ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025 / ISO 21930

Fast Trak Bracket – 170mm (FTB-170)

EPD HUB, HUB-0376
Publishing date 06 April 2023, last updated date 06 April 2023, valid until 06 April 2028

Created with One Click LCA

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Gripple Ltd
Address	Norfolk Bridge Works, 11 Leveson Street, Sheffield, S4 7ER
Contact details	info@gripple.com
Website	www.gripple.com

EPD STANDARDS, SCOPE AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804+A2:2019 and ISO 14025
PCR	EPD Hub Core PCR version 1.0, 1 Feb 2022
Sector	Construction product
Category of EPD	Sister EPD (Parent EPD: HUB-0375)
Scope of the EPD	Cradle to gate with modules C1-C4, D
EPD author	Natasha Lyth Gripple Ltd
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal certification ☑ External verification
EPD verifier	E.A as an authorized verifier acting for EPD Hub Limited

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	Fast Trak Bracket - 170mm (FTB-170)
Additional labels	
Product reference	FTB-170
Place of production	Sheffield, UK
Period for data	March 2021 - March 2022
Averaging in EPD	No averaging
Variation in GWP-fossil for A1-A3	Not applicable %

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 unit of FTB-170
Declared unit mass	0.4976 kg
GWP-fossil, A1-A3 (kgCO2e)	2,55E0
GWP-total, A1-A3 (kgCO2e)	1,55E0
Secondary material, inputs (%)	73.3
Secondary material, outputs (%)	96.5
Total energy use, A1-A3 (kWh)	11.1
Total water use, A1-A3 (m3e)	0.0394

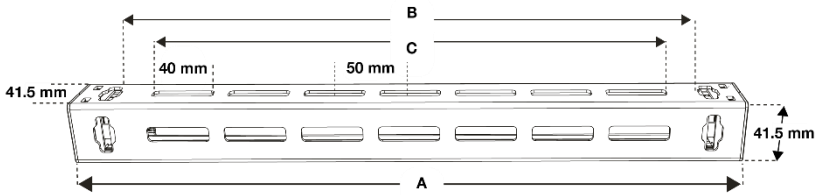
PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Gripple manufactures innovative solutions for the construction, agricultural and infrastructure sectors. Our innovative product designs, provide customers with faster, safer, and more cost-effective solutions than traditional engineered methods.

PRODUCT DESCRIPTION

Fast Trak is a prefabricated, trapeze bracket, which enables efficient, flexible, and safe installation of electrical containment, ductwork, pipework, and other mechanical services.



Bracket	FTB-170
A (mm) Length	239
B (mm) Suspension Space	176
C (mm) Working Space	140
No. of Slots	3

Fast Trak is six times faster and safer to install than traditional suspension systems as the system removes the need to cut threaded rod on site. The bracket can simply be moved up and down the tracks to accommodate changes in position during installation.

It offers even more versality as the four-sided bracket provides suspension point on every face: ideal for installation of combined bracketry and multi-tiered configuration to accommodate additional services. Each bracket also has indicators at each end as a measurement guide when marking fixing points on the ceiling; M4 level markers on the tracks highlight 50 mm increments, so no levelling tools are required. The tracks also can be bent neatly under the bracket – so zero product waste.

Fast Trak is independently fire tested to F120 which confirms that the entire system meets the fire performance standards associated with BS EN 1363-1:2012.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass- %	Material origin
Metals	93	EU / Asia
Minerals	-	-
Fossil materials	7	Turkey
Bio-based materials	-	-

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0
Biogenic carbon content in packaging, kg C	0.291

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 unit of FTB-170
Mass per declared unit	0.4976 kg
Functional unit	-
Reference service life	-

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	MND	MND	MND	MND	MND	MND	MND	x	x	x	x	x		
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction	Transport	Waste	Disposal	Reuse	Recovery	Recycling

Modules not declared = MND. Modules not relevant = MNR.

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 facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

The main process used within the manufacturing of the Fast Trak Bracket is Roll Forming. Strip metal is passed through our Roll Form Bearer machine forming and pressing it into the designed state. The process is highly efficient and allows for large volumes to be produced. Fast Trak components for the final assembly are also produced in house. The latch and brace components are manufactured on a press machine, where strip metal is formed and pressed into the designed state.

The Cartridge is moulded at our I -house mould shop which is located less than 3km from the final point of assembly. The only component sourced from a third-party UK supplier is the spring.

Any waste steel produced is sold for recycling. Production losses for all materials used in manufacturing is considered within this EPD. For Fast Trak packaging we used cardboard endcaps and plastic clips. A wooden pallet is used as a packaging material for transporting the product from the factory gate.

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts 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 distance is defined according to the PCR. The transportation distance site is an average distance from production site to building site. This assumed average is 1,173.6km this distance reflects that Fast Trak Brackets are supplied internationally from the UK. Transportation does not cause losses as the product is packaged appropriately. Shipping is done by a third party; empty returns are not considered as it is assumed that the return trip is used by the transportation company to serve the needs of other clients. The design and nature of a Fast Trak Bracket means there are no A5 installation impacts when installed using a Fast Trak Track.

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)

Demolition is assumed to consume 0,01 kWh/kg of product (O. Bozdag and M. Secer, 2007). The source of energy is diesel fuel used by construction machines (C1). It is assumed that 100% of the waste is collected and transported to the waste treatment centre. Transportation distance to treatment is assumed as 50 km and the transportation method is assumed to be lorry (C2). Approximately 95% of steel is assumed to be recycled based on World Steel Association, 2020 (C3). It is assumed that the remaining 5 % of steel is taken to landfill for final disposal (C4). Due to the recycling process, the end-of-life product is converted into recycled steel, the ABS engine is converted into recycled ABS material, while the wooden pallet is incinerated for energy recovery (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.

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 materials	Allocated by mass or volume
Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

AVERAGES AND VARIABILITY

Type of average	No averaging
Averaging method	Not applicable
Variation in GWP-fossil for A1-A3	Not applicable

There is no average result considered in this study since this EPD refers to one specific product produced in one production plant.

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. Ecoinvent and One Click LCA databases were used as sources of environmental data.

ENVIRONMENTAL IMPACT DATA

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total[1)]	kg CO_2e	2,3E0	7,68E-2	-8,21E-1	1,55E0	2,1E-1	1,15E0	MND	MND	MND	MND	MND	MND	MND	3,3E-3	2,26E-3	2,04E-2	1,97E-4	0E0
GWP – fossil	kg CO_2e	2,22E0	7,67E-2	2,51E-1	2,55E0	2,16E-1	1,36E-2	MND	MND	MND	MND	MND	MND	MND	3,3E-3	2,26E-3	2,04E-2	1,97E-4	-1,21E0
GWP – biogenic	kg CO_2e	7,18E-2	-1,65E-6	-1,07E0	-1E0	-1,08E0	1,13E0	MND	MND	MND	MND	MND	MND	MND	9,17E-7	1,64E-6	-6,83E-5	3,91E-7	8,21E-1
GWP – LULUC	kg CO_2e	2,17E-3	4,54E-5	2,49E-3	4,71E-3	5,99E-4	1,48E-5	MND	MND	MND	MND	MND	MND	MND	2,79E-7	6,8E-7	2,12E-5	5,85E-8	-4,36E-4
Ozone depletion pot.	kg $CFC_{-11}e$	1,75E-7	1,6E-8	2,82E-8	2,19E-7	3,15E-8	1,87E-9	MND	MND	MND	MND	MND	MND	MND	7,12E-10	5,32E-10	2,52E-9	8,11E-11	-4,73E-8
Acidification potential	mol H^+e	2,98E-2	1,81E-3	1,26E-3	3,29E-2	1,2E-3	6,51E-5	MND	MND	MND	MND	MND	MND	MND	3,45E-5	9,5E-6	1,75E-4	1,87E-6	-6,66E-3
EP-freshwater[2)]	kg Pe	1,33E-4	4,75E-7	1,16E-5	1,45E-4	9,32E-6	6,49E-7	MND	MND	MND	MND	MND	MND	MND	1,33E-8	1,84E-8	9,74E-7	2,38E-9	-6,71E-5
EP-marine	kg Ne	2,83E-3	4,51E-4	3,16E-4	3,6E-3	3,28E-4	3,3E-5	MND	MND	MND	MND	MND	MND	MND	1,52E-5	2,86E-6	4,14E-5	6,44E-7	-1,09E-3
EP-terrestrial	mol Ne	1,07E-1	5,01E-3	3,52E-3	1,16E-1	3,69E-3	1,69E-4	MND	MND	MND	MND	MND	MND	MND	1,67E-4	3,16E-5	4,66E-4	7,09E-6	-1,26E-2
POCP ("smog")[3)]	kg NMVOCe	8,78E-3	1,32E-3	1,36E-3	1,15E-2	1,43E-3	5,92E-5	MND	MND	MND	MND	MND	MND	MND	4,59E-5	1,02E-5	1,34E-4	2,06E-6	-5,48E-3
ADP-minerals & metals[4)]	kg Sbe	3,02E-3	1,05E-6	3,3E-6	3,02E-3	3,76E-6	1,29E-7	MND	MND	MND	MND	MND	MND	MND	5,03E-9	3,86E-8	7,7E-7	1,8E-9	-1,55E-5
ADP-fossil resources	MJ	3,03E1	1,04E0	4,59E0	3,6E1	3,7E0	2,09E-1	MND	MND	MND	MND	MND	MND	MND	4,54E-2	3,52E-2	2,83E-1	5,51E-3	-1,34E1
Water use[5)]	m^3e depr.	1,04E0	2,92E-3	6,08E-2	1,11E0	5,51E-2	2,55E-3	MND	MND	MND	MND	MND	MND	MND	8,46E-5	1,31E-4	4,95E-3	2,55E-4	-5,18E-1

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[8)]	MJ	2,84E0	9,55E-3	2,85E0	5,7E0	2,68E0	2,06E-2	MND	MND	MND	MND	MND	MND	MND	2,45E-4	4,43E-4	2,96E-2	4,45E-5	-2,17E0
Renew. PER as material	MJ	0E0	0E0	1,03E1	1,03E1	1,03E1	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	-2,6E-1
Total use of renew. PER	MJ	2,84E0	9,55E-3	1,32E1	1,6E1	1,3E1	2,06E-2	MND	MND	MND	MND	MND	MND	MND	2,45E-4	4,43E-4	2,96E-2	4,45E-5	-2,43E0
Non-re. PER as energy	MJ	2,88E1	1,04E0	4,49E0	3,44E1	3,7E0	2,09E-1	MND	MND	MND	MND	MND	MND	MND	4,54E-2	3,52E-2	2,83E-1	5,51E-3	-1,16E1
Non-re. PER as material	MJ	1,5E0	0E0	1E-1	1,6E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	-1,82E0
Total use of non-re. PER	MJ	3,03E1	1,04E0	4,59E0	3,6E1	3,7E0	2,09E-1	MND	MND	MND	MND	MND	MND	MND	4,54E-2	3,52E-2	2,83E-1	5,51E-3	-1,34E1
Secondary materials	kg	3,65E-1	0E0	1,31E-4	3,65E-1	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	3,94E-1
Renew. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Non-ren. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Use of net fresh water	m^3	3,81E-2	1,37E-4	1,16E-3	0.0394	1,03E-3	8,74E-5	MND	MND	MND	MND	MND	MND	MND	4,01E-6	7,32E-6	9,43E-5	6,02E-6	-6,74E-3

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	4,95E-1	1,24E-3	1,66E-2	5,13E-1	1,17E-2	8,06E-4	MND	MND	MND	MND	MND	MND	MND	4,88E-5	3,42E-5	0E0	5,14E-6	-3,45E-1
Non-hazardous waste	kg	6,62E0	4,47E-2	3,58E-1	7,02E0	3,65E-1	6,91E-2	MND	MND	MND	MND	MND	MND	MND	5,22E-4	3,78E-3	0E0	3,74E-2	-2,82E0
Radioactive waste	kg	9,46E-5	7,16E-6	1,64E-5	1,18E-4	1,48E-5	1,36E-6	MND	MND	MND	MND	MND	MND	MND	3,18E-7	2,41E-7	0E0	3,64E-8	-2,38E-5

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	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Materials for recycling	kg	0E0	0E0	9,94E-2	9,94E-2	0E0	6,82E-2	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	4,8E-1	0E0	0E0
Materials for energy rec	kg	0E0	0E0	0E0	0E0	0E0	9,44E-1	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Exported energy	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0

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_2e	2,16E0	7,62E-2	2,46E-1	2,49E0	2,1E-1	3,15E-2	MND	MND	MND	MND	MND	MND	MND	3,27E-3	2,24E-3	2,01E-2	1,93E-4	-1,15E0
Ozone depletion Pot.	kg $CFC_{-11}e$	1,64E-7	1,27E-8	2,43E-8	2,01E-7	2,58E-8	1,69E-9	MND	MND	MND	MND	MND	MND	MND	5,63E-10	4,23E-10	2,11E-9	6,43E-11	-4,38E-8
Acidification	kg SO_2e	1,22E-2	1,42E-3	9,38E-4	1,46E-2	8,06E-4	5,13E-5	MND	MND	MND	MND	MND	MND	MND	4,87E-6	4,6E-6	1,17E-4	7,79E-7	-5,63E-3
Eutrophication	kg PO_4^3e	5,32E-3	1,65E-4	3,46E-4	5,83E-3	2,77E-4	1,14E-4	MND	MND	MND	MND	MND	MND	MND	8,57E-7	9,29E-7	9,48E-5	1,51E-7	-2,76E-3
POCP (“smog”)	kg C_2H_4e	8,47E-4	3,87E-5	8,61E-5	9,72E-4	7,89E-5	8,48E-6	MND	MND	MND	MND	MND	MND	MND	5,01E-7	2,92E-7	6,85E-6	5,71E-8	-6,79E-4
ADP-elements	kg Sbe	3,02E-3	1,05E-6	3,3E-6	3,02E-3	3,76E-6	1,29E-7	MND	MND	MND	MND	MND	MND	MND	5,03E-9	3,86E-8	7,7E-7	1,8E-9	-1,55E-5
ADP-fossil	MJ	3,03E1	1,04E0	4,59E0	3,6E1	3,7E0	2,09E-1	MND	MND	MND	MND	MND	MND	MND	4,54E-2	3,52E-2	2,83E-1	5,51E-3	-1,34E1

VERIFICATION STATEMENT

VERIFICATION PROCESS FOR THIS EPD

This EPD has been verified in accordance with ISO 14025 by an independent, third-party verifier by reviewing results, documents and compliancy with reference standard, ISO 14025 and ISO 14040/14044, following the process and checklists of the program operator for:

- This Environmental Product Declaration
- The Life-Cycle Assessment used in this EPD
- The digital background data for this EPD

Why does verification transparency matter? Read more online
This EPD has been generated by One Click LCA EPD generator, which has been verified and approved by the EPD Hub.

THIRD-PARTY VERIFICATION STATEMENT

I hereby confirm that, following detailed examination, I have not established any relevant deviations by the studied Environmental Product Declaration (EPD), its LCA and project report, in terms of the data collected and used in the LCA calculations, the way the LCA-based calculations have been carried out, the presentation of environmental data in the EPD, and other additional environmental information, as present with respect to the procedural and methodological requirements in ISO 14025:2010 and reference standard.

I confirm that the company-specific data has been examined as regards plausibility and consistency; the declaration owner is responsible for its factual integrity and legal compliance.

I confirm that I have sufficient knowledge and experience of construction products, this specific product category, the construction industry, relevant standards, and the geographical area of the EPD to carry out this verification.

I confirm my independence in my role as verifier; I have not been involved in the execution of the LCA or in the development of the declaration and have no conflicts of interest regarding this verification.

Elma Avdyli, as an authorized verifier acting for EPD Hub Limited
06.04.2023

VERIFIED ISO 14025

ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025 / ISO 21930

Fast Trak Bracket – 270mm (FTB-270)

EPD HUB, HUB-0377
Publishing date 06 April 2023, last updated date 06 April 2023, valid until 06 April 2028

Created with One Click LCA

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Gripple Ltd
Address	Norfolk Bridge Works, 11 Leveson Street, Sheffield, S4 7ER
Contact details	info@gripple.com
Website	www.gripple.com

PRODUCT

Product name	Fast Trak Bracket - 270mm (FTB-270)
Additional labels	
Product reference	FTB-270
Place of production	Sheffield, UK
Period for data	March 2021 - March 2022
Averaging in EPD	No averaging
Variation in GWP-fossil for A1-A3	Not applicable %

EPD STANDARDS, SCOPE, AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804+A2:2019 and ISO 14025
PCR	EPD Hub Core PCR version 1.0, 1 Feb 2022
Sector	Construction product
Category of EPD	Sister EPD (Parent EPD: HUB-0375)
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ENVIRONMENTAL DATA SUMMARY

Declared unit	1 unit of FTB-270
Declared unit mass	0.6616 kg
GWP-fossil, A1-A3 (kgCO2e)	3,24E0
GWP-total, A1-A3 (kgCO2e)	1,77E0
Secondary material, inputs (%)	74.2
Secondary material, outputs (%)	14.5
Total energy use, A1-A3 (kWh)	14.2
Total water use, A1-A3 (m3e)	0.0446

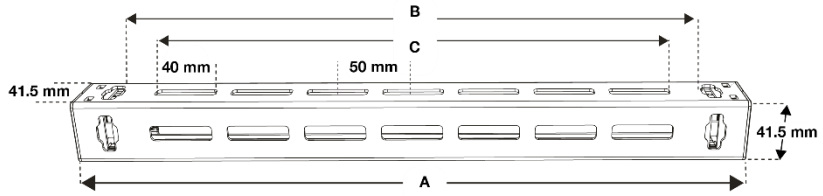
PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Gripple manufactures innovative solutions for the construction, agricultural and infrastructure sectors. Our innovative product designs, provide customers with faster, safer, and more cost-effective solutions than traditional engineered methods.

PRODUCT DESCRIPTION

Fast Trak is a prefabricated, trapeze bracket, which enables efficient, flexible, and safe installation of electrical containment, ductwork, pipework and other mechanical services.



Bracket	FTB-270
A (mm) Length	339
B (mm) Suspension Space	276
C (mm) Working Space	240
No. of Slots	5

Fast Trak is six times faster and safer to install than traditional suspension systems as the system removes the need to cut threaded rod on site. The bracket can simply be moved up and down the tracks to accommodate changes in position during installation.

It offers even more versality as the four-sided bracket provides suspension point on every face: ideal for installation of combined bracketry and multi-tiered configuration to accommodate additional services. Each bracket also has indicators at each end as a measurement guide when marking fixing points on the ceiling; M4 level markers on the tracks highlight 50 mm increments, so no levelling tools are required. The tracks also can be bent neatly under the bracket – so zero product waste.

Fast Trak is independently fire tested to F120 which confirms that the entire system meets the fire performance standards associated with BS EN 1363-1:2012.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass- %	Material origin
Metals	95	EU / Asia
Minerals	-	-
Fossil materials	5	Turkey
Bio-based materials	-	-

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0
Biogenic carbon content in packaging, kg C	0.43

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 unit of FTB-270
Mass per declared unit	0.6616 kg
Functional unit	-
Reference service life	-

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	MND	MND	MND	MND	MND	MND	MND	x	x	x	x	x		
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling

Modules not declared = MND. Modules not relevant = MNR.

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 facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

The main process used within the manufacturing of the Fast Trak Bracket is Roll Forming. Strip metal is passed through our Roll Form Bearer machine forming and pressing it into the designed state. The process is highly efficient and allows for large volumes to be produced. Fast Trak components for the final assembly are also produced in house. The latch and brace components are manufactured on a press machine, where strip metal is formed and pressed into the designed state.

The Cartridge is moulded at our I -house mould shop which is located less than 3km from the final point of assembly. The only component sourced from a third-party UK supplier is the spring. Any waste steel produced is sold for recycling. Production losses for all materials used in manufacturing is considered within this EPD. For Fast Trak packaging we used cardboard endcaps and plastic clips. A wooden pallet is used as a packaging material for transporting the product from the factory gate.

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts 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 distance is defined according to the PCR. The transportation distance site is an average distance from production site to building site. This assumed average is 1,173.6km this distance reflects that Fast Trak Brackets are supplied internationally from the UK. Transportation does not cause losses as the product is packaged appropriately. Shipping is done by a third party; empty returns are not considered as it is assumed that the return trip is used by the transportation company to serve the needs of other clients. The design and nature of a Fast Trak Bracket means there are no A5 installation impacts when installed using a Fast Trak Track.

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)

Demolition is assumed to consume 0,01 kWh/kg of product (O. Bozdag and M. Secer, 2007). The source of energy is diesel fuel used by construction machines (C1). It is assumed that 100% of the waste is collected and transported to the waste treatment centre. Transportation distance to treatment is assumed as 50 km and the transportation method is assumed to be lorry (C2). Approximately 95% of steel is assumed to be recycled based on World Steel Association, 2020 (C3). It is assumed that the remaining 5 % of steel is taken to landfill for final disposal (C4). Due to the recycling process, the end-of-life product is converted into recycled steel, the ABS engine is converted into recycled ABS material, while the wooden pallet is incinerated for energy recovery (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.

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 materials	Allocated by mass or volume
Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

AVERAGES AND VARIABILITY

Type of average	No averaging
Averaging method	Not applicable
Variation in GWP-fossil for A1-A3	Not applicable

There is no average result considered in this study since this EPD refers to one specific product produced in one production plant.

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. Ecoinvent and One Click LCA databases were used as sources of environmental data.

ENVIRONMENTAL IMPACT DATA

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total[1)]	kg CO_2e	2,91E0	9,69E-2	-1,23E0	1,77E0	3,8E-1	1,15E0	MND	MND	MND	MND	MND	MND	MND	3,3E-3	2,26E-3	1,14E-2	1,67E-4	0E0
GWP – fossil	kg CO_2e	2,81E0	9,68E-2	3,31E-1	3,24E0	3,88E-1	1,36E-2	MND	MND	MND	MND	MND	MND	MND	3,3E-3	2,26E-3	1,09E-2	1,66E-4	-1,63E0
GWP – biogenic	kg CO_2e	9,45E-2	-2E-6	-1,56E0	-1,47E0	-1,56E0	1,13E0	MND	MND	MND	MND	MND	MND	MND	9,17E-7	1,64E-6	4,75E-4	3,3E-7	1,19E0
GWP – LULUC	kg CO_2e	2,64E-3	5,7E-5	2,76E-3	5,45E-3	8,94E-4	1,48E-5	MND	MND	MND	MND	MND	MND	MND	2,79E-7	6,8E-7	1,05E-5	4,94E-8	-7,26E-4
Ozone depletion pot.	kg $CFC_{-11}e$	2,17E-7	2,02E-8	3,75E-8	2,75E-7	6,33E-8	1,87E-9	MND	MND	MND	MND	MND	MND	MND	7,12E-10	5,32E-10	1,16E-9	6,85E-11	-6,55E-8
Acidification potential	mol H^+e	2,87E-2	2,3E-3	1,71E-3	3,27E-2	2,06E-3	6,51E-5	MND	MND	MND	MND	MND	MND	MND	3,45E-5	9,5E-6	5,97E-5	1,58E-6	-9,12E-3
EP-freshwater[2)]	kg Pe	1,69E-4	5,85E-7	1,57E-5	1,85E-4	1,42E-5	6,49E-7	MND	MND	MND	MND	MND	MND	MND	1,33E-8	1,84E-8	3,2E-7	2,01E-9	-9,12E-5
EP-marine	kg Ne	3,29E-3	5,74E-4	4,35E-4	4,3E-3	5,72E-4	3,3E-5	MND	MND	MND	MND	MND	MND	MND	1,52E-5	2,86E-6	1,61E-5	5,44E-7	-1,48E-3
EP-terrestrial	mol Ne	9,58E-2	6,38E-3	4,87E-3	1,07E-1	6,41E-3	1,69E-4	MND	MND	MND	MND	MND	MND	MND	1,67E-4	3,16E-5	1,71E-4	5,99E-6	-1,7E-2
POCP ("smog")[3)]	kg NMVOCe	1,11E-2	1,67E-3	1,9E-3	1,47E-2	2,41E-3	5,92E-5	MND	MND	MND	MND	MND	MND	MND	4,59E-5	1,02E-5	5,37E-5	1,74E-6	-7,38E-3
ADP-minerals & metals[4)]	kg Sbe	2,42E-3	1,26E-6	4,59E-6	2,43E-3	6,74E-6	1,29E-7	MND	MND	MND	MND	MND	MND	MND	5,03E-9	3,86E-8	2,45E-7	1,52E-9	-2,1E-5
ADP-fossil resources	MJ	3,76E1	1,31E0	6,01E0	4,5E1	6,55E0	2,09E-1	MND	MND	MND	MND	MND	MND	MND	4,54E-2	3,52E-2	1,52E-1	4,65E-3	-1,75E1
Water use[5)]	m^3e depr.	1,28E0	3,63E-3	8,46E-2	1,37E0	8,45E-2	2,55E-3	MND	MND	MND	MND	MND	MND	MND	8,46E-5	1,31E-4	3,09E-3	2,15E-4	-6,76E-1

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[8)]	MJ	3,6E0	1,19E-2	4,06E0	7,67E0	3,91E0	2,06E-2	MND	MND	MND	MND	MND	MND	MND	2,45E-4	4,43E-4	9,01E-3	3,76E-5	-2,91E0
Renew. PER as material	MJ	0E0	0E0	1,5E1	1,5E1	1,5E1	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	-2,6E-1
Total use of renew. PER	MJ	3,6E0	1,19E-2	1,91E1	2,27E1	1,9E1	2,06E-2	MND	MND	MND	MND	MND	MND	MND	2,45E-4	4,43E-4	9,01E-3	3,76E-5	-3,17E0
Non-re. PER as energy	MJ	3,61E1	1,31E0	5,91E0	4,34E1	6,55E0	2,09E-1	MND	MND	MND	MND	MND	MND	MND	4,54E-2	3,52E-2	1,52E-1	4,65E-3	-1,57E1
Non-re. PER as material	MJ	1,5E0	0E0	1E-1	1,6E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	-1,82E0
Total use of non-re. PER	MJ	3,76E1	1,31E0	6,01E0	4,5E1	6,55E0	2,09E-1	MND	MND	MND	MND	MND	MND	MND	4,54E-2	3,52E-2	1,52E-1	4,65E-3	-1,75E1
Secondary materials	kg	4,91E-1	0E0	1,34E-4	4,91E-1	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	5,15E-1
Renew. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Non-ren. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Use of net fresh water	m^3	4,29E-2	1,73E-4	1,55E-3	0.0446	1,73E-3	8,74E-5	MND	MND	MND	MND	MND	MND	MND	4,01E-6	7,32E-6	4,07E-5	5,09E-6	-9,09E-3

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	6,49E-1	1,54E-3	2,17E-2	6,72E-1	1,82E-2	8,06E-4	MND	MND	MND	MND	MND	MND	MND	4,88E-5	3,42E-5	0E0	4,34E-6	-4,72E-1
Non-hazardous waste	kg	8,07E0	5,68E-2	4,83E-1	8,61E0	6,55E-1	6,91E-2	MND	MND	MND	MND	MND	MND	MND	5,22E-4	3,78E-3	0E0	3,16E-2	-3,77E0
Radioactive waste	kg	1,19E-4	9,06E-6	2,06E-5	1,49E-4	2,95E-5	1,36E-6	MND	MND	MND	MND	MND	MND	MND	3,18E-7	2,41E-7	0E0	3,08E-8	-3,3E-5

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	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Materials for recycling	kg	0E0	0E0	1,27E-1	1,27E-1	0E0	6,82E-2	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	9,6E-2	0E0	0E0
Materials for energy rec	kg	0E0	0E0	0E0	0E0	0E0	9,44E-1	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Exported energy	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0

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_2e	2,74E0	9,61E-2	3,24E-1	3,16E0	3,8E-1	3,15E-2	MND	MND	MND	MND	MND	MND	MND	3,27E-3	2,24E-3	1,08E-2	1,63E-4	-1,56E0
Ozone depletion Pot.	kg CFC_{-11}e	2,01E-7	1,6E-8	3,21E-8	2,5E-7	5,15E-8	1,69E-9	MND	MND	MND	MND	MND	MND	MND	5,63E-10	4,23E-10	9,52E-10	5,43E-11	-6,05E-8
Acidification	kg SO_2e	1,37E-2	1,81E-3	1,26E-3	1,68E-2	1,32E-3	5,13E-5	MND	MND	MND	MND	MND	MND	MND	4,87E-6	4,6E-6	4,54E-5	6,58E-7	-7,71E-3
Eutrophication	kg PO_4^3e	6,74E-3	2,1E-4	4,65E-4	7,42E-3	4,34E-4	1,14E-4	MND	MND	MND	MND	MND	MND	MND	8,57E-7	9,29E-7	6,57E-5	1,27E-7	-3,75E-3
POCP (“smog”)	kg C_2H_4e	1,1E-3	4,92E-5	1,19E-4	1,27E-3	1,24E-4	8,48E-6	MND	MND	MND	MND	MND	MND	MND	5,01E-7	2,92E-7	3,51E-6	4,83E-8	-9,14E-4
ADP-elements	kg Sbe	2,42E-3	1,26E-6	4,59E-6	2,43E-3	6,74E-6	1,29E-7	MND	MND	MND	MND	MND	MND	MND	5,03E-9	3,86E-8	2,45E-7	1,52E-9	-2,1E-5
ADP-fossil	MJ	3,76E1	1,31E0	6,01E0	4,5E1	6,55E0	2,09E-1	MND	MND	MND	MND	MND	MND	MND	4,54E-2	3,52E-2	1,52E-1	4,65E-3	-1,75E1

VERIFICATION STATEMENT

VERIFICATION PROCESS FOR THIS EPD

This EPD has been verified in accordance with ISO 14025 by an independent, third-party verifier by reviewing results, documents and compliancy with reference standard, ISO 14025 and ISO 14040/14044, following the process and checklists of the program operator for:

- This Environmental Product Declaration
- The Life-Cycle Assessment used in this EPD
- The digital background data for this EPD

Why does verification transparency matter? Read more online
This EPD has been generated by One Click LCA EPD generator, which has been verified and approved by the EPD Hub.

