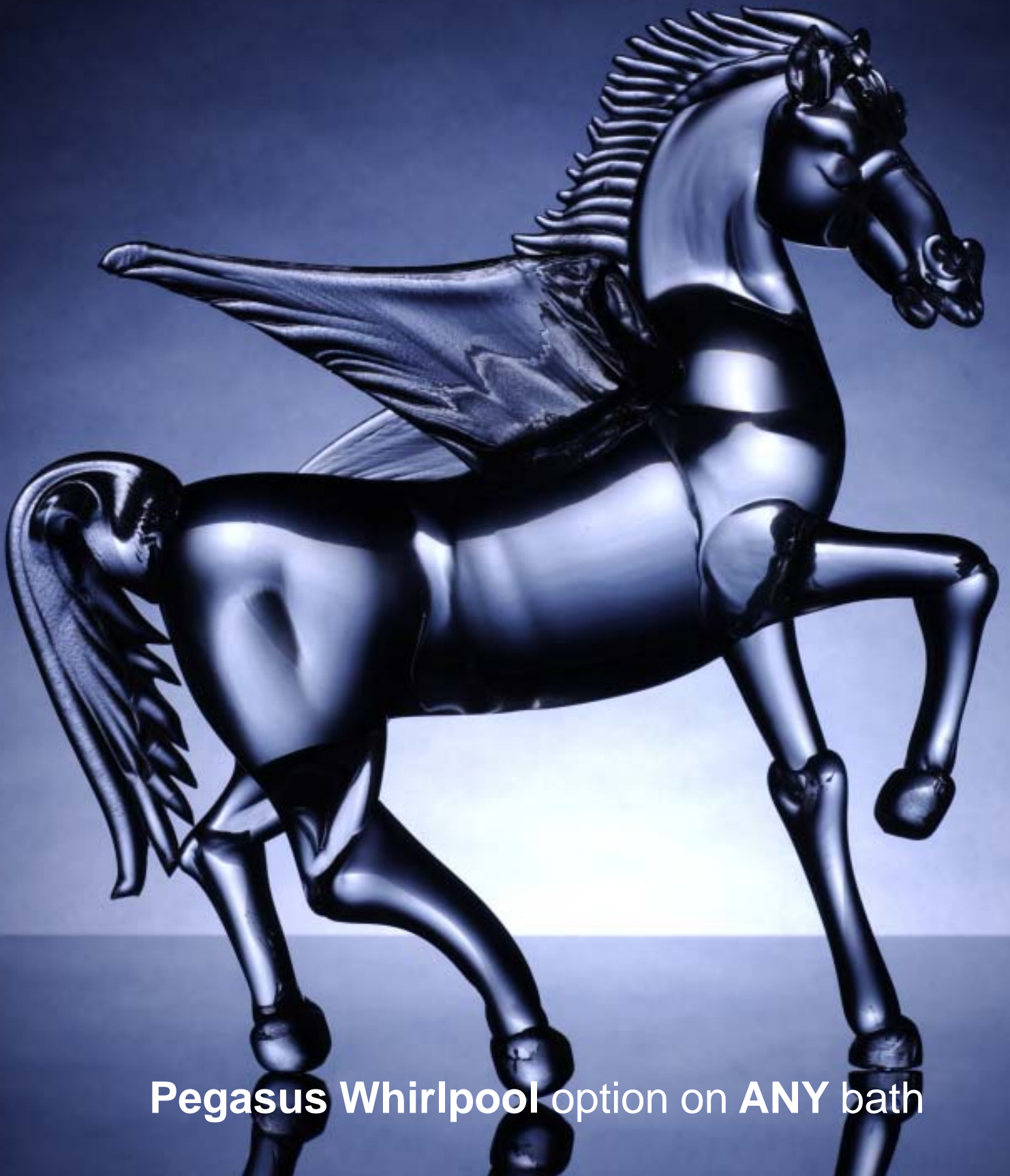


## Venus Whirlpool Self Fit Kit Instructions



**Pegasus Whirlpool option on ANY bath**

# Detailed Fitting Instructions - Venus Hydro-Pool

## HYDROTHERAPY THROUGH HISTORY

ACCORDING TO LEGEND, Pegasus the winged horse was fathered by Poseidon, God of the oceans, and mothered by Medusa, yes, the one with all the snakes in her hair! As an immortal, he inspired all who rode him to achieve great deeds. Probably as a legacy of his father's genes, Pegasus was credited with leaving a well of water wherever he galloped.

WATER was a vital source to ancient civilisations for cleanliness, relaxation and general good health. As early as the 5th century BC, the Greek physician Hippocrates recommended natural spring water for its curative effects and the Romans developed and raised spas to an art form. Their public bathing areas became centres of civic and social life and their understanding of the benefits of hydrotherapy led to the establishment of spa centres throughout the Roman Empire. Many a heated argument was probably tempered in this soothing environment.

