

## Adding a Seam Finder

Use these instructions and the standard components found in the Seam Finders Category of the ModelLibrary, to add a sensor to the robot.

There are 3 standard AccuFastII models. The TCP for the models were set for the longest standard version of the 45 degree Binzel, Fronius TPSi and Tregaskiss torches. The TCP must be reset when using a torch with an angle other than 45 degrees.

The standard models provided are:

- Binzel AccufastII
- Fronius TPSi AccufastII
- Tregaskiss AccufastII

Models should be located in C:\Users\Public\Documents\Motoman\MotoSimEG-VRC\ModelLibrary or a Network location as allowed by MotoSimEG-VRC 2016SP2

Robot parameters will need to be changed to allow the setting of multiple TCPs in a Controller.

Tool settings for a Controller with one robot are as follows;

- Tool 0 – Robot torch
- Tool 1 – Robot sensor

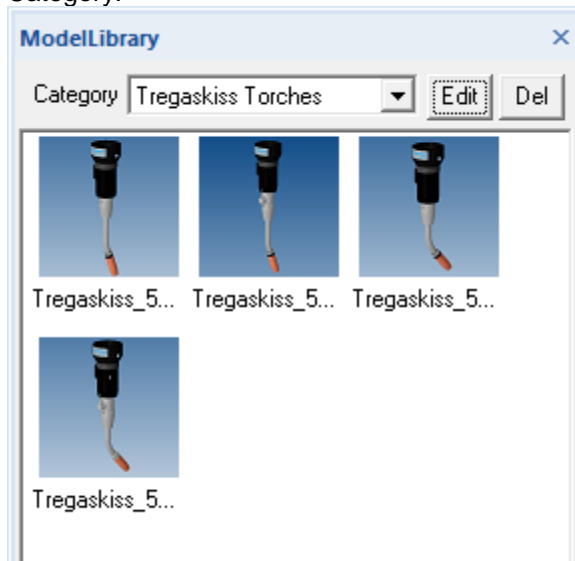
Tool settings for a Controller with more than one robot are as follows;

- Tool 0 – First robot torch
- Tool 1 – Second robot torch
- Tool 2 – First robot sensor
- Tool 3 – Second robot sensor

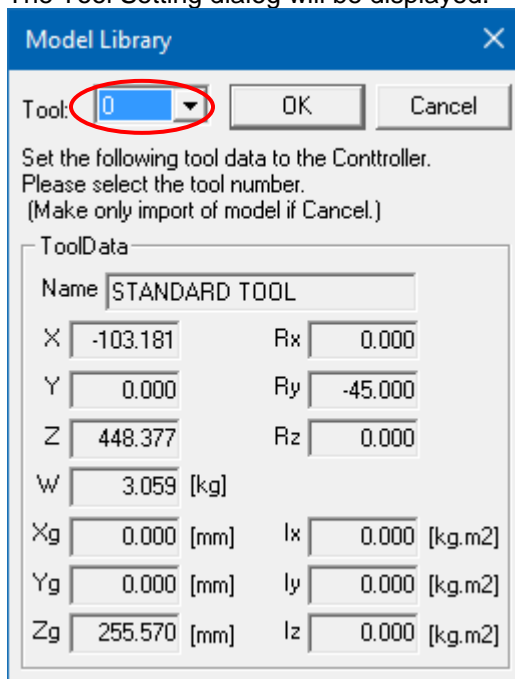
*This example will use the Tregaskiss\_500A\_45D\_AC\_BRK model found in the Tregaskiss Torches Category of the Model Library and the Tregaskiss\_AccufastII in the Seam Finders Category.*