THIRD-PARTY VERIFICATION STATEMENT

I hereby confirm that, following detailed examination, I have not established any relevant deviations by the studied Environmental Product Declaration (EPD), its LCA and project report, in terms of the data collected and used in the LCA calculations, the way the LCA-based calculations have been carried out, the presentation of environmental data in the EPD, and other additional environmental information, as present with respect to the procedural and methodological requirements in ISO 14025:2010 and reference standard.

I confirm that the company-specific data has been examined as regards plausibility and consistency; the declaration owner is responsible for its factual integrity and legal compliance.

I confirm that I have sufficient knowledge and experience of construction products, this specific product category, the construction industry, relevant standards, and the geographical area of the EPD to carry out this verification.

I confirm my independence in my role as verifier; I have not been involved in the execution of the LCA or in the development of the declaration and have no conflicts of interest regarding this verification.

Elma Avdyli, as an authorized verifier acting for EPD Hub Limited
06.04.2023

VERIFIED ISO 14025

ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025 / ISO 21930

Fast Trak Bracket – 370mm (FTB-370)

EPD HUB, EPDHUB-0180
Publishing date 11 November 2022, last updated date 11 November 2022, valid until 11 November 2027

Created with One Click LCA

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Gripple Ltd
Address	Norfolk Bridge Works, 11 Leveson Street, Sheffield, S4 7ER
Contact details	info@gripple.com
Website	www.gripple.com

EPD STANDARDS, SCOPE, AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804+A2:2019 and ISO 14025
PCR	EPD Hub Core PCR version 1.0, 1 Feb 2022
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	Natasha Lyth Gripple Ltd
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal certification ☑ External verification
EPD verifier	E.A as an authorized verifier acting for EPD Hub Limited

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	Fast Trak Bracket – 370mm
Additional labels	-
Product reference	FTB-370
Place of production	Sheffield, UK
Period for data	March 2021 - March 2022
Averaging in EPD	No averaging
Variation in GWP-fossil for A1-A3	Not applicable

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 unit of FTB-370
Declared unit mass	0.8236 kg
GWP-fossil, A1-A3 (kgCO2e)	3.69
GWP-total, A1-A3 (kgCO2e)	3.8
Secondary material, inputs (%)	74.0
Secondary material, outputs (%)	95.2
Total energy use, A1-A3 (kWh)	14.7
Total water use, A1-A3 (m3e)	0.0541

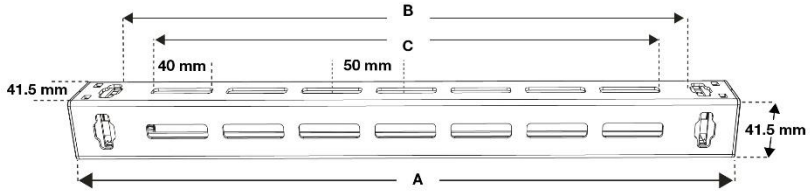
PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Gripple manufactures innovative solutions for the construction, agricultural and infrastructure sectors. Our innovative product designs, provide customers with faster, safer, and more cost-effective solutions than traditional engineered methods.

PRODUCT DESCRIPTION

Fast Trak is a prefabricated, trapeze bracket, which enables efficient, flexible, and safe installation of electrical containment, ductwork, pipework, and other mechanical services.



Bracket	FTB-370
A (mm) Length	439
B (mm) Suspension Space	376
C (mm) Working Space	340
No. of Slots	7

Fast Trak is six times faster and safer to install than traditional suspension systems as the system removes the need to cut threaded rod on site. The bracket can simply be moved up and down the tracks to accommodate changes in position during installation.

It offers even more versality as the four-sided bracket provides suspension points on every face: ideal for installation of combined bracketry and multi-tiered configuration to accommodate additional services. Each bracket also has indicators at each end as a measurement guide when marking fixing points on the ceiling; M4 level markers on the tracks highlight 50 mm increments, so no levelling tools are required. The tracks can also be bent neatly under the bracket – so zero product waste.

Fast Trak is independently fire tested to F120 which confirms that the entire system meets the fire performance standards associated with BS EN 1363-1:2012.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass- %	Material origin
Metals	95	EU / Asia
Minerals	-	-
Fossil materials	5	Turkey
Bio-based materials	-	-

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0
Biogenic carbon content in packaging, kg C	0.0016

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 unit of FTB-370
Mass per declared unit	0.8236 kg
Functional unit	-
Reference service life	-

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	MND	MND	MND	MND	MND	MND	MND	x	x	x	x	x		
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling

Modules not declared = MND. Modules not relevant = MNR.

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. Fuels used by machines, and handling of waste formed in the production processes at the manufacturing facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

The main process used within the manufacturing of the Fast Trak Bracket is Roll Forming. Strip metal is passed through our Roll Form Bearer machine forming and pressing it into the designed state. The process is highly efficient and allows for large volumes to be produced.
Fast Trak components for the final assembly are also produced in house. The latch and brace components are manufactured on a press machine, where strip metal is formed and pressed into the designed state.

The Cartridge is moulded at our in-house mould shop which is located less than 3km from the final point of assembly. The only component sourced from a third-party UK supplier is the spring.

Any waste steel produced is sold for recycling. Production losses for all materials used in manufacturing is considered within this EPD. For Fast Trak packaging we used cardboard endcaps and plastic clips. A wooden pallet is used as a packaging material for transporting the product from the factory gate.

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts 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 distance is defined according to the PCR. The transportation distance site is an average distance from production site to building site. This assumed average is 1,173.6km. This distance reflects that Fast Trak Brackets are supplied internationally from the UK. Transportation does not cause losses as the product is packaged appropriately. Shipping is done by a third party; empty returns are not considered as it is assumed that the return trip is used by the transportation company to serve the needs of other clients. The design and nature of a Fast Trak Bracket means when correctly installed with a Fast Trak track there are no A5 installation impacts.

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)

Demolition is assumed to consume 0,01 kWh/kg of product (O. Bozdag and M. Secer, 2007). The source of energy is diesel fuel used by construction machines (C1). It is assumed that 100% of the waste is collected and transported to the waste treatment centre. Transportation distance to treatment is assumed as 50 km and the transportation method is assumed to be lorry (C2). Approximately 95% of steel is assumed to be recycled based on World Steel Association, 2020 (C3). It is assumed that the remaining 5 % of steel is taken to landfill for final disposal (C4). Due to the recycling process, the end-of-life product is converted into recycled steel, the ABS engine is converted into recycled ABS material, while the wooden pallet is incinerated for energy recovery (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 do not exceed 5% of energy usage or mass.

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 materials	Allocated by mass or volume
Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

AVERAGES AND VARIABILITY

Type of average	No averaging
Averaging method	Not applicable
Variation in GWP-fossil for A1-A3	Not applicable

There is no average result considered in this study since this EPD refers to one specific product produced in one production plant.

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. Ecoinvent and One Click LCA databases were used as sources of environmental data.

ENVIRONMENTAL IMPACT DATA

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total[1)]	kg CO_2e	3,57E0	1,14E-1	1,17E-1	3,8E0	9,66E-2	1,83E-1	MND	MND	MND	MND	MND	MND	MND	3,3E-3	3,75E-3	2,75E-2	2,08E-4	-1,43E0
GWP – fossil	kg CO_2e	3,45E0	1,14E-1	1,26E-1	3,69E0	9,75E-2	4,21E-2	MND	MND	MND	MND	MND	MND	MND	3,3E-3	3,74E-3	2,79E-2	2,07E-4	-1,52E0
GWP – biogenic	kg CO_2e	1,18E-1	-3,49E-6	-1,3E-2	1,05E-1	-1,46E-2	1,41E-1	MND	MND	MND	MND	MND	MND	MND	9,17E-7	2,72E-6	-4,99E-4	4,11E-7	9,13E-2
GWP – LULUC	kg CO_2e	3,27E-3	6,75E-5	3,55E-3	6,89E-3	3,66E-5	7,05E-5	MND	MND	MND	MND	MND	MND	MND	2,79E-7	1,13E-6	2,97E-5	6,16E-8	2,41E-4
Ozone depletion pot.	kg CFC_{-11}e	2,69E-7	2,38E-8	1,5E-8	3,08E-7	2,27E-8	3,75E-9	MND	MND	MND	MND	MND	MND	MND	7,12E-10	8,8E-10	3,6E-9	8,54E-11	-4,85E-8
Acidification potential	mol H^+e	3,58E-2	2,77E-3	4,67E-4	3,9E-2	4,14E-4	4,19E-4	MND	MND	MND	MND	MND	MND	MND	3,45E-5	1,57E-5	2,66E-4	1,97E-6	-7,53E-3
EP-freshwater[2)]	kg Pe	2,09E-4	6,77E-7	4,31E-6	2,14E-4	8,97E-7	2,19E-6	MND	MND	MND	MND	MND	MND	MND	1,33E-8	3,04E-8	1,49E-6	2,51E-9	-9,04E-5
EP-marine	kg Ne	4,07E-3	6,88E-4	9,68E-5	4,86E-3	1,24E-4	9,19E-5	MND	MND	MND	MND	MND	MND	MND	1,52E-5	4,74E-6	6,15E-5	6,78E-7	-1,44E-3
EP-terrestrial	mol Ne	1,2E-1	7,65E-3	9,89E-4	1,29E-1	1,37E-3	1,39E-3	MND	MND	MND	MND	MND	MND	MND	1,67E-4	5,23E-5	6,99E-4	7,47E-6	-1,64E-2
POCP ("smog")[3)]	kg NMVOCe	1,37E-2	2,01E-3	2,97E-4	1,6E-2	4,45E-4	2,07E-4	MND	MND	MND	MND	MND	MND	MND	4,59E-5	1,68E-5	1,98E-4	2,17E-6	-7,77E-3
ADP-minerals & metals[4)]	kg Sbe	3,05E-3	1,42E-6	9,06E-7	3,05E-3	1,67E-6	3,06E-5	MND	MND	MND	MND	MND	MND	MND	5,03E-9	6,39E-8	1,19E-6	1,9E-9	-2,48E-5
ADP-fossil resources	MJ	4,59E1	1,54E0	2,35E0	4,98E1	1,52E0	5,47E-1	MND	MND	MND	MND	MND	MND	MND	4,54E-2	5,82E-2	3,87E-1	5,8E-3	-1,5E1
Water use[5)]	m^3e depr.	1,58E0	4,21E-3	1,44E-2	1,59E0	6,23E-3	1,76E-2	MND	MND	MND	MND	MND	MND	MND	8,46E-5	2,17E-4	6,43E-3	2,68E-4	-7,63E-1

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[8)]	MJ	4,44E0	1,38E-2	2,65E-1	4,72E0	5,51E-2	4,89E-2	MND	MND	MND	MND	MND	MND	MND	2,45E-4	7,33E-4	4,59E-2	4,69E-5	-1,85E0
Renew. PER as material	MJ	0E0	0E0	1,41E-1	1,41E-1	1,41E-1	2,82E-3	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	-4,51E-1
Total use of renew. PER	MJ	4,44E0	1,38E-2	4,06E-1	4,86E0	1,96E-1	5,17E-2	MND	MND	MND	MND	MND	MND	MND	2,45E-4	7,33E-4	4,59E-2	4,69E-5	-2,3E0
Non-re. PER as energy	MJ	4,44E1	1,54E0	2,25E0	4,82E1	1,52E0	5,31E-1	MND	MND	MND	MND	MND	MND	MND	4,54E-2	5,82E-2	3,87E-1	5,8E-3	-1,32E1
Non-re. PER as material	MJ	1,5E0	0E0	1E-1	1,6E0	0E0	1,6E-2	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	-1,82E0
Total use of non-re. PER	MJ	4,59E1	1,54E0	2,35E0	4,98E1	1,52E0	5,47E-1	MND	MND	MND	MND	MND	MND	MND	4,54E-2	5,82E-2	3,87E-1	5,8E-3	-1,5E1
Secondary materials	kg	6,09E-1	0E0	2,34E-4	6,1E-1	0E0	6,1E-3	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	6,44E-1
Renew. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Non-ren. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Use of net fresh water	m^3	5,34E-2	2,01E-4	4,61E-4	5,41E-2	3,2E-4	6,11E-4	MND	MND	MND	MND	MND	MND	MND	4,01E-6	1,21E-5	1,37E-4	6,34E-6	-1,02E-2

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	8,02E-1	1,8E-3	7,72E-3	8,11E-1	1,59E-3	8,72E-3	MND	MND	MND	MND	MND	MND	MND	4,88E-5	5,66E-5	0E0	5,41E-6	-5,46E-1
Non-hazardous waste	kg	1E1	6,55E-2	1,46E-1	1,02E1	1,63E-1	1,67E-1	MND	MND	MND	MND	MND	MND	MND	5,22E-4	6,26E-3	0E0	3,94E-2	-4,83E0
Radioactive waste	kg	1,48E-4	1,07E-5	1E-5	1,68E-4	1,03E-5	1,97E-6	MND	MND	MND	MND	MND	MND	MND	3,18E-7	4E-7	0E0	3,84E-8	-8,03E-6

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	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Materials for recycling	kg	0E0	0E0	1,54E-1	1,54E-1	0E0	1,26E-1	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	7,84E-1	0E0	0E0
Materials for energy rec	kg	0E0	0E0	0E0	0E0	0E0	1,3E-2	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Exported energy	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0

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_2e	3,36E0	1,13E-1	1,28E-1	3,6E0	9,66E-2	7,52E-2	MND	MND	MND	MND	MND	MND	MND	3,27E-3	3,71E-3	2,75E-2	2,04E-4	-1,45E0
Ozone depletion Pot.	kg $CFC_{-11}e$	2,49E-7	1,89E-8	1,33E-8	2,81E-7	1,8E-8	3,38E-9	MND	MND	MND	MND	MND	MND	MND	5,63E-10	6,99E-10	3,02E-9	6,77E-11	-4,32E-8
Acidification	kg SO_2e	1,7E-2	2,18E-3	3,83E-4	1,95E-2	2,03E-4	2,25E-4	MND	MND	MND	MND	MND	MND	MND	4,87E-6	7,61E-6	1,73E-4	8,21E-7	-6,23E-3
Eutrophication	kg PO_4^3e	8,35E-3	2,51E-4	1,47E-4	8,75E-3	4,27E-5	2,35E-4	MND	MND	MND	MND	MND	MND	MND	8,57E-7	1,54E-6	1,18E-4	1,59E-7	-4,07E-3
POCP (“smog”)	kg C_2H_4e	1,36E-3	5,9E-5	2,37E-5	1,44E-3	1,33E-5	2,68E-5	MND	MND	MND	MND	MND	MND	MND	5,01E-7	4,83E-7	9,5E-6	6,02E-8	-9,81E-4
ADP-elements	kg Sbe	3,05E-3	1,42E-6	9,06E-7	3,05E-3	1,67E-6	3,06E-5	MND	MND	MND	MND	MND	MND	MND	5,03E-9	6,39E-8	1,19E-6	1,9E-9	-2,48E-5
ADP-fossil	MJ	4,59E1	1,54E0	2,35E0	4,98E1	1,52E0	5,47E-1	MND	MND	MND	MND	MND	MND	MND	4,54E-2	5,82E-2	3,87E-1	5,8E-3	-1,5E1

VERIFICATION STATEMENT

VERIFICATION PROCESS FOR THIS EPD

This EPD has been verified in accordance with ISO 14025 by an independent, third-party verifier by reviewing results, documents and compliancy with reference standard, ISO 14025, and ISO 14040/14044, following the process and checklists of the program operator for:

- This Environmental Product Declaration
- The Life-Cycle Assessment used in this EPD
- The digital background data for this EPD

Why does verification transparency matter? Read more online
This EPD has been generated by One Click LCA EPD generator, which has been verified and approved by the EPD Hub.

THIRD-PARTY VERIFICATION STATEMENT

I hereby confirm that, following detailed examination, I have not established any relevant deviations by the studied Environmental Product Declaration (EPD), its LCA and project report, in terms of the data collected and used in the LCA calculations, the way the LCA-based calculations have been carried out, the presentation of environmental data in the EPD, and other additional environmental information, as present with respect to the procedural and methodological requirements in ISO 14025:2010 and reference standard.

I confirm that the company-specific data has been examined as regards plausibility and consistency; the declaration owner is responsible for its factual integrity and legal compliance.

I confirm that I have sufficient knowledge and experience of construction products, this specific product category, the construction industry, relevant standards, and the geographical area of the EPD to carry out this verification.

I confirm my independence in my role as verifier; I have not been involved in the execution of the LCA or in the development of the declaration and have no conflicts of interest regarding this verification.

Elma Avdyli as an authorized verifier acting for EPD Hub Limited
11.11.2022

VERIFIED ISO 14025

ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025 / ISO 21930

Fast Trak Bracket - 470mm (FTB-470)

EPD HUB, HUB-0378
Publishing date 06 April 2023, last updated date 06 April 2023, valid until 06 April 2028

Created with One Click LCA

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Gripple Ltd
Address	Norfolk Bridge Works, 11 Leveson Street, Sheffield, S4 7ER
Contact details	info@gripple.com
Website	www.gripple.com

EPD STANDARDS, SCOPE, AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804+A2:2019 and ISO 14025
PCR	EPD Hub Core PCR version 1.0, 1 Feb 2022
Sector	Construction product
Category of EPD	Sister EPD (Parent EPD: HUB-0375)
Scope of the EPD	Cradle to gate with modules C1-C4, D
EPD author	Natasha Lyth Gripple Ltd
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal certification ☑ External verification
EPD verifier	E.A as an authorized verifier acting for EPD Hub Limited

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.

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PRODUCT

Product name	Fast Trak Bracket - 470mm (FTB-470)
Additional labels	
Product reference	FTB-470
Place of production	Sheffield, UK
Period for data	March 2021 - March 2022
Averaging in EPD	No averaging
Variation in GWP-fossil for A1-A3	Not applicable

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 unit of FTB-470
Declared unit mass	0.9876 kg
GWP-fossil, A1-A3 (kgCO2e)	4,78E0
GWP-total, A1-A3 (kgCO2e)	2,34E0
Secondary material, inputs (%)	75.0
Secondary material, outputs (%)	95.1
Total energy use, A1-A3 (kWh)	21.1
Total water use, A1-A3 (m3e)	0.0673

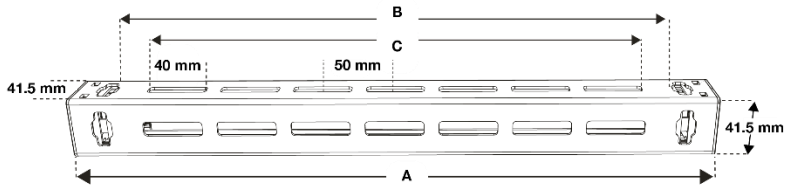
PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Gripple manufactures innovative solutions for the construction, agricultural and infrastructure sectors. Our innovative product designs, provide customers with faster, safer, and more cost-effective solutions than traditional engineered methods.

PRODUCT DESCRIPTION

Fast Trak is a prefabricated, trapeze bracket, which enables efficient, flexible, and safe installation of electrical containment, ductwork, pipework, and other mechanical services.



Bracket	FTB-470
A (mm) Length	539
B (mm) Suspension Space	476
C (mm) Working Space	440
No. of Slots	9

Fast Trak is six times faster and safer to install than traditional suspension systems as the system removes the need to cut threaded rod on site. The bracket can simply be moved up and down the tracks to accommodate changes in position during installation.

It offers even more versality as the four-sided bracket provides suspension point on every face: ideal for installation of combined bracketry and multi-tiered configuration to accommodate additional services. Each bracket also has indicators at each end as a measurement guide when marking fixing points on the ceiling; M4 level markers on the tracks highlight 50 mm increments, so no levelling tools are required. The tracks also can be bent neatly under the bracket – so zero product waste.

Fast Trak is independently fire tested to F120 which confirms that the entire system meets the fire performance standards associated with BS EN 1363-1:2012.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass- %	Material origin
Metals	96	EU / Asia
Minerals	-	-
Fossil materials	4	Turkey
Bio-based materials	-	-

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0
Biogenic carbon content in packaging, kg C	0.701

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 unit of FTB-470
Mass per declared unit	0.9876 kg
Functional unit	-
Reference service life	-

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	MND	MND	MND	MND	MND	MND	MND	x	x	x	x	x		
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling

Modules not declared = MND. Modules not relevant = MNR.

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 facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

The main process used within the manufacturing of the Fast Trak Bracket is Roll Forming. Strip metal is passed through our Roll Form Bearer machine forming and pressing it into the designed state. The process is highly efficient and allows for large volumes to be produced. Fast Trak components for the final assembly are also produced in house. The latch and brace components are manufactured on a press machine, where strip metal is formed and pressed into the designed state.

The Cartridge is moulded at our in-house mould shop which is located less than 3km from the final point of assembly. The only component sourced from a third-party UK supplier is the spring.

Any waste steel produced is sold for recycling. Production losses for all materials used in manufacturing is considered within this EPD. For Fast Trak packaging we used cardboard endcaps and plastic clips. A wooden pallet is used as a packaging material for transporting the product from the factory gate.

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts 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 distance is defined according to the PCR. The transportation distance site is an average distance from production site to building site. This assumed average is 1,173.6km this distance reflects that Fast Trak Brackets are supplied internationally from the UK. Transportation does not cause losses as the product is packaged appropriately. Shipping is done by a third party; empty returns are not considered as it is assumed that the return trip is used by the transportation company to serve the needs of other clients. The design and nature of a Fast Trak Bracket means there are no A5 installation impacts when installed using a Fast Trak Track.

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)

Demolition is assumed to consume 0,01 kWh/kg of product (O. Bozdag and M. Secer, 2007). The source of energy is diesel fuel used by construction machines (C1). It is assumed that 100% of the waste is collected and transported to the waste treatment centre. Transportation distance to treatment is assumed as 50 km and the transportation method is assumed to be lorry (C2). Approximately 95% of steel is assumed to be recycled based on World Steel Association, 2020 (C3). It is assumed that the remaining 5 % of steel is taken to landfill for final disposal (C4). Due to the recycling process, the end-of-life product is converted into recycled steel, the ABS engine is converted into recycled ABS material, while the wooden pallet is incinerated for energy recovery (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.

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
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Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

AVERAGES AND VARIABILITY

Type of average	No averaging
Averaging method	Not applicable
Variation in GWP-fossil for A1-A3	Not applicable

There is no average result considered in this study since this EPD refers to one specific product produced in one production plant.

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. Ecoinvent and One Click LCA databases were used as sources of environmental data.

ENVIRONMENTAL IMPACT DATA

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total[1)]	kg CO_2e	4,29E0	1,37E-1	-2,09E0	2,34E0	6,42E-1	2,67E0	MND	MND	MND	MND	MND	MND	MND	3,3E-3	4,49E-3	3,11E-2	2,51E-4	0E0
GWP – fossil	kg CO_2e	4,14E0	1,37E-1	4,96E-1	4,78E0	6,56E-1	2,86E-2	MND	MND	MND	MND	MND	MND	MND	3,3E-3	4,49E-3	3,17E-2	2,5E-4	-2,45E0
GWP – biogenic	kg CO_2e	1,44E-1	-2,71E-6	-2,59E0	-2,45E0	-2,59E0	2,64E0	MND	MND	MND	MND	MND	MND	MND	9,17E-7	3,26E-6	-7,18E-4	4,96E-7	1,92E0
GWP – LULUC	kg CO_2e	3,96E-3	8,01E-5	3,35E-3	7,4E-3	1,48E-3	3,49E-5	MND	MND	MND	MND	MND	MND	MND	2,79E-7	1,35E-6	3,41E-5	7,43E-8	-1,27E-3
Ozone depletion pot.	kg $CFC_{-11}e$	3,26E-7	2,86E-8	5,66E-8	4,11E-7	1,08E-7	4,2E-9	MND	MND	MND	MND	MND	MND	MND	7,12E-10	1,06E-9	4,15E-9	1,03E-10	-1E-7
Acidification potential	mol H^+e	4,32E-2	3,29E-3	2,65E-3	4,91E-2	3,47E-3	1,39E-4	MND	MND	MND	MND	MND	MND	MND	3,45E-5	1,88E-5	3,12E-4	2,37E-6	-1,38E-2
EP-freshwater[2)]	kg Pe	2,52E-4	8,05E-7	2,42E-5	2,78E-4	2,36E-5	1,54E-6	MND	MND	MND	MND	MND	MND	MND	1,33E-8	3,65E-8	1,76E-6	3,02E-9	-1,37E-4
EP-marine	kg Ne	4,92E-3	8,18E-4	6,84E-4	6,42E-3	9,63E-4	4,78E-5	MND	MND	MND	MND	MND	MND	MND	1,52E-5	5,68E-6	7,17E-5	8,17E-7	-2,22E-3
EP-terrestrial	mol Ne	1,45E-1	9,09E-3	7,68E-3	1,62E-1	1,08E-2	3,4E-4	MND	MND	MND	MND	MND	MND	MND	1,67E-4	6,27E-5	8,17E-4	9E-6	-2,56E-2
POCP ("smog")[3)]	kg NMVOCe	1,65E-2	2,39E-3	3,03E-3	2,19E-2	4,05E-3	1,1E-4	MND	MND	MND	MND	MND	MND	MND	4,59E-5	2,02E-5	2,3E-4	2,62E-6	-1,1E-2
ADP-minerals & metals[4)]	kg Sbe	3,67E-3	1,66E-6	7,25E-6	3,68E-3	1,14E-5	2,81E-7	MND	MND	MND	MND	MND	MND	MND	5,03E-9	7,66E-8	1,4E-6	2,29E-9	-3,15E-5
ADP-fossil resources	MJ	5,49E1	1,85E0	8,94E0	6,57E1	1,1E1	4,8E-1	MND	MND	MND	MND	MND	MND	MND	4,54E-2	6,98E-2	4,4E-1	6,99E-3	-2,53E1
Water use[5)]	m^3e depr.	1,89E0	5,05E-3	1,34E-1	2,03E0	1,41E-1	4,98E-3	MND	MND	MND	MND	MND	MND	MND	8,46E-5	2,6E-4	7,18E-3	3,23E-4	-9,72E-1

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[8)]	MJ	5,38E0	1,65E-2	6,62E0	1,2E1	6,48E0	4,92E-2	MND	MND	MND	MND	MND	MND	MND	2,45E-4	8,79E-4	5,42E-2	5,65E-5	-4,35E0
Renew. PER as material	MJ	0E0	0E0	2,49E1	2,49E1	2,49E1	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	-2,6E-1
Total use of renew. PER	MJ	5,38E0	1,65E-2	3,15E1	3,69E1	3,14E1	4,92E-2	MND	MND	MND	MND	MND	MND	MND	2,45E-4	8,79E-4	5,42E-2	5,65E-5	-4,61E0
Non-re. PER as energy	MJ	5,34E1	1,85E0	8,84E0	6,41E1	1,1E1	4,8E-1	MND	MND	MND	MND	MND	MND	MND	4,54E-2	6,98E-2	4,4E-1	6,99E-3	-2,35E1
Non-re. PER as material	MJ	1,5E0	0E0	1E-1	1,6E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	-1,82E0
Total use of non-re. PER	MJ	5,49E1	1,85E0	8,94E0	6,57E1	1,1E1	4,8E-1	MND	MND	MND	MND	MND	MND	MND	4,54E-2	6,98E-2	4,4E-1	6,99E-3	-2,53E1
Secondary materials	kg	7,41E-1	0E0	1,31E-4	7,41E-1	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	7,43E-1
Renew. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Non-ren. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Use of net fresh water	m^3	6,47E-2	2,43E-4	2,37E-3	0.0673	2,91E-3	1,61E-4	MND	MND	MND	MND	MND	MND	MND	4,01E-6	1,45E-5	1,58E-4	7,65E-6	-1,35E-2

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	9,7E-1	2,14E-3	3,22E-2	1E0	3,03E-2	1,51E-3	MND	MND	MND	MND	MND	MND	MND	4,88E-5	6,78E-5	0E0	6,52E-6	-7,1E-1
Non-hazardous waste	kg	1,21E1	8,07E-2	7,43E-1	1,3E1	1,11E0	1,18E-1	MND	MND	MND	MND	MND	MND	MND	5,22E-4	7,5E-3	0E0	4,75E-2	-5,54E0
Radioactive waste	kg	1,79E-4	1,28E-5	2,92E-5	2,21E-4	5,02E-5	3,16E-6	MND	MND	MND	MND	MND	MND	MND	3,18E-7	4,79E-7	0E0	4,63E-8	-5,05E-5

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	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Materials for recycling	kg	0E0	0E0	1,83E-1	1,83E-1	0E0	6,82E-2	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	9,39E-1	0E0	0E0
Materials for energy rec	kg	0E0	0E0	0E0	0E0	0E0	2,28E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Exported energy	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0

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_2e	4,04E0	1,36E-1	4,85E-1	4,66E0	6,42E-1	4,63E-2	MND	MND	MND	MND	MND	MND	MND	3,27E-3	4,45E-3	3,12E-2	2,45E-4	-2,35E0
Ozone depletion Pot.	kg CFC_{-11}e	3,01E-7	2,27E-8	4,8E-8	3,72E-7	8,76E-8	3,79E-9	MND	MND	MND	MND	MND	MND	MND	5,63E-10	8,39E-10	3,49E-9	8,16E-11	-9,24E-8
Acidification	kg SO_2e	2,05E-2	2,59E-3	1,94E-3	2,5E-2	2,22E-3	1,03E-4	MND	MND	MND	MND	MND	MND	MND	4,87E-6	9,13E-6	2,02E-4	9,9E-7	-1,17E-2
Eutrophication	kg PO_4^3e	1,01E-2	2,98E-4	7,13E-4	1,11E-2	7,24E-4	1,43E-4	MND	MND	MND	MND	MND	MND	MND	8,57E-7	1,84E-6	1,3E-4	1,92E-7	-5,61E-3
POCP (“smog”)	kg C_2H_4e	1,64E-3	7,02E-5	1,89E-4	1,9E-3	2,08E-4	1,09E-5	MND	MND	MND	MND	MND	MND	MND	5,01E-7	5,79E-7	1,09E-5	7,26E-8	-1,36E-3
ADP-elements	kg Sbe	3,67E-3	1,66E-6	7,25E-6	3,68E-3	1,14E-5	2,81E-7	MND	MND	MND	MND	MND	MND	MND	5,03E-9	7,66E-8	1,4E-6	2,29E-9	-3,15E-5
ADP-fossil	MJ	5,49E1	1,85E0	8,94E0	6,57E1	1,1E1	4,8E-1	MND	MND	MND	MND	MND	MND	MND	4,54E-2	6,98E-2	4,4E-1	6,99E-3	-2,53E1

VERIFICATION STATEMENT

VERIFICATION PROCESS FOR THIS EPD

This EPD has been verified in accordance with ISO 14025 by an independent, third-party verifier by reviewing results, documents and compliancy with reference standard, ISO 14025 and ISO 14040/14044, following the process and checklists of the program operator for:

- This Environmental Product Declaration
- The Life-Cycle Assessment used in this EPD
- The digital background data for this EPD

Why does verification transparency matter? Read more online
This EPD has been generated by One Click LCA EPD generator, which has been verified and approved by the EPD Hub.

