

There not having
enough cad
licenses in short,

[Business](#), [Industries](#)



There are many reasons why manufacturing companies outsource their CAD/Engineering design work.

- To bring product to market faster
- To reduce the product/machine cost by minimising the engineering cost.

Core team can focus on critical activities and can be outsourced less critical work to vendors.

- Difficult to hire suitable expertise in a short span of time.
- Hiring expertise may be expensive
- Not having enough CAD licenses

In short, Engineering Services Companies provide surge capacity and flexibility that companies require when they are developing sophisticated systems under aggressive schedules. In short, Engineering Services Companies provide surge capacity and flexibility that companies require when they are developing complex systems under aggressive schedules. Benefits of Outsourcing¹.

Speed of Deployment

- Company's standard workflow to the table when needed. Outsourcing can be an immediate solution for hot projects to kick off the project within a month. Outsourced engineering services afford a quicker time to market and lower overall costs.

2. Focus: Outsourcing the project help you to focus on the Project requirements, Critical activities, and deadlines. Otherwise, your engineers get disturbed with multiple projects and doing maintenance engineering.

The company has the option what activities they can focus inside and what activities they can outsource.

- So the manufacturing company has focus and easy to achieve milestones.

3.

Knowledge Transfer:• Engineering Services Companies follow the well-defined process and do documentation on training to ensure attrition not impact the existing customer. 4. Consistency in results• Engineering Services Companies provide sustainable intellectual property and best transfer for core knowledge than hiring internal staff and training. They also depute engineers to client location till the project completion. • Engineering Services Companies monitor and document engineering hours better than in-house engineering as they need to get approval for every hour they spent. 5.

Greater Breadth of Experience• Engineering Services Companies are adept at bringing the best practices in the industry to your company and your project as they are exposed to a vast array of industries, projects, and companies and thus has a broader set of experiences which help in your project to get the optimal solution. It can be finding a smart technical solution or implementing a process that works. Checklist to choose Outsourcing Company1. How long are they in the Industry? Their presence in globe2.

Current and Past Clientele and their feedback (ask them to share if not confidential)3. Well defined Outsourcing process4. Data Security and Confidentialityo Manned Securityo Fire Wallo Non-Disclosure Agreement6.

Core Knowledgeo Engineering Drawingo First Angle Projection Methodo Third Angle Projection Methodo GD & TUnit Systemo Imperialo MetricManufacturing Processes and DFMA (Design for Manufacturing and Assembly)o Castingo Forgingo Machiningo Sheet Metalo Tolerance

Analysis o OEM Parts Selection7. International Standardso ASME/ANSI8.
 Infrastructure/Communication facilitieso International Callingo Web
 Conferenceo Video Conference9. CAD Tool Application. What tools they
 have and How many? o AutoCADO Inventoro Solidworkso Catiao
 NX/Unigraphics o Pro Engineer/Creoo Sketchupo Solidedgeo Ansys10.
 What all Analysis they are familiaro Static FEAo Dynamic FEAo Thermal
 FEAo CFD (Computational Fluid Dynamics)11. What Data Management
 Software the company is familiaro Solidworks PDMo Adepto Wildfireo
 Teamcenter12. What Services is the Engineering Services Company
 Offering? o CAD Data Migrationo 2D Draftingo 3D Modelingo CAD
 Customization/Design Automationo Product Design/Industrial Machine
 Designo Reverse Engineeringo Re-Engineeringo Jigs & Fixture Designo
 Press tools and Forging Die Designo Value analysis / Value engineering
 (VA/VE)o Finite Element Analysis (FEA)o 3D Animation and Renderingo
 Electrical and Controlso Sustenance Engineering (Engineering Change
 Order/Management)o Technical Publications13.

 Engineering Staff. How many? o Qualifications? High School Graduate?
 Graduate Engineer? Master Engineeringo Certifications•CAD Application
 CertificationoSolidworks Certified ProfessionaloInventor Certified
 Professional•PMM (Project Management Professional)14. Office Timingso
 Time Differenceo Number of Hours opened? 24/7? 18/7? 18/515.
 Quality Management Systemo ISOo Kaizeno Poka Yokeo Six Sigma16.
 What type of Engagement Models?• Project to Project (Fixed Time and
 Cost)• Full-Time Engagement17.

What Industries the Engineering Services Company servingo Automotiveo
Locomotiveo Aerospaceo Energyo Oil & Gaso Semiconductoro
Miningo Industrialo Machine Tools18. Manufacturing Services/Supporto
Machiningo Castingo Assembly