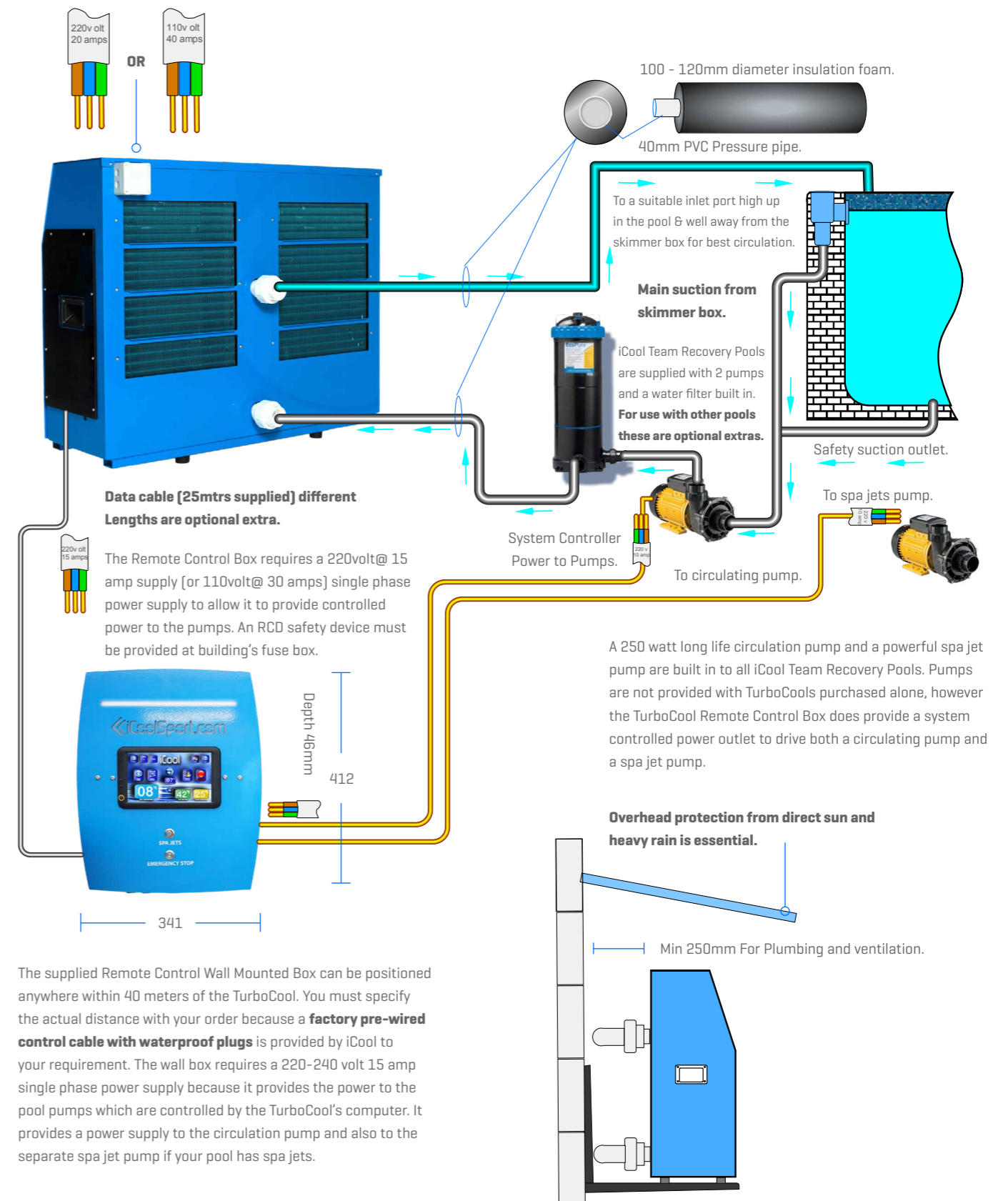
Electric Power Input Recommendations

For **Europe, China, Asia, S.E Asia, Africa, India, The Middle East and Australia** TurboCool's require only a single phase 220-240 volt supply @ 50Hz or 60Hz. The maximum load is 20 amps and the typical operating load varies from 8 to 16 amps. An RCD safety device is built in to the machine, however it is recommended that the building fuse also incorporates an RCD. For the **USA, Canada, South America and Japan**. TurboCool's require a single phase 105-120 volt supply @ 60Hz. The maximum load is 40 amps and the typical operating load varies from 16 to 32 amps. An RCD safety device is built in to the machine, however it is recommended that the building fuse also incorporates an RCD.

Bacteria And Debris Control

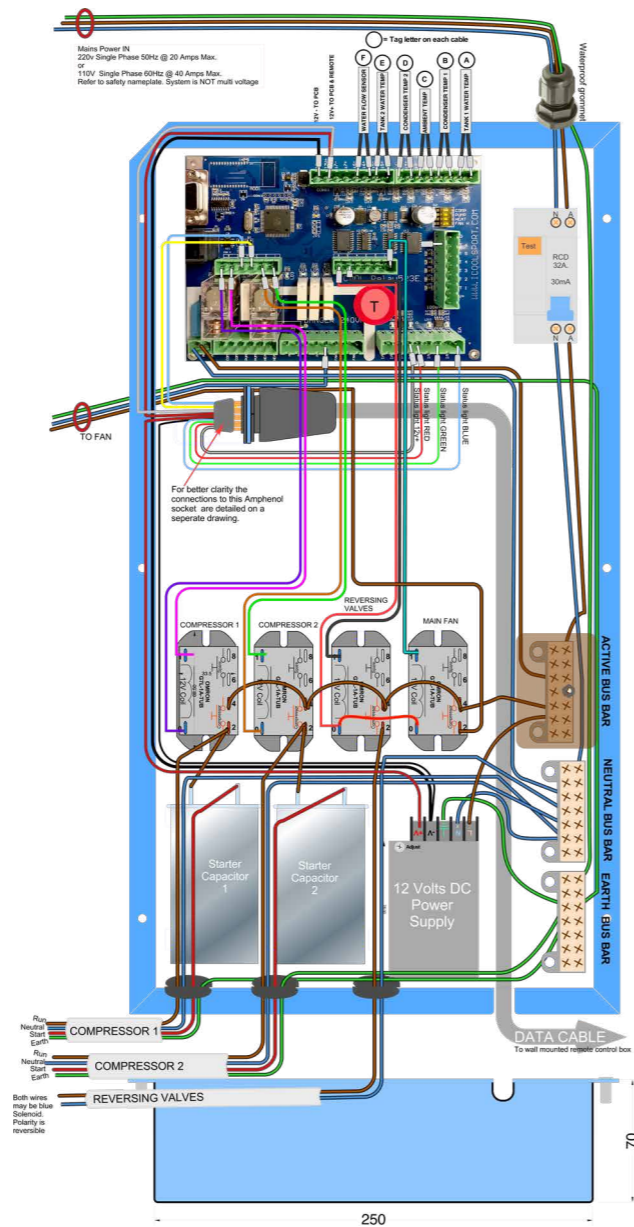
All **iCool Team Recovery Pools** have filters built in to the pool so external filters are not required. For very heavy use a sand filter can be added, but generally it is not necessary.

