

New Open Machining Settings

Create point Line Endpoints Rectangle Circle Ct + Pt Polyline Spline TrueType

Undo Delete Change Layer Translate

Autozoom Zoom In Zoom back Zoom window Pan Redraw Top Front Side

Geometry Toolpath

Geometry

Il profilo per la lavorazione Tornio deve essere generato seguendo queste semplici regole.  
La forma deve essere disegnata in modo tale che:  
L'asse tornio X+ è disegnato nella direzione Y+ di SimplyCam  
L'asse tornio Z+ è disegnato nella direzione X+ di SimplyCam.  
I percorsi utensile saranno convertiti nelle coordinate standard del tornio quando si esegue il postprocessor.

Click per proseguire

Polyline:

Delete last pt

Closed



Y+

Standard

X+

X+

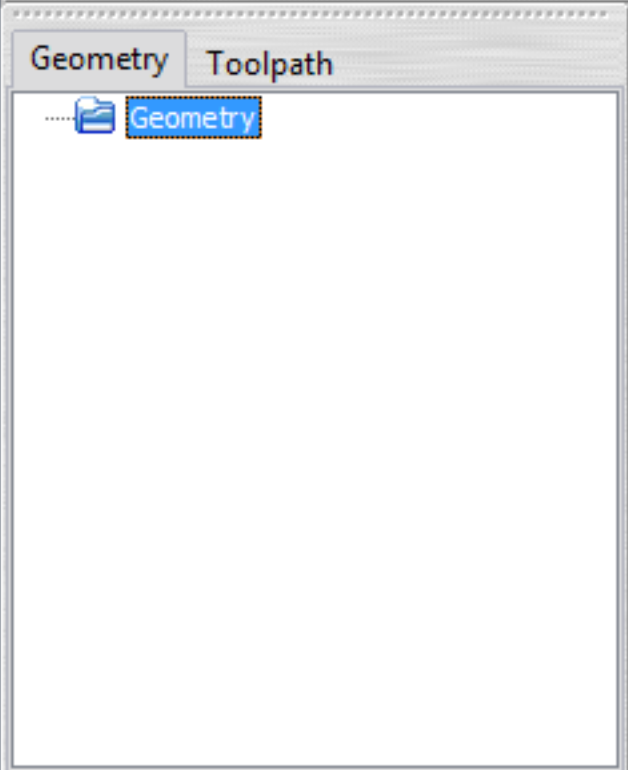
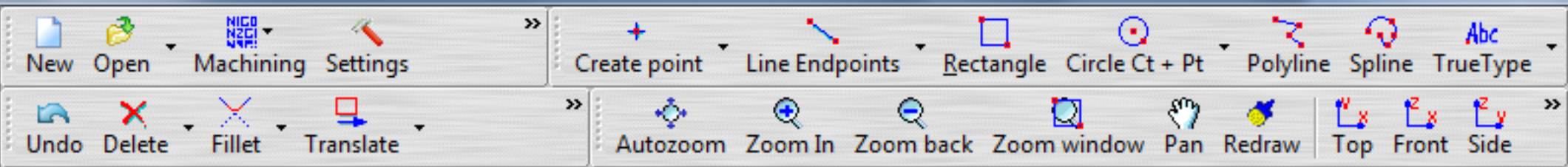
Lathe

Z+

3.152  
mm

X: -12.25 Y: 16.25

90° [Grid] [Snap] [STOP] [Check] Current layer: 0

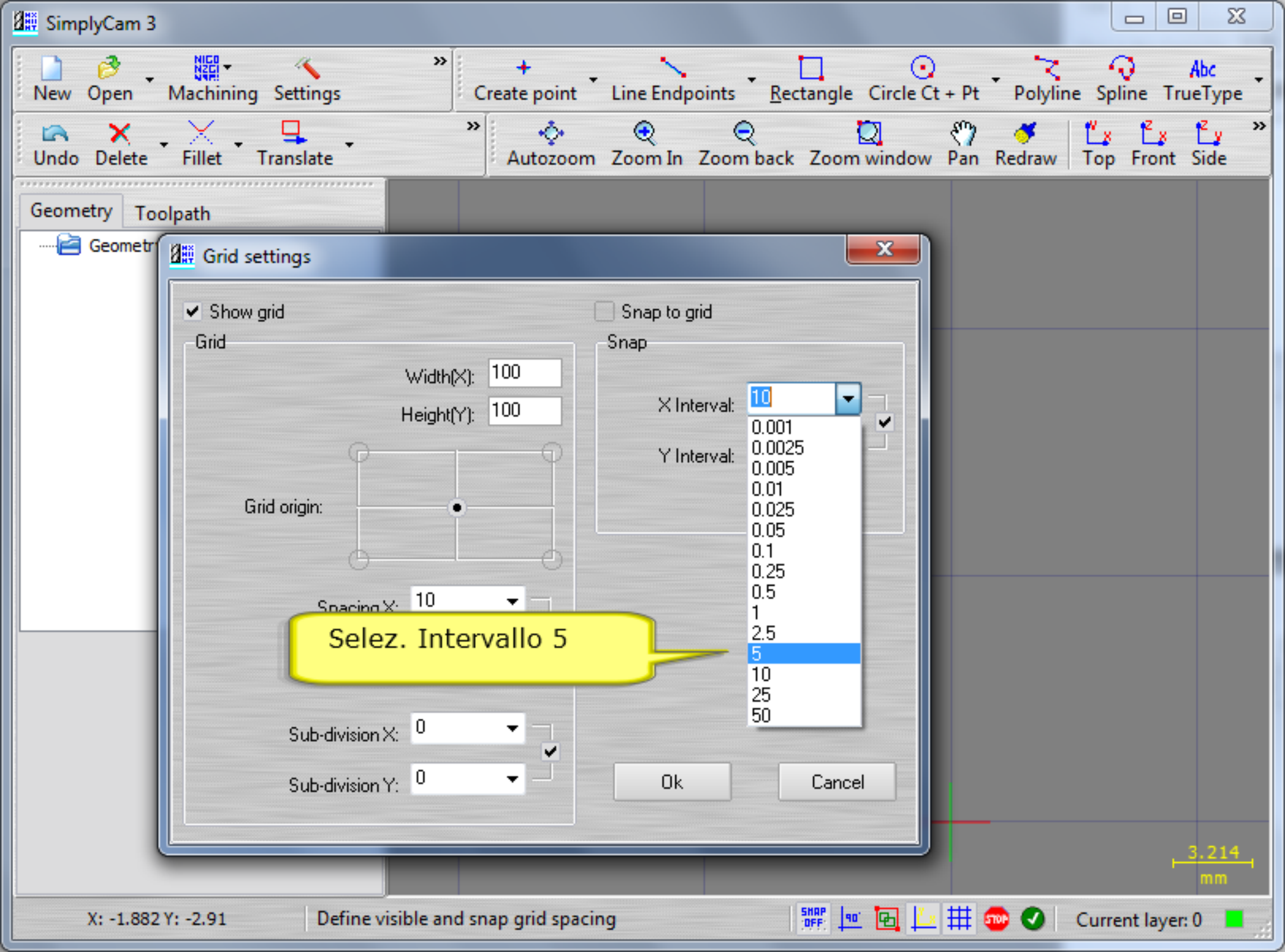


Creazione geometria:  
Selez. Impostazioni Griglia

- Snap to:
- Endpoint
- Midpoint
- Center
- Point
- Auto
- Grid
- Grid Settings

X: -1.882 Y: -2.91

3.214 mm



File: New, Open, Machining, Settings  
Tools: Create point, Line Endpoints, Rectangle, Circle Ct + Pt, Polyline, Spline, TrueType  
Edit: Undo, Delete, Fillet, Translate  
View: Autozoom, Zoom In, Zoom back, Zoom window, Pan, Redraw  
Orientation: Top, Front, Side

Geometry | Toolpath

Geometry

### Grid settings

Show grid       Snap to grid

**Grid**

Width(X): 100  
Height(Y): 100

Grid origin:

Spacing X: 10

Sub-division X: 0  
Sub-division Y: 0

**Snap**

X Interval: 10  
Y Interval: 5

Ok      Cancel

Selez. Intervallo 5

3.214 mm

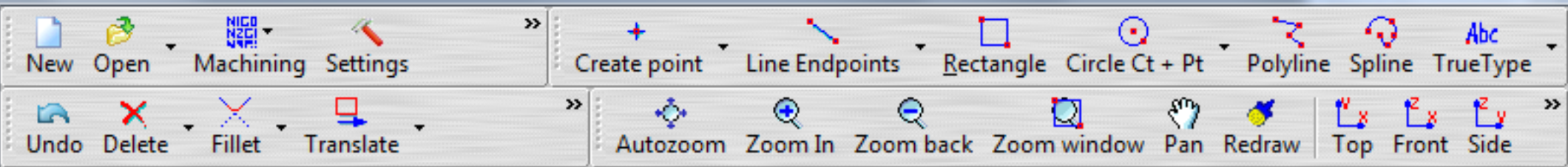
X: -1.882 Y: -2.91

Define visible and snap grid spacing

SNAP OFF | 90° | | | |

Current layer: 0





Geometry Toolpath

Geometry

### Grid settings

Show grid  Snap to grid

Grid

Width: 5

Height: 5

Y Interval: 5

Grid origin:

Spacing X: 10

Spacing Y: 10

Sub-division X: 0

Sub-division Y: 0

Ok Cancel

**Attivare Snap**

3.214 mm

X: -1.882 Y: -2.91

Define visible and snap grid spacing



New Open Machining Settings  
Undo Delete Fillet Translate

Create point Line Endpoints Rectangle Circle Ct + Pt Polyline Spline TrueType  
Autozoom Zoom In Zoom back Zoom window Pan Redraw Top Front Side

Geometry Toolpath  
Geometry



3.214 mm

X: 0 Y: 25

[Grid] [90°] [Home] [Layers] [Grid] [STOP] [Check] | Current layer: 0 [Green Box]



New
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Undo
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 Spline
 TrueType

Autozoom
 Zoom In
 Zoom back
 Zoom window
 Pan
 Redraw
 Top
 Front
 Side

Geometry | Toolpath

- Geometry

Coordinate attuali

X: 0 Y: 5

Current layer: 0



New
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 TrueType

Autozoom
 Zoom In
 Zoom back
 Zoom window
 Pan
 Redraw
 Top
 Front
 Side

Geometry | Toolpath

..... Geometry

Polyline:

Coordinate attuali

X: -10 Y: 10

Press the mouse on the desired position.

Current layer: 0



New
 Open
 Machining
 Settings

Undo
 Delete
 Fillet
 Translate

Create point
 Line Endpoints
 Rectangle
 Circle Ct + Pt
 Polyline
 Spline
 TrueType

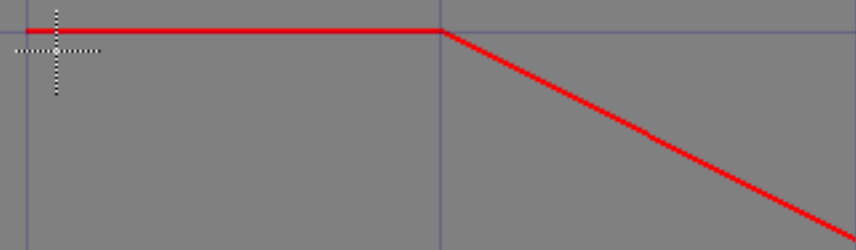
Autozoom
 Zoom In
 Zoom back
 Zoom window
 Pan
 Redraw
 Top
 Front
 Side

Geometry Toolpath

Geometry

Polyline:

Click a X-20 Y10



3.214 mm

X: -20 Y: 10

Press the mouse on the desired position.

Current layer: 0

New Open Machining Settings

Undo Delete Fillet Translate

Create point Line Endpoints Rectangle Circle Ct + Pt Polyline Spline TrueType

Autozoom Zoom In Zoom back Zoom window Pan Redraw Top Front Side

Geometry Toolpath

Geometry

Premere Enter a X-20 Y15



Polyline:

Delete last pt

Closed

X: -20 Y: 15

Press the mouse on the desired position.

