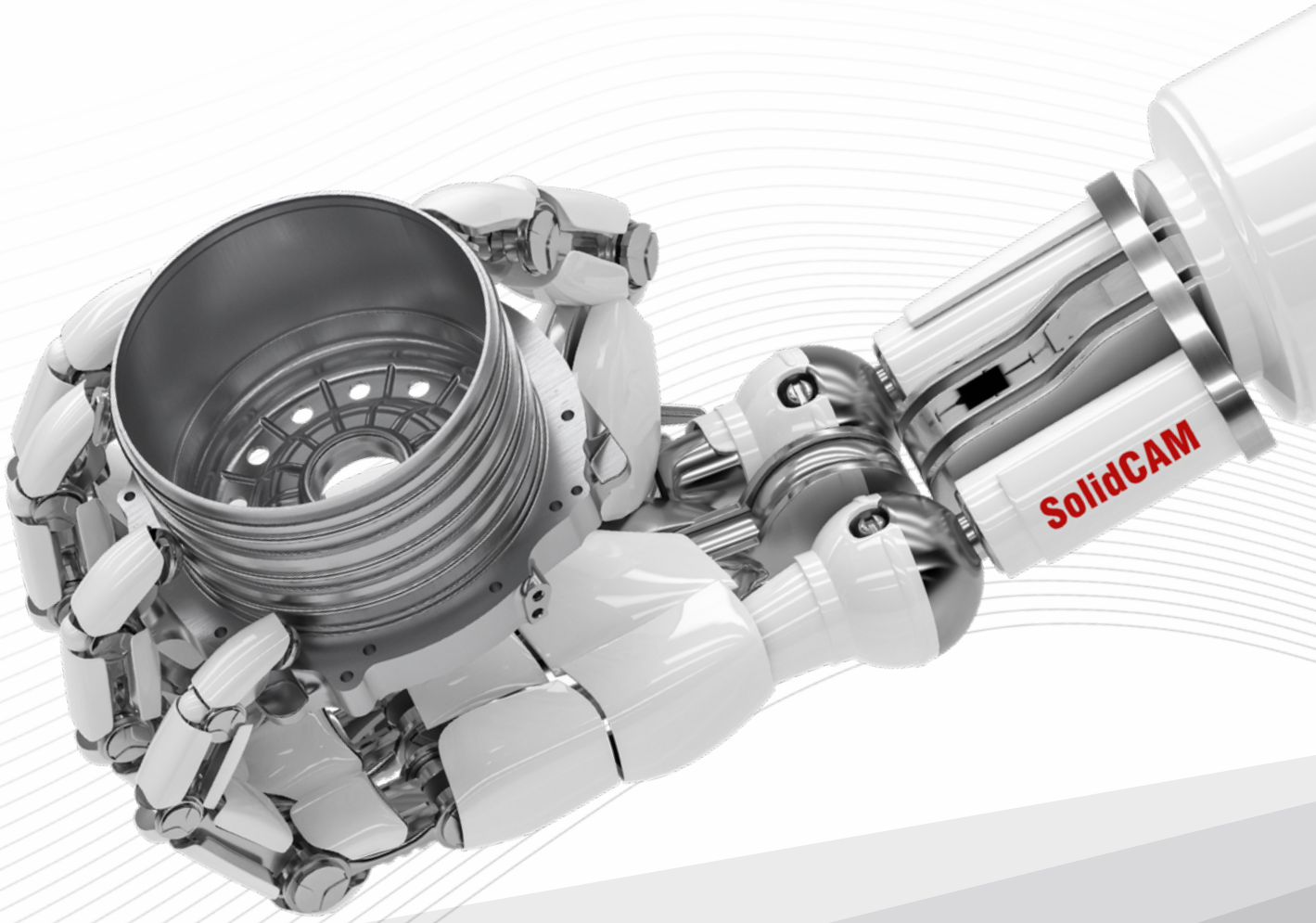
CADNEA
Sistemas de CAD, CAM, CAE e PLM, Lda

THE FUTURE OF CAM

SolidCAM

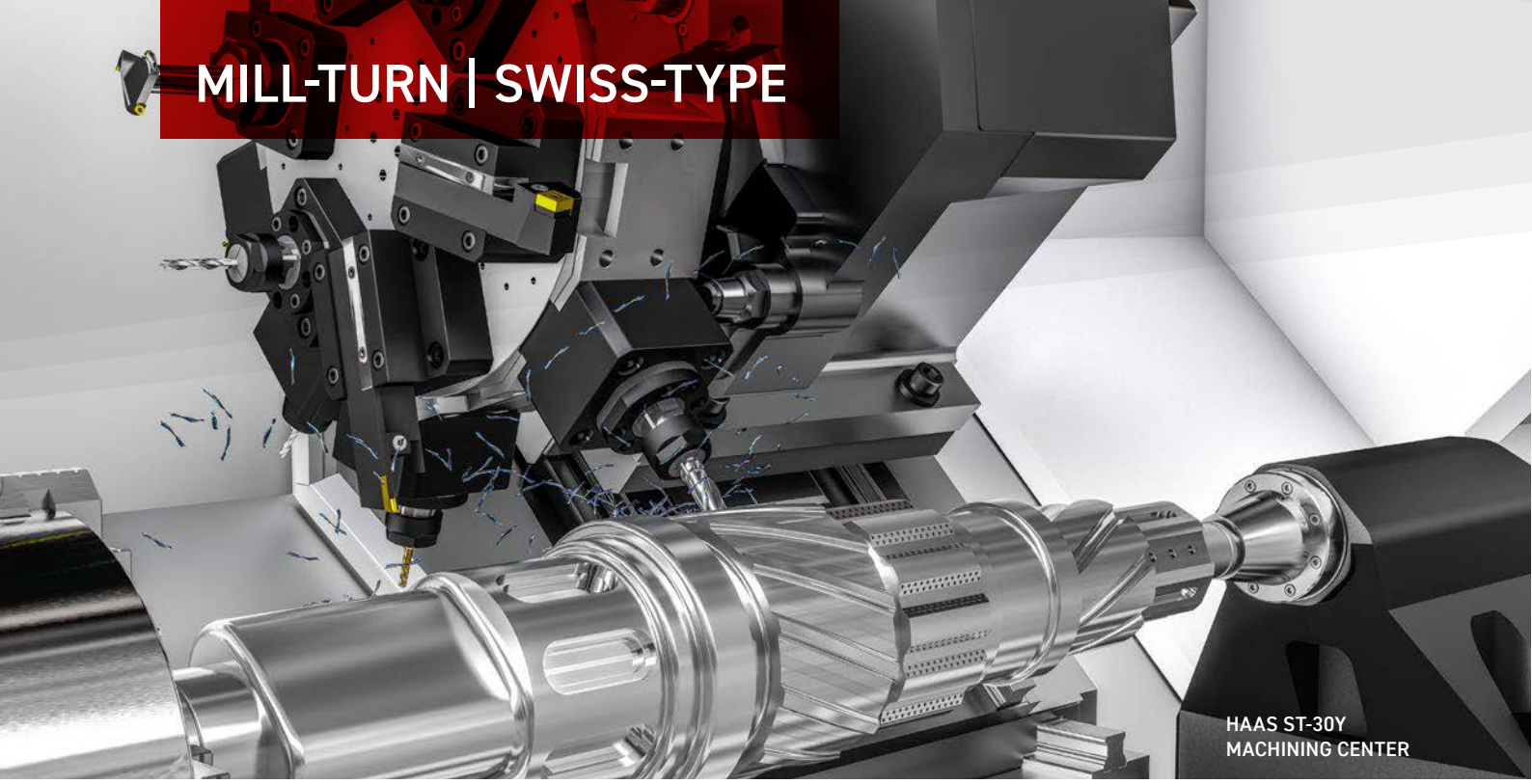
The Future of CAM in Your Shop Today!

