

GROUND PLANE TEST PLATFORM FOR AEROSPACE INDUSTRY

SPECIALTY SOLUTION #13

AEROSPACE

- 4,000 lb. capacity, hydraulic actuation, 754” x 720” platform, 138” vertical travel
- Custom designed spring-loaded casters can be moved manually into four pre-set positions, allowing the platform to be towed into a storage building
- Removable platform sections that can be quickly mounted for additional floor space
- Removable fiberglass handrails that surround the perimeter of the platform
- The detachable staircase articulates as the platform is raised and lowered; this allows personnel to climb the staircase even while the lifts are moving



A jet engine test facility in Mississippi required a custom piece of equipment that could be used to simulate the ground (such as a landing strip) at various heights during jet engine testing. To fully meet the customer’s needs, Handling Specialty engineered and manufactured a “ground plane simulator” that can be positioned outside during jet engine testing, and can be towed inside and stored when not in use. This equipment is a crucial part of the jet engine testing process, and is used several times each year.

The large and custom shaped platform is mounted on four hydraulically-actuated electronically synchronized scissor lifts. An intricate laser leveling system ensures that all four scissor lifts are level prior to raising the platform. Once the platform has reached the desired height, eight 30-ton leveling jacks are engaged at an extension rate of 5/8” per minute and provide a secure platform for personnel. At the base of each jack, a load cell measures the force applied to each jack so that they are not overloaded during leveling. A pressure switch triggers an alarm if the maximum allowable force is reached.