



Safety and Comfort in Motion

Braking, Suspension & HVAC Systems



Corporate Office :

509, 5th floor, Kirti Mahal Building 19, Rajendra Place New Delhi – 110008 India.
Ph. : +91 011-25710064 Email : info@andhitech.in

Manufacturing Plants

Unit-1 Address:

Plot No. B-26, Kasna Ecotech-1 Extension, Greater Noida,
G.B. Nagar, (U.P) 201306 India.

Unit-2 Address:

Plot No. B-22 & 23, Kasna Ecotech-1 Extension, Greater Noida,
G.B. Nagar, (U.P) 201306 India.

Unit-3 Address:

B-15, Kasna Ecotech-1 Extension, Greater Noida,
G.B. Nagar, (U.P) 201306 India.

Unit-4 Address:

B-36, Kasna Ecotech-1 Extension, Greater Noida,
G.B. Nagar, (U.P) 201306 India.





COMPANY PROFILE

From design to delivery, we integrate advanced technology, skilled craftsmanship, and strict quality control to power critical industries.

- Cutting-Edge Infrastructure
- Skilled Professionals
- Relentless Quality

Established in 2013, **AND Hitech Industries Ltd. (AHIL)** has emerged as a trusted name in precision manufacturing, specializing in high-quality components for Railway Rolling Stock applications, and HVAC systems for Railways and Metros. Known for our commitment to engineering excellence, customer satisfaction, and on-time delivery, we are steadily strengthening our position as a preferred supplier in Railway and HVAC sectors.



MISSION

To deliver reliable and high-performance solutions for the Indian Railways, Metro Corporations, and Rolling Stock Suppliers- driven by strong R&D, manufacturing excellence, uncompromising quality, and exceptional customer service. We strive to be trusted partners in the evolving transportation sectors.

KEY FOCUS AREAS:

- Railway Rolling Stock Components
- Diverse HVAC Systems for Railways, Metro, Industrial & Domestic Segments
- Quality Commitment
- Manufacturing Excellence
- Reliable & On-Time Delivery

VISION

- Global Expansion
- Growth with Metro and Car Builders
- Product Portfolio Diversification
- Reliability with Integrity

OUR VALUES

- Customer-centric
- Quality First
- Nurturing Talent
- Philanthropic Approach towards Employees



MD's Desk

Advancing Mobility with Dependable Solutions.

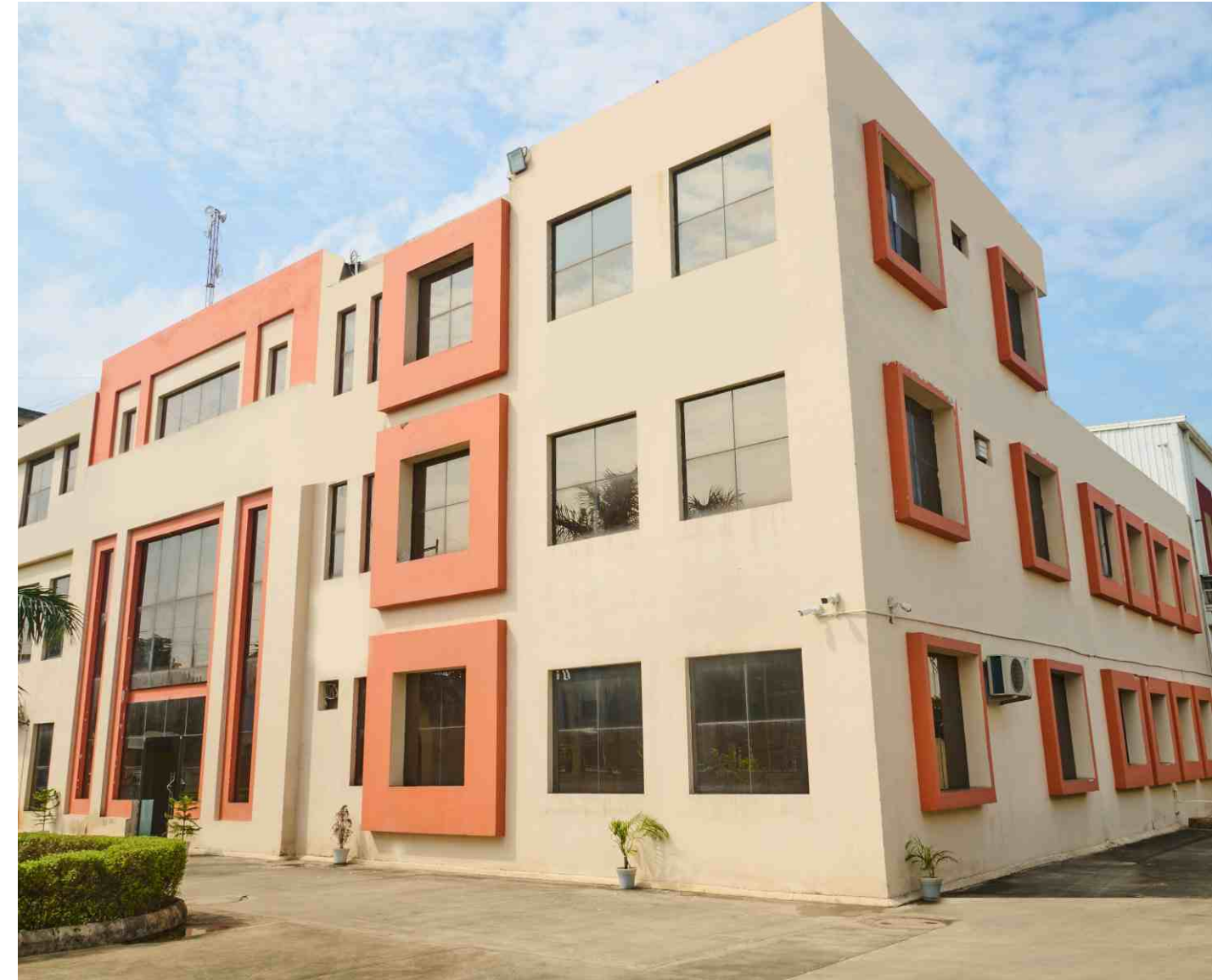
At AHIL, our strength lies in combining precision engineering, ethical practices, and customer-focused manufacturing to deliver products that meet the highest standards. Step by step, we continue to expand our capabilities while staying committed to excellence and long-term partnerships.

This spirit of growth also led to the creation of our sister company, SphereThermalSystems Pvt. Ltd. (STSPL), which specializes in advanced HVAC solutions for Railways and Metros. Together, AHIL and STSPL complement each other's expertise – enabling us to offer integrated, end-to-end mobility solutions and strengthen our role in shaping the future of India's transportation sector.

We have grown into a dynamic organization known for delivering innovative and efficient engineering solutions.



Mr. Angad Singh
Managing Director



With a team of 250+ skilled professionals, we are committed to exceeding customer expectations through technical expertise, quality excellence, and responsive service. Today, AHIL proudly partners with clients - including Indian Railways, Metros, and car manufacturers - driving transformation through precision and innovation.

At AHIL, our strength lies in combining precision engineering, ethical practices, and customer-focused manufacturing to deliver products that meet the highest standards. We approach growth step by step, expanding our capabilities while staying committed to excellence and long-term partnerships.

DIRECTOR'S MESSAGE



Ms. Neha Singh

At **AND Hitech Industries Ltd.**, we believe that true progress is built on the pillars of innovation, trust and responsibility. Since our inception, our journey has been guided by a relentless pursuit of excellence in railway rolling stock solutions and a deep commitment to contributing to India's vision of a modern, self-reliant and safe transportation ecosystem.

