

QUBE PORTS PTY LTD Bulk Cargo Integrated Solutions



Qube's vision is "To be Australia's leading provider of Integrated Logistics Solutions focused on Import and Export Supply Chain Activities".



About Qube

Qube is Australia's largest integrated provider of import and export logistics services, with national operations that provide a broad range of services and an unrivalled network of assets in over 100 locations across Australia, New Zealand and South East Asia.

The Ports division has diversified operations from Dampier in the west, where we service the oil and gas market, through to Port Kembla and New Zealand in the east, where we handle motor vehicles, heavy machinery, project cargoes and logs, and across the Asian market in countries such as Indonesia, Fiji, Vietnam and Papua New Guinea.

The Bulk division provides customers with the full range of bulk material handling services including road/rail transport, stockpile management and bulk/Rotabox™ ship loading, and handles more than 20 million tonnes of bulk products per annum.

The Logistics division has strategically located facilities in all capital city ports and provides road and rail container transport, customs and quarantine services, container parks, intermodal terminals, warehousing and international freight forwarding.

We pride ourselves on our best practice service delivery through our port precinct facilities, an unrivalled logistical network, and infrastructure assets that are complimented through the application of innovative technology solutions. Qube's key business strength and competitive

advantage is that we own and operate the infrastructure that enables Qube to design, implement and manage fully integrated supply chain solutions which provide our customers with flexibility, reliability and cost competitiveness.

Our culture is based around flexibility, and responsiveness to our clients' needs. We employ the best people in our industry, with a breadth of knowledge across multiple facets of the supply chain. Qube has an excellent reputation and proven track record in providing innovative, cost effective solutions to our clients, focusing on reliability and safety as our number one priority.

A fundamental distinction of Qube's businesses is the ability to offer customers a comprehensive logistics supply chain solution. This is possible due to Qube's deliberate decision to develop capabilities across multiple aspects of the supply chain, from the port to the end-customer for both import and export products. This integrated approach enables Qube to remove inefficiencies in the logistics supply chain and provide a value-add competitive service to our customers.

Qube Facility Locations

Qube Ports is the pre-eminent integrated port solutions and logistics provider in Australia, and is the specialist integrated port services provider of the Qube Group, with bulk and general handling facilities in over 50 Australian, New Zealand and South East Asian ports. This allows Qube Ports to lead the market in providing purpose designed solutions for our customers handling containers, bulk, automotive and general cargo.







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Bulk Cargo Integrated Solutions

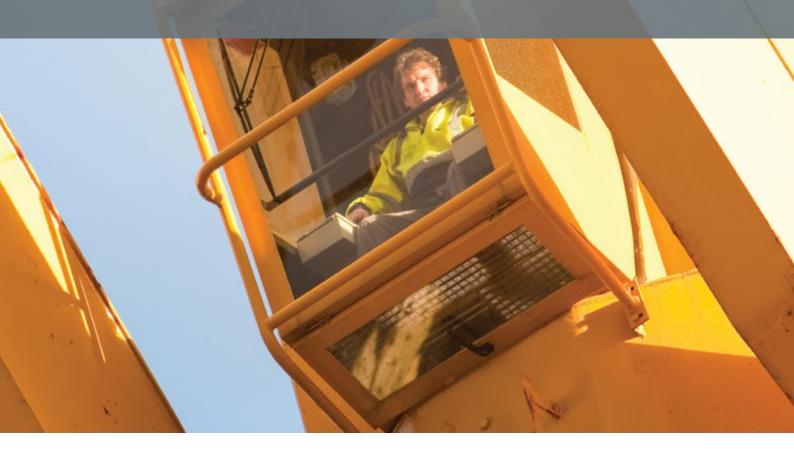


Qube Ports specialises in the development and management of an integrated bulk cargo service solution incorporating stevedoring, transport and storage of bulk products. Our experienced team understands the demands of importing/exporting small parcels as well as large parcels of bulk products through a number of differing load and discharge systems.



Our service offering encompasses the complete logistics chain across all Australian states and territories and includes:

- Vessel agency/charter
- Freight forwarding and customs clearance
- Stevedoring
- Dedicated transport with various combinations of trucks/trailers
- Specialist equipment for discharge/loading bulk products
- Storage facilities on and off-wharf
- Load out and delivery to end destination points
- Logistics and inventory stock management reporting.



