

ESTD.  
NIF 1955

# NIF ISPAT PVT LTD

LEGACY IN IRON CASTING

SINCE 1955



## BUILT ON HERITAGE. DELIVERING GLOBAL TRUST.

— ENGINEERED CASTINGS. GLOBAL SOLUTIONS.



70+

YEARS OF EXCELLENCE

Over seven decades of Expertise, Quality and Commitment



4

ADVANCED FOUNDRIES

State-of-the-Art Facilities with Cutting Edge Technology



36000 MT

ANNUAL PRODUCTION CAPACITY

High capacity. Consistent Quality. Reliable supply.



25+

COUNTRIES EXPORTED TO

Global Footprint Spanning Across Continents



100+

GLOBAL CLIENTS

Trusted by Leading Brands and Organizations Worldwide.



ISO CERTIFIED

9001:2015

14001:2015; 45001:2018

Quality Environment. Safety. Our promise To a better tomorrow



### CBAM EVALUATION UNDER PROCESS

We are proactively evaluating our carbon footprint and processes to align with the EU's CBAM requirement.



### INTEGRATED SAP SYSTEM

Fully integrated SAP system ensuring efficient operations, real-time visibility and complete traceability



### DIGITALISATION OF PROCESSES THROUGH METAL CLOUD SOFTWARE

End-to-end digitalisation of Processes using Metal Cloud software for smart manufacturing. Data-driven decisions and operational excellence.

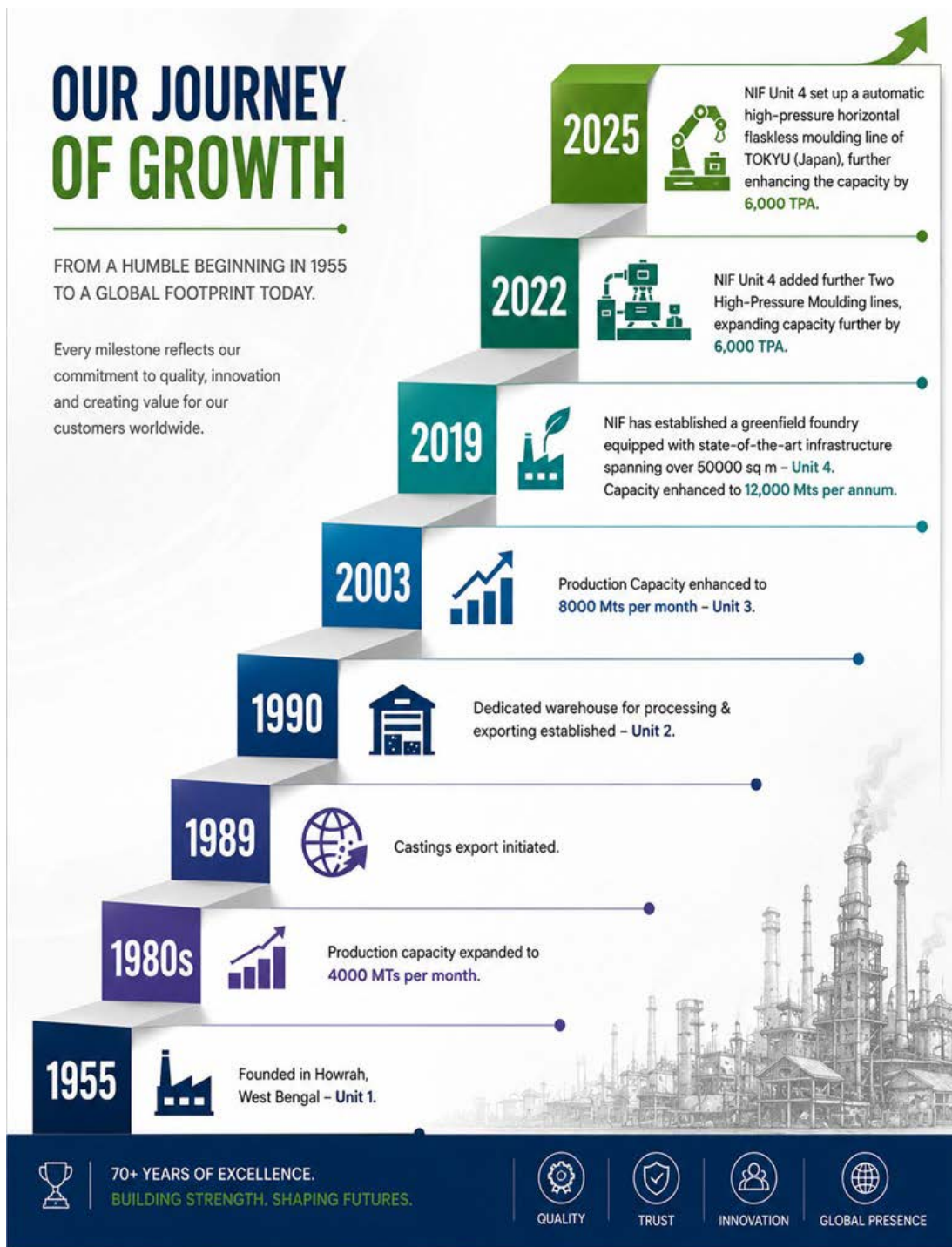
## GLOBAL STANDARDS. SUSTAINABLE FUTURE.

