

Rudder Roll Stabilisation System

The Imtech Rudder Roll Stabilisation System, developed by one of Imtech's leading Senior Consultants, Dr. Ir. Peter van der Klugt in close cooperation with the Delft University of Technology and the Royal Netherlands Navy, consists of both an adaptive autopilot for course/heading keeping and a patented roll stabilising control algorithm for roll reduction.

The Rudder Roll concept allows for roll reduction of a ship, without the need for separate stabiliser fins. Next to the cost saving on additional fins, the RRS System provides reduction of engine room space, underwater noise and water resistance. The absence of stabiliser fins results in less drag for the ship. Due to this reduction in water resistance, less fuel is required for the propulsion. Therefore fuel saving is achieved by using the existing rudders instead of adding extra stabiliser fins.

With the first-time introduction of the RRS system on the KDX-III class destroyers, the Royal Korean Navy followed the German Navy and the Royal Netherlands Navy, which already had taken the RRS on board of their F124-class, M-class, LCF-class frigates and K-130 corvettes. The ROKN plans to deploy a total of nine 2,500-ton class frigates by 2018 and has decided for the shipbuilder Hyundai Heavy Industries to build the first of class ship. The delivery of one ship per year will run from 2010 up to 2018.