Arudra

Material Handling

Engineering Reliability in Every Idler, Pulley & Conveyor

Arudra
Material Handling

ARUDRA MATERIAL HANDLING SYSTEMS

Arudra is a leading manufacturer of Bulk Material Handling Systems and have supplied turnkey pulleys, idlers & conveyor systems across India and overseas for the past three decades. Our systems play an important role in transportation of Bulk material like Coal, Coke, Iron ore, Cement etc to the core industry.

We are equipped with a full-fledged design and engineering office backed up by highly qualified engineers and supported by modern CADD Facility. We have the unique advantage of offering conveyor pulleys and idlers customised as per requirement, fully designed and manufactured in-house.

We take pride in supplying state of the art conveyor systems to the largest Iron & Steel manufactures and Mining companies both within India and Globally.

MANUFACTURING OF INDUSTRIAL PULLEYS, IDLERS & CONVEYORS AT SCALE

Arudra specializes in the end-to-end design, manufacturing, and supply of high-performance industrial pulleys, idlers, and conveyor systems tailored for bulk material handling. Our offerings are engineered for durability, efficiency, and adaptability across core industries such as power, steel, cement, and mining.

Our product lineup includes belt conveyors, mobile conveyors, shuttle conveyors, tripper cars, furnace charging equipment, and steel angle conveyors. Every component—be it pulleys or idlers—is designed and manufactured in-house, ensuring quality control and seamless integration in turnkey installations across India and overseas.

Arudra
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MAJOR INDUSTRIES WE SERVE

MINING & QUARRYING

CEMENT INDUSTRY

POWER GENERATION

STEEL MILLS & METAL PRODUCTION

PORTS

FERTILIZER PLANT

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IDLERS

Arudra Engineers' idlers are engineered to deliver high efficiency, precision, and durability in industrial conveyor systems. Designed for long-term reliability, our idlers ensure smooth material transport even under the most demanding operational conditions. With decades of expertise and a state-of-the-art manufacturing facility in Tamil Nadu, Arudra offers products that meet international standards and stringent performance requirements.

MANUFACTURING RANGE

- BELT WIDTH - 500mm to 2400mm
- PIPE DIAMETER – 63.5 to 219.1 (IS:9295)
- BEARING DIAMETER – 20mm to 50mm
- Belt Speed & Roller RPM – Upto 7.0 mps & 700 rpm

FEATURES

- Designed and manufactured for a long, trouble-free life
- Equipped with Deep Groove Ball Bearing - Lubricated for Life (SEALED TYPE IDLERS).
- Minimal Rolling Resistance – Low Operating cost
- Low Total Indicator Run-out (TIR)
- Effective Double Labyrinth Seal with Dust Cover and additional Contact Lip Seal for protection against moisture and dust.
- Heavy duty Fabricated Steel frames with precision fitment.

QUALITY ASSURANCE & TESTING

- Bearings sourced directly from SKF/FAG, ensuring high-quality, seize-resistant performance.
- All idlers undergo rigorous testing for water ingress, dust penetration, and friction factor.
- Manufacturing process incorporates CNC machining, SPM welding, and precision assembly, guaranteeing consistency and reliability.
- Designed to maintain optimal performance for up to 40,000 operational hours, minimizing maintenance and downtime.

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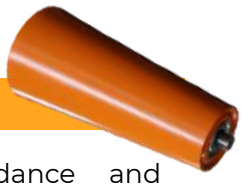
SELF-CLEANING IDLER

- Designed to prevent material build-up on the roller surface.
- Reduces belt wear and minimizes carry-back issues.
- Enhances conveyor efficiency and cleanliness in bulk material handling.
- Manufactured with ERW pipes per IS:9295, ensuring precise tolerances for ovality and straightness.
- Shafts made from Bright bar C40, IS:1570, providing strength and reliability.

CONICAL IDLER



- Provides belt guidance and prevents misalignment.
- Commonly used at curves and transitions in conveyor systems.
- Ensures smooth tracking and reduced edge wear.

