

REVERSE ENGINEERING

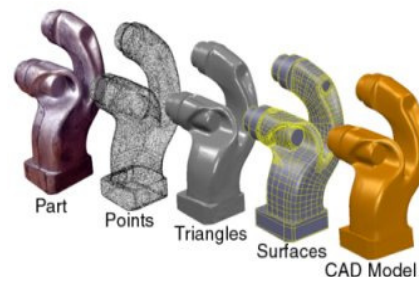
We, at PRRENS, understand the criticality of maintaining and reusing engineering data. Through our vast experience in handling these requirements, Our team is well equipped with all the latest technology know-how like laser scanning, white light scanning, CMM, STL data handling.

Our competencies are...

- Tear down & Reverse engineering
- Legacy Data Conversion

We migrate the following

- Convert the Hand Sketch drawings to 2D CAD drawings/3D models.
- Convert the Point cloud data from CMM / Laser scan into 3D surface / 3D models.
- Convert 2D drawings (AutoCAD, PDF, JPEG, etc formats) into high end 3D CAD tools.



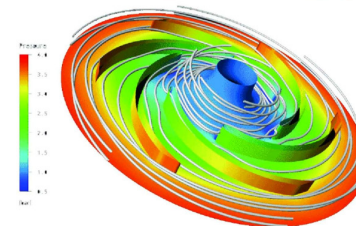
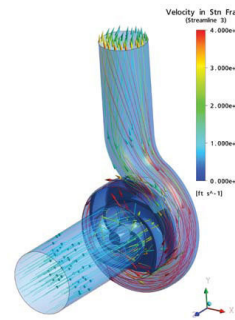
COMPUTATIONAL FLUID DYNAMIC

Centrifugal Pump Transient Pressure

- Performance analysis of centrifugal pump and prediction of characteristics.
- Pressure loss prediction in reciprocating double acting compressor.
- Prediction of flow in a convergent divergent nozzle
- Prediction of flow pattern.

Automotive turbo-charger Analysis

- Analysis of gas turbine exhaust duct to determine the cause of baffle failure.
- Aero-acoustic analysis of automotive air conditioner ducting.
- High pressure turbine blade heat transfer coefficient calculations.



DESIGN RESOURCES @ OUR ROOF

Faro Edge Arm (6ft) 7Axis with V4 Laser Scanner for Reverse Engineering & Inspection

FARO Laser Line Probe Specifications

Accuracy	: ±35µm
Repeatability	: 35µm, 2σ
Scan width	: Near field 53mm Far field 90mm
Points per line	: 752 points/line
Scan rate	: 45,120 points/sec.
Laser	: 660nm, CDRH Class II/IEC Class 2M

Contact Probe Specifications

Model (Measuring Range)	: Edge 1.8 m (6 ft)7Axis
Single Point Repeatability	: 24µm
Volumetric Accuracy	: ± 0.034 mm (±0.0013 in.)

Software

Solid works Premium 2014
Autodesk - AutoCAD LT 2015
CAM 2 Measure 10 Full Version



PRR Engineering Solution
Passion • Responsible • Reliable

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PRR Engineering Solution

PRRENS Passion • Responsible • Reliable

Simplifying Design



Our Design Solution & Services that work for
your product needs





OUR VISION

We PRRENS Create value for our customers through beliefs we set, to be one of the best Mechanical engineering solutions & Service providers in India as well in global.

OUR MISSION

- We deliver Faster, Reliable, and Technologically advanced Solutions & services with ample value / safety and stability with assured customer satisfaction
- Continued technical innovations.
- We grow along with desired customers.
- Stick to ethical business practices.
- Timely response to customer Feed-back, if any.

OUR CORE VALUE

Our value spins around 1P & 2R's (PRR)

Passion : Whatsoever we done & do, and doing from bottom of our heart.

Responsible : We own the complete responsibility of the orders we take to achieve functional excellence. And we respect customers who enrich worth of our lives.

Reliable : Our main objective is to gain TRUST with the people, whom we work and convey to the world that WE ARE RELIABLE people you can rely on.



Welcome to PRRENS

PRRENS also have in-house facility in Computer Aided Engineering (CAE) activities, starting from Concept Design, Detailed Design, Computer Aided Design (CAD), Computer Aided Manufacturing (CAM), Computational Fluid Dynamics (CFD) analysis, Rapid Prototyping & Tooling, Reverse Engineering with ample customer association.

PRRENS is established by a team of professionals with more than a decade of experience in dealing with engineering software and product development solutions.

flexible Design solutions for your product needs

Mechanical Product Development

Mechanical product development (MPD) offerings from PRRENS span the entire development life cycle - from concept design, development and validation to launch. We deliver value during various phases of product development by deploying best-in-class engineering talent, coupled with project management framework, ensuring effective execution, review and control.



Product Design Automation

Product design automation (PDA) is a process to automate the lower level repeated tasks and higher level product development processes. A well organised Product Design automation systems allow organizations to capture and reuse product development experience at many levels. Companies that have successfully implemented PDA systems can be reducing up to 90% of their time and cost of design tasks.

PRRENS also offers their engineers to depute in your premises for develop your products.

PRRENS is a company offering Mechanical Product Development (MPD) & Product Design Automation (PDA) in CAD Software (Solid works) for Manufacturing companies and New Product Development establishments.



TECHNOLOGALLY ADVANCED PRODUCT DESIGN SOLUTION & SERVICES PROVIDES A TOTAL END TO END SOLUTION.

Computer Aided Design

Our capabilities in CAD span Turbo-machinery, Aerospace, Automotive, Industrial products and Furniture for home and office domains.

- Parametric and non-parametric 3D -modelling.
- Surface modelling of turbo-machinery blades and aerospace structures.
- Free form and Sketch based parametric modelling.
- Intricate profiles and complex face blends
- Casting, forging and machining models
- Design for manufacturing and Assembly (DFMA)
- 2D drafting of and industrial components
- Generation of exploded and sectional views
- Legacy conversion and digitization of drawings
- Standardization and automation of drawings
- Creation of Bill of Materials



Detailed Engineering

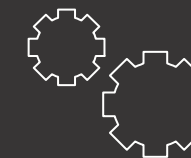
PRRENS team is abreast and adept with the latest CAD tools such as Solid Works, Unigraphics, Pro-E Creo and AutoCAD, permitting us to offer comprehensive CAD design solutions like...

- Detailed design of components & assemblies
- GD&T and Tolerance Stack-Up
- Generation of exploded and sectional views



VALUE ENGINEERING

- Concept redesign
- Material Substitution
- Process Conversion
- Weight Reduction
- Space Optimization
- Assembly Process Re-design
- Parts Standardization
- Parts Integration/Reduction



MANUFACTURING SOLUTIONS

With complete design engineering capabilities, from product and process design through initial production, we deliver cost-effective and manufacturable solutions

Our competencies are...

- ◆ Tool Design (Press Tools, Mould Tools, PDC & Pattern & Core Box)
- ◆ Design of Jigs & Fixture
- ◆ Prototyping
- ◆ Tool Path Generation

SUPPORTING INDUSTRY



Automotive



Aerospace



Consumer Appliances



Medical Devices



Heavy Engineering and Pumps & Valves

