

**IFEL**  
IRON FORT ENGINEERING LLP



# **BROCHURE** 2026

# IRON FORT ENGINEERING LLP

Forging Excellence Through Innovation & Precision

“ *Steel is more than a material  
It is the foundation of modern industry.* ”

*From railways and infrastructure to mining, automotive, and heavy engineering — precision steel components power the systems that move economies forward.*

**Iron Fort Engineering LLP** stands at the forefront of this transformation.

*Built on decades of industry experience and driven by engineering excellence, Iron Fort Engineering delivers high-quality steel castings and precision investment castings for critical industrial applications.*

*With advanced manufacturing capabilities, a highly skilled workforce, and a commitment to uncompromising quality, we manufacture components that meet the demanding standards of modern industry.*

## IRON FORT ENGINEERING LLP

ADDRESS- JOYKRISHNAPUR  
DHARAPARA, CHANDITALA  
BEGAMPUR, HOOGHLY-712306  
GSTIN: 19AAKF1081K1ZB  
FACTORY LICENCE NO- 24084  
REG. NO. 0214-HG/X/ 2024  
ISO 9001:2015

*Precision. Strength. Reliability.*

# ABOUT IRON FORT ENGINEERING

*Engineering Strength. Industrial Reliability.*

Established in 2023, Iron Fort Engineering LLP has rapidly emerged as a trusted manufacturer of high-quality steel castings and investment castings in India.

Headquartered in Kolkata, West Bengal, the company combines modern foundry technologies with the experience of industry veterans who collectively bring decades of expertise in the casting and metal manufacturing sector.

Our manufacturing operations are built around precision engineering, strict quality control, and continuous process improvement, enabling us to deliver reliable products to some of the most demanding industrial sectors.

Iron Fort Engineering is committed to building long-term partner ships with OEMs, engineering companies, and infrastructure developers through consistent product quality and technical capability.

## VISION

To become a globally recognized leader in steel casting & investment casting solutions, known for innovation, reliability, and sustainable manufacturing.

## MISSION

- ⚙️ Deliver superior casting products that meet the highest industry standards
- ⚙️ Continuously innovate in foundry and machining technologies
- ⚙️ Build long-term partnerships with customers through value and service
- ⚙️ Promote environmentally responsible manufacturing practices

# INDUSTRIES WE SERVE

## *Supporting Critical Industrial Infrastructure*

Iron Fort Engineering manufactures components that support the core sectors of modern industry.

Our castings are engineered to perform under demanding operational conditions where strength, durability, and dimensional accuracy are critical.

## **KEY INDUSTRIES**

### **INDIAN RAILWAYS**

Railway components and structural parts designed for high reliability and safety

### **AUTOMOTIVE INDUSTRY**

Precision cast components for automotive assemblies and engineering applications

### **MINING & MINERAL PROCESSING**

Heavy-duty castings designed to withstand abrasive and high-load environments

### **CONSTRUCTION & INFRASTRUCTURE**

Precision cast components for automotive assemblies and engineering applications

### **HEAVY ENGINEERING**

Custom engineered castings for industrial machinery and large engineering systems



# TRUSTED BY INDUSTRY LEADERS



*Our components are supplied to major industrial organizations including:*

- ⚙️ Indian Railways
- ⚙️ Jupiter Wagons Limited
- ⚙️ Titagarh Rail Systems Limited
- ⚙️ Braithwaite & Co. Limited
- ⚙️ Hindusthan Engineering & Industries Ltd.
- ⚙️ Orissa Metaliks Pvt. Ltd.

