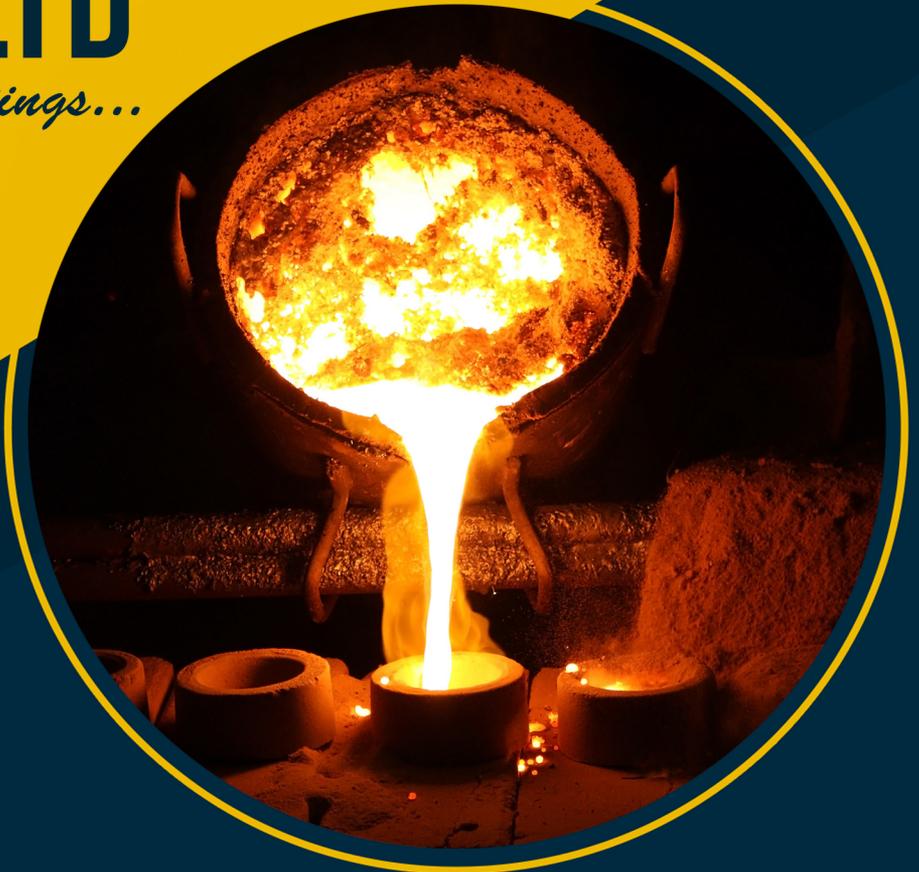


 **1955** ESTD.

# NIF ISPAT LTD

*More than castings...*



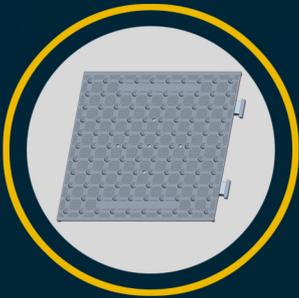
**MANHOLE COVERS**



**GRATINGS**



**SURFACE BOX**



**TACTILE PLATES**



**COUNTER WEIGHT**



**PIPE FITTINGS**

[www.nifl.com](http://www.nifl.com)



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## COMPANY PROFILE

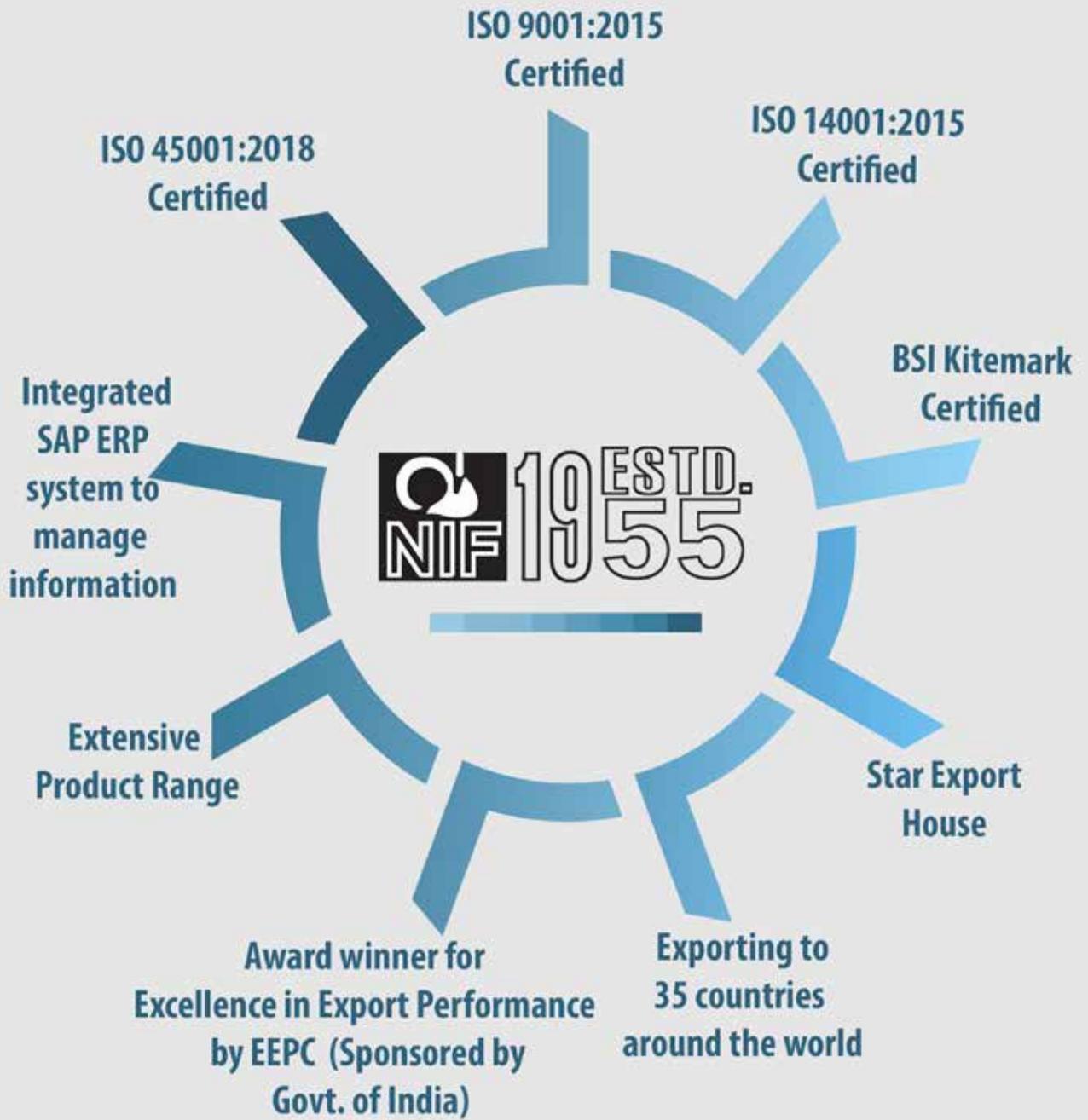
NIF ISPAT Ltd an ISO 9001 : 2015 / ISO 4500:2018/ ISO 1400 :2015 certified foundry, formerly known as Nandikeshwari Iron Foundry (P) Ltd was established in 1955. NIF ISPAT Ltd is one of the oldest manufacturers of Grey Iron and Ductile Iron Castings in INDIA. Today, it is Government recognized THREE 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.

