



CARGO CONTAINER CRANES
Creating value for the world

DOOSAN

Doosan Enerbility Vietnam

MATERIAL HANDLING SYSTEMS

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Outreach	70 m
Lifting Capacity	65 MT
Delivery	2020
Location	Ba Ria – Vung Tau, Vietnam



Aerial View of Doosan Vina

Doosan Enerbility Vietnam or Doosan Vina is a subsidiary of the more than one hundred year old Doosan Group of Korea.

Doosan Vina in conjunction with our parent company brings over a century of experience to your project. This includes advanced technology, a highly skilled workforce and state-of-the-art production facilities. Doosan has completed many mega infrastructure projects and exported products to countries all over the globe, this includes more than 700 Material Handling Systems that we've supplied to customers the world over; and those customers confirm that our cranes are some of the highest quality, most efficient and competitively priced cranes in their operation.



Doosan is a leader in the design, manufacture and service of all types of Material Handling Systems including: Ship-to-Shore (STS) or Rail Mounted Quayside Cranes (RMQC), Rail Mounted Gantry Cranes (RMGC) and Rubber Tired Gantry Cranes (RTGC).



Doosan Vina's talented engineers have been trained and are supported by experts from Korea to assure that our products are absolutely the best. From design to manufacture, erection and inspection, our products are proudly the cost effective choice of the logistics companies worldwide.

Doosan Cranes are known for quality, durability, and safety as well as cost-effective operation. As one of the few manufacturers that have a complete in-house operation, we can assure customers that Quality Control is maintained at all phases of their project. The company has designed, manufactured and delivered cranes for all types of loading and unloading conditions, meeting the customers' specific needs.

SHIP-TO-SHORE (STS) CRANE

Features of Doosan's World Class Cranes

- Rigid frame design for larger, quicker and more efficient cranes
- Rope-driven trolley or Self-driven trolley
- Ergonomically designed cabins with centralized console
- Advanced telescopic spreaders to meet a wide variety of conditions and needs
- Hydraulic anti-snag protecting
- Hydraulic or mechanical trim/list/skew adjustment systems
- Electrical anti-sway systems
- Trolley or rope designed catenary that maximize efficiency
- Festoon and cable reel systems for the quickest and biggest cranes
- Automatic position detecting systems
- Data communication systems
- Crane management and maintenance systems
- Energy from load descending can be reclaimed to the grid.



6 units of Panamax cranes under manufacturing for Gemadept Corp., Dinh Vu, Vietnam

Outreach	40 m
Lifting Capacity	40 MT
Delivery	2022~2023
Location	Dinh Vu, Vietnam



2 out of 8 Super Post Panamax Cranes for Gemalink (Gemadept Teminal Link), Vietnam

Outreach	70 m
Lifting Capacity	65 MT
Delivery	2020
Location	Ba Ria – Vung Tau, Vietnam



3 out of 12 Super Post Panamax Cranes for Bharat Mumbai Container Terminal (PSA), India

Outreach	63 m
Lifting Capacity	65 MT
Delivery	2017~2019
Location	BMCT, Mumbai - India



Panamax Cranes at the site of NSRP (Nghi Son Refinery & Petrochemical complex), Vietnam

Outreach	36 m
Lifting Capacity	50 MT
Delivery	2016
Location	NSRP, Vietnam



Post Panamax Cranes ready for shipment to JNPT (Jawaharlal Nehru Port), India

Outreach	51 m
Lifting Capacity	50 MT
Delivery	2011
Location	JNPT, India



Super Post Panamax Cranes for PSA International Pte Ltd, Singapore

Outreach	68 m
Lifting Capacity	65 MT
Delivery	2010
Location	PSA, Singapore

CONTAINER HANDLING CRANES - STS

Eight STS cranes manufactured by Doosan Vina are operating at the Gemalink port. Each crane is 93m high, 150m long, 27m wide, weighs more than 1,700 tons, can reach up to 70m and handle 65 tons cargo containers from the largest mother vessels up to 200,000 DWT



CONTAINER HANDLING CRANES - RTG & RMG

Doosan cranes provide efficient terminal management with the safest and most effective equipment in the industry.