[Grid] [90°] [Snap] [Units] [Grid] [STOP] [Check] Current layer: 0 [Green Box]

- New
- Open
- Machining
  - New
  - Mill
  - Contour
  - Pocket
  - Drill
  - Parallel
  - Edit G-Code
  - Laser, Plasma, Waterjet
  - Cut
  - Laser Engraving
  - Lathe
    - Lathe Rough
    - Lathe Finish
- Settings

- Create point
- Line Endpoints
- Rectangle
- Circle Ct + Pt
- Polyline
- Spline
- TrueType
- Autozoom
- Zoom In
- Zoom back
- Zoom window
- Pan
- Redraw
- Top
- Front
- Side

Lavorazioni:  
dal menu selezionare Sgrossatura Tornio

Polyline:

Delete last pt

Closed



3.214 mm

X: -25 Y: 15

### Lathe Rough

Tools

Profiles

Parameters

Tools List:

C:\ProgramData\SimplyC... \Lathe\_mm.rlb

- Generic OD 04 15° (Radius 0.4)
- Generic OD 08 15° (Radius 0.8)
- Generic OD 04 30° (Radius 0.4)
- Generic OD 08 30° (Radius 0.8)
- Generic ID 04 5° (Radius 0.4)
- Generic ID 08 5° (Radius 0.8)

Click sull'utensile

Feed rate: 0.1

mm/rev

mm/min

Coolant

#### Tool geometry



Name: Generic OD 04 15°  
 Type: General OD turning  
 Corner radius: 0.4  
 Compensation: Tip

Open library

Save library

Add to lib.

Modify in lib.

Change Post

Run Post

Show/Hide toolpaths



X: -15 Y: 15

Define tool, speed and feeds

90°

Current layer: 0

3.214 mm



### Lathe Rough

Tools

Profiles

Parameters

Profiles definition:

Layer prio

Definizione del profilo

[Icon] Post

[Icon] Pre

[Icon] Select

[Icon] WinSelect

[Icon] Chain

[Icon] Reverse

[Icon] Unselect last

[Icon] Unselect all

[Icon] Chains Manager

Cutter Compensation:

Offset Side:

Cutter compensation in Cnc (G41/G42)

Change Post

Run Post

Show/Hide toolpaths

Line Endpoints    Rectangle    Circle Ct + Pt    Polyline    Spline    TrueType    Abc

Zoom In    Zoom back    Zoom window    Pan    Redraw    Top    Front    Side    >>



3.214 mm

X: -15 Y: 15

Select the profile, cutter compensation and Entry/Exit

[Grid] [90°] [WinSelect] [Chain] [Unselect all] [Unselect last] [STOP] [Checkmark]

Current layer: 0



### Lathe Rough

Tools

Profiles

Parameters

Profiles definition:

Layer priority

Go To

Last

All

Select

WinSelect

Chain

Catena

Unselect last

Unselect all

Chains Manager

Cutter Compensation:

Offset Side: Auto

Cutter compensation in Cnc (G41/G42)

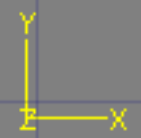
Change Post

Run Post

Show/Hide toolpaths

Line Endpoints    Rectangle    Circle Ct + Pt    Polyline    Spline    TrueType    Abc

Zoom In    Zoom back    Zoom window    Pan    Redraw    Top    Front    Side    >>



3.214 mm

X: -15 Y: 15

Select the profile, cutter compensation and Entry/Exit

Grid icon    90° icon    G41/G42 icon    Grid icon    STOP icon    Checkmark icon

Current layer: 0

New Open Machining Settings

Create point Line Endpoints Rectangle Circle Ct + Pt Polyline Spline TrueType Abc

Undo Delete Fillet Translate

Autozoom Zoom In Zoom back Zoom window Pan Redraw Top Front Side

Profiles

Parameters

Go To

All

WinSelect

Reverse

Unselect all

Chains Manager

Offset Side: Auto

 Cutter compensation in Cnc (G41/G42) 

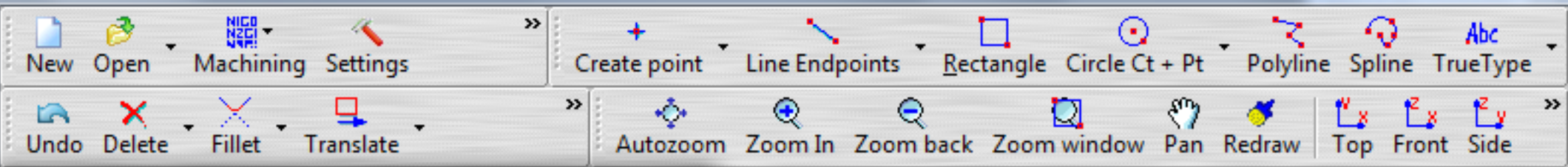
Click sul profilo per definire la geometria della lavorazione

3.214  
mm

X: 0 Y: 5



Current layer: 0




**Lathe Rough**

Tools | Profiles | **Parameters**

Rough parameters:

- Lead in... (2)
- Lead out... (2 @ 45°)



Stock to leave:

Size of rough cut:

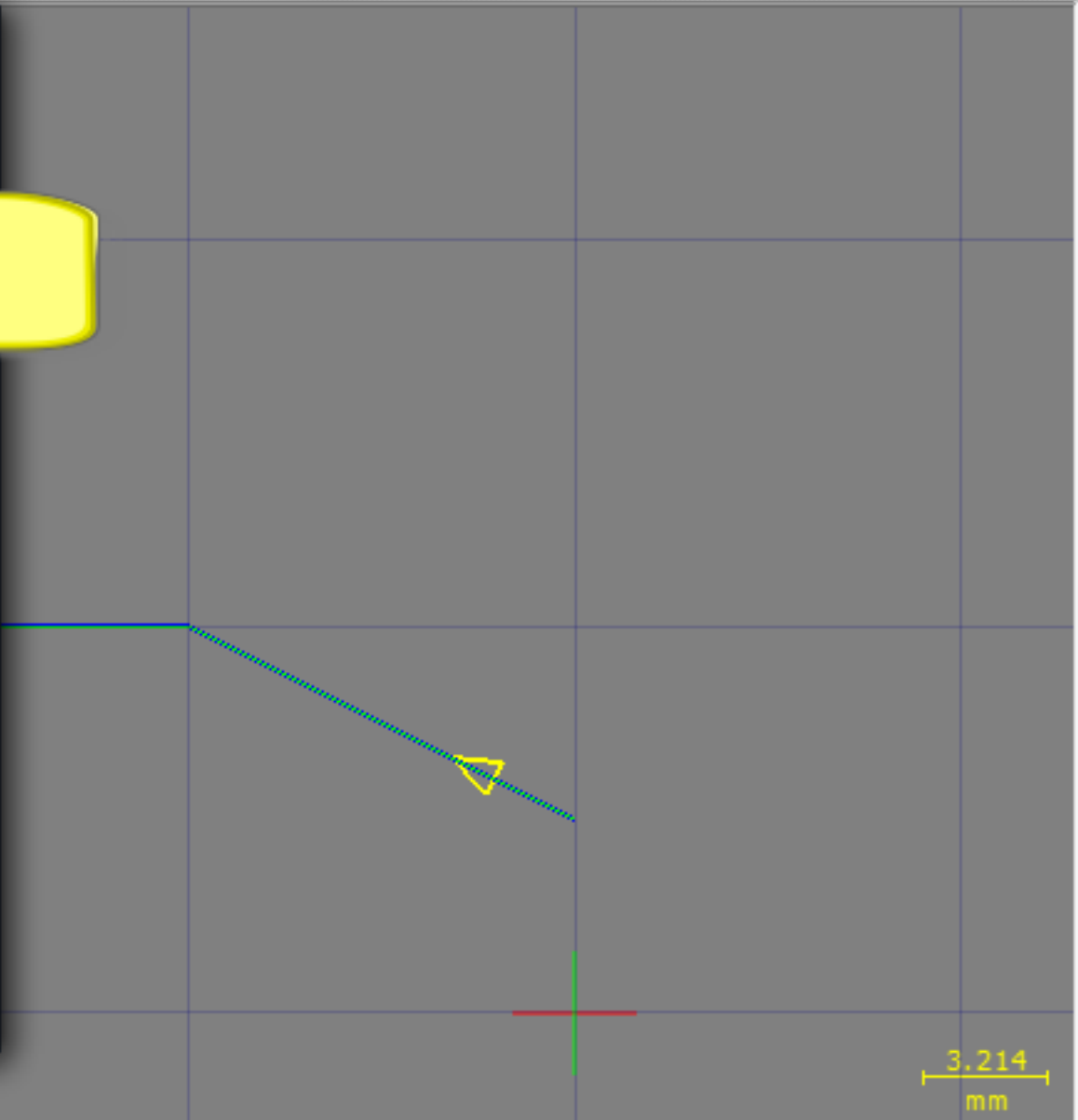
N.

Semi finish cut size:

Home position: X50, Z5

Calculate Cancel

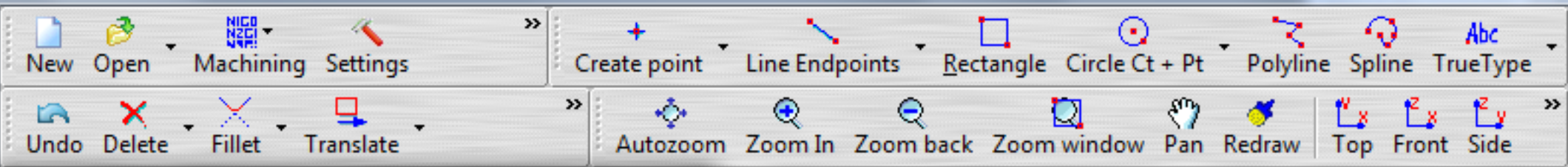
Parametri



X: -25 Y: 20

Set the cutting parameters and press the 'Calculate' button





**Lathe Rough**

Tools | Profiles | Parameters

Rough parameters:

- Lead in... ( 2 @ 180°)
- Lead out... ( 2 @ 45°)

Stock to leave:

Size of rough cut:

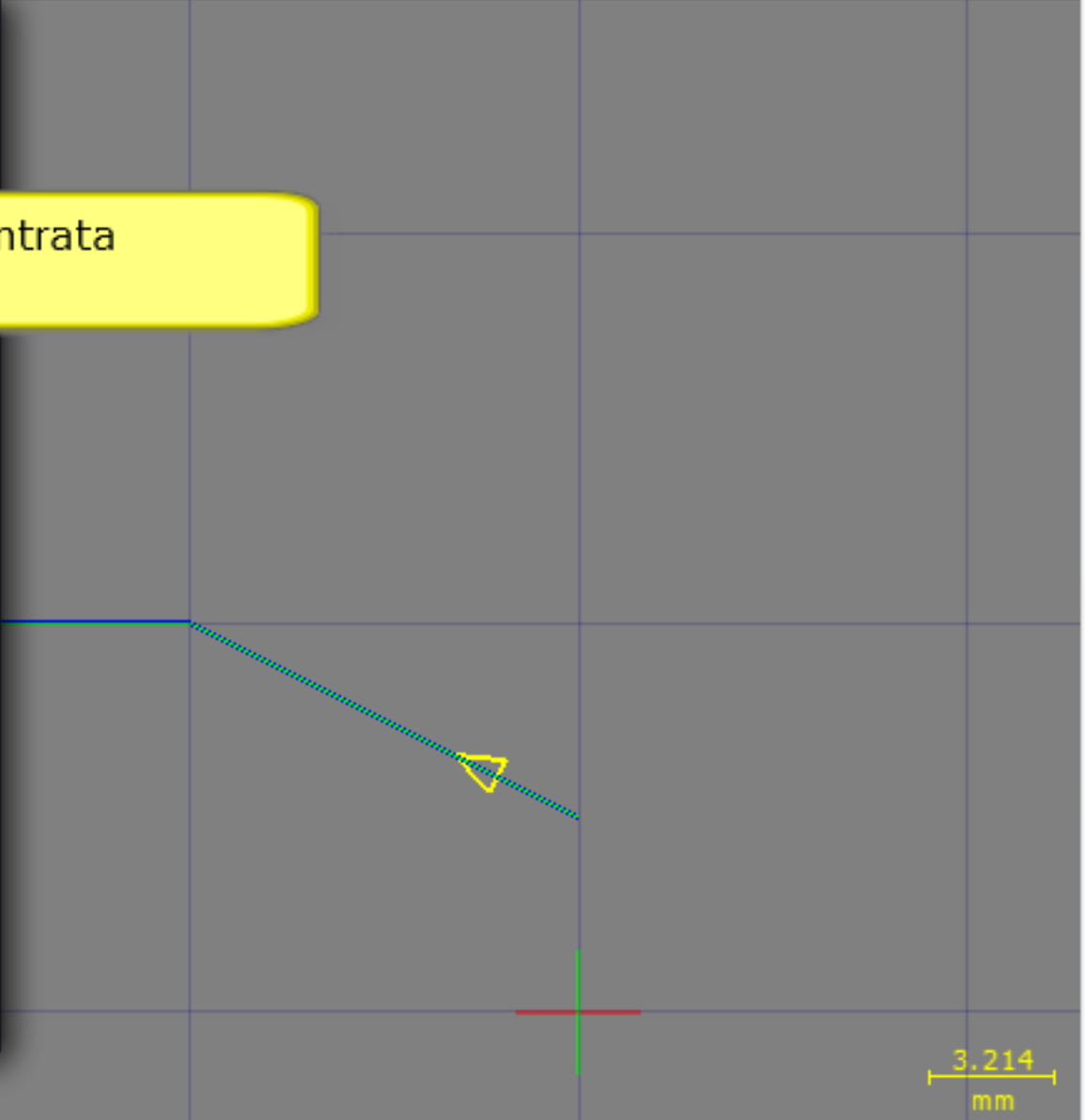
N.

