

Environmental Product Declaration



In accordance with ISO 14025:2006 for:

Unannealed butt weld fittings produced in Örnsköldsvik

from

OSTP Holding Oy

OSTP

Programme:

The International EPD® System, www.environdec.com

Programme operator:

EPD International AB

EPD registration number:

S-P-07958

Publication date:

2023-01-04

Valid until:

2027-12-21



Programme information

Programme:	The International EPD® System EPD International AB Box 210 60 SE-100 31 Stockholm Sweden www.environdec.com info@environdec.com
-------------------	--

Accountabilities for PCR, LCA and independent, third-party verification

Product Category Rules (PCR)

PCR: Basic iron or steel products & Special Steels, except construction products, 2015:03, Version 2.0. UN CPC 412.

PCR review was conducted by: The Technical Committee of the International EPD® System. A full list of members available on www.environdec.com. The review panel may be contacted via info@environdec.com. Chair of the PCR review: Hudai Kara

Life Cycle Assessment (LCA)

LCA accountability: Ecobio Oy

Third-party verification

Independent third-party verification of the declaration and data, according to ISO 14025:2006, via:

☒ EPD verification by individual verifier

Third-party verifier: Viktor Hakkarainen, VästLCA AB



Approved by: The International EPD® System

EPDs within the same product category but from different programmes may not be comparable. The EPD owner has the sole ownership, liability, and responsibility of the EPD.

Company information

Owner of the EPD: OSTP Holding Oy Switchboard: +358 20 778 5500

Description of the organisation:

OSTP – the Specialist in Welded Stainless Steel Tubular Products

OSTP is a market leader in welded stainless steel tubes and fittings, as well as specialised equipment for pressure corrosion applications. We're committed to customers and applications with the highest demands for quality. With an extensive range of products and grades, backed by application engineering, technical support, and development services, we give businesses a competitive and sustainable edge. We have 5 production sites in Finland & Sweden.

CUSTOMER APPLICATIONS

Used in a wide range of industries, OSTP's high-quality stainless steel tubes and fittings are trusted in the most demanding applications around the globe.

- Pulp & Paper
- Water
- Pharmaceutical
- Food & Dairy
- Construction
- Chemical
- Shipbuilding
- Metallurgy
- Oil & Gas
- Energy and Environmental Solution

Main route to markets is via stockholders.

SAFETY AND PERFORMANCE

Our business philosophy is based on highly focused customer service, best in class in safety & quality and optimized production and logistical processes. Our personnel are our most important asset and therefore it is important for us to continuously develop our staff and our leadership.

QUALITY

We're committed to customers and applications with the highest demands for quality.

OSTP's tubular products have a good reputation and are known for their reliability and high product quality.

SUSTAINABILITY

Our environmental focus sets OSTP apart as the most sustainable supplier in our industry.

Compared to others, we are already doing well in the industry.

To safeguard tomorrow's climate, we're also raising the bar.

Our commitment means reducing carbon levels throughout the supply chain, from our raw material sourcing to the delivery at our customer's gate.

OUR TARGET IS TO BE CO₂ NEUTRAL BY 2025 WITHIN OUR SITES

Product-related or management system-related certifications: ISO 9001-, 14001- and 45001-certificates, PED 2014/68/EU, AD 2000-Merkblatt W 0

Name and location of production site:
OSTP Sweden AB, Örnköldsvik Works

Product information

Product name: Unannealed butt weld fittings produced in Örnköldsvik

Product identification: Manufactured according to EN10253-4

Product description: Butt weld fittings for pressure corrosion applications

UN CPC code: Group 412, Class 4129

Geographical scope: Sweden

LCA information

Declared unit: 1 ton (1000 kg) of unannealed butt weld fittings at the manufacturer gate

Reference service life: N/A

Time representativeness: The data is collected from year 2021. The database data are from 2022. The stainless steel LCI data is from 2019.

Database(s) and LCA software used: SimaPro (release 9.4.0.2), and database ecoinvent 3.8. The used stainless steel LCI data in this study is published by the European Steel Association (EUROFER). EUROFER provides European average LCI data for stainless steel flat coil and quarto plate products.

System diagram: See figure below

Description of system boundaries: Cradle to gate

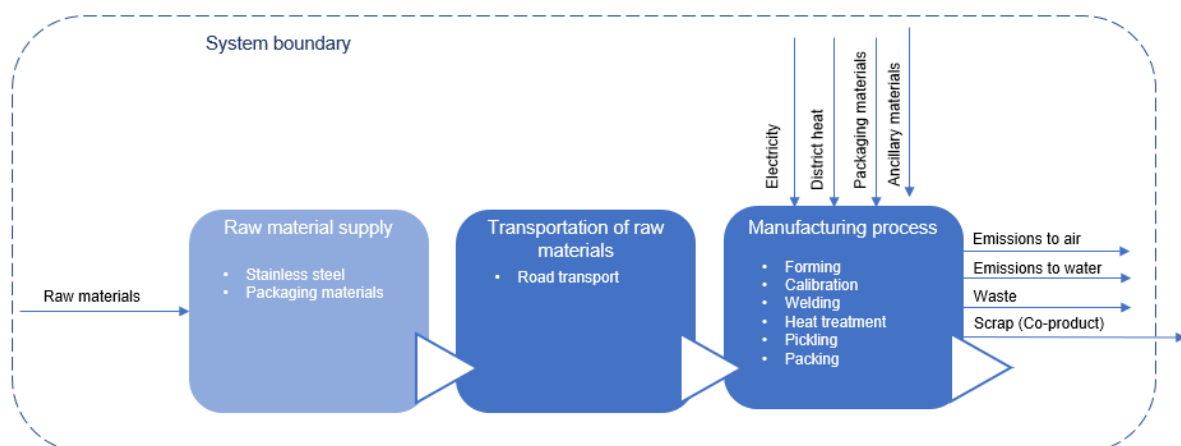
Excluded lifecycle stages: Transportation to retail, use stage and end-of-life stages are excluded.