On 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



BSI KITEMARK Certificate



ISO 9001: 2015 Certificate by DNV



3 Star Export House Certificate





## STANDARD EN

### Recommendation of Load Class & Application



BSEN124 CLASS	APPLICATION
<b>A15</b> Group 1	

Areas used by pedestrians and pedal cyclists only.



BSEN124 CLASS	APPLICATION
<b>B125</b> Group 2	

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



BSEN124 CLASS	APPLICATION
<b>C250</b> Group 3	

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.



BSEN124 CLASS	APPLICATION
<b>D400</b> Group 4	

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



BSEN124 CLASS	APPLICATION
<b>E600</b> Group 5	

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



BSEN124 CLASS	APPLICATION
<b>F900</b> Group 6	

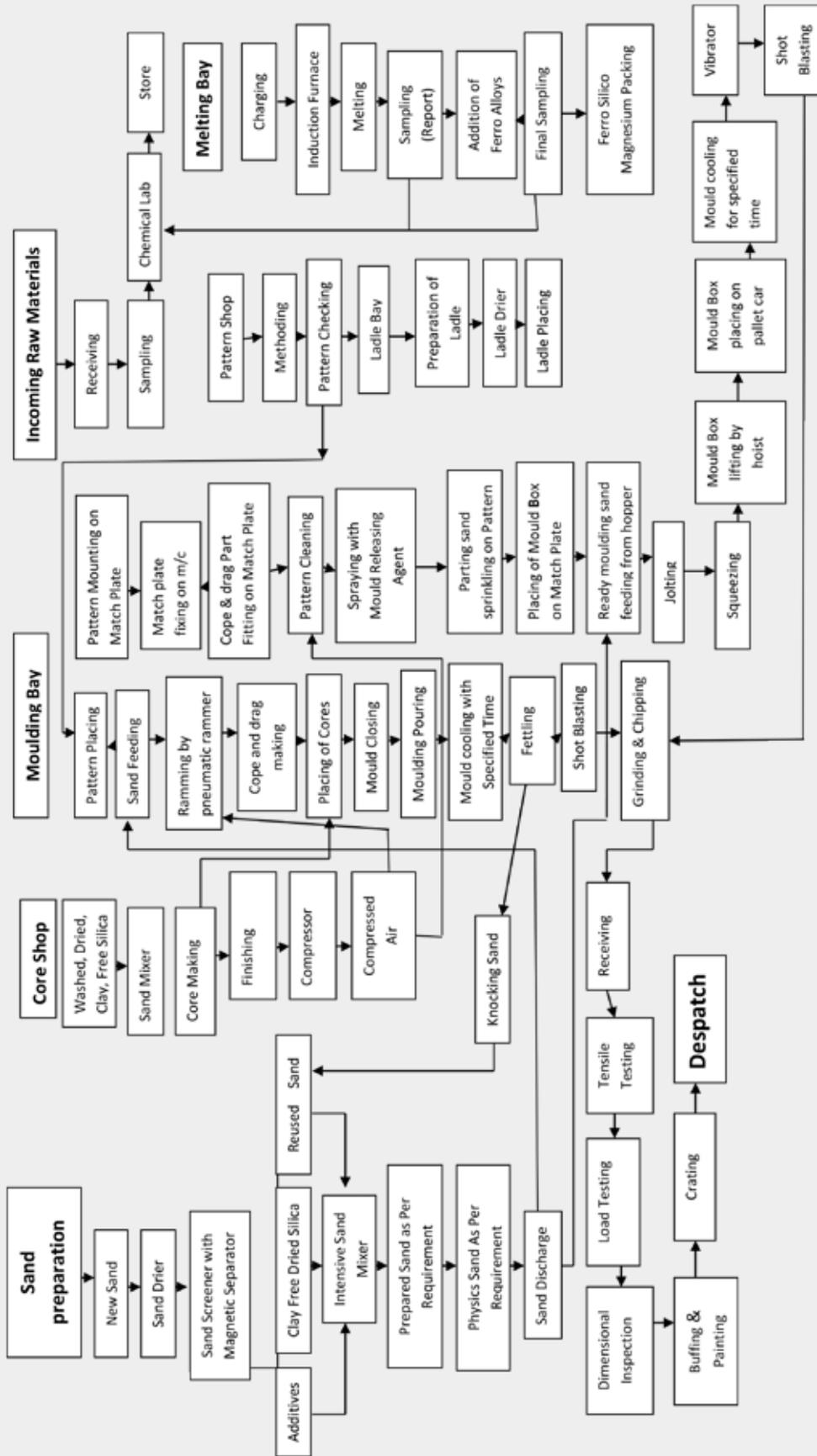
Areas imposing particularly high wheel loads, e.g. docks, aircraft pavements.

### 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

every casting produced from a melt. Traceability is maintained by the issuing of a unique number to every casting produced from any melt. Pyrometer is used at the pouring stage to ensure heat temperature along with Spectro and Micro analysis of each melt.



