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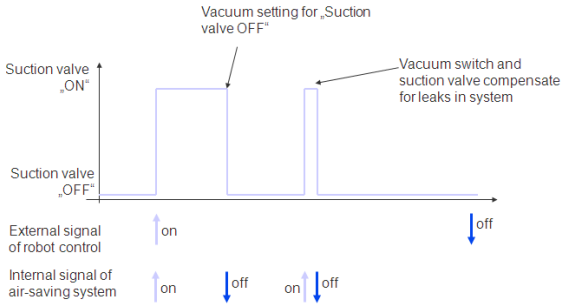
Compressed Air Savings 01/21/2010

ENERGY SAVING — Reduce your compressed air costs by up to 98%

Schmalz has developed an air saving function to dramatically reduce the usage of compressed air. Working principle:

With an active signal to the vacuum generator the vacuum switch senses arriving at defined vacuum level →
Then the vacuum switch sends a signal to the integrated control unit, which causes the control unit to deactivate the suction via the solenoid valve → Vacuum level is held via a check valve… → If leakage occurs the vacuum switch detects it and activates suction for a split-second via the control unit until the defined vacuum level for the air saving function is reached.



The system automatically maintains itself between a high and low set point to retain a safe vacuum level at all times
Once the unit is programmed it works independently without user interation.

Calculation example for a typical robot application:

	(2) Schmalz Mega Pumps SMP25 no air-saving	(2) Schmalz Mega Pumps SMP25 with air-saving
Transport time (sec.)	3 vacuum on all time	3 Saving mode no air-consumption
Evacuation time to -600 mbar (sec.) → time to reach defined vacuum level and enter saving mode	0.05	0.05
Total "vacuum on" time (sec.)	**3.05**	**0.05**
Air consumption per cycle (ft³) (21.9 ft³ air consumption per minute)	1.11	0.018
Number of cycles in 3-shift operation (6 sec. per cycle)	14,400	14,400
Daily air consumption (ft³)	*15,984*	*259*
Yearly cost savings ***(360 working days, $0.25 per 1000 ft³)***		***$1,415.25***

98% comp. air savings


Compact ejector SCPi/SMPi


Compact ejector X-Pump


Decentralized Ejector SEAC-RP

Top (4) Selling Points

- Dramatic cost reduction & extremly short ROI due to significant reduction of compressed air usage (up to 98%!)
- Pneumatic & Electronic Air Saving Solutions for centralized & decentralized systems
- Reduced noise level due to shorter suction period
- Eco-Friendly: reduced energy consumption

For further information, please ask your Schmalz Regional Sales Manager or our expert in our Raleigh HQs:
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New product

Compact ejector „SCPi/SMPi“ for innovative process communication

Compact ejector SMPi with fully integrated functionality

Applications

- Handling of air-tight workpieces
- Use in vacuum spiders in the area of metal and sheet-metal machining
- Suction pads in automated systems with short cycle times
- Process monitoring for optimisation of cycle times and compressed-air consumption in vacuum systems
- Vacuum systems with frequently changing process parameters such as varying batch weights of the workpieces

Our highlights …

- Can be integrated into existing bus systems, thanks to IO-Link
- Compact design and very low weight
- Integrated controller with standardised M12 connector
- Display for adjustment and indication of the settings
- Easily accessible pneumatic connectors made of metal, with integrated dirt sieve
- The suction function can be activated by a NO or NC contact or a pulse, as desired
- Protective sieves and open silencer

Your advantages …

> Parameters can be set from an external controller

> Automatic acceptance of stored process data

> Optimally suited to use with industrial robot systems

> Fast installation

> Clear and easy operation

> Fast and effective hose connection

> No need for further pneumatic components

> Little maintenance required

Keypad and display module of the compact ejector SMPi

Construction

- Seven-segment display and membrane keypad
- Electronic ejector control with monitoring function
- Integrated pneumatic valves for the switching functions NO, NC or pulse
- Ejector body made from light, impact-resistant plastic
- Optional power module for stronger blow-off action
- Optionally available with integrated air-saving function
- With or without "power blow-off” and adjustment screw for the blow-off power to permit fast or more careful blowing off of gripped parts

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