*These partnerships reflect the trust placed in our manufacturing capability and product quality.*



**BRAITHWAITE & CO. LIMITED**  
(A GOVT. OF INDIA UNDERTAKING)  
A MINIRATNA CATEGORY-1 COMPANY  
MINISTRY OF RAILWAYS



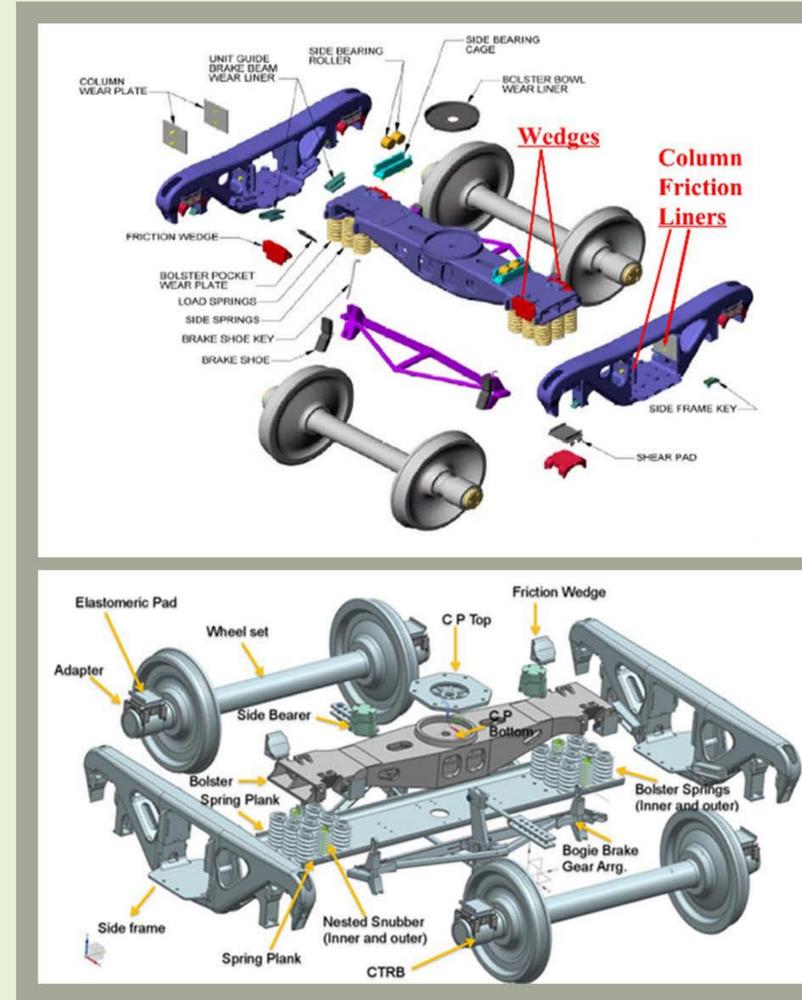
# PRODUCTS & ENGINEERING SOLUTIONS

## Precision Cast Components for Industrial Applications

Iron Fort Engineering manufactures a wide range of steel and investment castings designed to meet the performance requirements of industrial systems.

## STEEL CASTING PRODUCTS

- ⚙️ 22 HS Bogie
- ⚙️ 25T LWLH Bogie
- ⚙️ Striker Casting with Wear Plate
- ⚙️ CBC Assembly
- ⚙️ Master Valve Components



*These products are widely used in railway systems and heavy engineering equipment.*

