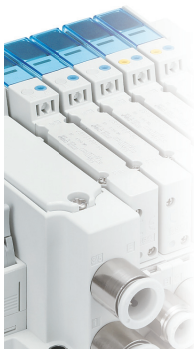
SMC

Expertise – Passion – Automation

Sustainable Management of CO_2



CO_2 emission calculation conditions and definitions (SMC's calculation method)

- The amount of greenhouse gases emitted during the production of raw materials converted, into CO_2 emissions is displayed as [kg-CO_2e].

- Calculation by the LCI database

The LCI (life cycle inventory) data—which is a quantitative assessment of the amount of emissions emitted during a product's life cycle (production, usage, disposal, etc.) takes into account the amount of resources and energy used in each process as well as various environmental impacts

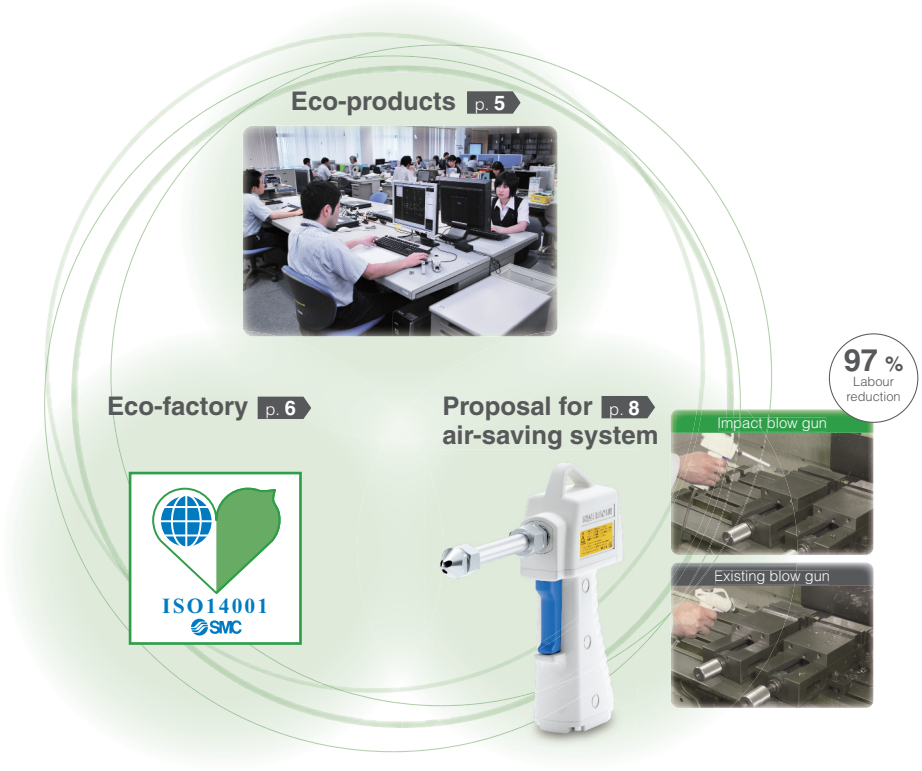
Source: LCI database IDEA version 2.3 (2019/12/27): National Institute of Advanced Industrial Science and Technology
The Research Institute of Science for Safety and Sustainability's Research Laboratory for IDEA, Sustainable Management Promotion Organisation

SMC's CO_2 emission-reducing initiatives

Production process and product performance improvements with a focus on the environment

Over the past several years, SMC has continued to take on its social responsibility to seriously promote and support sustainability in order to minimize negative impacts to the environment.
SMC is always looking to develop newer and greener solutions with CO_2 reduction as a top priority as a leader in the field of pneumatics.
One of the key components of our comprehensive approach is the designing of compact and lightweight products. Smaller, lighter products require less raw materials to make and less time to process. In addition, the products themselves use less energy.
All of these efforts contribute to reduced CO_2 emissions.
SMC's fully integrated technical, production, and sales departments are able to respond to the needs of our customers from around the world with a shared goal of finding new methods to effectively protect the environment.

SMC's CO_2 emission-reducing initiatives also include the promotion of eco-friendly factories and products. In addition, SMC promotes the reduction of CO_2 emissions in our operations.



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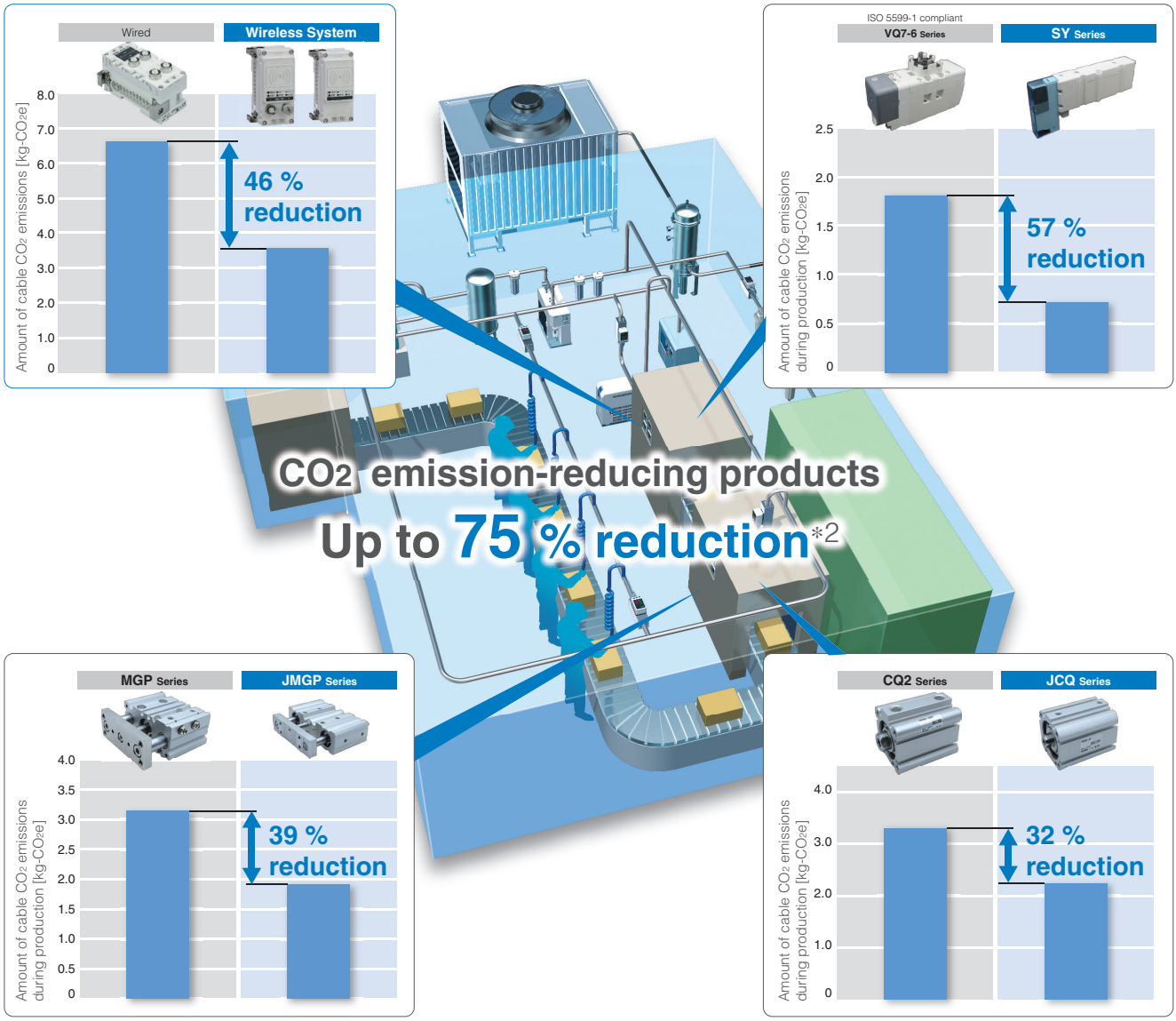
CO_2 emission-reducing products

With SMC's use of topology optimization*1 in the design process, more compact, lightweight products can be realized compared with existing products, resulting in a large reduction in the amount of CO_2 emissions during production.
In addition, these products can also contribute to energy saving and CO_2 reduction during usage.

*1 Topology optimization is the methodology of finding the most efficient design for an object on a mathematical and mechanical basis.



*2 For low wattage valves with power-saving circuit (Refer to page 19.)

The benefits of using compact, lightweight products:

CO_2 emission reduction

By using compact, lightweight products, you can **minimize the size and weight of devices!**

By using compact products, you can **make efficient use** of factory space!

By using lightweight products, you can reduce tact time and **improve productivity!**

Eco-products

SMC is dedicated to the production of environmentally friendly products that reduce environmental impacts. This is done from the design and development phases until the end of the product life cycle. With product assessments, we evaluate the environmental impact of our products in terms of resource savings (smaller, lighter), product longevity, energy savings, safety, variations, amount of packing materials, and waste disposal in order to develop environmentally sound products.