The complete CAM Solution, with revolutionary iMachining, MillTurn+ and Swiss-Type, seamlessly integrated in SOLIDWORKS® and Inventor®



www.cadnea.com

MILL-TURN | SWISS-TYPE



Complete Solution for Advanced Multi-Turret/Spindle Mill-Turn and Swiss-Type Machines

Modern Multi-Axis machining centers are designed to combine as many milling and turning operations as possible to manufacture work-pieces at maximum productivity.

Manual CNC programming of sophisticated parts on complex machines, directly at the machine controller is – if at all humanly possible – unproductive, error-prone and expensive.

TURNING OPERATIONS


Manual


Face


Turning


Grooving


Drilling


Balanced Roughing


Threading


Angled Grooving


Trochoidal Turning

MILLING OPERATIONS


2D iMachining


Face


Profile


Pocket


Drill


Multi-Depth Drilling


Threading


Contour 3D


Slot / T-Slot


Translated Surface

3D iMachining

Engraving

HSR / HSM / HSS


Sim. 5X

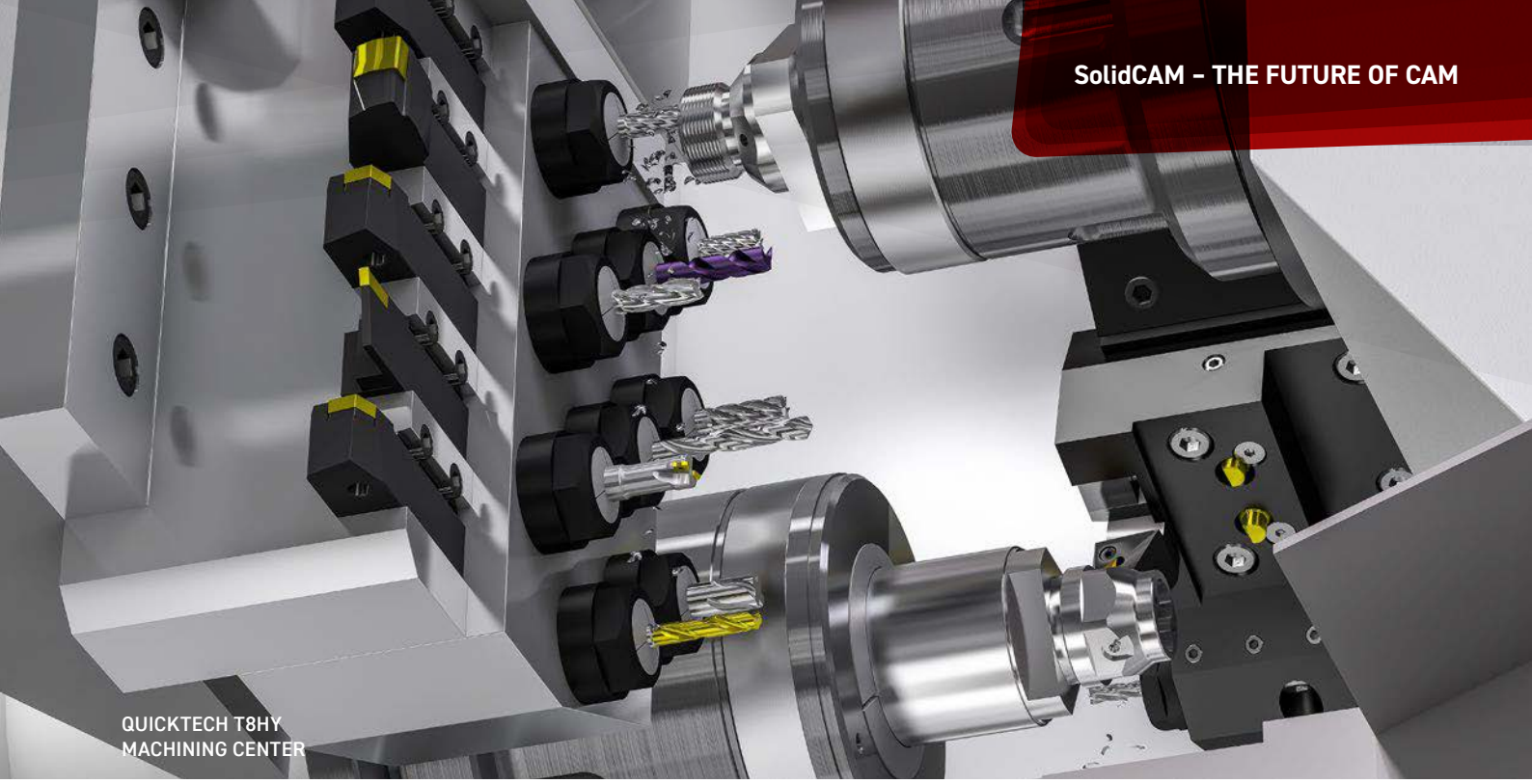

Blade Machining


Screw Machining


Rotary Machining

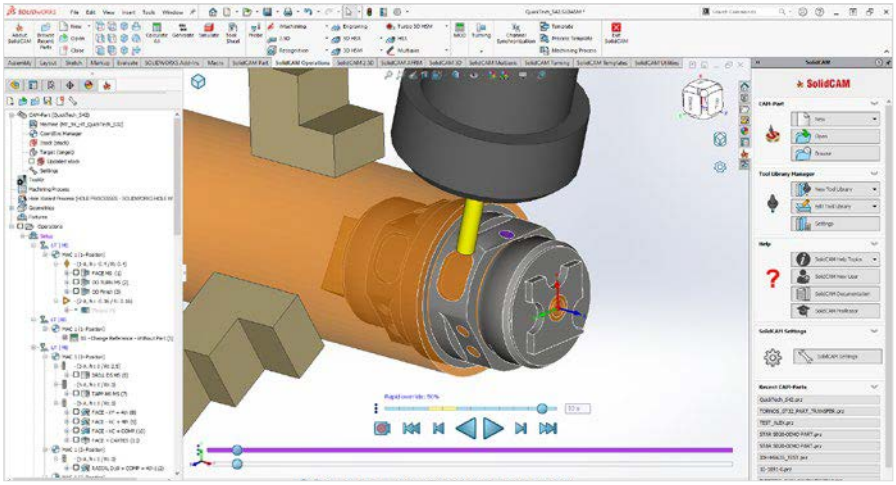

Multiaxis Drilling

... and many more!



QUICKTECH T8HY
MACHINING CENTER

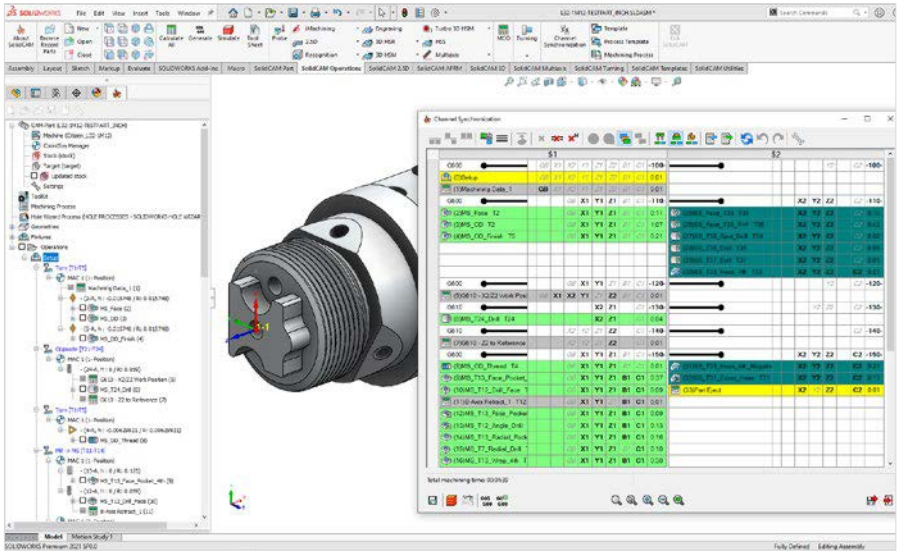
Integrated. Easy-to-Use. Complete.



