ICID•CIID

INTERNATIONAL COMMISSION ON IRRIGATION AND DRAINAGE (ICID)

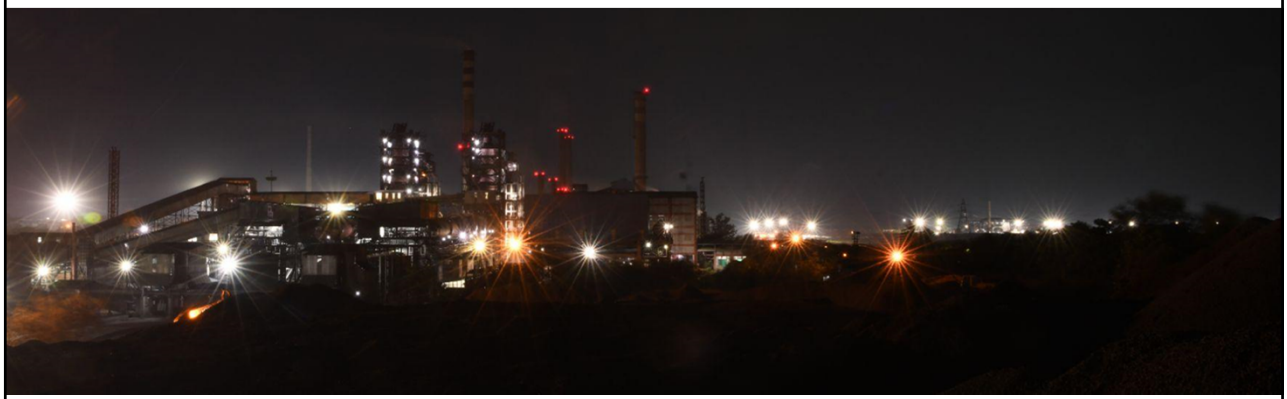
"MODERNIZATION OF IRRIGATION SYSTEMS - IMPROVEMENTS IN CONVEYANCE EFFICIENCY - SUITABILITY OF DUCTILE IRON PIPE"

Mr. Amit Kapuria
Sr. G M – BD (DI Pipe Division)
Rungta Mines Limited

Indo-Global Irrigation Summit 2025
24-25 June 2025, New Delhi, India

RUNGTA STEEL DUCTILE IRON PIPE

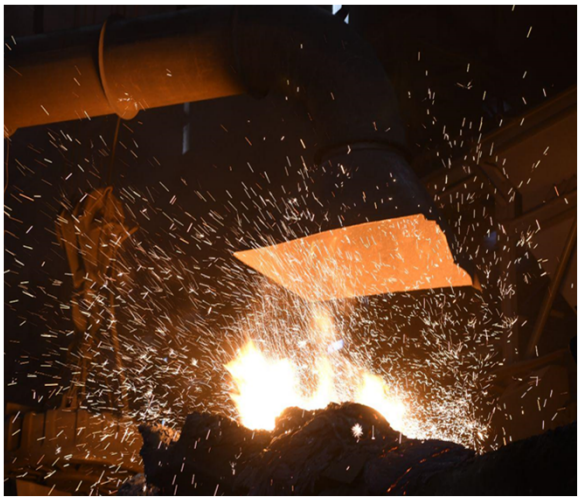
CORPORATE PRESENTATION



RUNGTA DI PIPE
RUNGTA MINES LIMITED

COMPANY OVERVIEW

Rungta Mines Limited is one of the fastest growing company in the steel industry, involved in the manufacturing of steel, power, and value-added steel products. Since its inception in 1962, the company began with mining and has now evolved as a prominent player in the steel sector. Operating under the brand name "Rungta Steel," the company has diversified its product portfolio to include a wide range of steel products. As an integrated steel producer, Rungta Mines Limited has state-of-the-art manufacturing facilities located across Jharkhand and Odisha, further solidifying its position in the industry.