Resource-saving

No communication cables required. p. 10

Weight: Up to 54 % lighter p. 11

Long service life

Service life: 200 million cycles (Metal seal)

Energy saving

Power consumption reduced by 34 % (Energy saving)[*1]

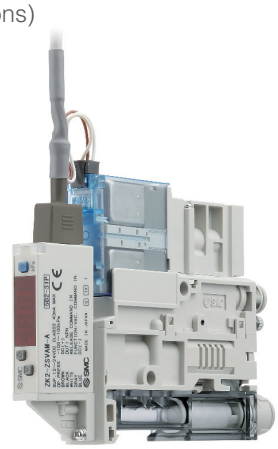
*1 Under the conditions shown on **https://www.smc.eu**

Air saving

93 % reduction in air consumption

(Under SMC's measurement conditions)

Air consumption reduced with an energy efficient vacuum pressure switch and ejectors.



87 % reduction in air consumption

(Under SMC's measurement conditions)

Impact force increased with higher peak pressures that allows for a drastic reduction in air consumption and labor time.

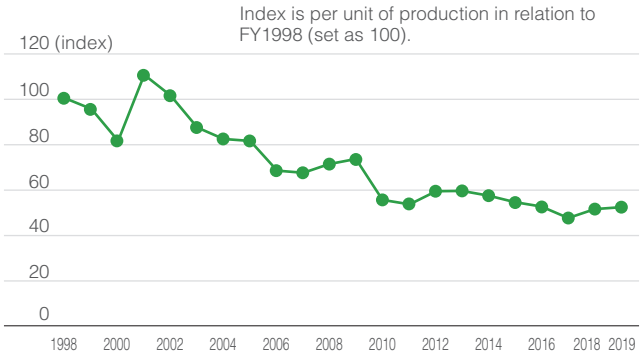
Eco-factory

SMC has implemented ISO 14001, the international standards related to environmental management, and began to make organizational efforts in implementing environmentally friendly and energy-saving measures at our factories since 1998 (acquired certification in December 1999).

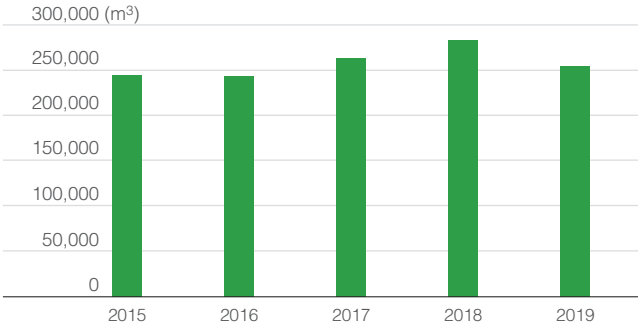
Energy consumption & CO_2 emissions and water usage

The largest source of CO_2 emissions in SMC's business activities is from the use of electricity.
SMC aims to reduce the emission of CO_2 through the combined effect of its steady energy-saving efforts.

Reduction of CO_2 emissions (intensity)



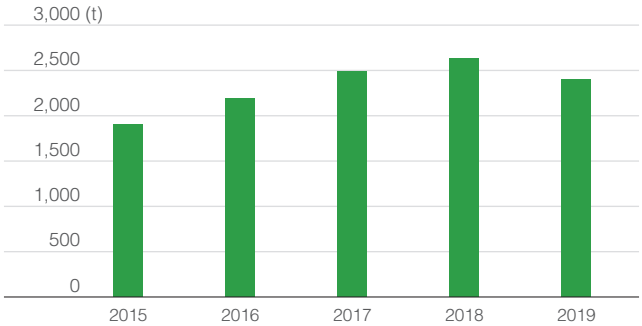
Water usage



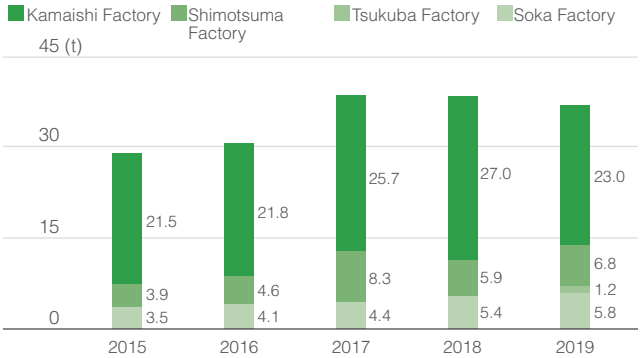
Proper management of chemical substances

SMC strives to eliminate the use of CFCs by switching to alternatives with lower GWP values, and to reduce the overall use of chemical substances (through prevention of evaporation, prevention of removal, and reuse).

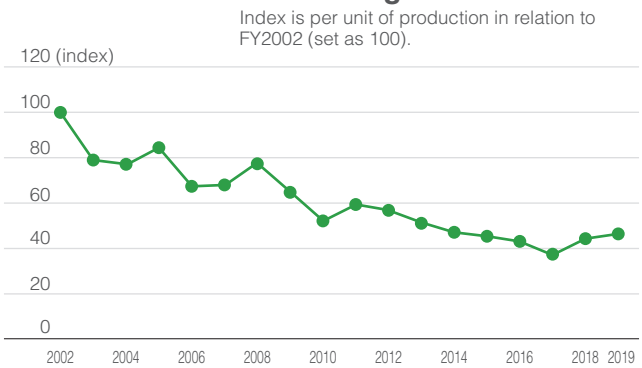
Waste discharge



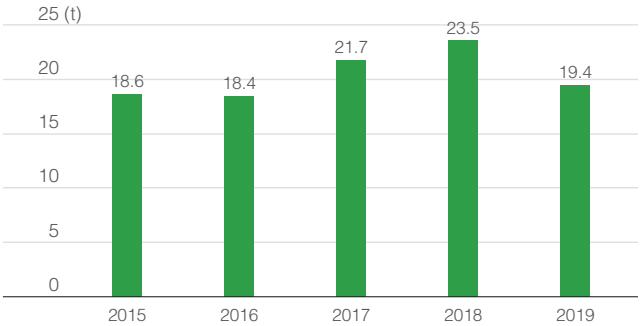
Chemical substance usage



Reduction of waste discharge



Chemical substance discharge



About Specified Businesses

1 SMC is designated as a Specified Business under the Act on Rationalizing Energy Use. Furthermore, our Soka 1st Factory, Tsukuba 1st Factory, Tsukuba Technical Center, Kamaishi Factory, Kamaishi 4th Factory, Tono Factory and Yamatsuri Factory are designated as Designated Energy Management Factories as the energy consumption at each factory for a given business year is 1,500 kL (crude oil equivalent) or more.

2 Specified Businesses and Designated Energy Management Factories are obliged to establish targets to reduce their energy consumption by 1 % or greater per year, as well as to manage energy consumption on an organizational basis and submit periodic reports.

Reduction of industrial wastes

SMC practices strict waste sorting and promotes the 3Rs - Reduce, Reuse and Recycle. SMC sells computers and printers, which are no longer used, as material of value to recycle operators and reducing its waste disposal costs.

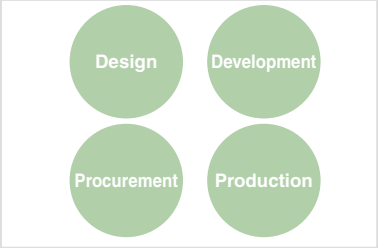
Example of sorting
・plastic waste ・paper ・vinyl chloride ・rubber ・noncombustible items ・corrugated boards

Material balance

SMC keeps track of the environmental burdens generated through consumption of resources and energy during the design, development and manufacturing of its products.

INPUT	
Materials	33794 t
Energy	751678 GJ
Chemical substances	1201 t
Water	260000 m^3
Packaging materials	1514 t
Paper	94 t

SMC's business activities



OUTPUT	
Products	
CO_2 from production activities	39281 t*1
Recycle	3643 t*2
Waste	2459 t

*1 CO_2 from production activities is the amount of CO_2 emitted associated with energy usage.
*2 Recycle refers to the amount that is discharged as material of value and reused and/or recycled as materials and thermal energy.

Designated as a large-scale facility

A regulation regarding annual energy consumption is stipulated in a plan to prevent climate change set forth under Saitama Prefecture's ordinance. Facilities with energy consumption that exceeds the equivalent of 1500 kL of crude oil per year for three consecutive years are designated as a large-scale facility and are required to reduce their energy consumption. SMC's Soka 1st Factory was designated as a large-scale facility in FY2019 as its energy consumption exceeded the equivalent of 1500 kL for three consecutive years in FY2016–2018.

Initiatives at each factory

SMC uses flow switches, its own products, to monitor the air flow rates at each factory to enable early detection of air leaks due to equipment failure. SMC is also working on improving energy efficiency. Its effort include the use of mechanisms that automatically shut off the air source during plant downtime, which reduced the use of purge air*1 by 30 % (compared to our conventional operation).

*1 The air used to discharge the remaining air from air pipes when a plant starts operation.

Green procurement

SMC recognizes that conservation of the global environment is a common issue for all humanity and a matter that demands the consideration of management.
SMC will develop and supply environmentally friendly products in order to continually reduce the environmental burdens in accordance with its basic philosophy: "SMC strives to undertake environmental conservation activities through pneumatic technology that contributes to automation in all fields of industry in order to pass down a sustainable global environment to future generations".
As part of its initiatives, SMC conducts green procurement of products, materials, components, semi-finished goods, secondary materials, and packaging materials used in the design, development and production process.

