

# ENVIRONMENTAL PRODUCT DECLARATION

## Mooring Chain R3-R3S, R4-R4S and R5 Quality steel for Offshore Industry

### CPC CODE

42991

### REGISTRATION NUMBER

EPD-IES-0000476

### EPD OWNER

VICINAY SESTAO S.L.



### PUBLICATION DATE

2016/11/11

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2024/11/11

### VALIDITY DATE

2029/10/31

**VICINAY**  
**SESTAO**

EPD of multiple products, based on the average results of the product group.

In accordance with ISO 14025:2006 and PCR 2023:01 Fabricated metal products, except construction products (Version 1.0.2)

Programme: The International EPD® System [www.environdec.com](http://www.environdec.com)

Programme operator: EPD International AB

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|                                                                                   |                                                                                                                                                                                                                                                                                               |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EPD verification and registration programme                                       | The International EPD® System<br>EPD International AB Box 210 60<br>SE-100 31 Stockholm Sweden<br>info@environdec.com                                                                                                                                                                         |
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| Procedure for follow-up of data during EPD validity involves third party verifier | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                                                                                                                           |
| EPD Type                                                                          | <input checked="" type="checkbox"/> Cradle-to-gate <input type="checkbox"/> Cradle-to-grave                                                                                                                                                                                                   |
| Independent verification of the declaration and data, according to ISO 14025:2006 | <input checked="" type="checkbox"/> EPD External verification <input type="checkbox"/> EPD Process certification                                                                                                                                                                              |
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| Third party verifier accredited or approved by                                    | ENAC nº125/C-PR283                                                                                                                                                                                                                                                                            |
| Reference Product category rules (PCR)                                            | PCR 2023:01 Fabricated metal products, except construction products (Version 1.0.2)<br>CPC 422-429                                                                                                                                                                                            |
| Product category rules (PCR) review conducted by                                  | PCR review was conducted by: The Technical Committee of the International EPD® System. A full list of members is available at <a href="http://www.environdec.com">www.environdec.com</a> . The review panel may be contacted via <a href="mailto:info@environdec.com">info@environdec.com</a> |
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The EPD owner has the sole ownership, liability, and responsibility for the EPD.  
EPDs within the same product category but registered in different EPD programmes may not be comparable. For two EPDs to be comparable, they must be based on the same PCR (including the same version number) or be based on fully-aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have equivalent system boundaries and descriptions of data; apply equivalent data quality requirements, methods of data collection, and allocation methods; apply identical cut-off rules and impact assessment methods (including the same version of characterisation factors); have equivalent content declarations; and be valid at the time of comparison. For further information about comparability, see ISO 14025.

# 01 VICINAY SESTAO S.L.

VICINAY SESTAO S.L. (from now VSSL) is located in Biscay (Sestao), northern Spain. It was established in 2013 and belongs to VICINAY MARINE group. With the new advanced management model and infrastructures, VSSL allows to increase the group's manufacturing capacity in 50.000 tons/year reaching its highest capacity in chain production.

VICINAY MARINE is the first producer of mooring lines worldwide, providing solutions tailored to meet the needs of each customer. Because of the solid experience of Vicinay family over more than 200 years of work and effort, VICINAY MARINE has managed to be a world leader in the supply chain and mooring lines for offshore industry.

VSSL produces high technology chains with a nominal diameter of chain between 70 mm and 220 mm, although enlarged and end links up to 240 mm can be manufactured.

VSSL offers engineering and design services, offshore assistance, chain resistance tests of up to 220 mm immersion and 0.2-0.8 Hz, assistance in loading and unloading chains, particular test specifications (FEA, Fatigue, OPB, Torsion and SCC calculations) and calculation of the permanent life of the chain.

Homologations of all steel grade (R3, R3S, R4, R4S, R5 and R6) links are carried out in the plant with a higher diameter approval of 220 mm. The exact composition of this steel is covered by exclusive legal rights including patent and trademarks (steel grades are approved by different Classification Societies (BV, DNV, ABS, LR, ClassNK).

VSSL is a company focused on the future. It's very important for the organisation to be recognised as a world leader for its safety, quality, management and innovation. For this reason, in 2013 international management standards were implemented, obtaining the following certifications:

- ISO 9001:2015
- ISO 45001:2018
- ISO 14001:2015
- ISO 50001:2018

The management model of the company is based on the proposal by the Euskalit foundation, promoted by the Basque Government: "Advanced Management Model". This model is the result of the consensus of people belonging to different organisations and institutions. Its purpose is to promote the application of its principles in Basque organisations and to contribute to a sustainable development.

We are founding members of the BASQUE ECODESIGN CENTER, an entity unique of this type in Southern Europe, where a limited number of private companies and the Basque Government are committed to design and execute innovative projects in accordance with Ecodesign standard (ISO 14006).

In VSSL we address sustainability in its multiple dimensions: environmental, economic, social, institutional and, above all, as a changing process to set a new style of development-oriented sustainability of the global human and natural system in continuous interaction. Through a transparent information policy and strategy of on-going dialogue, we aim to address our stakeholders' expectations to preserve the environment, in line with the latest Sustainable Development Goals approved by the United Nations (2015-2030).





