The Future Workshop

Digital machining by Sandvik Coromant

About us

Name: Tobias Unosson
Position: Product Manager Design & Planning
Location: Sweden
Contact info: tobias.unosson@sandvik.com

linkedin.com/in/tobiasunosson

Name: Marko Stugbäck
Position: Product Manager Design & Planning
Location: Sweden
Contact info: marko.stugback@sandvik.com

linkedin.com/in/marko-stugback/

A long heritage

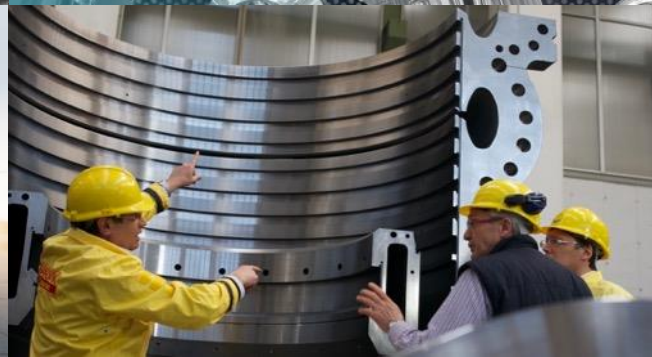
1862

Sandvik is founded and becomes the first company in the world to produce steel on an industrial scale using the Bessemer method