The road ahead excites us. Together, with resilience and purpose, we will continue to craft solutions that stand the test of time.

At **AND Hitech Industries Ltd.**, we believe financial stewardship is the foundation of sustainable growth. Our focus has always been on balancing ambition with responsibility—investing in innovation while ensuring transparency, trust and long-term value creation. This balance is what enables us to honor commitments, strengthen partnerships and ensure that every milestone we achieve adds lasting value to the ecosystem we serve.

As we expand into new domains and global markets, our focus remains on ensuring that every step of growth is supported by sound financial stewardship and aligned with our larger vision of building a resilient, self-reliant, and sustainable future.



Ms. Asha

Sphere Thermal Systems Pvt. Ltd. (STSPL) A Group Company of AND Hitech Industries Ltd.



Sphere Thermal is an RDSO-registered group company of AND Hitech, specializing in refrigeration and air-conditioning solutions for the railway sector. With expertise in HVAC systems for LHB and Vande Bharat coaches, the company delivers technology-driven products designed for performance, passenger comfort, and energy efficiency.

With ISO 9001, ISO 14001, and EN 15085-2 certifications, Sphere Thermal ensures the highest standards of quality, safety, and welding processes. Focused on innovation and reliability, the company contributes to India's modern and future-ready railway ecosystem.

MISSION

To design and deliver energy-efficient HVAC systems ensuring comfort, reliability, and safety.

VISION

To be a leading provider of innovative HVAC solutions, driving technological advancement and setting benchmarks for efficiency and customer satisfaction.

CORE VALUES

- Quality
- Innovation
- Sustainability
- Customer Centricity

PRODUCT OVERVIEW

At **AHIL**, we specialize in the manufacturing of high-performance components designed for safety, efficiency, and reliability.



LHB COACH

- > HVAC
- > Axle Mounted Brake Disc
- > Split Axle Mounted Disc
- > Brake Pads
- > Air Suspension Control Equipment
- > Dampers
- > Failure Indication Cum Brake Application
- > IV Coupler
- > Reverse Cycle
- > Bellow Ducts for RMPU
- > Microprocessor Controller



LOCOMOTIVE

- > Cab AC
- > Pantograph



VANDE BHARAT TRAIN

- > Wheel Mounted Brake Disc
- > HVAC
- > Single Leaf Automatic Plug Door
- > Dampers
- > Cab AC



TRACK MAINTENANCE

- > Tamping Tools



WAGON

- > Brake Blocks



OTHER HVAC PRODUCTS

- > Heat Exchangers
- > Air Handling Units



DELHI METRO

- > Wheel Mounted Brake Disc
- > Sliding Doors
- > Brake Pads
- > Dampers



EMU TRAIN

- > HVAC
- > Cab AC



PRODUCT DESCRIPTION

AXLE MOUNTED BRAKE DISCS

High-Performance Axle Discs for Safe and Efficient Braking

Our Axle Mounted Brake Discs are engineered for LHB-type railway coaches, providing consistent braking performance and enhanced safety under high-speed and heavy-duty conditions.

Key Highlights

- Precision-Engineered for LHB Coaches
- High Durability & Heat Resistance
- Compliance with Indian Railways Standards
- Advanced Manufacturing & Quality Control



SPLIT AXLE MOUNTED BRAKE DISCS

Split Axle Brake Disc for Efficient Maintenance

Our Split Axle Mounted Brake Discs are an innovative solution designed to simplify railway brake maintenance. Unlike conventional axle-mounted discs that require wheel removal, our split design allows the disc to be detached directly from the axle without dismantling the wheels.

Key Highlights

- Built for long service life
- No Wheel Removal Required
- Reduced Maintenance Time
- Reliable Braking Performance



PRODUCT DESCRIPTION

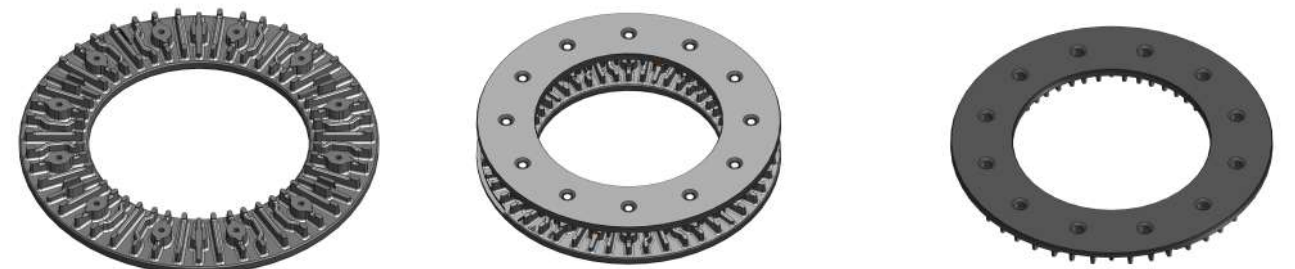
WHEEL-MOUNTED BRAKE DISC - VANDE BHARAT

Wheel-Mounted Brake Discs for Vande Bharat Trains

Our Wheel-Mounted Brake Discs are engineered for Vande Bharat high-speed trains, delivering exceptional braking performance, safety, and durability. AHIL is proud to be the first Indian supplier of these critical components, supporting India's flagship high-speed rail project with locally manufactured, precision-engineered solutions.

Key Highlights

- First Indian Supplier for Vande Bharat
- High-Speed Reliability
- Superior Heat Dissipation & Durability
- Manufactured to Stringent Quality Standards



WHEEL-MOUNTED BRAKE DISC

Reliable Wheel-Mounted Brake Discs for Metro Operations

Our Wheel-Mounted Brake Discs for Delhi Metro trains are designed to deliver safe, reliable, and efficient braking in urban rail operations. Mounted directly on the wheel, these discs offer enhanced heat dissipation and consistent performance in frequent stop-and-go metro conditions.

Key Highlights

- Optimized for Metro Operations
- Efficient Heat Dissipation
- Durable & Low-Maintenance
- Advanced Manufacturing & Quality Control



PRODUCT DESCRIPTION

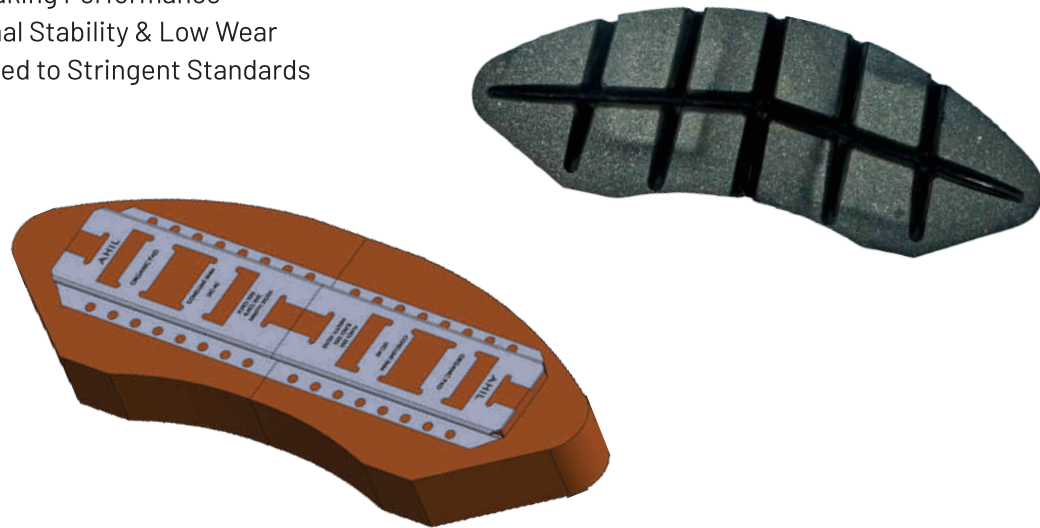
BRAKE PADS

Organic Non-Asbestos Brake Pads for Reliable Railway Braking

Our Railway Brake Pads are organic, non-asbestos friction components designed for disc brake systems in LHB coaches. Engineered for consistent braking performance, reduced wear, and thermal stability, these pads convert kinetic energy into heat efficiently, ensuring safe and smooth train operation.