Semi finish cut size:

Home position: X50, Z5

Calculate | Cancel

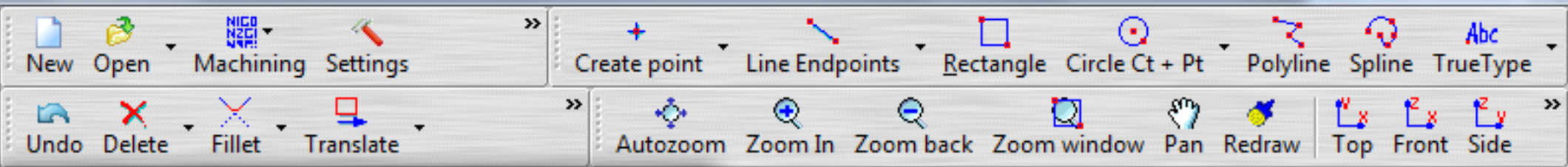
Click su Entrata



X: -25 Y: 20

Set the cutting parameters and press the 'Calculate' button





**Lathe Rough**

Tools Profiles Parameters

Rough parameters:

- Lead in... ( 0.5 @ 180°)
- Lead out... ( 2 @ 45°)

Stock to leave: .2

Size of rough cut: 1

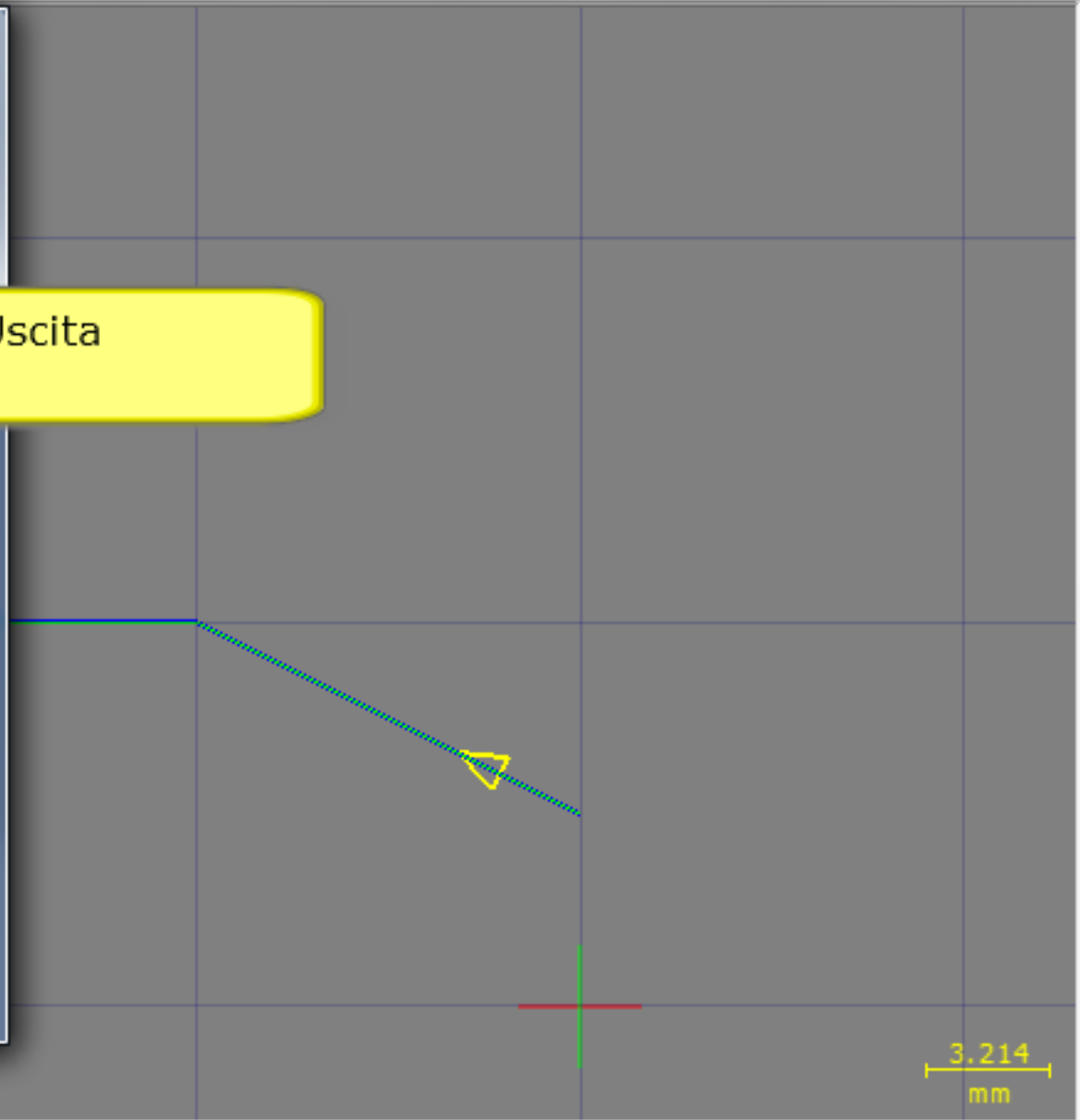
N. 0

Semi finish cut size: 0

Home position: X50, Z5

Calculate Cancel

Click su Uscita

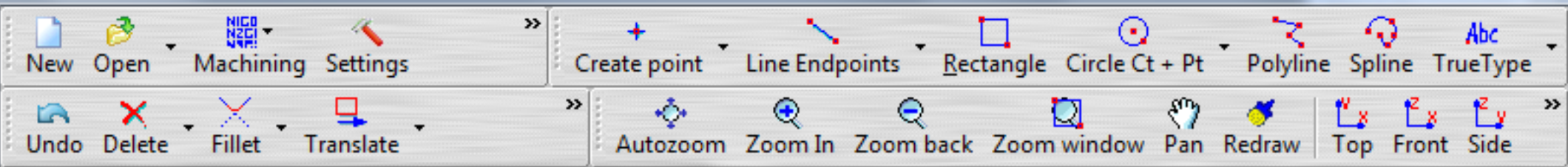


3.214 mm

X: -25 Y: 20

Set the cutting parameters and press the 'Calculate' button





Exit vector

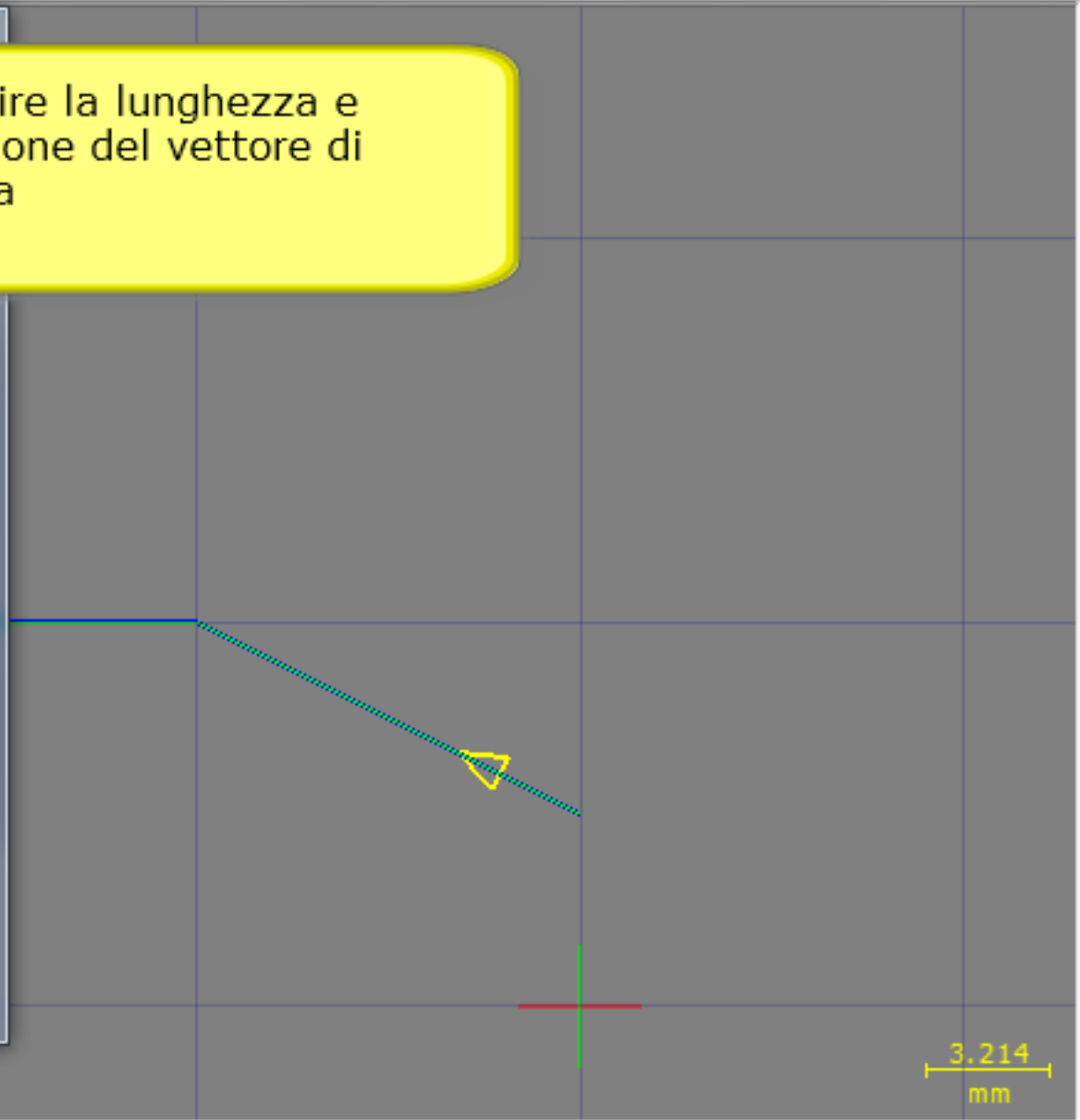
Exit length:

Direction(degrees):

Ok

Calculate Cancel

Definire la lunghezza e direzione del vettore di Uscita

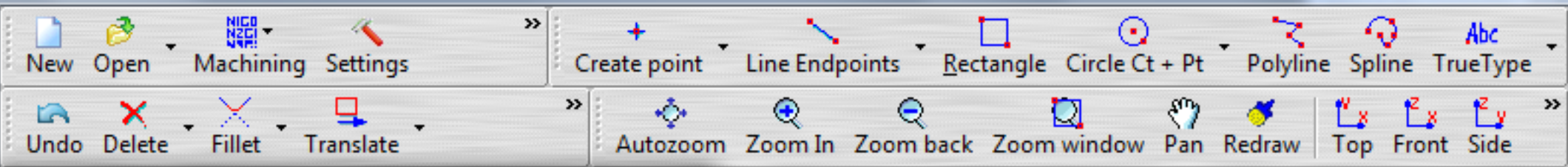


X: -25 Y: 20

Set the cutting parameters and press the 'Calculate' button





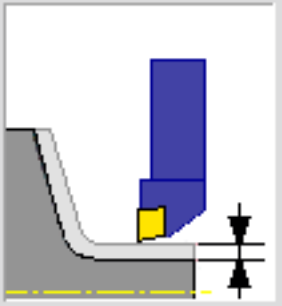


### Lathe Rough

Tools | Profiles | Parameters

Rough parameters:

- Lead in... (0.5 @ 180°)
- Lead out... (0.5 @ 45°)



Stock to leave:

Size of rough cut:

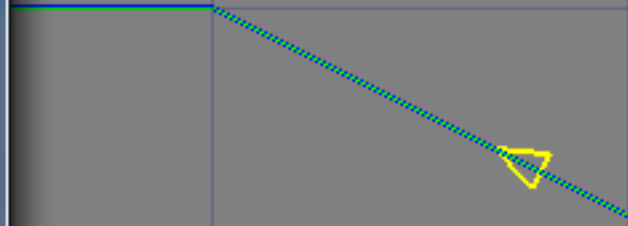
N.