THE REVITALIZING QUALITIES of the hot springs in Bath were known well before the Roman Occupation and yet most British spa towns developed in the 18th and 19th centuries, when they represented the good life and attracted the social 'glitterati' of the day. To be fashionable, one would announce the intention of 'taking the waters' and those who could not afford such luxury were not part of the in-crowd.

AS TREATMENTS and techniques have evolved, so has the accessibility of hydrotherapy. We are now aware that quality of life and life balancing are equally important to well-being as exercise, healthy diet and relaxation. So where, traditionally, hydrotherapy consisted of baths, saunas and compresses, it is now more readily provided - in our own homes - via whirlpools and waterjets.



Though it may be a great way to impress the neighbours, a whirlpool bath is not just a luxury. It presents an endless source of fun to very small children, whose bathtime might otherwise be a nightly battle zone: it also provides a regenerative experience at the end of a long day at work or a gentle, massaging relief from debilitating conditions such as arthritis and rheumatism.

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Above: The finished pipework should look like this - note the constant downward slope and the use of the cable ties. Note when the back of the bath has a slope greater than the sides, the jets will point up. Therefore, the back jets are always placed lower in the bath so that they give a message lower down and do not break water when no-one is in the bath.

*The Pegasus Whirlpool system has been designed to be able to fit to any bath without putting any stress on the bath whatsoever. Jets can be placed to give the customer both aesthetic appeal and maximum hydromassage. To achieve this jets will usually be located laterally within 1.5" of the desired position, even when up against obstructions such as bath legs - something which can not be achieved with conventional whirlpool systems without placing alot of stress on the bath or modifying the manufacturers legs.*

## Tools required:

Electric drill; Holesaws 71mm, 35mm and 27mm; round file; screwdrivers, adjustable spanner & silicone gun. **Please note** that where a free holesaw kit is supplied with the kit, the 1" holesaw should be used to create the holes for the jets and then slightly enlarged using a round file.

## Important Notes

To ensure that you get the best out of your whirlpool system, please take the time to read these instructions fully before attempting to start to fit the kit.

When gluing pipe to venturi and manifolds be sure that only the exterior surface of the plastics are glued and not the pipework. Take care not to allow glue to get into the interior surfaces or the pipework as this will seriously reduce the performance of the whirlpool system.

When fitting the pump fixing bracket to baseboard of bath be sure to check the length of the screws. The screws supplied are for 3/4" thick encapsulated baseboards

## Basic outline of fitting Procedure

1. Check the bath for damage and defects.
2. Fit Legs & pump to bath using Fixing Bracket and screws.
3. Determine Position of Jets, Suction & Controls taking care to look for obstructions.
4. Determine the position of the On/Off button and Air control. Ideally the Air control needs to be mounted on a corner of the bath to allow the pipes to be fitted easily.
5. Drill the holes - Slowly and Carefully - be careful not to burr the acrylic with too much heat when drilling reinforced baths such as Idealcast - ring us for advice if in doubt!
6. Install all the fittings onto the bath - It may be necessary to rebate the back of the bath to accommodate the fittings on thick reinforced baths.
7. Connect the pipework between the manifolds and venturi ensuring that all fittings are clean Glue should be applied to both surfaces of the rigid suction pipe the pipe fittings and the manifolds to ensure good adhesion. The flexible pipe between the manifolds and the venturi should only be glued on the fitting not the pipe otherwise a blockage may occur
8. Watertest the finished product before final installation of the bath.

**If you have any doubts about any aspect of fitting this system to any bath, ring our installation support line 01633 244555 before you start - We are there to help you get it right - first time.**



