

# CGEM-IT - PLANAR GLUING

## Instrumentation

1		Big blue box with the layer inside (Fig. ??)
2		Pallet truck (manual Fig. ??)
3		4 wheels (Fig. ??)
4		Electric screwdriver
5		Cutters and Scissors



Figure 1: 1



Figure 2: 2



Figure 3: 3

# CGEM-IT - L2 MANDREL WITH GEM FOIL

## Procedure

1		Open the blue box from the long sides, by removing the screws around the frame of the panel. Fig. ?? shows only one side open, open both of them
2		Remove the wire on the for screws at the corner of the support by cutting it (Fig. ??)
3		Remove the foam protection from the bottom of the layer. BE CAREFUL NOT TO HIT THE MANDREL (Fig. ??)
4		Check for macroscopic problems (defects in the bag, signes of humidity inside the bag,...)
5		Remove the screws that hold the support to the bottom of the box (Fig. ??)
6		Place the fork lift close to the box as shown in Fig. ??
7		With two people, slide carefully the support out the box towards the fork lift. BE CAREFUL AT: <ul style="list-style-type: none"> <li>• The pad below the corner of the support: let the support slowly fall off of them</li> <li>• The fork lift to be fixed when you slide the detector on top of it</li> <li>• Not to hit anything, anywhere</li> <li>• If in doubt, stop the operation and ask</li> </ul>
8		With the mandrel on the support, on the fork lift, place the wheels at the 4 corners as shown in Fig. ?? and Fig. ??
9		Remove the fork lift to allow the movements around the mandrel. Do it slowly checking that the wheels are well fixed.
10		Check for macroscopic problems (defects in the bag, problem with the filter and pipe,...)
11		Remove the first vacuum bag: <ul style="list-style-type: none"> <li>• With a scissor, cut along the lenght, close to the black mastic sealant (Fig. ??). Careful not to touch anything below</li> <li>• From one extremity at time, pull out the vacuum bag with the mastic sealant. Careful not to touch anything</li> </ul>
12		Check for macroscopic problems (defects on the green peel ply, humidity effects,...). You can slowly and lightly touch above the surface
13		Remove the peel ply: <ul style="list-style-type: none"> <li>• Release a bit the screws on the support that hold the mandrel's axe</li> <li>• Check that mandrel can rotate</li> <li>• Remove the tape at one extremity of the green peel ply</li> <li>• Roll the mandrel to remove the peel ply (rewind the peel ply because you're going to need it again)</li> <li>• BE CAREFUL NOT TO HIT ANYTHING</li> </ul>
14		Check for macroscopic problems (defects on the GEM foil below the vacuum foil, humidity effects, hits..). You can slowly and lightly touch above the pink vacuum foil
15		Remove the vacuum foil slowly by pulling it away from the GEM foil
16		Check for macroscopic and microscopic problems (defects on the GEM foil below the vacuum foil, humidity effects, hits..). YOU CAN NOT TOUCH THE GEM. With lens check also the GEM holes.
17		Once the inspection is declared finished. Repeat the operation in revers.



Figure 4: Box open on the long side



Figure 5: Wire on the screw



Figure 6: To slide the detector out the box



Figure 7: To place the wheels below the support



Figure 8: First cut to be done along the length close to the mastic sealant