

Air Leak Assessment



4BAR factory



Change the pressure to change the future.

CO₂
Emission-reducing



**SUSTAINABLE
DEVELOPMENT
GOALS**

SMC Energy Saving Programme – Air Leak Assessment



SMC recognizes that protecting the environment is essential for both our business and the future of humanity. We are committed to creating a safe and sustainable environment where people can live in harmony with nature.

One major issue in factories is **air leakage**, which increases compressor power consumption and leads to higher **CO₂ emissions**.

Leakage Hole Diameter (mm)	Air leakage l/min	Leakage per year m ³ /year	Annual financial loss RM/year
0.5	12	1,800	108
2	200	30,000	1,800
5	1,248	187,200	11,232

Compressed air cost:	RM 0.06/m ³
Operating pressure:	0.5MPa
Operation time of compressor:	2500h/year
Compressor:	22kW
Tariff Rate:	RM 0.44/kWh
(Calculation based on SMC local production operating condition)	

Consequences due to excessive air leakage in the factory:

- Compressor overload, which results in higher operating & maintenance cost
- Pressure drops, which reduce pneumatic components working efficiency
- Probable increase in machine downtime (reduce production output)

SMC Energy Saving Programme – Air Leak Assessment



Our Services

- SMC technical team can help you find out all air leakage points throughout the factory.
- We will help to remove & reduce unwanted wastage of compressed air to achieve factory CO₂ reduction.
- Technical expertise can assist you in reducing air consumption & optimization based on machine application to achieve better energy efficiency.

Tools

Industrial Acoustic Imager

- Able to visualize the sound from air leaking source through touch screen panel.
- Able to identify air leak in high-noise environments. Measurement data can be downloaded into PC & generate air leak assessment report.



CHARGES

Air Leak Assessment	Charges	Remark
Customer with air leak detection tools	RM 750 per man-day	Onsite Assessment + Report
Customer without air leak detection tools	RM 1,500 per man-day	Onsite Assessment + Report

- Includes **1 day of pre-assessment and explanation.**
- Our engineers will provide **technical advice on energy-saving improvements** and recommend **SMC parts for replacement.**

Providing added value to the 4BAR factory concept

The air management system elevates the “4BAR factory” concept by reducing air consumption while equipment is in standby.

- Visualization of production equipment status
- Compatible with SMC wireless systems
- Compatible with  **OPC UA**
 **EtherNet/IP**  **EtherCAT**
- Reduce air consumption by lower pressure during equipment standby
- Reduce air consumption by shutting off valves depending on equipment shutdown conditions



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