1942

The beginning of Sandvik Coromant

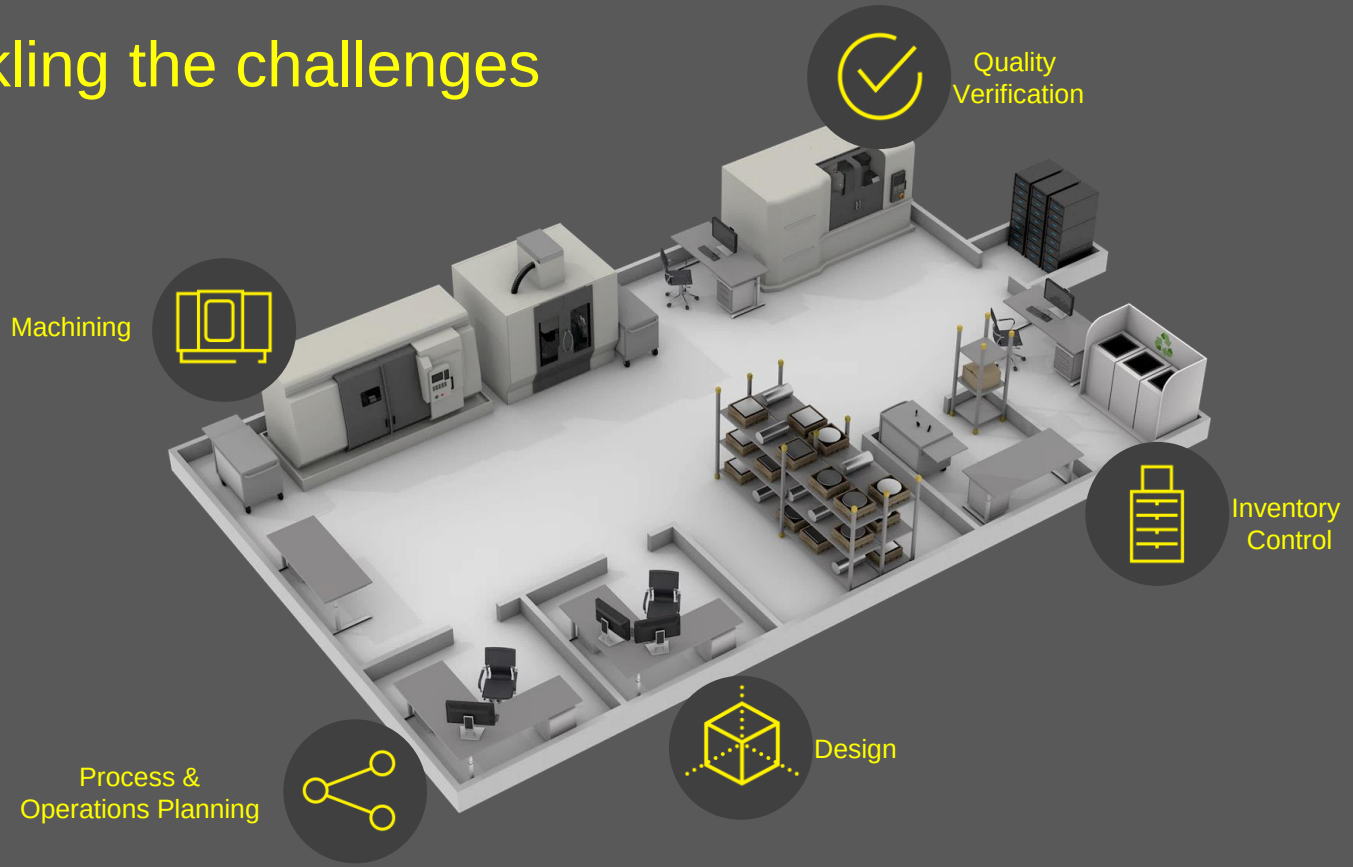
Our customers



Trends

- Increased complexity
- ”Googlification”
- The skills gap
- Sustainability

Tackling the challenges



What it takes to be profitable in the future

- Reduce waste
- Utilize data
- Attract the young

SANDVIK
Coromant
Let's create a tool assembly!
