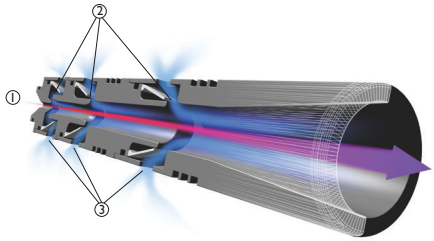
PIAB VACUUM PUMPS
piINLINE/piCOMPACT/P3010/P5010...

COAX® – A forerunner within air-driven vacuum technology

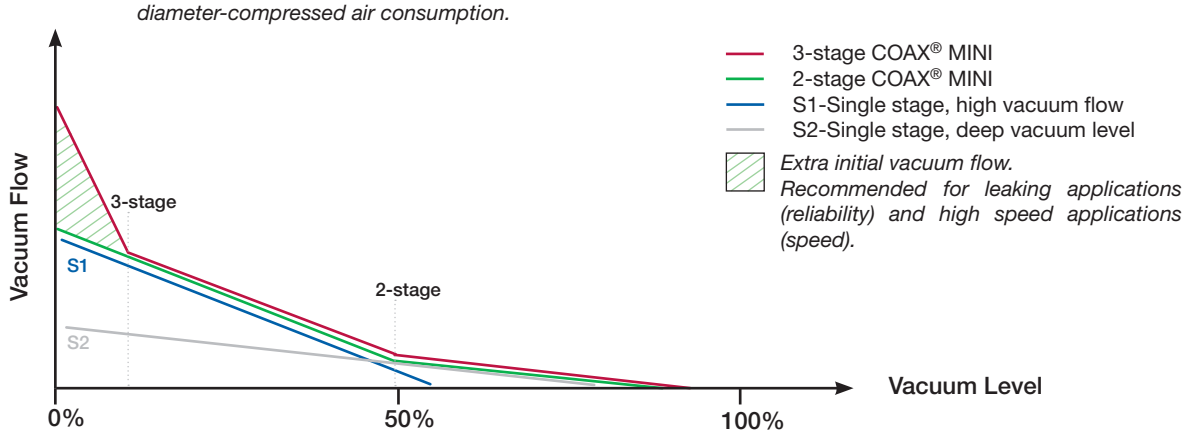
COAX® is an advanced solution for creating vacuum with compressed air. Based on Piab's multistage technology, COAX® cartridges are smaller, more efficient and more reliable than conventional ejectors, which allow for the design of a flexible, modular and efficient vacuum system. A vacuum system based on COAX® technology can provide you with several times more vacuum flow than conventional systems, allowing you to increase speed with high reliability while reducing energy consumption with up to 50%.

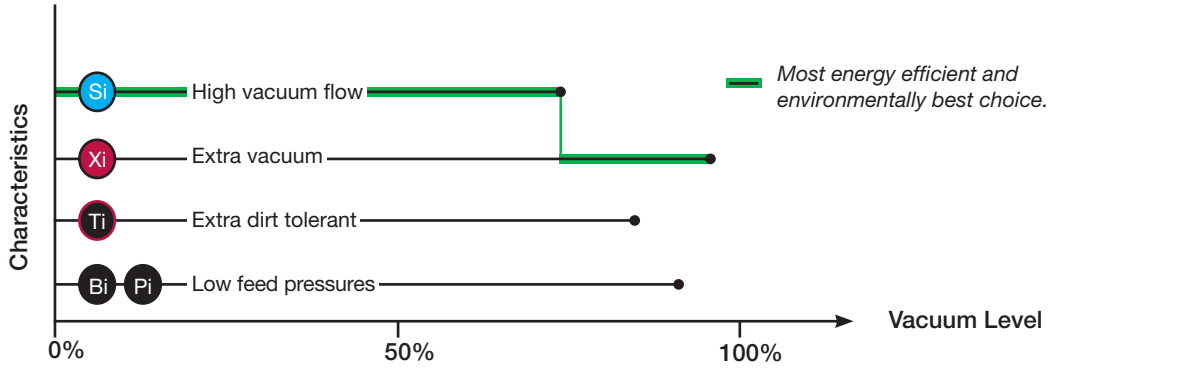
When compressed air (1) passes through the nozzles (2), air is pulled through with the stream of compressed air. Suction will be generated at the opening of each stage (3), resulting in vacuum.



