Environmental
Product
Declaration

According to ISO14025+EN15804 A2 (+indicators A1)

This declaration is for:
XENTRY STS Speedgate

Provided by:
HTC Parking & Security

MRPI® registration
1.1.00794.2025

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COMPANY INFORMATION

HTC Parking & Security

Tweede Bloksweg 72

2742 KL

Waddinxveen

Netherlands

+31880277088

Stefan Morssink

https://htc-ps.com/en/

MRPI® REGISTRATION

1.1.00794.2025

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25-3-2025

EXPIRY DATE

25-3-2030

SCOPE OF DECLARATION

This MRPI®-EPD certificate is verified by Jeannette Levels-Vermeer, LBP SIGHT. The LCA study has been done by Vince Evers, Dispersed. The certificate is based on an LCA-dossier according to ISO14025+EN15804 A2 (+indicators A1). It is verified according to the 'MRPI®-EPD verification protocol November 2020.v4.0'. EPDs of construction products may not be comparable if they do not comply with EN15804+A2. Declaration of SVHC that are listed on the 'Candidate list of Substances of Very High Concern for authorisation' when content exceeds the limits for registration with ECHA.

PROGRAM OPERATOR

Stichting MRPI®

Kingsfordweg 151

1043 GR

Amsterdam

PRODUCT

XENTRY STS Speedgate

DECLARED UNIT / FUNCTIONAL UNIT

1 Piece

DESCRIPTION OF PRODUCT

The XENTRY STS is a Speedgate or bi-folding gate system, designed to secure and automate the vehicle entrance to a site. It protects an area from unwanted access by unauthorized persons and regulates traffic. Each side of the gate folds into two segments, allowing for fast opening and closing. The space-saving design, high speed and robust construction make it suitable for situations with limited space and high traffic.

VISUAL PRODUCT

MORE INFORMATION

https://htc-ps.com/en/producten/speedgates-en/xentry-sts/

Ing. L. L. Oosterveen MSc. MBA Managing Director MRPI	DEMONSTRATION OF VERIFICATION
	CEN standard EN15804 serves as the core PCR [1]
	Independent verification of the declaration an data according to ISO14025+EN15804 A2 (+indicators A1) internal: external: X
	Third party verifier: Jeannette Levels-Vermeer, LBP SIGHT
	[1] PCR = Product Category Rules

DETAILED PRODUCT DESCRIPTION (PART 1)

DECLARED UNIT

1 HTC XENTRY STS trackless Speedgate with a reference size of 4.5 meters (width) by 2.75 meters (height), totaling 12.38 m² of functional surface, and a mass of 649 kg.

PRODUCT DESCRIPTION

The Xentry STS is part of HTC Parking & Security's advanced Speedgate product line, specifically designed for secure vehicle access control at perimeters and outdoor area's. Each side of the gate consists of a collum with an engine, two folding steel panels and a trackless guiding system, enabling quick opening and closing cycles (~1m/s) without barriers for passing vehicles. The Xentry STS is TÜV certified according to EN13241 and due to its build quality offers it long lasting reliable performance and efficient flow control—ideal for logistics hubs, and secure perimeters.The product is configurable in various sizes. The functional surface of the XENTRY STS may range between 6.2 and 26.3 m².

CONDITION OF DELIVERY

The XSTS is delivered pre-assembled and ready for installation. The gate system is transported by road from Waddinxveen to the customer location. No additional packaging is applied at delivery beyond what was used during component transportation.

REFERENCE SERVICE LIFE

The reference service life (RSL) for the X2TP is 20 years, based on:

- Usage frequency: 25 000 open/close cycles per year.
- Total cycles: 500 000 over its lifetime.
- The service life is aligned with real-world performance data and maintenance practices.

PRODUCT COMPONENTS

The XENTRY STS consists primarily of steel components (columns and gate panels), electronics (PWBs, electromotors), rubbers, plastics, and aluminum.

