

MAGLEV, Inc. R&D Facility - U.S. Navy Hybrid AL6XN – GRP Composite



The interior of the MAGLEV, Inc. R&D fabrication facility is 60 feet wide and 360 feet long. It is equipped with two independently controlled 25-ton cranes. The facility is environmentally controlled with a continuously operating air circulating system that provides a uniform temperature condition throughout the building. Temperature is controlled so that variations no greater than +/- 5 degrees F are experienced from summer to winter and day to night. The environmental control is essential to allow precision measurement of weld distortion determinations to be made.

The illustration shows a test beam being fabricated with materials for future U.S. Navy applications. This test beam is principally composed of a superaustenitic stainless steel. This advanced stainless steel structure will be combined with composite panels to provide the Navy with a large size beam for follow on test and evaluation of structures composed of these materials.

Also shown in the background are some beams from an earlier program performed for the U.S. Navy to demonstrate the management of weld distortion during fabrication of large curved steel components. The beams were utilized to establish a statistically verifiable process to achieve precision dimensional control during the fabrication of large steel structures.