ESPRIT
The Right Choice

ESPRIT SwissTurn

From 3D CAD file to machine-optimized G-code, ESPRIT meets the demands of Swiss programming with a natural workflow powered by a full suite of milling and turning cycles, high-speed machining, and FreeForm cycles for simultaneous 3- and 5-axis milling.

ESPRIT unlocks the full potential of the Swiss-type turning center: Fine-tune cutting paths with extensive control, minimize cycle times with multi-channel process synchronization, and reduce on-machine setup time with full simulation of the machine and the program.

ESPRIT is the right choice for an all-in-one programming solution that produces edit-free G-code for all classes of CNC machines.

SwissTurn

Swiss-Type Turning

Swiss-type CNC turning centers are complex single setup machines with many cutting tools and Swiss-specific components: sliding headstocks, guide bushings, gang slides, multiple tooling posts, secondary spindles, part catcher and collinear axes. ESPRIT provides programming, optimization, and simulation specifically tuned for these machines with specialized process strategies such as segmentation of the program to take advantage of the guide bushing's support for greater stability and more aggressive cuts, re-chucking for long parts, broaching, thread whirling or pinch machining.

- Complete all-in-one programming solution for Swiss-type CNC turning centers

Full-Spectrum Milling & Turning

ESPRIT combines a comprehensive suite of milling, turning, and inspection cycles. ESPRIT SwissTurn meets the unique challenges of Swiss-type turning with versatile support for turning and C-, Y-, and B-axis milling, all in the same G-code program. ESPRIT keeps continuous awareness of the stock through milling and turning processes and across setups. It generates optimized toolpaths without any air-cutting. To further reduce cycle times and extend tool life, ESPRIT offers patented high-speed machining strategies for Swiss turning centers and beyond.

- High-speed machining with ProfitMilling and ProfitTurning

Process Synchronization

Use specialized cutting cycles with multiple tools simultaneously within a single operation. Or, manually control concurrencies between cutting operations through the synchronization list. ESPRIT provides extensive controls to optimize the cycle time for the overall process. Use the time study to graphically optimize the utilization of the different channels. ESPRIT supports axis synchronization, superimposition, and composite control across channels.

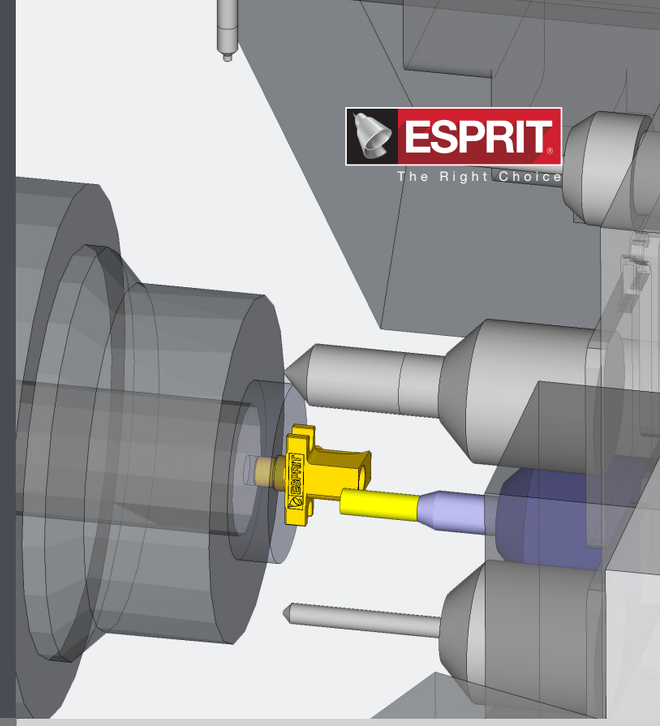
- Complete all machining on the part in one setup in the shortest possible cycle time

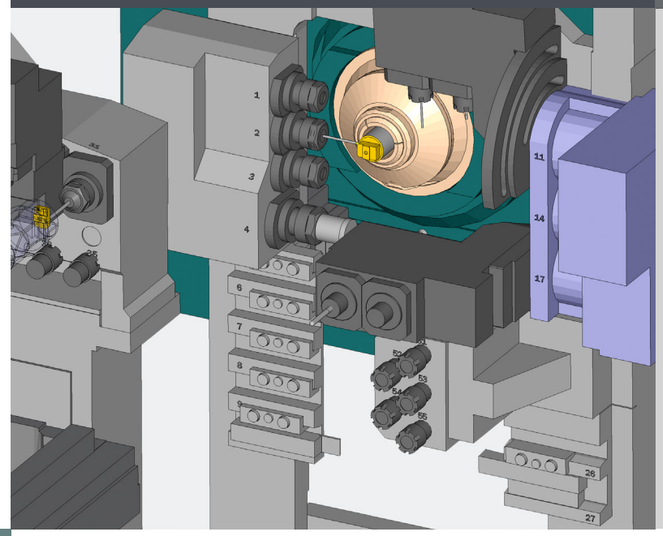
Full Machine Simulation, Verification, & Analysis

With ESPRIT, use the built-in machine simulation and verification to prove out programs beforehand and save valuable machine time. It provides a highly accurate, animated view of the entire process, including the Swiss-specific cycles, motions, and components.