Proposal for air-saving system

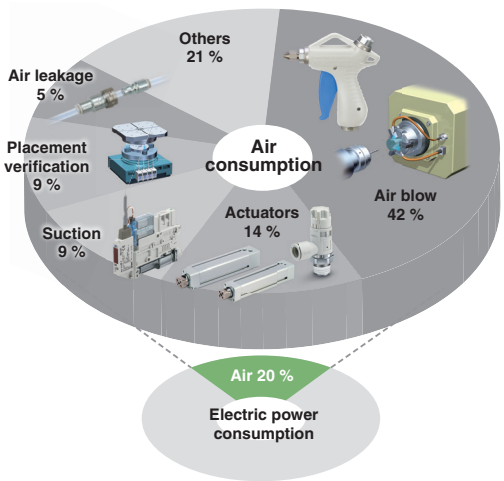
Contributes to CO_2 emissions reduction

We will help you save energy.
The first step towards energy saving is understanding the current state of your factory. Improved awareness is key.

Did you know that air equipment accounts for about 20 % of all factory power consumption? Air blow is the main factor, responsible for over 40 % of all air consumption, with actuators accounting for 14 % and suction 9 %.

Improved air blow efficiency can be achieved by selecting optimally sized piping. Similarly, air saving can be achieved by device optimization.

By allowing SMC to check on the state of your factory, we will be able to provide you with equipment and facility improvement proposals, factory management training, and access to a wide range of other useful services.



Success stories of companies that implemented measures for energy saving

Company A performance	
Electricity consumption	3000 kW → **1400 kW**
CO_2 emissions	**1900 t annual reduction**
Cost	**384000 € annual reduction**

Company B performance	
Electricity consumption	10000 kW → **7000 kW**
CO_2 emissions	**3500 t annual reduction**
Cost	**720000 € annual reduction**

∗ Companies in Europe. Amounts in euro. Electricity unit cost 0.12 €/kWh. Operating hour 2000 h/year. Electricity - CO_2 emissions conversion factor 0.587 kg - CO_2/kWh.
∗ SMC research.

Energy saving

Impact blow gun

Generates a higher peak pressure than conventional blow guns to reduce air consumption and labor time.

87 % reduction in air consumption

Air-saving, long-life

Pulse blow valve

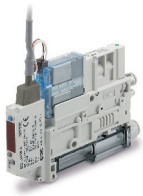
Contributes to efficient air blow by achieving repeated peak pressure with a simple air supply.

50 % reduction in air consumption

Energy saving, air-saving, noise reduction

Vacuum unit

① Reduces air consumption with SMC's energy-saving digital pressure switch.
② Improved noise reduction with SMC' s silencer.



93 % reduction in air consumption

Air-saving, supports preventive and predictive maintenance

IO-Link compatible 3-screen display digital gap checker

① When workpieces are seated, the product does not exhaust air, dropping air flow consumption down to 0 L/min.
② Process data including the displayed supply, and exhaust values are retrieved to contribute to preventative and predictable maintenance.

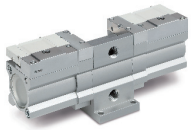
60 % reduction in air consumption.

Air saving, noise reduction

Booster regulator

Compressed air used to operate the drive chamber can be reused via the exhaust return circuit, resulting in lower air consumption and reduced noise.

40 % reduction in air consumption
80 % reduction in operation noise



Energy saving, space-saving

Thermo-chiller

(Dual channel refrigerated thermo-chiller for lasers)

① Adopted an inverter control and a heaterless heating function for energy-savings.
② Temperatures for 2 fluid channel systems can be controlled individually by one chiller, contributing to space-saving.

30 % reduction in power consumption

- SMC promotes the reduction of packaging materials, repeated use and review of materials (selection of materials containing less amount of substances that generate toxic gas upon disposal).
- SMC gives consideration to the disposal of its products by improving decomposability and reducing of the variations of the materials used.
- SMC discloses to its customers' information on the content and use of substances of concern in its products.

CO_2 emission-reducing products

During the production process

With SMC's use of topology optimization*1 in the design process, more compact, lightweight products can be realized compared with existing products, resulting in a large reduction in the amount of CO2 emissions during production.
In addition, these products can also contribute to energy saving and CO2 reduction during usage.

*1 Topology optimization is the methodology of finding the most efficient design for an object on a mathematical and mechanical basis.

Cableless

Wireless system

Communication cables not required

EX600-W Series

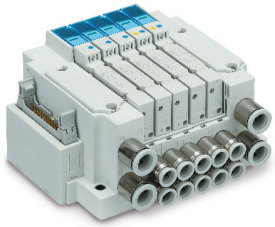
Base

Remote

Compact and lightweight

JCQ Series

JCM Series



JSY Series

AF Series

JMGP Series

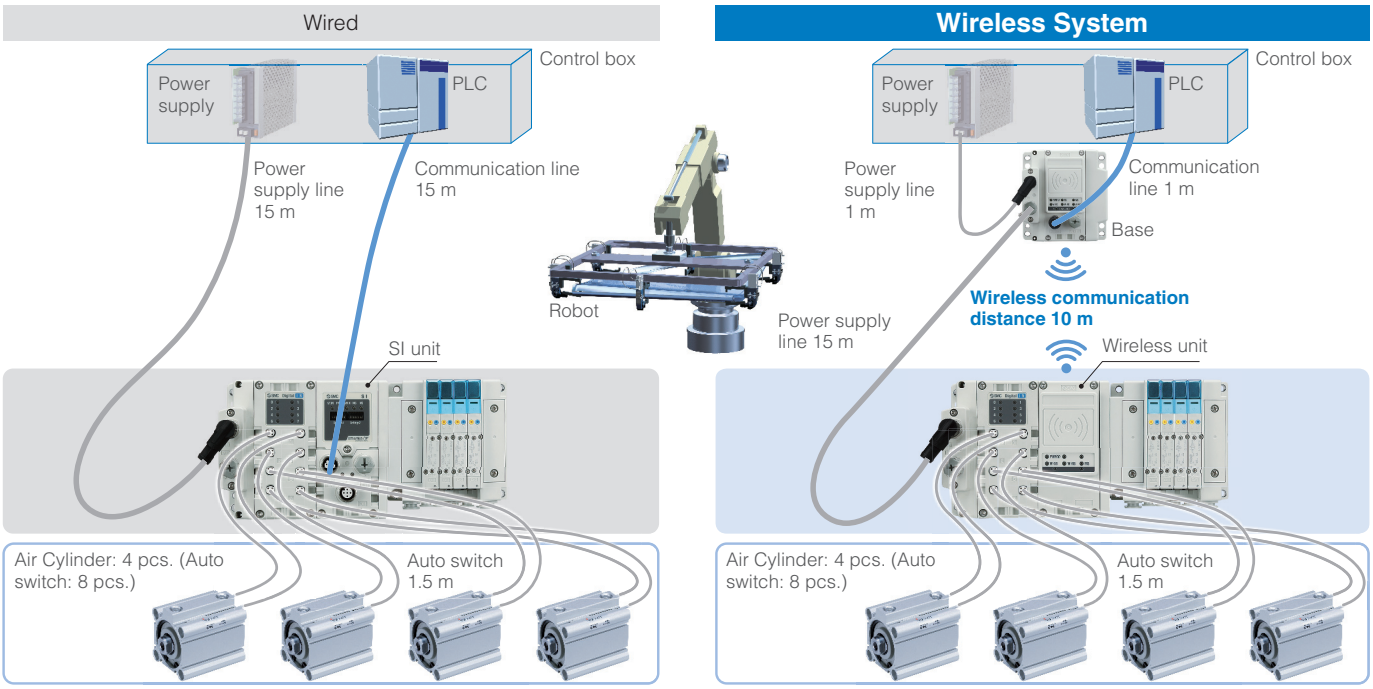
KQ2 Series

Comparison with existing products (Cableless)

Example of CO_2 emissions reduction **1**

Communication cables not required

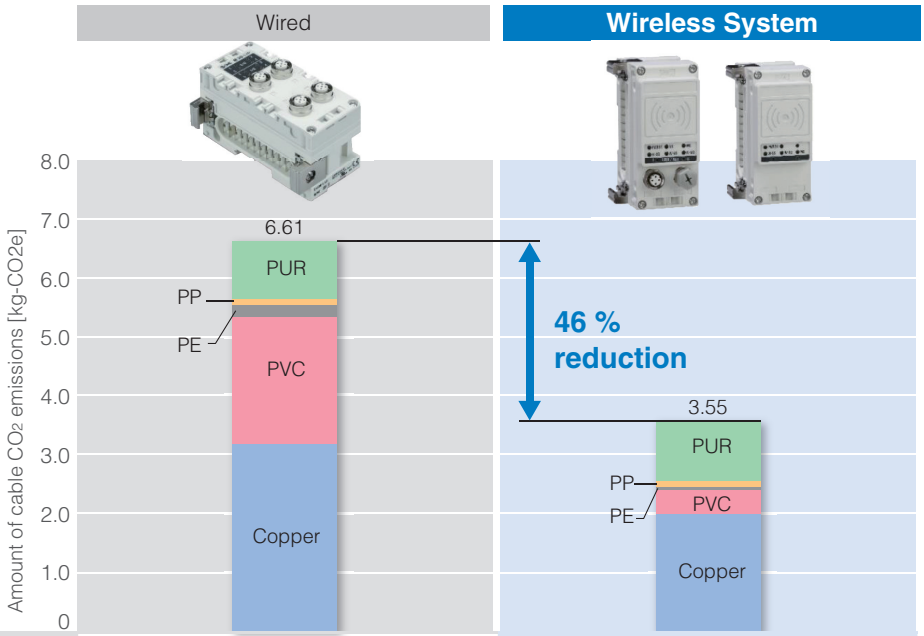
Reduced wiring labor, space savings, with minimized disconnection risk.