*TurboCool's are **NOT** Multi voltage. You must only operate them on the voltage marked on the machine to avoid serious damage.



Remote Control Wall Box & Data Cable

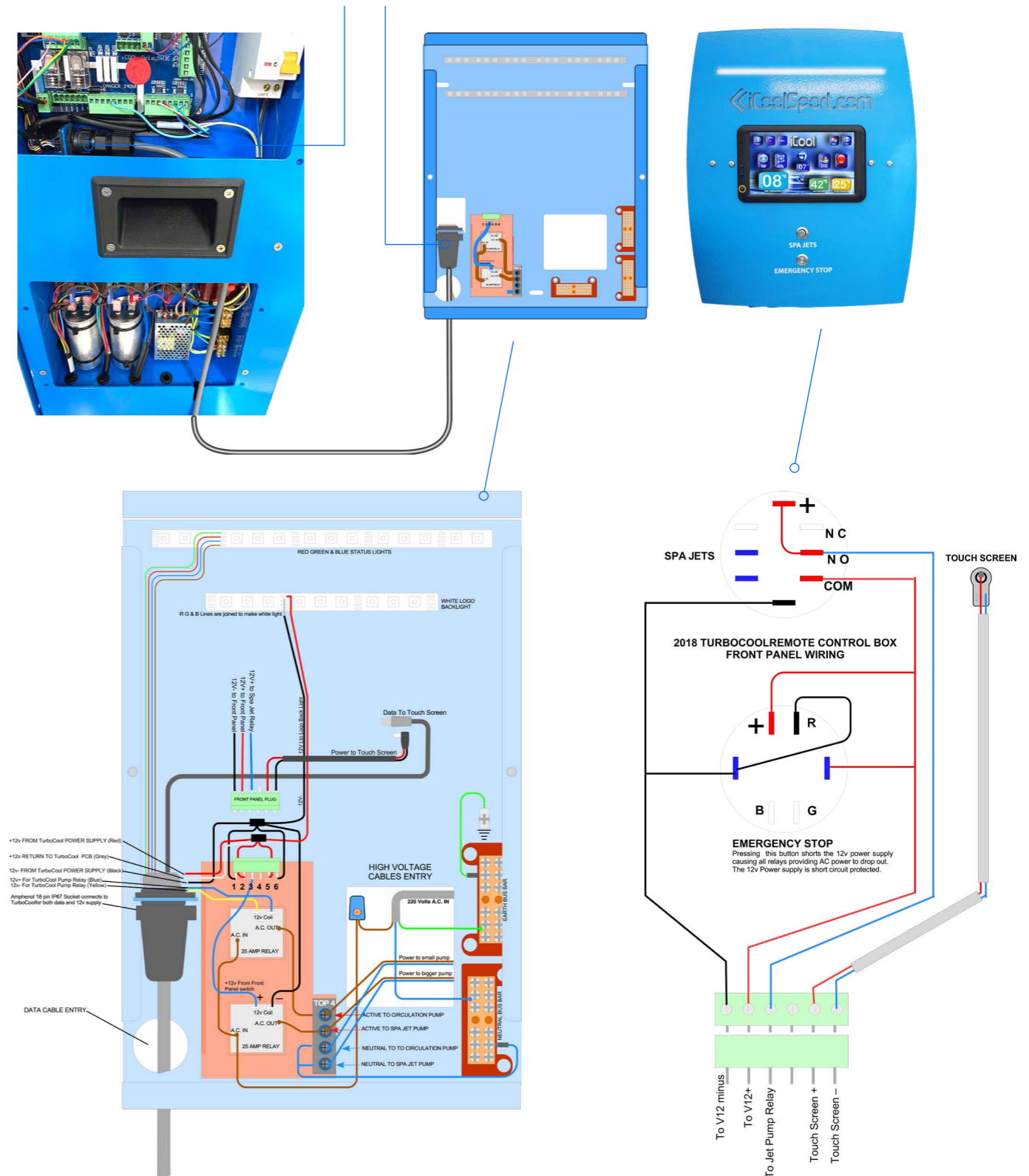
The Remote Control Wall Box and the TurboCool are connected by a special data cable provided with the TurboCool. The 18 pin waterproof plugs are pre fitted at the factory. The standard length of the cable is 25 meters, however a different length can be supplied on request.



TurboCool wiring diagram.