Based upon a digital twin of the Swiss machine, the simulation displays all the machining action in real time: What you see is what you get.

It validates the program with collision detection between the tool, part, and all components of the machine. Program with the confidence that you're using your machine to its full potential.



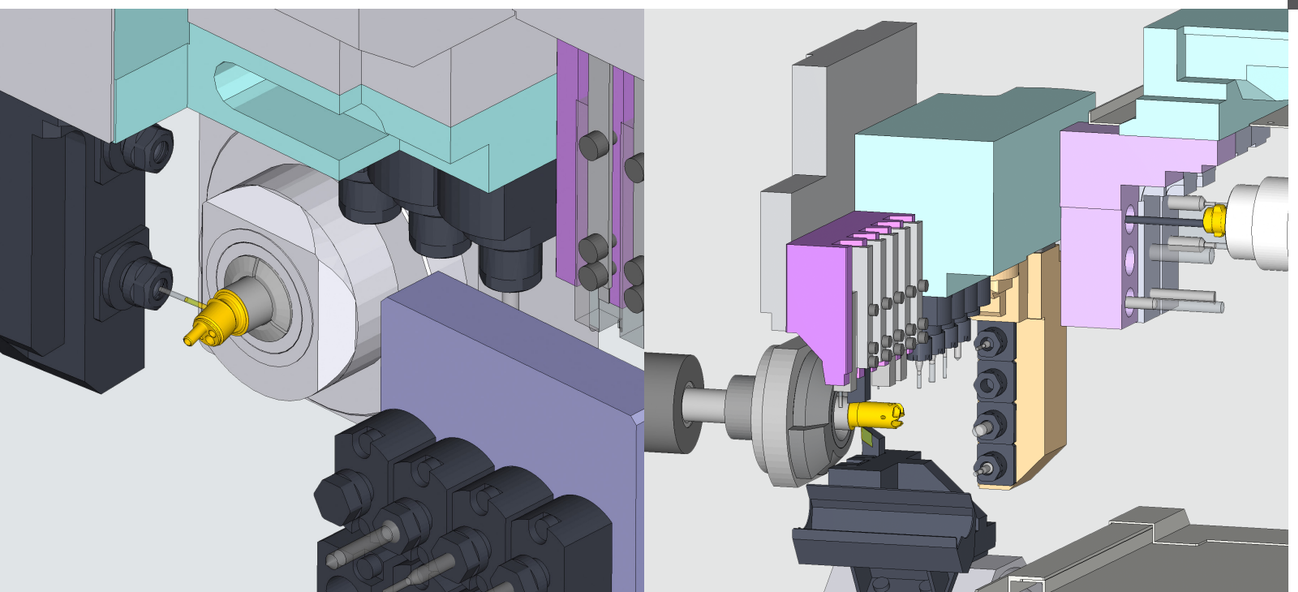


Beyond the G-Code

ESPRIT delivers edit-free G-code for each channel, ready to run on the CNC, including the Swiss-specific functions.

To help with costing and quoting, ESPRIT can provide time studies and estimated cycle times.

Use the Report Generator to produce setup sheets designed to provide shop floor operators with an overview of the job, processes, and tooling.



Machine-Optimized Programming

ESPRIT offers individual solutions, built-in cooperation with each machine manufacturer, and tuning for each Swiss-type turning center. With ESPRIT, quickly move with confidence from design to finished part while minimizing programming and setup time, cycle times, and operator supervision.

- Delivering machine-optimized, edit-free G-code

CITIZEN · LICO · NOMURA DS · star · TSUGAMI Rem Sales, LLC · Hanwha · KSI · MAIER · DMG MORI · TORNOS

SwissTurn

Machining cycles supporting any configuration of Swiss-type machine tool:

SolidMill

- All traditional milling, 2.5-axis milling, ProfitMilling, plus optionally:
- C-axis index and rotary milling
- Y-axis, 3+1, index milling
- B-axis, 3+2, index milling
- 3rd rotary axis, 3+3, index milling

SolidTurn

- All traditional 2-axis turning cycles, including:
- ProfitTurning
- Barfeeder, part catcher, and part handling cycles
- Collet and jaw chuck, modular and soft jaws
- Modular cutting tool assemblies with turret blocks and adaptive items
- Multiple spindles

FreeForm 3-axis, 4-axis, or 5-axis

- Simultaneous multi-axis milling

Swiss-Type Machining

- Sliding headstock and collets
- Optional guide bushings
- Gang slides, front, back, and opposite tool posts
- Collinear axes
- Program segmentation
- Multiple programming channels with synchronization
- Machining modes enabling synchronized or superimposed motion

DP Technology Corp.

1150 Avenida Acaso
Camarillo, CA 93012 USA
805 388 6000

espritcam.com

08/16/2019

ESPRIT
The Right Choice

High-Performance CNC Programming

Using the ESPRIT Digital Machine—machine skin models, controller emulators, machine parameters, and universal post processors—ESPRIT delivers powerful programming, accurate simulation, and machine-optimized G-code.