



# **SUPERGEN**

## **80TX, 121TX & 150TX**

### **TWIN SHOWER PUMP**

# **READ ME**

**THIS IS A HIGH PERFORMANCE HIGH SPECIFICATION PUMP AND HAS PRECISE INSTALLATION REQUIREMENTS**



**THIS DOCUMENT SHOULD BE PASSED TO THE HOUSEHOLDER**  
IT IS NECESSARY TO RETAIN PROOF OF PURCHASE IN ORDER TO FACILITATE  
ANY WARRANTY CLAIM

# INSTALLATION INSTRUCTIONS

(Help Line 01793 820142)

## SUPERGEN 80TX, 121TX & 150TX TWIN PUMP

**IMPORTANT: INCORRECT INSTALLATION MAY INVALIDATE WARRANTY.**

### WARRANTY

One year from date of purchase (Parts & Labour) **plus** a second year activated (**Parts only**) on return of the completed 2nd Year Warranty Form. Proof of purchase date will be required.

Note: Warranty is limited to repair or product replacement only.

### CONTENTS

(1) Pump (2) 4 x Flexibles (3) Installation Instructions

### PUMP PERFORMANCE / TANK SIZES

Model	Motor kW	Dimensions			Flow Rate LPM				Recommended Minimum Tank Size	
		L	W	H	10	20	30	40	HOT	COLD
<b>80TX</b>	0.50	260	145	220	<b>Pressure in Metres</b>				136L (30 Gall)	225L (50 Gall)
<b>121TX</b>	0.75	270	145	220	20	17	11		136L (30 Gall)	225L (50 Gall)
<b>150TX</b>	0.95	320	145	220	30	24	19	12	159L (35 Gall)	315L (75 Gall)

### KEY POINTS (SEE "DO's and DON'T's page for further information)

CYLINDER CONNECTION - **MUST** be either an Essex Flange, 1" Warix Flange or 22mm Surrey Flange. (NOT Vent connection).

#### HOT WATER TEMPERATURE

**Maximum cylinder thermostat setting 55°C or gas boiler 2-3 or 80°C**

(This is to ensure that the temperature at the hot pump does not exceed 65°C)

For cylinders larger than above recommendation the thermostat setting will need to be lower.

**If a cylinder thermostat is not fitted a Temperature Regulator MUST be used.**

**If BOTH a cylinder stat AND regulator are used the cylinder stat must be a MINIMUM of 65°C**

PIPEWORK - 22mm (3/4") pipework must be used to and from the pump.

Both hot & cold supplies **MUST** be **totally dedicated** i.e. **NO DRAW OFF'S** before the pump.

PUMP LOCATION (HOT) - On the floor adjacent to the cylinder (not above cylinder).

WATER STORAGE VOLUME - Above tank sizes should be used for up to two bathrooms.

PUMP - **Pump must be 'flooded' before connecting outlet pipework by attaching tube to outlets, opening inlet isolating valves (in turn) and allowing water to flow through pump (power off) into a container.**

FLEXIBLES - Do not bend more than 30 degrees.

VENTILATION - Pump must be adequately ventilated.

ISOLATING VALVES - **Additional** Isolating Valves should be installed before and after pump to facilitate maintenance.

ELECTRICAL - All wiring complies with British Standards and is Fused and Earthed. (use **13 amp** fuse in spur or plug)

COLD RE-FILL - A 3/4" Equilibrium Valve will improve refill of cold storage tank.

JOINTING COMPOUND - Must **NOT** be used in the supply pipework to the pump.

BYELAWS - This pump complies with the United Kingdom Water Fittings Byelaws Scheme. It must be fitted by a competent installer in accordance with Water Byelaws and the requirements of the Institute of Electrical Engineers.

# INSTALLATION INSTRUCTIONS

(Help Line 01793 820142)

## SUPERGEN PUMPS

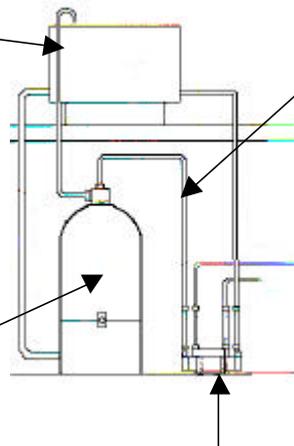
### DO'S AND DON'T'S

#### PUMP LOCATION / PIPEWORK.

Cold Storage

(See page 1 for size)

22mm (All Pipework)



