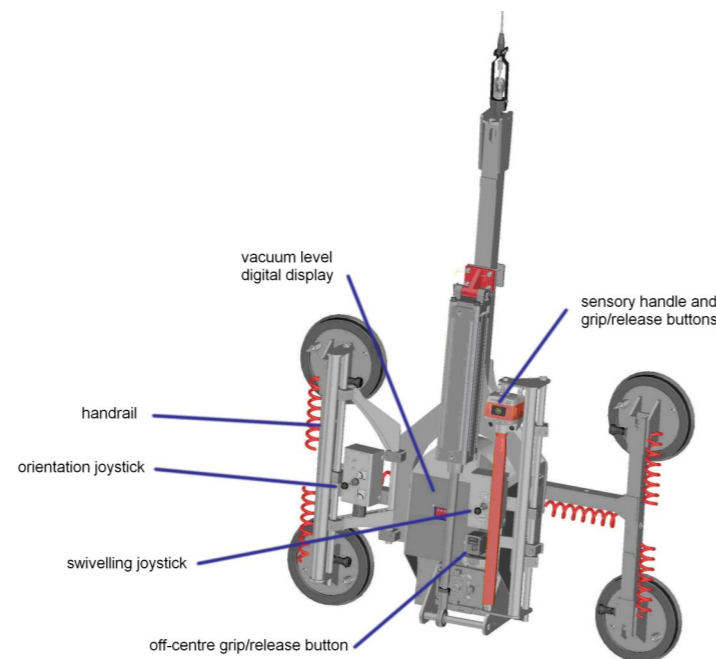


**The smart console has adjustable positions:**

- Sensitive Zii handle placed on right hand side - the user can control the upward and downward movements along the entire length of the 500mm handle.
- Ergonomic operation regardless of operators product size and regardless of the dimensions of the manipulated product.
- Gripper movements (tilting and/or rotation) are controlled by sensitive joysticks: variable speed, allowing for the precise positioning of the product.
- Duel Grip/release buttons at the top and the bottom of Zii handle for ergonomic operation.
- Safeties: Lifting is forbidden if the vacuum level is too low, and release in mid-air is impossible.

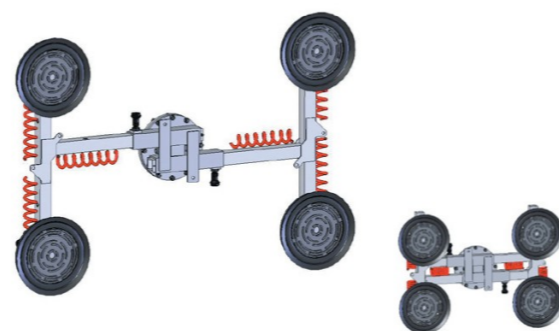


**Variable inclination option:**

- This device allows the operator to adjust the angle of inclination when both with and without the product.
- This option is available for rotary and vertical manipulators

**Lifting beams range:**

- Standard lifting beams with 2 or 4 adjustable suction cups
- Bespoke lifting beams for almost any application



S269 1 M01 C

**ZE' SOLUTION GLASS ergonomic manipulator**

**THE SOLUTION for glass industry:**

Range of ergonomic manipulators dedicated to the applications within the glass industry, to assist operators at the key workstations: transfer, pinning, palletizing...

**Technologies:**

- Aluminium arm with low-inertia double articulation.
- Electronic lifting assistance to lift intuitively loads up to 200kg with only a 20g effort.
- Vacuum generation by smart and air saving venturi: digital display, lifting authorization, safe vacuum holding
- Lifting controls: long sensory handle, right hand
- Movements controls: sensory joysticks for variable speed, up and down, left hand
- Grip-release control: up and down buttons, right hand

**Advantages:**

- Versatility: gripper adaptable to many formats
- Precision: sensory Zii handle and control joysticks
- Speed: optimal working pace, variable speed
- Ergonomics: RSI removal
- Intuitiveness: naturally following hand movement with no
- Safety: secured grip-release, alarms, hand detection

**Customized:**

- Wide work zones: possible to install on rail, under framework, or under a supporting structure.
- Heavy loads: steel arm enabling the handling of loads up to 300kg.
- Services: location and ergonomics expertise
- Special: manipulator conception and manufacture to adapt to specific applications: combined movements, sliding bay windows, lifting capacity, dialogue with the line



