

## COMPANY

**Vulcan.** <http://www.viecl.com>

## LOCATION

**India**

## SOFTWARE

**Autodesk® Product Design Suite**

# Design Made Easy

Vulcan leverages 3D design software Autodesk Product Design Suite to visualize and simulate complex design geometries.

“We are a long time AutoCAD user, we have also used Autodesk Mechanical Desktop. Although the 2D was an improvement over drawing boards that helped improve product quality, however the limitations like visualizing complex geometries, and reuse of 2D data for downstream applications like simulation needed to be overcome.”

–**Rajiv Gandhi**  
Director VULCAN



Image courtesy of Vulcan

## Case Study

VULCAN Industrial Engg. Co. Ltd., established in 1972, manufactures standard and customized engineering products for core industries like Mining, Cement, Steel and Energy. VULCAN features in the top 50 business houses in Gujarat. It is an ISO 9001 and API (American Petroleum Institute) certified company with state-of-the-art R&D and manufacturing facility at Anand with more than 500 employees working towards delivering creative and innovative solutions to its customers worldwide.

“Our goal is to not only meet, but exceed our customer’s expectations by providing them with the highest quality products through the utilization of state of the art technology, pledging to work with honesty, integrity, commitment, professionalism and speed to gain the trust, respect, and satisfaction for all that we serve” said Mr. Rajiv Gandhi, Director VULCAN

In keeping with the strategy of delivering customized industrial gears, gearboxes, friction welded drill pipes and drilling accessories, the company’s engineering team was charged with implementing a design process to meet the

unique and technically demanding requirement of each of its customers at a reasonable cost.

## Challenges:

VULCAN is a customer-focused company with the mission to serve customers at the lowest cost of ownership through Innovation, Quality and Service. With expanding business area and increasing product variety VULCAN wanted a better way to design its complex products, understand customer requirements, speed up the development process, manage large assemblies, create project documentation, hold down cost, deliver highest quality products and engineering services.

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## Key Benefits:

To address the complex design challenges they were looking for a 3D design software that could help them speed up the design process and provide better visualization. Continuing with long time partnership with Autodesk, VULCAN decided to upgrade to Autodesk Product Design Suite which provide a comprehensive set of design tools to help in the design workflow.



Image courtesy of Vulcan

Support provided by Autodesk and the partner, ease of use in working with large assemblies and the short learning curve helped the Vulcan's management to implement Autodesk Product Design Suite.

### The Solution:

Autodesk product design suite provides a comprehensive set of tools for design, visualization and simulation. "We are quite pleased with the advantages that Autodesk solutions have offered us, these advantages has given us an exceptionally improved development process and have persuaded us to implement all the product design activities on the Autodesk Product Design Suite" said Mr. Rajiv Gandhi



Image courtesy of Vulcan

"Now, it's easy to create high quality maintenance, training and user manuals having high resolution 3D rendered images and technical drawings to make our customers understand and retain product information more effectively" Mr. Rajiv Gandhi explains

Before implementing Autodesk Product Design Suite, the Vulcan's team faced challenges with piping design. Implementing Autodesk inventor's

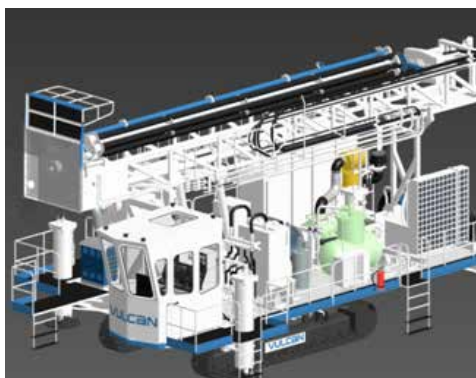


Image courtesy of Vulcan

vast library of standard parts helped them to streamline every facet of the product structure of the piping systems.

### Results:

Having a standardized design process based on Autodesk Product Design Suite has been a major success for VULCAN. The company has experienced many benefits since upgrading to the Autodesk Product Design Suite. The better visualization through solid modeling, combined with the ability to analyze has helped them reduced design errors.

Working with Autodesk Inventor also enables them to manage large number of interlinked assemblies. The automatic bill of material (BOM) generation is another time saver that contributes to a faster design cycle. They can now design the component and assemblies precisely. An overall development process, which includes validation and visualization has been improved. "We were able to develop a number of innovative products with the implementation the Autodesk Product Design Suite, such as manufacturing Friction Welded Drill Pipes; Raise Bore Drill Pipes and Blast Hole Drill Machines. The ability to generate drawings from the 3D models has reduced detailing time by half. Now we have the resources, the staff and the environment to make customer satisfaction flourish and Autodesk Product Design Suite has become an integral part of that environment" concludes Mr. Rajiv Gandhi.

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