

RPM Tech: A reliable electro-hydraulic actuators provider



Founded in 2002 RPM Tech produces and supplies hydraulic valve actuators. The company has developed several types of automatic valves. RPM Tech, headquartered in Daejeon, Korea, produces valves that are both usable on site as well as remotely. By providing their customers with improved and intelligent products through constant management innovation and steady technology development they achieve a high level of customer service and client satisfaction. When Valve World editor Ms. Sohyeon Kang received the opportunity to speak with the company's CEO Mr. Daegon Kim she took the liberty to learn more about this relatively young and fast growing company.

Company origin

Most people know RPM as meaning Revolutions per minute, a measure of the frequency of a rotation. However, at RPM Tech it stands for Rotating Proceeding Machinery. The choice of letters is not a coincidence as Mr. Kim explains, "In our company name RPM stands for Rotating

Proceeding Machinery. We chose this name as RPM is a widely used abbreviation so it is easy for people to remember. They will make the link with the abbreviation and therefore remember our company name." RPM Tech was founded in 2002, but that was just the beginning. "It is true that it takes at least ten years to start a

business in industry. Even though we were officially founded in 2002, we only started sales in 2006." Founding RPM Tech was not the start of Mr. Kim's career. Before becoming CEO of the company he studied rotary machines and artificial satellites at the Korea Advanced Institute of Science and Technology (KAIST). After obtaining



The choice of location for the company was easy. "KAIST is located in Daejeon. After I came back from the U.S. I worked as a guest lecturer at the university and lived in the city. We [the company founders] recognized the convenience of being centrally located and decided to stay in Daejeon. From here we can transport anywhere within Korea in a single day."

Products

RPM Tech produces and supplies actuators, specifically hydraulic valve actuators. "We produce all kinds of actuators. Quarter turn, Multi turn, or Linear; however our specialty is most certainly our Electro-Hydraulic Actuator. There are three types of actuators: electro, pneumatic, and hydraulic. For many applications electro and pneumatic actuators are not strong enough. While ordinary hydraulic actuators are stronger, they do require an extra hydraulic governor. Our Electro-Hydraulic Actuators have built-in hydraulic power packs. This drastically reduces power consumption when compared to conventional electric actuators. Also, to provide better

maintenance service we have created a completely modular design. It permits ease of maintenance and upgrading of modules. Another advantage of our electro-hydraulic actuator is that besides reducing power consumption it has a close and open speed adjustment control and a variable speed motion for open or close operation. This can reduce the water hammer shock which happens by quick closing or quick opening of the valve systems." The other new developing actuator is an emergency cut out valve actuator of spring return type. It automatically closes the valve in case of emergency. Enquiries for these actuator types are increasing these days from companies based in USA, Middle East and Europe.

Solar power

RPM Tech does not only do business within Korea. One achievement that Mr. Kim is especially proud of is their electro-hydraulic actuator chargeable by solar power. "We received an inquiry from South Americas if it was possible to charge our actuators by solar power. In

a PhD Mr. Kim moved to the U.S. where he worked for a company that produces actuators for satellite communication. "When I moved back home I met up with some alumni from KAIST and we discussed starting a company together." This company was to be RPM Tech.



Argentina, there are many high mountains which have no or little power supply. Electro actuators are generally known to consume a lot of energy. We were definitely interested in finding a solution to this problem and after making some modifications our Electro-Hydraulic Actuators can now be fit with a 0.2kW or 0.6kW high efficiency brushless DC motor, making it possible for the valve system to operate with an extremely low power consumption."

Nowadays, the company's actuators are mainly applied in power plants, but over the previous years there has been a steady growth of petro chemical plants that have applied RPM Tech actuators. Internationally the company is gaining a steady customer base and the company's overseas sales take up just under 20% of the entire sales. "We are focusing on the global market. The actuator business is competitive, but I believe in our product and our price. We have sold actuators across the globe, from China to the Middle East." RPM Tech's largest customer base is valve manufacturers, but they are open to all business. "We do not usually sell to end-users, but have noticed more and more OEM's and agency's purchasing our actuators." In order to grow their international sales the RPM Tech has obtained 15 patents in Korea and worldwide.



International market

After a lot of innovative work and focus on perfecting the product Mr. Kim now wants his actuators to become recognized, "Our techniques are systematized and production is stable, so now it is time to focus on marketing. In the coming three years we plan to achieve a 6,800,000 Euro turnover from our overseas market. We want to take up 5% of the global actuator market." Domestically the company is stable and Mr. Kim is content with how business is going in Korea, "We do of course have to keep our eye on changes due to the

unstable economic situation, but we have gained a good reputation and Korean clients have realized that our products are just as good, if not better than other foreign brand actuators." Mr. Kim does not underestimate the work it will take to achieve his international goals, "It took us five years of hard work to finally receive approval and faith from our Korean clients. But we are positive and expect more growth in sales and a better economic situation in the future." For a company that only started selling internationally 4 years ago and has to build up a client base they



are fortunate enough to have quite an impressive list of customers in Korea. "Domestically we have done work for among others Hyundai, Posco, and Samsung, which as you know are not small companies. This gives us an edge when meeting partners for our overseas market."

Future

RPM Tech has a lot of in-house knowledge, but when necessary they are not afraid to outsource. Mr. Kim explains, "Major parts are manufactured here in this factory.



Sometimes we outsource parts, but every single item is tested by us. We believe in quality and quality control. Our customers expect the highest level of products, so we do everything to live up to their expectations." According to Mr. Kim there are still conservative hydraulic actuator manufacturers. "In comparison to them we have a price advantage. Nevertheless, we still need to achieve brand-name value to get where we want to be. We see huge potential for electro actuators with special purpose, which require a variable speed selection function."

RPM Tech spent ten years investing in Research & Development and has created a sustainable product by doing so. "As I said earlier, now is the time for marketing. We believe that maintenance services are vital to the success of our company and at the moment are even considering building a partnership factory next to a client's factory in order to provide the highest level of service possible." RPM Tech is a young company with young employees who have high hopes for the future. "Most colleagues are engineers that have been with us since the founding of the company. We are full of energy and full of hope." RPM Tech certainly has the knowledge and energy to achieve their goals. They are open to all possibilities and see a bright future ahead. A young company, a new generation in the actuation industry.

Facts & Figures

Name:	RPM Tech
Founded:	2002
Location:	Daejeon, Korea
Main Product:	Electro-Hydraulic Actuator
Key markets:	petrochemical, steel, waterworks, power plants, offshore.