Recent assemblies

CoroPlus®

Manufacturing Value Chain

Design

Process Planning

Operations Planning

Inventory Control

Machining

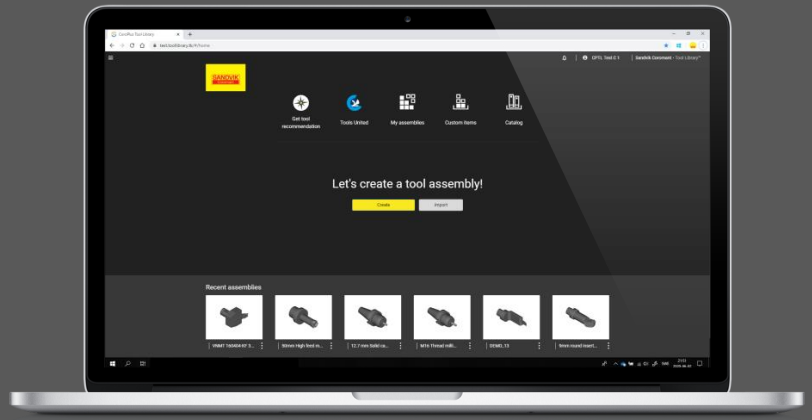
Quality Verification

Outbound Logistics

Design and Planning	In-machining	Post-machining

Our solution

CoroPlus® Tool Library



CoroPlus® Tool Path

Process Planning

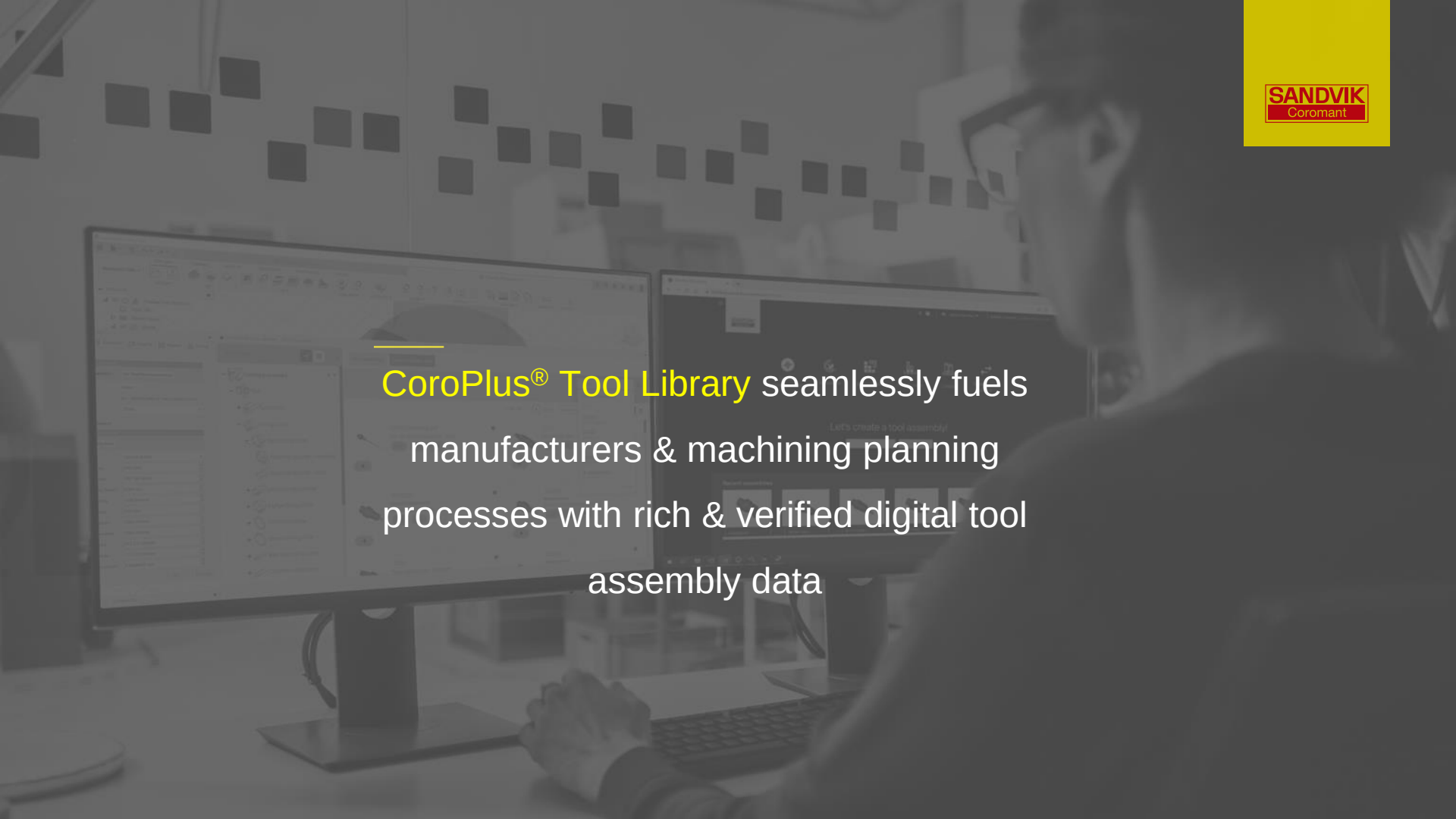