**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.

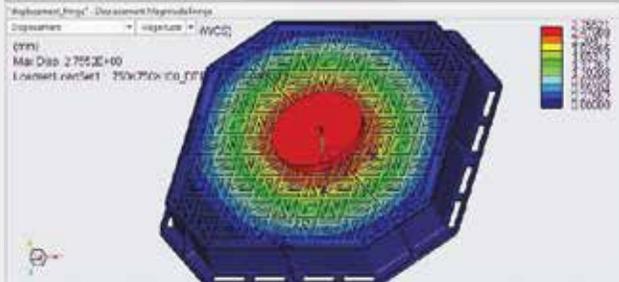
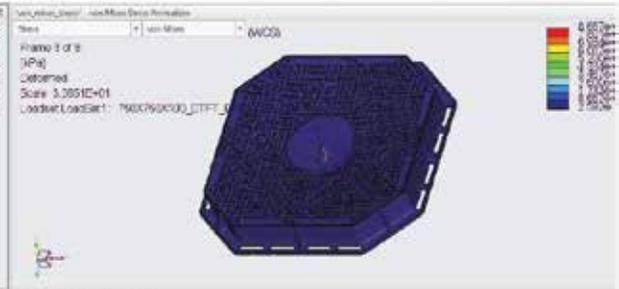
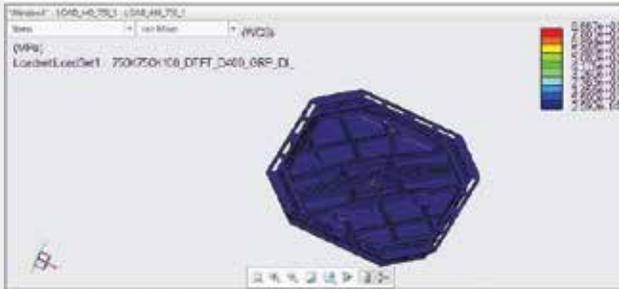
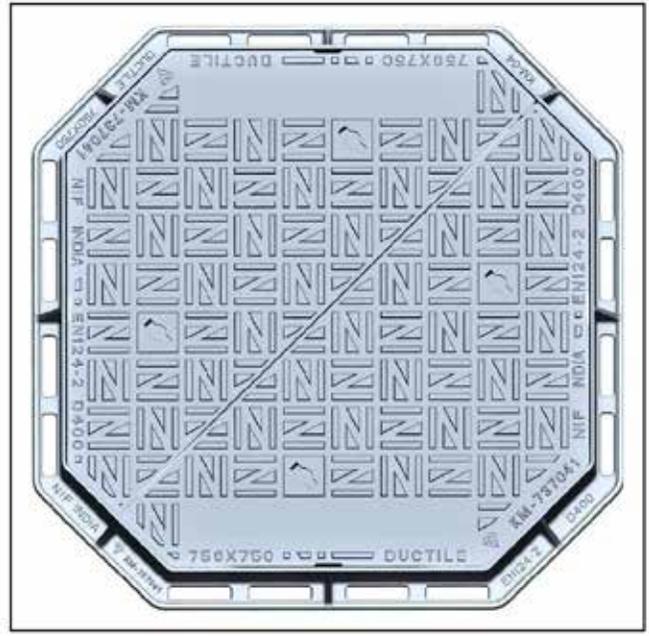
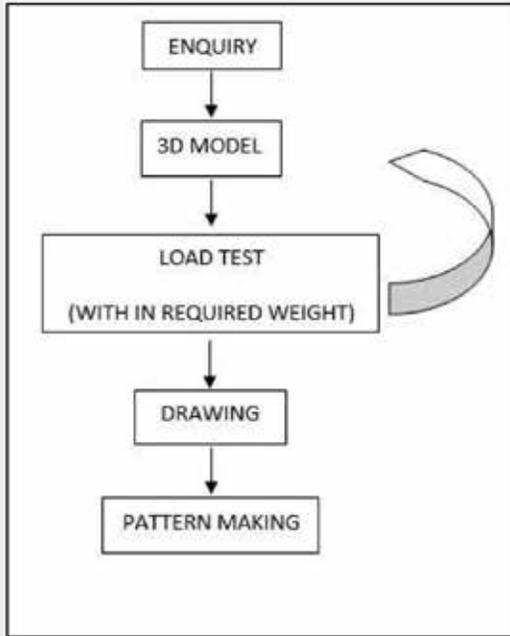
We are equipped to manufacture accurate metallic and non-metallic patterns in-house with the help of Vertical Machining Centre (VMC) & Computer.

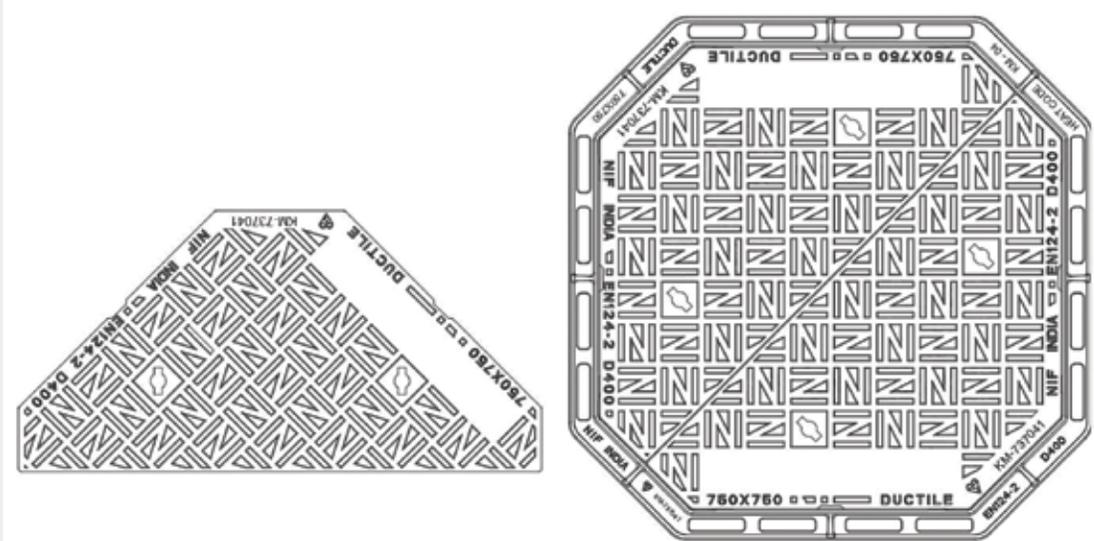
3 no. CNC-VMC (BFW make)

3 no. Vertical Milling Machine (Huron make)

2 no. Shaping Machine

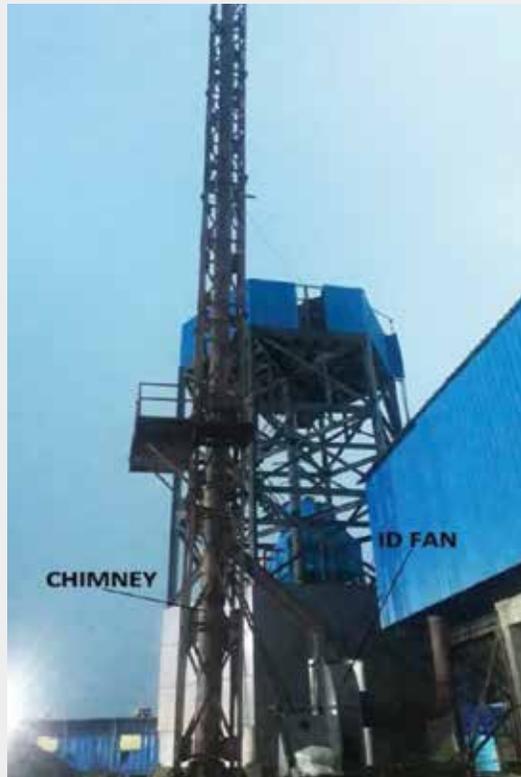
2 no. Magnetic Drilling Machine





**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 Board 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**



**Sand 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
- 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
- Melting 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.