FRICTION IDLER

- Helps in reducing excessive belt tension by controlling frictional forces.
- Extends the life of conveyor belts by reducing stress.
- Ensures efficient material handling in long conveyor runs

NON-MAGNETIC IDLER

- Manufactured with non-magnetic materials for use in sensitive environments.
- Suitable for industries like mining, power, and steel, where magnetic interference must be avoided.
- Provides reliable operation without affecting magnetic separation processes.

RUBBER-LINED IDLER

- Covered with a durable rubber lining to resist wear and material abrasion.
- Reduces noise and provides extended roller life in harsh conditions.
- Suitable for handling sharp or abrasive materials.

IMPACT IDLER

- Designed with reinforced rubber rings to absorb the impact of heavy, falling materials.
- Protects both the belt and the supporting structure from damage.
- Ideal for loading zones and transfer points.

WEIGHING SCALE IDLER

- Specially designed for use with belt weigh scales.
- Ensures accurate material measurement and weight monitoring.
- Essential for industries requiring process control and inventory management.

DESIGN SUPERIORITY

- Optimized roller design for even load distribution and minimal belt wear
- Precision end caps ensure accurate bearing alignment and sealing
- Reinforced shell and balanced build for smooth, vibration-free operation
- Streamlined frame reduces misalignment and structural stress
- Modular setup enables quick maintenance and easy replacement

HEAVY DUTY IDLER & ASSEMBLY

- Precision-engineered rollers minimize friction and power use, cutting operational costs while boosting energy efficiency.
- Built with C40 Bright bar shafts and ISO-standard precision pipes, our idlers ensure exceptional strength, stability, and long service life even under heavy-duty conditions.
- Designed for continuous, high-load operation, the carrying idler assembly ensures smooth material flow with precision-machined housings and CO_2-welded ERW pipes for reliability and consistency.

PULLEYS

Arudra Engineers' pulleys are designed to provide efficient torque transmission, durability, and reliable performance for industrial conveyor systems. With decades of expertise and state-of-the-art manufacturing facilities in Chennai, we deliver pulleys suitable for general, heavy-duty, and extra heavy-duty applications. Each pulley is engineered for precision, robustness, and ease of maintenance, ensuring long-lasting performance in demanding industrial environments.

FEATURES

- Design uses software programs for optimum selection of shaft, shell, and bearings per relevant standards.
- Manufacturing employs MIG/Submerged arc welding and sophisticated machinery.
- Stringent Quality Control covers every stage, from raw material to final packing.
- Pulley run-out is well within IS standards.
- Pulleys are static balanced (dynamic balancing available upon request).
- Pulleys are supplied as a complete assembly with Bearings and Plummer Blocks.

RUBBER LAGGING TYPES

- Natural Rubber lagging (Plain/Diamond groove/herringbone groove)
- Ceramic Embedded Rubber Lagging

MANUFACTURING RANGE

- Belt width 500 to 2400mm
- Pulley diameter 220 to 2000 mm diameter
- Shaft diameter up to 500mm

QUALITY ASSURANCE & TESTING

- Pulley components manufactured from high-quality steel, adhering to IS standards.
- Diaphragms and end discs are welded and stress-relieved for maximum durability.
- Machined and inspected to ensure accuracy, torque transfer efficiency, and long operational life.
- Experienced engineers with over 30 years in pulley manufacturing oversee all processes.

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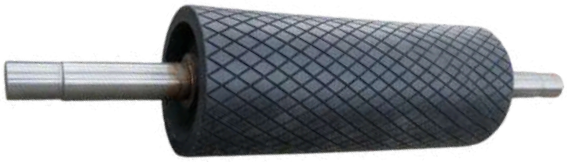
STANDARD CONSTRUCTION PULLEY

- Supports the conveyor belt and material load.
- Features high-precision rollers to minimize friction and power use.
- Ensures stable belt alignment and long service life.
- Shaft-to-hub connection uses a Parallel key arrangement (IS:2048).

HEAVY DUTY PULLEY



- Uses taper lock friction sleeves to securely connect the shaft to the hub.
- Designed for easy installation, maintenance, and separation.
- Steel end discs welded to the shell add strength for high-load applications.
- Ensures precise torque transmission with minimal maintenance.