Semi finish cut size:

Home position: X50, Z5

Calculate Cancel

Sovrametallo da lasciare

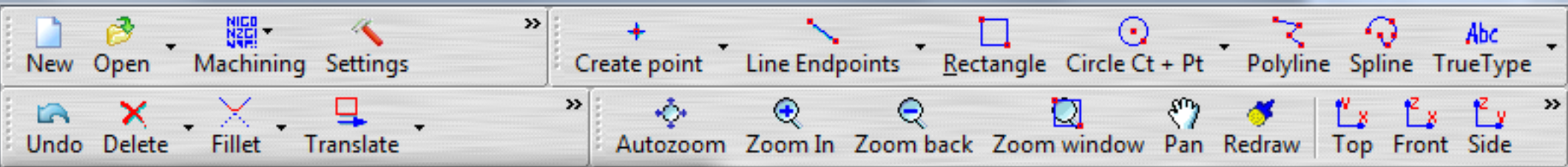


3.214 mm

X: -25 Y: 20

Set the cutting parameters and press the 'Calculate' button



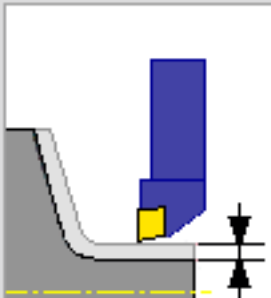


### Lathe Rough

Tools | Profiles | Parameters

Rough parameters:

- Lead in... (0.5 @ 180°)
- Lead out... (0.5 @ 45°)



Stock to leave:

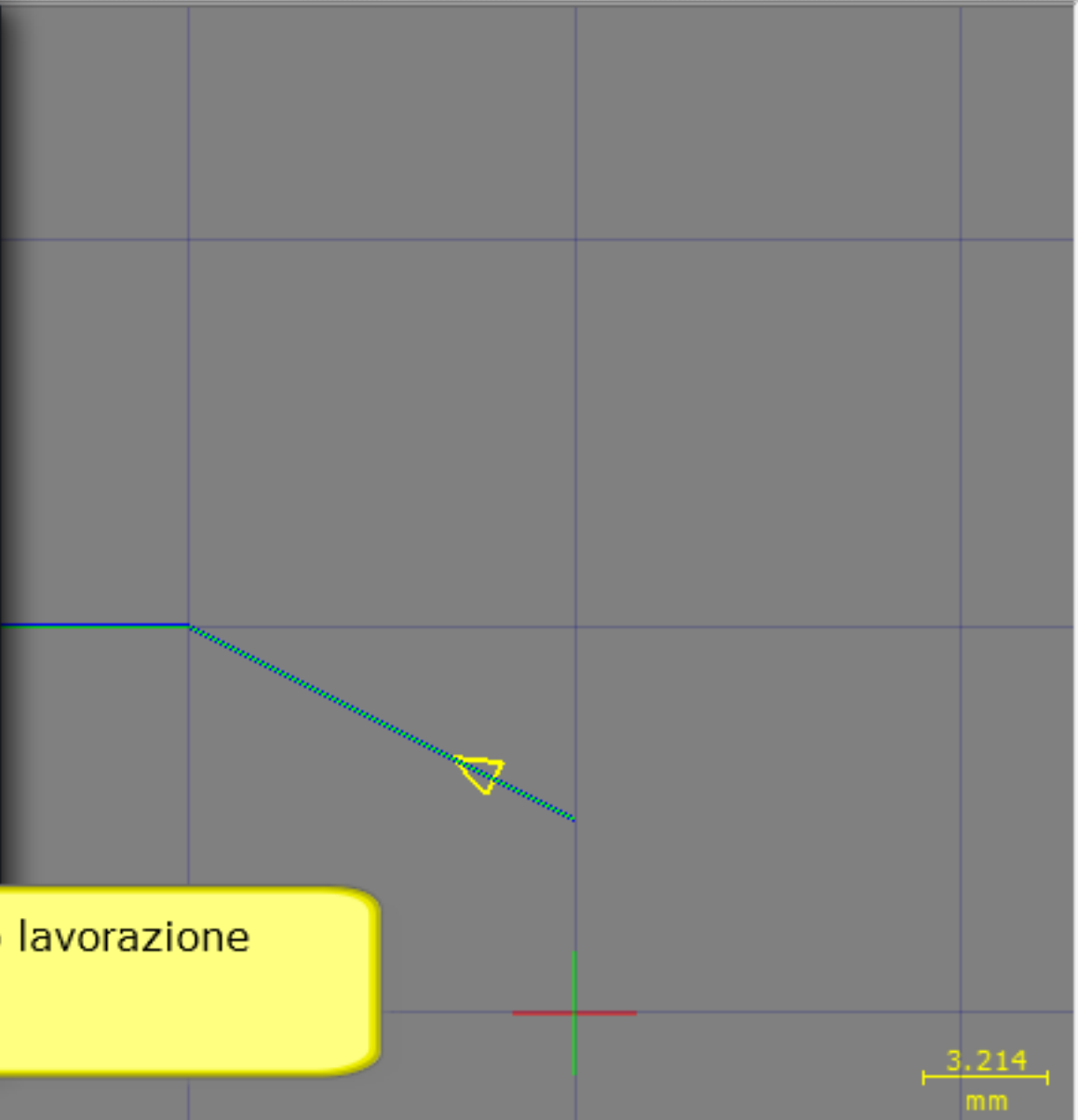
Size of rough cut:

N.

Semi finish cut size:

