

Supplementary components

Automation systems

SINUMERIK CNC automation systems

SINUMERIK 828D

Overview



SINUMERIK 828D – the powerhouse among the compact CNCs

With their unique CNC performance, SINUMERIK 828D CNCs set productivity benchmarks when it comes to milling and turning on standard machines as well as functions for easy automation of grinding machines.

Rugged and maintenance-free

Their die-cast magnesium operator panel fronts, the panel-based CNC design with minimal interfaces, as well as a high degree of protection, make SINUMERIK 828D CNCs reliable partners even in harsh environments.

Designed without a fan or hard disk, with NVRAM memory technology and no back-up battery, SINUMERIK 828D CNCs are completely maintenance-free.

User-friendly

The SINUMERIK 828D CNCs are very easy to operate thanks to a full QWERTY CNC keyboard with short-stroke keys and a high-resolution 10.4" TFT color display or 15.6" touch display.

CNC data are quickly and easily transferred via USB, CF card (for 10.4") and RJ45 interfaces on the operator panel front.

Optimum scalability

Based on the three CNC performance versions SW24x, SW26x and SW28x of the SINUMERIK 828D CNCs, favorably-priced compact as well as more complex machines with additional axes/spindles and 2 machining channels and 2 handling channels can be implemented.

Preconfigured technology for use in standard turning and milling machines

SINUMERIK 828D is perfectly adapted for use in standard machines and provides optimum support for turning and milling technologies. With two preconfigured system software variants for machining technology, the SINUMERIK 828D CNC systems are ready for use in turning and milling machines on dispatch from the factory.

The ideal basis for implementing a compact grinding machine

The G-Tech technology variant provides grinding machine manufacturers with a perfect platform for designing grinding machines – both cylindrical and surface grinding machines are supported.

Since grinding machine manufacturers want to fully incorporate their specific process know-how so that it is even reflected in the operating philosophy of the CNC, the G-Tech variant of the SINUMERIK 828D offers a number of sophisticated grinding and dressing cycles. Additionally, SINUMERIK Run MyScreens and Run MyHMI /3GL provide manufacturers with the option of designing their own HMI.

More information

- Internet:
<https://www.siemens.com/industrymall>
<https://www.siemens.com/sinumerik>
<https://www.siemens.com/nc82>
- For full details of SINUMERIK 828, please refer to the market-specific solutions in the Industry Mall:
<https://mall.industry.siemens.com/mall/ww/en/Catalog/Products/10078797>

Overview

**SINUMERIK 840D sl –
ultimate performance in the premium class**

The SINUMERIK 840D sl CNC offers modularity, openness, flexibility and uniform structures for operation, programming, and visualization. It provides a system platform with trend-setting functions for almost all technologies.

Integrated into the SINAMICS S120 drive system and complemented by the SIMATIC S7-300 automation system, the SINUMERIK 840D sl forms a complete digital system that is ideally suited for the mid- to upper-performance range.

The SINUMERIK 840D sl is characterized by:

- A high degree of flexibility
- Excellent dynamic response and precision
- Optimum integration into networks

Benefits

- Outstanding performance and flexibility for multi-axis systems of average to high complexity thanks to scalable hardware and software
- Universal openness of the user interface, the PLC and the NCK area to allow integration of your specialist know-how
- Integrated safety functions for man and machine: SINUMERIK Safety Integrated
- Comprehensive range of products for integrating machine tools into communication, engineering and production processes: SINUMERIK Integrate

Application

The SINUMERIK 840D sl can be deployed around the world for the following technologies:

- Turning
- Drilling
- Milling
- Grinding
- Laser machining
- Nibbling
- Punching
- Tool and mold making
- High-speed cutting applications
- Woodworking and glass processing
- Handling
- Transfer lines
- Rotary indexing machines
- Mass production
- JobShop production

The SINUMERIK 840DE sl is available as an export version for use in countries where approval is required.

