

Rane

The sold Set

# **Trusted Supplier** for Safety & Critical Auto Components

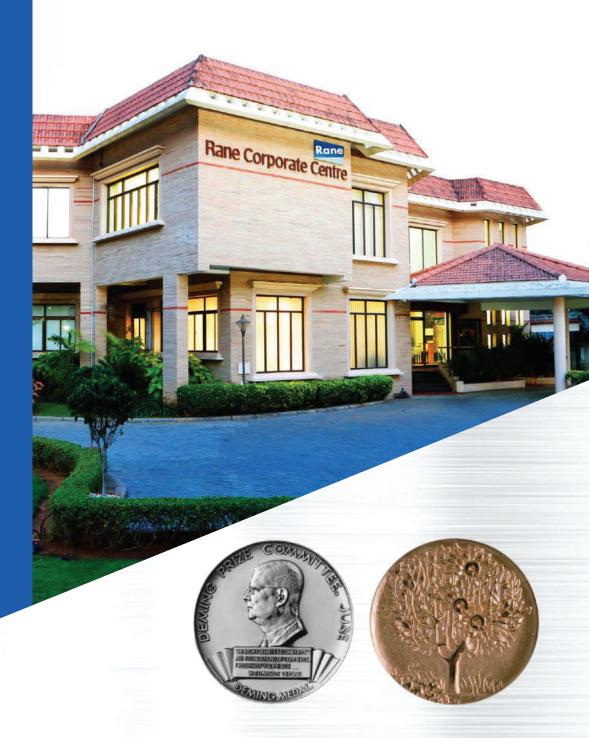
### About Us

"Striving for the best in Customer Value has been a longstanding tradition at Rane. We create value through global technology alliance, manufacturing excellence and robust R&D capability. This stands acknowledged by our customers across India and the world."

#### **Our Credentials**

- Founded in 1929 for trading in automobile and automotive parts.
- Commenced manufacturing operations in 1959.
- Market leaders in safety critical components serving a variety of industry segments: Passenger Vehicles, Commercial Vehicles, Farm Tractors, Two-wheelers, Three-wheelers, Railways and Stationary Engines.
- Manufacture Steering and Suspension systems, Friction materials, Valve train components, Occupant safety systems and light metal casting products.
- Technology collaboration with top global players.
- Serve customers in 30+ countries.

Deming Prize	Deming Grand Prize
Rane Brake Lining Ltd.	Rane Brake Lining Ltd.
Rane (Madras) Ltd.	Rane (Madras) Ltd.
ZF Rane Automotive India Pvt Ltd.	ZF Rane Automotive India Pvt Ltd.
Rane Engine Valve Ltd.	
Rane NSK Steering Systems Pvt. Ltd.	



#### **Technology Collaborations**



ZF Group, Germany Hydraulic Power Steering Systems and Occupant Safety Systems



NSK, Japan Energy Absorbing Steering Columns and Electric Power Steering



Nisshinbo Brake Inc. Japan Brake Linings, Disc Pads and Clutch Facings





### Modern Manufacturing & Product Development facilities

- 26 best-in-class manufacturing facilities in India.
- Latest manufacturing practices to keep abreast of technological advancements.
- IATF 16949 certification.
- Comprehensive design facilities to simulate varied environmental scenarios.
- State-of-the-art test facility to validate product feature parameters, functional parameters, endurance and environmental integrity.



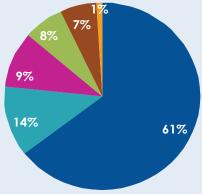
### **Our Value Proposition**

- Superior products driven by execution excellence.
- Trusted partner with shorter development lead times.
- Agile manufacturing process and scalable facilities.
- Provide system-level solutions with deep understanding of customer needs.
- With enhanced R&D capabilities, we provide light weighting, improved safety and performance.