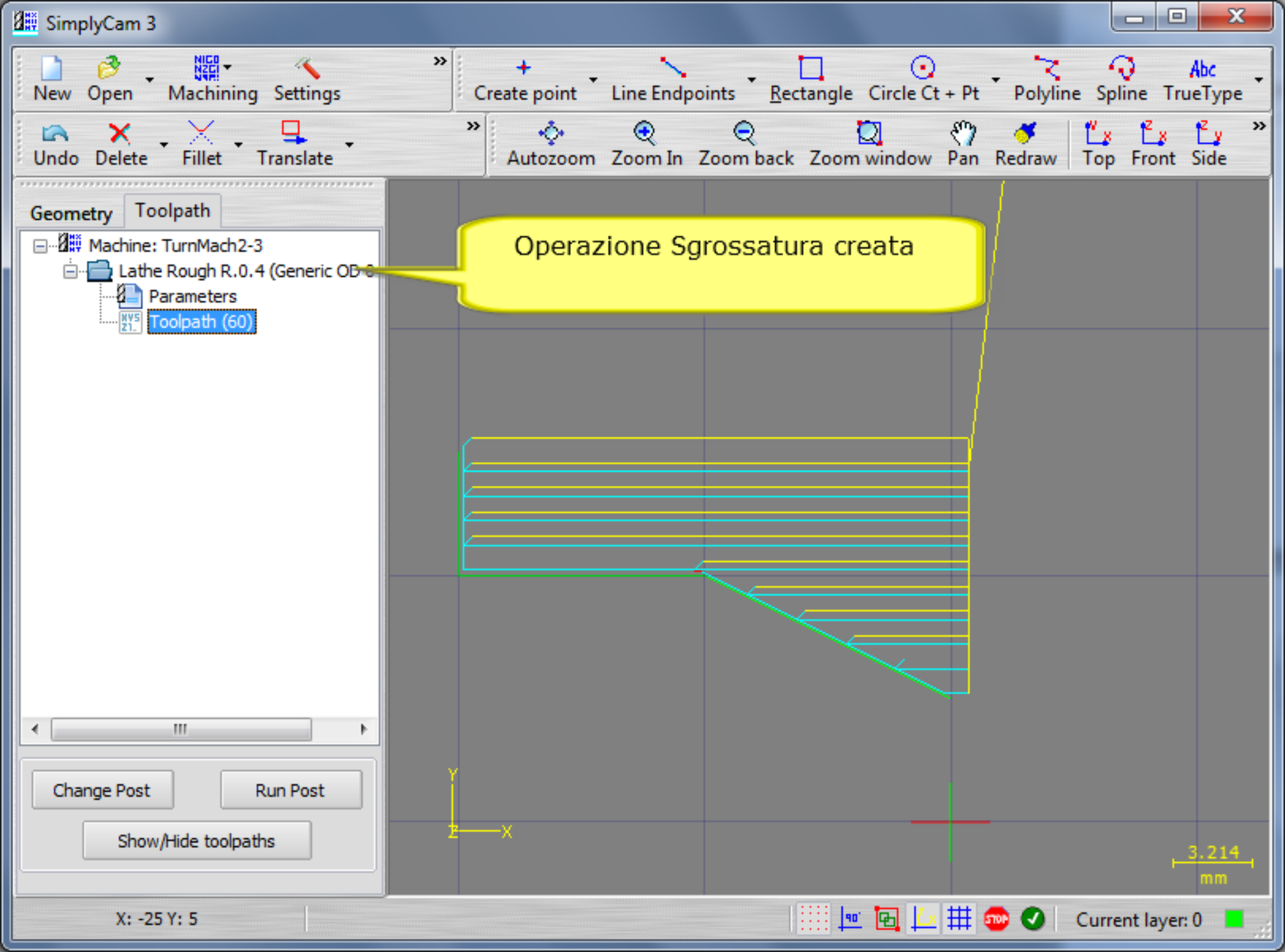
Home position: X50, Z5

Calcolo lavorazione



X: -25 Y: 20

Set the cutting parameters and press the 'Calculate' button



Operazione Sgrossatura creata

Change Post

Run Post

Show/Hide toolpaths

X: -25 Y: 5

3.214  
mm

Current layer: 0

New Open Machining Settings

Undo Delete Fillet Translate

Create point Line Endpoints Rectangle Circle Ct + Pt Polyline Spline TrueType

Autozoom Zoom In Zoom back Zoom window Pan Redraw Top Front Side

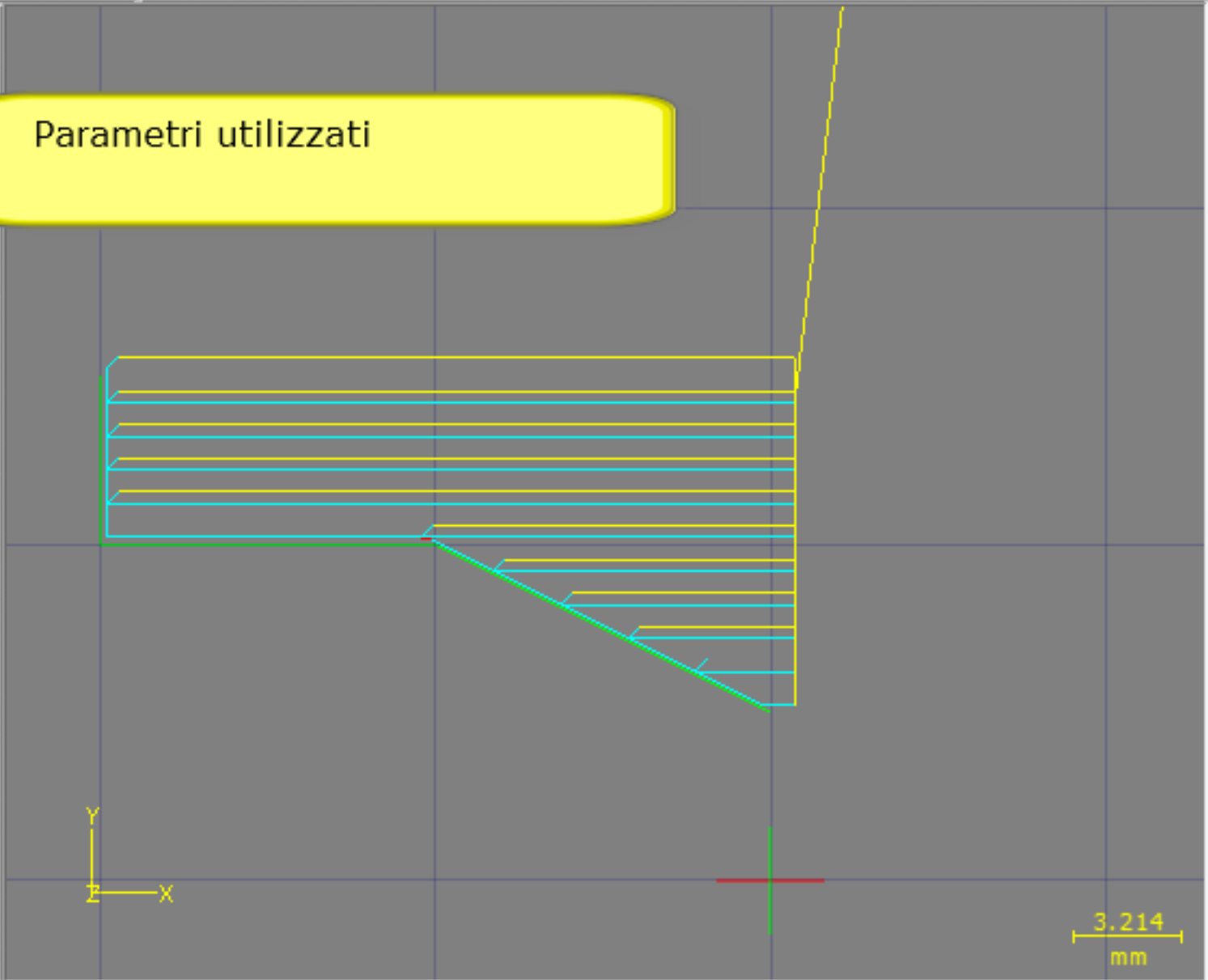
Geometry Toolpath

- Machine: TurnMach2-3
  - Lathe Rough R.0.4 (Generic O...
    - Parameters
    - Toolpath (60)**

Change Post Run Post

Show/Hide toolpaths

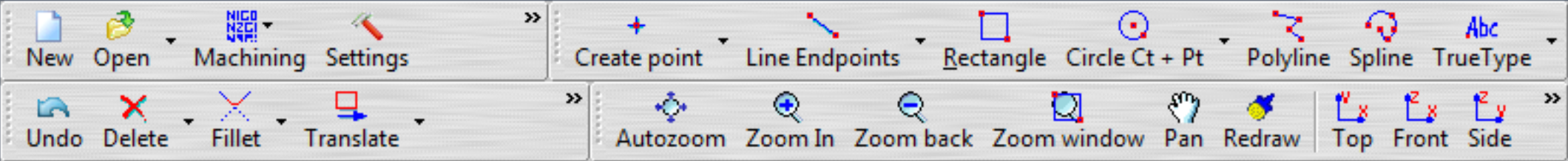
Parametri utilizzati



X: -25 Y: 5

Grid 90° [Icons] [STOP] [Checkmark] Current layer: 0 [Green square]





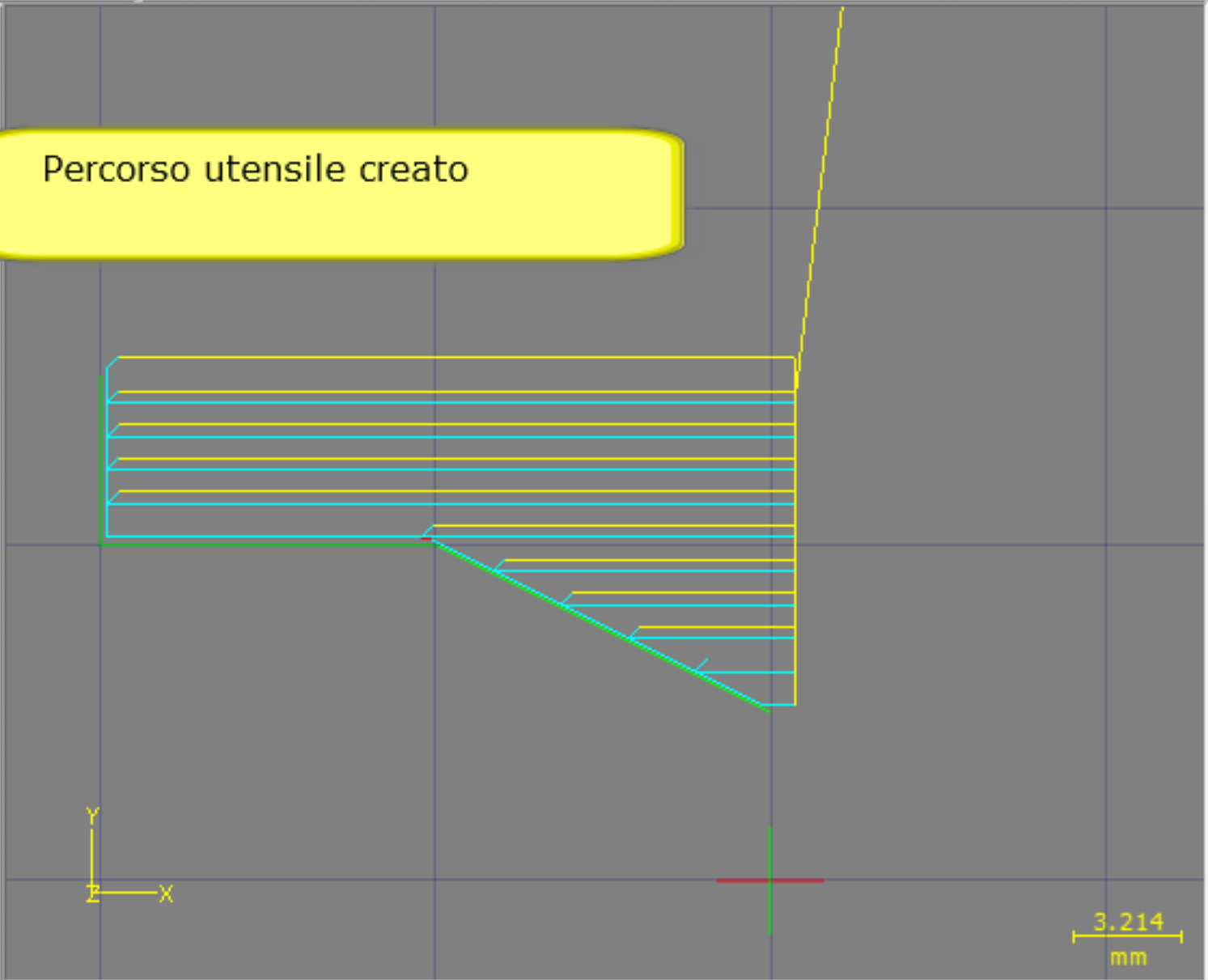
Geometry | Toolpath

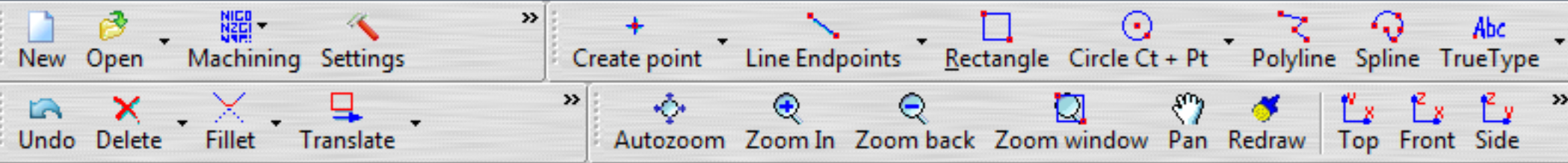
- Machine: TurnMach2-3
  - Lathe Rough R.0.4 (Generic OD 0...)
    - Parameters
    - Toolpath (60)**

Change Post | Run Post

Show/Hide toolpaths

Percorso utensile creato





Geometry Toolpath

- Machine: TurnMach2-3
  - Lathe Rough R.0.4 (Generic OD 0
    - Parameters
    - Toolpath (60)**

Change Post Run Post

Show/Hide toolpaths

Doppio Click su Percorso Utensile per aprire il dialogo di Simulazione



X: -25 Y: 5

File menu: New, Open, Machining, Settings

Tools menu: Create point, Line Endpoints, Rectangle, Circle Ct + Pt, Polyline, Spline, TrueType

Navigation menu: Autozoom, Zoom In, Zoom back, Zoom window, Pan, Redraw, Top, Front, Side

Line: 0/60

Navigation icons: Home, Previous, Play, Next, End

Speed control slider

Slow/Fast

GCode simulation

Velocità lenta

Change Post

Run Post

Show/Hide toolpaths

X: -25 Y: 5

90° rotation icon, Grid icon, Stop icon, Checkmark icon, Current layer: 0

New Open Machining Settings

Create point Line Endpoints Rectangle Circle Ct + Pt Polyline Spline TrueType

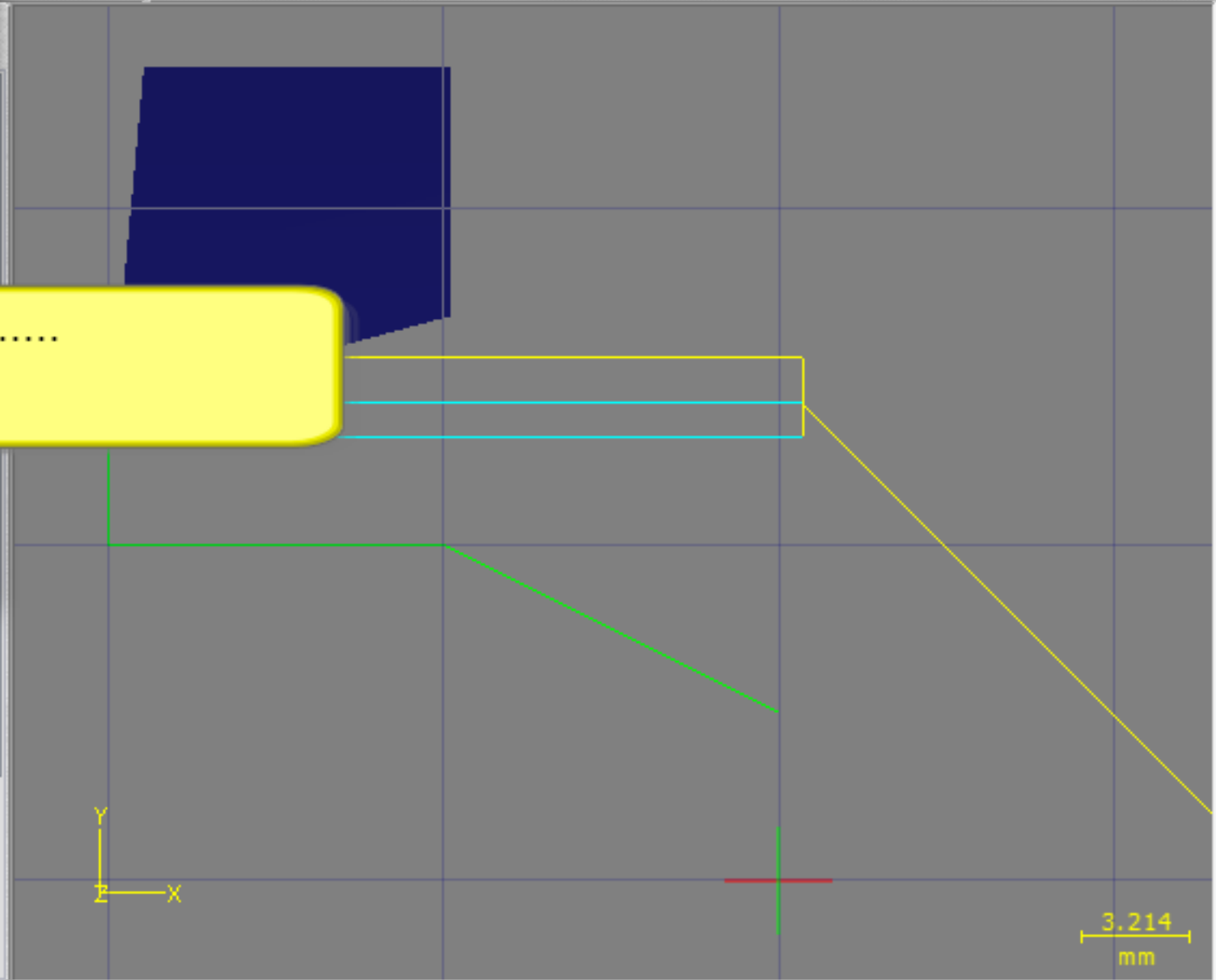
Autozoom Zoom In Zoom back Zoom window Pan Redraw Top Front Side

Line: 10/60

Play / Stop

Show Tool  
 Solid simulation  
 GCode simulation

Play.....



