Automation has a name.

FANUC

HIGH PRECISION ELECTRIC INJECTION MOULDING

ROBOSHOT α-S*i*B series



The all electric ROBOSHOT

FANUC.EU

40 years of ROBOSHOT technology

ROBOSHOT α-SiB MINIMISES RUNNING COSTS TO BOOST BOTTOM-LINE PROFITABILITY

On average it costs just 555 € a year (parts and service) to run a ROBOSHOT machine. This analysis derives from data collected at 11 companies across the medical, automotive and consumer industries running 98 ROBOSHOT machines over a total of 65 years. Very low maintenance costs, exceptionally high uptime, fewer components and less wear all mean that concerns over cost of ownership are a thing of the past.

Your benefits with FANUC ROBOSHOT:

- maximum precision
- proven reliability
- excellent repeatability
- ultimate process control
- very low maintenance
- lowest cost of ownership



International Safety Standard:

- compliant with EN ISO 20430:2020, the international safety standard for injection moulding machines

Total cost of ownership (TCO) – There are many cases and ways to calculate it

	Initial Cost	Cost of Operation	Cost of Maintenance	Cost of Downtime	Cost of Production	Remaining Value
FANUC ROBOSHOT	Similar to Electric Injection Moulding Machine	World class energy efficiency	Lowest in the market-place	Lowest in the market-place	Lowest in the market-place	High second hand value
Electric IMM Competitors	Similar or higher than FANUC	5–10 % higher than FANUC	25–30 % higher than FANUC	10–20 % higher than FANUC	10–20 % higher than FANUC	Medium second hand value
Hydraulic/ Hybrid IMM Competitors	Lower than FANUC	50–70 % higher than FANUC	80–90 % higher than FANUC	50–70 % higher than FANUC	50–70 % higher than FANUC	Low second hand value

CNC PRECISION FOR HIGHER PRODUCTIVITY

As a prominent manufacturer of servo motors and CNC controls worldwide, we have established ourselves as experts in servo technology and tooling, making us a leading industry player. Long proven in FANUC machining centres, FANUC employs this same state-of-the art CNC technology in ROBOSHOT to provide an unrivalled electric injection moulding solution. The results are huge versatility, utmost precision of movement and extremely short cycle times to produce larger quantities of consistently high-quality parts.



- enhanced operator panel functionality
- additional core operation buttons
- additional buttons for auto clamping
- additional axis operation

- Full HD 21.5" touch screen
- split screen functionality
- swipe and pinch gestures
- improved response times
- enhanced visualisation
- display of machine manuals on the screen
- display of third party and peripheral equipment screens via VNC add (optional)

- increased injection speed of up to 350 mm/s
- optional all new 550 mm/s injection unit

New features:
- screw torque monitoring function
- AI functionality to predict the wear of the check valve assembly

- up to 4 Axis Servo Core Control fully integrated (optional)

- enhanced AI ejector protection
- improved ejector acceleration
- SPI ejector hole pattern as standard

Enhanced lubrication system:
- less grease
- longer life cycle
- lower running cost

In-house servo technology makes the difference

ROBOSHOT's movements are entirely controlled by FANUC designed and built CNC controlled servo drives. This not only results in the fastest acceleration on the market but – in order to ensure ultimate accuracy and exceptional reliability across all processes – highly precise motion, position and pressure control as well.

Perfection from your mould!

Mould validation represents an essential part of FANUC's extensive range of services and is conducted in our specifically equipped technical centres. Just show us your mould and we will show you what ROBOSHOT can do with it. Always there when you need us, passionate and committed, we are your partner of choice when it comes to a wide range of injection moulding applications.

WORLD-BEATING CNC RELIABILITY

Drawing on more than 65 years of continuous development, the centrepiece of the FANUC ROBOSHOT is the most reliable CNC control in the world. User friendly and featuring all the standard interfaces, it delivers fast processing times and consistent parts quality.

FANUC prides itself on providing many data software options as standard. The α-S*i*B series has been designed with enhanced storage and connectivity options to bring greater benefits to the end user. Alarm logs, change history and operational logs, along with monitoring history have all been significantly enhanced to provide a significant amount of end user, validation data. Couple this with FANUC's ROBOSHOT-LINK*i*2 production monitoring package and the end user has a very flexible digital storage & monitoring solution to help plan, monitor and increase productivity. With the onset of increased connectivity additional ethernet LAN and USB ports have been incorporated in the α-S*i*B series.

Panel *i*HPro configuration:

- 21.5" colour touchscreen display
- intuitive *i*HMI screen
- easy data input and minimal keypad entry
- improved interface to robot operation screen
- supports multiple languages
- alarm log from 5.000 to now 50.000
- last change log from 10.000 to now 100.000
- operations log from 10.000 to now 100.000
- processing monitor history now 40 items with 100.000 shots (process monitor graphs)
- LAN ports: from 1 to 2 (standard configuration), more available as option
- USB ports increased from 1 to 2 ports (USB 3.0)
- compatibility with Euromap 77



Simple maintenance – early detection

The intuitive visual maintenance interface on FANUC's CNC facilitates faster recoveries after servicing. The integrated early warning system identifies errors before they occur, ensuring maximum precision and consistent quality standards.

- large-screen display unit 21.5-inch PANEL *i*HPro
- flexible display according to the function (Full screen or simultaneous display)
- intuitive operation with swipe and multi touch support
- intuitive *i*HMI home screen
- quick and easy data input
- Ethernet and USB interfaces

ROBOSHOT connectivity and interfaces

Improved connectivity

VNC (Virtual Network Computing)
Remote display and operation of the screen

Parts picker

Analog input
Input voltage or current value

Pressure, Temperature sensor

Measuring devices



ROBOSHOT-LINK*i*2
Production and quality information management



FL-net

FANUC Robot:
- remote operation from ROBOSHOT
- collection of *i*RVision image files