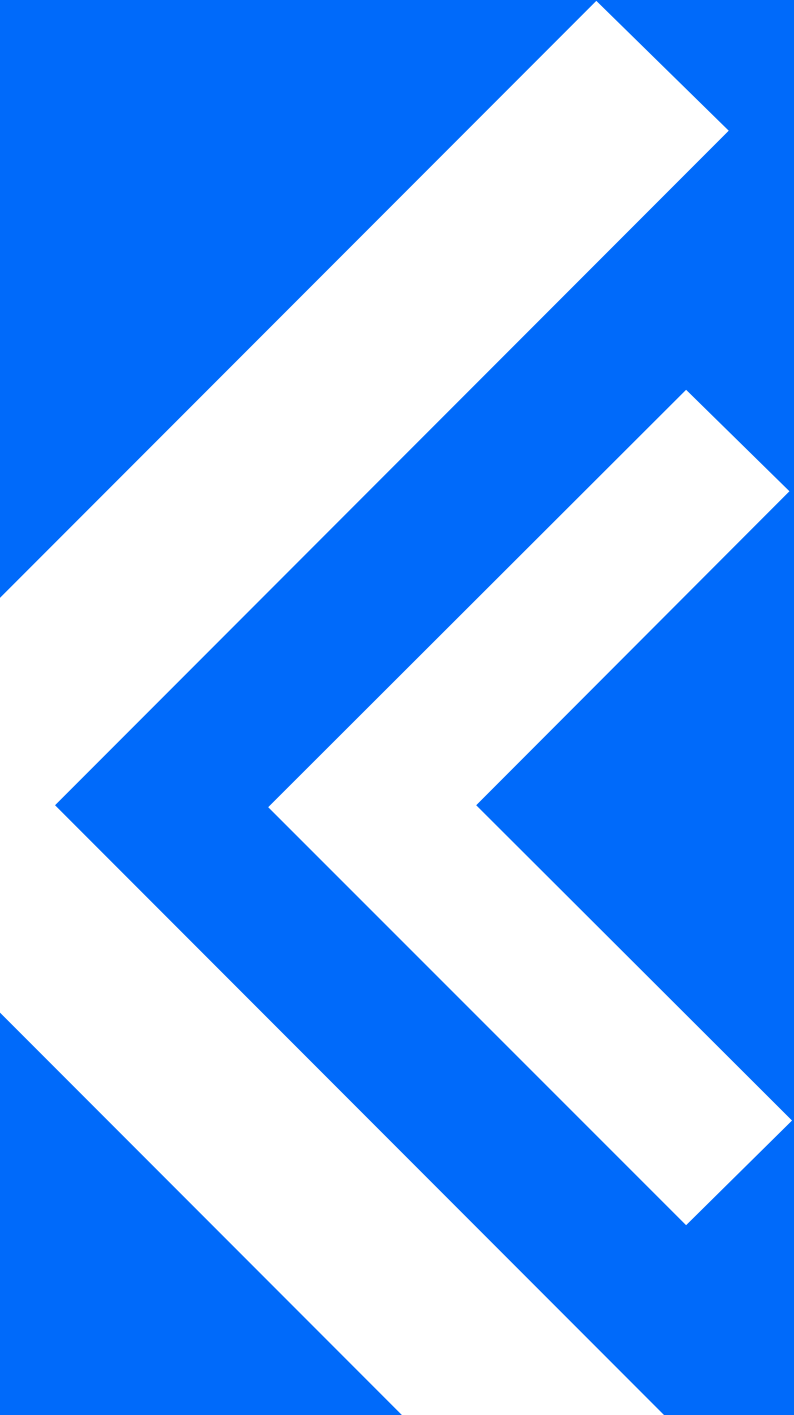
Data cable plugs connected here.

The remote control wall box.



Wall box wiring diagram.

Wall box front panel diagram.



“The industry leader in
ice bath technology.”

05

Key Points To Observe

Mounting Options

For mounting on a concrete floor it is OK to use the smaller feet that are supplied as standard with the TurboCool. However, we recommend that you replace these feet with the larger vibration isolating feet if mounting on a wooden floor or on wall or ceiling brackets. The TurboCool is provided with special slots in the strengthening beams on the bottom of the unit in to which the attachment bolt of these special rubber feet can be secured. If using the special feet then the small feet should be removed.

Outdoor Operation

The best location for maximum performance is outside the building in an area with good fresh air ventilation. The TurboCool should be protected from direct rain, hail and snow and direct sun. Never install a TurboCool in direct sunlight which can add a large amount of heat to the system and reduce performance and increase the running cost. It only requires reasonable over head cover such as a veranda or an awning to prevent this. A small roof about double the size of the TurboCool but with no walls works very well too. The TurboCool is made from marine grade aluminium so it will generally last much longer than ordinary steel cabinets, however, direct sunlight can damage the paint finish over time.

Height Limitations

Maximum lift for the standard pump is 3 meters, however, plus or minus 5 meters or more can be achieved with an optional pump.

Good Ventilation Is Essential

The TurboCool is a very powerful heat pump and when removing heat from the water in a large pool it must exhaust up to 15,000 watts of heat in to the surrounding air. Even cold water still produces a lot of heat. The TurboCool can not perform correctly if the large fan can not move all the heat away. As the air temperature inside the TurboCool increases the cooling performance will be reduced, this is normal for all heat pumps & refrigerator machines. The inbuilt power management system in the TurboCool will need to increase the use of electricity to overcome a higher than normal heat load. Therefore, good ventilation is essential and will save you a lot of money over time by greatly reducing running costs.

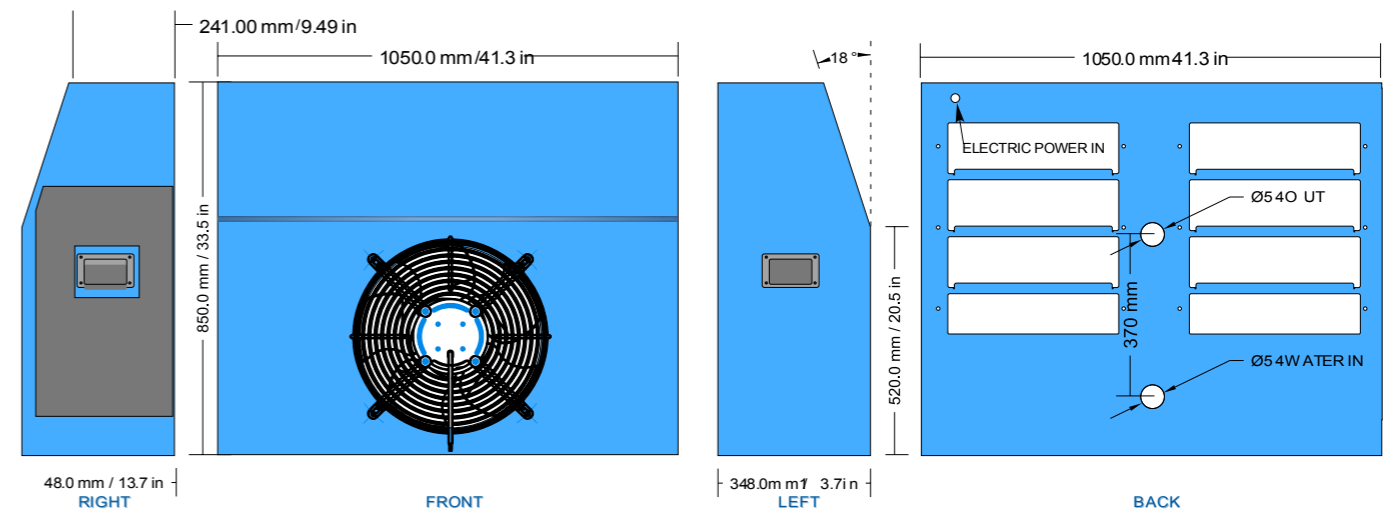
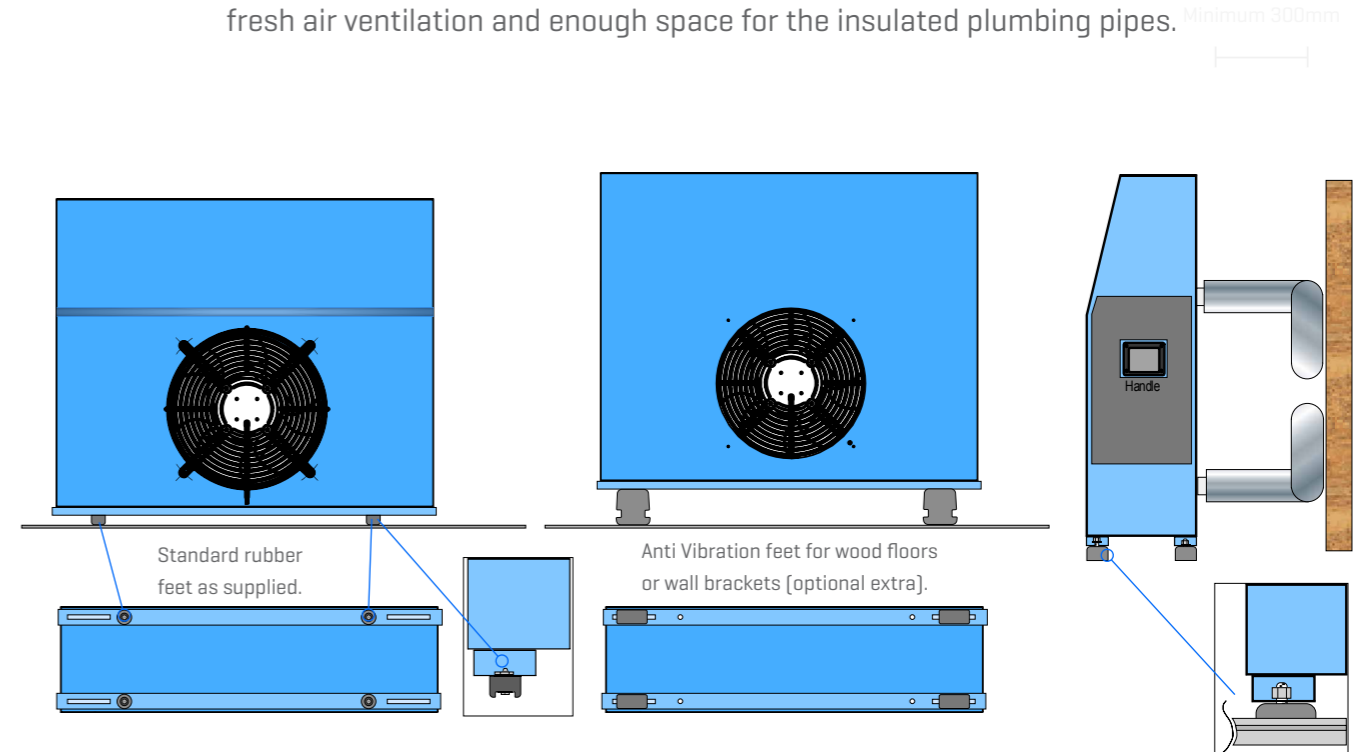
Indoor Operation