National Service Delivery



Qube Ports is the market leader in the provision of integrated bulk solutions throughout Australia. Our expertise has been developed through the provision of supply chain services for the following volumes per annum:

Products	Tonnes
Cement Products	2,100,000
Mineral Products	1,800,000
Fertiliser Products	1,600,000
Meal Products	450,000



This high volume of bulk cargo handled by Qube Ports throughout Australia each year reinforces our understanding of the technical requirements to successfully manage bulk cargo on behalf of our customers.

We have extensive experience with the specific handling characteristics of bulk products which has resulted in Qube having developed best practice methodologies in Australian bulk cargo service delivery.

Qube Ports has identified that, with a number of segments in the supply chain (including stevedoring, equipment hire, transportation, warehousing and stockpile management), there are many interfaces

which can preclude high levels of productivity and efficiency. Having multiple owners of each supply chain segment increases delays and fails to provide customers with the desired output.

Qube Ports' provision of an integrated service offering removes inefficiencies in the supply chain, improves cost control, and ensures our customers have a supplier with full accountability for service delivery.



Corporate Investment & Commitment to Best Practice



Qube Ports recognises the need to invest in the latest equipment and technology in order to remove inefficiencies in the supply chain and, as such, we have committed over AU\$5 million to purchasing new bulk handling equipment in the last 24 months.

We have also extended our bulk handling support to include the management of warehousing and transport at a number of ports throughout Australia. To improve productivity and efficiency across our operations, Qube has recently invested in or replaced:

- Environmental hoppers
- Standard hoppers
- Portable weighbridges to ensure chain of responsibility compliance
- Diesel operated grabs
- Single line remote operated grabs
- Front end loader and excavators
- Dedicated bulk warehouses
- Trucks and trailers

We are confident of our experience and ability to continue to provide importers and exporters highly efficient port services. With a focus on stevedoring and bulk handling, Qube Ports is well placed to deliver productivity through our highly skilled and dedicated workforce that can be relied upon to meet procedural compliance requirements.

In conjunction with industry operators, Qube Ports has developed best practice standard procedures for transport, bulk management, and both the discharge and loading of vessels. These procedures are reviewed and revised in the event of an incident to consider what mitigating actions are required to prevent a reoccurrence of the incident.

Proven Service Efficiencies & Improved Performance



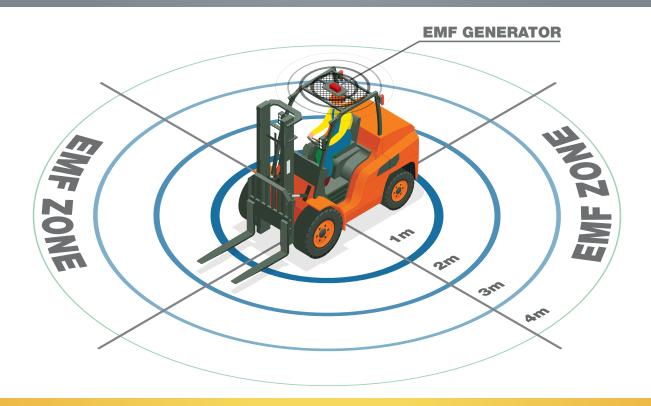
In Darwin, bulk discharge operations were often impacted by the significant tidal variations. In order to reduce the delays associated with being unable to reach the wharf hoppers, Qube invested in a pair of diesel grabs. This purchase was designed to allow for a reduction in chain length from the crane hook, ensuring grabs could continue to operate and reach the hopper at most stages of the tidal window.

Seeking to continuously improve service delivery and provide our customers with a best in class solution, Qube considered the use of a mobile harbour crane to facilitate bulk discharge at Darwin. Now, the implementation of mobile harbour crane discharge operations has completely eliminated the tidal factor during unloading and has also provided an increase in hourly output.

