

ADVANTAGE

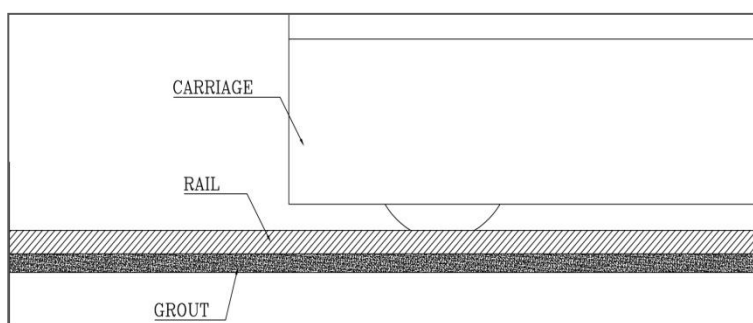


Mobile Rail Installation Grout vs. Shims

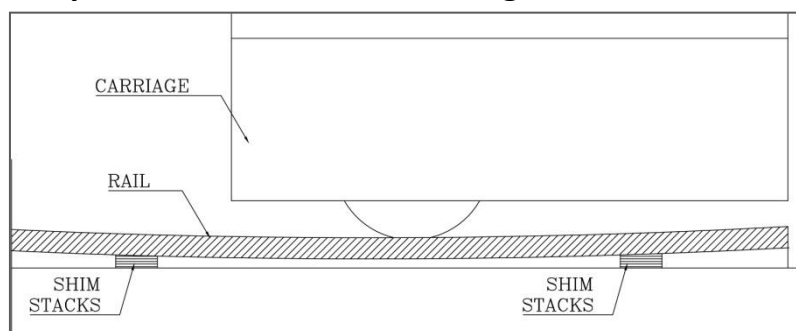
A good rail installation is the foundation of any high-density mobile system to ensure proper load distribution and smooth operation.

The value of grout:

Continuous grouting provides support under the full length of the rail. This results in a better load distribution to the floor versus using just shims and loading the floor only at the shim points which creates a higher point load weight amount concentrated directly under the shim locations. With grouted rail the floor is subjected to a more uniform load; the rail lays flat and won't bow as a wheel passes over an unsupported span between shims.



The problem with shims and no grout:



In shimmed rail installations the rail can deflect downward creating a temporary low spot in the rail when the carriage load is between shim stacks. Further down the rail past the adjacent shim stacks, the rail tends to bend upward and can even lift off of the shim stacks unless sufficient

Mobile Rail Installation Grout vs. Shims *continued...*

anchors are passed through all of the shim stacks to control this uplift. Depending on the location, strength, and tightness of the rail hold-down anchors, the shims can work out from under the rail over time.

Using shims, rail and fastener wear is accelerated due to the flexing which occurs every time a carriage wheel rolls over a shim point. The shims receive the concentrated load of the wheel on one edge and then the opposite edge as the wheel passes over. There can be additional wear at these rail points in the concrete or floor support material the high-density mobile system is installed on. As a result, this can cause more movement at the shim points and accelerated wear over time. Carriage drifting will occur as the carriage wheels search for the low spot between shim stacks.

Leveling screws versus shims:

With the continuous grouting method, leveling screws provide precise, graduated infinite adjustability to precisely and incrementally level the rail. Leveling with shims depends on shim thickness and the installer's patience to tighten, check for level, re-tighten, re-level and adjust until required tolerances are met.

Summary:

A good rail installation is the foundation of any high-density mobile system. Leveling using screws versus shims and then providing a continuous bed of grout under the rail provides the best basis for that foundation. **Advantage: Aurora.**