THIRD-PARTY VERIFICATION STATEMENT

I hereby confirm that, following detailed examination, I have not established any relevant deviations by the studied Environmental Product Declaration (EPD), its LCA and project report, in terms of the data collected and used in the LCA calculations, the way the LCA-based calculations have been carried out, the presentation of environmental data in the EPD, and other additional environmental information, as present with respect to the procedural and methodological requirements in ISO 14025:2010 and reference standard.

I confirm that the company-specific data has been examined as regards plausibility and consistency; the declaration owner is responsible for its factual integrity and legal compliance.

I confirm that I have sufficient knowledge and experience of construction products, this specific product category, the construction industry, relevant standards, and the geographical area of the EPD to carry out this verification.

I confirm my independence in my role as verifier; I have not been involved in the execution of the LCA or in the development of the declaration and have no conflicts of interest regarding this verification.

Elma Avdyli, as an authorized verifier acting for EPD Hub Limited
06.04.2023

VERIFIED ISO 14025

ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025 / ISO 21930

Fast Trak Bracket – 570mm (FTB-570)

EPD HUB, HUB-0383
Publishing date 06 April 2023, last updated date 06 April 2023, valid until 06 April 2028

Created with One Click LCA

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Gripple Ltd
Address	Norfolk Bridge Works, 11 Leveson Street, Sheffield, S4 7ER
Contact details	info@gripple.com
Website	www.gripple.com

EPD STANDARDS, SCOPE, AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804+A2:2019 and ISO 14025
PCR	EPD Hub Core PCR version 1.0, 1 Feb 2022
Sector	Construction product
Category of EPD	Sister EPD (Parent EPD: HUB-0375)
Scope of the EPD	Cradle to gate with modules C1-C4, D
EPD author	Natasha Lyth Gripple Ltd
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal certification ☑ External verification
EPD verifier	E.A as an authorized verifier acting for EPD Hub Limited

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	Fast Trak Bracket - 570mm (FTB-570)
Additional labels	
Product reference	FTB-570
Place of production	Sheffield, UK
Period for data	March 2021 - March 2022
Averaging in EPD	No averaging
Variation in GWP-fossil for A1-A3	Not applicable %

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 unit of FTB-570
Declared unit mass	1.1406 kg
GWP-fossil, A1-A3 (kgCO2e)	5,5E0
GWP-total, A1-A3 (kgCO2e)	2,6E0
Secondary material, inputs (%)	75.2
Secondary material, outputs (%)	95.7
Total energy use, A1-A3 (kWh)	24.5
Total water use, A1-A3 (m3e)	0.0782

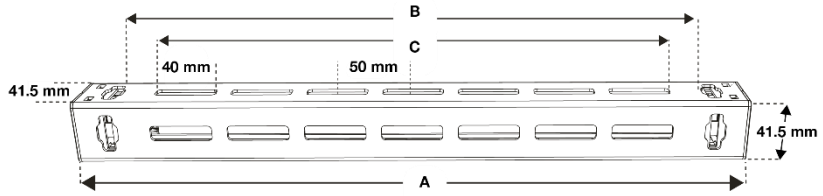
PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Gripple manufactures innovative solutions for the construction, agricultural and infrastructure sectors. Our innovative product designs, provide customers with faster, safer, and more cost-effective solutions than traditional engineered methods.

PRODUCT DESCRIPTION

Fast Trak is a prefabricated, trapeze bracket, which enables efficient, flexible, and safe installation of electrical containment, ductwork, pipework, and other mechanical services.



Bracket	FTB-570
A (mm) Length	639
B (mm) Suspension Space	576
C (mm) Working Space	540
No. of Slots	11

Fast Trak is six times faster and safer to install than traditional suspension systems as the system removes the need to cut threaded rod on site. The bracket can simply be moved up and down the tracks to accommodate changes in position during installation.

It offers even more versality as the four-sided bracket provides suspension point on every face: ideal for installation of combined bracketry and multi-tiered configuration to accommodate additional services. Each bracket also has indicators at each end as a measurement guide when marking fixing points on the ceiling; M4 level markers on the tracks highlight 50 mm increments, so no levelling tools are required. The tracks also can be bent neatly under the bracket – so zero product waste.

Fast Trak is independently fire tested to F120 which confirms that the entire system meets the fire performance standards associated with BS EN 1363-1:2012.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass- %	Material origin
Metals	97	EU / Asia
Minerals	-	-
Fossil materials	3	Turkey
Bio-based materials	-	-

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0
Biogenic carbon content in packaging, kg C	0.842

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 unit of FTB-570
Mass per declared unit	1.1406 kg
Functional unit	-
Reference service life	-

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	MND	MND	MND	MND	MND	MND	MND	x	x	x	x	x		
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling

Modules not declared = MND. Modules not relevant = MNR.

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 facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

The main process used within the manufacturing of the Fast Trak Bracket is Roll Forming. Strip metal is passed through our Roll Form Bearer machine forming and pressing it into the designed state. The process is highly efficient and allows for large volumes to be produced. Fast Trak components for the final assembly are also produced in house. The latch and brace components are manufactured on a press machine, where strip metal is formed and pressed into the designed state.

The Cartridge is moulded at our in-house mould shop which is located less than 3km from the final point of assembly. The only component sourced froma third-party UK supplier is the spring.

Any waste steel produced is sold for recycling. Production losses for all materials used in manufacturing is considered within this EPD. For Fast Trak packaging we used cardboard endcaps and plastic clips. A wooden pallet is used as a packaging material for transporting the product from the factory gate.

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts 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 distance is defined according to the PCR. The transportation distance site is an average distance from production site to building site. This assumed average is 1,173.6km this distance reflects that Fast Trak Brackets are supplied internationally from the UK. Transportation does not cause losses as the product is packaged appropriately. Shipping is done by a third party; empty returns are not considered as it is assumed that the return trip is used by the transportation company to serve the needs of other clients. The design and nature of a Fast Trak Bracket means there are no A5 installation impacts when installed using a Fast Trak Track.

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)

Demolition is assumed to consume 0,01 kWh/kg of product (O. Bozdag and M. Secer, 2007). The source of energy is diesel fuel used by construction machines (C1). It is assumed that 100% of the waste is collected and transported to the waste treatment centre. Transportation distance to treatment is assumed as 50 km and the transportation method is assumed to be lorry (C2). Approximately 95% of steel is assumed to be recycled based on World Steel Association, 2020 (C3). It is assumed that the remaining 5 % of steel is taken to landfill for final disposal (C4). Due to the recycling process, the end-of-life product is converted into recycled steel, the ABS engine is converted into recycled ABS material, while the wooden pallet is incinerated for energy recovery (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.

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 materials	Allocated by mass or volume
Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

AVERAGES AND VARIABILITY

Type of average	No averaging
Averaging method	Not applicable
Variation in GWP-fossil for A1-A3	Not applicable

There is no average result considered in this study since this EPD refers to one specific product produced in one production plant.

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. Ecoinvent and One Click LCA databases were used as sources of environmental data.

ENVIRONMENTAL IMPACT DATA

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total[1)]	kg CO_2e	4,94E0	1,56E-1	-2,5E0	2,6E0	7,61E-1	3,19E0	MND	MND	MND	MND	MND	MND	MND	3,3E-3	5,19E-3	3,46E-2	2,9E-4	0E0
GWP – fossil	kg CO_2e	4,77E0	1,56E-1	5,76E-1	5,5E0	7,77E-1	3,38E-2	MND	MND	MND	MND	MND	MND	MND	3,3E-3	5,18E-3	3,55E-2	2,9E-4	-2,98E0
GWP – biogenic	kg CO_2e	1,67E-1	-3,01E-6	-3,08E0	-2,91E0	-3,08E0	3,15E0	MND	MND	MND	MND	MND	MND	MND	9,17E-7	3,76E-6	-9,33E-4	5,74E-7	2,29E0
GWP – LULUC	kg CO_2e	4,59E-3	9,09E-5	3,66E-3	8,34E-3	1,76E-3	4,18E-5	MND	MND	MND	MND	MND	MND	MND	2,79E-7	1,56E-6	3,83E-5	8,6E-8	-1,62E-3
Ozone depletion pot.	kg $CFC_{-11}e$	3,77E-7	3,25E-8	6,64E-8	4,76E-7	1,28E-7	4,99E-9	MND	MND	MND	MND	MND	MND	MND	7,12E-10	1,22E-9	4,69E-9	1,19E-10	-1,23E-7
Acidification potential	mol H^+e	5,02E-2	3,75E-3	3,11E-3	5,7E-2	4,11E-3	1,64E-4	MND	MND	MND	MND	MND	MND	MND	3,45E-5	2,18E-5	3,57E-4	2,75E-6	-1,68E-2
EP-freshwater[2)]	kg Pe	2,92E-4	9,08E-7	2,84E-5	3,21E-4	2,8E-5	1,84E-6	MND	MND	MND	MND	MND	MND	MND	1,33E-8	4,22E-8	2,01E-6	3,5E-9	-1,67E-4
EP-marine	kg Ne	5,69E-3	9,33E-4	8,04E-4	7,43E-3	1,14E-3	5,29E-5	MND	MND	MND	MND	MND	MND	MND	1,52E-5	6,56E-6	8,18E-5	9,47E-7	-2,7E-3
EP-terrestrial	mol Ne	1,69E-1	1,04E-2	9,03E-3	1,88E-1	1,28E-2	3,98E-4	MND	MND	MND	MND	MND	MND	MND	1,67E-4	7,25E-5	9,33E-4	1,04E-5	-3,11E-2
POCP ("smog")[3)]	kg NMVOCe	1,91E-2	2,72E-3	3,59E-3	2,54E-2	4,8E-3	1,27E-4	MND	MND	MND	MND	MND	MND	MND	4,59E-5	2,33E-5	2,62E-4	3,03E-6	-1,34E-2
ADP-minerals & metals[4)]	kg Sbe	4,3E-3	1,85E-6	8,6E-6	4,31E-3	1,35E-5	3,32E-7	MND	MND	MND	MND	MND	MND	MND	5,03E-9	8,84E-8	1,6E-6	2,65E-9	-3,88E-5
ADP-fossil resources	MJ	6,31E1	2,11E0	1,04E1	7,56E1	1,31E1	5,72E-1	MND	MND	MND	MND	MND	MND	MND	4,54E-2	8,06E-2	4,92E-1	8,1E-3	-3,04E1
Water use[5)]	m^3e depr.	2,18E0	5,71E-3	1,58E-1	2,35E0	1,67E-1	5,81E-3	MND	MND	MND	MND	MND	MND	MND	8,46E-5	3E-4	7,92E-3	3,74E-4	-1,18E0

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[8)]	MJ	6,21E0	1,87E-2	7,84E0	1,41E1	7,7E0	5,89E-2	MND	MND	MND	MND	MND	MND	MND	2,45E-4	1,01E-3	6,24E-2	6,55E-5	-5,22E0
Renew. PER as material	MJ	0E0	0E0	2,96E1	2,96E1	2,96E1	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	-2,6E-1
Total use of renew. PER	MJ	6,21E0	1,87E-2	3,74E1	4,37E1	3,73E1	5,89E-2	MND	MND	MND	MND	MND	MND	MND	2,45E-4	1,01E-3	6,24E-2	6,55E-5	-5,48E0
Non-re. PER as energy	MJ	6,16E1	2,11E0	1,03E1	7,4E1	1,31E1	5,72E-1	MND	MND	MND	MND	MND	MND	MND	4,54E-2	8,06E-2	4,92E-1	8,1E-3	-2,86E1
Non-re. PER as material	MJ	1,5E0	0E0	1E-1	1,6E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	-1,82E0
Total use of non-re. PER	MJ	6,31E1	2,11E0	1,04E1	7,56E1	1,31E1	5,72E-1	MND	MND	MND	MND	MND	MND	MND	4,54E-2	8,06E-2	4,92E-1	8,1E-3	-3,04E1
Secondary materials	kg	8,58E-1	0E0	1,43E-4	8,58E-1	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	8,51E-1
Renew. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Non-ren. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Use of net fresh water	m^3	7,51E-2	2,77E-4	2,76E-3	0.0782	3,45E-3	1,86E-4	MND	MND	MND	MND	MND	MND	MND	4,01E-6	1,68E-5	1,8E-4	8,86E-6	-1,65E-2

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	1,12E0	2,42E-3	3,73E-2	1,16E0	3,6E-2	1,74E-3	MND	MND	MND	MND	MND	MND	MND	4,88E-5	7,83E-5	0E0	7,55E-6	-8,72E-1
Non-hazardous waste	kg	1,41E1	9,2E-2	8,69E-1	1,5E1	1,31E0	1,35E-1	MND	MND	MND	MND	MND	MND	MND	5,22E-4	8,67E-3	0E0	5,5E-2	-6,8E0
Radioactive waste	kg	2,07E-4	1,46E-5	3,36E-5	2,55E-4	5,94E-5	3,77E-6	MND	MND	MND	MND	MND	MND	MND	3,18E-7	5,53E-7	0E0	5,36E-8	-6,21E-5

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	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Materials for recycling	kg	0E0	0E0	2,08E-1	2,08E-1	0E0	6,82E-2	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	1,09E0	0E0	0E0
Materials for energy rec	kg	0E0	0E0	0E0	0E0	0E0	2,73E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Exported energy	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0

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_2e	4,66E0	1,54E-1	5,62E-1	5,37E0	7,61E-1	5,14E-2	MND	MND	MND	MND	MND	MND	MND	3,27E-3	5,14E-3	3,49E-2	2,84E-4	-2,85E0
Ozone depletion Pot.	kg CFC_{-11}e	3,49E-7	2,58E-8	5,61E-8	4,31E-7	1,04E-7	4,51E-9	MND	MND	MND	MND	MND	MND	MND	5,63E-10	9,68E-10	3,94E-9	9,45E-11	-1,14E-7
Acidification	kg SO_2e	2,37E-2	2,95E-3	2,27E-3	2,89E-2	2,63E-3	1,21E-4	MND	MND	MND	MND	MND	MND	MND	4,87E-6	1,05E-5	2,3E-4	1,15E-6	-1,42E-2
Eutrophication	kg PO_4^3e	1,17E-2	3,39E-4	8,33E-4	1,29E-2	8,59E-4	1,53E-4	MND	MND	MND	MND	MND	MND	MND	8,57E-7	2,13E-6	1,41E-4	2,22E-7	-6,86E-3
POCP (“smog”)	kg C_2H_4e	1,89E-3	8E-5	2,22E-4	2,2E-3	2,47E-4	1,18E-5	MND	MND	MND	MND	MND	MND	MND	5,01E-7	6,68E-7	1,22E-5	8,4E-8	-1,65E-3
ADP-elements	kg Sbe	4,3E-3	1,85E-6	8,6E-6	4,31E-3	1,35E-5	3,32E-7	MND	MND	MND	MND	MND	MND	MND	5,03E-9	8,84E-8	1,6E-6	2,65E-9	-3,88E-5
ADP-fossil	MJ	6,31E1	2,11E0	1,04E1	7,56E1	1,31E1	5,72E-1	MND	MND	MND	MND	MND	MND	MND	4,54E-2	8,06E-2	4,92E-1	8,1E-3	-3,04E1

VERIFICATION STATEMENT

VERIFICATION PROCESS FOR THIS EPD

This EPD has been verified in accordance with ISO 14025 by an independent, third-party verifier by reviewing results, documents and compliancy with reference standard, ISO 14025 and ISO 14040/14044, following the process and checklists of the program operator for:

- This Environmental Product Declaration
- The Life-Cycle Assessment used in this EPD
- The digital background data for this EPD

Why does verification transparency matter? Read more online
This EPD has been generated by One Click LCA EPD generator, which has been verified and approved by the EPD Hub.

THIRD-PARTY VERIFICATION STATEMENT

I hereby confirm that, following detailed examination, I have not established any relevant deviations by the studied Environmental Product Declaration (EPD), its LCA and project report, in terms of the data collected and used in the LCA calculations, the way the LCA-based calculations have been carried out, the presentation of environmental data in the EPD, and other additional environmental information, as present with respect to the procedural and methodological requirements in ISO 14025:2010 and reference standard.

I confirm that the company-specific data has been examined as regards plausibility and consistency; the declaration owner is responsible for its factual integrity and legal compliance.

I confirm that I have sufficient knowledge and experience of construction products, this specific product category, the construction industry, relevant standards, and the geographical area of the EPD to carry out this verification.

I confirm my independence in my role as verifier; I have not been involved in the execution of the LCA or in the development of the declaration and have no conflicts of interest regarding this verification.

Elma Avdyli, as an authorized verifier acting for EPD Hub Limited
06.04.2023

VERIFIED ISO 14025

ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025 / ISO 21930

Fast Trak Bracket – 670mm (FTB-670)

EPD HUB, HUB-0382
Publishing date 06 April 2023, last updated date 06 April 2023, valid until 06 April 2028

Created with One Click LCA

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Gripple Ltd
Address	Norfolk Bridge Works, 11 Leveson Street, Sheffield, S4 7ER
Contact details	info@gripple.com
Website	www.gripple.com

EPD STANDARDS, SCOPE, AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804+A2:2019 and ISO 14025
PCR	EPD Hub Core PCR version 1.0, 1 Feb 2022
Sector	Construction product
Category of EPD	Sister EPD (Parent EPD: HUB-0375)
Scope of the EPD	Cradle to gate with modules C1-C4, D
EPD author	Natasha Lyth Gripple Ltd
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal certification ☑ External verification
EPD verifier	E.A as an authorized verifier acting for EPD Hub Limited

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.

This EPD is a sister EPD of FTB-1470.

PRODUCT

Product name	Fast Trak Bracket - 670mm (FTB-670)
Additional labels	
Product reference	FTB-670
Place of production	Sheffield, UK
Period for data	March 2021 - March 2022
Averaging in EPD	No averaging
Variation in GWP-fossil for A1-A3	Not applicable %

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 unit of FTB-670
Declared unit mass	1.3176 kg
GWP-fossil, A1-A3 (kgCO2e)	6,32E0
GWP-total, A1-A3 (kgCO2e)	3,06E0
Secondary material, inputs (%)	75.4
Secondary material, outputs (%)	95.6
Total energy use, A1-A3 (kWh)	28.0
Total water use, A1-A3 (m3e)	0.0907

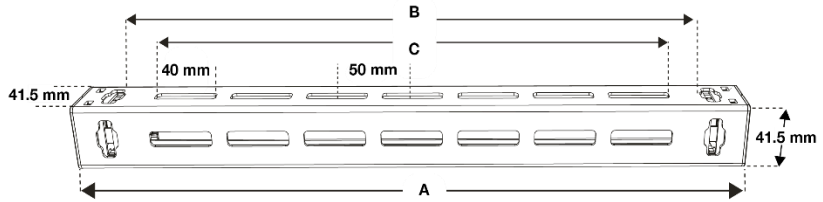
PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Gripple manufactures innovative solutions for the construction, agricultural and infrastructure sectors. Our innovative product designs, provide customers with faster, safer, and more cost-effective solutions than traditional engineered methods.

PRODUCT DESCRIPTION

Fast Trak is a prefabricated, trapeze bracket, which enables efficient, flexible and safe installation of electrical containment, ductwork, pipework and other mechanical services.



Bracket	FTB-670
A (mm) Length	739
B (mm) Suspension Space	676
C (mm) Working Space	640
No. of Slots	13

Fast Trak is six times faster and safer to install than traditional suspension systems as the system removes the need to cut threaded rod on site. The bracket can simply be moved up and down the tracks to accommodate changes in position during installation.

It offers even more versality as the four-sided bracket provides suspension point on every face: ideal for installation of combined bracketry and multi-tiered configuration to accommodate additional services. Each bracket also has indicators at each end as a measurement guide when marking fixing points on the ceiling; M4 level markers on the tracks highlight 50 mm increments, so no levelling tools are required. The tracks also can be bent neatly under the bracket – so zero product waste.

Fast Trak is independently fire tested to F120 which confirms that the entire system meets the fire performance standards associated with BS EN 1363-1:2012.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass- %	Material origin
Metals	97	EU / Asia
Minerals	-	-
Fossil materials	3	Turkey
Bio-based materials	-	-

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0
Biogenic carbon content in packaging, kg C	0.941

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 unit of FTB-670
Mass per declared unit	1.3176 kg
Functional unit	-
Reference service life	-

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	MND	MND	MND	MND	MND	MND	MND	x	x	x	x	x		
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling

Modules not declared = MND. Modules not relevant = MNR.

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 facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

The main process used within the manufacturing of the Fast Trak Bracket is Roll Forming. Strip metal is passed through our Roll Form Bearer machine forming and pressing it into the designed state. The process is highly efficient and allows for large volumes to be produced. Fast Trak components for the final assembly are also produced in house. The latch and brace components are manufactured on a press machine, where strip metal is formed and pressed into the designed state.

The Cartridge is moulded at our in-house mould shop which is located less than 3km from the final point of assembly. The only component sourced from a third-party UK supplier is the spring.

Any waste steel produced is sold for recycling. Production losses for all materials used in manufacturing is considered within this EPD. For Fast Trak packaging we used cardboard endcaps and plastic clips. A wooden pallet is used as a packaging material for transporting the product from the factory gate.

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts 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 distance is defined according to the PCR. The transportation distance site is an average distance from production site to building site. This assumed average is 1,173.6km this distance reflects that Fast Trak Brackets are supplied internationally from the UK. Transportation does not cause losses as the product is packaged appropriately. Shipping is done by a third party; empty returns are not considered as it is assumed that the return trip is used by the transportation company to serve the needs of other clients. The design and nature of a Fast Trak Bracket means there are no A5 installation impacts when installed using a Fast Trak Track.

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)

Demolition is assumed to consume 0,01 kWh/kg of product (O. Bozdag and M. Secer, 2007). The source of energy is diesel fuel used by construction machines (C1). It is assumed that 100% of the waste is collected and transported to the waste treatment centre. Transportation distance to treatment is assumed as 50 km and the transportation method is assumed to be lorry (C2). Approximately 95% of steel is assumed to be recycled based on World Steel Association, 2020 (C3). It is assumed that the remaining 5 % of steel is taken to landfill for final disposal (C4). Due to the recycling process, the end-of-life product is converted into recycled steel, the ABS engine is converted into recycled ABS material, while the wooden pallet is incinerated for energy recovery (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.

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 materials	Allocated by mass or volume
Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

AVERAGES AND VARIABILITY

Type of average	No averaging
Averaging method	Not applicable
Variation in GWP-fossil for A1-A3	Not applicable

There is no average result considered in this study since this EPD refers to one specific product produced in one production plant.

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. Ecoinvent and One Click LCA databases were used as sources of environmental data.

ENVIRONMENTAL IMPACT DATA

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total[1)]	kg CO_2e	5,7E0	1,77E-1	-2,82E0	3,06E0	8,58E-1	3,91E0	MND	MND	MND	MND	MND	MND	MND	3,3E-3	5,99E-3	3,85E-2	3,4E-4	0E0
GWP – fossil	kg CO_2e	5,5E0	1,77E-1	6,43E-1	6,32E0	8,77E-1	3,74E-2	MND	MND	MND	MND	MND	MND	MND	3,3E-3	5,99E-3	3,97E-2	3,39E-4	-3,23E0
GWP – biogenic	kg CO_2e	1,94E-1	-3,5E-6	-3,47E0	-3,27E0	-3,47E0	3,88E0	MND	MND	MND	MND	MND	MND	MND	9,17E-7	4,35E-6	-1,17E-3	6,72E-7	2,55E0
GWP – LULUC	kg CO_2e	5,32E-3	1,03E-4	3,91E-3	9,33E-3	1,99E-3	4,66E-5	MND	MND	MND	MND	MND	MND	MND	2,79E-7	1,8E-6	4,31E-5	1,01E-7	-1,78E-3
Ozone depletion pot.	kg $CFC_{-11}e$	4,37E-7	3,7E-8	7,43E-8	5,48E-7	1,44E-7	5,55E-9	MND	MND	MND	MND	MND	MND	MND	7,12E-10	1,41E-9	5,28E-9	1,4E-10	-1,32E-7
Acidification potential	mol H^+e	5,85E-2	4,29E-3	3,48E-3	6,63E-2	4,64E-3	1,82E-4	MND	MND	MND	MND	MND	MND	MND	3,45E-5	2,51E-5	4,08E-4	3,22E-6	-1,83E-2
EP-freshwater[2)]	kg Pe	3,38E-4	1,03E-6	3,17E-5	3,71E-4	3,15E-5	2,06E-6	MND	MND	MND	MND	MND	MND	MND	1,33E-8	4,87E-8	2,3E-6	4,1E-9	-1,81E-4
EP-marine	kg Ne	6,6E-3	1,07E-3	9,01E-4	8,56E-3	1,29E-3	5,65E-5	MND	MND	MND	MND	MND	MND	MND	1,52E-5	7,58E-6	9,29E-5	1,11E-6	-2,93E-3
EP-terrestrial	mol Ne	1,97E-1	1,18E-2	1,01E-2	2,19E-1	1,44E-2	4,39E-4	MND	MND	MND	MND	MND	MND	MND	1,67E-4	8,37E-5	1,06E-3	1,22E-5	-3,37E-2
POCP ("smog")[3)]	kg NMVOCe	2,2E-2	3,11E-3	4,03E-3	2,92E-2	5,42E-3	1,39E-4	MND	MND	MND	MND	MND	MND	MND	4,59E-5	2,69E-5	2,97E-4	3,55E-6	-1,45E-2
ADP-minerals & metals[4)]	kg Sbe	5,05E-3	2,07E-6	9,66E-6	5,06E-3	1,52E-5	3,69E-7	MND	MND	MND	MND	MND	MND	MND	5,03E-9	1,02E-7	1,84E-6	3,1E-9	-4,19E-5
ADP-fossil resources	MJ	7,25E1	2,4E0	1,16E1	8,65E1	1,48E1	6,38E-1	MND	MND	MND	MND	MND	MND	MND	4,54E-2	9,31E-2	5,5E-1	9,48E-3	-3,26E1
Water use[5)]	m^3e depr.	2,52E0	6,47E-3	1,77E-1	2,7E0	1,88E-1	6,39E-3	MND	MND	MND	MND	MND	MND	MND	8,46E-5	3,46E-4	8,74E-3	4,38E-4	-1,26E0

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[8)]	MJ	7,19E0	2,12E-2	8,82E0	1,6E1	8,68E0	6,58E-2	MND	MND	MND	MND	MND	MND	MND	2,45E-4	1,17E-3	7,14E-2	7,67E-5	-5,68E0
Renew. PER as material	MJ	0E0	0E0	3,34E1	3,34E1	3,34E1	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	-2,6E-1
Total use of renew. PER	MJ	7,19E0	2,12E-2	4,22E1	4,94E1	4,21E1	6,58E-2	MND	MND	MND	MND	MND	MND	MND	2,45E-4	1,17E-3	7,14E-2	7,67E-5	-5,94E0
Non-re. PER as energy	MJ	7,1E1	2,4E0	1,15E1	8,49E1	1,48E1	6,38E-1	MND	MND	MND	MND	MND	MND	MND	4,54E-2	9,31E-2	5,5E-1	9,48E-3	-3,08E1
Non-re. PER as material	MJ	1,5E0	0E0	1E-1	1,6E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	-1,82E0
Total use of non-re. PER	MJ	7,25E1	2,4E0	1,16E1	8,65E1	1,48E1	6,38E-1	MND	MND	MND	MND	MND	MND	MND	4,54E-2	9,31E-2	5,5E-1	9,48E-3	-3,26E1
Secondary materials	kg	9,94E-1	0E0	1,46E-4	9,94E-1	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	9,89E-1
Renew. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Non-ren. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Use of net fresh water	m^3	8,73E-2	3,14E-4	3,08E-3	0.0907	3,89E-3	2,03E-4	MND	MND	MND	MND	MND	MND	MND	4,01E-6	1,94E-5	2,03E-4	1,04E-5	-1,78E-2

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	1,3E0	2,74E-3	4,14E-2	1,34E0	4,06E-2	1,91E-3	MND	MND	MND	MND	MND	MND	MND	4,88E-5	9,05E-5	0E0	8,85E-6	-9,43E-1
Non-hazardous waste	kg	1,63E1	1,05E-1	9,7E-1	1,74E1	1,48E0	1,47E-1	MND	MND	MND	MND	MND	MND	MND	5,22E-4	1E-2	0E0	6,44E-2	-7,3E0
Radioactive waste	kg	2,39E-4	1,66E-5	3,71E-5	2,93E-4	6,71E-5	4,2E-6	MND	MND	MND	MND	MND	MND	MND	3,18E-7	6,39E-7	0E0	6,27E-8	-6,61E-5

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	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Materials for recycling	kg	0E0	0E0	2,39E-1	2,39E-1	0E0	6,82E-2	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	1,26E0	0E0	0E0
Materials for energy rec	kg	0E0	0E0	0E0	0E0	0E0	3,05E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Exported energy	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0

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_2e	5,37E0	1,76E-1	6,27E-1	6,17E0	8,58E-1	5,5E-2	MND	MND	MND	MND	MND	MND	MND	3,27E-3	5,93E-3	3,9E-2	3,33E-4	-3,1E0
Ozone depletion Pot.	kg $CFC_{-11}e$	4,04E-7	2,94E-8	6,27E-8	4,96E-7	1,17E-7	5,01E-9	MND	MND	MND	MND	MND	MND	MND	5,63E-10	1,12E-9	4,45E-9	1,11E-10	-1,22E-7
Acidification	kg SO_2e	2,75E-2	3,37E-3	2,54E-3	3,34E-2	2,97E-3	1,34E-4	MND	MND	MND	MND	MND	MND	MND	4,87E-6	1,22E-5	2,62E-4	1,34E-6	-1,55E-2
Eutrophication	kg PO_4^3e	1,36E-2	3,87E-4	9,3E-4	1,49E-2	9,69E-4	1,6E-4	MND	MND	MND	MND	MND	MND	MND	8,57E-7	2,46E-6	1,54E-4	2,6E-7	-7,42E-3
POCP (“smog”)	kg C_2H_4e	2,19E-3	9,14E-5	2,49E-4	2,53E-3	2,78E-4	1,24E-5	MND	MND	MND	MND	MND	MND	MND	5,01E-7	7,72E-7	1,36E-5	9,84E-8	-1,79E-3
ADP-elements	kg Sbe	5,05E-3	2,07E-6	9,66E-6	5,06E-3	1,52E-5	3,69E-7	MND	MND	MND	MND	MND	MND	MND	5,03E-9	1,02E-7	1,84E-6	3,1E-9	-4,19E-5
ADP-fossil	MJ	7,25E1	2,4E0	1,16E1	8,65E1	1,48E1	6,38E-1	MND	MND	MND	MND	MND	MND	MND	4,54E-2	9,31E-2	5,5E-1	9,48E-3	-3,26E1

VERIFICATION STATEMENT

VERIFICATION PROCESS FOR THIS EPD

This EPD has been verified in accordance with ISO 14025 by an independent, third-party verifier by reviewing results, documents and compliancy with reference standard, ISO 14025 and ISO 14040/14044, following the process and checklists of the program operator for:

- This Environmental Product Declaration
- The Life-Cycle Assessment used in this EPD
- The digital background data for this EPD

Why does verification transparency matter? Read more online
This EPD has been generated by One Click LCA EPD generator, which has been verified and approved by the EPD Hub.