## Adding a Seam Finder

1. Open a simulation.
2. From the Home tab, Open the Model Library and select the Tregaskiss Torches Category.



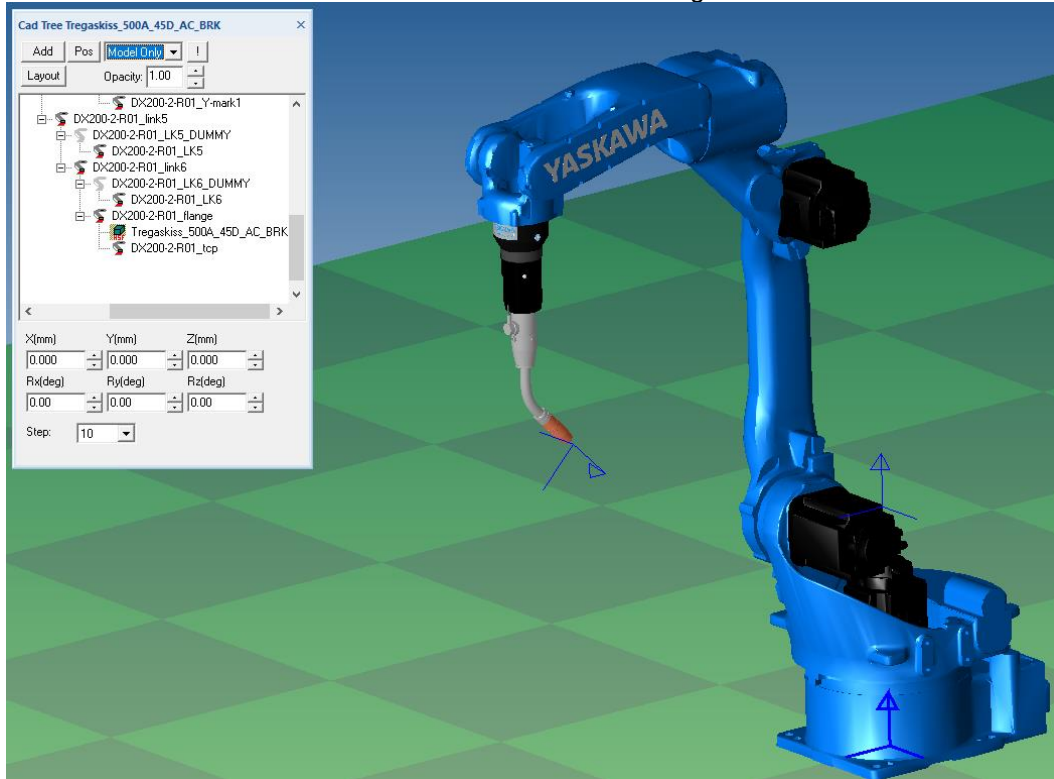
3. Double-Click the desired torch or drag and drop it onto the robot.
  - Either method will attach the torch to the robot flange after accepting or cancelling the TCP setting.
  - If more than one robot exists in the cell, the model MUST be dragged and dropped on the correct robot.
4. The Tool Setting dialog will be displayed.



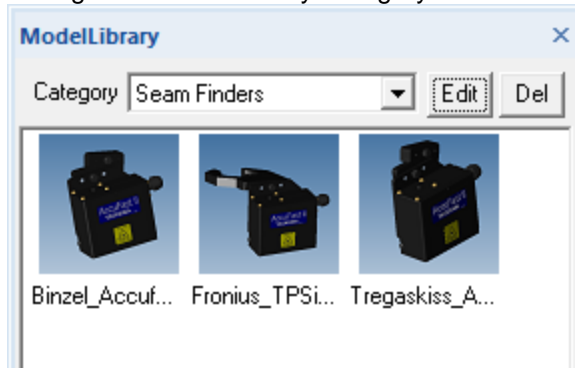
5. Set the correct Tool number. The Tool Data will be set in the Controller.
  - If Cancel is selected, no Tool Data will be set in the Controller.

## Adding a Seam Finder

6. Select OK
7. The torch will be added as a child of the robot flange.

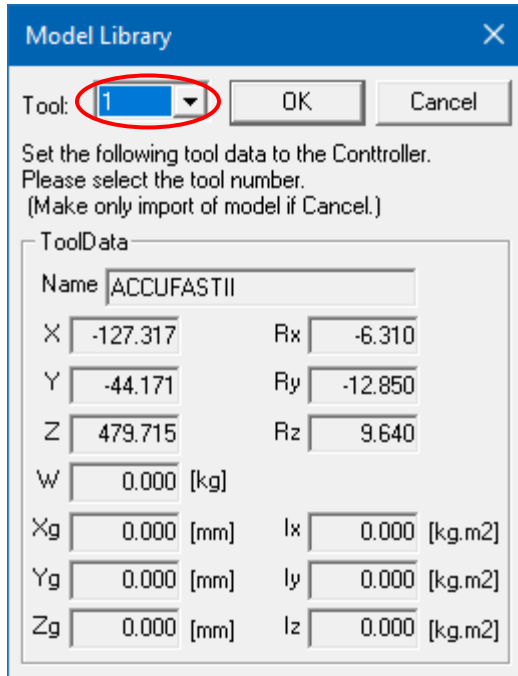


8. Change the Model Library Category to Seam Finders.



9. Double-Click the required AccuFastII or drag and drop it onto the robot.
  - If more than one robot exists in the cell, the model **MUST** be dragged and dropped on the correct robot
10. The Tool Setting dialog will be displayed again.