EXTRA HEAVY DUTY PULLEY

- Designed for extreme loads and demanding operations.
- Features Turbo-diaphragms (weldable cast steel or mild steel) for even stress distribution.
- The shaft connection uses heavy-duty locking elements (Ring Feeder / equivalent).
- Construction (welded and stress-relieved Turbo diaphragm) provides extended fatigue life for long-term operation.

CONVEYORS

Arudra Engineers' conveyor systems are designed for efficient, reliable, and precise material handling across industrial operations. With decades of expertise and state-of-the-art manufacturing facilities, our conveyors are engineered to handle heavy loads, harsh environments, and continuous operation, ensuring long-term durability and low maintenance.

FEATURES

- All conveyor systems are manufactured in state-of-the-art facilities with stringent quality control.
- Components are precision-engineered for durability, accuracy, and smooth operation.
- Experienced engineers with over 30 years in material handling solutions ensure optimal design and reliable performance.

QUALITY ASSURANCE & TESTING

- All conveyor systems are manufactured in state-of-the-art facilities with stringent quality control.
- Components are precision-engineered for durability, accuracy, and smooth operation.
- Experienced engineers with over 30 years in material handling solutions ensure optimal design and reliable performance.

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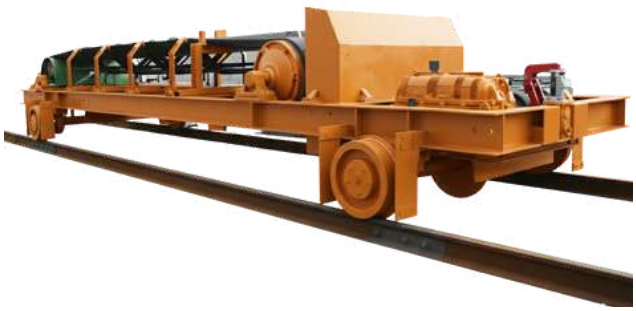
BELT CONVEYORS

- Engineered for continuous material transport across production facilities.
- Suitable for steel, cement, power, and bulk material handling industries.
- Designed for smooth operation, minimal maintenance, and reliable performance.
- Ideal for operations requiring consistent material flow over long distances.

SHUTTLE CONVEYORS



- Designed for rapid material transfer between production lines or storage areas.
- Ensures efficient, high-speed, and accurate material distribution.
- Optimized for continuous operation with minimal downtime.

TRIPPER CONVEYORS

- Creates multiple discharge points along the length of a belt conveyor.
- Allows for selective and flexible material stacking or transfer into different bins or silos.
- Utilizes a movable carriage to redirect bulk material off the main conveyor belt.

WIDE BELT CONVEYORS

- Handles large volumes of bulk material or items due to its greater carrying capacity.
- Provides stable support for wide, irregularly shaped, or fragile products.
- Offers versatile applications across various industries, from mining to package handling.

HIGH ANGLE CONVEYORS

- Enables material elevation at steep angles, often up to 90° minimizing space requirements.
- Uses specialized sidewall belts and cleats to secure and contain bulk material during vertical transfer.
- Ideal for applications with limited footprint where significant elevation change is necessary.

TWO-WAY CHUTES / DIVERTOR GATES / FLOW DIVIDER / V-PLOUGHS

- Directs the flow of bulk materials from one stream into one of two separate discharge points or process lines.
- Achieves rapid and reliable material routing by using a pivoting gate or blade with minimal interruption to the flow.
- Essential for sorting, batching, or distributing materials to different destinations, such as storage silos or secondary conveyors.

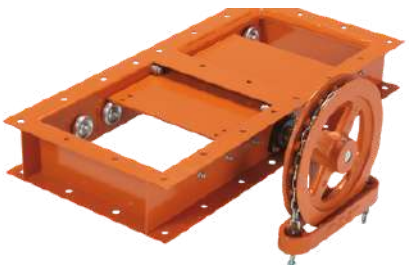
FILTER CAKE BELT FEEDERS

- Ensures consistent and controlled discharge of wet, sticky, or cohesive filter cake material from filter press.
- Suitable arrangements are provided for shearing the material onto the belt for uniform feeding.
- Designed with heavy-duty construction and specialized belt cleaners to manage challenging materials and minimize build-up.