*We have spent many years manufacturing and supplying mooring chains to provide security for the devices floating in the seas around the world, challenging the changing motion of the ocean, the force of the waves and the winds, and the pulsating forces of nature always trying to regain control.*

*Over this time, our customers have relied on us and on our mooring lines, lines tailored to the circumstances, because no two seas are ever the same. There are seas of great depth and shallow seas, seas with different levels of salinity, temperatures and life. This is the environment for which we build the anchors that attach floating devices to the seabed, always thinking about the unique needs of each customer, both present and future.*

*We manage to overcome this challenge year after year thanks to the people who are part of Vicinay Sestao S.L.*

**JUAN IGNACIO VICINAY,  
CHAIRMAN OF VICINAY SESTAO S.L.**

*Vicinay has always been characterised by creating room for continuous improvement, by its ability to overcome the past, its adaptation to change and even for shaping the future, often anticipating the needs of the market.*

*In VSSL we consider essential that the management strategy, which arises each financial year to ensure that people have safe and healthy conditions in the performance of their duties, is respectful with the environment and sustainable global development.*

*Vicinay Sestao S.L. wants to be recognized as a company of the future. We shall remain committed to reduce environmental impacts, by participating in renewable energy projects and consistently increasing competitiveness of the company through the continuous improvement and innovation of products, services and processes.*

**ASIER PINEDO,  
DIRECTOR OF VICINAY SESTAO S.L.**



# 02 LIFE CYCLE ASSESSMENT

The LCA study was carried out in accordance with the following standards:

- ISO 14040:2006. Environmental management. Life cycle assessment. Principles and framework
- ISO 14044:2006. Environmental management. Life cycle assessment. Requirements and guidelines
- ISO 14025:2010. Environmental labels and declarations. Type III environmental declarations. Principles and procedures
- General Programme Instructions of the International EPD System, version 4.0
- PCR 2014:10 Fabricated steel products, except construction products, machinery and equipment (Version 2.1) CPC 422-429

VSSL produces high technology chains for the offshore industry. The traditional high quality of our products is well known and preferred by the major oil & gas companies.

The scope and the Declared Unit of the Environmental Product Declaration is the fabrication of 1.000 kg of offshore mooring chain from 70 mm to 220 mm nominal diameter (small and big diameter chains). There have been considered different steel grades, in accordance with different ranges of material mechanical properties:

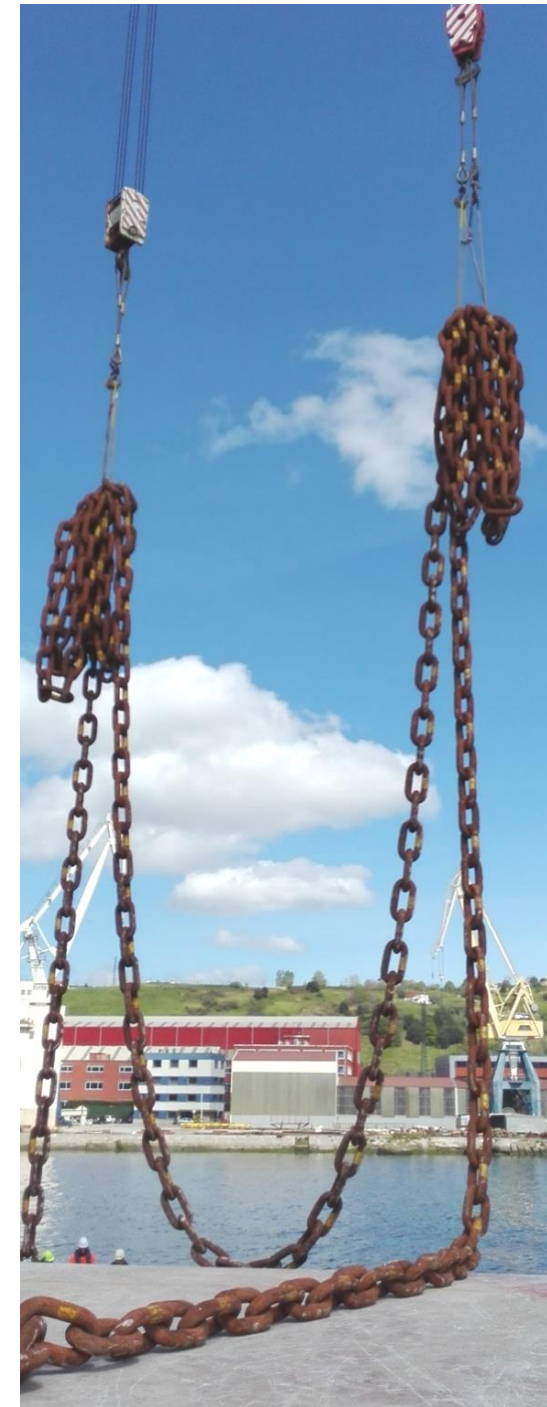
- R3-R3S quality steel
- R4-R4S quality steel
- R5 quality steel

These are considered to be similar products, so they have been grouped and thereby included in the same EPD under one set of results. Similar products are defined as products covered by the same PCR, with identical or similar functions, manufactured by a single company at one or several manufacturing sites, with the same major steps in the A3/core processes. In accordance with the requirements for the reference PCR and GPI last version, the LCA study has been focused in each quality steel data, but the declared environmental information in the EPD is based on the average results of the product group. Therefore, it is an EPD of multiple products, based on the average results of the product group.