COAX® cartridges exist in a 3-stage or 2-stage design in different sizes (MICRO, MINI and MIDI) and in several characteristics (Si, Xi, Ti and Bi/Pi) making them suitable for many applications. The technology ensures excellent performance at both low and high feed pressures (0.18-0.6 MPa, [26-87 psi]). Some cartridges are available in both 3-stage and 2-stage designs. The 3-stage is for increased vacuum flow and faster evacuation and the 2-stage is more economical and for applications where size and weight are factors.

The graphs represent ejectors that are equal in nozzle diameter-compressed air consumption.





(2021/04)

Vacuum pumps/generators

Applications

COMPACT DESIGN

Powerful vacuum pumps with integrated functionality.

piCOMPACT10, P3010, P5010

- Electronic and semiconductor machine equipment.
- Robot handling equipment in plastic, consumer, furniture and automotive industries.
- Suitable for fast and reliable evacuation in sealed systems.

LARGE BODY DESIGN

A large capacity pump (comparable up to 4kW [5 HP] electro mechanical pumps) that can still reduce energy costs by up to 40%.

P6010, P6040

- Automated material handling and other manufacturing processes in the automotive, robotic and packaging.
- Machine equipment for the graphic industry, e.g. off set press, post press machines.

CLASSIC DESIGN

Now 22% improvement of energy efficiency compared to the previous model.

piCLASSIC

- Robot handling equipment in plastic, consumer, furniture and automotive industries.
- Packaging machines.

Maximum performance with minimum footprint.

Chip pump

- Where a small footprint is needed.

INLINE DESIGN

40-50% energy reduction compared to other in-line vacuum ejectors in corresponding size.

piINLINE®

- Injection moulding automation equipment.
- Sheet metal handling equipment, such as laser cutting, bending and punching machines.
- Pick-and-place, such as labelling machines.

Large capacity vacuum pump suitable for cramped areas or for environments with tough chemical conditions.

Round pump

- For environments with tough chemical conditions.
- Vacuum forming, evacuation and filling of liquids, leak testing.

(2021/04)

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Energy optimizers

It is important to complete the vacuum system with “optimizing” control functions that will limit the use of compressed air and/or facilitate the use of a eco-friendly decentralized vacuum system.

Example of configurations

Automatic Quick Release

Keeps energy consumption for releasing objects to a minimum

AQR02 mounted on VGS™3010

Piab Cruise Control

The optimal energy saving function for leaking applications

PCC mounted on a P6010

Energy Saving

Saves up to 95% of energy consumption in sealed vacuum applications

ES mounted on a P3010

Automatic Vacuum Management

Integrated valve, vacuum switch, energy saving, flow control and much much more..

AVM™ 2 mounted on a P5010

System optimizers

Wide range both of filter types and degree of filtration

Vacuum Filter

Flow through silencers to avoid clogging and reduced pump performance

Silencers

Wide range of pneumatic, electric, electronic vacuum switches in fixed and adjustable versions.

Vacuum Switches

Reliable quick-release function for faster response time

Low opening pressure

Blow Off Valve

(2021/04)

Vacuum Gripper System – VGS™

Makes selection easy and dimensioning right

Piab's decentralized Vacuum Gripper system, VGS™, is a product solution integrating high quality suction cups with COAX® cartridges.

- VGS™ makes selection, sizing and installation of a vacuum system much easier. Design and dimension mistakes for the vacuum system will be avoided.
- You will enjoy the benefits of a more efficient and reliable vacuum system.
- Increased machine speeds can be achieved thanks to faster response times with the vacuum source right at the cup and better initial vacuum flow which will grip the object faster.
- The decentralized approach provides safety with one vacuum source per suction point and it also eliminates flow losses in long vacuum hoses, making maximum use of energy.
- VGS™3040 with integrated energy saving functions like Vacustat and AQR02 (Atmospheric Quik Release) is a pioneering product and the world's most energy efficient concept for vacuum handling of sealed parts, such as glass and metal sheets.

Fully decentralized and the most energy efficient and reliable vacuum handling system.

VGS™2010

VGS™3010

VGS™5010

With integrated options for energy-saving, positive blow-off or automatic quick-release.

VGS™3040

Technical modifications keep in reserve !

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