OUR PRESENCE

Registered Office: Kolkata, West Bengal
Head Office : Chaibasa, Jharkhand

Manufacturing Units :

1. CHALIYAMA STEEL PLANT- Chaliyama, Jharkhand
2. KARAKHENDRA STEEL PLANT- Barbil, Dist. Keonjhar , Odisha
3. DHENKANAL STEEL PLANT - Jharbandh, Odisha
4. KARAKOLHA SPONGE IRON PLANT- Barbil, Odisha
5. KAMANDA STEEL PLANT- Koira, Dist. Sundergarh, Odisha

OTHER PRODUCTS OVERVIEW

TMT Bar

Wire Rod

HB Wire

MS Binding Wire

Nails

MS Stirrups

OTHER PRODUCTS OVERVIEW

DRI

MS Billets

Fly Ash Bricks

Pellet

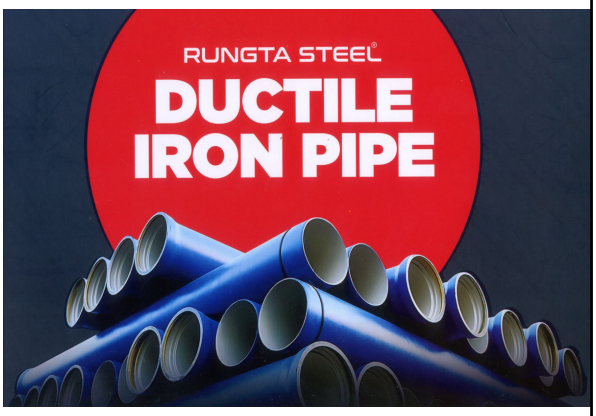
Cement

Power

RUNGTA DI PIPE

Our Ductile Iron Pipe Manufacturing Unit is located at Chaliyama, Dist:-Saraikela Kharsawan, Jharkhand with installed Manufacturing Capacity of 5,00,000 MTPA for diameters ranging from 80mm to 1200mm for different class and specifications.

Our product is having BIS License for marking No: CM/L 5800058612 to conform IS 8329:2000.



Salient features of "Rungta DI Pipe" :

- Our product is backed-up by one among the largest integrated steel manufacturer in the country.
- Having its integrated steel manufacturing facilities with large reserve of Iron Ore.
- Rungta Mines Ltd. has vast technical expertise in mining and mining operations since 1962. Manufacturing of basic and a chain of value-added steel products.
- Annealing Furnaces installed in the Ductile Iron (DI) Plant is best of the industry standards, thus enabling better heat treatment of the casted pipe. Easy access to Technology with latest modern Equipment.
- Centrifugally Cast Inside Cement Mortar Lining offers a compact and smooth surface and gives a higher C value (Hazen-Williams Number= 140).
- The Quality Assurance Laboratory is NABL Accredited.

RUNGTA STEEL
DUCTILE IRON PIPE

OUR PLANT CERTIFICATIONS

ISO 9001:2015

ISO 14001:2015

ISO 45001:2018

ISO 50001:2018

Bureau Veritas Certification

Rungta Mines Limited
(Chaliyama Steel Plant)

Head Office: Rungta Chambers, Chaibasa,
Dist.: Singhbhum (W), PIN: 833 201, State: Jharkhand, India.

This is a multi-site certificate, additional site(s) are listed on the next page(s)

Bureau Veritas Certification Holding SAS – UK Branch certifies that the Management System of the above Organisation has been audited and found to be in accordance with the requirements of the Management System Standards detailed below.