THIRD-PARTY VERIFICATION STATEMENT

I hereby confirm that, following detailed examination, I have not established any relevant deviations by the studied Environmental Product Declaration (EPD), its LCA and project report, in terms of the data collected and used in the LCA calculations, the way the LCA-based calculations have been carried out, the presentation of environmental data in the EPD, and other additional environmental information, as present with respect to the procedural and methodological requirements in ISO 14025:2010 and reference standard.

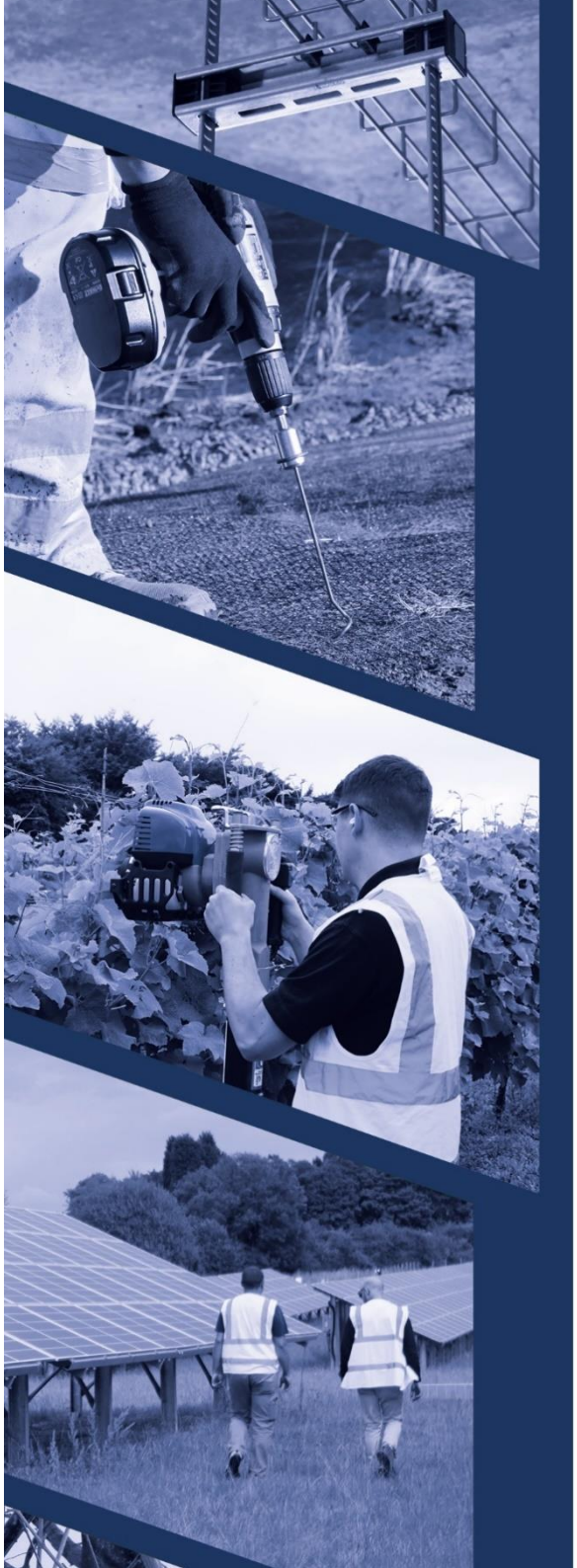
I confirm that the company-specific data has been examined as regards plausibility and consistency; the declaration owner is responsible for its factual integrity and legal compliance.

I confirm that I have sufficient knowledge and experience of construction products, this specific product category, the construction industry, relevant standards, and the geographical area of the EPD to carry out this verification.

I confirm my independence in my role as verifier; I have not been involved in the execution of the LCA or in the development of the declaration and have no conflicts of interest regarding this verification.

Elma Avdyli, as an authorized verifier acting for EPD Hub Limited
06.04.2023

VERIFIED ISO 14025



ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025 / ISO 21930

Fast Trak Bracket – 770mm (FTB-770)

EPD HUB, HUB-0381
Publishing date 06 April 2023, last updated date 06 April 2023, valid until 06 April 2028

Created with One Click LCA

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Gripple Ltd
Address	Norfolk Bridge Works, 11 Leveson Street, Sheffield, S4 7ER
Contact details	info@gripple.com
Website	www.gripple.com

EPD STANDARDS, SCOPE, AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804+A2:2019 and ISO 14025
PCR	EPD Hub Core PCR version 1.0, 1 Feb 2022
Sector	Construction product
Category of EPD	Sister EPD (Parent EPD: HUB-0375)
Scope of the EPD	Cradle to gate with modules C1-C4, D
EPD author	Natasha Lyth Gripple Ltd
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal certification ☑ External verification
EPD verifier	E.A as an authorized verifier acting for EPD Hub Limited

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	Fast Trak Bracket - 770mm (FTB-770)
Additional labels	
Product reference	FTB-770
Place of production	Sheffield, UK
Period for data	March 2021 - March 2022
Averaging in EPD	No averaging
Variation in GWP-fossil for A1-A3	Not applicable

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 unit of FTB-770
Declared unit mass	1.4706 kg
GWP-fossil, A1-A3 (kgCO2e)	7,02E0
GWP-total, A1-A3 (kgCO2e)	3,44E0
Secondary material, inputs (%)	75.6
Secondary material, outputs (%)	95.1
Total energy use, A1-A3 (kWh)	31.3
Total water use, A1-A3 (m3e)	0.101

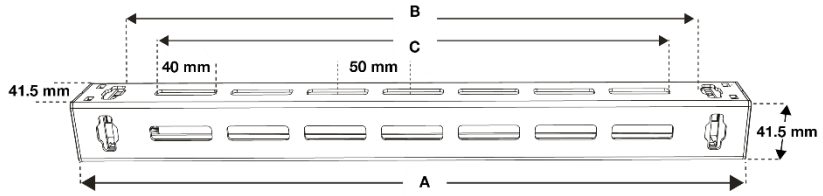
PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Gripple manufactures innovative solutions for the construction, agricultural and infrastructure sectors. Our innovative product designs, provide customers with faster, safer, and more cost-effective solutions than traditional engineered methods.

PRODUCT DESCRIPTION

Fast Trak is a prefabricated, trapeze bracket, which enables efficient, flexible and safe installation of electrical containment, ductwork, pipework and other mechanical services.



Bracket	FTB-770
A (mm) Length	839
B (mm) Suspension Space	776
C (mm) Working Space	740
No. of Slots	15

Fast Trak is six times faster and safer to install than traditional suspension systems as the system removes the need to cut threaded rod on site. The bracket can simply be moved up and down the tracks to accommodate changes in position during installation.

It offers even more versality as the four-sided bracket provides suspension point on every face: ideal for installation of combined bracketry and multi-tiered configuration to accommodate additional services. Each bracket also has indicators at each end as a measurement guide when marking fixing points on the ceiling; M4 level markers on the tracks highlight 50 mm increments, so no levelling tools are required. The tracks also can be bent neatly under the bracket – so zero product waste.

Fast Trak is independently fire tested to F120 which confirms that the entire system meets the fire performance standards associated with BS EN 1363-1:2012.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass- %	Material origin
Metals	98	EU / Asia
Minerals	-	-
Fossil materials	2	Turkey
Bio-based materials	-	-

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0
Biogenic carbon content in packaging, kg C	1.039

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 unit of FTB-770
Mass per declared unit	1.4706 kg
Functional unit	-
Reference service life	-

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	MND	MND	MND	MND	MND	MND	MND	x	x	x	x	x		
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling

Modules not declared = MND. Modules not relevant = MNR.

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 facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

The main process used within the manufacturing of the Fast Trak Bracket is Roll Forming. Strip metal is passed through our Roll Form Bearer machine forming and pressing it into the designed state. The process is highly efficient and allows for large volumes to be produced. Fast Trak components for the final assembly are also produced in house. The latch and brace components are manufactured on a press machine, where strip metal is formed and pressed into the designed state.

The Cartridge is moulded at our in-house mould shop which is located less than 3km from the final point of assembly. The only component sourced from a third-party UK supplier is the spring.

Any waste steel produced is sold for recycling. Production losses for all materials used in manufacturing is considered within this EPD. For Fast Trak packaging we used cardboard endcaps and plastic clips. A wooden pallet is used as a packaging material for transporting the product from the factory gate.

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts 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 distance is defined according to the PCR. The transportation distance site is an average distance from production site to building site. This assumed average is 1,173.6km this distance reflects that Fast Trak Brackets are supplied internationally from the UK. Transportation does not cause losses as the product is packaged appropriately. Shipping is done by a third party; empty returns are not considered as it is assumed that the return trip is used by the transportation company to serve the needs of other clients. The design and nature of a Fast Trak Bracket means there are no A5 installation impacts when installed using a Fast Trak Track.

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)

Demolition is assumed to consume 0,01 kWh/kg of product (O. Bozdag and M. Secer, 2007). The source of energy is diesel fuel used by construction machines (C1). It is assumed that 100% of the waste is collected and transported to the waste treatment centre. Transportation distance to treatment is assumed as 50 km and the transportation method is assumed to be lorry (C2). Approximately 95% of steel is assumed to be recycled based on World Steel Association, 2020 (C3). It is assumed that the remaining 5 % of steel is taken to landfill for final disposal (C4). Due to the recycling process, the end-of-life product is converted into recycled steel, the ABS engine is converted into recycled ABS material, while the wooden pallet is incinerated for energy recovery (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.

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 materials	Allocated by mass or volume
Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

AVERAGES AND VARIABILITY

Type of average	No averaging
Averaging method	Not applicable
Variation in GWP-fossil for A1-A3	Not applicable

There is no average result considered in this study since this EPD refers to one specific product produced in one production plant.

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. Ecoinvent and One Click LCA databases were used as sources of environmental data.

ENVIRONMENTAL IMPACT DATA

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total[1)]	kg CO_2e	6,35E0	1,96E-1	-3,11E0	3,44E0	9,46E-1	3,92E0	MND	MND	MND	MND	MND	MND	MND	3,3E-3	6,69E-3	4,17E-2	3,78E-4	0E0
GWP – fossil	kg CO_2e	6,13E0	1,96E-1	7,01E-1	7,02E0	9,67E-1	4,1E-2	MND	MND	MND	MND	MND	MND	MND	3,3E-3	6,68E-3	4,31E-2	3,77E-4	-3,71E0
GWP – biogenic	kg CO_2e	2,18E-1	-3,89E-6	-3,81E0	-3,59E0	-3,81E0	3,88E0	MND	MND	MND	MND	MND	MND	MND	9,17E-7	4,85E-6	-1,37E-3	7,48E-7	2,82E0
GWP – LULUC	kg CO_2e	5,94E-3	1,14E-4	4,13E-3	1,02E-2	2,18E-3	5,14E-5	MND	MND	MND	MND	MND	MND	MND	2,79E-7	2,01E-6	4,69E-5	1,12E-7	-2,05E-3
Ozone depletion pot.	kg CFC_{-11}e	4,87E-7	4,1E-8	8,12E-8	6,09E-7	1,59E-7	6,11E-9	MND	MND	MND	MND	MND	MND	MND	7,12E-10	1,57E-9	5,78E-9	1,55E-10	-1,53E-7
Acidification potential	mol H^+e	6,51E-2	4,75E-3	3,8E-3	7,36E-2	5,11E-3	1,99E-4	MND	MND	MND	MND	MND	MND	MND	3,45E-5	2,81E-5	4,49E-4	3,58E-6	-2,09E-2
EP-freshwater[2)]	kg Pe	3,77E-4	1,13E-6	3,46E-5	4,13E-4	3,47E-5	2,27E-6	MND	MND	MND	MND	MND	MND	MND	1,33E-8	5,44E-8	2,54E-6	4,56E-9	-2,09E-4
EP-marine	kg Ne	7,35E-3	1,18E-3	9,85E-4	9,52E-3	1,42E-3	6E-5	MND	MND	MND	MND	MND	MND	MND	1,52E-5	8,46E-6	1,02E-4	1,23E-6	-3,38E-3
EP-terrestrial	mol Ne	2,2E-1	1,31E-2	1,11E-2	2,44E-1	1,59E-2	4,8E-4	MND	MND	MND	MND	MND	MND	MND	1,67E-4	9,34E-5	1,17E-3	1,36E-5	-3,89E-2
POCP ("smog")[3)]	kg NMVOCe	2,46E-2	3,45E-3	4,41E-3	3,24E-2	5,97E-3	1,51E-4	MND	MND	MND	MND	MND	MND	MND	4,59E-5	3E-5	3,26E-4	3,94E-6	-1,67E-2
ADP-minerals & metals[4)]	kg Sbe	5,62E-3	2,25E-6	1,06E-5	5,63E-3	1,68E-5	4,05E-7	MND	MND	MND	MND	MND	MND	MND	5,03E-9	1,14E-7	2,02E-6	3,45E-9	-4,92E-5
ADP-fossil resources	MJ	8,06E1	2,65E0	1,26E1	9,59E1	1,63E1	7,02E-1	MND	MND	MND	MND	MND	MND	MND	4,54E-2	1,04E-1	5,97E-1	1,05E-2	-3,72E1
Water use[5)]	m^3e depr.	2,8E0	7,13E-3	1,94E-1	3E0	2,07E-1	6,97E-3	MND	MND	MND	MND	MND	MND	MND	8,46E-5	3,87E-4	9,41E-3	4,87E-4	-1,46E0

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[8)]	MJ	8,02E0	2,34E-2	9,67E0	1,77E1	9,54E0	7,26E-2	MND	MND	MND	MND	MND	MND	MND	2,45E-4	1,31E-3	7,89E-2	8,52E-5	-6,37E0
Renew. PER as material	MJ	0E0	0E0	3,67E1	3,67E1	3,67E1	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	-2,6E-1
Total use of renew. PER	MJ	8,02E0	2,34E-2	4,63E1	5,44E1	4,62E1	7,26E-2	MND	MND	MND	MND	MND	MND	MND	2,45E-4	1,31E-3	7,89E-2	8,52E-5	-6,63E0
Non-re. PER as energy	MJ	7,91E1	2,65E0	1,25E1	9,43E1	1,63E1	7,02E-1	MND	MND	MND	MND	MND	MND	MND	4,54E-2	1,04E-1	5,97E-1	1,05E-2	-3,54E1
Non-re. PER as material	MJ	1,5E0	0E0	1E-1	1,6E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	-1,82E0
Total use of non-re. PER	MJ	8,06E1	2,65E0	1,26E1	9,59E1	1,63E1	7,02E-1	MND	MND	MND	MND	MND	MND	MND	4,54E-2	1,04E-1	5,97E-1	1,05E-2	-3,72E1
Secondary materials	kg	1,11E0	0E0	1,49E-4	1,11E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	1,09E0
Renew. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Non-ren. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Use of net fresh water	m^3	9,74E-2	3,47E-4	3,35E-3	0.101	4,29E-3	2,21E-4	MND	MND	MND	MND	MND	MND	MND	4,01E-6	2,16E-5	2,22E-4	1,15E-5	-2,07E-2

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	1,45E0	3,02E-3	4,5E-2	1,49E0	4,46E-2	2,08E-3	MND	MND	MND	MND	MND	MND	MND	4,88E-5	1,01E-4	0E0	9,83E-6	-1,1E0
Non-hazardous waste	kg	1,82E1	1,16E-1	1,06E0	1,94E1	1,63E0	1,59E-1	MND	MND	MND	MND	MND	MND	MND	5,22E-4	1,12E-2	0E0	7,16E-2	-8,57E0
Radioactive waste	kg	2,67E-4	1,84E-5	4,01E-5	3,26E-4	7,4E-5	4,63E-6	MND	MND	MND	MND	MND	MND	MND	3,18E-7	7,14E-7	0E0	6,97E-8	-7,5E-5

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	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Materials for recycling	kg	0E0	0E0	2,65E-1	2,65E-1	0E0	6,82E-2	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	1,4E0	0E0	0E0
Materials for energy rec	kg	0E0	0E0	0E0	0E0	0E0	3,37E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Exported energy	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0

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_2e	5,98E0	1,94E-1	6,83E-1	6,86E0	9,46E-1	5,85E-2	MND	MND	MND	MND	MND	MND	MND	3,27E-3	6,62E-3	4,24E-2	3,7E-4	-3,56E0
Ozone depletion Pot.	kg $CFC_{-11}e$	4,51E-7	3,25E-8	6,84E-8	5,51E-7	1,29E-7	5,52E-9	MND	MND	MND	MND	MND	MND	MND	5,63E-10	1,25E-9	4,87E-9	1,23E-10	-1,41E-7
Acidification	kg SO_2e	3,06E-2	3,73E-3	2,77E-3	3,71E-2	3,27E-3	1,46E-4	MND	MND	MND	MND	MND	MND	MND	4,87E-6	1,36E-5	2,87E-4	1,49E-6	-1,76E-2
Eutrophication	kg PO_4^3e	1,51E-2	4,28E-4	1,01E-3	1,66E-2	1,07E-3	1,67E-4	MND	MND	MND	MND	MND	MND	MND	8,57E-7	2,75E-6	1,65E-4	2,89E-7	-8,63E-3
POCP (“smog”)	kg C_2H_4e	2,44E-3	1,01E-4	2,73E-4	2,81E-3	3,06E-4	1,3E-5	MND	MND	MND	MND	MND	MND	MND	5,01E-7	8,62E-7	1,49E-5	1,09E-7	-2,07E-3
ADP-elements	kg Sbe	5,62E-3	2,25E-6	1,06E-5	5,63E-3	1,68E-5	4,05E-7	MND	MND	MND	MND	MND	MND	MND	5,03E-9	1,14E-7	2,02E-6	3,45E-9	-4,92E-5
ADP-fossil	MJ	8,06E1	2,65E0	1,26E1	9,59E1	1,63E1	7,02E-1	MND	MND	MND	MND	MND	MND	MND	4,54E-2	1,04E-1	5,97E-1	1,05E-2	-3,72E1

VERIFICATION STATEMENT

VERIFICATION PROCESS FOR THIS EPD

This EPD has been verified in accordance with ISO 14025 by an independent, third-party verifier by reviewing results, documents and compliancy with reference standard, ISO 14025, and ISO 14040/14044, following the process and checklists of the program operator for:

- This Environmental Product Declaration
- The Life-Cycle Assessment used in this EPD
- The digital background data for this EPD

Why does verification transparency matter? Read more online
This EPD has been generated by One Click LCA EPD generator, which has been verified and approved by the EPD Hub.

THIRD-PARTY VERIFICATION STATEMENT

I hereby confirm that, following detailed examination, I have not established any relevant deviations by the studied Environmental Product Declaration (EPD), its LCA and project report, in terms of the data collected and used in the LCA calculations, the way the LCA-based calculations have been carried out, the presentation of environmental data in the EPD, and other additional environmental information, as present with respect to the procedural and methodological requirements in ISO 14025:2010 and reference standard.

I confirm that the company-specific data has been examined as regards plausibility and consistency; the declaration owner is responsible for its factual integrity and legal compliance.

I confirm that I have sufficient knowledge and experience of construction products, this specific product category, the construction industry, relevant standards, and the geographical area of the EPD to carry out this verification.

I confirm my independence in my role as verifier; I have not been involved in the execution of the LCA or in the development of the declaration and have no conflicts of interest regarding this verification.

Elma Avdyli, as an authorized verifier acting for EPD Hub Limited
06.04.2023

VERIFIED ISO 14025

ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025 / ISO 21930

Fast Trak Bracket - 870mm (FTB-870)

EPD HUB, HUB-0380
Publishing date 06 April 2023, last updated date 06 April 2023, valid until 06 April 2028

Created with One Click LCA

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Gripple Ltd
Address	Norfolk Bridge Works, 11 Leveson Street, Sheffield, S4 7ER
Contact details	info@gripple.com
Website	www.gripple.com

EPD STANDARDS, SCOPE. AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804+A2:2019 and ISO 14025
PCR	EPD Hub Core PCR version 1.0, 1 Feb 2022
Sector	Construction product
Category of EPD	Sister EPD (Parent EPD: HUB-0375)
Scope of the EPD	Cradle to gate with modules C1-C4, D
EPD author	Natasha Lyth Gripple Ltd
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal certification ☑ External verification
EPD verifier	E.A as an authorized verifier acting for EPD Hub Limited

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	Fast Trak Bracket - 870mm (FTB-870)
Additional labels	
Product reference	FTB-870
Place of production	Sheffield, UK
Period for data	March 2021 - March 2022
Averaging in EPD	No averaging
Variation in GWP-fossil for A1-A3	Not applicable

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 unit of FTB-870
Declared unit mass	1.6396 kg
GWP-fossil, A1-A3 (kgCO2e)	7,81E0
GWP-total, A1-A3 (kgCO2e)	3,81E0
Secondary material, inputs (%)	75.7
Secondary material, outputs (%)	95.1
Total energy use, A1-A3 (kWh)	34.6
Total water use, A1-A3 (m3e)	0.113

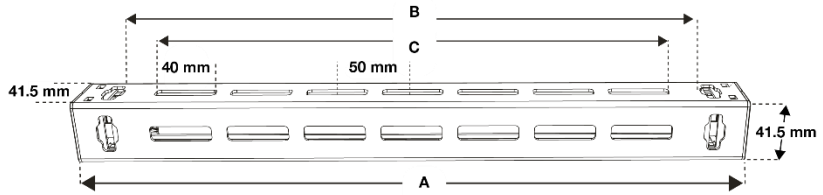
PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Gripple manufactures innovative solutions for the construction, agricultural and infrastructure sectors. Our innovative product designs, provide customers with faster, safer, and more cost-effective solutions than traditional engineered methods.

PRODUCT DESCRIPTION

Fast Trak is a prefabricated, trapeze bracket, which enables efficient, flexible, and safe installation of electrical containment, ductwork, pipework, and other mechanical services.



Bracket	FTB-870
A (mm) Length	939
B (mm) Suspension Space	876
C (mm) Working Space	840
No. of Slots	17

Fast Trak is six times faster and safer to install than traditional suspension systems as the system removes the need to cut threaded rod on site. The bracket can simply be moved up and down the tracks to accommodate changes in position during installation.

It offers even more versality as the four-sided bracket provides suspension point on every face: ideal for installation of combined bracketry and multi-tiered configuration to accommodate additional services. Each bracket also has indicators at each end as a measurement guide when marking fixing points on the ceiling; M4 level markers on the tracks highlight 50 mm increments, so no levelling tools are required. The tracks also can be bent neatly under the bracket – so zero product waste.

Fast Trak is independently fire tested to F120 which confirms that the entire system meets the fire performance standards associated with BS EN 1363-1:2012.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass- %	Material origin
Metals	98	EU / Asia
Minerals	-	-
Fossil materials	2	Turkey
Bio-based materials	-	-

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0
Biogenic carbon content in packaging, kg C	1.159

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 unit of FTB-870
Mass per declared unit	1.6396 kg
Functional unit	-
Reference service life	-

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	MND	MND	MND	MND	MND	MND	MND	x	x	x	x	x		
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling

Modules not declared = MND. Modules not relevant = MNR.

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 facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

The main process used within the manufacturing of the Fast Trak Bracket is Roll Forming. Strip metal is passed through our Roll Form Bearer machine forming and pressing it into the designed state. The process is highly efficient and allows for large volumes to be produced. Fast Trak components for the final assembly are also produced in house. The latch and brace components are manufactured on a press machine, where strip metal is formed and pressed into the designed state.

The Cartridge is moulded at our in-house mould shop which is located less than 3km from the final point of assembly. The only component sourced from a third-party UK supplier is the spring.

Any waste steel produced is sold for recycling. Production losses for all materials used in manufacturing is considered within this EPD. For Fast Trak packaging we used cardboard endcaps and plastic clips. A wooden pallet is used as a packaging material for transporting the product from the factory gate.

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts 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 distance is defined according to the PCR. The transportation distance site is an average distance from production site to building site. This assumed average is 1,173.6km this distance reflects that Fast Trak Brackets are supplied internationally from the UK. Transportation does not cause losses as the product is packaged appropriately. Shipping is done by a third party; empty returns are not considered as it is assumed that the return trip is used by the transportation company to serve the needs of other clients. The design and nature of a Fast Trak Bracket means there are no A5 installation impacts when installed using a Fast Trak Track.

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)

Demolition is assumed to consume 0,01 kWh/kg of product (O. Bozdag and M. Secer, 2007). The source of energy is diesel fuel used by construction machines (C1). It is assumed that 100% of the waste is collected and transported to the waste treatment centre. Transportation distance to treatment is assumed as 50 km and the transportation method is assumed to be lorry (C2). Approximately 95% of steel is assumed to be recycled based on World Steel Association, 2020 (C3). It is assumed that the remaining 5 % of steel is taken to landfill for final disposal (C4). Due to the recycling process, the end-of-life product is converted into recycled steel, the ABS engine is converted into recycled ABS material, while the wooden pallet is incinerated for energy recovery (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.

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 materials	Allocated by mass or volume
Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

AVERAGES AND VARIABILITY

Type of average	No averaging
Averaging method	Not applicable
Variation in GWP-fossil for A1-A3	Not applicable

There is no average result considered in this study since this EPD refers to one specific product produced in one production plant.

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. Ecoinvent and One Click LCA databases were used as sources of environmental data.