Component (> 1%)	(%)
Steel components	88,9
Electronics	7,1
Aluminium components	1,6
Plastic components	1,2
Rubber components	1
Other components	0,2

SCOPE AND TYPE

The scope of the EPD is defined as cradle-to-gate with options:

- Product stage (A1-A3): Material extraction, transport to production, and manufacturing.
- Construction stage (A4-A5): Distribution to site and installation.
- Use stage (B4): Replacement.
- End-of-life stage (C1-C4): Dismantling, transport, waste processing, and disposal.
- Benefits and loads beyond the system boundary (Module D): Includes recycling credits and recovered energy.

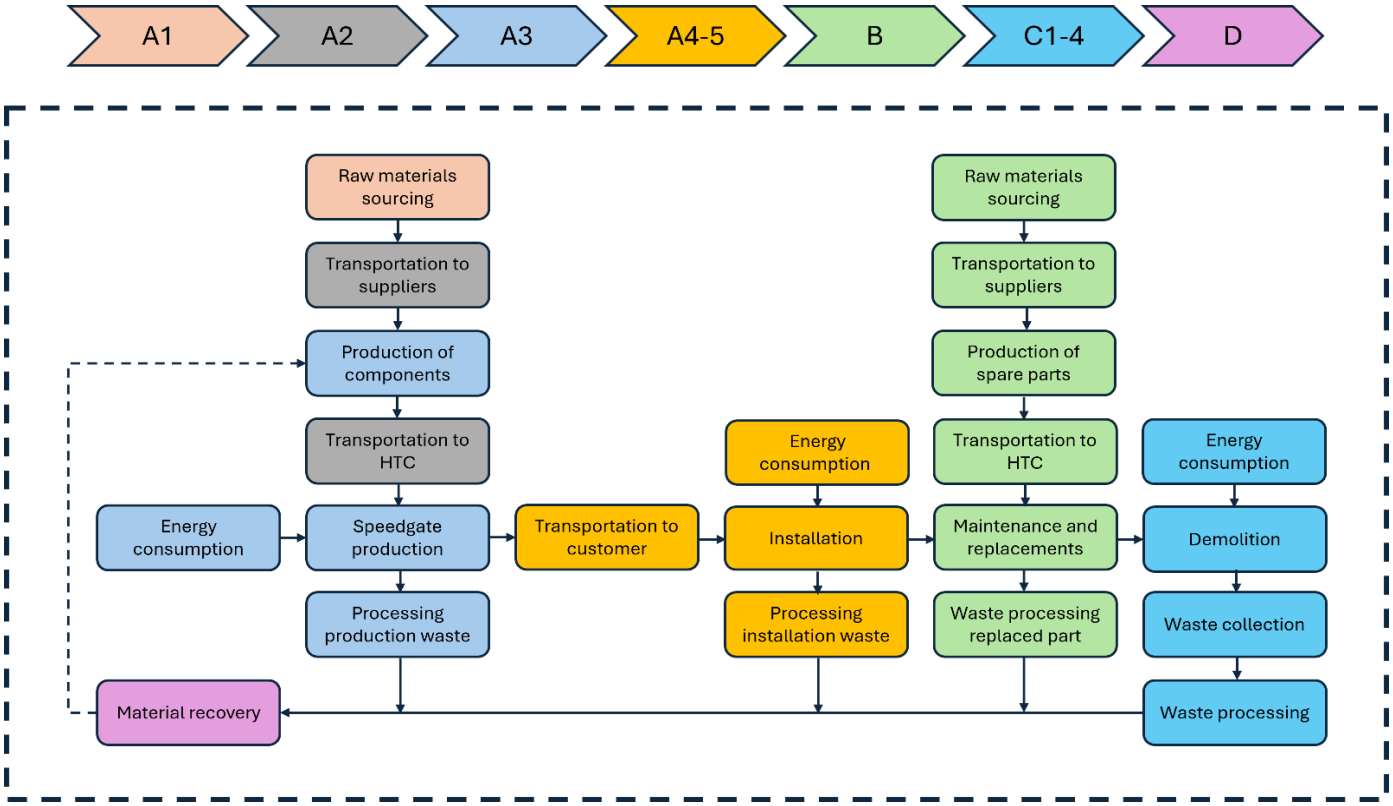
All major activities within the scope, from the extraction of natural resources to the final disposal of the product, are included in the environmental assessment of the product. This declaration covers a specific product from a single manufacturer (HTC Parking & Security), based on primary and verified data. Production and assembly take place at HTC's facility in Waddinxveen, the Netherlands. The primary market is also the Netherlands, which accounts for 83% of sold installations. The end-of-life treatment is assumed to take place within the Netherlands, using national average waste treatment and recycling scenarios as defined in the NMD Bepalingsmethode. Modules A4-5 and C1-4 are therefore most representative for the Dutch market. Modules A1-3 and B4 are respresentative for the European market as well.

