

## Modular En-Suite Shower Rooms

# Installation and Technical Details

### INTRODUCTION

#### Modular En-Suite Shower Rooms Installation and Technical Details

This document contains important information relating to the entire range of Crystal Ensuites shower room modules and free-standing shower cubicles. Please take a moment to read these notes carefully before attempting installation.

### GENERAL NOTES AND PRECAUTIONS

1. The Crystal range is a unique approach to the provision of en-suite toilet and washing facilities. However, the sanitary items and fittings within the units are wholly conventional and it should be treated in largely the same way as a conventional installation. **IT IS ASSUMED THAT PERSONS UNDERTAKING INSTALLATION HAVE A REASONABLE COMPETENCE IN PLUMBING, BUILDING AND ELECTRICS.** Whilst the level of skill required in each of these areas is relatively small you are strongly advised to consult a professional if you are in any doubt. Alternatively, you can refer to the supplier for advice on any matter relating to the proper installation of these pods.
2. The panels which make up all the enclosures are made from glass reinforced plastic (also known as GRP or fibreglass). They consist of a smooth gelcoat layer on the inside surface and a laminate of glass fibre in polyester resin on the outside. This outside layer can be sharp and can result in splinters and cuts for the handler. Care must be taken when handling the panels and the use of thick "rigger" or garden type work gloves is recommended.
3. If it is found necessary to cut, drill or grind any part of the GRP (often the flanges) then **THE USE OF EYE PROTECTION AND A DUST MASK IS STRONGLY ADVISED.** Persons with particularly sensitive skin should avoid contact with GRP dust.
4. Care should be taken during installation not to scratch, chip or otherwise damage the internal smooth (gelcoat) finish. Should damage occur then you should consult your supplier. Rectification of minor blemishes is straightforward, but it benefits from specialist expertise.

### TAKING DELIVERY OF UNITS

Your unit will usually be delivered in its component panels. This will consist of a base, a roof and between two and five wall panels. You will also have the WC, a box containing various accessories, and a door in a steel door frame. You should unload these items to a safe area where they will not be damaged. Take a moment to inspect the panels for any damage in transit and advise your supplier if required.

## ASSEMBLY OF UNITS

1. Identify the base moulding and carry it to the installation site. Roughly adjust the feet so that the tray sits as level as possible. (Final adjustment is carried out later). Place the tray on the ground away from the installation area sufficiently to allow access all around the pod.
2. Identify the wall panel mouldings and carry them to the installation site. Begin attaching the wall panels starting from the door cutout and using the M6x20 bolts and nuts found in the accessory box. Leave the bolts loose at this stage.
3. Identify the roof panel and carry to site. Lift the roof on to the wall panel mouldings and secure with the bolts. Be careful not to trap any switch cords in the joints!
4. Carry the door/frame assembly to site, check the orientation and install the frame between the GRP flanges. Secure with the small (3.5x20mm) self-tapping screws provided. Line up the inside of the door frame with the inside of the gel face - This can be tricky to get the first few screws aligned and often requires two people to achieve.
5. Remove the two cistern securing screws (4.2x32mm) from the wall panel complete with their penny washers. Install the w/c in position using a rotating motion from above to introduce the pan outlet into the hole in the wall and covering the floor attachment brackets. The 15mm flexible water supply hose must also be fed through the hole in the service duct at the same time. Secure the cistern to the wall with the self-tapping screws and secure the pan to the brackets with the screws and cover caps from the box.
6. Install the door handle/privacy lock (from the box) ensuring the thumb turn is on the inside, by removing the two screws from the fitting and reassembling in situ.
7. After the plumbing and installation have been carried out, attach the shower curtain to the rail gliders with the plastic washers provided and attach the shower head and hose with the rubber washers.

## PLUMBING

It is most important before commencing installation to plan how all the connections will be made and how soil, waste and water pipes will run. It is assumed that the water supply and heating arrangements will have been surveyed and appraised in advance regarding pressure and suitability for the fitting in the pod. There are many different shower and heating systems available. If you are in any doubt consult your supplier.

Carry out plumbing as follows:

1. Plan and install the 110mm soil pipe and terminate in convenient location.
2. Plan and install basin and shower wastes and terminate in suitable location (use boss connections to soil pipe if convenient)
3. Make all connections to shower, basin and cistern and run pipes along the unit terminating under the basin (or as preferred!)

4. Install water supply pipes in the room and terminate in a location which will coincide with the access hatch under the basin when the unit is placed in final location. Terminate water supplies with ball valves.
5. Move the entire unit back into position and finally adjust the feet so that the unit is sitting level and upright. On very uneven floors it may be necessary to use wooden packers under some of the feet.
6. If needed remove access hatch (six 3.5x32mm screws) under basin and make final connections through the hatch. Turn on water and check operation of taps, shower and cistern. Inspect all connections for leakage.
7. Seal all the flange joints between the GRP panels with white sanitary silicone mastic. This should be applied with a mastic gun and cartridge with a small nozzle introduced squarely into the joint. Try to maintain an even pressure without too much overspill. Smooth down the mastic with a wet finger or spatula and remove any excess with suitable solvent. Ensure all joints are clean and dry before sealing.
8. Run ducting for the extractor fan to a suitable outside location.

## **ELECTRICAL CONNECTION**

Your unit will be supplied with a short length of three core cable connected to the junction box. This should be connected to a switched fused spur with a 5-amp fuse. The power supply in the property should be suitably protected with the appropriate trip switch. If you are in any doubt over your property's electrical system, then you should consult an electrician.

## **CLADDING AND FINISHING**

1. Units are usually clad with plasterboard or other sheet material (e.g. ply or mdf). Special clips are provided around the door frame which allow the cladding to be slipped behind the "architrave" portion of the door frame and provide a finished appearance.
2. Attach suitable battening to the walls, floor and ceiling of the room in a suitable position to support the edges of the cladding. Cladding can then be fitted as required and screwed to the battens on the pod and on the adjacent property walls. Use suitable length screws to avoid screwing through the grp into the pod!
3. Fit skirting/picture rail/coving as required/desired and decorate the outside to taste.

## **CARE AND MAINTENANCE OF GRP**

GRP is an extremely resilient and waterproof material which needs very little ongoing maintenance. However, it is important not to use any abrasive cleaners or scourers on the GRP, or the surface may become dull. Only chemical cleaners and soft cloths/brushes should be used. If the surface becomes dull due to limescale build up then a suitable proprietary remover can be used. Bleach can be used in moderation and not too concentrated. Stubborn marks can often be removed with acetone (nail varnish remover) if available. There are many other brands of polishes and cleaners available mostly from boat shops or online which are specifically designed for GRP.