Key Highlights

- Organic Non-Asbestos Material
- Reliable Braking Performance
- High Thermal Stability & Low Wear
- Manufactured to Stringent Standards



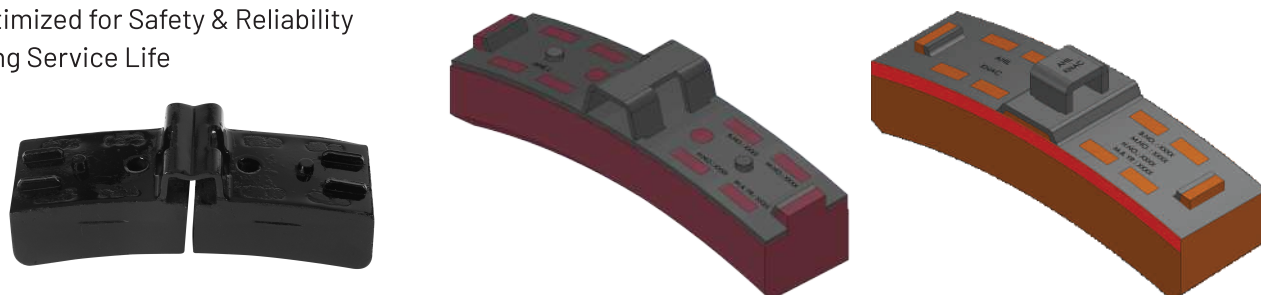
BRAKE BLOCKS

High-Performance Brake Blocks for Diverse Railway Applications

Our Brake Blocks (Brake Shoes) are engineered to provide reliable and consistent braking across a wide range of railway applications, including MPT machines, K-Freight and L-Freight wagons, EMUs, locomotives, and metro trains.

Key Highlights

- Versatile Engineering Capability
- Durable Friction Material
- Optimized for Safety & Reliability
- Long Service Life



PRODUCT DESCRIPTION

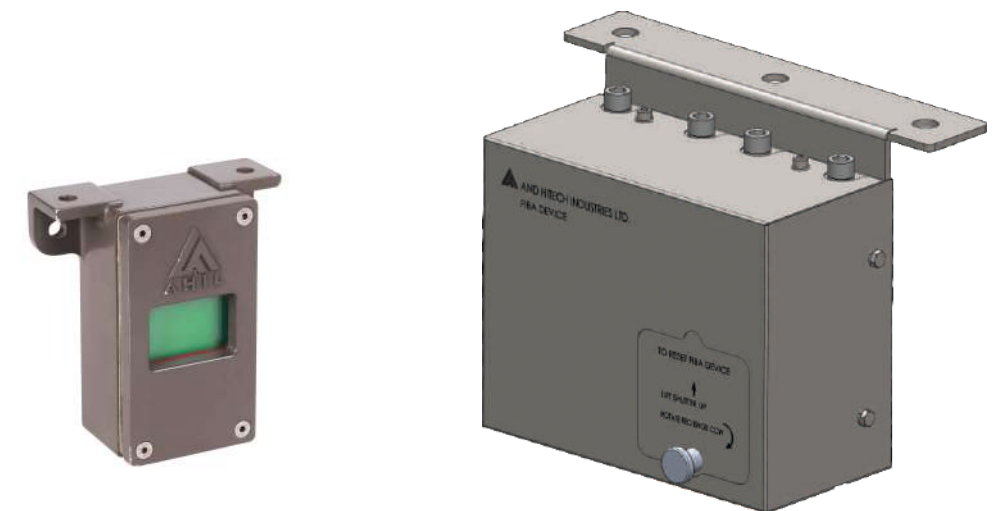
FAILURE INDICATION CUM BRAKE APPLICATION (FIBA)

Always-on Air Spring Safety with FIBA

The Failure Indication cum Brake Application (FIBA) device is a critical safety mechanism in coaches equipped with air-suspension systems. It continuously monitors the pressure in air spring bellows, and if the pressure drops below approximately 1 kg/cm², FIBA automatically initiates a full-service brake application by venting the brake pipe.

Key Highlights

- Automatic Brake Activation
- Safety Signals
- Efficient Fault Isolation
- Built for Harsh Environments



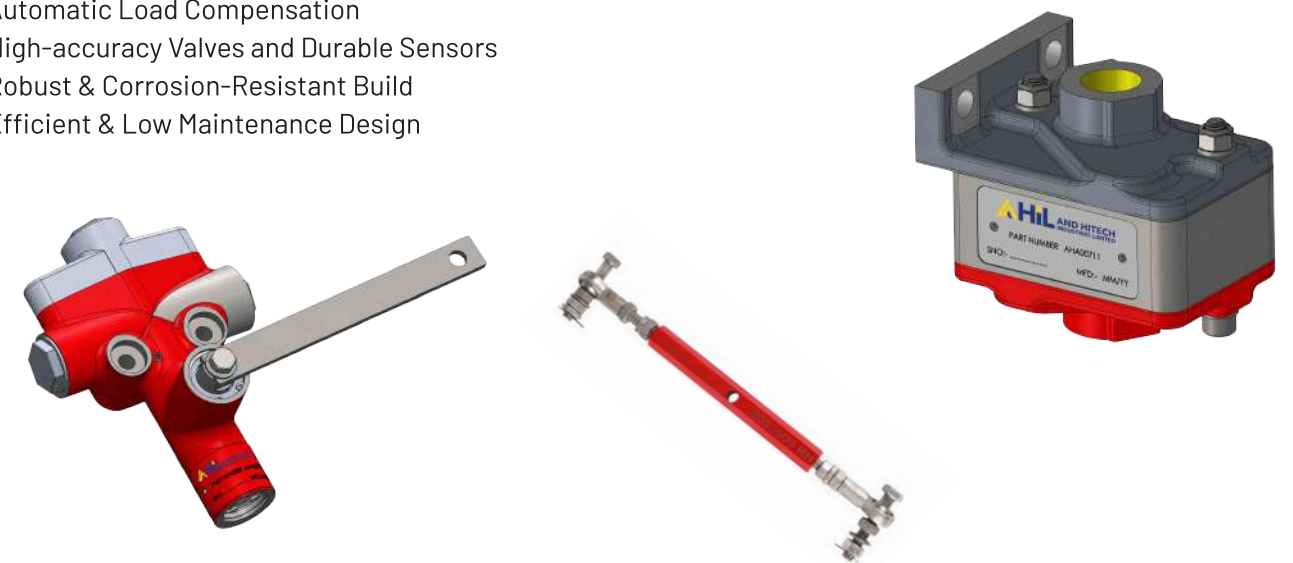
AIR SUSPENSION CONTROL EQUIPMENT (ASCE)

Delivering Ride Comfort and Stability with Precision Air Suspension Control Equipment

Our Air Suspension Control Equipment (ASCE) is designed to maintain optimal ride quality and stability in modern railway coaches. The system automatically adjusts air pressure in the suspension to compensate for passenger load variations and track conditions, ensuring a comfortable and safe journey.