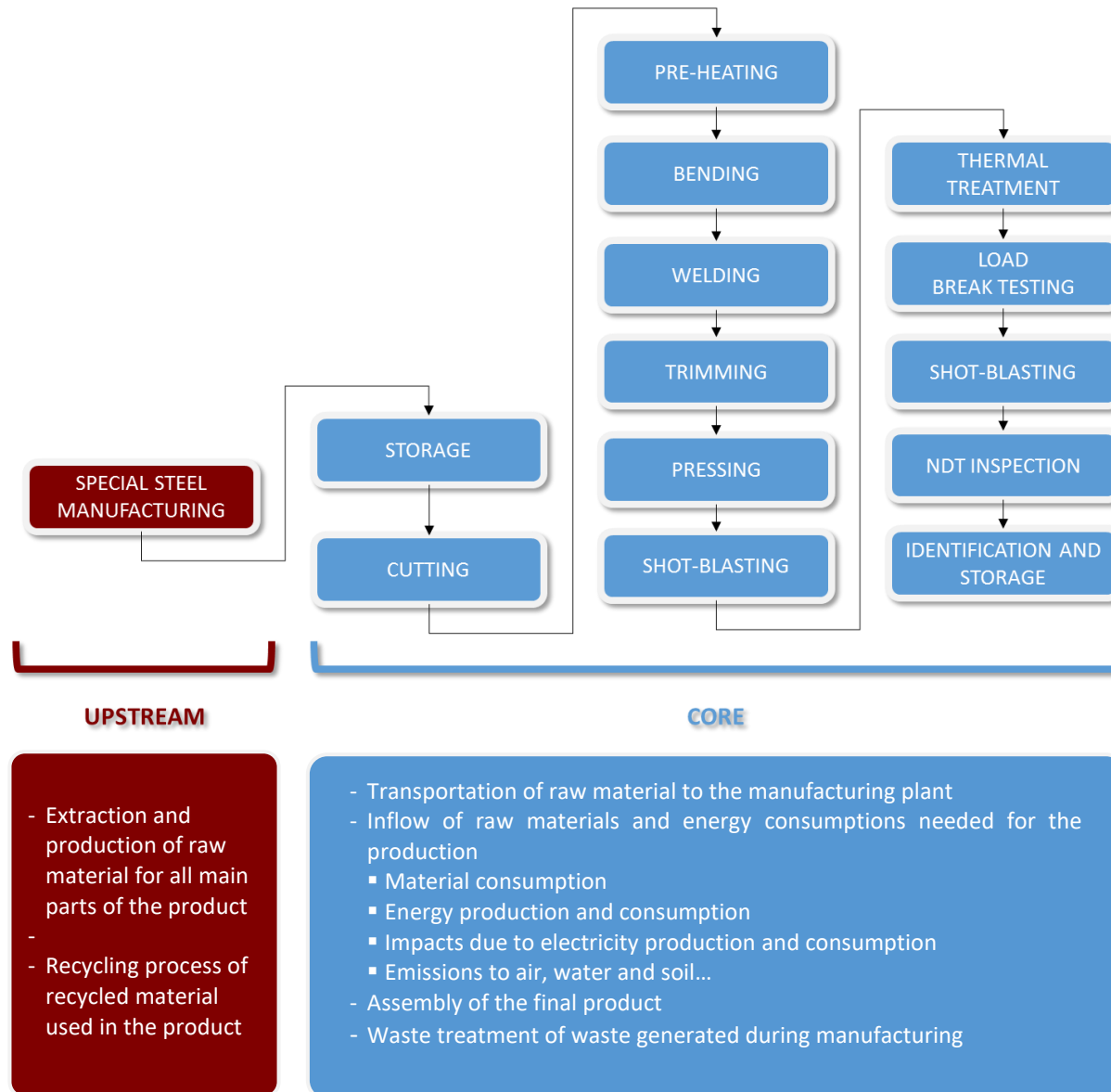
All the available steel grades have been included in the study applying a “cradle to gate” scope. Downstream stage is not included according to the PCR requirements.

The offshore mooring chain manufacturing plant included in the LCA study is located in Sestao (Biscay), in the north of Spain, using manufacturing data for the year 2023.

The LCI and LCA database used has been Ecoinvent 3.9.1.



# SYSTEM BOUNDARIES: Cradle-to-Gate



# PRODUCTION OF CHAINS



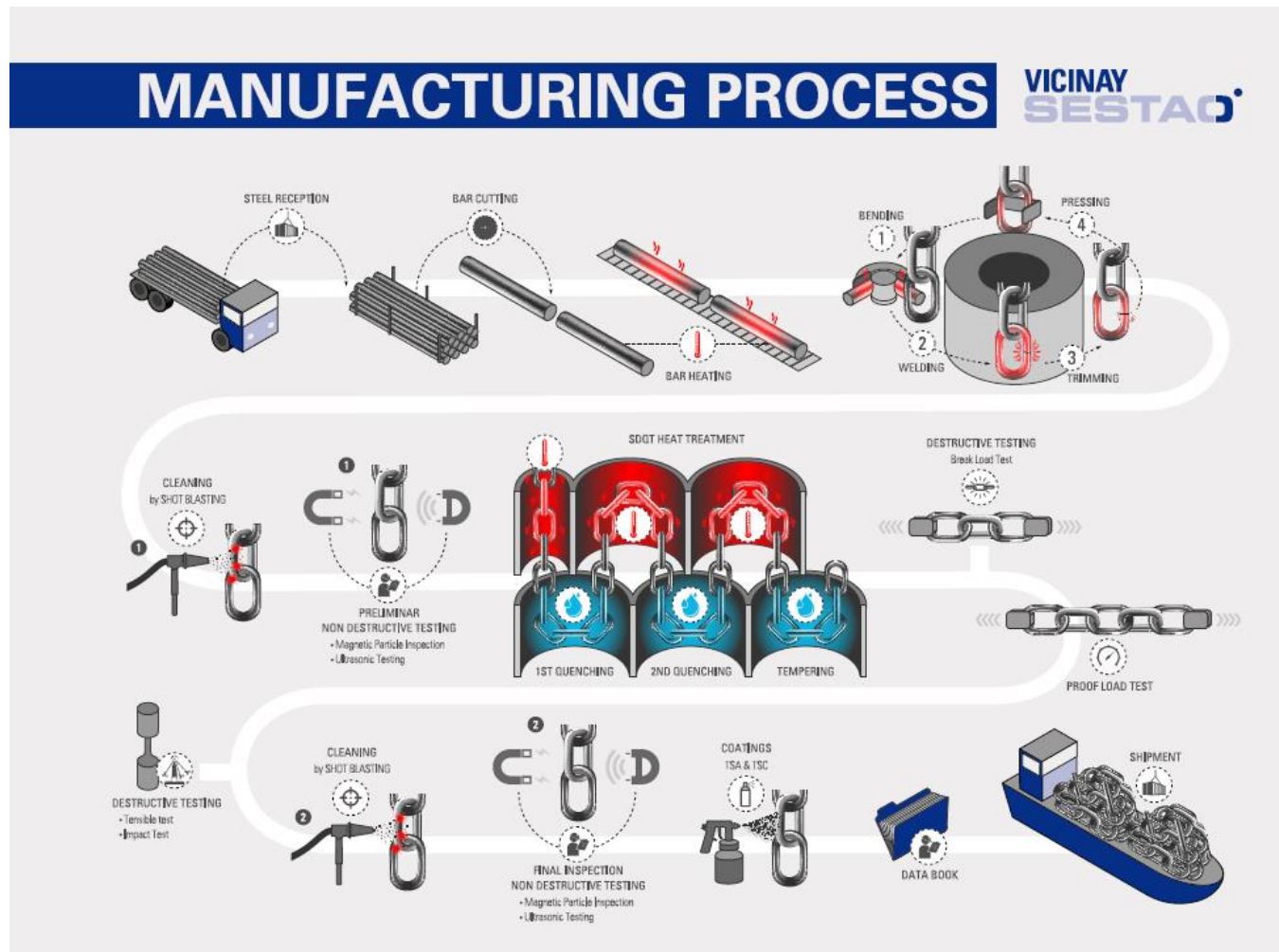
The chain fabrication facility produces chains from 70 mm diameter up to 220 mm diameter in five different steel grades without restrictions in length or weight with an annual capacity of 50.000 tons.

