

## AstroFusion™ Seaming Installation

<b>Description</b>	The process of adhering main seam installation utilizing patented AstroFusion technology.
<b>Responsible Party</b>	Turf Installation Company
<b>Manpower</b>	Two (2) Skill Sewers, Four (4) Laborers
<b>Equipment</b>	AstroFusion Cart, including fully charged battery, two (2) -20 gallon Propane Tanks, AstroFusion pre-glued tape, Cart accessories – viewing mirror, IR temperature gun, allen key, fire extinguisher, propane torch, and battery charger, Protective gear – leather gloves, eye protection, fire extinguisher, and Two (2) ton double drum roller
<b>Materials</b>	Turf panels, AstroFusion, Approved Shop Drawings
<b>Average Duration</b>	4 days (80,000SF)

### A. Process

1. Cut and prepare panels for glued seam. Fold back one edge of turf.
2. Slip Pre-glued tape under turf edge, aligning centerline marker in the glue-tape with the turf edge.
3. Fold back remaining turf edge.
4. Pull off protective film in front of advancing heater cart.
5. Heat the glue – using patented, self-propelled infrared heater.
6. Insure heater is at proper operating temperature, and that the AstroFusion glue-tape is heated to the noted optimal temperatures:
  - As tape exits from back end of cart: glue to be between **350 and 400 degrees F.**
  - As Turf is laid into glue: glue to be between **240 and 260 degrees F.**
7. Fold the turf into the heated glue
  - Lay turf into glue at consistent distance of approximately 5' behind the cart.
  - Note that one side of turf fibers will be leaning away from the seam and the other side of turf fibers will be leaning in towards the seam. This is important because one side must laid in the glue before the other, so no adhesive sticks to the fibers and the seam is clean. The cart guides the turf to a position where it is just about to lay into the glue joint. One installer guides the final insertion of the turf into the glue.
  - Install side with turf fibers leaning away from the seam first as this will keep the fibers up and out of the adhesive.
8. Roll the joint with double drum roller immediately behind the setting of the turf into the glue.
9. Continue installing the rest of the main seams on the field using the above mentioned methods.
10. Sidelines:

- Previously glued ends of the main panels may soften when rolled back in preparation for adjoining sideline panels. It is recommended that either clamps on the main seams be installed, or this part of the work be done during the cooler hours of the morning or late evening.
  - Prior to gluing sideline panels, cut in and install the sideline hash marks, using conventional hotmelt adhesive. If present, remove film off back of seam tape at all hash marks prior to gluing in the sideline panels.
11. Trim final excess around the perimeter and attach turf to the nailer board using staples not more than 4 inches apart.
  12. When storing AstroFusion tape- protect from direct sunlight and excess heat.

## ASTROFUSION CART MACHINE



## Inlays

<b>Description</b>	Method to install inlays
<b>Responsible Party</b>	Turf Installation Company
<b>Manpower</b>	Minimum of 4 Employees
<b>Equipment</b>	String Lines, Nails, Templates, Tape Measures, Carpet Knife, Loop Pile Cutter, Double Cutter, Shears, 2' and 10' Straight Board, Vacuum, 1/4" Notched Trowel, Glue Box, Generator, Paint,
<b>Materials</b>	Adhesive, Turf Inlays, seam tape
<b>Duration</b>	3-5 days

### B. Cutting in Inlays

1. Use the following process to cut in hash marks, in bound marks, media lines, numbers, letters and logos.
2. Set up string lines to install the inlays according to the measurements on the shop drawings. This will ensure that you are starting with a straight line.
3. The actual letters and logos will be their own template.
4. Set the number or letter (template) in place, brush the fibers out from under the sides of the template ensuring that the fibers are in their finished position before cutting. (this is what it is going to look like once the inlay is installed)
5. Use a carpet knife with a new blade to make a cut in the turf, use a loop pile cutter to finish cutting the turf out where the inlay will be installed.
6. Remove and discard the cut out turf.
7. Install seam tape under cutout area, ensuring it extends at least 4" beyond the cutout opening in all directions
8. Using hot melt adhesive, apply continuous glue bead 1/2" from edge of cutout, and then a zigzag glue area extending 2" into the turf area from the continuous bead
9. Press the green turf into the glue applied above, carefully laying the turf into the glue with rolling motion toward cutout opening
10. Immediately apply bead of glue in center of inlay area, and on any cooled glue which may have oozed into the opening from the application above
11. Lay the inlay piece into the glue, rolling from center toward seam with green turf. Follow ahead with additional glue in same manner until entire inlay piece is placed in continuous operation
12. The tolerance is 1/4" or less between spacing of inlay and turf.
13. Use this process to install the rest of the inlays.



**C. Cutting in Multi Sport Packages (long inlays)**

1. Set up string lines to install the inlays accordingly to the measurements on the shop drawings. This will ensure that you are starting with a straight line.
2. Lay a straight board down to match the string line, this allows you to be able to cut a straight line.
3. Brush the fibers out from under the straight board ensuring that the fibers are in their finished position before cutting. (this is what it is going to look like once the inlay is installed)
4. Use a carpet knife with a new blade to make a cut in the turf, use a double cutter to finish cutting the turf out where the inlay will be installed.
5. Steps 6 through 13, from 'Cutting in Inlays', above.

