

## MEDIA RELEASE

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### DUKC® technology reduces Lyttelton dredging

OMC International, the world leader in under-keel clearance technology for ports and harbours, has helped Lyttelton Port Company (LPC) significantly reduce the volume of dredging required to upgrade the Port's entrance channel, through use of Dynamic Under Keel Clearance (DUKC®) technology.

Later this month one of the world's largest dredgers will start work enlarging the entrance channel to Lyttelton Port, New Zealand. In Stage 1 of the project the existing 7km shipping channel will be lengthened by 2.5km, widened by 20m and deepened to increase maximum vessel draughts from 12.4m to 13.3m. The project is the result of more than two years of careful planning and stakeholder consultation by LPC.

With container ships having doubled in size in the past 10 years, the channel deepening project is necessary to ensure the Port can accommodate larger vessels and support Lyttelton's future as the South Island's major international trade gateway.

LPC Chief Executive Peter Davie said dredging of the shipping channel "will enable larger ships to call at Lyttelton Port providing Canterbury's importers and exporters the best possible and most cost effective international shipping solutions".

As part of the Port's commitment to minimise the environmental impacts of the project and provide an efficient service to its stakeholders, LPC engaged OMC International to review the preliminary channel design and determine optimum channel depths required to allow the larger ships to safely transit to and from the Port.

"OMC provided LPC with two alternative channel design profiles," Project Director Martin Watts said. "The first design was the most efficient design that could be achieved if LPC continued to use traditional methods for managing the under-keel clearance of deep-draught vessel transits. The second design was based on applying a more scientific decision-making process using OMC's DUKC® system.

"LPC evaluated the costs and benefits of the two approaches and the outcome was clear: The decision to adopt the DUKC® system has allowed LPC to reduce the dredging volume required for Stage 1 of the deepening project by more than 40% compared with initial estimates, which were based on standard industry guidelines.

"Adoption of DUKC® will provide the port with a significant reduction in capital dredging costs and ongoing operational benefits through wider vessel sailing windows and a reduced risk of vessels grounding under severe conditions."

Channel dredging should be completed by November and Lyttelton Port expects to be able to accommodate deeper vessels by the end of 2018 when the new navigation aids, and DUKC® system, will be installed and operational.

Background videos

DUKC® technology: <https://vimeo.com/165530252>

LPC Channel Deepening project: <https://vimeo.com/171642503>

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