

# Straight Talk from 3D CAD Users

Hear what designers are saying about Pro/ENGINEER®



**DID YOU KNOW**

**"The ease of creating and visualizing complex shaped parts with Pro/ENGINEER has proven to reduce errors."**

Paul Heatherington is Lead Designer at Burnside Autocyl (Tullow) Ltd., a manufacturer of hydraulic cylinders in Tullow, County Carlow, Ireland. The company implemented Pro/ENGINEER when making the move from 2D CAD to 3D CAD in 2005.

Mr. Heatherington had used SolidWorks® 3D design software in college, but when tasked with selecting the 3D CAD solution for Burnside Autocyl, he immediately opted for Pro/ENGINEER after experiencing its powerful and rich functionality. Ease of use was also an important factor in the decision, so the migration from 2D could be handled with minimum training for Burnside employees.



Paul Heatherington, Lead Designer  
Burnside Autocyl, Tullow, County Carlow, Ireland

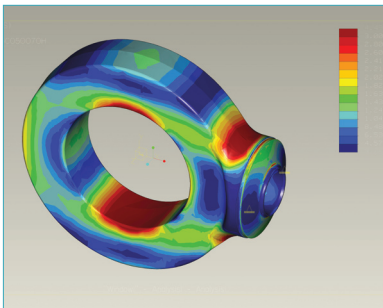
## Why Pro/ENGINEER is so Great

"Our implementation of Pro/ENGINEER went very smoothly. After one week of Fast Track training, I was able to produce parts and model assemblies and drawings, and after a couple of months, designing with it became second nature. I could divert 100% effort to the design, and using the package was effortless.

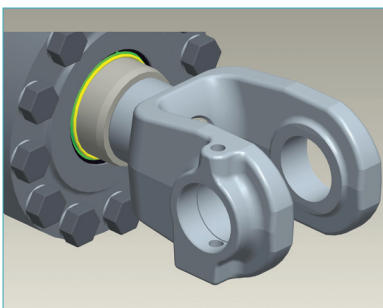
We use Pro/ENGINEER for the overall design of hydraulic cylinders, which includes design of parts, assembly of parts, analysis using Pro/ENGINEER Mechanica®, and getting drawings ready for production. Most of our machining involves turning, so one of the functions I use most is the Revolve function. I simply sketch the profile and use Revolve to get the finished shape.

The ability to project complex shapes into curved surfaces is also valuable to me, as I produce many different models for forging. This allows me to be creative and eliminate stress points in our models—something I could have never done with our old 2D package.

In my opinion, the ease of creating and visualizing complex shaped parts is one of the greatest benefits Pro/ENGINEER provides to us. Modifying machining positions in parts is easy with the help of datum planes. 3D views can be added to drawings instantly to assist operators in reading the drawings. This has proven to reduce some basic errors of wrong machining orientation, which can sometimes be difficult to read from projection views alone."



Typical rod end with loads applied in Pro/ENGINEER Mechanica®.



Cylinder with end.