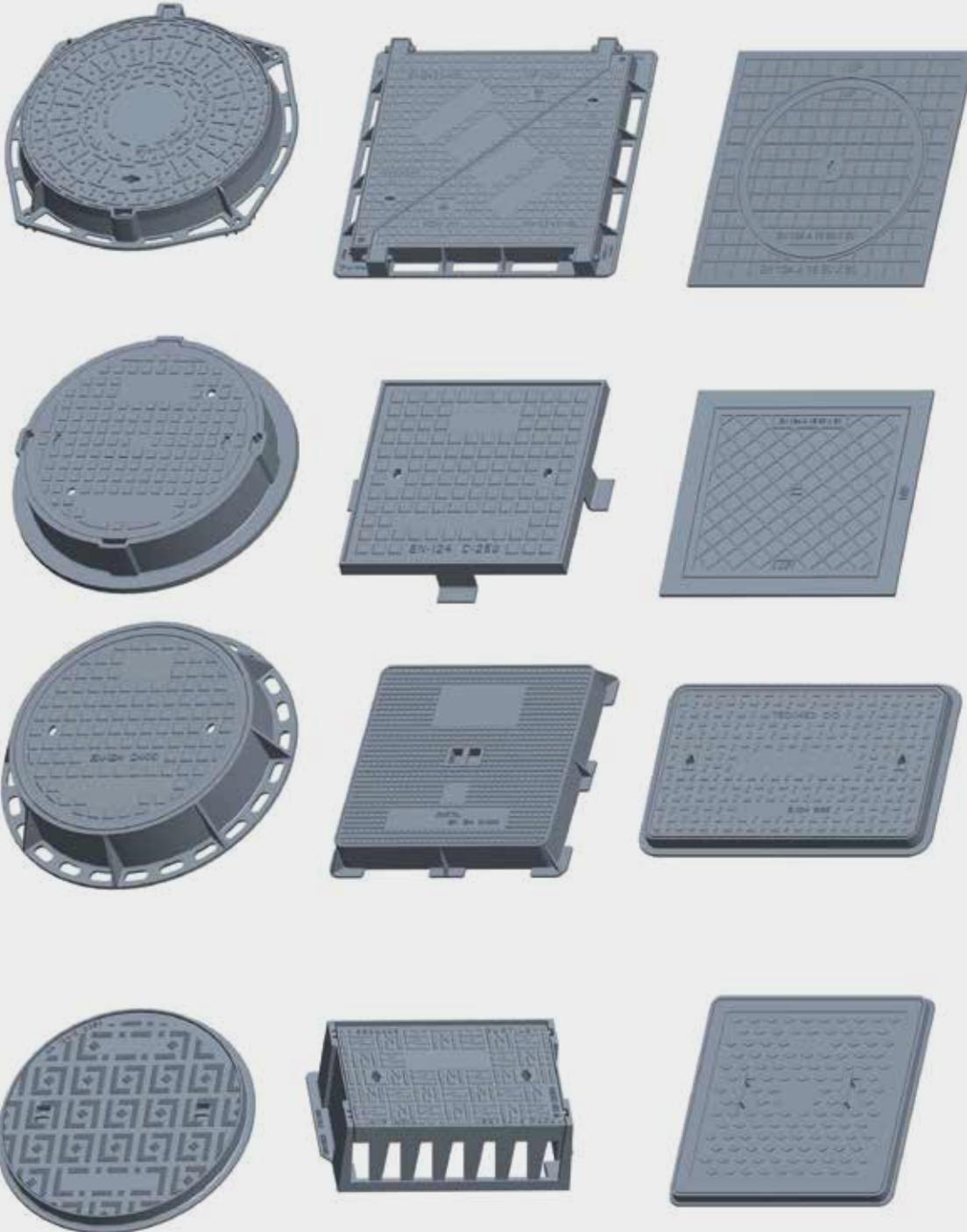


**Load Test Machine**

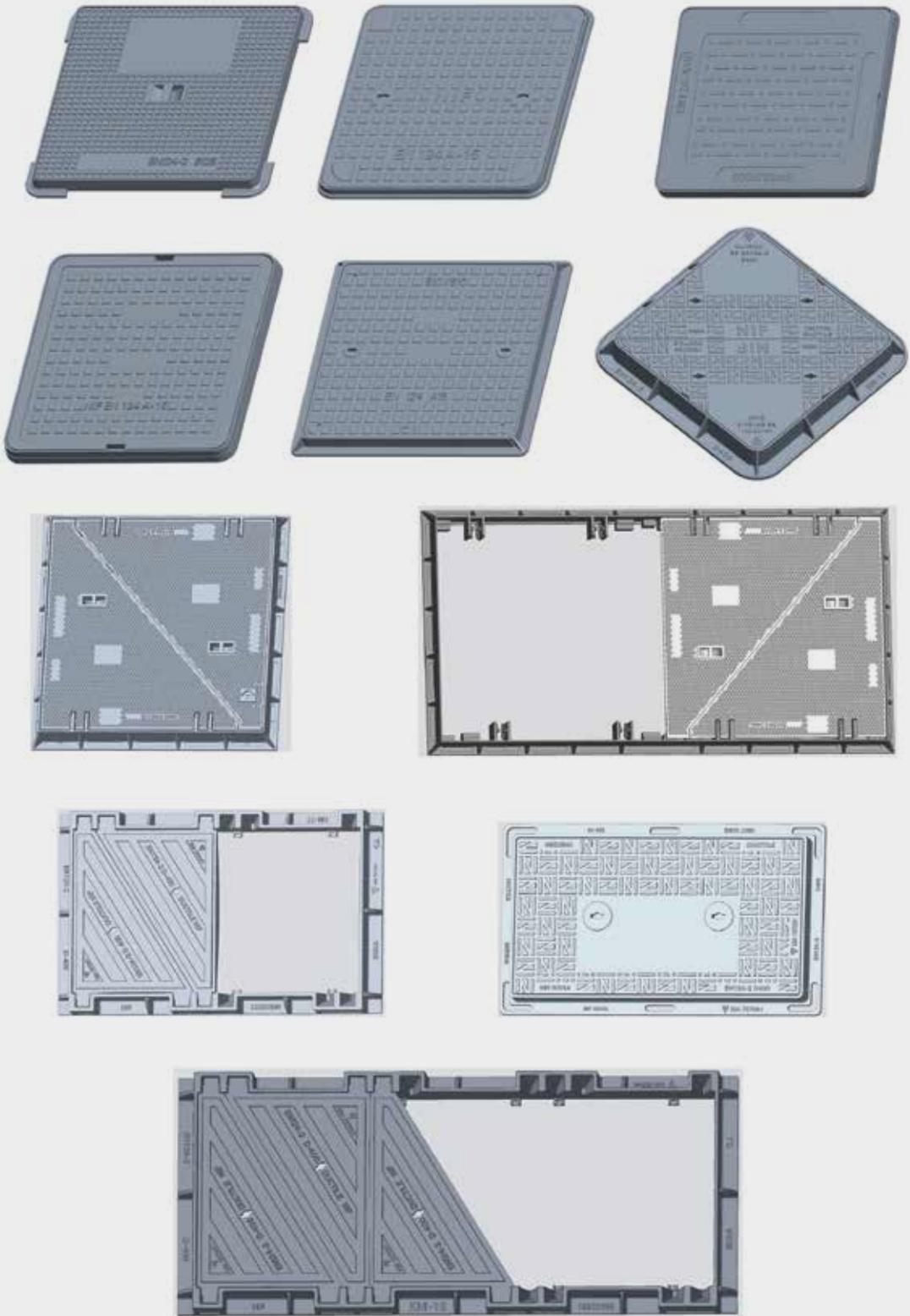


**Tensile Test Machine**

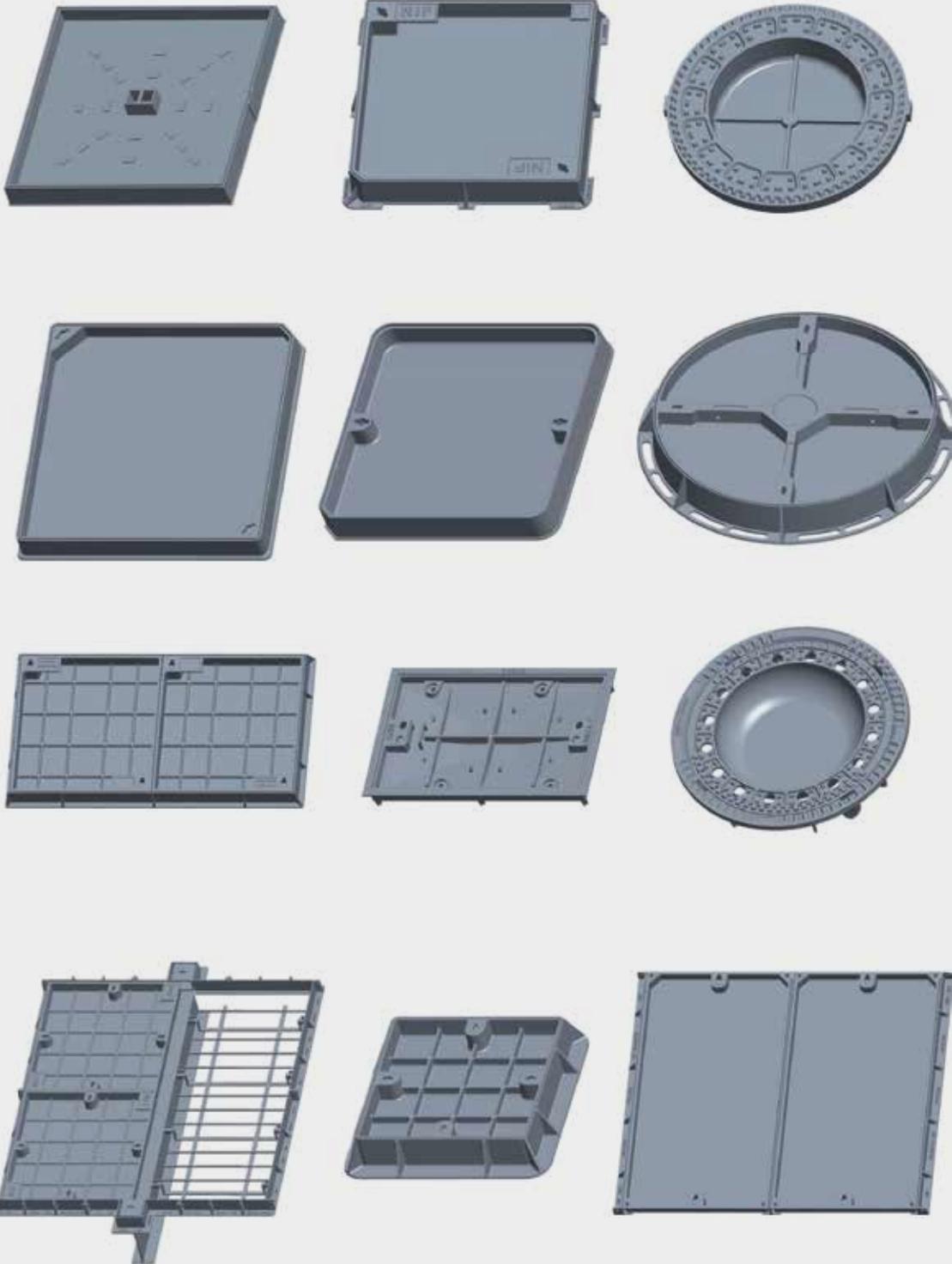
# MANHOLE FRAME AND COVERS



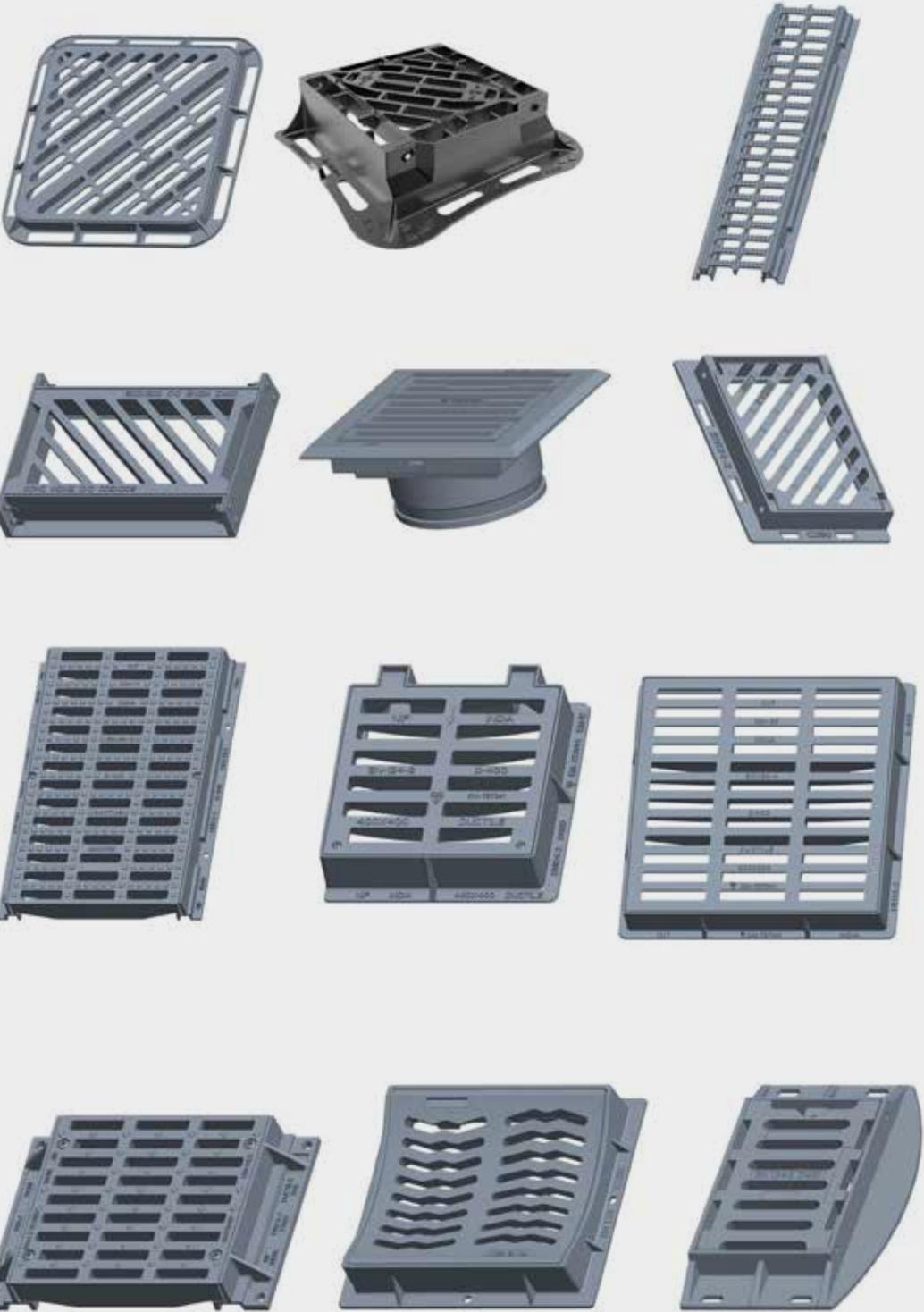