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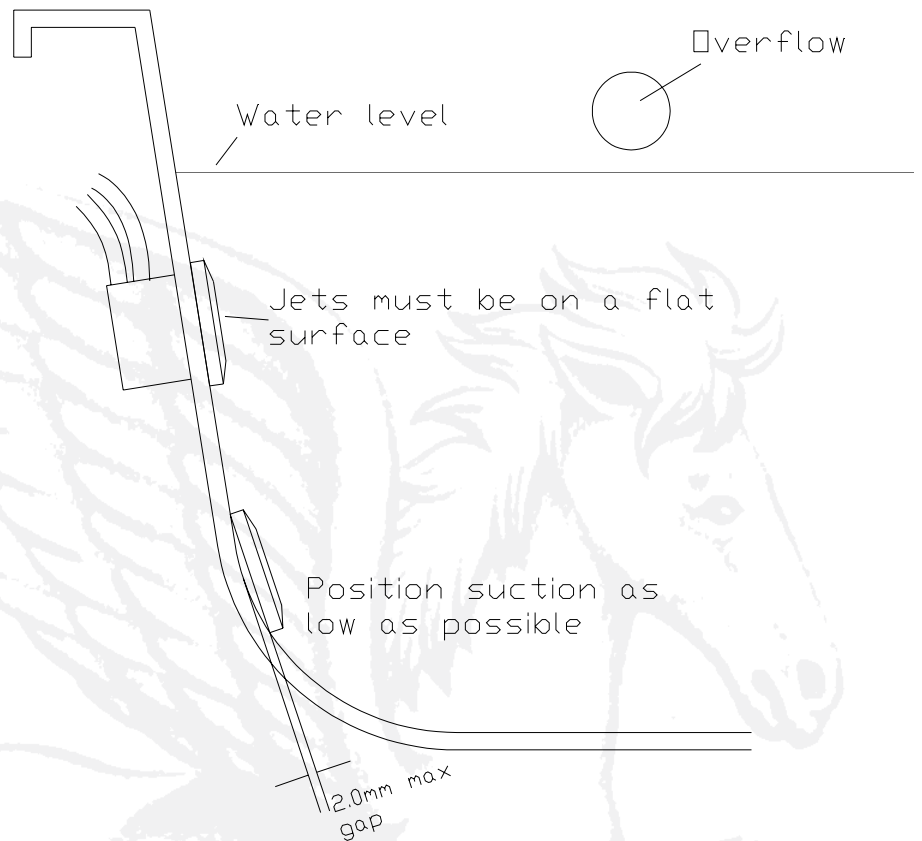
## Fitting Instructions

### 1. Checking the bath for damage-before fitting!

- i) Carefully remove the manufacturer's wrapping and any cautionary labels from the bath.
- ii) Corners not cracked or broken.
- iii) Check that the lip of the bath has been cut cleanly and is not chipped.
- iv) Rub the bath over with a dirty, wet duster looking carefully at places where the dust collects in lines. Determine if these lines are scratches which can be easily polished out, or worse, cracks caused by transit damage.
- v) Check that the waste hole is central in the recess.
- vi) Check that the tapholes are correct.
- vii) Check that the bath is true and not warped.
- viii) Check that all the legs and fixing brackets are present - including screws.

### 2. Fixing the legs and the pump to the bath

- i) Read through the manufacturer's installation instructions for the bath.
- ii) Place a dust sheet on a table turn the bath upside down on this sheet and fit the legs and feet to the bath carefully following the manufacturer's instructions. Leave the bath upside down on the sheet and;
- iii) Assemble the threaded bar to the Pump Mounting Plate and Pumpstand using the nuts provided.
- iv) Assemble the pump to baseplate using the four nuts and bolts provided.
- v) Assemble the outlet manifold and the suction inlet to the pump using the special fixing brackets provided.
- vi) Offer the pump up to the bath (still-upside-down) and find a position where the pump is central and within the confines of the bath. Be careful to take into account the length of the outlet manifold and any wooden panels which may be subsequently fitted to the bath.
- vii) Secure the pump and bracket to the bath using the five screws provided. Important: The screws have been designed to secure the Pumpstand to



Above: Note the direction of the manifolds.



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baseboards with a thickness of 3/4" - check the length of the screws against the thickness of the baseboard before attempting to fix the pump stand to the baseboard. A good guide to the thickness of the baseboard is the length of the screws supplied to fix the legs to the bath! - if in doubt use shorter screws. Under no circumstances attempt to fit the Pumpstand to a bath manufactured from GRP - GRP Baths do not have baseboards.

### 3. Determine the position of jets, Suction and controls.

- i) The number of jets to be fitted and the shape of the bath will usually determine the jet positions.
- ii) Jets are normally spaced equally along each side of the bath with two at each end but can be fitted on any flat surface.
- iii) Ensure positions chosen allow sufficient room for the Venturi (watch out for bath support legs) and that the Venturi will not interfere with the siting of the pump.
- iv) The suction is best fitted toward the foot end of the bath ( away from the seat area). *See Fig.*
- v) The difference in height between the jets and suction fitting is important to ensure that the maximum amount of water drains from the system after use. *See Fig.*
- vi) The suction is the lowest fitting in the bath and should be placed as low as possible on a flat surface. *See Fig.*
- vii) The centre line of the jets should be 60mm. above the centre line of the suction. *See Fig.*
- viii) Note that the water level will be some 35mm. above the centre line of the jets. Check that the water level will be below the overflow. *See Fig.*
- ix) Mark all the positions with a felt-tip pen.

