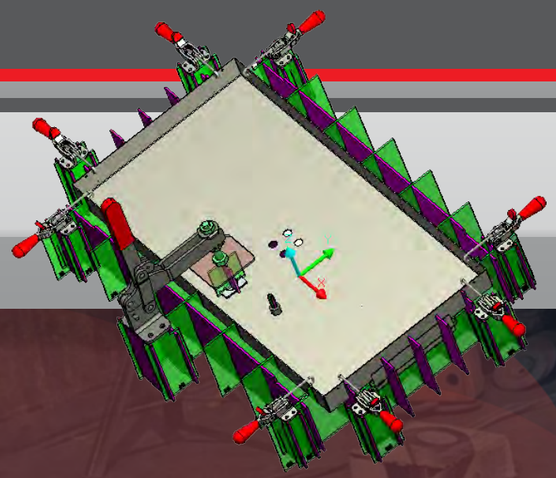
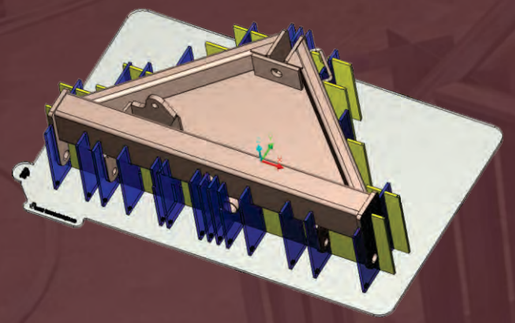
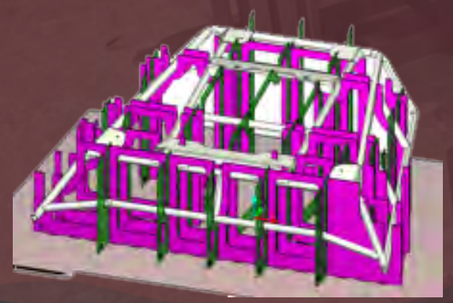
Fixtures are a neccesary evil. Make designing them ***easier***

Nucleo FIXTURE



FaaS® Fixture-as-a-Service





We'll do the ***work***

Camtek's unique fixture generation process is available as a service - Fixture-as-a-Service (FaaS®) - for quick and cost-effective weld/check fixtures.

Our consultants will join you via a web meeting to learn about your fixture needs and processes in order to propose a partial or full fixture to suit your production or prototyping needs.

After receiving your models, we will send you solid models of your fixture and 2D DXF files for cutting on your own or your sub-contractor's laser or waterjet.

Our process accepts solid models from a range of popular CAD systems and formats including IGES, Solidworks, SolidEdge, Inventor, CATIA, Pro Engineer, STEP and Unigraphics/NX.

Traditional hard-tooling fixturing can often be a bottleneck. Nucleo's blade approach saves significant cost and reduces lead times.

Call us today for your web consultation.

Authorized Agent/Reseller:

Accelerate your welding processes by creating jigs & fixtures, ***faster.***

Software & Design Service Solutions for the Welding and Fabrication industries

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camtek-software.com
sales@camtek-software.com
+1 (678) 625-0053

optisolutionsusa.com
sales@optisolutionsusa.com
+1 (678) 625-0053

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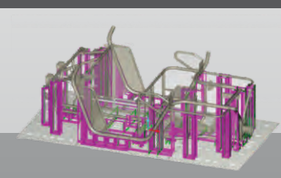
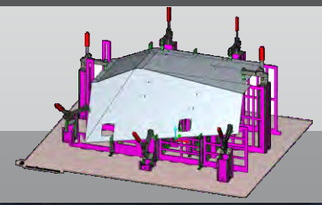




What is Nucleo?

Nucleo is built on the established PEPS/OPTICAM Classic platform, part of a family of CAD/CAM products.

Customer Driven - Continually Evolving

Nucleo is designed for the welding professional in mind and many of the functions it provides comes directly from feedback and requests from our user-base.

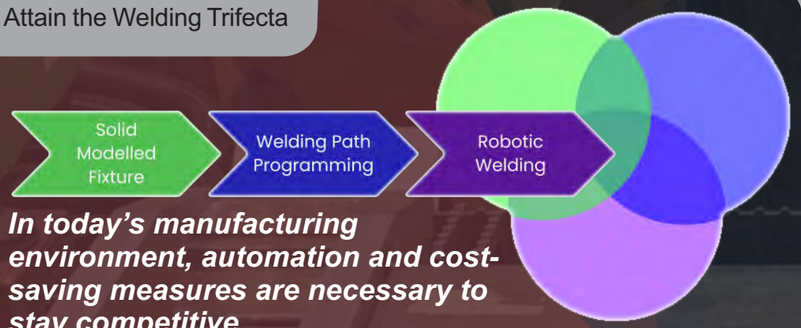
Camtek's development team continuously evolves Nucleo as new ideas and technological advances occur; those users covered by our Software Maintenance Agreement (SMA) automatically receive these improvements as they are released.