## INVESTMENT CASTING PRODUCTS

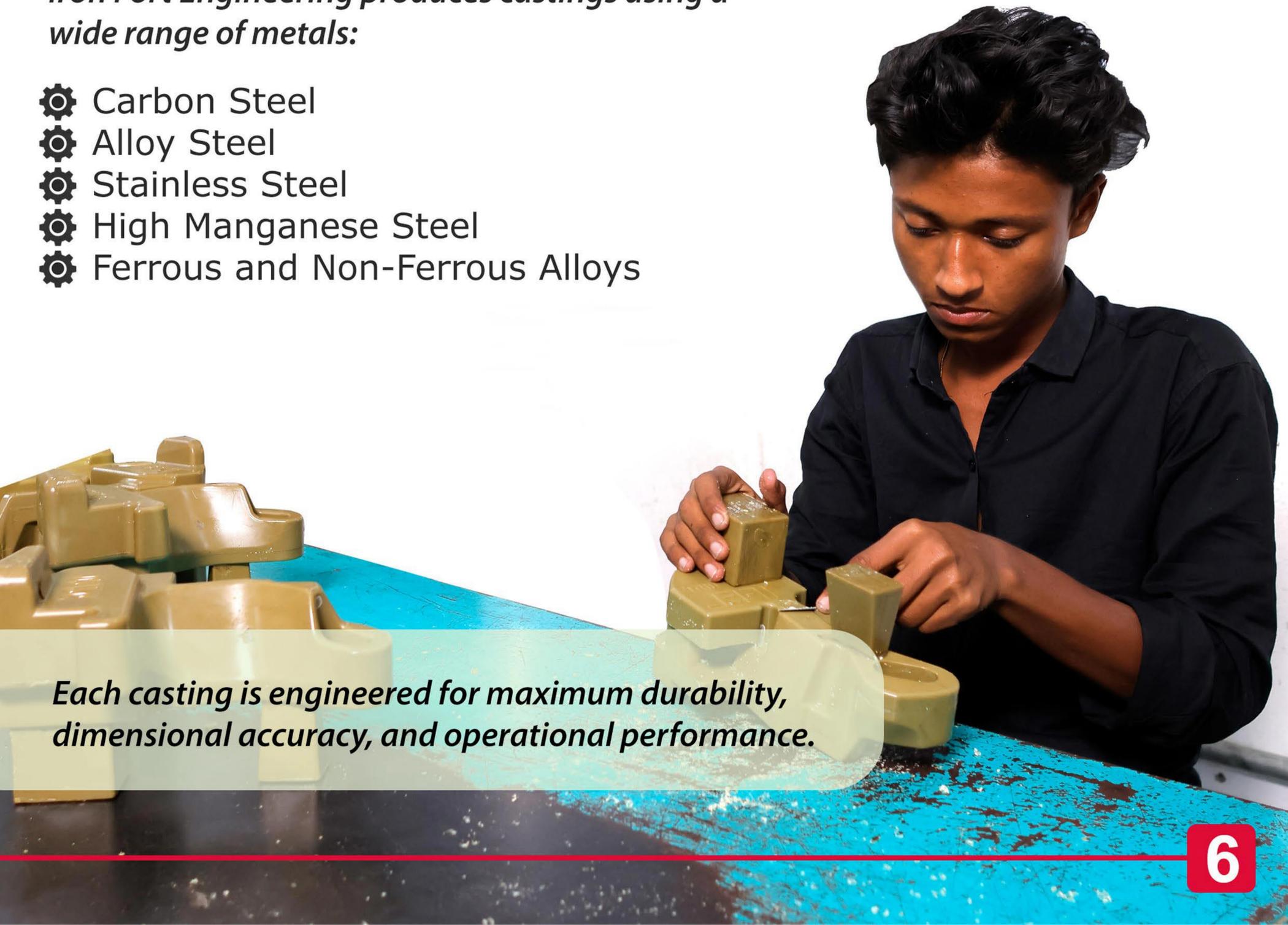
- ⚙️ Railway Coupler Components
- ⚙️ Railway Brake System Components
- ⚙️ Valves, Flanges and Pipe Fittings
- ⚙️ Pump Spares
- ⚙️ Fire Fighting Equipment Components
- ⚙️ Defence Engineering Items
- ⚙️ Industrial Machinery Components



## MATERIALS EXPERTISE

*Iron Fort Engineering produces castings using a wide range of metals:*

- ⚙️ Carbon Steel
- ⚙️ Alloy Steel
- ⚙️ Stainless Steel
- ⚙️ High Manganese Steel
- ⚙️ Ferrous and Non-Ferrous Alloys



*Each casting is engineered for maximum durability, dimensional accuracy, and operational performance.*



# ADVANCED MANUFACTURING TECHNOLOGIES

## **Engineering Precision at Every Stage**

*Our manufacturing processes combine modern foundry technologies with strict quality control to ensure high-performance cast components.*

## **Sand Casting – No Bake System**

*The No Bake Sand Casting process is used for producing large and complex components with excellent dimensional accuracy.*