ROD GATES / RACK & PINION GATES / SECTOR GATES

- Controls or isolates the flow of dry bulk materials from hoppers, bins, or silos using a movable plate or radial blade.
- Utilizes a rack and pinion mechanism or sliding rods for smooth, precise, and reliable opening and closing of the gate plate.
- Designed for robust operation and suitable for regulating abrasive, granular, or lump materials in a discharge chute.

SECTOR GATES



RACK & PINION GATES

ROD GATES

FURNACE CHARGING EQUIPMENT

- Specially designed for precise and safe loading of materials into furnaces.
- Ensures controlled material flow in high-temperature and industrial environments.
- Enhances operational efficiency and safety in critical processes.

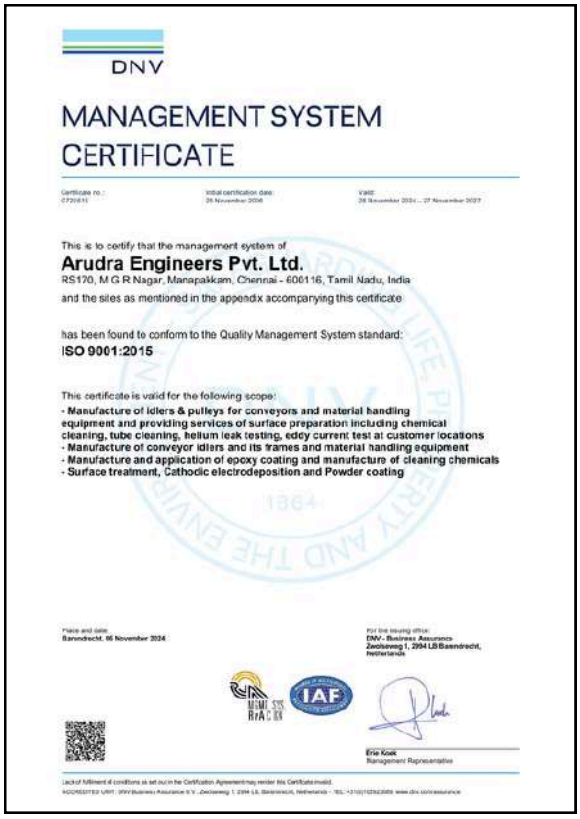
CONVERTER CHARGERS

- Achieve Superior SG Iron Quality: Utilize the specialized Mg Converter system and tilting trolley to precisely control magnesium treatment, transforming cast iron into high-strength, ductile SG Iron.
- Enhance Product Durability: Produce steel pipes with significantly increased corrosion resistance and superior mechanical properties, ensuring longer product lifespan and performance.
- Streamline High-Quality Production: This advanced metallurgical process ensures reliable composition modification, enabling a consistent and controlled method for achieving ductile iron in your steel pipe manufacturing line

RECIPROCATING HEADS

- Distributes material evenly across the width of a receiving area by moving back and forth across the discharge point.
- Creates a flat, uniform layer or pile of material, which is critical for consistent feeding or blending operations.
- Often used at the end of a conveyor to load train cars, bunkers, or large storage piles automatically

CERTIFICATION



DNV

MANAGEMENT SYSTEM CERTIFICATE

This is to certify that the management system of

Arudra Engineers Pvt. Ltd.

RS170, M G R Nagar, Manapakkam, Chennai - 600116, Tamil Nadu, India

and the sites as mentioned in the appendix accompanying this certificate

has been found to conform to the Quality Management System standard:

ISO 9001:2015

This certificate is valid for the following scope:

- Manufacture of idlers & pulleys for conveyors and material handling equipment and providing services of surface preparation including chemical cleaning, tube cleaning, helium leak testing, eddy current test at customer locations
- Manufacture of conveyor idlers and its frames and material handling equipment
- Manufacture and application of epoxy coating and manufacture of cleaning chemicals
- Surface treatment, Cathodic electrodeposition and Powder coating

Place and date:
Barendrecht, 06 November 2024

For the issuing office:
DNV - Business Assurance
Zwolseweg 1, 2994 LB Barendrecht,
Netherlands

Erie Kaak
Management Representative

Lack of fulfilment of conditions as set out in the Certification Agreement may render this Certificate invalid.