Image

Auxiliary communication
Total management of the setting value

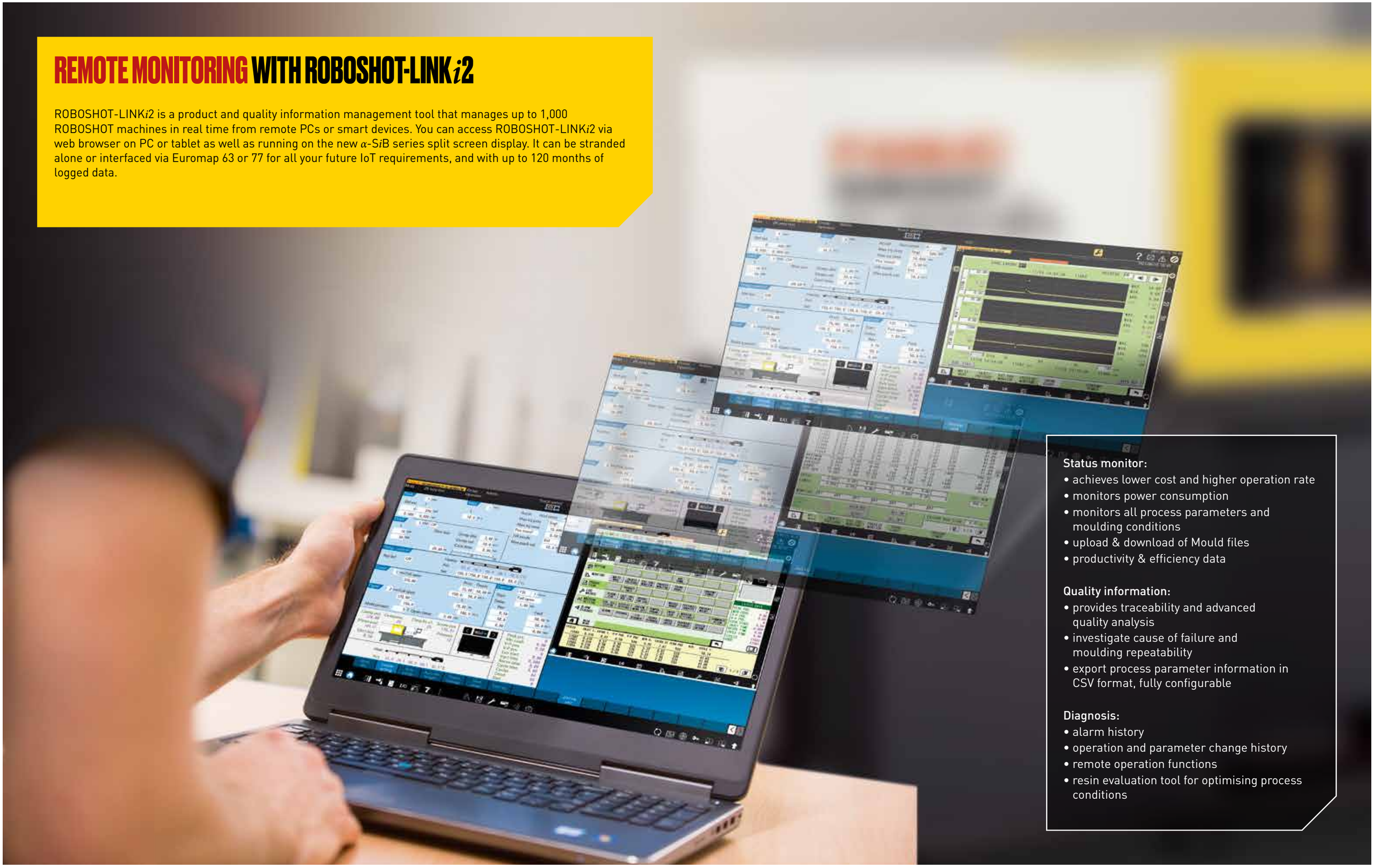
Mould temperature controller

Material dryer

Hot-runner controller

REMOTE MONITORING WITH ROBOSHOT-LINK*i*2

ROBOSHOT-LINK*i*2 is a product and quality information management tool that manages up to 1,000 ROBOSHOT machines in real time from remote PCs or smart devices. You can access ROBOSHOT-LINK*i*2 via web browser on PC or tablet as well as running on the new α-S*i*B series split screen display. It can be stranded alone or interfaced via Euromap 63 or 77 for all your future IoT requirements, and with up to 120 months of logged data.



Status monitor:
- achieves lower cost and higher operation rate
- monitors power consumption
- monitors all process parameters and moulding conditions
- upload & download of Mould files
- productivity & efficiency data

Quality information:
- provides traceability and advanced quality analysis
- investigate cause of failure and moulding repeatability
- export process parameter information in CSV format, fully configurable

Diagnosis:
- alarm history
- operation and parameter change history
- remote operation functions
- resin evaluation tool for optimising process conditions

High-performance injection unit

ROBOSHOT's injection unit features an AI Metering Control that uses torque rather than speed control to achieve a variable screw rotation speed. Its AI Backflow Monitor shows what is happening inside the non return valve, so you can monitor the closing characteristics as well as the wear status of the check ring. The AI Pressure Trace controls the pressure curve to ensure stable injection moulding even if an internal violation occurs. Additional horizontal and vertical injection units can also be added to the ROBOSHOT for multi-component moulding.

Other ROBOSHOT injection unit features include:

- position control up 10 micron resolution
- flexible range of screws and barrels
- 10 stages of injection control speed & pressure
- 6 stages of holding pressure control
- 6 stages of plasticising control
- process graphic curves are standard

Versatile clamp unit

ROBOSHOT's versatile clamp unit features generous tie bar spacing as well as auto die height and optional extended die height functions. The automatic clamp force optimisation checks and automatically adjusts minimum clamp force, giving you increased security and eliminating the need to adjust the clamp force manually.

Other clamp unit features include:

- 5 point toggle mechanism
- very rigid platens
- ball drive ejector system
- linear guide rails
- SPI Ejector hole pattern change
- Optional Linear guide rails as a European standard



Electrically driven axes

Every FANUC ROBOSHOT comes with 4 servomotors as standard. Additional servomotors can be integrated as options for a fully integrated servo electric core pull solution. This enables separate control of ROBOSHOT's movements – clamp opening and closing, ejector, screw, and injection – and results in a highly precise and stable process.

World-beating CNC reliability

Drawing on 65 years of continuous development, the centrepiece of the FANUC ROBOSHOT is the most reliable CNC control in the world. User friendly and featuring all the standard interfaces, it delivers fast processing times and consistent parts quality.

Extremely consistent injection moulding

with minimal weight deviation thanks to:

- precise V-P switchover
- precise pressure control in 1 bar increments
- precise temperature control in 0.1 °C increments
- precise AI pressure profile control
- precise metering control functions (Unique to FANUC machines)

Very low maintenance costs

- maximum machine uptime, fewer components and less wear
- Total cost of ownership (TCO)

THE EFFICIENT ELECTRIC IMM
FOR A WIDE RANGE OF INDUSTRIES

Every manufacturing industry sector has its own plastic application requirements. Offering versatility across a huge variety of processing conditions, ROBOSHOT meets the majority of them. Boasting a wealth of standard features designed to help you achieve optimum process conditions and the highest repeatability. ROBOSHOT injection moulding machines are designed for quick and simple set-up whilst maintaining a high degree of functionality. They offer world beating precision moulding resulting in high production yields and unbeatable parts quality. The resultant reliability and low maintenance costs sets the standard for market leading total cost of ownership. Just what your industry needs.

Absolutely constant dosing

FANUC Precise Metering 3 provides the exact dosing required to produce small high-precision parts such as liquid crystal polymer connectors for PCB boards. This function checks the volume after plasticising, automatic V-P and decompression adjustment. Product quality is improved thanks to constant plasticising volume for low viscosity materials, reduced parts weight variation and the avoidance of bubbles and silver strings.

Quality assurance and traceability made easy

For full transparency and superior quality management, ROBOSHOT comes with up to 16 Multi Cavity Pressure Channels, cavity balance monitoring and historical data collection. To save money, ensure easier operation and minimise external components, monitoring is done via the CNC. You just select the required part quality.

Very precise insert moulding

For processes requiring inserts, ROBOSHOT can be supplemented with a FANUC 6-axis Robot fitted with FANUC *i*RVison, the product of 30 years of experience in intelligent vision systems. Equipped with this technology, the robot picks and places inserts with an amazing degree of accuracy and repeatability. Perfect for small parts, this solution does not require an external guide or fixing.

Historical traceability

Given the nature of medical products, acquiring and storing process data is critical. To make this easy ROBOSHOT is available with smart features – such as Euromap 63 or 77 and FANUC LINK*i*2 – designed to capture and store data on a central server and provide complete part traceability.

FANUC ROBOSHOT for the **Automotive industry**



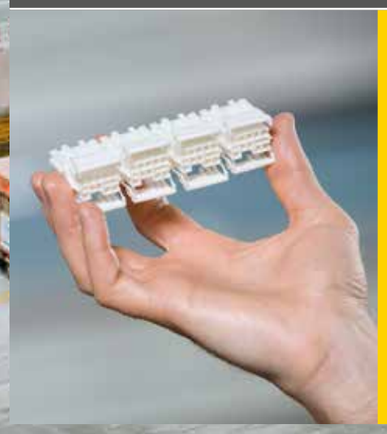
With a host of special functions designed to resolve issues such as gas venting or variations in plasticising time and volume, FANUC ROBOSHOT is ideal for high-volume automotive component production. The market's most reliable machine, ROBOSHOT keeps on producing flawless parts in fast cycle times and with minimum maintenance. Moreover, because automotive production runs change frequently, ROBOSHOT comes with 6 different screw sizes, providing outstanding versatility from a single machine.

FANUC ROBOSHOT for the **Medical industry**



Quality, reliability and repeatability are critical in medical product manufacture. For example, the transparency of many medical products means tackling gas venting and changes in viscosity. Here, pre-injection and AI Metering Control functions counter these issues to ensure consistency. In addition, with 6 different screws as standard, ROBOSHOT users can easily accommodate different products.

FANUC ROBOSHOT for the **Electrical industry**



Producing high numbers of small electrical components requires speed and repeatability. The acceleration delivered by ROBOSHOT's electric servomotors is ideal for creating the thin walls that electrical parts often demand. Moreover, ROBOSHOT smart functions compensate for viscosity changes, while active gas venting further enhances quality.

FANUC ROBOSHOT for the **Optical industry**



In contrast to standard injection-moulding processes, speeds in the optical industry tend to be very slow and walls often thick. Capable of controlling processes at injection speeds down to 0.5mm/s with unrivalled precision, ROBOSHOT offers further advantages that include high-pressure and optimised screw and barrel technology for transparent materials.

FANUC ROBOSHOT for the **Construction & Furniture industry**



Precise temperature control is among the requirements when producing components for the construction & furniture industry. With its hot-runner controller fully integrated into the operation of ROBOSHOT machines, users benefit from highly precise temperature control. The speed and repeatability of ROBOSHOT machines are further attributes that benefit the production of small construction parts such as wall ties, packers, shims and fixings.

