FOR INSPECTION BY INTERESTED PARTIES

Please note that this is a consolidated version of the original complaint submitted on 10/01/2025 and additional information provided by the complainant afterwards.

O'Connor & Company
European Lawyers

OPEN

COMPLAINT

under Article 5 of Regulation (EU) 2016/1036 of the European Parliament and of the Council of 8 June 2016

concerning imports of

certain cast iron articles originating in India and Turkey

By

EUROFONTE

on behalf of the Union industry

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A General Information

A.1 The Complaint

A.1.1 Legal Basis

1. The present Complaint is lodged under the Article 5 of Regulation (EU) 2016/1036 of the European Parliament and of the Council of 8 June 2016 on protection against dumped imports from countries not members of the European Union.[1]

A.1.2 Complaint Investigation Period and Reference Period

2. The complaint investigation period (CIP) of the Complaint is a twelve-month period starting 1 July 2023 to 30 June 2024. The reference period for the assessment of injury is the CIP and the three preceding calendar years: 2021, 2022 and 2023.

A.2 The Complainant

3. The present Complaint is lodged by Eurofonte ('the Complainant'), as a professional association registered under the laws of Belgium (Eurofonte a.s.b.l.) and registered address at 1 Avenue de la Joyeuse Entrée, B-1040 Brussels.

A.2.1 Union producers represented by the Complainant

4. The Complainant represents the following five European Union (EU) producers:

   - EJ Picardie SAS (France)
   - Fondatel Lecomte SA (Belgium)
   - Fonderies Dechaumont SA (France)
   - Ulefos Oy Niemisen Valimo (Finland)
   - Saint-Gobain PAM SA (France)

5. The list and the contact details of the Union producers represented by the Complainant is attached in *Annex A.01*.

6. The Complainant is legally represented by O'Connor & Company European Lawyers. The Powers of Attorney are attached in *Annex A.02*.

7. Besides the producers represented by the Complainant, other producers in the EU have been identified but are not represented by the Complainant. Their contact details are contained in *Annex A.03*.

A.2.2 Union industry and the representativeness of the Complainant

8. The Complainant has standing to request the initiation of this anti-dumping investigation as the production of the companies it represents constitutes a major proportion of total EU production within the meaning of Article 5(1) of the Basic Anti-

[1] OJ L 176 30.6.2016, p. 21

Dumping Regulation. Their production of the like product to the product concerned by this Complaint was 130,166 tonnes during the CIP.

9. Total EU production during the CIP was estimated based the methodology described in the section dedicated to the macro-economic indicators (see section C.4.1 *infra*), while the production during the CIP of the participating Union producers was obtained directly from them.

Standing

EU Production	**CIP**
Total EU27	296,030
Complainant	130,166
Standing	*44%*

10. The Complainant therefore represents Union producers constituting around 44% of the Total EU production during the CIP (see *Annex C.03*).

11. Moreover, the Complaint is supported by other EU producers. Their letters of support are provided on a confidential basis and can be found in *Annex A.02*.

A.3 Product concerned

A.3.1 Definition of the product concerned

12. The product concerned is certain articles of lamellar graphite cast iron (grey iron) or spheroidal graphite cast iron (also known as ductile cast iron), and parts thereof, originating in India and Türkiye. These articles are of a kind used to:

- cover ground or sub-surfaces systems; and/or openings to ground or sub-surface systems, and also
- give access to ground or sub-surface systems and/or provide view to ground or sub-surface systems.

13. These articles may be machined, coated or painted and/or fitted with other materials such as but not limited to concrete, paving slabs, or tiles.

14. The following product types are excluded from the definition of the product concerned:

- channel gratings and cast tops subject to standard EN 1433, to be fitted as a component on channels in polymer, plastic, galvanised steel or concrete allowing surface water to flow into the channel;
- floor drains, roof drains, cleanouts and covers for cleanouts, subject to standard EN 1253;
- step irons, lifting keys, and fire hydrants.

A.3.2 Customs classification

15. The product concerned is classifiable within CN codes *ex 7325 10 00* (TARIC code 7325 10 00 31) and *ex 7325 99 10* (TARIC code 7325 99 10 60).

- 7325 10 00 31: Articles of non-malleable cast iron:
  - Lamellar graphite cast iron (grey iron), and parts thereof a kind used to:
    - Cover ground or sub-surfaces systems, and/or openings to ground or sub-surface systems, and also
    - Give access to ground or sub-surface systems and/or provide view to ground or sub-surface systems.

- 7325 99 10 60: Articles of cast iron:
  - Spheroidal graphite cast iron (also known as ductile cast iron), and parts thereof, of a kind used to:
    - Cover ground or sub-surface systems, and/or openings to ground or sub-surface systems, and also
    - Give access to ground or sub-surface systems and/or provide view to ground or sub-surface systems.

A.3.3 Description of the product concerned

16. The product concerned generally comprises a frame, which is embedded in the ground and either a cover or a grate, which are rated for either pedestrian or vehicular applications such as within the road surface, pavements, runways and which directly withstand the weight and the dynamic impact of traffic (vehicle or pedestrian). It is usually named by reference to its purpose that is access cover, manhole top (or manhole cover), gully top or surface box. The purpose of an access cover is to give physical or visual access to a subsurface installation for the purpose of carrying out maintenance work or inspection. A gully grating permits surface water to be channelled away, while a surface box, allows inspection but not physical access to a subsurface installation.

17. The characteristics of the product concerned are determined by function, installation and location. The product concerned therefore covers all types of iron castings originating in India and Türkiye with the following characteristics:

- *Traffic load resistance*: Products, which are installed on roads, kerbsides or pedestrian pavement areas, are required to withstand the dynamic and static loads of car and lorry traffic, as well as pedestrian passage.

- *Cover and grate stability within the frame*: The cover and grate are required to remain secure within the frame. They must be secure, safe, reliable and durable to avoid risks of human injury or vehicle damage. Any lack of stability can lead to noisy rocking under vehicular or pedestrian traffic, to frame disembedment, and at worse to the dislodging or ejection of the cover, creating a hazardous situation on the road or pavement. The product must also be silent under traffic in order to avoid noise pollution.

- *Safe and easy access*: For the purpose of inspection and maintenance, the product must allow for the opening of the cover or grate for man entry, in the case of manhole covers (MC), as well as visual inspection or operation from the surface

for surface boxes. The opening and closing of the cover or grate must be such as to minimise physical effort or eliminate the risk of injury.

- *Efficient surface water drainage*: The gully grates must be capable of absorbing runoff water, so as to avoid leading to flooded roads, which may be hazardous for motorists.

- *Slip/skid resistance*: The cover or grate must reduce the risk of the pedestrian or vehicle slipping on the top surface.

- *Performance*: All products must be durable and long lasting.

18. The product concerned varies in shape and dimensions. The product size is designed to match the dimensions of a chamber (concrete, brick or other materials), which they cover and provide access to. The frames of the product are usually circular, square or rectangular. Cover and grates are usually triangular, circular, square or rectangular (any shapes available).

19. There are three main types of networks:

- *Man-entry chambers (for survey or maintenance):* These usually require a clear opening (aperture) of between 520 (minimum) and 1000 mm. This is installed on the main (backbone) sewage and cable and pipe networks.

- *Chambers without man-entry (otherwise known as 'Secondary' chambers):* These are designed either to allow inspection, operation or maintenance at surface level or to allow surface water collection and drainage. These can be fitted with many types of manhole tops, gully grates and gully tops. The diversity of shapes and dimensions comes from the chamber dimensions as well as from the neighbouring kerb profiles.

- *Other networks with no chamber (such as trenches, holes, etc).*

A.3.4 Main specifications and norms used

20. The product concerned is made of grey cast iron or spheroidal graphite (ductile) cast iron. The cover and the frame can be filled with concrete or other materials. The cast iron standards for grey cast iron and spheroidal graphite (ductile) cast iron, which are accepted for the production of the products concerned, are EN 1561 and EN 1563 and/or ISO 185 and ISO 1083. The EN 124 standard specifies a minimum level of performance for manhole covers and gully gratings. These standards are widely in use on European markets as the main technical reference for the product concerned. National standards exist for surface boxes.

21. Both of the above materials are from a family of cast irons, in which the graphite is present in differing forms. Spheroidal graphite cast iron, which is the predominant material in the EU market, is often referred to as SG Iron, ductile cast iron or Nodular iron. It is manufactured in accordance with the technical standards ISO 1083 and EN 1563. The European product standard for manhole covers, EN 124, identifies spheroidal graphite (ductile) cast iron conforming to EN 1563 as a suitable material for their production. Spheroidal graphite cast iron is versatile and has higher performance

characteristics especially in the area of its mechanical properties where it exhibits high strength and load-resistance combined with a limited degree of ductility. Its mechanical performance characteristics permit the designer to produce lighter castings.

22. Grey is by far the oldest and most common form of cast iron and has a brittle tendency under shock and load. It is often referred to as Flake graphite iron, Flake Iron and Cast Iron. It is manufactured in accordance with the technical standards ISO 185 and EN 1561. EN 124 also identifies grey cast iron conforming to EN 1561 as a suitable material for manhole covers. Because of its brittleness a higher volume of material is required to give it comparable performance characteristics to that of spheroidal graphite (ductile) cast iron and as a result it is heavier. The EN 124 standard defines the different end products by their load bearing ability. Roughly 1.4 times as much cast iron is needed in a grey casting to achieve the equivalent load bearing in a spheroidal graphite iron product. Because the process for producing spheroidal graphite cast iron is more expensive than that for grey, the costs and prices per tonne of each product are different but from the perspective of load bearing function are similar. In other words, the costs and prices of 1.4 grey tonnes are similar to one tonne of spheroidal graphite. However, a product usually manufactured in grey iron may also be manufactured in spheroidal graphite (ductile) iron and meet the necessary performance requirements. Physically, although measurements and weights may be different, these products look identical and are interchangeable.

23. Most foundries use a cupola oven for the production of grey iron, while an electric furnace may also be used for the production of ductile iron. Cupola furnaces are more cost-efficient for the production of large quantities and also allow the use of coke as a form of energy rather than electricity, which is generally more expensive. Stable procedures need to be in place for the operation of a cupola furnace and guaranteeing the necessary iron quality requires a lot of experience. For the production of ductile iron, the temperature should be kept at a constant level.

24. There is a price difference between the production of ductile and grey iron manhole covers. Ductile cast iron is more expensive to produce than grey. The main price difference is the cost of raw materials, which need to be of higher quality for ductile cast iron as well as some cost differences in the production process. For example, the production of grey iron does not include magnesium.

25. Raw materials costs for the production of ductile iron are 36% higher than the costs of those used to produce grey iron. For the manufacture of ductile iron, magnesium is added in order to reduce the amount of sulphur in the melted iron, which is critical for the quality of ductile iron.[2] Magnesium contributes to the forming of graphite nodules rather than the flake form, which is found in grey iron. This gives ductile iron products a higher tensile strength, elongation and impact resistance. More coke is also needed for the production of ductile iron.

26. The ductile iron production process needs to be more controlled. The magnesium agent must be closely controlled to obtain the correct strength and elongation. The content of magnesium in the melted iron has to be between 0.025 and 0.05%. Magnesium is a very

[2] Addition of magnesium is obtained by using ferro-alloys such as Ferro Silicon Magnesium (FeSiMg) responsible for creating the necessary conditions for the graphite phase to grow from the liquid into the required spheroidal form.

reactive element and oxidizes easily. This means that it should be added at a precisely correct moment before casting.

