

7X LINE

5-AXIS ROBOTS FOR INJECTION MOLDING MACHINES FROM 700 TO 5000T

The 7X Line of 5-axis robots offers the ideal combination of Sepro new generation high-capacity 3-axis linear robots and 2-axis digital rotation. These are precise, flexible robots capable of extracting and loading technically complex parts into the mold or IMM peripherals. Visual 4 control system

OVERVIEW

Three models to choose from:

7X-45 | 7X-55 | 7X-100XL

- Designed for an increased structural rigidity.
- Linear rails designed for greater speed.
- Powerful servomotors and intelligent anti-vibration software.
- Telescopic or compact telescopic vertical arm for maximum flexibility.
- Heavy load option available on all 3 sizes, up to 100kgs.
- Y free function.



NEW ECO Air

THE SOLUTION TO HELP YOU REDUCE YOUR COMPRESSED AIR CONSUMPTION

NEW SERVO WRIST



Sepru introduces its new servo wrist, result of a two years development. Available in three variations to fit the three sizes of robots and their needs.

- Designed for the plastic injection industry: reduced footprint and high payload capacities.
- High performances: precision, speed and torque.
- Focus pushed upon reliability and maintainability.
- Now integrated on all maintenance contract offers.

SPECIFICATIONS

	7X-45	7X-55	7X-100XL
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)	3200 3600 (LV)
Maximum instantaneous speed (m/s)	3	3	3
Maximum load (parts + EOAT) - (kg)	30 40 (HL)	40 60 (HL)	75 100 (HL)
Vertical telescopic arm	✓	✓	
Vertical compact telescopic arm			✓
R1 servo rotation (0-180°) + R2 (0-300°)	✓	✓	✓
Part grip - Vacuum circuit up to :	8	8	8
Part grip - Pressure circuit up to :	8	8	8
Smart digital vacuum switch	✓	✓	✓
ECO-Air	✓	✓	✓
Floor-standing control cabinet	✓	✓	✓
Visual 4 Pro			

OPTIONS

Vertical compact telescopic arm	✓	✓	
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(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 simplified 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:



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



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



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