



Background

The auto body business is in a strong evolutionary phase where the material and components previously used for over 50 years, are rapidly changing. The materials are changing quickly for several reasons. Government regulations, not just in the U.S. but Europe and certain Asian countries as well, are regulating safety procedures and mileage requirements. The market is responding accordingly to these measures.

To address these issues, the auto industry has moved rapidly into constructing vehicles with lighter and stronger materials starting with the frame. Some of the materials used in the new frame manufacturing, either stress strength or impact absorption that collapses when stressed. These changes have resulted in the need for newer methods and systems in the auto body repair business, to provide the capabilities of restoring an auto after impact, to the closer tolerances required with the new frames.

Frames are the foundation of the vehicle. Without a frame that is within the tolerances of the original specifications -- doors, windows, panels and trim had to be pulled to it – which is not even possible with the new frames. Aligning the new bent frames is becoming a science of measurement.

For years, the aerospace community has been obsessed with weight and drag for safety and fuel efficiency. From these concerns, they have been on the forefront of using materials that have the necessary strength, flexibility and weight characteristics to achieve their goals. The use of lighter weight and stronger materials solves part of the equation, but in aerospace, fit and finish also are important elements in drag. To better the fitting and joining, the aerospace industry has invested heavily in laser measuring technology. Lasers are used for sub-assembly compliance, jig construction and on the assembly line for joining work. The use of this methodology has substantially improved the parasitic drag of the airframe and improved both cruise and fuel performance.

Now, a next generation measuring system, the Infinity XMS, has been introduced into the auto body frame business. The newest system employs the methodologies inherent in the most current aerospace systems. It uses active targets rather than reflective devices to provide for 3-dimensional resolutions that can correct for datum offsets and vertical frame anomalies. By using green lasers, and engineered noise filters, the scanner systems can operate to an accuracy of +/- 1mm over a 40-foot radius. These innovations, using current technologies, have improved accuracy and eliminated the need for constant calibration of the measuring system. The addition of on-line capabilities eliminates the need for constant data updates. These innovations have reduced the cost of ownership of laser measuring tools significantly.



This next generation system has added a new easy-to-use interface that allows for drag and drop location of all targets and automated registration. The system provides for on-line XMS interfaces to the most popular estimating software and insurance company submission requirements. The latest laser technology has greatly improved the accuracy and the employed computer technology has improved the ease of use.

In addition, Infinity's relationship with Mitchell International allows us to provide the latest and most accurate frame data on the market today. The online Internet connection loads the proper and most current frame data upon initialization of a new work order. Mitchell International is the leading independent data source in the world, and its data capabilities provide Infinity a great strategic partnership.

Like all technical equipment, it requires additional training to fully utilize its capabilities. Infinity has incorporated a state-of-the-art training center where their dealers must become fully certified prior to selling and supporting the cutting-edge Infinity 3D Laser Measuring System. A classroom which includes a fully developed curriculum and an online and in-system tutorial for the customers, has been combined with an experience technical staff to stand ready to assist any usage and possible field problems.

Infinity's leadership understands, "With the technical capabilities of today's equipment, we cannot expect the auto body repair industry to just open the shipping crate and use the equipment without a world class support organization behind it."

Laser systems are without a doubt, the most accurate and with the tighter tolerances and sophisticated materials usage of today's auto bodies, a quality repair cannot be accomplished without ensuring the frame meets factory specifications.