Within the SolidCAM user interface, seamlessly integrated into your SOLIDWORKS or Autodesk Inventor CAD, you program milling and turning operations on main and back spindles, control turrets, tailstocks, steady rests and linear tool carriers.

Milling operations include the unique and patented iMachining technology available only from SolidCAM.

Short Cycle Times. Maximum Productivity.

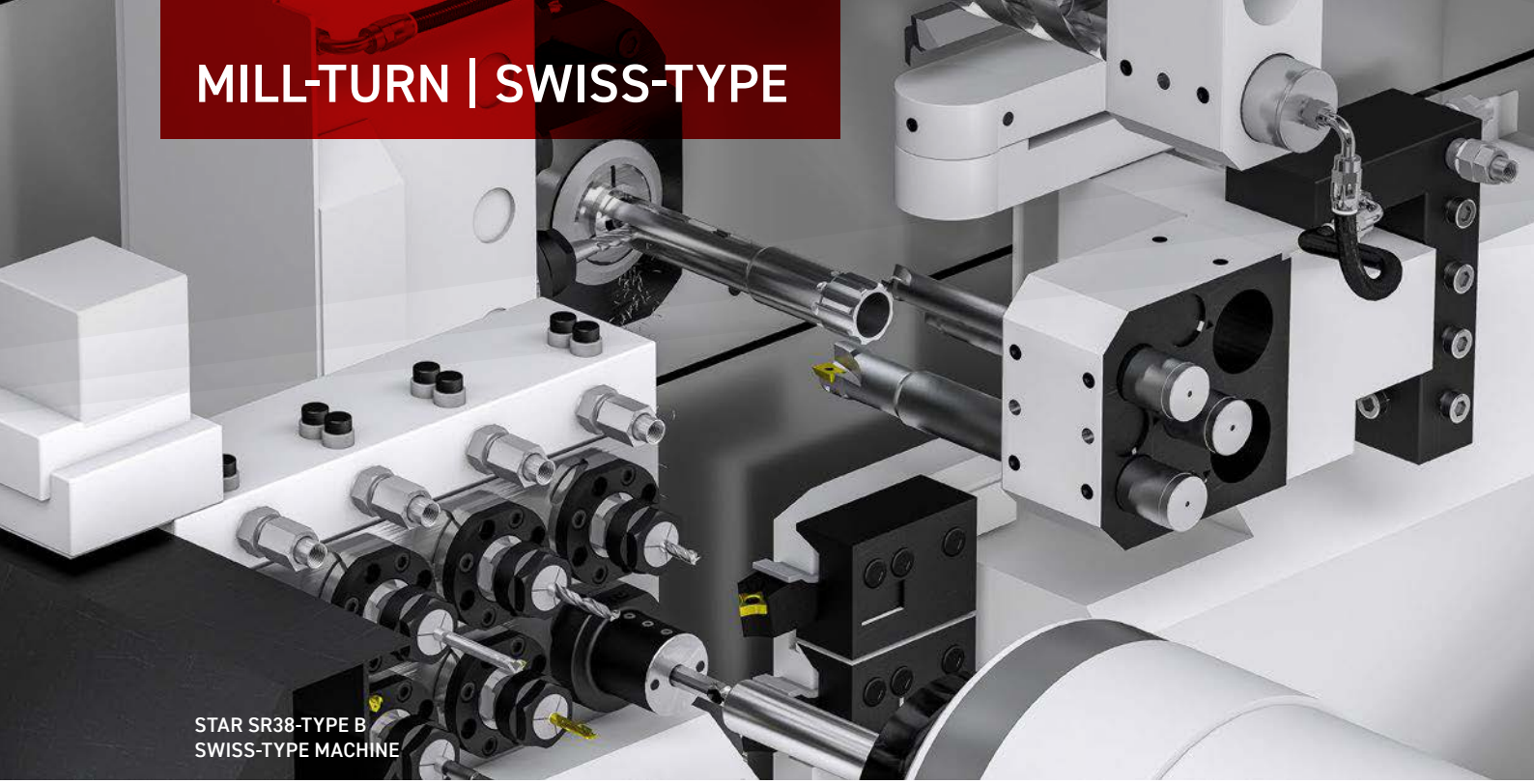


Easy-to-use Channel Synchronization Manager guides you through the order of operations, shows clashes and assist you to avoid them.

It is perfect for synchronizing and optimizing all your machining operations for maximum production output.

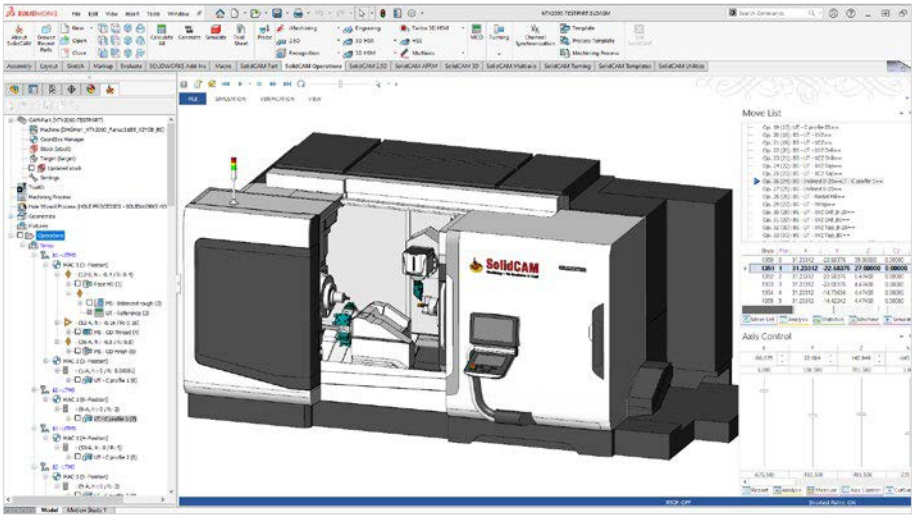
SolidCAM can control unlimited number of channels and supports any amount of machine functions and cutting modes.

MILL-TURN | SWISS-TYPE



STAR SR38-TYPE B
SWISS-TYPE MACHINE

Speed Up Your Complex CNC-Machines



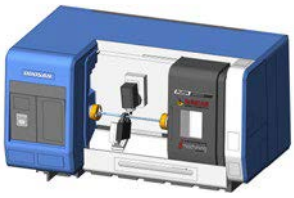
DMG Mori Seiki NTX2000 in Machine Simulation

SolidCAM supports the most complex CNCs with unlimited number of axes and channels. We are constantly adding Mill-Turn and Swiss-Type machines with various configurations to our machine tool database.

SolidCAM's Advanced Machine Simulation shows the complete kinematics and all machine elements, providing full tool-path simulation and verification for all your machining operations.