R3-R3S, R4-R4S and R5 steel grades used for the manufacturing are achieved through the alloy of different elements such as silicon, manganese, copper, carbon, vanadium, chrome, nickel or molybdenum. **The steel used for the manufacturing is 100% recycled content. The product is composed of 100% final steel.**

VSSL steel specification gives detailed information regarding the chemical composition, tests for quality control, delivery method (dimensional requirements and packaging) and mechanical characteristics. The exact composition of this steel is covered by exclusive legal rights including patent and trademarks, so a simplified range of the content of the included products is provided. The product does not contain, or release substances classified as hazardous according to Regulation (EC) No. 1907/2006 (REACH), and no component of the product is classified as hazardous according to Regulation (EC) No. 1272/2008 (CLP)

| Vicinay R3-R3S-R4-R4S-R5 quality Steels | MIN  | MAX    |
|-----------------------------------------|------|--------|
| carbon                                  | 0,18 | 0,24   |
| silicon                                 | 0,15 | 0,35   |
| manganese                               | 0,85 | 1,2    |
| sulfur                                  | 0    | 0,008  |
| phosphorus                              | 0    | 0,02   |
| aluminum                                | 0,01 | 0,04   |
| copper                                  | 0    | 0,25   |
| vanadium                                | 0,05 | 0,1    |
| chromium                                | 0,2  | 0,35   |
| nickel                                  | 0,4  | 0,55   |
| molybdenum                              | 0,08 | 0,13   |
| boron                                   | 0    | 0,0015 |
| titanium                                | 0    | 0,015  |
| arsenic                                 | 0    | 0,025  |
| antimony                                | 0    | 0,005  |
| tin                                     | 0    | 0,03   |

# PRODUCTION OF CHAINS



# PRODUCTION OF CHAINS

Manufacturing plant is equipped with the latest advances in the robotic handling of large links for welding, with maximum guarantees of safety and quality. We also have continuous heat treatment furnaces with the latest control technology, test machines until 4.000 tons capacity and the most advanced NDT technology for inspection by Phased Array.

The principal function of produced chain is the mooring of floating installations such as oil & gas extracting and/or storing platforms, buoys, vessels, etc. Mooring with this type of chain allows for minimal movement of the installation when any type of climatic condition is faced, which ensures the necessary conditions for a preventive management of safety and environmental risks.

The organization's business is the Design, Manufacturing and Supply of high technology chains for the oil & gas and wind industries.

Each of the processes from the buying of the raw material to the sale of the final product are covered by internal procedures included in HSEQ integrated management system, which is subject of periodical audit by third party certification bodies such as DNV (Det Norske Veritas).

The products designed and made by VSSL are prepared to be able to withstand stringent technical requirements and adverse environmental conditions during their calculated useful life-span of 20 years.

In the countries where VSSL products are operating, company does not know about any environmental legislation to which the final product is affected by.



VSSL's Health and Safety, Quality and Environmental policies are kept up to date and are available for inspection by any interested party. These policies guarantee the fulfillment of both the client and the legal and environmental requirements applicable to its processes.