FANUC ROBOSHOT for the **Consumer Goods & Packaging industry**



Versatile and efficient, ROBOSHOT machines offer many advantages in producing products for the consumer goods & packaging industry. Machine characteristics such as speed and consistency, matched by cost-effective operations and ultra-low maintenance requirements, means that OEMs and subcontract moulding shops serving this sector will enjoy genuine competitive gain.

VERSATILE MACHINERY
FOR ALL APPLICATIONS

With models capable of exerting clamping forces from 150kN to 5000kN, FANUC ROBOSHOT is ideally suited to a diverse range of straightforward as well as sophisticated injection moulding tasks. Offering huge versatility, ROBOSHOT's unique strength is the freedom it provides you to produce almost anything using just one machine – whether that be delicate items such as camera lenses to products, such as battery cases, that require high levels of exertive force to produce. What is more, thanks to its high level of specification, even standard ROBOSHOT machines can be used to produce specialised items such micro components, casings and even metal and ceramic parts.



Thin wall moulding
lightguide 0.1 mm
High injection speed units with injection speed up to 550 mm/s



Multi component moulding
Vertical and L-position injection units



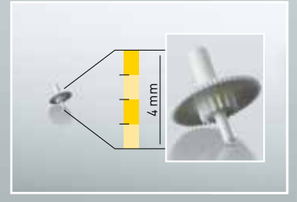
Precise moulding



MIM/CIM



Micro-injection moulding
Repeatable shot weights from 0,1 g



LSR moulding
Standard liquid silicon packages to suit various applications
High precision and repeatability
Ultimate clamp and injection control for flash free LSR moulding

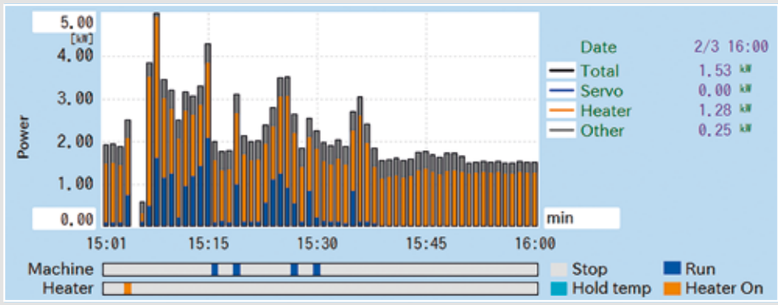


THE ROAD TO SUSTAINABILITY WITH ROBOSHOT

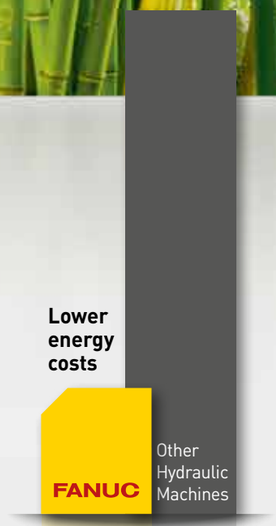
FANUC's long-standing ethos of designing and manufacturing all-electric machines such as the ROBOSHOT helps manufacturers to meet their environmental responsibilities and emissions-reduction targets. Consuming 50-70% less energy than hydraulic machines and up to 5-10% less than other electric injection-moulding machines, further sustainability advantages of all-electric injection-moulding technology include fewer components, lower heat emissions to atmosphere, and no oil or oil recycling costs.

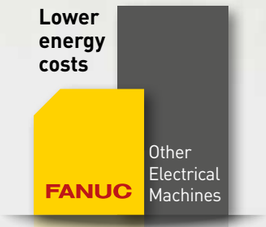
Power consumption screen

Fitted as standard and including an energy analysis page, this function identifies where energy is consumed during the cycle, enabling you to optimise consumption and identify regenerative power. This also contributes to CO_2 reduction and the ecological footprint.









PROTECT YOUR VALUABLE MOULDS!

Maximum mould and ejector protection

FANUC AI Mould and Ejector Protection provides the best mould protection on the market. Built to minimise downtime, it even indicates when greasing is required or the mould is worn.

Mould and ejector protection in both directions

Should an event occur, ROBOSHOT protects your mould during the full opening and closing cycle - Its unique Mould Protection function, measures the motor torque and stops the machine immediately if there is a restriction. The same technology also protects the ejector's forward and reverse movement.

Reliable protection at no cost to speed

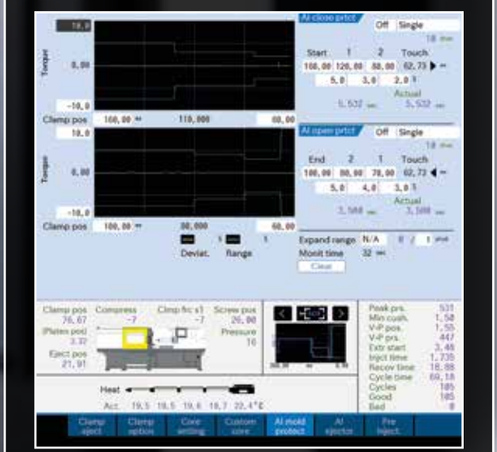
Unlike the protection on hydraulic systems, ROBOSHOT's Mould Protection functionality has zero impact on clamp closing speeds. This high-speed responsiveness is provided by its electric drives. Clamp tolerances are also programmable across the entire mould movement.

For more information:

Scan the code to see FANUC's unique mould protection system in action.

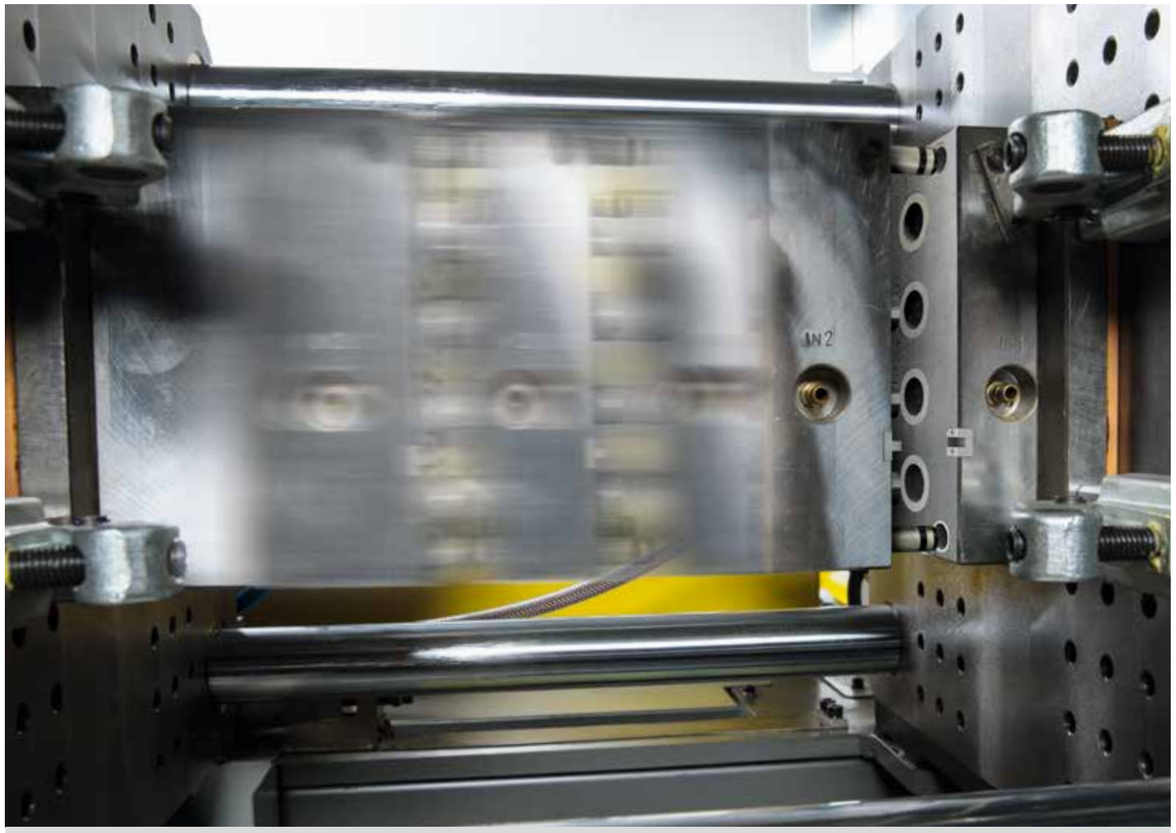
Your benefits with FANUC AI mould and ejector protection:

- no damage to moulds
- no repair costs
- no costly downtime
- very easy set-up – just enable and the machine will determine the limits itself
- no loss in moving speed



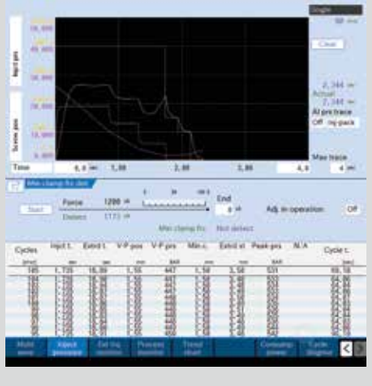
AI mould protection

ROBOSHOT efficiency highlights



Optimised clamp force setting and fewer part defects

FANUC Clamp Force Adjustment checks and automatically adjusts the minimum clamp force, providing increased security and eliminating the need to adjust the clamp force manually.