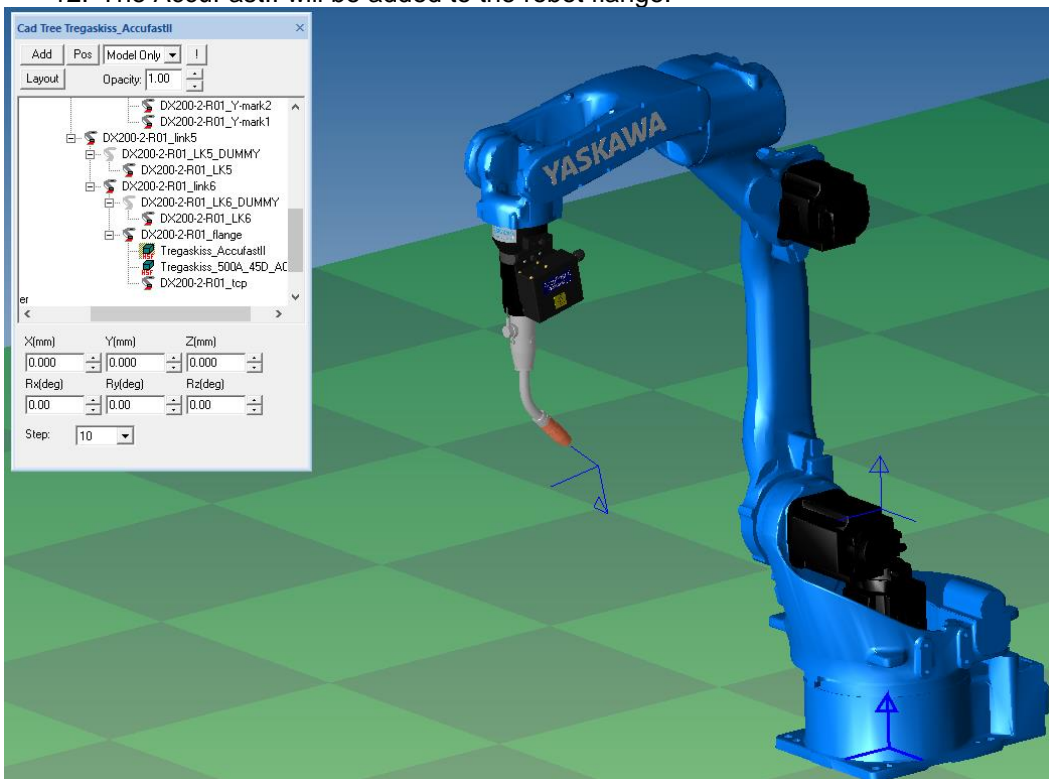
## Adding a Seam Finder



11. Change the Tool before clicking OK.

- If the Tool number is not changed the TCP for the torch will be over written.

