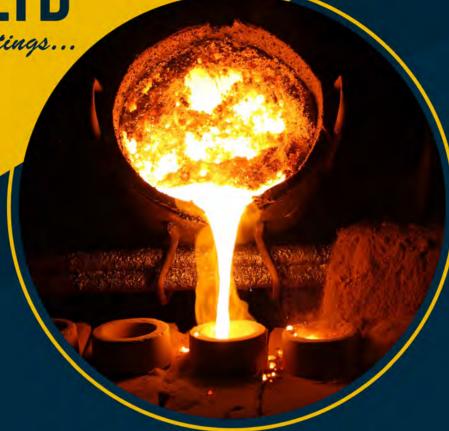


NIF ISPAT LTD

More than castings...











GRATINGS



COUNTER WEIGHT www.nifl.com



SURFACE BOX



PIPE FITTINGS



Company Profile	3
Why NIF Ispat	4
Awards	5
Certificates	6
Standard & Specification	8
Production Flow Chart	9
Integrated Quality, Environmental & OHS Policy Statement	10
Quality	11
Infrastructure	13
Products	19





NIF ISPAT Ltd an ISO 9001 : 2015 / ISO 4500:2018/ ISO 1400 :2015 certified foundry, formerly known as Nandikeshwari Iron Foundry (P) Ltd was established in 1955. NIF ISPAT Ltd is one of the oldest manufacturers of Grey Iron and Ductile Iron Castings in INDIA. Today, it is Government recognized THREE STAR EXPORT HOUSE with a successful legacy in the manufacture of quality castings. With its four foundries in Eastern India, it is supported by highly qualified and experienced engineering staff and a very efficient team of skilled workers. The company has a combined annual capacity of 36,000 Mt.

We at NIF, strive to combine modern technology with traditional skill together with stringent quality control measures. We have undertaken the commitment towards quality control and timely delivery of produced goods. As a result, we have established an appreciable clientele in the discerning markets of USA, UK, Canada, Australia, Spain, Italy, Croatia, Singapore, Cyprus, Germany and all Middle East Countries.

Being one of the pioneer leading manufacturers and exporters of cast iron and Ductile Iron products, the company has been producing both precision and heavy duty items confirming International standards since day one of its existence.

One several occasions, the Company has been awarded for Excellence in Export Performance by the ENGINEERING EXPORT PROMOTION COUNCIL (EEPC- sponsored by the Government of India) .









AEO Certificate T2



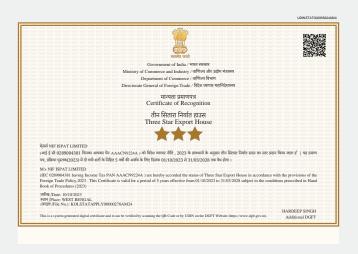
ISO 9001: 2015 Certificate by DNV



BSI KITEMARK Certificate



3 Star Export House Certificate





AEO Certificate T1



ISO 14001:2015 Certificate by BSI



ISO 45001:2018 CERTIFIED



ISO 9001: 2015 Certificate by BSI







STANDARD EN

Recommendation of Load Class & Application





Areas used by pedestrians and pedal cyclists only.





Footways, pedestrian areas, car park and car parking decks.





For Gully tops installed in the area of Kerbside channels of roads which, when measured from the kerb edge, extend to a maximum of 0.5m into the carriageway and a maximum of 0.2m into the footway and also for Manhole cover & frame.





Carriageways of roads(including pedestrian streets), hard shoulder-s and parking areas, for all types of road vehicles.





Areas imposing high wheel loads, e.g. docks, aircraft pavements.



Areas imposing particularly high wheel loads, e.g. docks, aircraft pavements.