Operations Planning

Machining

ToolLibrary

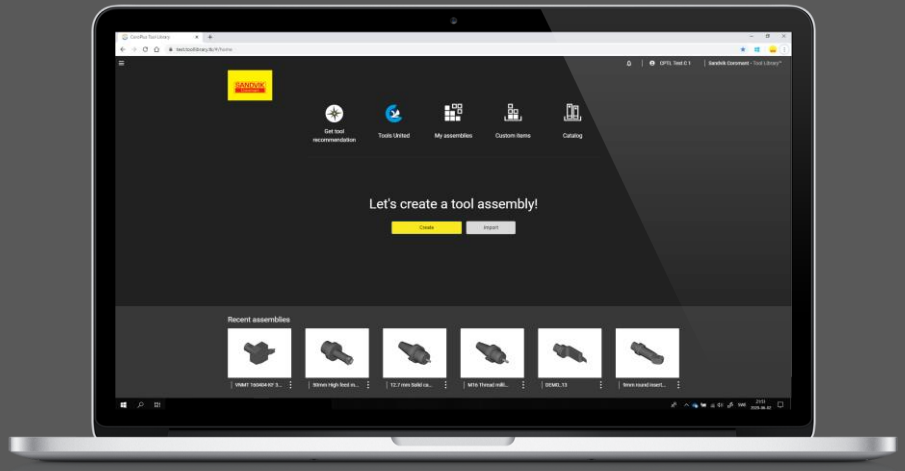
SANDVIK Coromant

CoroPlus® Tool Library



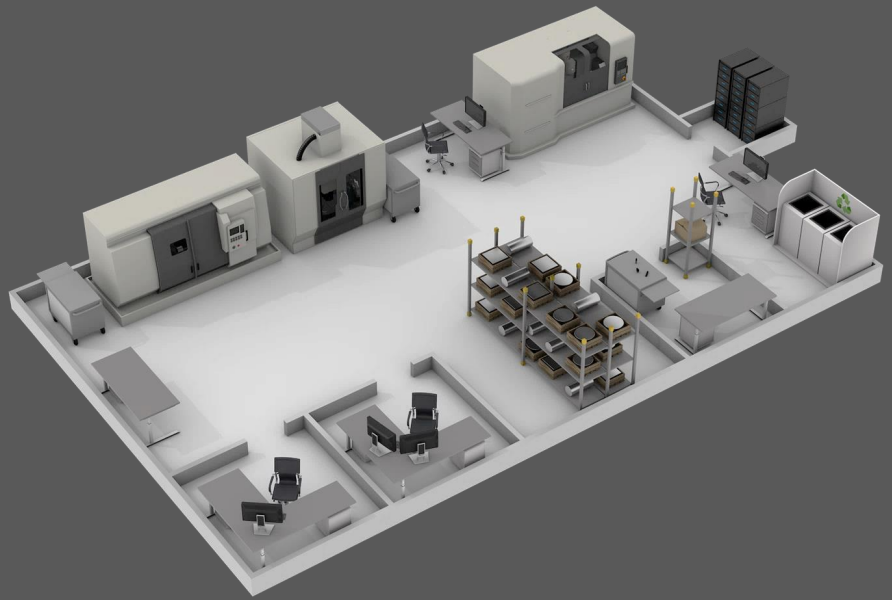
CoroPlus® Tool Library seamlessly fuels manufacturers & machining planning processes with rich & verified digital tool assembly data

What is CoroPlus® Tool Library?