Chiron FZ08MT

Mazak Integrex i-400S



Doosan SMX2600SX

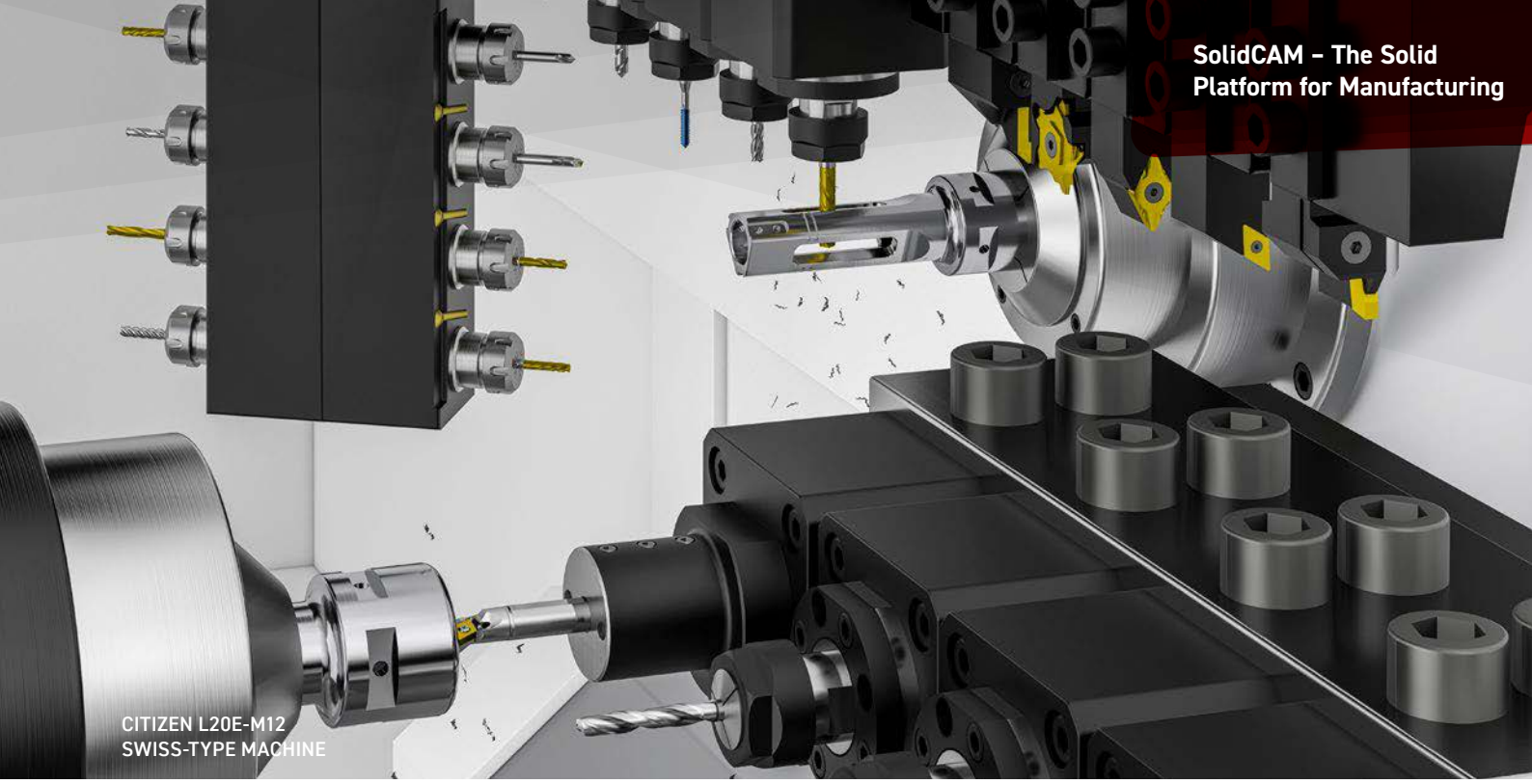
INDEX G200

Citizen D25

Swiss ST 28

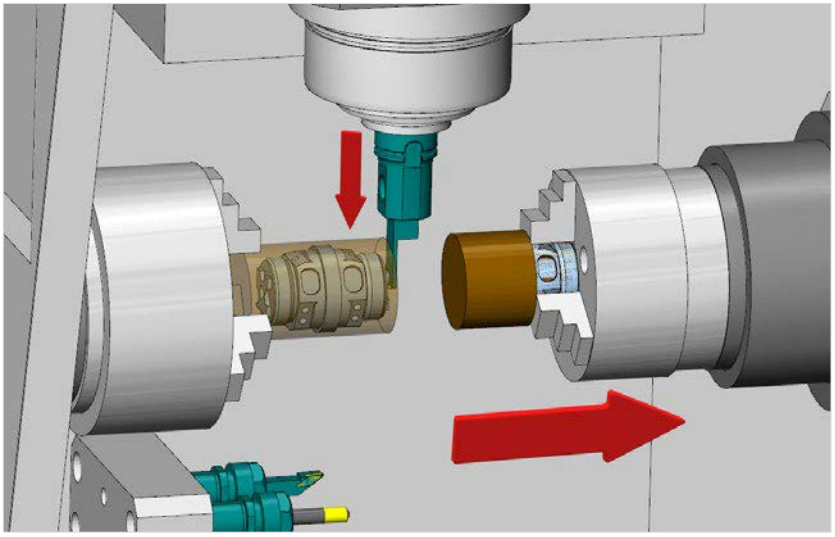
STAR SB20-R type G

Tsugami B0326E-II



CITIZEN L20E-M12
SWISS-TYPE MACHINE

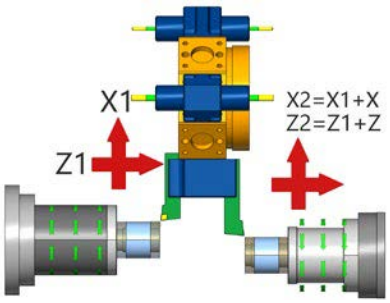
Advanced Rest Material Handling



SolidCAM always keeps the stock updated live, within the operations tree, to optimize the tool-path, avoid air-cutting and to achieve minimal cycle time.

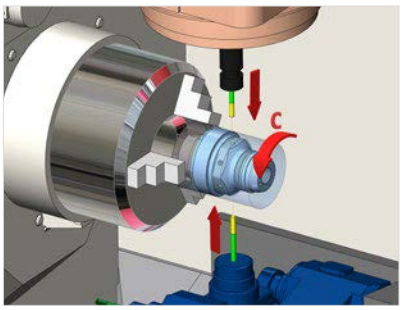
When the workpiece is transferred from the main to the sub-spindle, the updated stock model is also transferred to the new position.

Any subsequent machining on the sub-spindle will detect the stock in the state that it left the main spindle, ultimately providing the most efficient machining.



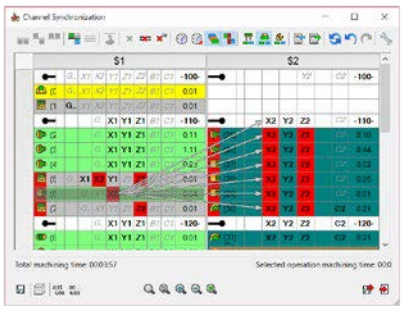
SolidCAM supports three different superimposition modes. A pair of axes can be superimposed one to another, where the slave one follows the master one.

For applicable Mill-Turn machines, SolidCAM will automatically detect this mode.



Reduce machining time by sharing axes and drive units.

