Know Your Grout - Sectional Thickness - Why It Matters

Selecting the proper grout is important when setting a machine base and/or grouting in anchors. Each grout will have a different set of performance characteristics. Using a grout with performance characteristics that match the needs of the actual installation is critical to a successful installation.

One significant material property that is frequently misunderstood is the sectional thickness specification for the grout. Cementitious and epoxy grouts all have a recommended thickness range that is primarily designed to limit the heat generated during the curing process.

What happens when an attempt is made to pour a grout designed for a 2" to 6" section in a 1/2" section? The grout likely will not flow through the smaller gap and the precision machine will not be properly supported or anchored.

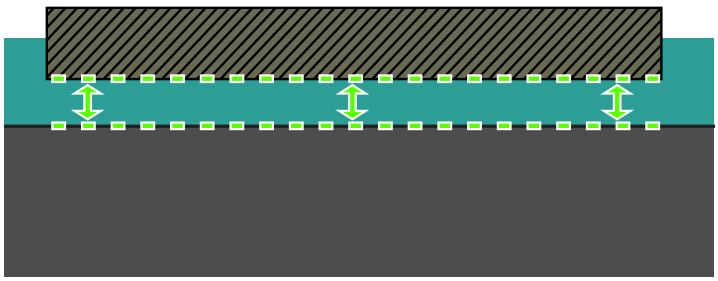
What happens when grout designed for a 1/2" to 1-1/2" section is poured in a 2" to 6" section? The excess heat generated by the curing process will create deformities in the grout that will compromise the proper support and anchoring of the precision machine being installed.

Matching the sectional thickness criteria of the grout with the clearance where the grout will be poured is one step towards ensuring a satisfactory installation.

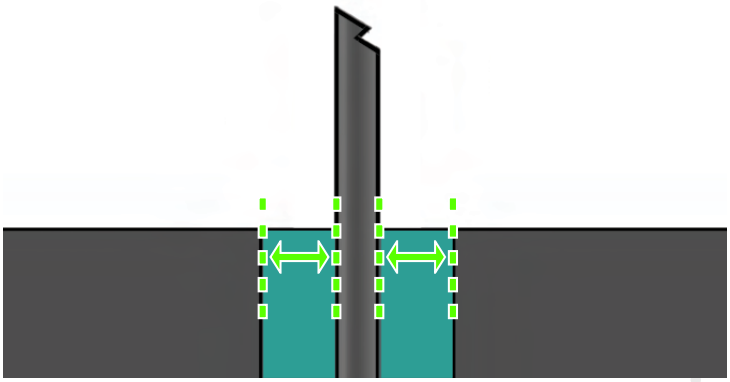
How is the clearance dimension measured?

The top of the forms must be well above the targeted grout pour elevation of the baseplate and sealed to prevent leaks and ultimately grout loss.

Baseplates, leveling wedges, and other horizontal surfaces — measure the vertical distance from the bottom of the object to the top of concrete. Keep in mind that no concrete surface is perfectly flat. Clearance measurements should be made in multiple locations so that the full range of clearances to be filled will be identified.



Anchor bolts — Clearance dimensions are horizontal. The critical dimension is the radial clearance around the anchor bolt. Allow for some variation as the anchors will never be perfectly centered in the core-drilled holes and other anchoring pockets.



The installation of precision machinery can become quite complex. There are some situations where there isn't an easily identifiable solution. Unisorb's engineering and field support staff are prepared to assist in identifying the materials and procedures that will lead to a successful installation. Please do not hesitate to contact us with complete project information and installation drawings so that we can evaluate the project.