

# PROPEL

ISSUE 17 | APRIL 2019



**New plant  
inaugurated for  
Occupant Safety  
Products**



# THE WORLD OF RANE



Rane Holdings Limited (RHL)

Rane Brake Lining Limited (RBL)

Rane Engine Valve Limited (REVL)

Rane (Madras) Limited (RML)

- *Steering & Linkages Division (SLD)*

- *Diecasting Division (DCD)*

- *Rane Auto Parts (RAP)*

- *Rane Precision Die Casting Inc. (RPDC)*

Rane NSK Steering Systems Private Limited (RNSS)

Rane TRW Steering Systems Private Limited (RTSS)

- *Occupant Safety Division (OSD)*

- *Steering Gear Division (SGD)*

Rane Holdings America Inc. (RHAI)

Rane t4u Private Limited

Rane Holdings Europe GmbH



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# INSIDE THIS EDITION



As financial year 2018-19 comes to an end, Rane group is proud to add yet another plant and enhance its capabilities in manufacturing of Occupant Safety Systems. In the cover story this edition, we cover the inauguration of this new plant by Rane TRW in Trichy.

'Propel' walks down the memory lane with employees who have been with the company for more than three decades. It is not only filled with nostalgia, but also is a wealth of historical information, giving insights into the ups and downs the group has experienced over the years. It certainly was a privilege for us to interact with some of the longest serving employees of Rane.

We are very proud to share that our in-house magazine 'Propel' won an award at the 58th Annual Awards organized by the Association of Business Communicators of India (ABCI). This has been possible because of the cooperation of the different group companies in providing timely inputs for the magazine.

Balaji Srinevasan takes us through the impact of the latest trends in the automotive industry on braking systems and friction materials in the Future of Mobility section. The focus is going to be on reducing noise without compromising on the brake quality, making friction central to the developments in this area.

The last of our Business Round up series features the first of the Rane Group companies, Rane Engine Valve. It is a story of grit in the face of adversity, and hope, despite challenges.

This time, Deepak Reddy of Nelcast, one of our suppliers, spoke to us for the Outside In section. The company's daring investments at the time of recession to make it future ready has paid off handsomely, giving it an edge over competition. It is continuing to look forward to a future where technology's role will only increase and the company is investing accordingly on innovation.

In News@Rane, we share key announcements and news from various Rane Group companies, awards won and some events we participated in.

We hope you enjoy reading this edition of Rane Propel.



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## RANE TRW STEERING SYSTEMS INAUGURATES NEW FACILITY IN TRICHY FOR OCCUPANT SAFETY PRODUCTS



**R**ane TRW Steering Systems Pvt. Ltd. opened a new facility for occupant safety products on February 8, 2019 at Tiruchirapalli (Trichy), Tamil Nadu, which will address the expected market demand and add capacity to localize laser cutting of fabrics and airbag cushion manufacturing for captive and exports.

RTSS is a joint venture between Rane Group and Germany-based ZF Group. The facility, strategically located in Trichy-Chennai national highway, will address the expected market demand and add capacity to localize laser cutting of fabrics and airbag cushion manufacturing. The company has invested around Rs. 400 million in the new facility. Initial capacity will be around 0.50 million modules per annum of airbags and 1 million units per annum of seatbelt assemblies. Further, this would be ramped up to 1 million modules per annum of airbags and 2 million units of seatbelt assemblies in the next two years, with an additional

investment of around Rs 250 to 300 million. These investments are aligned with the goal of bringing best-in-class technology to enable our customers in delivering products with enhanced safety.

Commenting on the new facility, Harish Lakshman, Vice Chairman, Rane Group & Managing Director, RTSS, said, "This new state-of-the-art facility will help us to address increasing demand for occupant safety products and enable us to further localize the airbag cushion manufacturing process. In this milestone of Occupant Safety Division, I would like to thank our customers and partner ZF for their support in this growth journey."

Pointing out the strategic significance, Dr. Michael Büchsner, Executive Vice President, Passive Safety Systems Division, ZF Group added, "The Indian market is increasingly important for ZF Group and particularly for our Passive Safety Systems Division.

Our joint activities with Rane are appreciated by local OEMs and support our competitiveness for global customers and platforms. The opening of the joint bag sewing plant in Trichy is the next logical step to further increase our vertical integration and thereby our customer service. That is only possible thanks to the continuous support by our JV partner Rane.”

Occupant Safety Division has grown remarkably well over the last six years. From an annual turnover of Rs 69 crores in FY12, RTSS grew to Rs 502 crores in FY18, representing almost seven times growth in six years, growing at a CAGR of 40 per cent.

With this new plant inauguration, the company is looking to:

- Establish Cushion Cut and Sew Center
- Airbag Fabric Localisation
- Cushion Exports to ZF plants
- Grow Export business
- Grow and Sustain Domestic Market Share
- Introduce Strategic Domestic Customer

The new facility was inaugurated by L Ganesh, Chairman of Rane Group, and Dr. Holger Klein, Member of the Board of Management Group, ZF Friedrichshafen AG in the presence of Harish, Daniel Schubert, Chairman of Board of ZF India, Dr. Büchsner, Executive Vice President, Passive Safety Systems Division, ZF Group, Alex Heilig, VP Operations Steering Wheel and Driver Airbag, ZF Group, Suresh KV, Head, ZF India Pvt. Ltd., G Parthipan, CEO, RTSS, and B Ayyappan, President, RTSS-OSD, and other key members from Rane and ZF Group.







### A BOND OF RESPECT

*Rane takes pride in being employee-friendly, and the employees reciprocate the feeling.*

The success of an organization is not only in its achieving business goals but also in being able to retain its employees and keep them happy. It has been established assertively through research that employee satisfaction lies not only in tangible factors like salary and benefits, but also through its culture and growth prospects for employees.

