



# ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

## Silencers with rectangular connections

CALMO, CADENZA, CANTO, FACILE, LARGO, LENTO & MORENDO

Swegon Group AB



## EPD HUB, HUB-5385

Published on 14.02.2026, last updated on 14.02.2026, valid until 14.02.2031

Life Cycle Assessment study has been performed in accordance with the requirements of EN 15804, EPD Hub PCR version 1.2 (24 Mar 2025) and JRC characterization factors EF 3.1.



Created with One Click LCA



## GENERAL INFORMATION

### MANUFACTURER

Manufacturer	Swegon Group AB
Address	J A Wettergrens gata 7, 421 30 Västra Frölunda, Sweden
Contact details	info@swegon.se
Website	www.swegon.com

### EPD STANDARDS, SCOPE AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804:2012+A2:2019/AC:2021 and ISO 14025
PCR	EPD Hub Core PCR Version 1.2, 24 Mar 2025
Sector	Construction product
Category of EPD	Third party verified EPD
Scope of the EPD	Cradle to gate with options, A4-A5, and modules C1-C4, D
EPD author	Heloise Hedbom
EPD verification	Independent verification of this EPD and data, according to ISO 14025: <input type="checkbox"/> Internal verification <input checked="" type="checkbox"/> External verification
EPD verifier	Imane Uald Lamkaddam as an authorized verifier for EPD Hub

This EPD is intended for business-to-business and/or business-to-consumer communication. The manufacturer has the sole ownership, liability, and responsibility for the EPD. EPDs within the same product category but from different programs may not be comparable. EPDs of construction products

may not be comparable if they do not comply with EN 15804 and if they are not compared in a building context.

### PRODUCT

Product name	Silencers with rectangular connections
Additional labels	CALMO, CADENZA, CANTO, FACILE, LARGO, LENTO & MORENDO
Product reference	-
Place(s) of raw material origin	Europe
Place of production	Arvika, Sweden
Place(s) of installation and use	Global
Period for data	2024
Averaging in EPD	Multiple products
Variation in GWP-fossil for A1-A3 (%)	+27% / -22%
A1-A3 Specific data (%)	79,9 %

## ENVIRONMENTAL DATA SUMMARY

Declared unit	1 kg of silencer
Declared unit mass	1 kg
Mass of packaging	0,32 kg
GWP-fossil, A1-A3 (kgCO <sub>2</sub> e)	2,79
GWP-total, A1-A3 (kgCO <sub>2</sub> e)	2,35
Secondary material, inputs (%)	35,1
Secondary material, outputs (%)	57,4
Total energy use, A1-A3 (kWh)	12,3
Net freshwater use, A1-A3 (m <sup>3</sup> )	0,08

## PRODUCT AND MANUFACTURER

### ABOUT THE MANUFACTURER

People spend most of their time indoors, which is why we need a sound indoor climate for our health, well-being, and happiness. Swegon's ambition is to achieve the world's best indoor environment with the least possible impact on the external environment. Our business models, services, products, and systems are all designed to provide the right solution for each individual project.

Swegon Group AB is a market leading supplier in the field of indoor environment, offering solutions for ventilation, heating, cooling, and climate optimization, as well as connected services and expert technical support. Swegon has subsidiaries and distributors all over the world and 21 production plants in Europe, North America and India.

### PRODUCT DESCRIPTION

Swegon's rectangular silencers are intended for installation in rectangular duct systems or directly downstream of air handling units. They are known for and designed to deliver superior acoustic performance while maintaining system efficiency. Based on their smart design, they provide excellent sound attenuation with remarkably low pressure drop, ensuring optimal airflow and energy savings.

The product group includes the models CALMO, CADENZA, CANTO, FACILE, LARGO, LENTO & MORENDO. The silencers are manufactured using similar processes and primarily consist of galvanized steel and insulation material but differ in configuration and application. CALMO features recessed connections, CADENZA is available with optional flanged connections, FACILE is designed for easy cleaning, MORENDO has a compact design, LENTO is an angled silencer, and LARGO is an angled silencer with recessed connections. Variations in environmental performance between the products are mainly related to differences in the proportion of insulation material relative to steel.

