for a greener tomorrow

MITSUBISHI ELECTRIC
Changes for the Better

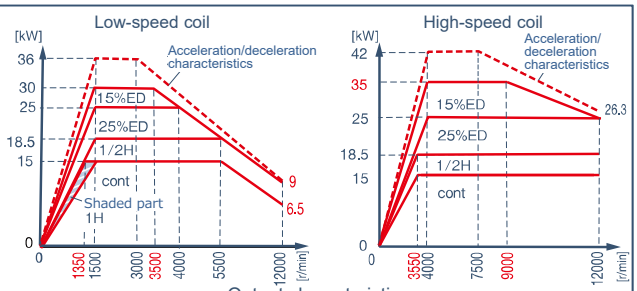
The Best Partner for Your Success

MITSUBISHI ELECTRIC CNC NEWS Vol.8

New Product & Technology

SJ-DG18.5/120:High-output, high-torque spindle motor

A new model with a short-time rated output of 18.5 kW has been added to SJ-DG series spindle motors. The output power and torque of the new model well exceeds those of the existing models (up to 15 kW). SJ-DG series spindle motors, in line with S3 rating (%ED rating) requirements, have improved acceleration/deceleration characteristics. As well as heavy-duty cutting at low-speeds, SJ-DG series motors support high-speed machining up to 12000 r/min. Versatile machining operations enabled by SJ-DG series motors streamline the production processes of customers.



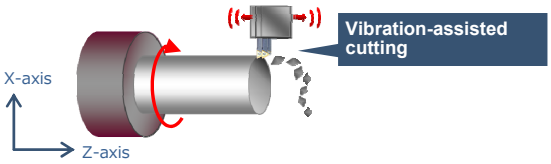
Output characteristics
(drive unit: MDS-E-SP320, MDS-EM-SPV3-320120)

* For information on use with other drive units, please contact the Mitsubishi Electric representative in your region.

Vibration Cutting Control for lathe: cutting swarf into pieces

This function vibrates the feed axis in the cutting direction to cut swarf into tiny pieces during the machining process. Materials that are difficult to machine, such as stainless steel, are now cut quickly and easily. Tools will last longer as less heat generated during the machining process. Cutting up long pieces of swarf which are easily trapped in machinery, simplifies swarf disposal and improves up-time ratios.

* Note that the expansion unit for Vibration Cutting Control is required.
* For more information, such as operating conditions, please contact your local sales representative.



Vibration cutting control is used to apply vibrations synchronized with the rotation of the spindle in the specified axis. This function causes intentional missed strikes which cut up the swarf.

* Vibration cutting control is available for one user-specified axis only.

CNC Service

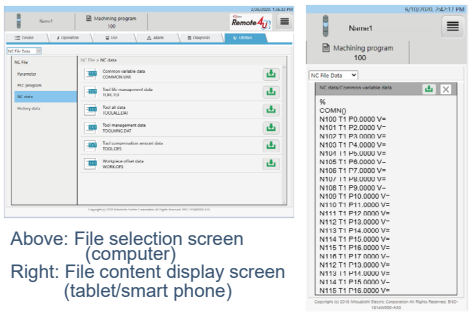
New function for our remote servicing system

A new function has been added to our remote servicing system "iQ Care Remote4U" for Mitsubishi Electric CNCs. iQ Care Remote4U supports remote servicing of CNCs installed on machine tools. The platform of the system is also offered to machine tool manufacturers to help them construct their own remote servicing system.

*This service is currently only available for machines installed in Japan. Overseas support will be available at a later date.

[New] File output function

Users can output CNC related files in the remote service screen. Parameters, PLC programs, and tool management data are available for downloading. Users can also open and check files on tablets and smartphones.



Above: File selection screen (computer)
Right: File content display screen (tablet/smart phone)

Nagoya Works Report

e-F@ctory solution for Nagoya Works: our CNC production base

Quality control of the servo motor assembly line

e-F@ctory solution

To cope with fluctuations in demand and support various products with differing volumes, the MES interface module (programmable controller) is used to collect equipment's internal data directly. Connecting the equipment and the manufacturing execution system enhanced information management, which contributes to improved equipment up-time ratios and better product quality. Based on our expertise in factory automation and factory monitoring, we will continue to provide solutions to our customers.

Results

- Down 50% reduction in lead-time
- Down 40% reduction in processing time
- Down 50% reduction in quality loss
- Down 65% reduction in system construction time
- Down 50% reduction in manufacturing process duration

* Figures have been calculated based on a system that uses the minimum amount of required computers and programs.

MITSUBISHI ELECTRIC CORPORATION

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Mitsubishi Electric CNC endeavors to provide lifetime support to our customer's environment of creation.

Lifecycle Management

Whenever
Wherever
Forever

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