



**Product**

## Marine Standard Ventilated Multi-plate Clutch

**Application**

## Seabed dredging vessels

**Highlights**

- Larger friction surface area
- Compact size aids installation
- Reduced load inertia
- Lower surface temperatures
- Reduced friction wear

Van Oord Dredging and Marine Contractors has deployed more than 17 specialized vessels to build what will be the largest man-made island in the world in the United Arab Emirates. One dredging vessel, the Volvox Terranova, is capable of shifting more than 20,000 m3 of material in a single load. The vessel uses a huge, toothed draghead to channel sand from the seabed into an intake where powerful suction pumps pull sand into the vessel's hopper.

Sand and saltwater are highly corrosive and abrasive, so equipment life can be short. To improve equipment performance, Wichita Marine Standard Ventilated multi-plate clutches have been installed for the main dredge pumps on two of the dredging vessels. On one vessel, a dredge pump drive powered by an 8,000 hp diesel engine is linked by a pneumatically actuated clutch/coupling combination that allows the pump to be connected or disconnected rapidly during dredging.

Replacing the original conical clutch with the Wichita multi-plate clutch provided a lighter design that is smaller in diameter, but with a larger friction surface area. The new clutch significantly reduces load inertia. This, in combination with the increased friction area, results in lower surface temperatures and reduced friction wear.

On these dredging vessels, the multi-plate clutches are operated by Wichita electro-pneumatic controls, which offer a controlled start profile, excellent overload protection, and ease of integration into the vessel's existing control systems.

US (Customer Service)  
**1-800-964-3262**  
wichitaclutch.com

Europe  
**+44 (0) 1234 350311**

Asia Pacific  
For a list of our AP sales offices:  
altramotion.com/contactus