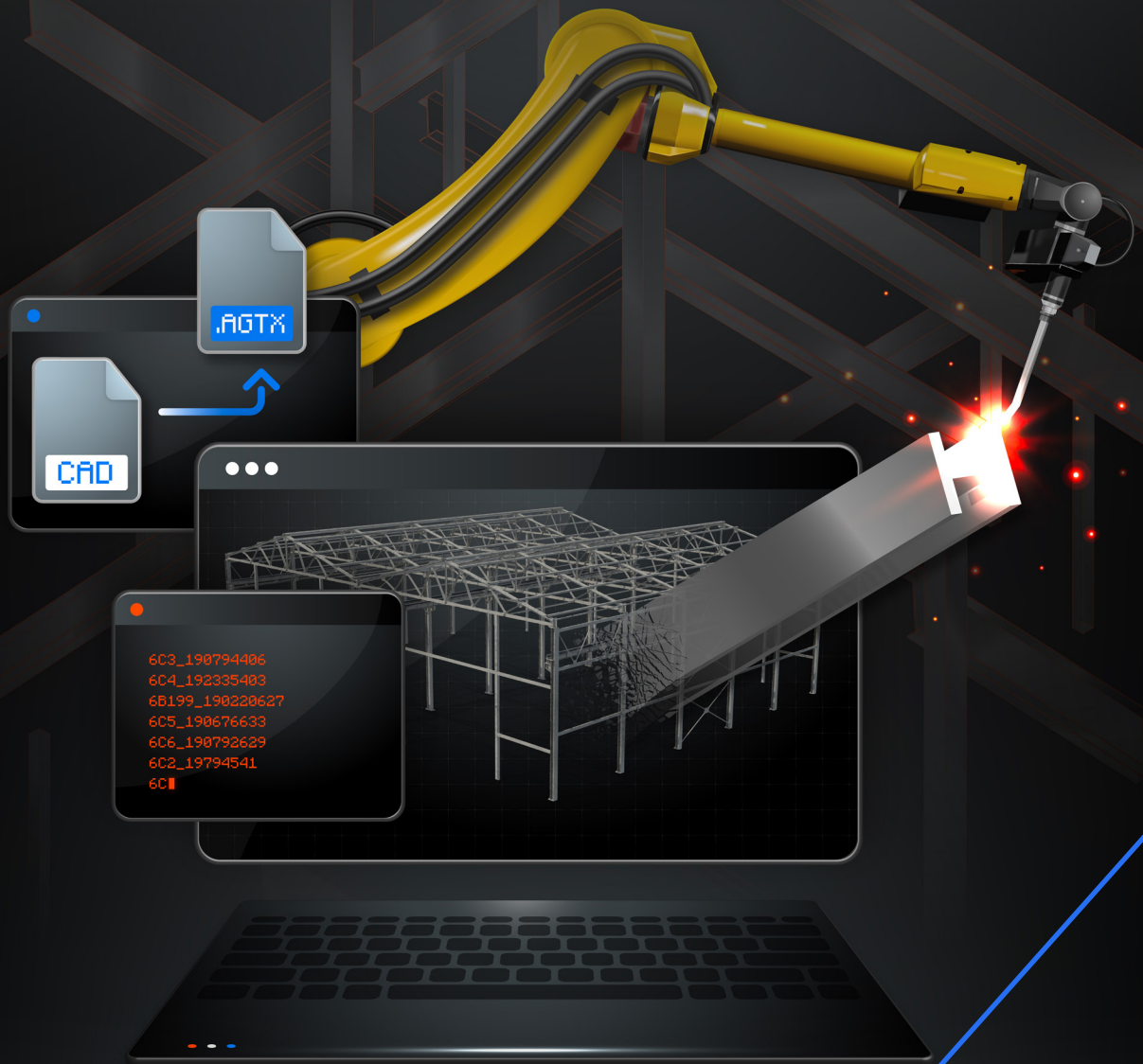


# Auto-Programming

One Click to Weld



**CORTEX**



# What Is Cortex?

Creating A Robot Program Has Never Been That Easy.

