

Environmental Product Declaration



In accordance with ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021 for:

Flap Leaf Speed Gate Gunnebo SpeedStile FLs BA 1200

from

Gunnebo Entrance Control Ltd

Programme:	The International EPD® System, www.environdec.com
Programme operator:	EPD International AB
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An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at www.environdec.com



General information

Programme information

Programme:	The International EPD® System
Address:	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
Website:	www.environdec.com
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Accountabilities for PCR, LCA and independent, third-party verification
Product Category Rules (PCR)
CEN standard EN 15804 serves as the Core Product Category Rules (PCR)
Product Category Rules (PCR): <i>PCR 2019-14 Construction products version 1.2.5</i> <i>UN CPC code > 42999 Metal goods n.e.c., include "automatic door closers of base metal"</i>
PCR review was conducted by: <i>PCR moderator: Martin Erlandsson, IVL Swedish Environmental Research Institute, martin.erlandsson@ivl.se</i> <i>PCR Committee: IVL Swedish Environmental Research Institute</i> <i>Secretariat of the International EPD® System</i>
Life Cycle Assessment (LCA)
LCA accountability: <i>Gunnebo Entrance Control Ltd</i>
Third-party verification
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via: <input checked="" type="checkbox"/> EPD verification by accredited certification body Third-party verification: <i>Certiquality S.r.l.</i> is an approved certification body accountable for the third-party verification The certification body is accredited by: <i>Accredia, accreditation N.003H rev.17</i>
Procedure for follow-up of data during EPD validity involves third party verifier: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but registered in different EPD programmes, or not compliant with EN 15804, may not be comparable. For two EPDs to be comparable, they must be based on the same PCR (including the same version number) or be based on fully-aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have equivalent system boundaries and descriptions of data; apply equivalent data quality requirements, methods of data collection, and allocation methods; apply identical cut-off rules and impact assessment methods (including the same version of characterisation factors); have equivalent content declarations; and be valid at the time of comparison. For further information about comparability, see EN 15804 and ISO 14025.

Company information

Owner of the EPD: Gunnebo Entrance Control Ltd

Contact:

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 Suyanto Salim - suyanto.salim@gunnebo.com

Description of the organisation: Gunnebo Entrance Control is the world's leading specialist in entrance control solutions: security, speed gates and turnstiles. The company is part of the Swedish multinational Gunnebo Group, a leading designer and manufacturer of security solutions. Gunnebo Entrance Control manufactures indoor and outdoor turnstiles. The range of entrance control products offered is designed to create a secure environment, whether entering a company lobby, store, entertainment area, industrial zone, and subway station, or operating within sites with higher security requirements, such as airports, embassies, nuclear power plants and prisons.

Product-related or management system-related certifications:

ISO 9001:2015 – ISO 14001:2015 - ISO 45001:2018

Name and location of production site(s):

- Gunnebo Entrance Control Spa (Italian plant) - Via Alessandro Volta, 15, 38015 Lavis TN
- Gunnebo Security (China) Co. Ltd (Chinese plant) - No 186 Chensong Road, Yushan Town, Jiangsu Province 215300 Kunshan

Product information

Product name: **Gunnebo SpeedStile FLs BA 1200**

Product description:

The product under study is a motorized swing-open gate for automatic access control.

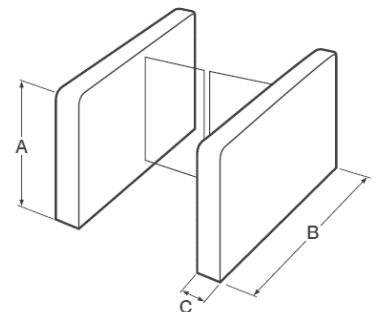
The model under study is the **Gunnebo SpeedStile FLs BA 1200**.

The same product is also available in variants:

- Gunnebo SpeedStile FLs 1400
- Gunnebo SpeedStile FLs 1800

which differ from the product under study only in weight and size.

	<i>Passage Width (mm)</i>	<i>Cabinet Height (mm)</i>	<i>Cabinet Length (mm)</i>	<i>Cabinet Width (mm)</i>	<i>Weight Side Cabinet (kg)</i>	<i>Weight Centre Cabinet (kg)</i>
<i>Gunnebo SpeedStile FLs BA 1200 – standard</i>	600	940	1200	120	60	75



Application/intended use:

Access control turnstile with indoor and outdoor applications, for example: a company, a store, an entertainment area, an industrial area, airports, embassies, nuclear power plants and prisons.