Change Post Run Post

Show/Hide toolpaths

X: -25 Y: 5

90° [Grid] [Layers] [Zoom] [STOP] [Checkmark] Current layer: 0 [Green Box]

New Open Machining Settings

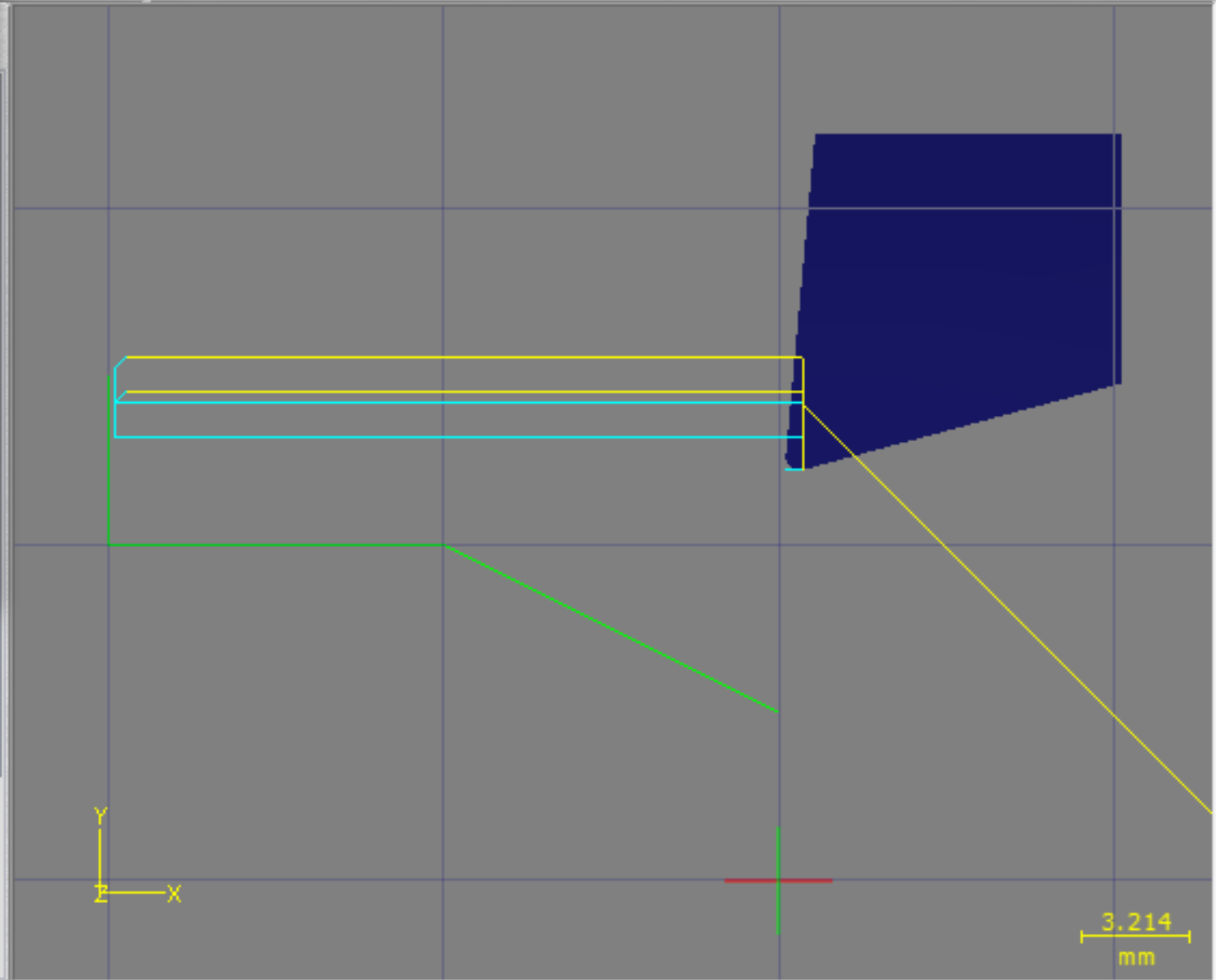
Create point Line Endpoints Rectangle Circle Ct + Pt Polyline Spline TrueType

Autozoom Zoom In Zoom back Zoom window Pan Redraw Top Front Side

Line: 14/60

Play / Stop

Show Tool  
 Solid simulation  
 GCode simulation



Change Post Run Post

Show/Hide toolpaths

X: -25 Y: 5

90° [Grid] [Layers] [Stop] [Check] Current layer: 0



File menu: New, Open, Machining, Settings

Construction tools: Create point, Line Endpoints, Rectangle, Circle Ct + Pt, Polyline, Spline, TrueType

Navigation tools: Autozoom, Zoom In, Zoom back, Zoom window, Pan, Redraw

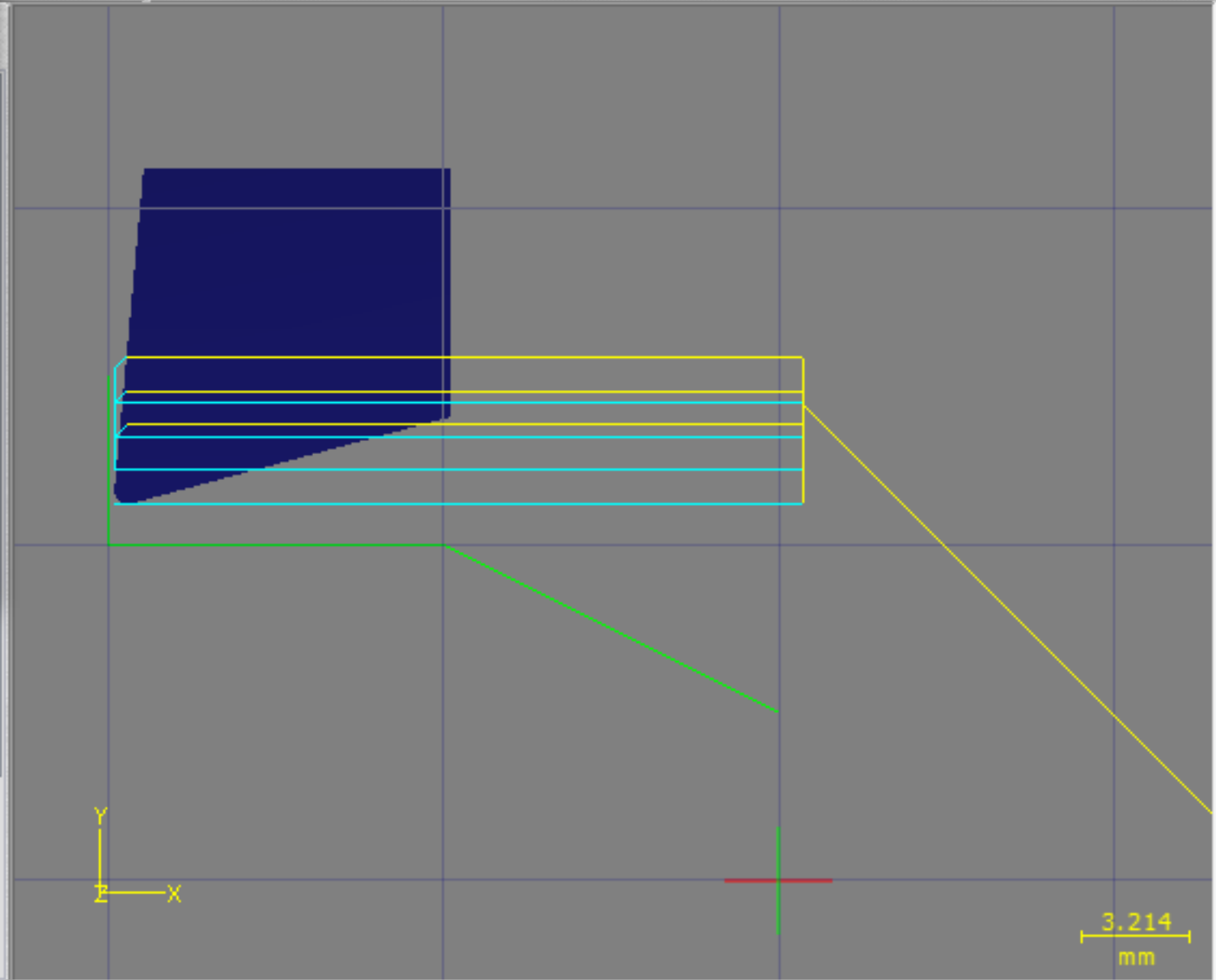
Viewing options: Top, Front, Side

Simulation control panel

Line: 21/60

Play / Stop

- Show Tool
- Solid simulation
- GCode simulation



Post-processor controls

Change Post, Run Post, Show/Hide toolpaths

X: -25 Y: 5

Bottom status bar: Grid, 90°, Home, Lock, Show/Hide, STOP, Checkmark, Current layer: 0



New
 Open
 Machining
 Settings

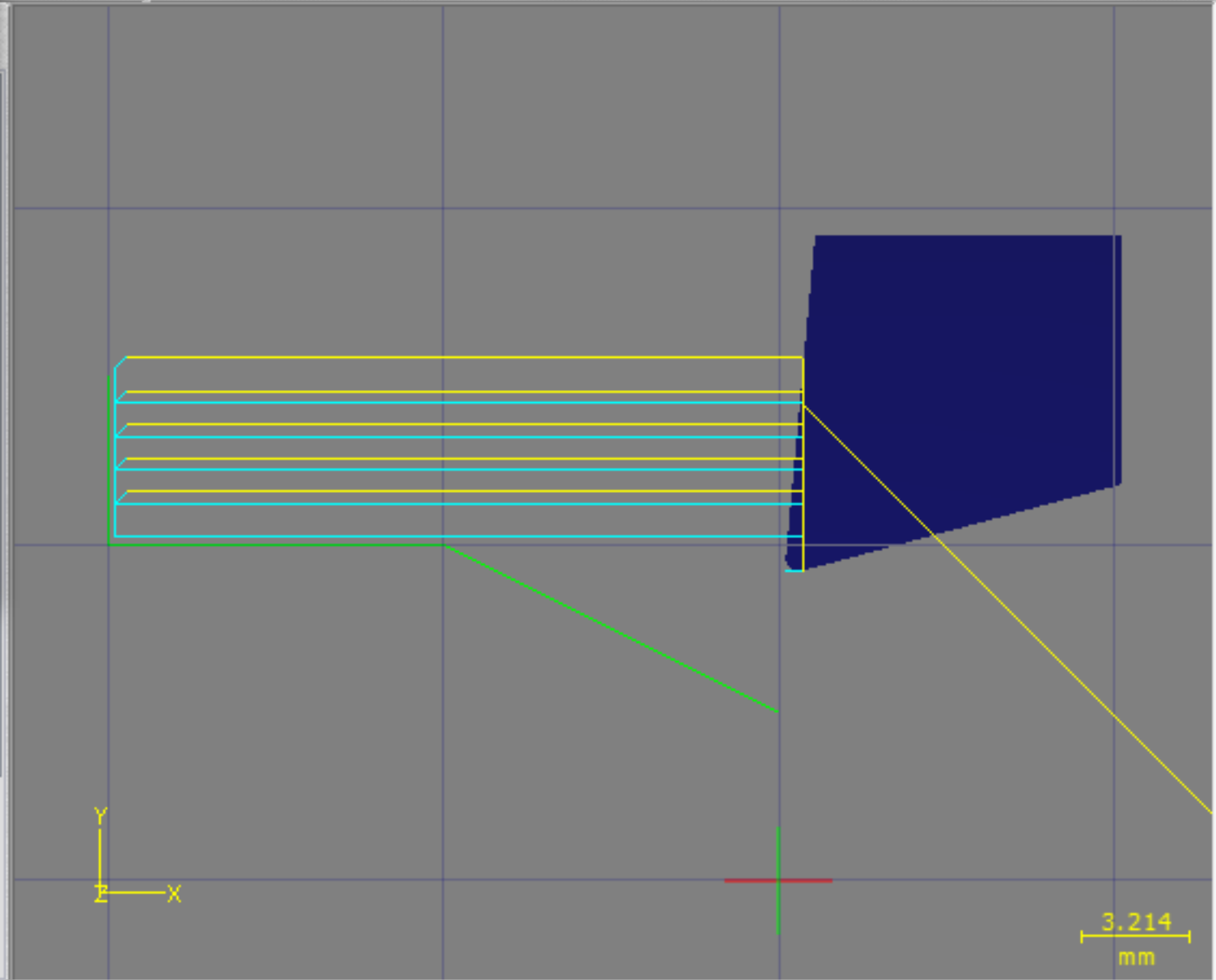
Create point
 Line Endpoints
 Rectangle
 Circle Ct + Pt
 Polyline
 Spline
 TrueType

