

AS A MANUFACTURER, SUPPLIER AND SOLUTION PROVIDER, ROTORK INDIA PVT. LTD. GOES FROM STRENGTH TO STRENGTH. IN A LITTLE OVER 40 YEARS THE COMPANY HAS GROWN FROM A JOINT VENTURE INTO WHAT HAS TODAY BECOME A CORNERSTONE OF ROTORK'S GLOBAL BUSINESS, SO IT NOT SURPRISING THAT THE COMPANY HAS SOME AMBITIOUS PLANS FOR THE FUTURE. THE VALVE WORLD INDIA JOURNAL RECENTLY CAUGHT UP WITH MR. RAVI SHANKAR, MANAGING DIRECTOR OF ROTORK INDIA PVT.LTD. AT HIS OFFICE IN CHENNAI, TO DISCUSS SUCH TOPICS AS THE COMPANY'S FLUID POWER PRODUCT RANGE, ITS UPDATED SMALL ELECTRIC QUARTER-TURN RANGE OF PRODUCTS, THE VERY SUCCESSFUL SALES BEING ACHIEVED WITH ITS ELECTRO-HYDRAULIC RANGE OF PRODUCTS TO INDIAN TANK FARMS AND OF COURSE, THEIR CONTINUING SUCCESS AND PLANS FOR THE FUTURE.

Rotork India Pvt. Ltd.: a key link in Rotork's global actuator supply chain



The new 23,200 ft² factory for Rotork's



Mr. Ravi Shankar.

Talk to Mr. Shankar for a few minutes and you are immediately struck by his enthusiasm for the industry in which he works and by his knowledge over a vast array of valve-related topics. This is not unexpected since in his job as Managing Director of Rotork India Pvt. Ltd. he is responsible for all the company's operations in India. His tasks includes sales, manufacturing, services, the R&D centre and global R&D, as well as supporting Rotork's global IT. "It is a challenging package of activities but also a very rewarding one at a time when Rotork is not only becoming increasingly impor-

tant in India but also as the whole of India becomes a major hub in the global supply chain of valves."

A brief history of Rotork in India

Rotork's initial entry into the Indian marketplace, Mr. Shankar tells us, was in a joint venture with Best and Crompton. The venture was formed in response to the closure of the Indian market to foreign-imported actuators by the Indian Government. In 1978 this undertaking was further broadened when Rotork took a 40% stake in a joint venture called Beacon Rotork Controls Ltd. A few years later during the 1990s, under the more liberalised leadership of the then Prime Minister, Mr. Manmohan Singh, the Indian Government revoked the mandatory need for joint ventures by foreign entities, allowing them once more to have their own local facilities. Rotork took advantage of this

situation taking over complete ownership of the subsidiary by buying out their joint venture partner. Since then the company has been a 100%-owned subsidiary of Rotork plc and has invested in three modern manufacturing plants – two in Chennai and a third in Bangalore. The Bangalore plant was set up in 2010 and the second Chennai facility is completely new, being inaugurated early in 2018. Today Rotork India Pvt. Ltd. employs around 250 staff, but 40 years on from the company's start up in India it still has a plant in the same location in Chennai where it all began.

Rotork's fluid power product range

The new facility in Chennai, which went into production in January of 2018, concentrates on the production of Rotork's fluid power product range. This means pneumatic, hydraulic, electro-hydraulic, and gas-over-oil actuators. As such the company produces a wide range of actuators covering almost every type that is available on the market. Before the inauguration of the new factory all these actuators were made in Europe. Mr. Shankar takes up the story: "Producing out of Europe, it was difficult for us to meet some of the price targets and lead times in India and as a result Rotork's market share remained niche in what is essentially a very large market, so it was logical to start-up production in India."

In recent years, industrial growth in India has been rapid, which has naturally considerably increased the demand for actuators, so Rotork's move to produce more products in India has been in line with many other international companies, who have also looked to pick up this expanding business. However, it is not only international companies that have begun to profit from the situation. Indian regional companies have sprung up to meet this demand as well. Another factor leading to the upsurge in actuator business in India has been that suppliers have gradually come

to look upon India as a good quality and cost-effective manufacturing destination. Rotork has supported this development by ensuring that more of its products are also made locally. At present its pneumatic and hydraulic ranges are manufactured in India. By the end of the year it intends to also make the linear electro-hydraulic range as well. Mr. Shankar: "We produce 400 of these actuators per month working in single shift at our new facility in Chennai so we could easily double this figure by moving to two shifts should the demand increase even further. Additionally, by producing in India we are able to get our products to this regional market quicker and in a more cost-effective way. Furthermore, our products produced in India have the same global quality and warranty as any of Rotork's other production sites in the world. For us, at present, around 60% of our production is sold within India and the other 40% is sold for export."

Electric quarter-turn actuators produced in Bangalore

The Q range actuator has always been a strong part of Rotork's quarter-turn product range, but it was originally only available in a single-phase version with a limited torque range. It is a product that is made solely in India, but which is exported globally. It was designed to meet industry's need for a compact and trustworthy actuator, providing a simple and cost-effective way of controlling small quarter-turn valves and dampers where IP68 (NEMA6) water-tight enclosure is required. It is suitable for isolating duties where on/off control is required. This is achieved without the need for reversing contactors, requiring only simple wiring, whilst the design of the limit switch mechanism has been arranged to ensure ease of setting and reliability. The Q-pak version benefits from the addition of a specially designed control interface module, which enables it to operate from a wide variety of remote control

signals and provides status monitoring outputs. The range has been recently expanded and is now available to operate on a 3-phase supply with upgraded torque output up to 900 Nm. We produce in the region of 2,000 units a year," says Mr. Shankar "the range being mainly used in the water and wastewater and power industries."