# MANHOLE FRAME AND COVERS



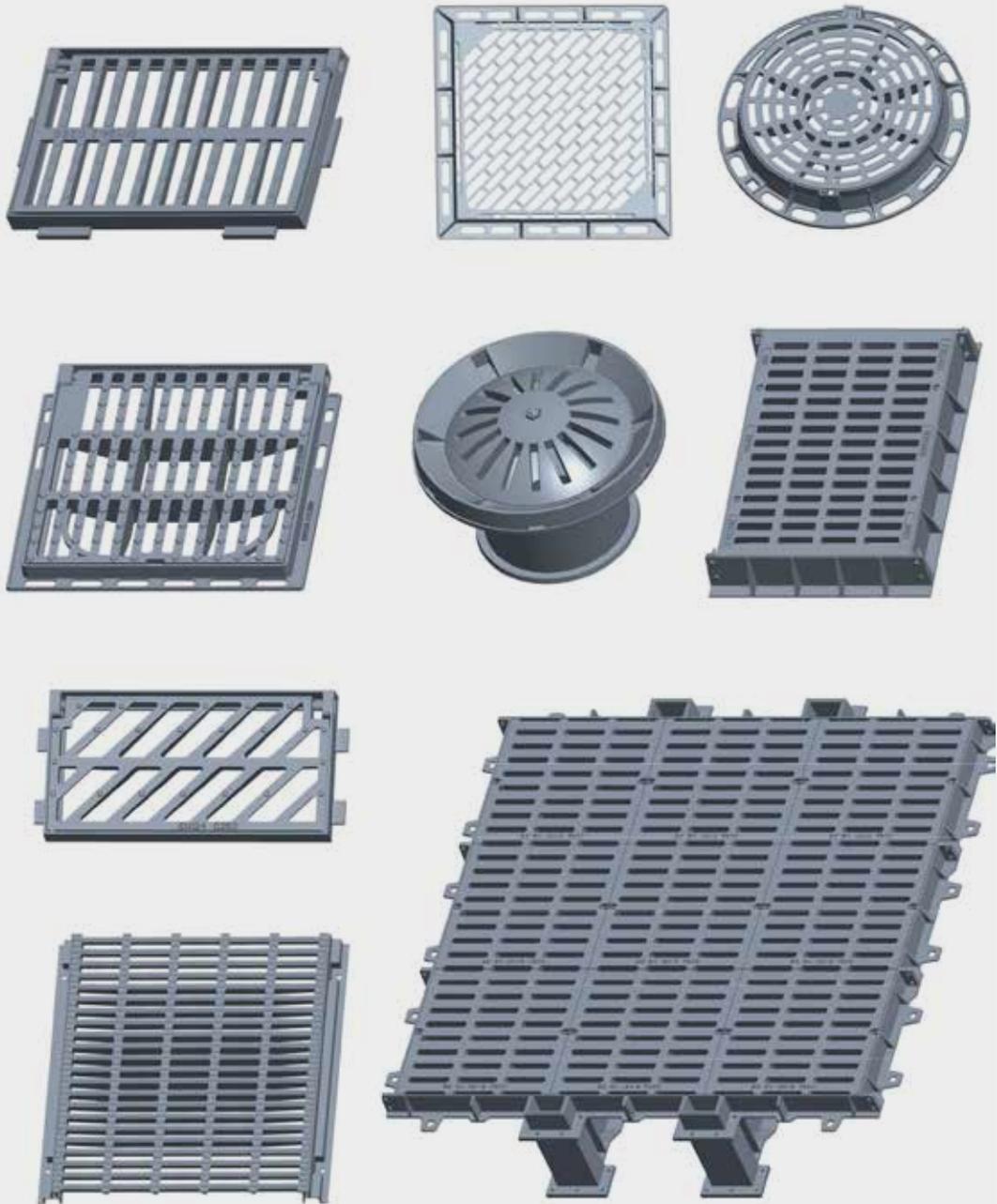
RECESSED COVERS & FRAMES



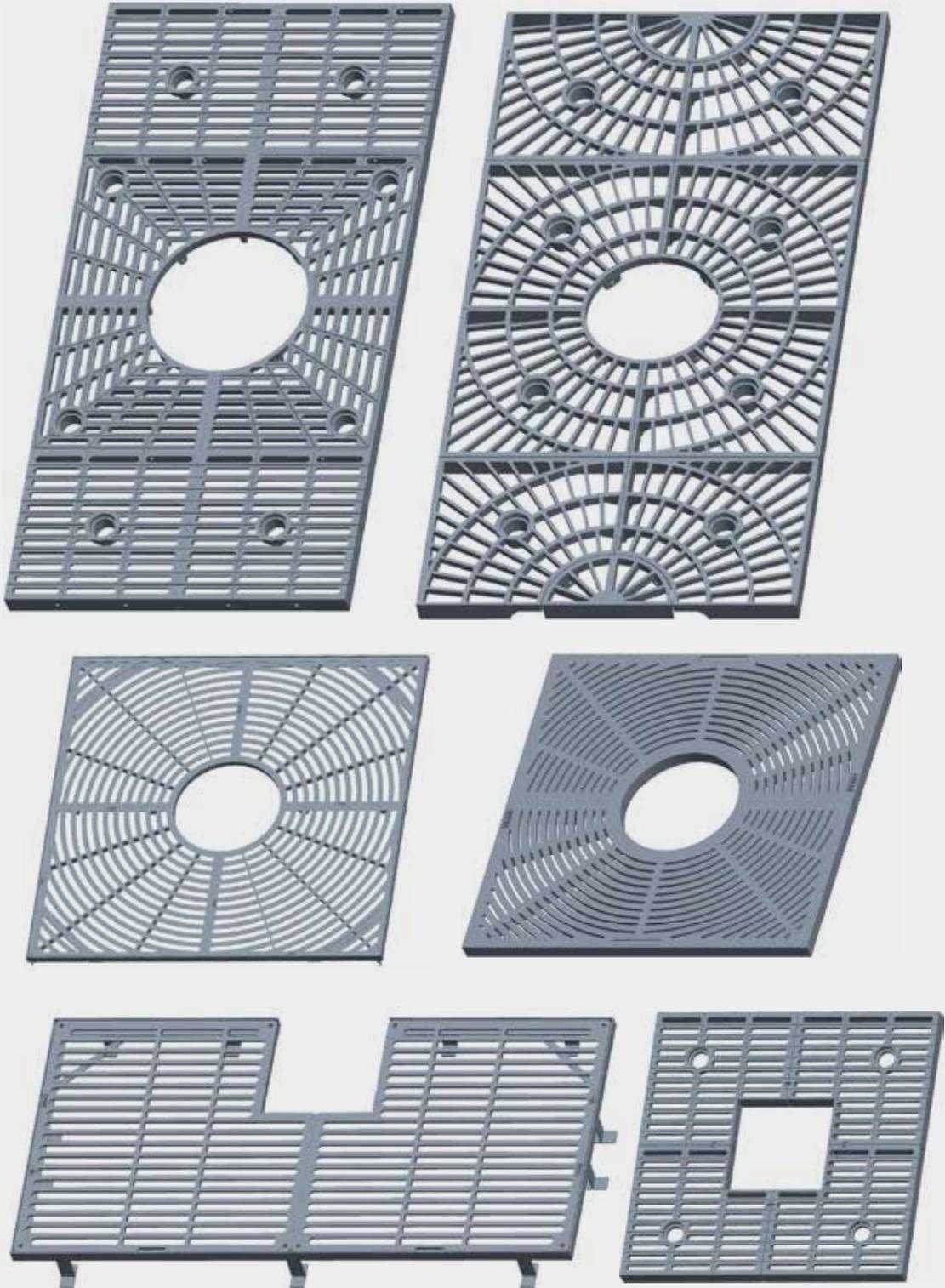
# GRATINGS



# GRATINGS



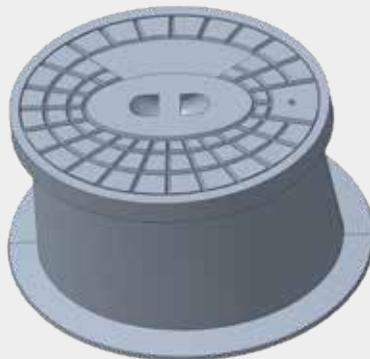