27. Besides investing in the equipment for adding magnesium, a foundry producing ductile iron needs to add this supplementary production step, which increases the production time by approximately ten minutes for every six tons produced.

28. The addition of magnesium also creates more liquid oxides derived mostly from oxidized iron, known as foundry slag. Besides creating the need for additional waste disposal, slags can also produce casting defects, requiring relining of furnaces and ladles as well as causing the loss of alloying elements through oxidation. Slag related problems can be very costly for a foundry and therefore, more maintenance is required in a foundry producing ductile iron than in a foundry producing grey iron.

29. Scrap iron raw material must be more carefully selected when producing ductile iron. For example, phosphorus, an impurity element in ductile iron, has a strong embrittling effect at levels as low as 0.02%. Excessive amounts of chromium, nickel, manganese or lead also have a detrimental effect on the quality of ductile iron.

30. Melting costs are higher for ductile iron, which is thinner and therefore solidifies quicker. More iron is needed to reach each angle/corner in the casting mould in order to avoid cold running, which affects the product quality negatively. Thus, higher cycle costs for the melted iron are incurred (i.e. the iron is re-used but the energy expended in melting it is wasted). The possible use of feeder is another reason for higher costs. Feeders are used to guarantee that enough hot iron goes to critical angles/corners of the casting mould. They incur additional costs and require more space in the moulding box, leading to higher costs. The casting yield from the mould (net saleable casting) is less for ductile than for grey.

31. Grinding costs are higher for ductile iron, particularly if an additional feeder is used.

32. Finally, ductile iron manhole covers require a more exacting and time-consuming finishing process, which is not necessary for grey iron manhole covers. This is mainly because ductile iron has a stronger consistency.

33. Although the applications are identical, some countries, such as Germany, Austria and Finland, specify a greater mass for the covers used in the carriageway and this is best achieved, from the point of view of cost, by using a grey iron cover, which is filled with concrete within the frame.

34. Grey and ductile cast iron serve the same purpose and they are perceived to be the same product by consumers, namely manhole covers and gully grates. In this request for an anti-dumping, the Complainant submits that grey cast iron and ductile cast iron constitute a single product concerned.

A.3.5 Main Applications

A.3.5.1 Uses

35. Cast covers and frames provide an interface between buried networks and the road or pavement surface.

36. “Interface” encompasses the following functions:

    - Giving access to underground mains such as sewage networks, cable networks, metering equipment: such units are categorised as access covers (normative language: manhole top).

    - Acting as rainwater run-off collectors, used to channel rainwater towards sewage networks: devices for such purposes are grates, collectors and gullies (normative language: gully top).

    - Allowing access, other than full body access to underground service supply and fire defence networks and pipeworks: devices for such purposes are known as "surface boxes".

    - Covering trenches, large or small holes, galleries etc.

37. “Surface” encompasses for example the following installation situations:

    - Carriageways and roads, public or private, shopping precincts, open-air car parks accessible by the public on foot or by vehicle;

    - Kerbside areas between roads and pedestrian pathways;

    - Pedestrian pathways and multi-story car parks.

38. Castings can be fitted in tarmac or concrete (manholes or other covers, whether or not for human access). The dimensions of the product are mainly determined by the particular function.

39. The product concerned is used in the construction market, specifically the following segments:

    - **Building**: both housing and non-housing;

    - **Infrastructure**: mainly water, telecommunications and roads.

40. The infrastructure segment comprises markets for water networks, sewage networks and the cable market.

41. In the case of use for the water or sewage market, the product is mounted on chambers connected to water pipes. The product either provides human or material access to below surface pipes or allows run-off water to be collected and drained. In a secondary use, the product is mounted on chambers, which give access to buried valves, themselves mounted on water supply pressure pipes. This market is generally called the “wet networks market”.

42. In the case of use for the "cable" market, the product is mounted on chambers, which give either underground or surface access to various cables installations and networks. Telecommunications and TV cable networks lightning cables, etc. are the main applications, which require the use of the product. This market is generally called the "dry networks market".

43. Other relevant markets include trenches for any kind of networks, or holes for any purpose.

44. These markets imply the use of the product on roads (groups 4, 5 and 6), curbs (group 3), pedestrian pathways (group 1) and pavement areas (group 2).

45. "Customer" market segment:

- Bespoke purchasers who purchase according to specification. These may be: public or private utilities, or private and public consultants;

- End users, who may be: sewage departments of local authorities, water companies, cable operators, and various maintenance companies;

- Installers, such as civil works and piping contractors, road and neighbouring surfaces builders, building contractors;

- Distributors such as building and construction materials merchants, civil works material distributors, merchants specialised in pipes material furnishing.

46. "Procurement procedure" segment:

- Invitations to tender issued by local authorities, utilities or consultants for identified projects, mainly public (wet network market) or private (dry network market);

- Regular purchases of product concerned for small projects, which may or may not be identified.

A.3.5.2 Purchase Criteria

47. The factors, which drive the purchaser selection decisions both by utilities (cities, water companies, cable operators, etc.) and contractors are, price and quality and in the case of manhole covers and gratings compliance with the EN 124 standard. Price remains a decisive factor, since nowadays buyers have more limited budgets and may be tempted to try cheaper products rather than rely solely on quality and after sales service.

A.3.5.3 Compliance with EN 124 standard

48. Manhole covers and gully tops are required to comply with the Standard EN 124. This standard covers product performance, production company process and system requirements. Surface boxes comply with national standards (*see Annex A.08*).

A.3.5.4 Price

49. The product concerned may be purchased by contractors through a tender procedure launched by public authorities (public procurement), or private consultants/owners.

Contractors (civil works as well as building- networks builders) also purchase the product concerned in small and medium quantities on a daily basis from price list.

50. In both instances, price is the predominant factor. Distributors look for products they can purchase at a good price.

A.3.5.5 Quality

51. The first level of quality is deemed to be satisfied through compliance with the EN 124 standard. This standard gives the product a minimum quality level that generally allows for satisfactory use. Beyond the EN 124 quality level, the product can feature additional characteristics with the objective of meeting specific requirements of some utilities or bespoke purchasers or national standards. This can be the case for additional performance in ergonomics, safety, ease of installation and product control. In terms of dimensions, materials, functionality or tests, the EN124 standard is supplemented, when necessary, by individual national provisions and national standards.

A.3.5.6 Consumer perception of the product

52. The product is widely regarded from both a compliance and price aspect. For the majority of customers, who do not express additional functional requirements, compliance with EN 124 and price are the main criteria. The product is considered as having a basic standard performance level.

53. For example, a common product used across the EU is a carriageway cover and frame that has a clear opening of 600mm. It is used to permit access to sewerage/water and telecommunications networks. For this product to be installed in the carriageway it must meet a minimum loading class of 400kN (i.e. Class D400 in EN 124). This product across Europe will exhibit the same technical and physical characteristics with regard to its dimensional characteristics and its performance requirements.

54. The product may be required to have an additional level of performance. Some customers require the product to surpass its basic performance and contain additional superior quality, performance or safety features.

A.3.6 Like product on the domestic market

55. The castings, which are produced and sold by the EU industry in the EU and the castings produced in India and Türkiye and sold to the EU, have the same basic physical, chemical and technical characteristics and the same basic use within the meaning of Article 1(4) of the Basic Regulation.[3]

56. There are no differences in the basic physical, chemical and technical characteristics and uses of castings imported into the EU originating in India and Türkiye and the castings produced by the producers represented by the Complainant and other EU producers and sold on the EU market.

[3] Commission implementing Regulation http://data.europa.eu/eli/reg_impl/2024/770/oj, Recital 29

57. To our knowledge the Indian and Turkish foundries produce all the different types of the product concerned. The Indian and Turkish manufactured products are similar to the European manufactured products.

58. Indian and Turkish products generally target the same markets as European products, with offers being widely comparable in terms of width and depth (dimensions, available versions, options etc.). Indian and Turkish products can be used in the same situations as European products. There are no technical, physical, chemical or dimensional barriers to the use of Indian and Turkish products. However, while India and Türkiye produce both grey and ductile castings, the imports from India and Türkiye are mostly ductile.

59. All types of castings, despite the differences in terms of grey or ductile iron, have the same basic, physical, chemical and technical characteristics, they are basically used for the same purposes and can be regarded as different types of the same product. For the above reasons the Complainant considers that the goods imported from India and Türkiye and the products produced and sold in the EU are like products.

60. Channel gratings subject to EN norm 1433 are excluded from the scope of the like product.

A.4 Exporting producers in India and Türkiye, importers and users in the EU

61. This application refers to the export of the product concerned originating in India and Türkiye. A list of known Indian and Turkish exporting producers and EU importers can be found respectively in *Annex A.04* and *Annex A.05.*

62. A list of names and contact details of main known users in the EU is provided in *Annex A.06.*

A.4.1 The Indian industry

63. The Indian castings industry is developed, and consists of at least 33 manufacturers known and identified in *Annex A.04*, but could involve many more players.

64. The Complainant estimated the capacity of some manufacturers on the basis of the information obtained from a market research based on information publicly available on the internet on the respective foundries' websites (see *Annex A.09*).

65. From the Complainant's estimate it can be seen that the exporting producers in India have over 827,650 tonnes of capacity and are therefore in a position to export dumped products on the Union market in significant quality. This estimation is conservative as a number of producers did not publish information on their foundry's capacity. The Complainant's estimate can be found in *Annex A.09*.

A.4.2 The Turkish industry

66. The Turkish castings industry consists of at least 5 manufacturers known and identified in *Annex A.04*, but could involve many more players.

67. The Complainant estimated the capacity of some manufacturer on the basis of the information obtained from a market research based on information publicly available on the internet on the respective foundries' websites (see *Annex A.09*).

68. From the Complainant's estimate it can be seen that the exporting producers in Türkiye have more than 150,000 tonnes of capacity and are therefore in a position to export dumped products on the Union market in significant quality (see *Annex A.09*). This estimation is conservative as not all Turkish producers published information relating to their foundry's capacity.

A.5 Manufacturing process in the EU, India and Türkiye

A.5.1 Manufacturing process

69. The production process used in India and Türkiye is the same as that used in the EU where cupolas and electric furnaces are used in the melting process. However, in India, one step of the production, known as 'moulding', can be performed using a more traditional method. This will be described in Section A.5.2 hereunder.

70. Cast iron is obtained by melting iron metal with carbon and other alloying elements. There are different ways of melting the metal. This is mostly done in the EU by a cupola or by electric furnace in which iron or steel scrap, and/or pig iron, is smelted with coke and alloying elements (silicon carbide, ferro-silicon, etc.). Where an electric furnace is used it is not necessary to use coke but carbon is added to steel scrap. In the spheroidal graphite (ductile) process, magnesium is added[4] to the carbon in the iron to change it from a flake form to spheroidal structure, while this is not done for lamellar graphite (grey) iron.

71. The product concerned can also be produced by a blast furnace but it is exceptional. Iron ore is smelted with coke or coal and generates molten iron metal with a high carbon content. Molten iron can be directly casted or cooled in the form of ingots to be re-melted. This manufacturing process is only possible for producers with a large cast iron output, because of the amount of material generated by a blast furnace. For producing the product concerned alone, it is generally not economically viable to use a blast furnace.

72. The following paragraphs describe the process at one factory, which covers most of the processes typically seen in casting production using a cupola. While the particular process described is for the product concerned made from spheroidal graphite (ductile) cast iron, the process for grey cast iron is similar.

