



# Advance Valves

## Changing the way you think about valves

Oil and Gas industry and the industrial sectors like power, steel, water, oil & gas, petrochemicals etc." begins Priyank. His brother, Pranay, adds "Within a decade, in the mid 1990s, we entered the international market to provide our products to the global flow control industry. Today we are recognized as a value-added vendor to almost all the recognized oil companies around the globe. Now we participate among the topnotch suppliers across the world!" Advance Valves holds multiple patents and have invented the world's First Large Size Balancing Valve (US Patent No. 8714190), a solution for central chilled water systems in the HVAC industry. This valve provides the essential functionality of Hydronic Balancing which is critical for energy efficiency much needed by bigger and bigger indoor environments and for District Cooling applications.

### Product Strategy

Advance Valves made a conscious choice to focus only on engineered products which are being adopted by customers in place of older solutions as products for the future.

Priyank continues, "Our Dual Plate Check Valve, the most versatile check valve design providing improved efficiency in operations, offers a solution to reduce

plant sizes and weight compared with swing check valves. For larger sizes the weight of a dual plate check is about 20% as compared to a swing check valve with much superior performance capability and energy efficiency. With our High Performance Butterfly Valve range, we bring a lighter and competitive

### Product Range

Advance Valves provides the following products

- Dual Plate Check Valves
- Metal seated Triple Offset High Performance Butterfly Valves
- Double Offset High Performance Butterfly Valves
- Concentric Butterfly Valves
- Balancing Valves
- MOVs, On-Off Valves

As a complete solution -

- Sizes up to (3m) 120"
- Pressure Classes up to #2500
- Suitable for Cryogenic down to -196°C (-320°F)
- Suitable for High Temperature
- Complete range of metallurgy
- API 609 & 6D Licensed
- SIL3 certified
- UL Monogram for Fire-water systems
- ISO 15848 / TA-Luft certified for Fugitive Emissions.

When Advance Valves was founded in 1985 in India in a garage, it was pretty clear from the beginning what the vision of the founder Mr. Uma Shanker was: Put India on the global valve industry map! Today, 29 years later, the company has innovated several products that are actively deployed all around the world, and Advance Valves is a well-known brand that has helped take India forward as a key source for engineered valves. No question that it was time for an interview with Valve World to learn more about the company. We spoke with Mr. Priyank Garg and Mr. Pranay Garg, both Joint Managing Directors at Advance Valves and their other key executives, about the progress the company has made, the current status and on what they think the future will hold for the company and its customers.

By Christian Borrmann & Gillian Kersley

Advance Valves were the first to introduce Balancing Valves in India, and only a few years later, they introduced the first Dual Plate Check Valve – both developed totally in-house with their own technology.

Advance Valves was also the first Indian company to build High Performance Butterfly Valves, including the Triple Offset Metal-to-metal seated Butterfly Valves - TOVs, 15 years ago. "Our focus on customer needs and quality,

right from the beginning, was the key to the success of Advance Valves. In the initial years we mostly focused on the domestic air conditioning (HVAC) industry, but thereafter we diversified our product range to enter into the





### A quick look into the future

Mr. Rohit Modwel, Chief of Business Development, says, "We are making it easier for customers to find our products in every corner of the world by expanding our distribution coverage so that it is available not just for projects, but at any time for any operating plant. We have third party accreditations and regional certifications to supply anywhere in the world including CE marking, registration to supply to Canada, Russia and the CIS and to most other parts of the world."

Advance Valves has been constantly upgrading their plants so that today none of the four plants in current operation are more than 12 years old – with the two biggest facilities being less than six years old. Mr. Satvir Singh, the COO says: "Over and above these plants, we are undergoing further expansion. The focus is to upgrade technology and enhance capacity. Automated precision manufacturing, high end test equipments and a fully dedicated Instrumentation section is also being put in place. A major part of the capacity enhancement is towards Triple Offset Butterfly Valves for the global market and it will be operational this summer. Combining that with our lean manufacturing transformation, we have significant results from which we will be able to offer multiple times our current output. We are looking at about five-fold growth opportunity in the next 5 years. The infrastructure plans, processes and capex investments are in line with that forecast."



solution with superior performance, than traditional gate valves and ball valves. These benefits multiply as the project requirements move to more sophisticated requirements in terms of pressure ratings, fluid & temperature conditions, materials and automation. But these are still very difficult to make, requiring an engineering understanding and process complexity."

Pranay emphasizes, "we don't want to be just another producer with a catalogue full of products. That's not our approach! We focus on a small set of products that we do really really well."