The silencers are available in a wide range of dimensions, baffle configurations, and length to provide optimal performance at any given application.

Please visit <https://www.swegon.com/products-and-services/air-distribution/silencers/rectangular-silencer/> for more product information. Further information can be found at: [www.swegon.com](http://www.swegon.com)

### PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	43% - 96%	Europe
Minerals	4% - 57%	Europe
Fossil materials	-	-
Bio-based materials	-	-

### BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	-
Biogenic carbon content in packaging, kg C	0,13 kg C

### FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 kg of silencer
Mass per declared unit	1 kg
Functional unit	-
Reference service life	50 years

### SUBSTANCES, REACH - VERY HIGH CONCERN

The product does not contain any REACH SVHC substances in amounts greater than 0,1 % (1000 ppm).

# PRODUCT LIFE-CYCLE

## SYSTEM BOUNDARY

This EPD covers the life-cycle modules listed in the following table.

Product stage			Assembly stage		Use stage							End of life stage				Beyond the system boundaries		
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D		
x	x	x	x	x	ND	ND	ND	ND	ND	ND	ND	x	x	x	x	x		
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction/ demolition	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling

Modules not declared = ND. Modules not relevant = NR

## MANUFACTURING AND PACKAGING (A1-A3)

The environmental impacts considered for the product stage cover the manufacturing of raw materials used in the production as well as packaging materials and other ancillary materials. Also, fuels used by machines, and handling of waste formed in the production processes at the manufacturing facility are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

A market-based approach is used in modelling the electricity mix utilized in the factory. The Arvika facility operates on electricity sourced from

hydropower. The use of green energy in manufacturing is demonstrated through contractual instruments (GOs, RECs, etc.), and its use is ensured throughout the validity period of this EPD.

Swegon's silencers with rectangular connections are manufactured using European galvanized steel and insulation material, with an aluminium foil coating. The steel is delivered in sheet form and processed at Swegon's production facility. The process includes punching, bending and forming of sheet metal, after which the insulation is added to form the final product. The silencer is then packaged on a pallet and secured with plastic wrapping for distribution to customers.

Production waste from the manufacturing process primarily consists of steel scrap and insulation residues. The steel scrap is sent for material recycling, while the insulation is landfilled.

## TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts that occurred from final products delivery to construction site (A4) cover fuel direct exhaust emissions, environmental impacts of fuel production, as well as related infrastructure emissions. The transportation to the construction site is calculated based on a weighted average of sales. The product is delivered ready for installation, resulting in no raw material waste at the construction site (A5).

End-of-life treatment of the product's packaging is included, with specific scenarios applied for each packaging material.

## PRODUCT USE AND MAINTENANCE (B1-B7)

This EPD does not cover the use phase.

Air, soil, and water impacts during the use phase have not been studied.