73. The scrap is loaded into a hopper, where it is weighed and discharged into the cupola charge bucket. The weight of scrap determines the weight of non-metallics (such as

[4] Magnesium can be added through adjunction of certain ferro-alloy such as ferro-silico-magnesium.

coke, limestone and ferro-silicon to be added), which are fed into the charge bucket. The contents are then transferred to the top of the cupola and are progressively heated as they descend towards the melt zone, where the steel charge melts to form iron and slag. Iron is tapped from the cupola at around 1500ºC and is collected in a desulphurising ladle. Slag is separated from the iron in a siphon box and flows down a trough into a stream of fast-moving water to form slag granules (the latter is a marketable by-product, which is sold externally). As they rise through the charge, combustion gases pick up fine particles of dust and traces of more volatile metals such as lead and zinc. These emissions are cleaned in a high-energy scrubbing system described below.

74. The iron is collected in a ladle. Carburisers are added to increase the carbon content of the iron and calcium carbide; quicklime and fluorspar are added to remove high levels of sulphur. The ladle is shaken to agitate the metal and promote the reaction between sulphur and quicklime. A hood over the ladle captures the gases that are discharged into the atmosphere. The desulphurised iron is duplexed through a pair of mains frequency coreless induction furnaces to provide a buffer of iron to meet the varying demands of the moulding line. The furnaces restore the temperature following the ladle treatment and homogenise the analysis. Magnesium is added to the carbon in the iron to change it from a flake form to spheroidal structure.

75. Two core making processes are utilised depending on the geometry of the desired core. Bolthole and hinge cores are made by shell process. This utilises resin pre-coated sand, which is inserted into the cavity of a heated metal core box. The heat thermo sets the resin producing a close tolerance, fine surface core. Larger separation cores are made from a Beta set process where batches of sand are premixed with resin and hardened using Methyle Formate gas as a catalyst.

76. Moulding is done using Green Sand Process where batches of sand are mixed using Bentonite activated with water as a binder. A coal /clay blend is added to the mix to provide a mould surface that is not moistened by the molten iron as it fills the cavity. The coal content also reduces the atmosphere within the mould cavity preventing oxidation of the metal surface. The sand is then consolidated around a permanent metal pattern in a moulding flask at high pressure so that it supports itself once the mould is removed. The resulting cavity, once filled with iron provides a replica of the product. Once solidified, the casting is retrieved from the sand, which is recycled. Hot sand is conveyed through a screen to remove lumps and then the sand is cooled to 25 – 30ºC. After cooling the sand and castings are separated from the moulds. Castings travel along conveyors to the finishing line whilst sand returns to a reconditioning plant. Castings from the shakeout pass via a manipulator where runners are removed for recycling. The components are fed through a continuous shot blast unit onto an inspection conveyor before being hung onto the paint line.

A.5.2 Specific Methods of production in India

77. In India, the moulding process can be done differently for the production of grey iron. As an alternative to moulding lines, some Indian producers might use floor moulding by which the moulds are prepared on the floor and the liquid iron is then poured into

the moulds. This more traditional moulding process is much more labour intensive but requires less equipment.

78. The production of municipal castings comprises three main stages: melting the iron, casting it into moulds, and finishing. In India, producers of cast iron articles produce following two different production processes.

    - The first method is characterised by a cupola furnace to melt the iron, followed by an automated or semi-automated moulding line to cast the metal, and a holding furnace for final heat treatment. This process involves a high degree of automation and significant equipment. It is very similar in the EU and in India and can be characterised as 'modern' production process.

    - The second method is quite different. Although it shares the same method for the melting phase, i.e., a cupola furnace, it does not rely at all on automation for the moulding process and is often does not provide heat treatment. This process relies more heavily on manual labour. Moulds are dig directly on the floor next to the factory and the liquid iron is poured manually into the moulds. This process called 'floor moulding' is significantly less capital-intensive, it only requires a cupola furnace, but significantly more labour-intensive. This process does no longer exist in the Union and can be characterised as a more 'traditional' method of production.

79. An overview study of the information made available online by 33 Indian foundries was conducted (see *Annex A.07*). 42% of the foundries in the study did not mention their methods of production nor their infrastructures. Out of the ones that provided information on the subject, 68% used automated/semi-automated production lines and 32% mentioned traditional manual processes, sometimes mixed with some automation.

Picture 1: Modern moulding line in India

Source: Crescent Foundry India, https://www.crescentfoundry.com/infrastructure

Picture 2: Manual moulding in India

Source: Hari Om Casting Co. Ltd., https://hoc-india.com/facility/

80. In terms of types of cast iron produced in India, Indian foundries have historically focused more on the production and exports of grey iron castings. As an illustration, the provisional findings in 2017 found that "*the Indian exports to the EU were mainly of grey iron*".[5] The production of grey iron castings in India has a long-standing history and can be made both with the 'traditional' or 'modern' methods of production.

81. The situation for ductile iron in India is different. Historically, India was not a producer of ductile iron. During the recent years (5 to 7), major investments have been made in India to set up production of articles of ductile iron which gained significant importance. As an illustration, recent imports of Indian castings into the EU were mostly ductile iron. Indeed, during the CIP, India exported 85,403 tonnes of castings to the EU, out of which 69,399 (81%) are of ductile iron and 16,004 (19%) are of grey iron. These investments in new capacities for ductile production are very likely close to the 'modern' method of production.

[5] Commission Implementing Regulation (EU) 2017/1480 of 16 August 2017 imposing a provisional anti-dumping duty on imports of certain cast iron articles originating in the People's Republic of China (OJ L 211, 17.8.2017, p. 14–45) see recital 179.

B Dumping

B.1 India

B.1.1 Normal value

82. According to Article 2(1) of the Basic Regulation, 'the normal value shall normally be based on the prices paid or payable, in the ordinary course of trade, by independent customers in the exporting country'.

B.1.1.1 Methodology used for the normal value

83. As laid out in the description of the product concerned and in the main application sections, the product concerned is mainly used for sewage and cable and pipe networks. India is not known to be a major user of cast iron products on its domestic market for two main reasons.

84. First, India does not possess a significant underground sewage network. Indeed, currently 93% of sewage water finds its way to ponds, lakes, and rivers without treatments[6] (see *Annex B.11*). Only a few infrastructures in India need the product concerned, i.e. international airports and ports. These infrastructures require special items in limited quantities resulting in sales which are likely not to be representative within the meaning of Article 2(2) of the Basic Regulation.

85. Second, there is no tradition of using cast iron for municipal castings in India. In fact, most municipalities either do not use any system to cover underground networks or use products made of other materials such as concrete, plastic composite or other materials.

86. To verify this claim, desk research of publicly available information on public tenders for manhole covers in India was conducted in order to attempt to find a domestic price for the product concerned (see *Annex B.10*). The eProcurement websites of six states (West Bengal, Odisha, Rajasthan, Uttar Pradesh, Kerala and Delhi) together with the nation-wide Central Public Procurement Portal (CPPP) were browsed using the search tool with the keywords *'manhole cover'*.

87. This keyword search provided a total of 111 tenders mentioning the words 'manhole cover' in their title, covering a period of 12 years (from 2012 to 2024). Out of these, only 14 could potentially be relevant as their titles mention 'replacement', 'providing' or 'supplying' manhole covers (see *Annex B.10*).

88. None of the tenders found to be potentially relevant provided a breakdown of the total fee between the goods and services to be provided, nor they mentioned the quantity of manhole covers to be replaced/supplied (see *Annex B.10*). The publicly available information thus did not allow the Complainant to establish a domestic unit price for the product concerned in India.

89. Furthermore, it must be noted that no mention of the material composition of the manhole covers was made in the publicly available details of those 14 tenders. As

[6] Chaturvedi, A. (2017). Fixing India's Sewage Problem. *Stanford Social Innovation Review*, 3–4. https://doi.org/10.48558/JDQ6-EC26, available at *Annex B.11* (last access July 2024).

mentioned above in paragraph 85, other materials are often used to constitute manhole covers. This variation in material composition of the manhole covers was also observed in the desk research.

90. Indeed, some of the results concerned the supplying of 'RCC' (reinforced cement concrete), others referred to 'SFRC' (steel fibres reinforced concrete) and some mentioned that the manholes to be repaired were made out of bricks. This mention of other materials than cast iron for the composition of manholes and their covers, supports the claim made above that most Indian municipalities use products made out of other materials than cast iron to cover their underground network.

91. For these reasons, the Complainant considers that domestic sales in India are insufficient for the purposes of finding a representative domestic price to determine the normal value.

92. Additionally, it is worth noting that in a 2017 investigation the Commission found that, except for one product type sold by a single exporting producer, all other product types were not sold in representative quantities on the domestic market in India within the meaning of Article 2(2) of the Basic Regulation.[7] The Complainant has no reason to believe that the situation has changed during the CIP.

93. In the absence of representative domestic prices, the normal value in India must be established on the basis of Article 2(3) and (6) of the Basic Regulation, i.e., a normal value constructed by factors of production in the country of origin plus a reasonable amount for selling, general and administrative costs and for profits.

94. To establish a normal value, the approach is to collect the structure of the main factors of production from representative EU producers. The data collected so far evidence the following factors of production: (i) main raw material, (ii) electricity, (iii) gas, (iv) labour, (v) other direct costs and (vi) manufacturing overheads.

95. The next step is to look for domestic sources in India, preferably official sources, to replace the value each cost item by a value that would normally be incurred by producers in India.

96. On the basis of information provided by the TARIC, the Complainant notes that imports of the product concerned from India during the CIP are predominantly declared under the code for spheroidal graphite (also known as ductile) cast iron (i.e., 81% of total Indian volume). See *Annex C.01* and section C below for more details.

97. The Complainant noted that although the production process is generally the same, the type and amount of raw materials needed to produce grey iron and ductile iron may differ. Therefore, with a view to compare the export price and the normal value, the Complainant collected information in relation to factors of production by distinguishing between ductile iron products and grey iron products.

98. The Complainant first collected factors of production for the most represented product type during the CIP – ductile iron – from a representative Union producer in terms of production volume and production process, i.e., using a cupola. On this basis a list

[7] Commission Implementing Regulation (EU) 2017/1480 of 16 August 2017, recital 101.

factors of production ('FOP') was established and the quantity of each factor needed to produce one metric tonne of castings was established. See *Annex B.01* for the details.

B.1.1.2 Factors of Production

B.1.1.2.1 Methods of production in India

99. Production of the product concerned in India follows two different production processes: automated or semi-automated moulding, and traditional (floor) moulding involving much more manual labour (see section A.3.4.1 above).

100. Historically, the Indian foundries' focus was on grey cast iron (see section A.3.4.1 above).8 Production of grey cast iron has therefore been longstanding in the Indian cast iron industry and part of it still follows the traditional method of production. On the other hand, another segment of the grey cast iron production industry adopted more modern methods of production, which features more automation.

101. In contrast, production of ductile iron is a more recent development for the Indian foundries as major investments to develop ductile iron production have been made in the last decade (see section A.3.4.1 above). These investments in new capacities for ductile production are very likely close to the 'modern' method of production.

102. Therefore, adjustments are necessary for the factors of production for grey iron products in India and the subsequent constructed normal value.

B.1.1.2.2 Factors of production based on EU means of production

103. To compare the export price and the normal value, the Complainant collected information in relation to factors of production separately for ductile iron products and grey iron products from EU producers. See *Annex B.01* for details.