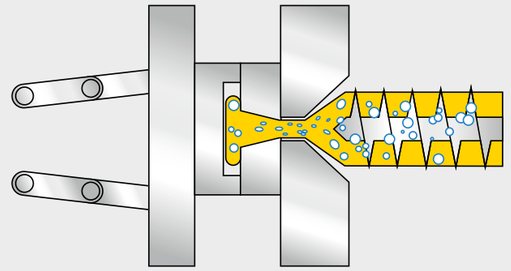


Your benefits with FANUC Clamp Force Adjustment:

- reduced mould wear
- increased machine life
- reduced part defects
- less energy consumption
- reduced start-up time

Sensitive FANUC CNC controlled pre-injection

Just right for sophisticated tasks such as the production of light guides and providing a reliable solution for air venting over the parting line, ROBOSHOT's pre-injection functionality enables the time between the beginning of injection moulding and clamping force build-up to be determined freely.



Unique process control and wear monitoring

FANUC Backflow Monitor shows you what is happening inside the valve, allowing you to monitor the closing characteristics as well as the wear status of the check ring. The injection process is also shown as a curve on the screen, enabling you to check and change your parameters should any irregularities occur. This allows the user to see the effect of process condition changes against the behaviour of the check valve. It even helps identify the onset of valve wear without disassembly of the barrel assembly.

New enhanced Backflow Monitor function:

- visually better for the operator
- include example screens

Constant parts weight – no need for decompression

FANUC Precise Metering 2+3 is an additional function designed to avoid uncontrolled volume flow between the end of plasticising and decompression. Precise Metering 2 provides advanced decompression control with reverse rotation of the screw after plasticising, while Precise Metering 3 checks the volume after plasticising, automatic V-P and decompression adjustment. Set to automatic mode there is no need to set various different parameters – all you need do is switch on!



MULTI-COMPONENT INJECTION MOULDING

You can use ROBOSHOT for multi-component injection moulding by adding versatile and easy-to-integrate vertical and horizontal injection units. This advanced moulding technique allows you to inject three different components simultaneously. These additional injection units make it possible to inject two or three different components in one production run. Powered by FANUC's powerful CNC, the injection units offer the same levels of accuracy and repeatability as ROBOSHOT.

Your benefits:
- fully integrated FANUC CNC
- easy to integrate
- flexible configuration
- turnkey solutions
- cost efficient



		FANUC ROBOSHOT SI-20A				
Item	**Unit**	**Specification**				
Screw diameter	mm	14	16	18	20	22
Screw stroke	mm	56	56	75	75	75
Maximum injection volume	cm^3	9	11	19	24	29
Maximum injection speed	mm/s	300				
Max. injection pressure (high-pressure filling mode)	MPa	-	-	-	-	-
Maximum injection pressure	MPa	200	180	140	130	120
Maximum pack pressure	MPa	180	160	120	110	100
Maximum injection rate	cm^3/s	46	60	76	94	114
Maximum screw rotation speed	min^{-1}	250				
Nozzle touch force	kN	3 (0.3tonf)				
Number of heaters	Barrel	3				
	Nozzle	1				
Heater capacity	kW	2.4	2.8	3.1	3.5	3.8
Machine weight	ton	≈ 0.65 (injection unit) ≈ 0.15 (control unit)				



The ROBOSHOT SI-20A vertical injection unit

This vertical injection unit can be installed on top of the ROBOSHOT. Two different types of units can be adapted to a machine range of 100 ton to 300 tons. Fitted with FANUC's latest CNC, the unit offers stable, precision moulding and is encased in a space-saving electrical cabinet.

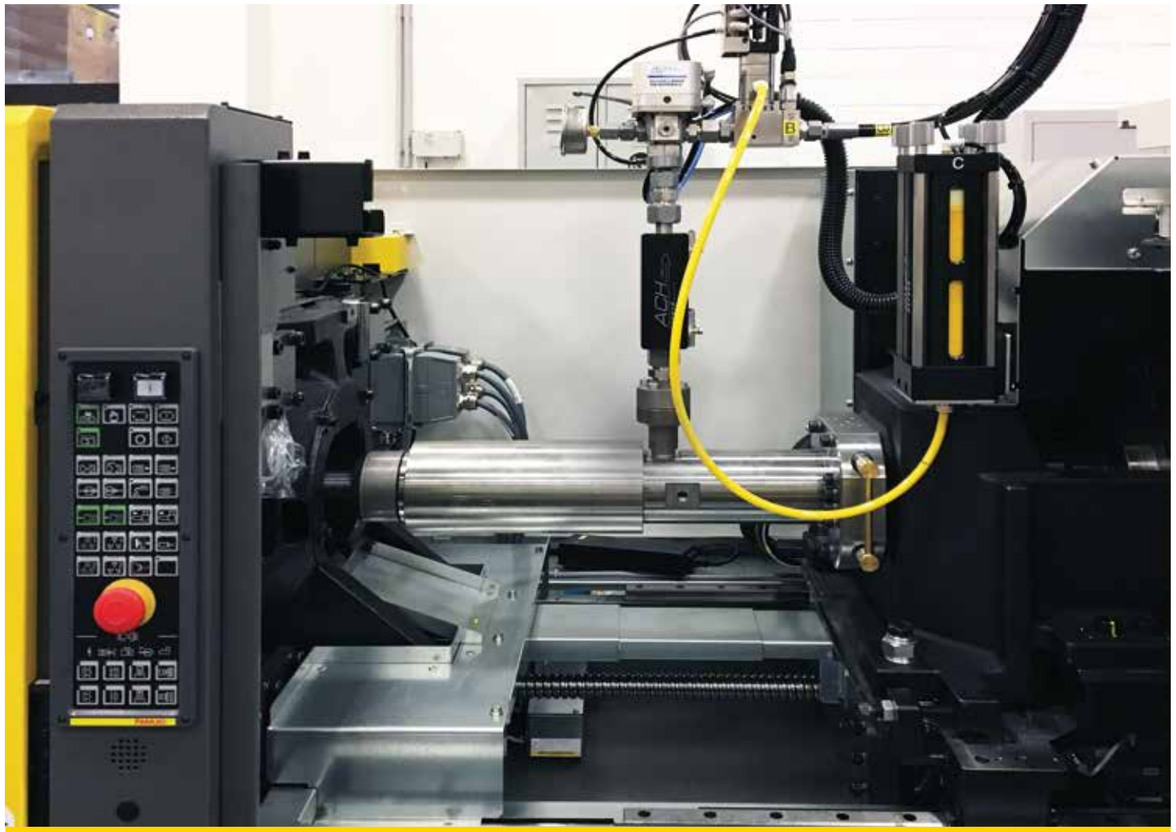
Features and benefits:
- controlled by FANUC's CNC
- same accuracy and repeatability as any other ROBOSHOT
- can be installed on current ROBOSHOT models
- integrated screen on ROBOSHOT operation screen
- can be controlled directly from ROBOSHOT *i*HMI







ROBOSHOT efficiency highlights / specialised processes



LSR TECHNOLOGY

Today, liquid silicone rubber technology is being used whether for rain sensors or light guides in the automotive sector, optical lenses and medical products. The application range for LSR moulded parts is increasing.
FANUC as a pioneer of high precision moulding machines combine adapted LSR plasticising units and process specific options into an outstanding system for LSR moulding solutions.