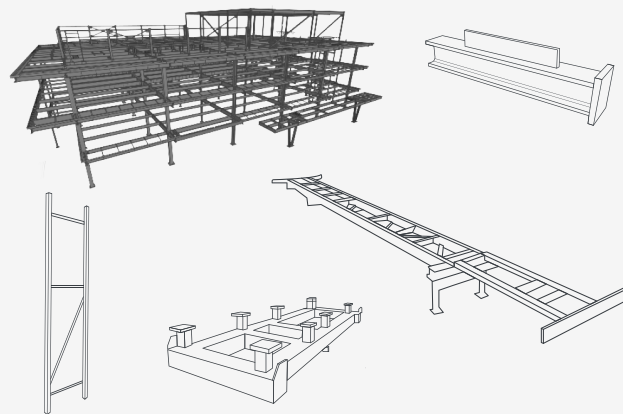
## No Programming = No Human Intervention

### The Only True No-Programming Solution For Robotic Welding!

That's why BeamMaster has become the best-selling robotic welding system for structural steel. In a typical building, many beams are similar but rarely identical, making automation impossible with conventional robotic programming methods.

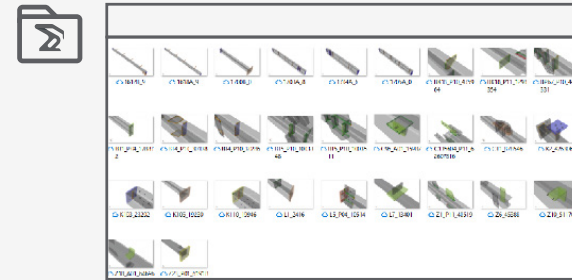
AGT's Cortex software is specifically designed for the structural steel industry to automatically program all unique beams in a building.

## 1 Export Model



## 2 Automatically Generate Programs

Let Cortex automatically create custom-tailored robotic welding programs for every unique beam.



## Compatible with Popular CAD Software

For steel structure clients, Cortex offers modules for Tekla and SDS/2, enabling the export of an assembly or building in a single operation. For heavy structures, Cortex can import 3D geometry, with custom modules adding welding information such as position and size.

Tekla Structures

SDS/2 DESIGN DATA

SOLIDWORKS

AUTODESK INVENTOR

bocad Software GmbH

AUTODESK ADVANCE STEEL

Tekla Structures

SDS/2 DESIGN DATA

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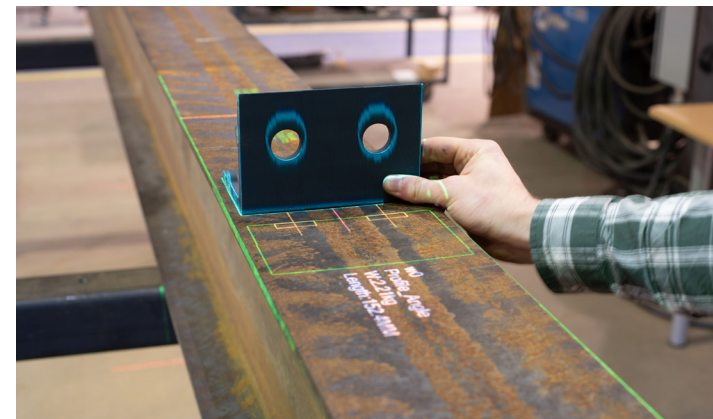
CATIA

SOLID EDGE

## Simplified Robotic Programming

Robotic programming has evolved significantly. While teach pendants are still common, methods like offline and kinetic programming have simplified the process. However, they still require a programmer.

Cortex fully automates programming, delivering a virtually tested program ready for production.



## Perfect Solution For

Low-Volume | High-Mix | Small Batch | Lot-Of-One  
Quantity One | Infinite Number Of Combinations

Cortex is ideal for unique, small-batch parts. Robots are fast and reliable, but each piece requires programming, which can take hours or days. With Cortex, no skilled welders or programming are needed.



## Customizable to Your Needs

Cortex's capabilities can be expanded in multiple ways. For non-structural applications, custom modules are often required to:

- Retrieve weld position and size information.
- Create generic rules.