Among the 2000+ employees at Rane Group, 2% has been with the group for over 30 years and 8% for over 20 years. Rane Group certainly has much to be proud of considering these numbers. Moreover, several of these employees have worked only at Rane for their entire professional life. Ethical work culture, opportunities for career growth, transparency and employee involvement are some of the key reasons why employees find it conducive to work at Rane for a longer tenure, according to most employees we surveyed.

#### ONE BIG FAMILY

A sense of belonging, of being valued and being treated as family are some of the key reasons why employees have not only continued to be a part of Rane but also contributed significantly to its growth.

Narendra H Pujara, Assistant Manager, Marketing, RBL, who has been with Rane for 32 years, says, "We are not just colleagues in the organization, we are family." He quotes an instance when, during the Gujarat earthquake back in 2001, the then Business Head personally called all the employees asked about their safety.

Vaitheeswaran NP, Manager, Marketing, RML, another employee with more than 33 years of service, says, "I got very good support from our senior management when one of my family members underwent surgery and was forced to take an extended leave."

Atul Arora, Advisor, Marketing, RAP, has been associated with Rane for nearly 37 years. He recalls, "Kar Mobiles limited (KML) was a major supplier to Diesel Locomotive Works – Varanasi (DLW) for locomotive valves and was doing more than Rs. 6 crore in revenue annually. Due to the casual approach by

the Regional Manager – North, we missed the tender, leading to loss of business for the entire financial year. I took the moral responsibility of this major failure as head of marketing and tendered my resignation."

But, Rane Corporate Center rejected the resignation and instead, motivated Arora to find a solution to the problem. Rejuvenated by this trust placed in him, Atul worked closely with the DLW officials, got some of the past un-serviced tenders revived, strategically got them in KML's favour resulting in doing the highest ever business with DLW in five years.

Tej Prakash Sharma, Deputy Manager, Marketing, RBL, with nearly 32 years of service, was touched when his wife was given a gold coin on the occasion of RBL winning the Deming Prize. "In 1990-91, during the strike at the Chennai plant for about 5 months, I got my salary on time every month," he reminisces gratefully.

Vaidyanathan MV, Manager, Marketing, REVL-Tumkur, has been with Rane for nearly 39 years. "During one recession long time back, there was cash crunch in the organization. Keeping in mind the welfare of employees, Late Sri V P Aghoram went out of the way to ensure the salary was paid on time," he recalls. Another example of the concern of the company for the workers was demonstrated when, realizing that 30 minutes of lunch time was not enough for workers to go home, have lunch and return, a canteen was started in 1982 providing breakfast, lunch and coffee for a charge of one rupee per day.

John Peter A, Deputy Manager, Production, RML-Mysuru, says, "Over the last 32 years I have spent at Rane, I have seen the group undergo numerous transformations for the better. The most important aspect of the group is their focus on societal well-being, in addition to business growth."

D Viswanathan, who has been with the group for 38 years and associated on various social projects, recalls, "Establishing Rane Polytechnic, where 1000+ Diploma Engineers have graduated in 8 years is a humbling and memorable experience. Also I believe





Rane has a structured appraisal and development process, which made me confident on my stay at the company and growth prospects.”

## **SEVERAL DROPS MAKETH THE FLOOD**

Vishwanath KV, Manager, Manufacturing Engineering, REVL-Tumkur, recalls, “I just can’t believe I have completed over 33 years in Kar Mobiles/Rane group and my tenure is coming to a close by the end of this month. Those were the initial years when things were being established. The company was developing EMD, railways, defense valves, and many of the EMD valves being rejected. We eventually succeeded after painstaking effort by many senior persons and the manufacturing team. The engineering team was guided by the valve technologist, erstwhile EVC Ramachandran with full support of the then MD Aghoram, who is considered as a God-like figure even now by the employees.”

Vishwanath is thankful for the opportunity to learn the nitty gritty of valve processing. “All through, I had the freedom to try out my ideas. This may be the reason I have not thought of moving outside,” he adds. Last year, he developed the largest valve ever done in the group with

a dimension of 170 mm (Head  $\phi$ ) and weighing around 14 kg. It was a challenging task, but also satisfying when it was achieved successfully.

Balaji R, Deputy General Manager, MMD, RML-Varanavasi, has been with Rane for more than 33 years. He recalls, “I had an opportunity to work at RML, Mysuru from the inception, working in various departments.” He recalls that in 1986, seven members joined together and produced 100 ball joints for Maruti 800cc vehicle, which was accepted without any deviation by Maruti.

Sekar G, Deputy General Manager, RML-Pudhucherry, will be completing 39 years shortly. “During the journey, initially I got frightened as I did not find any difference between my subordinate and me,” he says. “From a business standpoint, I am now following a market-in instead of product-out approach,” says he, adding, “There are many elements at Rane which have a deep meaning which I am able to appreciate. I am aware that this journey is towards perfection and I enjoy this.”

V Shanmuganathan, Deputy General Manager, Corp Quality, RBL, with 35 years of experience at Rane, recalls that during 1987, Rane had huge rejections

## LONG SERVICE EMPLOYEES

in railway brake block due to a crack in friction material. "I resolved the crack issue and made a presentation to the Chairman (Mr. LL) using the 'Cause and Effect diagram' and received his appreciations. This was before we started practicing TQM in our company," he reminisces about a fond memory from the past.

### TRANSFORMING FOR GROWTH

Atul gives a snapshot of several transformations at Rane over the years from his perspective; In the eighties, Rane Group was self-satisfied doing great things silently. In early 2000s, TQM was a game changer. In the 2010s, 'profitable growth' is being executed with focus and this will take Rane to the next level.