DNV

Certificate no.: C122615
Place and date: Barendrecht, 06 November 2024

Appendix to Certificate

Arudra Engineers Pvt. Ltd.

Locations included in the certification are as follows:

Site Name	Site Address	Site Scope
Arudra Engineers Pvt. Ltd.	RS170, M G R Nagar, Manapakkam, Chennai - 600116, Tamil Nadu, India	Manufacture of idlers & pulleys for conveyors and material handling equipment and providing services of surface preparation including chemical cleaning, tube cleaning, helium leak testing, eddy current test at customer locations.
Arudra Engineers Pvt. Ltd.	510/1A,1B,1C, Panchayat Road, Gunduperumbedu, Siperumbudur, Kancheepuram - 602105, Tamil Nadu, India	Surface treatment, Cathodic electrodeposition and Powder coating
Arudra Engineers Pvt. Ltd.	SF No. 12/1C/1A-3E & 32/1, No.74, Kunnavakkam Village, Uthiramerur Taluk, Kancheepuram - 603406, Tamil Nadu, India	Manufacture and application of epoxy coating and manufacture of cleaning chemicals.
Arudra Engineers Pvt. Ltd.	SF No.300/8B, 8B6, 9B7, 9B8,1B Vedanthangal Road, Puzuthivakkam Village, Maduranthagam Taluk, Chengalpattu - 603314, Tamil Nadu, India	Manufacture of conveyor idlers and its frame and material handling equipment.

Lack of fulfilment of conditions as set out in the Certification Agreement may render this Certificate invalid.

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PARTIAL LIST OF KEY CLIENTS

JSW

JINDAL STEEL & POWER

AM/NS INDIA
ArcelorMittal Nippon Steel India

S R RUNGTA GROUP
Rungta Mines Ltd.

RBSSN

LLOYDS METALS

SLR Metaliks
Powered by Passion

metso

SURYADEV
ALLOYS AND POWER

MSPL LIMITED

INFRASTRUCTURE & MANUFACTURING FACILITIES

Arudra Engineers operates state-of-the-art manufacturing facilities in Manapakkam and Vedanthangal, Chennai, dedicated to the production of high-quality Material Handling Systems.

Our infrastructure is equipped with advanced fabrication bays, precision machining tools, heavy-duty cranes, and automated welding and assembly units to handle projects of varying scale and complexity. The plants are designed for efficient workflow — covering fabrication, machining, surface treatment, and quality inspection under one roof.

A team of experienced engineers, welders, and technicians ensure every component is built to precision and adheres to international quality and safety standards. These facilities enable Arudra Engineers to deliver complete, reliable, and efficient material handling solutions — from design and fabrication to installation and commissioning.









Arudra
Material Handling

KEY HIGHLIGHTS

Design & Engineering Excellence

Full-fledged design and engineering office staffed with highly qualified engineers.

Advanced Design Tools

Supported by specialized software for design, drafting, and estimation — compliant with IS, IPSS, and CEMA standards.

In-House Manufacturing Strength

Precision fabrication and machining facilities for technological structures, pulleys, idlers, and equipment.

Assured Quality & Reliability

Dedicated quality control team ensuring consistency, performance, and compliance at every stage.

Efficient Project Management

Experienced managerial and supervisory professionals handling design, procurement, and execution seamlessly.

Trusted Supply Network

Procurement from reputed raw material manufacturers and leading bought-out suppliers for reliability and traceability.