12. The AccuFastII will be added to the robot flange.

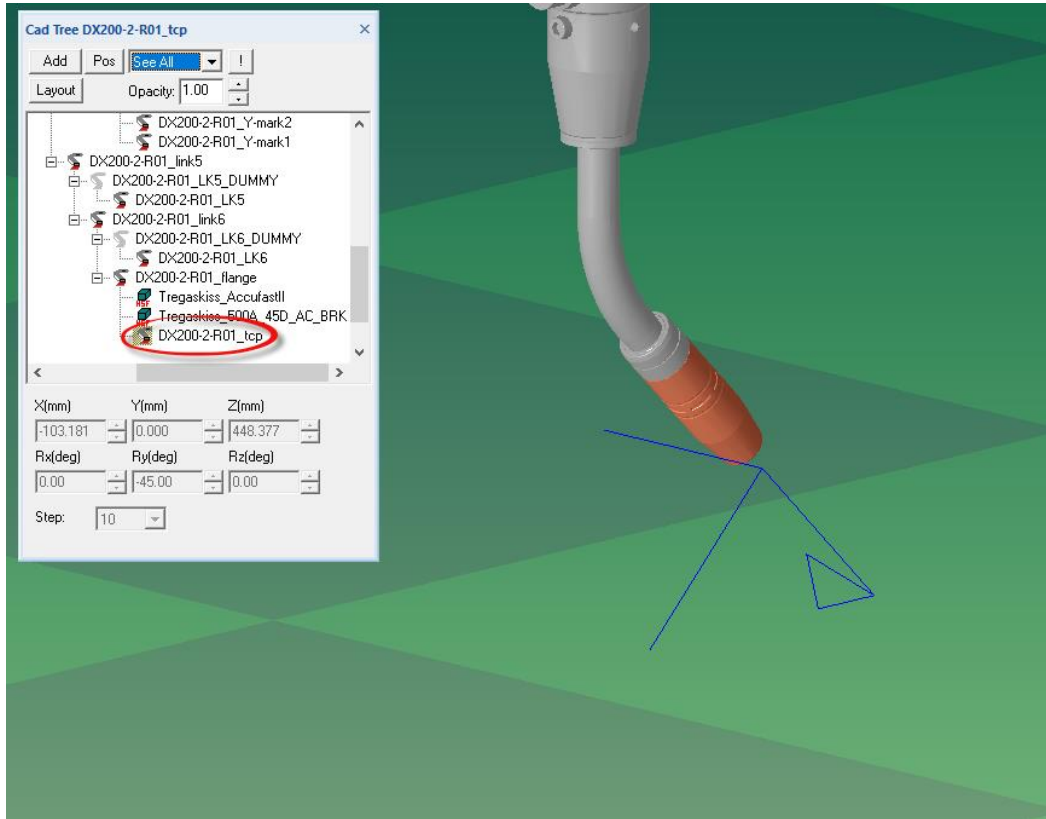


## Adding a Seam Finder

The Standard torches were created without a wire model at the TCP. The following steps will add a model for this as well as allow the use of the Sensing Option of MotoSimEG-VRC.

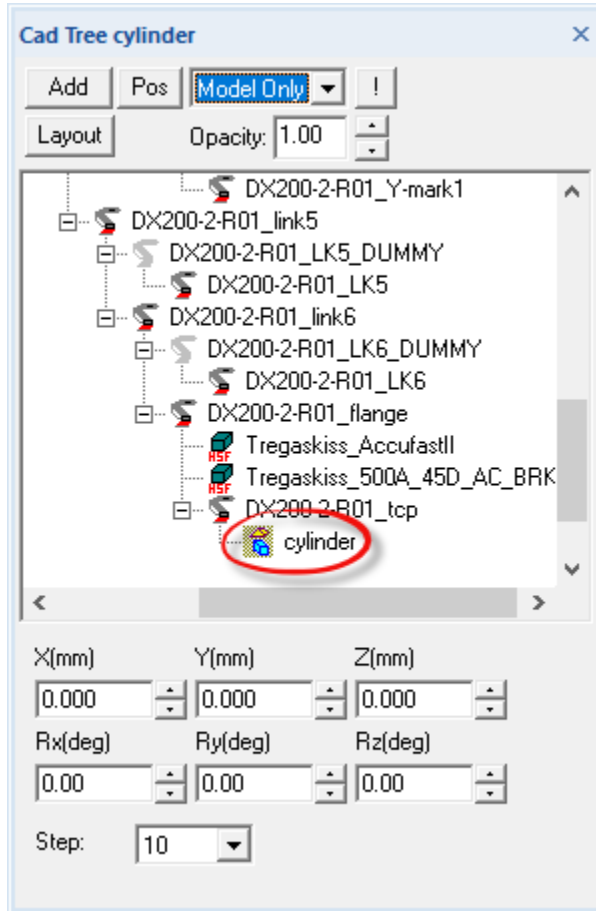
*Refer to section 8.12 of the MotoSimEG-VRC Operator's Manual for setup and use of the Sensing Option.*

