

Advanced CNC Metal Spin Forming Machines

With its new Spin forming machine line, MJC has developed the future within Spin forming technology. MJC Spin Forming Machines are specially designed for the manufacturing of rotary and shear formed precision components. MJC customers benefit from the best service and support in the industry through locally authorized service centers.



DESIGN FEATURES

- Superior Feed Rate
- Better Balance in Forming Forces
- Faster Cycle Times
- Rugged Construction
- Oversized Linear Slide Bearings
- Servo Ball-screw Drives
- Rigid X Slide Units
- Trouble-free Operation
- Quick Tooling Changeovers
- Simple Diagnostics
- Low Maintenance
- Siemens Sinumerik Control System
- Custom programming software

MACHINE CAPACITY

- | | |
|---|--------|
| - Maximum workpiece diameter | 400 mm |
| - Reject thickness in Aluminum material | 5 mm |
| - Reject thickness in mild steel material | 3 mm |
| - Reject thickness in steel material | 2 mm |

Machine Specifications

Main spindle:

AC-Vector drive motor (100% CDF) at 1500 min-1 20kW
Spindle speed range: 2500 RPM

Machine shaft:

X axis stroke (X axis travel) 350 mm
X axis force 25 kN
X axis speed 9000 mm / min.
Z axis stroke (Z axis offset) 500 mm
Z axis force 25 kN
Z axis speed 9000 mm / min
Slide lubrication method Oil/ Industrial Fat

Counterpoint:

Tailstock travel: 500 mm
Tailstock force: 15 kN
Tailstock Fast speed 6000 mm / min

CNC control system:

Control system Siemens 840Dsl
PLC control: Siemens S700

General technical information:

App. Power requirement: 440V-3ph 60Hz - 100 apms
Control voltage DC 24V
Max. Voltage fluctuations $\pm 10\%$

To avoid system failures, good grounding according to DIN standards must be made within the plant to ground all machines, electrical cabinets, etc.



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Advanced CNC Equipment for Metal Forming Technology CNC Spin Forming Machines SP-850.4



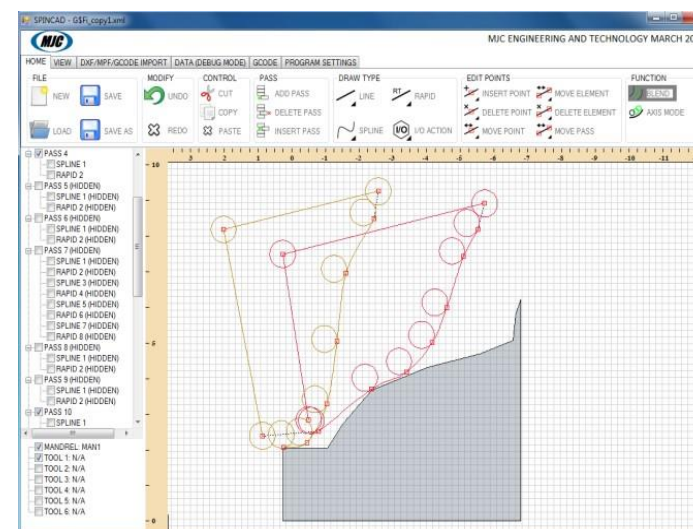
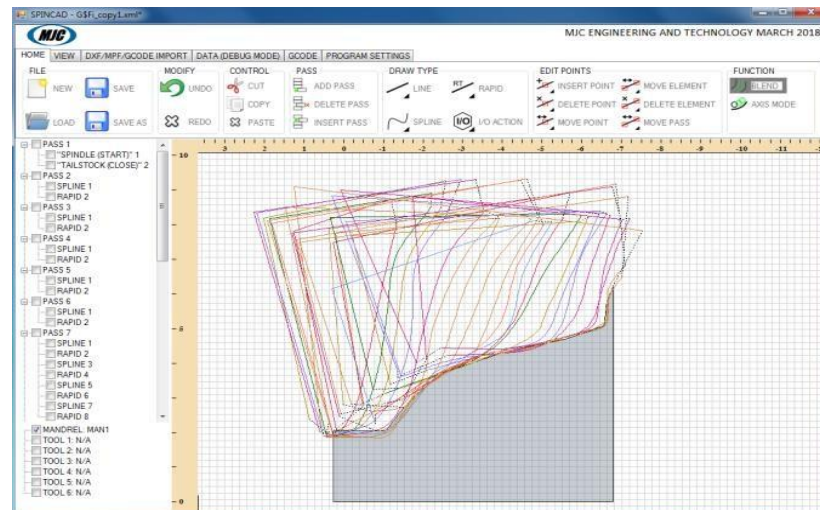
**ENGINEERED
PERFECTION**