∗ The communication wiring distance refers to the actual wiring distance not the wireless communication distance. (The max. wireless communication distance is 10 m.)

Wireless System **EX600-W Series** – CO_2 emissions: Up to **46 % reduction**

PP : Polypropylene
PE : Polyethylene
PVC : Polyvinyl chloride
PUR : Polyurethane



∗ For details on CO_2 emission calculation conditions (SMC's calculation method), refer to page 2.

System		Existing: Wired		New: Wireless system	
CO_2 emissions		**6.61 kg-CO_2e**		**3.55 kg-CO_2e**	
Cable		**Amount to use**	**CO_2 emissions**	**Amount to use**	**CO_2 emissions**
	Power supply line	15 m	2.39 kg-CO_2e	**16 m**	**2.56 kg-CO_2e**
	Communication line	15 m	3.46 kg-CO_2e	**1 m**	**0.23 kg-CO_2e**
	Auto switch	1.5 m	0.76 kg-CO_2e	**1.5 m**	**0.76 kg-CO_2e**

Comparison with existing products (Compact products)

Example of CO_2 emissions reduction **2**

With SMC's use of topology optimization in the design process, more space-saving, lightweight products can be realized with the same bore size and stroke as existing products.

Large reduction in the amount of CO_2 emissions during production

Overall length shortened

Existing product Ø 40 (CM2 series)

Lightweight

Up to

54 % lighter

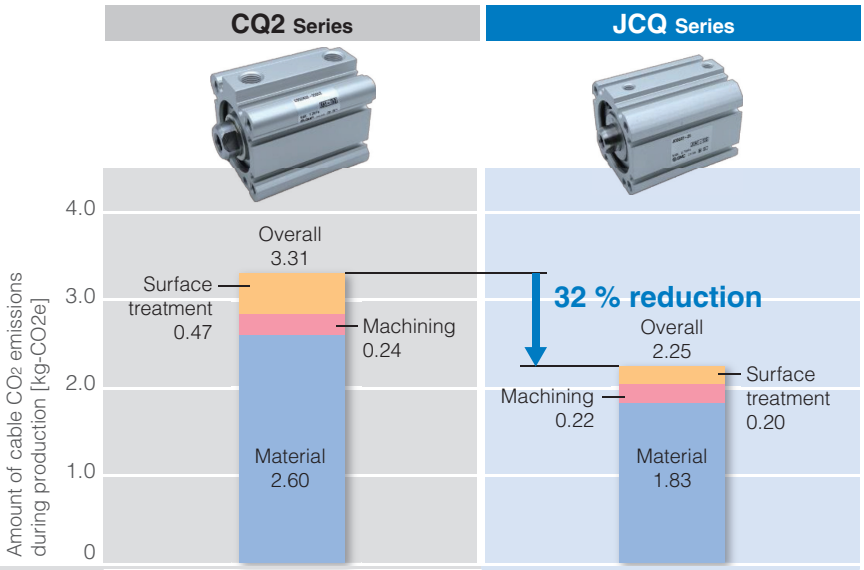
0.69 kg ➡ 0.32 kg

CO_2
Emission-reducing

(Compared with the existing CM2B series, Ø 40, 50 mm stroke)

Compact cylinder **JCQ Series** – CO_2 emissions: **32 % reduction**

CO_2 emissions	**1.06 kg-CO_2e reduction** (32 % reduction)
Weight	**31 g reduction** (15 % reduction)
Volume	**16 cm³ reduction** (17 % reduction)
Overall length	**12.5 mm reduction** (18 % reduction)

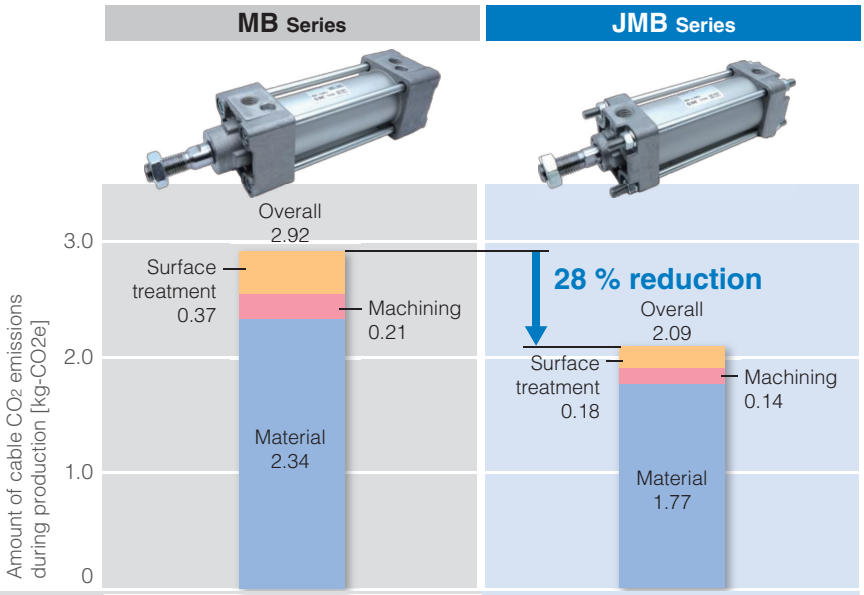


Part no.	CDQ2B32-25DCZ	JCDQ32-25
CO_2 emissions	**3.31 kg-CO_2e**	**2.25 kg-CO_2e**
Weight	207 g	**176 g**
Volume	93 cm³	**77 cm³**
Overall length	70 mm	**57.5 mm**

∗ For details on CO_2 emission calculation conditions (SMC's calculation method), refer to page 2.

Air cylinder **JMB Series** – CO_2 emissions: **28 % reduction**

CO_2 emissions	**0.83 kg-CO_2e reduction** (28 % reduction)
Weight	**230 g reduction** (42 % reduction)
Volume	**61 cm³ reduction** (29 % reduction)
Overall length	**26 mm reduction** (18 % reduction)

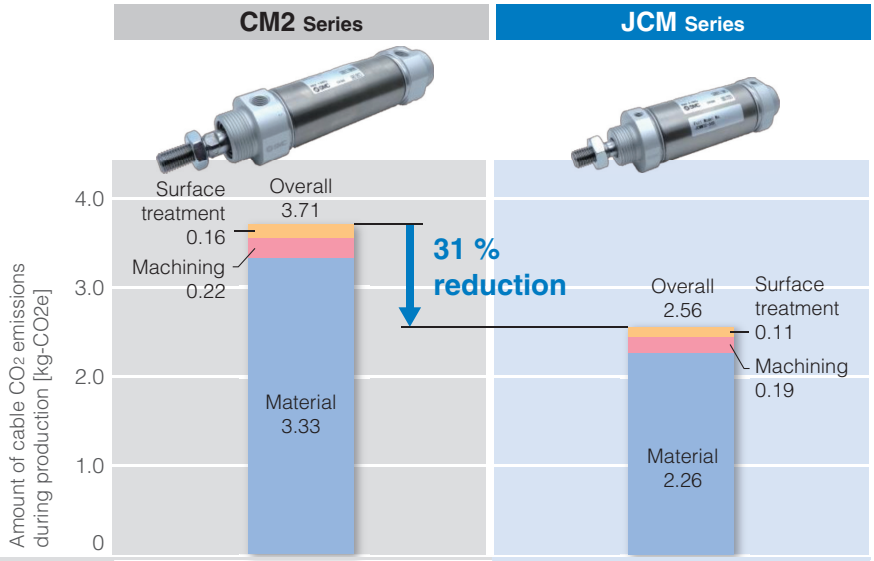


Part no.	MDBB32-50Z	JMDBB32-50
CO_2 emissions	**2.92 kg-CO_2e**	**2.09 kg-CO_2e**
Weight	550 g	**320 g**
Volume	213 cm³	**152 cm³**
Overall length	185 mm	**159 mm**

∗ For details on CO_2 emission calculation conditions (SMC's calculation method), refer to page 2.