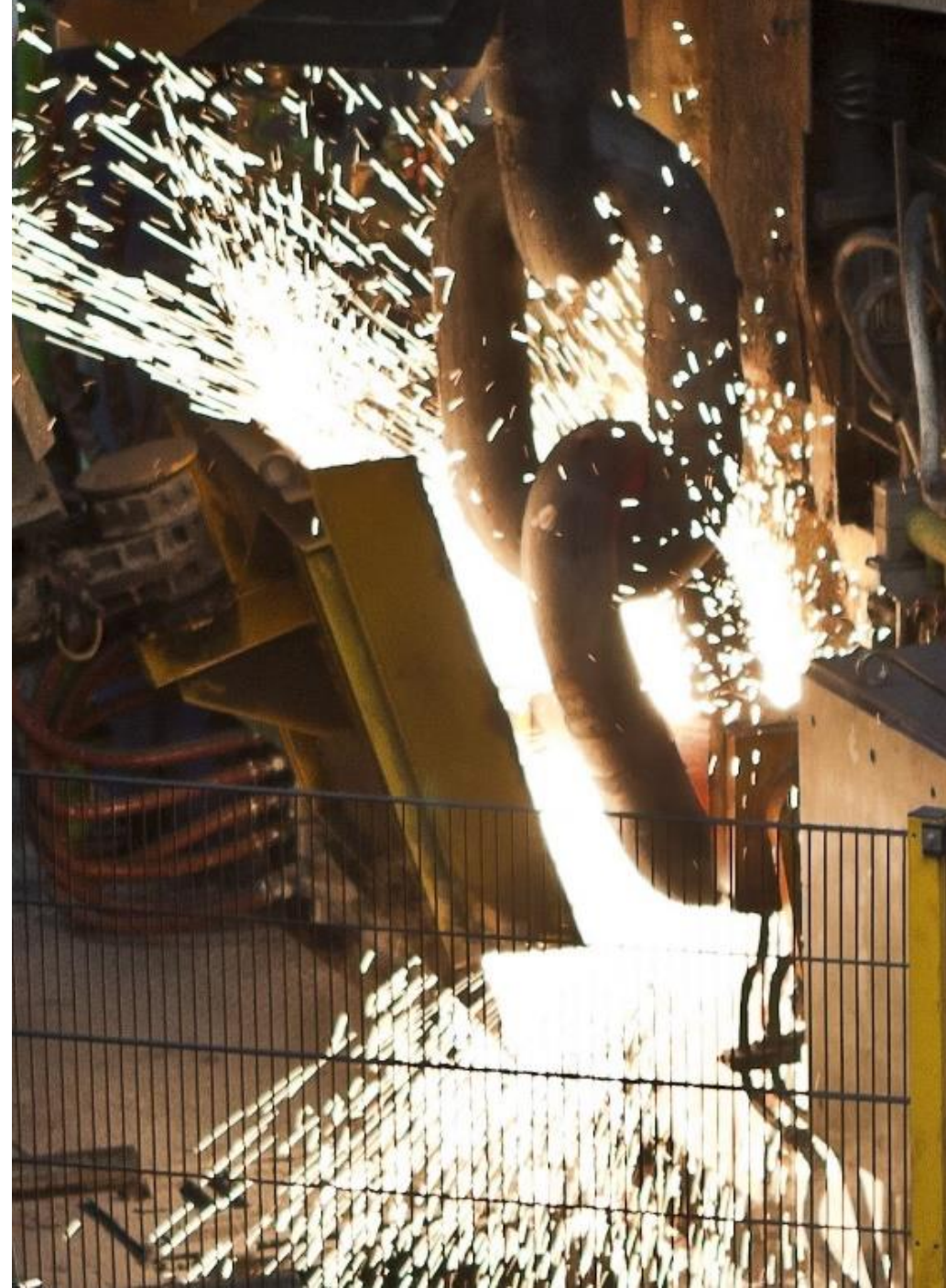
The life-cycle of the offshore mooring chains begins with the production of the steel bars, using selected scrap metals, the steel is produced using electric arc furnace to produce the raw material in ingot or continuous casting as per VSSL required composition. Once the steel is rolled into bars these are packaged and transported by lorries, belonging to the steel manufacturer, to the chain manufacturing plant in Sestao.

When the steel bars arrive to the plant, they are classified and stored in metallic racks in the reception area. When it is required for manufacturing, they are moved using a crane to a conveyor system which feeds the sawing machines, where each bar is cut to the required length. Any left-over after the cutting process (usually between 2% and 5% of the total mass) are managed as revalued waste, trying to minimize this percentage at the time of the purchasing order.

An automatic guided vehicle takes the steel bars to the manufacturing machines, where they are introduced into the induction furnaces or electric heaters as a first stage of the manufacturing of the link. After the pre-heating, the bar goes to the bending machine, where it is automatically bent in two times and joined previous link. Then it is subject of a flash butt welding process, where two sides are welded with no material addition. Once the link is welded it is trimmed in order to remove the excess material from the welded area. The last stage of the carousel is the pressing, in order to reach the proper shape and dimensions.

After leaving the carousel, when preliminary inspection is to be performed in big diameter chains, the link's surface is shot-blasted (non-hazardous waste) in order to prepare it for non-destructive testing. Process is made using a robot, just shot-blasting the link surface to make the process as much profitable as possible. These shot-blasting equipment have a system to separate the used grit from dust making non-hazardous waste segregation and reuse easier.

After non-destructive inspection any material that it is not according to quality standards is painted blue and is cut and removed from the chain. This cut material is classed as revalued waste.



After having undergone these processes, the chain then passes on to the heat treatment phase in order to give the material the final mechanical properties. This treatment consists of double quenching followed by tempering. Between each step, the chain is cooled by immersion in a closed water circuit which is not emptied externally.

After heat treatment the chain is proof load tested to verify its resistance to traction using proof load test bench with loads rigorously determined according the chain's dimensions and quality. 100% of the links are tested in a proof load test bench after which the elongation of the link is evaluated. This is done to make sure that the load and dimensions are in accordance with the standards and specifications.