Key Highlights

- Automatic Load Compensation
- High-accuracy Valves and Durable Sensors
- Robust & Corrosion-Resistant Build
- Efficient & Low Maintenance Design



PRODUCT DESCRIPTION

DAMPERS FOR LHB COACHES AND VANDE BHARAT (VB) TRAINS

Shock Absorbers for Ride Comfort, Safety & Stability

AHIL LHB & VB dampers reduce vibrations and shocks in railway suspension systems, ensuring smoother rides and greater stability at high speeds. Designed for primary, secondary, and yaw damping, they combine robust construction with proven compliance to Indian Railways and EN 13802 standards.

Key Highlights

- Primary, secondary & yaw use
- Strong build, long life
- Stable damping (-40°C to +70°C)
- Indian Railways & EN 13802 compliant



IV COUPLER

Seamless Electrical Linking Between Rail Cars

In railways, an Electrical IV Coupler (Inter-Vehicle Coupler) is a specialized device used between railway vehicles to automatically connect and disconnect electrical circuits when cars are coupled or uncoupled. It ensures seamless transmission of power, control signals, and communication data across the train set, supporting multiple onboard systems without manual intervention.

Key Highlights

- Automatic Electrical Connection.
- Multi-System Support.
- High Reliability.
- Maintenance Efficiency.



CONTROL ARM

Precision Linkages for Stability and Performance

Control arms are essential mechanical linkages in railway bogie suspension systems. They ensure precise wheelset alignment with the bogie frame while effectively guiding both longitudinal and lateral movements. By securely transmitting braking and traction forces between the wheelsets and the bogie structure, control arms contribute significantly to stability, safety, and smooth ride quality, especially under high-speed and high-load conditions.

Key Highlights

- Ensures accurate wheelset guidance and alignment.
- Transmits braking and traction forces reliably.
- Built with high-strength materials for durability.
- Optimized for reduced wear and low maintenance.



SINGLE LEAF PLUG DOOR

High-Speed Passenger Access with Safety and Precision

The Single Leaf Plug Door is a fully automatic, sliding-plug type passenger access door designed specifically for Vande Bharat trainsets. It provides seamless entry and exit for passengers while ensuring superior safety, noise insulation, and energy efficiency.

Key Highlights

- Custom-designed for Vande Bharat trainsets ensuring high reliability at operating speeds of up to 160 km/h.
- Plug-type sliding mechanism for tight sealing, improved aerodynamics, and noise reduction.
- Advanced safety features including obstruction detection, emergency release, and fail-safe locking.
- Passenger-friendly operation with smooth, quick opening/closing and enhanced accessibility.



PRODUCT DESCRIPTION

HVAC FOR LHB COACHES

Efficient, Standards-Compliant Cooling for Modern LHB AC Coaches

Our RMPUs for LHB coaches provide high-capacity, microprocessor-controlled cooling with reliable performance in extreme weather. Built with grade S2 housings and fully compliant with RDSO, UIC 553, and IEC 61373 standards, they ensure comfort, durability, and energy efficiency.

Key Highlights

- High-capacity cooling (~7 TR)
- Durable SS 304 housing
- Low noise & vibration compliant
- Reliable all-weather operation



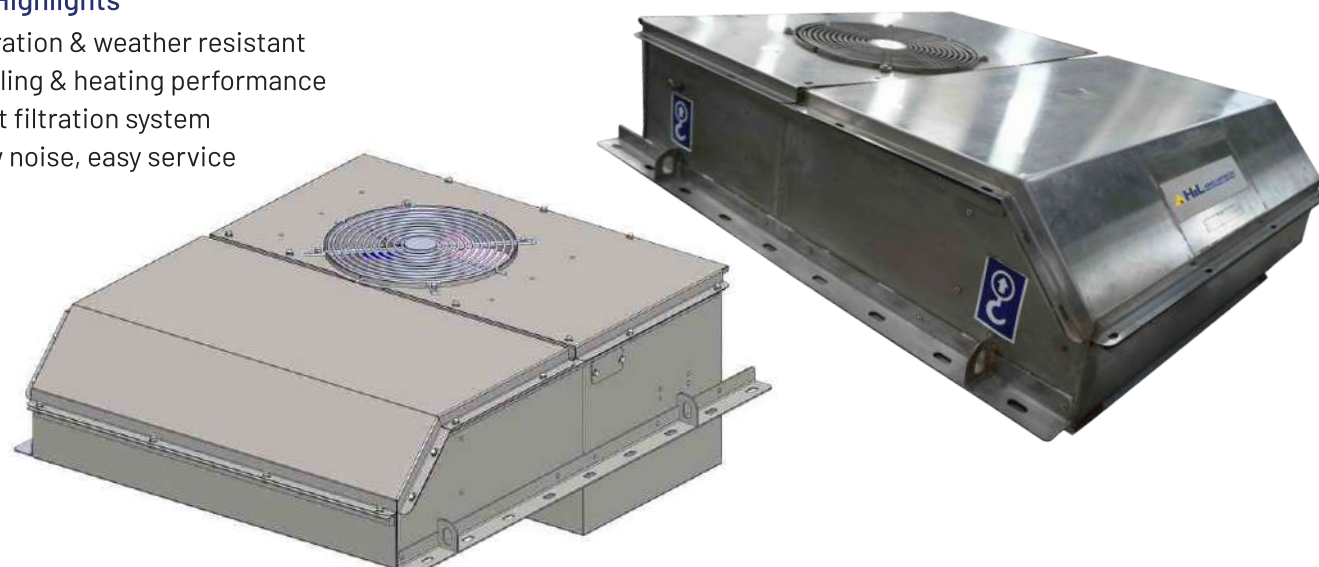
HVAC FOR LOCOMOTIVES

Robust, All-Weather Climate Control for Locomotive Cabins

Roof-Mounted Package Units (RMPUs) ensure reliable cooling and heating for locomotive cabins, safeguarding both driver comfort and equipment performance. Built compact and energy-efficient, they withstand harsh conditions while staying compliant with Indian Railway standards.

Key Highlights

- Vibration & weather resistant
- Cooling & heating performance
- Dust filtration system
- Low noise, easy service



PRODUCT DESCRIPTION

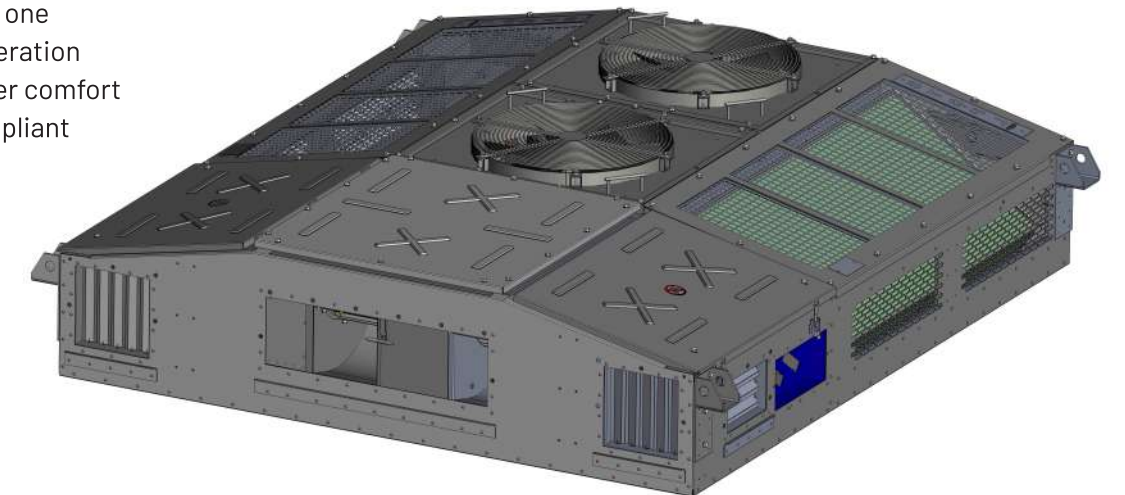
REVERSE CYCLE

Year-Round Climate Control with Heat Pump Technology

Our Reverse Cycle RMPU provides both cooling and heating in a compact system for LHB coaches. Using heat pump technology, it ensures energy efficiency, simplified design, and reliable comfort in all seasons.

