

Slide 1: Cover slide - Customer-led growth

Slide 2: Sook Won Moon, VP Sales and Aftermarket, John Crane

Good morning. I'm Sook won Moon, Vice President of Sales and Aftermarket. Today, I will talk about John Crane's market leadership and how our growth is driven by the value we deliver to our customer.

Before we start, a little bit about myself, I'm a chemist and I started working in John Crane Korea, 26 years ago as an application engineer. I have extensive international experience, working in diverse markets in various roles, in Asia Pacific, Europe and the US. My unique experience is in capital projects, and I keep my finger on the pulse of how customer needs are evolving by the end market. I spent the last 7 years in Texas, running the Global Projects organisation, in anticipation of changes in our market and our customers. And since September of last year, I have been responsible for the whole Sales and Aftermarket organisation in John Crane. This covers sales and service to both original equipment and aftermarket customers.

Slide 3: Executive summary

Let me share with you, what we actually do for our customers – and why we are such important partners for them. I will explain our products and service, how we operate in the market, and why we are the partners of choice.

We operate in both energy and industrial markets, where we are a leader in the most attractive segments, where the products are highly engineered with complex applications in harsh environments, and where the performance of the seal is truly critical. Customers place a lot of trust in the technical capability, reliability and integrity of our products and I'm proud to say that we've been doing this for a very long time. We work with various customers, right through from early-stage technical support on capital projects, to aftermarket service which can be anything from 25 to 50 years

Our partnership with our end user customers covers the total lifecycle of the plant, including extensive services to enhance our aftermarket proposition and to support customers in improving their performance. With our market leadership and capabilities, we are in a great position to deliver and capture future growth opportunities.

Slide 4: Providing mission-critical technologies and services

So, let's start by looking into the basics of what our products are: The photo you see on the right side of the slide, is the cutaway of a powertrain including a turbine, gearbox and compressor. Our products are used in various types of rotating equipment. Many of our products are critical for powertrains in gas compressors.

Here you can see examples including our mechanical seal, our auxiliary system to support the seal, our coupling for power transmission, our filters for various applications, as well as John Crane Sense, an exciting innovation in the market.

So, what is a mechanical seal? At the most basic level, a mechanical seal is used in rotating equipment such as pumps, mixers and compressors, between the dynamic and static machinery parts. Our seals are

used to prevent or minimise the leakage of fluids or gases, which can create pollution, contamination, and all types of inefficiencies. A seal is also a primary safety mechanism, as the seals will indicate, if there is anything wrong with the equipment itself. This is why mechanical seals are so important to our customers to optimise their production and increase the plant reliability and uptime.

Slide 5: Providing mission-critical technologies and services

Let me now show you how mission critical the technology is. We seal gases as well as liquids. This means that we must cope with molecules as small as hydrogen, or as viscous, and, dense as pulp – imagine the difference between air, and, syrup. You are sealing a system where one side is spinning at up to 50 thousand reps per minute or up to 200 meters per second, which can be twice the maximum speed of a formula 1 racing car, and the other side is static. The temperature our seals operate in, can range from minus 195 degree to plus 350 degrees Celsius. The pressure can go up to 450 bar for gas seals – that's more than 180 times the pressure of a standard car tyre. As if that wasn't difficult enough, our seals need to perform in different environments where there are huge temperature variances between day and night, with sandstorms in the desert and arctic areas which one can access only 3 months a year with an icebreaker.

Why is, what we do, important? We support a wide range of applications such as: large-size dry gas seals for LNG mega trains, where a halt in production could cost our customers up to 15 million dollars a day, hygienic design seals, which prevent contamination for Pharmaceutical and Bioprocessing applications.

We also provide products for cryogenic applications for sealing industrial gases such as oxygen, argon, and nitrogen, where the temperature can go down to minus 195 degrees Celsius. And in Mining and Mineral applications, we provide optimised products to handle the suspended solids, coarse slurries and chemicals in complex operations.

Imagine, if any of these applications go wrong, there could be significant negative economic, environmental and safety consequences for our customers.

Slide 6: John Crane has a leading position in a technically advanced market

As I said earlier, it is no surprise, that there are only a small handful of companies who can do, what we do. And that's because, although the total sealing market is large, there are various degrees of technical requirements by segment. A large part of the market is static seals like flat gaskets, O-rings, and also very simple seals. This market segment has limited technical advantages, it doesn't require differentiated aftermarket, and is not financially attractive.

For example, standard seals on the bottom of this pyramid can be 1 dollar per seal versus highly engineered seals on the top can be 100 thousand dollars per seal.

John Crane operates at the high end of the market. Our highly engineered seals are deployed in critical applications and are customised, often to operate in extremely harsh conditions as explained earlier. John Crane has created high standards, both technical and from a service point of view, so there are relatively few competitors in the market. This is why John Crane has a leading position in this technically advanced market.

