

The Future of Manufacturing Starts with FANUC Series 500i-A



Enhanced
Performance
and Reliability



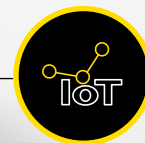
Maximizing
Uptime



Ease of Use



Energy Savings



Unlock Digital Twin
Capabilities



Better, Faster, Stronger

- Brand-new architecture built on the proven 30i series.
- Higher machining performance, reliability, and usability.
- Simplified 5-axis integrated technology.
- New control unit, *iHMI2* screen, and advanced customization tools.
- Enhanced security, networking, and safety.
- Optimized high-precision performance with the *αi-D* SERVO series.



More power, faster cycles, greater uptime

- 2.7× CPU processing power vs. 30i-B Plus.
- Advanced graphics and multiple Gigabit Ethernet ports.
- Battery-less design and improved maintainability.
- Renewed hardware + software for maximum operability.

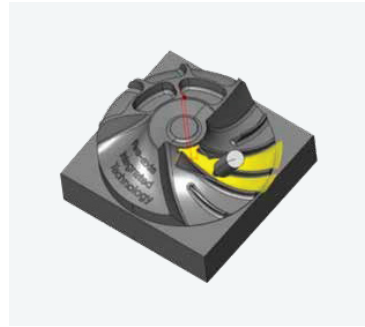
Result: Faster machining, shorter cycle times, and lower maintenance needs.



High performance, reduced energy with ai-D SERVO

- Next-gen drive delivers high-speed, high-accuracy motion.
- Same performance with reduced electrical consumption.
- Built-in energy-saving capabilities.

Result: Precision machining with measurable cost savings.



Enhanced 5-axis capabilities

- Manual operation support for setup.
- Built-in 3D interference check.
- Continuous tool-length compensation.
- Flexible 5-axis command support.
- Compatible with various machine kinematics.

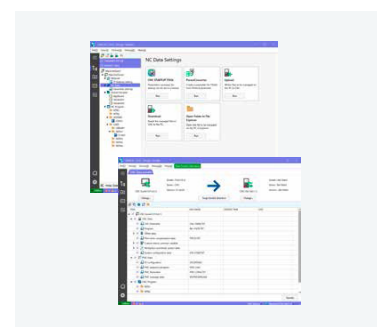
Result: Easier setup, safer operation, and more versatile 5-axis machining.



User-friendly operation

- iHMI2 provides modern screens with touch and auto-scaling capabilities.
- “One task, one screen” operation reduces setup time.
- Web access from mobile devices.
- Expanded UI components and fully customizable CNC operation screens via FANUC PICTURE 2.

Result: Tailor-made user experiences for streamlined workflows and reduced operator workload.



Digital Twin development tools

- Simulate all machine processes, including high-speed motion.
- Quickly debug and develop.
- Seamlessly integrated development tools via CNC Design Studio.
- Modern, flexible PMC programming via IEC-standard Structured Text.

Result: Faster commissioning, quicker testing, and easier project management.

FANUC Series 500i-A overview

CNC model	501iS-A	501i-A	502iS-A	502i-A	503i-A
Max. controlled paths	15	15	4	4	2
Max. controlled axes	96	96	26	26	12
Max. simultaneously controlled axes	24	4	5	4	4
Max. spindle axes	24	24	8	8	8