SEPRO GROUP

SPEED | STRENGTH | PRECISION

S7 LINE

FOR 700 TO 5000T INJECTION MOLDING MACHINES

The new generation of Sepro high-capacity technological robots with top-of-the-line design and finishing. Built to be strong and quick, the S7 Line robots are designed to optimize production under intensive use for the most specialized applications (axial configurations, dual arms, dual motion, and others). New Visual 4 control system.

OVERVIEW

Three models to choose from:

S7-45 | S7-55 | S7-75

- Designed for an increased structural rigidity.
- Sepro Linear System rails designed for greater speeds.
- High-torque pneumatic wrist R1 (0-90°) as standard and R2 (0-90-180° in option).
- Powerful servomotors and intelligent anti-vibration software.
- Telescopic or compact telescopic vertical arm for maximum flexibility.
- Elastic mount of gripper (option).
- Y free function.

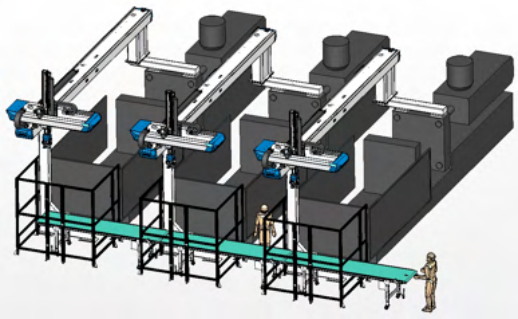
NEW ECO Air

THE SOLUTION TO HELP YOU REDUCE YOUR COMPRESSED AIR CONSUMPTION

AXIAL INSTALLATION

The choice of an axial installation on the large IMM optimizes the use of available floor space in your workshop:

- Three IMMs instead of two over the same floor area (50% more IMM on average).
- The flow of parts is directly at the end of the IMM: no need for a conveyor between the IMMs.
- The available space between the IMMs is reserved for operator access and preparing the molds for a quick change of production.



SPECIFICATIONS

	S7-45	S7-55	S7-75
Mold clamping force - Indication (metric tons)	700 - 1300	1200 - 2500	2300 - 5000
Mold clamping force - Indication (US tons)	772 - 1433	1323 - 2756	2000 - 9000
Horizontal stroke[1] (mm)	3000 - 10000	3500 - 10000	4000 - 10000
Maximum instantaneous speed (m/s)	3	2,5	2
Demold stroke - Transverse layout (mm)	1100 | 1300 (LD)	1500 | 1700 (LD)	2000 | 2500 (LD)
Maximum instantaneous speed (m/s)	2,5	2	1,8
Vertical stroke (mm)	2200 | 2500 (LV)	2500 | 3000 (LV)	3600 | 3200 (LD)
Maximum instantaneous speed (m/s)	3	3	3
Maximum load (parts + EOAT) - (kg)	30 | 40 (HL)	40 | 60 (HL)	75
Vertical telescopic arm	✓	✓	
Vertical compact telescopic arm			✓
R1 pneumatic rotation (0-90°)	✓	✓	
R1 + R2 Pneumatic rotation (0-90°-180°)			✓
Part grip - Vaccum circuit up to :	8	8	8
Part grip - Pressure circuit up to :	8	8	8
Floor-standing control cabinet	✓	✓	✓
Visual 4 Plus	✓	✓	✓
ECO-Air	✓	✓	✓
Smart digital vaccum switch	✓	✓	✓
OPTIONS			
R2 Pneumatic rotation (0-90°-180°)	✓	✓	
Elastic mount of gripper	✓	✓	
Visual 4 Pro	✓	✓	✓
Vertical compact telescopic arm	✓	✓	

(1) Can be adaptable by 500mm steps

HL: Heavy Load version cannot be combined with LV or LD
LD: Long Demolding version cannot be combined with LV or HL
LV: Long Vertical version cannot be combined with LD or HL

VISUAL 4 : MORE POWERFUL, MORE CONNECTABLE AND EASIER TO USE

Visual 4 represents the latest generation of automation-control technology developed by Sepro specifically for plastics injection molding. This project involved the development of new hardware and software solutions with enhanced features. It is entirely compatible with existing Sepro systems and programming.

Visual controls will require only a short training session to become familiar with the new platform. This new HMI offers a simplifed and user-friendly interface for part removal and downstream operation programming around the injection molding machine.

- More intuitive improved navigation and ergonomics 25% lighter, 2 haptic shortcut buttons, quick sub-menu access...
- More powerful: Intel x86, up to 10 axis, 1000 programs
- More evolutive: standard programming protocol, html5
- More secure: updated cybersecurity features, Plug & Play system, secure authentication and user profile settings
- More interconnectable for the automation of tomorrow

REDESIGNED OPERATOR-INTERFACE PENDANT

One of the first things one will notice about the new Visual 4 HMI is that the pendant is 25% lighter than its Visual 3 predecessor. The weight saving is the result, primarily, of moving the CPU board out of the pendant and into the main robot-control cabinet. This also results in greater data security, since critical components cannot be damaged if the pendant is dropped or otherwise compromised.

In addition to enhanced navigation and ergonomic features it also uses a powerful processor to control up to ten axes of motion, making it ideal for managing even complex molding cells, which can involve one or more than one IMM, and multiple robots in differing configurations, plus peripheral equipment that performs secondary functions like assembly, marking, inspection, packaging, and so on. It can store up to 1000 mold programs for easy recall.

The new Visual 4 control will be available in three variations with increasing capabilities for the full range of injection-molding applications:

V4

is the basic configuration suits simple pick-and-place applications, providing control of up to 5 axes and 24 inputs/outputs (I/Os).

V4 PLUS

supports more mold programs, with more I/Os, and allowing more connectivity to peripheral equipment (conveyors, sortation, etc.).

V4 PRO

is aimed at application-specific molding cells involving multiple robots, peripheral equipment and robots with special configurations.