Features of Doosan's World Class Cranes

- Rigid frame for durability, speed and safety
- Eight (8) or sixteen (16) wheeled gantry Cranes
- Ergonomically designed crane cabin
- Advanced telescopic spreaders to handle any standard container
- Hydraulic or mechanical skew/tilting adjusting systems
- Mechanical - Electrical anti-sway systems
- Intermediate wheel or crane turning systems
- Advanced festoon and cable reel systems for the quickest and biggest cranes
- Automatic position detecting systems
- Data communication systems
- Crane management and maintenance systems
- Crane automation systems
- Fuel saving systems



5 RTG cranes supplied to KPCT, India

Span	23.5 m
Lifting Capacity	40 MT
Delivery	2018
Location	KPCT, India



8 RTG cranes supplied to Saudi Global Ports (PSA), Saudi Arabia

Span	23.7 m
Lifting Capacity	40 MT
Delivery	2017
Location	SGP, Saudi Arabia



2 RTG cranes supplied to Danang Port, Vietnam

Span	23.5 m
Lift Capacity	40 MT
Delivery	2013/2015
Location	Danang Port, Vietnam



36 RTG cranes supplied to PSA International Pte Ltd, Singapore

Span	23.7 m
Lift Capacity	40 T
Delivery	2013
Location	PSA, Singapore



2 Rubber Tired Gantry Cranes (RTG) supplied to Sai Gon New Port, Vietnam

Span	23.5 m
Lift Capacity	40 MT
Delivery	2010
Location	SNP, Vietnam



49 RMG cranes supplied to Pusan New Port Co., Korea.

Span	28.4 m
Lift Capacity	65 T
Delivery	2006
Location	PNC, Korea

Doosan Vina's crane manufacturing facility is unmatched in the marketplace. With a total of 63.6 hectare of manufacturing and assembly area that was custom designed, equipped and features both enclosed and open bays that enable us to accommodate the manufacture of virtually any crane size. This along with our cutting-edge technology, experienced workforce and reputation for unsurpassed quality has positioned us at

the forefront of the industry. As a global player, we are proudly the manufacturer of choice of many well-known Port Operators over the world, such as: PSA, JNPT and CMA-CGM, etc. We have been invited and supplied the equipment whenever they have demands of the additional giant Ship-To-Shore or terminal Cranes.



High tech machinery in the fabrication area



The legs of an RMQC being manufactured in the indoor fabrication area



A trolley assembly being checked



One of the massive interior fabrication areas

Doosan Vina has developed its indoor Painting & Shot Blast shops to be state-of-the-art facilities. In addition, all the huge parts of cranes are safely moved by heavy equipment, such as SPMT's, giant crawler cranes, giant fork lifts or overhead cranes.



