



GT AutomatiON Group has developed a trailer floor machine to facilitate the manufacture of semi-trailer floors.

Our machine has had dramatic results in actual installations **reducing labor and production costs and increasing quality.**

Our machine drills holes, inserts and drives screws the full width and length of the trailer. It will significantly reduce the manual labor required to assemble the trailer floor. You can adjust for the number of screws per row and spacing between rows. The floor machine will facilitate increased production to meet or exceed your needs for quality, throughput, dependability and value.

The floor machine is **proven technology** proprietary to GT Automation Group which allows us to customize the machine if necessary to meet your specific requirements.

This technology is an out growth of our automation and manufacturing experience and expertise and our ability and desire to bring creative and effective solutions to manufacturing challenges.

Call us to discuss your application.



GT AutomatiON Group is proud to market what we believe to be the leading technology in the world for the automation of trailer floor construction. This technology will allow the user to **increase production and quality** and **reduce costs** of trailer floor assembly.

### Application Examples

<b>Processes</b>	Hole drilling, and screw driving for the manufacture of trailer floors. Designed specifically for the semi-trailer Industry.
<b>Maintenance</b>	Most components of the machine are readily maintained by your personnel, GT Automation will provide support when and if necessary. GT support can be on obtained on a time and material basis or as part of a support agreement.
<b>Pricing</b>	Pricing will vary with the specific requirements of your machine and will be impacted most significantly by whether it will service a single track or dual-track assembly line.
<b>Value</b>	Properly deployed the floor machine will have a <b>payback of one year or less.</b> The payback period varies with the amount of machine use (i.e. days per year, shifts per day, hours per shift, screws driven, and the full cost of labor displaced).





The Semi-trailer floor assembly machine designed and built by GT Automation locates the I beam cross members in an adjustable fixture which accommodates various trailer widths and beam spacing. Typically it will accommodate up to three widths and beam spacings. The fixture clamps the beams and squeezes the wood or aluminum floor. It can also handle a hybrid wood and aluminum floor.

Once the parts are placed in the fixture and clamped, the operator can set up the beam and screw patterns in the PLC through an operator interface panel. The beam and screw pattern may be stored for future use.

The machine contains twelve drill heads, six are 1/2 hp and six are 3/4 hp all have hydrarchecks to control feed. Screws driven into a wooden floor are countersunk and their depth is controlled. On an aluminum floor the screw torque is controlled. The required screws are supplied by two vibratory bowls through a blow feed system.



Our machine moves over the fixtured floor guided by a rail system and positioned by an integrated AC servo drive unit and encoder. The PLC retains location information in the case of power loss.

A vacuum system sweeps the floor to clean the debris from the drilling operation.

For greater throughput, a double floor system allows one floor to be assembled and clamped while the other is being drilled and fastened together. This system can produce a 54 foot trailer every 18-20 minutes. In this system the floor locating fixtures are arranged in a parallel setting and the screw driving cart is automatically transferred from one side to the other. This system could also be doubled up to have two screw driving carts simultaneously working on the same floor.

A big advantage of our floor assembly system is the quality of the resulting floor. The screw patterns are precise, the screws are straight and hit the I beam, the overall appearance of the finished product is superb; and the manpower to accomplish floor assembly is much less than traditional methods. The system requires one man to operate the equipment and a couple to load the fixture.

We would be happy to discuss your application.

## Quality and Production

UP ↑

Cost

Down ↓