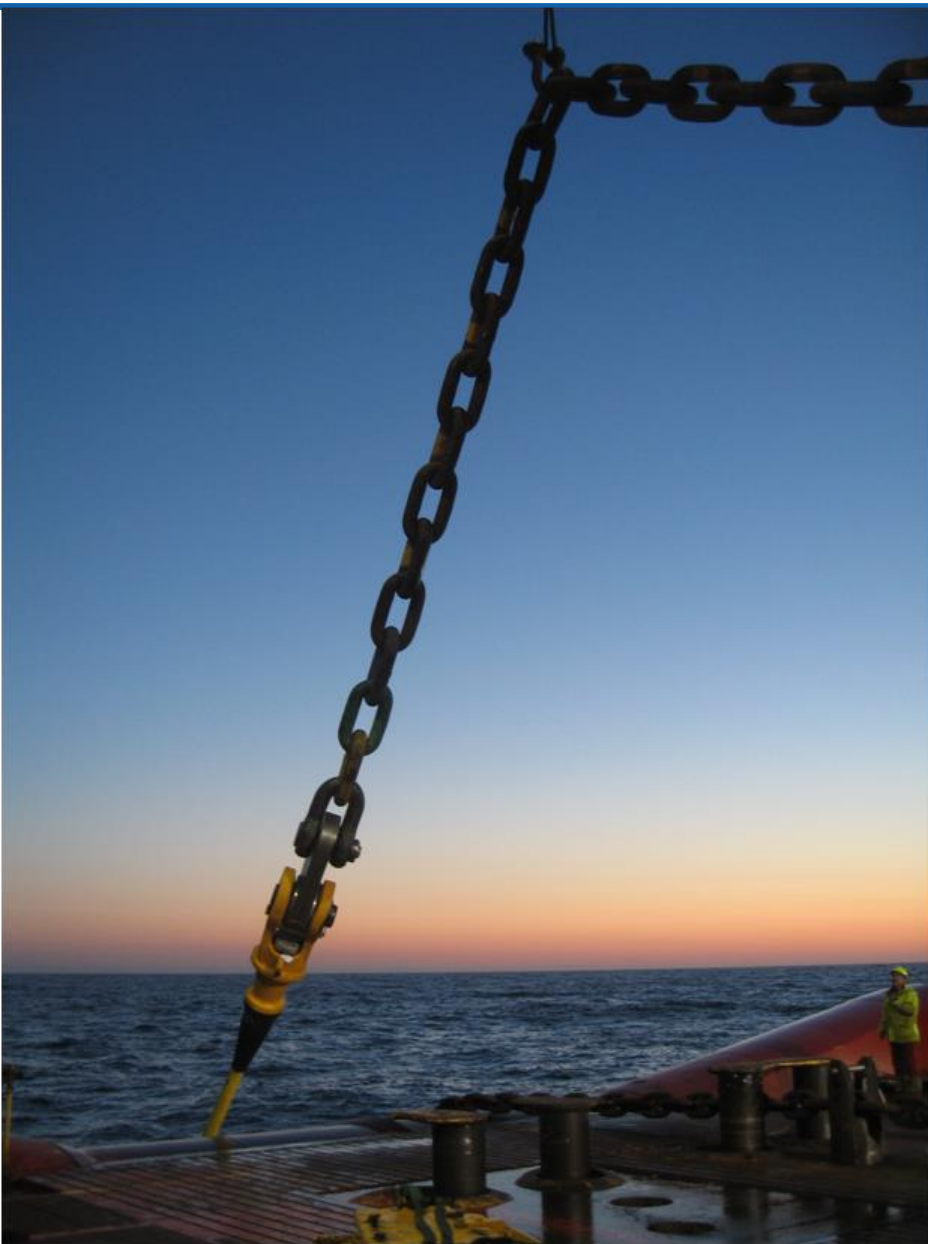
Once the chain is proof load tested is shot-blasted in order to prepare the surface for final non-destructive inspection. This operation starts with a visual inspection of each and every link. After identifying any possible flaws (metallic deposits which were not eliminated during shot-blast cleaning) on the surface of the link these defects are removed by manual soft grinding.

Once the surface is prepared the link is superficially inspected through fluorescent magnetical particles and weld internally inspected using Phased Array ultrasonic testing. In case that any relevant defect is discovered according to acceptance criterias, the link shall be removed as scrap metal and considered as revalued scrap waste.

After final inspection the chain is identified according to the client's specifications and is stored waiting for delivery. Delivery is usually carried out by vessel.

During each of the production phases the chain is moved using a system of cranes and fairleads which make the moving of such heavy items possible.

# LCA DATA SOURCES



The data used in modeling the processes refers the period January-December of the year 2023 and it reflects the activities carried out by the company in the production of the mooring chain. Primary data concerning the energy consumption, resource consumption and waste production on VSSL plant is taken from the consumption control tables created by the company using information from natural gas, electricity and water from supply companies, the weight control by means of a properly calibrated scale and delivery notes of the diverse supplies reported according to the Environmental Management System certified according to ISO 14001:2015 procedure “Measuring and Follow-up”.

VSSL has not purchased electricity GDOs, so the residual electricity mix of the electricity supplier on the market has been used.

The data provided by VSSL are not broken down by the selected declared unit, but they are provided for the total of the company in the year selected. Therefore, distinction has been made between the specific characteristics of each process, the quantity of material processed, and based on calculations it has been estimated the allocation of the proportional part the environmental aspects per ton of manufactured chain.

In the same way, primary data concerning the energy consumption, resource consumption and waste production from the intermediate manufacturing supplier have been taken for the same period of time. This data has been “transformed” into LCA Declared Unit data by comparing the collected data with the manufacturing capacity (separated in R3-R3S, R4-R4S and R5 qualities steel) for the same period.

The analyzed life-cycle includes the gathering of scrap metal by the supplier for the production of the special steel and transportation from their manufacturing plant to VSSL plant, where the steel bars are processed and the chains which are the subject of this declaration are produced.

No cut off rule has been taken into account on this study, so all the data compiled has been used for the LCA.

