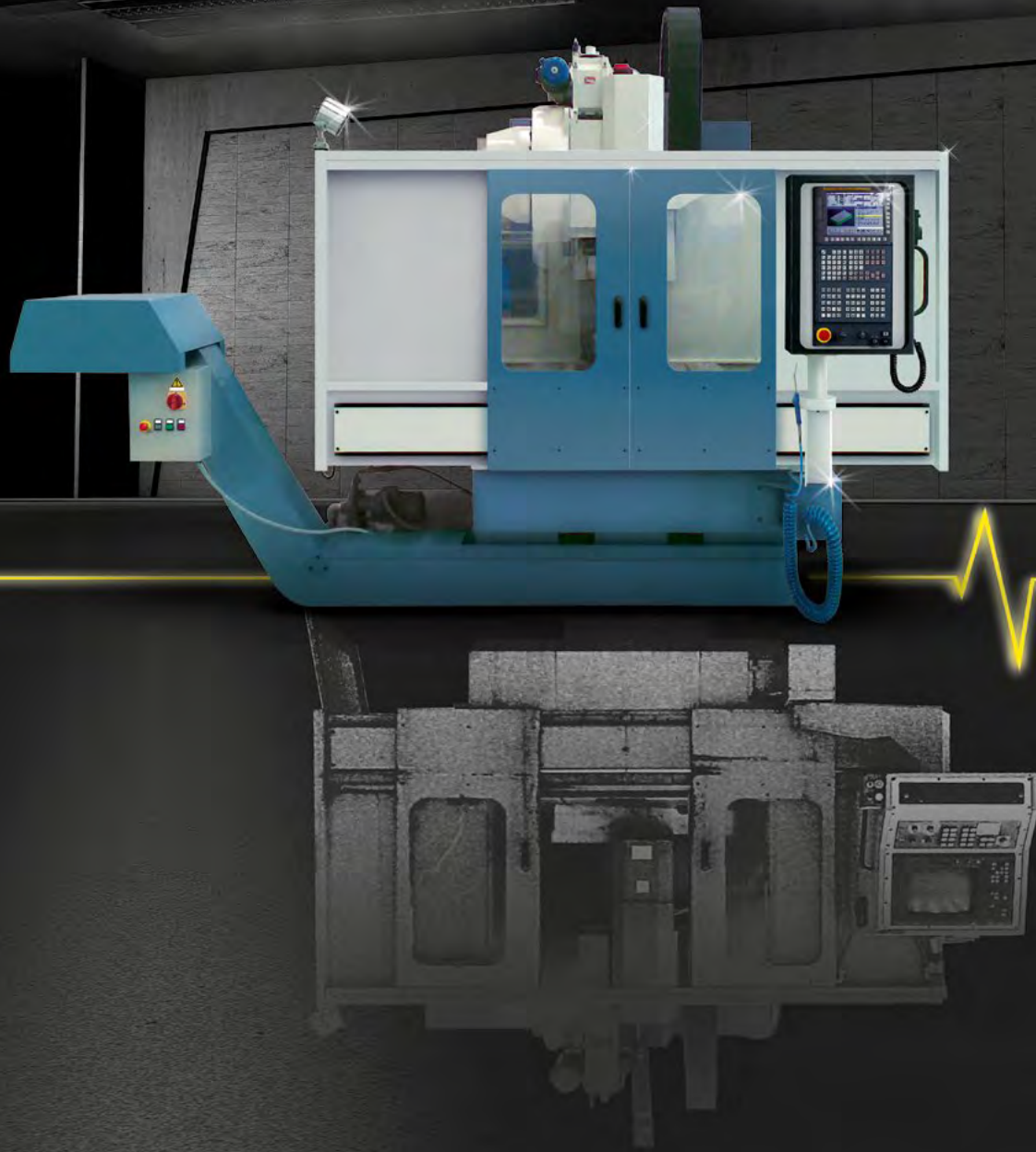


# FANUC



## Retrofit

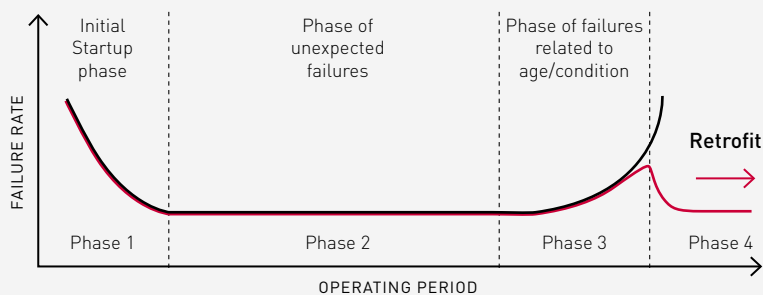
Give Your Machine a New Lease on Life

# Add Value to Your Machine with Retrofit

Machine tools are among the most vital and costly pieces of equipment on most plant floors, a significant capital investment that must maintain its viability for many years. Our solution: Retrofit your old unit by replacing its CNC, servo and spindle systems. Assuming the machine tool is generally in good shape mechanically, keeping it updated with the latest CNC control technologies is typically the most cost-effective and economically sustainable solution to enhance its overall performance.



Theory of preventive maintenance ("bathtub curve")



## Theory of preventive maintenance

A CNC retrofit will extend the operating life of your machine tool by minimizing downtime related failures and boosting its reliability.

# Core Benefits of CNC Retrofitting

Retrofit with FANUC: The best solution whether replacing an old FANUC or any other CNC system. You will save on capital expenditures while at the same time benefitting from new technologies.