We make Products as per the following Specifications:-

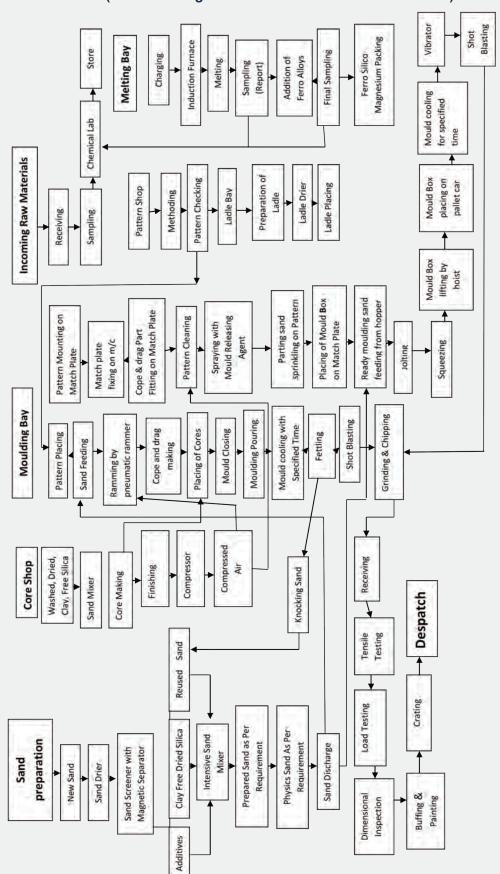
(1.) EN-124-2 (2.) ASTM-A-48 Class 20B to 35B (AASHTO M306)

(3.) DIN 1691 GG 20 to GG 30 (4.) AS T150- T400 (5) SANS (6) ASTM- A536 60-40-18 to 80-60-03/06 (7) DIN 1693 GGG 40 to GGG 60 (8) EN 1563 EN-GJS-450-10 to EN-GJS-600-3 (9) SG400/17 to SG600/7(10.) FG220 to FG350



Flow Chart of Production

(For Incoming Raw Material to Finish Production)







NIF Ispat Ltd. is committed to an operating philosophy based on openness in communication, Integrity in serving our customers, Fairness and Concern for our Employees and Responsibility to the communities within which we operate. NIF Ispat Ltd. Committed to ensure a healthy and safe Environment by minimizing adverse effects of our activities and efficient use and conservation of resources. NIF Ispat Ltd. is committed to establishing a process for consulting with worker and workers' representatives and encouraging them to participate in decision making.

NIF Ispat Ltd. is committed to continual improvement of the QMS EMS & OHS and to comply with all applicable statutory rules & Regulations. The policy is propagated, understood by all persons working or behalf of the organization and the policy is available to public.



We at NIF ISPAT Ltd., implement an ascetic quality control system, which is customer oriented and is continuously improved.

To accomplish our targets, we follow the policy of constantly motivating and developing the competent human resources to cope with the variable customer requirements. In addition, we try to attain higher productivity level together with improved quality performance to achieve maximum customer satisfaction

Our highly qualified engineers and a state-of-the-art R&D unit ensure that our products are of the superior quality. The produced goods undergo a complete physical testing including Casting's Hardness, Load Testing, Load Tensile, Transverse and Chemical Analysis to meet the requirements of the globally accepted quality standards.

Quality Mantra

Trials Procedure: Where new patterns are involved or where designs have been improved, the component has to undergo a pre-production trials procedure. Few samples is cast and monitored through the various stages of production. Emphasis is placed on exceeding product specification and on ease of manufacture. The philosophy is that a product that is easy to make will generally be of better quality than a component which creates manufacturing problems.

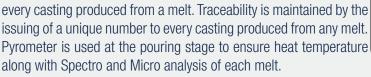


Process Control

Quality control starts with checks on raw materials and is then applied throughout the manufacturing cycle. To ensure this there is an in-house quality assurance manual which sets out all the disciplines that go to make a casting with emphasis on quality assurance at every stage.

