

AquaTray[®]
Leak Barrier Ceiling System

**HEAVY DUTY CEILING
INSTALLATION
INSTRUCTIONS**

**Note: One (1) 1-1/6" arbor hole saw
and bit is provided to aid in
the installation of bulkhead fittings
within AquaTray[®] Drainage Panels or
AquaTray[®] Raised Flat Panel – See Step 1-A**

HEAVY DUTY CEILING INSTALLATION INSTRUCTIONS

STEP 1 – PREPARE TRAYS

A – BULKHEAD HOLES AND FITTINGS

1. AquaTray[®] Drainage Panels - Drill bulkhead drainage holes in the proper locations in (1) to (4) sides of the AquaTray[®] Drainage Panel. Use 1-1/16" arbor and hole saw.

NOTE: *Develop a project plan or shop drawing to arrange the trays in the proper pattern to adequately cover the protected equipment or area also to show how the trays interconnect and where the final drains are located.*

NOTE: *Center-punch locations are formed into the AquaTray[®] panels to insure the proper drilling locations.*

2. AquaTray[®] Raised Flat Panels – Cut to size, assemble and drill bulkhead drainage holes (if provided) in the proper locations in the top and bottom panels of the AquaTray[®] Raised Flat Panel. Use 1-1/16" arbor and hole saw for the top and a 2" arbor and hole saw for the bottom.

NOTE: *AquaTray[®] Raised Flat Panels are provided in kits of (2) 2x4 panels each (top generic plastic panel, middle foam core, and bottom AquaTray[®] Flat panel) and when cut and assembled allow the ceiling contractor to provide cut tiles or full tiles allowing ceiling elements (sprinklers speakers etc.) within the area of leak protection. These Raised Flat Panels can be provided with drainage fittings or left to overflow into adjacent panels.*

NOTE: *See Raised Flat Panel Kit instructions for assembly information.*

3. Install bulkhead fittings into bulkhead holes with the threads to the inside of the panel and the gasket on the outside of the panel. Tighten the jam nut firmly.

B – HOLD DOWN CLIPS

1. Procure hold down clips [(4) for each AquaTray[®] Drainage Panel located at the center of each face].

NOTE: *If needed nip or bend the corners of each clip to reduce sharp edges.*

NOTE: *Hold down clips are not need for the AquaTray[®] Raised Flat Panels as they develop minimal weight upon filling with drainage water.*

STEP 2 – PREPARE GRID

A – CEILING ELEMENTS

1. For new ceilings leave out the ceiling tiles in the area of protection. For existing ceilings remove the ceiling tiles within the footprint of protection
2. For new ceilings install any ceiling elements outside the footprint of protection. For existing ceilings remove any ceiling elements within the footprint of protection (Lighting fixtures, diffusers, grilles, sprinkler heads, smoke detectors, speakers etc.). If removal of certain ceiling elements is not possible (i.e. for proper sprinkler coverage) then use an AquaTray[®] Raised Flat Panel, cut a hole or slot in the raised flat panel then properly seal above the ceiling with flashing tape or prefabricated pipe boots.

NOTE: *Employ the services of appropriate trade contractors for the removal and re-installation (outside of the protected footprint) of the various ceiling elements.*

NOTE: *New light fixtures may need to be provided using surface mounted fixtures powered from below the ceiling if required to light the area within the protected footprint. Alternately sealed "cleanroom" type fixtures accessible from below with water tight electrical connections above may be used.*

B – CEILING SUPPORTS and GRID

1. Check with the grid manufacturer for proper support design (hanger size, spacing, anchorage etc.) and be sure to install in strict accord with manufacturer and industry recommendations.

NOTE: *The heavy duty grid must be rated for a minimum of 25 pounds per square foot allowable capacity. If this capacity is not confirmed then separate supports of each AquaTray® Drainage Panel will be needed [(1) at each corner with a fabricated wall angle used as a bracket] as defined in the Standard Grid Installation Instructions.*

NOTE: *Because some heavy duty grid has a wider cross-section it may need to be installed on wider centers (i.e. 24-1/2" x 48-1/2" etc.) to accept standard ceiling elements like the AquaTray® panels. Consider the required dimensions of ceiling grid elements when installing the heavy duty grid.*

STEP-3 – INSTALL TRAYS

A – INSTALL AQUATRAY® PANELS

1. Use the project plan to progressively install trays (AquaTray® Drainage Panels and AquaTray® Raised Flat Panels) in the proper pattern with the appropriate bulkhead fitting layout.
2. Connect tray to tray with AquaTray® clear tubing and clamp tight with AquaTray® tube clamps.
3. Install (4) hold down clips for each AquaTray® Drainage Panel located in the center of each face.

B – INSTALL T-GRID FLASHING

1. Install All Weather Flashing Tape up and over the T-grid and firmly adhere the tape to the top of the AquaTray® panels. DO NOT STRETCH THE TAPE IN ANY WAY DURING INSTALLATION AS THIS REDUCES THE LONG TERM LEAK PROTECTION.

NOTE: *Use 6" wide tape where AquaTray® panels are adjacent to each other. Use 4" wide tape where AquaTray® panels are adjacent to the remainder of the ceiling.*

2. Install additional strips of flashing tape and seal the tape at the inside corners.

NOTE: *It is VERY important to insure that there are no gaps in the flashing tape and that the edges of the tape are smooth and firmly adhered WITHOUT stretching, to provide leak integrity.*

C – DRAINAGE PIPING

1. Install plumbing drainage piping between any trays separated by a distance greater than the clear tubing and for any AquaTray® Raised Flat Panels that also have drainage.
2. At the end of a section of trays run final drainage piping to a suitable floor drain or sink.

NOTE: *Employ the services of a plumbing contractor for proper pipe materials, sizing and installation to comply with local codes.*

NOTE: *It is strongly recommended to provide a leak detection system into the trays or the tray drainage system to alert personnel in the event of an overhead leak.*

NOTE: THE IMPROPER INSTALLATION OF ANY COMPONENT OF THE SYSTEM WILL VOID THE MANUFACTURER'S WARRANTY.



AquaTray[®] – 2x4 Leak Barrier Ceiling System (48 square feet) with PVC drain pipe to Janitor's Sink (in next room)

U.S. Patent No's 6,640,502 and 7,017,313, Canadian Patent No. 2,476,898

AquaTray[®] products are carefully designed, manufactured and inspected prior to shipping and delivery. As the manufacturer does not install, nor exercise supervision over the installation of the product, neither the manufacturer nor the Seller can be liable, due to improper installation or use of the product. Neither the manufacturer nor the Seller shall be liable for any damages or loss, direct, indirect or consequential arising out of the improper installation or use of this product. This statement is in lieu of all other guarantees, warranties or statements expressed or implied.

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