Azipod® – Manoeuvrability
General

- With Azipod propulsion rudders or stern thrusters are not needed
- Azipod unit is fully 360° steerable and gives high thrust to all directions
- Propeller can be rotated to both directions
- Fast control
Superior manoeuvring performance with Azipod®

- Improved safety
- Fast manoeuvring at harbours
- Possibility to reduce the sea voyage speed, depending on application
- Azipod propulsion makes it possible to reduce need of tug assistance
- Reduced power demand for manoeuvring
- Excellent suitability to DP operation
Azipod® gives high transverse thrust

Typical transverse thrust from different alternatives produced with 3 MW
Rudder vs Azipod® performance

5° steering angle  25° steering angle
Turning circle test

Comparison between cruise vessel Elation (with Azipod) and her sister Vessel (with shaftline)
Crash stop performance

- Generally crash stop distance is about 60 – 70 % of the distance for shaft line vessels
- Azipod vessel has its steerability over the whole crash stop period
- For twin Azipod vessels recommended to make the crash stop by turning the pod units 35-45 degrees outwards until the speed drops to about 15 knots. Then turn the pod outwards to 180 degrees (propellers rotating continuously to the same direction)
Crash stop performance

Comparison between motor tanker Uikku (with Azipod) and her sister vessel (with shaftline)

Example of a single screw vessel

Azipod 60° to STB

100x100m

M/t UIKKU

M/t LUNNI (Before conversion)
Fast harbour manoeuvring

Every minute saved in manoeuvring time can be used to reduce your average open sea speed
Examples for Azipod manoeuvres

SB Azipod: SB 90 deg increase rpm
PS Azipod: PS 90 deg decrease rpm

SB Azipod: toe-in SB 60 deg (increase rpm)
PS Azipod: toe-in PS 30 deg (decrease rpm)
Reduced need for tug assistance

Saving potential
Excellency in manoeuvrability

- "The Azipods allow me to direct the power exactly where I want it, giving me the confidence to manoeuvre within a decimeter of where I want"
  - Captain William Wright, Master of Oasis of the Seas, Marine Propulsion and Auxiliary Machinery, Dec/Jan 2009/10