- Create, store, manage & get insights
- Automate manufacturing processes
- Supports seamless workflows

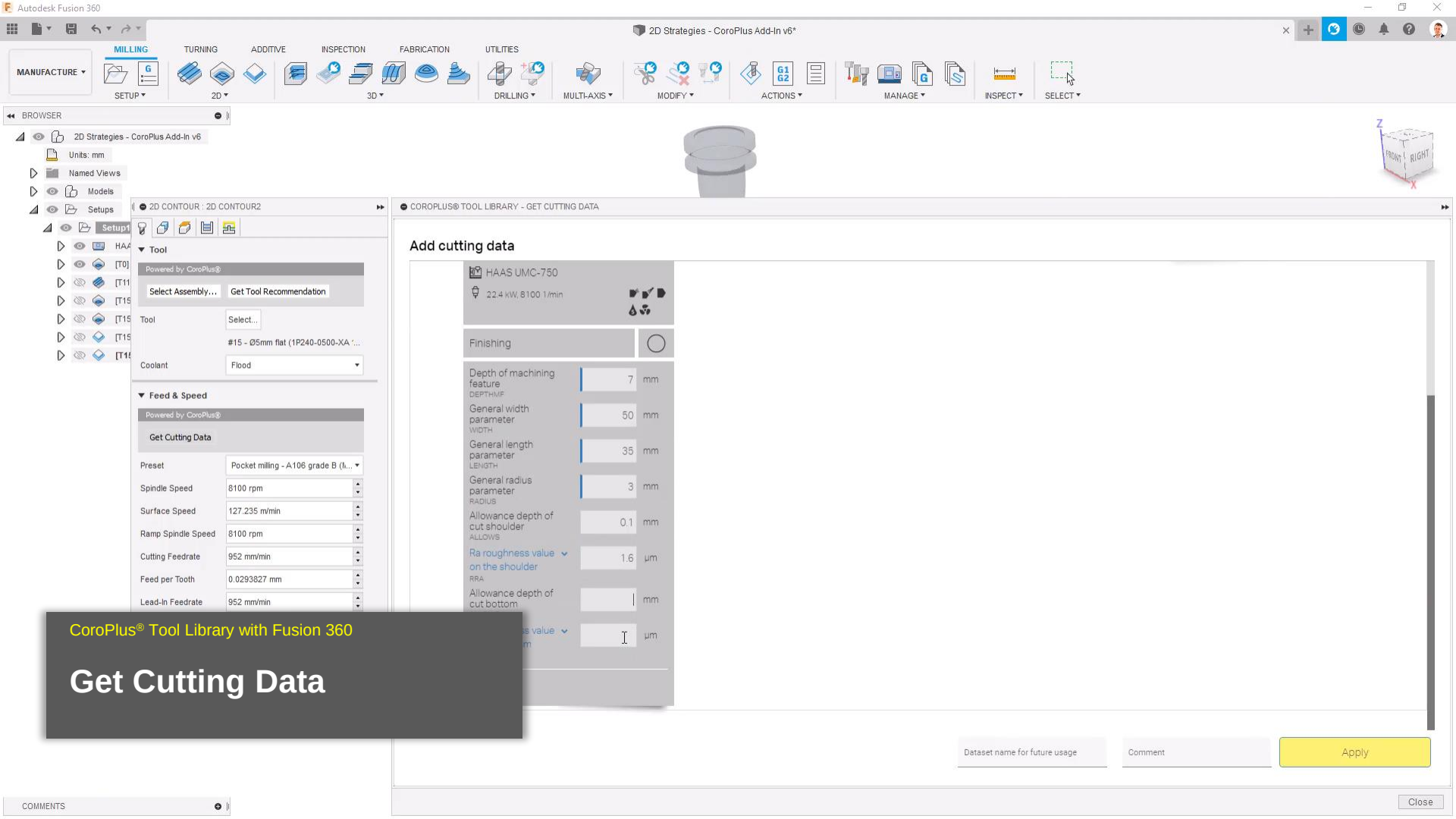
Benefits of CoroPlus® Tool Library

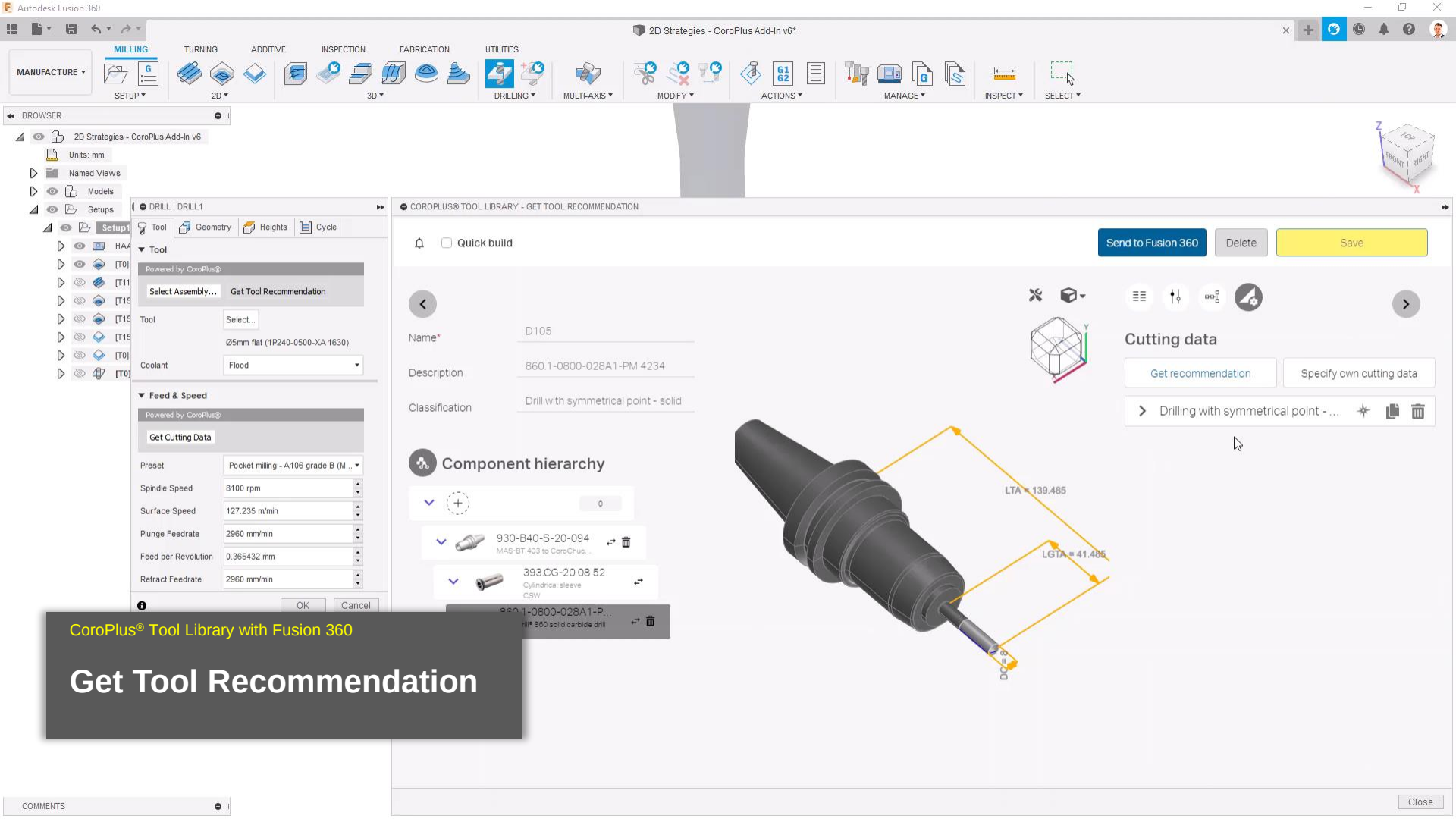


- ✓ Increase efficiency, accuracy & utilization in planning
- ✓ Get tool recommendations & data from multiple suppliers
- ✓ Seamless workflow with CAM integrations
- ✓ Minimizing programming errors
- ✓ Reduces set-up times
- ✓ Share data with other CoroPlus® & services

