

PROPEL

ISSUE 23 | OCTOBER 2020



**The Defining Moments
in Rane's Journey**

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)*

- *Light Metal Casting India (LMCI)*

- *Rane Auto Parts (RAP)*

- *Rane Light Metal Castings Inc (LMCA)*

Rane NSK Steering Systems Private Limited (RNSS)

Rane TRW Steering Systems Private Limited (RTSS)

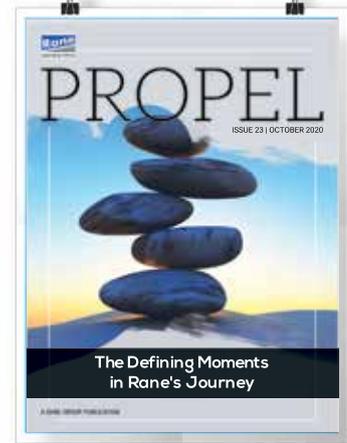
- *Occupant Safety Division (OSD)*

- *Steering Gear Division (SGD)*

Rane Holdings America Inc. (RHA)

Rane Holdings Europe GmbH (RHEG)

Rane t4u Private Limited



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INSIDE THIS EDITION

Welcome back to our October 2020 issue of Rane Propel. As life slowly limps back to near-normal, we thought it is appropriate to reflect on Rane's journey since the 1920s. In the long years of its existence, the company has several times faced the question, 'What next?' Taking a leap of faith to tap the opportunities that presented themselves or forge a new path has enabled the company to become what it is today. Don't miss our Cover Story to read about some of the defining moments in Rane's history.

In the section, Board Member Speak, Dr. Brinda Jagirdar, Business Economist and Independent Director at Rane Engine Valve Ltd., shares her views on how to become relevant in the post-Covid world. She also shares insights on what the growth drivers would be and how businesses should make themselves competitive to become an international player.

The Functional Showcase highlights the role of the Finance and Accounting Group. The group has been a great enabler and has as its vision the continuous improvement of processes to better serve both internal and external stakeholders.

Six members of the Manufacturing Engineering teams from across the Rane Group share their experience of working for Rane, their learnings and their contributions in the Employee Spotlight.

In Rane for Good, we share the efforts of Rane Vidyalaya to use the digital medium to ensure that the students continued to learn despite the lockdown.

Don't miss our other regular features, Photo Story and Rane News. Hope you enjoy this issue. Kindly share your feedback.

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RANE NEWS

Quality, Efficiency and Competitiveness the Keys to become a Global Player

Dr Brinda Jagirdar is a Senior Business Economist and Independent Director at Rane Engine Valve Ltd. After a long stint and being part of the senior management team at State Bank of India, she retired as General Manager and Chief Economist.

A visiting faculty at National Institute of Business Management, she has been a member of various banking bodies such as the Research Advisory Committee of the Indian Institute of Banking and Finance, the Monetary Policy Group of Indian Banks' Association and Banking, Finance & Economics Committee of the Bombay Chamber of Commerce.

She was associated with the Raghuram Rajan Committee on Financial Sector



Reforms in India and was a member of the Planning Commission's Sub Group on Household Sector Savings.

She shares her views on how businesses can become relevant in the post-Covid world.

According to you, what will be the key drivers of India's economy in general and the auto sector (specifically) in the current scenario?

There was a slowdown even before the lockdown but the current contraction in India's economy is severe as Covid is a Black Swan event -- an unexpected event with severe long-term consequences.

So now we need to restore and reinforce supply lines to reboot India's economy and revive growth, without letting our guard down on the pandemic. Not all employees can work from home so companies must ensure hygiene and safety at the workplace, adhering to all standard operating procedures and safety norms including masks, sanitisers, social distancing and also travel, and where necessary, quarantine for migrant workers.

During the 2008 financial crisis, there was a sharp contraction in demand while supply disruption was limited. So massive liquidity injections helped countries to revive. This time supply has been badly disrupted across sectors even as demand has shrunk. Can we not expand our production base and produce goods locally instead of

depending on imports? This will shore up production while providing jobs and creating demand. For instance, Indian manufacturing has already made a name in defence missile production and space programme. As one of the largest importers of armaments, why not manufacture guns and other equipment locally? Can the auto sector align itself to meet the demands from the defence sector? Similarly, in the case of mobile phones, domestic production will boost growth while cutting the import bill. A conducive business environment including availability of infrastructure, credit, and ease of doing business will encourage local manufacturers and attract foreign investors.

Another growth driver, I would say, is exploring new markets through exports. But to remain relevant in the global market, quality, efficiency and competitiveness will be the key. Infrastructure, with its strong backward and forward linkages, is another growth driver. MSME, agriculture, startups, along with inclusive growth across sections and geographies will also have strong multiplier effects on growth. We are an aspirational economy and there is untapped potential in the smaller cities and villages in India.

Indian automotive industry is the sixth largest globally and all the major manufacturers have a presence in the country. Currently, the demand for commercial vehicles is low since there has been no movement of goods, though demand for two-wheelers and tractors has gone up. When the economy bounces back, it will have an impact on the auto industry as well.

Going forward, in my view, the auto sector needs to look at clean fuel in right earnest. Electric vehicles are also becoming a reality. There must be efforts to improve engine efficiency and innovation to introduce new products and designs.

What are some of your recommendations to boost the economy?

The steps taken by the Government, RBI, SEBI are all aimed at restarting businesses and put supply back on track while supporting demand. The vulnerable have been hit the hardest so putting more money in their hands will help. While some more money can be infused to support growth, we must be cautious to balance demand with supply as too much liquidity will lead to inflation and shrink the space for future rate cuts.

Agriculture and agro-industries have large multiplier effects, so reforms in this sector will boost growth. While improving agricultural production and productivity, the entire supply chain needs to be strengthened. The success of initiatives like Amul has shown that cooperatives can bring large number of small farmers together, harness their strengths through organization, technology, processes and marketing and successfully serve a country-wide market.