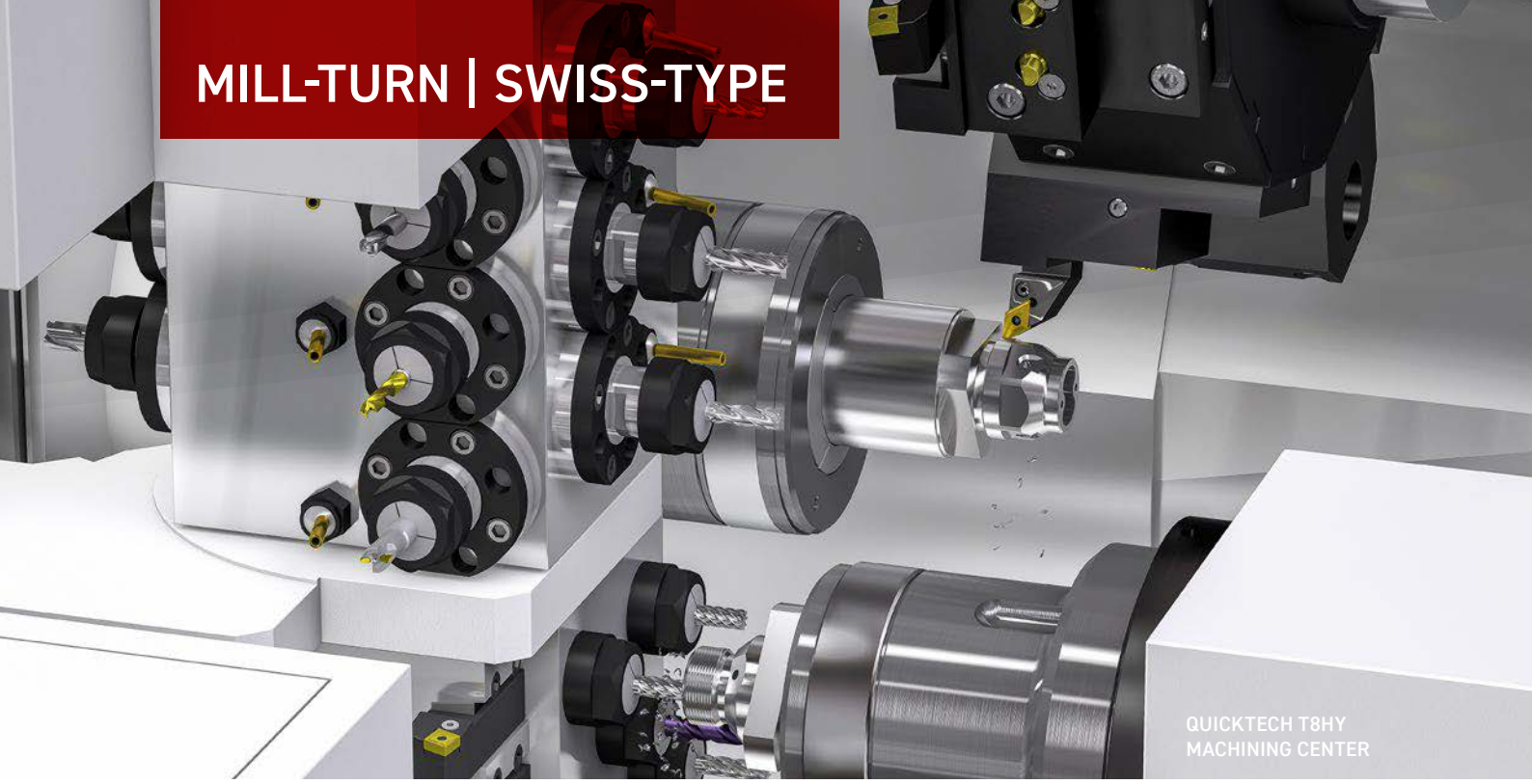
Synchronize your milling/turning operations, on different turrets, on the same table device, under specific conditions.



The Channel Synchronization's clash engine displays any issue with logical comments.

The intelligent system holds the logic and checks the possibilities of the synchronization taking into account the complete machine kinematics.

MILL-TURN | SWISS-TYPE

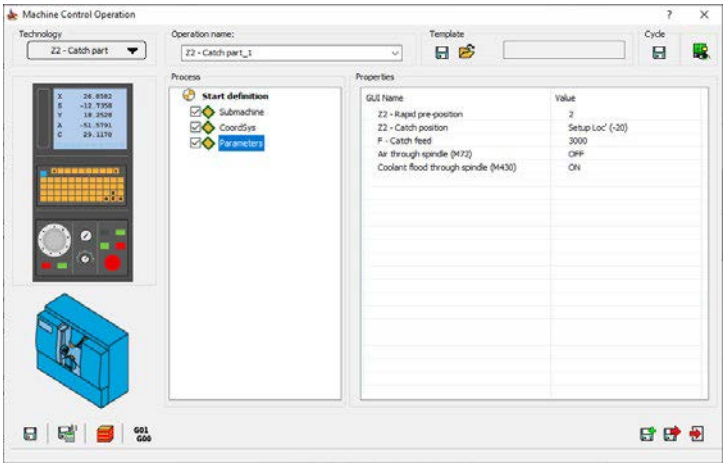


Machine Control Operations: MCO

With MCOs you can define various CNC machine actions, in addition to machining operations programmed in SolidCAM.

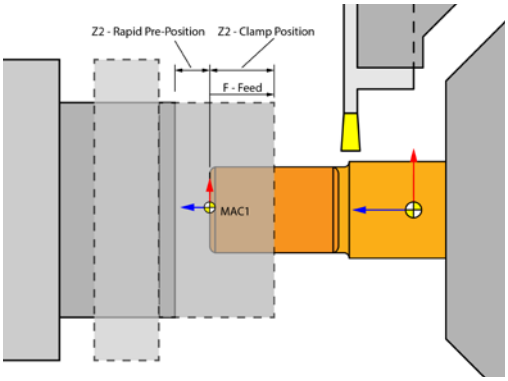
Such actions include:

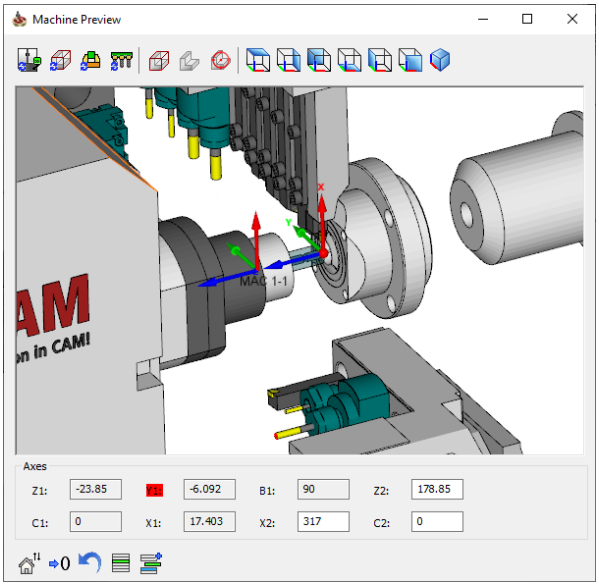
- Change tool
- Move machine components
- Transfer stock
- Clamp/unclamp fixture
- Program bar feeder
- Control coolants
- Machine mode
- Axes and phase synchronization
- Output any G/M command