1. Select the TCP of the robot in the CADTree.

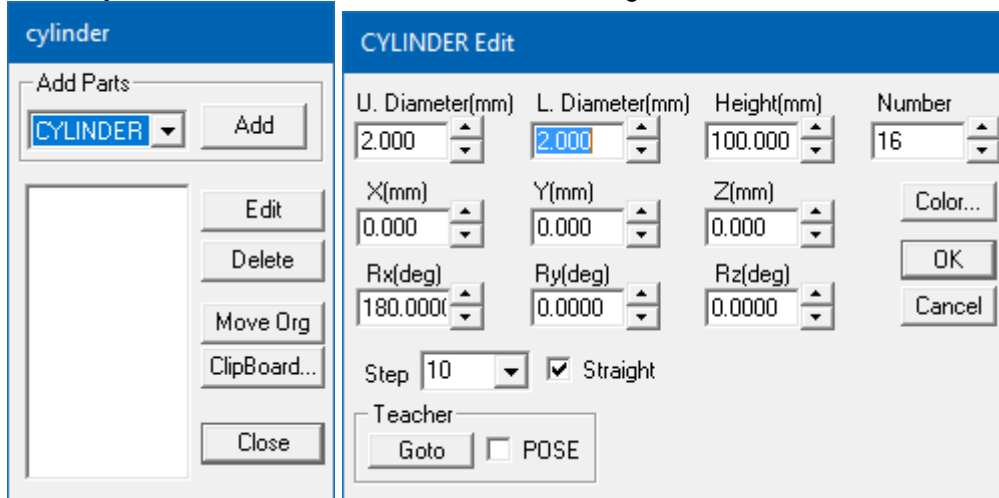


2. Add a new model to the TCP.

## Adding a Seam Finder



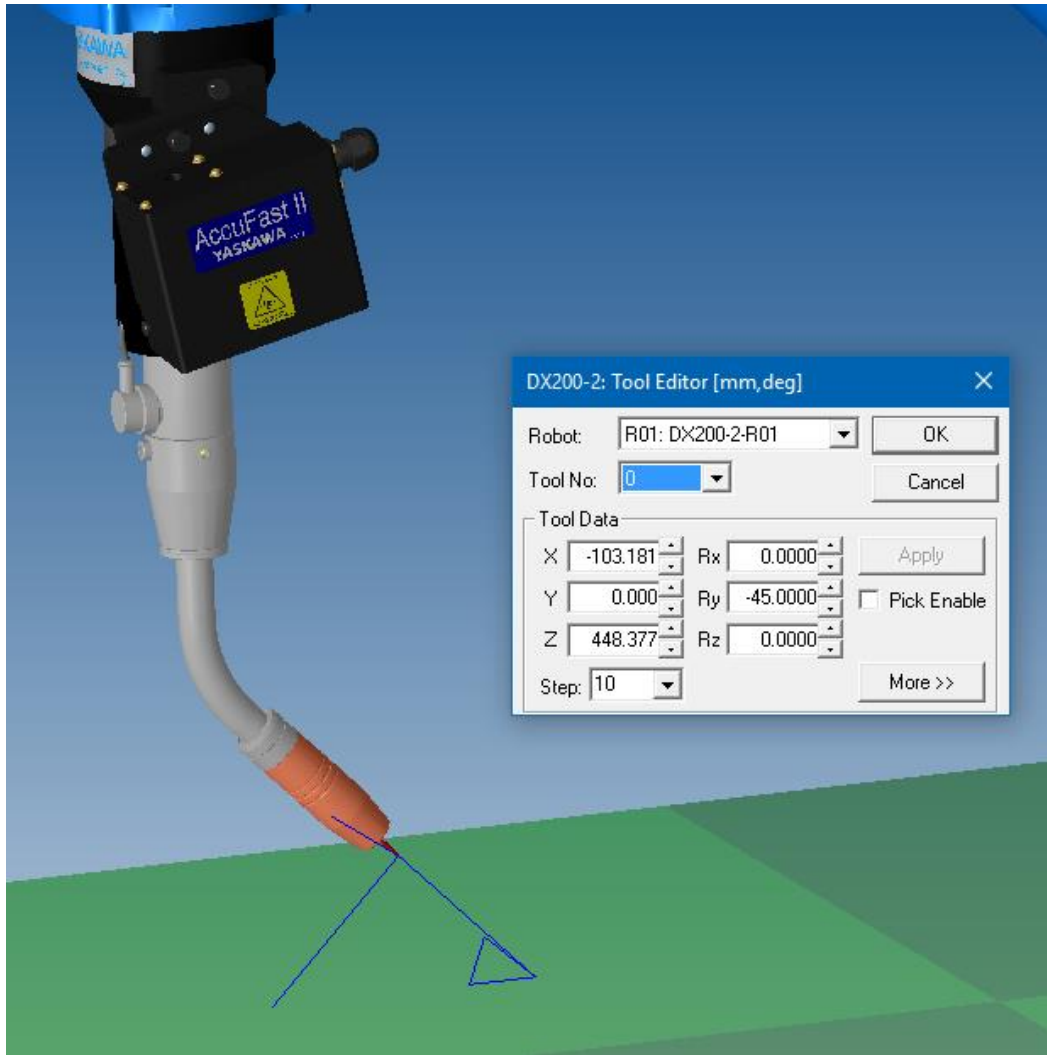
3. Add a Cylinder to the model as shown in the following.