It is also time to unshackle the micro, small and medium industries so they can also grow. Currently, there are too many regulations that constrain them. If we look at the average size of a textile unit, in China it would have 500 employees compared to about 50 in India, which gives the Chinese the advantage of economies of scale and economies of scope. We need to support MSMEs to make simple, high quality, reliable products and make them part of the company's supply chain.

Look at the way manufacturing has changed. Today it is digitized, driven by robotics, artificial intelligence and data analytics. It is skill intensive. Unshackling manufacturing and decriminalizing some of the laws will bring out the potential of the manufacturing sector.

Other areas that need to be thought through to drive growth relate to education, healthcare and labour reforms. Education that encourages independent thinking and problem solving is critical along with innovation and R&D. Judicial reforms will help enforce contracts and maintain



Adopting global norms and international best practices is necessary if a company wants to be a global player.



its sanctity. This will go a long way in reassuring foreign investors, particularly those that are looking to relocate their businesses out of China.

In order to become a truly global company, what are the key factors one must deliver on? Kindly share anecdotes from your own experiences.

Rane has been able to sign up prestigious contracts internationally because they have maintained their brand image as a reliable partner and focused on ethics, international quality and timely delivery. If companies can become part of the global supply chain, they are largely ring fenced. Adopting global norms and international best practices is necessary if a company wants to be a global player.

I come from the banking industry and 1991 was a watershed year for Indian banks as we adopted international norms for capital adequacy, asset classification, provisioning and accounting. As we can now see, adopting global norms and international best practices regardless of size and reach has strengthened Indian banks and has made the system robust.

There has been a lot of dialogue on diversity and the value of woman leaders of the company board. What value and positive changes do women leaders bring to the board environment? Can you share any instance?

A business needs to be able to look at things from different angles and for that, diversity at the Board level is essential. I believe, besides gender, diversity is also about skill, diversity in thinking, diversity in experience. There is a lot of research available on the subject and I leave the



question of what women can bring to the table, to my male colleagues.

One instance that comes to my mind is when as a member of the REVL board, I brought up the subject of electric vehicles a couple of years ago. The largest item on India's import bill is oil, which leaves us vulnerable on security as well as balance of payments, besides rising pollution and its harmful effects on health – all of which is clearly unsustainable. I didn't raise this issue from the viewpoint of an automobile engineer but from a macro perspective. Today of course the company is also looking at a presence in this segment.

In general, how should a well-run board approach key decision making?

The Board is a collective responsibility. Members can have different opinions, but through collaboration and consensus, they must arrive at a decision that will help the company, its stakeholders, the community and the economy. It must keep its focus on what the customers want and how the company can meet their demand.

The Board must have a long-term perspective even as it examines performance in the quarter. Its mandate is corporate governance rooted in transparency and ethics where there can be no conflict or compromise.

What are some of the key lessons you've learnt about people management and organization building from your own journey?

Is the company and its staff aware of changing trends and

customer preferences? How is the company geared to meet this demand? Are they equipped to meet the new challenges as the economic environment changes? It is important to know what the customer wants and align the people to meet the company's goals. The HR should be in constant touch with employees, keep them abreast of the developments in the company and industry. Visibility of top management through plant visits, video conferencing and newsletters will also build trust and reassure them.

I must add here that the Rane Group has been doing a remarkable job of empowering employees. They ensure upskilling that helps prepare employees to meet the changing trends in the industry, while at the same time improving employee retention and loyalty.

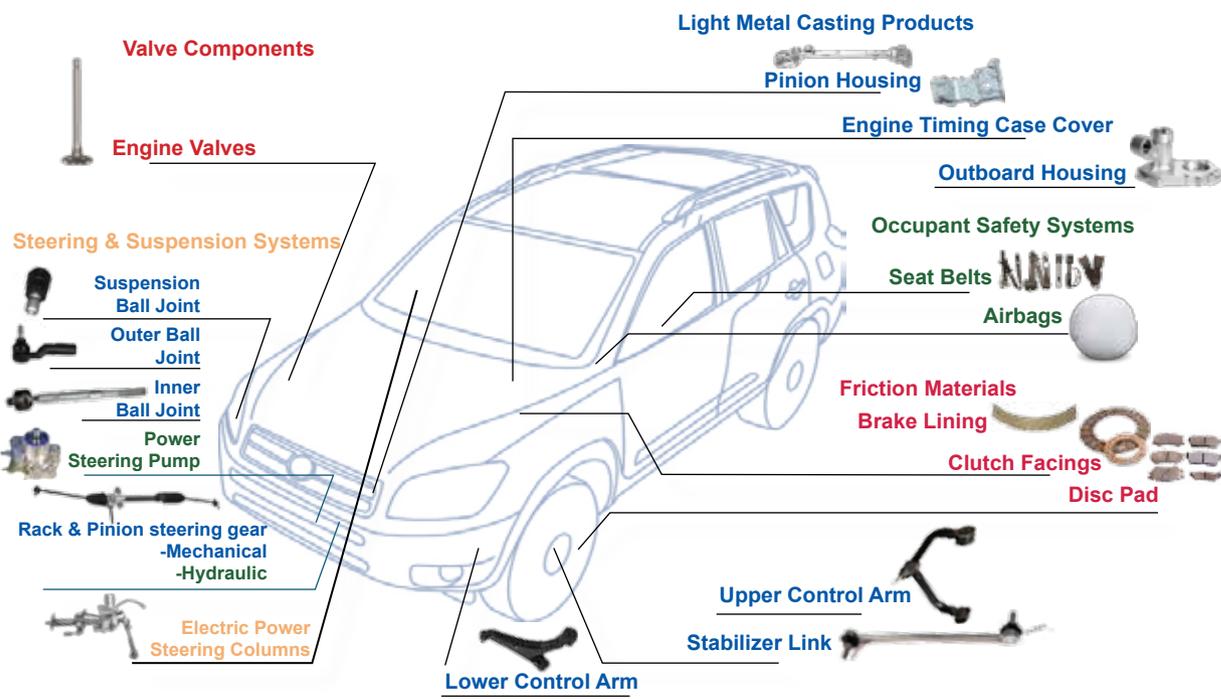
What is the one piece of advice you would give middle and senior managers in India's manufacturing industry?