## **KEY ADVANTAGES**

- ⚙️ Strong mould stability
- ⚙️ Excellent surface finish
- ⚙️ Suitable for large industrial castings
- ⚙️ Reclaimable sand system for sustainability

**Production capacity: Up to 30 tons per Day(Annual Capacity-18,000 Ton)**





## **Investment Casting – Lost Wax Process**

*Investment casting is a precision manufacturing process used for complex and high-accuracy components.*

### **KEY ADVANTAGES**

- ⚙️ **Extremely fine surface finish**
- ⚙️ **High dimensional accuracy**
- ⚙️ **Complex geometries possible**
- ⚙️ **Reduced machining requirement**

*Production capacity: Up to 70 Ton per Month(Annual capacity- 840 Ton)*



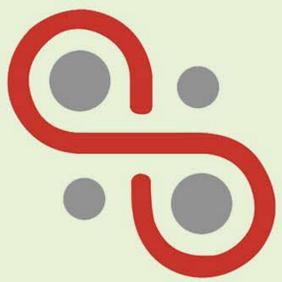
## **Shell Moulding Process**

*Shell moulding enables high-precision production for medium-weight castings.*

### **KEY ADVANTAGES**

- ⚙️ **Excellent dimensional control**
- ⚙️ **High repeatability**
- ⚙️ **Smooth surface finish**
- ⚙️ **Efficient production**





# MANUFACTURING INFRASTRUCTURE

## *Integrated Foundry & Engineering Facility*

Iron Fort Engineering operates a modern manufacturing facility in Kolkata, India, designed to support end-to-end casting production.

## **FACILITY HIGHLIGHTS**

**TOTAL  
MANUFACTURING  
AREA**

**60,000+**  
SQ. FT.

**TOTAL  
MEN  
POWER**  
**300+**  
*Skilled Efficient  
Man Power*

**TOTAL  
MACHINERY**  
**100+**  
*Machinery*

# KEY DIVISIONS

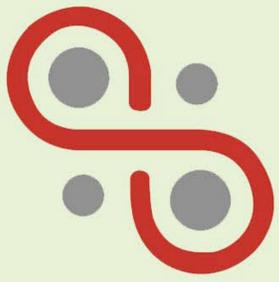
- ⚙ Pattern Shop
- ⚙ Sand Casting Foundry
- ⚙ Investment Casting Unit
- ⚙ Shell Moulding Section
- ⚙ Melting Section
- ⚙ Fettling Section
- ⚙ Heat Treatment Section
- ⚙ Shot Blasting Section
- ⚙ CNC Machining Division
- ⚙ Quality Testing Laboratory
- ⚙ Finishing & Assembly Section



*Our integrated manufacturing setup enables us to deliver complete casting solutions — from raw metal to finished, ready-to-use components.*

# PRODUCTION CAPACITY

Casting Process	Capacity per Day	Annual Production
Sand Casting	Up to 30 Ton	18000 Tons
Investment Casting	Up to 2.5 Ton	840 Tons



# QUALITY & **ENGINEERING** ASSURANCE

## **Quality is Built into Every Casting**

At Iron Fort Engineering, quality is not just a process — it is a commitment embedded across every stage of production.

The company operates under ISO 9001:2015 certified quality management systems, ensuring consistent manufacturing standards and continuous improvement.

## **Quality Testing Capabilities**

Our laboratory is equipped with advanced testing and inspection technologies including:

- ⚙ Spectro Analysis for Chemical Composition
- ⚙ Ultrasonic Testing for Internal Defects
- ⚙ Radiographic Inspection
- ⚙ Hardness Testing
- ⚙ Tensile and Impact Testing
- ⚙ Dimensional Inspection using Gauges and CMM
- ⚙ Universal Tensile Test
- ⚙ Subzero Bath having Temp. Range Upto -60 Degree Celcius
- ⚙ Inverted Microscope
- ⚙ Profile Projector
- ⚙ Magnetic Particle Test

*These processes ensure that every casting meets the required **mechanical, metallurgical, and dimensional specifications.***