Material data is primarily based on HTC's 2024 bill-of-materials. Environmental impact data is sourced from the NMD Processendatabase 3.5 and, where necessary, supplemented with EcoInvent v3.6 datasets. The life cycle assessment was modeled and calculated using EcoChain LCA software.

PRODUCT STAGE			CONSTRUCTION PROCESS STAGE		USER STAGE							END OF LIFE STAGE				BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARIES
Raw material supply	Transport	Manufacturing	Transport gate to site	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse - Recovery - Recycling potential
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	X	ND	ND	ND	X	X	X	X	X

X = Modules Assessed

ND = Not Declared



REPRESENTATIVENESS

This EPD is representative for one XENTRY STS with a surface area of 12.38 m² and a steel panel mass between 13-15 kg/m². For other gate sizes, a scaling formula can be applied to estimate environmental impacts proportionally, based on the surface area in square meters (m²), calculated as the product of gate width and height. This allows users to approximate impacts for customized gates using the EPD as a reference.

ENVIRONMENTAL IMPACT per functional unit or declared unit (indicators A1)

	Eenheid	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
ADPE	kg Sb eq.	ND	ND	ND	1,35E+00	1,58E-04	3,35E-03	ND	ND	ND	4,95E-02	ND	ND	ND	4,34E-05	0,00E+00	8,21E-04	1,58E-06	4,66E-03
ADPF	MJ	ND	ND	ND	2,70E+04	9,43E+01	9,50E+02	ND	ND	ND	2,64E+03	ND	ND	ND	1,66E+02	0,00E+00	2,38E+02	4,99E+00	-9,90E+03
GWP	kg CO2 eq.	ND	ND	ND	1,87E+03	6,17E+00	6,47E+01	ND	ND	ND	1,72E+02	ND	ND	ND	1,06E+01	3,67E+00	9,04E+01	4,39E-01	-7,51E+02
ODP	kg CFC11 eq.	ND	ND	ND	1,17E-04	1,09E-06	7,34E-06	ND	ND	ND	1,30E-05	ND	ND	ND	5,25E-07	0,00E+00	2,46E-06	5,66E-08	-2,90E-05
POCP	kg ethene eq.	ND	ND	ND	2,44E+00	3,72E-03	4,82E-02	ND	ND	ND	8,14E-02	ND	ND	ND	1,58E-03	5,47E-04	1,36E-02	2,28E-04	-1,42E+00
AP	kg SO2 eq.	ND	ND	ND	1,03E+01	2,71E-02	3,16E-01	ND	ND	ND	8,47E-01	ND	ND	ND	1,99E-02	9,27E-03	1,57E-01	1,32E-03	-2,68E+00
EP	kg (PO4) 3- eq.	ND	ND	ND	1,17E+00	5,33E-03	4,70E-02	ND	ND	ND	1,46E-01	ND	ND	ND	4,10E-03	2,44E-03	2,26E-02	5,17E-04	-2,95E-01

Toxicity indicators and ECI (Dutch market)