To survive and grow, constant learning is critical. Companies can retain their competitive edge if they facilitate online learning for every layer of staff and enable them to improve their skills. In today's age of digitalization, artificial intelligence and robotics, middle and senior managers must be technically skilled and focus on efficiency to remain relevant. In this context, companies can support their employees through special programmes, innovation and R&D which will empower employees to contribute significantly to the organization's growth.

Keep learning. Stay relevant.

A SNAPSHOT OF RANE'S PASSENGER VEHICLE SEGMENT

The Rane Group of companies manufactures a variety of products catering to the passenger vehicle segment. In fact, the passenger vehicle is the largest contributor to the Rane Group's revenues with about 65% of sales. Rane Group products can be found from one end of the passenger vehicle to the other.



Rane (Madras)
 Manual Steering Gears
 Steering Linkages
 Suspension Components
 High Pressure Light Metal Casting Components

Rane Engine Valve
 Engine Valves

Rane Brake Lining
 Brake Linings & Disc Pads
 Clutch Facings

Rane NSK Steering Systems
 Electric Power Steering Systems
 Clutch Facings

Rane TRW Steering Systems
 Hydraulic Power Steering systems
 Seat Belts
 Airbags

CUSTOMERS SERVED

The Rane Group serves almost all the leading Indian and International brands in this segment. These include:

INDIA



INTERNATIONAL



THE DEFINING MOMENTS IN RANE'S JOURNEY

As we return to work in a changing world following the pandemic caused by Covid-19, it is only appropriate to remind ourselves of the many challenges that we faced in the past and turned them into opportunities. Chairman L Ganesh reminisces the milestones that have made Rane what it is today through the various ups and downs the company faced

The auto industry is a very mature industry. It has seen many ups and downs since the early 20th century and has not only weathered many a storm but also only become stronger and stronger. Innovations and improvements have driven this industry to become something more than a mere means of moving from point A to point B.

In 1929, Rane Madras Ltd. was established as an independent company to become among the first Indian outfits of Madras to get into the automobile distribution business. TR Ganapathy Iyer was appointed Managing Director of Rane Madras. Business thrived for Rane in Madras and in 1934 the ties with the parent company Rane Limited in Bombay was cut off.

Rane too has ridden the waves and troughs since its inception. And every time, agility and adaptability have

been the magical words that have helped us to overcome and leverage the challenges presented by the changing market dynamics.

Transformation No. 1: Entering Manufacturing through Collaborations

We were a trading company since inception, importing vehicles and parts. The Indian government was keen on promoting the local industry in the 1950s with the objective of increasing our self-reliance as a Nation. Tamil Nadu was at the forefront in this drive for the local industry. Rane sensed a new opportunity and in 1959, we decided to start manufacturing. Our journey in this new role began with engine valves, and subsequently, in the early 60s, we also started making tie rods and friction materials. The manufacturing was established through know-how agreements with UK companies such

as Farnborough Engineering Limited and Quinton Hazell Limited.

The decision to manufacture was not based on data but was a leap of faith and the promoters had the courage of conviction to burn the bridge. Manufacturing was not easy and had significant impediments such as a challenging economic environment of manufacturing quotas, strong government controls, labour challenges etc. Even as late as in the 1980s, India was probably the most difficult place to do business in, leave alone manufacturing.

Despite all that, this decision to move into manufacturing and the strategic choice of engine valves as the first manufactured product still defines who we are as a company today. Rane has become a well-established reliable manufacturer of various safety-critical components for the automobile Industry. Trading is a small part of our total revenue.

Moving into Manufacturing

The story of Engine Valves Limited (EVL) began in January 1955, which was formed to “manufacture valves and other automobile parts.” The promoters (MR Rajagopal, MR Rajakrishnan and MR Jayaraj) were all part of the family that owned the Rayala Corporation, a firm that had made its name in servicing fire engines and later in the automobile trade. The shares of the company were subscribed to by several of the family members and a large block taken up by Rayala Corporation itself. The applicants to the shares were however tardy in their payments. In order to meet its fund requirements, the company decided in January 1956 to approach the Government of Madras for a loan against the security of the machinery ordered and to be imported. At this crucial stage, MR Rajagopal, the founder, died suddenly.

With the passing away of the founder, EVL was looking for someone who would be interested in acquiring the company, and in August 1956, the Board resolved to transfer the EVL shares held by the company to LLN.



Transformation No. 2: Enhancing Product Portfolio through Partnerships and Joint Ventures

In the 1970s and 80s, Rane entered into collaborations with global companies for technology know-how as a path for growth, longevity and success. The collaborations helped in enhancing our product portfolio and bringing innovative products to the customers. The first collaboration (know-how agreement) was with Farnborough Engineering Limited. Our relationship continued across two generations even after the technical arrangement ended, far and beyond the commercial terms. Similarly, the technology partnerships with TRW, NSK and Nisshinbo have all seen 30+ years.

This has been possible because of mutual trust and these collaborations are built on a foundation of ethical values. The contract in spirit is sacrosanct. We leverage synergy of strengths, add value and continuously improve the same.



Our partnerships with global companies have seen 30+ years because of mutual trust and being built on a foundation of ethical values



Long Standing Collaborations

On 26th June 1986, L Lakshman informed the Board that the company planned a “joint venture to exploit market opportunities for specific types of steering-gears. The proposal is to manufacture integral power gears as also some manual gears in collaboration with TRW”. The new venture was titled Rane Power Steering Limited (RPSL) and was registered on 3rd July 1987. The enthusiasm and verve with which the team functioned at RPSL resulted in TRW increasing its stake to 33% in 1993. In December 1996, the company changed its name to Rane TRW Steering Systems Limited. The relationship was further strengthened when in June 1997, Rane and TRW both became equal partners in Rane TRW, each raising its equity to 50% of the total paid-up capital. The strengthened alliance was to see the birth of a new company, into the manufacture of seat-belts and occupant safety products.