Material Analysis

A sample of every melt of metal produced is analyzed in laboratory before molten metal is poured. This gives an instant and permanent record of the chemical analysis of





Visual Analysis

A team of inspectors check and report on castings at every stage of manufacture. In the case of machined and heat treated items this involves four separate visual and dimensional checks on surface finish and adherence to drawing tolerances



Testing

To check physical properties universal testing machine is used. A wide range of equipment is used including Brinell testing machine and load test machine. Also a variety of special equipment is available on site for testing particular items. For instance hydro-pressure testing equipment, pull & tilt test machine etc.

Inspection

It is an important activity and item is inspected at each stage during production depending on the procedure adopted right from the raw material.

Raw material, Sand, Chemicals, Additives, Paint, Scrap.

- Visual inspection
 Chemical analysis
- Radiation check Checking of Material Test Certificate of the Producer

Green Sand Preparation

• Permeability Check • Moisture Check • Green Compressive Strength • Sand Hardness

Moulding

• Core Gauge • Runner riser Gauge

Melting

• Raw material proportion check by weight • Melting time • Additives check • Carbon analysis

Cast Item

- Visual Check for defects : shrinkage, feeding, porosity, cavity Dimension check
- Surface finish Check

Liquid metal

- Pouring temperature and rate
 Physical testing by UTS for tensile and Brinell Hardness for hardness
- Chemical testing by Spectrometer and Wet Lab

Finish Item

• Fitment • Visual including Paint • Weight

Packing- Despatch

Radiation & Fumigation (in case of wooden pallets)

WE BELIEVE IN PROVIDING COMPLETE CUSTOMER SATISFACTION THROUGH OUR RANGE OF QUALITY PRODUCTS





NIF as its FOUR manufacturing plants located in Howrah, West Bengal, India with well equipped infrastructure needed in a foundry to maintain a sustainable quality standard to meet its customers' requirements worldwide. In our core foundry business, we are equipped to offer a full range of services ranging from in-house product development to moulding, inhouse machining, as well as the facilities to provide the most stringent product testing.

OUR TEAM

A team is the most important part of any organization. They are most important part of the organization. Thus we are blessed to have such a wonderful team who works in complete harmony among themselves. They are highly qualified people knowledgeable in their respective fields. Backed with years of experience they are dutiful, punctual and work with complete dedication and sincerity. Our organization keeps organizing many workshops and training programs for them to sharpen their skills from time to time. Our efficient team consist of best of engineers, metallurgist, quality analysts, marketing & sales executive and administrative staff.

DESIGN & PATTERN SHOP

Product Design

Auto CAD is the best CAD software for making and editing 2D drawings very quickly and prominently. Advantage: For using this software, the design department does not use manual paper drawings, which takes thrice the time to make a 2D drawing.

Creo Parametric is one of the best parametric software for making the 3D Model to visualize the model even before making the practical model.

Making the 3D CAD model gives the exact weight of the product by inputting the material properties of the product as per customer requirement at the very first stage, which helps reduce the price of the product compared to other manufacturers.

Creo Simulate is an analysis software to do the stress analysis/ load test on the product to check the sustainability of the product on a particular load.

It helps optimizing the design of the product to create less weight and negate rejection.

Pattern Design

Autodesk Power Shape is a 3D modelling system to make the 3D model easily, fast, and prominently. Very easy & fast to modify & recover the imported model from other 3D modelling software.

Autodesk Power Mill software by which we can make the perfect CNC program for machining the product accurately with optimized machining time & visualize the whole product machining of the product before practical product machining. Achieving accurate dimension of product as per the design model after machining.

We are equipped to manufacture accurate metallic and non-metallic patterns in-house with the help of Vertical Machining Centre (VMC) & Computer.