Additionally, the use of the mobile harbour crane has had a positive impact on environmental controls in the Port. The Qube operations team

considered the location of the wharf drains and systems to provide covers for spillage and identified that, in order to eliminate the risk of environmental spillage, the wharf hoppers ought to be located behind the mobile harbour crane. To date, productivity benefits from continuous operations and environmental improvements have demonstrated Qube's implementation of the mobile harbour crane to have delivered significant service improvements and customer benefits.

Innovation and Continuous Improvement



Qube embraces innovation and continuous improvement within our business and the broader markets in which we operate to achieve improvements in financial outcomes, client satisfaction, productivity, efficiency, safety and environmental performance.

Qube has been at the forefront of containerised bulk tipping supply chains since its inception in Australia. We are the only operating logistics company to have invested in internal research and development (R&D) of our own containers, tipping spreaders and information technology.

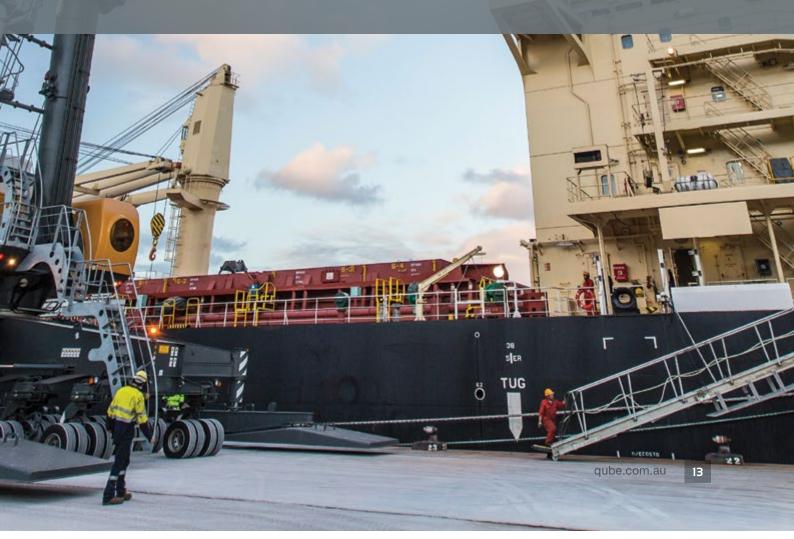
Qube pioneered the design and development of rotating container tippers with integrated lid lifters, revolutionising the way bulk ores and concentrates are transported and loaded, and improving productivity by 20%.



Qube's current innovation portfolio includes development in the following areas:

- Design and construction of consistent and enhanced stevedoring shelters (safe zones)
- Development of an automated scrap steel solution
- Investigation and implementation of a bulk cargo discharging solution to futureproof the increasing environmental regulations
- Installation of "smart" axle scales to heavy vehicle fleet
- Automated cargo scanning solution

- Exploring the use of drones, cameras or similar to allow centralised remote monitoring and supervision of vessel operations
- Development of electronic vessel logs and associated supply chain tracking solutions for bulk cargo
- Introduction of in-vessel-hold detection technology (where remote operations cannot be an option)
- Investigation of other autonomous systems to remove personnel from high risk operations.



Supply Chain Visibility and Management



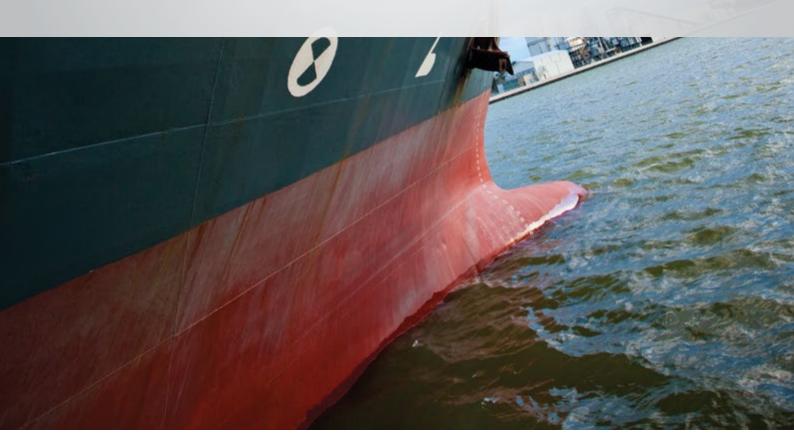
Qube brings together extensive experience, proven technology, robust information systems, and the ability to rapidly design and build unique solutions for our customers. We deliver a high performance logistics capability for optimally planned, tracked and managed inventory, freight and shipments through integrated systems that deliver superior customer service outcomes.

