

# Chris Alston's Chassisworks

For more than 35 years, Chris Alston's Chassisworks has been committed to developing and manufacturing components for full-chassis race cars and street/strip applications. Its continual investment in design and manufacturing technology has guaranteed the company's success and strengthened its reputation for making high-quality components that install with unexpected ease and provide exceptional performance. Chassisworks' ability to invent and refine products to match the needs of today's drag racers is made possible by its well-equipped in-house research-and-development center.

Over the last few years, a growing demand for bolt-on products in stock-suspension race classes has prompted a change from making the car fit the suspension to making the suspension fit the car. Accurate fit is one of the more important elements of developing direct-fit bolt-on products to meet this demand – not only to simplify the task of installation but to ensure that each product system is securely and safely mounted and performs as intended by the developers.

The FaroArm laser scanner allows Chassisworks to quickly create a highly accurate digital model of a component or vehicle platform, from which design criteria and constraints can be established. The portable design of the FaroArm allows it to be set up just about anywhere. Information gathered by the laser



**The FaroArm laser scanner is just one of the computerized measurement devices in Chassisworks' high-tech tool bin. With point and shoot ease, Chassisworks' laser scanner picks up fine details, such as casting imperfections, threads, and even tooling marks.**

scanner is transferred in real time to a laptop computer workstation. With this, an entire vehicle platform can be scanned as easily and accurately as the smallest of components. The resulting computer model includes minute details such as individual threads, surface imperfections, and tooling marks. This level of accuracy at the initial data-collection stage is carried on throughout the development process to ensure Chassisworks' products fit correctly right out of the box.

Chassisworks has been using Pro/Engineer development software (used by many of the world's largest automotive and aerospace manufacturers) for more than a decade to create products for its broad range of customers. The company is able to design directly around the scanned vehicle platform, rapidly creating product-assembly models that can be manipulated, tested, and improved upon before even making the first prototype components. End-user installation and assembly are carefully looked at during the computer-modeling stage to determine and correct any difficulties that may arise from the

product design, including hardware selection and tool clearance requirements.

After the product design has been approved, the model and assembly information is transferred directly to the various types of manufacturing machines found throughout Chassisworks' facility. The tight integration of technology within the factory significantly

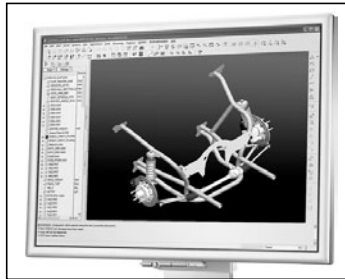
reduces any chances of human programming errors and saves hours of time and expense.

Chassisworks has invested millions of dollars in building one of the most automated manufacturing facilities in the automotive aftermarket industry. In addition to a number of CNC saws, tubing benders, laser cutters, and press brakes, Chassisworks employs the services of multiple robotic-spray arc welders. These marvels of manufacturing technology create perfect welds every time and significantly reduce the amount of man-hours that factor into the cost of the final product.

A variety of the latest high-speed CNC machines fill Chassisworks' machine shop. In the interest of efficiency, machines are continually upgraded with the newest advancements available to increase power, speed, capacity, and accuracy. Many of the production machines are equipped with automated feeders that enable the operator to bulk load the



**Chassisworks' manufacturing facility houses the latest in automated machining centers. This example features an automated two-tier fixture loading system and holds 160 different tools.**

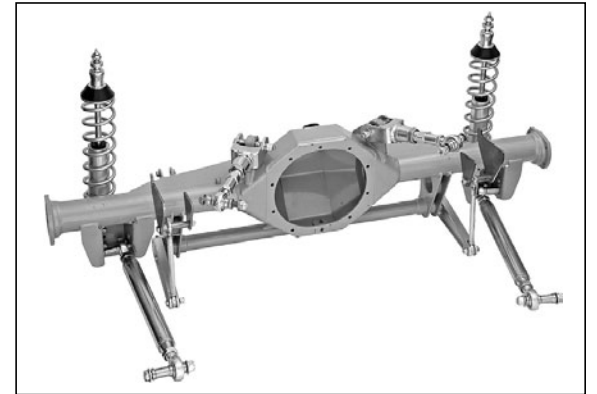


**Product systems, such as this bolt-on Chevy II drag race strut clip, are built as assembled computer models, which can then be used to develop manufacturing fixtures and test various product options.**



**Robotic-spray arc welders consistently churn out error-free drag race products with strong and reliable welds.**

machine with dozens of material blanks. Once loaded, the machines can run unattended for hours or even overnight. By maximizing machine time and reducing the staffing hours required, Chassisworks can offer some of the highest-quality, finished components at a value that is difficult for others to match.



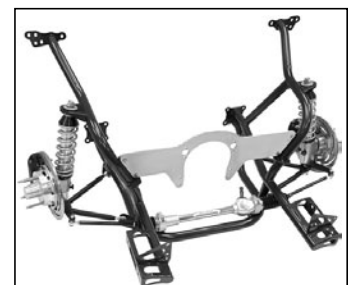
**Engineered for stock-suspension drag racing classes, Chassisworks' FAB9 housings provide an easy conversion to the Ford 9-inch rear end and feature multiple mounting positions for instant-center and ride-height adjustment.**

One of the areas in which Chassisworks has focused its technology is the stock-suspension Outlaw Drag Radial classes with development of its direct-fit FAB9 rear-end housings and related suspension components. The FAB rear suspension systems offer a selection of race-ready bolt-on housings, control arms, VariShock coil-overs, anti-roll bars, and wheelie bars for 1979-2004 Mustangs and 1964-87 GM A/G-body vehicles. *Early in 2009, Chassisworks' bolt-on products helped former Outlaw Drag Radial world record holder, Kevin Fiscus, become the fastest small-block-powered Outlaw racer, making back-to-back six-second passes with a best of 6.94 at 216 mph.*

Chassisworks' level of design efficiency is evident in its 100 percent bolt-on drag-race strut conversion

clip, which weighs only 124 pounds, for 1962-67 Chevy IIs. The packaged system includes the factory-welded 4130 frame clip, double-adjustable billet VariStruts, tubular control arms with 4130 rod ends, billet-aluminum drag race rack-and-pinion, billet rack clamps, bump-steer-adjustable tie-rod ends, and complete disc-brake set with billet hubs, lightweight rotors, and aluminum calipers.

In addition to bolt-on drag race products, Chris Alston's Chassisworks has built one of the largest product selections (more than 7,000 packaged goods), spanning multiple performance and enthusiast groups that includes race chassis and OEM platforms from drag racing, street performance, road racing, and sport trucks. For more information, log on to [www.cachassisworks.com](http://www.cachassisworks.com). **ND**



**Chassisworks' 1962-67 Chevy II strut clip complete assembly lightly tips the scales at 124 pounds, including rack-and-pinion, billet struts, and brakes.**