FANUC Package for LSR injection moulding includes:
- cylinder modules with modified screws and sealing for LSR
- shut Off Nozzle for LSR
- integrated mould heating systems
- interfaces to special peripherals
- fully integrated vacuum system



Ceramic injection moulding Metal injection moulding

Wide range of Screw & Barrel combinations and requirements for all machine models.

Features and benefits:
- high precision moulding capability
- high stability and repeatability for low back pressure
- high precision speed (injection, clamp/ejector) control
- pre-injection function
- pre-ejector function

AI - Artificial Intelligent features:
- AI metering control - Stabilisation for plasticising
- AI pressure profile trace control - Stabilisation for moulding quality
- AI ejector and mould protection
- stability and repeatability for low back pressure



Thermoset injection unit

Special Screw & Barrel combinations with Thermoset Special Nozzle

Features and benefits:
- high precision moulding capability
- high stability at low speed injection
- stability of temperature control
- gas reduction with Pre-injection function
- pre-ejector function

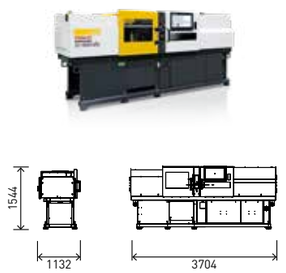
AI - Artificial Intelligent features:
- AI metering control
- AI pressure profile trace control
- AI ejector and mould protection

FANUC ROBOSHOT series

CHOOSE THE RIGHT MODEL FOR YOUR APPLICATION







			α-S15iB			α-S30iB						α-S50iB					
CLAMPING UNIT	Tonnage	kN | tonf	150 | 15			300 | 30						500 | 50 / Increased (650 | 65)					
	Maximum and minimum die height Double platen	mm	260-130			330-150						350-150 / Increased (400-150)					
	Maximum and minimum die height Single platen	mm	-			-						410-210 / Increased (460-210)					
	Clamping stroke	mm	160			230						250					
	Locating ring diameter	mm	Ø 60			Ø 100						Ø 125					
	Tie Bar Spacing, HxV	mm	260 x 235			310 x 290						360 x 320					
	Platen size, H×V	mm	355 x 340			440 x 420						500 x 470					
	Ejector point / Ejector Force / Ejector Stroke	point / kN (tonf) / mm	1 / 7 (0.7) / 50			1 / 8 (0.8) / 60						5 / 20 (2.0) / Increased 60 (6.0) / 70					
INJECTION UNIT	Screw diameter	mm	14	16	18	14	16	18	20	22		18	20	22	26	28	32
	Injection stroke	mm	56	56	75	56	56	75	75	75		75	75	75	95	95	95
	Max. injection volume	cm^3	9	11	19	9	11	19	24	29		19	24	29	50	58	76
	Max. Injection Speed 350	**mm/s**										**350**					
	Max. injection pressure (high-pressure filling mode)	MPa										300	360	340	290	250	190
	Max. injection & Hold Pressure for W/C injection unit	MPa										280	310	290	240	220	180
	Max. injection & Hold Pressure for PAL injection unit	MPa										260	280	260	210	190	150
	Maximum injection rate	cm^3/s										89	109	133	185	215	281
	Maximum screw rotation speed	min^{-1}										450					
	Machine weight Double platen | Single platen	t										2.9 | ≈ 2.85					
	Max. Injection Speed 550	**mm/s**										**550**					
	Max. injection pressure (high-pressure filling mode)	MPa										300	330	-	-	-	-
	Max. injection & Hold Pressure for W/C injection unit	MPa										280	310	280	200	170	-
	Max. injection & Hold Pressure for PAL injection unit	MPa										260	280	260	190	170	-
	Maximum injection rate	cm^3/s										139	172	209	292	338	-
	Maximum screw rotation speed	min^{-1}										450					-
	Machine weight Double platen | Single platen	t										2.9 | ≈ 2.85					
	Max. Injection Speed 600	**mm/s**				**600**											
	Max. injection pressure (high-pressure filling mode)	MPa				-	330	300	-	-								
	Max. injection & Hold Pressure for W/C injection unit	MPa				250	280	280	270	220							
	Max. injection & Hold Pressure for PAL injection unit	MPa				250	250	260	270	220							
	Maximum injection rate	cm^3/s				92	120	152	188	228							
	Maximum screw rotation speed	min^{-1}				450											
	Machine weight Double platen | Single platen	t				≈ 2.0											
	Max. Injection Speed 800	**mm/s**	**800**														
	Max. injection & Hold Pressure for W/C injection unit	MPa	250	250	230												
	Max. injection & Hold Pressure for PAL injection unit	MPa	250	250	230												
	Maximum injection rate	cm^3/s	123	160	203												
	Maximum screw rotation speed	min^{-1}	450														
	Machine weight Double platen | Single platen	t	≈ 1.5														





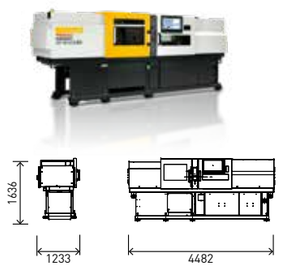




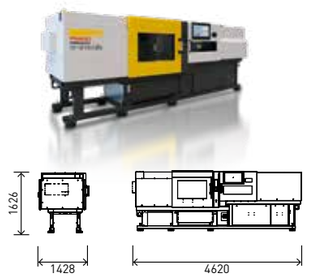
FANUC ROBOSHOT series

CHOOSE THE RIGHT MODEL FOR YOUR APPLICATION

α-S100*i*B



α-S130*i*B



α-S150*i*B (small capacity)









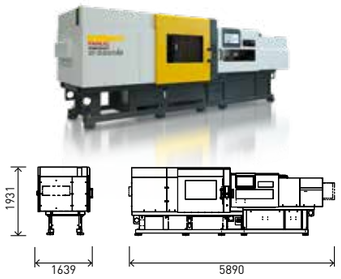


CLAMPING UNIT	Tonnage	kN | tonf	1000 | 100 / Increased (1250 | 125)						1300 | 130					1500 | 150 / Increased (1800 | 180)						
	Maximum and minimum die height Double platen	mm	450-150 / Increased (550-150)						-					500-200 / Increased (600-200)						
	Maximum and minimum die height Single platen	mm	520-220 / Increased (620-220)						570-200 / Increased (670-200)					575-275 / Increased (675-275)						
	Clamping stroke	mm	350						400					440						
	Locating ring diameter	mm	Ø 125						Ø 125					Ø 160						
	Tie Bar Spacing, HxV	mm	460 x 410						530 x 530					560 x 510						
	Platen size, H×V	mm	660 x 610						730 x 730					800 x 750						
	Ejector point / Ejector Force / Ejector Stroke	point / kN (tonf) / mm	5 / 25 (2.5) / Increased 60 (6.0) / 100						5 / 25 (2.5) / 100					5 / 35 (3.5) / Increased (80 | 8.0) / 150						
INJECTION UNIT	Screw diameter	mm	22	26	28	32	36	40	26	28	32	36	40	22	26	28	32	36	40	44
	Injection stroke	mm	75	95	95	128	144	144	95	95	128	144	144	75	95	95	128	144	144	160
	Max. injection volume	cm^3	29	50	58	103	147	181	50	58	103	147	181	29	50	58	103	147	181	243
	Max. Injection Speed 200	**mm/s**	**200**						**200**											
	Max. injection pressure (high-pressure filling mode)	MPa	340	340	320	270	220	-	340	320	270	220	-							
	Max. injection & Hold Pressure for W/C injection unit	MPa	290	290	270	250	190	160	290	270	250	190	160							
	Max. injection & Hold Pressure for PAL injection unit	MPa	260	260	240	220	190	160	260	240	220	190	160							
	Maximum injection rate	cm^3/s	76	106	123	160	203	251	106	123	160	203	251							
	Maximum screw rotation speed	min^{-1}	300						300											
	Machine weight Double platen | Single platen	t	4.4 | ≈ 4.25						4.9											
	Max. Injection Speed 200 (high duty)	**mm/s**	**200 (high duty)**						**200 (high duty)**					**200 (high duty)**						
	Max. injection pressure (high-pressure filling mode)	MPa	-	-	-	270	220	-	-	-	270	220	-	-	-	-	270	220	-	-
	Max. injection & Hold Pressure for W/C injection unit	MPa	-	-	-	250	200	180	-	-	250	200	180	-	-	-	250	200	180	-
	Max. injection & Hold Pressure for PAL injection unit	MPa	-	-	-	220	200	180	-	-	220	200	180	-	-	-	220	200	180	-
	Maximum injection rate	cm^3/s	-	-	-	160	203	251	-	-	160	203	251	-	-	-	160	203	251	-
	Maximum screw rotation speed	min^{-1}	-	-	-	450			-	-	450			-	-	-	450			-
	Machine weight Double platen | Single platen	t	4.4 | ≈ 4.25						4.9					6.4 | ≈ 6.15						
	Max. Injection Speed 350	**mm/s**	**350**						**350**					**350**						
	Max. injection pressure (high-pressure filling mode)	MPa	340	340	320	270	220	-	340	320	270	220	-	340	340	320	270	220	-	-
	Max. injection & Hold Pressure for W/C injection unit	MPa	290	290	270	250	190	160	290	270	250	190	160	290	290	270	250	190	160	-
	Max. injection & Hold Pressure for PAL injection unit	MPa	260	260	240	220	190	160	260	240	220	190	160	260	260	240	220	190	160	-
	Maximum injection rate	cm^3/s	133	185	215	281	356	439	185	215	281	356	439	133	185	215	281	356	439	-
	Maximum screw rotation speed	min^{-1}	450						450					450						-
	Machine weight Double platen | Single platen	t	4.4 | ≈ 4.25						4.9					6.4 | ≈ 6.15						
	Max. Injection Speed 350 (high pressure)	**mm/s**															**350 (high pressure)**			
	Max. injection & Hold Pressure for W/C injection unit	MPa												-	-	-	290	260	210	170
	Max. injection & Hold Pressure for PAL injection unit	MPa												-	-	-	230	220	210	170
	Maximum injection rate	cm^3/s												-	-	-	281	356	439	532
	Maximum screw rotation speed	min^{-1}												-	-	-	450			400
	Machine weight Double platen | Single platen	t												6.5 | ≈ 6.25						
	Max. Injection Speed 550	**mm/s**	**550**						**550**					**550**						
	Max. injection pressure (high-pressure filling mode)	MPa	340	-	-	-	-	-	-	-	-	-	-	340	-	-	-	-	-	-
	Max. injection & Hold Pressure for W/C injection unit	MPa	290	260	220	170	-	-	260	220	170	-	-	290	260	220	170	-	-	-
	Max. injection & Hold Pressure for PAL injection unit	MPa	260	260	220	170	-	-	260	220	170	-	-	260	260	220	170	-	-	-
	Maximum injection rate	cm^3/s	209	292	338	442	-	-	292	338	442	-	-	209	292	338	442	-	-	-
	Maximum screw rotation speed	min^{-1}	450						450					450				-	-	-
	Machine weight Double platen | Single platen	t	4.4 | ≈ 4.25						4.9					6.4 | ≈ 6.15						

