



ISO 9001:2000

Engineering Services

Engineering Service Offered By AEG Through Joint Venture Partner In India
Premium Components...Without The Premium Price

Industry

Automotive, Aerospace, Rail/Transportation Industry, Defense, Construction, Marine, Medical, Sports & Recreation, Oil & Gas, Energy, General Industrial Applications

Product Type

Rubber, Metal, Plastic, Composites, Ceramics

Software

CAD
Pro/Engineer



CATIA

Unigraphics, I-Deas, Solidworks

CAE

ABAQUS, ANSYS, MSC.Nastran, MSC.Patran, LS-Dyna, MSC.ADAMS, Hypermesh, MSC.Dytran, MSC.Marc, Ansa, MSC.Fatigue, SYSNOISE, OptiStruct

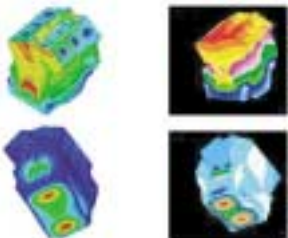
CFD

STAR-CD, FLUENT, CFX, ICEM CFD, GAMBIT, Pro-am

Manufacturing

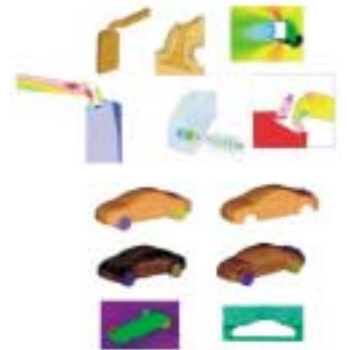
Simulation

MSC.Superform, MSC.Superforge, Hyperform, Moldflow



Design CAD

- Concept & Detailed Design
- Assembly Modeling
- 2D/3D Modeling
- Advanced Surface Modeling
- Tool & die design
- Design of jigs & fixtures
- Design Modification
- Design of test rigs
- Machine tool modeling
- Design support for manufacture / testing
- Composite Structure Design
- Legacy Data and Drawings Conversion
- Value engineering & reverse engineering
- Feasibility Study



Analysis and Simulation

- Computer Aided Engineering (CAE)
- Finite Element Meshing of Structures
- Structural Analysis
- Non-Linear Analysis (Crash, Contact-Impact, Material Geometric)
- Instability Analysis
- Dynamic Analysis of Structures, Systems & Components
- Damage Tolerance Analysis
- Thermal Analysis
- Viscoelastic Analysis
- Crack Propagation (Fracture) Analysis
- Thermo-mechanical Analysis



Computational Fluid Dynamics (CFD) Solutions

- External Aerodynamics
- Aero Thermal Analysis
- Helicopter Aerodynamics
- Turbo Machinery Flow Simulation
- Mesh Generation (Hybrid, Hexa & Tetra) for variety of CFD simulations
- Transient Simulations Involving Moving Meshes Viz Sliding, Rotating, Dynamic Cell Distortion Techniques
- HVAC & Climate Control Analysis
- Thermal Analysis and Management of An Engine
- Brake Cooling Analysis
- Underhood Flow Analysis
- Exhaust Manifold & Exhaust Systems Analysis
- Emissions & NOX Calculations
- Coupled FSI Analysis
- Free Surface Simulation Techniques for Sloshing Problems
- Various CFD Solvers Catering to Application Based Flow Simulations
- Large Problem-solving Using HPC Techniques



Advanced Engineering Solution

- Noise, Vibration & Harshness
- Crash
- Durability
- Vehicle Dynamics
- Multi-body Dynamics
- Aeroelasticity
- Composite Structure Design
- Structural Integrity
- Virtual & Digital Manufacturing
- Product Data Management



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A Global Supplier of Engineering Components

*Engineering Services Offered By AEG Through Affiliates In India