When operating TurboCool indoors then the air flow in the room must be enough to carry away up to 15,000 watts of heat. The airflow must be equivalent to at least 4000 cubic feet per minute through the enclosed area.

Good Insulation Is Essential

Both water pipes between the TurboCool and the Pool must be well insulated to avoid a large loss of cooling (or heating) energy.

Minimum Spacing Allow at least 300mm from the wall to provide enough fresh air ventilation and enough space for the insulated plumbing pipes.



05

Key Points To Observe

Water Leak Testing Is Essential

As your pool has been transported over distance it is essential that you check to make sure none of the many plumbing fittings has been moved or loosened during road transportation or general handling.

When the pool is in place and connected to the TurboCool you **MUST** fill it with water to perform a leak test. Generally it will be very difficult to reach most fittings once the room finishes and cladding are added to the sides of the pool. If necessary tighten any fitting that shows and sign of leakage.

What To Expect On Delivery

TurboCools are delivered in wooden transport crates. The wood is approved for export. Each TurboCool weighs approximately 100kg plus the weight of the crate of 30kg. If you have ordered 2 TurboCools they will come in a single crate and the total weight will be approximately 250kg.

Team Recovery XP Pools weigh approximately 280kg and will be delivered on a large wooden pallet. If delivered by road a complete wooden crate can be requested. This is not necessary if delivered in a shipping container. Generally a fork lift will be required to move and place the pools. The smaller size Team recovery pool weighs approximately 200kg.

Filters Are Delivered With Wrapping

The water filters are inside the skimmer box. They are wrapped in clear plastic to protect them during delivery.

You must remove the plastic before starting the pumps for the first time otherwise the water flow will be blocked.



Access Limitations

Please observe the overall dimensions shown elsewhere in this document to ensure that the pools can fit through the building's openings.

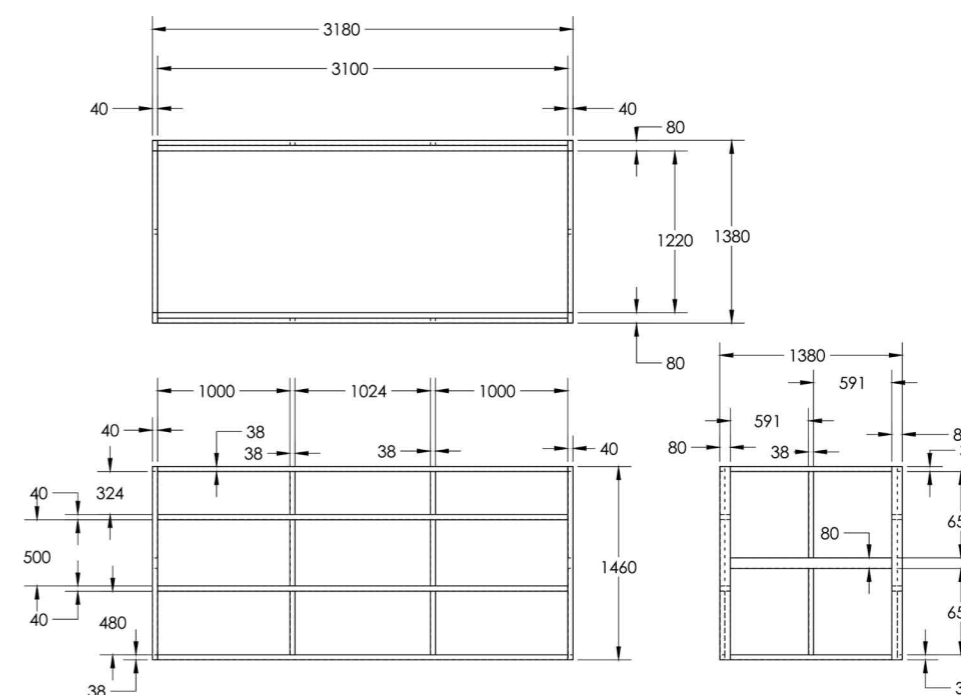
Note that some pipes and fittings may protrude slightly outside the dimensions of the stainless steel frames. This must be considered when calculation access.