## PRODUCT END OF LIFE (C1-C4, D)

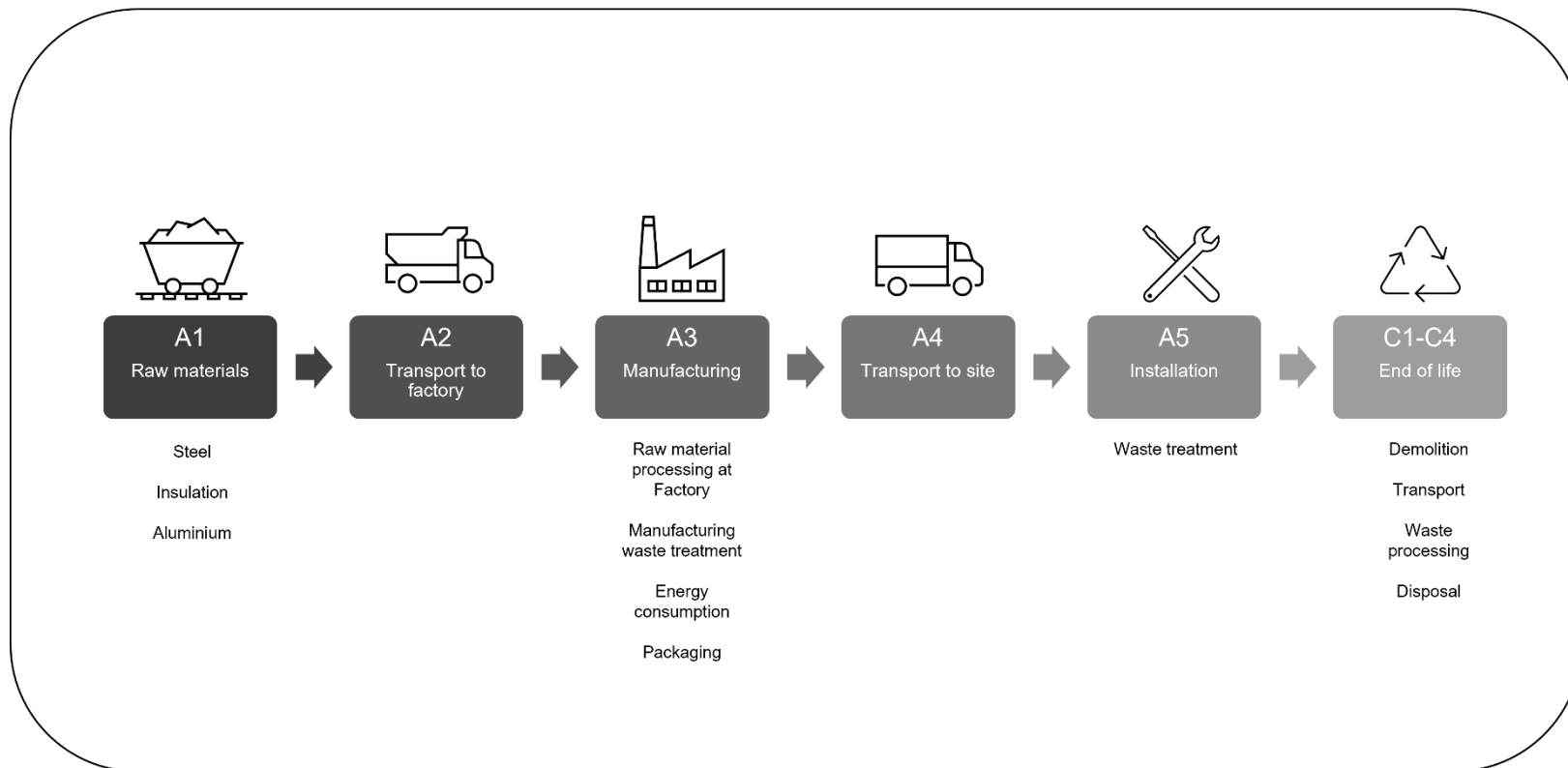
At the end of the product's service life, the silencers are assumed to be demolished. The environmental impact of deconstruction (Module C1) is modelled using literature data, assuming an energy consumption of 0,1 kWh per kilogram of product removed.

Transport of waste materials to end-of-life treatment facilities (Module C2) is modelled using assumed average distances of 250 km to recycling facilities and 50 km to landfill sites. All transportation is carried out using a 16-32 metric ton freight lorry compliant with EURO 5 standards. It is assumed that materials intended for recycling are collected separately at the demolition site.

Waste processing (Module C3) and final disposal (Module C4) are modelled using literature-based scenarios representing typical end-of-life treatment routes. The primary materials considered are steel and mineral insulation. For steel, it is assumed that 85% is recycled and 15% is disposed of in landfill. For mineral insulation, a conservative assumption is applied whereby 100% is disposed of in landfill.

Due to the material and energy recovery potential of the product components, the end-of-life treatment can result in the production of secondary raw materials through recycling or energy recovery through incineration. The potential environmental benefits and burdens associated with these processes beyond the system boundary are accounted for in Module D

## MANUFACTURING PROCESS



## LIFE-CYCLE ASSESSMENT

### CUT-OFF CRITERIA

The study does not exclude any modules or processes which are stated mandatory in the reference standard and the applied PCR. The study does not exclude any hazardous materials or substances. The study includes all major raw material and energy consumption. All inputs and outputs of the unit processes, for which data is available for, are included in the calculation. There is no neglected unit process more than 1% of total mass or energy flows. The module specific total neglected input and output flows also do not exceed 5% of energy usage or mass.