FANUC ROBOSHOT series

CHOOSE THE RIGHT MODEL FOR YOUR APPLICATION

α-S220*i*B



α-S250*i*B









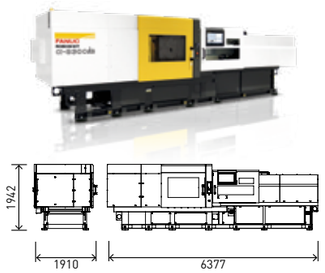


CLAMPING UNIT	Tonnage	kN | tonf	2200 | 220tonf							2500 | 250 / Increased (3000 | 300)						
	Maximum and minimum die height Double platen	mm	-							-						
	Maximum and minimum die height Single platen	mm	650-250 / Increased (750-250)							650-300 / Increased (750-300)						
	Clamping stroke	mm	550							600						
	Locating ring diameter	mm	Ø 160							Ø 160						
	Tie Bar Spacing, HxV	mm	650 x 650							710 x 635						
	Platen size, H×V	mm	900 x 900							1030 x 960						
	Ejector point / Ejector Force / Ejector Stroke	point / kN (tonf) / mm	9 / 35 (3.5) / 150							9 / 80 (8.0) / 200						
INJECTION UNIT	Screw diameter	mm	32	36	40	44	48	52	56	32	36	40	44	48	52	56
	Injection stroke	mm	150	150	150	176	176	208	208	150	150	150	176	176	208	260
	Max. injection volume	cm^3	121	153	188	268	318	442	512	121	153	188	268	318	442	640
	Max. Injection Speed 200	**mm/s**	**200**													
	Max. injection pressure (high-pressure filling mode)	MPa	-	-	-	-	-	-	-							
	Max. injection & Hold Pressure for W/C injection unit	MPa	310	310	260	220	190	160	-							
	Max. injection & Hold Pressure for PAL injection unit	MPa	280	280	260	220	190	160	-							
	Maximum injection rate	cm^3/s	160	203	251	304	361	424	-							
	Maximum screw rotation speed	min^{-1}	300													
	Machine weight Double platen | Single platen	t	8.7													
	Max. Injection Speed 270 (high duty)	**mm/s**	**270 (high duty)**													
	Max. injection pressure (high-pressure filling mode)	MPa	380	345	320	280	-	-	-							
	Max. injection & Hold Pressure for W/C injection unit	MPa	310	310	280	260	230	200	172							
	Max. injection & Hold Pressure for PAL injection unit	MPa	280	280	280	260	230	200	172							
	Maximum injection rate	cm^3/s	217	274	339	410	488	573	665							
	Maximum screw rotation speed	min^{-1}	400													
	Machine weight Double platen | Single platen	t	8.85													
	Max. Injection Speed 280 (high duty)	**mm/s**								**280 (high duty)**						
	Max. injection pressure (high-pressure filling mode)	MPa								380	345	320	280	-	-	-
	Max. injection & Hold Pressure for W/C injection unit	MPa								310	310	280	260	230	200	172
	Max. injection & Hold Pressure for PAL injection unit	MPa								280	280	280	260	230	200	172
	Maximum injection rate	cm^3/s								225	285	351	425	506	594	689
	Maximum screw rotation speed	min^{-1}								400						
	Machine weight Double platen | Single platen	t								12.5						
	Max. Injection Speed 350	**mm/s**	**350**							**350**						
	Max. injection pressure (high-pressure filling mode)	MPa	380	345	-	-	-	-		380	345	-	-	-	-	
	Max. injection & Hold Pressure for W/C injection unit	MPa	310	310	280	240	190	160	140	310	310	280	240	190	160	140
	Max. injection & Hold Pressure for PAL injection unit	MPa	280	280	260	220	190	160	140	280	280	260	220	190	160	140
	Maximum injection rate	cm^3/s	281	356	439	532	633	743	862	281	356	439	532	633	743	862
	Maximum screw rotation speed	min^{-1}	400							400						
	Machine weight Double platen | Single platen	t	8.85							12.5						

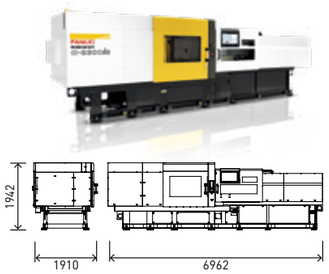
FANUC ROBOSHOT series

CHOOSE THE RIGHT MODEL FOR YOUR APPLICATION

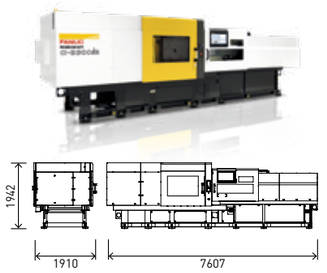
α-S300*i*B (small capacity)



α-S300*i*B



α-S300*i*B (large capacity)