TRUSTED BY INDUSTRY LEADERS

APPROVED

MECON मेकॉन ISO 9001 Company

DASTUR

L&T Construction
Buildings & Factories

CECON

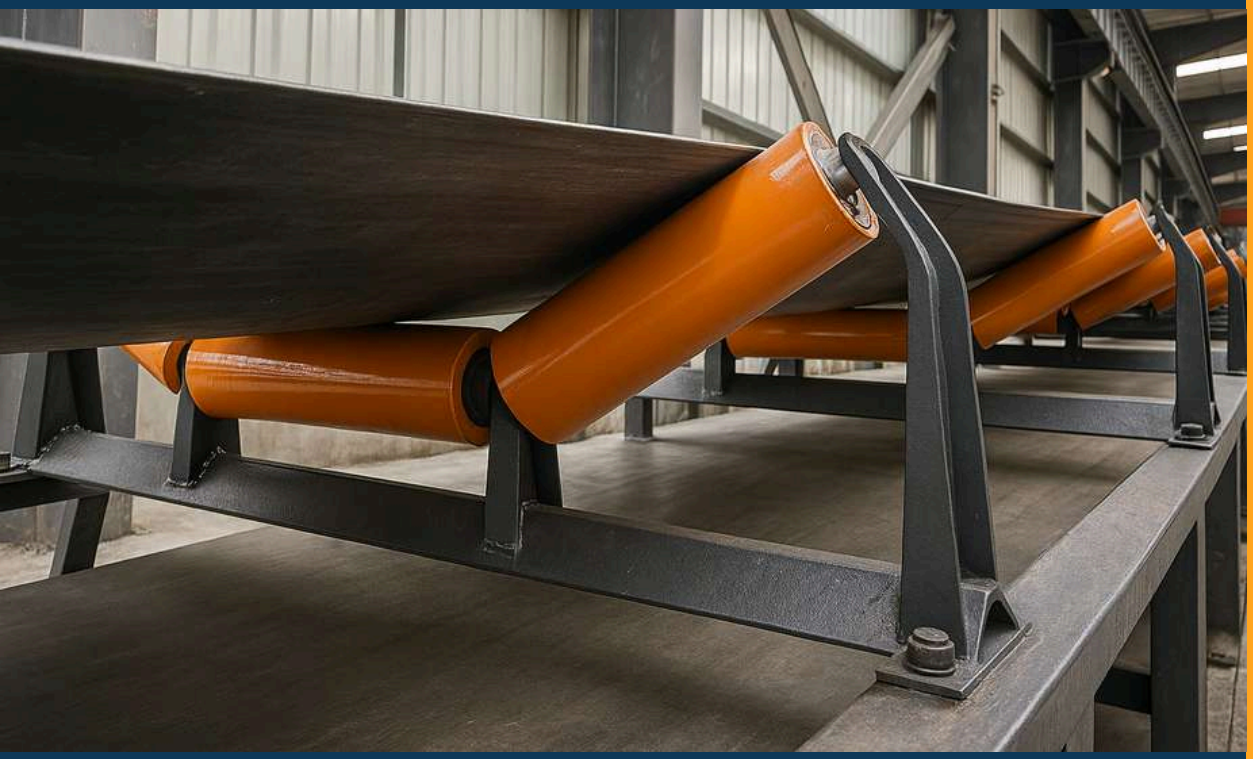
KORUS

RSA

AM/NS INDIA

GrafiX
Engineering Consultants

Arudra
Material Handling



Contact Us

www.arudra.co.in

Arudra Engineers Pvt Ltd - material handling system

mhd@arudra.org

Arudra Engineers Pvt Ltd

HEAD OFFICE: NO 79, VALMIKI STREET, THIRUVANMIYUR, CHENNAI – 600041.

ARUDRA MAINTENANCE & SUPPLIES. INC: UNIT 1814, CITYLAND CONDOMINIUM 10 TOWER 1, 156 HV DELA COSTA ST, COR. AYALA AVE, MAKATI CITY, PHILIPPINES

PULLEY MANUFACTURING UNIT: RS 170, RAMAPURAM, MGR NAGAR, GIRIGORI NAGAR, MANAPAKKAM, CHENNAI, TAMIL NADU 600125

IDLERS MANUFACTURING UNIT: M/S ARUDRA ENGINEERS PRIVATE LIMITED NO.19, 300/9B5 TO 9B8, VEDANTHANGAL ROAD,PUZHUTHIVAKKAM,MADHURANTHAGAM TALUK, CHENGALPATTU DIST – 603314.