The success of Rotork's SI electro-hydraulic range in tank farms

In 2014 Rotork received an exceptional order for over 2,000 Skilmatic electro-hydraulic actuators for remote operated shut-off valves (ROSoV) on just one project. It was one of the largest installations of its kind in the world and serves to emphasise the importance of this range. In fact, these actuators have been installed in more than 140 tank farm locations across the whole of the Indian subcontinent, where they are used as a failsafe product. Mr. Shankar: "The Skilmatic range of self-contained actuators offers a unique and reliable solution for failsafe and modulating control for both quarter-turn and linear valves and dampers". The range combines the simplicity of electrical operation with the precision



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The platinum 'Make in India' award for micro, small, and medium enterprises presented to Rotork India Pvt. Ltd. at the Automation Expo August 2017.



Fluid Systems' products in Chennai.

of hydraulic control and the reliability mechanical spring-return or accumulated failsafe action. Available in both quarter-turn (65 to 500,000 Nm) and linear (1.7 to 5000 kN) execution, the actuators offer a wide range of operating speeds, ESD inputs, partial stroke testing, analogue, Hart, and fieldbus communication capabilities in order to comply with all control configurations. Independent limit switches and position feedback are provided as standard as are selectable status and alarm indication with volt free relay outputs. In the event of an emergency the actuator is guaranteed to respond very quickly and shut off the valve even in the absence of any power. For example, if a fire should break out or anything happens that severs the power connection and necessitates a complete shutdown to prevent fuel from spilling out. Over the years the product has become a veritable standard for all tank farm situations and terminals around the world.

"What is striking about the Skilmatic is that it not only works reliably after even a very long time in operation but also that it can be continued to be maintained and serviced to work in perfect condition many, many years after it was installed. In India, for example, our

oldest actuators date back to the 1960s. Some of these are still in operation and we still support and service them in critical applications in power plants. An anecdote that I like to tell is that 'we still support actuators that are older than most of our employees', which says a great deal about the quality of the originally installed product and also with regard to the maintenance services that have been supplied." In fact Rotork regularly signs comprehensive maintenance contracts with end-users across India to support and maintain these types of actuators into the future. Five-year maintenance contracts are commonplace.

What makes Rotork India unique and so successful?

"There are a number of factors that contribute to our success," says Mr. Shankar. "Firstly, we are in one of the fastest growing markets segments and are part of one of the most widely expanding economies in the world, in India. Further, Rotork as a whole continues to source more and more of its parts from India and we react strongly to support and fulfil this need. In this way we have become a substantial player in the company's global supply

chain. Similarly, we have also become a key part of Rotork's global R&D programme, being at the very hub of the company's latest developments. The fact that the R&D Centre for Rotork is located in India says much about our capabilities and the faith that the global organisation has in our abilities," continues Mr. Shankar.

What separates Rotork from the competition?

"Without doubt, one of the biggest differentiators is the quality of our products. Also we have the largest after sales service network of any actuator vendor in India. Looking closely at our business model, we are moving away from just selling a product and are instead offering a long term ongoing service. What we effectively say to our customers is "we can guarantee you a definite amount of uptime". Rotork India, within the Rotork Group as a whole, is very much at the forefront of the transition towards developing into a more service-oriented organisation. Additionally, we have the ability to carry out predictive maintenance on valves (using our intelligent Asset Management technology) and we are supported in this by the fact that almost 25% of our employees are working in the field as highly-qualified service engineers to provide solutions to challenges." In many cases Rotork staff go out to look at and assess the needs of their clients' locations so that they can appropriately advise them. At the same time Rotork India has a toll free number for service, which and customers can call 24/7. All phone calls are logged nationally so that it is possible to track the progress of each call electronically and make sure that solutions are rapidly provided and that engineers are sent out quickly to solve any problems as soon as possible.

What does the future hold?

"The future looks very bright," says Mr. Shankar. "India is increasingly



Rotork Controls' IQT part-turn actuators ready for shipment.

taking on a larger share of the global supply chain and we are confident that this trend will further increase during the coming years. Similarly, we anticipate that more and more valve manufacturers will wish to have a full service actuator vendor to support their global needs in India. End users are looking for support costs to be quoted upfront as they look at the total cost of ownership. Certainly, whether you buy a Rotork actuator from India, the US, or Europe, it has a

global warranty and the same support regardless of where you are using it, be this in Outer Mongolia, remote regions in Africa or in a refinery in Mumbai. We have support people everywhere. It gives our customers not only peace of mind that Rotork will be there to help them no matter what happens but also a lot of confidence when they decide to buy one of our products. We guarantee uptime and all Rotork staff stand 100% behind this warranty."

Rotork's new fluid power actuator factory in Chennai

Opened on January 31st, 2018, the 23,200 ft² factory will be used to produce Rotork Fluid Systems' products, which encompass scotch-yoke and rack and pinion pneumatic and hydraulic actuators, gas-over-oil actuators, high-pressure direct-gas actuators, and electro-hydraulic actuators.

In addition to quarter-turn designs, most ranges are also available for linear valve applications. Many actuators are built for critical high-speed failsafe or emergency shutdown (ESD) duties in harsh locations, including subsea actuators for valves at depths measured in hundreds of feet.

The Rotork service includes the design and production of control systems and instrumentation, facilitating the manufacture of complete fluid power actuation packaged solutions for projects of all sizes and complexities.

Peter Matton, Rotork Fluid Systems Managing Director, commented: "The addition of this new facility will allow Rotork India to better serve its growing market for Rotork Fluid Systems products in India. The factory was commissioned in a record time of eight weeks from the date of taking possession of the premises to the assembly of the first pneumatic actuators."



Rotork India Western region sales and service team.