Air cylinder JCM Series – CO_2 emissions: 31 % reduction

CO_2 emissions	**1.15 kg-CO_2e reduction** (31 % reduction)
Weight	**118 g reduction** (33 % reduction)
Volume	**35 cm³ reduction** (27 % reduction)
Overall length	**34 mm reduction** (20 % reduction)

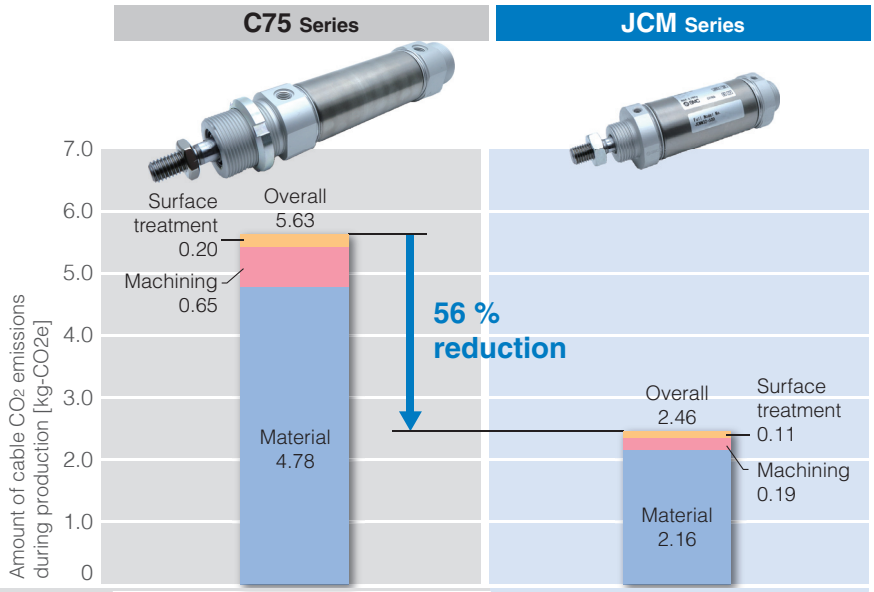


	CM2 Series	JCM Series
Part no.	**CDM2B32-50Z**	**JCDMM32-50**
CO_2 emissions	**3.71 kg-CO_2e**	**2.56 kg-CO_2e**
Weight	360 g	**242 g**
Volume	128 cm³	**93 cm³**
Overall length	172 mm	**138 mm**

∗ For details on CO_2 emission calculation conditions (SMC's calculation method), refer to page 2.

Air cylinder JCM Series – CO_2 emissions: 56 % reduction

CO_2 emissions	**3.17 kg-CO_2e reduction** (56 % reduction)
Weight	**150 g reduction** (45 % reduction)
Volume	**55 cm³ reduction** (37 % reduction)
Overall length	**52 mm reduction** (27 % reduction)

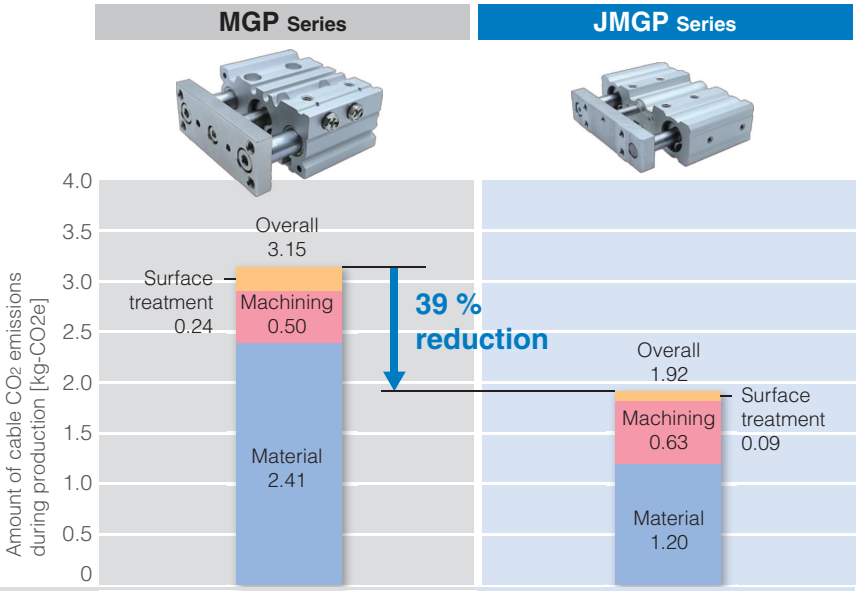


	C75 Series	JCM Series
Part no.	**CD75E32-50-B**	**JCDMM32-50**
CO_2 emissions	**5.63 kg-CO_2e**	**2.46 kg-CO_2e**
Weight	440 g	**242 g**
Volume	148 cm³	**93 cm³**
Overall length	190 mm	**138 mm**

∗ For details on CO_2 emission calculation conditions (SMC's calculation method), refer to page 2.

Compact guide cylinder **JMGP Series** – CO_2 emissions: **39 % reduction**

CO_2 emissions	**1.23 kg-CO_2e reduction** (39 % reduction)
Weight	**207 g reduction** (69 % reduction)
Volume	**49 cm³ reduction** (58 % reduction)
Overall length	**13 mm reduction** (23 % reduction)

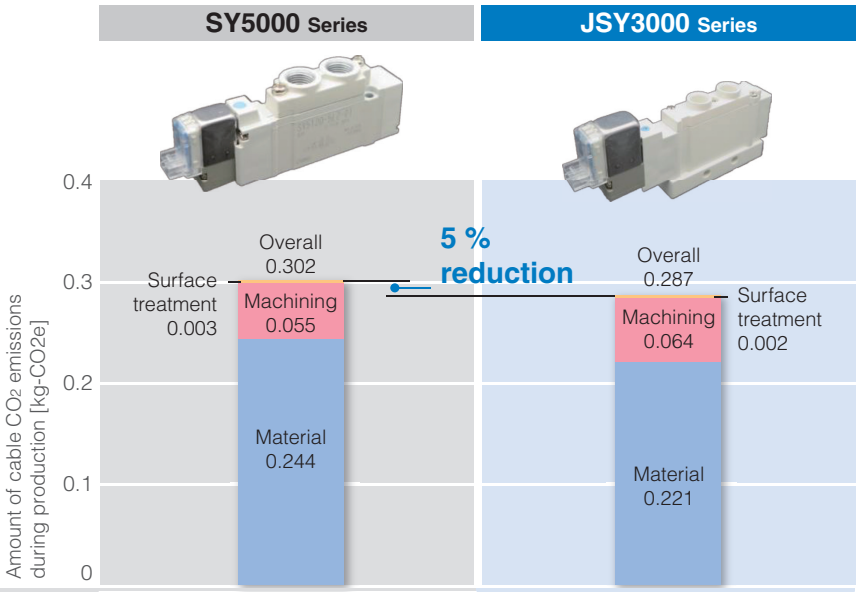


	MGP Series	JMGP Series
Part no.	**MGPM16-10Z**	**JMGPM16-10**
CO_2 emissions	**3.15 kg-CO_2e**	**1.92 kg-CO_2e**
Weight	301 g	**94 g**
Volume	84 cm³	**35 cm³**
Overall length	56 mm	**43 mm**

∗ For details on CO_2 emission calculation conditions (SMC's calculation method), refer to page 2.

5-port solenoid valve **JSY Series** – CO_2 emissions: **5 % reduction**

CO_2 emissions	**0.015 kg-CO_2e reduction** (5 % reduction)
Cv	**0.09 increase** (16 % reduction)
Weight	**15 g reduction** (23 % reduction)
Valve width	**5 mm reduction** (33 % reduction)

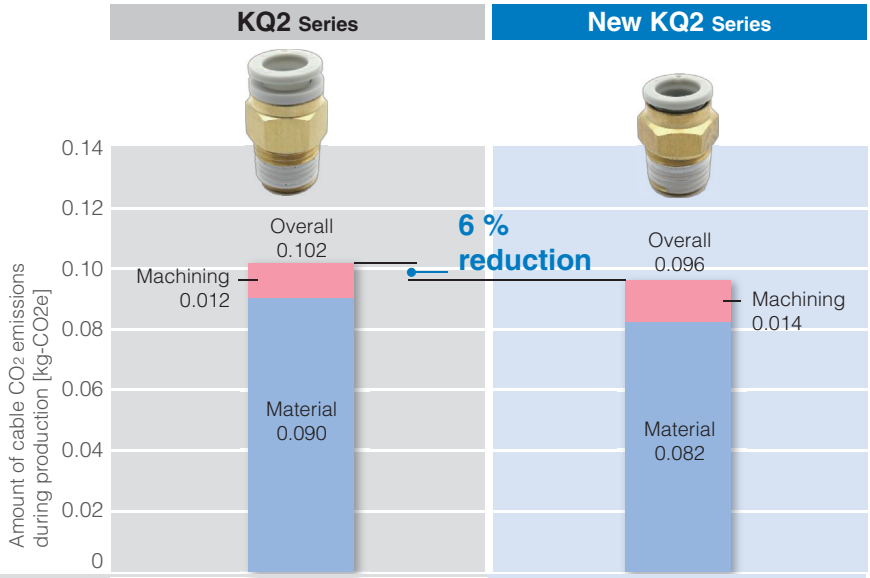


	SY5000 Series	JSY3000 Series
Part no.	**SY5120-5LZ-01**	**JSY3120-5LZ-R1**
CO_2 emissions	**0.302 kg-CO_2e**	**0.287 kg-CO_2e**
Cv	0.55	**0.64**
Weight	65 g	**50 g**
Valve width	15 mm	**10 mm**

∗ For details on CO_2 emission calculation conditions (SMC's calculation method), refer to page 2.