John Crane Deep Dive – Customer led growth – Transcript

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30 November 2023



As if the technology wasn't difficult enough, we need to sell and service globally, for customers with sophisticated requirements across our installed base of more than 3 million seals and have trained engineers, in close proximity to customers' sites.

Slide 7: How we win

Let me explain how we win and why customers value us as a partner. We have a real commitment to our customers, we have a strong industry reputation and our customers recognise our technology leadership, backed up by a long history of innovation.

Our technology combined with our industry expertise, positions us well with customers – understanding their key challenges and providing support that goes beyond the product and service - bringing them transformational solutions.

Together we are powering sustainability, enhancing the efficiency of their assets and supporting the delivery of new energy technologies.

Add all of this together, there is only a small number of companies who can provide a very high-value solution to customers, those who have the combination of technically capable products and the engineering know-how, with the ability to provide a rapid response to customers.

We see this in our recent net promoter score survey, where we interviewed global customers on the key drivers of their decision making: our customers rate us highly on industry experience, service, and as a reliable technology leader.

We can command a premium on price because what's really important to our customers is the lifetime value and therefore our leading performance on the other parameters influences their decision to choose John Crane.

Slide 8: Gaining market share in OE supports recurring aftermarket revenue stream

Now, I will talk about our day-to-day operations, our customer engagement and how we bring products to market. We support multiple types of customers during the life cycle of the product and service offering. If we take an example of a typical capital project. In the early stage of the project, we engage with end users and EPCs, to understand the project specification and the overall size and value of the project. This enables us to propose the 'right' product early on, ensuring we provide what the customer needs and applying our best technology and gaining market share.

We then design, build, customise and supply the products to the OEMs. We focus on the customer's total cost of ownership, for reliability and sustainability. This is because once the products have been installed, we take on the prime contracting relationship with the End User to provide aftermarket service and support. It is a lifetime management programme, where a seal may be repaired or replaced 10 or more times during its 25 years of operation.

Aftermarket service is mostly captive for us. We also have an opportunity to take on the service of other companies' products, by demonstrating our service leadership. And this aftermarket longevity, from 25

to 50 years, supports John Crane's robust financial framework with margins around 1.75 times that of the original equipment.

Our model is a razor and razor blade model, but with the unique differentiation, that there are very few companies that can do highly engineered applications at the project stage and have the capabilities to support customers through the whole lifecycle of the aftermarket.

Slide 9: Success in capturing original equipment sales secures 25+ years of aftermarket

So why do customers choose John Crane, in the OE stage as I mentioned earlier – our experience, product capability and in-field reliability are important to our customers, with delivery and competitive price as a base requirement.

We provide strong engineering support in the design phase, which results in John Crane being the selection of choice on high end, critical applications. Our capability in engineering customized solutions and our deep relationships with customers, stand us in a good position. And our significant installed base globally gives us an enormous reference library, to demonstrate our experience to customers.

We target strategic projects in terms of customers, project types, regions and aftermarket with the aim to continue increasing market share and financial returns. A great recent example is our push into new energy applications, where we have made several notable wins. Our OE leadership leads to aftermarket leadership and the opportunity for us to expand our added value services in the aftermarket. As I mentioned earlier, about 90% of the mechanical seals we sell in the project stage, will reoccur in the aftermarket business. Given the higher margin and longevity of this service, the lifetime value of the aftermarket can be 10 to 20 times that of the OE element. So it's important for us to capture this initial OE element, part of which is determined by our offering on aftermarket.

Slide 10: Long-term, recurring aftermarket and service revenue

On the aftermarket side, engineering capability, service quality and responsiveness, are key decision factors. We deliver this through our global service network, located in close proximity to our customers, which enables us to respond rapidly to their challenges. Our problem-solving ability and customer support, are key strengths here, and its where we outperform competitors.

We also provide high value-add services to our customers, upgrades and retrofits, commercial contracts with partners and long-term service programmes such as reliability services, of which we have more than 500 contracts globally.

Also, we have digital solutions, which have unique capabilities in the market, to scale up our service level through our algorithm, and via predictive diagnostics. This helps our customers to improve their asset performance, extend the mean time between repair, eliminate unplanned downtime, optimize maintenance schedules, and reduce the total cost of ownership.

Our customers are relying ever more heavily on specialist experts like us, to help them improve reliability and production efficiency. Aftermarket is the sweet spot, where we add value to our customers and where future growth opportunities, are a major focus for us. So, we really invest in the customer relationship.

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Our goal is to be an indispensable Tier 1 supplier, who helps customers meet their most crucial challenges, and add value over the life of the project.

Slide 11: Closing remarks

So, in summary, we have attractive growth opportunities across a variety of markets. We are essential to our customers, because our product and service portfolio are critical for their operation and for their business. We support customers with their reliability, sustainability, and digital journey, increasing plant safety and helping them to reduce their carbon footprint. Our product reliability, service support and domain expertise, sets us apart.

And we are problem solvers – this strengthens our credibility and customer intimacy, generating loyalty and commitment over many years. For our customers, we are the partner of choice.