### Group Sales (2022-23) INR 6,690 Cr (~USD 820 mn)

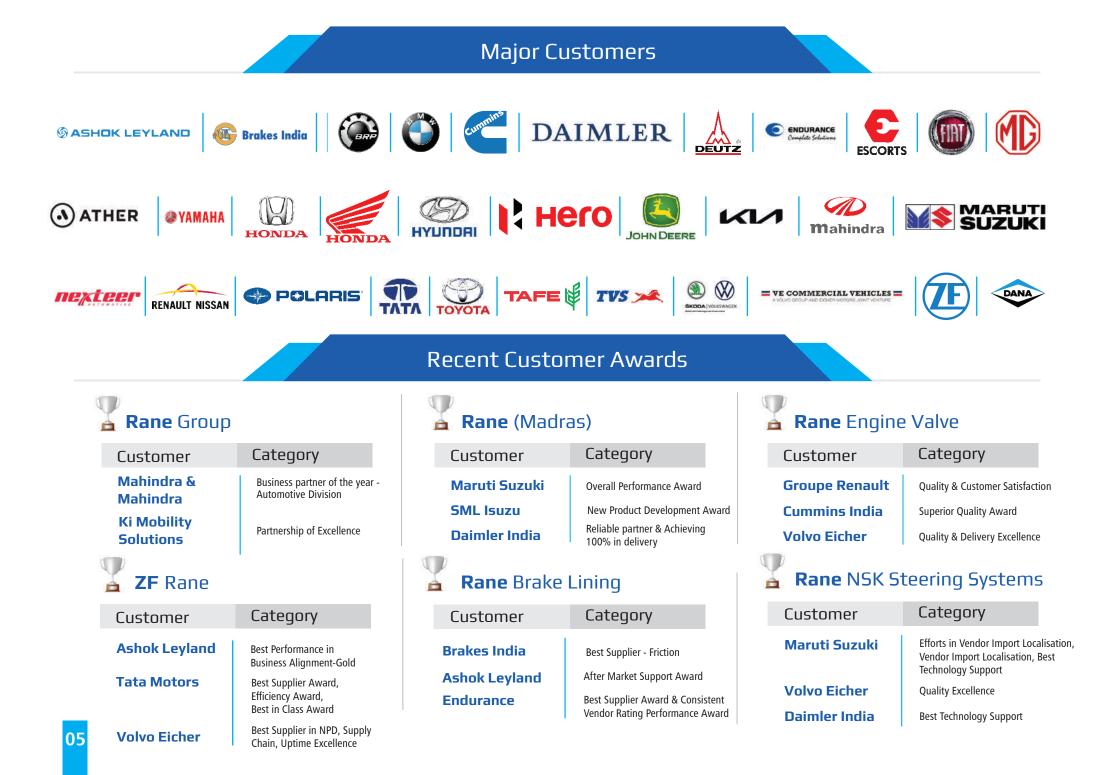
24% from International markets





### **Our Approach**

- Build strong connections with customers to understand their challenges.
- Strategic investments to improve quality and productivity.
- TQM way of working.
- Emphasis on 'First Time Right' policy.
- Achieve the highest standard of ethics and integrity.
- To be socially and environmentally responsible corporate citizen.



### **Steering and Suspension Systems**

Steering & Suspension systems comprise major portion of our business. We cater to wide requirements in the steering and suspension systems through the three companies for every segment of automotive industry.

Company Name	Specialization	Major products
Rane (Madras) Limited - Steering & Linkages Division (RML - SLD)	Mechanical Steering Systems	<ul> <li>Manual Steering Gears</li> <li>Mechanical Rack &amp; Pinion Gears</li> <li>Steering Linkages</li> <li>Suspension Components</li> <li>Hydraulic Products</li> </ul>
ZF Rane Automotive India Private Limited - Steering Gear Division (ZRAI - SGD)	Hydraulic Power Steering Systems	<ul> <li>Hydraulic Rack &amp; Pinion Gears</li> <li>Power Steering Gears</li> <li>Power Steering Pumps</li> </ul>
Rane NSK Steering Systems Private Limited (RNSS)	Electric Power Steering Systems	<ul><li>Manual Steering Columns</li><li>Electric Power Steering Systems</li></ul>

### Rane (Madras) Limited - Steering & Linkages Division(RML-SLD)

- Market leader in steering gear and steering linkage products in India. We have started catering to hydraulic products such as HSU and steering cylinders.
- Best in class manufacturing facilities at Chennai, Mysore, Puducherry and Pant Nagar.
- End to end testing facilities in house to validate the products' functional, endurance and environmental parameters.



#### ZF Rane Automotive India Private Limited -Steering Gear Division (ZRAI - SGD)

- Joint venture partnership with ZF Group, Germany.
- Manufacturing facilities across four locations in Trichy (1), Chennai (2) and Rudrapur (1).
- Design, Development and Application capability for complete Hydraulic Power Steering system for all vehicles.
- Advanced design tools for 3D modeling, simulation, FE analysis and CFD.
- State-of-the-art testing facilities for strength, environment, noise, fatigue and durability tests to meet global standards.



#### Rane NSK Steering Systems Private Limited (RNSS)

- Joint venture partnership with NSK, Japan.
- State-of-art R&D test lab for validation of steering columns.
- Manufacturing facilities across four locations in Chennai, Bawal, Rudrapur & Ahmedabad.
- Design & Development capability for solid & energy absorbing columns. Development and application capability for EPS.
- Driver comfort, Passenger safety, Ergonomics and NVH requirements are kept as targets while designing steering system.
- Comprehensive test laboratory for extensive research about column performance characteristic validation, strength and durability validation and NVH requirements.
- Design team includes CAD & CAM application experts and software analysts.



