



Rupture Pin, Taylor Valve & Taylor Vaetrix – a passion for innovation

Using his engineering and physics education, and experience in the oil field, Julian Taylor became a solutions provider and problem solver for the industry. Mr. Taylor established a strong background in inventing by reflecting on the problems he encountered in the oil field and then searching for a solution. Now credited with over 110 patents, Mr. Taylor has passed on the three companies that he established - Taylor Valve Technology, Rupture Pin Technology and Taylor Vaetrix - to his three sons. He continues to build on the technology that was the foundation of the companies. Continuing his role as an inventor, Mr. Taylor continues working on new product ideas. The Taylor family prides itself on the close-knit community within the organization and the brothers are proud to maintain and grow the company legacy.

Valve World had the opportunity to visit the companies' Oklahoma City, Oklahoma headquarters to meet with Anthony Taylor - President of Rupture Pin Technology, Paul Taylor – President of Taylor Valve Technology and Gregory Taylor – President of Taylor Vaetrix. The brothers discussed their unique product offerings, the importance of technological advancement and their plans for growth in the future.

By Sarah Bradley



Taylor Tools was established in 1958. Julian Taylor began inventing, designing and manufacturing oil field solutions in his garage until the company grew to allow his focus full time. The original line of gauge plugs and probes that became the company's bread and butter is still the mainstay of the Taylor Vaetrix product line. "Out in the field farmers and hunters were shooting gauges off the oil pipelines, so the oil producers approached our dad and he came up with the plug and probe system, which allows them to put the gauge on the line, spot check and go off to test the next part without leaving the gauge on the line permanently. It's still going after 50 or 60 years, so it's become



The Taylor brothers from left to right: Anthony Taylor, Paul Taylor, and Greg Taylor.

a revolutionary product that has become a standard around the globe for oil and gas industry," says Greg.

"That is kind of how all of the products came about - our dad approached potential customers, somebody he thought may have some applications that he could manufacture products or develop a solution for and that's how Rupture pin technology was developed too," explains Anthony.

"Taylor Valve has two core product offerings, our safety relief valves and chokes. Our father began, though, with the plugs and probes, but when you are doing well usually a competitor will want to come in and mimic it. In this case they outright copied our product because our

father didn't have money to patent the plugs and probes. So he looked at their product portfolio and rather than just copy it, he found the weaknesses in their products, improved upon them to create a superior product and patented the improved design," Paul adds.

Taylor Tools began to experience great success with these revolutionary new products and in the late 1980s when the industry crashed, in order to maintain investments for further technological endeavors, the company rebranded as Taylor Valve Technology. The technology remains a crucial core aspect to all three companies, as they continue to do what they have always done – look for innovative new product ideas to remain at the forefront of the industry.

While Taylor Valve is more heavily focused on the oil and gas markets, Rupture Pin has a broad focus on oil and gas, pulp and paper, pharmaceutical, food and beverage and all segments of the oil and gas industry - upstream, midstream and downstream.

Taylor Vaetrix focuses on a market separate than the other two companies, dealing primarily with oil and gas on the production side, but the company intends to break into new markets with some innovative new products soon to be released. "I think the division into three companies was a natural progression, because we all have very different customers, different sales channels and very different focuses," Greg says.

"I think the three of us bring new ideas and some new energy to the organizations. In terms of Rupture Pin, I see us as an up-and-coming manufacturer in the industry with lot of exciting new products. Over the next two or three years I believe we have some products that will really change the industry, that we are very excited about.



Taylor Vaetrix's Liquid Level Indicator.



Taylor Valve employees work together to ensure a high quality product.

With all three companies, we believe in our products, because the innovation got us to where we are – technology has always been a main focus and trying to stay at the forefront of industry technology with innovative, high-quality products that help us continue to develop and build a good reputation in the community,” Anthony continues.

Distributing through communication

Through communication with their exclusive distribution channels and independent representatives strategically located in domestic and international markets, the companies are able to identify new applications for their products. Anthony explains: “In terms of the relationship with our distributors and our suppliers, that shared knowledge between all three companies is so important. We pass along to each other knowledge to be able to source the best - not only the best products to utilize in our own manufacturing, but also having the knowledge of which vendors provide the highest quality, best customer service in terms of distribution channels. Which distributors are the best fit, in terms of our products and image.”

“We don’t have a lot of shared distributors and all three companies have quite a few independent representatives or distributors that are unique to each organization, but it is always good to know that if you are

looking for a new area representative, you have resources to go to. In terms of Rupture Pin, we have a very in depth training program that we developed to ensure that our independent representatives are completely capable of accurately representing and effectively presenting our products to our customers. The technical sales ability, and the ability to really present, not just the product itself, but the capabilities of the product to the customers is extremely important. Having that trust in our distributors is fundamental.”