Balaji who has seen several product innovations explains: "Our R&D facilities are one of the best in India for steering gear and testing facilities. We also did many value engineering projects with all customers. Our transformation before 90s was in the seller's market. When globalization happened, we transformed quickly to a buyer's market and till today, Rane is the preferred supplier".

Ravi G, who joined 34 years ago and is currently Vice President, Manufacturing Engineering, RML, highlights the technology changes in his company. The shift that took place in 80s from conventional and SPMs to CNC machines resulted in significant improvement in quality and throughput times. From mid 90s, Manufacturing Systems design CFT team was formed under 'Change Management'. In the year 2000, the focus shifted to reducing cost, which also brought Japanese approach to the company resulting in reduction in WIP and improvement in productivity.

"Securing the first ball joint business from TRW during 2003 is the most memorable moment," says Habeebu Rahman TS, General Manager, Marketing, RML, who joined the company 34 years ago. "From being a supplier for a few domestic customers to a global supplier is an excellent transformation," he adds.

R Ramesh, who has joined in 1984 as Assistant to Mr. Ganesh at REVL, has worked on various projects supporting Chairman and closely observed the group's transformation. He says, "Imbibing strong values at an early stage and upholding these forever is a key role of Leadership. The leadership team takes care of all the stakeholders, respecting people and getting their opinions and feedback. Rane has invested in Values, Ethics and Culture, does not encourage politics and is run on completely transparent lines. This is a highly professional, responsible and ethical group," best summarises the Rane-employee bonding.

S Parthasarathy, CEO, Rane Madras Ltd. joined the Rane group in 1985 and has risen through the ranks, handling various positions across the different group companies. He has also been a beacon light who has enabled the next generation of engineers and managers to benefit from his experiences. He shares his reasons for remaining with Rane and the many transformations he has seen first hand.

### What are some of your most memorable moments at Rane?

There have been several memorable moments to share and here are a few:

- Winning the first order for 400 power steering system from TML, Jamshedpur, in 1990
- Fitment of power steering as a mandate in M & HCV vehicles by the Ministry of Surface Transport in 2000
- Getting the first export business with TRW for ball joints in 2004 at RML
- Winning the Deming Prize in 2007
- Rane Group winning 'The Supplier Partner of the Year Award' from a major OEM, which has now committed to increase sourcing from Rane Group

### Please take us through some key transformations the group has gone through over the last 30 years.

When I joined RBL in 1985, I remember RBL was at Rs 10 crores annually, while RML was around Rs 20 crores. Even back then, the group was highly professional and issues were discussed openly. As long as one worked hard, honest and was seen as sincere, nothing else mattered.

With the beginning of Rane Institute of Employee Development in the 90s, the people focus has become a key enabler for the transformation of the Rane Group. Today, thanks to TQM and the overall shift to processes and systems, things have changed dramatically with respect to business. Senior Management is no longer focused on daily production and month end

sales. Business development, NPD, cost management, profitability, etc., and long term strategy are the key areas of focus for business. Leadership is seen throughout the organization with high level of empowerment across the board.

The other major transformation is in the area of quality. Rejection levels were in high percentages. Customers were very tolerant and contented with our assurance that it would be fixed! The focus on process, systems, root cause analysis, recurrence prevention, and, above all, planning for quality has brought us truly forward in this area. Of course, much needs to be done even now.

### **It'd be great if you could share some of your key contributions**

My days in Rane Power Steering (now Rane TRW) were exciting. Even with low demand at that time for power steering, we got our product applied customer by customer and product by product, painstakingly, by working through OEMs, STUs, and end-customers. It was a great learning experience.

At RML, building an export business by targeting several customers required an organizational mind set and capability. This along with reviving an after-market business was vital for having a healthy business structure.

Seeing the fructification of our strategies of growth in rack & pinion and hydraulics has been immensely gratifying. Along with several of my colleagues, transforming RML to a modern, global company, is something several of us can be proud of.

### **Please share with us your professional development and growth within the group**

I joined RBL as assistant manager in charge of OE and export in 1988/89, and moved as head of marketing when Rane Power Steering (now Rane TRW) was set up. Perhaps the group felt that being a technical product, it will sell on its own and not much marketing would be needed. This was perhaps the reason why I was selected as Marketing Head!! After 12 exciting years in RML, in 2000 I was moved to RML as Vice President (Marketing).

While I was in Rane TRW, I was selected along with 10 others for a special programme called Lead-X (Leadership and Excellence), which was a two-week intervention per year over three years. It was through these workshops I learnt to move from being an individual

performer to one who has to delegate and get the best out of people. Mr.L. Lakshman urged me to do MBA (I was reluctant, thinking that I will not have time to do my job!!) through Open University Business School, UK. The theoretical inputs have been of immense value to me in managing methods, particularly looking at options and evaluating risk and reward.