SpinCAD™ Machine Programming Software



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SpinCAD™ Features of CNC programming software:

- Windows based software.
- Separate programs for programming and operation of the machine.
- The programming software can be run on any PC compatible computer.
- Rapid feed linear contouring and / or cubic grooving.
- Trapezoidal speed profiling.
- Spreadsheet-style data entry simplifies programming. The friendly environment allows for quick changes. Both control and contour information are displayed on the same screen.
- Powerful CAD graphics input using a mouse provides instant graphic views of programmed contours. Features include zooming, scrolling, and snapping.
- The control program contains password-protected calibration and diagnostic screens for quick system checks and configurations.
- Times and / or pyrometric control of the heating process.
- See separate file with more technical information.
- It includes support for the software and programs of the NC and PLC of the lathe and peripherals with an interface for connection between the mobile computing equipment and the reject lathe to perform the aforementioned software again.

Software options:

Programming software

SpinCAD™

Configuration utility software

SetupPRO ©

Machine Operator Panel

The operator panel is a separate unit and the operator interface includes:

- With Touch screen, USB port.
- A graphical interface panel that allows operators to easily select programs from a library or by directly downloading programs from a central production intranet system.
- Manual control of all axes and peripheral equipment.
- Password protection is provided to allow access to various capabilities within the machine.
- Maintenance screens that help maintenance personnel troubleshoot the machine. The status of all input and output devices will be displayed in real time.
- A shutdown screen to be used as a guide to shutting down the machine.
- An operator status screen that displays automation information on the status of the robot-machine interface.
- Current equipment alarms and alarm history screen.
- All monitored data can be downloaded for analysis via a solid state hard drive or an intranet connection.

Scope of supply of the machine

Machine work cell as described above.

- One (1) set of foundation anchors.
- One (1) set of manuals and one electronic copy (Adobe pdf format) will be provided in English

Installation information.

- (This information will contain drawings showing the location and sizes of all electrical, air, water, drain, and other necessary services, including consumption (flow rates), minimum and maximum inlet pressures, head drop, the maximum pressure through the equipment and the interconnections between the equipment accessories.)

General Description

6 station turret

It includes a turret for tools for the rejecting process (Flow forming) of the pieces, as well as tools for material deformation operations without changing thickness (Spinning).

A programmable turret of 4 to 6 stations It is mounted on the X-axis slide. The turret can be equipped with tools such as rollers, flanging rollers, trimming accessory, machining accessory, etc.

The turret is fully programmable through SpinCAD and with proper tool management, repeated.

Ejector

An ejector is provided to remove the workpieces from the tool after the forming process. The ejector rod passes through the hollow main shaft and is guided through a bronze bushing, installed in the nose of the main shaft. The ejector functions are integrated into the automatic cycle of the machine and are controlled by non-contact limit switches.

Unit for trimming and beading the pieces obtained.

Target centering device

Provides a method of centering the workpiece before clamping it in the machine. Used when a centering hole and / or centering pin cannot be included in the workpiece. The centering device uses a pneumatic cylinder to raise / lower a set of adjustable support arms after the workpiece has been clamped to the machine.

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Blank lubrication / Auto greasing / Forming spray

A high volume, low pressure spray system is mounted on the upper slide, close to the forming roll. The system provides a precisely targeted spray to the workpiece without fine atomization of the coolants, eliminating unwanted coolant mists or mists being carried into the surrounding air and also reducing waste. The reservoir is located in a convenient location for easy filling. Through the CNC system the lubrication is fully programmable.



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