

Detroit Engineered Products (DEP) is an engineering services, product development, software development, consulting and talent acquisition company. Founded in 1998 in Troy, USA, DEP has expanded globally with operations in Europe, China, Korea, Japan and India. DEP employs an accelerated and transformed product development process, facilitated by our proprietary platform, DEP MeshWorks, which significantly reduces product development time across multiple industries.

Detroit Engineered Products (DEP) has become a pioneer in revolutionizing manufacturing processes across a wide range of industries. With a focus on innovation and efficiency, DEP integrates MeshWorks CAE into manufacturing processes in the automotive, aerospace and consumer products industries. Using advanced simulation techniques and AI/ML, DEP enables companies to more efficiently optimise their product design and manufacturing processes, improve performance and dramatically reduce time to market. DEP's CAE solutions enable manufacturers to achieve higher quality standards while reducing the cost of physical prototyping and testing, and significantly shortening development time.

DEP's holistic approach to CAE goes beyond traditional manufacturing boundaries to provide comprehensive solutions that span design validation, process optimisation and performance improvement. Using state-of-the-art simulation tools, DEP enables companies to predict and mitigate potential problems early in the development cycle, resulting in faster innovation cycles and more reliable products. DEP's MeshWorks CAE solutions are driving transformational change across industries, enabling manufacturers to stay ahead in today's competitive landscape.



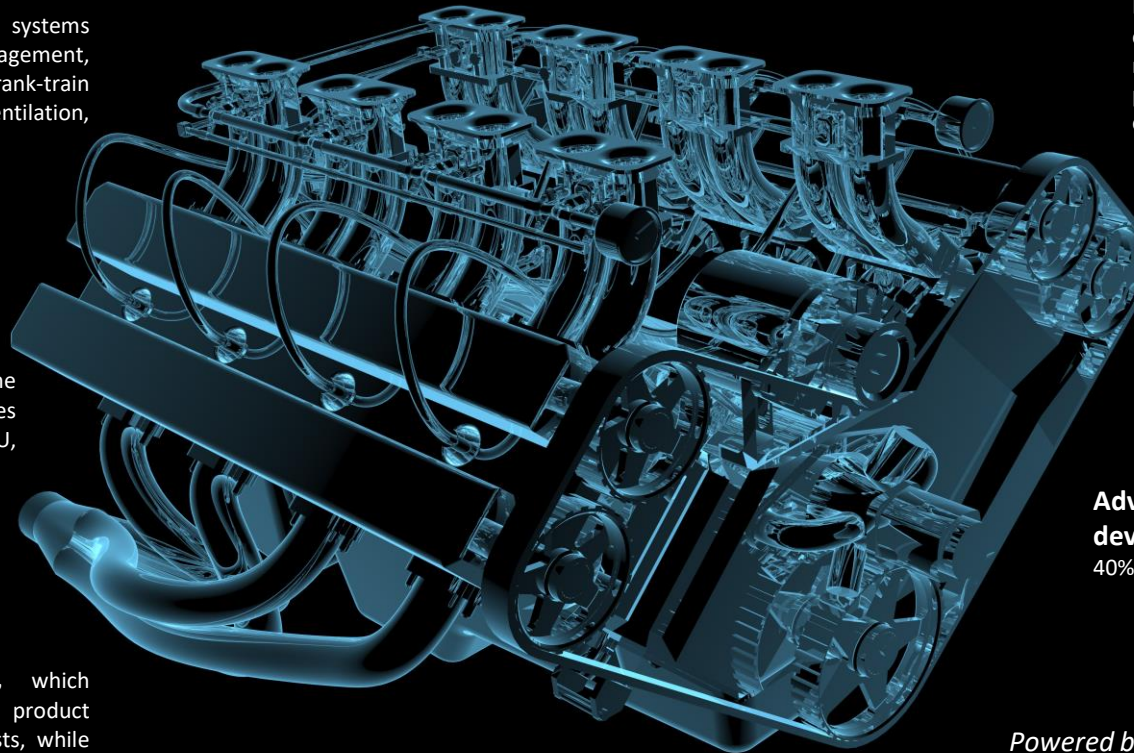
ENGINE DESIGN, DEVELOPMENT & CONSULTING

Production engine development

Capabilities like thermodynamics, systems modeling, combustion, heat/thermal management, induction/intake, block-head durability, crank-train dynamics, engine/powertrain NVH, ventilation, lubrication, etc.

In-cylinder sensor, industry's first volume production combustion sensor that provides combustion and emissions parameters to the ECU, in real time.

Multi-Disciplinary Optimization, which helps meet design targets, minimize product weight and minimize manufacturing costs, while meeting all performance targets.