Standards

ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018

Scope of certification

MANUFACTURING AND MARKETING OF PELLET, SPONGE IRON, BILLETS, ROLLED PRODUCTS, DUCTILE IRON PIPES AND GENERATION OF POWER

Original cycle start date: **02 September 2020**
Recertification cycle start date: **02 September 2023**
Subject to the continued satisfactory operation of the Organisation's Management System, this certificate is valid until: **01 September 2026**
Certificate No. **IND.23.7255/IM/U** Version: **2** Issue date: **12 September 2024**

For certificate authenticity, click here https://certcheck.ukas.com/

ISO 9001	IN044651
ISO 14001	IN044653
ISO 45001	IN044652

Signed on behalf of BVCH SAS UK Branch
Jagdheesh N. MANIAN
Director – CERTIFICATION, South Asia
Commodities, Industry & Facilities Division

UKAS MANAGEMENT SYSTEMS 0008

Certification body address: 5th Floor, 66 Prescot Street, London, E1 8HG, United Kingdom.
Local office: Bureau Veritas (India) Private Limited (Certification Business) 72 Business Park, Marol Industrial Area, MIDC Cross Road "C", Andheri (East), Mumbai – 400 093, India.

Pg 1 of 2

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation.
To check this certificate validity please call + 91 22 6274 2000.

Bureau Veritas Certification

Rungta Mines Limited
(Chaliyama Steel Plant)

Head Office: Rungta Chambers, Chaibasa, Dist.: West Singhbhum, Jharkhand – 833 201, India.

This is a multi-site certificate, additional site(s) are listed on the next page(s)

Bureau Veritas Certification Holding SAS – UK Branch certifies that the Management System of the above organization has been audited and found to be in accordance with the requirements of the Management System Standard detailed below.

Standard

ISO 50001:2018

Scope of certification

MANUFACTURING OF SPONGE IRON, BILLETS, ROLLED PRODUCTS, AND GENERATION OF POWER, MARKETING OF SPONGE IRON, BILLETS, ROLLED PRODUCTS, PROCUREMENT OF RAW MATERIALS

Original cycle start date: **07 November 2022**
Expiry date of previous cycle: **Not Applicable**
Certification Audit date: **17 July 2022**
Certification cycle start date: **07 November 2022**
Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on: **06 November 2025**
Certificate No. **IND.22.15110/EN/U** Version: **1** Issue date: **07 November 2022**

Signed on behalf of BVCH SAS UK Branch
Jagdheesh N. MANIAN
Director – CERTIFICATION, South Asia
Commodities, Industry & Facilities Division

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Pg 1 of 2

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RUNGTA STEEL
DUCTILE IRON PIPE

OUR TRADEMARK

प्रारूप आरजी - 2
Form RG - 2

भारत सरकार
Government of India
व्यापार चिन्ह रजिस्ट्री
Trade Marks Registry
व्यापार चिन्ह अधिनियम, 1999
Trade Marks Act, 1999
व्यापार चिन्ह के रजिस्ट्रीकरण का प्रमाणपत्र, धारा 23 (2), नियम 56 (1)
Certificate of Registration of Trade Mark, Section 23 (2), Rule 56 (1)

क्रमांक
No. 2952713

Trade Mark No. 5031678 Date 05/07/2021 J. No. 2023

यह प्रमाणित किया जाता है कि जिस प्रकार चिन्ह की समाकृति इसके साथ संलग्न है, वह ....
के बारे में दिनांक ....नाम से रजिस्ट्रीकृत हो चुका है।
Certified that Trade Mark / a representation is annexed hereto, has been registered in the name(s) of :-
RUNGTA MINES LIMITED, 8A, Express Tower, 42A, Shakespeare Sarani, Kolkata-700017, West Bengal., An Indian Company., (Body Incorporate)

In Class 6 Under No. 5031678 as of the date 05 July 2021 in respect of

Goods and service as annexed

RUNGTA DI PIPE

Sealed at my direction, this 01st day of April, 2022

व्यापार चिन्ह रजिस्ट्री
Trade Marks Registry MUMBAI

Registrar of Trademarks

Registration is for 10 years from the date of application and may then be renewed for a period of 10 years and also at the expiration of each period of 10 years.
This certificate is not for use in legal proceedings or for obtaining Registration abroad.
Note: Upon any change of ownership of this Trademark, or change in address, of the principal place of business or address for service in India a request should **AT ONCE** be made to register the change.

