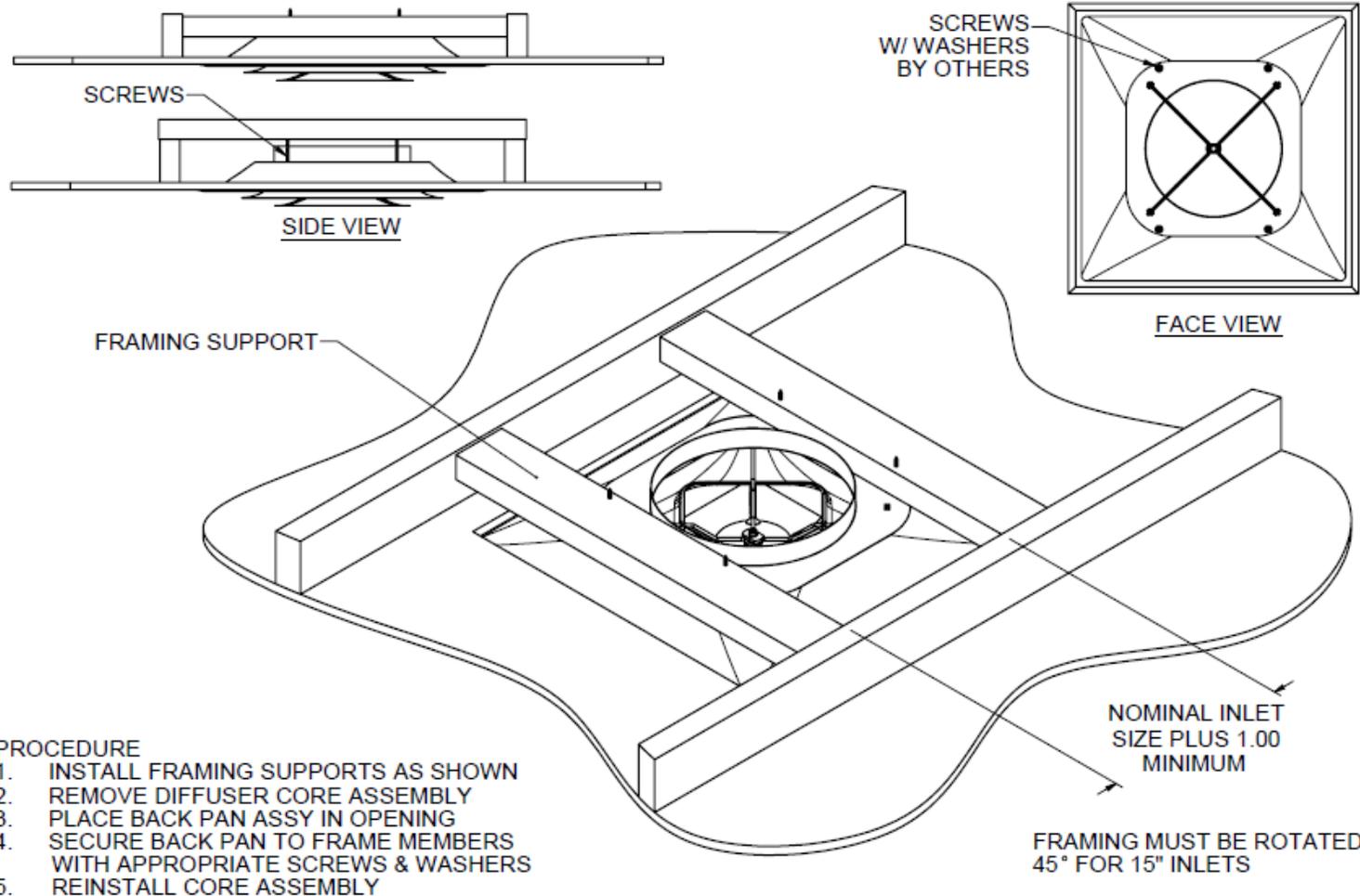


Guidelines for Surface-Mounting Ceiling Diffusers



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One of the more frequently asked questions we receive in application engineering regards surface mounting Titus diffusers. When a ceiling grid is not present, surface mounting is specified and the installation questions arise. Linear diffusers are available with concealed mounting, square and rectangular diffusers with square or round inlets are not. The most important thing to know about surface mounting is that it normally requires additional framing to which the units will be secured. Often we receive calls for mounting instructions after the sheet rock has been installed which is too late to provide framing without removing the installed surface. Framing requirements will vary from one job to the next but there are some general guidelines and terminology we use. Obviously installing screws in the face of a diffuser will work as it does for grilles but duct return flanges behind the edges of diffusers are generally not available to provide a secure mounting base into which a screw can be run. And many surface mount frames do not have a flat surface nor is there a screw hole fastening option available. Further, screw fastening certainly does not enhance the aesthetics of the installed diffuser.

All sheetrock is mounted to ceiling joists. These joists are usually parallel to each other and spaced at two to three feet apart depending on local building codes. The framing for the diffuser in most cases can be mounted to the top of, and perpendicular to the joists. Screws are then used to mount the back pan to the framing. The framing members should be centered on the diffuser location and should allow sufficient clearance for the diffuser inlet and associated duct. Additional care must be taken to avoid any protrusions or features that will occupy the space necessary for the framing on the rear side of the diffuser. They should also be at a depth that will allow the diffuser to firmly seat against the sheet rock. Most diffuser back pan heights are less than the depth of the joist.

The sheet rock or ceiling surface is installed leaving an opening provided for the diffuser. The diffuser core should be removed prior to installation to allow for screws to be installed in the top of the back pan transition; this is the flat portion on the rear of the back pan. Screws are then used to secure the back pan to the framing. It is helpful to use washers to prevent the screw heads from being driven through the back pan if the framing is not flush to the rear of the pan. In most cases the screws can be placed so as to not be visible from the occupied space after the diffuser core or face is re-installed.