

DHV Industries, Inc.: Where the

DHV Industries, Inc. has produced steel & alloy valves under the DHV brand name for the past 20 years and has earned a well-respected reputation as a leading industrial valve company. The company's main goal has always been to provide customers with quality products while also meeting their urgent needs in a timely manner that consistently exceeds all expectations.

DHV's corporate office is located in Bakersfield, California. The facilities in Houston, Texas and Bakersfield stock upwards of 40 million dollars of inventory. DHV clients can always depend on fast and reliable service regardless of the product needed from any of its key locations. The 538,000 sq foot fully integrated international manufacturing facility is truly impressive. This includes the Lost Wax and Sand Cast foundries with a capacity of 8,000 metric T/Y. The facility pours the castings and performs machining, assembly, inspection, testing, painting and complete NDE capabilities all under one roof. This production model allows DHV complete control over the entire manufacturing process from start to finish, ensuring both quality and on time delivery.

DHV offers clients a diverse product portfolio that includes Ball Valves, Gate Valves, Globe Valves, Check Valves, Plug Valves and even specialty valves such as Rising Stem Ball Valves. The company serves a broad range of clients throughout Canada, USA, Mexico, Latin America, Middle East and Asia Pacific, who specialize in a variety of industries including oil & gas, petrochemical and power generation. Valve World Americas had the pleasure of speaking with Mr. David T.C. Huang, President of DHV about the company's recent milestones, high quality products and the importance of partnering with clients.



By Candace Allison & Sarah Bradley

Impressive Milestones

David began our conversation by sharing how the company first began. "With our first step into the global valve market in 1996, our attention and top priorities were to focus on manufacturing a quality product that the market so desperately needed at the time. But most important of all is to listen to what our customer requires from a valve manufacturer, especially with today's expecta-

tations of long term valve ownership. With that knowledge, of what the customer wanted and needed, DHV set out to not only satisfy their needs, but also set the bar for customer satisfaction. Twenty years later, a significant amount of business is still dependant on relationships. We have very strong representatives, agents and distributors in prime geographic markets. DHV has always believed in having strong rela-



tions with end-users and what better way than to have local representation supported 24/7 by DHV personnel?"

He continued to explain that since 2008, DHV has manufactured their valves at an expansive and fully equipped facility, which includes modern foundries, a state-of-the-art R&D center and a technologically advanced TAT testing center. This milestone achievement of development and testing has helped the company become a worldwide leader in the global valve manufacturing industry. Recently, DHV has started a joint venture manufacturing facility in the Middle East to enhance the company's presence in that area. In fact, David confirmed that the Middle East is DHV's most active and successful trading corridor because that is where the majority of client operations are located.

Worldwide, there are many JVs between major global energy companies and local government entities to maintain and operate existing production facilities as well as completing a capital project or series of projects. DHV has a long history of being on those JV's AMLs for big name operators such as Exxon, Chevron, BP, Total and Aramco. In fact, DHV has in excess of \$200 million historical sales to Shell JVs. David clarified that the AML process is a methodically planned process that takes lots of time, energy and customer interest because different companies have different procedures even though almost all recognize the API Recommended Practice 591, "User Acceptance of Refinery Valves" which DHV has adhered to since 2010.

Quality Products

All of DHV's clients appreciate the broad scope of products that the manufacturer offers. As David clarified, "Throughout the world we have found that all of our customers have very different needs from each other, but with our foundry facilities, we have the ability to produce specific and specialized valve requirements, which assures that the customers' needs are always met within the DHV family of valves. Our diversity allows them to standardize on a single brand for a wide range of valves. In providing our product to the customer, we have two prime factors:

First, the assurance of quality, and second the long-term cost of ownership for the products we supply. Quality is very important to DHV and cannot be sacrificed for lower costs. Since we control the entire manufacturing cycle from the raw castings to the finished product, we can minimize costs and lead times by utilizing in-house resources rather than out-sourcing. This also allows us to stay on top of the quality throughout the manufacturing cycle."

DHV's product portfolio is very diverse and offers valves that could be used in a variety of end-user applications including both cryogenic and high temperature environments as well as everything in between. Available commodity valves include Gate, Globe, Check, Ball, Plug and Choke Valves in sizes from 1/2" to 48" and pressure classes from 150# to 2500# but speciality valves such as Rising Stem Ball Valves, Metal Seated Ball Valves, Pressure Seal Valves and Non-Slam Piston Check Valves are also available. Regardless of the type of valve required, all valve products are offered in a range of carbon steel and alloys like WCB, WCC, LCC, LCB, LC3, CF8, CF8M, CF3M, CF3, CA15, A105, LF2, F304, F304L, F316, F316L, Duplex Stainless Steel and Inconel.

During our conversation David highlighted in particular the company's forged body 3-piece trunnion ball valves, which are designed to readily accept either Single Piston Effect or Double Piston Effect seat design. He explained that this is an important feature if a client has a valve with SPE seats and needs to change it out to SPE x DPE or to DPE x DPE, no modifications are necessary. All that needs to be done is swapping out the seat assemblies, which saves both time and money. He also mentioned that DHV's new Twin Seal Plug Valves will allow the company to enter yet another segment of the oil & gas sector. This means that DHV can offer the client a more complete range of valve styles than ever before. Over the past 20 years of business, clients have come to consider DHV as a one-stop shop for all of their essential valve needs.