List of Few Empanelment & Vendor Approvals with Govt. Departments Across India

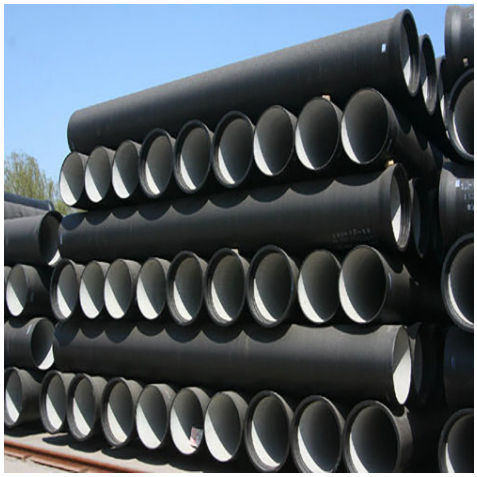
- Maharashtra Jeevan Pradhikaran (MJP).
- Pune Municipal Corporation (PMC).
- Madhya Pradesh Jal Nigam Marydit (MPJNM).
- Madhya Pradesh Public Health Engineering Department.
- Madhya Pradesh Directorate of Urban Administration & Development.
- Madhya Pradesh Urban Development Company limited (MPUDC).
- Madhya Pradesh Water Resource Department.
- Narmada Valley Development Corporation (NVDA).
- Rajasthan Public Health Engineering Department.
- PHED – West Bengal.
- PHED – Odisha.
- Rajasthan Urban Infrastructure Development Project (RUIDP).
- Rajasthan Urban Improvement Trust (UIT).
- Punjab Water Supply and Sanitation Board(PWSSB),
- Chandigarh Municipal Corporation.
- Chhattisgarh Public Health Engineering Department,
- Kerala Water Authority (KWA).
- Tamil Nadu Water Supply and Drainage Board(TWAD).
- Uttarakhand Peyjal Sansadhan Vikas Evam Nirman Nigam.
- Drinking Water Supply and Sanitation , Jharkhand.
- Water Resource Department , Jharkhand.
- State Trading Corporation – Sikkim.

Improvements in conveyance efficiency

The conveyance system assures the transport of water from the main intake structure or main pumping station up to the field ditches. The distribution system assures the transport of water through field ditches to the irrigated fields. The field application system assures the transport of water within the fields.

Conveyance efficiency is the ratio of the water reaching the field and the water conveyed from the source.

Improving conveyance efficiency in irrigation systems involves optimizing the delivery of water from the source to the fields, minimizing losses like seepage and evaporation, and maximizing the amount of water that actually reaches the crops. This can be achieved through various techniques, including lining canals, adopting micro-irrigation systems, and implementing water management strategies.

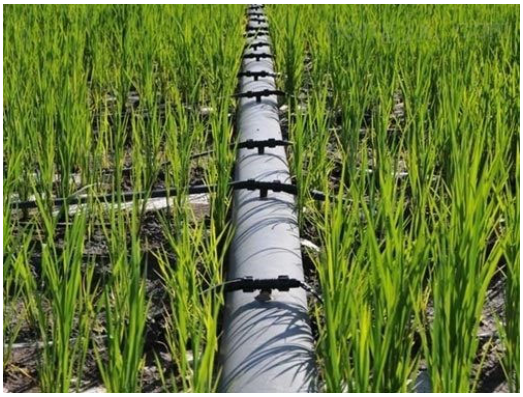


Methods for Improving Conveyance Efficiency:

Canal Lining - Lining canals, especially in areas with sandy soils, significantly reduces seepage losses, improving conveyance efficiency.

Closed Conduits - Using pipelines or closed channels instead of open canals minimizes water loss and leakage.

Regular Repair and Maintenance - Regular maintenance of canals, including clearing vegetation and repairing damages, is crucial for ensuring smooth water flow and preventing water losses.



Water Efficient Irrigation Methods - Adopting micro-irrigation techniques like drip and sprinkler irrigation, which deliver water directly to plant roots, minimizes water loss and improves efficiency compared to traditional flood irrigation.

Water Management Strategies - Implementing effective water management practices, including optimizing irrigation scheduling, reducing water pollution, and reusing or recycling water, will contribute to improved conveyance efficiency.