One-touch fittings **KQ2 Series** – CO_2 emissions: **6 % reduction**

CO_2 emissions	**0.006 kg-CO_2e reduction** (6 % reduction)
Weight	**0.6 g reduction** (5 % reduction)
Overall length	**4.5 mm reduction** (17 % reduction)

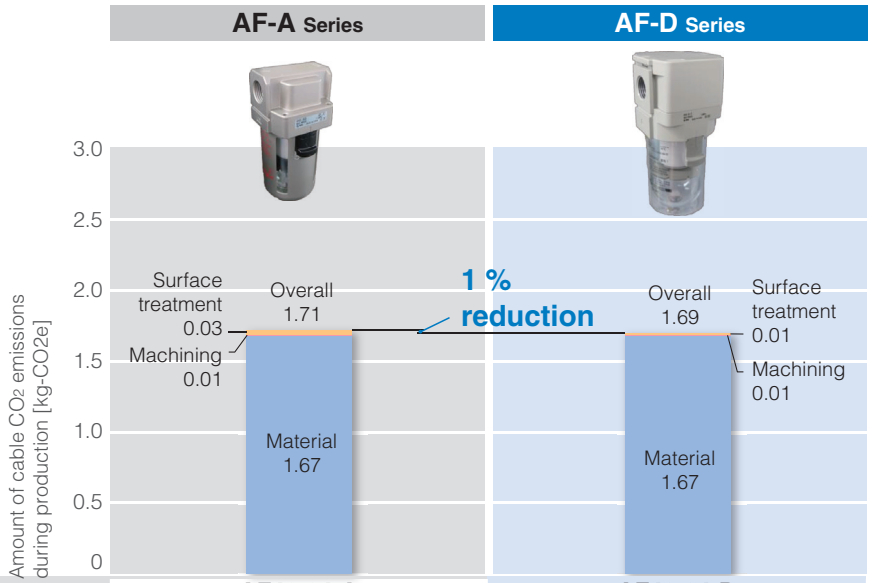


	KQ2 Series	New KQ2 Series
Part no.	KQ2H08-02S	KQ2H08-02AS
CO_2 emissions	**0.102 kg-CO_2e**	**0.096 kg-CO_2e**
Weight	12.8 g	**12.2 g**
Overall length	26.5 mm	**22 mm**

∗ For details on CO_2 emission calculation conditions (SMC's calculation method), refer to page 2.

Air filter **AF Series** – CO_2 emissions: **1 % reduction**

CO_2 emissions	**0.02 kg-CO_2e reduction** (1 % reduction)
Weight	**14 g reduction** (4 % reduction)
Overall length	**8 mm reduction** (5 % reduction)



	AF-A Series	AF-D Series
Part no.	AF40-04-A	AF40-04-D
CO_2 emissions	**1.71 kg-CO_2e**	**1.69 kg-CO_2e**
Weight	370 g	**356 g**
Overall length/Face-to-face	165 mm/70 mm	**173 mm/70 mm**

∗ For details on CO_2 emission calculation conditions (SMC's calculation method), refer to page 2.

Comparison with ISO standard-compliant products (Compact products)

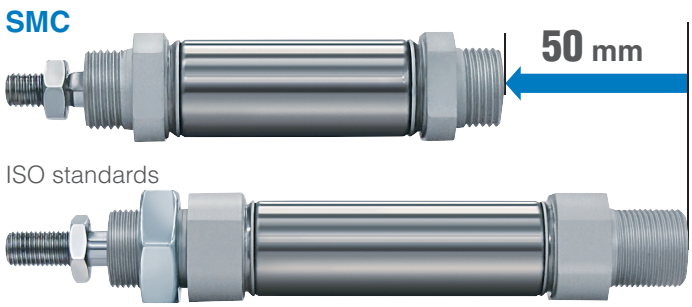
Example of CO_2 emissions reduction **3**

With SMC's use of topology optimization in the design process, more space-saving, lightweight products can be realized compared with existing ISO standard-compliant products.

Large reduction in the amount of CO_2 emissions during production

SMC vs. ISO standards

Air cylinder

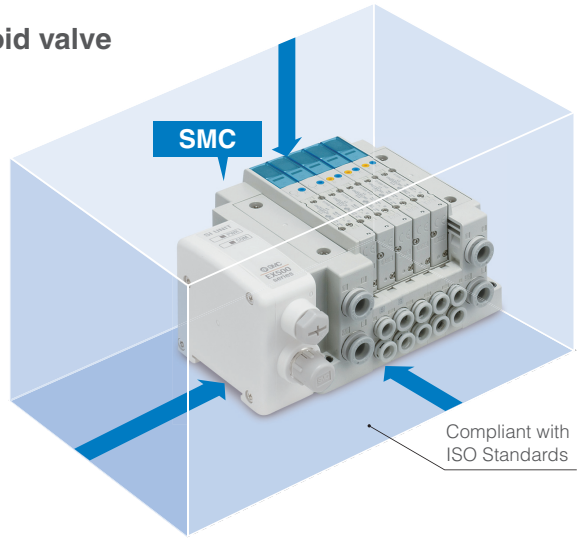


CO_2 Emission-reducing

Overall length
27 % reduction

Weight
44 % reduction

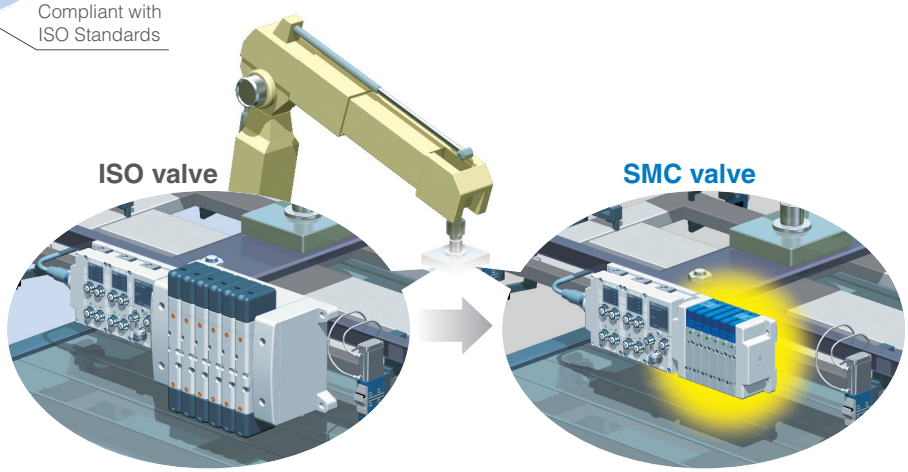
Solenoid valve



CO_2 Emission-reducing

Occupied volume
79 % reduction

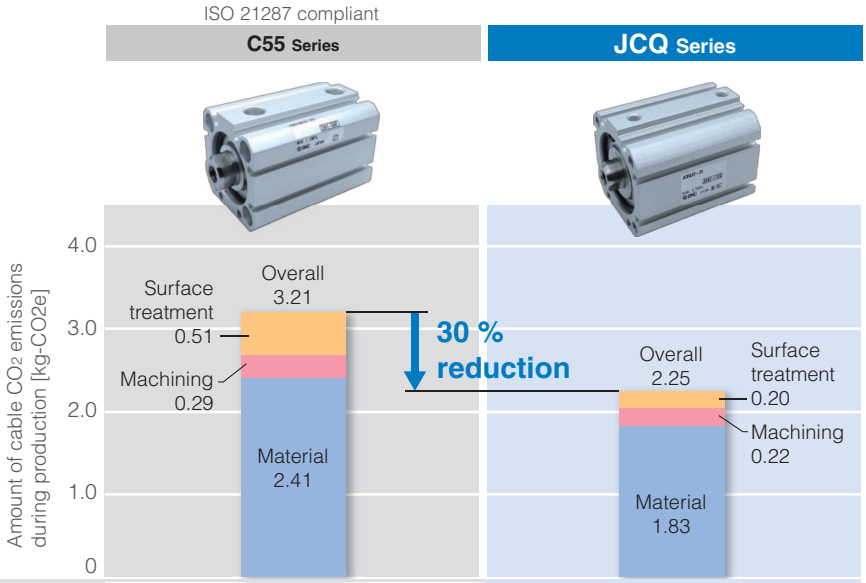
Weight
76 % reduction



Compact cylinder **JCQ Series** – CO_2 emissions: **30 % reduction**

CO_2 emissions	**0.96 kg-CO_2e reduction** (30 % reduction)
Weight	**167 g reduction** (49 % reduction)
Volume	**51 cm³ reduction** (40 % reduction)
Overall length	**18.5 mm reduction** (24 % reduction)