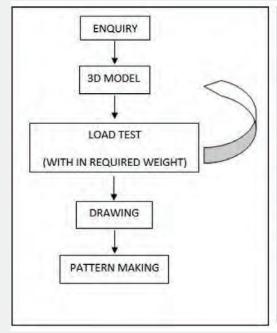
3 no. CNC-VMC (BFW make)

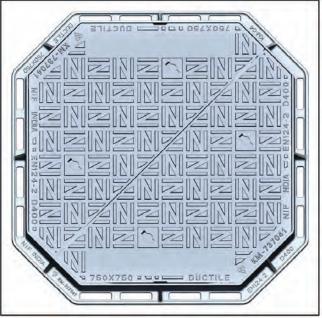
3 no. Vertical Milling Machine (Huron make)

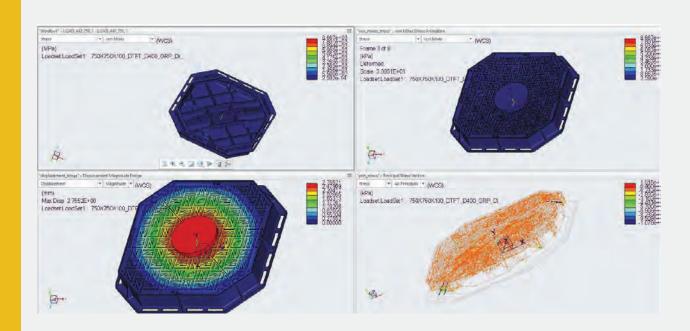
2 no. Shaping Machine

2 no. Magnetic Drilling Machine



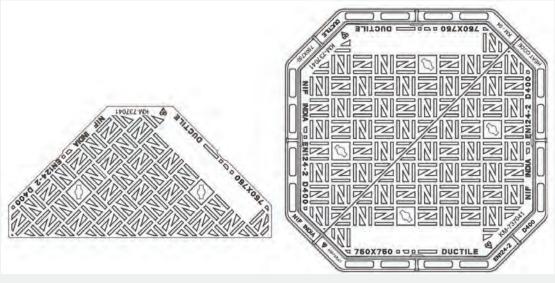


















MELTING

- Total production capacity of 36,000 tons per annum
- 5 no. Cupola having melting capacity of 6 ton/hour
- 3 no. 1-ton crucible Electrotherm make with melting capacity of 2 ton/hour
- All melting infrastructure is equipped with relevant pollution control devices
- Carbon/Silicon Analyzer for Direct Reading of Molten Metal.
- Temperature Analyzer for Direct Reading of Molten Metal.
- 2 no. E.O .T Crane : Electric overhead travelling Cranes for metal handling
- MetalPower make Spectrometer model Metavision 108N+

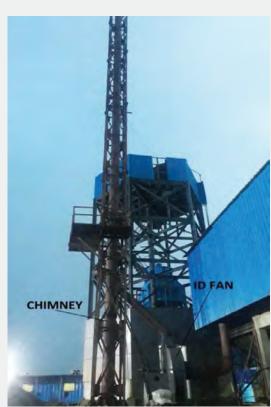














MOULDING

- RHINO make 25 MT/hr automatic sand plant with 1 ton sand mixture and appropriate automatic sand handling system
- RHINO make 80 MT /hr sand plant with 1.5 ton sand mixture & appropriate automatic sand handling system
- RHINO make High Pressure Automatic Moulding Machine with a box size of 1000mm X 1000mm X 450mm/400mm at a rated speed of 35 boxes per hour = 3 no.
- Modern Dust collector system in all respective zones for dust free plant.
- Hand/Floor Moulding Capacity with its separate suitable sand mixture to prepare & feed green sand for floor/manual moulding
- 2 no. 7 kg Cold Box Core Shooter machine with suitable core sand mixture machine
- 1 no. 15 kg Cold Box Core Shooter machine with suitable core sand mixture machine
- CO2 core making facilities
- 2 no. Core Oven for maintaining the core temperature



