



## HOME

### WHY IT PAYS TO HIT THE ROAD WITH TES

Whether it's vehicle engineering design, analysis and development or our full suite of sophisticated Computer Aided Engineering (CAE) services, TES offers global automotive manufacturing companies and related industries an exemplary track record of engineering solutions that's second to none.

Launched in 2001 in Cape Town, South Africa, TES plays an integral role in the success of Chicago-based parent company GWV Group, an internationally-diversified holding company comprised of independently-run businesses.

#### TES Provides:

- Accelerated "time to market"
- Access to skilled engineering professionals
- Benefits of South Africa's rand/dollar advantage

### WHAT CAN TES OFFER YOUR ORGANIZATION?

Automotive engineering expertise. Vehicle engineering design and production services is the only thing we do.

Our virtual automotive engineering design/development facility allows us to quickly and efficiently deliver highly-advanced engineering integration solutions to a wide spectrum of vehicle and other manufacturers.

An experienced team of dedicated engineering personnel who conduct innovative design and development projects for clients worldwide.

Our proven Development Management process ensures that assignments are consistently completed satisfactorily, potentially saving you both time and money.

### AREAS OF EXPERTISE

#### Vehicle engineering design and development

TES offers engineering design, analysis and drafting services from the company's fully-equipped design facilities. Our engineers and draftsmen are professionally trained to use 3D CAD software packages to their full potential. We also employ experienced vehicle structural analysts to perform Finite Element Analysis for strength, durability and vibration resistance. We generate innovative solutions and build virtual prototypes through computer generated 3D solid models that are converted into detail manufacturing drawings and assembly drawings once the prototype models are approved by our customers. If required, we build prototypes, carry out testing and assist with start up of production at any preferred site.



From concept to production, applying modern CAE software and techniques, TES provides a complete integrated Engineering Service including:

- Styling
- Virtual mock-ups
- Ergonomic studies
- Chassis and integration component detail design
- Engine and transmission packaging
- Cooling system development
- Electrical systems design and integration
- Electrical harness design and 3D routing
- Extensive structural and dynamic component and system analysis
- Component and system fatigue studies
- Kinematics, suspension and handling simulation studies
- Driveline development

#### Capture of conventional engineering information via a sophisticated CAE system

We use a variety of state-of-the-art CAE creative and analytic tools including ADAMS dynamic simulation software and MSC finite element analysis software.

We operate Unigraphics NX and other 3D CAD modeling packages. Our simultaneous or concurrent engineering processes expedite the introduction of quality products and ensure a highly competitive time-to-market.

We offer a holistic approach and no-compromise work ethic to each project we undertake. Through our unique relationship with our holding company, we have developed an effective communication model that ensures timely information exchange and progress reporting. Designs, manufacturing drawings, bills of material and any other required documentation are created and maintained to our customers' exacting standards. Our capabilities include the creation of fully-functional web-fronted databases for global network functionality.