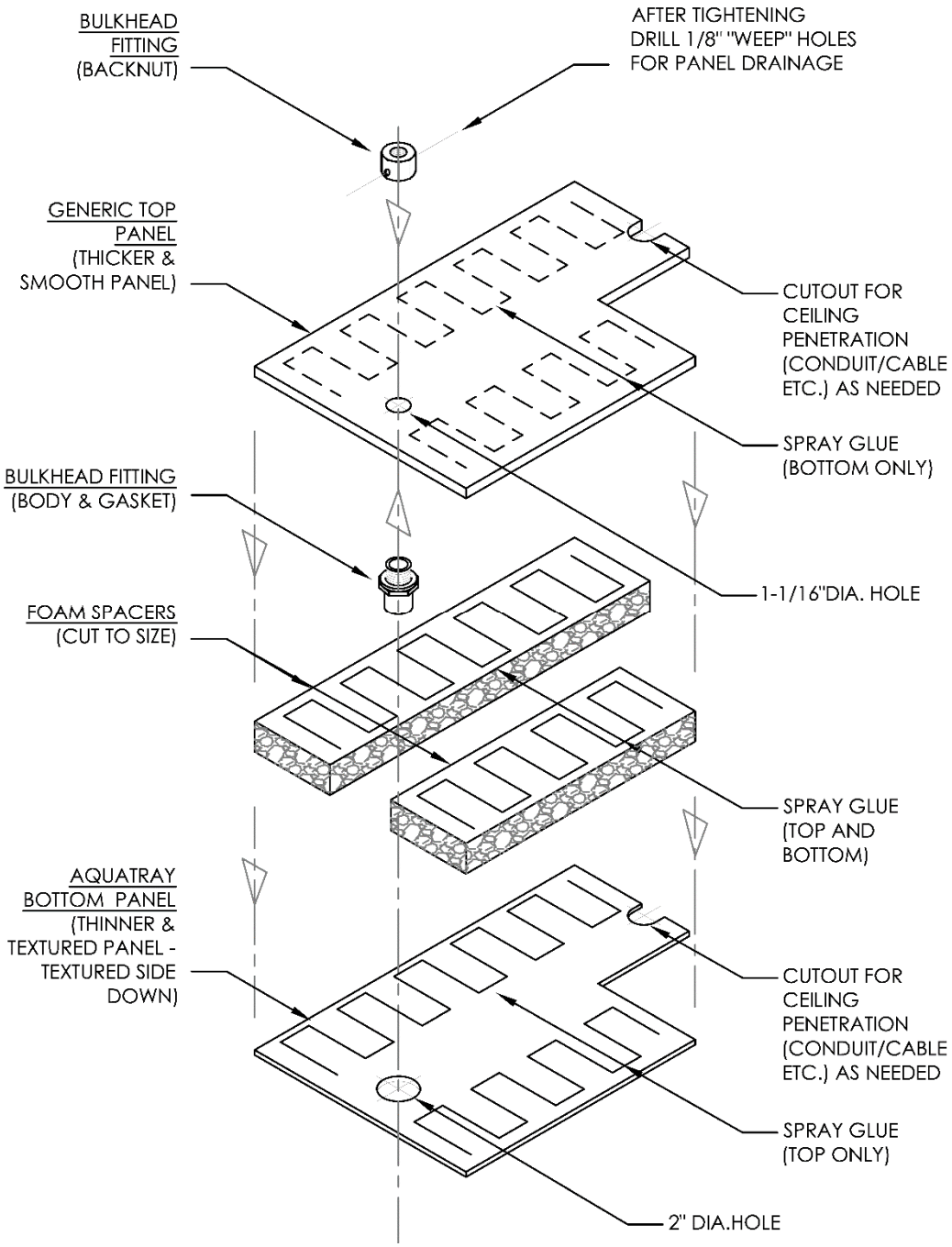
AquaTray®
Leak Barrier Ceiling System

RAISED FLAT PANEL ASSEMBLY INSTRUCTIONS



RAISED FLAT PANEL ASSEMBLY INSTRUCITONS

AquaTray® System

General

A – DESCRIPTION AND USE

1. The Raised Flat Panel is used in an area of leak protection instead of a formed AquaTray® drainage panel to allow for cut tiles or penetrations of pipes, conduit or other ceiling elements. They are used with or without drainage fittings depending on location. If the tile is at the borders of the leak protection area, drain fittings are recommended. If the tile is completely surrounded by drainage trays or trays and walls, then leak fluid will overflow into the drainage tray. Drain fittings are not needed in this situation. The raised section of the assembly allows for a minimal developed weight when flooded so individual Raised Flat Panels do not require separate supports within either a standard grid or heavy duty grid.

NOTE: The Raised Flat Panels are sealed to the ceiling grid/adjacent tiles or the wall with flashing tape just like the AquaTray® Drainage panels. See Installation Instruction – Standard Grid or Heavy Duty Grid for further information.

B – COMPONENTS

1. The individual raised flat panel consists of a 2ft x 4ft generic plastic upper panel, several foam strips and a 2ft x 4ft AquaTray® Flat Panels. Actual panel size is 23.75" x 43.75" (Standard U.S. ceiling tile dimensions). Spray adhesive is needed to adhere the top and bottom panels to the foam strips in a sandwich configuration with the AquaTray® flat panel texture facing out.

C – PACKAGING

The raised flat panel package consists of a (2) panel kit (assembly required). Each kit comes with (2) 2ft x 4ft generic plastic upper panels, (8) square feet of foam strips and (2) 2ft x 4ft AquaTray® Flat Panels. Two kits are placed in a shipping box. Purchased separately 3M #78 Spray Adhesive (17.9 oz.). One can is suitable for assembly of (2) raised flat panels.