If necessary it is permissible to remove the long pipes and replace them after gaining access. Thoroughly check any pipework replacement for absolute integrity.

Team Recovery XP Pool Packaged Examples



Team Recovery XP Stainless Steel Frame Dimensions



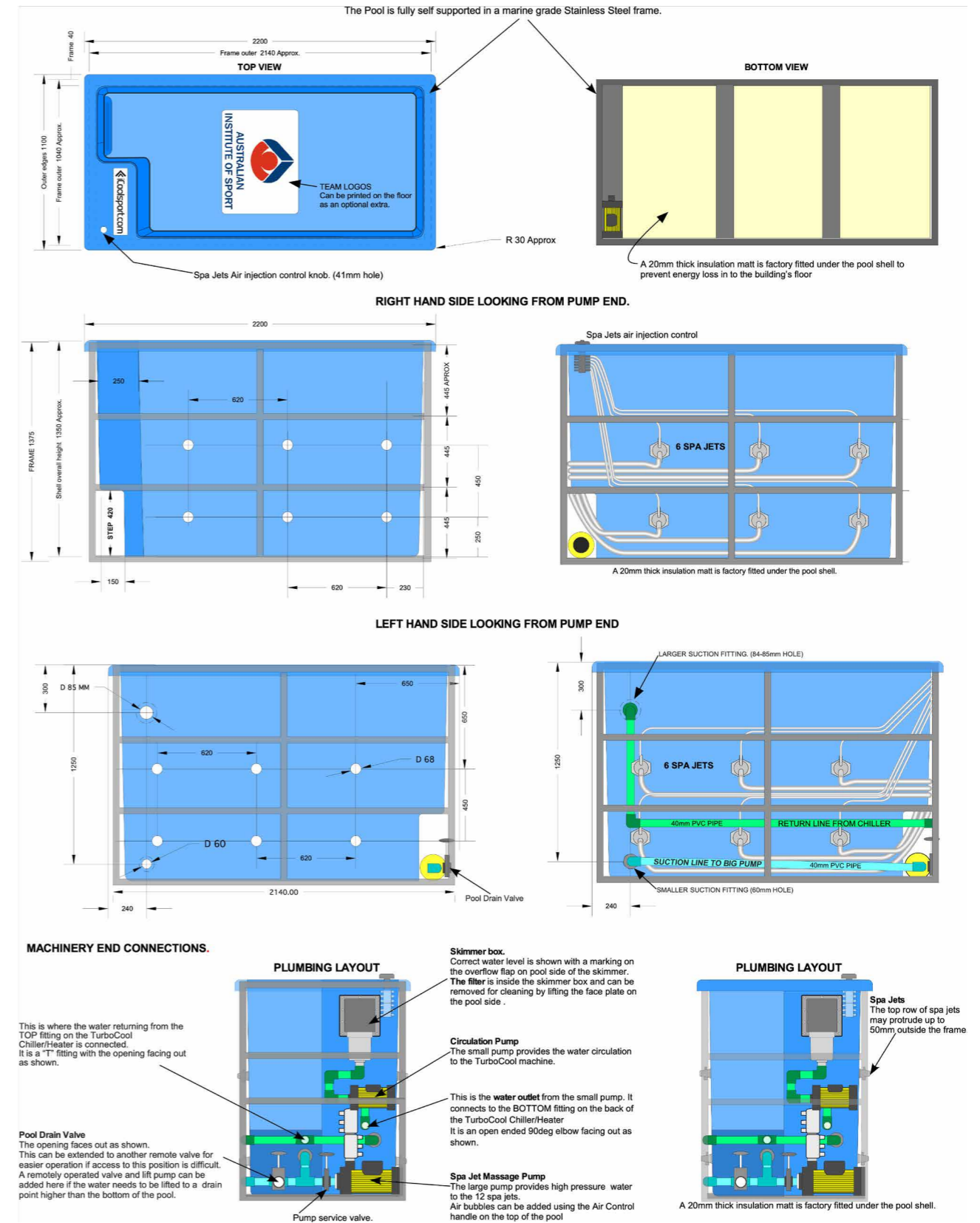


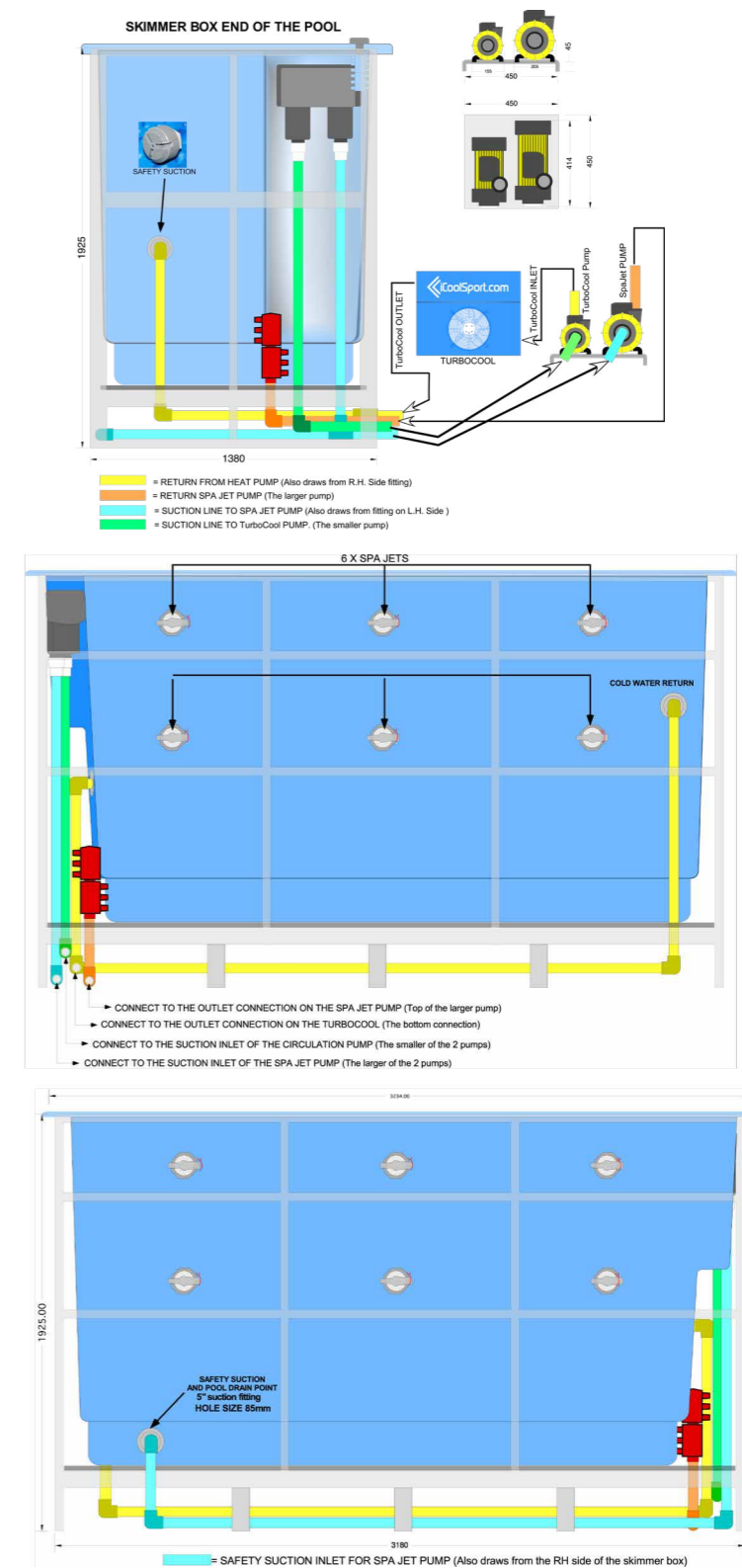
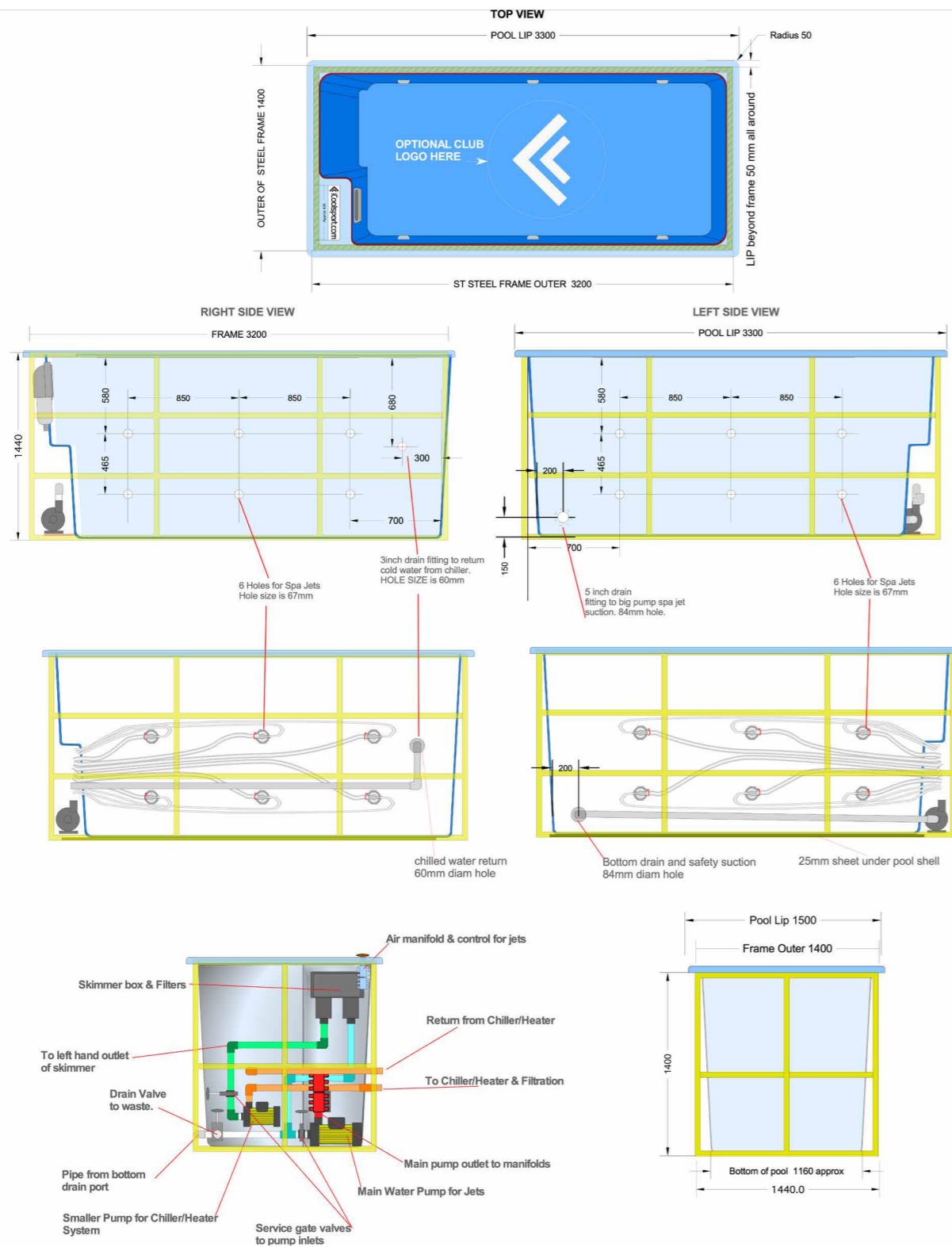
*Access to pool pumps is required for future maintenance.

