



The Gridworx Adjustable Discreet Girt System (ASHRAE Compliant)

Before you start any installation; KNOW YOUR WALLS!! It pays to take the time and measure your walls for plumb and square ahead of time. Verify where all of your 'high' and 'low' spots are so you can properly apply our adjustable girt system.

All of our systems are pre engineered for your specific project. Check the Gridworx engineering Letter Of Compliance (LOC) before you start; periodically as you progress through your project be sure you are following the engineering standards provided. As a pre engineered project, Gridworx provides everything for your project to be compliant, from the shims to the fasteners.

As such, never replace our components with different spec'd material! If you need additional material, call us!

First a little education in our terminology to make it easier for you to follow along. You need to understand what the Gridworx "adjustable girt" (hereinafter "girt") and "mullion" are.

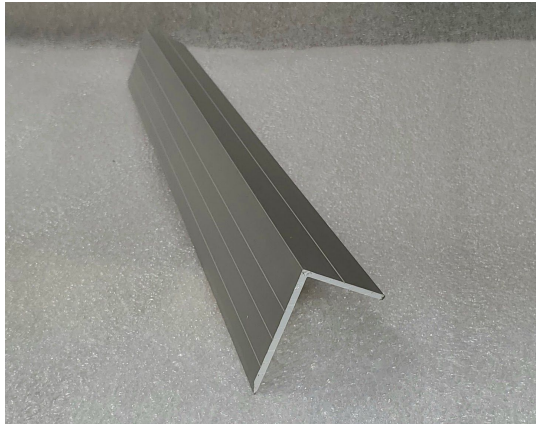
A girt is an aluminum extrusion with thermal isolation components that measure 4 $\frac{3}{8}$ " long and has four holes. Two holes are for mounting to your substrate wall and the other two are pilot holes for screwing into our mullions. Girts are pre-assembled with thermal isolation backplates and thermally broken sleeve washers. These components ensure strict compliance with the pronouncements of ASHRAE 90.1.



A combination of girts in series are used to attach our system to the substrate wall. They appear as an offset 'T', where the long leg of the T attaches to the substrate and the perpendicular leg envelops (with a jaw composition) the vertical mullion. The perpendicular legs come in lengths of 2, 3, 4 and 5 inches.

A mullion is an aluminum extrusion that resembles a right angle offset (ie: L Bracket). The face of all mullions measure 1 $\frac{1}{2}$ ". This face leg accepts the horizontal Gridworx channel.

The adjacent leg comes in different lengths, from 1 $\frac{1}{2}$ " to 4". It is this adjacent leg that fits into the perpendicular leg of the girt.



With the variations of size between our girt and mullion combinations, we can accommodate any wall cavity depth desired! There is also the ability to mix and match mullions and girts at different locations on a wall to overcome excessive abnormalities with a wall face.

Now we can commence with the installation process

1. Start by attaching the girts to the mullions in the appropriate discrete spacing, i.e. 24" center to center. This information can be found in your LOC. ** Make sure the mounting holes in your girt are on the opposite side of the face of the mullion, thus availing access to the fastener for tightening.** The girts do not need to be flush with the end of the mullion. Actually the mullions can extend, or cantilever, from the center of the girt subject to engineering review.

****Note* Never span a continuous mullion section across a deflection joint. Use this ability to cantilever to allow for expansion and contraction across a deflection or expansion joint.****



2. Next, attach the girt/mullion assembly to the wall. The girts should be screwed into the stud of the sub framing, concrete or CMU, with the correct fasteners provided by Gridworx. For wood or steel framing, this distance is typically 16". For concrete, 24".

These measurements are a reference...not the norm! Remember to check your Project Specific LOC for the proper measurements!!

- 2.1. Look at your shop drawings and determine how far off of the 'finish flooring' your mullion assemblies need to be.