It was Lakshman’s idea to get into steering-columns as it was an associated product and with it, almost all products in steering were in the Rane Group. In 1995, Rane Steering Columns Limited (RSCL) entered into collaboration with Nastech Ltd, a joint venture in Europe between the Japanese NSK Limited and the American Torrington Limited.



Transformation No. 3: Total Quality Management

This was indeed a Watershed moment for Rane. In a significantly altered economic and competitive scenario post-liberalisation in 1991, the group

undertook an introspection with honesty and embarked on the journey of pursuing operational excellence through Japanese TQM in 2000. This was again leap of faith and believed that this is the approach Rane should tread to succeed in the new scenario.

Five of the group companies have won Deming Prize and three have won Deming Grand Prize. Unlike our earlier transformations, this was far-reaching, broad-based and touched every employee of the organisation.

ISO Certification - A Precursor to TQM

During the CEOs meet in 1992, a common decision across the board was to implement concepts such as Kaizen and 5S. It was also agreed that all the companies would prepare themselves for ISO certification. Among the toughest targets set was that each manufacturing unit would double its productivity every seven years. This meant continuous investments in new technology, improvements in processes and changing people's attitudes.

1993 was a year that saw the companies in various stages of readiness for ISO certification. EVL story perhaps reflects what happened in the other Group companies as well. The company had set itself the aggressive target of achieving certification by 1992 itself. But with manufacturing at three locations this was no easy task. Even getting a consultant to come and advise on how to go about the process was an impossible one.

Somehow information was obtained that becoming a member of the Total Quality Management (TQM) Division of CII would ensure a session with one of the prized consultants and so EVL enrolled itself. This served as a beginning.

Back home it was decided that August 1992 would be a reasonable date for certification. Preparing the staff and labour was Herculean task. The team began preparing quality manuals, technical instructions and work procedures. With great difficulty, a quality policy was evolved which nobody associated with. This meant going back to the drawing board and first creating a model of EVL's business with each level reflected in it. This worked and everyone felt a part of it. They could associate their daily roles with what was shown and began participating with enthusiasm. Internal quality audits brought out an enormous number of non-conformances. Each one was patiently eliminated.



Transformation No. 4: Globalization

Rane's foray into global markets began in the late 1960s with the Brake Lining and Engine Valve products exported to other markets.

In the post liberalization era, pursuit of TQM put the group on a good platform to leverage global opportunities.

In the 2000s, the group won major businesses from various global manufacturers such as Volkswagen, BMW, John Deere, Chrysler, Polaris, Deutz, ZF, etc. These prompted the group to establish sales offices in US and Germany furthering the global aspirations.

In 2015, we again introspected and revisited our vision, goals and strategies. The key outcome was that we needed to grow faster and more profitably by increasing our International revenue. With the

restricted growth in the domestic market, we needed to look beyond the protected territory and tap the global opportunity to progress further.

We strengthened our presence in the USA by acquiring a manufacturing facility for one of our products. We realigned our MIS to focus sharply on financial metrics such as ROCE. We revisited our compensation system/ policy to senior management to align with the new vision and goals. We modified and strengthened our corporate office to enable us to achieve the new vision.

This is the latest transformation. The jury is still out on its effectiveness. However, we are convinced that this change is necessary for the future.

Our approach has been to expand gradually but boldly enough to make

a mark. This is an ongoing activity and well-integrated with our business goals.

Conclusion

Being aware and identifying opportunities play a primary role in leading transformations. Leap of faith is an essential quality during revolutionary times as we will not have the required data to make an informed decision. But, the calculated risk should be such that we can recover from the failure and not sink. Employee involvement is very important to achieve the kind of transformation we envision and so transparency becomes vital. All these transformations should have a foundation in healthy, ethical practices where the interests of our stakeholders, customers, partners, employees, etc are protected.

Dealing with Uncertainties

Business became difficult in 1941 with the war closing in on India. Import of goods became difficult and several companies floundered. If 1941 was tough, 1942 was even worse. Burma fell and the Japanese made their presence felt in the Bay of Bengal by bombarding Cocanada (Kakinada) and Vizagapatam (Vishakhapatnam). On 12th April, the Government of Madras panicked and ordered "non-essential population to leave Madras within the next few days as there is reason to believe that the danger threatening the city is now more serious." There was a mass exodus and the Rane minutes book notes that "on account of the international situation and the crisis

facing the business world, the Board discussed the question of dispersing the business activities of the company in mofussil centres in order to preserve the stock and carry on the trade."

By then it appeared that companies distributing vehicles did not have much scope. In its December meeting, the Rane Board decided to restructure the shareholding pattern of the company.

In 1943, circumstances changed dramatically for the better. This was due to Rane getting into vehicle servicing. A 9% dividend was declared for the equity shareholders and the managing agents were "thanked heartily for the splendid way in which the affairs of the company were managed in the year under review."

Historical anecdotes excerpted from The Rane Story - A Journey of Excellence, by Sriram V.

Experiences of Manufacturing Engineering Team Members across Rane Companies

Varadharajan D, Senior Manager - RTSS-SGD, Viralimalai

Most Memorable Experience

During the 2005 heavy floods, the entire plant was shut down but we had to honour our commitment to Ford. We stayed in a colleague's house nearby and completed the machine commissioning as planned. Working on the development and establishment of the valve plant for PRP gears at the Viralimalai plant improved my understanding of power steering as a product and the best processes needed for establishing manufacturing and assembly.

Greatest Learning

Technical expertise on machining and production engineering. Learning and practicing TQM concepts. Exchange of process improvement ideas and benchmarking best practices with other Rane companies.

My Key Contributions

Capacity enhancement for CV power steering production in a short period of 9 months.

Addition of machining, gear assembly and paint shop facilities in the new building at the Viralimalai plant. Various innovative machining solutions resulted in CAPEX saving of around Rs 30.5 Cr over the period of 9 years. Completed about 77 total Innovative projects.

