

# Straight Talk from 3D CAD Users

Hear what designers are saying about Pro/ENGINEER®



**DID YOU KNOW**

“What I like most about Pro/ENGINEER is the speed with which changes can be implemented. We usually progress through several design iterations during a project until we hit sign-off, and with Pro/ENGINEER, this is as efficient as can be.”

Gavin Burnham works as Senior Design Engineer at Vax Ltd., the number 1 floorcare brand in the UK. Mr. Burnham started using Pro/ENGINEER about 15 years ago, and learned the 3D CAD software mainly by ‘doing’.

He recalls: “I was dropped straight into active projects, implementing changes to existing models. Many of these changes were very complex, requiring all aspects of product development to be considered – from function to production, tooling, etc.” A lot of the learning was a case of ‘I wonder what this feature does...’ and then trying it – so it was fundamentally self-taught.”



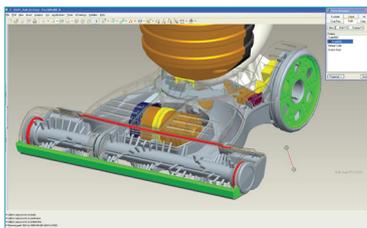
Gavin Burnham, Senior Design Engineer  
Vax Ltd., Droitwich, Worcestershire, UK

## Why Pro/ENGINEER is So Effective

“At Vax, our designs require a significant amount of complex surfacing, using traditional surfacing techniques, as well as relying heavily on the advanced surfacing functionality of the Pro/ENGINEER ISDX module (Interactive Surface Design). We develop full industrial design (ID) models as a single part using surfaces, prior to using this as a master model for the assembly.

My job tasks include initial breadboard layout, early surface industrial design models and split component models for functional prototypes and rendered images. We then work closely with our OEM’s to develop all the parts up to tooling ready level. Data transfer with our key suppliers during this phase is excellent, as Pro/ENGINEER handles all the common formats without hassle.

Using Pro/ENGINEER and the Pro/ENGINEER Advanced Assembly Extension (AAX) module, we follow a top-down design approach; using a single surface model reduces the amount of model failure that would occur if we went quickly to detailed assembly models. We go through several design review iterations, so, at each stage, the surface model gets updated to incorporate the required changes. This greatly speeds up the process and allows much quicker visualisation of the changes, so everything gets updated correctly and nothing gets missed.”



Vax vacuum cleaners are being developed with Pro/ENGINEER.



The Vax Mach Air model—rendered in Pro/ENGINEER.