Autozoom
 Zoom In
 Zoom back
 Zoom window
 Pan
 Redraw
 Top
 Front
 Side

Line: 33/60

Play / Stop

Show Tool  
 Solid simulation  
 GCode simulation



Change Post
 Run Post

Show/Hide toolpaths

X: -25 Y: 5

Current layer: 0

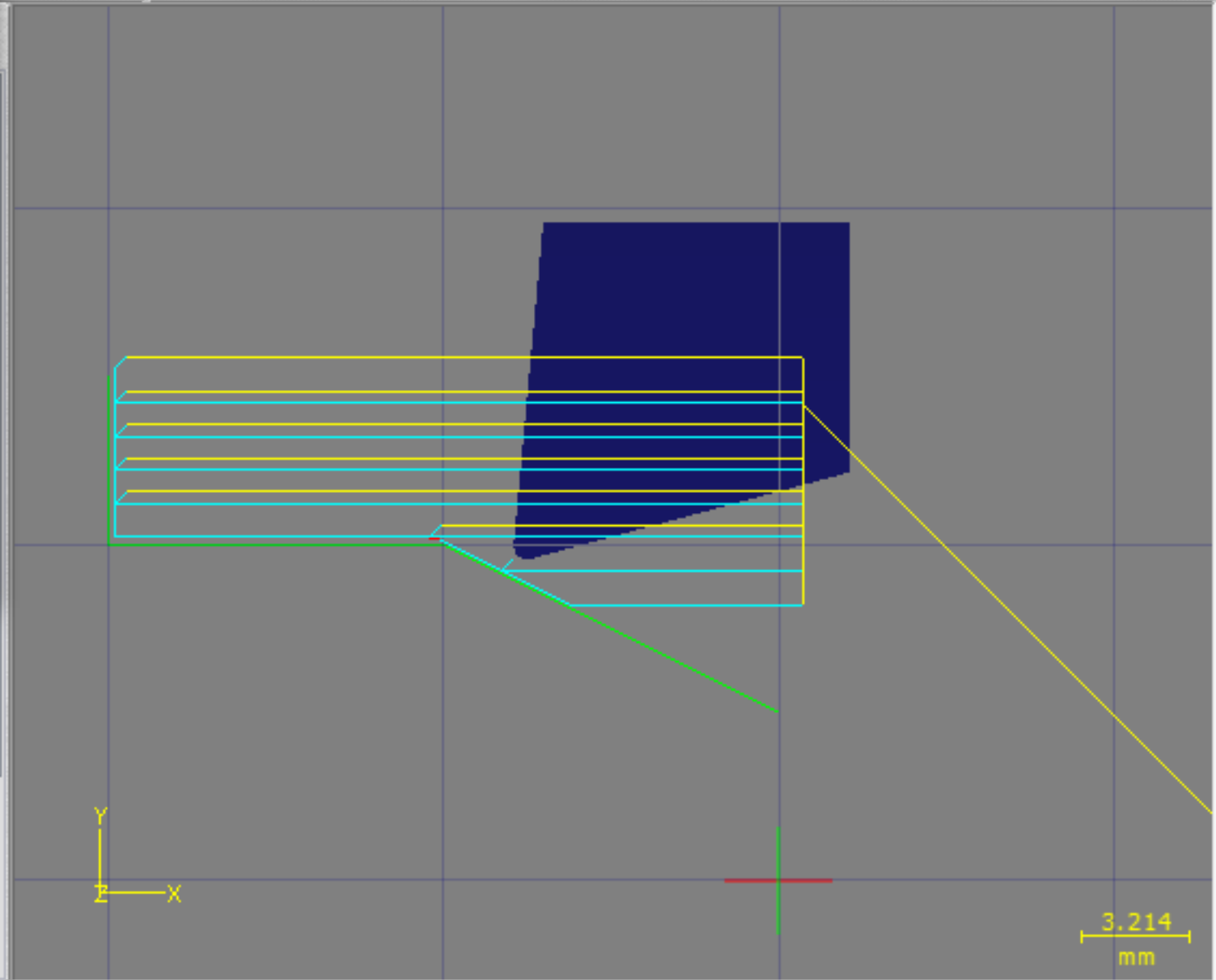
File menu: New, Open, Machining, Settings

Tools menu: Create point, Line Endpoints, Rectangle, Circle Ct + Pt, Polyline, Spline, TrueType

Navigation menu: Autozoom, Zoom In, Zoom back, Zoom window, Pan, Redraw, Top, Front, Side

Line: 42/60

Control buttons: Play / Stop, Show Tool, Solid simulation, GCode simulation



Change Post, Run Post, Show/Hide toolpaths

X: -25 Y: 5

Simulation status: 90°, grid, STOP, Current layer: 0

File menu: New, Open, Machining, Settings

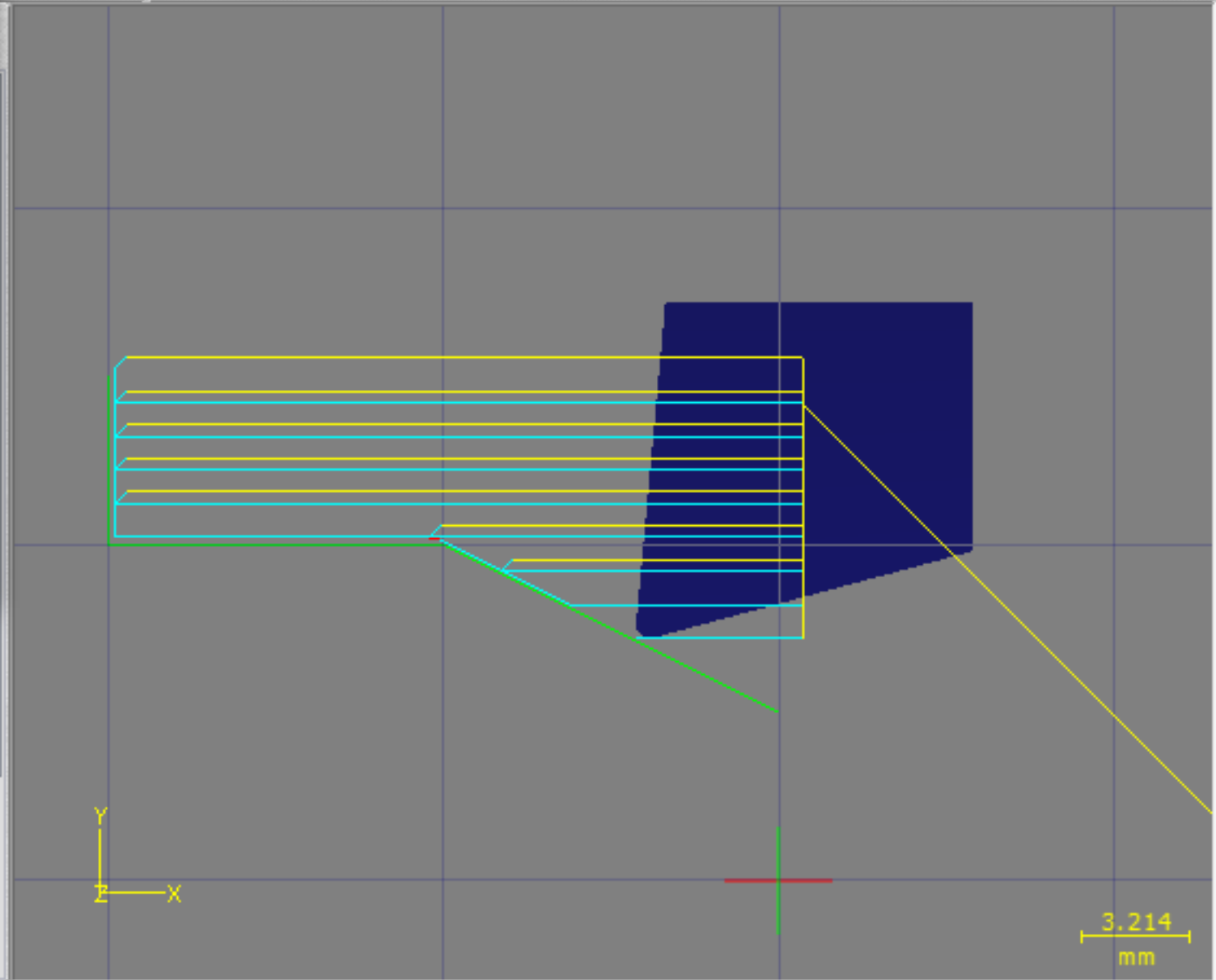
Tools menu: Create point, Line Endpoints, Rectangle, Circle Ct + Pt, Polyline, Spline, TrueType

Navigation menu: Autozoom, Zoom In, Zoom back, Zoom window, Pan, Redraw, Top, Front, Side

Line: 46/60

Control buttons: Play / Stop, Show Tool, Solid simulation, GCode simulation

Change Post, Run Post, Show/Hide toolpaths



X: -25 Y: 5

Simulation status: 90°, grid, STOP, Current layer: 0



New Open Machining Settings

Create point Line Endpoints Rectangle Circle Ct + Pt Polyline Spline TrueType

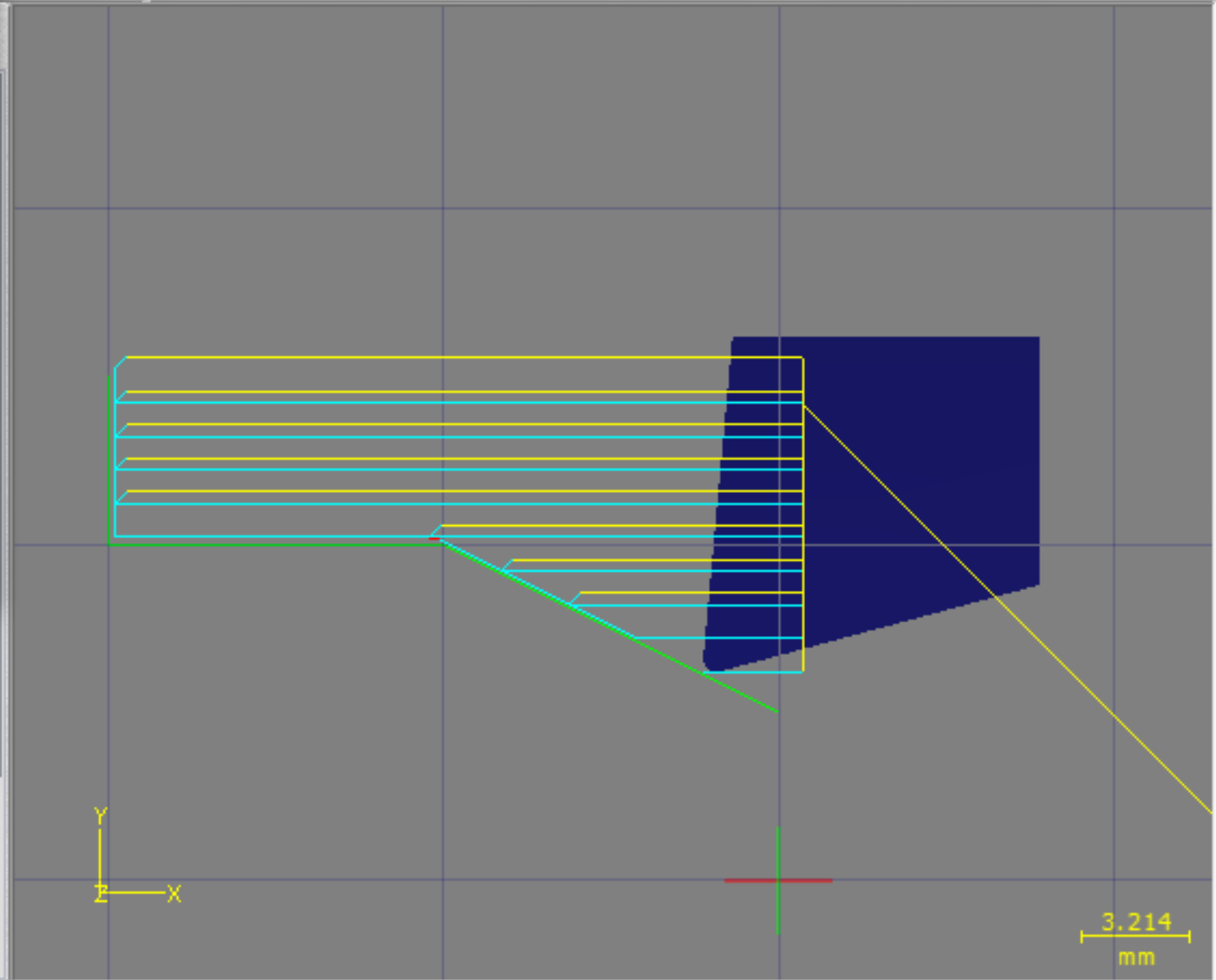
Autozoom Zoom In Zoom back Zoom window Pan Redraw Top Front Side