In-house Production

Since the quality of each and every valve provided by DHV is crucial, the manu-

Customers' Needs are Now, not Later!



position as a leader in the valve market. Our customers' needs have changed and developed, meaning that they require the manufacturer to respond with quicker delivery times for their crucial projects. With this knowledge, we as a company have taken a very critical step in developing our DHV facility in Houston, Texas. Our Houston, Texas facility can meet the logistic needs and requirements of our North American customers in a timely manner."

Meticulous Quality Control

He also maintained that by manufacturing in their fully controlled foundries, DHV is able to go above and beyond in terms of production. For instance, he explained that prior to loading the castings into the heat-treating furnace, most manufacturers will place the test bars on the peripheral of the trolley but DHV ensures the test bars are placed on a rack which is then located dead center on the trolley while all castings are placed in an organized manner around this rack. This guarantees that all of the castings, even the ones in the center, have been properly heat-treated. In addition, DHV always makes sure that the Maximum Allowable Content of Aluminum is $\leq 0.040\%$ even though this is a stricter control than the Industry Norm of $\leq 0.060 - 0.065\%$. This is critical because too much aluminum can cause a casting to crack, which is a chance the company refuses to take. Since many of the end-use applications for DHV's valves include severe service environments in refineries or power plants there is absolutely no room for failure because lives are literally on the line.

All of DHV's products are individually tested and inspected as per ASTM Chemical Analysis, API 598/6A or 6D Hydro Test and MSS SP55 Visual. Addi-

tional testing can also include TAT, fugitive emissions (see sidebar), PMI (positive material identification), High Temp Cycling, Cryogenic, High Pressure Gas, BS, CSA, ISO, and NDE (radiographic; mag particle and dye penetrant). The high pressure gas/nitrogen shell and seat testing is one of the most efficient methods to verify valve products to ensure they will meet the most stringent and challenging service conditions. By having all testing methods completed in-house it is much more efficient because depending on any findings, the applicable production personnel are right there to strategize and help solve any issues that may arise.

Reliable Customer Service

Paying attention to the customers' needs is something that all company personnel take extremely serious. David explained that when working with a client who has experienced constant valve problems when dealing with other manufacturers, DHV gets right to work partnering with the client to make sure a solution is found that ideally will eradicate the problem. In many instances, members of the DHV technical team will go to the client's site operations and meet with the operators and maintenance staff to come up with solutions. Since DHV controls the foundry operations from start to finish, there is always the option of modifying the valve pattern at foundry level instead of merely modifying an existing valve to meet requirements like most other manufacturers.

David maintained that in today's valve market it is crucial for a manufacturer to realize that "the customer's needs are now, not later!" This is why DHV always has personnel conduct individual customer analysis of projects or distribution so the company inventory can also be increased to contain exactly what a client may require. This way, the customers' immediate and daily requirements are always met.

Why Choose DHV?

When asked why a customer should choose DHV over another valve manufacturer David was quick to answer that DHV is unique because of its approach to customer satisfaction in both quality and service. The company's approach to valve design goes well beyond other valve manufacturers because the valves are continually evaluated, tested and proven to work successfully in severe service environments. As well, all of the valves are serialized so they have complete traceability, right back to the very raw material that is being used in the foundries. In terms of service, David aptly stated, "From our engineering team to our shipping department, it's our team members who continually focus on customer satisfaction that makes the real difference. Our customers have found that when they work with us, they truly have a partner they can trust to understand their project and be there after the project is completed. In today's valve market, to be truly successful and

have the trust of your customer, you don't just meet standards, you exceed them; this is what we do each day."

David ended our conversation by asserting that, "DHV will continue to set the trend for both customer satisfaction and high quality products. Our years of experience and true understanding of what our customer wants and expects, has led our company to continually adjust and grow to meet the needs of this ever-changing industry. It is because of our R&D team that DHV continues to develop and improve our valve product lines to meet the new challenges for service application, operator safety and environmental responsibility. We will continue to be a dedicated supplier to the growing oil & gas, petro-chemical and power sectors both now and in the future."



factorer pours its own castings either in the Lost Wax or Sand Cast foundries. A team of highly skilled and dedicated employees perform all of the machining, assembly, testing, inspection, painting and crating processes in-house. In addition, over 60 quality assurance/quality control personnel are staged throughout all of the production areas to ensure not only quality but also that all delivery times will be successfully met, which has contributed to DHV's 93 percent on time delivery record; something the company is very proud of.

David shared that being able to manufacture domestically is important to the current market because, "Our world continues to change, and as a manufacturer we too must be able to not only meet the needs of the current market, and where it is heading, but also take the



■ PREVENTING FUGITIVE EMISSIONS

David shared with us that fugitive emissions prevention is very important to DHV. For the last several years the company has had the certification for ISO 15848-1 *Industrial Valves: Measurement, test and qualification procedures for fugitive emissions*.

The current standard issued by the American Petroleum Institute (API) is API 624 *Valve Emission Standard*. He explained, "DHV has retained Yarmouth Research and Technology in Maine, USA for the testing of our forged and cast API gate and globe valves for the full size and class range.

API 641 is the very recent standard issued for quarter turn valves. "Our company is currently undergoing testing and certification for this standard and have targeted completion for the end of the second quarter in 2017."

The views and opinions expressed in this article are those of the profiled company and do not reflect the position of Valve World Americas.