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KINGSLEY PLASTICS
LTD

FLOOD RESISTANT GRP BUILDINGS – INSTALLATION MANUAL

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INTRODUCTION

Kingsley Plastics GRP buildings and enclosures are designed to be easy to install, durable and largely maintenance free. The following guidelines are intended to assist you in getting the best from your enclosure. It is important to follow these guidelines closely, as deviation may lead to damage and invalidate the warranty.

SAFETY PRECAUTIONS

- Use and wear appropriate PPE when using and working around the kiosk.
- Ensure that the passage of entry through the door is clear of obstruction throughout the entire travel.
- Do not force object through the doorway, if the object does not clear the door frame.
- When removing door steel plate, use handle / grab bars as installed.

INSTALLING THE BUILDING

The following are guidelines for the unloading and installation of a Kingsley Plastic Flood Resistant GRP building.

GENERAL NOTES

- a. The building should only be moved by fitting appropriate slings to the lifting bolts that are fixed to the building on delivery. Moving the building by other methods e.g. forklift trucks, may result in damage to the GRP laminate or may result in cracking especially at joints. Sliding the building along the ground may cause abrasion to the GRP laminate and allow water and moisture into the core of the building.
- b. The building is designed to fit on a concrete base or plinth, which must provide level and even support around the circumference of the building. Deviations of the plinth of up to $\pm 5\text{mm}$ are acceptable. When bolting down the building, the bolts should not be overtightened (80Nm max) in an attempt to reduce any gaps caused by an uneven plinth. If overtightened, the ground bolts can cause extreme stress to the structure of the building and split the laminate and/or the underlying structural beams. We recommend that all bolts are tightened with a torque wrench to avoid applying too much torque. If the plinth is uneven, any gaps should be filled with sealant, neoprene strip, or similar.
- c. It is easier to achieve water-tight seal around the base of the kiosk if it is sited on a rebated plinth i.e. the internal section of the plinth is raised by around 50mm.
- d. Should the following installation guidelines not be followed which results in damage to the kiosk, the manufacturer's warranty will be void. If a Kingsley site installer has to attend the site to rectify damage or problems caused by poor installation of the enclosure, then the attendance will be chargeable.
- e. These guidelines are not site specific and may need to be adapted for certain sites depending on the conditions and regulations governing the site. For example, on certain sites where potable water is

processed, there may be a requirement that stainless steel anchor bolts are used. It is the responsibility of the installer to ensure that any site-specific conditions or regulations are met.

- f. Safety should always be the primary concern. Appropriate PPE (Personal Protective Equipment) must be worn at all times.

STEP-BY-STEP GUIDE (Ready-Assembled Unit)

1. Check the installation area for levels, access and egress. Clean away any debris or obstacles.
2. Attach lifting slings to the crane or lifting mechanism via the lifting bolts fitted to the building. There are normally four lifting bolts fitted to the walls of the building, below the roof fascia boards. Ensure that the lifting slings will not apply undue pressure to the fascia boards during the lift, causing them to distort the fascia boards or create strap marks. If necessary, the fascia boards should be protected.
3. The crane should take the strain of the lift. At this point, the operation will stop, then checks will be made for the security of the lifting points and the load.
4. The building should be lowered onto the base and squared up using the lifting apparatus and manual handling tools. At no point should any person be standing underneath the building whilst it is being lifted. If required, a sealant can be applied to the underside of building before it reaches the ground to encourage a watertight seal when lowered into place.
5. The bottom internal flange of the building has pre-drilled holes. Using these as a guide drill holes 12mm diameter into the plinth, to a depth of at least 80mm at the fixing point locations to accept anchor bolts. Normally, sufficient M10 x 140mm anchor bolts and washers are supplied with the kiosk. Install a bolt and washer into each pre-drilled hole and tighten (80Nm max).
6. **Critical** - Apply neoprene seal around the base of the kiosk, then apply bead of sealant around the internal and external of the base perimeter of the building. It is important to use Arbosil clear sealant. This is best done in dry conditions and should be left for a later date in cold or wet weather. In difficult conditions, CT-1 sealant may be used which has good adhesion and durability in most situations. Depending on the size of the kiosk and the unevenness of the concrete, it may be necessary to use several tubes of sealant. Note that concrete should cure for at least 7 days before applying sealant.
7. Check the operation of the doors. If necessary, loosen the bolt hinges and adjust the doors to ensure they open and close freely. Note that the door opening will have been checked in the factory, but the transportation and movement of the kiosk may result in some adjustment being needed. Note that the doors may be heavy and should be supported by wedges or suitable tools, while the hinges are adjusted and retightened. Correct door adjustment will be more difficult if the concrete plinth is not level and even.
8. Check the operation of handles and locks.
9. Check the operation of any door stays that are fitted.
10. Remove the lifting slings when building is fully static.