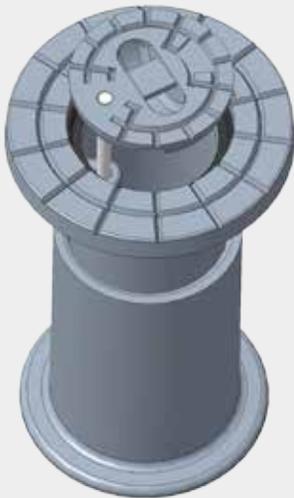
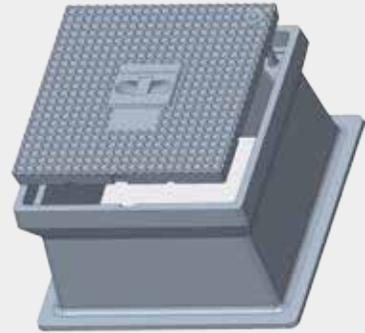
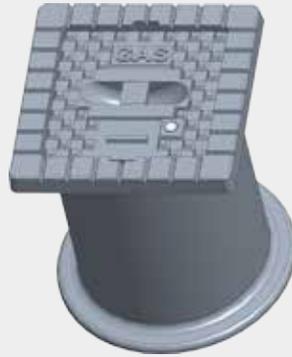
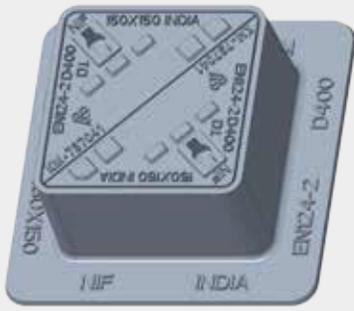
# TREE GRATINGS



PIPE FITTINGS