Key Highlights

- Cooling & heating in one
- Energy-efficient operation
- All-season passenger comfort
- Indian Railways compliant



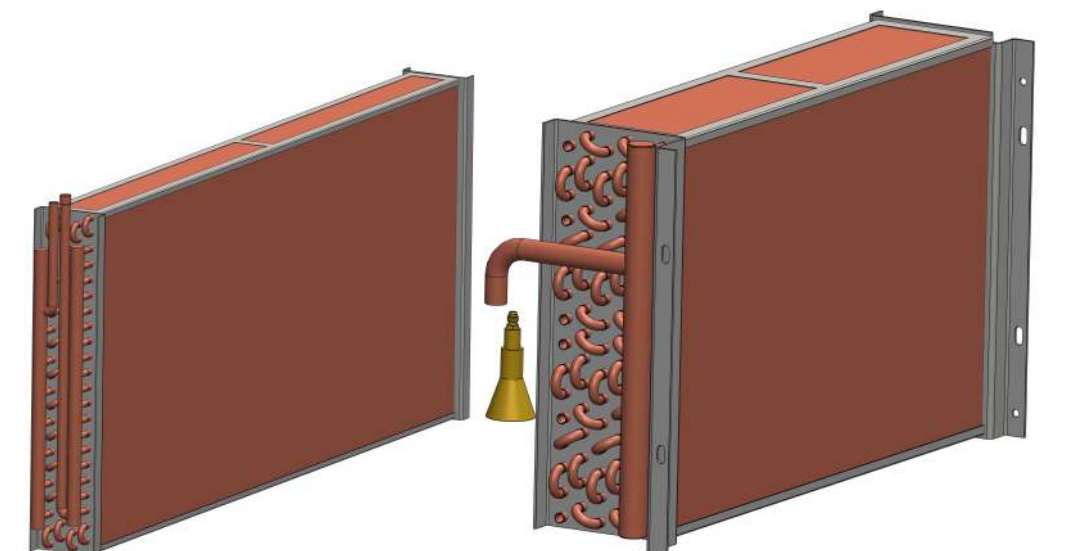
HEAT EXCHANGERS

Efficient Thermal Management for Rail & Industrial HVAC

Our Heat Exchangers deliver reliable heat transfer for rail and HVAC systems. Built with optimized fin-and-tube designs and durable materials, they ensure efficiency, long service life, and compliance with industry standards.

Key Highlights

- High heat transfer efficiency
- Robust, long-life build
- Rail & HVAC applications
- Standards compliant



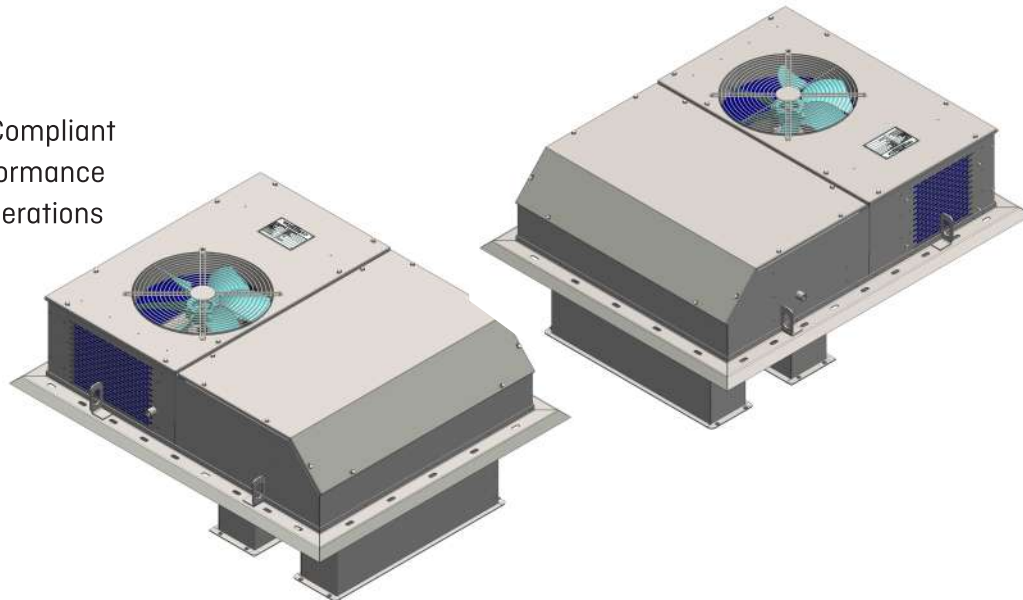
PRODUCT DESCRIPTION

HVAC FOR VANDE BHARAT LOCOMOTIVE CAB

Engineered for extreme rail conditions, our roof-mounted HVAC unit ensures reliable cooling and heating for Vande Bharat locomotive cabs. Designed to operate efficiently from -4°C to 50°C, it meets IEC 61373 standards for shock and vibration. Built with robust SS 304 grade housing and equipped with Solid state temperature controller for temperature setting as per RDSO specifications, it delivers durability with precision performance.

Key Highlights

- Cooling Capacity- 2 TR
- Low Noise & Vibration Compliant
- Cooling & Heating Performance
- Reliable all-weather Operations
- Refrigerant: R-407C

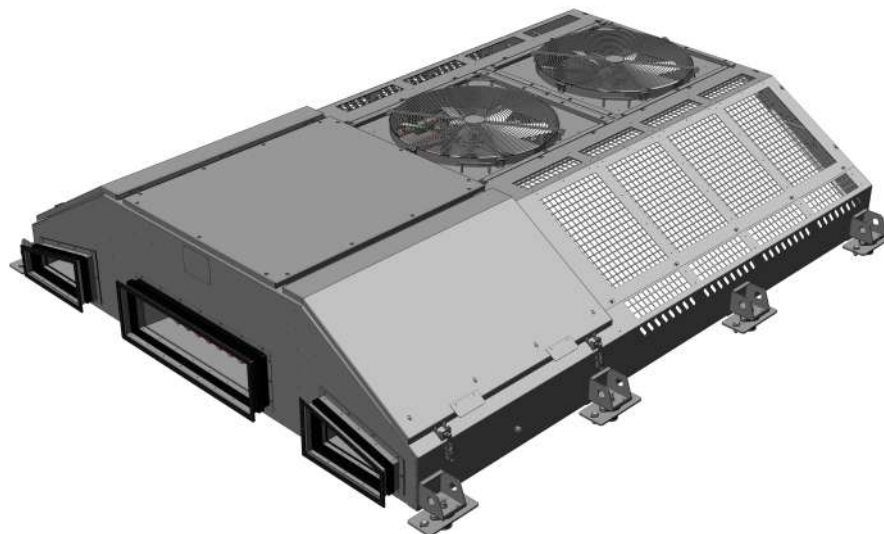


HVAC FOR VANDE BHARAT CHAIR CAR

Designed for superior passenger comfort, this high-capacity HVAC system ensures efficient cooling and heating for Vande Bharat coaches. Built to perform in ambient temperatures up to 50°C and speeds of 160 km/h, it meets EN 14750 noise and IEC 61373 vibration standards. With durable SS 304 housing and microprocessor-based controls as per RDSO specifications, it delivers reliable and consistent climate control.