104. The main factors of production for articles of ductile cast iron are:

DUCTILE IRON		**HS**	**Unit**	**Unit Consumed (or % of total cost)**
Raw materials	Scrap of iron or steel	720449	t	*[0.7 – 1.0]*
	Coke and semi-coke of coal	270400	t	*[0.1 – 0.2]*
	Silicon Carbide	284920	t	*[0 – 0.2]*
	Ferro-alloy - FeSiMg	720299	t	*[0 – 0.2]*
	Steel Frames	730890	t	*[0 – 0.2]*
	Inoculants (limestone)	252100	t	*[0 – 0.2]*
	Paints	320810	t	*[0 – 0.2]*
	Other accessories	*n.a*	*%*	*[6 – 8]%*
Waste	Waste	*n.a*	%	*[0 – 2]%*
	Electricity	*n.a*	kWh	*[450 – 550]*

[8] Commission Implementing Regulation (EU) 2017/1480 of 16 August 2017 imposing a provisional anti-dumping duty on imports of certain cast iron articles originating in the People's Republic of China (OJ L 211, 17.8.2017, p. 14–45) see recital 179.

Energy and Utilities	Natural Gas	*n.a*	kWh	*[125 – 225]*
	Water	*n.a*	m^3	*[0 – 0.5]*
Direct Labour	Foundry, machining, and finishing	*n.a.*	hour	*[5.5 – 7.5]*
	Temporary workers	*n.a.*	hour	*[1.5 – 3.5]*
	Other	*n.a.*	%	*[1 – 3]%*
Packaging	Packaging material	*n.a.*	%	*[0 – 2]%*
Other Direct Costs	Consumables	*n.a.*	%	*[4.5 – 6.5]%*
	Subcontracting	*n.a.*	%	*[0 – 2]%*
	Other	*n.a.*	%	*[1 – 3]%*

See Annex B.01

105. The main factors of production for articles of grey cast iron produced following the automated production method are:

GREY IRON (automated)		**HS**	**Unit**	**Unit Consumed (or % of total cost)**
Raw materials	Pig iron	720110	t	*[0 – 1.5]*
	Scrap of cast iron (incl. ductile scrap)	720410	t	*[0 – 1.5]*
	Coke and semi-coke of coal	270400	t	*[0.1 – 0.3]*
	Ferro-alloy - FeMn	720219	t	*[0 – 0.15]*
	Others		%	*[3 – 5]%*
Waste	Waste	*n.a.*	%	*[1 – 3]%*
Energy and utilities	Electricity	*n.a.*	kWh	*[250 – 350]*
	Coal	*n.a.*	%	*[0 – 0.1]%*
	Fuel	*n.a.*	Liter	*[1.5 – 3.5]*
	Water	*n.a.*	m^3	*[0 – 2]*
Labour	Foundry, machining and finishing	*n.a.*	hour	*[5 – 10]*
	Temporary workers	*n.a.*	hour	*[0 – 1]*
Packaging	Packing material	*n.a.*	%	*[0 – 3]%*
	Packing Labour	*n.a.*	h	*[0 – 2]*
Other Direct Costs	Consumables	*n.a.*	%	*[2 – 4]%*
	Subcontracting	*n.a.*	%	*[1 – 3]%*
	Other	*n.a.*	%	*[0.5 – 2.5]%*

See Annex B.01

106. Indirect production costs in the form of factory overheads (depreciation, maintenance, tooling, etc.) have been accounted for as a percentage of the total cost of production for each product type. Factory overheads account for *[18.5 – 28.5]%* of the full cost of production for ductile iron products and *[24 – 36]%* for grey iron products produced following the automated process:

Factory overheads	**Ductile iron**	**Grey iron (automated)**
Central heating	-	*[0 – 2]%*
Depreciation	*[1.5 – 3.5]%*	*[5 – 7]%*
Maintenance	*[4 – 6]%*	*[8 – 10]%*
Tooling	-	*[0 – 2]%*
Indirect labour (techn., R&D engineers, excl. SGA labour)	*[14 – 16]%*	*[5 – 7]%*

Overhead from operations (excl. SGA costs)	*[2 – 4]%*	*[6 – 8]%*
Other expenses and expenditures	*[-3 – 0]%*	-
Total	*[18.5 – 28.5]%*	*[24 – 36]%*

See Annex B.01

B.1.1.2.3 Adjustments for 'Traditional' Grey Iron

107. In order to account for this different means of production, the Complainant estimated the factors of production of grey iron by traditional manufacturing process by adjusting the factors of production based on the following assumptions:

- Raw materials:
  - Ratio pig iron/cast scrap is 50/50;
  - Coke in India is of lesser quality, so it requires 30% more coke to reach the same result (1:1.3).
- Energy Consumption:
  - Electricity consumption is lower (electric holding furnace and the moulding line consumes most of the electricity), reduced by -80%;
- Direct labour:
  - The moulding stage requires more manpower in the traditional production process (up to seven times more), the cupola furnace requires similar manpower as in the EU. The finishing process uses less sophisticated tools than in the EU, and thus requires more manual labour;
  - Overall, direct labour for foundry, machining and finishing was multiplied by 6 to account for the above remarks (ratio 1:6).
- Overheads: Indian producers have less maintenance, tooling, depreciation and indirect labour costs. To reflect these differences, the depreciation rate was decreased by -70% while the maintenance, tooling and indirect labour were decreased by two thirds. Additionally, the central heating was removed.

108. This approach decreased the manufacturing overheads from about *[24 – 36]%* to *[7 – 17]%* which reflects the lack of automated moulding line and holding furnace for heat treatment in the production process. The overheads in this second method only represent costs associated with the production buildings and the cupola furnace.

109. The specific factors of production for this traditional process can be found in *Annex B.01* and a summary table can be found below.

110. The main factors of production for articles of grey cast iron produced following the traditional production method are:

GREY IRON (traditional)		**HS**	**Unit**	**Unit Consumed (or % of total cost)**
Raw materials	Pig iron	720110	t	[0 – 1.5]
	Scrap of cast iron (incl. ductile scrap)	720410	t	[0 – 1.5]
	Coke and semi-coke of coal	270400	t	[0.2 – 0.4]
	Ferro-alloy - FeMn	720219	t	[0 – 0.15]
	Others		*%*	*[3 – 5]%*
Waste	Waste	*n.a.*	*%*	*[1 – 3]%*
	Electricity	*n.a.*	kWh	[50 – 70]

Energy and utilities	Coal	*n.a.*	*%*	[0 – 0.1]*%*
	Fuel	*n.a.*	Liter	[1.5 – 3.0]
	Water	*n.a.*	m^3	[0 – 2]
Labour	Foundry, machining and finishing	*n.a.*	hour	[40 – 55]
	Temporary workers	*n.a.*	hour	[0 – 1]
Packaging	Packing material	*n.a.*	*%*	*[0.5 – 2.5]%*
	Packing Labour	*n.a.*	h	[0 – 2]
Other Direct Costs	Consumables	*n.a.*	*%*	*[2 – 4]%*
	Subcontracting	*n.a.*	*%*	*[1 – 3]%*
	Other	*n.a.*	*%*	*[0.5 – 2.5]%*

See Annex B.01

111. Indirect production costs in the form of factory overheads (depreciation, maintenance, tooling, etc.) have been accounted for as a percentage of the total cost of production for each product type. Factory overheads account for [7 – 17]% for grey iron products produced following the traditional production method:

Factory overheads	**Grey iron (traditional)**
Central heating	-
Depreciation	[1 – 3]%
Maintenance	[2 – 4]%
Tooling	[0 – 2]%
Indirect labour (techn., R&D engineers, excl. SGA labour)	[1 – 3]%
Overhead from operations (excl. SGA costs)	[3 – 5]%
Total	**[7 – 17]%**

See Annex B.01

B.1.1.3 Cost of production in India

112. Public price/cost information is available in India for: (i) raw materials, (ii) electricity and utilities, (iii) labour costs, and (iv) SG&A, and (v) profitability.

113. No public price/cost information is available in the reference country for (i) packaging, (ii) other direct costs, and (iii) factory overheads. To the extent that these costs do not come within SG&A, they have been estimated on the basis of costs gathered among producers of the like product in the Union.

B.1.1.4 Raw materials

114. The costs of direct raw materials in India have been calculated on the basis of the average import price CIF at the level of the CN code for the raw materials.

115. The Complainant obtained import data in volume and value from the UN Comtrade.[9] Data were readily available from July 2023 to June 2024 *(see Annex B.02)*. On that basis the average import price of each raw material into India was calculated.

116. The table below contains a summary of the findings:

[9] UnComtrade, accessible at https://comtradeplus.un.org/ (last consulted October 2024)

Abbreviation	Product Description	HS Code	Import quantity (KG)	Import price (€/KG)
Pig Iron	Non-alloy pig iron in pigs, blocks or other primary forms, containing, by weight, <= 0,5% of phosphorous	720110	339,949,159	0.388 €
Steel scrap	Waste and scrap of iron or steel, fragmentised "shredded" (excl. slag, scale and other waste of the production of iron	720449	8,806,805,490	0.396 €
Cast iron scrap	Waste and scrap, of cast iron (excl. radioactive)	720410	215,687,362	0.411 €
Coke and semi-coke	Coke and semi-coke of coal, whether or not agglomerated	270400	4,157,635,760	0.305 €
Silicon Carbide Briquettes	Carbides of silicon, whether or not chemically defined	284920	48,883,955	1.166 €
Limestone	Limestone flux; limestone and other calcareous stone, of a kind used for the manufacture of lime or cement	252100	31,003,133,982	0.020 €
Paint	Paints and varnishes, incl. enamels and lacquers, based on polyesters, dispersed or dissolved in a non-aqueous medium	320810	9,543,105	4.489 €
Ferro-alloy - FeSiMg	Ferro-alloys (excl. ferro-manganese, ferro-silicon, ferro-silico-manganese, ferro-chromium, ferro-silico-chromium, ferro	720299	65,394,726	1.416 €
Ferro-alloy - FeSi	Ferro-silicon, containing by weight > 55% of silicon	720221	173,436,532	1.358 €
Ferro-alloy - FeMn	Ferro-manganese, containing by weight <= 2% carbon	720219	2,097,328	1.047 €
Steel frames	Structures and parts of structures of iron or steel, n.e.s. (excl. bridges and bridge-	730890	74,270,547	3.132 €

	sections; towers; lattice masts;...)			

117. The statistical extraction of the import data and the calculation steps are available in *Annex B.02*.

B.1.1.5 Waste

118. In the production process of cast iron articles generates iron scrap and waste. Iron scrap is recuperated and reincorporated in the production process as a raw material. Other type of waste cannot be reincorporated in the production process and their disposal is a cost to the producer. Waste disposal represents between *[0 – 2]%* and *[1 – 3]%* of the total cost of production.

B.1.1.6 Energy and utilities

119. The costs of energy are established based on publicly available electricity prices, natural gas prices, other fuel and water prices, for industrial users in India (see *Annex B.03*).

Electricity

120. On the basis of the FOP collected, the production of 1 tonne of the product concerned requires between *[50 – 70]* kWh and *[450 – 550]* kWh of electricity.

121. To establish the price of electricity for industrial use in India, the Complainant retrieved the electricity tariff schedule for 2023-24, from the Indian electrical utility company that generate and distribute power in Kolkata – CESC House.[10] The average electricity price was established at 0.084 €/kWh.

Fuel

122. On the basis of the FOP collected, the production of 1 tonne of the product concerned requires between 0 and *[1.5 – 3.0]* litre of fuel.

123. In India, the cost of fuel has been established on the basis of GlobalPetrolPrices.[11] Prices were obtained for the beginning of the CIP, July 2023 (1.04 €/litre), and for the end of the CIP, June 2024 (1.01 €/litre).

124. An average of the two prices was computed. The average price of fuel in India was established at 1.02 €/litre over the CIP.