The production of capital equipment, construction activities, and infrastructure, maintenance and operation of capital equipment, personnel-related activities, energy and water use related to company management and sales activities are excluded.

### VALIDATION OF DATA

Data collection for production, transport, and packaging was conducted using time and site-specific information, as defined in the general information section on page 1 and 2. Upstream process calculations rely on generic data as defined in the Bibliography section. Manufacturer-provided specific and generic data were used for the product's manufacturing stage. The analysis was performed in One Click LCA EPD Generator, with the 'Cut-Off, EN 15804+A2' allocation method, and characterization factors according to EN 15804:2012+A2:2019/AC:2021 and JRC EF 3.1.

### ALLOCATION, ESTIMATES AND ASSUMPTIONS

Allocation is required if some material, energy, and waste data cannot be measured separately for the product under investigation. All allocations are done as per the reference standards and the applied PCR. In this study, allocation has been done in the following ways:

Data type	Allocation
Raw materials	No allocation
Packaging material	No allocation
Ancillary materials	Not applicable
Manufacturing energy and waste	Allocated by mass or volume

### PRODUCT & MANUFACTURING SITES GROUPING

Type of grouping	Multiple products
Grouping method	Based on a representative product
Variation in GWP-fossil for A1-A3, %	+27% / -22%

To investigate variations in environmental impact, two extreme cases were modelled and analysed. From these two models, a representative product was chosen, the high runner Calmo 1621 1600-800-1250. For modules A1-A3, the GWP-fossil of the product variation with the highest environmental impact is 27% higher than that of the representative product, while the product variation with the lowest impact is 22% lower. Differences in environmental performance between the products are mainly related to variations in the proportion of insulation material relative to steel.



## LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using One Click LCA EPD Generator. The LCA and EPD have been prepared according to the reference standards and ISO 14040/14044. The EPD Generator uses Ecoinvent v3.11 and One Click LCA databases as sources of environmental data. Allocation used in Ecoinvent 3.11 environmental data sources follow the methodology 'allocation, Cut-off, EN 15804+A2'.

## ENVIRONMENTAL IMPACT DATA

The estimated impact results are only relative statements which do not indicate the end points of the impact categories, exceeding threshold values, safety margins or risks.

### CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, EF 3.1

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total <sup>1)</sup>	kg CO <sub>2</sub> e	2,58E+00	1,03E-01	-3,30E-01	2,35E+00	1,14E-01	4,84E-01	ND	ND	ND	ND	ND	ND	ND	6,94E-02	3,22E-02	1,49E-02	2,67E-03	-1,27E+00
GWP – fossil	kg CO <sub>2</sub> e	2,57E+00	1,02E-01	1,14E-01	2,79E+00	1,14E-01	1,35E-02	ND	ND	ND	ND	ND	ND	ND	6,88E-02	3,22E-02	1,53E-02	2,66E-03	-1,20E+00
GWP – biogenic	kg CO <sub>2</sub> e	5,14E-03	1,14E-04	-4,64E-01	-4,59E-01	2,54E-05	4,71E-01	ND	ND	ND	ND	ND	ND	ND	3,98E-04	7,03E-06	-3,55E-04	1,19E-06	-6,80E-02
GWP – LULUC	kg CO <sub>2</sub> e	2,70E-03	1,50E-04	2,02E-02	2,30E-02	5,18E-05	1,05E-05	ND	ND	ND	ND	ND	ND	ND	1,47E-04	1,43E-05	1,88E-05	1,53E-06	-9,35E-04
Ozone depletion pot.	kg CFC <sub>11</sub> e	7,76E-07	1,54E-09	3,24E-09	7,81E-07	1,70E-09	1,72E-10	ND	ND	ND	ND	ND	ND	ND	4,88E-10	4,50E-10	1,63E-10	7,42E-11	-5,73E-09
Acidification potential	mol H <sup>+</sup> e	9,29E-03	4,04E-04	6,78E-04	1,04E-02	2,80E-04	4,90E-05	ND	ND	ND	ND	ND	ND	ND	3,65E-04	1,07E-04	1,66E-04	1,87E-05	-5,51E-03
EP-freshwater <sup>2)</sup>	kg Pe	1,08E-04	2,33E-05	3,33E-05	1,64E-04	8,93E-06	3,18E-06	ND	ND	ND	ND	ND	ND	ND	3,49E-05	2,50E-06	8,75E-06	2,33E-07	-7,66E-04
EP-marine	kg Ne	2,13E-03	1,00E-04	2,12E-04	2,45E-03	6,53E-05	1,04E-04	ND	ND	ND	ND	ND	ND	ND	7,03E-05	3,48E-05	3,71E-05	7,16E-06	-1,20E-03
EP-terrestrial	mol Ne	2,97E-02	1,06E-03	2,42E-03	3,32E-02	7,07E-04	1,87E-04	ND	ND	ND	ND	ND	ND	ND	7,07E-04	3,78E-04	4,17E-04	7,82E-05	-1,29E-02
POCP (“smog”) <sup>3)</sup>	kg NMVOCe	7,39E-03	4,24E-04	9,20E-04	8,74E-03	3,80E-04	7,23E-05	ND	ND	ND	ND	ND	ND	ND	2,10E-04	1,49E-04	1,23E-04	2,82E-05	-4,14E-03
ADP-minerals & metals <sup>4)</sup>	kg Sbe	4,19E-05	3,47E-07	6,48E-07	4,29E-05	3,81E-07	2,84E-08	ND	ND	ND	ND	ND	ND	ND	4,22E-07	1,06E-07	9,14E-07	3,97E-09	-6,09E-05
ADP-fossil resources	MJ	3,08E+01	1,41E+00	2,13E+00	3,43E+01	1,61E+00	1,66E-01	ND	ND	ND	ND	ND	ND	ND	9,26E-01	4,51E-01	1,84E-01	6,53E-02	-1,27E+01
Water use <sup>5)</sup>	m <sup>3</sup> e depr.	7,15E-01	1,91E-02	7,01E-01	1,44E+00	7,51E-03	3,58E-03	ND	ND	ND	ND	ND	ND	ND	1,84E-02	2,09E-03	3,15E-03	2,87E-03	-4,64E-01

1) GWP = Global Warming Potential; 2) EP = Eutrophication potential. Required characterisation method and data are in kg P-eq. Multiply by 3,07 to get PO<sub>4</sub>e; 3) POCP = Photochemical ozone formation; 4) ADP = Abiotic depletion potential; 5) EN 15804+A2 disclaimer for Abiotic depletion and Water use and optional indicators except Particulate matter and Ionizing radiation, human health. The results of these environmental impact indicators shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.

## ADDITIONAL (OPTIONAL) ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, EF 3.1

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Particulate matter	Incidence	3,50E-08	6,97E-09	1,30E-08	5,50E-08	8,49E-09	1,08E-09	ND	ND	ND	ND	ND	ND	ND	3,21E-09	2,55E-09	2,35E-09	4,29E-10	-1,15E-07
Ionizing radiation <sup>6)</sup>	kBq 11235e	1,96E-01	6,68E-03	1,18E-02	2,14E-01	1,31E-03	2,47E-04	ND	ND	ND	ND	ND	ND	ND	9,71E-03	3,65E-04	6,51E-04	3,91E-05	-4,49E-02
Ecotoxicity (freshwater)	CTUe	1,39E+01	2,45E-01	4,95E+00	1,91E+01	2,54E-01	1,88E-01	ND	ND	ND	ND	ND	ND	ND	2,13E+00	7,14E-02	9,31E-01	4,36E-02	-7,81E+01
Human toxicity, cancer	CTUh	2,49E-09	2,58E-11	4,60E-10	2,98E-09	1,92E-11	2,55E-12	ND	ND	ND	ND	ND	ND	ND	1,20E-11	5,47E-12	1,24E-11	4,83E-13	-1,77E-09
Human tox. non-cancer	CTUh	5,08E-09	9,16E-10	1,50E-09	7,50E-09	1,01E-09	1,25E-10	ND	ND	ND	ND	ND	ND	ND	6,74E-10	2,83E-10	7,95E-10	1,09E-11	-2,07E-08
SQP <sup>7)</sup>	-	2,28E+00	9,99E-01	4,42E+01	4,75E+01	9,69E-01	2,17E-01	ND	ND	ND	ND	ND	ND	ND	1,62E-01	2,70E-01	3,44E-01	1,28E-01	-4,48E+00