HTP	kg DCB eq.	ND	ND	ND	2,34E+03	2,60E+00	5,29E+01	ND	ND	ND	1,07E+02	ND	ND	ND	1,20E+00	2,21E-02	1,24E+02	1,31E-01	-4,89E+02
FAETP	kg DCB eq.	ND	ND	ND	3,38E+01	7,58E-02	9,61E-01	ND	ND	ND	5,90E+00	ND	ND	ND	3,30E-02	0,00E+00	8,88E-01	5,35E-03	5,32E+00
MAETP	kg DCB eq.	ND	ND	ND	1,01E+05	2,73E+02	3,49E+03	ND	ND	ND	1,56E+04	ND	ND	ND	1,39E+02	0,00E+00	2,52E+03	1,04E+01	-6,16E+02
TETP	kg DCB eq.	ND	ND	ND	7,00E+00	9,18E-03	2,17E-01	ND	ND	ND	6,93E-01	ND	ND	ND	5,42E-02	0,00E+00	7,16E-02	2,58E-04	3,30E+01
ECI	euro	ND	ND	ND	3,75E+02	7,44E-01	1,02E+01	ND	ND	ND	2,51E+01	ND	ND	ND	7,90E-01	2,46E-01	1,68E+01	4,58E-02	-9,65E+01
ADPF	kg Sn eq.	ND	ND	ND	1,30E+01	4,54E-02	4,57E-01	ND	ND	ND	1,27E+00	ND	ND	ND	8,00E-02	0,00E+00	1,15E-01	2,40E-03	-4,76E+00

ADPE = Abiotic Depletion Potential for non-fossil resources
ADPF = Abiotic Depletion Potential for fossil resources
GWP = Global Warming Potential
ODP = Depletion potential of the stratospheric ozone layer
POCP = Formation potential of tropospheric ozone photochemical oxidants
AP = Acidification Potential of land and water
EP = Eutrophication Potential
HTP = Human Toxicity Potential
FAETP = Fresh water aquatic ecotoxicity potential
MAETP = Marine aquatic ecotoxicity potential
TETP = Terrestrial ecotoxicity potential
ECI = Environmental Cost Indicator
ADPF = Abiotic Depletion Potential for fossil resources

ENVIRONMENTAL IMPACT per functional unit or declared unit (core indicators A2)

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-total	kg CO2 eq	ND	ND	ND	1,95E+03	6,23E+00	6,61E+01	ND	ND	ND	1,75E+02	ND	ND	ND	1,09E+01	3,69E+00	9,00E+01	4,89E-01	-7,99E+02
GWP-fossil	kg CO2 eq	ND	ND	ND	1,94E+03	6,22E+00	6,60E+01	ND	ND	ND	1,75E+02	ND	ND	ND	1,08E+01	3,69E+00	9,07E+01	4,88E-01	-8,00E+02
GWP-biogenic	kg CO2 eq	ND	ND	ND	3,50E+00	2,87E-03	8,05E-02	ND	ND	ND	-2,04E-01	ND	ND	ND	1,18E-01	0,00E+00	-7,88E-01	8,52E-04	7,20E-01
GWP-luluc	kg CO2 eq	ND	ND	ND	1,95E+00	2,28E-03	3,97E-02	ND	ND	ND	2,14E-01	ND	ND	ND	3,18E-03	0,00E+00	2,02E-02	8,06E-05	2,54E-01
ODP	kg CFC11 eq	ND	ND	ND	1,17E-04	1,37E-06	8,72E-06	ND	ND	ND	1,27E-05	ND	ND	ND	5,22E-07	0,00E+00	2,76E-06	7,12E-08	-2,43E-05
AP	mol H+ eq.	ND	ND	ND	1,25E+01	3,61E-02	3,97E-01	ND	ND	ND	1,04E+00	ND	ND	ND	2,52E-02	1,37E-02	1,97E-01	1,74E-03	-3,27E+00
EP-fresh water	kg PO4 eq.	ND	ND	ND	1,25E-01	6,28E-05	2,97E-03	ND	ND	ND	2,49E-02	ND	ND	ND	6,14E-04	0,00E+00	1,09E-03	2,82E-06	-2,61E-02
EP-marine	kg N eq.	ND	ND	ND	1,96E+00	1,27E-02	9,38E-02	ND	ND	ND	1,75E-01	ND	ND	ND	5,40E-03	7,18E-03	4,68E-02	1,18E-03	-5,80E-01
EP-terrestrial	mol N eq.	ND	ND	ND	2,27E+01	1,40E-01	1,06E+00	ND	ND	ND	2,03E+00	ND	ND	ND	6,61E-02	7,86E-02	5,33E-01	6,50E-03	-6,86E+00
POCP	kg NMVOC eq.	ND	ND	ND	9,31E+00	4,00E-02	3,29E-01	ND	ND	ND	5,74E-01	ND	ND	ND	1,64E-02	1,89E-02	1,44E-01	1,95E-03	-4,19E+00
ADP-minerals & metals	kg Sb eq.	ND	ND	ND	1,35E+00	1,58E-04	3,35E-03	ND	ND	ND	4,95E-02	ND	ND	ND	4,34E-05	0,00E+00	8,21E-04	1,58E-06	4,65E-03
ADP-fossil	MJ, net calorific value	ND	ND	ND	2,15E+04	9,38E+01	8,58E+02	ND	ND	ND	2,40E+03	ND	ND	ND	1,41E+02	0,00E+00	2,38E+02	4,99E+00	-6,17E+03
WDP	m3 world eq. Deprived	ND	ND	ND	6,54E+02	3,36E-01	9,65E+00	ND	ND	ND	4,18E+01	ND	ND	ND	1,09E+00	0,00E+00	4,13E+00	2,19E-01	-1,36E+02