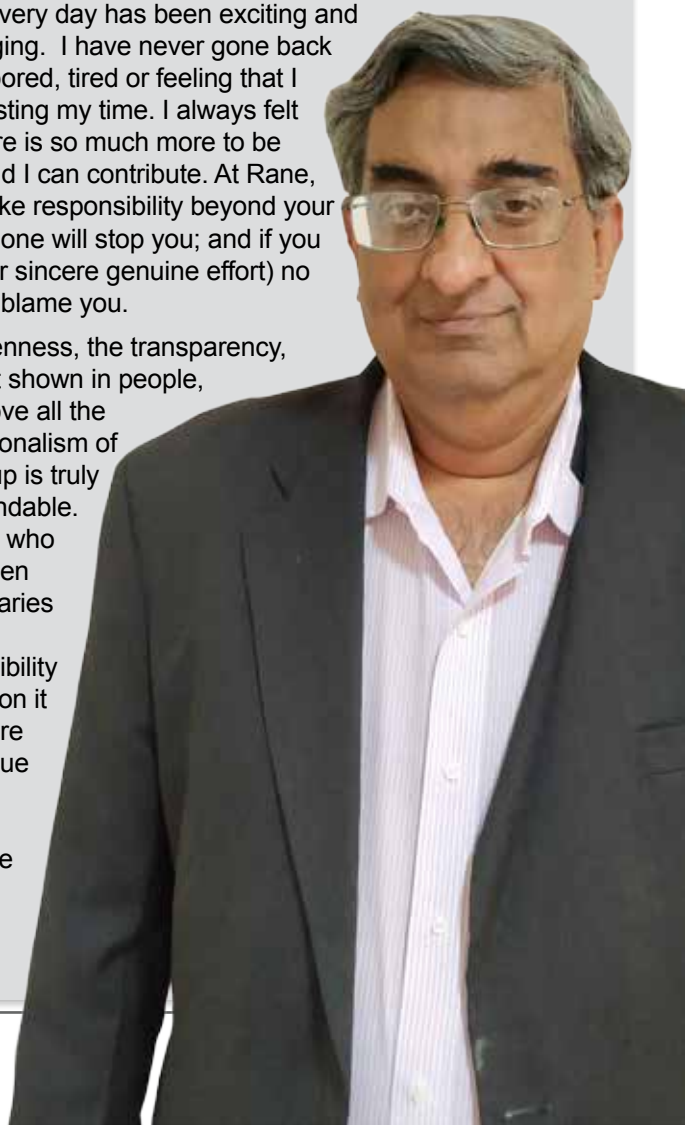
In 2004, when Mr. A Hydari, the then President of RML, retired, I succeeded him in that role. In 2013 when DCD merged with RML, I was given an opportunity to handle both the divisions. I have also had an opportunity of working in many of the group projects, which has been a great learning for me.

### **The one top reason that made you stay with Rane all these years**

When I joined RBL, head of marketing told me, "You get paid one day in a month, but that cannot be sufficient motivation to come to work for the rest of the 30 days; It is the work that has to bring you every day!!" At Rane, every day has been exciting and challenging. I have never gone back home, bored, tired or feeling that I was wasting my time. I always felt that there is so much more to be done and I can contribute. At Rane, if you take responsibility beyond your role, no one will stop you; and if you fail (after sincere genuine effort) no one will blame you.

The openness, the transparency, the trust shown in people, and above all the professionalism of the group is truly commendable.

All of us who have been beneficiaries have a responsibility to build on it and share the unique culture, which is the Rane Brand!





# RANE PROPEL WINS ABCI AWARD

Rane Propel was recognized in January 2019 by the Association of Business Communications of India (ABCI) and won the Bronze prize for Magazine Design. The award was handed over in a well-attended awards ceremony on January 18, 2019 in Mumbai. The same award has been won by several leading companies in the Automobile industry, with Mahindra Group and Maruti Suzuki having won the same award in the past.

Started in August 2012 as a bi-annual internal magazine, *Rane Propel* is now a quarterly publication that has evolved well over the years. We designed some regular features into the magazine, each with a specific focus. Here's a quick brief of some regular sections in *Propel*:

- Chairman's Desk: Message from Mr. L. Ganesh carried in alternate editions
- Business Roundup: A detailed overview of one business within Rane Group, through interviews with the Business Head of that company
- Future of Mobility: A perspective of emerging technologies and trends shaping the future of mobility and how this impacts specific Rane businesses
- Outside In: We invite external business leaders – board members, key industry leaders, leaders from our clients (OEMs) or key suppliers – to share their experiences

For *Outside In*, we've interviewed some renowned leaders including Mr. Sunil Kakkar of Maruti Suzuki, Mr. Hemant Sikka of Mahindra Group, Mr. R Sivanesan of Ashok Leyland and Mr. Pradeep Mishra of VECV. They shared their experiences in varied topics including supply chain, quality, innovation, and other key aspects of the automobile industry.

Additionally, our cover stories have highlighted important milestones for Rane Group. We covered LLN Centenary celebrations, Rane NSK's Deming Award, Rane Group's presence at Auto Expo, among other important events.

We've also carried cover stories on special themes including Supply Chain, Women at Rane, Technology & Innovation, among other topics.

Last year, we revisited the history of Rane Group through



a conversation with Mr. V. Sriram, Historian, who has also worked on a detailed book on Rane Group's history. For another issue, we interviewed RHL's Board Director and Auto Industry veteran Dr. V. Sumantran to understand new and emerging technology trends impacting the future of mobility.