CoroPlus® Tool Library

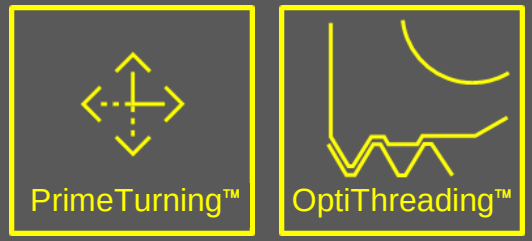
Seamless workflow


Autodesk Fusion 360
2D Strategies - CoroPlus Add-In v6*
MANUFACTURE
MILLING
TURNING
ADDITIVE
INSPECTION
FABRICATION
UTILITIES
SETUP
2D
3D
DRILLING
MULTI-AXIS
MODIFY
ACTIONS
MANAGE
INSPECT
SELECT
BROWSER
2D Strategies - CoroPlus Add-In v6
Units: mm
Named Views
Models
Setups
2D CONTOUR : 2D CONTOUR2
Tool
Powered by CoroPlus®
Select Assembly...
Get Tool Recommendation
Tool
Select...
#15 - Ø5mm flat (1P240-0500-XA '...
Coolant
Flood
Feed & Speed
Powered by CoroPlus®
Get Cutting Data
Preset
Pocket milling - A106 grade B (h...
Spindle Speed
8100 rpm
Surface Speed
127.235 m/min
Ramp Spindle Speed
8100 rpm
Cutting Feedrate
952 mm/min
Feed per Tooth
0.0293827 mm
Lead-In Feedrate
952 mm/min
COROPLUS® TOOL LIBRARY - GET CUTTING DATA
Add cutting data
HAAS UMC-750
22.4 kW, 8100 1/min
Finishing
Depth of machining feature
DEPTHMF
7
mm
General width parameter
WIDTH
50
mm
General length parameter
LENGTH
35
mm
General radius parameter
RADIUS
3
mm
Allowance depth of cut shoulder
ALLOWS
0.1
mm
Ra roughness value on the shoulder
RRA
1.6
µm
Allowance depth of cut bottom
mm
µm
Dataset name for future usage
Comment
Apply
Close
COMMENTS
CoroPlus® Tool Library with Fusion 360
Get Cutting Data



CoroPlus® Tool Library with Fusion 360

Get Tool Recommendation



SANDVIK Coromant

CoroPlus® Tool Path

CoroPlus® Tool Path is a software that speeds up NC code generation and provides new perspectives on machining methods