Key Highlights

- Cooling Capacity- 8 TR
- Cooling & Heating Performance
- Energy efficient Operations
- Indian Railway compliant
- Refrigerant: R-407C



PRODUCT DESCRIPTION

HVAC FOR PASSENGER COACH

One of the best in the industry, our high-capacity AC solution delivers 15 TR cooling for passenger coaches. Designed for reliable performance at 40 °C, it complies with EN 14750 noise and IEC 61373 vibration standards. Built with robust SS 304 grade housing and microprocessor-based controls as per RDSO specifications, it ensures efficient and consistent climate control.

Key Highlights

- High Cooling Capacity- 15 TR
- Low Noise & Vibration Compliant
- Superior passenger comfort
- Durable SS 304 housing
- Refrigerant: R-407C

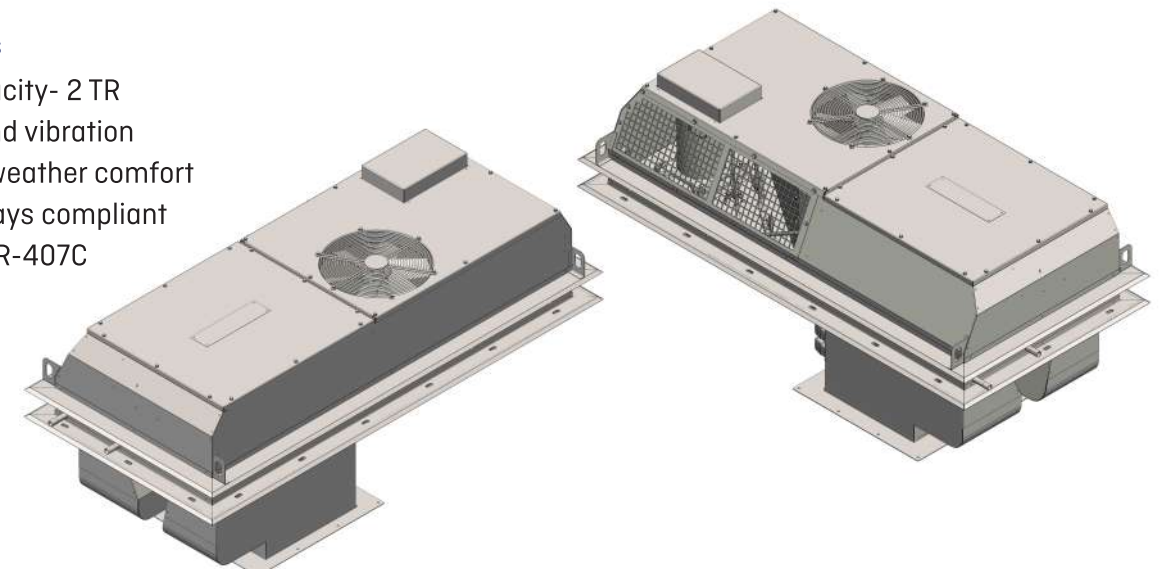


HVAC FOR LOCOMOTIVE CAB

A roof-mounted HVAC system delivering efficient cooling and heating for locomotive cabs under extreme conditions. Designed to operate from -4°C to 50°C, it complies with IEC 61373 shock and vibration standards. Built with SS 304 housing and Solid-state temperature controller for temperature setting as per RDSO specifications, it ensures reliable and superior locomotive drivers comfort and high equipment performance.

Key Highlights

- Cooling Capacity- 2 TR
- Low Noise and vibration
- Reliable all-weather comfort
- Indian Railways compliant
- Refrigerant: R-407C



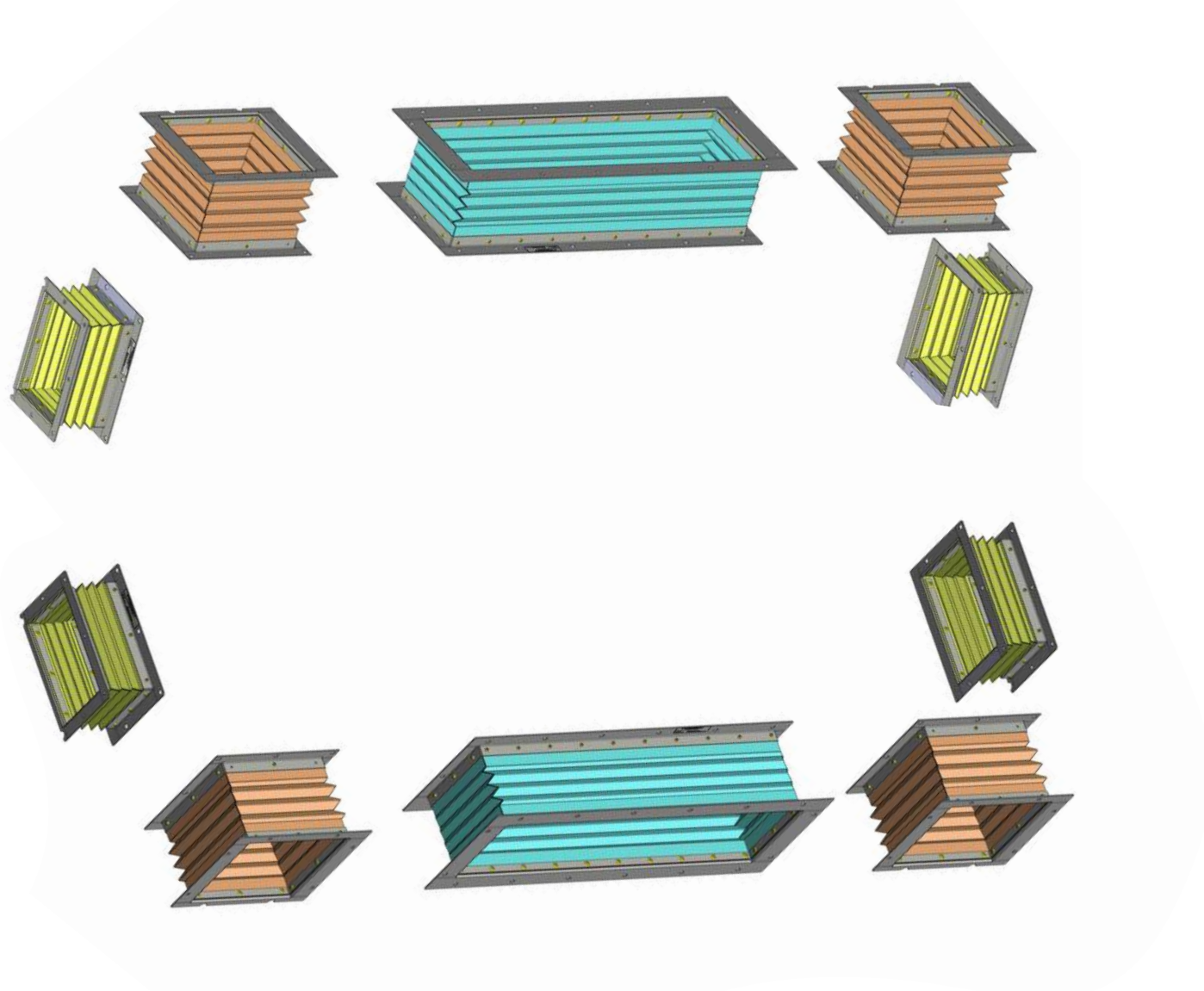
PRODUCT DESCRIPTION

Bellow Ducts for RMPU

Flexible fabric (bellow-type) ducts designed for efficient air transfer between the RMPU and coach interiors. The system includes fresh air ducts for ventilation, supply air ducts for delivering conditioned air to passengers, and return air ducts for recirculation and filtration—ensuring balanced airflow and enhanced passenger comfort.