ISO 21287 compliant



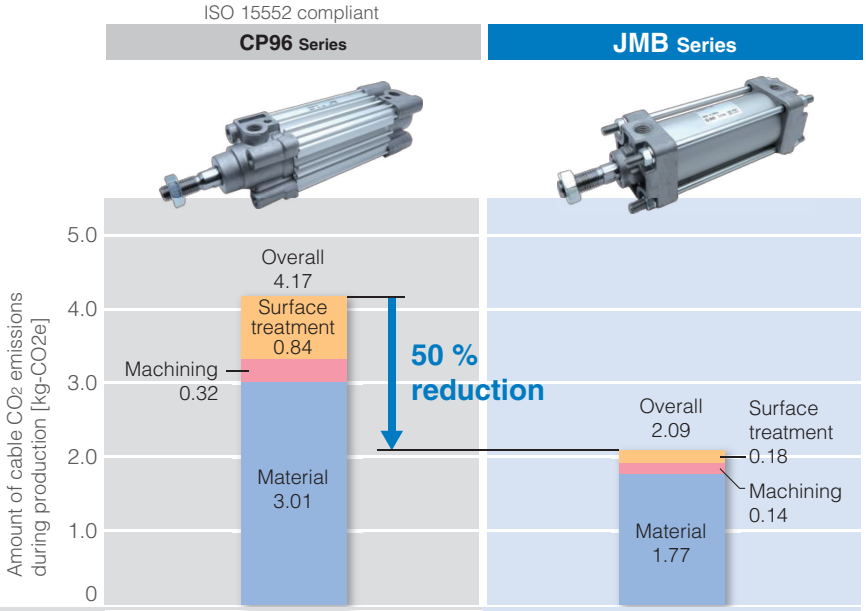
	C55 Series	JCQ Series
Part no.	**CD55B32-25**	**JCDQ32-25**
CO_2 emissions	**3.21 kg-CO_2e**	**2.25 kg-CO_2e**
Weight	343 g	**176 g**
Volume	128 cm³	**77 cm³**
Overall length	76 mm	**57.5 mm**

∗ For details on CO_2 emission calculation conditions (SMC's calculation method), refer to page 2.

Air cylinder **JMB Series** – CO_2 emissions: **50 % reduction**

CO_2 emissions	**2.08 kg-CO_2e reduction** (50 % reduction)
Weight	**280 g reduction** (47 % reduction)
Volume	**97 cm³ reduction** (39 % reduction)
Overall length	**37 mm reduction** (19 % reduction)

ISO 15552 compliant



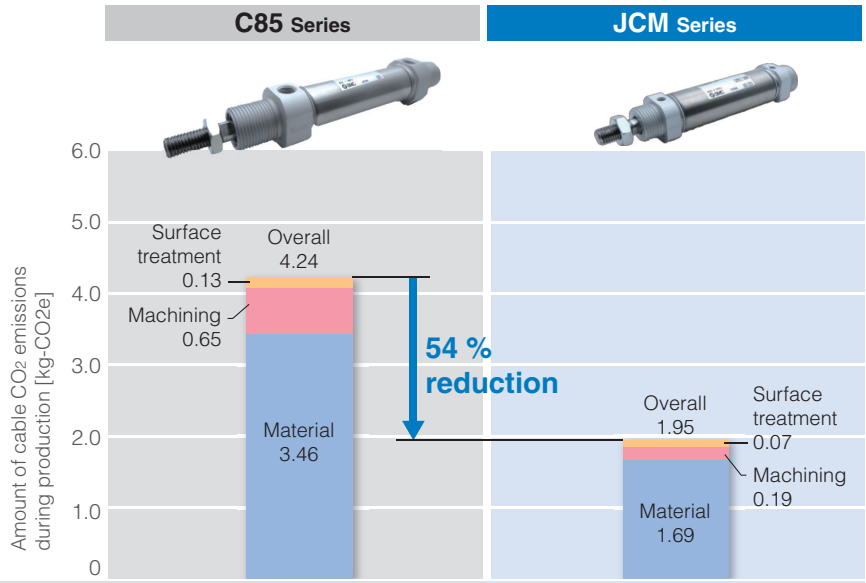
	CP96 Series	JMB Series
Part no.	**CP96SDB32-50C**	**JMDBB32-50**
CO_2 emissions	**4.17 kg-CO_2e**	**2.09 kg-CO_2e**
Weight	600 g	**320 g**
Volume	249 cm³	**152 cm³**
Overall length	196 mm	**159 mm**

∗ For details on CO_2 emission calculation conditions (SMC's calculation method), refer to page 2.

Air cylinder **JCM Series** – CO_2 emissions: **54 % reduction**

CO_2 emissions	**2.29 kg-CO_2e reduction** (54 % reduction)
Weight	**150 g reduction** (38 % reduction)
Volume	**33.3 cm³ reduction** (34 % reduction)
Overall length	**56 mm reduction** (30 % reduction)

ISO 6432 compliant



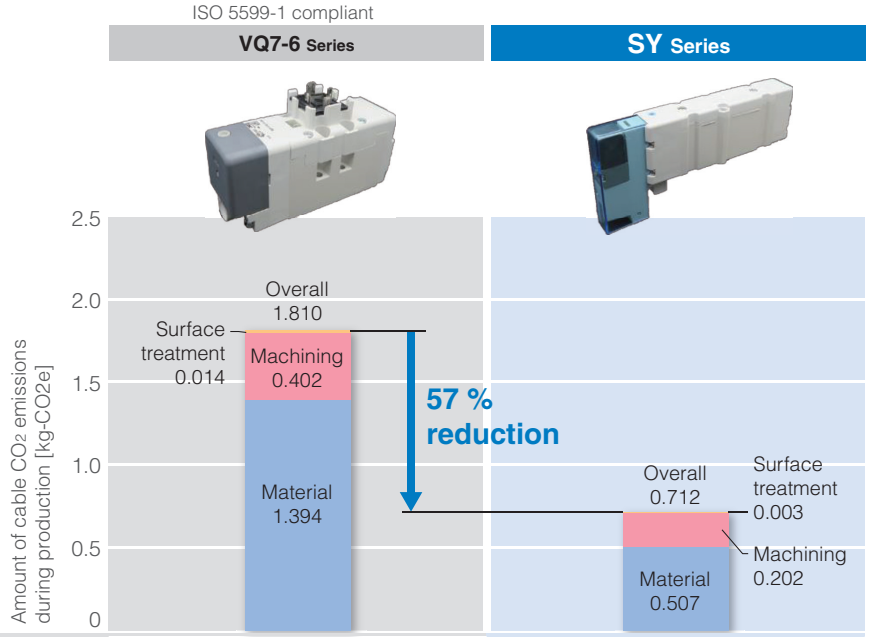
Part no.	CD85E25-50-B	JCDMM25-50
CO_2 emissions	**4.24 kg-CO_2e**	**1.95 kg-CO_2e**
Weight	392 g	**242 g**
Volume	97.5 cm³	**64.2 cm³**
Overall length	187 mm	**131 mm**

∗ For details on CO_2 emission calculation conditions (SMC's calculation method), refer to page 2.

5-port solenoid valve **SY Series** – CO_2 emissions: **57 % reduction**

CO_2 emissions	**1.098 kg-CO_2e reduction** (57 % reduction)
Cv	**0.53 increase** (42 % reduction)
Weight	**244 g reduction** (69 % reduction)
Valve width	**20 mm reduction** (53 % reduction)

ISO 5599-1 compliant

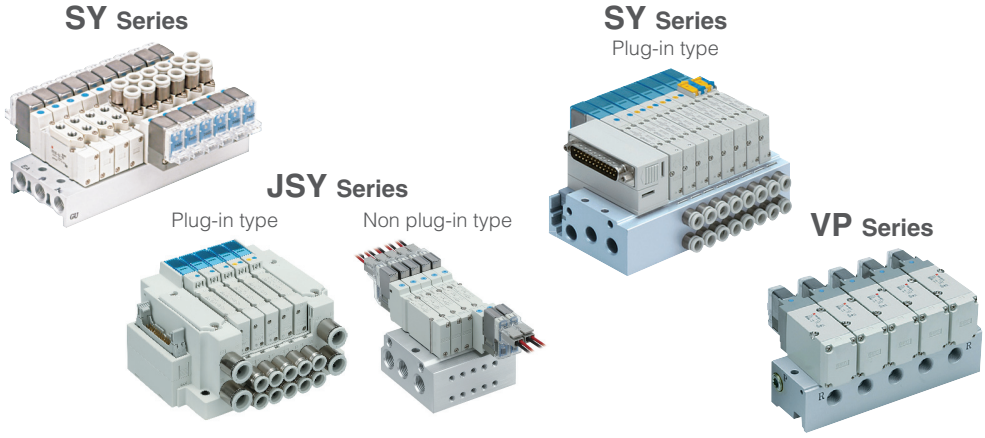


Part no.	VQ7-6-FG-S-3ZR0	SY7100-5U1
CO_2 emissions	**1.810 kg-CO_2e**	**0.712 kg-CO_2e**
Cv	1.25	**1.78**
Weight	354 g	**110 g**
Valve width	38 mm	**18 mm**

∗ For details on CO_2 emission calculation conditions (SMC's calculation method), refer to page 2.