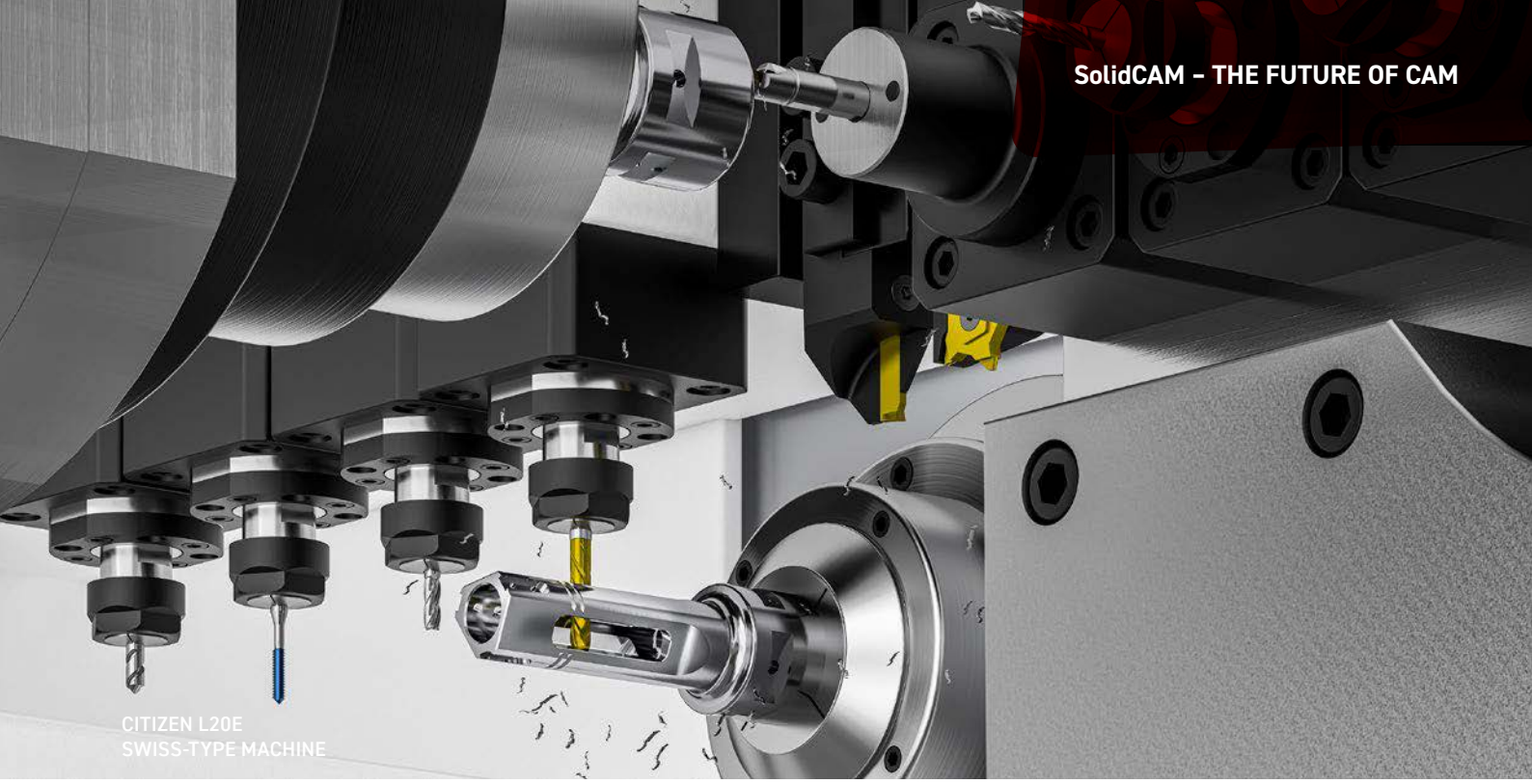


Part transfer between spindles

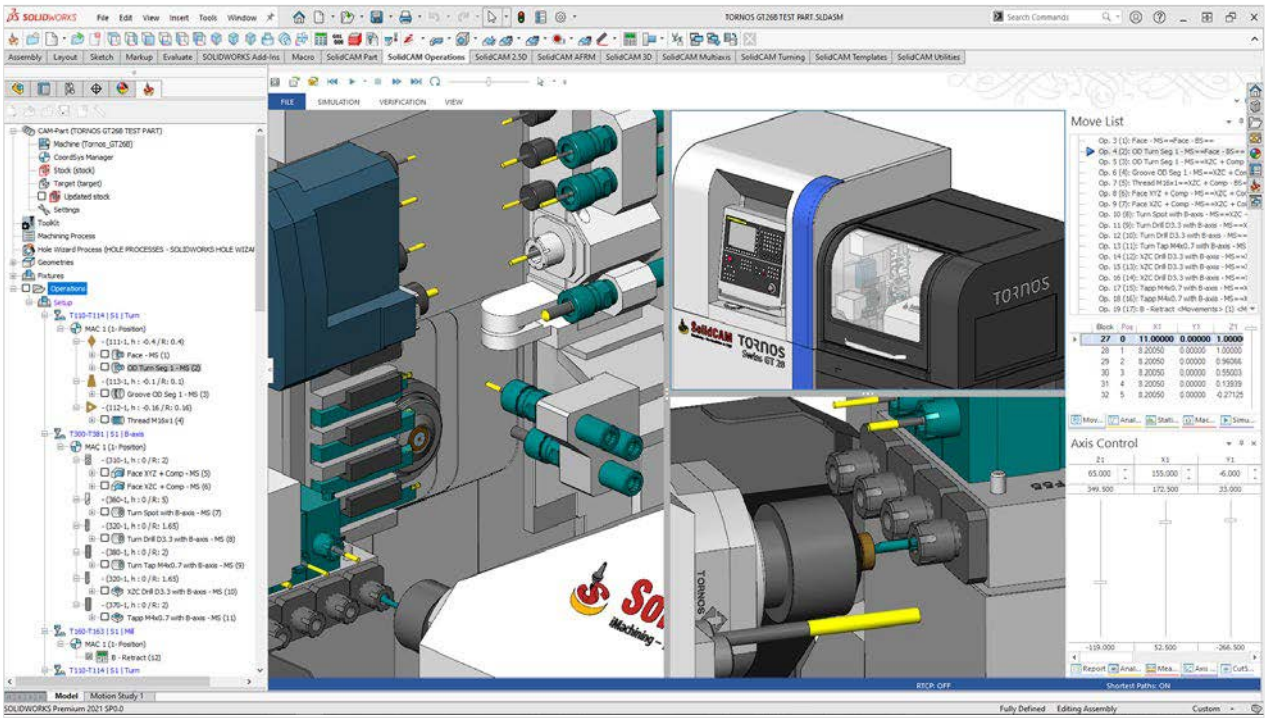
Control the transfer of parts between the main and sub-spindle, using Machine Control Operations. Ready made MCOs provide the best solution for this process.



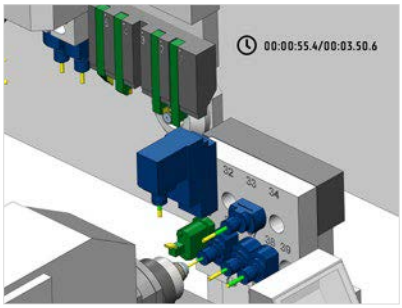




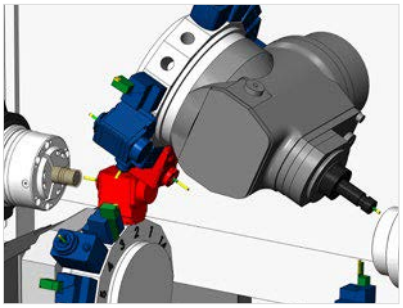
Advanced Machine Simulation



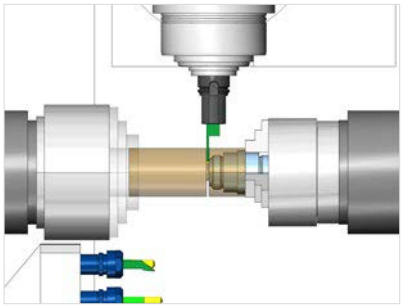
Making visual prove-out and verifying programmed tool-path in Machine Simulation on Tornos GT26B.



