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## Design and Draughting Software that could help ease the Workflow from Design to Manufacturing Seamlessly

### Customer Challenge

J&C Engineering did not have a design and draughting office, they outsourced all their engineering draughting and design services to Sub-Contract Design and Draughting houses. This made making last minutes changes and adaptations from the workshop difficult, disrupted the workflow and always delayed manufacturing time, thus resulting in schedule, resource loading and financial implications that were not acceptable to the Management of J&C Engineering.

### J&C Engineering Goals

Priority goals identified were as follows:

1. Reduce the time taken for the Proposals Department to provide Customers with accurate pricing and schedule forecasts, especially for large EPCM Projects where the Client required a visual presentation of the concept solution being proposed.
2. Improved workflow and turnaround time on the design and engineering changes required from the Client and / or our Fabrication Department
3. Eliminate delays resulting from re-works of components due to late design alterations
4. Improved collaboration and communication between the Project Managers, Design Engineering and Construction and Fabrication teams through visual communication of the proposed and final solutions
5. Have Inhouse Design and Draughting capabilities and software that could ease the workflow and gaps created with various Sub-Contractors during the Tender phase, Fabrication phase and Erection phase of the Projects,

### Solution

By implementing Autodesk Inventor Professional and taking a concentrated and concerted effort to roll it out with correct training, project controls and defined roadmaps in place, we are very proud to say that it has evolved into an extremely useful product to capture and present the inherent technical design and engineering knowledge we have at J&C Engineering.

We are now able to collaborate across Clients, Projects and various Sites at all times. We are also able to integrate with our CAD tools, which we continue to expand and grow as each new toolset is brought to the table by Autodesk and Modena, which continues to add immense value to our business. We have grown our CAD toolset and knowledge base, which now includes



**NOSA**  
★★★★★

**Level 1 BBBEE**

**Directors:**

J.E. Peel  
D. Pandela  
J. Lombard  
Dr N. Seyfert (Dr Eng.)

Autodesk Engineering and Construction Collections as well as Autodesk Product Design & Manufacturing Collections. These Autodesk Collections include a vast array of CAD toolsets which have helped us greatly with automated parametrically driven designs, drive seamless collaboration with the CAD toolset and the EDDMS residing in one platform, being the Autodesk platform.

## **Business Outcome**

1. Achieved an increase in manufacturing efficacy, cost reduction and accuracy.
2. Improved workflow from concept design, proposal communication and acceptance through to manufacturing and erection.
3. Now have the ability to design and draught inhouse.

## **Conclusion**

Implementing a complex, yet effective and powerful EDDMS, in a multi-disciplinary environment can be a daunting task, especially if you still have a high-performing business to run, and across global continents. J & C Engineering however, with the help of Modena OneSolve and Autodesk, have achieved ongoing success and continue to knock down barriers in terms of pushing the software to its maximum to get our ROI, and to have the EDDMS protect our IP, provide accurate information anytime, anywhere, to anyone that we enable access to (also controllable by permissions our company set).

## **Project Summary**

### **Delivery Date**

28 February 2023

### **Project Duration**

12 Months - There is an ongoing engagement, training and support provided by Modena Onesolve.

## **Autodesk Solutions**

AutoCAD

AutoCAD Plant 3D & P&ID

Inventor

Product Design & Manufacturing Collection

## **Services Provided:**

Customer Training

Implementation

On Site Support

Customer Discovery Workshops – provide insight into what’s next in terms of driving ongoing improvement and expansion of Autodesk toolset.