Partnering for progress. Delivering value. Building a better world.





NIF Ispat Limited is a Government-recognised 3 Star Export House and one of India's most trusted manufacturers of Grey & Ductile Iron Castings since 1955. With four advanced foundries in Howrah, West Bengal, we deliver precision-engineered castings for municipal, industrial, agricultural, automotive and urban infrastructure applications across 5 continents worldwide.





## ADVANCED CASTING & ENGINEERING CAPABILITIES

Integrated Manufacturing Solution – From Pattern to Finished Casting

**TOTAL ANNUAL CAPACITY 36,000 MT / YEAR**

Fully integrated production facility for high-performance industrial and automotive castings with complete in-house control from design to dispatch.



### PATTERN SHOP | DIGITAL ENGINEERING & DEVELOPMENT

Advanced CAD/CAM-driven pattern making with precision machining and reverse engineering capability.

#### Design & Simulation :

- Autodesk PowerShape – 3D pattern modelling
- Autodesk PowerMill – CNC programming & machining simulation

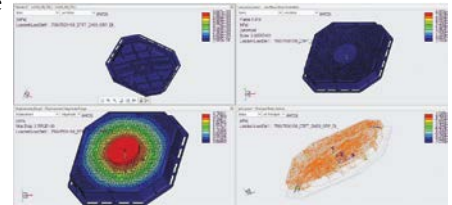
**Rapid Prototyping :** Pattern Forge 3D Printing System – Fast pattern development & prototyping

**Inspection & Reverse Engineering :** 7-Axis Portable CMM with PolyWorks software

- 3D scanning for casting validation and dimensional accuracy

#### Pattern Machining Infrastructure

- CNC VMC (BFW)
- Huron Vertical Milling Machines
- Plano Milling Machine
- Shaping & precision drilling machines



### MELTING & METALLURGY

Controlled chemistry, consistent quality, and real-time process monitoring.

- 5 × Cupola Furnaces (6 TPH each)
- 5 × Induction Furnaces (Electrotherm & Oritech – 5 TPH)
  - Online Carbon & Silicon analysers
- Metal Power Spectrometer – Metavision 108N+
  - Real-time temperature monitoring systems
- EOT cranes with magnetic handling systems
  - Fully equipped pollution control systems

### MOULDING FACILITIES

#### Automatic Moulding Lines

- 3 × High Pressure Lines ● 1000 × 1000 × 450 mm – 40 boxes/hr per line
- TOKYU Flaskless Horizontal Line ● 600 × 700 × 250 mm – 100 boxes/hr

#### Additional Capability

- Hand & floor moulding for complex castings ● Fully enclosed dust extraction systems

#### Sand Plants

- RHINO Sand Plant: 60 MT/hr (2.5T mixer) ● RHINO Sand Plant: 25 MT/hr (1T mixer)
- SSEC Sand Plant: 30 MT/hr (1T mixer)



### CORE SHOP

Precision core manufacturing for complex casting geometries.

- 4 × Cold Box Core Shooters (7 / 10 / 15 kg)
  - CO<sub>2</sub> core production system
- 1 × Shell Core Shooter (Dual Station)
  - 3 × Controlled core baking ovens



## FETTLING, MACHINING & FINISHING

Complete post-casting solutions delivering ready-to-install components.

### Surface Preparation

- Shot blasting: Hanger type (500 kg) ● Rotary batch machines (1000 kg × 2)

### Machining Capability

- CNC VMC precision machining ● Lathe & drilling operations
- Manual machining for critical fitment surfaces

### Surface Protection

- Epoxy / Polyurethane / Powder coating ● Black bitumen coating ● Hot dip galvanizing

### Dispatch Infrastructure

- In-house packaging facility ● Dedicated container loading ramp



## TESTING & QUALITY ASSURANCE

Comprehensive in-house quality control ensuring international standards compliance.