Painting & Shot Blast shops



Parts of an RMQC being moved by an SPMT to Painting & Shot Blast



Parts of an RMQC entering the Shot Blast shop

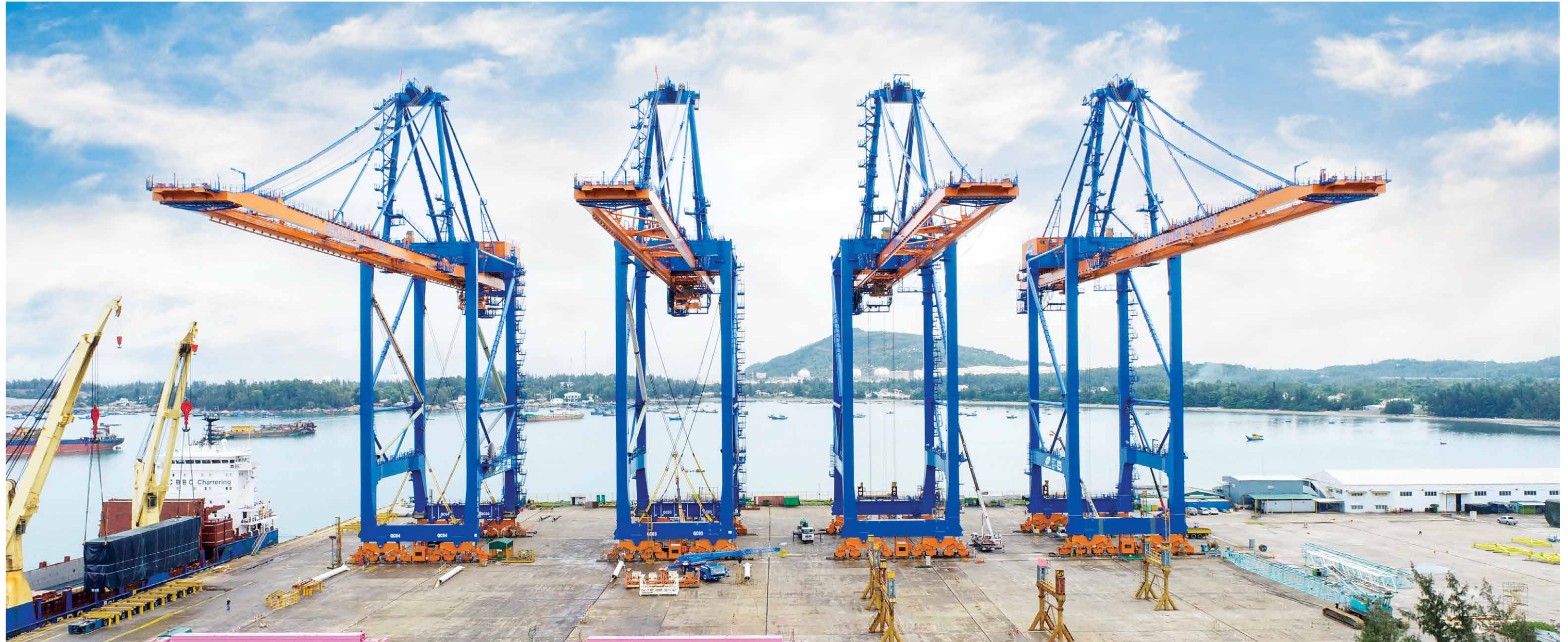


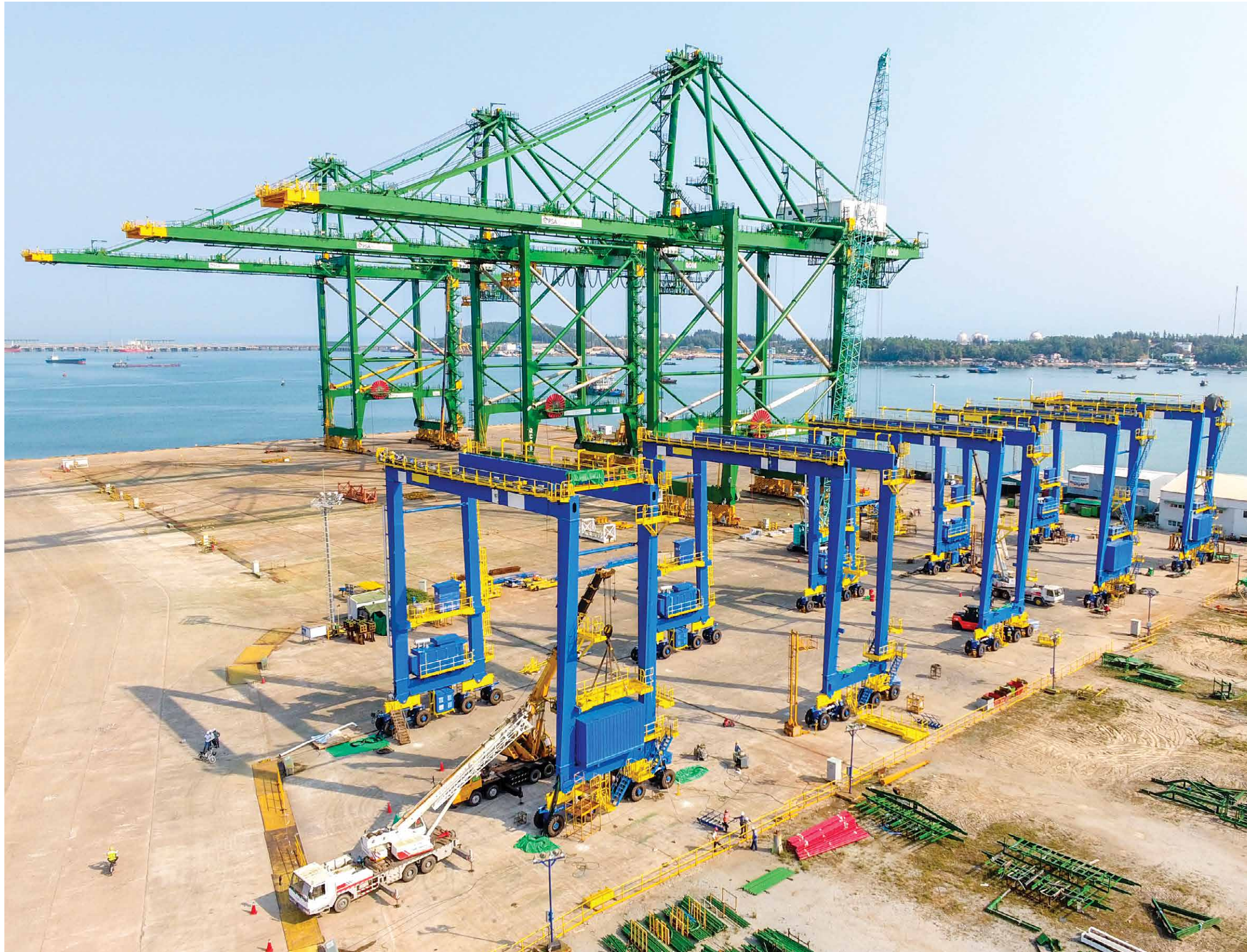
Parts of an RMQC are moved out of the indoor shop



Painting







Doosan Vina strength lies not only in our massive capacity but also in our commitment to quality assurance and our experienced manpower.

Capabilities

- Skilled and experienced manpower
- Extensive global experience
- High performance & reliability
- State-of-the-art facilities and technology
- Dedicated port for importing material and exporting products
- Strict Quality Control Systems with a "Zero Defect" policy
- EHS Policies that not only assure a safe working environment, but also to meet Global Standards
- Quality Assurance that meets Global Standards



Doosan's Korean crane experts have over 30 years of experience. And they have been paired with 100 of the best and brightest designers and engineers



The QC team checks a crane during assembly



Customer is checking after erection

All cranes can be shipped from our dedicated and purpose built port fully erected. Berth Details: Length: 237m (01 Berth); Depth of Berth: 8.5 m