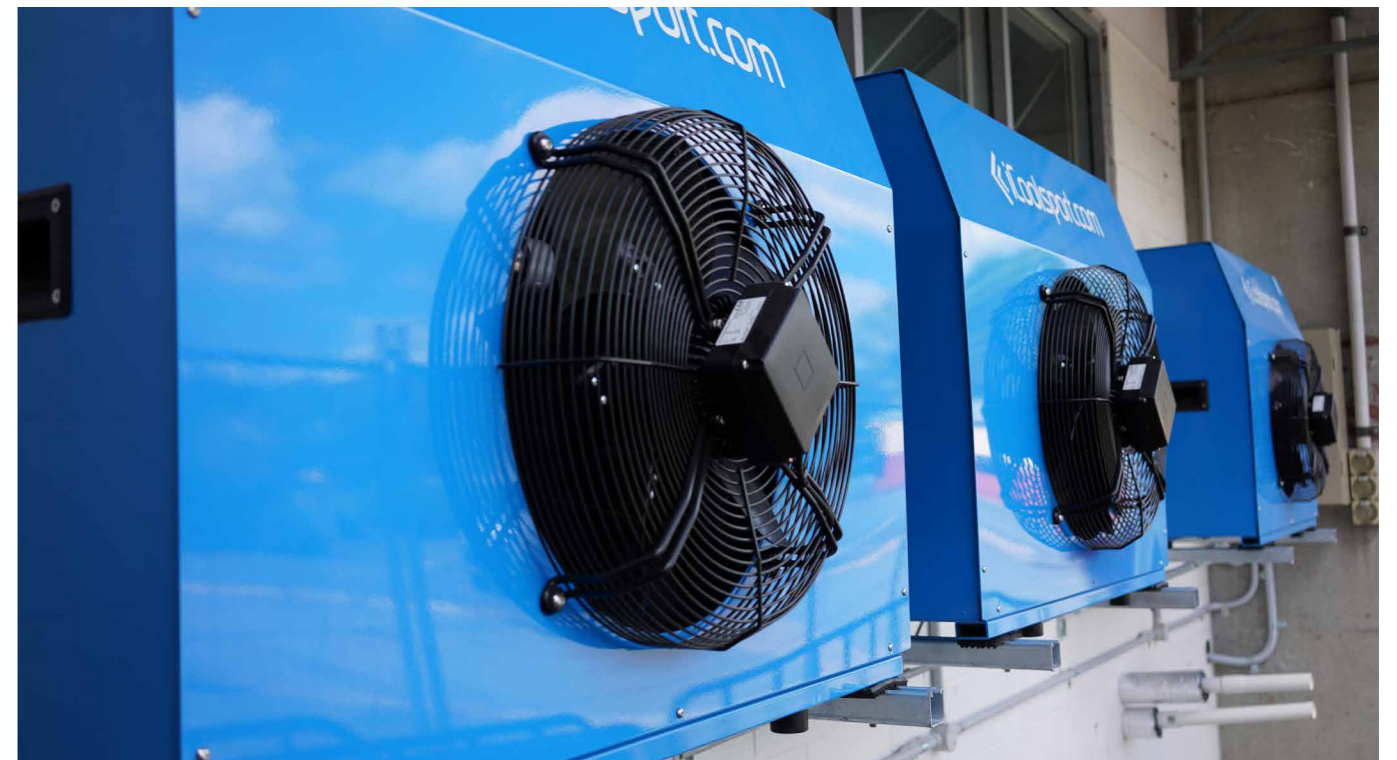
06 Remote Control Wall Box



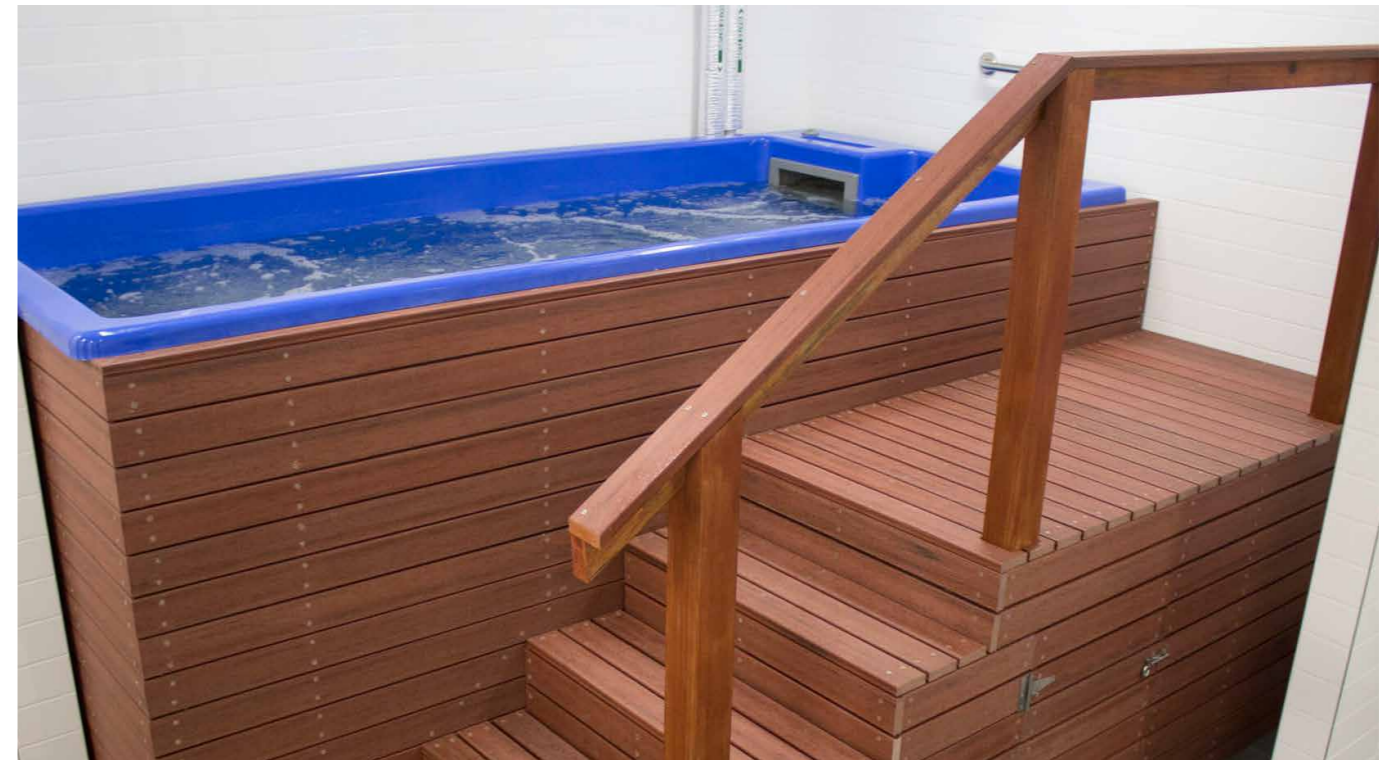
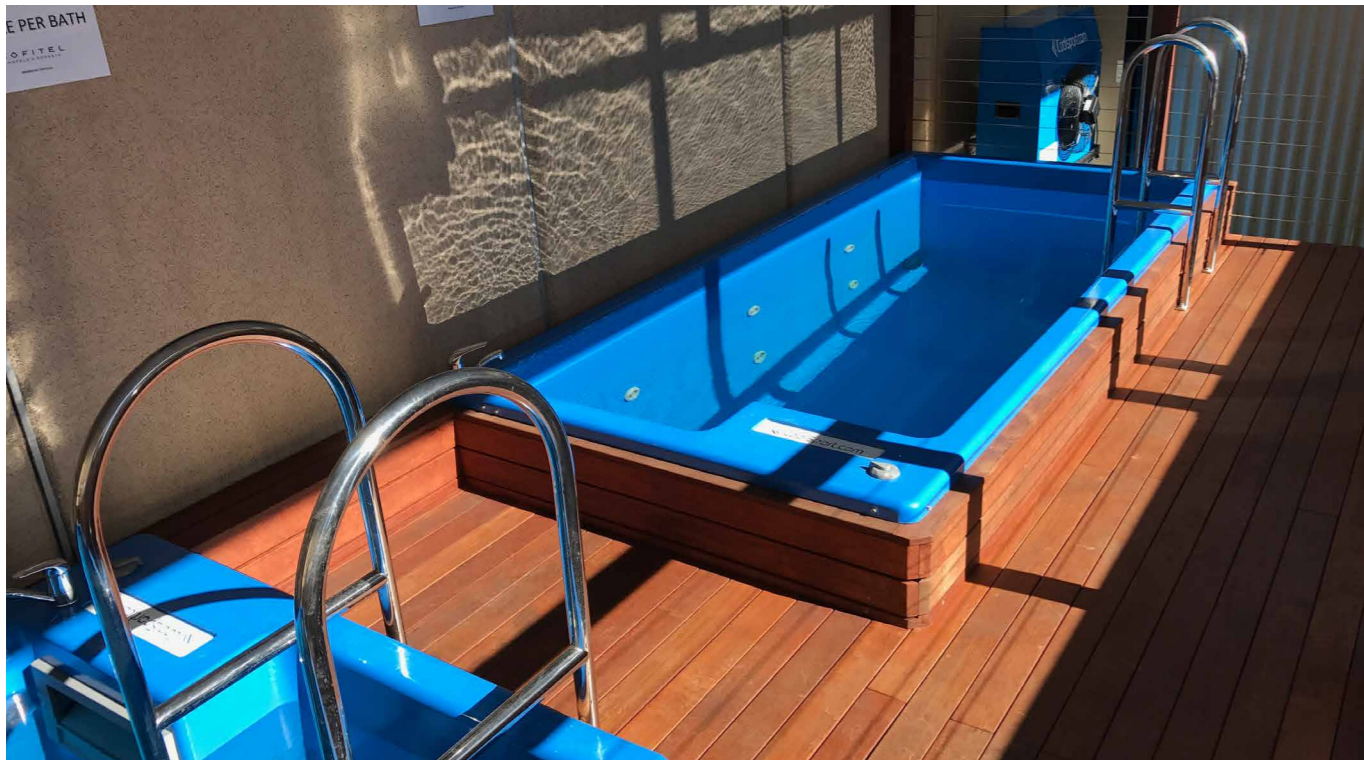
07 Team Recovery Pool







