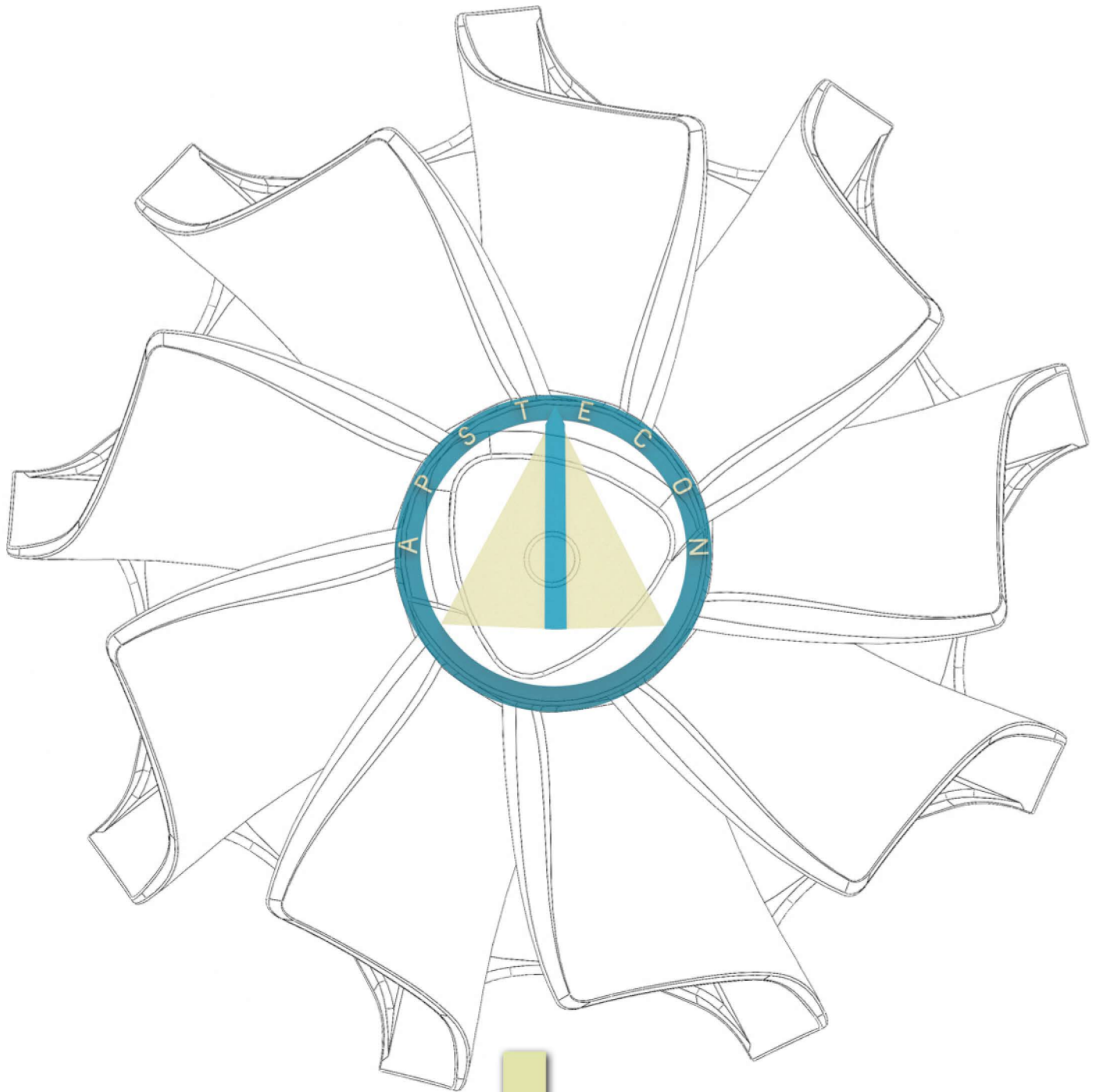


ENGINEERING SERVICES



**ENGINEERING, DESIGN
&
PROJECT MANAGEMENT
SERVICES**

APSTECON

www.apstecon.com
enquiries@apstecon.com

ENGINEERING SERVICES

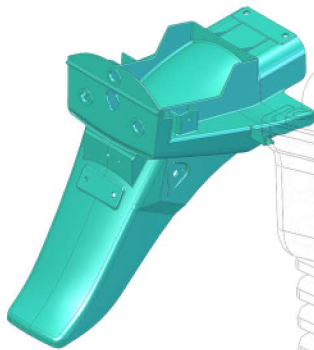
WHY US??

Business Challenges/Problems

- Slow paced NPD meaning longer time to market
- Concept to detail phase keeps critical resources tied up
- Slow paced innovation
- Non-core activities consume more time
- Lack of experienced resources & capabilities to drive distinct projects

Reasons

- Lots of time consumed in creation of virtual products data
- Unavailability of expert level resource for design detailing
- Hiring of short term expert level human resource means higher project cost
- In-house resource focus shift to detailing rather than designing



APSTECON

The desire to solve above listed problems and make life easier for engineering & manufacturing organizations has led to the inception of Apstecon. We are based in India. Working through our own delivery center, we are helping our customers to reduce product development cycle time and thus save more money.