GWP-total = Global Warming Potential total
GWP-fossil = Global Warming Potential fossil fuels
GWP-biogenic = Global Warming Potential biogenictotal
GWP-luluc = Global Warming Potential land use and land use change
ODP = Depletion potential of the stratospheric ozone layer
AP = Acidification Potential, Accumulated Exceedence
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 Exceedence
POCP = Formation potential of tropospheric ozone photochemical oxidants
ADP-minerals & metals = Abiotic Depletion Potential for non-fossil resources [1]
ADP-fossil = Abiotic Depletion for fossil resources potential [1]
WDP = Water (user) deprivation potential, deprivation-weighted water consumption [1]

Disclaimer [1]:

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

ENVIRONMENTAL IMPACT per functional unit or declared unit (additional indicators A2)

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
PM	Disease inci-dence	ND	ND	ND	1,54E-04	5,59E-07	4,71E-06	ND	ND	ND	7,09E-06	ND	ND	ND	8,26E-08	2,98E-08	2,30E-06	3,31E-08	-4,67E-05
IRP	kBq U235 eq.	ND	ND	ND	4,80E+01	3,93E-01	2,82E+00	ND	ND	ND	6,71E+00	ND	ND	ND	2,92E-01	0,00E+00	1,12E+00	2,02E-02	1,01E+01
ETP-fw	CTUe	ND	ND	ND	9,72E+04	8,37E+01	2,12E+03	ND	ND	ND	1,16E+04	ND	ND	ND	1,43E+02	3,88E-03	1,33E+03	1,98E+02	-2,53E+04
HTP-c	CTUh	ND	ND	ND	8,77E-06	2,71E-09	1,17E-07	ND	ND	ND	1,77E-07	ND	ND	ND	2,46E-09	0,00E+00	3,01E-08	1,03E-10	-2,42E-07
HTP-nc	CTUh	ND	ND	ND	1,06E-04	9,15E-08	2,27E-06	ND	ND	ND	5,69E-06	ND	ND	ND	8,03E-08	4,42E-11	2,03E-06	3,33E-09	1,29E-04
SQP	-	ND	ND	ND	8,40E+03	8,77E+01	5,70E+02	ND	ND	ND	1,07E+03	ND	ND	ND	3,27E+01	0,00E+00	5,36E+02	1,05E+01	-1,98E+03

PM = Potential incidence of disease due to PM emissions
IRP = Potential Human exposure efficiency relative to U235 [1]
ETP-fw = Potential Comparative Toxic Unit for ecosystems [2]
HTP-c = Potential Comparative Toxic Unit for humans [2]
HTP-nc = Potential Comparative Toxic Unit for humans, non-cancer [2]
SQP = Potential soil quality index [2]

Disclaimer [1]:

- 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.

