ARP powered by ArcNC
for Panasonic

Automatic Robot Programming with ArcNC

"The welding robot offers productivity 3-5 times higher than manual welding. The ArcNC software complements this with convenience and cost efficiency almost 9 times higher than traditional robotic programming."

'ArcNC for Panasonic' is a pioneering offline programming software for robotic welding, facilitating numerous companies in overcoming the shortage of welders and skilled programmers for welding robots. This software has already demonstrated remarkable success with several companies.

Easy programming of industrial welding robots

The global shortage of welding personnel has been met by welding robots for some time. However, this has led to a shortage of experienced robot programmers. Consequently, many companies are turning to simple automation systems not specifically designed for welding technology, resulting in limited output, efficiency, and lifespan. Valk Welding aims to keep the programming of industrial welding robots as simple as possible.

From small series to single pieces

In collaboration with ArcNC, we have developed 'ArcNC for Panasonic,' an offline Automatic Robot Programming (ARP) software solution. It combines the advantages of industrial welding robots with exceedingly simple robot programming. This is achieved without the need for a welder to be present and without causing production downtime. With this advancement, serial and single-piece production no longer presents an obstacle to robotic welding.

Faster and more economical

Offline robot programming with ArcNC provides significant advantages compared to manual and general offline programming. Not only does it achieve 3-5 times higher production output than a manual welder, but it also significantly reduces programming costs.

Training and service

For ArcNC for Panasonic, training is done via an online tutorial based training. For most customers this is all the trning that is needed. Where necessary an optional half day training can be followed. (compared to 3-5 days for both manual and general offline programming). You can attend this training remotely or on location in Alblasserdam. Moreover, we remain available for questions or other issues afterward.

Are you interested in ArcNC for Panasonic or in need of more information? Feel free to contact us at info@valkwelding.com or discuss the possibilities with your trusted contact person within Valk Welding.
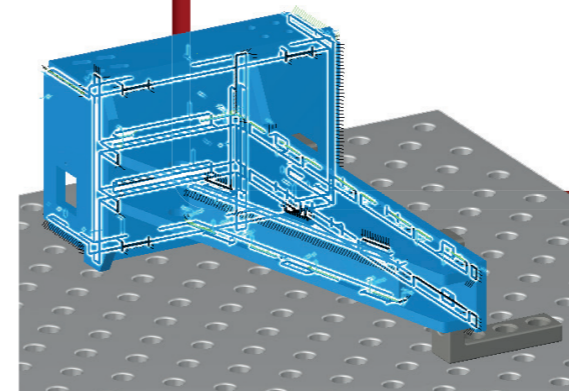
Watch the demonstration video

The steps to an automated welding robot program

Import part and cell setup
After importing the STEP file, potential weld lines are found automatically. Both welds on the inside and outside of a product are easily found.
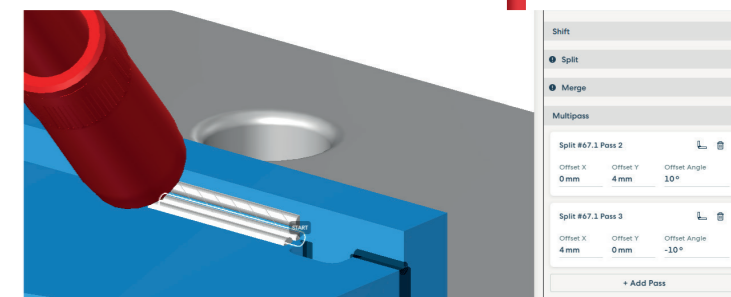
Position the part in the cell and add clamps and jigs.
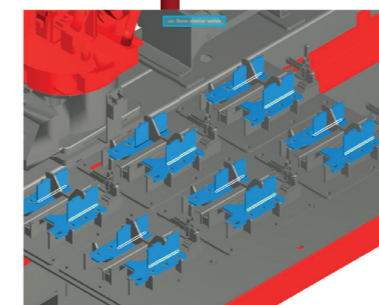
Weld geometry and weld process
Confirm or modify the automatically found welds. You can lengthen, shorten, merge, split (stitch weld), or even program multi-pass welds. Confirm the desired welding position. Select a job number and welding speed, or specify your welding parameters in full.

With ARP software, automatic programming of multi -pass welds is achievable. Specify the number of passes needed and their offset relative to the first pass and the rest will be taken care of automatically.
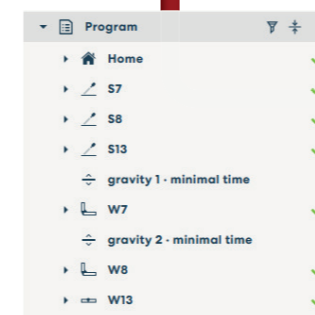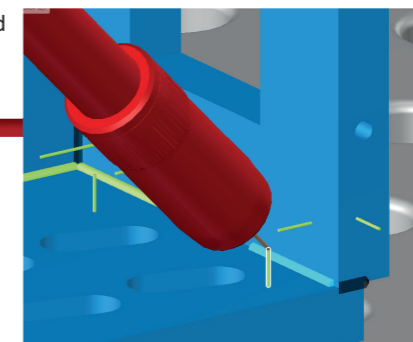
Similarity detection
The software is able to identify similar welds, making it easy for you to automatically apply adjustments and parameters to all welds that are the same and are repeated across the part.

Sense motions
Wire-sense motions are generated automatically, optimized for accuracy and reachability. You can also specify custom sense motions with a single click.

Program outline and motion planning
The software can easily determine the sequencing of the program automatically. This can be adjusted manually where necessary. Add wire cutting, gas cup cleaning and other routines as needed.

Robot motions are calculated automatically, avoiding collisions, robot singularities and excessive cable clamping/stretching.

Run program
The resulting program file can be sent to the robot directly, or to your existing offline programming solution.

The strong connection

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