At Apstecon, our goal is to provide best in class architectural, mechanical and civil engg. design as well as project management solutions at most competitive prices. With thousands of man hours of design experience, rich resource pool & a workforce willing to explore new grounds we are here to address all your engineering needs.



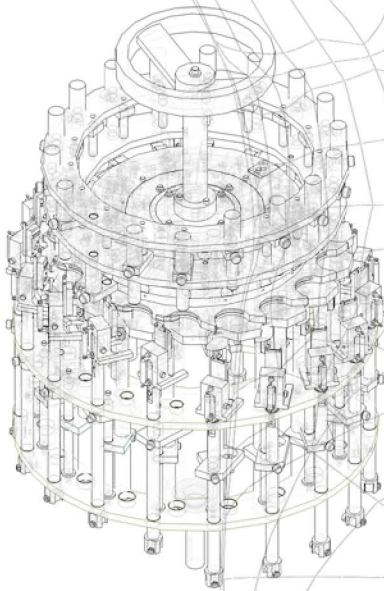
ENGINEERING SERVICES

Business Benefits of Working with APSTECON

Intellectual Property

Apstecon is committed for protection of its customers intellectual property. For this we have:

- In house confidentiality agreements in order to protect customer as well as design data
- Data managed through data management software with particular project access only to project engineers & managers
- FTP access only to project managers and engineers working on the projects
- Information shared only on need to know basis



- Substantial cost reduction.
- Client Focus on core competencies.
- Reduction in new product development time.
- Many Engineering Solutions under one roof.
- Stringent quality control procedures for best in class quality.
- Elimination of the process of searching for a reliable CAD resource on contract basis.
- Hassle free Project Management through Cloud based CAD Collaboration Services
- Elimination of project delays due to lack of expert design and/or Project Engineer
- Standardized design methodologies to reduce design mistakes.
- On demand human resource allocation for a specific time period.
- Higher ROI on CAD/CAM/CAE expenditure
- Online Project delivery and management for all offsite services.
- Monetary benefits of outsourcing clubbed with conveniences of dealing with a local supplier.

Key Capabilities

- Development expertise on all major CAD CAE platforms.
- Product design and manufacturing engineering expertise.
- Ability to handle complex design problems and geometry features.

Industry Verticals

- Construction
 - Consumer Durables
 - Medical Products
 - Industrial Products
 - Automotive
 - Aerospace
- (Product documentation service providers for all industries)

Unique Value Proposition

- No need of searching for a reliable onsite CAD resource as much more can be achieved with an offsite Engineer
- Best in class services at the most competitive rates.
- Monetary benefits of outsourcing combined with convenience of dealing with local company.
- Primary engineer, backup engineer and a design team manager handling each project thus minimizing project delays and ensuring products are designed for manufacturing and assembly



OTHER SERVICES

MECHANICAL ENGG. SERVICES

- Concept Development
- Legacy Data Conversion
- Data Migration
- Parametric part modelling
- Manufacturing drawing creation
- Assembly, Fabrication & GA drawing creation
- Part library creation for data reuse
- Assembly Design
- Intermediate BOM preparation
- Variant/Configuration generation from existing designs as well as design automation through equations and excel
- Structural Analysis
 - Static Analysis- linear and nonlinear
 - Modal Analysis
 - Harmonic Analysis
 - Transient Dynamic Analysis
 - Buckling Analysis- linear and nonlinear
- Thermal Analysis
 - Conjugate Heat Transfer Air/ Water/ Oil-Cooled Motor
 - PCB/Electronic Cooling
 - Building Ventilation Natural/Forced
 - Radiation Model
 - Thermal Comfort Modeling
 - Heat Exchanger Designs – Shell & Tube/ Compact/Spiral
 - Design of Energy Recovery Systems
 - Smoke Simulation/Fire Evacuation of Bldgs.- Wake Pattern
 - Fluid-Structure / Thermo-Structure Interaction
- Fluid Flow Analysis
 - Centrifugal Pumps/Hydro-Turbines - Steady and Unsteady Flows
 - Laminar/Turbulent Flows
 - Internal/External Flows
 - Gas Turbine/Wind Turbine Component Design
 - Fan/Blower Design and Analysis
 - Multiphase (Eulerian/Lagrangian) Flows – Oil & Gas Applications
 - Valve Wear Characteristics Prediction - Particle Flows
 - Porous Media Flow – Simulation of Filtration Equipment
 - Advanced Post – Processing for CFD Results
 - CFD - Positive Displacement Pumps
 - Spray and Atomization – Nozzle Spray
 - Compressible & Incompressible Flow
- 3D scanning Services
- Point Cloud/mesh Preparation for modelling
- Surface/ solid model creation from point cloud/ mesh data
- Photorealistic Renderings for sales literature
- Line drawings for installation and service manuals
- Assembly process document creation
- Interactive animation training creation for assembly operators

ARCHITECTURAL SERVICES

- Schematic Drawings
- Presentation Drawings
- Working Drawings
- MEP drawings
- Manufacturing Drawings
- Fabrication Drawings
- Concept Drawings
- Patent drawings
- Shop Drawings
- CAD Digitization
- 3D Model and Animations
- Cost Estimation
- Scheduling and Phasing
- Interactive 3D Model
- Energy Analysis and Life Cycle Costs
- Lighting Analysis