6) EN 15804+A2 disclaimer for Ionizing radiation, human health. This impact category deals mainly with the eventual impact of low-dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator; 7) SQP = Land use related impacts/soil quality.

## USE OF NATURAL RESOURCES

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Renew. PER as energy <sup>8)</sup>	MJ	4,33E+00	9,72E-02	5,93E+00	1,04E+01	2,23E-02	-4,89E+00	ND	ND	ND	ND	ND	ND	ND	1,46E-01	6,19E-03	2,84E-02	6,10E-04	-9,82E-01
Renew. PER as material	MJ	0,00E+00	0,00E+00	4,62E+00	4,62E+00	0,00E+00	-4,62E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,80E-01
Total use of renew. PER	MJ	4,33E+00	9,72E-02	1,05E+01	1,50E+01	2,23E-02	-9,51E+00	ND	ND	ND	ND	ND	ND	ND	1,46E-01	6,19E-03	2,84E-02	6,10E-04	-4,02E-01
Non-re. PER as energy	MJ	3,09E+01	1,41E+00	1,54E+00	3,38E+01	1,61E+00	-1,16E-01	ND	ND	ND	ND	ND	ND	ND	9,26E-01	4,51E-01	1,84E-01	6,53E-02	-1,27E+01
Non-re. PER as material	MJ	0,00E+00	0,00E+00	5,86E-01	5,86E-01	0,00E+00	-5,86E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	7,10E-02
Total use of non-re. PER	MJ	3,09E+01	1,41E+00	2,13E+00	3,44E+01	1,61E+00	-7,02E-01	ND	ND	ND	ND	ND	ND	ND	9,26E-01	4,51E-01	1,84E-01	6,53E-02	-1,26E+01
Secondary materials	kg	3,51E-01	1,48E-03	1,56E-02	3,68E-01	7,31E-04	7,47E-05	ND	ND	ND	ND	ND	ND	ND	1,36E-04	2,03E-04	2,13E-04	1,62E-05	-1,02E-01
Renew. secondary fuels	MJ	5,79E-04	8,22E-06	1,37E-01	1,38E-01	9,30E-06	1,10E-06	ND	ND	ND	ND	ND	ND	ND	9,34E-07	2,58E-06	9,76E-06	3,39E-07	-1,32E-04
Non-ren. secondary fuels	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water	m <sup>3</sup>	6,70E-02	4,92E-04	1,61E-02	8,36E-02	2,19E-04	-9,74E-04	ND	ND	ND	ND	ND	ND	ND	4,31E-04	5,98E-05	7,41E-05	6,75E-05	-9,93E-03

8) PER = Primary energy resources.

## END OF LIFE – WASTE

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Hazardous waste	kg	4,70E-02	5,68E-03	8,07E-03	6,07E-02	2,81E-03	3,80E-04	ND	ND	ND	ND	ND	ND	ND	6,56E-03	7,87E-04	1,48E-03	7,43E-05	-4,88E-01
Non-hazardous waste	kg	1,31E+00	1,30E-01	3,60E-01	1,80E+00	5,27E-02	7,15E-01	ND	ND	ND	ND	ND	ND	ND	1,68E-01	1,48E-02	4,37E-02	1,72E-03	-3,88E+00
Radioactive waste	kg	4,71E-04	1,63E-06	3,03E-06	4,76E-04	3,21E-07	6,10E-08	ND	ND	ND	ND	ND	ND	ND	2,37E-06	8,95E-08	1,60E-07	9,52E-09	-1,14E-05