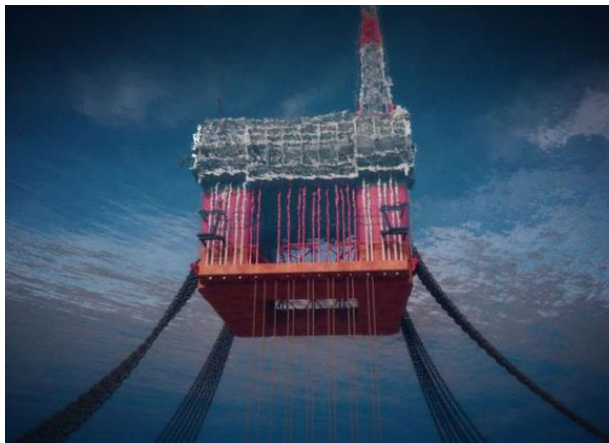
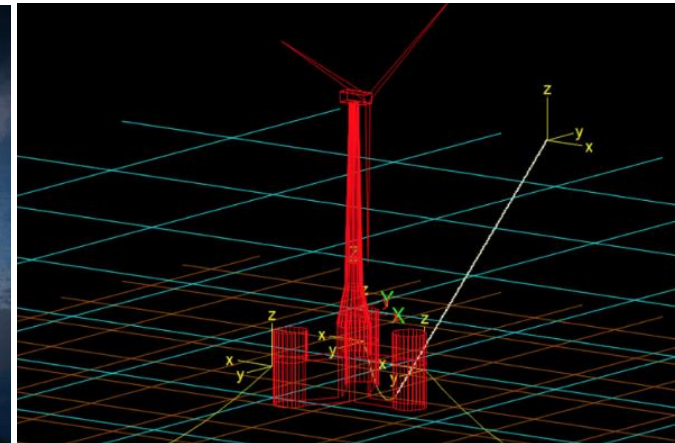
# 03 ENVIRONMENTAL PROFILE

| ENVIRONMENTAL PROFILE [1.000 kg fabricated chain]                 |                         | UPSTREAM                                                                            | CORE                                                                                | TOTAL           |
|-------------------------------------------------------------------|-------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------|
| ENVIRONMENTAL IMPACT                                              | UNIT                    |  |  |                 |
| Global Warming Potential (GWP) (fossil)                           | kg CO <sub>2</sub> eq   | 9,98E+02                                                                            | 8,14E+02                                                                            | 1,81E+03        |
| Global Warming Potential (GWP) (biogenic)                         | kg CO <sub>2</sub> eq   | 4,16E+00                                                                            | 2,61E+00                                                                            | 6,77E+00        |
| Global Warming Potential (GWP) (land use and land transformation) | kg CO <sub>2</sub> eq   | 1,63E+00                                                                            | 1,45E+00                                                                            | 3,07E+00        |
| Global Warming Potential (GWP) (total) kg CO <sub>2</sub> eq      | kg CO <sub>2</sub> eq   | 1,00E+03                                                                            | 8,19E+02                                                                            | 1,82E+03        |
| Acidification potential (AP)                                      | molH <sup>+</sup> eq    | 4,99E+00                                                                            | 3,52E+00                                                                            | 8,51E+00        |
| Eutrophication Potential (EP) Aquatic Freshwater                  | kg P eq                 | 5,98E-01                                                                            | 5,09E-02                                                                            | 6,49E-01        |
| Eutrophication Potential (EP) Aquatic Marine                      | kg N eq                 | 1,16E+00                                                                            | 9,43E-01                                                                            | 2,10E+00        |
| Eutrophication Potential (EP) Terrestrial                         | mol N eq                | 1,29E+01                                                                            | 9,71E+00                                                                            | 2,27E+01        |
| Photochemical oxidant formation potential (POCP)                  | kg NMVOC eq             | 4,37E+00                                                                            | 3,40E+00                                                                            | 7,76E+00        |
| Abiotic depletion potential (ADP) (elements)                      | Kg Sb eq                | 1,32E-01                                                                            | 1,53E-03                                                                            | 1,34E-01        |
| Abiotic depletion potential (ADP) (fossil fuels)                  | MJ, net calorific value | 1,41E+04                                                                            | 1,44E+04                                                                            | 2,85E+04        |
| Ozone layer depletion (ODP)                                       | kg CFC-11eq             | 1,43E-05                                                                            | 3,32E-05                                                                            | 4,76E-05        |
| Water scarcity potential                                          | m <sup>3</sup> eq       | 7,74E+02                                                                            | 1,18E+02                                                                            | 8,92E+02        |
| USE OF RESOURCES [1.000kg fabricated chain]                       |                         | UPSTREAM                                                                            | CORE                                                                                | TOTAL           |
|                                                                   |                         |  |  |                 |
| RENEVABLE RESOURCES                                               | UNIT                    | UPSTREAM                                                                            | CORE                                                                                | TOTAL           |
| Use as energy carrier                                             | MJ                      | 1,41E+04                                                                            | 1,44E+04                                                                            | 2,85E+04        |
| Use as raw material                                               | MJ                      | 1,61E+03                                                                            | 0,00E+00                                                                            | 1,61E+03        |
| <b>TOTAL RENEVABLE RESOURCES</b>                                  | <b>MJ</b>               | <b>1,57E+04</b>                                                                     | <b>1,44E+04</b>                                                                     | <b>3,01E+04</b> |
| NON RENEVABLE RESOURCES                                           | UNIT                    | UPSTREAM                                                                            | CORE                                                                                | TOTAL           |
| Use as energy carrier                                             | MJ                      | 1,77E+03                                                                            | 2,02E+03                                                                            | 3,79E+03        |
| Use as raw material                                               | MJ                      | 1,61E+03                                                                            | 0,00E+00                                                                            | 1,61E+03        |
| <b>TOTAL NON RENEVABLE RESOURCES</b>                              | <b>MJ</b>               | <b>3,37E+03</b>                                                                     | <b>2,02E+03</b>                                                                     | <b>5,39E+03</b> |

This is an EPD of multiple products, based on the average results of the product group. Variation on the Global Warming Potential (GWP) (total) results from one quality steel to another, goes from -11% to +10%. Overall variation on each environmental impact indicator goes from -37% to +67%, depending on the indicator. This is strongly influenced by the composition and alloys used in the manufacturing of the steel.