# SUSTAINABLE MANUFACTURING

*Iron Fort Engineering is committed to environmentally responsible manufacturing.*

## *Key sustainability initiatives include:*

- ⚙️ Energy efficient furnaces
- ⚙️ Sand reclamation and reuse systems
- ⚙️ Heat recovery technology
- ⚙️ Controlled waste management







National Accreditation Board for  
Testing and Calibration Laboratories

**CERTIFICATE OF ACCREDITATION**

**TESTING LABORATORY, IRON FORT ENGINEERING LLP**

has been assessed and accredited in accordance with the standard

**ISO/IEC 17025:2017**

**"General Requirements for the Competence of Testing & Calibration Laboratories"**

for its facilities at

VILLAGE - JOYKRISHNAPUR, P.O. - BEGAMPUR, P.S. - CHANDITALA, DHARAPARA, HOOGHLY, WEST BENGAL, INDIA

in the field of  
**TESTING**

Certificate Number: TC-16858

Issue Date: 29/09/2025

Valid Until: 28/09/2029

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.  
(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Name of Legal Entity: IRON FORT ENGINEERING LLP

Signed for and on behalf of NABL



Anita Rani  
Director

Chakravarthy T. Kannan  
Chief Executive Officer

File No.RDSO-MW0BD(CSNB)/3/2023-O/o PED/SW/RDSO



RDSO  
(WAGON, Mechanical)  
Final Decision Letter

No. MW/PLNG/CSNB/VENDOR

Dated: 12/12/2024

To  
M/s IRON FORT ENGINEERING LLP-HOOGHLY  
DHARAPARA JOYKRISHNAPUR CHANDITALA BEGAMPUR  
HOOGHLY, West Bengal - 712306, India

Sub: Decision of Fresh Registration Request  
Ref: Your registration request ID 23700 Dated 15/04/2024

Your application under reference has been processed.

After detailed processing competent authority has decided the inclusion of your name in the vendor directory as per the following details:-

Name of the firm	M/s IRON FORT ENGINEERING LLP-HOOGHLY
Registered address of the firm	DHARAPARA JOYKRISHNAPUR CHANDITALA BEGAMPUR HOOGHLY, West Bengal - 712306, India
Manufacturing unit details	M/s IRON FORT ENGINEERING LLP, DHARAPARA JOYKRISHNAPUR CHANDITALA BEGAMPUR HOOGHLY, West Bengal - 712306, India

Items for which request is approved.

S.N.	Item ID	Item description
1.	ID: 3100423001	Cast steel side frame for CASNUB 22HS bogies
2.	ID: 3100423002	Cast steel bolster for CASNUB 22HS bogies
3.	ID: 3100423003	Wedge Drg. No. SK- 77579
4.	ID: 3100423005	End piece and strut for brake beam
5.	ID: 3100423007	CP assembly
6.	ID: 3100423008	CASNUB 22HS bogie.

Date of decision 12/12/2024  
Next quality audit due on

File No.RDSO-MW0BD(CSNB)/3/2023-O/o PED/SW/RDSO

Attached Documents

#	Description	File Name
No Document attached		

ABHISHEK GAUTAM  
DIRECTOR- BD



रेल मंत्रालय  
MINISTRY OF RAILWAYS

Signature Not  
Verified  
Digitally signed by  
ARVIND KUMAR  
Date: 2025.12.05  
12:19:09  
Reason: Sign Final  
Approval  
Location:

RDSO  
(WAGON, Mechanical)  
Final Decision Letter

Letter No - RDSO/108/1901/00063155

Dated  
05/12/2025

To  
M/s IRON FORT ENGINEERING LLP-HOOGHLY  
DHARAPARA JOYKRISHNAPUR CHANDITALA BEGAMPUR HOOGHLY, West Bengal - 712306, India

Sub: Decision of Fresh Registration Request  
Ref: Your registration request ID 25468 Dated 26/08/2024

Your application under reference has been processed.