ENVIRONMENTAL IMPACT DATA

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total[1)]	kg CO_2e	7,07E0	2,16E-1	-3,48E0	3,81E0	1,06E0	4,36E0	MND	MND	MND	MND	MND	MND	MND	6,6E-3	7,46E-3	4,55E-2	4,22E-4	0E0
GWP – fossil	kg CO_2e	6,82E0	2,16E-1	7,7E-1	7,81E0	1,08E0	4,54E-2	MND	MND	MND	MND	MND	MND	MND	6,59E-3	7,45E-3	4,7E-2	4,21E-4	-4,03E0
GWP – biogenic	kg CO_2e	2,43E-1	-4,31E-6	-4,25E0	-4,01E0	-4,25E0	4,32E0	MND	MND	MND	MND	MND	MND	MND	1,83E-6	5,41E-6	-1,59E-3	8,35E-7	3,14E0
GWP – LULUC	kg CO_2e	6,63E-3	1,26E-4	4,4E-3	1,12E-2	2,44E-3	5,73E-5	MND	MND	MND	MND	MND	MND	MND	5,57E-7	2,24E-6	5,15E-5	1,25E-7	-2,31E-3
Ozone depletion pot.	kg CFC_{-11}e	5,44E-7	4,53E-8	8,94E-8	6,78E-7	1,77E-7	6,79E-9	MND	MND	MND	MND	MND	MND	MND	1,42E-9	1,75E-9	6,35E-9	1,73E-10	-1,66E-7
Acidification potential	mol H^+e	7,28E-2	5,26E-3	4,17E-3	8,23E-2	5,7E-3	2,21E-4	MND	MND	MND	MND	MND	MND	MND	6,9E-5	3,13E-5	4,97E-4	4E-6	-2,29E-2
EP-freshwater[2)]	kg Pe	4,21E-4	1,24E-6	3,81E-5	4,6E-4	3,87E-5	2,53E-6	MND	MND	MND	MND	MND	MND	MND	2,67E-8	6,06E-8	2,81E-6	5,09E-9	-2,26E-4
EP-marine	kg Ne	8,21E-3	1,31E-3	1,08E-3	1,06E-2	1,58E-3	6,44E-5	MND	MND	MND	MND	MND	MND	MND	3,05E-5	9,43E-6	1,13E-4	1,38E-6	-3,66E-3
EP-terrestrial	mol Ne	2,46E-1	1,45E-2	1,22E-2	2,73E-1	1,77E-2	5,3E-4	MND	MND	MND	MND	MND	MND	MND	3,34E-4	1,04E-4	1,29E-3	1,52E-5	-4,21E-2
POCP ("smog")[3)]	kg NMVOCe	2,74E-2	3,82E-3	4,88E-3	3,61E-2	6,65E-3	1,66E-4	MND	MND	MND	MND	MND	MND	MND	9,18E-5	3,35E-5	3,6E-4	4,4E-6	-1,81E-2
ADP-minerals & metals[4)]	kg Sbe	6,31E-3	2,46E-6	1,16E-5	6,32E-3	1,87E-5	4,49E-7	MND	MND	MND	MND	MND	MND	MND	1,01E-8	1,27E-7	2,24E-6	3,85E-9	-5,24E-5
ADP-fossil resources	MJ	8,96E1	2,93E0	1,39E1	1,06E2	1,81E1	7,82E-1	MND	MND	MND	MND	MND	MND	MND	9,07E-2	1,16E-1	6,52E-1	1,18E-2	-4,02E1
Water use[5)]	m^3e depr.	3,12E0	7,86E-3	2,15E-1	3,34E0	2,31E-1	7,68E-3	MND	MND	MND	MND	MND	MND	MND	1,69E-4	4,31E-4	1,02E-2	5,45E-4	-1,55E0

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[8)]	MJ	8,95E0	2,58E-2	1,08E1	1,97E1	1,06E1	8,09E-2	MND	MND	MND	MND	MND	MND	MND	4,91E-4	1,46E-3	8,75E-2	9,52E-5	-7,07E0
Renew. PER as material	MJ	0E0	0E0	4,09E1	4,09E1	4,09E1	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	-2,6E-1
Total use of renew. PER	MJ	8,95E0	2,58E-2	5,16E1	6,06E1	5,15E1	8,09E-2	MND	MND	MND	MND	MND	MND	MND	4,91E-4	1,46E-3	8,75E-2	9,52E-5	-7,33E0
Non-re. PER as energy	MJ	8,81E1	2,93E0	1,38E1	1,05E2	1,81E1	7,82E-1	MND	MND	MND	MND	MND	MND	MND	9,07E-2	1,16E-1	6,52E-1	1,18E-2	-3,84E1
Non-re. PER as material	MJ	1,5E0	0E0	1E-1	1,6E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	-1,82E0
Total use of non-re. PER	MJ	8,96E1	2,93E0	1,39E1	1,06E2	1,81E1	7,82E-1	MND	MND	MND	MND	MND	MND	MND	9,07E-2	1,16E-1	6,52E-1	1,18E-2	-4,02E1
Secondary materials	kg	1,24E0	0E0	1,53E-4	1,24E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	1,21E0
Renew. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Non-ren. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Use of net fresh water	m^3	1,09E-1	3,83E-4	3,69E-3	0.113	4,78E-3	2,42E-4	MND	MND	MND	MND	MND	MND	MND	8,01E-6	2,41E-5	2,45E-4	1,29E-5	-2,22E-2

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	1,61E0	3,33E-3	4,93E-2	1,67E0	4,98E-2	2,28E-3	MND	MND	MND	MND	MND	MND	MND	9,76E-5	1,13E-4	0E0	1,1E-5	-1,18E0
Non-hazardous waste	kg	2,03E1	1,28E-1	1,16E0	2,16E1	1,82E0	1,73E-1	MND	MND	MND	MND	MND	MND	MND	1,04E-3	1,25E-2	0E0	8E-2	-9,15E0
Radioactive waste	kg	2,98E-4	2,03E-5	4,37E-5	3,62E-4	8,25E-5	5,15E-6	MND	MND	MND	MND	MND	MND	MND	6,35E-7	7,96E-7	0E0	7,79E-8	-8,3E-5

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	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Materials for recycling	kg	0E0	0E0	1,54E-1	1,54E-1	0E0	6,82E-2	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	1,56E0	0E0	0E0
Materials for energy rec	kg	0E0	0E0	0E0	0E0	0E0	3,76E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Exported energy	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0

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_2e	6,66E0	2,15E-1	7,5E-1	7,63E0	1,06E0	6,29E-2	MND	MND	MND	MND	MND	MND	MND	6,54E-3	7,38E-3	4,63E-2	4,13E-4	-3,87E0
Ozone depletion Pot.	kg CFC_{-11}e	5,03E-7	3,59E-8	7,52E-8	6,14E-7	1,44E-7	6,13E-9	MND	MND	MND	MND	MND	MND	MND	1,13E-9	1,39E-9	5,35E-9	1,37E-10	-1,53E-7
Acidification	kg SO_2e	3,41E-2	4,13E-3	3,04E-3	4,13E-2	3,64E-3	1,62E-4	MND	MND	MND	MND	MND	MND	MND	9,73E-6	1,52E-5	3,17E-4	1,67E-6	-1,94E-2
Eutrophication	kg PO_4^3e	1,69E-2	4,74E-4	1,11E-3	1,85E-2	1,19E-3	1,75E-4	MND	MND	MND	MND	MND	MND	MND	1,71E-6	3,06E-6	1,77E-4	3,23E-7	-9,28E-3
POCP (“smog”)	kg C_2H_4e	2,72E-3	1,12E-4	3,01E-4	3,13E-3	3,41E-4	1,37E-5	MND	MND	MND	MND	MND	MND	MND	1E-6	9,61E-7	1,63E-5	1,22E-7	-2,23E-3
ADP-elements	kg Sbe	6,31E-3	2,46E-6	1,16E-5	6,32E-3	1,87E-5	4,49E-7	MND	MND	MND	MND	MND	MND	MND	1,01E-8	1,27E-7	2,24E-6	3,85E-9	-5,24E-5
ADP-fossil	MJ	8,96E1	2,93E0	1,39E1	1,06E2	1,81E1	7,82E-1	MND	MND	MND	MND	MND	MND	MND	9,07E-2	1,16E-1	6,52E-1	1,18E-2	-4,02E1

VERIFICATION STATEMENT

VERIFICATION PROCESS FOR THIS EPD

This EPD has been verified in accordance with ISO 14025 by an independent, third-party verifier by reviewing results, documents and compliancy with reference standard, ISO 14025, and ISO 14040/14044, following the process and checklists of the program operator for:

- This Environmental Product Declaration
- The Life-Cycle Assessment used in this EPD
- The digital background data for this EPD

Why does verification transparency matter? Read more online
This EPD has been generated by One Click LCA EPD generator, which has been verified and approved by the EPD Hub.

THIRD-PARTY VERIFICATION STATEMENT

I hereby confirm that, following detailed examination, I have not established any relevant deviations by the studied Environmental Product Declaration (EPD), its LCA and project report, in terms of the data collected and used in the LCA calculations, the way the LCA-based calculations have been carried out, the presentation of environmental data in the EPD, and other additional environmental information, as present with respect to the procedural and methodological requirements in ISO 14025:2010 and reference standard.

I confirm that the company-specific data has been examined as regards plausibility and consistency; the declaration owner is responsible for its factual integrity and legal compliance.

I confirm that I have sufficient knowledge and experience of construction products, this specific product category, the construction industry, relevant standards, and the geographical area of the EPD to carry out this verification.

I confirm my independence in my role as verifier; I have not been involved in the execution of the LCA or in the development of the declaration and have no conflicts of interest regarding this verification.

Elma Avdyli, as an authorized verifier acting for EPD Hub Limited
06.04.2023

VERIFIED ISO 14025

ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025 / ISO 21930

Fast Trak Bracket - 970mm (FTB-970)

EPD HUB, HUB-0379
Publishing date 06 April 2023, last updated date 06 April 2023, valid until 06 April 2028

Created with One Click LCA

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Gripple Ltd
Address	Norfolk Bridge Works, 11 Leveson Street, Sheffield, S4 7ER
Contact details	info@gripple.com
Website	www.gripple.com

EPD STANDARDS, SCOPE AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804+A2:2019 and ISO 14025
PCR	EPD Hub Core PCR version 1.0, 1 Feb 2022
Sector	Construction product
Category of EPD	Sister EPD (Parent EPD: HUB-0375)
Scope of the EPD	Cradle to gate with modules C1-C4, D
EPD author	Natasha Lyth Gripple Ltd
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal certification ☑ External verification
EPD verifier	E.A as an authorized verifier acting for EPD Hub Limited

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	Fast Trak Bracket - 970mm (FTB-970)
Additional labels	
Product reference	FTB-970
Place of production	Sheffield, UK
Period for data	March 2021 - March 2022
Averaging in EPD	No averaging
Variation in GWP-fossil for A1-A3	Not applicable

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 unit of FTB-970
Declared unit mass	1.8136 kg
GWP-fossil, A1-A3 (kgCO2e)	8,68E0
GWP-total, A1-A3 (kgCO2e)	3,83E0
Secondary material, inputs (%)	75.8
Secondary material, outputs (%)	90.9
Total energy use, A1-A3 (kWh)	38.8
Total water use, A1-A3 (m3e)	0.126

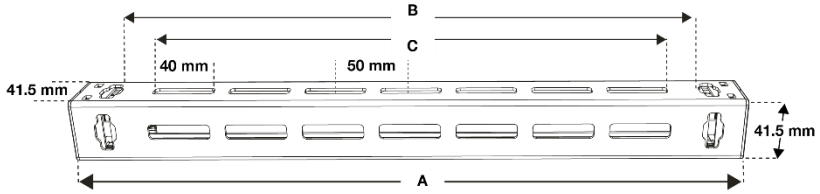
PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Gripple manufactures innovative solutions for the construction, agricultural and infrastructure sectors. Our innovative product designs, provide customers with faster, safer, and more cost-effective solutions than traditional engineered methods.

PRODUCT DESCRIPTION

Fast Trak is a prefabricated, trapeze bracket, which enables efficient, flexible, and safe installation of electrical containment, ductwork, pipework, and other mechanical services.



Bracket	FTB-970
A (mm) Length	1039
B (mm) Suspension Space	976
C (mm) Working Space	940
No. of Slots	19

Fast Trak is six times faster and safer to install than traditional suspension systems as the system removes the need to cut threaded rod on site. The bracket can simply be moved up and down the tracks to accommodate changes in position during installation.

It offers even more versality as the four-sided bracket provides suspension point on every face: ideal for installation of combined bracketry and multi-tiered configuration to accommodate additional services. Each bracket also has indicators at each end as a measurement guide when marking fixing points on the ceiling; M4 level markers on the tracks highlight 50 mm increments, so no levelling tools are required. The tracks also can be bent neatly under the bracket – so zero product waste.

Fast Trak is independently fire tested to F120 which confirms that the entire system meets the fire performance standards associated with BS EN 1363-1:2012.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass- %	Material origin
Metals	98	EU / Asia
Minerals	-	-
Fossil materials	2	Turkey
Bio-based materials	-	-

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0
Biogenic carbon content in packaging, kg C	1.403

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 unit of FTB-970
Mass per declared unit	1.8136 kg
Functional unit	
Reference service life	

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	MND	MND	MND	MND	MND	MND	MND	x	x	x	x	x		
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling

Modules not declared = MND. Modules not relevant = MNR.

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 facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

The main process used within the manufacturing of the Fast Trak Bracket is Roll Forming. Strip metal is passed through our Roll Form Bearer machine forming and pressing it into the designed state. The process is highly efficient and allows for large volumes to be produced. Fast Trak components for the final assembly are also produced in house. The latch and brace components are manufactured on a press machine, where strip metal is formed and pressed into the designed state.

The Cartridge is moulded at our in-house mould shop which is located less than 3km from the final point of assembly. The only component sourced from a third-party UK supplier is the spring.

Any waste steel produced is sold for recycling. Production losses for all materials used in manufacturing is considered within this EPD. For Fast Trak packaging we used cardboard endcaps and plastic clips. A wooden pallet is used as a packaging material for transporting the product from the factory gate

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts 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 distance is defined according to the PCR. The transportation distance site is an average distance from production site to building site. This assumed average is 1,173.6km this distance reflects that Fast Trak Brackets are supplied internationally from the UK. Transportation does not cause losses as the product is packaged appropriately. Shipping is done by a third party; empty returns are not considered as it is assumed that the return trip is used by the transportation company to serve the needs of other clients. The design and nature of a Fast Trak Bracket means there are no A5 installation impacts when installed using a Fast Trak Track.

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)

Demolition is assumed to consume 0,01 kWh/kg of product (O. Bozdag and M. Secer, 2007). The source of energy is diesel fuel used by construction machines (C1). It is assumed that 100% of the waste is collected and transported to the waste treatment centre. Transportation distance to treatment is assumed as 50 km and the transportation method is assumed to be lorry (C2). Approximately 95% of steel is assumed to be recycled based on World Steel Association, 2020 (C3). It is assumed that the remaining 5 % of steel is taken to landfill for final disposal (C4). Due to the recycling process, the end-of-life product is converted into recycled steel, the ABS engine is converted into recycled ABS material, while the wooden pallet is incinerated for energy recovery (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.

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 materials	Allocated by mass or volume
Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

AVERAGES AND VARIABILITY

Type of average	No averaging
Averaging method	Not applicable
Variation in GWP-fossil for A1-A3	Not applicable

There is no average result considered in this study since this EPD refers to one specific product produced in one production plant.

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. Ecoinvent and One Click LCA databases were used as sources of environmental data.

ENVIRONMENTAL IMPACT DATA

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total[1)]	kg CO_2e	7,81E0	2,38E-1	-4,22E0	3,83E0	1,26E0	5,29E0	MND	MND	MND	MND	MND	MND	MND	6,6E-3	8,25E-3	4,76E-2	4,7E-4	0E0
GWP – fossil	kg CO_2e	7,53E0	2,38E-1	9,11E-1	8,68E0	1,28E0	7,79E-2	MND	MND	MND	MND	MND	MND	MND	6,59E-3	8,24E-3	4,92E-2	4,69E-4	-4,39E0
GWP – biogenic	kg CO_2e	2,7E-1	-4,46E-6	-5,13E0	-4,86E0	-5,13E0	5,21E0	MND	MND	MND	MND	MND	MND	MND	1,83E-6	5,98E-6	-1,72E-3	9,29E-7	3,8E0
GWP – LULUC	kg CO_2e	7,35E-3	1,39E-4	4,92E-3	1,24E-2	2,94E-3	1,01E-4	MND	MND	MND	MND	MND	MND	MND	5,57E-7	2,48E-6	5,39E-5	1,39E-7	-2,75E-3
Ozone depletion pot.	kg CFC_{-11}e	6,02E-7	4,99E-8	1,06E-7	7,57E-7	2,1E-7	1,18E-8	MND	MND	MND	MND	MND	MND	MND	1,42E-9	1,94E-9	6,66E-9	1,93E-10	-1,85E-7
Acidification potential	mol H^+e	8,07E-2	5,79E-3	5,01E-3	9,15E-2	6,8E-3	3,81E-4	MND	MND	MND	MND	MND	MND	MND	6,9E-5	3,46E-5	5,24E-4	4,45E-6	-2,5E-2
EP-freshwater[2)]	kg Pe	4,66E-4	1,36E-6	4,56E-5	5,13E-4	4,65E-5	4,46E-6	MND	MND	MND	MND	MND	MND	MND	2,67E-8	6,7E-8	2,96E-6	5,66E-9	-2,45E-4
EP-marine	kg Ne	9,08E-3	1,44E-3	1,3E-3	1,18E-2	1,89E-3	9,65E-5	MND	MND	MND	MND	MND	MND	MND	3,05E-5	1,04E-5	1,19E-4	1,53E-6	-3,96E-3
EP-terrestrial	mol Ne	2,73E-1	1,6E-2	1,47E-2	3,03E-1	2,12E-2	9E-4	MND	MND	MND	MND	MND	MND	MND	3,34E-4	1,15E-4	1,36E-3	1,69E-5	-4,57E-2
POCP ("smog")[3)]	kg NMVOCe	3,03E-2	4,2E-3	5,87E-3	4,03E-2	7,95E-3	2,75E-4	MND	MND	MND	MND	MND	MND	MND	9,18E-5	3,7E-5	3,78E-4	4,9E-6	-1,95E-2
ADP-minerals & metals[4)]	kg Sbe	7E-3	2,68E-6	1,4E-5	7,01E-3	2,23E-5	7,77E-7	MND	MND	MND	MND	MND	MND	MND	1,01E-8	1,41E-7	2,37E-6	4,28E-9	-5,6E-5
ADP-fossil resources	MJ	9,89E1	3,22E0	1,64E1	1,18E2	2,16E1	1,37E0	MND	MND	MND	MND	MND	MND	MND	9,07E-2	1,28E-1	6,83E-1	1,31E-2	-4,41E1
Water use[5)]	m^3e depr.	3,45E0	8,63E-3	2,58E-1	3,71E0	2,78E-1	1,29E-2	MND	MND	MND	MND	MND	MND	MND	1,69E-4	4,77E-4	1,06E-2	6,06E-4	-1,67E0

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[8)]	MJ	9,9E0	2,83E-2	1,3E1	2,29E1	1,28E1	1,43E-1	MND	MND	MND	MND	MND	MND	MND	4,91E-4	1,61E-3	9,23E-2	1,06E-4	-7,95E0
Renew. PER as material	MJ	0E0	0E0	4,94E1	4,94E1	4,94E1	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	-2,6E-1
Total use of renew. PER	MJ	9,9E0	2,83E-2	6,23E1	7,22E1	6,22E1	1,43E-1	MND	MND	MND	MND	MND	MND	MND	4,91E-4	1,61E-3	9,23E-2	1,06E-4	-8,21E0
Non-re. PER as energy	MJ	9,74E1	3,22E0	1,63E1	1,17E2	2,16E1	1,37E0	MND	MND	MND	MND	MND	MND	MND	9,07E-2	1,28E-1	6,83E-1	1,31E-2	-4,23E1
Non-re. PER as material	MJ	1,5E0	0E0	1E-1	1,6E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	-1,82E0
Total use of non-re. PER	MJ	9,89E1	3,22E0	1,64E1	1,18E2	2,16E1	1,37E0	MND	MND	MND	MND	MND	MND	MND	9,07E-2	1,28E-1	6,83E-1	1,31E-2	-4,41E1
Secondary materials	kg	1,37E0	0E0	1,56E-4	1,37E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	1,28E0
Renew. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Non-ren. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Use of net fresh water	m^3	1,21E-1	4,22E-4	4,4E-3	0.126	5,72E-3	4,01E-4	MND	MND	MND	MND	MND	MND	MND	8,01E-6	2,67E-5	2,57E-4	1,43E-5	-2,39E-2

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	1,78E0	3,65E-3	5,85E-2	1,85E0	5,98E-2	3,8E-3	MND	MND	MND	MND	MND	MND	MND	9,76E-5	1,25E-4	0E0	1,22E-5	-1,27E0
Non-hazardous waste	kg	2,25E1	1,41E-1	1,39E0	2,41E1	2,17E0	2,8E-1	MND	MND	MND	MND	MND	MND	MND	1,04E-3	1,38E-2	0E0	8,9E-2	-9,6E0
Radioactive waste	kg	3,3E-4	2,24E-5	5,13E-5	4,04E-4	9,77E-5	9,04E-6	MND	MND	MND	MND	MND	MND	MND	6,35E-7	8,8E-7	0E0	8,67E-8	-9,77E-5

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	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Materials for recycling	kg	0E0	0E0	3,23E-1	3,23E-1	0E0	6,82E-2	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	1,65E0	0E0	0E0
Materials for energy rec	kg	0E0	0E0	0E0	0E0	0E0	4,55E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Exported energy	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0

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_2e	7,36E0	2,36E-1	8,87E-1	8,48E0	1,26E0	9,5E-2	MND	MND	MND	MND	MND	MND	MND	6,54E-3	8,17E-3	4,85E-2	4,6E-4	-4,21E0
Ozone depletion Pot.	kg $CFC_{-11}e$	5,56E-7	3,95E-8	8,88E-8	6,85E-7	1,71E-7	1,07E-8	MND	MND	MND	MND	MND	MND	MND	1,13E-9	1,54E-9	5,62E-9	1,53E-10	-1,71E-7
Acidification	kg SO_2e	3,77E-2	4,55E-3	3,64E-3	4,59E-2	4,36E-3	2,74E-4	MND	MND	MND	MND	MND	MND	MND	9,73E-6	1,68E-5	3,34E-4	1,85E-6	-2,12E-2
Eutrophication	kg PO_4^3e	1,87E-2	5,21E-4	1,33E-3	2,06E-2	1,43E-3	2,38E-4	MND	MND	MND	MND	MND	MND	MND	1,71E-6	3,39E-6	1,83E-4	3,59E-7	-9,99E-3
POCP (“smog”)	kg C_2H_4e	3,01E-3	1,23E-4	3,62E-4	3,49E-3	4,09E-4	1,9E-5	MND	MND	MND	MND	MND	MND	MND	1E-6	1,06E-6	1,7E-5	1,36E-7	-2,4E-3
ADP-elements	kg Sbe	7E-3	2,68E-6	1,4E-5	7,01E-3	2,23E-5	7,77E-7	MND	MND	MND	MND	MND	MND	MND	1,01E-8	1,41E-7	2,37E-6	4,28E-9	-5,6E-5
ADP-fossil	MJ	9,89E1	3,22E0	1,64E1	1,18E2	2,16E1	1,37E0	MND	MND	MND	MND	MND	MND	MND	9,07E-2	1,28E-1	6,83E-1	1,31E-2	-4,41E1

VERIFICATION STATEMENT

VERIFICATION PROCESS FOR THIS EPD

This EPD has been verified in accordance with ISO 14025 by an independent, third-party verifier by reviewing results, documents and compliancy with reference standard, ISO 14025 and ISO 14040/14044, following the process and checklists of the program operator for:

- This Environmental Product Declaration
- The Life-Cycle Assessment used in this EPD
- The digital background data for this EPD

Why does verification transparency matter? Read more online
This EPD has been generated by One Click LCA EPD generator, which has been verified and approved by the EPD Hub.

THIRD-PARTY VERIFICATION STATEMENT

I hereby confirm that, following detailed examination, I have not established any relevant deviations by the studied Environmental Product Declaration (EPD), its LCA and project report, in terms of the data collected and used in the LCA calculations, the way the LCA-based calculations have been carried out, the presentation of environmental data in the EPD, and other additional environmental information, as present with respect to the procedural and methodological requirements in ISO 14025:2010 and reference standard.

I confirm that the company-specific data has been examined as regards plausibility and consistency; the declaration owner is responsible for its factual integrity and legal compliance.

I confirm that I have sufficient knowledge and experience of construction products, this specific product category, the construction industry, relevant standards, and the geographical area of the EPD to carry out this verification.

I confirm my independence in my role as verifier; I have not been involved in the execution of the LCA or in the development of the declaration and have no conflicts of interest regarding this verification.

Elma Avdyli, as an authorized verifier acting for EPD Hub Limited
06.04.2023

VERIFIED ISO 14025

ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025 / ISO 21930

Fast Trak Bracket - 1070mm (FTB-1070)

EPD HUB, HUB-0371
Publishing date 06 April 2023, last updated date 06 April 2023, valid until 06 April 2028

Created with One Click LCA

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Gripple Ltd
Address	Norfolk Bridge Works, 11 Leveson Street, Sheffield, S4 7ER
Contact details	info@gripple.com
Website	www.gripple.com

EPD STANDARDS, SCOPE, AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804+A2:2019 and ISO 14025
PCR	EPD Hub Core PCR version 1.0, 1 Feb 2022
Sector	Construction product
Category of EPD	Sister EPD (Parent EPD: HUB-0375)
Scope of the EPD	Cradle to gate with modules C1-C4, D
EPD author	Natasha Lyth Gripple Ltd
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal certification ☑ External verification
EPD verifier	E.A as an authorized verifier acting for EPD Hub Limited

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	Fast Trak Bracket - 1070mm (FTB-1070)
Additional labels	
Product reference	FTB-1070
Place of production	Sheffield, UK
Period for data	March 2021 - March 2022
Averaging in EPD	No averaging
Variation in GWP-fossil for A1-A3	Not applicable

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 unit of FTB-1070
Declared unit mass	1.9586 kg
GWP-fossil, A1-A3 (kgCO2e)	9,27E0
GWP-total, A1-A3 (kgCO2e)	4,69E0
Secondary material, inputs (%)	75.8
Secondary material, outputs (%)	95.1
Total energy use, A1-A3 (kWh)	41.0
Total water use, A1-A3 (m3e)	0.135

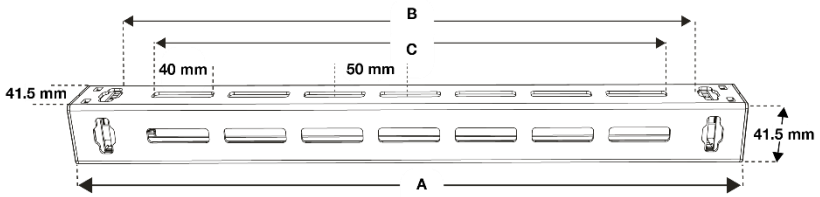
PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Gripple manufactures innovative solutions for the construction, agricultural and infrastructure sectors. Our innovative product designs, provide customers with faster, safer, and more cost-effective solutions than traditional engineered methods.

PRODUCT DESCRIPTION

Fast Trak is a prefabricated, trapeze bracket, which enables efficient, flexible, and safe installation of electrical containment, ductwork, pipework, and other mechanical services.



Bracket	FTB-1070
A (mm) Length	1139
B (mm) Suspension Space	1076
C (mm) Working Space	1040
No. of Slots	21

Fast Trak is six times faster and safer to install than traditional suspension systems as the system removes the need to cut threaded rod on site. The bracket can simply be moved up and down the tracks to accommodate changes in position during installation.

It offers even more versality as the four-sided bracket provides suspension point on every face: ideal for installation of combined bracketry and multi-tiered configuration to accommodate additional services. Each bracket also has indicators at each end as a measurement guide when marking fixing points on the ceiling; M4 level markers on the tracks highlight 50 mm increments, so no levelling tools are required. The tracks also can be bent neatly under the bracket – so zero product waste.

Fast Trak is independently fire tested to F120 which confirms that the entire system meets the fire performance standards associated with BS EN 1363-1:2012.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass- %	Material origin
Metals	98	EU / Asia
Minerals	-	-
Fossil materials	2	Turkey
Bio-based materials	-	-

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0
Biogenic carbon content in packaging, kg C	1.333

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 unit of FTB-1070
Mass per declared unit	1.9586 kg
Functional unit	
Reference service life	

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	MND	MND	MND	MND	MND	MND	MND	x	x	x	x	x		
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling

Modules not declared = MND. Modules not relevant = MNR.

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 facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

The main process used within the manufacturing of the Fast Trak Bracket is Roll Forming. Strip metal is passed through our Roll Form Bearer machine forming and pressing it into the designed state. The process is highly efficient and allows for large volumes to be produced. Fast Trak components for the final assembly are also produced in house. The latch and brace components are manufactured on a press machine, where strip metal is formed and pressed into the designed state.

The Cartridge is moulded at our in-house mould shop which is located less than 3km from the final point of assembly. The only component sourced from a third-party UK supplier is the spring.

Any waste steel produced is sold for recycling. Production losses for all materials used in manufacturing is considered within this EPD. For Fast Trak packaging we used cardboard endcaps and plastic clips. A wooden pallet is used as a packaging material for transporting the product from the factory gate.

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts 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 distance is defined according to the PCR. The transportation distance site is an average distance from production site to building site. This assumed average is 1,173.6km this distance reflects that Fast Trak Brackets are supplied internationally from the UK. Transportation does not cause losses as the product is packaged appropriately. Shipping is done by a third party; empty returns are not considered as it is assumed that the return trip is used by the transportation company to serve the needs of other clients. The design and nature of a Fast Trak Bracket means there are no A5 installation impacts when installed using a Fast Trak Track.

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)

Demolition is assumed to consume 0,01 kWh/kg of product (O. Bozdag and M. Secer, 2007). The source of energy is diesel fuel used by construction machines (C1). It is assumed that 100% of the waste is collected and transported to the waste treatment centre. Transportation distance to treatment is assumed as 50 km and the transportation method is assumed to be lorry (C2). Approximately 95% of steel is assumed to be recycled based on World Steel Association, 2020 (C3). It is assumed that the remaining 5 % of steel is taken to landfill for final disposal (C4). Due to the recycling process, the end-of-life product is converted into recycled steel, the ABS engine is converted into recycled ABS material, while the wooden pallet is incinerated for energy recovery (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.