Disclaimer [2]:

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

OUTPUT FLOWS AND WASTE CATEGORIES per functional unit or declared unit (A1 en A2)

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
HWD	kg	ND	ND	ND	3,85E-01	2,38E-04	5,22E-03	ND	ND	ND	6,30E-03	ND	ND	ND	1,09E-04	0,00E+00	6,66E-04	7,44E-06	-3,95E-02
NHWD	kg	ND	ND	ND	4,03E+02	5,95E+00	3,52E+01	ND	ND	ND	1,60E+01	ND	ND	ND	4,16E-01	0,00E+00	7,49E+00	3,13E+01	-8,50E+01
RWD	kg	ND	ND	ND	4,77E-02	6,16E-04	3,91E-03	ND	ND	ND	5,26E-03	ND	ND	ND	2,92E-04	0,00E+00	1,28E-03	3,19E-05	2,34E-03
CRU	kg	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	ND	ND	ND	0,00E+00	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	kg	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	ND	ND	ND	0,00E+00	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MER	kg	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	ND	ND	ND	0,00E+00	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EEE	kg	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	ND	ND	ND	0,00E+00	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
ETE	kg	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	ND	ND	ND	0,00E+00	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

HWD = Hazardous Waste Disposed
NHWD = Non Hazardous Waste Disposed
RWD = Radioactive Waste Disposed
CRU = Components for reuse
MFR = Materials for recycling
MER = Materials for energy recovery
EEE = Exported Electrical Energy
ETE = Exported Thermal Energy

RESOURCE USE per functional unit or declared unit (A1 and A2)

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
PERE	MJ	ND	ND	ND	1,42E+03	1,17E+00	4,08E+01	ND	ND	ND	1,83E+02	ND	ND	ND	1,52E+01	0,00E+00	3,42E+01	5,65E-02	-1,57E+02
PERM	MJ	ND	ND	ND	1,43E+02	0,00E+00	0,00E+00	ND	ND	ND	0,00E+00	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,09E+02
PERT	MJ	ND	ND	ND	1,57E+03	1,17E+00	4,08E+01	ND	ND	ND	1,83E+02	ND	ND	ND	1,52E+01	0,00E+00	3,42E+01	5,65E-02	-4,81E+01
PENRE	MJ	ND	ND	ND	2,23E+04	9,96E+01	9,08E+02	ND	ND	ND	2,26E+03	ND	ND	ND	1,51E+02	0,00E+00	2,52E+02	5,30E+00	-6,39E+03
PENRM	MJ	ND	ND	ND	4,34E+02	0,00E+00	3,97E+00	ND	ND	ND	3,01E+02	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-6,73E+01
PENRT	MJ	ND	ND	ND	2,28E+04	9,96E+01	9,12E+02	ND	ND	ND	2,56E+03	ND	ND	ND	1,51E+02	0,00E+00	2,52E+02	5,30E+00	-6,46E+03
SM	kg	ND	ND	ND	1,43E+02	0,00E+00	1,28E+00	ND	ND	ND	3,47E-01	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-1,51E+02
RSF	MJ	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	ND	ND	ND	0,00E+00	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NSRF	MJ	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	ND	ND	ND	0,00E+00	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m3	ND	ND	ND	1,90E+01	1,14E-02	3,50E-01	ND	ND	ND	1,44E+00	ND	ND	ND	8,65E-02	0,00E+00	1,79E-01	5,27E-03	-2,84E+00

PERE = Use of renewable energy excluding renewable primary energy resources
PERM = Use of renewable energy resources used as raw materials
PERT = Total use of renewable primary energy resources
PENRE = Use of non-renewable primary energy resources excluding non-renewable 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 materials
RSF = Use of renewable secondary fuels
NSRF = Use of non-renewable secondary fuels
FW = Use of net fresh water

BIOGENIC CARBON CONTENT per functional unit or declared unit (A1 and A2)

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
BBCpr	kg C	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
BCCpa	kg C	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

BCCpr = Biogenic carbon content in product
BCCpa = Biogenic carbon content in packaging

CALCULATION RULES (PART 1)

DATA COLLECTION AND QUALITY

The data for the HTC Speedgates LCA was collected between February and October, 2024. Primary data, such as material lists and measured factory energy use, was collected for the year 2023 through an iterative process involving questionnaires, phone calls, and online meetings. Secondary environmental data was extracted from the NMD Processendatabase (version 3.5) and EcoInvent (version 3.6). Data quality was ensured by validating material masses against actual product weights, using verified transport distances, and carefully selecting emission factors.