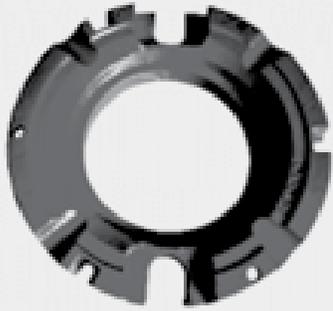
# SURFACE BOX



COUNTER WEIGHT



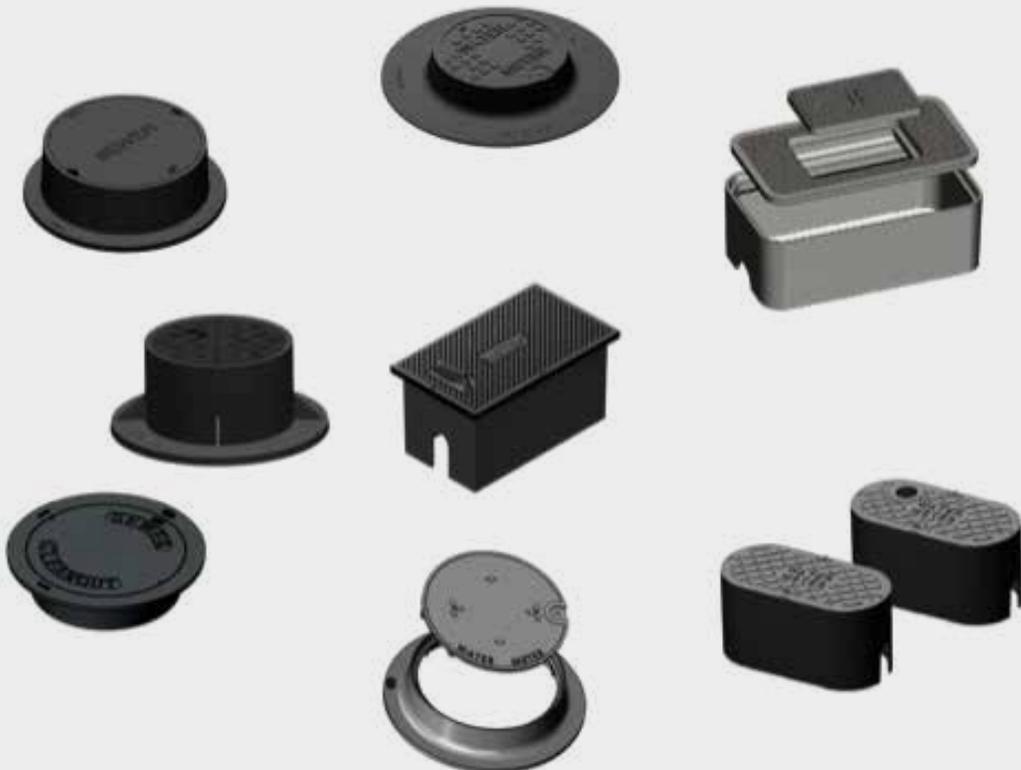
# COUNTER WEIGHT



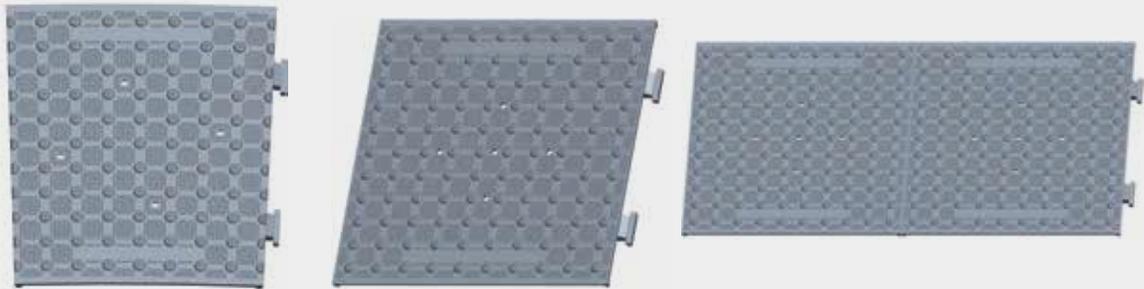
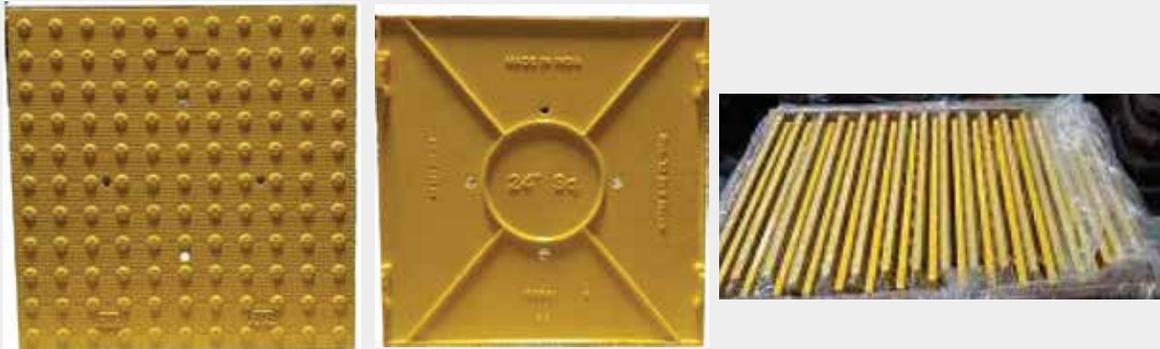
## AGRICULTURE WHEEL