Several RTG Cranes are being shipped to PSA International Pte Ltd, Singapore



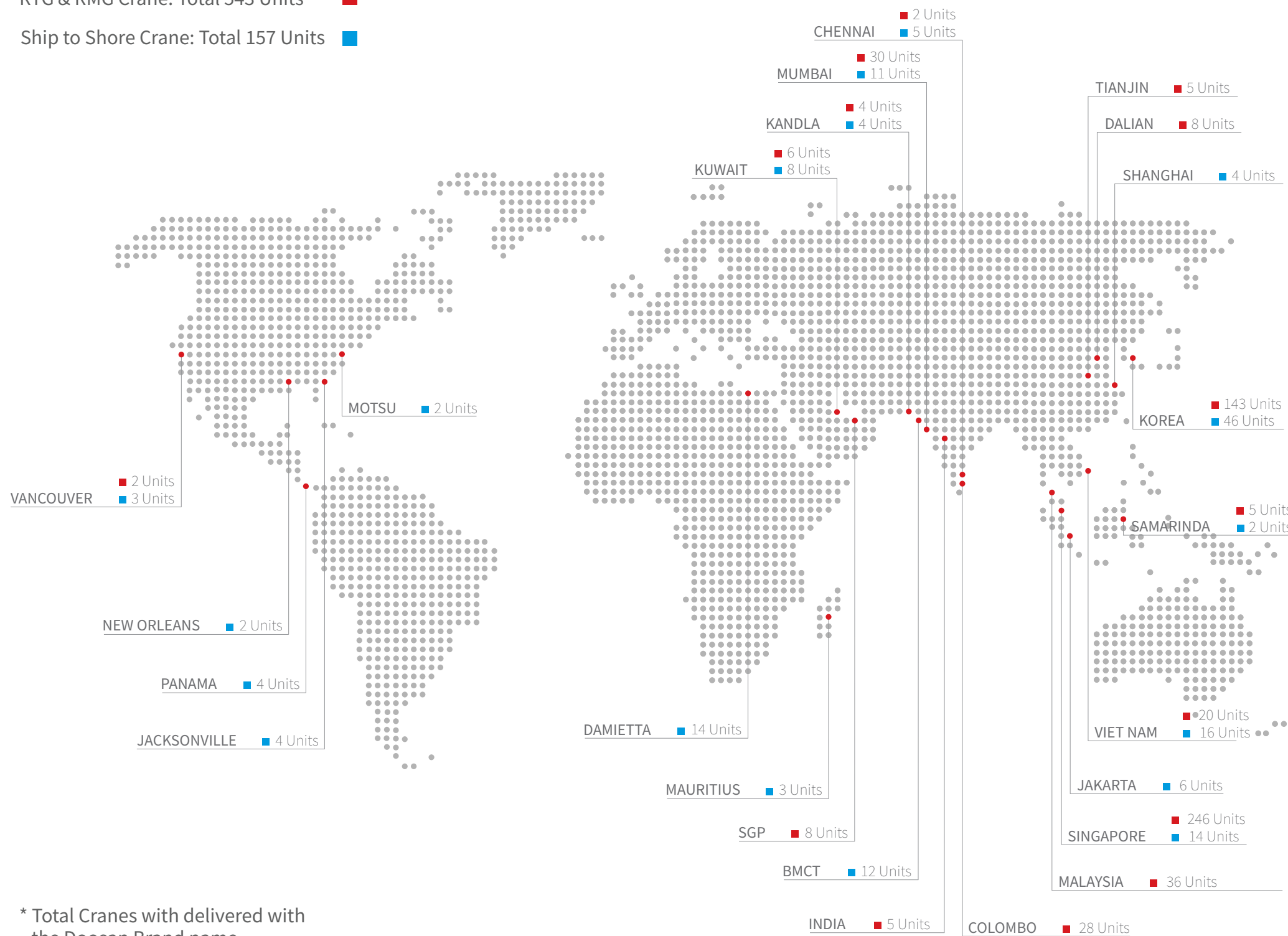
A huge ship berthing at Doosan Vina's Dung Quat Port

With more than 35-years of experience in crane manufacture, Doosan has established itself as a manufacturer that can be relied on for cranes that meet and exceed customer expectations both now and in the future. Doosan Vina designs and manufactures the most efficient, durable and safest cranes available today.

