# creo®10

PRODUCTION MACHINING
IN CREO

Creo is the 3D CAD solution that helps you deliver your best designs in less time. Creo offers easy-to-use production machining solutions for milling, turning, sheet metal, hole-making and wire EDM processes. All are fully integrated into Creo for a seamless workflow.

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DIGITAL TRANSFORMS PHYSICAL

CREO PRODUCTION MACHINING EXTENSIONS

PRISMATIC AND MULTI-SURFACE MILLING EXTENSION ❯
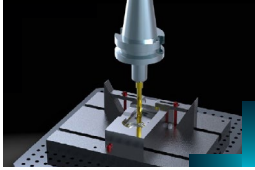
Achieve the highest quality, highest precision machining in the fastest time possible:

- Multi-Surface 3-Axis Milling with 4 and 5-Axis positioning
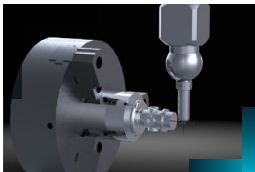- Automatic change propagation and associative update of NC toolpaths

PRODUCTION MACHINING EXTENSION ❯

Includes all capabilities of Prismatic & Multi-Surface Milling along with:

- 4-Axis Turning
- 4-Axis Wire Electrical Discharge Machine

COMPLETE MACHINING ❯

Comprehensive capabilities to support advanced NC machining strategies:

- Includes production machining capabilities in previous packages
- 2.5 to 5-Axis Concurrent Milling (Advanced machining strategies)
- Support for Mill-Turn and live tooling and multi-task machines synchronization

HIGH-SPEED MILLING EXTENSION (HSM) ❯
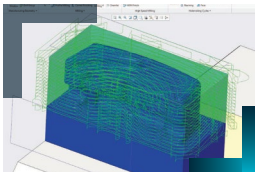
3-Axis High-Speed Milling toolpaths with no need to switch to external CAM Solutions:

- Basic holemaking
- 3-Axis trajectory Milling
- 3-Axis High-Speed Milling (HSM) Rough, Rest Rough, Finish and Rest Finish sequences
- Constant load scan-type for Roughing sequences is comparable to expensive third-party software products
- Adaptive feed-rates for roughing and rest-roughing

HIGH-SPEED MILLING ADVANCED EXTENSION ❯
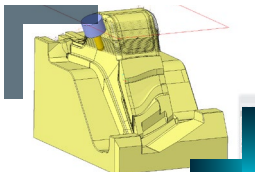
All capabilities in HSM:

- Comprehensive holemaking
- 5-Axis continuous High-Speed Milling toolpaths with with high level of automation and collision-checking
- 5-Axis High-Speed Milling, Roughing and Rest Rough, including automatic 3+2 Axis Rough and Rest Rough
- 3 to 5-Axis High-Speed Milling Conversion for Finish and Rest Finish; 5-Axis Auto Deburring
- 5-Axis geodesic finishing and trajectory Milling
- Wall 5 Axis Finish and Floor 5 Axis Finish toolpaths (in which barrel tools are supported)

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CREO CAM SOLUTIONS

| Creo Production Extensions*	Prismatic & Multi-Surface Milling	Production Machining	Complete Machining	High-Speed Milling	High-Speed Milling Advanced
• 2-Axis Feature-Based Machining & 3-Axis Milling	✓	✓	✓		
• 3-Axis High-Speed Milling (HSM) Roughing, Rest Roughing, Finish and Rest Finish				✓	✓
• 5-Axis High-Speed Milling (HSM) Roughing, Rest Roughing, including automatic 3+2 Axis Roughing and Rest Roughing and 5-Axis Auto-Deburring • 3-to-5 Axis Conversion for Finish / Rest Finish toolpaths • Geodesic 5-axis Finish • Wall 5 Axis Finish and Floor 5 Axis Finish toolpaths (in which barrel tools are supported)					✓
• 4/5-Axis Position Milling	✓	✓	✓		
• Hole-Making	Basic	Basic	Comprehensive	Basic	Comprehensive
• Trajectory Milling	3-Axis	3-Axis	5-Axis	3-Axis	5-Axis
• 2-4 Axis Turning & Wire EDM		✓	✓		
• Live Tooling for Turning (Mill / Turn), 5-Axis Continuous Milling, Multi-Task Machining Synchronization, Dynamic Tool Axis Definition in Turning			✓		
• Associative NC Process Planning using Manufacturing Annotation Features and Tool / Fixture Library	✓	✓	✓	✓	✓
• Manufacturing Process Documentation	✓	✓	✓		
• GPOST NC Post-Processor Generator	✓	✓	✓	✓	✓
• ModuleWorks-based Material Removal Solution	✓	✓	✓	✓	✓

>>> EXTENSIONS

• Prismatic & Multi-Surface Milling • Production Machining • Complete Machining • High-Speed Milling • High-Speed Milling Advanced • Tool Design • NC Sheetmetal • Expert Moldbase • Progressive Die • Computer-Aided Verification • Additive Manufacturing • Additive Manufacturing Advanced

*All of the options above require a seat of Creo Parametric.

ADDITIONAL CREO PRODUCTION EXTENSIONS

NC SHEETMETAL ➤
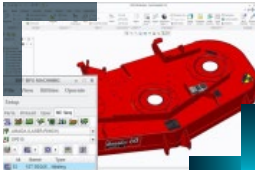
Use materials efficiently and optimize design for manufacturing:

- Automatically create and optimize toolpaths using standard and form tools
- Smart auto-nesting for utilization of maximum sheet area, reduction of scrap and material costs, and shortened lead times
- Automatic Nesting, Punch Press & 2-Axis Laser Programming

COMPUTER-AIDED VERIFICATION ➤
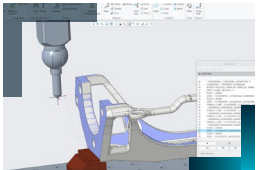
Coordinate Measuring Machine (CMM) programming for digital quality inspection:

- Gain absolute confidence in the QA process by performing digital inspections of machined parts and assemblies.

THE CREO ADVANTAGE

Creo is the 3D CAD solution that helps you accelerate product innovation to build better products faster. Easy-to-learn Creo uses a model-based approach to seamlessly take you from the earliest phases of product design to manufacturing and beyond. Combining powerful, proven functionality with new technologies including generative design, real-time simulation, advanced manufacturing, IIoT and augmented reality, Creo helps you iterate faster, reduce costs and improve product quality. Creo is also available as a SaaS product, providing innovative cloud-based tools for real-time collaboration and streamlined license management and deployment. The world of product development moves quickly, and only Creo delivers the transformative tools you need to build competitive advantage and gain market share.

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Please visit the PTC support page for the most up-to-date platform support and system requirements.