

SOLUTIONS | MAGNETIC TOOL | ROBOT DESTACKING AND HANDLING WITH MAGNET GRIPPER



Robotic destacking of metal sheet with magnetic grippers may sometimes cause some issues. Indeed, the magnetic field may reach several sheets at a time and residual oil or other lubricants between successive sheets make them stick together.

Thanks to Magswitch M10AY ASC magnetic grippers PES offers a shallow field solution that saturates at 1mm depth! Benefits of pneumatically actuated magnetic grippers (flexibility, reliability, energy efficiency) come to serve your destacking application. Used with the sheet fanner tool which allows performing a pre-separation of the sheets on the stack and avoids blanks sticking issues, this solution can reach up to 100% single sheet destacking performance in all conditions.

This technology is quite empirical, tool dimensioning then needs experience-based expertise which PES can offer. Do not hesitate to contact us for your next project. The offered power range is quite large and those units can equip the smallest collaborative robot as well as the largest industrial one.

Key Features

- 1mm-deep magnetic field saturation for easy and reliable destack
- High duty cycle to support production flow needs
- Shallow field thanks to the alternate configuration for increased shear performance

PES Support Outcomes

- Tool dimensioning and selection
- Complete EOAT design capabilities (structure, function, calculation, electrical/pneumatical equipment)
- Design and realization of custom or standard compliant mounting support
- Feasibility and validation tests performed on a robot at PES lab

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Advantages

Pneumatically actuated, no energy during handling operation

Fail-safe

Energy Efficient

Picking flexibility done by the tool, easy picking programming



Benefits

Reduced maintenance

Increased reliability

Reduced energy consumption

Easy intergration



Facts & Figures

Magnet field actuation time is measured in milliseconds

Lifetime can reach **3 million of operation cycles** depending on gripping conditions and integration quality

Customer example: problem-solving, solution set-up and test performed by PES