Qube operates a comprehensive IT system and technology portfolio consisting of best in class solutions to effectively manage our people and equipment, customers' inventory and cargo, to integrate with our customers and service providers, and to provide visibility of cargo and freight movements in order to deliver valued services and lower operating cost for our customers.



As part of Qube's integrated technology solution, we provide and utilise the following suite of systems to manage and deliver services for customers:

- Connect Cargo and Consignment Management System
- Supply Chain Event Management and Visibility Platform
- Safety, Environment and Health Management System
- Safety Incident Management System
- Enterprise Asset Maintenance (CMMS) System.



RotaboxTM Containerised Bulk Supply Chain Solution



Qube pioneered the design and development of rotating container tippers with integrated lid lifters, revolutionising the way bulk ores and concentrates are transported and loaded.

As bulk haulage operators and stevedores we not only build the gear but we use it ourselves, day in day out. We know exactly how it operates and this has driven continuous improvements in RotaboxTM design and functionality.

Now in its fifth generation, improved Rotabox[™] technology delivers productivity gains, logistica flexibility and environmental advantages.

Innovative Low Capital Investment

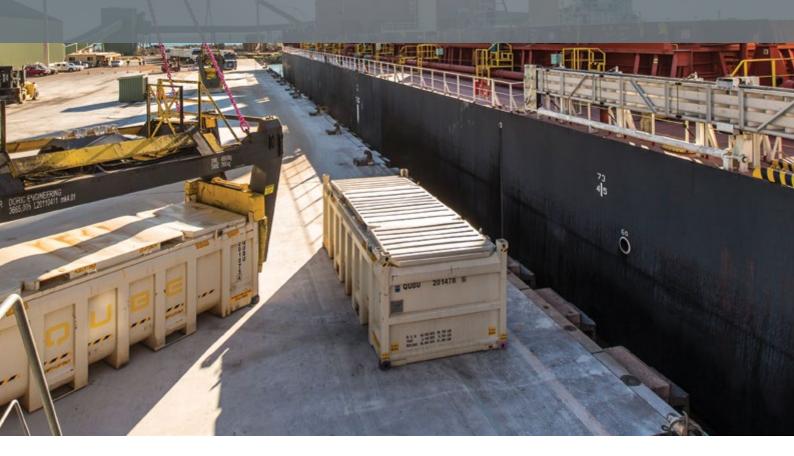
- Combines the use of a rotating frame (designed and built by Qube) and purpose designed bulk containers to ensure zero fugitive dust emissions
- Alleviates the need for expensive bulk storage sheds, conveyors and ship loaders
- Container lids are removed and replaced automatically before the container leaves the hold, which eliminates any carry back of product into the environment

Versatility and Environmental Benefits

- Rotabox[™] can be operated without modification from all crane types including ships cranes, harbour mobile cranes, container gantry cranes, reach stackers, etc.
- Wireless control that can be operated remotely or from the crane cabin
- No dust emissions or spillages not only saves the environment, but also saves time wasted on costly berth clean-up
- Rotamist water misting system works seamlessly with Rotabox™ when dealing with extreme fugitive dust conditions

Productivity

- Industry best practice rotational speed
- Rotabox[™] Fast Frame improves productivity 20% by improving the efficiency of container handling on the berth
- Multiple crane and Rotabox™ combinations increase productivity.





Qube Ports' bulk cargo experts, as part of the broader Qube Holdings, are capable of delivering to our clients a one-stop-shop for integrated bulk cargo solutions that provide:

- Increased efficiency and accountability
- Improvements in productivity
- Best in class safety and governance practices
- Reductions in product damage
- Improved audit and customer satisfaction scores
- Improvement in employee engagement and workplace culture
- Reductions in lost time injury frequency rate (LTIFR)
- Reductions in breaches of workplace procedures







Contact Details

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