More information

- Internet:
<https://www.siemens.com/industrymall>
<https://www.siemens.com/sinumerik>
<https://www.siemens.com/nc62>
- For full details of SINUMERIK 840D sl, please refer to the market-specific solutions in the Industry Mall:
<https://mall.industry.siemens.com/mall/ww/en/Catalog/Products/10121243>

Supplementary components

Automation systems

SINUMERIK CNC automation systems

SINUMERIK ONE

Overview



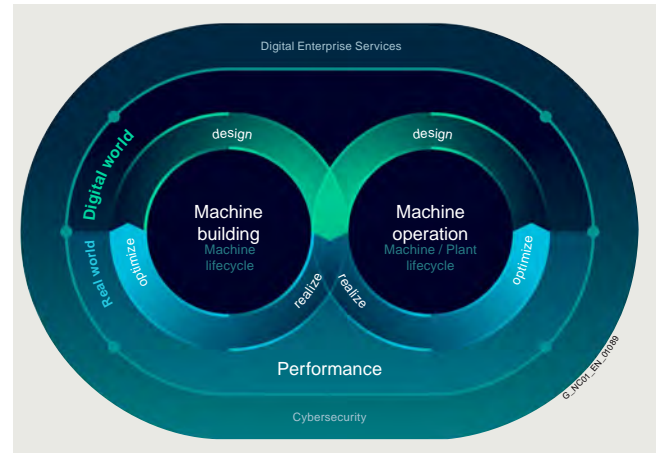
SINUMERIK ONE: the next level CNC in the premium class

SINUMERIK ONE – the digital native CNC with the pioneering CNC system for highly productive machine tools. Thanks to its digital twin, the key element in digital transformation, SINUMERIK ONE helps to simulate and test work processes completely virtually - saving time, resources and costs.

Boosting productivity with SINUMERIK and digitalization solutions

Shorter product introduction times and increasing individualization of products influence production with machine tools. High productivity is more important than ever for machine manufacturers and users. The key factor is optimum interaction of automation and CNC solutions and sophisticated technology – and the effective integration of digital solutions. This applies to all areas: from design and construction of a machine to operation and service. SINUMERIK connects automation, competence in technology, and digitalization to form a single solution offering for more productivity. SINUMERIK CNC systems are the optimum solution for the production of individual parts or series production, for simple or complex workpieces.

Benefits



Merging the real world with the virtual world

The new SINUMERIK ONE is specifically designed for smart manufacturing.

- The digital twin is an integral part of the CNC system; virtual and real CNC merge and complement each other
- Significant reduction in product development and market launch times thanks to the **digital first** strategy
- Improved networking and data communication capabilities
- Significant reduction in the duration of real commissioning thanks to virtual commissioning preparation
- Significantly increased CNC performance
- Significantly shorter downtimes and complete integration into the TIA Portal thanks to the integrated SIMATIC S7-1500F PLC

This means that the SINUMERIK ONE can be seamlessly integrated into digital solutions and workflows.

More information

- Internet:
<https://www.siemens.com/industrymall>
<https://www.siemens.com/sinumerik-one>
<https://www.siemens.com/nc63>
- For full details of SINUMERIK ONE, please refer to the market-specific solutions in the Industry Mall:
<https://mall.industry.siemens.com/mall/ww/en/Catalog/Products/10028455>

Overview



SINUMERIK MC – the universal and open CNC which can be easily integrated into existing machine solutions

Thanks to its integrated SINUMERIK CNC, SIMATIC controller and Windows 10 operating system, the SINUMERIK MC is the ideal solution for machine tools with customized user interfaces.

The areas of application range from machining wood, stone and glass and adhesive application to simple grinding applications and special machine tool technologies such as sheet metal cutting, laser and water jet cutting, as well as additive manufacturing.

- The integrated Windows operating system allows the user interface to be designed simply and matched to customer requirements. The **open operating concept** and extensive interfaces make the SINUMERIK MC an integrated and open control system.
- The proven SINUMERIK CNC technology enables maximum precision in motion control and – thanks to **G code programming** – freedom and flexibility in machine control.
- Shorter response times of the latest SIMATIC S7-1500F PLC enable **increased processing speed** and significantly boost automation performance.
- Symbolic programming, modern programming languages and extensive toolboxes for implementing standard applications make **engineering in the TIA Portal** simple and efficient.
- SINUMERIK MC offers **Safety Integrated** as a uniform Siemens industry safety standard and implements the multi-level defense-in-depth concept for IT security.
- **Attractive option packages** offer the best possible adaptation to individual machine requirements.

More information

- Internet:
<https://www.siemens.com/industrymall>
<https://www.siemens.com/sinumerik>
<https://www.siemens.com/nc64>
- For full details of SINUMERIK MC, please refer to the market-specific solutions in the Industry Mall:
<https://mall.industry.siemens.com/mall/ww/en/Catalog/Products/10367270>