Natural Gas

125. On the basis of the FOP collected, the production of 1 tonne of the product concerned requires between none and *[125 – 225]* kWh of natural gas, depending on the product type.

[10] CESC House, https://www.cesc.co.in/tariff available at *Annex B.03* (last access October 2024).
[11] Global Prices https://www.globalpetrolprices.com/India/diesel_prices/ available in Annex B.03 (Last access October 2024).

126. In India, the cost of natural gas has been established on the basis of Indian government's Petroleum Planning & Analysis Cell over the CIP.[12] According to this source, the average domestic natural gas price over the CIP was set at 8.36 USD/MMBTU, which was converted to 0.026 €/kWh. This price is applied uniformly across all sectors.[13]

Water

127. On the basis of the FOP collected, the production of 1 tonne of the product concerned requires between *[0 – 0.5]* m^3 and *[0 – 2]* m^3 of water, depending on the product type.

128. In India, the cost of water has been established on the basis of the Kerala Water Authority revised water charge in effect since the 3rd of February 2023.[14] The average cost of water for industrial users in India for the CIP was established at 0.601 €/m^3.

B.1.1.7 Direct Labour Costs

129. The Complainant established that the quantity of direct labour required to produce 1 tonne of the product concerned in the EU is between *[7 – 11]* and *[40 – 56]* hours, depending on the product type and production process.

130. In India, the average labour cost was obtained on the basis of the Ministry of Labour & Employment (*see Annex B.03c*).[15] The relevant category for producers of the product concerned is not available on the list but the closest category is sweeping and cleaning. The average hourly labour cost is based on zone A (Kolkata). The average labour costs per hour was established at 1.043 €/h. The data can be found in *Annex B.03.*

B.1.1.8 Packaging and Other Direct Costs

131. No publicly available information was available for packaging materials. Other direct costs are incurred for the production of the product concerned. These costs were estimated based on the ratio of these costs in the full cost of production of the Union producers and provided in *Annex B.01*. Packaging costs amount is between *[0 – 2]* % and *[0.5 – 2.5]* % of the total cost of production. Other direct costs are between *[3.5 – 9.5]* % and *[5.5 – 9.5]* %.

132. This ratio was then applied to construct the normal value.

B.1.1.9 Factory Overheads

133. Factory overheads are fixed costs incurred by producers to operate the product concerned production facilities. Factory overheads exclude selling, general and administrative expenses (cf. next section). Factory overheads are based on factors of production obtained from the Union producers and translated as a ratio of these costs

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[12] Petroleum Planning & Analysis Cell, available at: https://ppac.gov.in/natural-gas/gas-price available at *Annex B.03* (last access July 2024).
[13] *New Domestic Natural Gas Price Guideline 2014*, paragraph 13 (see *Annex B.03b*)
[14] Kerala Water Authority https://kwa.kerala.gov.in/en/water-tariff/ available at *Annex B.03* (last access October 2024).
[15] Ministry of Labour & Employment, available at: https://labour.gov.in/annual-reports available at *Annex B.03* (last access October 2024).

in the full cost of production. Factory overheads account between *[7 – 17]* % and *[24 – 36]* % of the total cost of manufacturing.

134. The Complainant computed factory overheads in the representative country by calculating the value of each item as a percentage of the total cost of manufacturing in the EU.

135. The detailed and aggregate data for each FOP collected from the Union producers can be found in *Annex B.01.*

B.1.1.10 Selling, General and Administrative Costs and Profit

136. In accordance with Article 2(6) of the Basic Regulation, amounts for SG&A costs and for profits must be added on the basis of actual data pertaining to the production and sales of the like product in India.

137. The Complainant estimated the amount of SG&A and profits per type of foundries (automated and traditional) as follows:

a. First, regarding automated production process on the basis of 2023 financial statements from the following three companies: Crescent Foundry, RBA Ferro and Super Iron Foundry (see *Annex B.06*). On this basis, the aggregated margins for SG&A expenses and profitability (EBT) as a % of net sales are as follows:

	Crescent	**RBA Ferro**	**Super Iron Foundry**	**Aggregated**
SG&A (% TO)	25.81%	34.28%	28.25%	**28.62%**
Profit (% TO)	8.49%	1.52%	1.42%	**5.54%**

See Annex B.06

b. Second, regarding traditional foundries the amount of SG&A and profits are based on the following three companies: Binayak, Govind Steel and Nif Ispat (see *Annex B.06*). The aggregated margins for SG&A and profits for these three companies are as follow:

	Binayak	**Govind Steel**	**Nif Ispat**	**Aggregated**
SG&A (% TO)	25.68%	29.09%	24.53%	**25.46%**
Profit (% TO)	5.60%	2.55%	7.30%	**5.66%**

See Annex B.06

B.1.2 Constructed normal value

138. On the basis of the factors of production for the like products made of ductile and grey cast iron and the costs collected in India, the Complainant constructed the normal value on the market of the exporting country. The constructed normal value obtained translates as follow:

- Articles of ductile iron: **1,608.09 €/t;**

- Articles of grey iron made through an automated process: **1,256.51 €/t;**

- Articles of grey iron made through a traditional process: **1,074.83 €/t**.

139. A summary of the findings is in the table below. The details of the calculations are in *Annex B.04* and *Annex B.05*.

	Ductile	**Grey Automated**	**Grey Traditional**
Full cost of production (€/t)	1,058.75 €	827.28 €	707.66 €
SG&A expenses (€/t)	460.21 €	359.59 €	307.60 €
Profit (€/t)	89.12 €	69.64 €	59.57 €
Constructed Normal Value	**1,608.09 €**	**1,256.51 €**	**1,074.83 €**

See Annex B.04 and B.05

B.1.3 Export price

140. The Complainant started its calculation from the average imports price at CIF level obtained from the import data of the Union for ductile and grey imports made under the specific TARIC code covering the product concerned, TARIC 7325 10 00 31 (grey iron) and TARIC 7325 99 10 60 (ductile iron).

141. The average price at CIF level was determined at:

- Ductile: 1,204.68 €/t;
- Grey: 1,024.86 €/t.

142. As Eurostat records value at CIF level, the CIF price is adjusted back to an ex-works (EXW) price by deducting ocean transport and insurance which is estimated at 97.83 €/t based on CIP benchmarks Kolkata to Antwerp for a 20' standard dry container short term, THC included. The benchmark relied on in the calculation is the mid-high market average as the importers of cast iron are active on the spot market rather than the long-term contract market, causing higher transport costs. The Complainant estimates a 20' standard dry container to carry 22.5 tonnes of the product concerned (see *Annex B.09*).

143. The Complainant estimates that the inland transportation costs from the Indian foundries to the harbour amount to 33 €/t based on an average distance of 50km between the foundries and the port in Kolkata (see *Annex B.09*).

144. The export price for the CIP from India is therefore:

- Articles of ductile iron: **1,073.84 €/t;**
- Articles of grey iron: **894.02 €/t.**

B.1.4 Dumping calculation

145. The amount of dumping is the difference between the normal value and the export price, at the same level of trade, EXW. The dumping margin has been obtained by expressing the dumping as a percentage of the CIF import price into the EU. On this basis, the following dumping margins were established:

Dumping estimation	Ductile	Grey (automated)	Grey (traditional)
Normal Value (EXW)	1,608.09 €/t	1,256.51 €/t	1,074.83 €/t
Export price (CIF)	1,204.68 €/t	1,024.86 €/t	1,024.86 €/t
Export price (EXW)	1,073.84 €/t	894.02 €/t	894.02 €/t
Dumping amount (EUR)	534.24 €/t	387.99 €/t	180.81 €/t
Dumping Margin (%)	**44.3%**	**35.4 %**	**17.6 %**

See Annex B.08

146. A dumping margin of 44.3% is found for castings made of ductile iron, 35.4% is found for grey iron articles made with an automated process, and 17.6% for those made according to a traditional process. During the CIP, India exported 85,403 tonnes of castings, out of which 69,399 (81%) were made of ductile iron and 16,004 tonnes were made of grey iron (19%) (see *Annex C.01*).

B.2 Türkiye

B.2.1 Normal value

B.2.1.1 Prices paid or payable in Türkiye

147. Türkiye has a known internal market for articles of cast iron. The normal value shall therefore normally be based on the prices paid or payable, in the ordinary course of trade, by independent customers in Türkiye.

148. Domestic prices have been obtained through a specialised consultant, see *Annex B.07*, in Türkiye who found domestic prices by two methods:

(i) Access to results of public tenders of the Turkish public procurement agency;

(ii) Offers by local producers to a local agent.

149. First (i), a review of public tenders in Türkiye was conducted using data obtained from the website of the Turkish public procurement agency, KIK (Kamu İhale Kurumu). The KIK website could not be accessed from outside Türkiye at the time of the research.[16] One tender is relevant:

- Tender No 2023/54720 of 5 April 2023 for 8,500 units of manhole covers D400 (73 kg) of ductile iron awarded to Erkon Döküm for TRY 18,479,000. This tender results in a price of 875,367 € i.e., **1,411 €/t** (FX rate of 21.11). The price has been adjusted to account for inflation in the CIP on the basis of the domestic Turkish producer price index (PPI) over the CIP. The final domestic price based on this tender amounts to **1,968 €/t**.

150. Second (ii), an agent in Türkiye requested price offers from 6 foundries for local delivery concerning various products: manhole covers C250 to D400, Access covers

[16] https://www.turkiye.gov.tr/kamu-ihale-kurumu

C250 to D400 and Gratings C250 to D400. The agent obtained only one offer from [*Turkish producer*] on 6 July 2023. The average price for ductile iron products was **2,078 €/t**.

151. Further information on the tender and the offer, together with detailed calculations for the domestic prices can be found in *Annex B.07*.

B.2.2 Export price

152. As TARIC records value at CIF level, the CIF price is adjusted back to an ex works (EXW) price by deducting ocean transport, and handling costs which are estimated at 47.97 €/t based on benchmarks over the CIP from Mersin to Antwerp for a 20' standard dry container short term THC included (see *Annex B.08*). The benchmark relied on in the calculation is the mid-high market average as the importers of cast iron are active on the spot market rather than the long-term contract market, causing higher transport costs.

153. The inland freight costs in Türkiye between the foundries and the harbours have been estimated to be marginal. Therefore, the export price has not been adjusted for inland transport. This approach is conservative.

154. The export price from Türkiye is therefore of **1,271.07 €/t** for ductile iron based on the CIF import price over the IP.

B.2.3 Dumping calculation

155. The amount of dumping is the difference between the normal value and the export price, at the same level of trade, EXW. The dumping margin has been obtained by expressing the dumping as a percentage of the CIF import price into the EU. On this basis, the following dumping margins were established:

Dumping estimation	[*Turkish producer*]	Tender No 2023/54720
Domestic price	2,078.22 €/t	1,968.38 €/t
Import price (CIF)	1,319.04 €/t	1,319.04 €/t
Export price (EXW)	1,271.07 €/t	1,271.07 €/t
Dumping amount (EUR)	807.15 €/t	697.31 €/t
Dumping Margin (%)	**61.2 %**	**52.9 %**

See Annex B.08

156. A dumping margin between 52.9% and 61.2% is found for castings made of ductile iron, knowing that ductile iron articles represented 95% of all Turkish exports of the product concerned to the Union during the CIP.

157. Additionally, a conservative dumping calculation on the basis of the original domestic price of tender No 2023/54720 of 5 April 2023, not adjusted for PPI was conducted. This conservative calculation leads to the finding of a dumping margin of 10.6%.