Line: 52/60

⏪ ⏴ ⏸ ⏵ ⏩

⏪ ⏴ ⏸ ⏵ ⏩

Show Tool  
 Solid simulation  
 GCode simulation



Change Post Run Post

Show/Hide toolpaths

X: -25 Y: 5

Grid 90° [G] [L] [H] [I] STOP [Checkmark] Current layer: 0 [Green square]

File menu: New, Open, Machining, Settings

Tools menu: Create point, Line Endpoints, Rectangle, Circle Ct + Pt, Polyline, Spline, TrueType

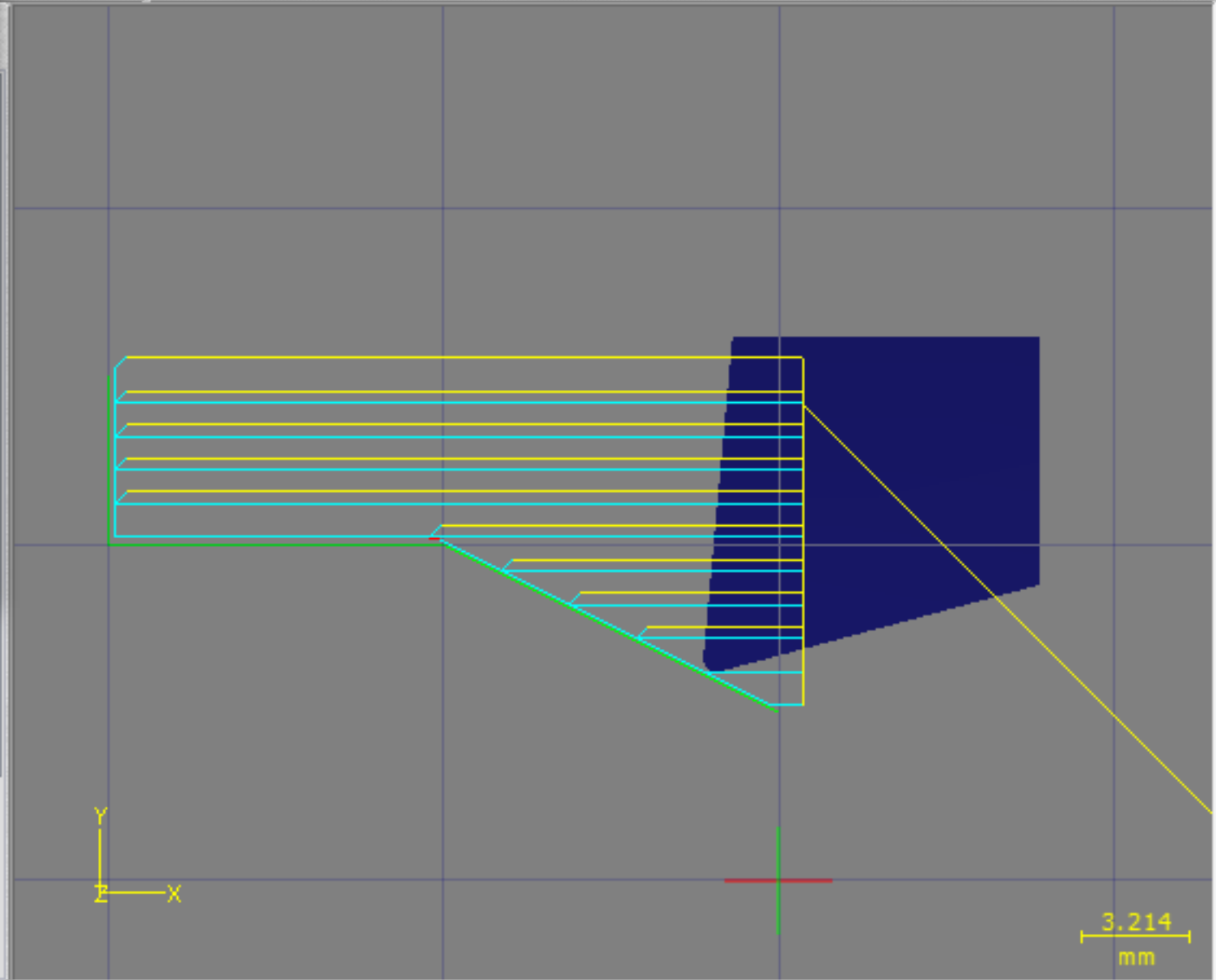
Navigation menu: Autozoom, Zoom In, Zoom back, Zoom window, Pan, Redraw, Top, Front, Side

Line: 59/60

Control buttons: Play, Stop, Previous, Next, Fast Forward

Progress bar

- Show Tool
- Solid simulation
- GCode simulation



Change Post

Run Post

Show/Hide toolpaths

X: -25 Y: 5

Simulation controls: Grid, 90°, Home, Lock, Stop, Play, Current layer: 0

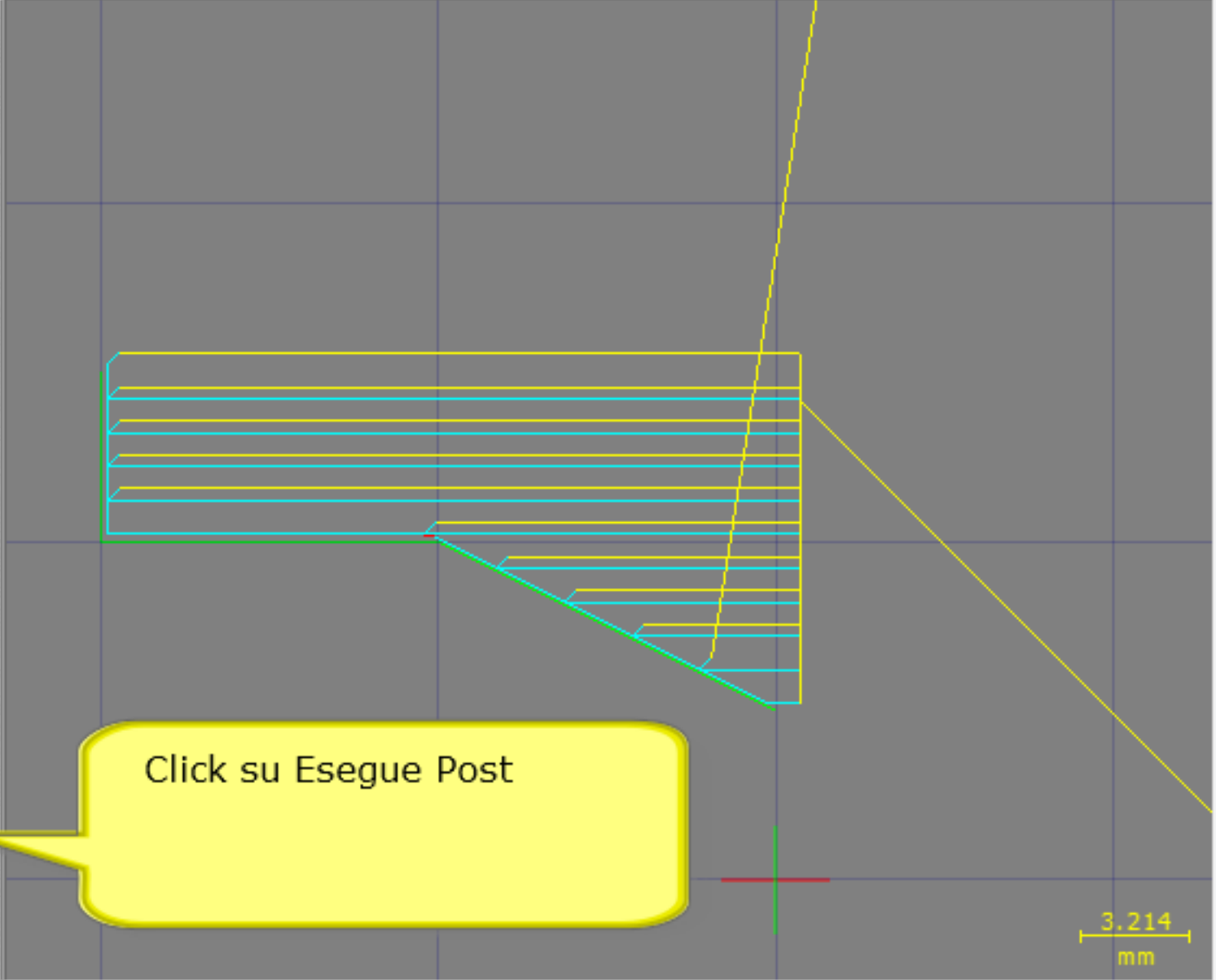
New Open Machining Settings  
Undo Delete Fillet Translate

Create point Line Endpoints Rectangle Circle Ct + Pt Polyline Spline TrueType  
Autozoom Zoom In Zoom back Zoom window Pan Redraw Top Front Side

Geometry Toolpath

- Machine: TurnMach2-3
  - Lathe Rough R.0.4 (Generic OD 0...
    - Parameters
    - Toolpath (60)**

Change Post Run Post Show/Hide toolpaths



X: -25 Y: 10

3.214 mm

Save As

Save in: gcode

Name	Date modified	Type
sampleGCode.nc	05/04/2015 19:52	CNC Synt
t.nc	30/07/2015 18:47	CNC Synt
tornio.nc	28/07/2015 21:11	CNC Synt
tornio1.nc	28/07/2015 22:43	CNC Synt
tt.nc	29/07/2015 22:18	CNC Synt

File name: test

Save as type: GCode files (\*.nc)

Save Cancel

Circle Ct + Pt Polyline Spline TrueType

Window Pan Redraw Top Front Side

3.214 mm

Digitare il nome del file G-Code e click su Salva

Change Post Run Post

Show/Hide toolpaths

New Open Machining Set

Undo Delete Fillet Tran

Geometry Toolpath

Machine: TurnMach2-3  
Lathe Rough R.0.4 (Ge  
Parameters  
Toolpath (60)

|||

Change Post Run P

Show/Hide toolpaths

File Edit Text Tools Help

C:\ProgramData\SimplyCam 3\gcode\test.nc

```
%  
N1 (POST PROCESSOR: TURNMACH2-3)  
N2 (TEST.NC)  
N3 G21 (UNITS: MM)  
N4 G18 G40 G49 G80 G90  
N5 (TOOL/STANDARD, 15, 70, 0.4, 10,3)  
N6 T1 M6 (TLDIA=0.4)  
N7 S300 M3  
N8 G43 H1 S0  
N9 G00 Z0.7  
N10 X28.4  
N11 G01 Z0.2 F0.1  
N12 Z-19.8  
N13 X30.4  
N14 X31.107 Z-19.446  
N15 G00 Z0.7  
N16 X26.4  
N17 G01 Z0.2  
N18 Z-19.8  
N19 X28.4  
N20 X29.107 Z-19.446  
N21 G00 Z0.7  
N22 X24.4  
N23 G01 Z0.2  
N24 Z-19.8  
N25 X26.4
```

Il file G-Code è creato e può essere inviato al Cnc