## Higher performance

- Advanced fully digital servo and spindle drives
- Highly integrated as a single system
- Increased productivity for reduced lead time



## Increased safety

- Predictive, preventive, diagnostic and troubleshooting functions
- Alert system for process and downtime failures
- Dual Check Safety: Integrated software to keep operators, robots and tooling safe



## Superior connectivity

- High-speed ethernet – easy integration into IT networks
- High-speed fiber optic communication paths
- Intelligent feedback devices and inter-process communications



## Cost savings

- A retrofit will cost 1/3 to 1/2 of purchasing a new machine
- Save additional costs that would occur with a repairs or new investments
- Reduced total cost of ownership



## Forward-looking sustainability

- Keeps machine working long into the future
- Sustainable investment
- Supports the environment in the long term



## Future-proven compatibility

- One operating concept maintained across all FANUC controls
- Utmost compatibility among CNC series
- Intelligent upward compatibility
- Easy operation and programming
- Less need for training



## Improved uptime

- Advanced CNC technology and software
- Reduced mean time to repair (MTTR)
- Managing the risk of excess downtime

# Widest Range of CNC Components

Boasting the widest range of CNC systems in the industry, FANUC provides everything you will ever need for your CNC – from best value controls with powerful functionality to high-performance control systems for complex machines. Controls, motors and amplifiers, cables and connectors come in easy-to-install packages tailored to your specific needs. Quick to program and easy to use, they guarantee maximum quality and short cycle times.



## 10 Reasons for Choosing a FANUC CNC

Our CNC control systems are the most reliable in the world. Every component in FANUC CNC systems – laser sources, controls, motors and amplifiers – is exclusively developed, manufactured and tested to perfection in-house. The benefit for you: superior functional reliability, outstanding product quality and highest productivity guaranteed.

- 01** More than 50 years mean time between failure (for Oi-D)
- 02** Lifetime support
- 03** Future-proven upward compatibility
- 04** Very easy operation
- 05** Quick program development
- 06** Minimal training required
- 07** High-speed machining functions
- 08** Ethernet technology for data exchange
- 09** Worldwide service and support
- 10** Industry 4.0 ready

### Amplifier

Energy-efficient and designed to support even the most advanced machining needs, FANUC amplifiers mix enhanced performance with world-famous FANUC reliability.

### Industrial Computers

Machines with PANEL *i* can easily be upgraded by replacing the PANEL *i* with the newest version. CNC, motors and amplifier stay the same. Your benefit: More performance for your custom application and an up-to-date operating system.

### CNC controls

Combining user-friendly operation with exceptional levels of accuracy, reliability, and efficiency, FANUC CNC controls are easily adaptable to your machines and suited for any specific application.

### Motors

FANUC's extensive range of spindle, servo and torque motors provide the ideal mix of torque, acceleration, precision and power to perfectly meet every need.

### iHMI

FANUC *i*HMI has been designed to be extremely easy to use. Intuitive menu icons, high-visibility design and animated features take the head-scratching out of complex machining operations, making accessing even the most sophisticated programs and functionalities straightforward. Despite its more intuitive layout, users will nevertheless find that it provides a familiar FANUC user experience.

Discover the whole FANUC CNC range and all intelligent CNC functions that make a retrofit of your machine tool even more worthwhile!

<https://www.fanucamerica.com/solutions/industries/retrofitting>

**60** Years of CNC Experience

## Managed energy efficiency

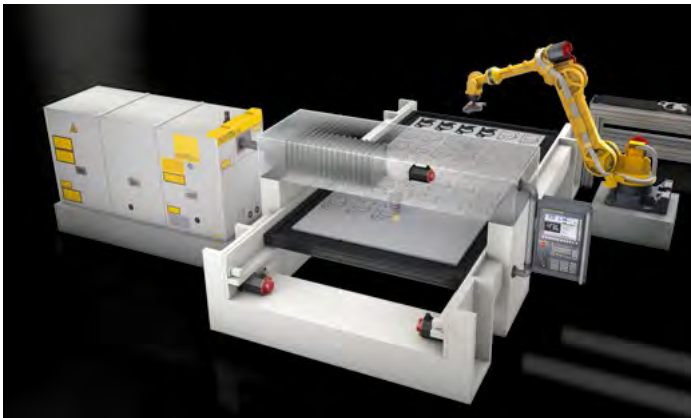
Using intelligent energy management to provide the best performance with the lowest possible energy consumption, all FANUC CNCs, motors and amplifiers are engineered to make the most efficient use of energy.

Intelligent servo technology and advanced digital drives support the storing and utilizing of regenerative energy. Additional tools to monitor and manage your energy use are also available to guarantee the most efficient CNC machining processes. All this combined with smart energy-saving functions can help you reduce electricity costs by as much as 50 %.



## A track record you can rely on

Machine builders around the world trust in FANUC CNC systems and the knowledge that comes with almost 60 years of experience in the continuous development of CNC technology. More than 4 million FANUC CNC systems installed worldwide and a 65 % market share bear witness to FANUC quality.



## Ever thought about retrofitting your laser machine?

It's possible! Laser machine retrofitting brings a lot of benefits, one being not having to invest in a new machine:

- Low-cost solution
- Saves time-consuming system integration
- Saves unnecessary waiting times for new orders
- Reduces gas consumption
- Machine efficiency increases and operation costs decrease

FANUC offers a unique package solution: a complete laser system, i. e. laser oscillator, CNC control with integrated laser control and diagnostics, and drives all interfaced via FANUC Serial Servo Bus.



## Advanced CNC systems call for comprehensive support

Offering all the help and advice you will ever need for your CNC, CNC machine or related product, FANUC worldwide service and support is on hand 24/7 to ensure you get the best from your production environment. And with a FANUC retrofit you will enjoy the benefit of lifetime support.

# Add Value to Your Machine with Retrofit