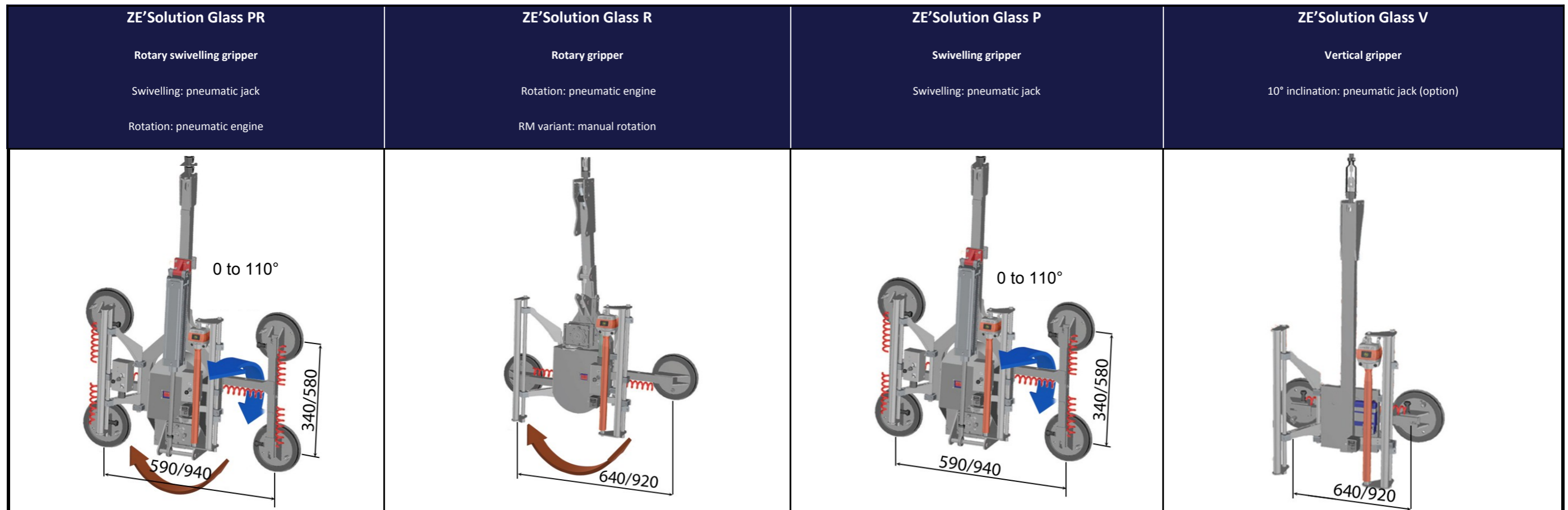
SAPELEM has created a range of standard manipulators answering the most common applications.



**ZE' SOLUTION GLASS windows ergonomic manipulator**

Using:

The complete range of grippers enables every movement for window applications easy and quick.



Ref.	Max. load capacity Kg	Number of suction cups	Suction cup diameter mm	Swivelling 0 to 110°	Rotation 360°	Inclination 0 to 10°	Max. arm reach ( m )				Under crossed rails setup
							3	3.6	4.2	4.7	
PR 90	90	2 / 4	260 / 190	●	●		●	●	●		●
PR 120	120	2 / 4	260 / 190	●	●		●	●			●
PR 200	200	2 / 4	320 / 260	●	●		◆				●
R 90	90	2 / 4	260 / 190		●	Option	●	●	●		●
R 120	120	2 / 4	260 / 190		●	Option	●	●			●
R 200	200	2 / 4	320 / 260		●	Option	◆				●
RM 60	60	2	190		●	Option	●	●	●		●
RM 90	90	2 / 4	260 / 190		●	Option	●	●	●		●
P 90	90	2 / 4	260 / 190	●			●	●	●		●
P 120	120	2 / 4	260 / 190	●			●	●			●
P 200	200	2 / 4	320 / 260	●			◆				●
V 60	60	2	190			Option	●	●	●	●	●
V 100	100	2 / 4	260 / 190			Option	●	●	●		●
V 150	150	2 / 4	320 / 260			Option	●	●			●
V 240	240	2 / 4	440 / 260			Option	◆				●

● : Aluminium arm ◆ : Steel arm