For migration from BSIV to BSVI, we productionised 28 new part numbers (NPDs) as against an average of 10 NPDs a year till last year. Existing lines made flexible on a war-footing basis within 8 months to maintain SOB and to satisfy customers.

Keeping Pace

Regular training at RIED. Specific developmental programs at different levels:

At junior management level: ME-X program (Manufacturing Excellence) in 2004 for latest trends in manufacturing Industry. At middle management level: RAMP (Rane



Advanced Management Program) in 2013 and HPLD (High Potential Leadership Development) in 2018. The training programmes made me agile and improved my managerial competency, decision making skills and other leadership qualities to handle production numbers, quality improvements and new product development.

In One Word: Growing along with Rane

Balamurugan S, Assistant General Manager - RBL-HO

Memorable Experiences

Being part of the DGP award winning team at RBL. Making TQM a way of life at professional and personal levels. As part of CFT, established the new passenger car liner plant at Trichy and got approval from

Nisshinbo, Hitachi, MSIL and Suzuki. Tried out innovative concepts such as a double storeyed building and electrical mould transfer, thereby enhancing Asset Turnover Ratio of this project. By adapting Nisshinbo development procedures and

systems for RBL, we impressed Nisshinbo Engineers with actual product temperature measurement in our process -- first of its kind in Nisshinbo-TMD group.

Greatest Learning

RAMP and HPLD training for soft skills such as leadership, assertiveness and networking. Improved customer orientation, managing of relationships/influencing and decision-making skills. Learning the latest manufacturing technologies and processes such as bag moulding and automated finishing lines from TMD-China and adapting them for the Trichy plant facility for the Volvo liner business.

My Key Contributions

Developed and established new facilities with improved Asset Turnover Ratio and Poka-Yoke controls for passenger car liner and 2 wheeler disc pads. Resolved

customer end manufacturing concerns with CFT approach along with Nisshinbo. Team mentoring and delegation that helped to develop a strong and dynamic team that can handle projects and customers individually.

Keeping Pace

Proactively engage with customers on new technology requirements, optimised product design, etc. Interact with Nisshinbo Engineers to adopt the emerging trends in the friction material manufacturing and development. Periodically interact with my HPLD teammates to keep me updated on the recent trends in the industry.



In One Word: Great Place To Work

Manicka Vinayagam, Deputy General Manager -- RNSS, Bawal

Memorable Experiences

Getting the award from NSK for new product realisation for two consecutive years was a moment of pride.

Greatest Learning

Training in process technology, leadership management, relationship building and handling crisis with ease and calm

My Key Contributions

I was able to significantly contribute towards:

- Process technology transfer and standardisation
- Introduction of commercial



- vehicle line -- manual steering column – domestic and export
- Introduction of a special

process which enhanced the QCD of the products

- Digitisation of process, retention and machine documents.

Keeping Pace

Digital competency is essential today for leaders who need to chalk out digital strategies and integrate them seamlessly with people strategies and practices. Digitisation will bring in greater collaboration between the three elements of 'man', 'machine' and 'money'.

In One Word: Trustworthy place to work

Kaliaperumal A, Senior Manager - RTSS-OSD, Trichy

Memorable Experiences

Was part of the three-member team to visit TRW Facility to get trained on the airbag processes. This helped in installation and commissioning of the first airbag line in India in 2013. Was involved in the establishment of the airbag plant in Chennai from ground up to productionising in 2015. Implemented benchmarking technologies from overseas countries

to create robust process and build an assembly line for seat belts and airbag applications. Participated in Trichy plant construction and infrastructure creation activity in 2018-2019.

Greatest Learning

Gained experience and knowledge on manufacturing processes by visiting various TRW facilities on seat

belts and airbags. Rane provided HPLD training which helped to work harmoniously with cross-functional teams. Been part of the two years executive management program in LIBA offered by Rane.

My Key Contributions

I was part of the infrastructure creation of both Chennai airbag and Trichy plants. Built a new Assembly



Line starting from conceptualisation to launch for MSIL business in 2018-2019; the product technology is unique for India. Handled volume ramp up in the lines transferred from Chennai Plant (SAB, PAB, DAB). Developed indigenous automation supplier in Trichy location to accommodate faster launch of projects and lower investment.

Keeping Pace

Continuously being updated on current trends and technology in the Occupant Safety Systems has helped in keeping pace with the evolving market.

In One Word: Passion

Shiv Prakash Singh, Manager -- RNSS, Bawal

Memorable Experiences

Was sent to Japan soon after joining Rane in 2010 to learn and localise a new process. Being part of TQM journey and winning the Deming Prize in 2018 is another memorable experience.

Greatest Learning

Project reviews after the completion of a project helps us to learn from our mistakes and prevent them from recurring.

My Key Contributions

The knowledge and learning that I have imparted to my juniors has in turn increased the competency level of my team and has proven to be beneficial for the organization.

Keeping Pace

Relevant training provided by Rane on automations, data analytics, etc. Attending the IMTEX annually to be abreast of new products and technologies.



In One Word: Amazing.

Hari Harasuthan L, Manager -- RBL-HO

Memorable Experiences

Being inducted into world class TQM culture at Trichy plant. Being associated with the DGP award winning journey in 2013. Learning and interacting with the Nisshinbo team with their best maintenance practices and played a key role in implementing them in our facility. Representing RBL in the International Kaizen Conference. My role changed to Corporate Manufacturing Development in 2017, which was a challenging transition and resulted in a good learning experience for me.

Greatest Learning

These would include the TQM way of work, innovation and Kaizen culture, handling multiple challenges with focus on solutions.



My Key Contributions

Implementing Structured Maintenance Management System (MMS) and introducing benchmarking of maintenance practices including initial controls, reliability maintenance, expert's consultation and failed item analysis. Implemented the maintenance system in the Trichy plant to match Nisshinbo standards. Our Maintenance Management

system was audited and approved by the Nisshinbo team. I was also involved in steering many energy saving.

Keeping Pace

Rane provided the latitude to enhance my learning and to continuously upgrade myself. Exposure to Nisshinbo global practices and integrating these practices in our manufacturing technology roadmap – including Industry 4.0 -- helped me in keeping pace with the changes in the industry. HPLD and RAMP training gave me a lot of insights and helped me in continuously honing my leadership skills.