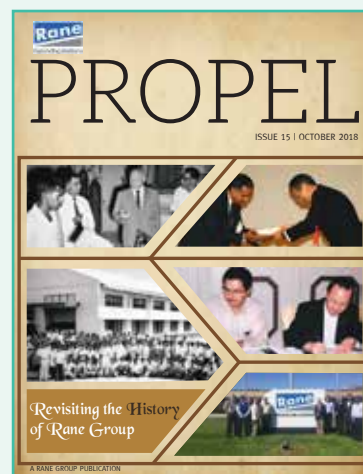
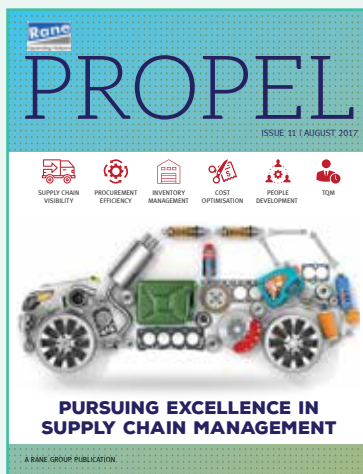
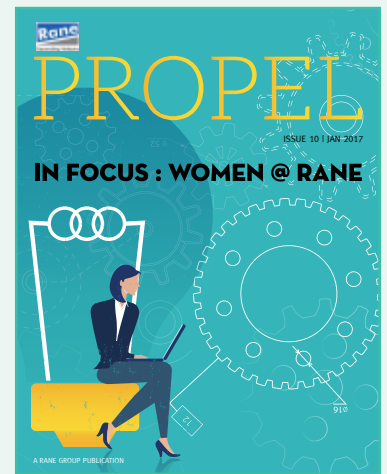
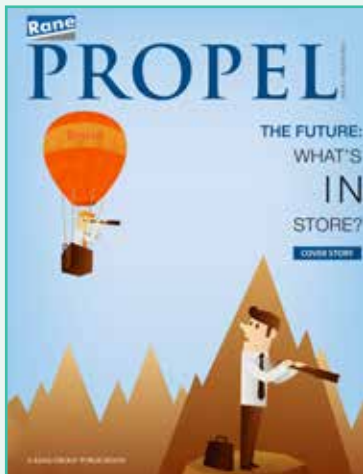
Of course, *Rane Propel* is also a vehicle to carry the chairman's vision and views across the entire group and help everybody align their professional goals accordingly. *Rane Propel* is also a platform to share the key achievements and recognition from customers, which we feature in the News @ Rane section.

The magazine is distributed internally to all the senior colleagues of the group, to all our clients and key stakeholders and partners.

As FY 19 comes to a close, new strategies are being drawn to make the magazine more informative, interesting and appealing. We look forward to your continued support to make further strides in this area as well.



# REVISING THE JOURNEY OF RANE PROPEL



## EVOLVING ROLE OF FRICTION TECHNOLOGY

*The growing concern about the environmental impact of automobiles is leading to stringent regulations about the components being used. On the other hand, technological, social and economic changes are also revolutionizing the way the vehicles are being made and used. Balaji Srinevasan, General Manager–Research & Development, Rane Brake Lining, discusses its impact on auto components manufacturing in general, and RBL's process in specific as we look at the Future of Mobility.*

The mobility space is fast changing, blurring lines and creating new requirements while aligning to the conservation goals. Electrification of vehicles to reduce dependence on fossil fuel and the resultant pollution is a certainty that will happen over a period of time and in a phased manner.

Soon, 80% of the braking needs, the lower duty level ones, will be taken care by regenerative braking, reducing the burden on friction and increasing its life from 20,000 km to 100,000. As NVH (noise, vibration, harshness) becomes a focus area for improvement, the durability of friction material will also go up, reducing demand for after-market of this component. Engine will become quieter, making the noise from the braking system more pronounced. This will also have an impact on the friction material, which is one of the braking components that generate noise.

Electronic parking brake is also gaining momentum and being used in the high end segment. Soon the handbrake will be replaced completely by a button across all segments, and the models with this feature will increase in the near future. This means the thermal stability of the brake pad to improve, along with resistance to stiction in view of the parking function added to the friction component.

Technology	Driver	Friction Requirement
<b>Vehicle Technology</b>	Shift towards EV	NVH Free
		Increased Corrosion Resistance
<b>Brake Technology</b>	Adaptation of EPB	High Static Friction Low Thermal Expansion Low Compressibility Resistance to Stiction
<b>Customer Expectation</b>	High Performance / NVH Free	High Performance / NVH Free
	High Performance 2W pads	High Performance 2W pads
	Free from black dust	Free from black dust
<b>Environmental Regulations</b>	Cu Free	Cu Less <5% - 2020
	Brake emissions	Cu Free <0.5% - 2025
<b>Cost Optimization</b>	Reduce / Reuse Waste	Higher Dust Reuse
	Process Optimization	Braking Process Elimination
	Product Optimization	Composite Back Plate



Since copper has been found to be harmful for marine life, California and Washington in the US have passed regulations to reduce the copper content in automotive Friction materials and will allow only less than 5 percent copper by 2021, and 0.5 by 2025. Other US states are expected to follow suit in the next five to seven years, impacting the composition of all components, including friction, that carry copper in quantities more than that. There are Copper free and Copper less pads already available to meet the regulations.

Meanwhile, with high speed trains being introduced in the country, production and capability requirements are changing in this segment too.

Expectation on lower fuel consumption, environmental friendliness and high performance (pad life & durability) are other drivers influencing the friction material components.

## Keeping Pace

Rane Brake Lining manufactures brake linings, disc pads and clutch facings, and a Deming Grand Prize winner catering to commercial vehicles /passenger car /utility vehicle and two wheeler applications, not only benefits from the research and technology upgradation done to gear up for developing its skills to be future ready. RBL has a technical collaboration with Nisshinbo, Japan, market leader in friction material technology. RBL is upgrading a couple of its plants, with the Trichy one modelled along the lines of global Nisshinbo plant. The learnings are transferred to its other three plants as well.

Since friction noise is under the scanner, the company is working on making it quieter. "The noise is a byproduct of the braking system and could be caused by any part. But OEMs look to correcting the brake or the friction, making it a shared responsibility," explains Balaji. For quieter friction, the company is focused on research to come up with a material that makes less noise.

## NVH Expertise

NVH requirements are gaining prominence and the demands on friction material increasing, needing knowledge and expertise to measure it and fix it. RBL engineers have been trained on formulation and testing in Japan and have the capability to test on dynamo. "Currently we have the capability of testing NVH at the vehicle level and recently we had demonstrated and



*“Friction component is a composite of 15 materials. The correct balance has to be achieved to ensure the right braking distance, adequate life while reducing the noise.”*

trained one of the country's leading OEMs on objective NVH measurement.” points out Balaji. So RBL test engineers are much sought after for this testing, and this has also helped expand its business.

