

## OMC's role at bulk ports acknowledged at Awards

OMC International's Dynamic Under Keel Clearance (DUKC) technology was rewarded with a highly commended certificate at the Australian Bulk Handling Awards.

**D**UKC is a computer system that calculates waves, tides, currents, vessel dynamics and, crucially, the vertical component of navigation (what you can't see under the water) to allow the safest and most efficient transit of ships in and out of ports.

The system was developed by former Melbourne University academic Dr Terry O'Brien in 1987, with the first system going into Hay Point coal terminal in 1993.

DUKC replaces static rules-based systems, instead operating in real-time on a computer on the ship's bridge. It allows ships to sail deeper with confidence, with one centimetre equating to 130 extra tonnes of coal or iron ore. Such extra tonnage can be achieved at a fraction of the cost of dredging.

Now in 19 ports worldwide, including 11 in Australia, OMC International estimates that its system is worth between \$50m and \$400m annually to such facilities as Weipa, Newcastle, Port Kembla, Geraldton, Fremantle, Bunbury and Dampier.



(above) DUKC in use at Port Hedland.

(right) Dynamic Under Keel Clearance (DUKC) in operation.



OMC International's highly commended certificate was awarded to it in the Innovative Technology category.

Contact: [www.omc-international.com.au](http://www.omc-international.com.au)

## Wallace & Sons wins for Uni-Chute

**T**he other dual winner in the Excellence in Transport and/or Conveying category at the Australian Bulk Handling Awards was Wallace & Sons Research which has developed a series of products aimed at high capacity conveyor applications.

Wallace's products are aimed at mining applications involving intractable problems such as sticky ores prone to blockages. Peter Wallace told ABHR that the products increase the durability of wearing components, facilitate safe operation and reduce dust.

One product, the Universal Conveyor Headchute or Uni-Chute consist of two, flexible suspended curtains, supported by a curved steel cross member, which is located on the top upper flange of the conveyor chute.

"Uni-Chutes are unconditionally guaranteed, and have proven to be non-choking, exceedingly long lasting, able to handle occasional lumps up to 0.75m<sup>3</sup> in size and very simple to install and maintain," explained Mr Wallace.

"They are primarily designed for large materials handling systems, such as 15,000 t/hr, 6 m/s iron ore conveyor chutes, but may also be adapted for any material and any size and shape of conveyor chute.

"Because of their compactness and the self-training way they operate to control material movements, Uni-Chutes can markedly reduce the heights of chutes and conveyor transfer stations.

"This can lead to overall design, construction and installation cost reductions, for complete multiple transfer conveying systems, of the order of 35% for both new and existing chutes."

Peter Wallace said that the Uni-Chute obviated the need for expensive chute model testing and added that they are being widely applied by such companies as BHP Billiton and Rio Tinto.

Wallace & Sons' other products include: self-cleaning conveyor return belt pulley cleaners, Uni-Trap chute wear liner plate systems, and universal conveyor pulley lifters.

Contact: [www.wallaceandsons.com.au](http://www.wallaceandsons.com.au)

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