



Palladium

Product Development & Design



www.palladium-pdd.com

PROJECT PROFILE

PRODUCT DESIGN – SHIPPING CRATE

PROJECT DESCRIPTION

A world leader in analytical instrumentation required an appropriate shipping crate for the transporting and delivery of their new state-of-the-art mass spectrometers. Mass spectrometers are analytical instruments used in the mining, pharmaceutical, and semiconductor industries to determine the elemental composition of samples and the company had just finished the development of completely new machine. These highly sensitive machines are valued at several hundred thousand dollars apiece and shipping them around the world required specially designed and failsafe packaging and shipping containers. The shipping container development was the final piece in the largest product development project ever undertaken by the company with the new machine rollout and this final effort for the shipping container required outsourcing of various expertise.

Prior to the incorporation of Palladium Product Development & Design several current Palladium personnel were retained to assist in the design of an appropriate shipping crate. It was required to physically hold the new mass spectrometer, provide vibration isolation and balance the instruments' centre of gravity during fork-truck and other lifting and shifting movements. The final loaded crate was required to withstand industry standard ISTA shipping test criteria. The outsourced engineering team was able to develop a simple, inexpensive knockdown design using standard construction grade wood, which met all criteria and passed ISTA shipping test criteria

SUSTAINING ENGINEERING REQUIREMENTS

Following the incorporation of Palladium Product Development and Design ongoing engineering services have been provided to the company and several of the same personnel (some with over 20 years industry experience) are still active with the client in continued upgrades and product improvement programs. Design modifications related to manufacturing efficiencies, researched quality improvements and implementation of client/user feedback are part of the company's continued quality improvement ideology