RHINO MOULDING MACHINE 1000x1000x450 mm



SAND MIXTURE: - 1000 KG CAPACITY FOR 20 TPH SAND PLANT







FETTLING & MACHINING

- 1 no. 2 Wheel 'Y' Type Hanger (1000 x 1500 / 500 Kgs. Hook) Shot Blasting Machine with accessories and suitable pollution control device
- 2 no. 1000 Kgs Batch capacity close Look, Rotary Hanger Type, Automatic Shot Blasting Machine with Panel Baord and impulse Jet Type Dust Collector.
- VMC for machining contact surfaces to ensure non-rocking and flush fitment— 2no.
- Lathe Machines of various sizes for proof machining
- Drilling Machines of various sizes
- Airless Spray painting machines to ensure customer specified DFTs (Dry Film Thickness)
- Black Bitumen Coating / Epoxy Coating / Polyurethane Coating / Powder Coating / Hot Dip Galvanized Coating etc. options available.
- Angle Type Hand Grinder Machines
- Swing Grinder Machines
- Pedestal Grinder Machines
- In-house packaging and dispatch facility with container loading ramp



Melting Laboratory

TESTING FACILITIES

- Digital Load Testing Machine of 100 MT capacity
- BHN machine for testing metal hardness
- UTS machine for testing metal tensile strength
- Pull test & Tilt test machine



Sand Laboratory

- In-house Sand Lab with all equipment's for maintaining sand quality
- In-house Chemical lab for all testing's of raw materials as well as castings
- Melt ing Lab with C.E Analyser, Metallurgical Microscope and Image Analyzer, Spectrometer and Pyrometer
- Durometer
- Coating thickness gauge (also referred to as a paint meter) to measure dry film thickness
- Hydro Testing Machines to test for leakages.