Rupture Pin's Model JA Pressure Isolation Valve.

They are also able to learn about the needs of their clients from the ground up and work to provide them with the solutions they require. One of the ways this is achieved is through customizable product offerings and made-to-order products.

Offering customizable options as well as ever-adapting their standardized product lines to meet the needs of clients and the industry is imperative to their success.

“For Rupture Pin offering customizable products has been paramount, especially when we were in the initial stages of growth - we wanted to be able to offer our customers whatever they needed and we still want to be able to offer a lot of customizability for customers, because ours is a solution based product and so for us to maintain that is very important,” says Anthony.

“Our primary goal is taking care of the customer and their application and a lot of customer applications are different. We



Taylor Valve products are being prepared for delivery.

need to be flexible and we always have been and will continue to be so. A lot of customization is necessary," Paul reveals.

Looking towards the future

The Taylor family remains optimistic about the future of their companies with plans to expand their reach, product lines and continue to provide innovative solutions to their customers' needs. All three companies have experienced significant growth in the past few years – since 2008, Rupture Pin alone has experienced revenue growth of over 30% year-over-year – but in order to continue to meet customer requirements as the customer base grows, the ability to manufacture and maintain high levels of inventory is imperative. The companies have expanded into four new buildings in the past three years to increase production space, streamline manufacturing and accumulate inventory. Besides expanding their facilities, the brothers plan to expand their presence in the global market. While continuing to broaden their domestic growth and in Canada, the companies intend to expand into the European and Australian markets. And finally, Rupture Pin, Taylor Valve and Taylor Vaetrix plan to maintain their position at the forefront of the industry with technology, superior products and a commitment to bringing innovative solutions to their clients. "It's exciting. New technology is always exciting and I think not only our companies, but other manufacturers are starting to see that in order to be able to compete in our market and you have to come out with new technology," enthuses Paul.

"I feel like the new products we come out with will be pretty revolutionary for us. For the future, I am pretty optimistic about our potential. We have very good people and we have lot of expertise on our hands," Greg says.

"What has really been the strength of all the organizations is having unique products - high quality, technologically advanced, superior products to compete with the



Model JA/JB Safety Pressure Isolation Valves.



Model D Inline Safety Pressure Relief Valve.

rest of the market. R&D is a heavy focus day in and day out. We want to make sure that we are continually developing new products, coming up with new ideas to address different industry problems, or needs and if we are able to do that then we feel that we will be able to maintain our relevance in the industry for years to come," confirms Anthony. "I think solving problems for our clients has always been one of our strengths and it is one that we embrace - we value feedback from our customers. It is always exciting and challenging to come up with solutions for our customers in the industry's biggest problem areas and if we didn't have that ability, I think we would be a completely different company."

Rupture Pin Technology: The power of the pin



The Rupture Pin Safety Relief valve was developed in 1986, when approached by Shell and Exxon to help solve a serious problem the companies were facing with pilot operated valves. Using Euler's Law of Compressed Columns, Julian Taylor was able to meet the stringent requirements set out for him. Volume sales of the Rupture Pin Valve began in the late 1990's and upon receiving recognition from ASME as an approved technology, increased exponentially in 2003. The company has continued to foster and develop the product line and perfect the technology. For over two decades, many of the world's top companies have experienced the performance advantages of Rupture Pin's advanced safety relief and isolation valve technology. Servicing several industries, the Rupture Pin product is one of the most versatile and environmentally friendly products on the market in the prevention and reduction of fugitive emissions.

Taylor Vaetrix



"In the mid-70s, Taylor Valve was getting further into the gauge business - they were one of the first to incorporate a transducer into an electronic gauge. Until then a lot of people there were using dead weight testers which was very difficult because if you messed up one of the weights, if you got mud on them or anything like that, it would mess up all of your measurements. So the electronic gauge became Vaetrix's first real products and then in 2010 when we became our own entity we took up the LLI (Liquid Level Indicator) line and the gauge line and the plugs and probes and that is how we started," explains Greg.

Taylor Valve Technology



"We are very excited about our EPC (Environmental Protection Cap) product line. It is one of our newest products that is gaining momentum in the marketplace and we developed it in response to the environmental requirements and regulations that our customers face. The EPC is placed on the outlet piping of a safety relief valve and if the valve is ever leaking, let's say something gets caught on the valve seat, then it will give the operator an audible indication. Another feature is the unique tether around the pipe which ensures that the EPC will remain with the valve and not fly off into a nearby field," says Paul.