*Adjust the length of the cylinder so that it is visible and does not protrude from the back of the torch neck when the torch TCP is selected.*

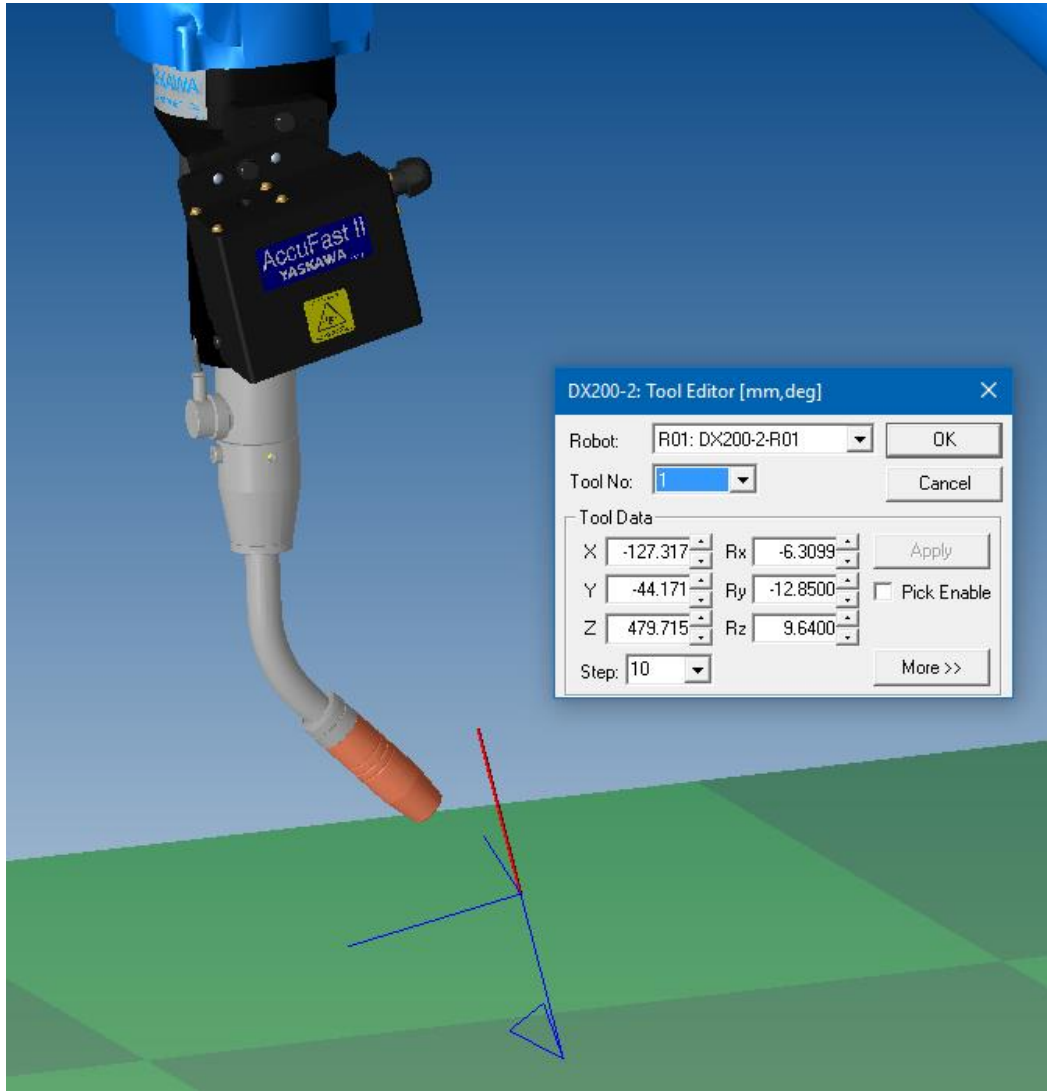
4. On the Controller tab, open the Tool Data Dialog.

## Adding a Seam Finder



5. Change the Tool Number to the one previously set when the AccuFastII was added.

## Adding a Seam Finder



6. The TCP and the model are moved to the location needed for searching.