

TUBE 3D QUICK HELP

PLASMA TUBE 3D 2014 is developed for Plasma Pipe Cutting Machine. Goal is to provide easy way to calculate point coordinates for pipe (tube) cutting where each end of produced tube needs to fit to some round or planar surface (in most case, next step is welding produced tube to that surfaces).

G CODE produced can be used directly (in most cases) as input to some CNC machine controlling software. Or you can easily use (cut©) calculated paths and use it in your own G CODE file.

Another software (PLASMA G 2014) can accept paths from this software in order to change order of paths, dimension and to multiply paths to further automate the manufacturing process.

HOW TO GET THE RESULTS ?

1. Enter parameters for MAIN TUBE, LEFT and RIGHT CUT
2. Press UPDATE PARAMS
3. Check the result and repeat steps 1 and 2
3. Save PROJECT
4. Save G CODE

IMPORTANT : Every time any parameter is changed UPDATE PARAMS button has to be clicked.

HOW TO NAVIGATE IN 3D WINDOW ?

ZOOM

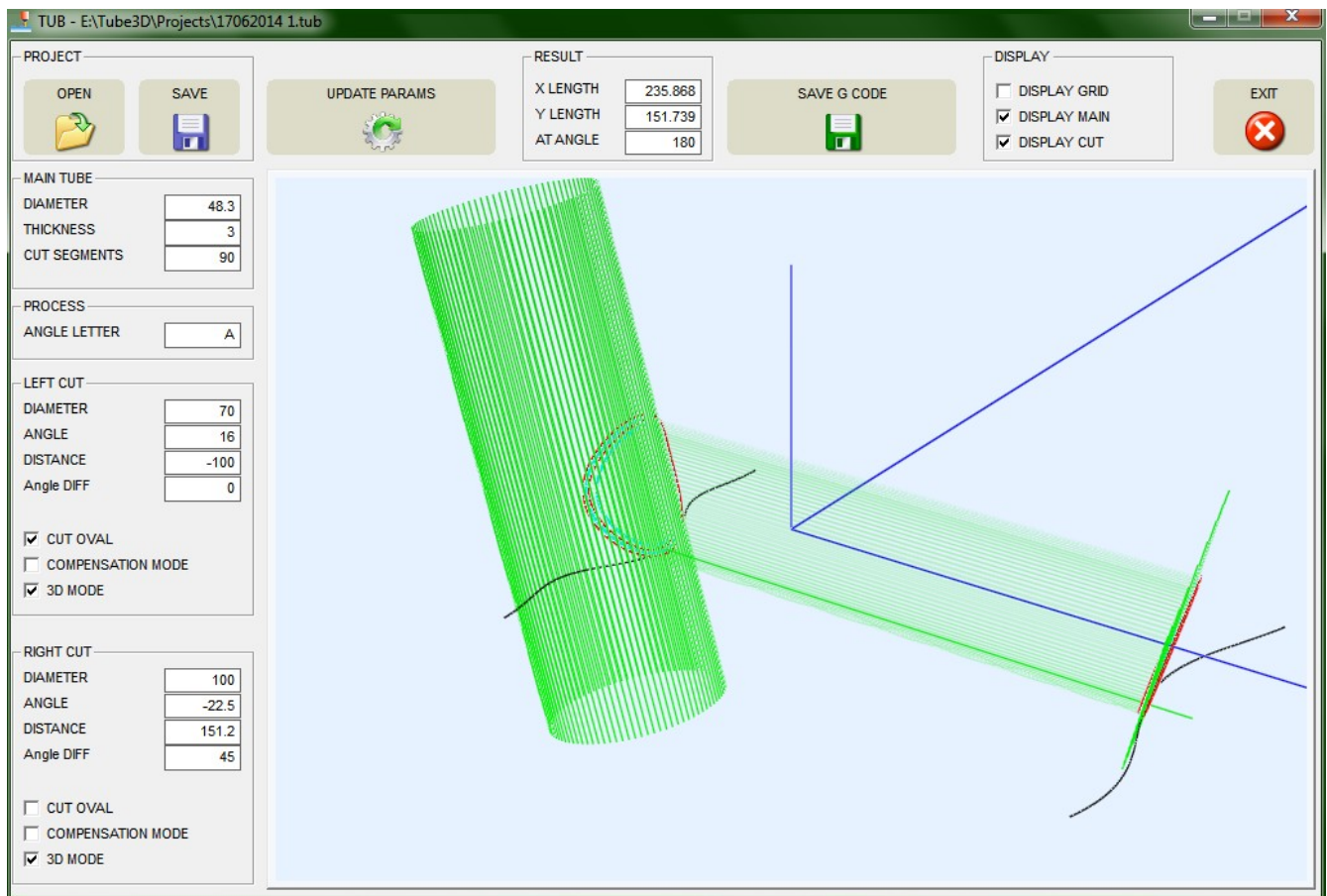
Rotate mouse wheel.

ROTATE AROUND OBJECT

Press and hold wheel (third) mouse button while moving mouse.

PAN

Press and hold right mouse button while moving mouse.



FUNCTION BUTTONS :

PROJECT OPEN

Open existing project (with *.prj extension).

PROJECT SAVE

Save project do disk (with *.prj extension).

UPDATE PARAMS

Every time any parameter is changed this button needs to be clicked.

SAVE G CODE

Saves G CODE to file.

EXIT

Terminates the program.

PARAMETERS :

MAIN TUBE :

Diameter

Input diameter of the tube you want to process.

Thickness

Input wall thickness of the tube you want to process.

CUT SEGMENTS

Input number of segments (discrete values) of the produced path.

PROCESS :

Angle letter

Input angle letter (if 3D processing is used) of the third axis.

LEFT / RIGHT CUT

DIAMETER

Input diameter of tube which cuts the main tube (if CUT OVAL is selected).

ANGLE

Input angle of cut surface to main tube in XZ plane.

DISTANCE

Input distance of cut surface.

ANGLE DIFF

Input angle of cut surface to main tube in YZ plane.

CUT OVAL

If selected, cut surface is oval (tube), otherwise cut surface is planar.

COMPENSATION MODE

If COMPENSATION MODE is selected then the software finds the optimal path combining inner and outer path. If COMPENSATION MODE is NOT selected then the result path is outer path. Outer and inner path refers to outer wall and inner wall surface of the main tube.

If 3D MODE is selected then this option is not relevant.

3D MODE

If 3D MODE is selected then the software calculates the angle between outer and inner path for every point. The results are written at third axis field.

If 3D MODE is NOT selected then the third axis is 0 (zero).

DISPLAY CHECK BOXES

DISPLAY GRID

Displays grid.

DISPLAY CUT

Shows cut surfaces.

DISPLAY MAIN

Shows main tube.

RESULT FIELDS

X LENGTH

X length of result paths.

Y LENGTH

Y length of result paths at given angle.

AT ANGLE

Angle at which dimension are calculated.