

# Discover the new all electric plastic injection moulding machine

**ROBOSHOT  $\alpha$ -SiB series** - Highest precision, repeatability and reliability.



Like all of the FANUC ROBOSHOT machines, the  $\alpha$ -SiB Series offers proven power, quality and reliability. It offers numerous upgrades for companies looking for a plastic injection moulding machine with the most flexibility with lower overall life cycle costs, increased productivity, high precision and overall business success.



## Highlights:

- High-performance FANUC PANEL iH Pro user interface, which features a large 21.5" display with full HD resolution
- Quicker set-ups, improved graphics and data viewing
- Seamless integration of plug-and-play FANUC robots
- Wide screen multi functional display with pinch and swipe functionality
- Fully conforms to ISO 20430, the international safety standard for injection moulding machines
- Increased data storage, event logging history and connectivity comes as standard
- Enhanced AI functions for predictive check valve assembly wear



FANUC ROBOSHOT series  
**Choose the right model  
for your application**



## ROBOSHOT $\alpha$ -SiB series

### Available features

Display & Input	Standard	Option
21.5" HD Touch screen display	●	-
Simultaneous display of setting screen, monitoring screen & ROBOSHOT-LINKi2	●	-
23 languages - selectable	●	-
Numerical input, incremental input & character inputs in 23 languages	●	-
Managed entry - 200 operators with password and storage in operator log	●	-
Operator management with ID card instead of password	-	●
Customisation of menu buttons	●	-
Setting profile displays - injection, packing, plasticising, clamp open/close ejection & temperature	●	-
Enhanced graphical user interface - home screen	●	-
Context sensitive help function for setting, signals & alarms	●	-
Operator & maintenance manual displayed on iHMI screen	●	-
VNC client function for remote operation of VNC available device	-	●
Injection & Plasticising		
10 stages of injection pressure & speed control	●	-
4 modes of injection response mode - selectable	●	-
Switchover mode by position, pressure, time, cavity pressure, nozzle pressure signal or filling position	●	-
6 stages of holding pressure & time control including holding speed control	●	-
6 stages of plasticising - screw speed and back pressure control	●	-
Automatic purge function	●	-
Change of auto purge condition sequentially	-	●
Back flow prevention control - precise metering two modes	●	-
AI (Artificial Intelligence) metering control	●	-
AI (Artificial Intelligence) pressure profile trace control - Injection pressure	●	-
AI (Artificial Intelligence) pressure profile trace control - Cavity & nozzle pressure	-	●
Automatic start up parameter mode	●	-
Clamp / Ejector		
6 stages of closing & 5 stages of opening via speed & position control - auto acceleration control	●	-
10 stages of ejector control, 2 stage ejector and 4 patterns of ejector motion control	●	-
In mould degating - Pre ejector function	●	-
Pre ejector function with 0.001 resolution of position & time	-	●
Automatic die height adjustment with clamp force sensor 0kN - max clamp force	●	-
Precise clamp force control - automatic adjustment & optimisation	●	-
Clamp compression function	-	●
Ejector compression function	-	●
Auto production set up function - reduced set up time	-	●
AI Mould protection, complete mould open & close stroke	●	-
AI Ejector protection, complete forward & backward stroke	●	-
Pre-Injection - Simultaneous clamp & injection movement	●	-
Pre-Injection function with 0.001 sec setting resolution	-	●
Simultaneous Ejector forward with clamp opening	●	-
Simultaneous clamp open and plasticising	●	-
Ejector override function - Simultaneous ejector retract during clamp closing	-	●

## ROBOSHOT $\alpha$ -SiB series

### Available features

Data storage, features and software	Standard	Option
Mould file storage - 500 files	●	-
Mould file storage to USB device	●	-
Screen image capture to USB device	●	-
Process monitoring - Cycle alarms, part rejection for 40 items trend charts 100,000 cycles process monitoring	●	-
Process monitoring judgement alarm	●	-
Alarms log - 50,000 logs exportable to CSV format	●	-
Log Management - Parameter change log 100,000 events, exportable to CSV format	●	-
Log Management - Operational change log 100,000 events, exportable to CSV format	●	-
Production management - Container management, counter stop function, production completion calculation	●	-
Good product rate alarm - Cycle end stop	-	●
Preventive maintenance - load & temperature of the machine	●	-
AI Backflow monitoring through machine learning - Check valve wear indication	-	●
Cycle time analysis & display - timing chart	●	-
Process graphics - wave form display with selectable parameters	●	-
Power consumption monitoring & display	●	-
Signal output for sampling manually or by designated interval (count or time)	●	-
Interfaces / Inputs / Outputs (other interfaces are available)		
12 machine status inputs	●	-
8 machine status outputs	●	-
2 Ethernet ports - 100Base-TX/1000Base-T	●	-
Ethernet Hub 5 ports	-	●
2 USB ports - 3.0/2.0/1.1	●	-
Custom signal function 32 points character input of signal name	●	-
Configurable core function - maximum 6 systems available	●	-
E67 robot interface	●	-
E67/73 robot interface for non operator's side parts removal	-	●
12 free programmable output and 8 input	●	-
Valve gate interface 8 circuits	●	-
Valve gate interface 16 circuits	-	●
Monitor camera interface interlocked to ejector is available	●	-
Data communication auxiliary device SPI protocol - Mould temperature, material dryers, hopper loaders & chillers	●	-
Data communication auxiliary device SPI protocol - Hot runner	-	●
Bad parts reject function	●	-
Cycle stop by external signal. Immediate stop, cycle end stop or display only	●	-
Alarm signal input - cycle stop by external signals	●	-
Shot counter output by 4 binary points of binary data	-	●
Mould ID Signal output by 8 points of binary data	-	●
Analog Input External sensor connection voltage or current, max 2 boards and 4 input signals	-	●
Process graphics data output by voltage - Analog outputs max 4 signals selectable	-	●
Additional axis control - Up to 4 servo cores control & positioning via FANUC servo technology	-	●
ROBOSHOT-LINKi2 Product & Quality management system available in 20 device or 1000 device versions	-	●

# One common servo and control platform – Infinite opportunities THAT'S FANUC!



## **FA**

CNCs,  
Servo Motors  
and Lasers

## **ROBOTS**

Industrial Robots,  
Accessories  
and Software

## **ROBOCUT**

CNC Wire-Cut  
Electric Discharge  
Machines

## **ROBODRILL**

Compact  
CNC Machining  
Centres

## **ROBOSHOT**

Electric CNC  
Injection Moulding  
Machines

## **IoT**

Industry 4.0  
solutions