### MECHANICAL TESTING

- Digital Load Testing Machines: 100 MT (×2) + 40 MT (×1)
  - Brinell Hardness Tester (BHN)
  - UTS Testing Machine (Ultimate Tensile Strength)
- Rockwell Hardness System ● Pull & Tilt Test Equipment

### LABORATORY TESTING

- Sand Testing Laboratory – full process control
- Chemical Laboratory – raw material & casting analysis
  - CE Analyzer (Carbon Equivalent)
  - Spectrometer – chemical composition verification
- Pyrometers – temperature control systems ● Metallurgical Microscope & Image Analysis
  - Coating Thickness Gauge (DFT measurement) ● Durometer – hardness verification
  - Hydro Testing Machines – leak & pressure integrity

### WEIGHING SYSTEMS

- 100 MT Pit-Type Concrete Weighbridge ● 60 MT Pit-Type Steel Weighbridge



## KEY STRENGTHS

Driven by Technology. Delivered with Excellence.



1 Fully integrated end-to-end manufacturing facility



2 High-pressure automated moulding technology



3 Advanced digital pattern engineering & reverse engineering



4 Real-time metallurgical control & chemical monitoring



5 Comprehensive in-house testing & QA systems



6 Export-ready finishing, packaging & logistics support

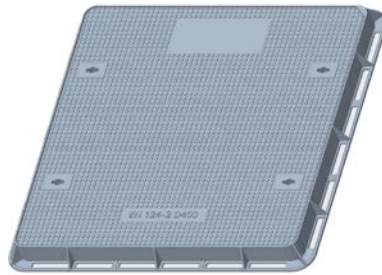
## MANUFACTURING PROCESS: FROM DESIGN TO DISPATCH



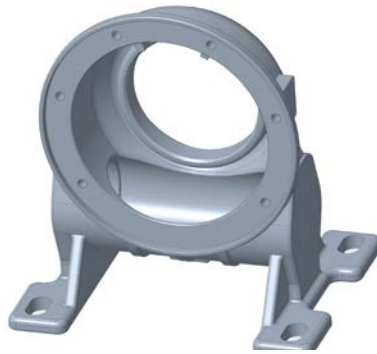


## INDUSTRIES SERVED

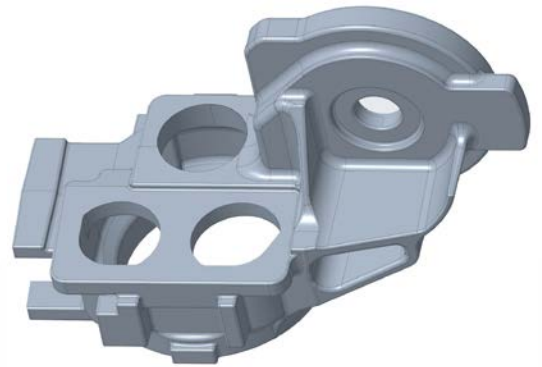
### URBAN INFRASTRUCTURE & MUNICIPAL SERVICES



### INDUSTRIAL CASTING

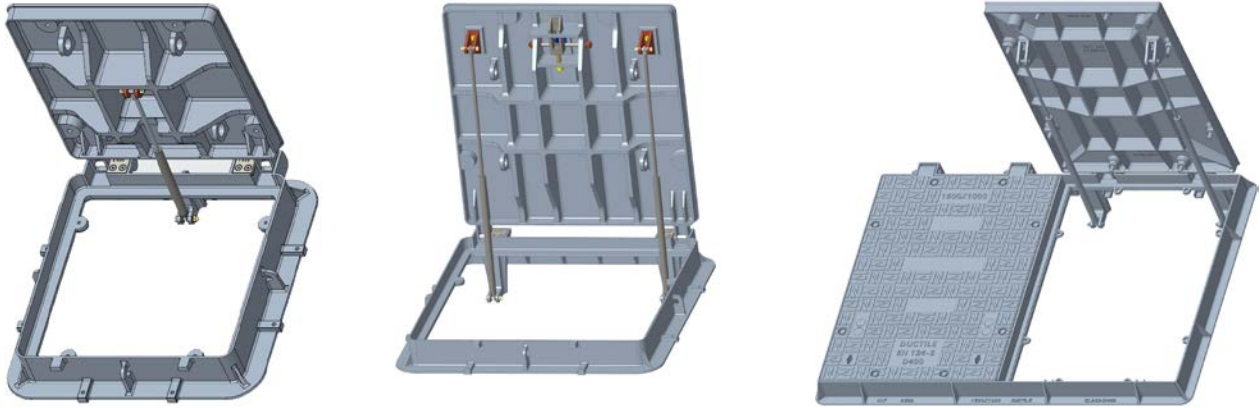


### AUTOMOBILE CASTINGS

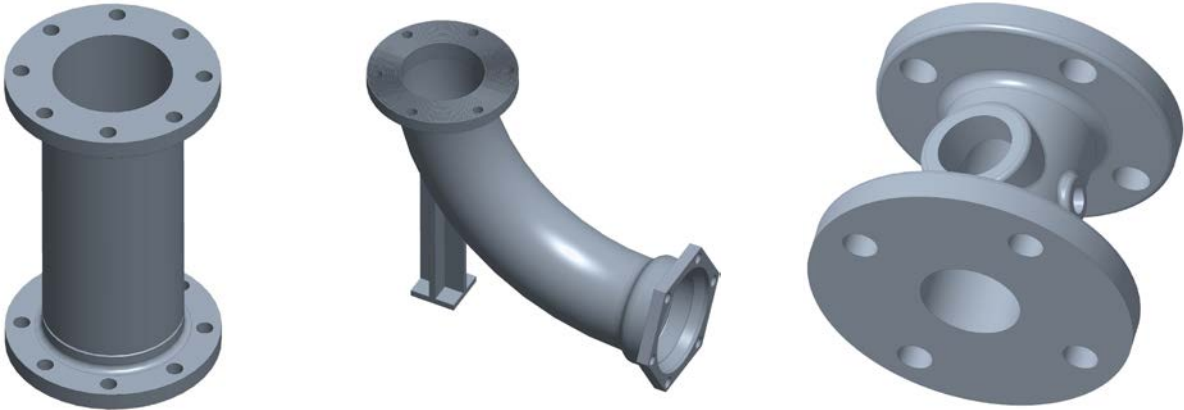




## AIRPORT COVERS



## PIPE FITTINGS



## RAILWAY CASTINGS





## WHY NIF

At NIF, we combine advanced engineering capability with precision manufacturing to deliver consistent, high-quality solutions for global foundry and pattern requirements. Our strength lies not just in infrastructure, but in the way we integrate design, production, inspection, and delivery into a seamless process.

We are built to serve industries where accuracy, repeatability, and reliability are non-negotiable.

## WHAT SETS NIF APART



### Integrated Manufacturing Ecosystem

From 3D design and pattern development to machining and inspection, all processes are managed in-house to ensure full control over quality and timelines.