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 materials	Allocated by mass or volume
Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

AVERAGES AND VARIABILITY

Type of average	No averaging
Averaging method	Not applicable
Variation in GWP-fossil for A1-A3	Not applicable

There is no average result considered in this study since this EPD refers to one specific product produced in one production plant.

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. Ecoinvent and One Click LCA databases were used as sources of environmental data.

ENVIRONMENTAL IMPACT DATA

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total[1)]	kg CO_2e	8,43E0	2,55E-1	-4E0	4,69E0	1,22E0	5,01E0	MND	MND	MND	MND	MND	MND	MND	9,89E-3	8,91E-3	5,26E-2	5,07E-4	0E0
GWP – fossil	kg CO_2e	8,13E0	2,55E-1	8,84E-1	9,27E0	1,25E0	5,17E-2	MND	MND	MND	MND	MND	MND	MND	9,89E-3	8,9E-3	5,45E-2	5,05E-4	-3,52E0
GWP – biogenic	kg CO_2e	2,92E-1	-5,2E-6	-4,89E0	-4,59E0	-4,89E0	4,95E0	MND	MND	MND	MND	MND	MND	MND	2,75E-6	6,46E-6	-2,02E-3	1E-6	6,82E-2
GWP – LULUC	kg CO_2e	7,95E-3	1,49E-4	4,83E-3	1,29E-2	2,8E-3	6,58E-5	MND	MND	MND	MND	MND	MND	MND	8,36E-7	2,68E-6	5,99E-5	1,5E-7	-4,4E-4
Ozone depletion pot.	kg CFC_{-11}e	6,51E-7	5,34E-8	1,03E-7	8,07E-7	2,06E-7	7,77E-9	MND	MND	MND	MND	MND	MND	MND	2,14E-9	2,09E-9	7,42E-9	2,08E-10	-1,12E-7
Acidification potential	mol H^+e	8,76E-2	6,22E-3	4,81E-3	9,86E-2	6,59E-3	2,52E-4	MND	MND	MND	MND	MND	MND	MND	1,03E-4	3,74E-5	5,88E-4	4,8E-6	-1,73E-2
EP-freshwater[2)]	kg Pe	5,04E-4	1,45E-6	4,37E-5	5,49E-4	4,45E-5	2,91E-6	MND	MND	MND	MND	MND	MND	MND	4E-8	7,24E-8	3,33E-6	6,11E-9	-2,09E-4
EP-marine	kg Ne	9,83E-3	1,55E-3	1,25E-3	1,26E-2	1,83E-3	7,07E-5	MND	MND	MND	MND	MND	MND	MND	4,57E-5	1,13E-5	1,33E-4	1,65E-6	-3,34E-3
EP-terrestrial	mol Ne	2,97E-1	1,72E-2	1,41E-2	3,28E-1	2,05E-2	6,03E-4	MND	MND	MND	MND	MND	MND	MND	5,01E-4	1,24E-4	1,52E-3	1,82E-5	-3,8E-2
POCP ("smog")[3)]	kg NMVOCe	3,27E-2	4,51E-3	5,62E-3	4,28E-2	7,69E-3	1,87E-4	MND	MND	MND	MND	MND	MND	MND	1,38E-4	4E-5	4,23E-4	5,29E-6	-1,81E-2
ADP-minerals & metals[4)]	kg Sbe	7,62E-3	2,85E-6	1,35E-5	7,64E-3	2,17E-5	5,13E-7	MND	MND	MND	MND	MND	MND	MND	1,51E-8	1,52E-7	2,66E-6	4,62E-9	-6,16E-5
ADP-fossil resources	MJ	1,07E2	3,45E0	1,59E1	1,26E2	2,1E1	8,97E-1	MND	MND	MND	MND	MND	MND	MND	1,36E-1	1,38E-1	7,56E-1	1,41E-2	-3,11E1
Water use[5)]	m^3e depr.	3,72E0	9,23E-3	2,47E-1	3,98E0	2,66E-1	8,7E-3	MND	MND	MND	MND	MND	MND	MND	2,54E-4	5,15E-4	1,17E-2	6,53E-4	-1,69E0

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[8)]	MJ	1,07E1	3,03E-2	1,24E1	2,31E1	1,22E1	9,3E-2	MND	MND	MND	MND	MND	MND	MND	7,36E-4	1,74E-3	1,04E-1	1,14E-4	-3,21E0
Renew. PER as material	MJ	0E0	0E0	4,7E1	4,7E1	4,7E1	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	-2,6E-1
Total use of renew. PER	MJ	1,07E1	3,03E-2	5,94E1	7,01E1	5,92E1	9,3E-2	MND	MND	MND	MND	MND	MND	MND	7,36E-4	1,74E-3	1,04E-1	1,14E-4	-3,47E0
Non-re. PER as energy	MJ	1,05E2	3,45E0	1,58E1	1,24E2	2,1E1	8,97E-1	MND	MND	MND	MND	MND	MND	MND	1,36E-1	1,38E-1	7,56E-1	1,41E-2	-2,93E1
Non-re. PER as material	MJ	1,5E0	0E0	1E-1	1,6E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	-1,82E0
Total use of non-re. PER	MJ	1,07E2	3,45E0	1,59E1	1,26E2	2,1E1	8,97E-1	MND	MND	MND	MND	MND	MND	MND	1,36E-1	1,38E-1	7,56E-1	1,41E-2	-3,11E1
Secondary materials	kg	1,49E0	0E0	1,6E-4	1,49E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	1,45E0
Renew. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Non-ren. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Use of net fresh water	m^3	1,31E-1	4,52E-4	4,22E-3	0.135	5,53E-3	2,74E-4	MND	MND	MND	MND	MND	MND	MND	1,2E-5	2,88E-5	2,87E-4	1,55E-5	-2,4E-2

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	1,93E0	3,91E-3	5,62E-2	1,99E0	5,73E-2	2,58E-3	MND	MND	MND	MND	MND	MND	MND	1,46E-4	1,35E-4	0E0	1,32E-5	-1,33E0
Non-hazardous waste	kg	2,44E1	1,51E-1	1,34E0	2,59E1	2,11E0	1,94E-1	MND	MND	MND	MND	MND	MND	MND	1,57E-3	1,49E-2	0E0	9,6E-2	-1,13E1
Radioactive waste	kg	3,57E-4	2,4E-5	4,97E-5	4,31E-4	9,6E-5	5,92E-6	MND	MND	MND	MND	MND	MND	MND	9,53E-7	9,5E-7	0E0	9,35E-8	-8,28E-6

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	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Materials for recycling	kg	0E0	0E0	3,48E-1	3,48E-1	0E0	6,82E-2	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	1,86E0	0E0	0E0
Materials for energy rec	kg	0E0	0E0	0E0	0E0	0E0	4,32E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Exported energy	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0

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_2e	7,94E0	2,53E-1	8,6E-1	9,06E0	1,22E0	6,92E-2	MND	MND	MND	MND	MND	MND	MND	9,82E-3	8,82E-3	5,37E-2	4,96E-4	-3,36E0
Ozone depletion Pot.	kg $CFC_{-11}e$	6,02E-7	4,24E-8	8,65E-8	7,31E-7	1,68E-7	7,02E-9	MND	MND	MND	MND	MND	MND	MND	1,69E-9	1,66E-9	6,26E-9	1,65E-10	-9,81E-8
Acidification	kg SO_2e	4,08E-2	4,89E-3	3,5E-3	4,92E-2	4,21E-3	1,84E-4	MND	MND	MND	MND	MND	MND	MND	1,46E-5	1,81E-5	3,74E-4	2E-6	-1,43E-2
Eutrophication	kg PO_4^3e	2,02E-2	5,6E-4	1,28E-3	2,21E-2	1,37E-3	1,88E-4	MND	MND	MND	MND	MND	MND	MND	2,57E-6	3,66E-6	2E-4	3,87E-7	-9,56E-3
POCP (“smog”)	kg C_2H_4e	3,25E-3	1,33E-4	3,46E-4	3,73E-3	3,93E-4	1,47E-5	MND	MND	MND	MND	MND	MND	MND	1,5E-6	1,15E-6	1,89E-5	1,47E-7	-2,3E-3
ADP-elements	kg Sbe	7,62E-3	2,85E-6	1,35E-5	7,64E-3	2,17E-5	5,13E-7	MND	MND	MND	MND	MND	MND	MND	1,51E-8	1,52E-7	2,66E-6	4,62E-9	-6,16E-5
ADP-fossil	MJ	1,07E2	3,45E0	1,59E1	1,26E2	2,1E1	8,97E-1	MND	MND	MND	MND	MND	MND	MND	1,36E-1	1,38E-1	7,56E-1	1,41E-2	-3,11E1

VERIFICATION STATEMENT

VERIFICATION PROCESS FOR THIS EPD

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- The Life-Cycle Assessment used in this EPD
- The digital background data for this EPD

Why does verification transparency matter? Read more online
This EPD has been generated by One Click LCA EPD generator, which has been verified and approved by the EPD Hub.

THIRD-PARTY VERIFICATION STATEMENT

I hereby confirm that, following detailed examination, I have not established any relevant deviations by the studied Environmental Product Declaration (EPD), its LCA and project report, in terms of the data collected and used in the LCA calculations, the way the LCA-based calculations have been carried out, the presentation of environmental data in the EPD, and other additional environmental information, as present with respect to the procedural and methodological requirements in ISO 14025:2010 and reference standard.

I confirm that the company-specific data has been examined as regards plausibility and consistency; the declaration owner is responsible for its factual integrity and legal compliance.

I confirm that I have sufficient knowledge and experience of construction products, this specific product category, the construction industry, relevant standards, and the geographical area of the EPD to carry out this verification.

I confirm my independence in my role as verifier; I have not been involved in the execution of the LCA or in the development of the declaration and have no conflicts of interest regarding this verification.

Elma Avdyli, as an authorized verifier acting for EPD Hub Limited
06.04.2023

VERIFIED ISO 14025

ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025 / ISO 21930

Fast Trak Bracket - 1170mm (FTB-1170)

EPD HUB, HUB-0372
Publishing date 06 April 2023, last updated date 06 April 2023, valid until 06 April 2028

Created with One Click LCA

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Gripple Ltd
Address	Norfolk Bridge Works, 11 Leveson Street, Sheffield, S4 7ER
Contact details	info@gripple.com
Website	www.gripple.com

EPD STANDARDS, SCOPE, AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804+A2:2019 and ISO 14025
PCR	EPD Hub Core PCR version 1.0, 1 Feb 2022
Sector	Construction product
Category of EPD	Sister EPD (Parent EPD: HUB-0375)
Scope of the EPD	Cradle to gate with modules C1-C4, D
EPD author	Natasha Lyth Gripple Ltd
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal certification ☑ External verification
EPD verifier	E.A as an authorized verifier acting for EPD Hub Limited

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 nt compared in a building context.

PRODUCT

Product name	Fast Trak Bracket - 1170mm (FTB-1170)
Additional labels	
Product reference	FTB-1170
Place of production	Sheffield, UK
Period for data	March 2021 - March 2022
Averaging in EPD	No averaging
Variation in GWP-fossil for A1-A3	Not applicable

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 unit of FTB-1170
Declared unit mass	2.1356 kg
GWP-fossil, A1-A3 (kgCO2e)	1E1
GWP-total, A1-A3 (kgCO2e)	5,47E0
Secondary material, inputs (%)	75.9
Secondary material, outputs (%)	95.1
Total energy use, A1-A3 (kWh)	43.9
Total water use, A1-A3 (m3e)	0.147

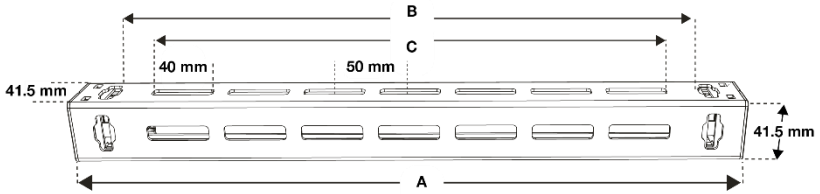
PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Gripple manufactures innovative solutions for the construction, agricultural and infrastructure sectors. Our innovative product designs, provide customers with faster, safer, and more cost-effective solutions than traditional engineered methods.

PRODUCT DESCRIPTION

Fast Trak is a prefabricated, trapeze bracket, which enables efficient, flexible, and safe installation of electrical containment, ductwork, pipework and other mechanical services.



Bracket	FTB-1170
A (mm) Length	1239
B (mm) Suspension Space	1176
C (mm) Working Space	1140
No. of Slots	23

Fast Trak is six times faster and safer to install than traditional suspension systems as the system removes the need to cut threaded rod on site. The bracket can simply be moved up and down the tracks to accommodate changes in position during installation.

It offers even more versality as the four-sided bracket provides suspension point on every face: ideal for installation of combined bracketry and multi-tiered configuration to accommodate additional services. Each bracket also has indicators at each end as a measurement guide when marking fixing points on the ceiling; M4 level markers on the tracks highlight 50 mm increments, so no levelling tools are required. The tracks also can be bent neatly under the bracket – so zero product waste.

Fast Trak is independently fire tested to F120 which confirms that the entire system meets the fire performance standards associated with BS EN 1363-1:2012.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass- %	Material origin
Metals	98	EU / Asia
Minerals	-	-
Fossil materials	2	Turkey
Bio-based materials	-	-

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0
Biogenic carbon content in packaging, kg C	1.333

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 unit of FTB-1170
Mass per declared unit	2.1356 kg
Functional unit	-
Reference service life	-

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	MND	MND	MND	MND	MND	MND	MND	x	x	x	x	x		
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling

Modules not declared = MND. Modules not relevant = MNR.

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 facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

The main process used within the manufacturing of the Fast Trak Bracket is Roll Forming. Strip metal is passed through our Roll Form Bearer machine forming and pressing it into the designed state. The process is highly efficient and allows for large volumes to be produced. Fast Trak components for the final assembly are also produced in house. The latch and brace components are manufactured on a press machine, where strip metal is formed and pressed into the designed state.

The Cartridge is moulded at our in-house mould shop which is located less than 3km from the final point of assembly. The only component sourced from a third-party UK supplier is the spring.

Any waste steel produced is sold for recycling. Production losses for all materials used in manufacturing is considered within this EPD. For Fast Trak packaging we used cardboard endcaps and plastic clips. A wooden pallet is used as a packaging material for transporting the product from the factory gate.

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts 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 distance is defined according to the PCR. The transportation distance site is an average distance from production site to building site. This assumed average is 1,173.6km this distance reflects that Fast Trak Brackets are supplied internationally from the UK. Transportation does not cause losses as the product is packaged appropriately. Shipping is done by a third party; empty returns are not considered as it is assumed that the return trip is used by the transportation company to serve the needs of other clients. The design and nature of a Fast Trak Bracket means there are no A5 installation impacts when installed using a Fast Trak Track.

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)

Demolition is assumed to consume 0,01 kWh/kg of product (O. Bozdag and M. Secer, 2007). The source of energy is diesel fuel used by construction machines (C1). It is assumed that 100% of the waste is collected and transported to the waste treatment centre. Transportation distance to treatment is assumed as 50 km and the transportation method is assumed to be lorry (C2). Approximately 95% of steel is assumed to be recycled based on World Steel Association, 2020 (C3). It is assumed that the remaining 5 % of steel is taken to landfill for final disposal (C4). Due to the recycling process, the end-of-life product is converted into recycled steel, the ABS engine is converted into recycled ABS material, while the wooden pallet is incinerated for energy recovery (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.

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 materials	Allocated by mass or volume
Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

AVERAGES AND VARIABILITY

Type of average	No averaging
Averaging method	Not applicable
Variation in GWP-fossil for A1-A3	Not applicable

There is no average result considered in this study since this EPD refers to one specific product produced in one production plant.

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. Ecoinvent and One Click LCA databases were used as sources of environmental data.

ENVIRONMENTAL IMPACT DATA

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total[1)]	kg CO_2e	9,19E0	2,76E-1	-3,99E0	5,47E0	1,23E0	5,01E0	MND	MND	MND	MND	MND	MND	MND	9,89E-3	9,71E-3	5,65E-2	5,54E-4	0E0
GWP – fossil	kg CO_2e	8,86E0	2,76E-1	8,88E-1	1E1	1,25E0	5,17E-2	MND	MND	MND	MND	MND	MND	MND	9,89E-3	9,7E-3	5,87E-2	5,53E-4	-5,15E0
GWP – biogenic	kg CO_2e	3,19E-1	-5,91E-6	-4,89E0	-4,57E0	-4,89E0	4,95E0	MND	MND	MND	MND	MND	MND	MND	2,75E-6	7,05E-6	-2,26E-3	1,1E-6	3,61E0
GWP – LULUC	kg CO_2e	8,67E-3	1,61E-4	4,86E-3	1,37E-2	2,81E-3	6,58E-5	MND	MND	MND	MND	MND	MND	MND	8,36E-7	2,92E-6	6,47E-5	1,64E-7	-2,76E-3
Ozone depletion pot.	kg $CFC_{-11}e$	7,1E-7	5,79E-8	1,04E-7	8,72E-7	2,07E-7	7,77E-9	MND	MND	MND	MND	MND	MND	MND	2,14E-9	2,28E-9	8,02E-9	2,28E-10	-2,08E-7
Acidification potential	mol H^+e	9,54E-2	6,76E-3	4,77E-3	1,07E-1	6,61E-3	2,52E-4	MND	MND	MND	MND	MND	MND	MND	1,03E-4	4,08E-5	6,39E-4	5,25E-6	-2,88E-2
EP-freshwater[2)]	kg Pe	5,49E-4	1,57E-6	4,34E-5	5,94E-4	4,46E-5	2,91E-6	MND	MND	MND	MND	MND	MND	MND	4E-8	7,89E-8	3,61E-6	6,68E-9	-2,91E-4
EP-marine	kg Ne	1,07E-2	1,68E-3	1,24E-3	1,36E-2	1,84E-3	7,07E-5	MND	MND	MND	MND	MND	MND	MND	4,57E-5	1,23E-5	1,44E-4	1,81E-6	-4,7E-3
EP-terrestrial	mol Ne	3,23E-1	1,87E-2	1,4E-2	3,56E-1	2,06E-2	6,03E-4	MND	MND	MND	MND	MND	MND	MND	5,01E-4	1,36E-4	1,65E-3	1,99E-5	-5,4E-2
POCP ("smog")[3)]	kg NMVOCe	3,56E-2	4,9E-3	5,6E-3	4,61E-2	7,72E-3	1,87E-4	MND	MND	MND	MND	MND	MND	MND	1,38E-4	4,36E-5	4,58E-4	5,78E-6	-2,34E-2
ADP-minerals & metals[4)]	kg Sbe	8,31E-3	3,06E-6	1,32E-5	8,33E-3	2,17E-5	5,13E-7	MND	MND	MND	MND	MND	MND	MND	1,51E-8	1,66E-7	2,89E-6	5,05E-9	-6,98E-5
ADP-fossil resources	MJ	1,16E2	3,74E0	1,6E1	1,36E2	2,11E1	8,97E-1	MND	MND	MND	MND	MND	MND	MND	1,36E-1	1,51E-1	8,14E-1	1,55E-2	-5,01E1
Water use[5)]	m^3e depr.	4,05E0	9,97E-3	2,46E-1	4,31E0	2,66E-1	8,7E-3	MND	MND	MND	MND	MND	MND	MND	2,54E-4	5,62E-4	1,25E-2	7,15E-4	-2,02E0

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[8)]	MJ	1,17E1	3,27E-2	1,23E1	2,4E1	1,22E1	9,3E-2	MND	MND	MND	MND	MND	MND	MND	7,36E-4	1,9E-3	1,13E-1	1,25E-4	-8,47E0
Renew. PER as material	MJ	0E0	0E0	4,7E1	4,7E1	4,7E1	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	-2,6E-1
Total use of renew. PER	MJ	1,17E1	3,27E-2	5,93E1	7,1E1	5,92E1	9,3E-2	MND	MND	MND	MND	MND	MND	MND	7,36E-4	1,9E-3	1,13E-1	1,25E-4	-8,72E0
Non-re. PER as energy	MJ	1,15E2	3,74E0	1,59E1	1,34E2	2,11E1	8,97E-1	MND	MND	MND	MND	MND	MND	MND	1,36E-1	1,51E-1	8,14E-1	1,55E-2	-4,83E1
Non-re. PER as material	MJ	1,5E0	0E0	1E-1	1,6E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	-1,82E0
Total use of non-re. PER	MJ	1,16E2	3,74E0	1,6E1	1,36E2	2,11E1	8,97E-1	MND	MND	MND	MND	MND	MND	MND	1,36E-1	1,51E-1	8,14E-1	1,55E-2	-5,01E1
Secondary materials	kg	1,62E0	0E0	1,63E-4	1,62E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	1,57E0
Renew. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Non-ren. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Use of net fresh water	m^3	1,43E-1	4,88E-4	4,2E-3	0.147	5,55E-3	2,74E-4	MND	MND	MND	MND	MND	MND	MND	1,2E-5	3,14E-5	3,11E-4	1,69E-5	-2,91E-2

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	2,1E0	4,23E-3	5,59E-2	2,16E0	5,74E-2	2,58E-3	MND	MND	MND	MND	MND	MND	MND	1,46E-4	1,47E-4	0E0	1,44E-5	-1,56E0
Non-hazardous waste	kg	2,66E1	1,63E-1	1,32E0	2,81E1	2,12E0	1,94E-1	MND	MND	MND	MND	MND	MND	MND	1,57E-3	1,62E-2	0E0	1,05E-1	-1,22E1
Radioactive waste	kg	3,89E-4	2,6E-5	4,97E-5	4,65E-4	9,65E-5	5,92E-6	MND	MND	MND	MND	MND	MND	MND	9,53E-7	1,04E-6	0E0	1,02E-7	-9,53E-5

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	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Materials for recycling	kg	0E0	0E0	1,54E-1	1,54E-1	0E0	6,82E-2	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	2,03E0	0E0	0E0
Materials for energy rec	kg	0E0	0E0	0E0	0E0	0E0	4,32E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Exported energy	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0

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_2e	8,65E0	2,74E-1	8,64E-1	9,79E0	1,23E0	6,92E-2	MND	MND	MND	MND	MND	MND	MND	9,82E-3	9,62E-3	5,78E-2	5,43E-4	-4,94E0
Ozone depletion Pot.	kg $CFC_{-11}e$	6,56E-7	4,59E-8	8,71E-8	7,89E-7	1,68E-7	7,02E-9	MND	MND	MND	MND	MND	MND	MND	1,69E-9	1,81E-9	6,77E-9	1,8E-10	-1,91E-7
Acidification	kg SO_2e	4,45E-2	5,31E-3	3,47E-3	5,33E-2	4,22E-3	1,84E-4	MND	MND	MND	MND	MND	MND	MND	1,46E-5	1,97E-5	4,05E-4	2,19E-6	-2,43E-2
Eutrophication	kg PO_4^3e	2,21E-2	6,08E-4	1,27E-3	2,39E-2	1,37E-3	1,88E-4	MND	MND	MND	MND	MND	MND	MND	2,57E-6	3,99E-6	2,13E-4	4,23E-7	-1,21E-2
POCP (“smog”)	kg C_2H_4e	3,54E-3	1,44E-4	3,45E-4	4,03E-3	3,94E-4	1,47E-5	MND	MND	MND	MND	MND	MND	MND	1,5E-6	1,25E-6	2,04E-5	1,6E-7	-2,9E-3
ADP-elements	kg Sbe	8,31E-3	3,06E-6	1,32E-5	8,33E-3	2,17E-5	5,13E-7	MND	MND	MND	MND	MND	MND	MND	1,51E-8	1,66E-7	2,89E-6	5,05E-9	-6,98E-5
ADP-fossil	MJ	1,16E2	3,74E0	1,6E1	1,36E2	2,11E1	8,97E-1	MND	MND	MND	MND	MND	MND	MND	1,36E-1	1,51E-1	8,14E-1	1,55E-2	-5,01E1

VERIFICATION STATEMENT

VERIFICATION PROCESS FOR THIS EPD

This EPD has been verified in accordance with ISO 14025 by an independent, third-party verifier by reviewing results, documents and compliancy with reference standard, ISO 14025 and ISO 14040/14044, following the process and checklists of the program operator for:

- This Environmental Product Declaration
- The Life-Cycle Assessment used in this EPD
- The digital background data for this EPD

Why does verification transparency matter? Read more online
This EPD has been generated by One Click LCA EPD generator, which has been verified and approved by the EPD Hub.

THIRD-PARTY VERIFICATION STATEMENT

I hereby confirm that, following detailed examination, I have not established any relevant deviations by the studied Environmental Product Declaration (EPD), its LCA and project report, in terms of the data collected and used in the LCA calculations, the way the LCA-based calculations have been carried out, the presentation of environmental data in the EPD, and other additional environmental information, as present with respect to the procedural and methodological requirements in ISO 14025:2010 and reference standard.

I confirm that the company-specific data has been examined as regards plausibility and consistency; the declaration owner is responsible for its factual integrity and legal compliance.

I confirm that I have sufficient knowledge and experience of construction products, this specific product category, the construction industry, relevant standards, and the geographical area of the EPD to carry out this verification.

I confirm my independence in my role as verifier; I have not been involved in the execution of the LCA or in the development of the declaration and have no conflicts of interest regarding this verification.

Elma Avdyli, as an authorized verifier acting for EPD Hub Limited
06.04.2023

VERIFIED ISO 14025

ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025 / ISO 21930

Fast Trak Bracket - 1270mm (FTB-1270)

EPD HUB, HUB-0373
Publishing date 06 April 2023, last updated date 06 April 2023, valid until 06 April 2028

Created with One Click LCA

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Gripple Ltd
Address	Norfolk Bridge Works, 11 Leveson Street, Sheffield, S4 7ER
Contact details	info@gripple.com
Website	www.gripple.com

EPD STANDARDS, SCOPE, AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804+A2:2019 and ISO 14025
PCR	EPD Hub Core PCR version 1.0, 1 Feb 2022
Sector	Construction product
Category of EPD	Sister EPD (Parent EPD: HUB-0375)
Scope of the EPD	Cradle to gate with modules C1-C4, D
EPD author	Natasha Lyth Gripple Ltd
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal certification ☑ External verification
EPD verifier	E.A as an authorized verifier acting for EPD Hub Limited

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	Fast Trak Bracket - 1270mm (FTB-1270)
Additional labels	
Product reference	FTB-1270
Place of production	Sheffield, UK
Period for data	March 2021 - March 2022
Averaging in EPD	No averaging
Variation in GWP-fossil for A1-A3	Not applicable

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 unit of FTB-1270
Declared unit mass	2.3176 kg
GWP-fossil, A1-A3 (kgCO2e)	1,08E1
GWP-total, A1-A3 (kgCO2e)	6,28E0
Secondary material, inputs (%)	76.0
Secondary material, outputs (%)	95.0
Total energy use, A1-A3 (kWh)	47.1
Total water use, A1-A3 (m3e)	0.16

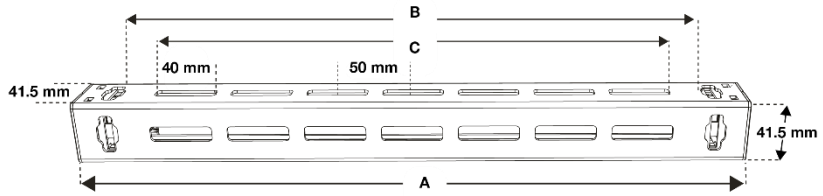
PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Gripple manufactures innovative solutions for the construction, agricultural and infrastructure sectors. Our innovative product designs, provide customers with faster, safer, and more cost-effective solutions than traditional engineered methods.

PRODUCT DESCRIPTION

Fast Trak is a prefabricated, trapeze bracket, which enables efficient, flexible, and safe installation of electrical containment, ductwork, pipework, and other mechanical services.



Bracket	FTB-1270
A (mm) Length	1339
B (mm) Suspension Space	1276
C (mm) Working Space	1240
No. of Slots	25

Fast Trak is six times faster and safer to install than traditional suspension systems as the system removes the need to cut threaded rod on site. The bracket can simply be moved up and down the tracks to accommodate changes in position during installation.

It offers even more versality as the four-sided bracket provides suspension point on every face: ideal for installation of combined bracketry and multi-tiered configuration to accommodate additional services. Each bracket also has indicators at each end as a measurement guide when marking fixing points on the ceiling; M4 level markers on the tracks highlight 50 mm increments, so no levelling tools are required. The tracks also can be bent neatly under the bracket – so zero product waste.

Fast Trak is independently fire tested to F120 which confirms that the entire system meets the fire performance standards associated with BS EN 1363-1:2012.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass- %	Material origin
Metals	98	EU / Asia
Minerals	-	-
Fossil materials	2	Turkey
Bio-based materials	-	-

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0
Biogenic carbon content in packaging, kg C	1.333

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 unit of FTB-1270
Mass per declared unit	2.3176 kg
Functional unit	-
Reference service life	-

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	MND	MND	MND	MND	MND	MND	MND	x	x	x	x	x		
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling

Modules not declared = MND. Modules not relevant = MNR.

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 facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

The main process used within the manufacturing of the Fast Trak Bracket is Roll Forming. Strip metal is passed through our Roll Form Bearer machine forming and pressing it into the designed state. The process is highly efficient and allows for large volumes to be produced. Fast Trak components for the final assembly are also produced in house. The latch and brace components are manufactured on a press machine, where strip metal is formed and pressed into the designed state.

The Cartridge is moulded at our in-house mould shop which is located less than 3km from the final point of assembly. The only component sourced from a third-party UK supplier is the spring.