## 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

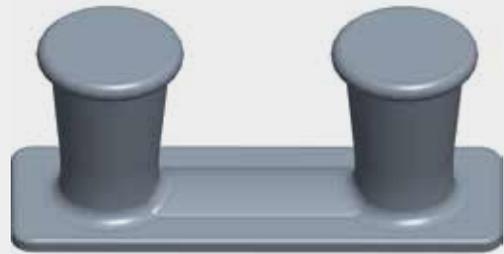
## MANHOLE ACCESSORIES



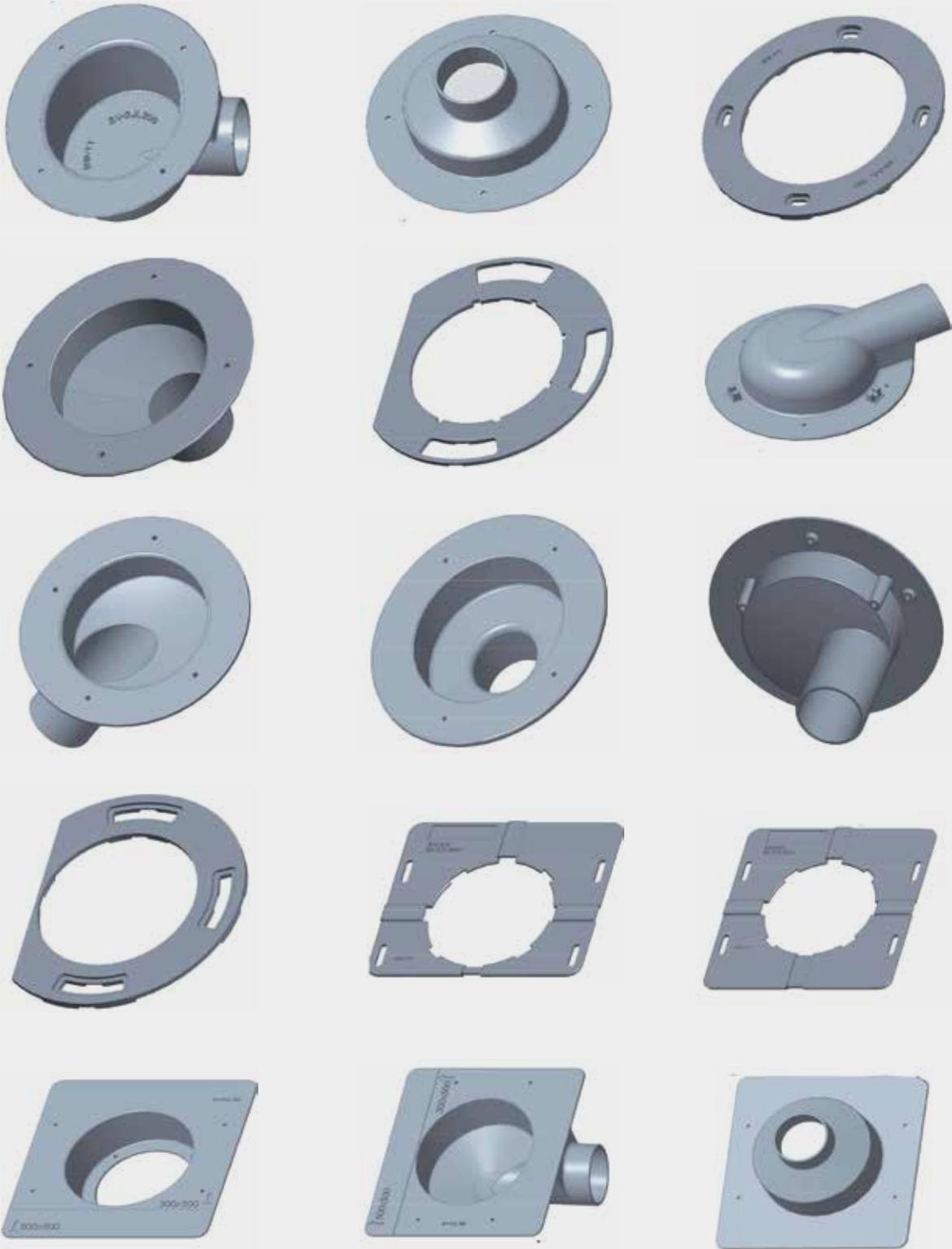
## MANHOLE STEPS



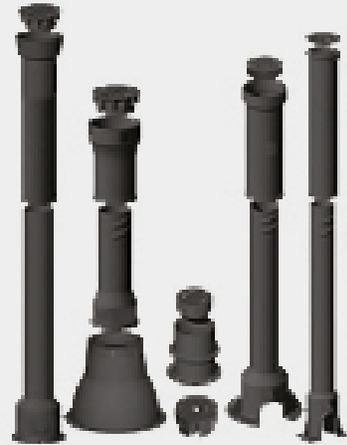
# URBAN CASTINGS



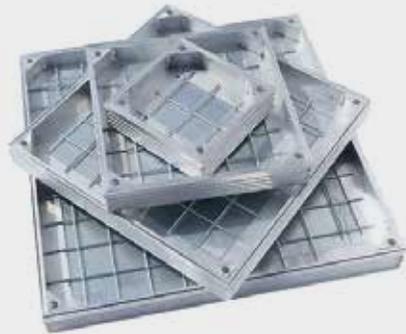
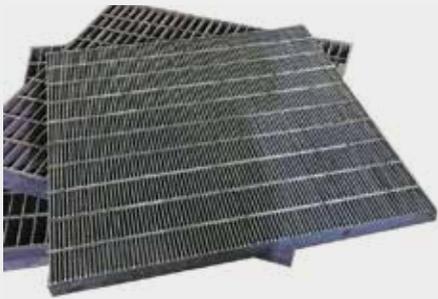
# DRAINAGE CASTINGS



# VALVE & SERVICE BOX



FABRICATED ITEMS





## We Export to

Australia

Bahrain

Belgium

Canada

Cyprus

Czech Republic

Denmark

Finland

Germany

Greece

Hungary

Italy

Kuwait

New Zealand

Norway

Oman

Portugal

Poland

Qatar

Saudi Arabia

Spain

Sweden

Singapore

South Africa

UAE

UK

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