### Advanced Engineering & Digital Capability

Equipped with modern CAD/CAM systems, CNC programming tools, 3D printing, and reverse engineering technology for high-precision output.



### Inspection-Driven Quality Culture

Robust testing and measurement facilities ensure dimensional accuracy, material integrity, and compliance with international standards.



### Scalable Production Infrastructure

Designed to handle both prototype development and mass production with equal efficiency, ensuring flexibility for diverse customer needs.



### Global-Ready Supply Standards

Focused on export-grade quality systems, documentation, and consistency to meet the expectations of European and international clients.



### Commitment to Continuous Improvement

We constantly upgrade our processes, technology, and skill base to stay aligned with evolving industry demands and sustainability expectations.



### Process Digitalisation Through Metal Cloud Software

Integrated digital workflow management enabling real-time production visibility, traceability, process optimisation, and data-driven manufacturing control.



## Our Promise

At NIF, every component is manufactured with precision, delivered with accountability, and backed by engineering confidence



## CERTIFICATIONS & GLOBAL COMPLIANCE

NIF Ispat Pvt Ltd maintains internationally recognised systems for quality, environmental responsibility, occupational safety, export compliance, and manufacturing reliability for global markets.



**ISO 9001:2015**  
Quality Management System



**ISO 14001:2015**  
Environmental Management System



**ISO 45001:2018**  
Occupational Health & Safety  
Management System



**AEO Certified (T1 & T2)**  
Trusted Export & Supply  
Chain Compliance



**BSI KITEMARK  
Certification**  
Certified Product Quality  
& Reliability



**Government Recognised  
3 Star Export House**  
Export Excellence & Global  
Market Presence

### CONTACT US

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PRECISION CASTINGS | DIGITAL ENGINEERING | GLOBAL STANDARDS | RELIABLE. SUSTAINABLE. TRUSTED.