Any waste steel produced is sold for recycling. Production losses for all materials used in manufacturing is considered within this EPD. For Fast Trak packaging we used cardboard endcaps and plastic clips. A wooden pallet is used as a packaging material for transporting the product from the factory gate.

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts 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 distance is defined according to the PCR. The transportation distance site is an average distance from production site to building site. This assumed average is 1,173.6km this distance reflects that Fast Trak Brackets are supplied internationally from the UK. Transportation does not cause losses as the product is packaged appropriately. Shipping is done by a third party; empty returns are not considered as it is assumed that the return trip is used by the transportation company to serve the needs of other clients. The design and nature of a Fast Trak Bracket means there are no A5 installation impacts when installed using a Fast Trak Track.

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)

Demolition is assumed to consume 0,01 kWh/kg of product (O. Bozdag and M. Secer, 2007). The source of energy is diesel fuel used by construction machines (C1). It is assumed that 100% of the waste is collected and transported to the waste treatment centre. Transportation distance to treatment is assumed as 50 km and the transportation method is assumed to be lorry (C2). Approximately 95% of steel is assumed to be recycled based on World Steel Association, 2020 (C3). It is assumed that the remaining 5 % of steel is taken to landfill for final disposal (C4). Due to the recycling process, the end-of-life product is converted into recycled steel, the ABS engine is converted into recycled ABS material, while the wooden pallet is incinerated for energy recovery (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.

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 materials	Allocated by mass or volume
Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

AVERAGES AND VARIABILITY

Type of average	No averaging
Averaging method	Not applicable
Variation in GWP-fossil for A1-A3	Not applicable

There is no average result considered in this study since this EPD refers to one specific product produced in one production plant.

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. Ecoinvent and One Click LCA databases were used as sources of environmental data.

ENVIRONMENTAL IMPACT DATA

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total[1)]	kg CO_2e	9,96E0	2,98E-1	-3,98E0	6,28E0	1,26E0	5,01E0	MND	MND	MND	MND	MND	MND	MND	9,89E-3	1,05E-2	6,05E-2	6,02E-4	0E0
GWP – fossil	kg CO_2e	9,61E0	2,98E-1	9,03E-1	1,08E1	1,29E0	5,17E-2	MND	MND	MND	MND	MND	MND	MND	9,89E-3	1,05E-2	6,29E-2	6E-4	-5,54E0
GWP – biogenic	kg CO_2e	3,47E-1	-6,65E-6	-4,89E0	-4,54E0	-4,89E0	4,95E0	MND	MND	MND	MND	MND	MND	MND	2,75E-6	7,65E-6	-2,5E-3	1,19E-6	3,61E0
GWP – LULUC	kg CO_2e	9,42E-3	1,74E-4	4,91E-3	1,45E-2	2,81E-3	6,58E-5	MND	MND	MND	MND	MND	MND	MND	8,36E-7	3,17E-6	6,95E-5	1,78E-7	-2,84E-3
Ozone depletion pot.	kg CFC_{-11}e	7,71E-7	6,25E-8	1,06E-7	9,4E-7	2,15E-7	7,77E-9	MND	MND	MND	MND	MND	MND	MND	2,14E-9	2,48E-9	8,63E-9	2,47E-10	-2,21E-7
Acidification potential	mol H^+e	1,04E-1	7,3E-3	4,86E-3	1,16E-1	6,74E-3	2,52E-4	MND	MND	MND	MND	MND	MND	MND	1,03E-4	4,42E-5	6,9E-4	5,7E-6	-3,07E-2
EP-freshwater[2)]	kg Pe	5,96E-4	1,69E-6	4,39E-5	6,42E-4	4,48E-5	2,91E-6	MND	MND	MND	MND	MND	MND	MND	4E-8	8,57E-8	3,91E-6	7,25E-9	-3,14E-4
EP-marine	kg Ne	1,16E-2	1,81E-3	1,26E-3	1,47E-2	1,88E-3	7,07E-5	MND	MND	MND	MND	MND	MND	MND	4,57E-5	1,33E-5	1,55E-4	1,96E-6	-5,07E-3
EP-terrestrial	mol Ne	3,52E-1	2,02E-2	1,42E-2	3,86E-1	2,1E-2	6,03E-4	MND	MND	MND	MND	MND	MND	MND	5,01E-4	1,47E-4	1,78E-3	2,16E-5	-5,83E-2
POCP ("smog")[3)]	kg NMVOCe	3,87E-2	5,3E-3	5,66E-3	4,96E-2	7,85E-3	1,87E-4	MND	MND	MND	MND	MND	MND	MND	1,38E-4	4,73E-5	4,94E-4	6,28E-6	-2,54E-2
ADP-minerals & metals[4)]	kg Sbe	9,06E-3	3,28E-6	1,36E-5	9,08E-3	2,23E-5	5,13E-7	MND	MND	MND	MND	MND	MND	MND	1,51E-8	1,8E-7	3,12E-6	5,49E-9	-7,68E-5
ADP-fossil resources	MJ	1,26E2	4,04E0	1,62E1	1,46E2	2,16E1	8,97E-1	MND	MND	MND	MND	MND	MND	MND	1,36E-1	1,64E-1	8,72E-1	1,68E-2	-5,33E1
Water use[5)]	m^3e depr.	4,39E0	1,07E-2	2,47E-1	4,65E0	2,68E-1	8,7E-3	MND	MND	MND	MND	MND	MND	MND	2,54E-4	6,09E-4	1,33E-2	7,76E-4	-2,21E0

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[8)]	MJ	1,27E1	3,52E-2	1,24E1	2,51E1	1,22E1	9,3E-2	MND	MND	MND	MND	MND	MND	MND	7,36E-4	2,06E-3	1,22E-1	1,36E-4	-8,79E0
Renew. PER as material	MJ	0E0	0E0	4,7E1	4,7E1	4,7E1	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	-2,6E-1
Total use of renew. PER	MJ	1,27E1	3,52E-2	5,94E1	7,21E1	5,92E1	9,3E-2	MND	MND	MND	MND	MND	MND	MND	7,36E-4	2,06E-3	1,22E-1	1,36E-4	-9,05E0
Non-re. PER as energy	MJ	1,24E2	4,04E0	1,61E1	1,44E2	2,16E1	8,97E-1	MND	MND	MND	MND	MND	MND	MND	1,36E-1	1,64E-1	8,72E-1	1,68E-2	-5,15E1
Non-re. PER as material	MJ	1,5E0	0E0	1E-1	1,6E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	-1,82E0
Total use of non-re. PER	MJ	1,26E2	4,04E0	1,62E1	1,46E2	2,16E1	8,97E-1	MND	MND	MND	MND	MND	MND	MND	1,36E-1	1,64E-1	8,72E-1	1,68E-2	-5,33E1
Secondary materials	kg	1,76E0	0E0	1,66E-4	1,76E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	1,7E0
Renew. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Non-ren. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Use of net fresh water	m^3	1,55E-1	5,26E-4	4,25E-3	0.16	5,65E-3	2,74E-4	MND	MND	MND	MND	MND	MND	MND	1,2E-5	3,41E-5	3,35E-4	1,84E-5	-3,18E-2

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	2,28E0	4,55E-3	5,65E-2	2,34E0	5,79E-2	2,58E-3	MND	MND	MND	MND	MND	MND	MND	1,46E-4	1,59E-4	0E0	1,57E-5	-1,71E0
Non-hazardous waste	kg	2,89E1	1,76E-1	1,35E0	3,04E1	2,17E0	1,94E-1	MND	MND	MND	MND	MND	MND	MND	1,57E-3	1,76E-2	0E0	1,14E-1	-1,35E1
Radioactive waste	kg	4,23E-4	2,8E-5	5,06E-5	5,01E-4	9,97E-5	5,92E-6	MND	MND	MND	MND	MND	MND	MND	9,53E-7	1,12E-6	0E0	1,11E-7	-9,66E-5

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	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Materials for recycling	kg	0E0	0E0	4,09E-1	4,09E-1	0E0	6,82E-2	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	2,2E0	0E0	0E0
Materials for energy rec	kg	0E0	0E0	0E0	0E0	0E0	4,32E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Exported energy	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0

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_2e	9,39E0	2,96E-1	8,8E-1	1,06E1	1,26E0	6,92E-2	MND	MND	MND	MND	MND	MND	MND	9,82E-3	1,04E-2	6,19E-2	5,89E-4	-5,31E0
Ozone depletion Pot.	kg $CFC_{-11}e$	7,12E-7	4,95E-8	8,9E-8	8,51E-7	1,74E-7	7,02E-9	MND	MND	MND	MND	MND	MND	MND	1,69E-9	1,97E-9	7,29E-9	1,96E-10	-2,02E-7
Acidification	kg SO_2e	4,83E-2	5,74E-3	3,53E-3	5,76E-2	4,28E-3	1,84E-4	MND	MND	MND	MND	MND	MND	MND	1,46E-5	2,14E-5	4,37E-4	2,38E-6	-2,59E-2
Eutrophication	kg PO_4^3e	2,39E-2	6,56E-4	1,29E-3	2,59E-2	1,39E-3	1,88E-4	MND	MND	MND	MND	MND	MND	MND	2,57E-6	4,33E-6	2,26E-4	4,6E-7	-1,32E-2
POCP (“smog”)	kg C_2H_4e	3,84E-3	1,56E-4	3,48E-4	4,35E-3	3,98E-4	1,47E-5	MND	MND	MND	MND	MND	MND	MND	1,5E-6	1,36E-6	2,19E-5	1,74E-7	-3,16E-3
ADP-elements	kg Sbe	9,06E-3	3,28E-6	1,36E-5	9,08E-3	2,23E-5	5,13E-7	MND	MND	MND	MND	MND	MND	MND	1,51E-8	1,8E-7	3,12E-6	5,49E-9	-7,68E-5
ADP-fossil	MJ	1,26E2	4,04E0	1,62E1	1,46E2	2,16E1	8,97E-1	MND	MND	MND	MND	MND	MND	MND	1,36E-1	1,64E-1	8,72E-1	1,68E-2	-5,33E1

VERIFICATION STATEMENT

VERIFICATION PROCESS FOR THIS EPD

This EPD has been verified in accordance with ISO 14025 by an independent, third-party verifier by reviewing results, documents and compliancy with reference standard, ISO 14025 and ISO 14040/14044, following the process and checklists of the program operator for:

- This Environmental Product Declaration
- The Life-Cycle Assessment used in this EPD
- The digital background data for this EPD

Why does verification transparency matter? Read more online
This EPD has been generated by One Click LCA EPD generator, which has been verified and approved by the EPD Hub.

THIRD-PARTY VERIFICATION STATEMENT

I hereby confirm that, following detailed examination, I have not established any relevant deviations by the studied Environmental Product Declaration (EPD), its LCA and project report, in terms of the data collected and used in the LCA calculations, the way the LCA-based calculations have been carried out, the presentation of environmental data in the EPD, and other additional environmental information, as present with respect to the procedural and methodological requirements in ISO 14025:2010 and reference standard.

I confirm that the company-specific data has been examined as regards plausibility and consistency; the declaration owner is responsible for its factual integrity and legal compliance.

I confirm that I have sufficient knowledge and experience of construction products, this specific product category, the construction industry, relevant standards, and the geographical area of the EPD to carry out this verification.

I confirm my independence in my role as verifier; I have not been involved in the execution of the LCA or in the development of the declaration and have no conflicts of interest regarding this verification.

Elma Avdyli, as an authorized verifier acting for EPD Hub Limited
06.04.2023

VERIFIED ISO 14025

ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025 / ISO 21930

Fast Trak Bracket - 1370mm (FTB-1370)

EPD HUB, HUB-0374
Publishing date 06 April 2023, last updated date 06 April 2023, valid until 06 April 2028

Created with One Click LCA

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Gripple Ltd
Address	Norfolk Bridge Works, 11 Leveson Street, Sheffield, S4 7ER
Contact details	info@gripple.com
Website	www.gripple.com

EPD STANDARDS, SCOPE AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804+A2:2019 and ISO 14025
PCR	EPD Hub Core PCR version 1.0, 1 Feb 2022
Sector	Construction product
Category of EPD	Sister EPD (Parent EPD: HUB-0375)
Scope of the EPD	Cradle to gate with modules C1-C4, D
EPD author	Natasha Lyth Gripple Ltd
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal certification ☑ External verification
EPD verifier	E.A as an authorized verifier acting for EPD Hub Limited

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	Fast Trak Bracket - 1370mm (FTB-1370)
Additional labels	
Product reference	FTB-1370
Place of production	Sheffield, UK
Period for data	March 2021 - March 2022
Averaging in EPD	No averaging
Variation in GWP-fossil for A1-A3	Not applicable

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 unit of FTB-1370
Declared unit mass	2.4466 kg
GWP-fossil, A1-A3 (kgCO2e)	1,14E1
GWP-total, A1-A3 (kgCO2e)	6,91E0
Secondary material, inputs (%)	76.0
Secondary material, outputs (%)	95.1
Total energy use, A1-A3 (kWh)	49.5
Total water use, A1-A3 (m3e)	0.172

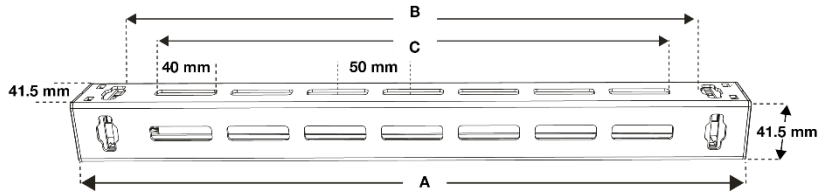
PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Gripple manufactures innovative solutions for the construction, agricultural and infrastructure sectors. Our innovative product designs, provide customers with faster, safer, and more cost-effective solutions than traditional engineered methods.

PRODUCT DESCRIPTION

Fast Trak is a prefabricated, trapeze bracket, which enables efficient, flexible and safe installation of electrical containment, ductwork, pipework and other mechanical services.



Bracket	FTB-1370
A (mm) Length	1439
B (mm) Suspension Space	1376
C (mm) Working Space	1340
No. of Slots	27

Fast Trak is six times faster and safer to install than traditional suspension systems as the system removes the need to cut threaded rod on site. The bracket can simply be moved up and down the tracks to accommodate changes in position during installation. It offers even more versality as the four-sided bracket provides suspension point on every face: ideal for installation of combined bracketry and multi-tiered configuration to accommodate additional services.

Each bracket also has indicators at each end as a measurement guide when marking fixing points on the ceiling; M4 level markers on the tracks highlight 50 mm increments, so no levelling tools are required. The tracks also can be bent neatly under the bracket – so zero product waste.

Fast Trak is independently fire tested to F120 which confirms that the entire system meets the fire performance standards associated with BS EN 1363-1:2012.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass- %	Material origin
Metals	99	EU / Asia
Minerals	-	-
Fossil materials	1	Turkey
Bio-based materials	-	-

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0
Biogenic carbon content in packaging, kg C	1.333

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 unit of FTB-1370
Mass per declared unit	2.4466 kg
Functional unit	
Reference service life	

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	MND	MND	MND	MND	MND	MND	MND	x	x	x	x	x		
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling

Modules not declared = MND. Modules not relevant = MNR.

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 facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

The main process used within the manufacturing of the Fast Trak Bracket is Roll Forming. Strip metal is passed through our Roll Form Bearer machine forming and pressing it into the designed state. The process is highly efficient and allows for large volumes to be produced. Fast Trak components for the final assembly are also produced in house. The latch and brace components are manufactured on a press machine, where strip metal is formed and pressed into the designed state.

The Cartridge is moulded at our in-house mould shop which is located less than 3km from the final point of assembly. The only component sourced from a third-party UK supplier is the spring.

Any waste steel produced is sold for recycling. Production losses for all materials used in manufacturing is considered within this EPD. For Fast Trak packaging we used cardboard endcaps and plastic clips. A wooden pallet is used as a packaging material for transporting the product from the factory gate.

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts 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 distance is defined according to the PCR. The transportation distance site is an average distance from production site to building site. This assumed average is 1,173.6km this distance reflects that Fast Trak Brackets are supplied internationally from the UK. Transportation does not cause losses as the product is packaged appropriately. Shipping is done by a third party; empty returns are not considered as it is assumed that the return trip is used by the transportation company to serve the needs of other clients. The design and nature of a Fast Trak Bracket means there are no A5 installation impacts when installed using a Fast Trak Track.

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)

Demolition is assumed to consume 0,01 kWh/kg of product (O. Bozdag and M. Secer, 2007). The source of energy is diesel fuel used by construction machines (C1). It is assumed that 100% of the waste is collected and transported to the waste treatment centre. Transportation distance to treatment is assumed as 50 km and the transportation method is assumed to be lorry (C2). Approximately 95% of steel is assumed to be recycled based on World Steel Association, 2020 (C3). It is assumed that the remaining 5 % of steel is taken to landfill for final disposal (C4). Due to the recycling process, the end-of-life product is converted into recycled steel, the ABS engine is converted into recycled ABS material, while the wooden pallet is incinerated for energy recovery (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.

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 materials	Allocated by mass or volume
Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

AVERAGES AND VARIABILITY

Type of average	No averaging
Averaging method	Not applicable
Variation in GWP-fossil for A1-A3	Not applicable

There is no average result considered in this study since this EPD refers to one specific product produced in one production plant.

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. Ecoinvent and One Click LCA databases were used as sources of environmental data.

ENVIRONMENTAL IMPACT DATA

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total[1)]	kg CO_2e	1,06E1	3,14E-1	-3,97E0	6,91E0	1,27E0	5,01E0	MND	MND	MND	MND	MND	MND	MND	1,32E-2	1,11E-2	6,33E-2	6,36E-4	0E0
GWP – fossil	kg CO_2e	1,02E1	3,14E-1	9,11E-1	1,14E1	1,3E0	5,17E-2	MND	MND	MND	MND	MND	MND	MND	1,32E-2	1,11E-2	6,6E-2	6,34E-4	-5,72E0
GWP – biogenic	kg CO_2e	3,68E-1	-7,17E-6	-4,89E0	-4,52E0	-4,89E0	4,95E0	MND	MND	MND	MND	MND	MND	MND	3,67E-6	8,07E-6	-2,68E-3	1,26E-6	3,61E0
GWP – LULUC	kg CO_2e	1,01E-2	1,83E-4	4,95E-3	1,52E-2	2,82E-3	6,58E-5	MND	MND	MND	MND	MND	MND	MND	1,11E-6	3,35E-6	7,29E-5	1,88E-7	-2,87E-3
Ozone depletion pot.	kg CFC_{-11}e	8,21E-7	6,57E-8	1,08E-7	9,94E-7	2,18E-7	7,77E-9	MND	MND	MND	MND	MND	MND	MND	2,85E-9	2,61E-9	9,06E-9	2,61E-10	-2,27E-7
Acidification potential	mol H^+e	1,15E-1	7,69E-3	4,87E-3	1,27E-1	6,8E-3	2,52E-4	MND	MND	MND	MND	MND	MND	MND	1,38E-4	4,67E-5	7,27E-4	6,02E-6	-3,16E-2
EP-freshwater[2)]	kg Pe	6,34E-4	1,77E-6	4,4E-5	6,79E-4	4,49E-5	2,91E-6	MND	MND	MND	MND	MND	MND	MND	5,33E-8	9,04E-8	4,12E-6	7,67E-9	-3,25E-4
EP-marine	kg Ne	1,25E-2	1,91E-3	1,26E-3	1,57E-2	1,9E-3	7,07E-5	MND	MND	MND	MND	MND	MND	MND	6,09E-5	1,41E-5	1,63E-4	2,07E-6	-5,24E-3
EP-terrestrial	mol Ne	3,93E-1	2,12E-2	1,42E-2	4,29E-1	2,12E-2	6,03E-4	MND	MND	MND	MND	MND	MND	MND	6,68E-4	1,55E-4	1,88E-3	2,28E-5	-6,02E-2
POCP (“smog”)[3)]	kg NMVOCe	4,1E-2	5,58E-3	5,68E-3	5,23E-2	7,92E-3	1,87E-4	MND	MND	MND	MND	MND	MND	MND	1,84E-4	5E-5	5,2E-4	6,63E-6	-2,64E-2
ADP-minerals & metals[4)]	kg Sbe	1,03E-2	3,43E-6	1,36E-5	1,03E-2	2,25E-5	5,13E-7	MND	MND	MND	MND	MND	MND	MND	2,01E-8	1,9E-7	3,29E-6	5,8E-9	-8,01E-5
ADP-fossil resources	MJ	1,33E2	4,24E0	1,64E1	1,54E2	2,18E1	8,97E-1	MND	MND	MND	MND	MND	MND	MND	1,81E-1	1,73E-1	9,14E-1	1,77E-2	-5,47E1
Water use[5)]	m^3e depr.	4,67E0	1,13E-2	2,47E-1	4,93E0	2,69E-1	8,7E-3	MND	MND	MND	MND	MND	MND	MND	3,38E-4	6,43E-4	1,39E-2	8,2E-4	-2,29E0

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[8)]	MJ	1,35E1	3,7E-2	1,24E1	2,59E1	1,22E1	9,3E-2	MND	MND	MND	MND	MND	MND	MND	9,82E-4	2,18E-3	1,29E-1	1,43E-4	-8,93E0
Renew. PER as material	MJ	0E0	0E0	4,7E1	4,7E1	4,7E1	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	-2,6E-1
Total use of renew. PER	MJ	1,35E1	3,7E-2	5,94E1	7,29E1	5,92E1	9,3E-2	MND	MND	MND	MND	MND	MND	MND	9,82E-4	2,18E-3	1,29E-1	1,43E-4	-9,19E0
Non-re. PER as energy	MJ	1,32E2	4,24E0	1,63E1	1,52E2	2,18E1	8,97E-1	MND	MND	MND	MND	MND	MND	MND	1,81E-1	1,73E-1	9,14E-1	1,77E-2	-5,29E1
Non-re. PER as material	MJ	1,5E0	0E0	1E-1	1,6E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	-1,82E0
Total use of non-re. PER	MJ	1,33E2	4,24E0	1,64E1	1,54E2	2,18E1	8,97E-1	MND	MND	MND	MND	MND	MND	MND	1,81E-1	1,73E-1	9,14E-1	1,77E-2	-5,47E1
Secondary materials	kg	1,86E0	0E0	1,7E-4	1,86E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	1,8E0
Renew. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Non-ren. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Use of net fresh water	m^3	1,67E-1	5,53E-4	4,26E-3	0.172	5,69E-3	2,74E-4	MND	MND	MND	MND	MND	MND	MND	1,6E-5	3,6E-5	3,52E-4	1,94E-5	-3,3E-2

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	2,41E0	4,79E-3	5,66E-2	2,48E0	5,81E-2	2,58E-3	MND	MND	MND	MND	MND	MND	MND	1,95E-4	1,68E-4	0E0	1,66E-5	-1,78E0
Non-hazardous waste	kg	3,09E1	1,85E-1	1,35E0	3,24E1	2,19E0	1,94E-1	MND	MND	MND	MND	MND	MND	MND	2,09E-3	1,86E-2	0E0	1,2E-1	-1,41E1
Radioactive waste	kg	4,49E-4	2,95E-5	5,09E-5	5,3E-4	1,01E-4	5,92E-6	MND	MND	MND	MND	MND	MND	MND	1,27E-6	1,19E-6	0E0	1,17E-7	-9,62E-5

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	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Materials for recycling	kg	0E0	0E0	4,31E-1	4,31E-1	0E0	6,82E-2	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	2,33E0	0E0	0E0
Materials for energy rec	kg	0E0	0E0	0E0	0E0	0E0	4,32E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Exported energy	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0

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_2e	9,95E0	3,11E-1	8,87E-1	1,12E1	1,27E0	6,92E-2	MND	MND	MND	MND	MND	MND	MND	1,31E-2	1,1E-2	6,49E-2	6,23E-4	-5,48E0
Ozone depletion Pot.	kg CFC_{-11}e	7,6E-7	5,21E-8	9E-8	9,02E-7	1,77E-7	7,02E-9	MND	MND	MND	MND	MND	MND	MND	2,25E-9	2,08E-9	7,66E-9	2,07E-10	-2,07E-7
Acidification	kg SO_2e	5,21E-2	6,04E-3	3,55E-3	6,17E-2	4,31E-3	1,84E-4	MND	MND	MND	MND	MND	MND	MND	1,95E-5	2,26E-5	4,6E-4	2,51E-6	-2,66E-2
Eutrophication	kg PO_4^3e	2,55E-2	6,91E-4	1,29E-3	2,74E-2	1,39E-3	1,88E-4	MND	MND	MND	MND	MND	MND	MND	3,43E-6	4,57E-6	2,35E-4	4,86E-7	-1,37E-2
POCP (“smog”)	kg C_2H_4e	4,07E-3	1,64E-4	3,49E-4	4,58E-3	4E-4	1,47E-5	MND	MND	MND	MND	MND	MND	MND	2E-6	1,43E-6	2,29E-5	1,84E-7	-3,28E-3
ADP-elements	kg Sbe	1,03E-2	3,43E-6	1,36E-5	1,03E-2	2,25E-5	5,13E-7	MND	MND	MND	MND	MND	MND	MND	2,01E-8	1,9E-7	3,29E-6	5,8E-9	-8,01E-5
ADP-fossil	MJ	1,33E2	4,24E0	1,64E1	1,54E2	2,18E1	8,97E-1	MND	MND	MND	MND	MND	MND	MND	1,81E-1	1,73E-1	9,14E-1	1,77E-2	-5,47E1

VERIFICATION STATEMENT

VERIFICATION PROCESS FOR THIS EPD

This EPD has been verified in accordance with ISO 14025 by an independent, third-party verifier by reviewing results, documents and compliancy with reference standard, ISO 14025 and ISO 14040/14044, following the process and checklists of the program operator for:

- This Environmental Product Declaration
- The Life-Cycle Assessment used in this EPD
- The digital background data for this EPD

Why does verification transparency matter? Read more online
This EPD has been generated by One Click LCA EPD generator, which has been verified and approved by the EPD Hub.

THIRD-PARTY VERIFICATION STATEMENT

I hereby confirm that, following detailed examination, I have not established any relevant deviations by the studied Environmental Product Declaration (EPD), its LCA and project report, in terms of the data collected and used in the LCA calculations, the way the LCA-based calculations have been carried out, the presentation of environmental data in the EPD, and other additional environmental information, as present with respect to the procedural and methodological requirements in ISO 14025:2010 and reference standard.

I confirm that the company-specific data has been examined as regards plausibility and consistency; the declaration owner is responsible for its factual integrity and legal compliance.

I confirm that I have sufficient knowledge and experience of construction products, this specific product category, the construction industry, relevant standards, and the geographical area of the EPD to carry out this verification.

I confirm my independence in my role as verifier; I have not been involved in the execution of the LCA or in the development of the declaration and have no conflicts of interest regarding this verification.

Elma Avdyli, as an authorized verifier acting for EPD Hub Limited
06.04.2023

VERIFIED ISO 14025

ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025 / ISO 21930

Fast Trak Bracket - 1470mm (FTB-1470)

EPD HUB, HUB-0375
Publishing date 06 April 2023, last updated date 06 April 2023, valid until 06 April 2028

Created with One Click LCA

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Gripple Ltd
Address	Norfolk Bridge Works, 11 Leveson Street, Sheffield, S4 7ER
Contact details	info@gripple.com
Website	www.gripple.com

EPD STANDARDS, SCOPE, AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804+A2:2019 and ISO 14025
PCR	EPD Hub Core PCR version 1.0, 1 Feb 2022
Sector	Construction product
Category of EPD	Third party verified EPD
Scope of the EPD	Cradle to gate with modules C1-C4, D
EPD author	Natasha Lyth Gripple Ltd
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal certification ☑ External verification
EPD verifier	E.A as an authorized verifier acting for EPD Hub Limited

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.

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PRODUCT

Product name	Fast Trak Bracket - 1470mm (FTB-1470)
Additional labels	
Product reference	FTB-1470
Place of production	Sheffield, UK
Period for data	March 2021 - March 2022
Averaging in EPD	No averaging
Variation in GWP-fossil for A1-A3	Not applicable

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 unit of FTB-1470
Declared unit mass	2.6416 kg
GWP-fossil, A1-A3 (kgCO2e)	1,22E1
GWP-total, A1-A3 (kgCO2e)	7,72E0
Secondary material, inputs (%)	76.1
Secondary material, outputs (%)	94.9
Total energy use, A1-A3 (kWh)	52.6
Total water use, A1-A3 (m3e)	0.182

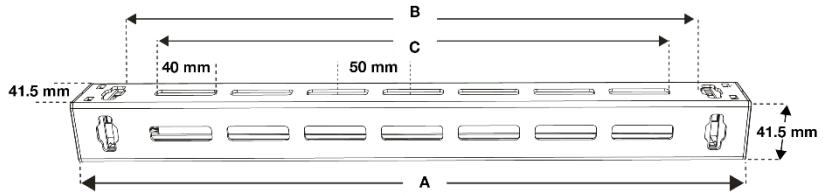
PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Gripple manufactures innovative solutions for the construction, agricultural and infrastructure sectors. Our innovative product designs, provide customers with faster, safer, and more cost-effective solutions than traditional engineered methods.

PRODUCT DESCRIPTION

Fast Trak is a prefabricated, trapeze bracket, which enables efficient, flexible, and safe installation of electrical containment, ductwork, pipework, and other mechanical services.



Bracket	FTB-1470
A (mm) Length	1539
B (mm) Suspension Space	1476
C (mm) Working Space	1440
No. of Slots	29

Fast Trak is six times faster and safer to install than traditional suspension systems as the system removes the need to cut threaded rod on site. The bracket can simply be moved up and down the tracks to accommodate changes in position during installation.