After detailed processing, competent authority has decided the inclusion of your name in the Vendor directory as per the following details: -

Name of the firm	M/s IRON FORT ENGINEERING LLP-HOOGHLY
Registered Address of the Firm	DHARAPARA JOYKRISHNAPUR CHANDITALA BEGAMPUR HOOGHLY, West Bengal - 712306, India
Mfg. Unit Details	UNIT - I, Joykrishnapur, Dharapara, Chanditala, Begampur, Hooghly, West Bengal - 712306, India

Items for which request is approved

#	Sub Item	Category	Capacity(Per Annum)
<b>Item ID: 3100446</b> , Upgraded High Tensile Centre Buffer Coupler for freight stock wagons			
1	ID: 3100446001, Coupler Body & Shank Wear Plate	Developmental	12150
2	ID: 3100446002, Knuckle	Developmental	12150
3	ID: 3100446004, Coupler Yoke	Developmental	12150
4	ID: 3100446015, Complete Assembly of Upgraded High Tensile Centre Buffer Coupler for BOXNHL/BCNHL wagons	Developmental	12150

Date of Decision 05/12/2025  
Next Quality Audit Due on 04/12/2028

Mfg. Level Remarks (For Vendor Directory)

Remark Max. Permitted quantity is 5000 coupler assembly sets & 5000 nos. each of coupler components i.e. Coupler Body, Knuckle and Coupler Yoke.

Additional Remarks

#	Details
No remarks added	

Attached Documents

#	Description	File Name
No Document attached		

Digitally Signed by  
ARVIND KUMAR  
JDWD-II



रेल मंत्रालय  
MINISTRY OF RAILWAYS

RDSO  
(WAGON, Mechanical)  
Final Decision Letter

Letter No - RDSO/108/1901/00053010

Dated  
03/03/2025

To  
M/s IRON FORT ENGINEERING LLP-HOOGHLY  
DHARAPARA JOYKRISHNAPUR CHANDITALA BEGAMPUR HOOGHLY, West Bengal - 712306, India

Sub: Decision of Fresh Registration Request  
Ref: Your registration request ID 23706 Dated 15/04/2024

Your application under reference has been processed.

After detailed processing, competent authority has decided the inclusion of your name in the Vendor directory as per the following details: -

Name of the firm	M/s IRON FORT ENGINEERING LLP-HOOGHLY
Registered Address of the Firm	DHARAPARA JOYKRISHNAPUR CHANDITALA BEGAMPUR HOOGHLY, West Bengal - 712306, India
Mfg. Unit Details	UNIT - I, Joykrishnapur, Dharapara, Chanditala, Begampur, Hooghly, West Bengal - 712306, India

Items for which request is approved

**Item ID: 3100036**, Light Weight Low height 25 T axle load bogie (LWLH25) & its components for 25 T axle load wagons

#	Category	Capacity(Per Annum)
1	Developmental	1620

Date of Decision 03/03/2025  
Next Quality Audit Due on 18/08/2027

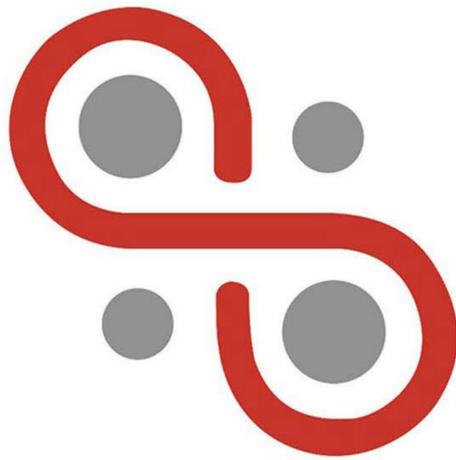
Additional Remarks

#	Details
No remarks added	

Attached Documents

#	Description	File Name
No Document attached		

Digitally Signed by  
ABHISHEK KUMAR GAUTAM  
JD BD



## Iron Fort Engineering LLP

Forging Excellence Through Innovation and Precision



185, S.K. Deb Road  
Kolkata – 700048, West Bengal, India



### **FACTORY:**

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