### **Friction Material Products**

#### Rane Brake Lining Limited (RBL)

Market leader for friction material products in India. RBL has a technology collaboration with Nisshinbo Brakes Inc. & TMD Friction. The company has product applications for all segments of automotive industry.

- Products based on both Low steel & NAO material technology for various applications.
- Major features of our products are best performance, NHV free, High life and ECO friendly.
- Library of widely tested and approved formulations to suit diverse market/customer requirements.
- State-of-the-art R&D center equipped with full scale inertia dynamometer, static mu-measurement and NVH study rig.
- RBL has 4 manufacturing plants located in Chennai, Hyderabad, Trichy and Puducherry.



### Valve Train Components

#### Rane Engine Valve Limited (REVL)

REVL, established in 1959, is the market leader in India for engine valves and valve guides.

- 5 manufacturing locations in Chennai (1), Hyderabad (2), Trichy (1) & Tumkur (1) - catering to North America, Europe and Indian Markets.
- CAD CATIA, CREO, Autodesk Inventor / AutoCAD & CAE – ANSYS Mechanical & Fatigue used for new product development.
- Large Engine Valves for Power Generation, Marine & Special Applications.
- Comprehensive test laboratory for Material Characterisation, Simulated Test Rigs & Engine Dynamometer Test Facility.



## **Occupant Safety Systems**

ZF Rane Automotive India Private Limited -Occupant Safety Division (ZRAI - OSD)

- Manufacturing Seat Belts since 1997.
- Manufacturing facilities across 3 locations Chennai(2) & Trichy(1)
- Air bags manufacturing commenced in 2013.
- Product range includes different types of airbags and latest seatbelt technologies. Retractor and Anchor pretensioners, Emergency Locking Retractor (ELR), Load Limiters, Child Restraint Seat Belt, Driver Airbag, Passenger Airbag, Side Airbag and Curtain Airbags.
- Extensive testing facilities for seat belts include Extraction and Retraction Force Testing Machine, Retractor Durability Tester, Hot & Cold Chamber, Salt spray chamber, ELR functional tester.
- Equipped with Test lab to carry out testing as per National (IS/AIS), International (ECE/EEC/GS/VSCC), customer specifications and COP testing.

### **Light Metal Casting Products**

#### Rane (Madras) Limited - Light Metal Castings India (RML-LMCI)

- Design and manufacture complex high precision light metal casting products such as Steering Pinion Housing, Pump Housing, Pinion and Outboard Housing.
- 2 well equipped manufacturing plants in Hyderabad.
- Die cast machines ranging from 530 to 1200 Tons (Buhler, UBE).
- Fully automated die casting process with partial squeeze pin technique and vaccum assisted casting process.
- **Fully** automated and computer controlled vertical and horizontal machining centers.
- Lean manufacturing with single piece flow and packing at the end of line.

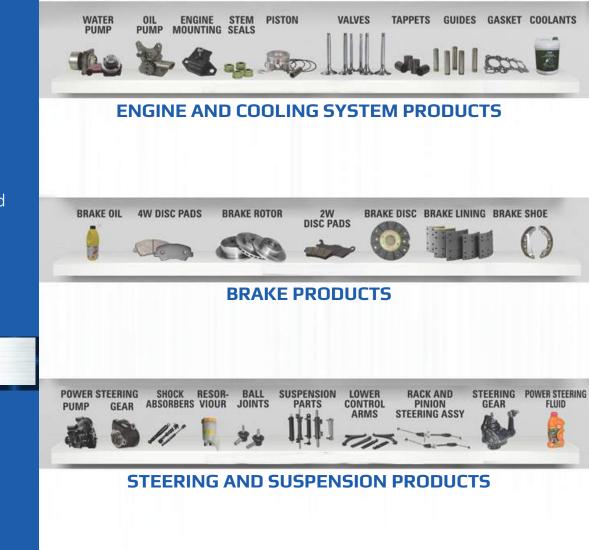






### **Rane Aftermarket Business**

- Caters to the aftermarket segment through four product groups - Engine and cooling system products, Brake products, Steering and suspension products, Transmission products.
- Encompasses a diverse range of high-quality and OEM-standard spare parts from our group companies and Rane Auto Parts.



### Rane Auto Parts (RAP)

- Rane Auto Parts was formed in August 2014 to develop and market new range of products exclusively for the aftermarket.
- Pan India servicing directly to around 350 dealers.
- Offer products to overseas market like Sri Lanka, Middle East, Nepal and will be expanding to other ASEAN and African countries.

**TRANSMISSION PRODUCTS** 

CLUTCH

CLUTCH

BUTTON FACING

CLUTCH COVER ASSY FLY WHEEL

CLUTCH

PLATES

**CENTRE JOINT** 

BEARING

KING PIN



### **Business Development**

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