Company Background

Hypertherm designs and manufactures advanced cutting products for use in a variety of industries such as shipbuilding, manufacturing, and automotive repair.

Based in New Hampshire, the company's reputation for cutting innovation dates back nearly 50 years to 1968, with Hypertherm's invention of water injection plasma cutting.

### Hypertherm turned to VisualFactory in 2008

The companies Manufacturing Operations Specialists tell us:

"Prior to using Visual Factory, Hypertherm had another assembly procedure software application in place. The process was cumbersome, did not link with the Oracle BOMs, did not filter for the product family variations that are built and no longer provided a support service.

"VisualFactory provided Hypertherm with the flexibility for the same assembly procedure software to be utilized by five different business teams within Hypertherm and allowed us the flexibility to operate to Hypertherm specifications."

But why VisualFactory?

Hypertherm lists a huge number of advantages; the fact the software directly links to Oracle, is solely web-browser based, stores all data centrally and standardizes and improves assembly tasks.
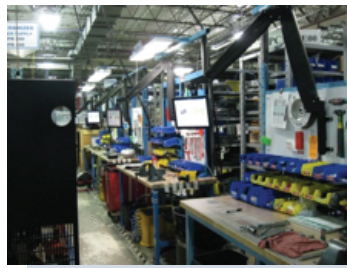
The company tells us VisualFactory increases the quality and consistency of documentation, reduces the cost and time producing that documentation, while being a short learning curve for authors and assemblers.

"The five business teams using VisualFactory at Hypertherm cover a vast array of different assemblies. One of the reasons VisualFactory was selected; was because it is so flexible and meets all of our very different needs with the parameter tools and product option filtering.

So what are the benefits?

"Many of our assembly teams have product families with multiple variations to meet the customer's needs. VisualFactory enables the assembly instructions to be filtered by the customer product request and the assemblers see only the assembly instructions for the product the customer has ordered. VisualFactory eliminated the need for "Go To" charts the assemblers needed to use to build a specific product build previously.

"Common assembly steps can be documented in a task and when all the product options are linked, the same task can be linked in numerous assembly procedures as needed; resulting if there is a change required, in the author updating one task and the change then being immediate for all procedures where used. No need to make the same update multiple times and risk missing one."

Hypertherm
Case study

Hypertherm turned to VisualFactory in 2008 after experimenting with other assembly procedure software applications. The two companies have formed a strong working relationship and continue to develop both new and existing lean philosophies.

"Any issues are quickly and successfully addressed"

"If there is ever an issue, Hypertherm is confident the VisualFactory associates are always available - and any issues are quickly and successfully addressed."

"Because the VisualFactory team listen to all of their customers, in addition to their vast manufacturing knowledge, the best practices are implemented and shared; we have learned additional lean manufacturing processes from VisualFactory."


visualfactory.net

Simplify - Standardize - Automate

A flexible, lean approach

Different VisualFactory modules are employed by different business teams at Hypertherm; some are using vRecord to track the build details electronically, while the mechanized power supply assembly line for example, is using vKanban/vRecord to pick the chassis parts and build the workbench assemblies to be delivered to the power supply chassis assembly line.

"That's a power supply single piece flow line of five product families across 15 workstations, a total of 104 unique power supply product options, all made possible by the VisualFactory product filtering.

"Triggers are sent to four different workstations to build the sub-assemblies when the build lot is generated, which meet up with the parent assembly in the chassis assembly line.
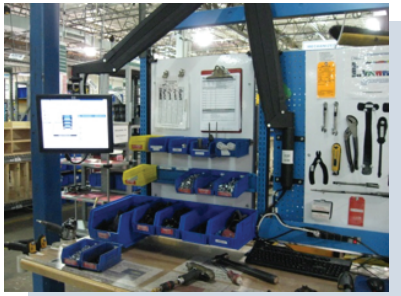
"The vKanban process is enabling the team to increase the output capacity by 44 per cent with the same number of associates and no additional assembly floor space."

Hypertherm assembly procedures vary from the most simple to the most complex. The ability to incorporate active BOMs enables the authors to guarantee all required components are being assembled as per the Design Engineer's intent.

"When new products are being developed, the VisualFactory software enables the VisualFactory author to sit with the Design Engineer and compare the Visual Factory assembly instructions with the Design Solid Model.

"A large system can be reviewed by the author and Design Engineer in an hour. The author can search for a part by product family and show the Design Engineer exactly where used in the assembly. Previously, if audited, there was no assurance the Assembly procedure and BOM were 100 per cent accurate in comparison. With VisualFactory, this accuracy can be guaranteed and shared."

VisualFactory task details also enable the tracking of why engineering changes were made, providing a clearer history of why assemblies are built the way they are. The ability to link references and videos enhances the assembly instructions as needed by the assemblers; the information is at their fingertips with minimal work interruption. When assemblers cross train and rotate, all of the recent changes for an assembly workstation are presented at the beginning of the build. There are warnings that can be programmed to alert assemblers to special equipment or tools necessary to perform an assembly step safely.