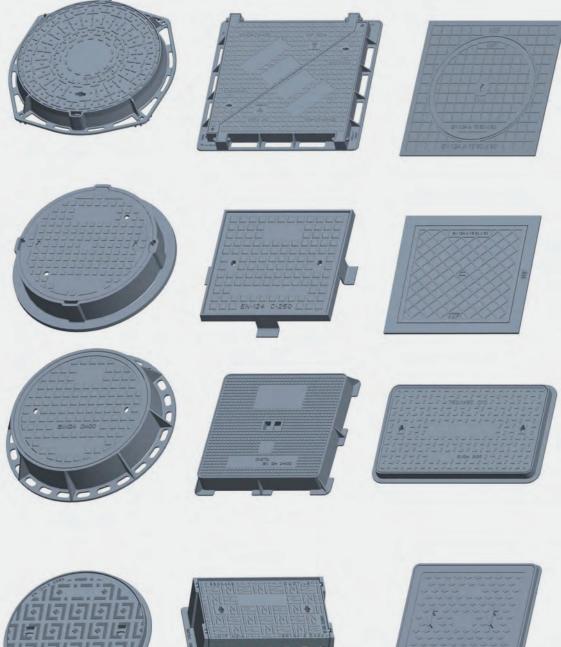
Load Test Machine



Tensile Test Machine



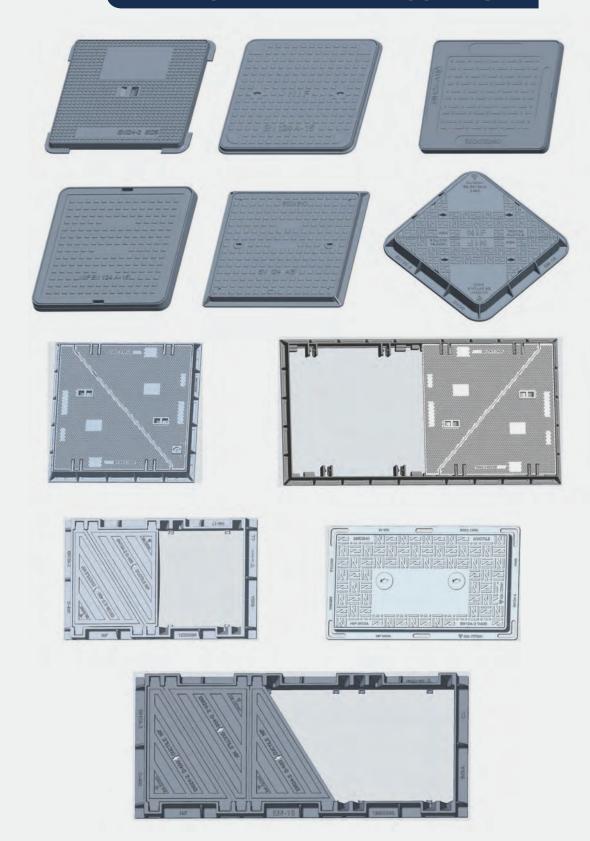
MANHOLE FRAME AND COVERS





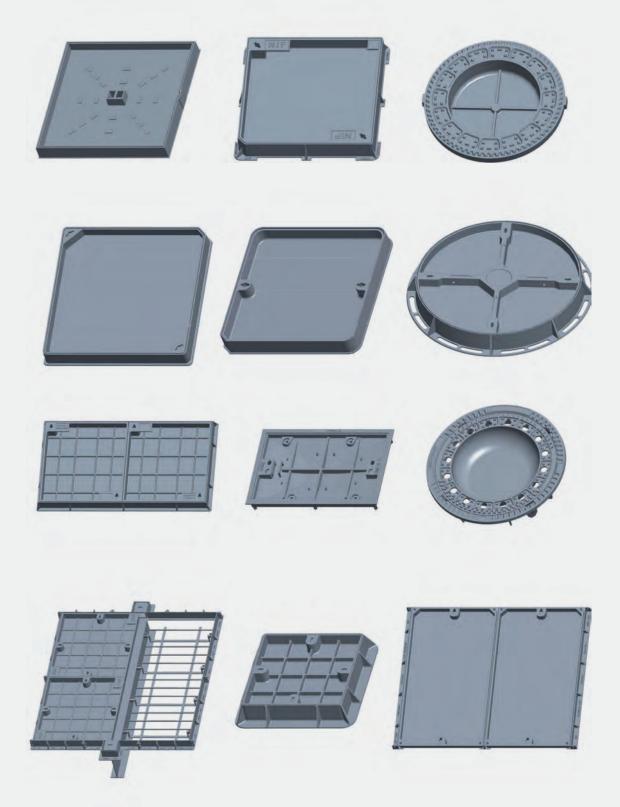


MANHOLE FRAME AND COVERS





RECESSED COVERS & FRAMES

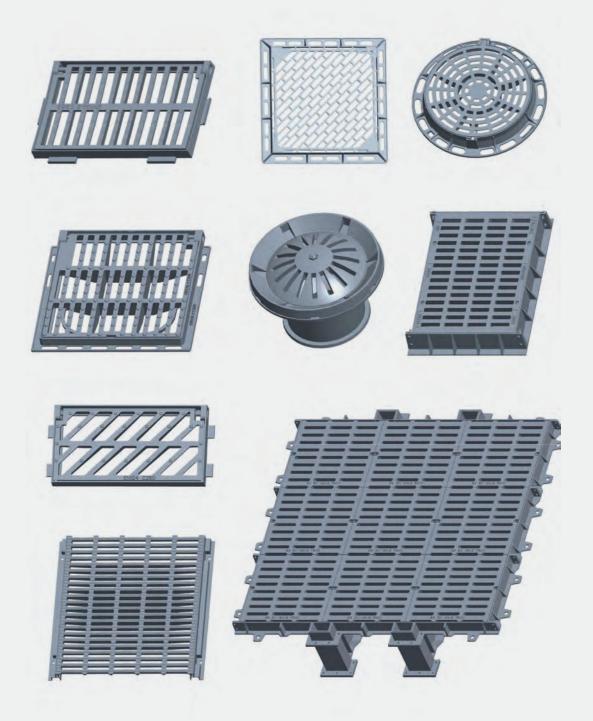




GRATINGS

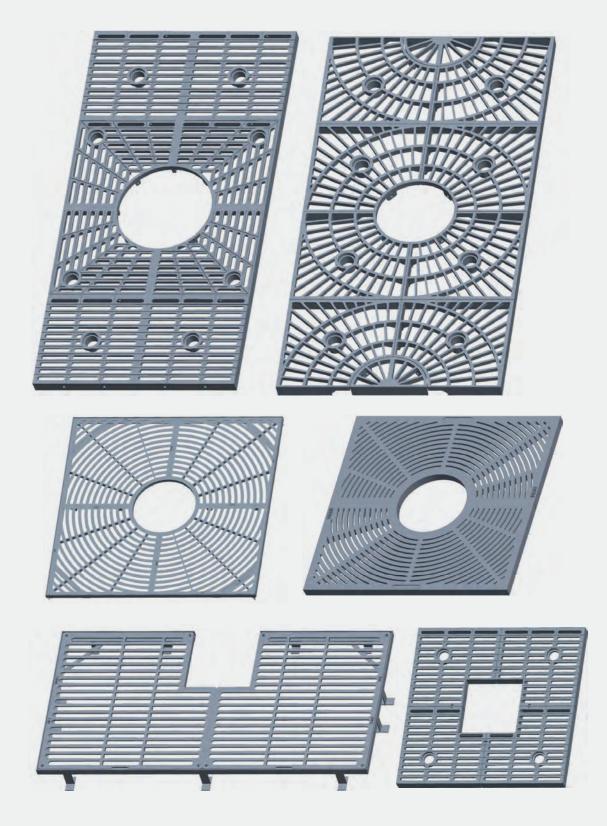


GRATINGS





TREE GRATINGS





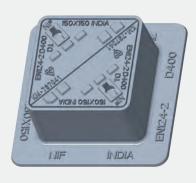
PIPE FITTINGS



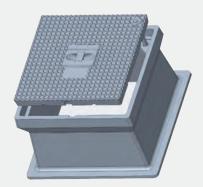




SURFACE BOX





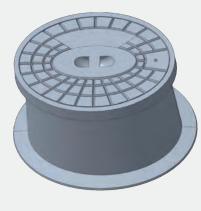
















COUNTER WEIGHT





COUNTER WEIGHT



























ARGICULTURE WHEEL













METER BOX











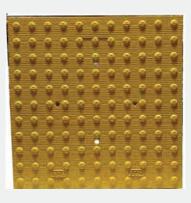








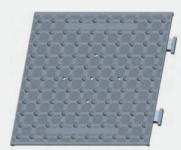
TACTILE PLATE



















Physical properties	Results	Specification
Slip Resistance	1.10 Dry/1.06 Wet	ASTM C- 1028
Wear Resistance (abrasion)	7333	ASTM C - 501-84
Impact Resistance	>238 Newtons	ASTM D-1709
Adhesion to Concrete (Bond Strength)	>5000 lbs	ASTM D-482
Tensile Strength	35,000PSI	ASTM A-48
Design Compliance	Fully Compliant	ADAAG

ADA Compliant

- Natural finish meets color contrast requirements
- Slip resistant textured surface Greater than 0.8 coefficient of friction
- DOT approved (contact your local sales representative for specification approvals)
- Bolting ensures compliance during installation

Durable and Cost Effective

- Over 500 times more durable than composite
- Engineered to outlast the sidewalk–long-lasting and corrosion resistant
- Easy to install
- Maintenance free