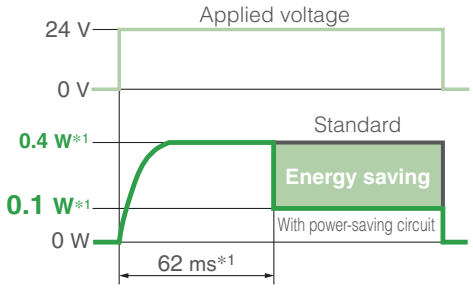
The power-saving circuit can reduce CO_2 emissions (power consumption) when the device is energised

CO_2 emissions
(Power consumption)
75 % reduction



Reduces power consumption when energized

Power consumption can be reduced by approx. 1/4 by reducing the wattage required to hold the valve in an energized state. (Effective energizing time is over 62 ms*1 at 24 VDC.) Refer to the electrical power waveform as shown below.



*1 SY/SYJ series

Low wattage valve

Energy-saving product

Type	Model	Power consumption W*2	
		Standard	With power-saving circuit
4/5-port	**SJ1000/2000**	0.55	0.23
	SJ3000	0.4	0.15
	New SY3000/5000/7000	0.4	0.1
	SY3000/5000/7000	0.4	0.1
	JSY1000	—	0.2
	JSY3000/5000	0.4	0.1
	SYJ3000/5000/7000	0.4	0.1
3-port	**V100**	0.4	0.1
	SYJ300/500/700	0.4	0.1
	VP300/500	0.4	—
	VP700	1.55	0.55

*2 With DC light

Effects of energy saving

Existing model

SY: 0.4 W
When the energizing time is 8 hours/day, 365 days/year

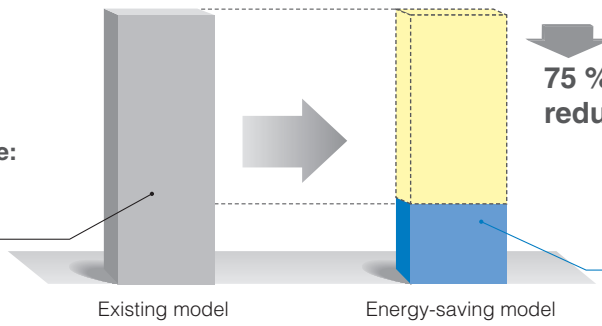
Power consumption per valve:
1168 Wh/year
CO_2 emissions: **0.69** kg/year
(0.14 €/year)

Energy-saving model

SY: 0.1 W
When the energizing time is 8 hours/day, 365 days/year

75 % reduction

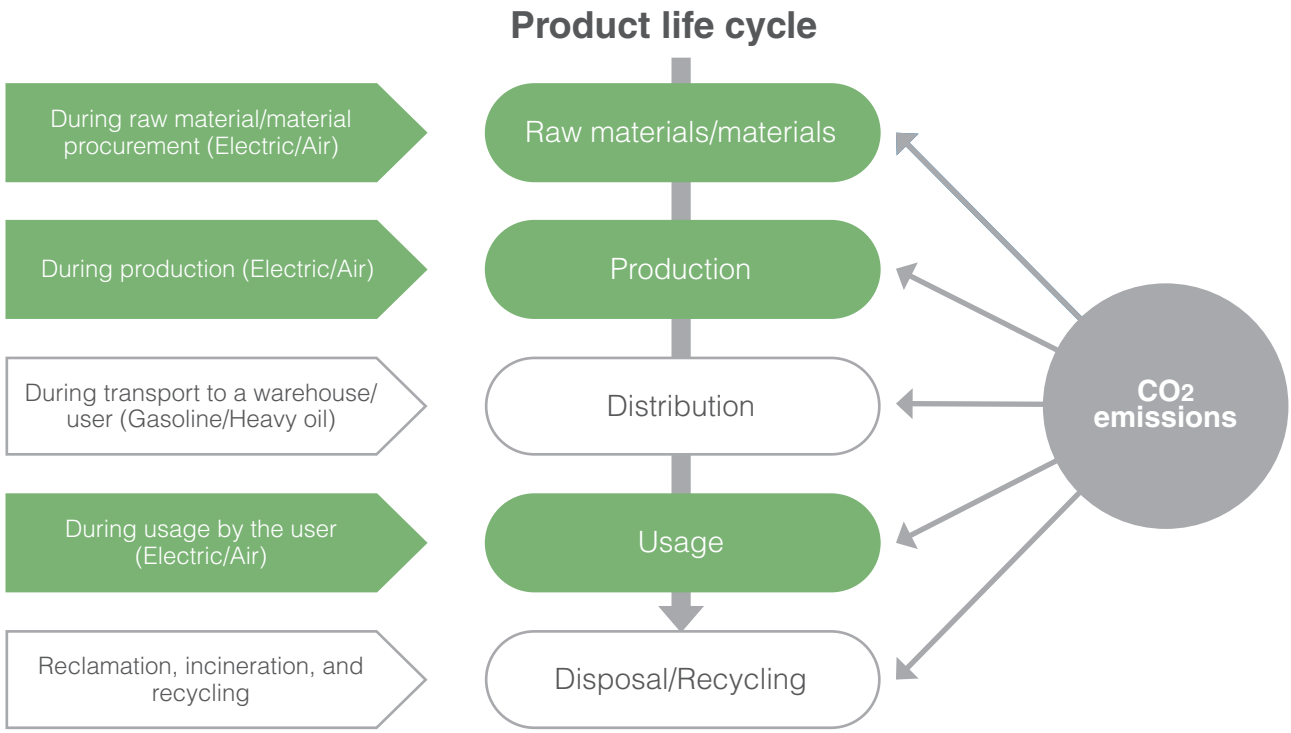
Power consumption per valve:
292 Wh/year
CO_2 emissions: **0.17** kg/year
0.52 kg reduction in annual CO_2 emissions
(0.035 €/year)
(0.11 €/year reduction)



Corresponding value: Electricity unit 0.12 €/kWh, Power consumption – CO_2 conversion factor 0.587 kg - CO_2/kWh

Product CO_2 emissions by carbon footprint formula

SMC realises the importance of calculating not only the amount of greenhouse gasses emitted during the operation of a product but also those emitted during raw material procurement and production. The total amount of emissions is then converted into CO_2 in order to find the total amount of CO_2 emitted by a product during its entire life cycle.



What is a carbon footprint?

The amount of greenhouse gasses (CH_4, N_2O, fluorocarbon, etc.) emitted from a product or service during its entire life cycle (from raw material procurement to disposal) converted and measured in CO_2 equivalents

Reference: LCA (life cycle assessment) is a methodology for assessing the environmental impacts (global warming, air pollution, energy depletion, etc.) associated with a product or service during its entire life cycle, whereas a carbon footprint only assesses the amount of greenhouse gas (CO_2) emissions.

SMC support program

By providing the latest pneumatic technology, SMC continues to create solutions for your automation needs.

1 DEDICATED CORPORATE ACCOUNT MANAGER

An SMC Corporate Account Manager is assigned as your one-point person of contact. They work closely with your Corporate HQ Sponsors, Engineers and all production facilities - to deliver, create, manage and execute all collaborative program objectives.

2 LOCAL FACTORY SUPPORT

SMC has over 6,000 local sales engineers in 82 countries to support all of your local production facilities.

3 DESIGN ENGINEERING SUPPORT

To fully support your Engineers - SMC has 1600 dedicated R&D Engineers that can develop new products or solutions. SMC can quickly customize or modify existing components to meet design standards or unique applications.

With 12 support programs focusing on energy-saving activities

7 COMPRESSED AIR ENERGY SAVINGS ASSESSMENTS

SMC has developed a Streamlined Energy Savings Assessment program for our Corporate Accounts. Our goal is to find innovative solutions to reduce waste of compressed air in the factory environment.

8 MACHINE ANALYSIS ASSESSMENTS

SMC will perform plant level machine analysis to improve machine performance, identify waste, reduce scrap rate and improve line efficiency.

9 STOREROOM ASSESSMENTS

SMC will perform plant level storeroom assessments to reduce vendor base, eliminate duplication, standardize components, identify critical spares and offer cost savings solutions.

4 MACHINE SAFETY SUPPORT

SMC will work with your Engineering and local facilities for design assistance related to plant safety upgrades to meet ISO 13849-1 or other Machine Directives.

5 OEM MACHINE SUPPLIER SUPPORT

SMC will support your OEM Machine suppliers with the integration of SMC specified components. SMC will provide pricing support, innovative design assistance and SMC project management to ensure on-time delivery and commissioning of new machines or lines.

6 CRITICAL SPARE PARTS FOR NEW OEM MACHINES

SMC will work with local factories receiving new OEM machines - to ensure all critical spare parts are available and onsite prior to production.

10 HIGH USAGE SPARE PARTS ANALYSIS

SMC will work with all local plants to identify high usage pneumatic components. SMC will conduct failure mode analysis and offer robust alternatives to ensure better performance and uptime on machines where components are used.

11 IMPROVEMENT ACTIVITY REPORTS

SMC will document all Corporate Account application successes with Improvement Activity Reports (IAR's). These IAR's are a one-page overview of the application - highlighting operational improvements, energy savings, cost savings details or plant process improvements. These IAR's are designed to be shared with other facilities to duplicate activity.

12 ONSITE & ONLINE TRAINING CLASSES

SMC offers customized onsite and online training classes - on a variety of subjects related to pneumatic components, electric actuators, energy savings, optimal machine design and TPM methodologies.

Expertise – Passion – Automation

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