What is PrimeTurning™

THE METHOD

THE TOOLS

THE SOFTWARE

What is PrimeTurning™

THE METHOD

PrimeTurning™

THE TOOLS

CoroTurn® Prime

THE SOFTWARE

CoroPlus Tool Path for PrimeTurning™

The PrimeTurning™ result

All-directional turning

OptiThreading™

Supported by CoroPlus® Tool Path NC code generator

What is OptiThreading™

THE METHOD

THE TOOLS

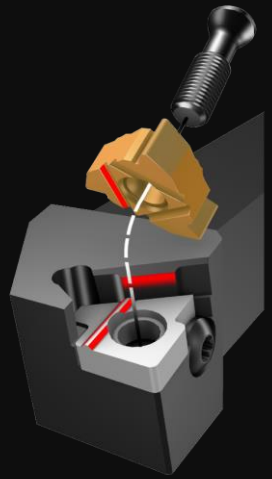
THE SOFTWARE

What is OptiThreading™

THE METHOD

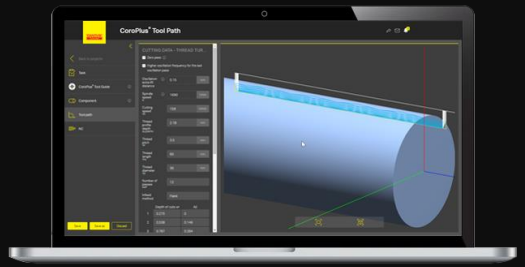
OptiThreading™

THE TOOLS



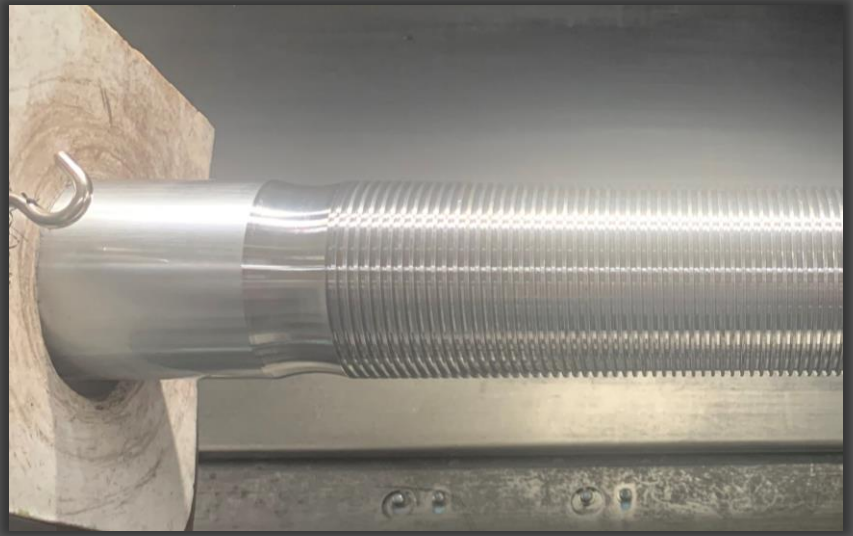
CoroThread® 266
iLock™ interface

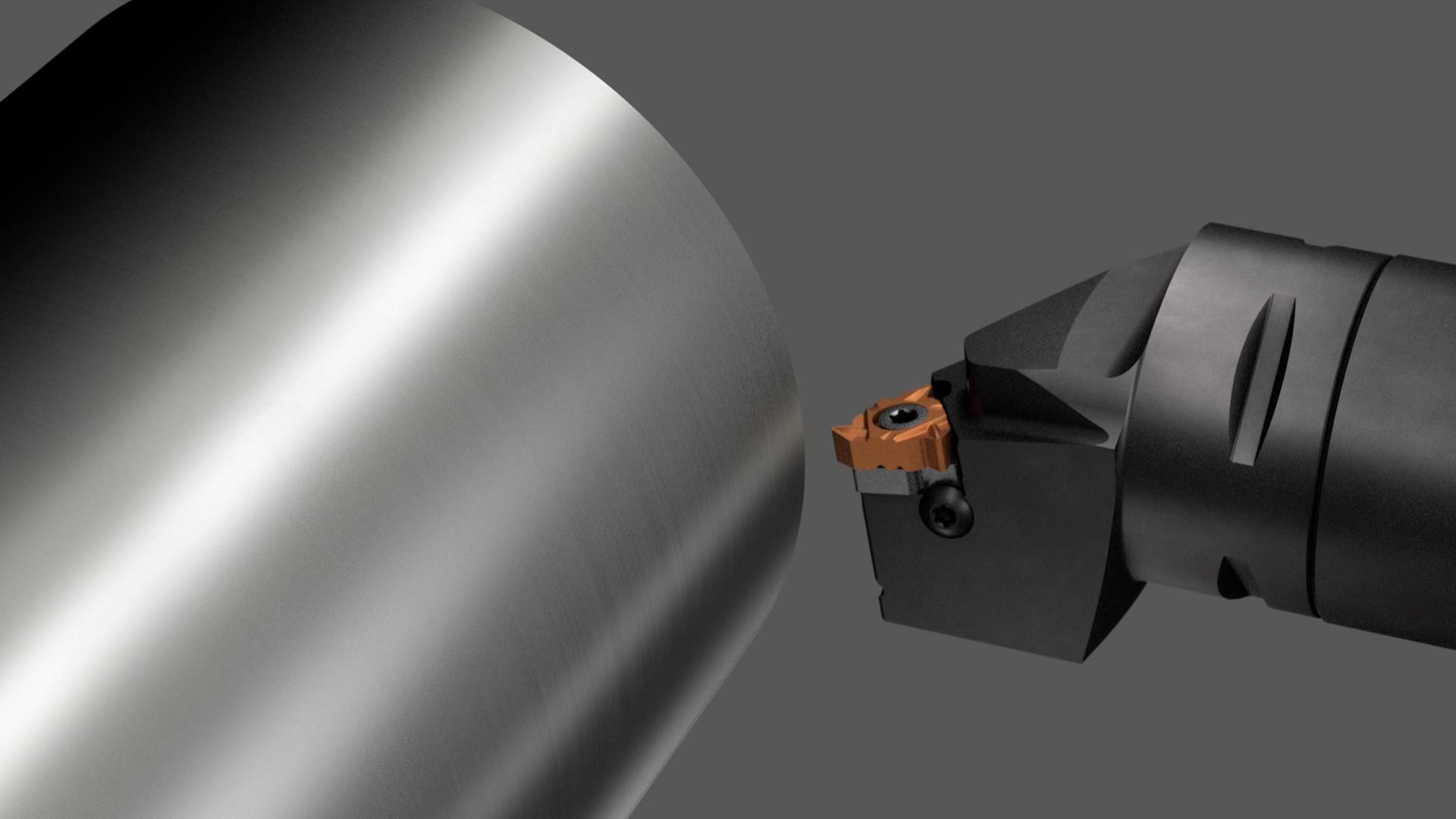