How it Works

Nucleo creates an interlocked grid of fixture blades connected to a mating base plate from an imported solid CAD model. The top profile of each blade matches the underside of the component at the blade's insertion position, creating a "cradle" into which the weldment components are placed.

Nucleo supports a range of standard CAD translators for most popular CAD systems. These include IGES, Solidworks, SolidEdge, IronCAD, Inventor DWG and DXF, CATIA, Pro Engineer, STEP and Unigraphics.

Attain the Welding Trifecta



In today's manufacturing environment, automation and cost-saving measures are necessary to stay competitive.

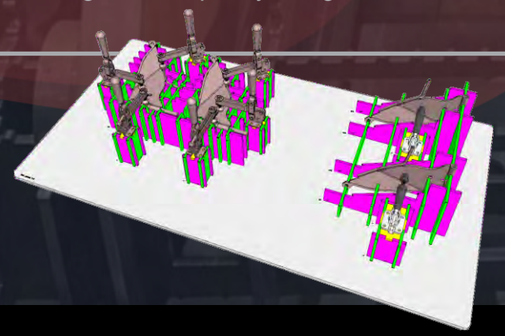
Nucleo fulfills the initial requirements towards maximizing the welding output for any OEM or job shop.

Given a solid model, Nucleo bridges the gap between concept/computer model and the downstream robotic programming and welding.

Using pendant or offline (OLRP) programming, the part is situated in the fixture and the welds defined.

Finally, the welding process is automated by the robot. The end result leads to higher productivity and profits - plus easy set up and welding repeatability.

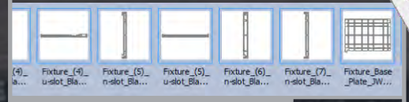
Even in mixed manual and robotic welding, Nucleo assists in getting manual and tacking fixtures quickly designed and manufactured.



Universally Compatible

After generation, the fixture assembly is saved in DXF format. These files can be transferred to a suitable CAM system for nesting and profiling or directly to a laser/waterjet machine.

The solid model of the fixture can also be saved to industry-standard 3D CAD formats - 3D IGES and Parasolid - for importation into other CAD/CAM systems.



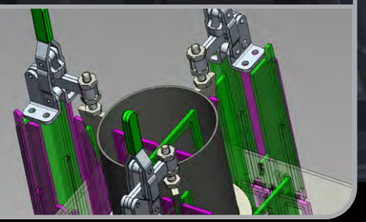
Easy to Use

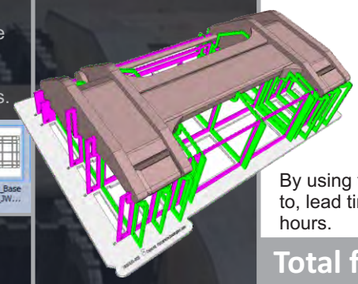
Nucleo is extremely easy to use. Many of the core CAD functions are presented in an intuitive "Wizard" process so the learning curve is very short - on average, a few hours.

Once the details are entered, Nucleo calculates and annotates each blade so that they are easily referenced to the base plate.

Use Standard Clamps

Nucleo allows the importation of standard clamp solid CAD files - available from Carr Lane, De-Sta-Co and most major clamp manufacturers - via the internet.





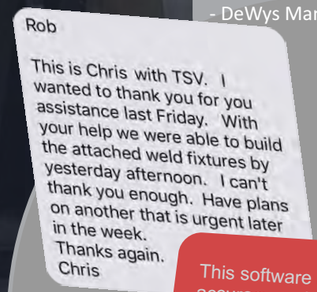
Return on Investment

Typically, at least 35-40% of the time and cost for a fixture is allocated to design. In addition, the methods used to create fixtures often rely on tool room machining techniques - often with extended manufacturing times to create the fixture components.

By cutting the design time dramatically and by utilizing inexpensive sheet metal for the fixture, Nucleo results in enough overall savings to pay for itself within a small number of fixture runs - when compared to the traditional approach.

By using the tools and materials you already have access to, lead times can be reduced from day or weeks - to just hours.

Total first quarter savings after purchase: $6740.44
- DeWys Manufacturing


Rob

This is Chris with TSV. I wanted to thank you for you assistance last Friday. With your help we were able to build the attached weld fixtures by yesterday afternoon. I can't thank you enough. Have plans on another that is urgent later in the week.
Thanks again.
Chris

"This software has changed the game for our fixtures in accuracy and development time.
Installing them is a breeze and I would highly recommend.

For example, I finished 32 fixtures in 2 weeks. Before, it would've taken 2 weeks for a smaller fixture.

I've also made line fixtures for work holding while installing other components.

They also have a jigsaw feature that breaks up the base plate on larger items that dovetail together."

- Jordan Miller, AMERICAN LANDMASTER

Contact us today for a personalized web demo

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