Key Highlights

- Extremely durable flexible fabric ducts
- Complete system supporting efficient ventilation
- All-weather passenger comfort
- Indian Railway Compliant
- HL3 of EN 45545-2 Compliance



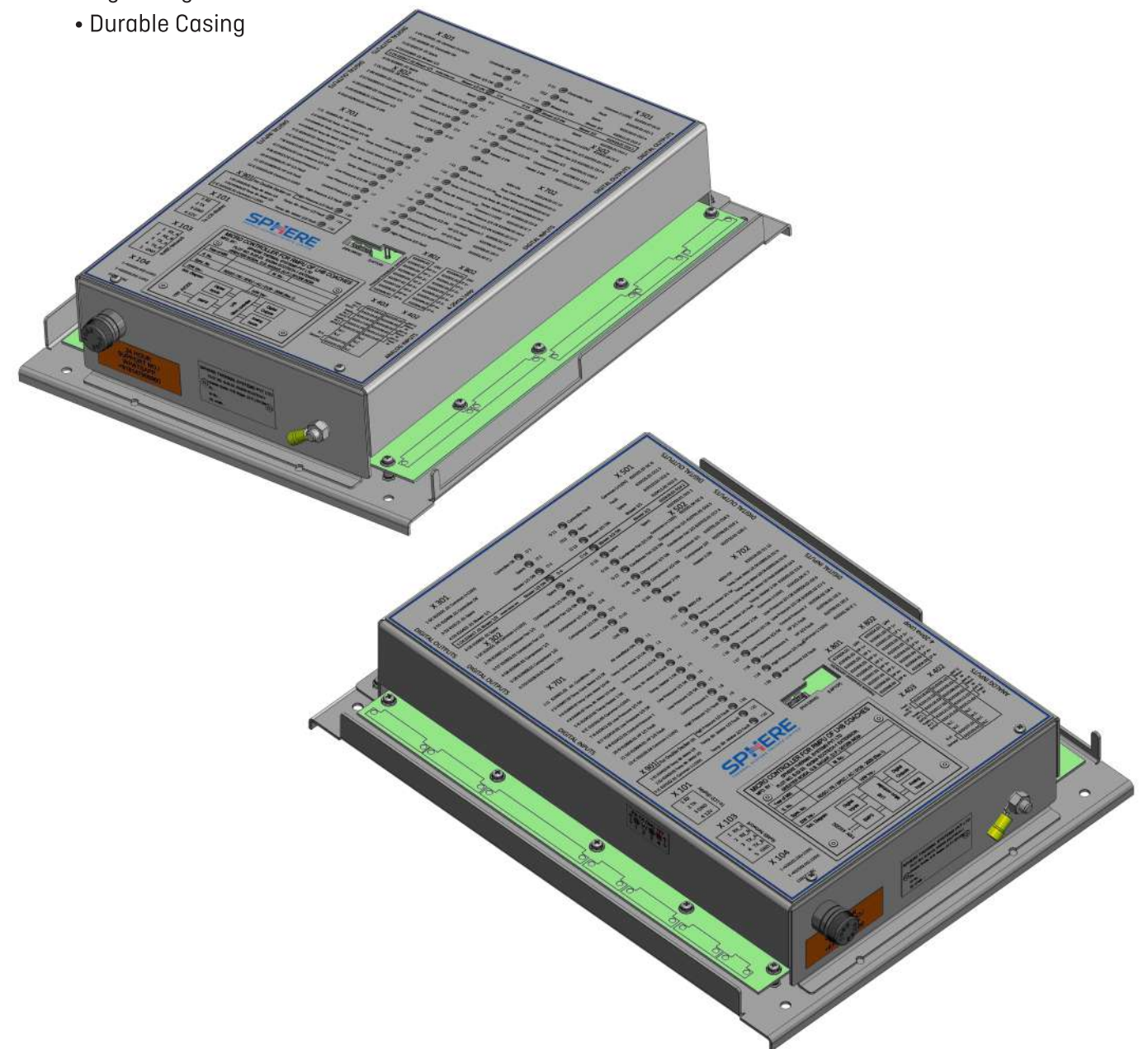
PRODUCT DESCRIPTION

Microprocessor Controller for RMPU

An advanced, fully automated control system for LHB AC coaches, integrated with sensors and actuators for precise HVAC operation. Equipped with self-diagnostic capabilities, it continuously monitors performance and ensures safety through automatic shutdown in case of critical faults. It maintains optimal temperature and humidity by intelligently controlling compressor operations for consistent passenger comfort.

Key Highlights

- Fully automated
- Failsafe
- Light weight
- Durable Casing



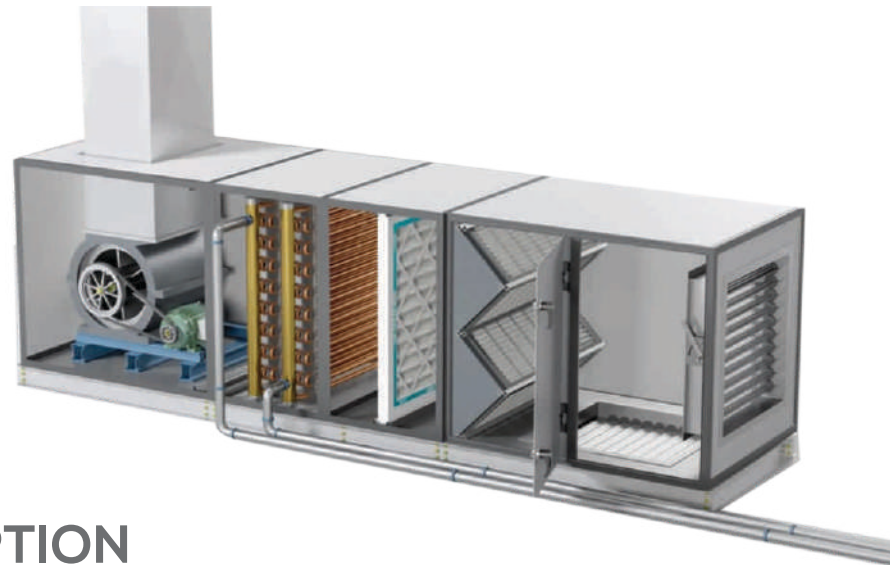
PRODUCT DESCRIPTION

AIR HANDLING UNITS

Our Air Handling Units (AHUs) provide filtered, conditioned air for passenger comfort and system protection. With efficient coils, robust design, and compliance to railway and HVAC standards, they ensure reliable air quality and performance.