### Customer-centric Approach

Right from the beginning value engineering between Advance Valves and its customers has been the driving force and vision of



the company. "We work with clients to provide the most optimal solution. We

spend time with them and understand their requirements to come up with solutions. It is not just about buying and selling! Timely project execution is critical to their construction schedule and falling in line with their timeline is very important. We closely interact with the customer throughout the whole process to make sure that we are in sync with them, and maintain full transparency," says Priyank. Asked if they could provide an example, Pranay replies that they worked with an EPC contractor on engineered products where high performance butterfly valves were specified. "We looked at their

### The importance of cryogenics

For more than ten years, Advance Valves has been supplying to the international cryogenic industry. Says Mr. Rohit Modwel: "Today, we are executing back-to-back projects in this sector. We are involved in gas projects coming out of Australia, shale gas from the US and the whole network of receiving terminals in Asia. We are writing specs with end users and EPC companies for their cryogenic needs. Our in-house facility for cryogenic testing of valves up to 60 inches is amongst the largest to be found in India."

The industry has adopted Advance Valves' products as high performance, high value solutions in a sector that tends to be monopolistic due to technical complexity. "We are partnering with many customers today for future work that they are bidding on, because we have the breadth of capability that they need," says Rohit.



### Advance Valves and Automation

In the last 15 years, Advance Valves has been doing a lot of work with global players in the actuator industry. Mr. R.K. Handa, Executive Director says, "About 4-5 years ago, we introduced automated triple offset valves as a technology upgrade option to oil marketing terminals of the national oil companies in India, where these valves were deployed for the first time in this country. Today, all the marketing terminals in India are being revamped with these triple offset actuated valves to meet with the safety and critical requirements of these terminals."

Advance Valves was the first company to introduce intelligent actuators to the Indian Oil & Gas Industry about a decade ago, during the refinery expansion at IOCL Panipat. He explains that Advance Valves' has the means and methods to provide actuation to clients, "We have the setup to buy the actuators and ship out the integrated product. We also install customer-supplied actuators. We install, test and send the integrated unit out. Sometimes the customers prefer to work that way and we are uniquely setup for it, especially for the international markets. Because our global plant is situated in a Special Economic Zone, we import the actuators duty-free and export the finished valve without any import duties. This results in a lot less paperwork and a reduction in cost and time."



requirement and recommended a simpler concentric butterfly valve with a vulcanized liner which was able to address their high performance need. We could have sold high performance products from our portfolio but we gave the customer the optimum product for their application, keeping project costs, project schedule and subsequent maintenance costs down. We have also done this for LNG terminals which were originally built for import in the US. Today, having won their confidence with our performance and reliability we are still working with the company even though they have been converted into export facilities from regasification to liquefaction facilities."

### Engineering Capabilities

Given that engineered valves are the key products of Advance Valves, having a robust and capable engineering staff and toolset is key. Says Mr. R.K. Handa, Executive Director and Head of Design: "We employ around 400 people and almost half of these have technical engineering qualifications. If you look at our Design and Quality Assurance teams, the staff in those teams put together is larger than our production team staff. This guarantees that we understand all the intricacies of the products and continue to learn, evolve and develop. We invest a lot in software, both licensed and in-house, to provide the right tools for our people so

that they work effectively, and have the right quality systems that can provide the best results to our customers."

"We are also able to perform a variety of in-house tests - from regular testing with automated test set ups to high end testing which could be product prototyping, third party certifications or client endorsements. We can perform API591 related testing and set ups for high pressure, pneumatic, high temperature, cryogenic, fire safe, cycle testing of the products, fugitive emission, valve actuation, UL qualification testing and much more." points out Mr. Satvir Singh, Executive Director and COO. "Quality Control is strictly in-house!"

### Meet the Chairman

Mr. Uma Shanker, who founded the company, says, "I perceived Advance Valves, as an opportunity to create something for this country on a global perspective in terms of technology. My thought was that 'my Company has to be in line with the latest technology in the world.'" Over the past years, this is exactly what has been achieved. Advance Valves also contributes to the industry as a voting member of the API Sub-Committee on Piping and Valves (SCOPV), where all API product standards such as API 594, 598, 600, 609 etc are written and debated. According to Mr. Shanker, India has made tremendous progress over the past years and he strongly believes that even more is possible. "I strongly believe that India's opportunity is in engineered products as against commodity products, like standard gate or check valves. India can, and does, lead technology-wise. We have a large talent pool of well-qualified and dynamic engineers - that's our strength - and we are noticing that all the big international valve manufacturers, end-users and EPC companies have opened offices in India to serve the global markets from here. So, I think we are in interesting times presently, with a promising future ahead of us," concludes Mr. Shanker proudly.