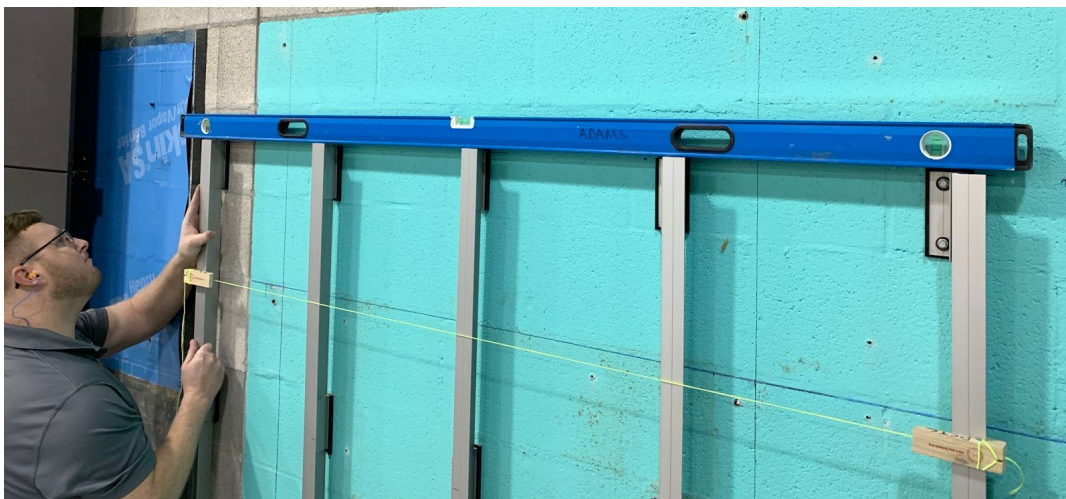


- 2.2. At this point set only one fastener at the top of each girt along a given wall spacing, such as a twelve foot span. Once all of the mullions are 'hanging', use a six foot level to plumb the girt/mullion assembly and then set it in place by putting a fastener in the bottom of each girt.

- 2.3. All of your girts are already in the proper spacing position. Simply secure the rest of the girts to the wall with fasteners. If the girt is not touching the wall, just push it back until it does. This is one of the beauties of our Adjustable Girt system!



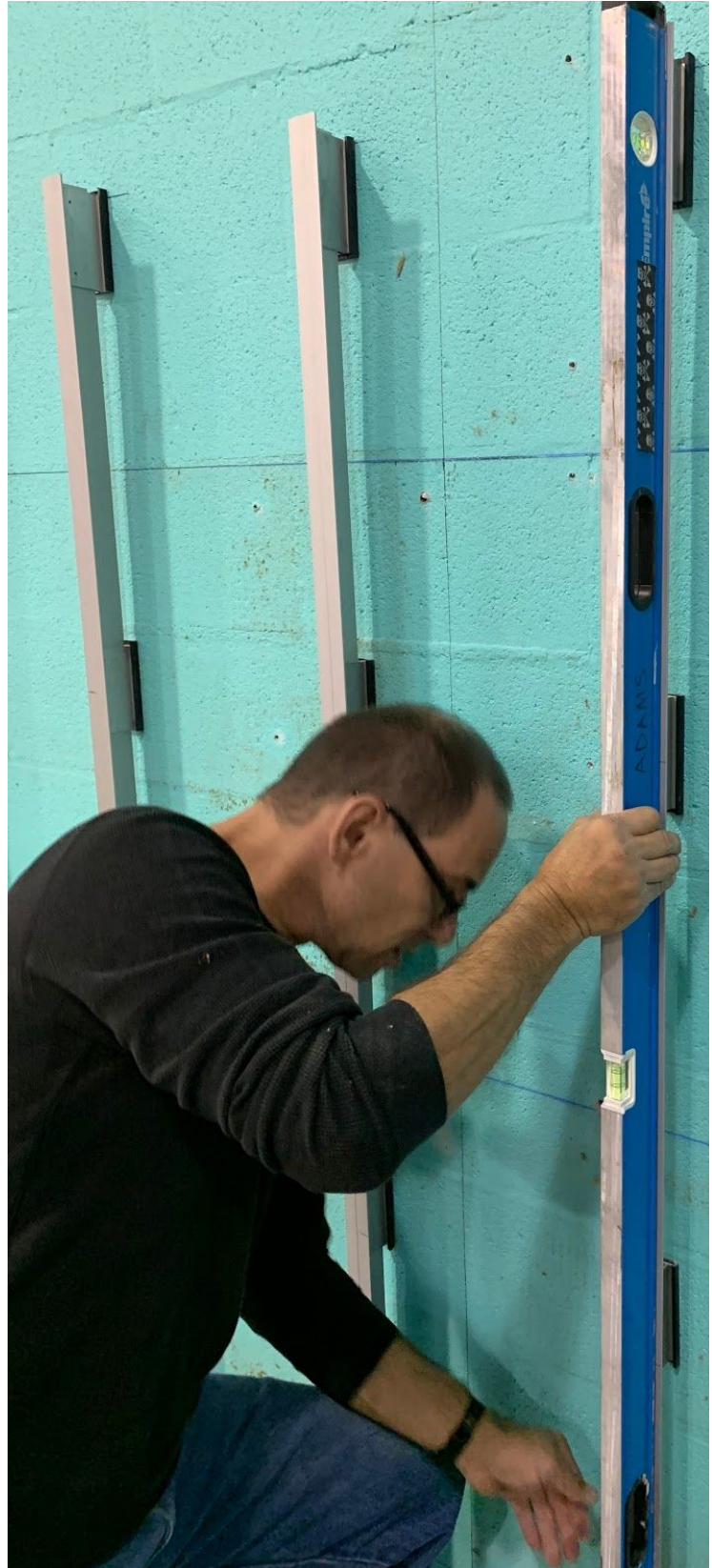
- 2.4. Before going to step #4, use a level across the tops of the mullions to make sure they are all at the same height.