D – PROJECT PLAN

1. A Project Plan Drawing or an Installation Shop Drawing are essential for the proper assembly and subsequent installation of Raised Flat Panels. Be sure to obtain, review and provide suitable location/identification markings on this drawing at the start of the assembly

STEP 1 – MEASURE AND CUT

A – MEASURE AFTER GRID INSTALLATION

1. As with any t-grid ceiling installation the partial/cut tiles dimensions are measured from the installed grid. Measure the actual opening then subtract a suitable clearance dimension from each measurement (usually ¼" – but the installer must gauge this dimension for proper installation). Be sure to check dimensions before cutting.
2. Mark areas where penetrations are required or where drain fittings are needed at this time. These are to be cut in a later step or as the assembled panel is installed.

NOTE: See STEP 3 for the optional installation of drainage fittings (if needed). Leave areas intended for drainage fittings or penetrations free of foam.

NOTE: Use the Project Plan Drawing or Installation Shop Drawing to identify where drain fittings or penetrations are needed in the Raised Flat Panels.

B – TRANSFER DIMENSIONS AND CUT

1. Transfer the dimensions to the AquaTray® flat panel. Be sure to orient the AquaTray® Flat Panel with the texture facing down, so it is visible when installed in the ceiling, before transferring the dimensions. Cut the panel to size. Perform a test fit after cutting.
2. After confirming that the AquaTray® panel is cut to size, use it as a template for the marking and cutting of a generic top panel.
3. Use no more than half of the foam strips provided per kit and place them in between the top panel and bottom panel (bottom panel should have the texture facing out). Cut the foam strips as needed to fit within the (2) panels.

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NOTE: Leave areas intended for penetrations or drainage fittings free of foam. Cut the foam with a sharp thin knife blade or preferably with a hot knife specifically designed for foam cutting, to achieve a clean cut.

STEP 2 – ARRANGE AND GLUE

A – ARRANGE AND MARK

1. Arrange the cut bottom panel, cut foam strips and cut top panel on a flat surface and check the accuracy of cuts and the alignment.
2. Mark the location of foam panels on the mating surface of the top and bottom panel with a pencil or marker.

B – SPRAY AND JOIN

1. Take the top panel and set it aside.
2. Lift the foam strips and place aside then spray the bottom panel with spray adhesive between the markings. Spray the mating surface of the foam strips. Allow the spray adhesive time to set then join the mating surfaces of the foam strips to the bottom panel (non-textured side) making sure to preserve the original alignment.
3. Spray the top panel with spray adhesive between the markings. Spray the mating surface of the foam strips. Allow the spray adhesive time to set then join the mating surfaces of the foam strips to the top panel making sure to preserve the original alignment.
4. Allow the proper set time before installing in the grid. Provide a location marking keyed to the Project Plan Drawing or Installation Shop Drawing onto each assembled Raised Flat Panel so its position in the ceiling can be identified later during installation.

NOTE: Follow the instructions for the application and use of the spray foam according to the manufacturer's instructions on the side of the spray can. The workspace should be in a well-ventilated area.

STEP-3 – INSTALL DRAIN FITTING (OPTIONAL)

A – LOCATE AND DRILL BULKHEAD DRAIN FITTINGS

1. Use the Project Plan Drawing or Installation Shop Drawing to identify exact locations for drainage fittings in the Raised Flat Panels (where used). Mark locations on top and bottom panels of the assembled Raised Flat Panels. Drill a 1-1/16" hole in the top panel and a 2" dia. Hole in the bottom panel.

B – INSTALL DRAINAGE FITTINGS

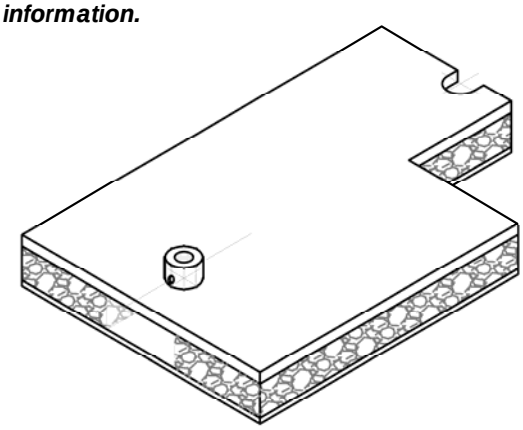
1. Install AquaTray® drainage fittings with the gasket under the top panel and the jamb nut over the top panel. Tighten snugly.
2. Drill through each installed AquaTray® drainage fitting with a ¼" horizontal hole just above the surface of the top panel. This provides a weep hole for more effective drainage of the raised flat panel.

C – PREPARE FOR PENETRATION OPENINGS

1. Either pre-cut openings for penetrations in the assembled Raised Flat Panel or mark and cut after initial installation in the ceiling grid.

NOTE: Use standard hand or power cutting tools, such as drills, arbors, snips or a sharp knife to cut the top and bottom panels for penetrations. A 1-1/16" hole saw and arbor bit is provided with each main order to facilitate cutting the correct hole size for AquaTray® drainage fittings.

NOTE: The assembled and prepared Raised Flat Panels are now ready to progressively install into the ceiling grid. See Installation Instruction – Standard Grid or Heavy Duty Grid for further information.



TYPICAL ASSEMBLED PANEL
(ACTUAL SIZE/CONFIGURATION VARIES)

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

Contact:
AquaTray LLC
smueller@aquatray.com
(856) 629-9278

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

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