Technical data and Conditions of use:

<i>Power Supply</i>	<i>Power Rating</i>	<i>Power Rating</i>	<i>Fire Signal</i>	<i>Operating Temperature</i>	<i>IP Rating</i>	<i>Noise Level</i>
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230 Vac 50 Hz	20 VA stand by	120 VA in operation	Input for voltage free contact	+5°C to + 40°C RH 95% No condensing	IP 20	Less than 55 dB
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Installation and Maintenance

<i>Product Delivery</i>	<i>Application</i>	<i>Site Preparation¹</i>	<i>Cabling & Conduits²</i>	<i>Control Board Location</i>	<i>Systems Integration³</i>	<i>Systems Integration³</i>	<i>Maintenance Access</i>	<i>Mean time To Repair</i>
<i>Preassembled or kit form as option</i>	Indoor	Flat & level finished floor +/- 5mm	Through the ground	Into rotor column	27 digital interface I/O RS232 RS485	Settings programmable via parameters	Drive column and lid access	Less than 30 minutes

¹ Bolting depth MIN 70mm, concrete MIN fckcube30N/mm2 resistance, MIN 1300 (1500 or 2000 depending on the cabinet length) x 400 x150mm deep.

² Running MIN 140mm below finished floor level, should rise MIN 50mm from foundation.

³ Potential free contact for card reader input. New Electronic Platform with in-built RS485 and COMR1 switching interface.

Safety features:

- Safety force sensing
- Safety light curtain (option)
- Accurate presence sensing
- Emitter/receiver infrared sensors technology
- Logic voltage 24 V dc
- Voltage free contact input for Fire Alarm fail state
- Manual push opening on power off
- Anti-panic push opening in operation
- Wide walkway for wheelchair or easier access
- Accompanied wheelchair or child passage management

UN CPC code:

42999 Metal goods n.e.c., include “automatic door closers of base metal”

Geographical scope:

For the production process, the countries considered in the study were Italy and China, where the manufacturing plants are located. The product is distributed worldwide.

LCA information

Declared unit: 1 Gunnebo SpeedStile FLs BA 1200 including packaging (produced in Italy and China)

Reference service life: The service life of the product depends on the installation environment from the traffic of people to which it is subjected. Based on the replacement frequency of the product the average product lifetime is 10 years corresponding to of 4 million operating cycles.

Time representativeness: The reference year of the LCA study is 2021.

Database(s) and LCA software used:

- Ecoinvent 3.8 - allocation, cut-off by classification – system
- Sima Pro 9.4

Description of system boundaries:

Cradle to gate with options: modules A1-A3 + modules A4 + A5 + B2 + B6 + C + D.

System diagram:

PRODUCT STAGE



- A1 - Production of raw materials and energy
- Production of raw materials (all components)
 - Energy production (electricity, natural gas extraction)



- A2 – Trasport
- Transportation of all components and raw materials to manufacturing/assembly facilities



- A3 – Manufacturing
- Production/assembly (all processes)
 - Production of used packaging
 - Consumption of auxiliary and maintenance materials
 - Air emissions, water emissions and waste generation

CONSTRUCTION PROCESS STAGE



- A4 – Transport
- Transport of the packed product from the customer's site to the installation site



- A5 – Construction Installation
- Installation/assembly at the installation site

USE STAGE



- B2 – Maintenance
- Routine maintenance (mainly related to sensors and components subject to wear and tear)
 - Extraordinary maintenance (replacement of components)
 - Resource consumption and materials used



- B6 – Use
- Electricity consumption during the service life of the product

END OF LIFE STAGE



- C1 – De-construction Demolition
- End-of-life product disassembly



- C2 – Trasport
- Transport of disassembled components to treatment facilities



- C3 – Waste processing
- Treatment of components that are converted into secondary materials (recycling)



C4 – Disposal

- Final disposal of all remaining materials (incineration)

BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARIES



D – Potential for recycling, recovery and re-use

This module assesses the benefits and/or impacts related to potential recycling of materials at the end of product life, according to the requirements of EN 15804.