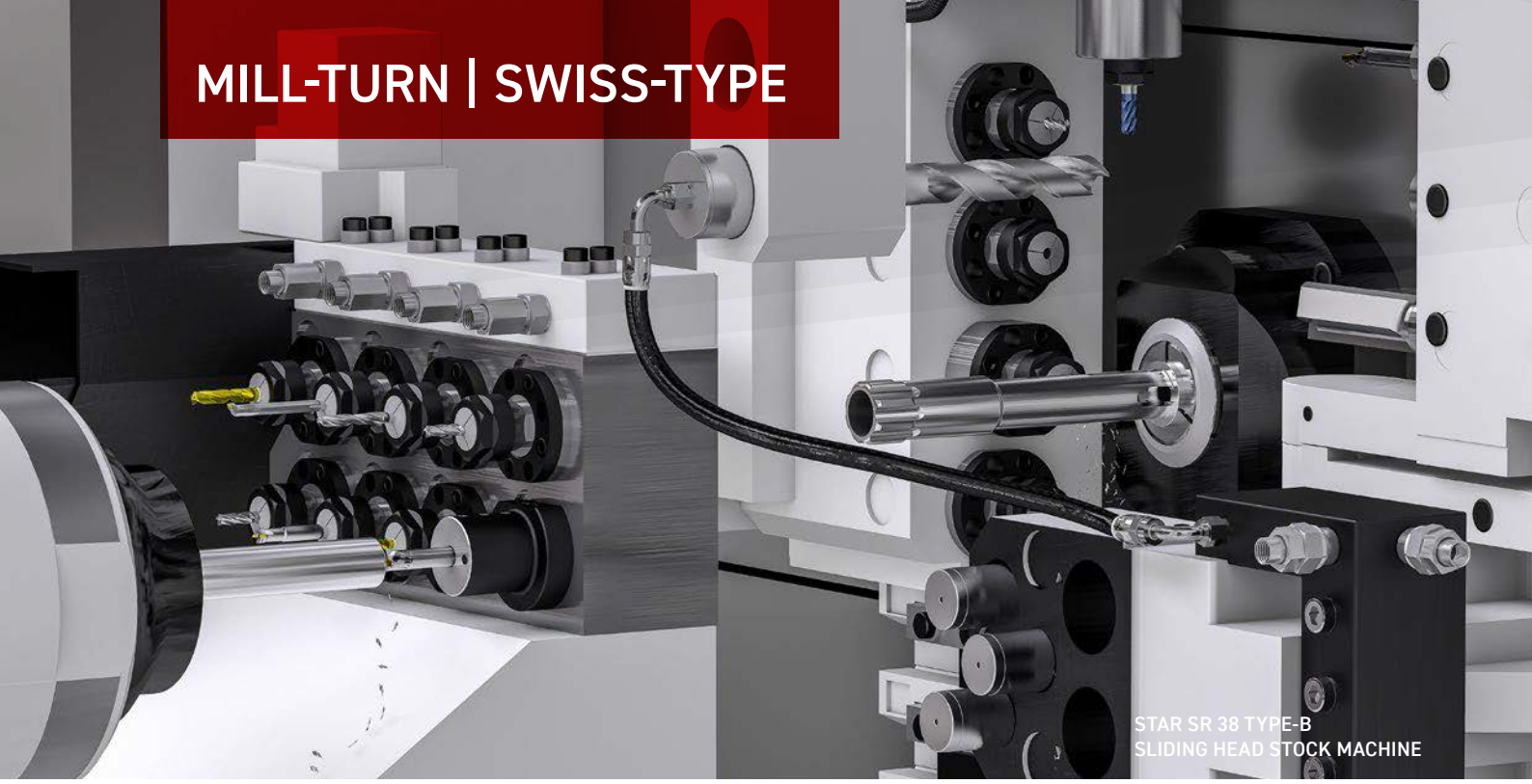
The calculated cycle time is displayed in the simulation module.



Collision detection



Part transfer: simulating the cut-off process



STAR SR 38 TYPE-B
SLIDING HEAD STOCK MACHINE

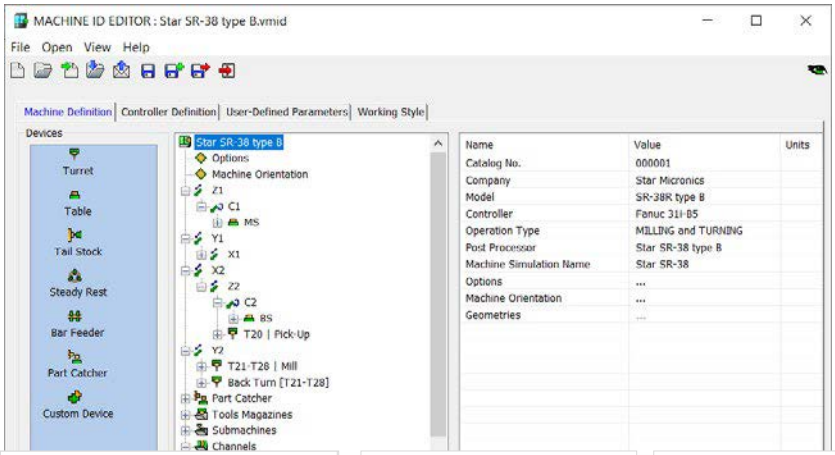
Post-Processors: Well structured. Verified. Trustworthy.

SolidCAM open-source post-processors are written in SolidCAM's GPPL (an internal language of SolidCAM for writing post-processors) and support defining output for any G-code format or structure for specific NC control unit. With no manual editing needed, generated G-code can be sent straight to the CNC machine.

Dedicated Post-Processor Team

Post-processors are defined by a dedicated development team of post writers, all with a strong background in programming and practical machining. The Post-Processor Team takes care of customizing the G-Code output to the needs and requirements of your specific controller and CNC machine.

Worldwide Post-Processor Team




```
%_N_TR_PROFIL3_Kanal1_MPF
;$PATH=/_N_WKS_DIR/_N_SOLIDCAM2018_
RADNABE_NTX1_WPD
N1 CHANDATA(1)
; ---------- KANAL: 1 ----------
;SOLIDCAM  : 99748 PP:Rev.3.6
;ERSTELLT  : 9-MAY-2019 - 19:56:41
;MASCHINE  : NTX 1000
;WERKSTUECK: SOLIDCAM2018_RADNABE_NTX1000
; ---------------------------------
N2 WAITM(1,1,2)
R10=0 R11=0 R12=298.565 ;G54 X Y Z
R20=0 R21=0 R22=603.919 ;G55 X Y Z
R29=0                   ;G55

$P_UIFR[1]=CTRANS(X,R10,Y,R11,Z,R12,C4,0,C3,0)
;G54
$P_UIFR[2]=CTRANS(X,R20,Y,R21,Z,R22-
R29,C4,0,C3,0) ;G55

N3 WORKPIECE(,,,"CYLINDER",192,2.5,-150,-230,110)
;GOTO ABDA

GROUP_BEGIN(0,"1: Programmkopf",0,0)
N4 WAITM(2,1,2)
N5 TRANS
N6 ROT
N7 DIAMOF
N8 GETD(Z3)
N9 GETD(B3)
N10 G00 SUPA X330. D0
N11 G00 SUPA Z400. Y0. B1=90.
N12 WAITM(3,1,2)
N13 NP_B3_VAR(0,870)
GROUP_END(0,0)
N14 WAITM(4,1,2)
N1 WAITM(5,1,2)
N1 WAITM(6,1,2)
```

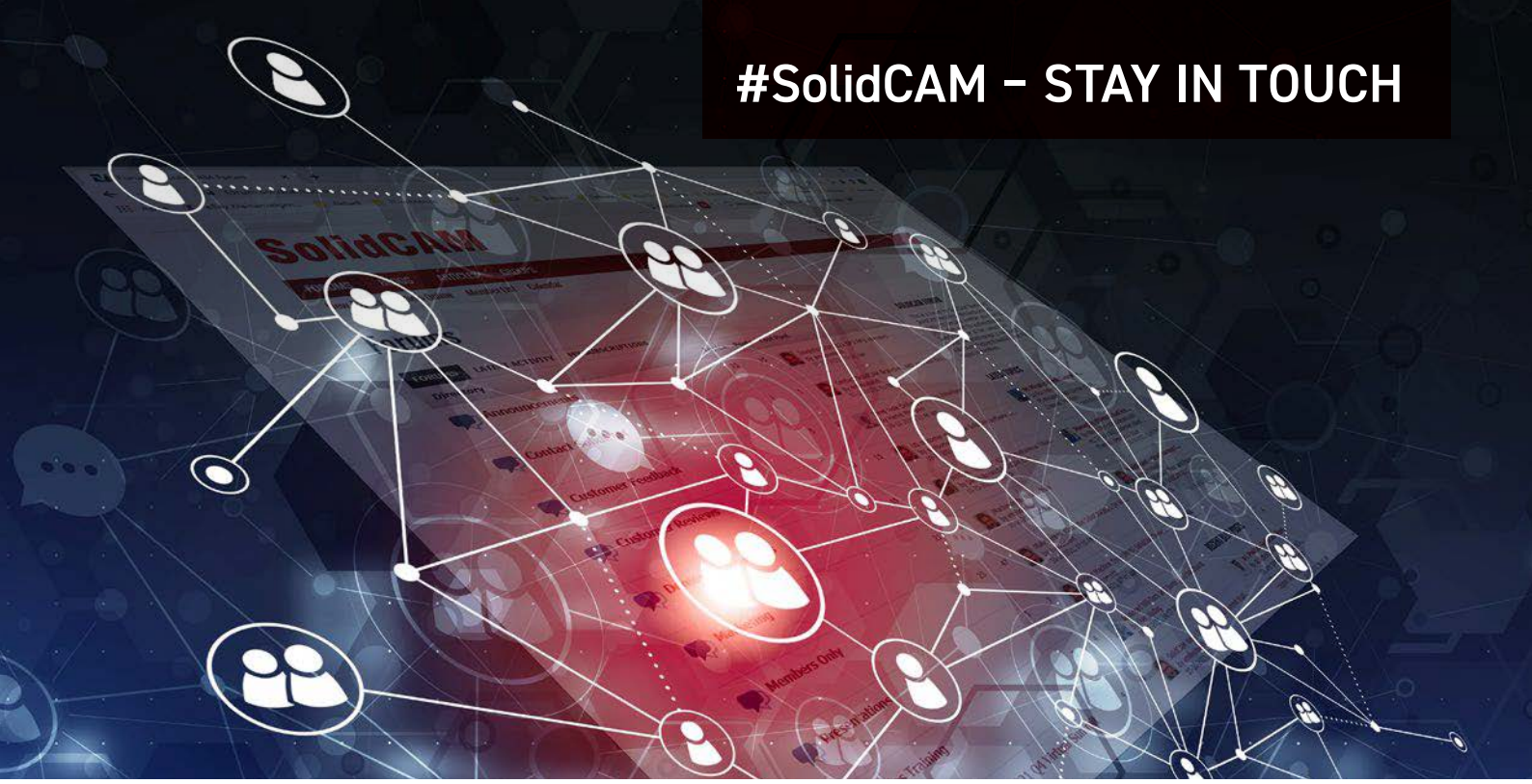
DMG Output

```
O0001 ( MAZAK_I400S )
(INTEGREX-i - 400 S)
(part   : MAZAK_I400S)
(created :  9-MAY-2019 )

#800=-458.7 (Work-Offset G54 - Z1)
#801=0. (Work-Offset G54 - C1)
(--------------------------)

G21
M901
G92 S2000 R1
G92 S2000 R2
G90 G0 G53 G0 X0. Y0.
G90 G0 G53 G0 Z0.
M108
G90 G53 G0 B0.
M107

G10 L2 P1 X-490. Z#800 C#801
G10 L2 P2 X-490. Z#802 U#803

M902
M312
M302

M1
N1
T001.01 M6
M901
M200
M108
G90 G53 G0 B90.
M107
```