11 Pool Placement Examples



12

Installation Examples

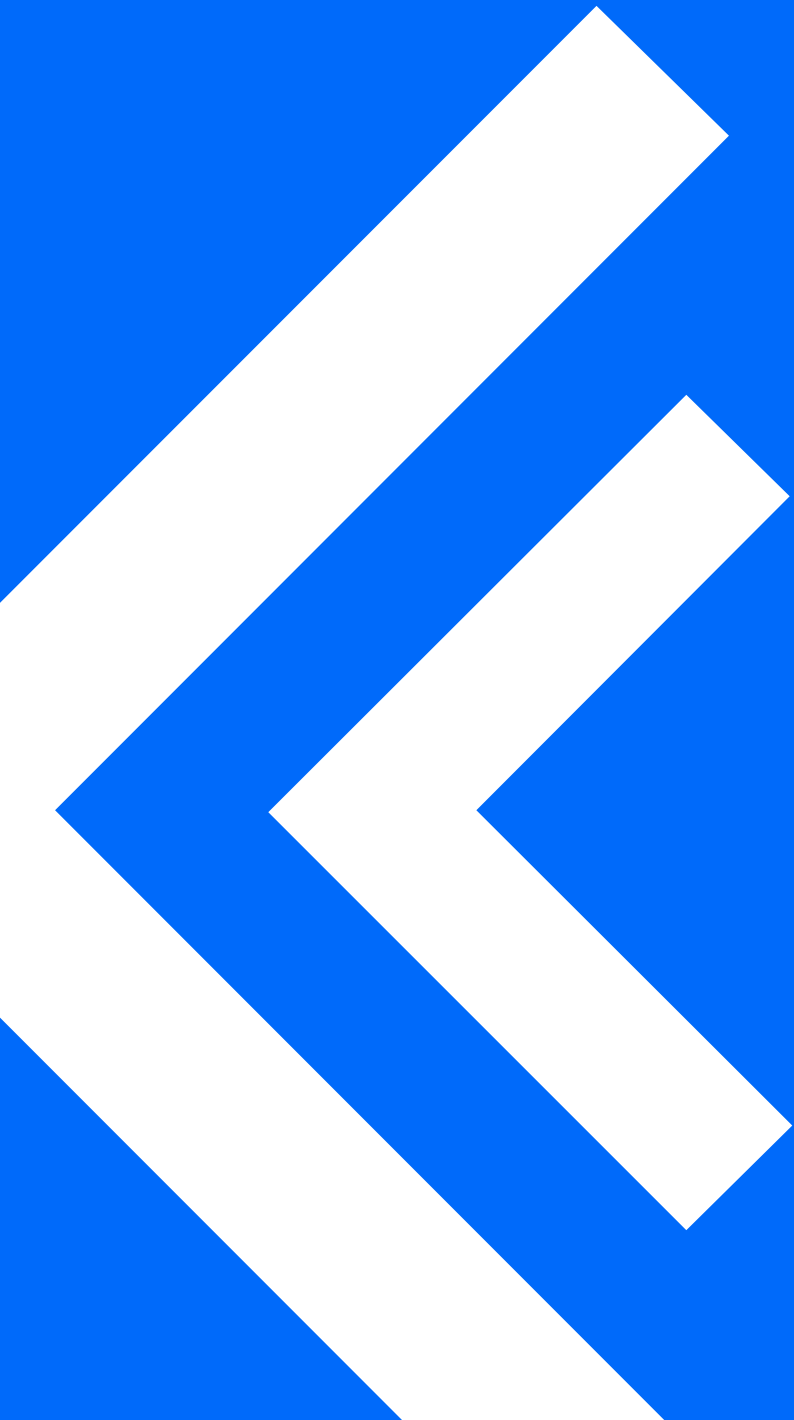
More than 100 Stadiums & Clubs In 18 Countries Already Completed

Our clients around the world have come up with dozens of great ideas for the placement of the pools and the final decorative finishes to their Recovery rooms. Because iCool pools are delivered in very strong stainless steel self supporting frames, with all the plumbing and equipment already attached, designers and builders do not have to provide any extra support. Our pools support themselves. So whether the pools will be fully lowered in to

the floor, or partly lowered in to the floor or simply mounted on the floor, all it takes is a bit of imagination to decide how to finish off the recovery room to great effect. Our modular and fully factory fitted designs save a lot of time and money and make for very fast completions. If partly or fully out of the floor then just about any attractive cladding material can be used to great effect for a recovery facility to be proud of.



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