FANUC

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


## Better, Faster, Stronger

- Brand-new architecture built on the proven 30*i* series.
- Higher machining performance, reliability, and usability.
- Simplified 5-axis integrated technology.
- New control unit, *i*HMI2 screen, and advanced customization tools.
- Enhanced security, networking, and safety.
- Optimized high-precision performance with the α*i*-D SERVO series.

## More power, faster cycles, greater uptime

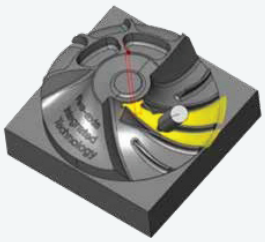
- 2.7× CPU processing power vs. 30*i*-B Plus.
- Advanced graphics and multiple Gigabit Ethernet ports.
- Battery-less design and improved maintainability.
- Renewed hardware + software for maximum operability.

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

### High performance, reduced energy with α*i*-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

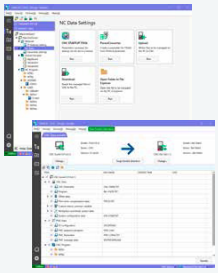
- Manual operation support for setup.
- Built-in 3D interference check.
- Continuous tool-length compensation.
- Flexible 5-axis command support.
- Compatible with various machine kinematics.

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

### User-friendly operation

- *i*HMI2 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 500*i*-A overview

| CNC model | 501*i*S-A | 501*i*-A | 502*i*S-A | 502*i*-A | 503*i*-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 |