More information:

Stage	Description	Information
A4	Means of transport	Road, ship, plane
A5	Installation	0,05 kWh
B6	Average service life	10 years
	Average energy consumption *	1.410 kWh
C1	De-construction	0,05 kWh
C2	End-of-life treatment site distance	50 km
C3	Percentage to recycle Recycling percentage is derived from the average recycling percentages weighted on the sales of the various countries.	Italy**: 54 % China**: 0 %
C4	Percentage to disposal All components with a weight incidence of less than 0.5 kg are considered to be sent for disposal.	Italy**: 46 % China**: 100 %
D	Raw material yield	90 %

* The measurement of the motor's electrical power was obtained from laboratory tests conducted according to standards: EN 60335-1:2012+AC:2014+A11:2014+A13:2017+A1:2019+A14:2019+A2:2019+A15:2021; EN 60335-2-103:2015 only clause 10.1 IEC 60335-1:2010+A1:2013+A2:2016; IEC 60335-2-103:2015+A1:2017+A2:2019; Only clause 10.1 IEC 62301:2011.
Consumption was calculated as: Consumption (kWh)= [Time (hrs)*Power (W)]/1000

** Country where production plant is located

Modules declared, geographical scope, share of specific data (in GWP-GHG results) and data variation:

	Product stage			Construction process stage		Use stage							End of life stage				Resource recovery stage
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Modules declared	X	X	X	X	X	ND	X	ND	ND	ND	X	ND	X	X	X	X	X
Geography	GLO	GLO	IT - CN	GLO	GLO		GLO				GLO		GLO	GLO	GLO	GLO	X
Specific data used *	7%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	ND			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites **	12% (CN) -14% (IT)			-	-	-	-	-	-	-	-	-	-	-	-	-	-

ND: Not Declared

*According to PCR 2019:14 Version 1.2.5, only electricity and gas consumption are considered as specific data.

** GWP incidence vs. declared GWP value.

Content information

Product components	Weight, kg	Post-consumer material, weight-%	Biogenic material, weight-% and Kg C/kg
Steel	42,62	49,62	--
Alluminium	19,36	36,21	--
Plywood *	8,64	--	50,00
HPL (High Pressure Laminate) **		--	31,48
Glass	43,83	--	--
Other minor components	6,45	--	--
Total	120,9		

* used for the product made in the Chinese plant.

** used for the product made in the Italian plant.

Packaging Italy	Weight, kg	Weight-%(versus the product)	Weight biogenic carbon, kg C/kg
Cardboard box	16,00	13,2	44,00
OSB (Oriented Strand board) panel	21,60	17,9	45,00
PE (Polyethylene) bag	1,00	0,8	--
Other minor components (steel)	0,20	0,2	--
Total	38,76	32,1	

Packaging China	Weight, kg	Weight-%(versus the product)	Weight biogenic carbon, kg C/kg
Wooden box and pallet	42,00	34,7	50,00
Other minor components (steel)	0,10	0,1	--
Total	42,10	34,8	

The contents of recycled derive from literature data or databases.

The products don't contain dangerous substances from the candidate list of SVHC for Authorisation in quantity greater than 0,1%, as declared by the manufacturer (Reach SVHC Compliance Declaration dated 27th March 2023).

Environmental Information

Potential environmental impact – mandatory indicators according to EN 15804

Results per declared unit											
Indicator	Unit	A1-A3	A4	A5	B2	B6	C1	C2	C3	C4	D
GWP-fossil	kg CO ₂ eq.	1277	75	1	45	1167	0	2	0	2	-39
GWP-biogenic	kg CO ₂ eq.	-56,7	0,0	90,1	-0,1	2,5	0,0	0,0	0,0	13,5	3,8
GWP-luluc	kg CO ₂ eq.	2,63	0,02	0	0,08	1,23	0	0	0	0	-0,48
GWP-total	kg CO ₂ eq.	1223	75	92	45	1170	0	2	0	15	-35
ODP	kg CFC 11 eq.	8,44E-05	1,67E-05	1,51E-07	2,49E-06	2,62E-05	5,95E-09	4,98E-07	0	2,80E-07	-2,64E-06
AP	mol H ⁺ eq.	8,10	0,50	0,01	0,63	6,20	0	0,01	0	0,01	-0,28
EP-freshwater	kg P eq.	0,739	0,003	0	0,048	0,677	0	0	0	0	-0,017
EP-marine	kg N eq.	1,775	0,160	0,014	0,226	1,183	0	0,003	0	0,006	-0,041
EP-terrestrial	mol N eq.	15,9	1,8	0,1	0,7	11,7	0	0	0	0	-0,4
POCP	kg NMVOC eq.	4,49	0,47	0,02	0,21	3,12	0	0,01	0	0,01	-0,15
ADP-minerals&metals*	kg Sb eq.	0,127	0	0	0,010	0,005	0	0	0	0	0
ADP-fossil*	MJ	14985	1067	14	540	14532	3	34	0	21	-373
WDP*	m ³	344	2	0	18	148	0	0	0	1	-10
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption										

** Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.*

Potential environmental impact – additional mandatory and voluntary indicators

Results per declared unit											
Indicator	Unit	A1-A3	A4	A5	B2	B6	C1	C2	C3	C4	D
GWP-GHG ¹	kg CO ₂ eq.	1259	75	11	44	1149	0	2	0	6	-38
PM	Disease incidence	9,22E-05	2,67E-06	8,69E-06	3,50E-06	4,04E-05	9,17E-09	1,76E-07	0	1,97E-06	-4,29E-06
IRP	kBq U235 eq.	104	5	0	7	131	0	0	0	0	-2
ETP-fw	CTUe	60019	709	61	5016	22993	5	30	0	135	-1005
HTP-c	CTUh	5,96E-06	1,90E-08	4,03E-08	1,41E-07	3,19E-07	7,24E-11	1,02E-09	0	9,82E-09	7,67E-09
HTP-nc	CTUh	3,84E-05	8,79E-07	2,46E-07	6,17E-06	1,29E-05	2,93E-09	2,87E-08	0	8,00E-08	-1,02E-06

Use of resources

Results per declared unit											
Indicator	Unit	A1-A3	A4	A5	B2	B6	C1	C2	C3	C4	D
PERE	MJ	3127	8	1	68	1628	0	0	0	0	-316
PERM	MJ	756	0	0	0	0	0	0	0	0	0
PERT	MJ	3883	8	1	68	1628	0	0	0	0	-316
PENRE	MJ	14958	1067	14	540	14532	3	34	0	21	-373
PENRM	MJ	27	0	0	0	0	0	0	0	0	0
PENRT	MJ	14985	1067	14	540	14532	3	34	0	21	-373
SM	kg	22	0	0	0	0	0	0	0	0	0
RSF	MJ	0	0	0	0	0	0	0	0	0	0
NRSF	MJ	0	0	0	0	0	0	0	0	0	0
FW	m ³	76	1	0	3	106	0	0	0	0	-2

¹ This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO₂ is set to zero.

Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water
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Waste production and output flows

Waste production

Results per declared unit											
Indicator	Unit	A1-A3	A4	A5	B2	B6	C1	C2	C3	C4	D
Hazardous waste disposed	kg	1,E-01	3,E-03	3,E-05	5,E-03	7,E-03	2,E-06	9,E-05	0,E+00	4,E-05	2,E-02
Non-hazardous waste disposed	kg	358	18	3	9	92	0	1	0	76	-11
Radioactive waste disposed	kg	4,E-02	7,E-03	7,E-05	7,E-03	4,E-02	8,E-06	2,E-04	0,E+00	1,E-04	-1,E-03

Output flows

Results per functional or declared unit

Results per declared unit												
Indicator	Unit	A1-A3	A4	A5	B2	B6	B7	C1	C2	C3	C4	D
Components for re-use	kg	0	0	0	0	0	0	0	0	0	0	0
Material for recycling	kg	10	0	6	4	0	0	0	31	0	0	10
Materials for energy recovery	kg	2	0	4	0	0	0	0	0	0	0	2
Exported energy, electricity	MJ	0	0	0	0	0	0	0	0	0	0	0
Exported energy, thermal	MJ	0	0	0	0	0	0	0	0	0	0	0

Interpretation

The predominant and most significant impacts concern energy consumption related to the production phase (A1-A3) and use phase (B6) of the product. Among the materials used in production, aluminum and electronics contribute the most to all impacts.

Impacts related transportation of the product to the customer (A4) do not significantly affect the overall impact of the product; impacts generated in the in-use maintenance phase of the product (B2) are present but affect but marginally affect the overall impact of the product.

Additional environmental information

Information on biogenic carbon content

Results per declared unit		
Carbon Content	Unit	Quantity
Biogenic carbon content in product	kg C	12,87
Biogenic carbon content in packaging	kg C	69,35

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO₂

References

- General Programme Instructions of the International EPD[®] System. Version 4.0.
- PCR 2019-14 Construction products version 1.2.5
- EN 15804:2012+A2:2019/AC:2021 Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products
- LCA_22_GunneboFLS1200

