PA
Angular Jaw Clamps

The PA series angular jaw clamps are used in robotics and the plastics industry and more generally on all types of manipulators. They are particularly recommended for use on injection press unloading robots.

Choose a clamp with a theoretical force Coval to at least twice the effective force required.

The clamping forces in the table above are theoretical forces and are given for a pressure of 6 bar. Gripping force is inversely proportional to the distance between the gripping point and the fulcrum.

For example, for a PA 20 clamp with the gripping point 25mm from the fulcrum, the clamping force will be:
F = 10.1 (table below) x 15/25 = 6.06 kg.

The weight of the objects to be handled is added to that of the clamp and must not exceed 1/20th of the force exerted on the gripping point.

The opening and closing speed of the fingers can be adjusted with the compressed air regulator.

- **DE:** double action clamp using compressed air.
- **SEF:** closure by compressed air, opening by return spring (simple closing effect).
- **SEO:** opening by compressed air, closure by return spring (simple opening effect).

Characteristics

Models	Clamping force(kg)	Min. pressure (bar)	Weight (g)	Magnetic sensor option
PA 16 SEF	4	2.5	120	-
PA 16 SEO	5.2	2.5	120	-
PA 16 DE (1)	5.5 to 6.5	1.5	120	-
PA 20 SEF	7.5	2	190	yes
PA 20 SEO	8.5	2	190	yes
PA 20 DE (1)	10.1 to 12.2	1.2	190	yes
PA 32 SEF	16.5	1.8	490	yes
PA 32 SEO	19.5	1.8	490	yes
PA 32 DE (1)	22 to 24	1	490	yes
PA 50 DE (1)	52 to 60	0.8	1660	yes

(1) The clamping force above is given in bar at a distance of 15 mm from the fulcrum for models PA 16 - 20 - 32 and 30 mm from the fulcrum for models PA 50.

Specifications

Compressed air	Filtered, lubricated or non-lubricated
Maximum pressure	10 bar
Material	Anodized aluminum
Seal	Nitrile (NBR)
Heat treatment	On and fingers
Operating temperature	-10 to 70 °C / 14 to 158 °F

For all orders, please specify:
Model + Action + Magnetic sensor
e.g.: PA20SEOM

1: Model	2: Actions		3: Magnetic sensors	
PA 16 to PA 50	SEF	Simple closing effect	-	Without
	SEO	Simple opening effect	M	For PA 20 - 32 - 50
	DE	Double action		