### 4. Position the height of the Pump.

- i) The centre line of the pump suction must be 15mm. below the centre line of the jets *See Fig.*
- ii) This system has a ultra drain pop-up-waste fitted which allows the pump to be placed at its lowest position as the pump drains directly to the waste. *See Fig.*

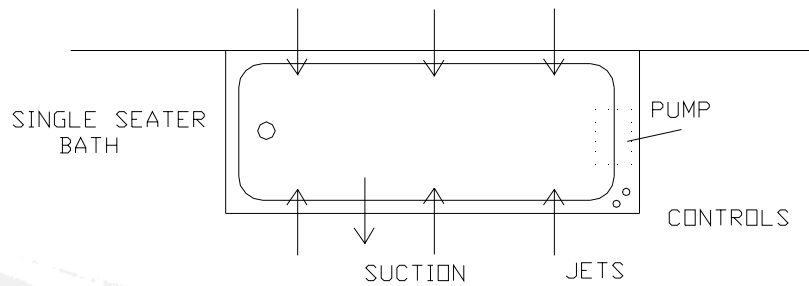
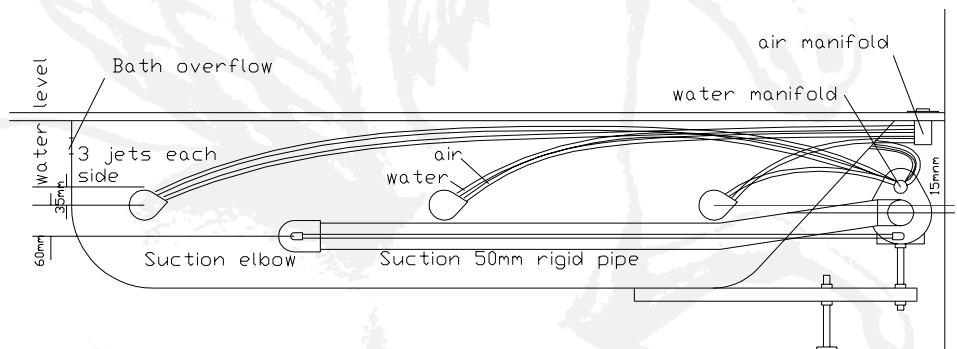
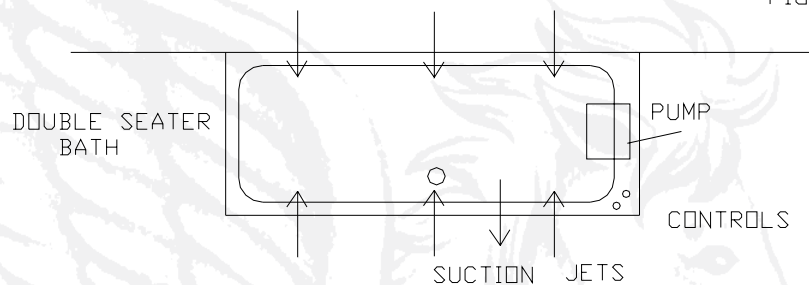


FIG 9



## Venus Controls



Electronic control with digital display

Remote control



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## 5. Position the On/Off Buttons and Turbo Control.

- i) The control pad & disinfection unit has to go on the top surface of your bath  
**IMPORTANT:**

