Schebler Specialty Fab
Truss Bridge News – for Web Site (rev. 2/24/10)

Schebler Specialty Fab Helps
University of Iowa Make Waves

February 17, 2010. Schebler Specialty Fab has just handed in an important college assignment: 1,250 feet of aluminum tubing, precision-cut, formed and welded into a complex, moving truss bridge.

The structure is destined for the new $4-million Wave Basin Laboratory funded by the U.S. Navy and built at the University of Iowa's Institute of Hydraulic Research. UI engineering staff will be able to simulate stormy sea conditions – from pitch and roll to slamming and ship-to-ship interaction – and measure the effects on radio-controlled, scale model vessels. The truss bridge will span the 70' pool as part of an automated crane carrying cameras and computers.

Besides the ability to perform the job as a single-source supplier, Schebler was selected for the demanding project based on several critical factors. Among these were the capability and reputation for fabricating and welding complex aluminum assemblies, precision forming, holding tight tolerances and 3D laser cutting.

"The bridge truss is going to be bolted on top of two end trucks separated by 70'," says UI's Joe Longo. "It's not only important that the finished size of the truss fit onto the footprint of the crane, but the hole patterns on the anchor feet have to perfectly match the hole patterns on the end trucks that are already installed. That's a huge thing."

"Here's where our 3D laser came in," says Schebler account manager Jerry Honts. "We were able to take the computer model UI gave us and put the elements into our programming system piece by piece so that we could cut the copes precisely and repeatedly. It was a big time saver – and with the tight tolerances, it would have been nearly impossible to do any other way."

Once welded, assembled and final inspected on the shop floor, the truss bridge was disassembled for powder-coating and traveled along Interstate 80 to Iowa City – in 20 horizontal, tower and bracing segments. Its installation, along with the crane and six wave-makers, is slated for May 2010.