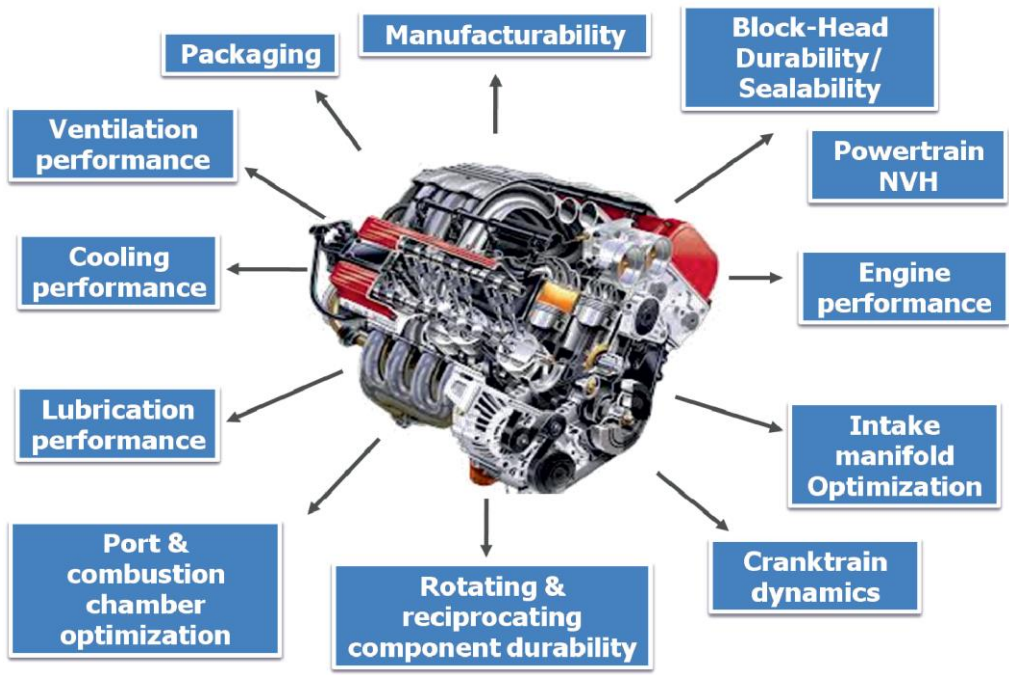


DEP MeshWorks,

our proprietary CAE driven software platform for rapid concept CAE and CAD model generation, parameterization of CAE models, enabling optimization, advanced meshing and CAD morphing.

Advanced high-efficiency engine development, which helps engines provide upto 40% fuel economy improvement at the vehicle level.

Powered by **DEP**
MeshWorks



DEP MeshWorks

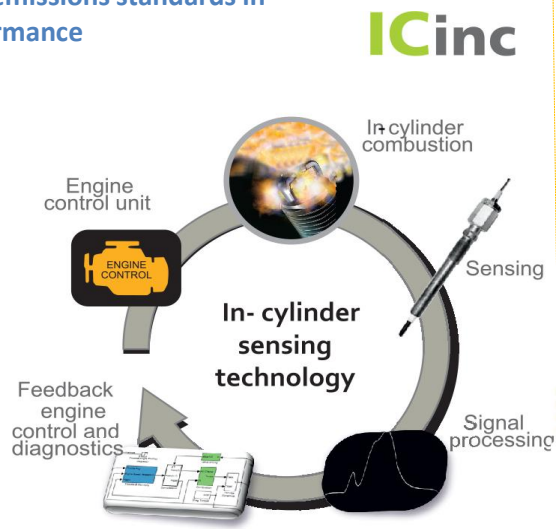
POWER TO TRANSFORM PRODUCT DEVELOPMENT

CAE Morphing tools Reduces Finite Element (FE) & Computational Fluid Dynamics (CFD) model building time by 50 to 80%	Parametric CAE Rapidly converts FE & CFD models to intelligent parametric CAE models, enabling fast design iterations & Design Of Experiment (DOE) studies	Non-parametric CAE models Enables Multi Disciplinary Optimization to meet design targets, minimize product weight and minimize manufacturing cost	CAD-Morpher Technology Generates morphed CAD models with optimized designs rapidly & forms the main link between CAE & Design teams	Design Enablers Enables creation and removal of ribs or such features directly in the FE model stage without CAD
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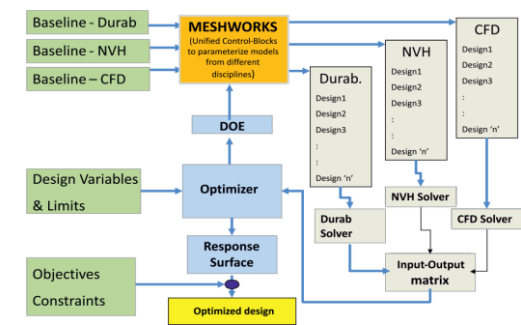
IC sensing technology can help meet stringent emissions standards in addition to targets for fuel economy and performance

- In-cylinder combustion sensors facilitate high response electronic control feedback of the engine in real time
- Enables individual cylinder control on a cycle by cycle basis to meet upcoming fuel economy
- Volume production system and as such low initial and maintenance cost compared to pressure transducers
- Can be retro fitted in existing gasoline and diesel engines with no need to drill another hole in the cylinder head
- Can be utilized for remote monitoring and diagnostics of engines



Multi Disciplinary Optimization (MDO)

- DEP MeshWorks based parametric & non-parametric CAE models facilitate Multi-Disciplinary Optimization to meet design targets, minimize product weight and minimize manufacturing costs
- Parametric models can robustly generate multiple runnable analysis data sets given a Design of Experiments (DOE) matrix
- MeshWorks can be executed in a batch mode and can be integrated within automated work flows
- Ready interface available to major optimization softwares



Email us: email@depusa.com | Visit our Website: www.depusa.com
 USA: MI (HQ) : Detroit Engineered Products, 850 East Long Lake Road, Troy, MI 48085, USA. | Phone: +1-248-269 7130
 INDIA (CHENNAI) : DEP India Pvt. Ltd., #2/86, 7th Avenue, Ashok Nagar, Chennai – 600 083, India | Phone: +91 44 42141453
 INDIA (BANGALORE) : DEP India Pvt. Ltd., 4th Floor, Gamma Block, Sigma Soft Tech Park, HAL – Whitefield Main Rd, Bangalore 560066