CLAMPING UNIT	Tonnage	kN | tonf	3000 | 300 / Increased (3500 | 350)							3000 | 300 / Increased (3500 | 350)								3000 | 300 / Increased (3500 | 350)			
	Maximum and minimum die height Single platen	mm	650-300 / Increased (750-300)							650-300 / Increased (750-300)								650-300 / Increased (750-300)			
	Clamping stroke	mm	600							600								600			
	Locating ring diameter	mm	Ø 160							Ø 160								Ø 160			
	Tie Bar Spacing, HxV	mm	810 x 710							810 x 710								810 x 710			
	Platen size, H×V	mm	1130 x 1030							1130 x 1030								1130 x 1030			
	Ejector point / Ejector Force / Ejector Stroke	point / kN (tonf) / mm	9 / 80 (8.0) / 200							9 / 80 (8.0) / 200								9 / 80 (8.0) / 200			
INJECTION UNIT	Screw diameter	mm	32	36	40	44	48	52	56	40	44	48	52	56	64	68	72	80			
	Injection stroke	mm	150	150	150	176	176	208	260	150	176	176	208	260	260	260	260	260	280	300	320	320
	Max. injection volume	cm^3	121	153	188	268	318	442	640	188	268	318	442	640	836	944	1059	901	1090	1303	1608	
	Max. Injection Speed 160	**mm/s**																**160**			
	Max. injection & Hold Pressure for W/C injection unit	MPa																220	200	185	150	
	Max. injection & Hold Pressure for PAL injection unit	MPa																220	200	185	150	
	Maximum injection rate	cm^3/s																514	581	651	804	
	Maximum screw rotation speed	min^{-1}																400		300	200	
	Machine weight Double platen | Single platen	t																14.9				
	Max. Injection Speed 240 (high duty)	**mm/s**								**240 (high duty)**												
	Max. injection & Hold Pressure for W/C injection unit	MPa								280	280	270	240	225	175	155	135					
	Max. injection & Hold Pressure for PAL injection unit	MPa								280	280	270	240	225	175	155	135					
	Maximum injection rate	cm^3/s								301	364	434	509	591	772	871	977					
	Maximum screw rotation speed	min^{-1}								400							300					
	Machine weight Double platen | Single platen	t								14.2												
	Max. Injection Speed 270	**mm/s**								**270**												
	Max. injection & Hold Pressure for W/C injection unit	MPa								280	280	270	240	225	175	155	135					
	Max. injection & Hold Pressure for PAL injection unit	MPa								280	280	270	240	225	175	155	135					
	Maximum injection rate	cm^3/s								339	410	488	573	665	868	980	1099					
	Maximum screw rotation speed	min^{-1}								400							300					
	Machine weight Double platen | Single platen	t								14.2												
	Max. Injection Speed 280 (high duty)	**mm/s**	**280 (high duty)**																			
	Max. injection pressure (high-pressure filling mode)	MPa	380	345	320	280	-	-	-													
	Max. injection & Hold Pressure for W/C injection unit	MPa	310	310	280	260	230	200	172													
	Max. injection & Hold Pressure for PAL injection unit	MPa	280	280	280	260	230	200	172													
	Maximum injection rate	cm^3/s	225	285	351	425	506	594	689													
	Maximum screw rotation speed	min^{-1}	400																			
	Machine weight Double platen | Single platen	t	13.7																			
	Max. Injection Speed 350	**mm/s**	**350**																			
	Max. injection pressure (high-pressure filling mode)	MPa	380	345	-	-	-	-	-													
	Max. injection & Hold Pressure for W/C injection unit	MPa	310	310	280	240	190	160	140													
	Max. injection & Hold Pressure for PAL injection unit	MPa	280	280	260	220	190	160	140													
	Maximum injection rate	cm^3/s	281	356	439	532	633	743	862													
	Maximum screw rotation speed	min^{-1}	400																			
	Machine weight Double platen | Single platen	t	13.7																			





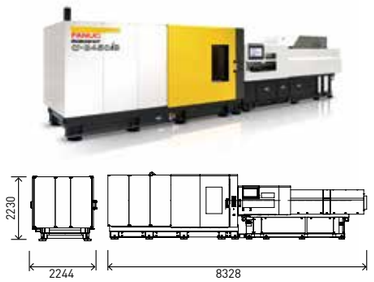




FANUC ROBOSHOT series

CHOOSE THE RIGHT MODEL FOR YOUR APPLICATION

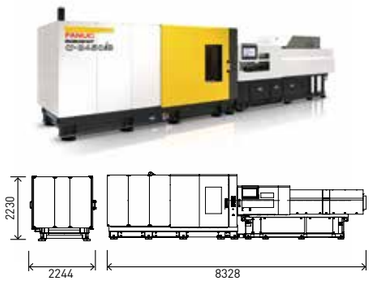
α-S450*i*B (ultra small capacity)



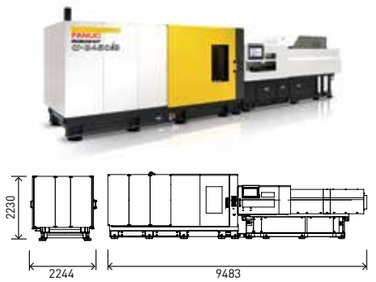
α-S450*i*B (small capacity)



α-S450*i*B



α-S450*i*B (large capacity)



CLAMPING UNIT	Tonnage	kN | tonf	4500 | 450 / Increased (5000 | 500)					4500 | 450 / Increased (5000 | 500)						4500 | 450 / Increased (5000 | 500)				4500 | 450 / Increased (5000 | 500)				
	Maximum and minimum die height Single platen	mm	1000-350					1000-350						1000-350				1000-350				
	Clamping stroke	mm	900					900						900				900				
	Locating ring diameter	mm	Ø 200					Ø 200						Ø 200				Ø 200				
	Tie Bar Spacing, HxV	mm	920 x 920					920 x 920						920 x 920				920 x 920				
	Platen size, H×V	mm	1300 x 1300					1300 x 1300						1300 x 1300				1300 x 1300				
	Ejector point / Ejector Force / Ejector Stroke	point / kN (tonf) / mm	17 / 150 (15.0) / 250					17 / 150 (15.0) / 250						17 / 150 (15.0) / 250				17 / 150 (15.0) / 250				
INJECTION UNIT	Screw diameter	mm	40	44	48	52	56	48	52	56	64	68	72	64	68	72	80	68	72	80	90	100
	Injection stroke	mm	150	176	176	208	260	176	208	260	260	260	260	280	300	320	320	300	320	360	360	360
	Max. injection volume	cm^3	188	268	318	442	640	318	442	640	836	944	1059	901	1090	1303	1608	1090	1303	1810	2290	2827
	Max. Injection Speed 160	**mm/s**												**160**								
	Max. injection & Hold Pressure for W/C injection unit	MPa												220	200	185	150					
	Max. injection & Hold Pressure for PAL injection unit	MPa												220	200	185	150					
	Maximum injection rate	cm^3/s												514	581	651	804					
	Maximum screw rotation speed	min^{-1}												400		300	200					
	Machine weight Double platen | Single platen	t												25.9								
	Max. Injection Speed 180	**mm/s**																**180**				
	Max. injection & Hold Pressure for W/C injection unit	MPa																280	280	250	200	160
	Max. injection & Hold Pressure for PAL injection unit	MPa																280	280	250	200	160
	Maximum injection rate	cm^3/s																653	732	904	1145	1413
	Maximum screw rotation speed	min^{-1}																		200		
	Machine weight Double platen | Single platen	t																		29.7		
	Max. Injection Speed 240 (high duty)	**mm/s**						**240 (high duty)**														
	Max. injection & Hold Pressure for W/C injection unit	MPa						270	240	225	175	155	135									
	Max. injection & Hold Pressure for PAL injection unit	MPa						270	240	225	175	155	135									
	Maximum injection rate	cm^3/s						434	509	590	772	871	977									
	Maximum screw rotation speed	min^{-1}								400			300									
	Machine weight Double platen | Single platen	t								25.2												
	Max. Injection Speed 270	**mm/s**						**270**														
	Max. injection & Hold Pressure for W/C injection unit	MPa						270	240	225	175	155	135									
	Max. injection & Hold Pressure for PAL injection unit	MPa						270	240	225	175	155	135									
	Maximum injection rate	cm^3/s						488	573	665	868	980	1099									
	Maximum screw rotation speed	min^{-1}								400			300									
	Machine weight Double platen | Single platen	t								25.2												
	Max. Injection Speed 280 (high duty)	**mm/s**	**280 (high duty)**																			
	Max. injection pressure (high-pressure filling mode)	MPa	320	280	-	-	-															
	Max. injection & Hold Pressure for W/C injection unit	MPa	280	260	230	200	172															
	Max. injection & Hold Pressure for PAL injection unit	MPa	280	260	230	200	172															
	Maximum injection rate	cm^3/s	351	425	506	594	689															
	Maximum screw rotation speed	min^{-1}			400																	
	Machine weight Double platen | Single platen	t			24.8																	
	Max. Injection Speed 350	**mm/s**			**350**																	
	Max. injection & Hold Pressure for W/C injection unit	MPa	280	240	190	160	140															
	Max. injection & Hold Pressure for PAL injection unit	MPa	260	220	190	160	140															
	Maximum injection rate	cm^3/s	439	532	633	743	862															
	Maximum screw rotation speed	min^{-1}			400																	
	Machine weight Double platen | Single platen	t			24.8																	