**NO TAKE-OFFS** in supply to either hot or cold.

**NO PLASTIC** tubing to be connected to Flexible Hoses.

**NOTE:** Pump must be flooded as instruction on page 2.

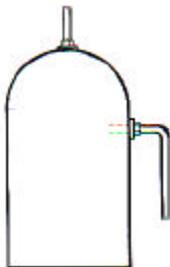
Hot Storage

(See page 1 for size)

Pump located on floor adjacent to cylinder

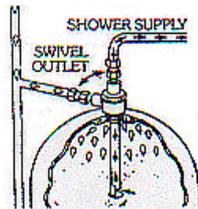
#### CYLINDER FITTINGS

YES



22mm Essex Flange

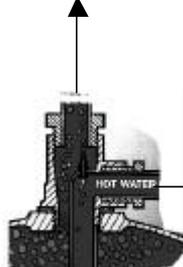
YES



Warix Flange

YES

To Vent



22mm Surrey Flange

To Pump

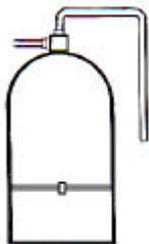
NO



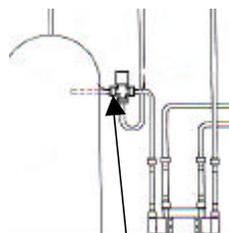
NOT OFF VENT

#### HOT WATER TEMPERATURE

**MUST BE KEPT BELOW 65°C AT THE PUMP (STAT SET AT 55°C)**

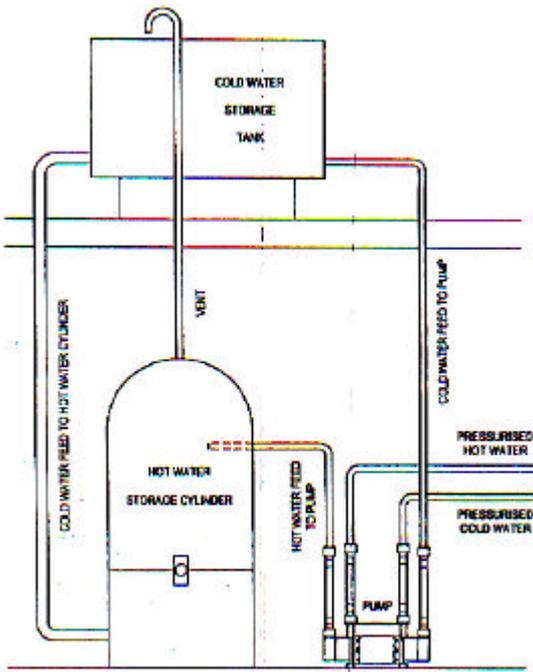


CYLINDER THERMOSTAT  
SET AT 55°C  
(standard cylinder)

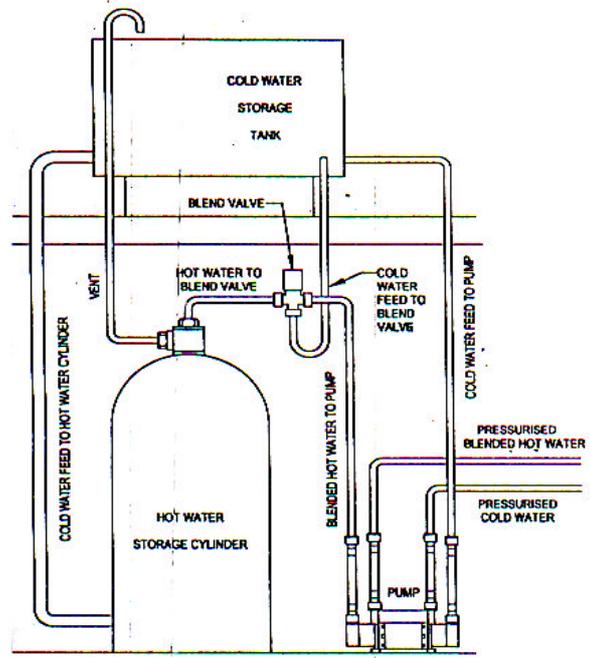


If there is not a Thermostat a Temperature Regulator must be fitted . Note: COLD supply must be dedicated i.e. taken direct from cold storage tank (NOT mains or other supply)