## END OF LIFE – OUTPUT FLOWS

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	0,00E+00	0,00E+00	1,83E-01	1,83E-01	0,00E+00	2,63E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	5,74E-01	0,00E+00	0,00E+00
Materials for energy rec	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,00E-04	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,34E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy – Electricity	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,60E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy – Heat	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	7,80E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

## ENVIRONMENTAL IMPACTS – EN 15804+A1, CML / ISO 21930

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Global Warming Pot.	kg CO <sub>2</sub> e	2,56E+00	1,02E-01	1,38E-01	2,80E+00	1,14E-01	2,85E-02	ND	ND	ND	ND	ND	ND	ND	6,88E-02	3,20E-02	1,53E-02	2,64E-03	-1,20E+00
Ozone depletion Pot.	kg CFC <sub>11</sub> e	8,24E-07	1,24E-09	2,85E-09	8,28E-07	1,35E-09	1,38E-10	ND	ND	ND	ND	ND	ND	ND	4,25E-10	3,60E-10	1,43E-10	5,91E-11	-5,08E-09
Acidification	kg SO <sub>2</sub> e	7,09E-03	3,24E-04	5,02E-04	7,92E-03	2,26E-04	3,69E-05	ND	ND	ND	ND	ND	ND	ND	3,04E-04	8,22E-05	1,34E-04	1,38E-05	-4,46E-03
Eutrophication	kg PO <sub>4</sub> <sup>3</sup> e	3,10E-02	6,13E-05	3,81E-03	3,49E-02	5,18E-05	1,61E-05	ND	ND	ND	ND	ND	ND	ND	3,73E-05	2,00E-05	1,95E-05	4,56E-06	-8,78E-04
POCP ("smog")	kg C <sub>2</sub> H <sub>4</sub> e	1,04E-03	2,51E-05	8,49E-05	1,15E-03	2,11E-05	6,43E-06	ND	ND	ND	ND	ND	ND	ND	1,62E-05	7,36E-06	7,85E-06	1,31E-06	-5,31E-04
ADP-elements	kg Sbe	5,04E-05	3,38E-07	6,30E-07	5,14E-05	3,72E-07	2,76E-08	ND	ND	ND	ND	ND	ND	ND	4,20E-07	1,03E-07	9,11E-07	3,88E-09	-6,09E-05
ADP-fossil	MJ	2,62E+01	1,30E+00	1,92E+00	2,94E+01	1,59E+00	1,62E-01	ND	ND	ND	ND	ND	ND	ND	7,71E-01	4,46E-01	1,74E-01	6,46E-02	-1,20E+01

## ENVIRONMENTAL IMPACTS – ISO 21930

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Radioactive waste, high	kg	8,85E-06	4,90E-07	7,39E-07	1,01E-05	9,55E-08	1,69E-08	ND	ND	ND	ND	ND	ND	ND	6,60E-07	2,66E-08	5,10E-08	2,74E-09	-4,18E-06
Radioactive waste, int/low	kg	3,53E-05	1,14E-06	2,29E-06	3,88E-05	2,26E-07	4,41E-08	ND	ND	ND	ND	ND	ND	ND	1,71E-06	6,29E-08	1,09E-07	6,78E-09	-7,20E-06

## ADDITIONAL INDICATOR – GWP-GHG

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-GHG <sup>9)</sup>	kg CO <sub>2</sub> e	2,58E+00	1,03E-01	1,34E-01	2,81E+00	1,14E-01	1,35E-02	ND	ND	ND	ND	ND	ND	ND	6,90E-02	3,22E-02	1,53E-02	2,67E-03	-1,21E+00

9) This indicator includes all greenhouse gases excluding biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. In addition, the characterisation factors for the flows – CH<sub>4</sub> fossil, CH<sub>4</sub> biogenic and Dinitrogen monoxide – were updated. This indicator is identical to the GWP-total of EN 15804:2012+A2:2019 except that the characterisation factor for biogenic CO<sub>2</sub> is set to zero.