Mazak ISO Output

```
O0010(L32-1M12)
$1
(PROGRAMM-NR.: DCL32-L32-1M12)
(DATE: 9-MAY-2019)

G50 Z[#141-#142]
M52
M6
M9
M346
G0 X[#814+#815] Z-0.05
M51

G600

!2L110

(JOB-NR.2)
(MS-FACE)
T0202 Z-0.0867 (OD TURNING)
G18
G50 S1500
G96 M3 S300
M97
G0 G99 X1.436 Z-0.0867
Z0
G1 X-0.0315 F0.003
Z-0.08
G0 X1.4359
G97 M96

(JOB-NR.3)
(MS-OD)
G50 S4000
```

Mitsubishi / Fanuc G-Code Output

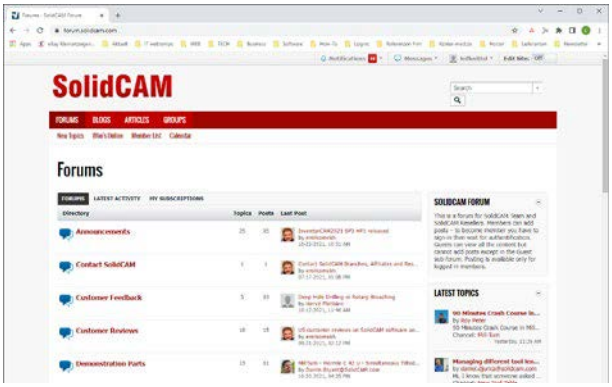


#SolidCAM – STAY IN TOUCH

Welcome to the SolidCAM Forum

We believe that up-to-date information for our customers and resellers is a priority, so we launched the SolidCAM forum, where everyone can get in depth information about SolidCAM products and future developments.

Check out **forum.solidcam.com** for more details or get the **SolidCAM Forum App** available for IOS and Android from the App-Store & Google Playstore.



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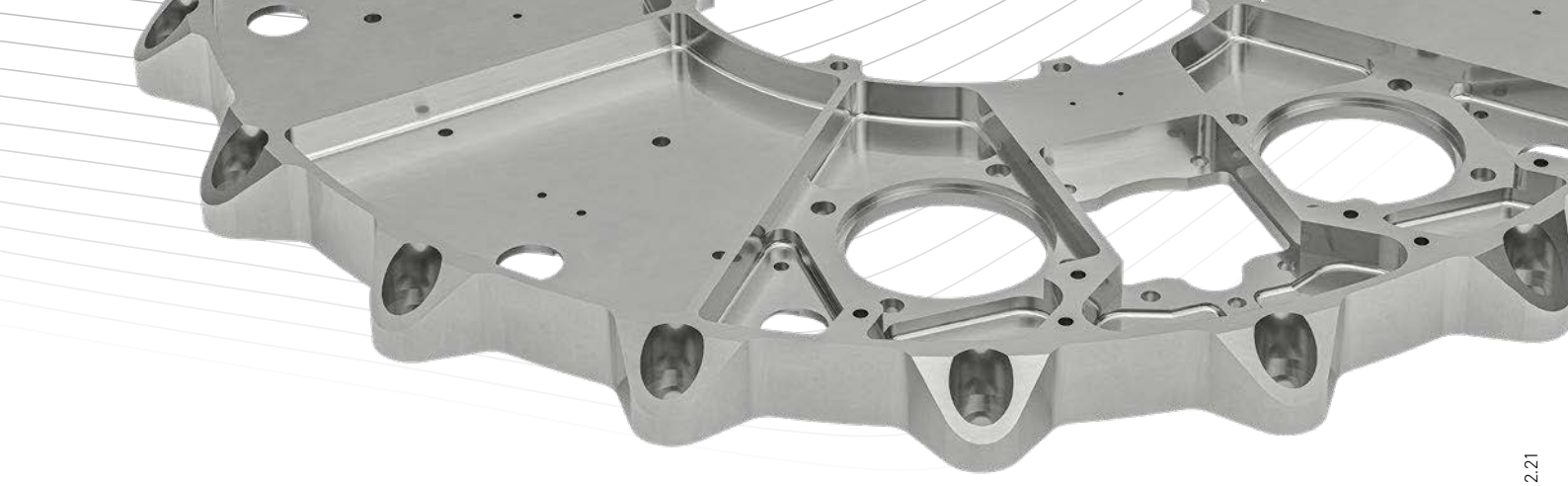

SolidCAM
The Leaders in Integrated CAM

The unique, revolutionary Milling Technology
iMachining®
patent by SolidCAM

MILLTURN
SolidCAM Power for Turn-Mill | Mill-Turn | Swiss-Type

"My personal goal was to be able to program all CNC machining operations consistently with a single CAM system. The biggest challenge here was to bring the Swiss-type lathes on board. Thanks to the extensive support provided by SolidCAM, that also worked out wonderfully!"

Steffen Rudischhauser | Managing Director
Rudischhauser Surgical Instruments & Implants Manufacturing GmbH | rudischhauser.com

"What matters to us are the structure and quality of the generated CNC programs that go to the machine, as well as how quickly and easily they can be generated. The service at SolidCAM is unparalleled. The technicians have done a great job with the post-processors for our complex Bumotec machines. And if we ever have a problem, someone from the support team is immediately offering help. These days, that isn't a given; it's unique!"

Stjepan Matacun | Production Manager
Stuckenbrock Medizintechnik GmbH

"After only two weeks with SolidCAM we had more success than with the previous CAM system after three years. We can now program the most complex workpieces much faster. Creating the tools is much easier and I can already program a part even if the final tool data is not yet completely available. This was not possible in the past."

Franz Fuchs | CNC & CAM Programming
Hefter Maschinenbau GmbH & Co. KG | hefter.de

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