B.3 Conclusion on dumping

158. In conclusion, the Complainant has determined that there is strong evidence of dumping from India and Türkiye. The dumping margins established by the Complainant are high, ranging from 17.6% to 44.3% for India and 52.9% to 61.2% for Türkiye.

159. The Complainant considers that the levels of dumping found for ductile and grey cast iron articles during the CIP are significant, and threatening injury to the market.

C Economic situation of the Union Industry

C.1 Evolution of imports into the EU

C.1.1 Volume of imports from India and Türkiye

160. The product concerned falls under TARIC codes 7325 10 00 31 and 7325 99 10 60. Detailed statistics with tonnage and value of imports in EU-27 are shown in attached *Annex C.01*.

161. Imports from India and Türkiye have increased.

Imports of the product concerned from India and Türkiye

Year	2021	2022	2023	CIP
India	81,499	79,123	82,349	85,403
Index (2021 = 100)	*100*	*97*	*101*	*105*
Türkiye	40,933	45,534	46,303	46,545
Index (2021 = 100)	*100*	111	113	*114*
Total	122,431	124,657	128,653	131,948
Index (2021 = 100)	*100*	*102*	*105*	*108*

See Annex C.01

162. Between 2021 and the CIP, imports from India and Türkiye have increased by 5% and 14% respectively.

163. In a more detailed view, average price €/t of the product concerned from India and Türkiye can be broken down between articles made of grey iron and articles made of ductile iron (see *Annex C.01*).

C.1.2 Prices of imports from India and Türkiye

Average price of imports of the product concerned from India

Year	2021	2022	2023	CIP
Average Price €/t Grey	919	1,280	1,070	1,025
Index (2021 = 100)	*100*	*139*	*116*	*112*
Average Price €/t Ductile	1,152	1,511	1,216	1,205
Index (2021 = 100)	*100*	*131*	*106*	*105*
Average Price Total	1,065	1,433	1,183	1,171
Index (2021 = 100)	*100*	*135*	*111*	*110*

See Annex C.01

164. During the period considered the average price of grey increased by 12% between 2021 and Q3/23-Q2/24. During the period considered the average price of ductile increased by 31% in 2022, but then decreased by 26 percentage points between 2022 and the CIP.

165. The average price of the product concerned (ductile and grey iron) increased overall between 2021 and the CIP by 10%.

Average price of imports of the product concerned from Türkiye

Year	2021	2022	2023	CIP
Average Price €/t Grey	1,261	1,477	1,535	1,465
Index (2021 = 100)	*100*	*117*	*122*	*116*
Average Price €/t Ductile	1,144	1,508	1,390	1,319
Index (2021 = 100)	*100*	*132*	*122*	*115*
Average Price Total	1,150	1,505	1,398	1,326
Index (2021 = 100)	*100*	*131*	*121*	*115*

See Annex C.01

166. During the period considered the average price of grey increased by 16% between 2021 and the CIP. During the period considered the average price of ductile increased by 32% between 2021 and 2022, but then decreased by 17% between 2022 and the CIP.

167. The average price of the product concerned (ductile and grey iron) increased by 15% over the period concerned.

C.2 Price undercutting and underselling

C.2.1 Undercutting

168. In order to assess the price pressure of dumped imports on the Union industry, the Complainant compared the average sales price of the Union industry at ex-foundry level with the average import price of India and Türkiye after payment of all duties to obtain a landed price duty paid. The undercutting margin is expressed as a percentage of the Union industry average sales price.

169. Price undercutting is an injury indicator measure by the difference between the average sales price of Union industry against the average import price duty paid of the imports in question.

Undercutting

Overview U/C	Türkiye		India	
	Ductile iron	Grey iron	Ductile iron	Grey iron
Average price of imports duty paid (€/t)	1,319.04	1,464.99	1,237.20	1,042.28
EU Industry ex-works price for sales in the EU (€/t)	2,428.32	[1.7 – 2.0]k	2,428.32	[1.7 – 2.0]k
Undercutting (%)	**46%**	**21%**	**49%**	**43 %**

See Annex C.02

170. Imports from Türkiye undercut the Union industry between 21% and 46% while imports from India undercut the Union industry between 43% and 49%. These undercutting margins are significant.

C.2.2 Underselling

171. Price underselling is the difference between the 'target price' i.e., the price the Union industry could achieve in the absence of dumped imports against the average import price duty paid of the imports in question. The underselling margin is used as the injury margin.

172. The Complainant did an underselling calculation for India and Türkiye using the minimum target price based on a target profit of 6%. The result of the underselling exercise is expressed as a percentage of the price of the imported product at the CIF level (duty unpaid) as follows:

Underselling

Overview U/S	Türkiye		India	
	Ductile iron	**Grey iron**	**Ductile iron**	**Grey iron**
Average price of imports duty paid (€/t)	1,319.04	1,464.99	1,237.20	1,042.28
Full cost for sales in the EU (€/t)	2,449.44	[1.8 – 2.2]k	2,449.44	[1.8 – 2.2]k
EU Target price in EU (€/t)	2,596.40	[1.9 – 2.3]k	2,596.40	[1.9 – 2.3]k
Underselling (%)	**97%**	**45 %**	**113 %**	**106 %**

See Annex C.02

173. The injury margin suffered by the Union industry is prima facie established at a level of:

- **45% - 97%** concerning Türkiye; and
- **106% - 113%** concerning India.

174. The injury margin exceeds the dumping margin. Therefore, the potential anti-dumping duty will not be capped by the injury margin.

C.3 Injury indicators of the EU industry

C.3.1 Definition of Union Industry and Union production

175. During the period considered, the like product was manufactured by around 20 producers in the EU-27. The Complainant represents the main producers, together, the Complainant represents 44% of the total Union production.

C.3.2 Union consumption and market shares

176. The apparent consumption in the Union has been calculated on the basis of the total Union sales of the like product by the Union industry on the Union market added to the total imports of the product concerned from all third countries into the EU.

177. The total Union sales have been established on the basis of the macroeconomic indicators composed of the data of the Complainant and estimates.

178. The total imports of the product concerned from all third countries into the EU has been established on the basis of the imports registered onto Comext's TARIC database at 10-digits level (*Annex C.01*).

179. The table below is based on the aggregate sales numbers provided by the EU producers. The consumption has been calculated by adding the extra EU imports to the actual sales by all EU producers on the EU market in the respective years. The consumption is decreasing between 2021 and the CIP.

Union consumption	**2021**	**2022**	**2023**	**CIP**
Union consumption (t)	476,896	475,532	465,549	462,089
Index (2021 = 100)	*100*	*100*	*98*	*97*

See Annex C.03

180. The Union consumption decreased by 3% between 2021 and the CIP.

C.3.3 Evolution of market share of domestic and imported products

181. The market share was established by comparing sales and imports into the Union to the apparent consumption. The market share is expressed as a percentage of the apparent consumption in the Union.

Market Share in %	**2021**	**2022**	**2023**	**CIP**
Sales of the EU industry (t)	308,972	308,474	295,755	288,434
Market share (%)	*65%*	*65%*	*64%*	*62%*
Imports from Türkiye (t)	40,933	45,534	46,303	46,545
Market share (%)	*9%*	*10%*	*10%*	*10%*
Imports from India (t)	81,499	79,123	82,349	85,403
Market share (%)	*17%*	*17%*	*18%*	*18%*

See Annex C.03

182. The table shows that the EU producers are losing market share going from 65% in 2021 to 62% in during the CIP. The Turkish imports gain 1 percentage point for the same period, and the Indian imports have a fairly stable market share, holding between 17% and 18% of the EU market.

C.3.4 Cumulative assessment of the effects of imports from the countries concerned

183. Article 3(4) of the Basic Regulation holds the criteria to cumulatively assess dumped imports from different countries. First, the margin of dumping established for each country must be more than *de minimis*. Second, the volume of imports from each country must not be negligible. Third, the conditions of competition between the imported products and the like Union product need to be similar in order for a cumulative assessment of the effects of the imports to be appropriate.

184. Dumping margins ranging from 17.6% to 44.3% were found in relation to Indian imports of the product concerned and dumping margins ranging from 52.9% to 61.2% were found for Turkish imports (see section B above and *Annex B.08*). Both ranges are above the *de minimis* threshold established in Article 9(3) of the Basic Regulation.

185. In order for imports not to be considered negligible they must represent at least 1% market share in accordance with Article 5(7) of the Basic Regulation. Imports in relation to apparent consumption developed as follows:

	2021	2022	2023	CIP
Imports from India (t)	81,499	79,123	82,349	85,403
Market share (%)	*17%*	*17%*	*18%*	*18%*
Imports from Türkiye (t)	40,933	45,534	46,303	46,545
Market share (%)	*9%*	*10%*	*10%*	*10%*

See Annex C.01

186. The volume of imports from each of the countries concerned during the CIP are not negligible within the meaning of Article 5(7) of the Basic Regulation. Indeed, during the CIP Indian and Turkish imports had 18% and 10% market shares respectively.

187. Regarding the third requirement for cumulative assessment set out in Article 3(4) of the Basic Regulation, imports of the product concerned from Türkiye and India need to be in competition with each other.

188. First, the average prices of Turkish and Indian imports of the product concerned are within the same price range:

- Between 1,025 €/t and 1,465 €/t for grey iron; and
- Between 1,205 €/t and 1,319 €/t for ductile iron.

189. Second, Indian and Turkish imports display similar pricing behaviours. Indeed, prices of imports from both origins significantly undercut the prices from Union producers by 21% to 43% for grey iron and 46% to 49% for ductile iron.

190. Furthermore, prices of imports from the two origins follow similar trends, as shown in the table below:

Average price of imports of the product concerned from India and Türkiye

Year	2021	2022	2023	CIP
Indian Average Price	1,065	1,433	1,183	1,171

Index (2021 = 100)	*100*	*135*	*111*	*110*
Turkish Average Price	1,150	1,505	1,398	1,326
Index (2021 = 100)	*100*	*131*	*121*	*115*

See Annex C.01

191. Prices from both origins increased between 10% and 15% from 2021 to the CIP. Additionally, they followed the same increase trend in 2022, followed by a decrease in 2023.

192. Taken together these indicators, average price range and pricing behaviour, point to the competition between the Indian and Turkish imported products.

193. Imports of the product concerned from Türkiye and India are also in competition with the like product produced by the Union industry. Indeed, both Turkish and Indian imports increased their market shares, while the Union market share simultaneously decreased over the relevant period. This shows the existing competition between the imported product and the like product produced in the Union.

194. In the light of these considerations, the conditions of competition between the dumped imports of the product concerned from India and Türkiye and between the dumped imports and the like-product in the Union are similar.

195. In conclusion, it is reasonable and justified to cumulatively assess the effects of the dumped imports from Türkiye and India within the meaning of Article 3(4) of the Basic Regulation.

C.4 Economic situation of the Union industry

196. In order to determine if dumped imports would likely lead to injury, the main elements to consider are the level of imports, the prices of these imports and the trend of the market share of these imports. The economic assessment of the current state of the Union industry is also necessary.