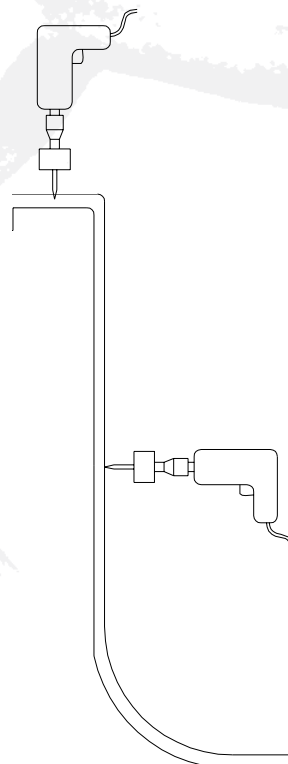
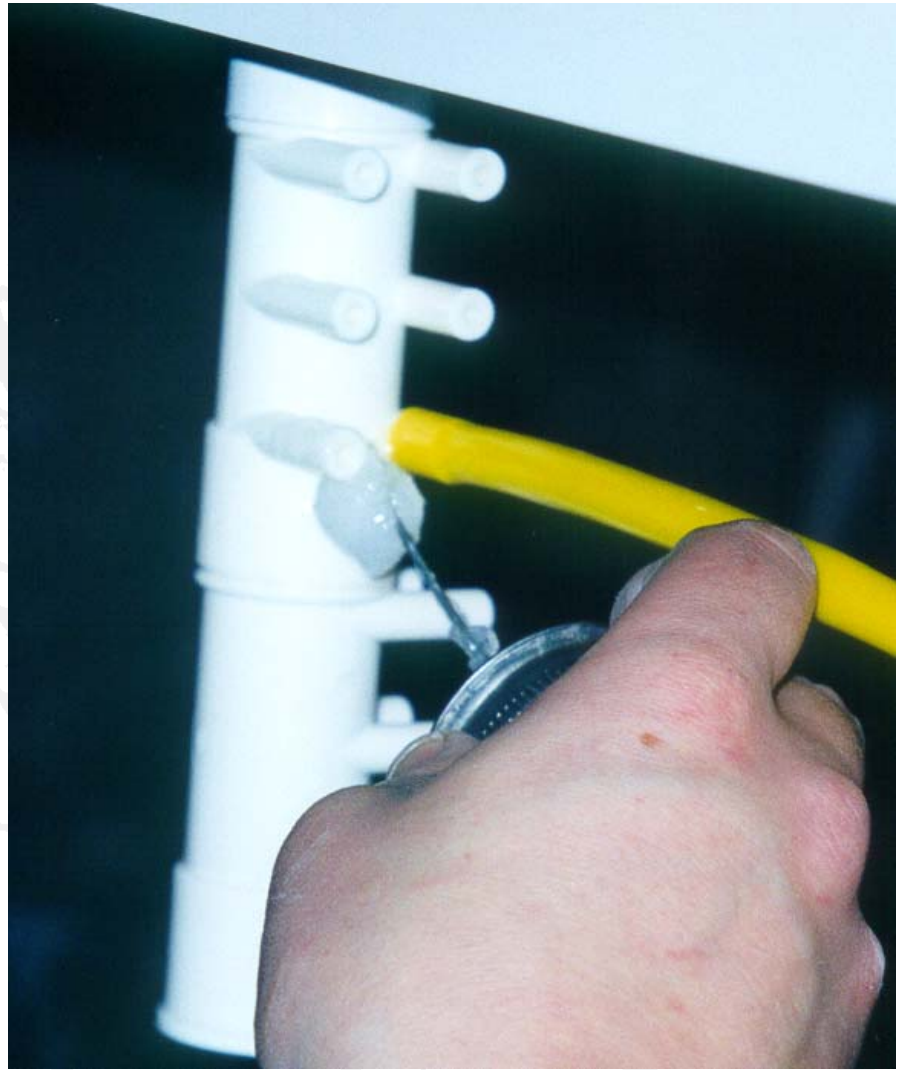
Always allow access to your control pad.

## 6. Drill the Holes.

- i) Before drilling the holes, re-check all positions, ensure that the bath legs, panel, pump, fixing battens, etc. will not obstruct fittings or indented hose runs.
- ii) Using a 27mm. hole cutter, drill the holes for the jets from the inside of the bath. - If you have received a free holesaw set as part of your kit you will need to use the 1 inch hole cutter and gently open the hole out by a fraction using a round file. Venus systems only need one hole drilled for the control (35mm). Take care to prevent the drill from slipping and to use the correct drill size for the item which is being fitted. Important-Safety: Always point the drill away from the body when drilling holes - never drill towards your body.
- iii) Back file the holes with a small round handfile to clear any burrs and unevenness left by drilling the hole.
- iv) Clean off the excess pen marks and dust using a tissue dampened with meths. Pay particular attention to clean immaculately around the holes as dust may hinder the effectiveness of silconing the wall fittings to the bath!

## 7. Installing the whirlpool fittings onto the bath.

- i) Using a 10mm Allen key, fit the Venturi to the bath with the pipes at 45 degrees approximately above horizontal pointing towards the pump and gently tighten wall fitting into Venturi. Important Note: - do not overtighten as damage to the venturi could result Repeat the above operation for the remaining wall fittings. Clean off any excess sealant.
- ii) Install Turbo control valve onto the bath. Glue the air manifolds onto the Turbo control valve following the layout from the photograph included with these instructions. Important



### Hole Sizes

Jet	27mm
Control	35mm
Disinfection	32mm
S/F/Suction	71mm
Spa jet	16mm
Chromotherapy light	84mm
Halogen light	51mm

# Detailed Fitting Instructions - Venus Hydro-Pool

Ensure that the non return valves are pointing in the right direction.

## 8. Install Suction Elbow and Hose.

- i) Place a bead of clear sealant around the shoulder of the suction wall fitting and the flange of the suction elbow and assemble the suction fitting to hand tight plus half a turn. Important Note: do not overtighten.
- ii) Measure and cut to length the suction Pipe and glue to the suction elbow and pump elbow using a recommended adhesive
- iii) Clean off any excess sealant.

## 9. Connect Water and Air Hoses to Manifolds.

- i) Starting at the jet closest to the pump, measure the length of water and air hose required to connect the Venturi to the water and air manifolds. Glue the hose to the Venturi using a recommended adhesive. Important Note: - only glue the exterior of the Venturi - not the inside of the hose!
- ii) Hose should be taut but not stretched and with a fall either to Venturi or pump without sagging.
- iii) Ensure water hose is connected to pump manifold and air hose to air manifold.
- iv) Fit the air pipe from the lowest exit of the air manifold to a back jet to ensure drainage of the air manifold after use.