The company has 600 hours of experience in vehicle NVH testing, something that no other manufacturer has. RBL also has gained expertise in NVH management in the last couple of years. OEMs can get the friction tested and not wait for the entire development cycle of the brake system to be completed for that. This can help fix noise issues in advance and shorten the development time.

Since the NVH testing cannot be done for new platforms, RBL plans to get an NVH dyno and is getting its engineers trained to be ready by the end of 2019-20.

For high speed trains too, the company has recently completed the upgradation of their existing dyno to test upto speed of 200 kmph with the latest data acquisition capabilities

Field to Lab simulation is another effort aimed at increasing the speed of product development and testing cutting down the time required for actual vehicle trials

For component manufacturers, it will be an exciting time – a mix of challenges and opportunities. Equipping themselves with the right technologies, capabilities and skills will be the key to survival.

## NAVIGATING THROUGH CHALLENGING TIMES – RANE ENGINE VALVE

*Rane's manufacturing journey began in 1959 with the establishment of Rane Engine Valve. After being the flagship company of the group for many decades, REVL's financial performance has taken a downturn in the recent past. Murali Rajagopalan, President, REVL, shares the challenges and concerted effort being made to restore the company to its past glory.*

**R**ane Engine Valve was Rane Group's first step into the manufacturing segment after having traded in auto components for nearly three decades. REVL with its technologically superior engine valves and a large customer base, wide spread distribution network, strong brand, multi-location manufacturing sites, had been the flagship company of the Rane Group for over five decades. However, due to multiple reasons, mostly internal, REVL's operational and financial performance deteriorated in the recent past. Heading REVL's turnaround effort is Murali Rajagopalan, President, who believes that morale and engagement of the employees, despite the prolonged

troubles the company is facing, is a critical requisite in turning around REVL. "While Brand Rane is an important facilitator to engage employees, it is the management's responsibility to leverage this engagement in our turnaround efforts," says Murali.

The company follows a policy of Total Employee Involvement, one of the characteristics of TQM. "In times of difficulty, people matter and teams matter," he says with conviction. Moreover, he feels that employees value transparent communication on the status of our turnaround efforts, strategies deployed and their individual role in the turnaround journey "This involves telling them the root cause of the problems and not just how to solve them," he adds.

Murali says, in his experience, less the number of goals or tasks given to an employee or a team, greater will be the chances of successful execution. REVL management team, thus, has deployed "One Plant One Vision" initiative which gives each of the five plants one compelling vision to focus on, instead of multiple initiatives and metrics. "This initiative has not only accelerated our turnaround plan, but also rallied all the employees of the plant toward a common objective," says Murali with optimism. REVL's Management is also working on clearer ownership between the plants and corporate functions and stronger policy deployment in line with TQM practices.

Delving a little deeper into what could have been the reason for the current challenges of this flagship company of Rane, Murali feels stability and continuity at the senior level management is critical to execute organizational vision.

### Opportunities in Challenges

The engine valve is a critical component of the internal combustion engine, which is expected to be phased out in



the long term with the entry of electric vehicles. But this is not an immediate concern for the company, as in the short and medium term, the IC engines are expected to grow. Further, the company expects many incumbent engine valve manufacturers in Europe and North America to de-prioritize investments in this product line and even exit it. This could potentially leave room for REVL to grow with its current product line. In the commercial vehicle space, entry of electric vehicles may take even longer. In addition, REVL also supplies valves to non-automotive sectors such as marine engines, locomotives, defence vehicles, stationery diesel engines, and tractors, where it will continue to grow its business.

With focus on reducing emission, engine light weighting and increased durability, the engine technology is moving towards lean burning engines. This would mean a significant increase in engine temperature, and incidentally, the valve temperature. Thus for REVL, new valve steel development and manufacturing and hollow engine valve manufacturing are critical for future growth. "In India, REVL is arguably No. 1 in terms of valve engineering technology and our R & D team routinely solves problems for customers even on unserved engine platforms," says Murali with justifiable pride.

## Achieving Productivity

Manufacturing technology around the world is constantly becoming sophisticated in terms of high productivity, automation and quality, and also becoming expensive. For REVL, which needs to upgrade its manufacturing technology, its current financial position poses an obvious challenge.

"However, being a part of a large, profitable, forward-looking group enables us to invest selectively and innovatively," says Murali. With 30 percent of sales coming from exports, such investments strengthen REVL's customers' confidence.

Rane Group has instituted business excellence program called R-BEAT (Rane Business Excellence Audit) in line with Deming practices for the group companies. "R-BEAT is our stepping stone to improve operational efficiency," says Murali confidently.

## The USP

Despite the challenges, REVL's greatest strength is its large customer base and



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*Though we have had delivery and operational issues, all the customers I have met so far have been very supportive and want us to bounce back. This is extremely encouraging. They have seen our past prime and want us to revive it.*

”

their goodwill. "Though we have had delivery and operational issues, all the customers I have met so far have been very supportive and want us to bounce back. This is extremely encouraging," says Murali. This, he believes, is due to the Rane brand name and the trust our customers have on the group. "They have seen our past prime and want us to revive it," he adds.

Murali gives the example of a German luxury car manufacturer with whom REVL has a very large business. The customer is aware of REVL's financial issues, but has reposed faith in the group's ability to turnaround, by showing their willingness to further grow the business with REVL.

Murali gives another example back home where REVL's Operation Team has won customer appreciation during 2015 floods. REVL's Ponneri plant was water logged due to incessant rains while the customers' plant was building engines without any disruption. The Ponneri team took extraordinary efforts and risk in operating the plant and supplied valves without disruptions. Employees and their family's safety was not compromised during this emergency operation.