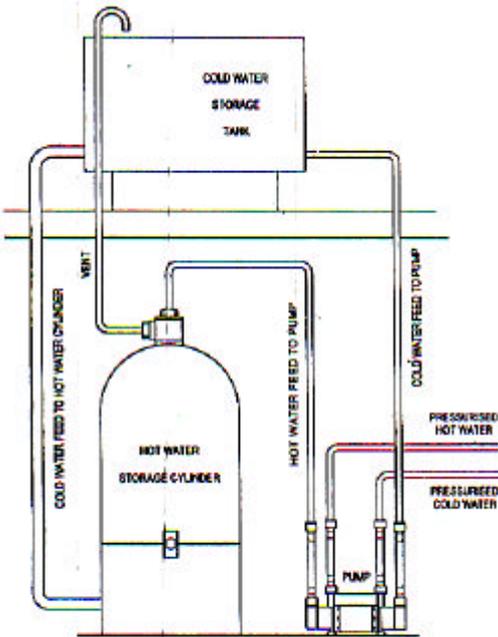
If BOTH a cylinder thermostat AND regulator are used the cylinder stat must be a MINIMUM of 65°C



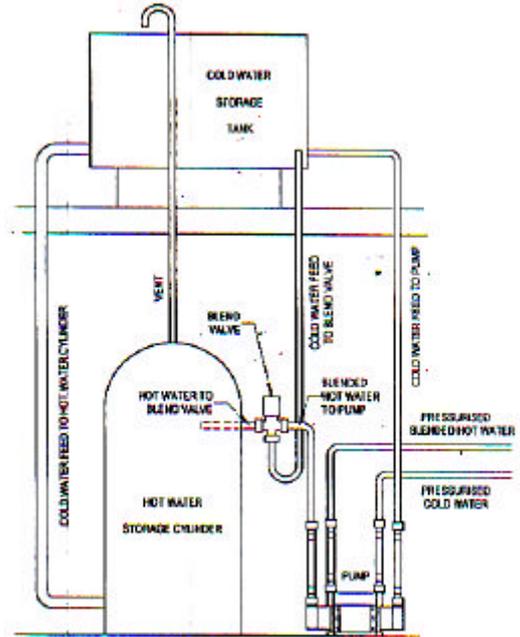
USING 'ESSEX' FLANGE  
& CYLINDER THERMOSTAT



USING 'WARIX' FLANGE  
& TEMPERATURE REGULATOR



USING 'WARIX' FLANGE  
& CYLINDER THERMOSTAT



USING 'ESSEX' FLANGE  
& TEMPERATURE REGULATOR

## FAULT FIND

### FAULT : NO FLOW OF WATER.

This can be caused by -

- (a) 'Negative Head' i.e. insufficient height above shower rose to cold storage tank.
- (b) blocked filters in either the inlet hose, mixing valve or shower head - check and clean.
- (c) air in system - **(see at end of page)**.
- (d) Flow Switch faulty - call Help Line.

### FAULT : PUMP SWITCHES ON & OFF INDEPENDENTLY (Hunting).

This can be caused by -

- (a) back-pressure / 'hammer-blow' - check that Essex or Warix Flange is used and that both hot and cold supplies to pump are 'dedicated'.
- (b) leaks in system - check pipework and pump.
- (c) restrictions in system - check for high restriction in system (toilet).
- (d) air in system - **(see end of page)**.

### FAULT: PUMP SWITCHES OFF INDEPENDENTLY.

This can be caused by -

- (a) electrical failure - check electricians
- (b) pump overheated / thermal overload - if pump body very hot leave to cool and try again

### FAULT : PUMP CONTINUES RUNNING WHEN SHOWER OFF (Running-On).

This can be caused by -

- (a) air trapped in flow switch - **(see end of page)**
- (b) flow switch jammed. (gently tap around 'outlet' to try and free)

### PUMP NOISEY.

This can be caused by -

- (a) cavitation / air - **(see end of page)**.
- (b) bearings - usually after long term use and from 'air' or water starvation.

### PRESSURE / TEMPERATURE VARIATION.

This can be caused by -

- (a) air / water starvation - **(see end of page)**.

### FAULT - 'AIR'.

Air can be introduced into the pump in various ways.

- (a) **Water too hot** (above mid 60's) - check cylinder thermostat is set at 55°C. If there is no thermostat a **Temperature Regulator** should be fitted. *SEE ACCESSORIES*  
**If you cannot hold the hot pipe (after the cylinder) or hold your hand under a running hot tap when fully heated, the water is too hot.**
- (b) **Wrong cylinder fitting** - check that a **Essex, Warix or 22mm Surrey** Flange has been used.  
*SEE ACCESSORIES.*
- (c) **Run out of water (short period)** - check that the cold water tank is re-filling fast enough to maintain a level above the outlet. A 3/4" equilibrium ballvalve will improve the re-fill into the cold storage tank. Also for the larger pumps check the pipe size from the cold tank to the cylinder (28mm recommended). A **Double Protection Float Switch** will protect the pump by turning it off if the water level falls too low. *SEE ACCESSORIES*

# USEFUL ACCESSORIES.

## SUPERGEN PUMP RANGE

The following products can be a useful addition to your system.