## 10. Fix Drain Line.

- i) Cut the tube to length and secure between pump and the suction elbow or waste (if supplied)

## 11. Fit Suction Cover.

- i) Secure the suction cover to the wall fitting using the two screws provided.

## 12. Hydro (Pneumatic systems)

- i) Push 3mm. bore clear hose onto the on/off buttons and to switches on the pump terminal box and blower control box.

## 13. Venus (Electronic systems)

- i) Follow wiring diagram inside lid of control box. Ensure that when you connect wires not to strip the cable too far back that bare wires may touch. Ensure that cable glands are tightened

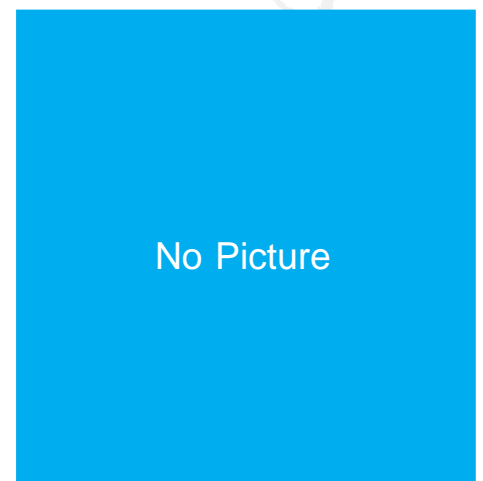


Above: Chromotherapy lights

Below: Disinfection unit needs to be mounted on panelside of bath

Above: Radio speaker

Below: Shows set up for air manifolds with valve



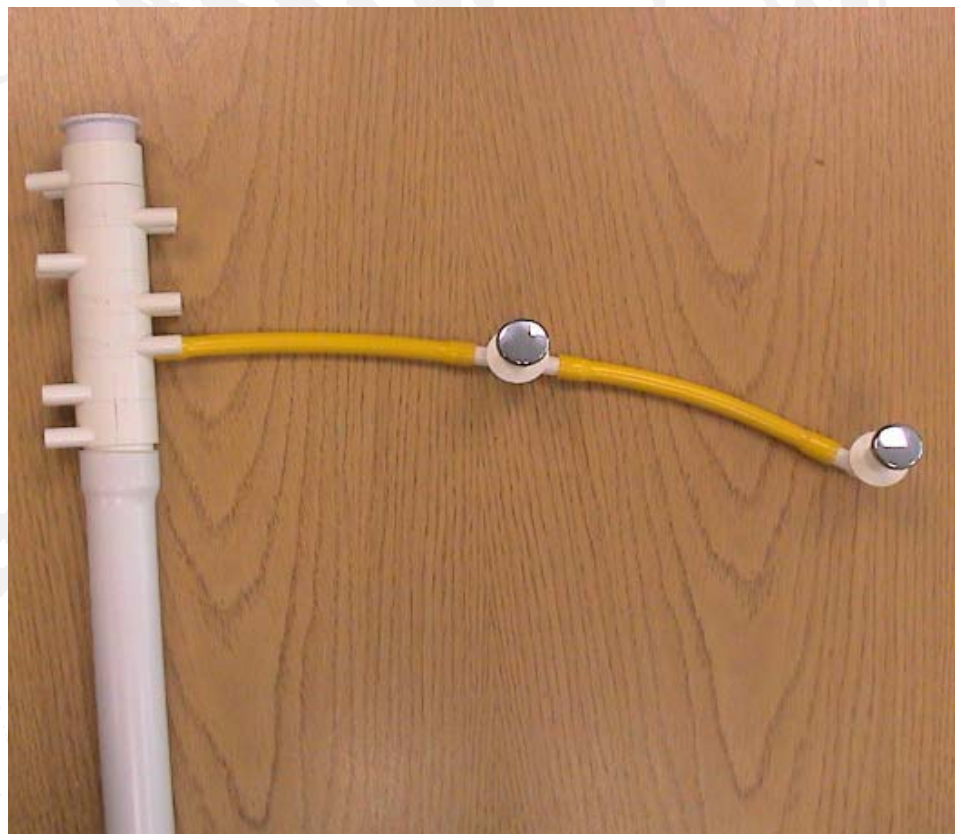
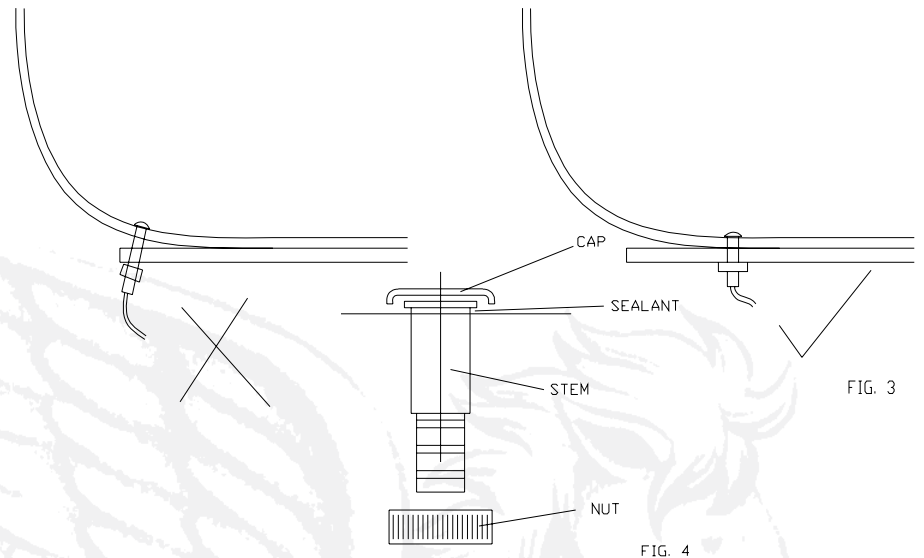
# Detailed Fitting Instructions - Venus Hydro-Pool