Additionally, the welding program database often needs to be enhanced to include new joint types.



CAD Add-on



Welding Schedule Development

## Automatically, Cortex :

- Position the beams in the rotators.
- Reads welding information from CAD or creates welds according to your specifications.
- Generate welding paths.
- Associate welds with the correct weld schedule.
- Generate the joint laser finding paths.
- Coordinates movements between welding sequences.
- Prepares torch maintenance routines.
- Organizes welding to minimize heat-induced deformation.
- Rotates assemblies for full access.
- Converts long longitudinal welds into stitch welds and much more!

## No Programmer Needed

Don't be fooled by claims from other manufacturers.

If the user has to tell the robot which welds to perform, click on the joints, specify dimensions, or position the beam in the system... that's programming!

It may seem simpler than writing code, but it still requires a qualified user and adds time and costs to your process!

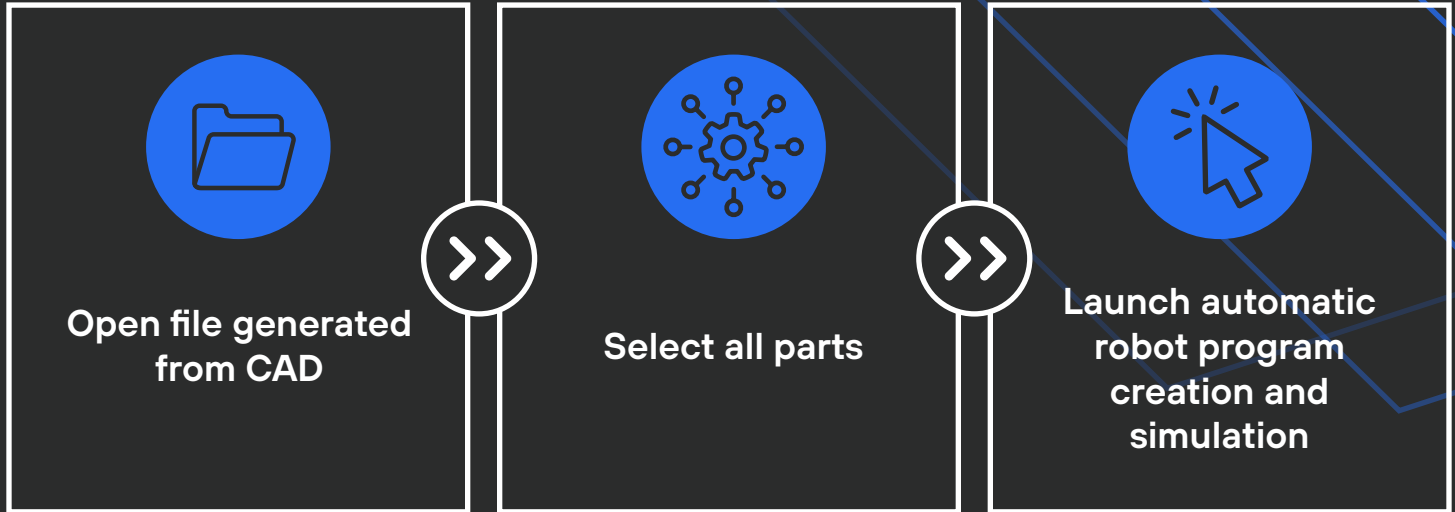
Only Cortex is a true no-programming solution. With Cortex, a few clicks are enough to start the program creation process for an entire building.

The result: hundreds of unique robot programs created automatically.



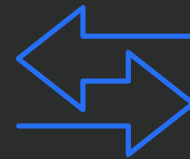
# Creating A Robot Program Has Never Been That Easy!

Once the model has been exported in the proper 3d format, it literally takes seconds to launch the automatic batch program creation process.



## One Click To Weld

Programming Time		
Teach Pendant		8 to 36h
Offline Prog		4 to 24h
CORTEX		0



### Works With Many Configurations

Robotic welding cells have many different designs. Cortex will work with many configurations like robot on rail, robot on gantry, positioners, etc.



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Autonomous Robotic Welding For Heavy Fabrication.