More information:

Cut-off rule: 1% cut-off rule was applied for input flows in the inventory. Cut-off allocation of waste burdens and benefits in accordance with the polluter pays principle as stipulated in the PCR.

Allocation: Steel scrap produced in module A3 is treated as co-product and environmental impacts are allocated for it based on physical properties, and therefore, mass-based co-product allocation is applied.

LCA practioner: Ecobio Oy, info@ecobio.fi



Content declaration

Product

Materials / chemical substances	Weight, ton	%	Environmental / hazardous properties
Iron	0,7196	71,96 %	-
Chromium	0,1786	17,86 %	-
Nickel	0,0902	9,02 %	-
Molybdenum	0,0106	1,16 %	-
Titanium	0,0000	0,00 %	-
TOTAL	1,0000	100,00 %	-

All the stainless steel raw materials used by OSTP in the manufacturing of its products do not contain substances of very high concern (SVHC) as defined and listed per Article 57 and 59 (ECHA candidate list) of the REACH Regulation. There are no Annex XIV substances in the stainless steels used that would require authorization. Additionally, all used stainless steel comply with the restrictions in Annex XVII of the REACH Regulation.

Packaging

Distribution packaging: Corrugated board box and packaging film is used to protect the product.

Recycled material

Provenience of recycled materials (pre-consumer or post-consumer) in the product: The product contains on average 67,9 % of post-consumer material.

Environmental performance

Potential environmental impact

PARAMETER		UNIT	Upstream	Core	Downstream	TOTAL
Global warming potential (GWP)	Fossil	kg CO ₂ eq.	3,82E+03	1,22E+02	INA	3,94E+03
	Biogenic	kg CO ₂ eq.	2,39E+02	1,23E+02	INA	3,63E+02
	Land use and land transformation	kg CO ₂ eq.	6,51E+00	2,63E-01	INA	6,77E+00
	TOTAL	kg CO ₂ eq.	4,06E+03	2,46E+02	INA	4,31E+03
Acidification potential (AP)		kg mol H ⁺ eq.	2,99E+01	7,68E-01	INA	3,07E+01
Eutrophication potential (EP)	Aquatic freshwater	kg P eq.	1,01E-01	3,73E-02	INA	1,39E-01
	Aquatic marine	kg N eq.	4,15E+00	2,34E-01	INA	4,38E+00
	Aquatic terrestrial	mol N eq.	4,53E+01	2,39E+00	INA	4,77E+01
Photochemical oxidant creation potential (POCP)		kg NMVO C eq.	1,29E+01	4,76E-01	INA	1,34E+01
Ozone layer depletion (ODP)		kg CFC 11 eq.	2,69E-05	1,48E-05	INA	4,17E-05
Abiotic depletion potential (ADP)	Metals and minerals	kg Sb eq.	2,72E-01	9,04E-04	INA	2,73E-01
	Fossil resources	MJ	5,05E+04	1,40E+03	INA	5,19E+04
Water deprivation potential (WDP)		m ³ world eq.	1,15E+05	-5,08E+00	INA	1,15E+05

Use of resources

PARAMETER		UNIT	Upstream	Core	Downstream	TOTAL
Primary energy resources – Renewable	Use as energy carrier	MJ, net calorific value	6,76E+03	2,84E+03	INA	9,60E+03
	Used as raw materials	MJ, net calorific value	2,81E-06	0,00E+00	INA	2,81E-06
	TOTAL	MJ, net calorific value	6,76E+03	2,84E+03	INA	9,60E+03
Primary energy resources – Non-renewable	Use as energy carrier	MJ, net calorific value	5,39E+04	1,47E+03	INA	5,54E+04
	Used as raw materials	MJ, net calorific value	0,00E+00	0,00E+00	INA	0,00E+00
	TOTAL	MJ, net calorific value	5,39E+04	1,47E+03	INA	5,54E+04
Secondary material		kg	6,60E+02	0,00E+00	INA	6,60E+02
Renewable secondary fuels		MJ, net calorific value	0,00E+00	0,00E+00	INA	0,00E+00
Non-renewable secondary fuels		MJ, net calorific value	0,00E+00	0,00E+00	INA	0,00E+00
Net use of fresh water		m ³	9,35E+03	2,79E-01	INA	9,35E+03

Waste production and output flows (optional)**Waste production**

PARAMETER	UNIT	Upstream	Core	Downstream	TOTAL
Hazardous waste disposed	kg	0	0	INA	0
Non-hazardous waste disposed	kg	0	0	INA	0
Radioactive waste disposed	kg	0	0	INA	0

Output flows

PARAMETER	UNIT	Upstream	Core	Downstream	TOTAL
Components for reuse	kg	0	0	INA	0
Material for recycling	kg	0	318	INA	318
Materials for energy recovery	kg	0	0	INA	0
Exported energy, electricity	MJ	0	0	INA	0
Exported energy, thermal	MJ	0	0	INA	0

References

General Programme Instructions of the International EPD® System. Version 3.01.

Ecobio LCA Report – Stainless steel tubular products. OSTP Holding Oy.

EUROFER. Life Cycle Inventory (LCI) data. Available at:

<https://www.eurofer.eu/issues/environment/lifecycle-assessment-lca/life-cycle-inventory-lci-data/>

International EPD System: PCR 2015:03 Basic iron or steel products & special steels, except construction steel products. Version 2.0. 28 pages. Valid until 2024-03-27.