onto cables sufficiently.

**Important Note:** - Do not allow pump to run without water in the pump as costly damage may occur. The blower may be run without water in the bath and this may be used to good advantage to dry the pipes for a few minutes after the bath has emptied.

## Fitting the Spa jets (Hydro Systems only)

1. **Determining the positions of the nozzles in the bath.**
  - i) You can position the nozzles in any pattern you like... Straight lines, figure of eight, elliptical, two circles, the list is endless. We tend to use two or three straight lines depending on the width of the bath (two in a straight bath and three in a corner or offset bath). Be careful to space the nozzles evenly rather than in groups as this may weaken the structure of the bath.
  - ii) Some people might like to leave a clear area for the seat, take care to position the jet on the baseboard (not half and half). The base board must be in contact with the bath at jet positions. See Fig.
  - iii) Ensure the jets will not be obscuring the leg fittings.
2. The holes for the spa jets are to be drilled out at 16mm. To seal the jet to the bath use a small amount of silicone sealant around the jet and push through the bath and tighten up with nut provided. Do not over tighten. See Fig.
  - 1) Most baths nowadays are moulded from Acrylic which is then back sprayed with chopped strands of GRP to reinforce the acrylic and give it strength. A length of chipboard is then stuck to the base to further increase the strength of the bath. This baseboard may be encapsulated by a further coating of chopped GRP. If in doubt as the material of the bath look carefully in the overflow and you should see a good 3 or 4mm thickness of acrylic with a nominal 2-3mm of acrylic reinforcing. If in doubt ring us before fixing



# Detailed Fitting Instructions - Venus Hydro-Pool

- 2) Always use a mask when drilling as the dust can irritate throats and may be harmful
3. The manifold for the spa is fixed to the base board with cable ties fixed by a cable tie holder and small screws. (always check the length of screws before fixing ).
4. The Spa manifolds are then run in rigid pipe to the top of the bath using 90° elbows, provided (6).
5. Once the manifold has been connected to the baseboard the airpool nozzles should be piped up with 8mm flexible tube which will need to be glued using ABS/PVC pipe cement. **Note that a maximum of three air pool nozzles to be connected to a manifold spigot. We recommend two.**
7. Position the blower unit so that after bath has been installed the blower will be inaccessible to persons using the bath.
8. Measure and cut to length the convoluted pipe and screw on the cuffs. ( Maximum 2.5m)
9. Prior to installing the bath the system should be tested. This means filling the bath with water to the level of the overflow and leaving it to stand for a period of at least 20 minutes. The system then needs to be tested working with the compressor working. This entails connecting the blower to a mains supply.
- 10 Electrical connections should only be entrusted to a qualified electrician, and made to existing local standards. In the UK this is I.E.E. Wiring Regulations, 16th. Edition.

## 11 Testing the system

- i) Ensure all debris is cleared from bath.
- ii) Fill with water to a level of three inches above the jets.
- iii) Allow to stand for five minutes and then check to ensure that all the joints are watertight.
- iv) Activate pump and re check all joints
- v) Leave pump running for 20 minutes

- vi) Turn pump off and continue to fill bath up to level of the overflow. Leave the bath stand for 30 minutes again.