Rehabilitation and Modernization - Rebuilding and updating older irrigation networks will improve their performance and efficiency.

Precision Agriculture Technologies - Utilizing precision agriculture techniques, such as data analytics, GPS technology and remote sensing, will help monitor and manage water delivery more effectively, minimizing losses and optimizing water use.

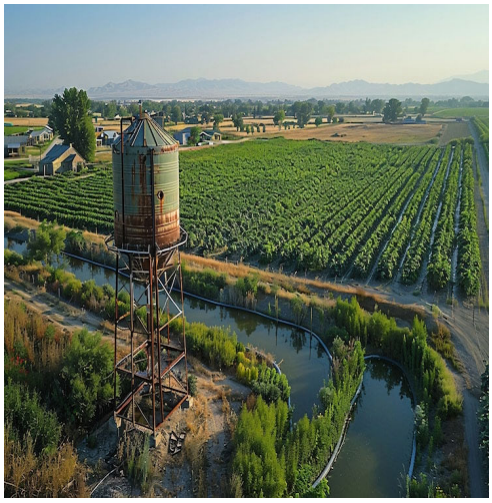
Erosion Control Structures - Implementing erosion control structures like drop and chute spillways will help prevent soil erosion in canals, maintaining their structural integrity and efficiency.

Design Reviews - Regularly evaluating and addressing design flaws in canal systems and structures can enhance water flow and reduce losses.

Minimizing Runoff - Proper land levelling and contouring can prevent runoff and ensure that water reaches the crop effectively.

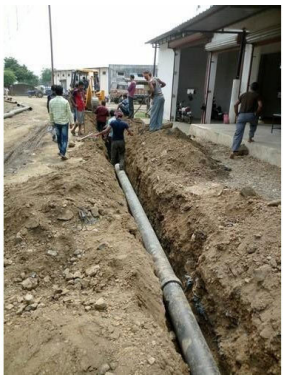
Benefits of Improved Conveyance Efficiency:

- **Water Savings -** Reduced water losses translate into significant water savings.
- **Increased Crop Yields -** More efficient water delivery can lead to increased crop yields and productivity.
- **Reduced Environmental Impact -** Water conservation through improved conveyance minimizes the negative impacts of excessive water withdrawals on the environment.
- **Lower Energy Consumption -** Reduced water consumption can lead to lower energy requirements for pumping and water distribution.



ADVANTAGES OF DUCTILE IRON PIPE:

The following are the main advantages of Ductile Iron Pipes:



- **Laying & Jointing**

Easy and fast assembly without needing any skilled labour or special equipment and capable of being jointed in all weathers. Moreover, capable of angular deflection up to 4^0 at each joint, allows the pipeline to negotiate bends without additional fittings and accommodate ground movements.

- **Leakage**

Strong material properties and flexibility of joints contribute to prevent the leakage incident on buried Ductile Iron pipes.

- **Durability**

A service life of around 100 years is commonly recognised for Ductile Iron Pipes buried in usual conditions. However, the service life can be reduced or increased depending on the nature of the pipe coating and the local soil conditions.

- **Conveyance Capacity**

For a given nominal diameter, Ductile Iron Pipes are duly designed with a larger internal diameter in order to reduce the head loss on energy pumping and the operation cost such as the electric power usage cost.

- **Recyclability**

Excavated iron pipes can be reused as a raw material to manufacture new Ductile Iron Pipes. Benefits of lower-cost production can be expected in a case where natural resources are use, allowing the disposal cost to be reduced.

- **Life Cycle Cost Analysis**

The methodology of Life Cycle Analysis has also been detailed in ISO 21053: 2019 – Life cycle analysis and recycling of ductile iron pipes for water applications.

THANK YOU

Please call us on
+91 33 22816580 / 22816680

Toll Free Number : 1800-890-5121

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Works: Rungta Mines Limited, Chaliyama Steel Plant, Dist.: Saraikela-Kharsawan, Jharkhand.
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