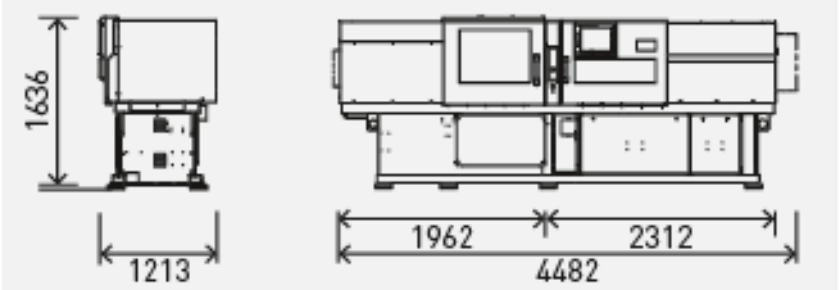
01 / MACHINE OVERVIEW

FANUC ROBOSHOT α-S100iA

All-electric injection moulding machine



Clamping force	1000 kN
Injection speed	200 mm/s
Max. injection pressure	2200 bar
Screw diameter / volume	32 mm / 103 cm³
Tie-bar distance	460 × 410 mm
Clamping / ejector stroke	350 mm / 100 mm
Min. / max. mould height	150 / 620 mm - EU standard; extended-opening platen (+350 mm opening stroke)
Barrel / screw	W/C (hardened, high wear and corrosion resistance, 30% GF, up to 350 °C)
Nozzle	Standard open R19 D4 or as agreed.



02 / CONTROL AND SOFTWARE

Precision through CNC

Standard equipment · FANUC ROBOSHOT α-S100iA

All-electric CNC-controlled injection moulding for unrivalled precision – FANUC Roboshot. The unrivalled precision of CNC milling and machining now applies to the injection moulding process as well. The control communicates with the motor 16,000 times per second – directly, without inertia and without an oil medium. The result: flawless reproducibility and unrivalled precise movement combined with the highest possible acceleration, thanks to state-of-the-art CNC technology and a high-speed processor, for maximum output and extremely fast cycle times. Reliable part quality also ensures maximum efficiency.

Control & operator interface

- FANUC 31i-B (CNC control)
- 15" LCD display with touch screen
- SI units capability (kN, MPa, etc.)
- Password-protected screen saver function



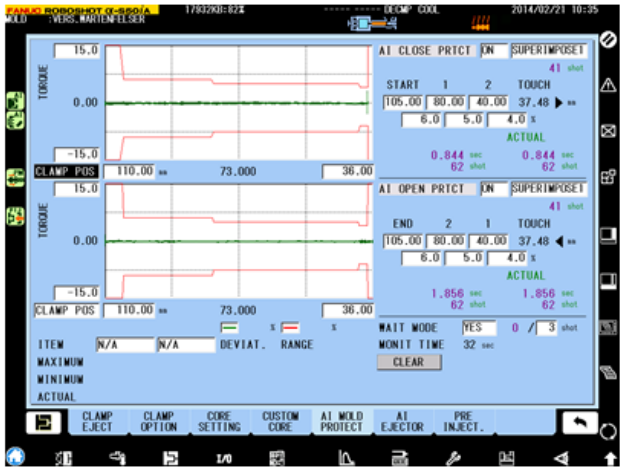
31i-B control

Artificial intelligence functions

- AI - pressure profile trace function
- AI - metering control function
- AI - mould protection function
- AI - ejector protection function



AI Metering



FANUC AI Mould Protection

03 / PROCESS FUNCTIONS

Process control

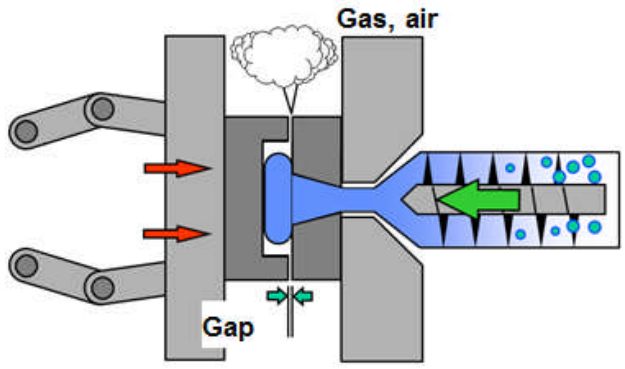
Metering, injection and machine movement

Injection & metering

- Backflow monitor function
- Precise metering 2, 3 function
- Auto purge function
- Extruder delay timer function
- High-precision V-P switchover function
- Injection unit temperature control and display function

Movement & efficiency

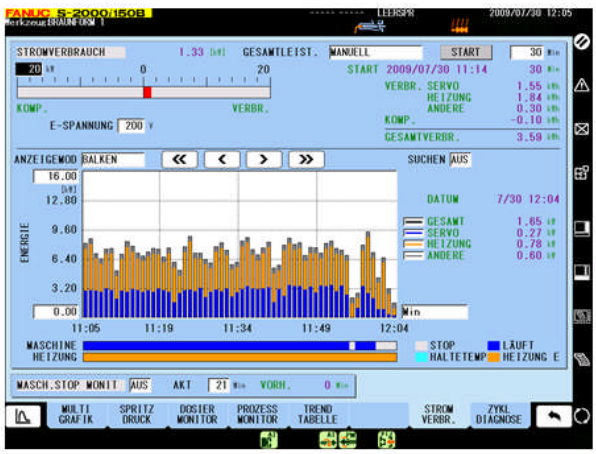
- Automatic mould height adjustment function
- 2-stage ejection function
- Ejection delay function
- Pre-injection function
- Energy consumption optimisation function



Pre-injection function



Backflow monitor


Energy consumption


Precise Metering 2,3

04 / EQUIPMENT SCOPE

Machine configuration

FANUC α-S100iA · Equipment and accessories

Description	Qty.
Extended mould height	1
4-circuit flow meter (rotameter)	1
Automatic mould height adjustment function	1
Hopper slider	1
3-colour LED signal tower	1
Automatic purging and material cleaning function	1
Plasticising speed control	1
Decompression control - additional function	1
Material / check ring backflow monitoring function	1
Artificial intelligence (AI) based mould and ejector protection function	1
Mould protection output on the moving platen	1
Energy consumption measurement function	1
Robot interface (Euromap 67)	1
Automatic stop / shut-down mode	1
3 independent air valves	1
8 digital outputs, 11 digital inputs	1
Pre-injection function / injection-compression function	1
Cascade injection valve control (up to 8 valves)	1
USB and memory card port	1
Tool kit (standard tools + grease gun)	1
Operating manual	1
Warning labels	1