197. The situation of the Union industry has been assessed on a macroeconomic level as far as capacity, production, domestic sales, market share and workforce are concerned. Macroeconomic indicators are established on the basis of data collected by the Complainant from its members, market intelligence and information. Where assumptions have been made, a conservative approach has been taken. This constitutes the best of the Complainant's knowledge for the known other producers in the Union. The macroeconomic assessment can be found in *Annex C.03* and the methodology note in *Annex C.04.*

198. The situation of the producers represented by the Complainant has also been assessed on a microeconomic level, at the level for indicators such as capacity, production, sales in the EU and to 3rd countries, sales prices, costs, profitability, employment, productivity, investments and stocks level. This assessment has been performed on the basis of confidential files supplied by the Complainant and detailed in *Annex C.05.*

C.4.1 Macro-economic injury indicators

C.4.1.1 Capacity, production and utilisation rate

199. The production capacity, actual production and utilisation rate at the Union level developed as follow:

Production, production capacity and utilisation rate

Year	2021	2022	2023	CIP
Production	343,267	339,231	309,086	296,030
Index (2021 = 100)	*100*	*99*	*90*	*86*
Capacity	651,077	645,386	658,120	648,200
Index (2021 = 100)	*100*	*99*	*101*	*100*
Capacity utilisation rate	53%	53%	47%	46%
Index (2021 = 100)	*100*	*100*	*89*	*87*

See Annex C.03

200. The capacity stays stable during the years, while the production decreases. The Union production decreased by 14% between 2021 and the CIP.

201. The capacity utilisation rate follows the same trend as the production, it decreased by 13% during the CIP. The capacity utilisation decreased from 53% in 2021 to 47% during the CIP.

C.4.1.2 Sales in the Union and market share

202. The sales of the Union producers evolved as follows. The market share is expressed as a percentage of the apparent consumption.

Sales in the Union and market share

Year	2021	2022	2023	CIP
EU Sales (t)	308,972	308,474	295,755	288,434
Index (2021 = 100)	*100*	*100*	*96*	*93*
Market Share	*65%*	*65%*	*64%*	*62%*

See Annex C.03

203. The volume of sales in the Union by the Union industry decreased by 7% between 2021 and the CIP. The market share also decreased by 3 percentage points between 2021 and the CIP.

C.4.1.3 Employment

204. The employment in the Union industry developed as follows:

Employment in the Union

Year	2021	2022	2023	CIP
Employment	3,027	3,076	3,043	2,995
Index (2021 = 100)	*100*	*102*	*101*	*99*

See Annex C.03

205. The employment in the Union industry was stable over the period considered, decreasing by only 1% between 2021 and the CIP.

C.4.2 Micro-economic injury indicators

C.4.2.1 Production and capacity and utilisation rate

206. The production capacity, actual production and utilisation rate of the Complainant developed as follow:

Production, capacity and utilisation rate

Production and capacity	**2021**	**2022**	**2023**	**CIP**
Production (t)	158,463	154,611	134,678	130,166
Index (2021 = 100)	*100*	*98*	*85*	*82*
Production capacity (t)	275,260	270,053	271,958	264,877
Index (2021 = 100)	*100*	*98*	*99*	*96*
Capacity utilisation rate (%)	58%	57%	50%	49%
Index (2021 = 100)	*100*	*99*	*86*	*85*

See Annex C.05

207. Production of the Complainants decreased by 2% between 2021 and 2022, and decreased again in the following years by 16 percentage points between 2022 and the CIP.

208. The production capacity decreased by 4% during the period considered.

209. The capacity utilisation rate follows the same trend as the production going from 58% to 49% during the period considered.

C.4.2.2 Sales volume and prices in the EU

210. The unrelated sales in the EU of the Complainant developed as follow:

Sales in the EU

Sales in the EU	**2021**	**2022**	**2023**	**CIP**
Sales volume (t)	152,051	153,155	132,024	128,173
Index (2021 = 100)	*100*	*101*	*87*	*84*
Sales value (€)	293,440,435	334,669,230	325,927,159	308,063,794
Index (2021 = 100)	*100*	*114*	*111*	*105*
Ex-works price for sale (€/t)	1,930	2,185	2,469	2,403
Index (2021 = 100)	*100*	*113*	*128*	*125*

See Annex C.05

211. The Union producers, represented by the Complainant, sell the product concerned mainly to the EU market. That is 94% of their total sales. The EU market is therefore the Union industry's main focus.

212. Sales volume in the EU decreased by 16% between 2021 and the CIP. The average ex works price for sale increased by 25% between 2021 and the CIP. The increase in the EU average ex-works price for sale is connected to the increase in raw material prices, energy costs and labour costs.

C.4.2.3 Export sales

213. The export sales of the Complainant developed as follow:

Export sales

Export sales	**2021**	**2022**	**2023**	**CIP**
Sales volume (t)	9,083	9,975	8,701	8,658
Index (2021 = 100)	*100*	*110*	*96*	*95*

See Annex C.05

214. Sales outside the EU decreased by 5% during the period considered. However, as the Complainant sells mostly in the European market, the performance on the export market does not bear a significant importance.

C.4.2.4 Employment and productivity

215. The employment and productivity of the Complainant developed as follow:

Employment and productivity

Employment and productivity	**2021**	**2022**	**2023**	**CIP**
Employment (FTE)	1,959	1,968	1,936	1,919
Index (2021 = 100)	*100*	*100*	*99*	*98*
Productivity (t/FTE)	81	79	70	68
Index (2021 = 100)	*100*	*97*	*86*	*84*

See Annex C.05

216. Employments remained stable, but the productivity decreased by 16% between 2021 and the CIP.

C.4.2.5 Prices and factors affecting prices

217. The average sales price and cost of goods in the EU of the Complainant developed as follows:

Average price and cost in the EU

Average price and cost in the EU	**2021**	**2022**	**2023**	**CIP**
Ex-works price for sale (€/t)	1,930	2,185	2,469	2,403
Index (2021 = 100)	*100*	*113*	*128*	*125*

Average cost of sales in EU (€/t)	1,910	2,197	2,463	2,431
Index (2021 = 100)	*100*	*115*	*129*	*127*

See Annex C.05

218. During the period considered, the average ex-works price for sale in the EU increased by 25% from 2021 to the CIP. This increase follows the increase in the average cost to produce and sell in the EU, i.e., the cost of goods sold. However, the ex-works price for sale did not increase enough to cover the increase in costs of sales, pointing to the fact that the Complainant was not able to fully pass on the cost increase to the consumer.

219. This table illustrates the price pressure that the dumped imports exercise over the Complainant' average sales price, suppressing the Union producers' prices.

C.4.2.6 Profitability

220. The profitability of the Complainant developed as follow:

Profitability

	2021	**2022**	**2023**	**CIP**
Profitability (%)	1.1%	-0.5%	0.2%	-1.1%

See Annex C.05

221. The profitability decreased from 1.1% in 2021 to -1.1% in the CIP. This profitability level is below the target profit established in the original investigation (i.e. 5.3%),[17] and below the target profit set out by the Basic Regulation (i.e., 6%).[18] Since the original investigation, the profitability of the Union industry never recovered a normal level. This negative trend is caused by the inability of the Union industry to raise prices sufficiently to cover the increasing cost of production and the increase of the Indian and Turkish dumping in the Union market.

C.4.2.7 Investments

222. The investments of the Complainant developed as follow:

Investments

Investments	**2021**	**2022**	**2023**	**CIP**
Investments (€)	11,299,156	10,761,037	13,244,268	12,072,936
Index (2021 = 100)	*100*	*95*	*117*	*107*

See Annex C.05

223. The Complainants increased their investments over the years: overall investments increased by 7% between 2021 and the CIP. This increase in investments can be explained by the fact that the cast iron industry is capital intensive and requires significant investments every 15 to 20 years to upgrade the machines which age rapidly,

[17] Commission Implementing Regulation (EU) 2018/140.
[18] Regulation (EU) 2016/1036, Article 7(2c).

as found in the Commission Implementing Regulation imposing provisional duties against dumped imports of cast iron articles originating in the PRC in 2017.[19]

C.4.2.8 Stock levels

224. The stocks of the Complainant developed as follow:

Stocks

Stock levels	**2021**	**2022**	**2023**	**CIP**
Stocks end of period (t)	42,342	35,051	34,561	34,523
Index (2021 = 100)	*100*	*83*	*82*	*82*
Stocks / production (%)	27%	23%	26%	27%
Index (2021 = 100)	*100*	*85*	*96*	*99*

See Annex C.05

225. The level of stock decreased by 18% in between 2021 and the CIP. Stocks relative to production stayed stable over the period considered.

C.5 Conclusion on Injury

226. Over the years, imports from India and Türkiye increased significantly and accounted for a cumulated market share of 29%. These imports have continuously undercut the prices of the Union producers on the EU market.

227. The evolution of the macro and microeconomic indicators shows that the financial situation of the Union industry is deteriorating during the period considered. All indicators decreased over the period considered. The Complainant production and sales decreased by 18% and 16% respectively, during the period considered. The Union producers' market share decreased from 65% to 62%. As found in the Implementing Regulation (EU) 2024/770,[20] Indian and Turkish market shares continue to increase, going from 26% to 29%.

228. During the period considered the sales costs of the Complainant increased by 27%. The prices increased to cover the increase of the costs of the raw materials and energy. However, the profitability remains below the target and continues to decrease reaching -1.1% during the CIP.

229. On the basis of the analysis above, the Complainant affirms that the injury caused by the dumped imports to the Union industry is material within the meaning of Article 3 of the Basic Regulation.

[19] Commission Implementing Regulation 2017/1480, recital 166.
[20] Commission Implementing Regulation (EU) 2024/770 http://data.europa.eu/eli/reg_impl/2024/770/oj, recital 151.

D Causation

D.1 Effect of dumped imports

230. The increase in dumped imports from India and Türkiye directly correlates to the drop in Union capacity utilisation rate and the Complainant's profitability. This can be explained by the fact that the increase in volume of dumped imports caused the Union market shares to drop at the profit of the market shares of Indian and Turkish imports.

	2021	2022	2023	CIP
Union production (t)	343,267	339,231	309,086	296,030
Index (2021 = 100)	*100*	*99*	*90*	*86*
Union capacity utilisation rate (%)	53%	53%	47%	46%
Index (2021 = 100)	*100*	*100*	*89*	*87*
Complainant's profitability (%)	1.1%	-0.5%	0.2%	-1.1%
Volume of dumped imports (t)	122,431	124,657	128,653	131,948
Index (2021 = 100)	*100*	*102*	*105*	*108*

See Annex C.03 and Annex C.05

231. While the cumulated volume of imports coming from Türkiye and India increased by 8%, the Union industry's capacity utilisation rate and production volume both decreased by 13% and 14% respectively, and the Complainant's profitability decreased below break-even in the CIP.

232. Similarly, while the market share of the dumped imports increased, the Complainant's profitability declined.

	2021	2022	2023	CIP
Market share of dumped imports (%)	*26%*	*26%*	*28%*	*29%*
Complainant's profitability (%)	1.1%	-0.5%	0.2%	-1.1%

See Annex C.03 and Annex C.05

233. The increase of the cumulated market shares of Turkish and Indian imports from 26% to 29%, occurred simultaneously with a decrease in the Complainant's profitability rate.

234. An increase in the volume of dumped imports from Türkiye and India can be observed together with a decreased in the volume of sales of the Union industry in the EU.

	2021	2022	2023	CIP
Volume of dumped imports (t)	122,431	124,657	128,653	131,948
Index (2021 = 100)	*100*	*102*	*105*	*108*
EU sales volume (t)	308,972	308,474	295,755	288,434
Index (2021 = 100)	*100*	*100*	*96*	*93*

See Annex C.03

235. Over the relevant period, the Union's sales volume decreased by 7% at the same time as the dumped imports' volume increased by 8%.