MANHOLE ACCESSORIES

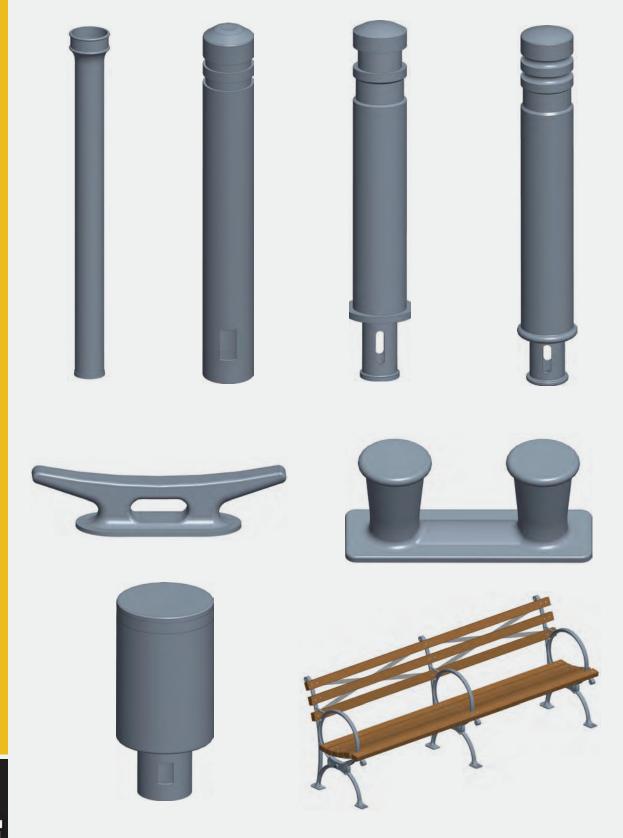


MANHOLE STEPS





URBAN CASTNGS



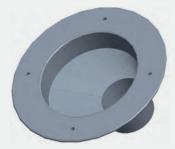


DRAINAGE CASTINGS



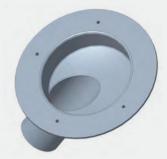


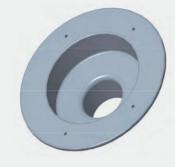




























VALVE & SERVICE BOX







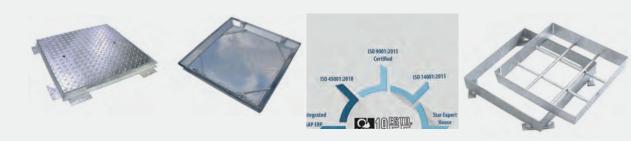


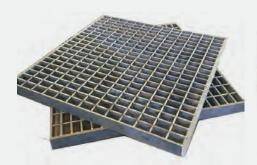


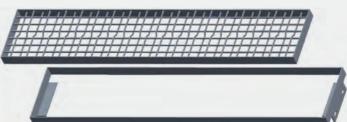




FABRICATED ITEMS

















NOTES



We Export to

Australia Greece **Qatar** Hungary Saudi Arabia Bahrain Belgium Italy Spain Canada Kuwait Sweden Cyprus Singapore New Zealand Czech Republic South Africa Norway Denmark Oman UAE **Finland** Portugal UK Germany Poland USA

CORPORATE OFFICE

NIF Ispat Ltd.

P-260 & 261 Benaras Road, Howrah: 711108, India Phone: +91-33 2651 4892 E-mail: sugam@nifl.com; bhanja@nifl.com

COMPANY DIRECTORS

MR. G. K. MADHOGARIA MRS. P. MADHOGARIA MR. SUGAM MADHOGARIA

FOUNDRY (Unit I)

NIF Ispat Ltd. 10, 'K' Road, Belgachia Howrah-711105, India

WARE HOUSE & MACHINE SHOP

(Unit II)

NIF Ispat Ltd.
P-260 & 261 Benaras Road,

Howrah 711108, India

FOUNDRY (Unit III)

NIF Ispat Ltd. 54/1, 'O' Road, Belgachia Howrah - 711108 , India

FOUNDRY (Unit IV)

NIF Ispat Ltd.
Plot No : 15/7, Foundry Park.
Hauli Bagan,
Ranihati-Amta Road.
Howrah – 711414, India