It offers even more versality as the four-sided bracket provides suspension point on every face: ideal for installation of combined bracketry and multi-tiered configuration to accommodate additional services. Each bracket also has indicators at each end as a measurement guide when marking fixing points on the ceiling; M4 level markers on the tracks highlight 50 mm increments, so no levelling tools are required. The tracks also can be bent neatly under the bracket – so zero product waste.

Fast Trak is independently fire tested to F120 which confirms that the entire system meets the fire performance standards associated with BS EN 1363-1:2012.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass- %	Material origin
Metals	99	EU / Asia
Minerals	-	-
Fossil materials	1	Turkey
Bio-based materials	-	-

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0
Biogenic carbon content in packaging, kg C	1.333

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 unit of FTB-1470
Mass per declared unit	2.6416 kg
Functional unit	-
Reference service life	-

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	MND	MND	MND	MND	MND	MND	MND	x	x	x	x	x		
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling

Modules not declared = MND. Modules not relevant = MNR.

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 facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

The main process used within the manufacturing of the Fast Trak Bracket is Roll Forming. Strip metal is passed through our Roll Form Bearer machine forming and pressing it into the designed state. The process is highly efficient and allows for large volumes to be produced. Fast Trak components for the final assembly are also produced in house. The latch and brace components are manufactured on a press machine, where strip metal is formed and pressed into the designed state.

The Cartridge is moulded at our in-house mould shop which is located less than 3km from the final point of assembly. The only component sourced from a third-party UK supplier is the spring.

Any waste steel produced is sold for recycling. Production losses for all materials used in manufacturing is considered within this EPD. For Fast Trak packaging we used cardboard endcaps and plastic clips. A wooden pallet is used as a packaging material for transporting the product from the factory gate.

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts 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 distance is defined according to the PCR. The transportation distance site is an average distance from production site to building site. This assumed average is 1,173.6km this distance reflects that Fast Trak Brackets are supplied internationally from the UK. Transportation does not cause losses as the product is packaged appropriately. Shipping is done by a third party; empty returns are not considered as it is assumed that the return trip is used by the transportation company to serve the needs of other clients. The design and nature of a Fast Trak Bracket means there are no A5 installation impacts when installed using a Fast Trak Track.

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)

Demolition is assumed to consume 0,01 kWh/kg of product (O. Bozdag and M. Secer, 2007). The source of energy is diesel fuel used by construction machines (C1). It is assumed that 100% of the waste is collected and transported to the waste treatment centre. Transportation distance to treatment is assumed as 50 km and the transportation method is assumed to be lorry (C2). Approximately 95% of steel is assumed to be recycled based on World Steel Association, 2020 (C3). It is assumed that the remaining 5 % of steel is taken to landfill for final disposal (C4). Due to the recycling process, the end-of-life product is converted into recycled steel, the ABS engine is converted into recycled ABS material, while the wooden pallet is incinerated for energy recovery (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.

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 materials	Allocated by mass or volume
Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

AVERAGES AND VARIABILITY

Type of average	No averaging
Averaging method	Not applicable
Variation in GWP-fossil for A1-A3	Not applicable

There is no average result considered in this study since this EPD refers to one specific product produced in one production plant.

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. Ecoinvent and One Click LCA databases were used as sources of environmental data.

ENVIRONMENTAL IMPACT DATA

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total[1)]	kg CO_2e	1,13E1	3,37E-1	-3,96E0	7,72E0	1,29E0	5,01E0	MND	MND	MND	MND	MND	MND	MND	1,32E-2	1,2E-2	6,75E-2	6,86E-4	0E0
GWP – fossil	kg CO_2e	1,09E1	3,37E-1	9,21E-1	1,22E1	1,32E0	5,17E-2	MND	MND	MND	MND	MND	MND	MND	1,32E-2	1,2E-2	7,04E-2	6,85E-4	-4,87E0
GWP – biogenic	kg CO_2e	3,96E-1	-7,96E-6	-4,89E0	-4,49E0	-4,89E0	4,95E0	MND	MND	MND	MND	MND	MND	MND	3,67E-6	8,72E-6	-2,93E-3	1,36E-6	7,23E-2
GWP – LULUC	kg CO_2e	1,07E-2	1,96E-4	4,99E-3	1,59E-2	2,82E-3	6,58E-5	MND	MND	MND	MND	MND	MND	MND	1,11E-6	3,61E-6	7,8E-5	2,03E-7	-7,34E-4
Ozone depletion pot.	kg CFC_{-11}e	8,79E-7	7,06E-8	1,09E-7	1,06E-6	2,23E-7	7,77E-9	MND	MND	MND	MND	MND	MND	MND	2,85E-9	2,82E-9	9,7E-9	2,82E-10	-1,57E-7
Acidification potential	mol H^+e	1,18E-1	8,28E-3	4,9E-3	1,31E-1	6,89E-3	2,52E-4	MND	MND	MND	MND	MND	MND	MND	1,38E-4	5,04E-5	7,81E-4	6,5E-6	-2,4E-2
EP-freshwater[2)]	kg Pe	6,8E-4	1,9E-6	4,41E-5	7,26E-4	4,51E-5	2,91E-6	MND	MND	MND	MND	MND	MND	MND	5,33E-8	9,76E-8	4,42E-6	8,27E-9	-2,91E-4
EP-marine	kg Ne	1,33E-2	2,06E-3	1,27E-3	1,66E-2	1,92E-3	7,07E-5	MND	MND	MND	MND	MND	MND	MND	6,09E-5	1,52E-5	1,75E-4	2,24E-6	-4,64E-3
EP-terrestrial	mol Ne	4,01E-1	2,29E-2	1,43E-2	4,38E-1	2,15E-2	6,03E-4	MND	MND	MND	MND	MND	MND	MND	6,68E-4	1,68E-4	2,02E-3	2,46E-5	-5,27E-2
POCP ("smog")[3)]	kg NMVOCe	4,4E-2	6E-3	5,7E-3	5,57E-2	8,01E-3	1,87E-4	MND	MND	MND	MND	MND	MND	MND	1,84E-4	5,4E-5	5,58E-4	7,16E-6	-2,51E-2
ADP-minerals & metals[4)]	kg Sbe	1,03E-2	3,67E-6	1,37E-5	1,03E-2	2,29E-5	5,13E-7	MND	MND	MND	MND	MND	MND	MND	2,01E-8	2,05E-7	3,54E-6	6,26E-9	-8,6E-5
ADP-fossil resources	MJ	1,43E2	4,56E0	1,66E1	1,64E2	2,21E1	8,97E-1	MND	MND	MND	MND	MND	MND	MND	1,81E-1	1,87E-1	9,76E-1	1,91E-2	-4,25E1
Water use[5)]	m^3e depr.	5E0	1,21E-2	2,48E-1	5,26E0	2,7E-1	8,7E-3	MND	MND	MND	MND	MND	MND	MND	3,38E-4	6,95E-4	1,48E-2	8,85E-4	-2,32E0

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[8)]	MJ	1,44E1	3,97E-2	1,24E1	2,69E1	1,22E1	9,3E-2	MND	MND	MND	MND	MND	MND	MND	9,82E-4	2,35E-3	1,38E-1	1,55E-4	-4,35E0
Renew. PER as material	MJ	0E0	0E0	4,7E1	4,7E1	4,7E1	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	-2,6E-1
Total use of renew. PER	MJ	1,44E1	3,97E-2	5,94E1	7,39E1	5,92E1	9,3E-2	MND	MND	MND	MND	MND	MND	MND	9,82E-4	2,35E-3	1,38E-1	1,55E-4	-4,61E0
Non-re. PER as energy	MJ	1,41E2	4,56E0	1,65E1	1,62E2	2,21E1	8,97E-1	MND	MND	MND	MND	MND	MND	MND	1,81E-1	1,87E-1	9,76E-1	1,91E-2	-4,07E1
Non-re. PER as material	MJ	1,5E0	0E0	1E-1	1,6E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	-1,82E0
Total use of non-re. PER	MJ	1,43E2	4,56E0	1,66E1	1,64E2	2,21E1	8,97E-1	MND	MND	MND	MND	MND	MND	MND	1,81E-1	1,87E-1	9,76E-1	1,91E-2	-4,25E1
Secondary materials	kg	2,01E0	0E0	1,73E-4	2,01E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	1,93E0
Renew. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Non-ren. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Use of net fresh water	m^3	1,77E-1	5,94E-4	4,28E-3	0.182	5,76E-3	2,74E-4	MND	MND	MND	MND	MND	MND	MND	1,6E-5	3,89E-5	3,77E-4	2,09E-5	-3,33E-2

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	2,6E0	5,13E-3	5,67E-2	2,66E0	5,84E-2	2,58E-3	MND	MND	MND	MND	MND	MND	MND	1,95E-4	1,81E-4	0E0	1,79E-5	-1,85E0
Non-hazardous waste	kg	3,29E1	1,98E-1	1,36E0	3,45E1	2,22E0	1,94E-1	MND	MND	MND	MND	MND	MND	MND	2,09E-3	2,01E-2	0E0	1,3E-1	-1,57E1
Radioactive waste	kg	4,82E-4	3,17E-5	5,14E-5	5,65E-4	1,03E-4	5,92E-6	MND	MND	MND	MND	MND	MND	MND	1,27E-6	1,28E-6	0E0	1,27E-7	-1,26E-5

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	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Materials for recycling	kg	0E0	0E0	4,64E-1	4,64E-1	0E0	6,82E-2	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	2,51E0	0E0	0E0
Materials for energy rec	kg	0E0	0E0	0E0	0E0	0E0	4,32E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Exported energy	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0

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_2e	1,07E1	3,35E-1	8,97E-1	1,19E1	1,29E0	6,92E-2	MND	MND	MND	MND	MND	MND	MND	1,31E-2	1,19E-2	6,93E-2	6,72E-4	-4,65E0
Ozone depletion Pot.	kg $CFC_{-11}e$	8,12E-7	5,6E-8	9,14E-8	9,59E-7	1,81E-7	7,02E-9	MND	MND	MND	MND	MND	MND	MND	2,25E-9	2,24E-9	8,2E-9	2,23E-10	-1,38E-7
Acidification	kg SO_2e	5,51E-2	6,5E-3	3,56E-3	6,51E-2	4,35E-3	1,84E-4	MND	MND	MND	MND	MND	MND	MND	1,95E-5	2,44E-5	4,93E-4	2,71E-6	-1,98E-2
Eutrophication	kg PO_4^3e	2,73E-2	7,44E-4	1,3E-3	2,93E-2	1,4E-3	1,88E-4	MND	MND	MND	MND	MND	MND	MND	3,43E-6	4,93E-6	2,49E-4	5,24E-7	-1,33E-2
POCP (“smog”)	kg C_2H_4e	4,38E-3	1,76E-4	3,5E-4	4,91E-3	4,02E-4	1,47E-5	MND	MND	MND	MND	MND	MND	MND	2E-6	1,55E-6	2,45E-5	1,99E-7	-3,18E-3
ADP-elements	kg Sbe	1,03E-2	3,67E-6	1,37E-5	1,03E-2	2,29E-5	5,13E-7	MND	MND	MND	MND	MND	MND	MND	2,01E-8	2,05E-7	3,54E-6	6,26E-9	-8,6E-5
ADP-fossil	MJ	1,43E2	4,56E0	1,66E1	1,64E2	2,21E1	8,97E-1	MND	MND	MND	MND	MND	MND	MND	1,81E-1	1,87E-1	9,76E-1	1,91E-2	-4,25E1

VERIFICATION STATEMENT

VERIFICATION PROCESS FOR THIS EPD

This EPD has been verified in accordance with ISO 14025 by an independent, third-party verifier by reviewing results, documents and compliancy with reference standard, ISO 14025 and ISO 14040/14044, following the process and checklists of the program operator for:

- This Environmental Product Declaration
- The Life-Cycle Assessment used in this EPD
- The digital background data for this EPD

Why does verification transparency matter? Read more online
This EPD has been generated by One Click LCA EPD generator, which has been verified and approved by the EPD Hub.

THIRD-PARTY VERIFICATION STATEMENT

I hereby confirm that, following detailed examination, I have not established any relevant deviations by the studied Environmental Product Declaration (EPD), its LCA and project report, in terms of the data collected and used in the LCA calculations, the way the LCA-based calculations have been carried out, the presentation of environmental data in the EPD, and other additional environmental information, as present with respect to the procedural and methodological requirements in ISO 14025:2010 and reference standard.

I confirm that the company-specific data has been examined as regards plausibility and consistency; the declaration owner is responsible for its factual integrity and legal compliance.

I confirm that I have sufficient knowledge and experience of construction products, this specific product category, the construction industry, relevant standards, and the geographical area of the EPD to carry out this verification.

I confirm my independence in my role as verifier; I have not been involved in the execution of the LCA or in the development of the declaration and have no conflicts of interest regarding this verification.

Elma Avdyli, as an authorized verifier acting for EPD Hub Limited
06.04.2023

VERIFIED ISO 14025

ENVIRONMENTAL PRODUCT DECLARATION
IN ACCORDANCE WITH EN 15804+A2 & ISO 14025 / ISO 21930

Fast Trak Track (FTT)

EPD HUB, EPD number HUB-0777
Publishing 24.10.2023, updated date 24.10.2023, valid until 24.10.2028

Created with One Click LCA

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Gripple Ltd
Address	Norfolk Bridge Works, 11 Leveson Street, Sheffield, S4 7ER
Contact details	info@gripple.com
Website	www.gripple.com

EPD STANDARDS, SCOPE AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804+A2:2019 and ISO 14025
PCR	EPD Hub Core PCR version 1.0, 1 Feb 2022
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	Natasha Lyth, Gripple Ltd
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal certification ☑ External verification
EPD verifier	Elma Avdyli, as an authorized verifier acting for EPD Hub Limited

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	Fast Trak Track (FTT)
Additional labels	FTT-200, FTT-300, FTT-400, FTT-500, FTT-600, FTT-700, FTT-800, FTT-900, FTT-1000, FTT-1100, FTT-1200, FTT-1300, FTT-1400, FTT-1500
Product reference	FTT-*
Place of production	Sheffield, UK
Period for data	April 2022 – April 2023
Averaging in EPD	No averaging
Variation in GWP-fossil for A1-A3	Not applicable

ENVIRONMENTAL DATA SUMMARY

Declared unit	1kg FTT
Declared unit mass	1 kg
GWP-fossil, A1-A3 (kgCO2e)	3,57E0
GWP-total, A1-A3 (kgCO2e)	2,6E0
Secondary material, inputs (%)	15.6
Secondary material, outputs (%)	95.0
Total energy use, A1-A3 (kWh)	13.7
Total water use, A1-A3 (m3e)	5,2E-2

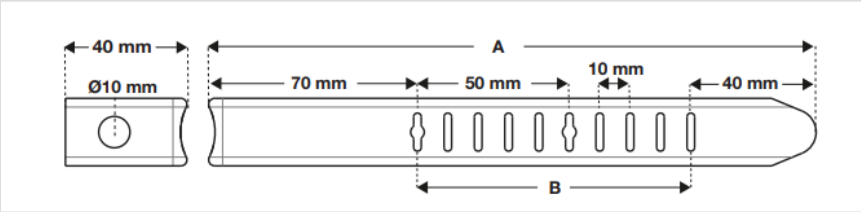
PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Gripple manufactures innovative solutions for the construction, agricultural and infrastructure sectors. Our innovative product designs, provide customers with faster, safer, and more cost-effective solutions than traditional engineered methods.

PRODUCT DESCRIPTION

Fast Trak is a prefabricated, trapeze bracket and track system, which enables efficient, flexible, and safe installation of electrical containment, ductwork, pipework, and other mechanical services.



Fast Trak is six times faster and safer to install than traditional suspension systems as the system removes the need to cut threaded rod on site. The bracket uses push-button cartridge technology to allow it to simply be moved up and down the tracks to accommodate changes in position during installation.

It offers even more versality as the four-sided bracket provides suspension point on every face: ideal for installation of combined bracketry and multi-tiered configuration to accommodate additional services. Each bracket also has indicators at each end as a measurement guide when marking fixing points on the ceiling; M4 level markers on the tracks highlight 50 mm increments, so no levelling tools are required. The tracks also can be bent neatly under the bracket – so zero product waste.

Fast Trak is independently fire tested to F120 which confirms that the entire system meets the fire performance standards associated with BS EN 1363-1:2012.

The Fast Trak Track when used in conjunction with a Fast Trak Bracket represents the complete system, the Fast Trak Bracket EPDs are available on EPD Hub.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass- %	Material origin
Metals	100	United Kingdom
Minerals	-	
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	0.2666

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1kg FTT
Mass per declared unit	1 kg
Functional unit	-
Reference service life	-

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	MND	MND	MND	MND	MND	MND	MND	x	x	x	x	x		
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling

Modules not declared = MND. Modules not relevant = MNR.

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 facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

The main process used within the manufacturing of the Fast Trak Track is Roll Forming. Strip metal is passed through our Roll Form Strap machine, forming, and pressing it into the designed state. The process is highly efficient and allows for large volumes to be produced.

Production losses for all materials used in the manufacture of a Fast Trak Track have been considered within this EPD, any waste steel produced is sold for recycling.

A wooden pallet is used as a packaging material for transporting the product from the factory gate.

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts 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 distance is defined according to the PCR. The transportation distance to site is an average distance from production site to building site. This average is 1,173.6km this distance reflects that the Fast Trak system is supplied internationally from the UK. Transportation does not cause losses as the product is packaged appropriately.

Shipping is done by a third party; empty returns are not considered as it is assumed that the return trip is used by the transportation company to serve the needs of other clients.

When Fast Trak Tracks are correctly installed in conjunction with Fast Trak Brackets, there is no A5 impact. Fast Trak Bracket EPDs are available on EPD Hub. Fixings and tools used to install the Fast Trak tracks are not considered within this life cycle assessment.

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)

Demolition is assumed to consume 0,01 kWh/kg of product (O. Bozdag and M. Secer, 2007). The source of energy is diesel fuel used by construction machines (C1). It is assumed that 100% of the waste is collected and transported to the waste treatment centre. Transportation distance to treatment is assumed as 50 km and the transportation method is assumed to be lorry (C2). Approximately 95% of steel is assumed to be recycled based on World Steel Association, 2020 (C3). It is assumed that the remaining 5 % of steel is taken to landfill for final disposal (C4). Due to the recycling process, the end-of-life product is converted into recycled steel, while the wooden pallet is incinerated for energy recovery (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.

Fixings and tools used to install the Fast Trak tracks are not considered within this life cycle assessment.

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 materials	Allocated by mass or volume
Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

AVERAGES AND VARIABILITY

Type of average	No averaging
Averaging method	Not applicable
Variation in GWP-fossil for A1-A3	Not applicable

This EPD is product and factory specific and does not contain average calculations.

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. Ecoinvent and One Click LCA databases were used as sources of environmental data.

ENVIRONMENTAL IMPACT DATA

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total[1)]	kg CO_2e	3,21E0	3,18E-2	-6,36E-1	2,6E0	1,7E-1	9,85E-1	MND	MND	MND	MND	MND	MND	MND	3,3E-3	4,55E-3	2,55E-2	2,64E-4	2,1E-1
GWP – fossil	kg CO_2e	3,2E0	3,17E-2	3,4E-1	3,57E0	1,7E-1	7,87E-3	MND	MND	MND	MND	MND	MND	MND	3,3E-3	4,54E-3	2,71E-2	2,63E-4	-1,87E0
GWP – biogenic	kg CO_2e	7,41E-3	7,85E-5	-9,77E-1	-9,7E-1	1,23E-4	9,78E-1	MND	MND	MND	MND	MND	MND	MND	9,17E-7	3,3E-6	-1,61E-3	5,22E-7	2,08E0
GWP – LULUC	kg CO_2e	2,31E-3	2,13E-5	7,43E-4	3,08E-3	5,11E-5	1,25E-5	MND	MND	MND	MND	MND	MND	MND	2,79E-7	1,37E-6	3,18E-5	7,82E-8	-1,95E-3
Ozone depletion pot.	kg $CFC_{-11}e$	1,89E-7	6,16E-9	3,8E-8	2,34E-7	3,99E-8	1,07E-9	MND	MND	MND	MND	MND	MND	MND	7,12E-10	1,07E-9	3,31E-9	1,08E-10	-6,87E-8
Acidification potential	mol H^+e	5,31E-2	1,86E-4	1,54E-3	5,48E-2	7,13E-4	3,99E-5	MND	MND	MND	MND	MND	MND	MND	3,45E-5	1,91E-5	3E-4	2,5E-6	-9,22E-3
EP-freshwater[2)]	kg Pe	1,96E-4	6,84E-7	1,35E-5	2,1E-4	1,38E-6	5,63E-7	MND	MND	MND	MND	MND	MND	MND	1,33E-8	3,7E-8	1,57E-6	3,18E-9	-1,19E-4
EP-marine	kg Ne	4,43E-3	6,11E-5	3,59E-4	4,85E-3	2,15E-4	7,25E-6	MND	MND	MND	MND	MND	MND	MND	1,52E-5	5,75E-6	6,66E-5	8,61E-7	-1,84E-3
EP-terrestrial	mol Ne	2E-1	6,76E-4	4,1E-3	2,04E-1	2,37E-3	8,46E-5	MND	MND	MND	MND	MND	MND	MND	1,67E-4	6,35E-5	7,68E-4	9,48E-6	-2,08E-2
POCP ("smog")[3)]	kg NMVOCe	1,56E-2	1,96E-4	1,46E-3	1,73E-2	7,63E-4	2,43E-5	MND	MND	MND	MND	MND	MND	MND	4,59E-5	2,04E-5	2,1E-4	2,75E-6	-1E-2
ADP-minerals & metals[4)]	kg Sbe	5,83E-3	5,81E-7	4,3E-6	5,84E-3	2,9E-6	6,6E-8	MND	MND	MND	MND	MND	MND	MND	5,03E-9	7,75E-8	1,33E-6	2,41E-9	-3,41E-5
ADP-fossil resources	MJ	3,5E1	4,77E-1	6,92E0	4,24E1	2,64E0	1,47E-1	MND	MND	MND	MND	MND	MND	MND	4,54E-2	7,07E-2	3,33E-1	7,36E-3	-1,57E1
Water use[5)]	m^3e depr.	1,92E0	3,06E-3	6,67E-2	1,99E0	9,83E-3	1,46E-3	MND	MND	MND	MND	MND	MND	MND	8,46E-5	2,63E-4	5,26E-3	3,4E-4	-8,56E-1

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 PO4e; 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.

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[8)]	MJ	3,4E0	1,87E-2	3,58E0	7E0	3,33E-2	1,81E-2	MND	MND	MND	MND	MND	MND	MND	2,45E-4	8,9E-4	4,6E-2	5,95E-5	-1,08E1
Renew. PER as material	MJ	0E0	0E0	9,4E0	9,4E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	-1,31E1
Total use of renew. PER	MJ	3,4E0	1,87E-2	1,3E1	1,64E1	3,33E-2	1,81E-2	MND	MND	MND	MND	MND	MND	MND	2,45E-4	8,9E-4	4,6E-2	5,95E-5	-2,39E1
Non-re. PER as energy	MJ	3,5E1	4,77E-1	6,92E0	4,24E1	2,64E0	1,47E-1	MND	MND	MND	MND	MND	MND	MND	4,54E-2	7,07E-2	3,33E-1	7,36E-3	-1,57E1
Non-re. PER as material	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Total use of non-re. PER	MJ	3,5E1	4,77E-1	6,92E0	4,24E1	2,64E0	1,47E-1	MND	MND	MND	MND	MND	MND	MND	4,54E-2	7,07E-2	3,33E-1	7,36E-3	-1,57E1
Secondary materials	kg	1,56E-1	0E0	4,16E-6	1,56E-1	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	7,22E-1
Renew. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Non-ren. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Use of net fresh water	m^3	5,02E-2	1,22E-4	1,72E-3	5,2E-2	5,5E-4	4,15E-5	MND	MND	MND	MND	MND	MND	MND	4,01E-6	1,47E-5	1,41E-4	8,05E-6	-1,31E-2

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	1,04E0	1,1E-3	2,19E-2	1,06E0	2,57E-3	4,26E-4	MND	MND	MND	MND	MND	MND	MND	4,88E-5	6,87E-5	0E0	6,87E-6	-7,02E-1
Non-hazardous waste	kg	1,14E1	5,37E-2	4,39E-1	1,19E1	2,84E-1	2,88E-2	MND	MND	MND	MND	MND	MND	MND	5,22E-4	7,6E-3	0E0	5E-2	-5,97E0
Radioactive waste	kg	7,28E-5	3,08E-6	3,66E-5	1,12E-4	1,81E-5	9,64E-7	MND	MND	MND	MND	MND	MND	MND	3,18E-7	4,85E-7	0E0	4,87E-8	-7,8E-6

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	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Materials for recycling	kg	0E0	0E0	1,2E-1	1,2E-1	0E0	5,92E-1	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	9,5E-1	0E0	0E0
Materials for energy rec	kg	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Exported energy	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0

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_2e	5,76E0	3,13E-2	3,32E-1	6,12E0	1,68E-1	7,77E-3	MND	MND	MND	MND	MND	MND	MND	3,27E-3	4,5E-3	2,65E-2	2,58E-4	-1,79E0
Ozone depletion Pot.	kg $CFC_{-11}e$	1,77E-7	5,01E-9	3,62E-8	2,18E-7	3,17E-8	1,01E-9	MND	MND	MND	MND	MND	MND	MND	5,63E-10	8,49E-10	2,71E-9	8,59E-11	-5,93E-8
Acidification	kg SO_2e	4,5E-2	1,22E-4	1,18E-3	4,63E-2	3,46E-4	3E-5	MND	MND	MND	MND	MND	MND	MND	4,87E-6	9,25E-6	1,9E-4	1,04E-6	-7,49E-3
Eutrophication	kg PO_4^3e	1,34E-2	3,72E-5	4,09E-4	1,38E-2	6,98E-5	1,82E-5	MND	MND	MND	MND	MND	MND	MND	8,57E-7	1,87E-6	7,32E-5	2,02E-7	-5,09E-3
POCP (“smog”)	kg C_2H_4e	2,53E-3	5,34E-6	8,97E-5	2,62E-3	2,19E-5	1,35E-6	MND	MND	MND	MND	MND	MND	MND	5,01E-7	5,86E-7	8,82E-6	7,64E-8	-1,26E-3
ADP-elements	kg Sbe	5,83E-3	5,81E-7	4,3E-6	5,84E-3	2,9E-6	6,6E-8	MND	MND	MND	MND	MND	MND	MND	5,03E-9	7,75E-8	1,33E-6	2,41E-9	-3,41E-5
ADP-fossil	MJ	3,5E1	4,77E-1	6,92E0	4,24E1	2,64E0	1,47E-1	MND	MND	MND	MND	MND	MND	MND	4,54E-2	7,07E-2	3,33E-1	7,36E-3	-1,57E1

VERIFICATION STATEMENT

VERIFICATION PROCESS FOR THIS EPD

This EPD has been verified in accordance with ISO 14025 by an independent, third-party verifier by reviewing results, documents and compliancy with reference standard, ISO 14025 and ISO 14040/14044, following the process and checklists of the program operator for:

- This Environmental Product Declaration
- The Life-Cycle Assessment used in this EPD
- The digital background data for this EPD

Why does verification transparency matter? Read more online
This EPD has been generated by One Click LCA EPD generator, which has been verified and approved by the EPD Hub.

THIRD-PARTY VERIFICATION STATEMENT

I hereby confirm that, following detailed examination, I have not established any relevant deviations by the studied Environmental Product Declaration (EPD), its LCA and project report, in terms of the data collected and used in the LCA calculations, the way the LCA-based calculations have been carried out, the presentation of environmental data in the EPD, and other additional environmental information, as present with respect to the procedural and methodological requirements in ISO 14025:2010 and reference standard.

I confirm that the company-specific data has been examined as regards plausibility and consistency; the declaration owner is responsible for its factual integrity and legal compliance.

I confirm that I have sufficient knowledge and experience of construction products, this specific product category, the construction industry, relevant standards, and the geographical area of the EPD to carry out this verification.

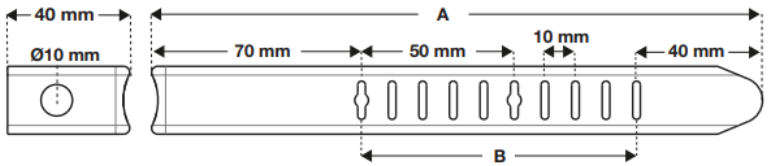
I confirm my independence in my role as verifier; I have not been involved in the execution of the LCA or in the development of the declaration and have no conflicts of interest regarding this verification.

Elma Avdyli, as an authorized verifier acting for EPD Hub Limited
24.10.2023

ANNEX

FAST TRAK TRACK – DIMENSIONS

Track



Track	A (mm)	B (mm)
FTT-200	200	90
FTT-300	300	190
FTT-400	400	290
FTT-500	500	390
FTT-600	600	490
FTT-700	700	590
FTT-800	800	690
FTT-900	900	790
FTT-1000	1000	890
FTT-1100	1100	990
FTT-1200	1200	1090
FTT-1300	1300	1190
FTT-1400	1400	1290
FTT-1500	1500	1390

FAST TRAK TRACK - GWP SCALING TABLE

GWP Total – EN15804+A2	
Product Code	kg CO_2e per unit
FTT-200	0.29
FTT-300	0.40
FTT-400	0.51
FTT-500	0.61
FTT-600	0.72
FTT-700	0.82
FTT-800	0.93
FTT-900	1.03
FTT-1000	1.14
FTT-1100	1.24
FTT-1200	1.35
FTT-1300	1.45
FTT-1400	1.55
FTT-1500	1.66