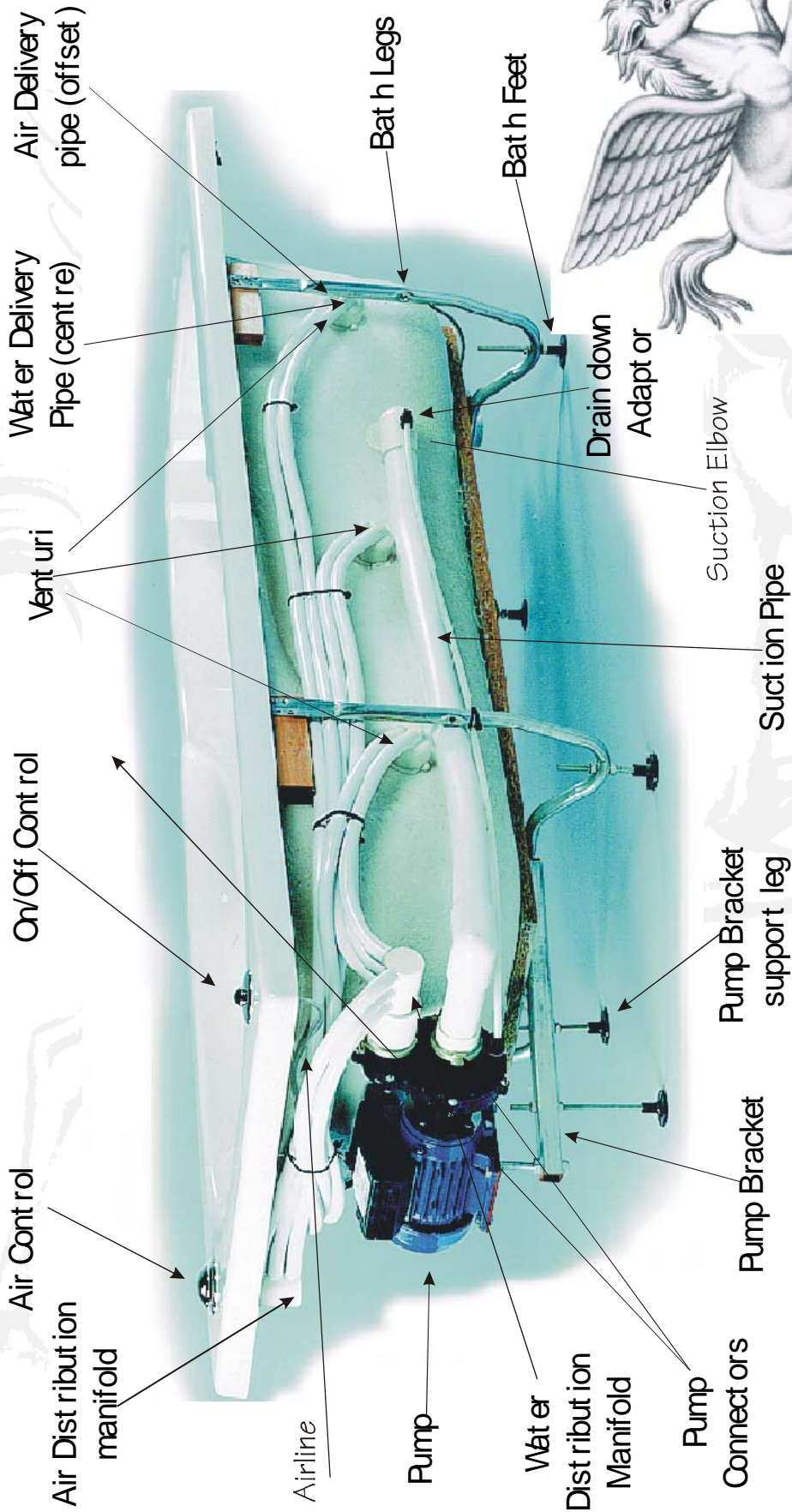
Above: 35w Brass underwater light

Below: ??

No Pictures

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## Pegasus Whirlpool Components



**Better Whirlpool Systems from Whirlpool Express (UK) Ltd**

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## TECHNICAL MATTERS

How does a Whirlpool work? Quite simply, water is taken from the bath through a suction fitting on the side of the bath and then recirculated back through a number of venturi in the sides of the bath. As part of the process the water is speeded up as it goes through the venturi and creates a vacuum into which air is drawn. This powerful stream of aerated water is then directed back into the bath. Our Turbo Sensations is a true Turbo, with its own compressor forcing air into the venturi to give added power and buoyancy in the bath.

All acrylic whirlpool baths are supplied factory-fitted and tested. All that is usually required is for the plumber to install the bath as he would ordinarily, and then for a qualified electrician to make the final electrical connection via a fused spur on the 13amp ring main!

Both our Micro-jets and our Advantage jets use third generation Whirlpool technology. All jets are individually piped for air and water from a distribution manifold. This avoids any stress being placed on the bath and ensures that the jets are fitted in the right place for the customer without compromising the bath manufacturer's specification for positioning of the bath support legs.



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