

HEIDENHAIN

NEW



TNC7 select

Compact Contouring Control for 5-Axis Simultaneous Machining

www.heidenhain.com

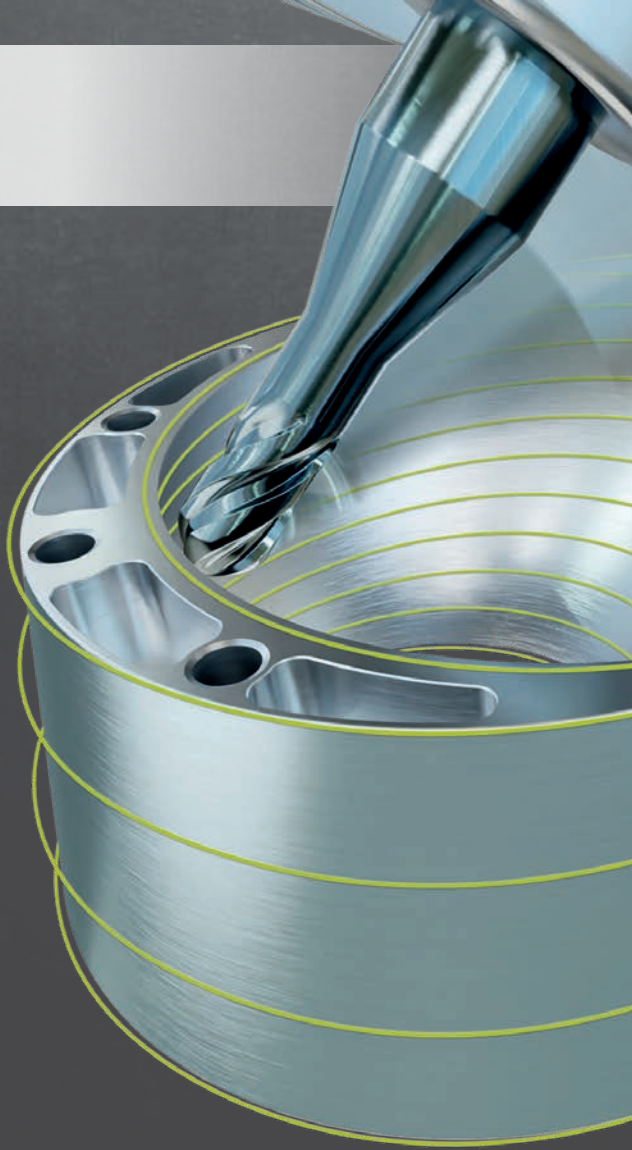
Compact 5-axis performance

No-nonsense precision

Zeroed in on essentials, the TNC7 select provides the core functionality needed for high-performance 5-axis machining. Efficient, accurate, and engineered for today's machines, this compact control delivers high dynamic performance and advanced vibration suppression. With rotary-axis smoothing and precision control, the TNC7 select achieves optimal surface finishes even with dynamic changes in milling direction. The following machining operations are offered in an intuitive format:

- Milling: full-fledged 5-axis performance from HEIDENHAIN for high-precision machining of complex contours and geometries
- Drilling: efficient and accurate hole creation at high repeatability
- Shaping: high-accuracy contouring for sealing surfaces and more





Flawless surfaces – even at high axis speeds

- Dynamic Precision: optimized accuracy for rapidly changing axis movements
- TCPM: practical settings for your machining requirements
- Cycle 32: dimensional accuracy and perfect surfaces in minimal time



TNC7 select

Greater 5-axis accuracy with KinematicsOpt

- Automated accuracy inspection for rotary and tilting axes
- Corrected center-of-rotation errors for rotary and tilting axes
- Automatic error input and compensation within the kinematic model

TNC7 select: compact and capable 5-axis control

The TNC7 select combines true 5-axis simultaneous machining with compact hardware and a clear focus on essentials. It offers the ideal level of performance for today's machine designs. Thanks to its high computing power, precise interpolation, and intuitive user experience, the TNC7 select delivers maximum machining accuracy and superb surface quality.

- A compact 16-inch display for space-saving machine designs plus complete TNC7 ergonomics
- Fast and easy integration into pre-existing machine architectures, ideal for efficient OEM projects
- All essential functions for high-performance 5-axis machining in a clear, user-friendly format
- High-precision motion control and interpolation for superb dimensional accuracy and surface finishes, even on complex contours
- State-of-the-art data interfaces for seamless connectivity to higher-level systems and digital machining environments



TNC7 select	Milling, drilling, and optional shaping
Axes	Up to 8 control loops
Program creation	<ul style="list-style-type: none"> • HEIDENHAIN Klartext • ISO programming
NC program memory	7.7 GB
Block-processing time	< 1.5 ms
Input resolution and display step	Down to 0.01 μm
Multi-touch display	16-inch FHD touchscreen
Operating panel	Compact machine operating panel or keyboard unit with alpha, programming, and machine keys
Dynamic Precision	Software option
Touch probe functions	Software option
OPC UA NC Server data interface	Software option

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