Key Highlights

- Effective air filtration
- Precise climate control
- Durable, low-maintenance design
- Standards compliant



PRODUCT DESCRIPTION

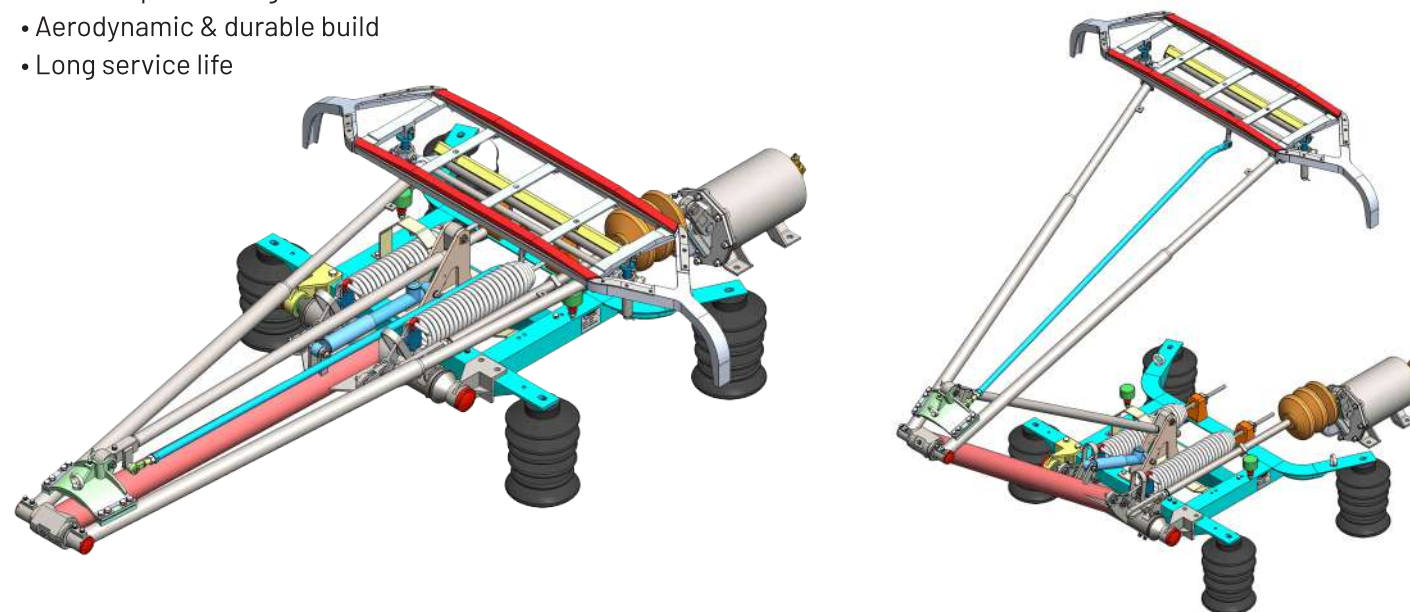
PANTOGRAPH

Reliable Current Collection for High-Speed and Mainline Railways

Our pantographs ensure safe, stable, and efficient current collection for modern railway operations. Built for aerodynamic stability and durability, they deliver consistent performance under high-speed and heavy-duty conditions with minimal maintenance.

Key Highlights

- Efficient current collection
- IEC-compliant design
- Aerodynamic & durable build
- Long service life



OUR ENGINEERING STRENGTH

WE HAVE **20+** PROFESSIONAL IN OUR R&D DEPARTMENT.

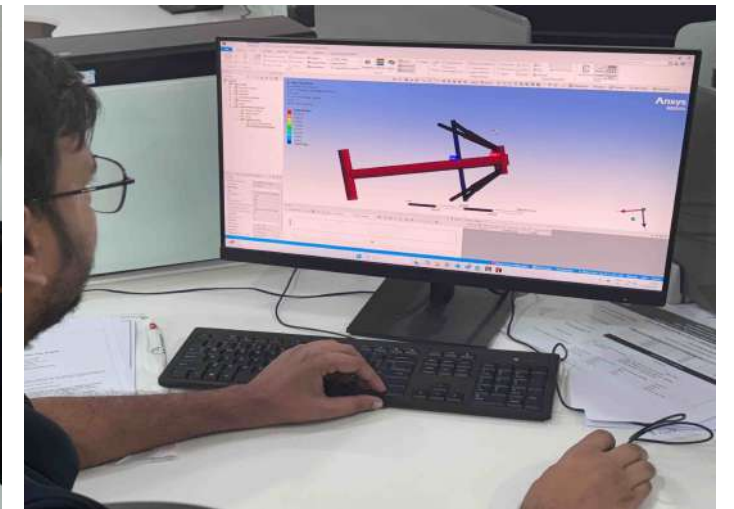
Our design team comprises of employees with:

25+ years of experience in friction materials

20+ years of experience in HVAC industry,

20+ years of experience in precision manufacturing,

12+ years of experience in shock absorbers.



We have a dedicated R&D center, with access to the best design software (**SolidWorks, Ansys, AutoCAD, Unilab**).

INFRASTRUCTURE

PRECISION MACHINING CENTER

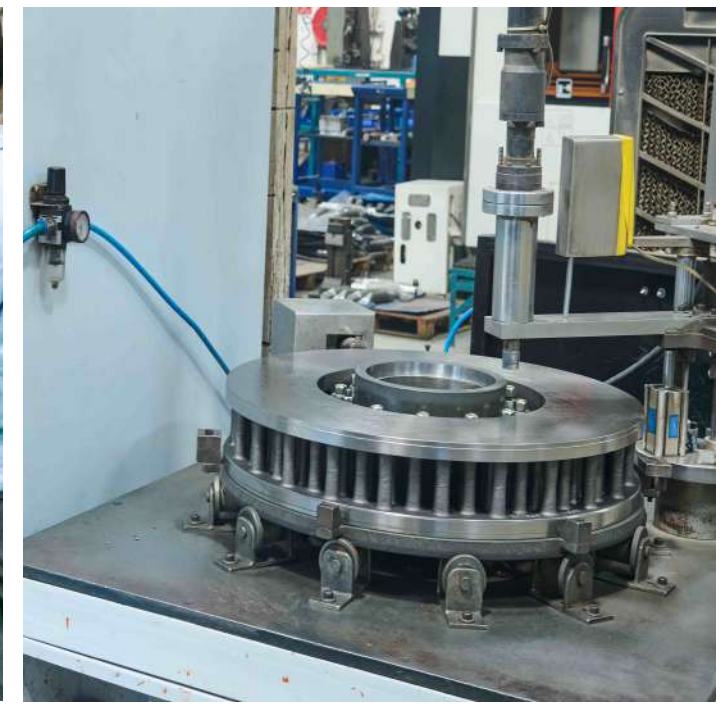
VTL | VMC | CNC | HMC | LATHE



INFRASTRUCTURE

ASSEMBLY, QC, AND TESTING

CMM | BALANCING | FIBA TESTING LAB | DAMPER ASSEMBLY & TESTING LAB



INFRASTRUCTURE

RMPU DEVELOPMENT AND TESTING

LASER CUTTING | BENDING | WELDING | BRAZING | PSYCHROMETRIC LAB | RAIN TEST



INFRASTRUCTURE

BRAKE PADS AND BRAKE BLOCKS

HYDRAULIC PRESS | MATERIAL MIXING | KNEADER | CHEMICAL TESTING |
FLAMMABILITY | DYNAMOMETER





INDIAN RAILWAY



RCF



MCF



ICF



DMRC



BHEL



Medha

OUR CREDENTIALS – AHIL





Engineering trust, powering mobility.

At AND Hitech, we are more than manufacturers — we are partners in building India's and the world's future-ready railway ecosystem.

Every solution is born of deep engineering roots and shaped through lasting partnerships.

Together, let's create safer, faster, and more sustainable journeys.

Registered Office:
28 C Satish Mukherjee Road, Kalighat, Kolkata, West Bengal-700026