

# STRONG

Strong, is a range of efficient and competitive 3-axes robots for 700 to 2800 T. Injection Molding Machines

- STRONG 40
- STRONG 50
- STRONG 60



Sepro is the specialist in the automation of 700 to 5000 T injection molding machines.

Our large robots offer is designed around a unique technological platform of the latest generation to meet the most varied production requirements, **such as yours**

From the 3-axes robot to the 5-axes robot, there is a solution to all your new or existing press equipment needs, for simple unloading applications or complex applications or for optimum adaptation to the most demanding applications.

YOUR FREE CHOICE IN ROBOTS

# STRONG

## STRONG FOR THE FUTURE

The Strong robots range benefit from Sepro's latest generation technologies of the new Sepro heavy payload capacity robot platform.

- The level of components are highly reliable thanks to the mutualization of designs, and components with high technological value: SLS guides, motors and speed drivers are standardized on all our models.
- Simple programming and operation of the robot with Visual control.
- The rationalization of all basic sub-elements.

## DESIGN AND STURDINESS

Strong robots have been specially designed to be sturdy and optimized for a 24/7 use.

- A Z arm with aluminum profile, which provides an excellent mass/stability ratio and an optimal compact design for applications with limits headroom.
- No need of balance cylinders thanks to a clever control of motor servo and brake which enables a reduction in noise and maintenance operations as well as a reduction in energy consumption (compressed air and electricity).

## EFFICIENCY

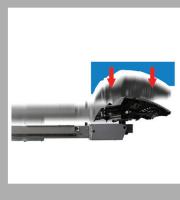
### New SLS Guides (Sepro linear system with guide rails) on the X beam axis and Z vertical arm



Unique Sepro Advantage, the result of 30 years of experience, the SLS guides have an unrivaled service life and reliability, especially for large strokes and heavy loads. They are extremely sturdy in difficult environments: abrasive dust, oxidizing vapors (PVC) and water vapor. The integrated lubrication system offers the advantage of reduced maintenance (changing of sticks once a year only).

### Y Free function

The Y free-function is a Sepro manufacturing standard. It simplifies the programming of part ejection tracking and can reduce the gripper costs (simplified design).



### Quick electric, pneumatic connections and mechanical coupling

Optimize your mold change times thanks to the quick couplings. Their simple implementation ensures sustainable management of your tooling.



### Exclusive elastic mount of gripper (option)

The entire EOAT unit is mounted on a linear axis, parallel to the injection axis. A cylinder ensures the elastic pressure for the unit and a sensor detects any depressions to stop the robot. This mechanical device is used to protect the EOAT and the mold during part grip settings and to damp the contact between the EOAT and the part when there are slight variations (a few mm) on the ejection or mold opening stroke.

### Compact beam-mounted control cabinet

The compact control cabinet is mounted on the end of the beam as standard. Its innovative feature is its flexible installation, as it can be installed on the left or right, depending on your setup, to free floor space. A floor-standing cabinet option is also available.

## TOUCH 2 -STRONG IS EQUIPPED WITH THE TOUCH 2 CONTROL SYSTEM AS STANDARD

### Simply Intuitive



With the Simple Pick-and-Place module, create your cycle by just answering the system questions and see the result immediately in 3D on the video (Simple Pick-and-Place and regular stacking).

### What you see is what you get

Make your daily routine easier:

- When fine-tuning, the joystick makes delicate settings in the mold possible
- The large, 10" LCD screen gives you clear and precise information
- The documentation can be consulted online when you want
- If a fault appears, troubleshooting data is displayed automatically
- Thanks to the USB key, operators, setters, programmers and maintenance staff have direct access to the relevant data
- Eco Mode: Once the cycle is started, a single key can reduce energy consumption and extend your robots working life
- Digital vacuum switch (option): set and save your part grip settings for each mold directly on the pendant

### Tried and tested ergonomics

Task-based navigation means you can directly access the job to be done:

- Production
- Mold Change
- Programming
- Maintenance

## FROM TOUCH 2 TO VISUAL 2



- Possible to associate up to 3 simultaneous subroutines with the robots program and the PLC
- Manage up to 1000 different applications (100 on Touch 2)
- Make mold changes completely safe using mold encoding and/or EOAT encoding (encoded plug)

	Strong 40	Strong 50	Strong 60
Mold clamping force - Indication metric Tons	700 - 1000	1000 - 1600	1600 - 2800
Mold clamping force - Indication US tons	772-1102	1102-1764	1764-3086
Horizontal stroke (mm) - Can be adapted by 500 mm steps	2500 - 10 000	3000 - 10 000	3500 - 10 000
Maximum instantaneous speed (m/s)	2	2	1,8
Demold stroke (mm) - Transversal layout	1100 - 1300 (LD)	1300 - 1500 (LDV)	1600 - 1800 (LDV)
Maximum instantaneous speed (m/s)	1,8	1,8	1,5
Vertical telescopic arm	✓	✓	✓
Vertical stroke (mm)	1800 - 2000 (LV)	2000 - 2500 (LDV)	2500 - 3000 (LDV)
Maximum instantaneous speed (m/s)	2,5	2,5	2,5
Maximum load (parts + EOAT) (kg)	20	40 - 35 (LDV)	50 - 40 (LDV)
R1 pneumatic rotation (0-90°)	✓	✓	✓
Part grip - Vacuum and/or pressure circuit	1	1	1
Compact beam-mounted control cabinet	✓	✓	✓
TOUCH 2 control system	✓	✓	✓

## OPTIONS

R2 pneumatic rotation (0-90°-180°)	✓	✓	✓
Maximum load (parts + EOAT) (kg)	15 - 20 (LV/LD)	35	40
R1 servo rotation (0 -180°) + R2 (0-270°) (1)	✓	✓	✓
Maximum load (parts + EOAT) (kg)	20	35	40
Floor-standing control cabinet	✓	✓	✓
VISUAL 2 control system	✓	✓	✓

LV: Long vertical Version

LD: Long demolding Version

LDV : Long vertical and demolding version

LV/LD : Can not be combined

(1) Visual 2 control System and Floor standing control cabinet mandatory



**YOUR FREE CHOICE IN ROBOTS**

[www.milacron.com](http://www.milacron.com)