3. Now go to the far left or right mullion and plumb the *face* of the mullion to the wall surface by moving it in or out of the girt's 'jaw'. (Remember where your high and low spots were, now you know how far out to set the mullion from the wall face. Remember to account for any insulating material that is project specific.). Then do the same for the opposite far side mullion. Now you are ready to secure the mullions to the girts using the shorter 1 1/8" screw (provided by Gridworx) in the pilot holes provided in the girts jaw section.

- 3.1. It is a good practice to put a straight edge (like your 6' level) on the mullions after pulling and pushing them in and out. Do this before securing the mounting screws through the jaw section.

4. *Special note when fastening the mullions to the girts: Always screw from the thinner 'crooked' leg into the thicker leg. This assures that the 'teeth' in the jaw are drawn into the mullion and locked in place. If you start from the thicker leg, you might actually force the jaws apart!*



5. Once your two outside mullions are in proper position, use 3' string blocks' and some string to align the top, middle and bottom of all the mullions in between the left and right from the previous step. As before, just pull or push the mullions into position using the string as a guide to align the face of the mullions.



6. Now secure the rest of the mullions to the girts using the remaining 1 1/8" screws as you did in step #4.

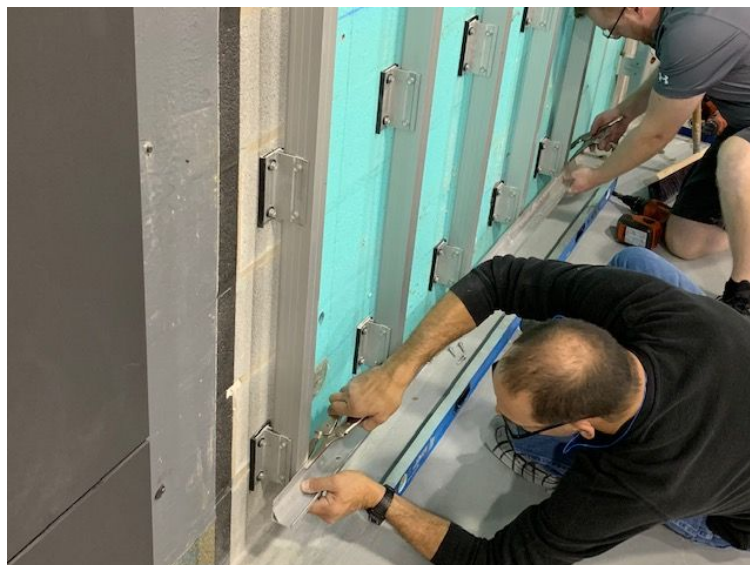


Once you have the vertical members in place you are ready for the horizontal rails of the Gridworx system.

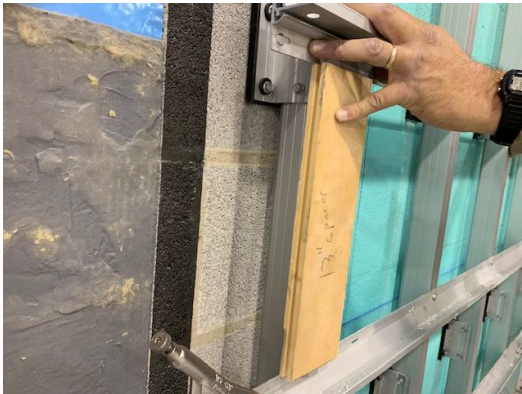
1. Find where the bottom of your stone should lay on your prints and mark that measurement on your end mullions and make sure the mark is level.
2. Gridworx has provided mounting holes every 8" on all of our horizontal rails to facilitate attachment to the mullions. If you are starting at a corner condition, find the nearest mounting hole that aligns with a mullion and allows a generous overhang. Cut off enough of the overhang to match your corner condition. Now the rest of the rails you set in place will have mounting holes lining up with the mullions, greatly decreasing the amount of time it takes to set fasteners!



3. Set the bottom of the "Bottom J", or starter rail, on the mark and check your level again. Temporarily attach the rail using small needle-nose vise clamps. Now you can fasten the bottom Jay to the face of the mullions using the 1 1/2" screws provided.



- 3.1. *The Gridworx Adjustable Discreet Girt system eliminates the need for shimming of an uneven wall. However, if the need does arise you should place your shims between the mullion face and the support rails. Remember, the maximum allowable shimming is $\frac{5}{8}$ ", cumulative.*
4. Measure from the top of the "Bottom J" rail to the bottom of the Intermediate support rail and set that rail at the necessary height. **HINT: The height of the stone, *plus the joint*, minus three inches, equals the proper distance between the rails. For example - Stone = $11 \frac{5}{8}$ " + $\frac{3}{8}$ " joint - 3" = 9" spacer. You can cut spacers from wood to this distance and use them as temporary gauges while you fasten the rails. Just remember to double check every other course with a tape measure.**



5. Keep repeating until you have set the Top rail.

Ta Da!