In One Word: Nourishing



FAG-FOR IMPROVED COMPLIANCE AND FINANCIAL EFFICIENCY

Finance and Accounting Group (FAG) is the apex body that formulates guidelines and brings uniformity in practices across Rane Group of companies. Team Propel spoke to P A Padmanabhan, President and Group CFO to understand the role of FAG

The Finance and Accounting Group (FAG) has as its vision the continuous improvement of processes to better serve both internal and external stakeholders of the company. Consisting of CFOs, Business Finance Heads and Head of Secretarial & Legal function, this group, chaired by L. Ganesh, Chairman of the Rane Group, meets periodically to exchange ideas and best practices amongst the members.

Top Priorities

The FAG formulates the Rane Accounting Policies and Standards (RAPS) which serves as a guidance document for the finance team members across group companies on key accounting matters which involves judgement and estimates. Cost optimization, working capital efficiency, treasury management, hedging of forex risks, robust internal financial controls and monitoring of various assets of the company are some of the important focus areas of FAG. "CFOs play a vital role in evolving the processes and they provide critical inputs to formulate guidelines and bring alignment in practices," says Padmanabhan.

Competency Development & Cross Learning

Skill development of the finance team is taken seriously in the company, and towards achieving this objective, the CFOs conduct skill development and knowledge enrichment programs followed by quarterly tests. The topics for these quarterly tests are chosen from wide-ranging areas viz., accounting standards, taxation, principles of cost accounting, labour laws etc., which are of relevance to finance professionals to keep themselves updated on the concepts and the latest developments.

The CFOs meet regularly -- at least once every quarter -- to discuss the latest regulatory amendments, implementation of the action points arising out of quarterly board meetings, sharing of best practices implemented in any of the group companies like capex workflow process, payment automation, capturing of R&D costs, product costing etc. "The CFOs also discuss the practical challenges that may arise while implementing major legislative regulations and arrive at a consensus on the common approach



to be adopted for implementation across all group companies," explains Padmanabhan, stressing on the collaborative nature of the forum.

During the lockdown due to the Covid-19 pandemic, cost reduction became the focus for the CFOs and they continued to meet online and shared their thoughts on various cost reduction opportunities identified / pursued in their respective companies. Reducing costs by renegotiation of contracts with various service providers, consultants, renegotiation of payment terms to spread out the cash outflows and other similar initiatives were implemented across all group companies.

Annual Business Planning and Future Roadmaps

The finance department plays an important role in business planning of the organisation and ensuring its robustness. At the group level, detailed structured format for the budget presentation and key assumptions such as forex rates, commodity prices and power costs to be considered in the preparation of the business plan are provided by the corporate finance. The finance heads act as the overall coordinator to ensure a robust AOP/SBP plan preparation (collation of inputs from various departments, sharing of past data on various cost elements etc.). "The finance heads also get involved in finalising the assumptions of the business plan, driving fixed costs reduction, profit improvement initiatives, focusing on reduction in breakeven point and providing sensitivity analysis under different scenarios," he adds.

Measures to Counter Covid-19

The budget for 2020-21 had been prepared and finalised by early March this year. However, with the enforcement of nationwide complete lockdown which was in place for almost two months, business operations across the country were severely impacted.

CFOs played a crucial role focusing on conserving cash, reducing fixed cost and effectively managing the working capital. They facilitated the preparation of revised budget estimates focusing on cost reduction and capex rationalisation in line with the revised business forecast.

Benchmarking Best Practices

According to Padmanabhan, growing by learning is one of the hallmarks of the Rane group. In finance too, the practices are benchmarked with those of the JV partners in areas such as business case analysis for new product pricing, PBT variance analysis for reviewing actual performance against plan targets and capex evaluation.

Corporate finance also benchmarks financial performance with peer companies by analysing the key ratios pertaining to P&L and balance sheets of around 20 peer companies. The study pertains to analysing their performance on profitability, return on capital employed and debt levels.

Digital Transformation

Digital transformation plays a key role in finance and several key processes such as approval of capital expenditure proposal, price increase

proposal, processing of vendor payments, some of the treasury activities such as opening of Letter of credit, vendor bill discounting are being carried out online through the digital platform.

During Covid-19 lockdown, an online audit process was adopted, wherein the working papers and audit evidence were provided in digital form to the statutory auditors to complete their audit process on time by enabling connectivity through VPN to the employees to work from home. Implementation of SAP-BPC module is under progress, and this module will enable automatic generation of Financial Statements (P&L, Balance Sheet along with relevant annexures and notes) integrated with the SAP database once it gets fully implemented. Some of the future initiatives would focus on automation of certain compliances like Related Party Transaction – capturing, reporting and documentation.

FAG has been a great enabler, allowing the finance and secretarial functions to share their challenges and find common grounds and implement solutions with greater confidence and clarity.

Corporate Governance

Corporate Governance is imbibed in the group's DNA and that is strongly resonated in the Group's philosophy founded on the principles of integrity, transparency and fairness, says Siva Chandrasekaran, Executive Vice President – Secretarial & Legal. Siva represents Secretarial function in FAG which acts as a catalyst in contributing to the synergies of operating as a group. Secretarial function is a 'shared service' catering to all the seven group companies and three overseas subsidiaries of Rane group. Some of the top priorities include ensuring uniformity in secretarial practices, driving robust compliance practices across the group and connecting seamlessly between the Board and the management.

In its effort towards continuous improvements and following best governance practices, the group regularly

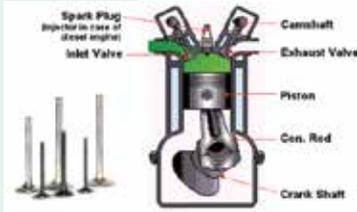
benchmarks secretarial compliance processes with peer groups to understand common practices in an evolving legislation scenario. Rane Group is strong in SEBI LODR & Regulation 30 compliances.