THE SOFTWARE

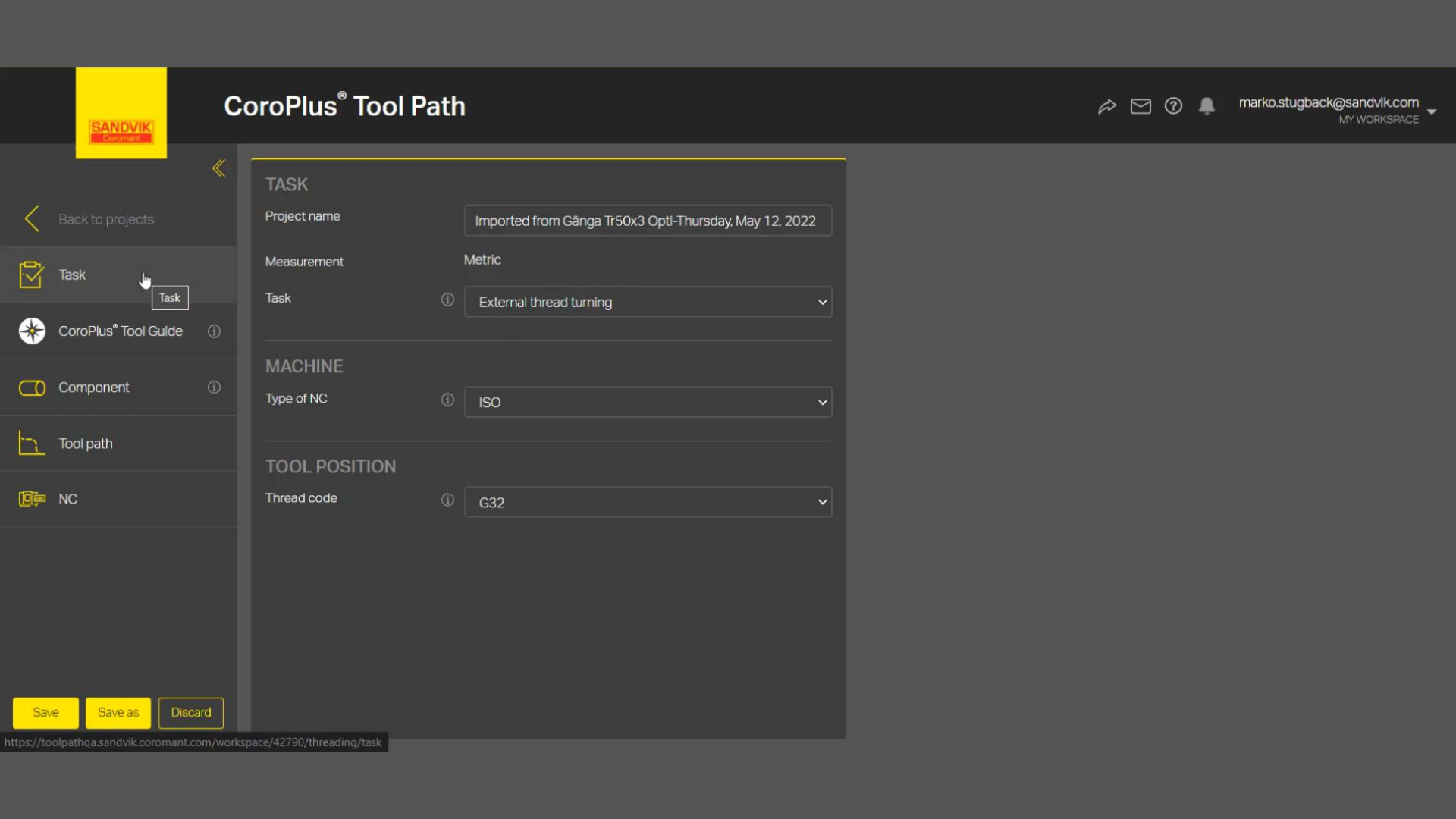


CoroPlus Tool Path
for OptiThreading™

OptiThreading™






CoroPlus® Tool Path
marko.stugback@sandvik.com
MY WORKSPACE
Back to projects
Task
Task
CoroPlus® Tool Guide
Component
Tool path
NC
TASK
Project name
Imported from Gänga Tr50x3 Opti-Thursday, May 12, 2022
Measurement
Metric
Task
External thread turning
MACHINE
Type of NC
ISO
TOOL POSITION
Thread code
G32
Save
Save as
Discard
https://toolpathqa.sandvik.coromant.com/workspace/42790/threading/task

Digital Live Machining from Sandviken

This is how we tackle the challenges

SANDVIK
Coromant