## SCENARIO DOCUMENTATION

### Manufacturing energy scenario documentation

Scenario parameter	Value
Electricity data source and quality	Electricity production, hydro, reservoir, non-alpine region, Sweden, Ecoinvent 3.11
Electricity kg CO <sub>2</sub> e / kWh	0,051 kg CO <sub>2</sub> eq/kWh
District heating data source and quality	Heat and power co-generation, wood chips; Sweden; Ecoinvent 3.11
District heating kg CO <sub>2</sub> e / kWh	0,009 kg CO <sub>2</sub> eq/kWh

### Transport scenario documentation A4

Scenario parameter	Value
Fuel and vehicle type. Eg, electric truck, diesel powered truck	Transport, freight, lorry 16-32 metric ton, EURO6 and Transport, freight, sea, container ship
Average transport distance, km	500 km
Capacity utilization (including empty return) %	50%
Bulk density of transported products	-
Volume capacity utilization factor	1

### Installation scenario documentation A5

Scenario information	Value
Ancillary materials for installation (specified by material) / kg or other units as appropriate	-
Water use / m <sup>3</sup>	-
Other resource use / kg	-
Quantitative description of energy type (regional mix) and consumption during the installation process / kWh or MJ	-
Waste materials on the building site before waste processing, generated by the product's installation (specified by type) / kg	Plastic packaging: 0,008 kg Wood pallets: 0,308 kg
Output materials (specified by type) as result of waste processing at the building site e.g. collection for recycling, for energy recovery, disposal (specified by route) / kg	Plastic packaging: Recycled 9%, Incinerated 12% & Landfilled 79%. Wood pallets: Recycled 15% and Landfilled 85%.
Direct emissions to ambient air, soil and water / kg	0

## End of life scenario documentation

Scenario information	Value
Collection process – kg collected separately	0,57 kg
Collection process – kg collected with mixed waste	0,43 kg
Recovery process – kg for re-use	0 kg
Recovery process – kg for recycling	0,57 kg
Recovery process – kg for energy recovery	0 kg
Disposal (total) – kg for final deposition	0,43 kg
Scenario assumptions e.g. transportation	Truck, 16-32 tons, EURO5 (km). Landfill: 50 km Recycling: 250 km

## THIRD-PARTY VERIFICATION STATEMENT

EPD Hub declares that this EPD is verified in accordance with ISO 14025 by an independent, third-party verifier. The project report on the Life Cycle Assessment and the report(s) on features of environmental relevance are filed at EPD Hub. EPD Hub PCR and ECO Platform verification checklist are used.

EPD Hub is not able to identify any unjustified deviations from the PCR and EN 15804+A2 in the Environmental Product Declaration and its project report.

EPD Hub maintains its independence as a third-party body; it was not involved in the execution of the LCA or in the development of the declaration and has no conflicts of interest regarding this verification.

The company-specific data and upstream and downstream data have been examined as regards plausibility and consistency. The publisher is responsible for ensuring the factual integrity and legal compliance of this declaration.

The software used in creation of this LCA and EPD is verified by EPD Hub to conform to the procedural and methodological requirements outlined in ISO 14025:2010, ISO 14040/14044, EN 15804+A2, and EPD Hub Core Product Category Rules and General Program Instructions.

### Verified tools

Tool verifier: Magaly Gonzalez Vazquez

Tool verification validity: 27 March 2025 - 26 March 2028

Imane Uald Lamkaddam as an authorized verifier for EPD Hub Limited  
14.02.2026





## APPENDIX 1

This EPD concerns Swegon's silencers with rectangular connections in galvanized steel produced in Arvika with CALMO 1621 1600-800-1250 representing the environmental performance for several products as listed below:

- CALMO
- CADENZA
- CANTO
- FACILE
- LARGO
- LENTO
- MORENDO
- CANTO

The environmental impact of a product is calculated by multiplying the product's weight by the relevant Global Warming Potential (GWP) factors:

- **GWP-fossil:** 2,79 kg CO<sub>2</sub>-eq per kg of product
- **GWP-GHG:** 2,81 kg CO<sub>2</sub>-eq per kg of product

The most up-to-date product weights, both for standard and configurable products, are available through our webpage [www.swegon.com](http://www.swegon.com) at specific product pages.