236. Additionally, the cumulated market share of the dumped imports increased over the relevant period while the market shares of the Union industry and of the other imports decreased. The table below presents a summary of these findings:

	2021	2022	2023	CIP
EU market share (%)	65%	65%	64%	62%
Market share of dumped imports (%)	26%	26%	28%	29%
Market share of other imports (%)	10%	9%	9%	9%

See Annex C.03

237. Indeed, the market share of the dumped imports increased by 3 percentage points over the relevant period while the Union industry's market share decreased by 3 percentage points and the other imports market share decreased by 1 percentage point over the same period.

238. Last, while the prices from India and Türkiye have increased over the period concerned, they did not increase at the same rate as the Complainant's sales costs and sales price in the EU, and only represent approximatively half of the Complainant's sales price in the EU.

	2021	2022	2023	CIP
Indian average price (€/t)	1,065	1,433	1,183	1,171
Index (2021 = 100)	*100*	*135*	*111*	*110*
Turkish average price (€/t)	1,150	1,505	1,398	1,326
Index (2021 = 100)	*100*	*131*	*121*	*115*
Complainant's EU sales costs (€/t)	1,910	2,197	2,463	2,431
Index (2021 = 100)	*100*	*115*	*129*	*127*
Complainants' ex-works price for sale in the EU (€/t)	1,930	2,185	2,469	2,403
Index (2021 = 100)	*100*	*113*	*128*	*125*

See Annex C.01 and Annex C.05

239. Prices from India and Türkiye increased by 10% and 15% respectively over the period concerned. On the other hand, the Complainant's EU sales costs and sales price increased by 27% and 25% respectively. Furthermore, the average price of the product concerned originating in Türkiye and India are around half the price of the Complainant's on the EU market.

240. In conclusion, all of the indicators discussed above show that the injury sustained by the Union industry was caused by the dumped imports from Türkiye and India.

D.2 Volume of imports from 3rd Countries

241. The imports of similar cast iron articles from third countries other than India and Türkiye, originated mainly in China. The imports from 3rd countries evolved as follows:

Imports from 3rd countries

Year	2021	2022	2023	CIP
China (t)	27,897	24,177	26,805	27,582
Index (100 = 2021)	*100*	*87*	*96*	*99*
Average price €/t	1,124 €	1,500 €	1,128 €	1,097 €
15.5% ADD	1,298 €	1,732 €	1,303 €	1,267 €
38.1% ADD	1,552 €	2,071 €	1,558 €	1,514 €
Market Share %	*6%*	*5%*	*6%*	*6%*
Iran (t)	6,048	9,094	5,557	5,597
Index (100 = 2021)	*100*	*150*	*92*	*93*
Average price €/t	1,189	1,545	1,545	1,498
Weighted average price with *erga omnes* duties €/t[21]	1,221 €	1,587 €	1,587 €	1,538 €
Market Share %	*1%*	*2%*	*1%*	*1%*
Other countries[22] (t)	11,548	9,130	8,779	8,529
Index (100 = 2021)	*100*	*79*	*76*	*74*
Average price €/t	1,293 €	1,769 €	1,755 €	1,702 €
Market Share %	*2%*	*2%*	*2%*	*2%*
All imports (t)	167,925	167,057	169,794	173,655
Index (100 = 2021)	*100*	*99*	*101*	*103*
Average price €/t	1,116	1,487	1,274	1,237
Market Share %	*35%*	*35%*	*36%*	*38%*

See Annex C.01

242. The import volume from all trade is fairly stable between 2021 and the CIP.

243. Imports from China and their market share decreased by 1% between 2021 and 2022, and came back to the same level as 2021 in the CIP. Dumped imports from China are subject to anti-dumping duties ranging from 15.5% to 38.1%. As a result, the average landed price in the Union varies between 1,267 €/t and 1,514 €/t.

244. The Chinese CIF price is lower than the Turkish and Indian one, but the landed price is higher showing that measures against China have a positive effect. Thanks to the anti-dumping measures in place against China, the average landed price of Chinese imports is higher than the average price of Indian imports of the product concerned (1,171 €/t), and the average price of Turkish imports (1,326 €/t).

245. This points to the fact Chinese imports duty-paid can no longer contribute to the decrease of profitability and to the material injury of the Union industry to such an extent that it would break the causal link established above. Indeed, both the imports' market share and their absolute volume decreased. However, the positive effect on the

[21] The erga omnes duties are the following: 1.70% on grey and 2.70% on ductile iron. Details of the calculation of the weighted average price are in *Annex C.01*.
[22] Countries other than India, Türkiye, China and Iran.

EU market did not benefit the Union industry but exporters of dumped product concerned from India and Türkiye.

246. The imports from Iran increased by 50% between 2021 and 2022, and then decreased by 58% between 2022 and 2023. The average landed price of the Iranian imports of the product concerned (1,538 €/t during the CIP) remained above the average prices of India and Türkiye during the period concerned and the CIP.

- Articles of cast iron imports originating in India and Türkiye have an 28% market share in the Union during the CIP;

- Articles of cast iron imports originating in China have a 6% market share in the Union during the CIP;

- Articles of cast iron imports originating in Iran only represent approximately 1% of the Union market for the product concerned during the CIP.

247. The import statistics for the period concerned and the CIP demonstrate that India and Türkiye are the main importers of the product concerned into the Union (see *Annex C.01*).

D.3 Other non-attributing factors

D.3.1 Consumption Pattern

248. The apparent consumption of the product concerned in the Union did not change significantly over the considered period (see *Annex C.03*).

	2021	**2022**	**2023**	**CIP**
Apparent Consumption (t)	476,896	475,532	465,549	462,089
Index	*100*	*100*	*98*	*97*
Union Sales (t)	308,972	308,474	295,755	288,434
Index	*100*	*100*	*96*	*93*
Market share of dumped imports (%)	*26%*	*26%*	*28%*	*29%*

See Annex C.03

249. Despite a 3% decrease in the Union's apparent consumption, the sales of the Union producers decreased at a higher rate of 7% over the period concerned. The lost market shares from the EU due to this decrease in sales was taken over by the imports originating from Türkiye and India.

250. As the apparent consumption in the Union did not change significantly, it is not susceptible of breaking the causal link established in the section above (see D.2 above).

D.3.2 Export Performance

251. The Union's export performance over the period considered developed as follows:

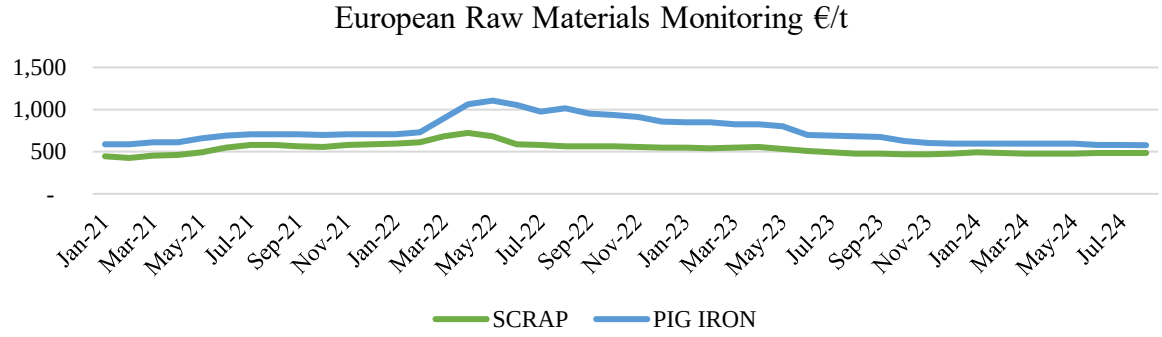
Union Export Sales	**2021**	**2022**	**2023**	**CIP**
Export sales volume (t)	20,866	20,494	17,537	17,043
Index	*100*	*98*	*84*	*82*
Union sales volume (t)	308,972	308,474	295,755	288,434
Index	*100*	*100*	*96*	*93*

See Annex C.03

252. Sales outside the Union decreased during the period concerned. However, this does not have a significant impact on the causal link as the Union producers sell mostly on the Union market. Indeed, export sales represent around 6% of the Union producers' total sales. Moreover, the profitability in section C is calculated on sales on the EU market only.

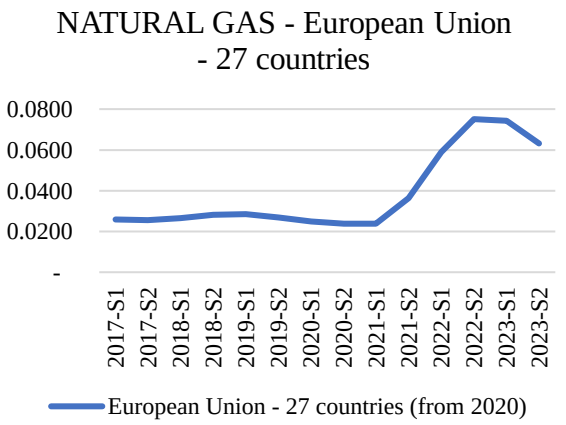
D.3.3 Price volatility in the costs of raw materials or energy

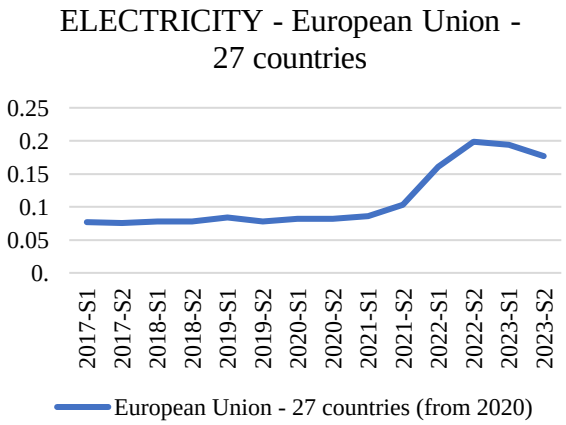
253. There was a price increase in raw materials in 2022 (see *Annex D.01*). In 2023 prices gradually recovered to their original levels.



See Annex D.01

254. In addition, energy prices also increased in 2022 and 2023.





See Annex D.01

255. A certain degree of volatility in the prices of raw materials and energy led to an increase of the full costs of production. Union producers were not able to pass on fully this increase to their customers in 2022 and the CIP.

	2021	2022	2023	CIP
EXW price for sale (€/t)	1,930	2,185	2,469	2,403
Full costs for sales (€/t)	1,910	2,197	2,463	2,431
Difference (€/t)	20	-12	6	-27

See Annex C.05

256. The increase of costs in raw materials and energy have therefore no impact on the causal link established above. It is the price suppression caused by dumped imports that is causing the injury to the Union industry.

E Conclusion

257. The Union market of certain cast iron articles is an attractive market in term of volume and prices. In the past, the Union market has been subject to dumping practices from Chinese exporters which has been remedied by the anti-dumping measure in place.[23] As a result, the dumped Chinese imports have decreased but other exporting producers, India and Türkiye, have started to dump on the Union market to take advantage of the situation and to increase their market share. In the last years, India and Türkiye have increased their exports to the Union at dumped prices causing injury.

258. The economic situation of the Union industry is declining. All macroeconomic indicators are decreasing during the CIP such as production, capacity utilisation, sales volume in the EU. Microeconomic indicators such as market shares, and profitability indicate a clear declining share. Significant undercutting from India and Türkiye took place during the period concerned. The magnitude of the underselling margin demonstrates the level of injury suffered by the Union producers.

259. The Complainant submits that the injury caused by dumped imports to the Union industry is material. Therefore, the Complainant respectfully request the European Commission to initiate an anti-dumping investigation concerning imports of the product concerned originating in India and Türkiye.

[23] Commission implementing Regulation (EU) 2024/770 http://data.europa.eu/eli/reg_impl/2024/770/oj