The group is an early adopter of digitisation opportunities by transforming and adopting electronic record keeping with authentication through affixing digital signatures carrying date and time stamping. All the old board records and annual reports from 1936 have been digitised for permanently preserving the history and heritage of Rane. The board meetings are paperless and app-based for the past two years and now, during the pandemic, there were virtual board meetings using video conferencing.

In recent times, per the directions and mandate of stock market regulator, SEBI, a database system for Prevention of Insider Trading has been initiated by the secretarial department and is being developed in-house.



ENGINE VALVE : MANUFACTURING PROCESS



A heat engine is a machine that converts heat energy into mechanical energy. The combustion fuel such as coal, petrol or diesel generates heat. This heat is supplied to a working substance at high temperature. By the expansion of this substance in suitable machines, heat energy is converted into useful work. Heat engines can be further divided into two types: i) External combustion and ii) Internal combustion

Spark Ignition (Carburettor Type) IC Engine

In this engine, the liquid fuel is atomised, vaporized and mixed with air in correct proportion before being taken to the engine cylinder through the intake manifolds. The ignition of the mixture is caused by an electric spark and is known as spark ignition.

Compression Ignition (Diesel Type) IC Engine

In this only the liquid fuel is injected in the cylinder under high pressure.

1. Upset & Forging

The valve head material is gathered to form a bulb shape through plastic deformation at one end by electrical heating and forcing the material from the other end mechanically. There will be reduction in the overall length but no change in the volume of the material.



2. BIQ Furnace

The Batch Type Integral Sealed Quench Furnaces are used to harden and temper the valves to meet the highly demanding metallic requirements of the engine. This is achieved with uniform heating from the sides and quenching inside the furnace itself.



3. Plasma Transferred Arc Welding

In this process, also called PTA welding, hard satellite powder material is deposited through welding. This will form a hard layer for wear resistance in the valve seat even at high temperatures without any leakage in the combustion chamber.



4. Friction Welding

In the exhaust valve, two different materials are joined together by rotating and applying force in the joint faces. This will generate heat that will weld the materials together. Bimetallic valves are superior to monometallic valves as they provide durability in both high temperature and have wear resistance.



5. CNC turning

The valve head OD, face, profile radius and undercut dimensions are fully finished. The valve seat is machined keeping consistent stock for the final seat grinding process. This is done by rotating the valve held in the customised fixture and the tools.



6. Seat Grinding

The valve seat is ground in customized angular wheel head grinder to achieve the requisite high surface finish, roundness, runout and seat angle. These parameters are very crucial for anti leakage combustion chamber for better engine performance.



7. Groove Grinding

High accuracy and surface finish profile grooves are ground with preformed grinding wheels to assemble the cotter pin in Engine assembly. Preforming of the wheel is done by customized diamond crusher rolls. Centerless grinding methodology is adopted.



8. Induction Hardening

Induction hardening is done on the valve groove profile and stem end to have hardened surface for wear resistance. The parts are electrically heated by customised coil and cooled by quenching the media.



9. Finish Centerless Grinding

In centerless grinding, the valve stem diameter is ground to achieve the high accuracy final size, surface finish, Cylindricity etc., The work piece is held between two wheels, rotating in the same direction at different speeds, and a work holding platform.

10. Leak Testing, Multi Gauge Testing & Final Inspection

Seat leakage is tested by a pressure decay system. Compressed air is supplied at the preset pressure between the seat zone of the valve and checked for any leakage by measuring the drop in volume of air in a pre-defined time. Minimum leakage is achieved for better engine performance.



The end-of-line is equipped with digital multi gauging that can inspect and ensure all critical valve parameters simultaneously. Dimensions can be stored and retrieved for analysis.

Opening Young Minds Despite Lockdown

Rane Vidyalaya kept the children engaged online and resumed classes despite the lockdown so that children do not lose a year



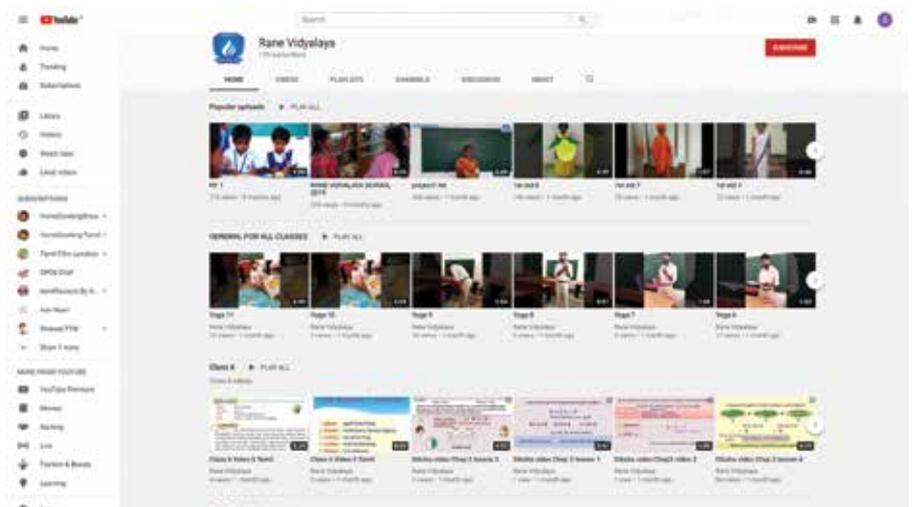
The schools were shut down in Tamil Nadu on March 16, threatening to throw our whole curriculum plan out of sync. We took some quick decisions, declared the end term results and advanced the vacation from May to April. To use the time productively, we started with a training program for the teachers in courses such as Swayam, Diksha, epathasala and Coursera to groom their skills. The teachers kept the children engaged with some fun holiday work such as making charts on Corona, making a bird feeder, hand painting, etc.

When the lockdown remained even by the end of April, we started with Whatsapp lessons and revision classes on April 27. Every morning started with the Thirty-Minute activity from "The Hindu" for the students with many interesting components such as the crossword and science DIY experiments for children from KG to middle school. The children also got their daily dose of stories, Thirukkural and hand-writing exercises. The programmes were availed by 70% of the students with much enthusiasm who completed their daily work and worksheets twice a week.