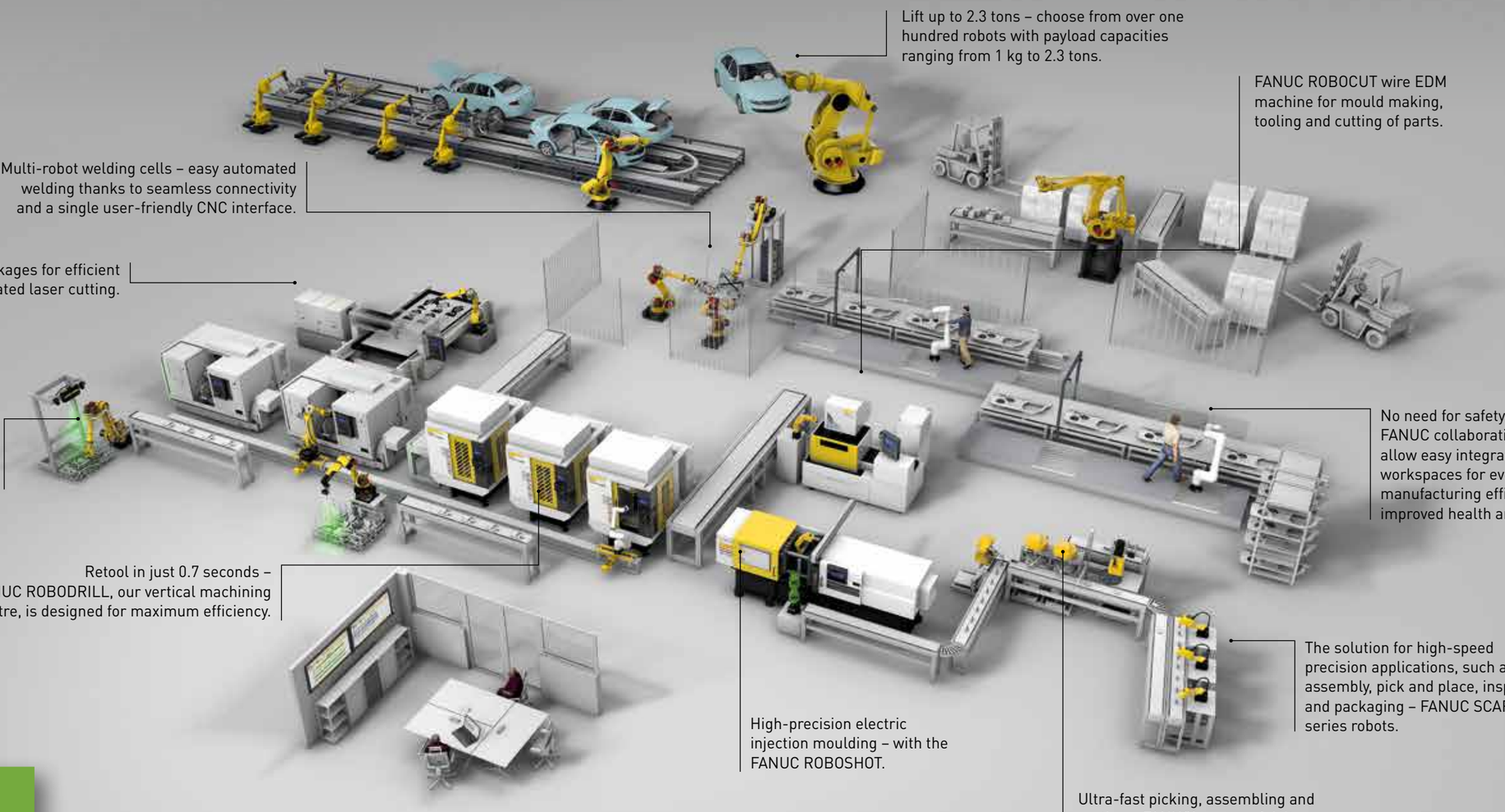
ROBOSHOT α-S*i*B series
Available features

Display & Input	Standard	Option
21.5" HD Touch screen display	●	
Simultaneous display of setting screen, monitoring screen & ROBOSHOT-LINK*i*2	●	
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 dispays - 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 *i*HMI screen	●	
VNC enabled device 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	●	
High resolution pre ejector function		●
Automatic die height adjustment with clamp force sensor	●	
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 overide function - Simultaneous ejector retract during clamp closing		●

ROBOSHOT α-S*i*B 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-LINK*i*2 Product & Quality management system available in 20 device or 1000 device versions		●

iNTELLIGENT AUTOMATION – 100% FANUC



Optimised energy usage – intelligent energy management

With three core product groups, FANUC is the only company in its sector to develop and manufacture all its major components in-house. Every detail, both hardware and software, undergoes stringent quality control checks as part of an optimised chain. Fewer parts and lean technology make FANUC solutions reliable, predictable and easy to repair. They are made to run and provide you with the highest uptime on the market.

All FANUC products – industrial robots, CNC systems and CNC machines – share a common servo and control platform, providing seamless connectivity and making full-automation scenarios really simple. Since all products share common parts, spare parts management with FANUC is fairly efficient. Plus, global standards make it very easy to go international with FANUC.

ROBOSHOT efficiency highlights

DESIGNED FOR EASY AUTOMATION

The FANUC Quick & Simple Start up of Robotisation (QSSR) enables you to install FANUC robots in just a few steps. Robots can be easily used for loading and unloading parts, assembling, picking, and placing, and the ergonomically designed work area ensures easy access to the machine Another plus: all FANUC products speak the same language and share a common servo and control platform – something that makes learning and operating them extremely easy.

Your efficiency benefits:

- easy robot-accessibility
- simple plug and play connectivity
- quick & Simple Startup of Robotisation QSSR
- seamless loading and unloading or insert placing
- turn-key solutions
- very exact and highly repeatable insert placement without the need for mechanical guides
- repeatable to +/-0.01 mm (depending on robot model)



Visual error proofing:

- FANUC's integrated vision system, *i*RVision, identifies part errors according to cavity
- visual identification of part defects or tiny faults such a single dot in a group of parts
- no revalidation of the production process necessary
- saves a considerable amount of time
- only 1 camera required for multiple cavities

Part placement and orientation:

- FANUC's *i*RVision provides a simple part placement solution
- inspection of each part on a conveyor
- identification of the cavity automatically
- an immediate decision is made

EFFICIENT FANUC SERVICE WORLDWIDE

Wherever you need us, our comprehensive FANUC network provides sales, support and customer service all around the world. That way, you can be sure you have always got a local contact that speaks your language.

Efficient long time productivity: FANUC Maintenance Services

To minimise impact on production and get the most out of your machine, we offer maintenance services designed to lower your machine's total cost of ownership (TCO). Whatever your production scenario, FANUC solutions keep your machine running via dedicated preventive, predictive and reactive maintenance procedures that maximise uptime and keep downtime to a bare minimum.

Efficient training: FANUC Academy

The FANUC Academy offers everything you need to upskill your teams and increase productivity – from introductory programs for beginners through to courses tailored to the needs of expert users and specific applications. Fast and effective learning, on-site training or cross machine training, make up the extensive educational offering.

Efficient supply: Lifetime OEM spare parts

As long as your machine is in service we will provide you with original spare parts. With more than 20 parts centres all over Europe, dedicated service engineers and direct online access to FANUC stores, availability checks and ordering, we keep you running whatever happens.

FANUC Assisted Reality (FAR) Maximize uptime by remote support

With the help of FAR, we can perform a comprehensive remote diagnosis before sending our service technicians to the site. We can also support technicians remotely during field service or even provide direct support to help the customer fix a problem. In many cases, this capability has already helped to reduce downtime. In other instances, thanks to improved remote diagnostics, the technician did not even need to visit the customer site. FAR helps to save costs because we can often fix simple problems or operating errors remotely.

Extended warranty from **24 months** up to **5 years**, upon request.

More than **99%** spare parts availability

24/7 support [1]

Aftersales support
(warranty, extended contracts, FAR)

FANUC.EU/SERVICE

1) Service is available as a contractual option for selected markets.

FANUC

Automation has a name.



FA
CNCs, Drives, Accessories and Software

ROBOTS
Industrial and Collaborative Robots, Accessories and Software

ROBODRILL
Compact CNC Machining Centres

ROBOSHOT
Electric CNC Injection Moulding Machines

ROBOCUT
CNC Wire-Cut Electric Discharge Machines

IoT
Industry 4.0 solutions

Discover the world's widest range of products for industrial automation:

FANUC.EU

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