CUT-OFF CRITERIA AND ALLOCATION PROCEDURES

Cut-off criteria were set in line with EN15804, ensuring that all material and energy flows contributing more than 1% to the total mass or environmental impact were included, with the total excluded impact remaining below 5%. Allocation procedures followed standard attributional LCA practice, based on physical properties such as mass, and in the case of waste processing and recycling, environmental credits and burdens were assigned according to the modular approach and system expansion as defined in the EN15804 and NMD guidelines. Factory electricity consumption was allocated proportionally to product mass, and since solar energy generation exceeded usage, no net electricity impact was assigned. These procedures ensured the data was accurate, complete, and representative.

SCENARIOS AND ADDITIONAL TECHNICAL INFORMATION (PART 1)

Module A1-3: The Speedgates are made from materials like steel, aluminum, plastics, electronics, and copper, with data based on detailed material lists. Materials are transported from key suppliers to HTC's Waddinxveen factory using either specific or average transport distances depending on supplier type. At the factory, components are cut and welded. Surface-treatment has already been performed by the suppliers and is taken into account within the scope of the assessment. Pproduction process in Waddinxveen uses solar power with no net electricity from the grid. Production waste mainly consists of steel and aluminum off-cuts.
Module A4: Assembled Speedgates are delivered by truck to customer locations based on average transport distances, without additional packaging.
Module A5: Installation involves mounting, electronic configuration, and energy use by tools like forklifts and drills; minor material losses are included.
Module B4: Over the 20-year use phase, certain parts (e.g. electronics, rubber) are replaced based on historical data, with full life cycle impacts included.
Module C1: At end-of-life, the Speedgates are dismantled on-site using the same energy assumptions as during installation.
Module C2: Dismantled materials are transported to waste processing facilities using standard transport assumptions.
Module C3-4: Waste is processed through recycling, incineration, or landfill depending on material type, following averages supplied by the NMD-Bepalingsmethode.
D: Recycled materials and recovered energy from waste incineration are credited, reducing the total environmental impact.

Waste treatment scenarios (A3, A5, B4, C3, C4)	Landfil %	Incineration %	Recycling %	Reuse %
Treated and/ore mixed steel	5	0	95	0
Construction steel	1	0	94	5
Aluminium	3	3	94	0
Copper	5	0	95	0
Other metals	5	5	90	0
Polyolefins	10	85	5	0
PVC	10	20	70	0
Rubber	0	100	0	0
Other plastics	0	90	10	0
Electronics	5	35	60	0
Glass	30	0	70	0

SCENARIOS AND ADDITIONAL TECHNICAL INFORMATION (PART 2)

This EPD is representative for one XENTRY STS with a surface area of 12.38 m². A scaling formula for the X2TP mass was determined based is: y = 15.0x + 471.7, where y represents the total mass of the speedgate, and x the area, calculated as the product of gate width and height. Specific impacts categories may be scaled by deviding the values in this formula by the impact results in this EPD.

XENTRY STS variants	Width (m)	Height (m)	Surface area (m²)	Mass (kg)
Smallest model	2,94	2,116	6,22104	547
Smaller model	3,44	2,616	8,99904	636
Reference model	4,5	2,75	12,375	648,7
Larger model	6,44	2,616	16,84704	719
Largest model	8,44	3,116	26,29904	866

DECLARATION OF SVHC

The product does not contain any substance of very high concern.

REFERENCES

- ISO 14040 – Environmental management – Life cycle assessment – Principles and framework
- ISO 14044 – Environmental management – Life cycle assessment – Requirements and guidelines
- EN 15804:2012+A2:2019 – Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products
- SBK Bepalingsmethode voor Milieuprestatie van Bouwwerken, versie 1.1 (maart 2022)

REMARKS