Collaborating Online

By mid-May, we started working on the Lesson Plans. The teachers, who were uninitiated with the online collaborative tools, now had their

YOU TUBE CHANNEL - Screen shots



lesson plans in Google docs and created neat trackers to plan their daily activities. They were quick on the learning curve and tried multiple video platforms like Jitsi Meet, Goto Meeting and Zoom. After some trial and error, the classes were scheduled on Zoom from the first week of June.

The time table was a challenge. Out of the 350 plus kids, 135 were siblings in various classes. The timetables were created to prevent any clash in the timing. We organised two sessions per day of 45-minute duration for all classes from one to six and twice a week for the kindergarten. It was a different ball game when it came to the three-

year-olds, as it required innovative methods to engage them. The batch-size was restricted between 5 and 7.

Even while the teachers were mastering the Zoom sessions, they also had to maintain discipline. They were given training in privacy, where they would always schedule their meeting, keep children in the waiting room and allow only after verification of their video, etc.

Roping in the Parents

In the first week of creating video lessons, we asked parents (most of whom were also staying home due to the lockdown) to spend 30 minutes a day with their children walking them through the video lessons. The

Our joy knew no bounds when teachers discovered their hidden creativity in creating “AUGMENTED REALITY” videos.



“Rane Vidyalaya” Youtube channel has close to 70 videos made on various subjects including Yoga and Crafts. They are neatly classified into Playlists for various classes. This helped students who joined the school in the months of July and August to cope up with the lessons.

Our joy knew no bounds when teachers discovered their hidden creativity when making “Augmented Reality” videos.

Zoom Classes

These live classes were a classic example of flipped classrooms, where the learning happens at home before the class begins, and the class time is used for problem solving and discussion. We were surprised at how well it worked. The number of children without access to online classes are < 15 and we have reached out to them by mailing the lessons and contacting them through non-smartphones.

In the Zoom platform, most of the teachers and students joined using their cell phones. The sketch and screen-share features are a part of their standard free offering. We added spice to the online classes with Music in the morning and Yoga/ Karate in the evening. With the online task tracker, video lessons and web video calls, the regular classes were going pretty smoothly.

We also have given the students the AHA GURU learning app, which

ensures that online assessments in English and Maths are submitted in parallel without any interruption. This has enabled the slow learners and laggards to cope up with the classes. In the first unit test, 80 percent of the children scored 80% and above.

Giving Culture Its Place

In our school, we ensure that we teach children about our culture by setting an example. Since we live in a very diverse community, we enlist the help of our parents to teach children about their festivals. We worked with our parent volunteers to ask them to send videos of the KG children dressed as Radha or Krishna for Janmashtami.

We inaugurated our literary clubs online in the first week of August and had the English oratorical competition coinciding with August

15, Independence Day. We were flooded with videos and photographs of the children who participated in the English Oratorical competition. We also celebrated Ganesh Chaturthi with “Make Your Own Ganesh” and the young ones enthralled us with their creativity.

Assessing Students

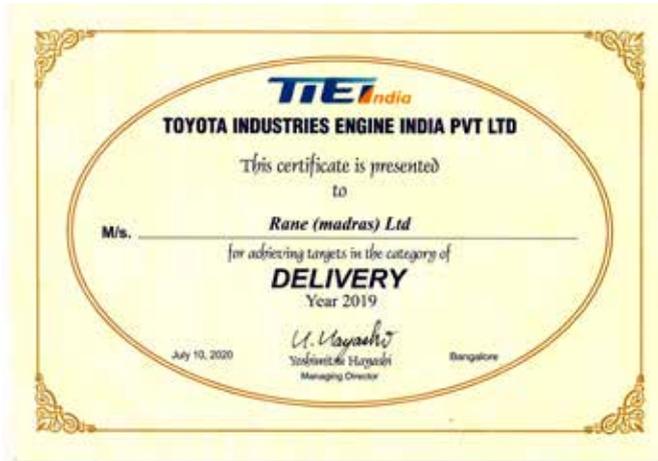
The icing on the cake was conducting the oral assessments online in record time. With meticulous planning and neat execution, 350 students were tested on three of the four LSRW skills (Listening, Reading and Speaking skills) one on one, with a team of teachers who split themselves into panels, armed with screen-based testing kits according to each standard.

RV teachers are continuously working round the clock, equipping themselves with new skills every day. They have been instrumental in the parents reposing their faith in the just budding school. The children showered the teachers with unique Greeting Cards on Teacher’s Day, which stands testimony to their sincerity and commitment. The online classes will continue until the lockdown is enforced. Do we miss the children in the school environment? Definitely, yes. But we will keep reinventing ourselves to emerge triumphant in the end.

Zoom Classes



Toyota Honours Rane LMCI



Rane (Madras) Limited - Light Metal Castings India received the “Best Target Achieved Supplier in Delivery” award for 2019 from Toyota Industries Engine India.

Volvo Award for RTSS



Rane TRW Steering Systems - Steering Gear Division received “Best Supplier” award in Supply Chain Category for 2019 from Volvo Eicher Commercial Vehicles.

Indian Aftermarket Commercial Vehicle Brake Lining Supplier Award

Rane Brake Lining Ltd. won the Frost & Sullivan 2020 Indian Aftermarket Commercial Vehicle Brake Lining Supplier Company of the Year Award.

This is part of Frost & Sullivan Best Practices Awards which are independent and research-backed, considering various parameters such as growth performance, competitive differentiation, brand equity and technological sophistication.

**"WE NEED TO REALIZE THAT
OUR PATH TO TRANSFORMATION
IS THROUGH OUR MISTAKES.
WE'RE MEANT TO MAKE MISTAKES,
RECOGNIZE THEM, AND MOVE ON
TO BECOME UNLIMITED."**

--YEHUDA BERG

ANNUAL SUPPLIER CONFERENCE 2020

5th OCTOBER



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