11. Remove the lifting bolts from the building. Install the rubber bungs and seal accordingly.

STEP-BY-STEP GUIDE (Multi-Panel Unit)

1. Check the installation area for levels, access and egress. Clean away any debris or obstacles.
2. Position first panel via crane or other safe available methods.
3. Apply neoprene seal to the vertical joining surfaces, ready for assembly of subsequent panels.
4. Position second panel and fix to first panel, using the supplied M10 bolts, washers and nuts.
5. Follow steps above, to place and fix all remaining panels.
6. Apply bead of sealant around the internal and external of the base perimeter of the building. It is important to use Arbosil clear sealant. This is best done in dry conditions and should be left for a later date in cold or wet weather. In difficult conditions, CT-1 sealant may be used which has good adhesion and durability in most situations. Depending on the size of the kiosk and the unevenness of the concrete, it may be necessary to use several tubes of sealant. Note that concrete should cure for at least 7 days before applying sealant. Place roof upon assembled walls, position with uniform perimeter overhang and fix as above, without the need of the neoprene seal.
7. Please follow the Ready-Assembled Unit steps above, to complete the full installation.

DEPLOYMENT

Once the kiosk is installed, it can be flood ready within 3 minutes (for each door set it requires 3 minutes to be fully locked and sealed), as it only requires the operator to close and clamp the doors. The operator do not require any additional resources, apart from ones already supplied with the kiosk (the clamping lever).

1. Check all seals for damage prior to closing any door and upon each entry.
2. Ensure all seals are 100% operable and not damaged in anyway.
3. Ensure that there are no foreign objects in-between the door and the neoprene seal.
4. Repeat same procedure of opening the door but in reverse.
5. Ensure that the clamping lever locking eye holes align and is lockable.
6. Ensure that the locking plate is securely tight against all the seals and that the unit is 100% flood resistant in all aspects before use with timely inspections.

MAINTENANCE OF THE BUILDING

EXTERNAL & INTERNAL SURFACES

If any surfaces become dirty or stained, use soapy water or mild detergents with a cloth or brush to remove debris and clean the surfaces. If the GRP laminate is damaged then any splits, holes or tears should be sealed immediately with CT-1 or a good quality sealant to avoid moisture entering the core of the building. This will cause irreparable damage.

DOORS

On an annual basis, check the operation and condition of hinges, door stays and locking mechanisms. Lubricate all hinge pins and locking mechanisms.

ROOF EXPLOSION RELIEF MECHANISM (where fitted)

Check that the Explosion Relief Rods are un-impeded and are free to travel up and down fully in the event of an explosion.

Check that the stop-nuts are all still in place on the Relief Rods and all set at the same correct height.

SPARE PARTS

Should any of the door furniture or vents become damaged, full sets of spares are held in stock for short notice despatch. Installation can also be arranged accordingly. Fittings are guaranteed for 12 months from the date of delivery.

STEP-BY-STEP GUIDE (Uninstallation)

1. Remove the rubber bungs fitted within the lifting holes.
2. Install all lifting bolts.
3. Attach the lifting slings and attach the other end to the crane.
4. Remove the nuts and washers from the internal anchor bolts.
5. Break the seal surrounding the base of the kiosk.
6. Exit the building and ensure that all the doors are closed and locked.
7. Begin to lift slowly to fully break the remaining seals.
8. Once the kiosk is fully disconnected from the plinth, the kiosk can be lifted freely away.

Further building information can be found in the Operations & Maintenance Manual.

If you should have any questions, please contact us on 01837 83154.