REVL has begun to work on its turnaround plan in right earnest. It wants to cascade down its vision for each plant to its employees. "It will not be easy, but it is certainly possible," Murali signs off on an optimistic note.





## IN CONVERSATION WITH **Mr. P. DEEPAK** MANAGING DIRECTOR, NELCAST



*For 'Outside In' this edition, we interviewed P. Deepak of Nelcast, a key supplier of Rane Group since the 1980s, having supplied to both Rane TRW and Rane Madras. We chatted with Deepak to capture latest industry trends from a supplier perspective and snippets from Nelcast's growth journey.*

**To set the context for this article, please do share the journey of Nelcast**

We started commercial operations in 1985 as a small unit with a capacity of 1,000 metric tons/year producing Malleable Cast Iron parts. Since then, Nelcast has grown more than a hundred-fold to 120,000 metric tons a year and is now one of the largest producers of Ductile Iron and Grey Iron castings in India. A key turning point in our growth journey is that we were one of the early adopters of Ductile Iron, helping us grow and find new markets. Now we supply across several industries including global automotive, tractor, construction, mining, railways and general engineering. Our relationship with our employees has been a key reason for keeping us on a positive step, especially during times of duress.

In the year 2000, the company faced a downturn due to the worst recession of our times, but we took a bold decision to go ahead with an investment in a new automated line from Germany that was the first of its kind in Asia. A fully-automated moulding line ensured better quality and productivity, which enabled us to pick up new business and make us ready for the next phase of growth. It was a big investment, especially for the small company that we were, but it catapulted us into a different league.

In 2007, we went for an IPO that enabled us to set up a machining facility and expand our existing unit in Gudur. Subsequently, we set up automated lines in 2013, 2016, 2018 and 2019. It is a lot automation, which brings its own challenges without doubt, but it has helped us make complex parts, get ourselves ready for the future and also dramatically increase export to global markets.

**What are some key trends you're seeing in the automotive industry – both in India and globally? How is Nelcast preparing to take advantage of these trends?**

From a technology perspective, these are some of the major trends we're witnessing:

- a) Increase in automation due to demand for improved quality and increases in availability/cost of labour
- b) Industry 4.0 Technologies including IoT and Analytics to enable data-driven decision making across the entire organization
- c) Material Light Weighting to reduce the weight of the vehicles so that they can carry additional payload

The foundry industry is a very fragmented industry with over 20,000 units spread across the country. One of the key trends that most people would expect to see happening is some level of consolidation in the industry. However, due to the extremely large number of micro & small units, acquisitions may not play a large role in this process and most large units will likely grow organically.

In addition to these trends, we're also witnessing the impact of globalisation. I believe our cost structure makes us extremely competitive with suppliers from most parts of the world.

In the last five years, Nelcast has been able to tap global markets, and exports have grown from 0.5 percent to 10.5 percent of sales in just 5 years. There has been lot of traction and opportunities that we have been able to leverage and currently supply parts to the US, many parts of Europe and Southeast Asia. While our primary market is commercial vehicles, we also have a presence in off-highway vehicles and passenger vehicles. We expect exports to grow to about 20 percent in the mid-term and we would like to target 30 percent in the long-term. The export growth is important to us in order to manage cyclicalities in the business and reduce

risks. And therefore, we believe that by increasing our exports, we will be able to better serve our domestic customers.

**Is there positive momentum, in terms of demand, in the Indian automotive market, and therefore a need for capacity expansion?**

Till two years ago, we were more cautious, since the demand was not as robust. While we didn't invest much in capacity expansion, we invested in modernization and automation.

Over these past two years, at Nelcast, our growth has become more aggressive, expanding by 60 percent with a new greenfield facility that will be complete in the next 6 months. Along with capacity, we have also added to our capabilities. For instance, earlier we could only make 200-250 kg of castings but soon we would be able make up to 500 kg parts. The new manufacturing facilities are aimed to create new benchmarks in the global foundry industry in productivity, energy efficiency, quality, technology and material flow in the industry.

**Any specific challenges you'd like to highlight – both for industry as a whole and therefore for Nelcast? Is attrition a challenge you're experiencing?**

I would say cost pressures and finding talent are two key challenges we face.

From a cost efficiency standpoint, the biggest potential lies in improving productivity. We are in the process of implementing TPM systems to drive out waste and develop highly standardized practices.

From a talent perspective, our approach has been to hire local freshers and run a robust training program for 3 to 6 months duration before they're on the job. We have an e-learning platform that is used to offer supplemental training.

Attrition beyond the first couple of years, though, is not a challenge since the company is closely integrated with the local community where our primary plant is located and we primarily recruit from there.

**You supply to both OEMs and Tier I. Is there any difference in the way you interact with the two?**

There is not much difference in terms of our experience. We constantly learn from our customers by staying

close to them and, needless to say, the focus is on quality, cost and delivery timelines. While both expect high quality and on-time delivery, Tier I can be a little easier to work with since hierarchy is less.

**Please take us through your approach to plant utilisation and R&D.**

We produce more than 500 different parts, and we expect that it will grow to 800-1000 over a period of time. It is important that we improve our manufacturing agility so that we can handle this increase in products. We hope to grow sales by 50 percent in the next three years. For this, we plan to standardize equipment and processes such that we can balance and shift our production between the plants based on need and capacity availability to avoid overload on one line while another may remain under utilised. Also, currently all our factories are within 200 km of Chennai, and we are being encouraged by several of our distant customers to setup a plant closer to them so that they can consolidate their vendor base. We are developing the capability to manage remote plants that can run optimally with minimal intervention. This is something we might attempt in the next few years.