### **LEAK DETECTION**

Any pump can leak after some time in use and this could cause some water damage. Systems are available to detect and warn of leaks. They can be easily installed with existing pumps.

### **LOW WATER DETECTION**

When there is a higher than usual use of water, such as when there are guests in the house, your cold water storage tank may be emptying quicker than it is being re-filled. If this occurs for a long enough period your tank can run out of water introducing air into the system. This will affect the performance of the pump and ultimately could damage it.

e.g. A typical shower system with a rose and body jets can use in excess of 30 litres per minute (6.7 gallons) which if used for 10 minutes will consume a total of 300 plus litres (67 gallons). A typical cold water storage tank (in the loft) will hold 50 gallons and the refill rate could be less than that being pumped, particularly when water is being used in other parts of the house or the ballvalve in the tank is inefficient.

This can be easily guarded against by installing a Floatswitch in the cold storage tank which will turn the pump off when the level in the tank falls to a predetermined level.

**REF: N2055 ~ Double Protection Float Switch**

### **HOT WATER PROTECTION (TEMPERATURE REGULATOR)**

It is important to ensure that the hot water does not exceed 65°C when entering the pump as this can cause a reduction in performance and damage to the pump. Where it is necessary to have the hot water above this temperature and a thermostat is not fitted to the cylinder it is necessary to install a Temperature Regulator. This mixes the hot with the cold before it enters the pump.

**REF: N2725 ~ Temperature Regulator**

### **PRESSURE REGULATOR**

Where the pressure from the system is too high on the inlet side of the pump the installation of Pressure Regulators will give the facility for the pressure to be set at the maximum as stated in the pump instructions.

**REF: N2708 ~ Pressure Regulator**

### **FLANGE**

Some installations require either an Essex Flange, Warix Flange or a 22mm Surrey Flange (see Installation Instructions).

**REF: N2650 ~ 1" Warix Flange    N2705 ~ 22mm Surrey Flange**

These products can be obtained from your retailer.  
In the event of a problem please contact Smart Showers

Tel: 01793 822775. Fax: 01793 823800 E'Mail: [enquiries@smartshowers.co.uk](mailto:enquiries@smartshowers.co.uk)

**CHECK OUT OUR WEBSITE FOR LATEST PRODUCTS AND OFFERS [www.smartshowers.co.uk](http://www.smartshowers.co.uk)**

# 2<sup>nd</sup> YEAR WARRANTY (PARTS ONLY)

## SUPERGEN 80TX, 121TX & 150TX TWIN PUMP

Please return this form, fully completed, to the address below.

**It is necessary to retain proof of purchase in order to validate any warranty claim.**

Name .....

Address .....

.....

.....

Post Code ..... Tel: .....

\*\*\* **SERIAL NUMBER** ..... Pump Model **80 / 121 / 150 TX**  
delete as applicable

\*\*\* Date Purchased ..... Supplied By .....

**INSTALLATION DETAILS** ( tick, complete or circle YES or NO)

**This part should be completed with the help of your Installer.**

**(ALL QUESTIONS MUST BE COMPLETED)**

Cylinder Fitting -

Essex Flange \_\_\_ or Warix Flange \_\_\_ or Surrey Flange \_\_\_\_\_ (NOT OFF VENT)

Cylinder Thermostat Setting \_\_\_\_\_ °C (MAXIMUM 55°C - unless Temperature Regulator also fitted)

If a cylinder thermostat is not fitted is a Temperature Regulator fitted YES / NO  
(if not your warranty is invalid)

Water heated by **GAS / OIL / IMMERSION / OTHER** \_\_\_\_\_

Size of hot water cylinder \_\_\_\_\_ Size of cold storage tank \_\_\_\_\_

Boiler Thermostat setting \_\_\_\_\_ (maximum 2-3 or 80°C) What is the highest number on the dial \_\_\_\_\_

Pipework size (suction and discharge) 22mm **YES/ NO** Cylinder Recovery 28mm **YES / NO**  
MUST NOT BE LESS THAN 22mm MUST NOT BE LESS THAN 28mm

Suction totally dedicated (NO draw-offs) **YES / NO**

Are Flexible Hoses straight **YES/ NO** if not, bent at \_\_\_\_\_ degrees (maximum 30 degrees)

Location of HOT pump is 'floor by cylinder' **YES/ NO** or other .....

.....

Office Use Only. System approved \_\_\_\_\_ If not approved customer advised \_\_\_\_\_