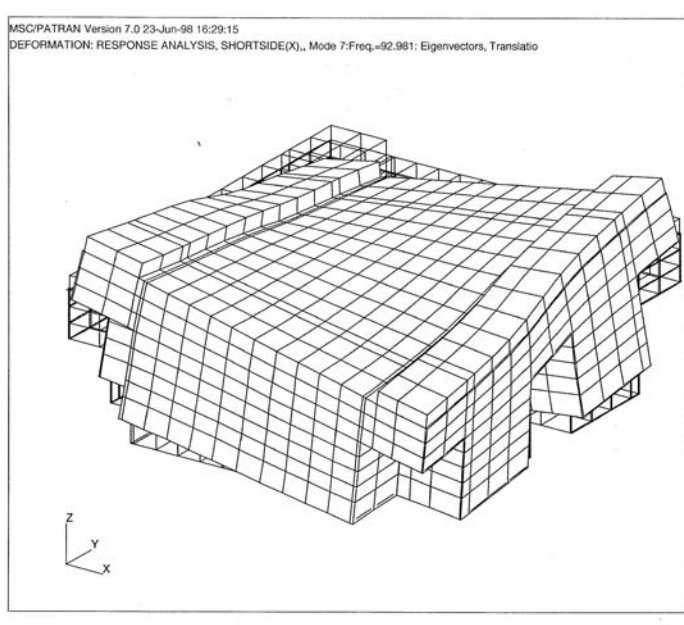


Fabreeka® Isolates Leitz CMM in San Diego, CA, for Solar Turbines

Solar Turbines was installing a Brown & Sharpe / Leitz 50.38.25 PMM gantry coordinate measuring machine at its headquarters in San Diego. Brown & Sharpe designed the machine to be capable of measuring large turbine assemblies weighing up to 77,000 pounds with an accuracy of 1.0 micron. Fabreeka® was awarded the contract to isolate this 20 ft. wide by 22 ft. long gantry machine, the largest CMM with this measuring accuracy in North America.



A modal analysis of the support foundation shows the reaction of the mass under load. The dynamic response provides the bending modes and the frequencies at which they occur.



The finished pit ready for forming the mass and the isolator pedestals on the pit floor.



Design of the mass and pit is provided based on the results of the dynamic analysis. Since the installation site is in close proximity to San Diego Harbor, piles were required under the pit to support the total payload.



Six isolators support the CMM and payload. Each isolator can support 150,000 lbs and has a vertical and horizontal natural frequency of 1.4 Hz. In addition, the isolators were designed to protect the CMM against earthquakes in the Zone 4 area.

NIST performed the calibration and repeatability testing of the machine, which provided measurements in the order of half a micron, exceeding the specified accuracy.