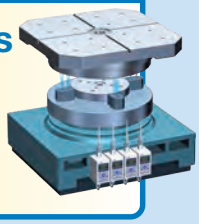
SMC
Automation • Controls • Process

ENERGY SAVING SOLUTIONS

Air blow
CO_2 emissions
87%
reduction

Placement verification
CO_2 emissions
60%
reduction



Actuators
CO_2 emissions
25%
reduction

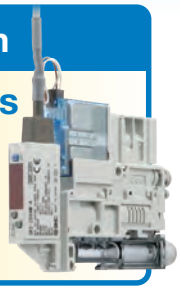
Air leakage
CO_2 emissions
100%
reduction

Overall Air
CO_2 emissions
62%
reduction

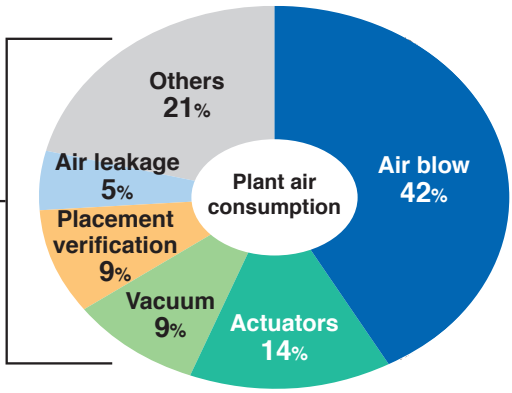
Air consumption calculation
(Flow rate/Pressure control)

Pressure loss (Piping)
CO_2 emissions
4%
reduction

Vacuum
CO_2 emissions
93%
reduction



Air represents **20%** of electric power consumption



- What is the application?
- What are the SMC energy saving options?

NF-L28-111A

Overall Machine Air Usage

Application: Supplying air to a local machine

Solution: Use the AMS to monitor the machine standby conditions (when production stops) and automatically decrease the pressure. Reduce unnecessary air consumption with standby and isolation modes.

- Use on any new or existing machine that uses compressed air
- Implement Condition-Based Maintenance to the pneumatic system
- Monitor & collect pneumatic consumption data of the machine

AMS Series, Air Management System

Air Consumption Reduction up to 62%

Actuators

Pneumatic Actuators

Application: Operating the cylinder with work in only one direction. The other directions has a little to no load. Not applicable for heavy tooling.

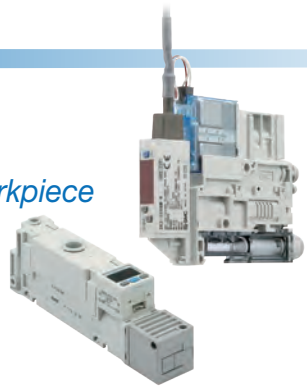
Solution: Use the ASR/Q flow controls to automatically reduce the pressure (and thus consumption) of the non-working side of the cylinder.

ASR/Q Series, Air Saving Speed Controller

Air Consumption Reduction up to 25%

Vacuum Equipment

Vacuum



Application: Utilizing vacuum generation (ejector or pump style) for workpiece adsorption. Not ideal for transfer with high leakage. i.e. no foam pads.

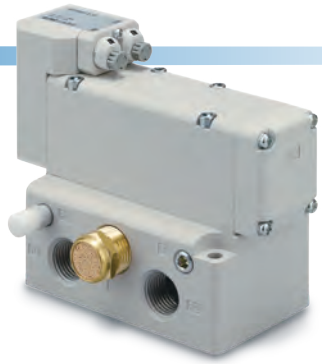
Solution: Use the ZK2 and ZL with "energy savings" mode to shut off and stop consuming air/vacuum when a vacuum set point is reached. It will turn back on if any leakage causes the vacuum pressure to drop below a set level.

ZK2A Series, Vacuum Generator and
ZL Series, Multi-Stage Generator

Air Consumption Reduction up to 93%

Air Blow

Continuous Air Blow Off



Application: Using air in any open nozzle or blow-off application.

Solution: Use the AXTS as close to the nozzle as possible to automatically pulse the blow-off on and off. This greatly reduces consumption while improving the impact of the blow-off.

AXTS040-X2 Series, Air Saving Pulse Valve

Air Consumption Reduction more than 50%

SMC Corporation of America

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