Our R&D is also focused on developing new materials with improved strength, processes with tighter tolerances and cost reduction.

**What about your quality initiative?**

We launched our TQM initiative two years ago with focus on improving our processes to get the best results. The cultural shift it requires from our 1080 employees is a big challenge, so we are taking it one step at a time. Rather than overwhelming employees, we are breaking it into smaller slices for easier implementation and improving employee engagement. Policy deployment for the budget process is currently ongoing, with a bottom up approach.

**What is your advice to middle management professionals, especially in the manufacturing sector?**

Being able to see the bigger picture and knowing how you can contribute will make a large impact. In the past, we've seen that middle management tends to work in silos and miss the organizational view. A holistic view is necessary to ensure organization-wide growth.

**“ The foundry industry is a very fragmented industry with over 20,000 units spread across the country. One of the key trends that most people would expect to see happening is some level of consolidation. ”**

## SUPPLY CHAIN WORKSHOP

The “*Supply Chain as a source of Competitive Advantage*” workshop was conducted on Jan 3 and Jan 4, 2019. The program was facilitated by Prof B. Mahadevan from IIM-Bangalore and Mr. Sridhar, who has Head of Strategic Sourcing at Mahindra & Mahindra was also invited to speak at the workshop to share his experiences.

36 people participated in the workshop with the goal of learning about new developments in the topic of supply chain from various angles including economic, technology trends, customer needs and regulatory changes, and what all of this meant from a business perspective.

A taskforce of 5 to 6 members from various business units have been formed; they have each been assigned projects to implement learning from the workshop.



## RANE TRW STEERING SYSTEMS PVT. LTD. RECOGNIZED AT ACI AWARDS 2019

Rane TRW Steering Systems Pvt. Ltd. bagged the “Technology Excellence Award” & “Component Maker of the Year Award” at Auto Components India Awards held on Feb 19, 2019 in Mumbai.



Dr. RM Thirupathi, Sr. Vice President, Product Engineering & Vinod Ramesh Patil, Deputy Manager, Marketing, Rane TRW Steering Systems Pvt. Ltd received the “Component Maker of the Year Award” from Bhargav TS, Executive Editor, Auto Components India Magazine.



Dr. RM Thirupathi, Sr. Vice President, Product Engineering, Rane TRW Steering Systems Pvt. Ltd received the “Technology Excellence Award” from Gianenrico Griffini, Chairman, International Truck of the Year, Editor, Vie & Transporti, and Member, Society of Automotive Engineers.



## RANE EMPLOYEES PARTICIPATED IN CHENNAI MARATHON 2019

Rane Group employees participated in the Chennai Marathon 2019 organized on Jan 6, 2019. Rane has been promoting employee wellness and fitness through various initiatives, and enabling participation in Marathon events is one of them. Since 2012, Rane Group has provided its employees with an opportunity to participate in the event, to nurture and inculcate a fitness and wellness culture.

The Chennai Marathon is the largest sporting event in Chennai and this time there were four race categories, the 10Km, the Half Marathon (21.097 Km), Perfect 20 Miler (32.186 Km) and Full Marathon (42.195 Km).

This year 260 employees from Rane Group participated for the Chennai Marathon. Majority of participation was for 10K event. There were 24 registrations for the Half Marathon, 4 for 20 Miler and 2 for the full marathon.



## RANE QC CONVENTION & PROF WASHIO QUALITY AWARD

To encourage, motivate, recognize and reward Quality Control Circles (QCC), Rane Group has been organizing a QC Convention at the Group level since 2008. The 12th Rane QC Convention was held on Feb 1, 2019 at Rane Institute for Employee Development (RIED). The best QCC from each of the 7 Businesses, selected through a Business level QC Convention, participated in this Convention.

The performance of the 7 QCC was evaluated by an external jury. All QCC projects were based on application of systematic problem solving approach, viz. QC story. The Jury selected the Winner and Runner-up, based on their performance using '7 steps of the QC story' approach.

Chairman, Mr. L. Ganesh delivered a keynote address and the entire senior leadership team participated in the day-long event. Vice Chairman, Mr. Harish Lakshman delivered the valedictory address and distributed participation certificates to all the participants.

We also organized a felicitation function on the evening of Feb 1, 2019 to honour Professor Yasutoshi Washio, our Lead sensei, who has made a significant contribution to this endeavor. Professor Washio has paid the greatest tribute in instituting the Dr. Washio Quality Award in memory of his wife Yaeko who passed away in Sep 2017 and contributed JPY 1 Million to

Rane Group to be utilized for "quality improvement activities". We have since christened the QC Convention Winner's Trophy and Runner-up Trophy as "Dr. Washio Quality Trophy" and the cash award as "Dr. Washio Cash Award".

Mr. L. Lakshman felicitated Professor Washio with a shawl and a memento. Professor Washio also released a book on Rane's TQM Journey, 'TQM Journey Memoirs', which contains anecdotes, experiences and learnings from various senior leaders who went through the TQM journey, across different businesses of the group. The significant benefits of implementing TQM principles and practices has been highlighted.

The first copy of the book was received by Mr. L. Lakshman, followed by Mr. L. Ganesh, Mr. Harish Lakshman and Mr. Vinay Lakshman.

Professor Washio distributed the 'Dr. Washio Quality Award' to the Winner and Runner-up and Chairman Mr. L. Ganesh awarded Chairman's Rolling Trophy to the Winner of QC Convention. The certificates to Runner-up and Winner were distributed by Mr. Vinay Lakshman and Mr. Harish Lakshman respectively.

'Mission Possible' QCC from Rane TRW Steering Systems P Ltd - SGD, Guduvancherry was the Winner and 'Winner' QCC of Rane (Madras) Ltd - SLD, Puducherry was the Runner-up.











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