Two stage ejector without moving parts

An industrial vacuum is an efficient method for handling objects. This technique has been developed to meet industrial automation needs, with applications in parts assembly, transfer, packaging, etc. Among the various techniques, the single stage ejector is very popular due to design durable with no moving parts. However, there are made for a high extraction rate either for high vacuum level.

To solve this problem, the multi-stage ejector has been developped. Nevertheless, this ejector is made of moving parts, degrading their reliability and robustness.

Our technology consists of a 2 stage ejector with no moving parts.



COMPETITIVE ADVANTAGES

- Minimize the air consumption
- Reducing energy consumption
- No moving parts
- Without maintenance
- Reliability

DESCRIPTION*

- The key points:
 - Getting a vacuum to operate reliably in very dusty industrial environments can be challenging (corrugated , MDF boards, wood, uneven and porous surfaces)
 - No moving parts
 - High vacuum flow capacity while maintaining an higher vacuum level

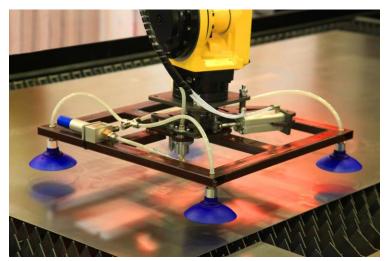


Photo: ©popov48 - AdobeStock

IE TECHNICAL SPECIFICATIONS

Technical performance	Ejector with doubled vacuum performance compared to corresponding size conventional single-stage ejector
Technical specification	Flap-free vacuum ejector to operate reliably in very dusty industrial environments
Manufacturing process	One-piece system easily realisable by injection-molding, additive manufacturing technologies etc.

* Technology requiring license rights.

TTT_164. Non contractual document. All rights reserved. June 2019.

APPLICATIONS

- Gripping material
- Packaging
- Automation
- Robotics

Ω INTELLECTUAL PROPERTY

Patent pending

O DEVELOPMENT STAGE

• Experimental proof of concept





ς **ΟΝΤΑCT**

T. +33 (0)5 62 25 50 60 systemes@toulouse-tech-transfer.com www.toulouse-tech-transfer.com