# ADDITIONAL ENVIRONMENTAL INFORMATION

Comparison of fossil carbon footprint between the different analyzed steel quality grades, being the most left one the average declared results.



# 04 A SUSTAINABLE VISION OF FUTURE

The differences versus previous versions of the EPD, shows the work philosophy of VSSL, the organization manages to improve its benefits over the years.

This fact can also be seen through the EPDs of its chains, which it has been carrying out since 2008. Through the optimization of its processes, it has achieved important environmental improvements, such as the reduction of the environmental impact towards climate change in all its chains.

It has also achieved the optimization of resources, being able to be more efficient in the use of the component steel of the chains and thereby reducing the associated material losses.

VSSL factory has been designed taking into account the most advanced energy efficiency principles and systems; soundproofing to minimize noise pollution, and also the management of waste, which is separated out in our own waste gathering point.

At VSSL we have implemented the ISO 50001:2011. We use less polluting energy sources, such as electricity and induction systems, instead of fuel oil, in order to generate a lower carbon footprint. We also use heat from the furnaces to warm up the domestic hot water, through heat exchangers that are specially designed for our facilities. Currently an R+D+I project is being developed to take advantage of the ability to collect data from manufacturing installations of VSSL and to guide the organization towards predictive maintenance. The principal objectives of the project are to reduce the carbon footprint, increase the energy efficiency and reduce energy costs.

The qualities of steel designed specifically for chains, with an optimal behavior with respect to erosion and corrosion, contributed in the past to the elimination of bitumen based finishing paints which were never considered favorable to the environment. Today, continuing with a highly creative policy of R+D+I in collaboration with prestigious steel manufacturers and Vicinay Marine Innovación R+D department, we are developing new steel grades which composition, shaped and subsequent specific treatment lead to restricted and controlled mechanic properties, optimizing the costs to the maximum and reducing the environmental impact by using lower alloy factors.

In VSSL we follow a responsible management protocol based on the identification, storage, and transportation of all waste, which our productive process generates. With regard to hazardous waste, we maintain a responsible policy regarding the choice of materials, machinery, and equipment we use and leakage control. All these measures allow our environmental footprint to continually reduce.

VSSL clearly expresses in its “Mission, Vision, Values and Policy” statement its vocation of being a local company with a world-wide projection. 85% of our suppliers are from our regional area, which means that we generate wealth in the area and also minimize the use of transport, with the consequent reduction in environmental impact.

For VSSL to be socially sustainable is to promote the construction of a company focused on global welfare. We are members of the global corporate sustainability network, Global Compact, which entails the promotion of actions that allow the fulfillment of human, labor and environmental rights and the fight against corruption in regions where our organization operates. The principle 7, which states that businesses should support a precautionary approach to environmental challenges, is the one which binds the company to be proactive in its approach to environmental challenges.

Interchanging best practices with other companies which have a proven track-record of being eco-friendly has allowed VSSL to become a member of Izaite, the Association of Basque Companies for Sustainability, a group which is fully committed to Sustainable Development and Corporate Social Responsibility ([www.izaite.net](http://www.izaite.net)).

We are founding partner of The Basque Ecodesign Center, entity based in the Basque Country and structured pursuant to a partnership framework between companies from the private sector and the Basque Government, and whose scope is to design and execute ecodesign innovative projects. Actually we are measuring the OEF, Organisation Environmental Footprint, which allows us to evaluate the environmental performance of the organization.

One of our last steps has been to calculate the Organizational Environmental Footprint (OEF) using ISO / TS 14072: 2014 standard to give credibility and assurance to the calculations and reports. Through this methodology, VSSL can applied Life Cycle Thinking concept to all its organization.

# 05 DIFFERENCES FROM PREVIOUS VERSIONS OF THE EPD

V1, November 11, 2016: First publication date

V2, November XX, 2024: Update because of expiration.

- Updated database (Ecoinvent 3.9.1) and methods (<https://environdec.com/resources/indicators>)
- Updated Core process data to 2023 year

# VERIFICATION STATEMENT CERTIFICATE

## CERTIFICADO DE DECLARACIÓN DE VERIFICACIÓN

*Certificate No. / Certificado nº: EPD03701*

CERTINALIA S.L.U., confirms that independent third-party verification has been conducted of the Environmental Product Declaration (EPD) on behalf of:

*CERTINALIA S.L.U., confirma que se ha realizado verificación de tercera parte independiente de la Declaración Ambiental de Producto (DAP) en nombre de:*

**VICINAY SESTAO, S.L.U.**  
**Av. de Altos Hornos de Bizkaia, 2**  
**48910 SESTAO (BIZKAIA) - SPAIN**

for the following product:  
*para el siguiente producto:*

**Mooring chain (R3-R3S, R4-R4S and R5 quality steel) for offshore industry**  
***Cadena de amarre (acero de calidad R3-R3S, R4-R4S y R5) para la industria offshore***

with registration number **EPD-IES-0000476** in the International EPD® System ([www.environdec.com](http://www.environdec.com)).  
*con número de registro EPD-IES-0000476 en el Sistema Internacional EPD® (www.environdec.com).*

it's in conformity with:  
*es conforme con:*

- **ISO 14025:2010 Environmental labels and declarations. Type III environmental declarations.**
- **General Programme Instructions for the International EPD® System v4.0.**
- **PCR 2023:01 Fabricated metal products, except construction products v1.0.2**
- **UN CPC 42991 Chain (except articulated link chain) and parts thereof, of iron or steel; chain and parts thereof, of copper**

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Manager



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