



SIEMENS
Ingenuity for life

Industry Services

Upgrading machine tools extends machine service life

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Technology-based services for a greater competitive edge

Minimum downtime and the optimum use of staff and resources are key to sustainable success in industry. Siemens provides the basis for greater productivity, flexibility, and efficiency with technology-based services throughout the lifecycle of an industrial plant – reliably, globally, and around the clock. In-depth technology and product knowledge as well as industry expertise within Siemens' global network of experts ensure a considerable competitive edge.

The challenge: Cost-effective extension of machine service life

With optimum maintenance, a machine tool can easily remain in operational service for 10 years. However, during that time further development of the control and drive technology does not stand still. Advances made in functionality, diagnostics, and maintenance set new standards for efficient and economical production that machines using outdated control and drive technology cannot meet.

To extend the service life of machine tools, cost-effective solutions that make possible a tailored modernization of the control and drive components are called for. In this way plant operators can increase the availability, efficiency factor, and energy efficiency of their machines without the need for a costly new procurement.





The solution:
Tailored modernization

The upgrading of machine tools by Siemens is designed to replace legacy controls and drives with the latest generation of SINUMERIK and SINAMICS systems. The modernization work is carefully matched to the required scope in consultation with the customer to guarantee a production environment that is both flexible and low-cost. Whether you want to continue using existing analog drive technology or replace it with digital, or you need mechanical components overhauled, Siemens experts will put together a tailored package for each retrofit.

The core element of the upgrade is a modernization method in which individual components are converted to state-of-the-art technology.

This comprises:

- New SINUMERIK CNC controller, SINAMICS drive, and SIMOTICS motors
- Innovative operating concept SINUMERIK Operate
- Efficient technology cycles
- If required, mechanical overhauls with partners from Siemens

New technologies and options open up the possibility of much more flexible manufacturing. Through complete mechanical and electrical overhauls, the machine and plant investment is protected over the long term. These upgrade services are designed to provide an optimum cost/benefit ratio. Preconfigured modernization packages ensure that the machine can be put back into operation in minimal time.

Optional additional services complete the range:

- SINUMERIK Integrate – IT integration of the machine in the manufacturing process
- Fault compensation – geometric measurement of the machine and compensation for dimensional variations
- Training - courses for operation, programming and maintenance
- Extended machine contracts – tailored service agreements
- Siemens Financial Services – financing solutions to match every need or situation



The benefits:

Longer machine life and greater investment security

Upgrading of machine tools extends their useful life, protecting the customer's long-term return on investment.

The advantages of modernization by Siemens:

- Comprehensive consulting and reliable implementation by experienced experts in the areas of modernization and control and drive technology, as well as machine tool technologies and production processes
 - Tailored modernization concepts for maintaining or boosting productivity
 - Higher machine availability thanks to long-term security of spare parts supply and services
 - Very easy controlling and programming
 - Greater safety for people and machine thanks to Safety Integrated
 - Improved energy efficiency with SINUMERIK Ctrl-Energy
 - Cheaper than a new procurement
- Complete modernization from a single source: from the CNC controller to drive, motors, and IT integration to mechanical overhaul by Siemens partners
 - Reliable performance within the deadline
 - Comprehensive additional services and functions

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Siemens Industry Inc.
100 Technology Drive
Alpharetta, GA 30005

1-800-879-8079
CNCservice.industry@siemens.com
usa.siemens.com/services

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