Over 700* Cranes delivered Worldwide

RTG & RMG Crane: Total 543 Units ■

Ship to Shore Crane: Total 157 Units ■



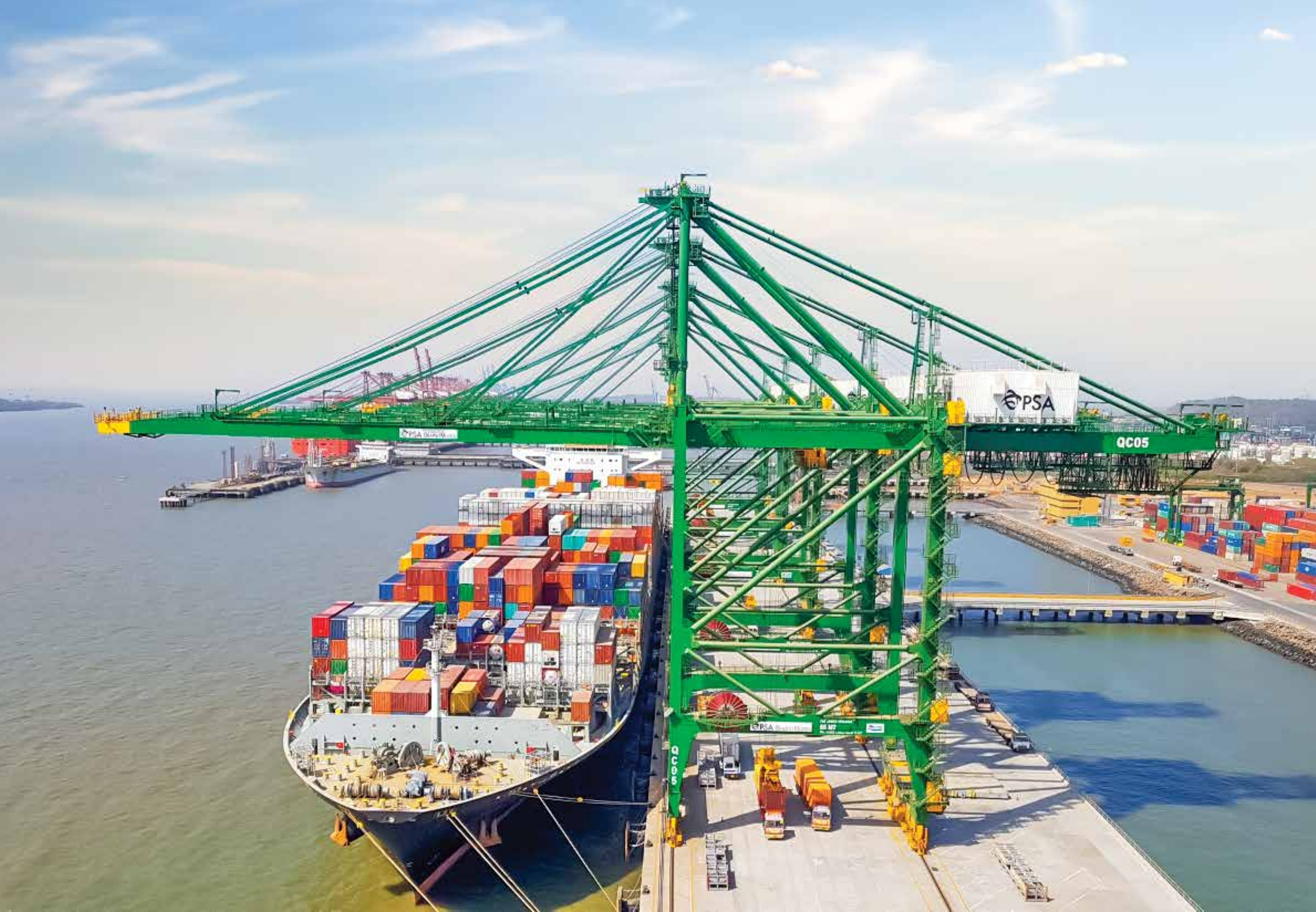
* Total Cranes with delivered with the Doosan Brand name

CUSTOMER SATISFACTION

Doosan's customer service is a partnership that creates a win-win to benefit all parties, both now and in the years ahead. It begins when we meet and it continues throughout our relationship. A key element in our Customer Satisfaction program is our training for crane operator that ensures you are maximizing your investment.

We are also committed to providing reliable service that minimizes downtime and response time that is amongst the quickest in the industry. Doosan's believes continuous innovation and customer satisfaction is what makes us stand out as the best; and makes us the crane manufacturer of choice for those looking for the most cost effective, durable and safest solutions for their material handling needs.





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