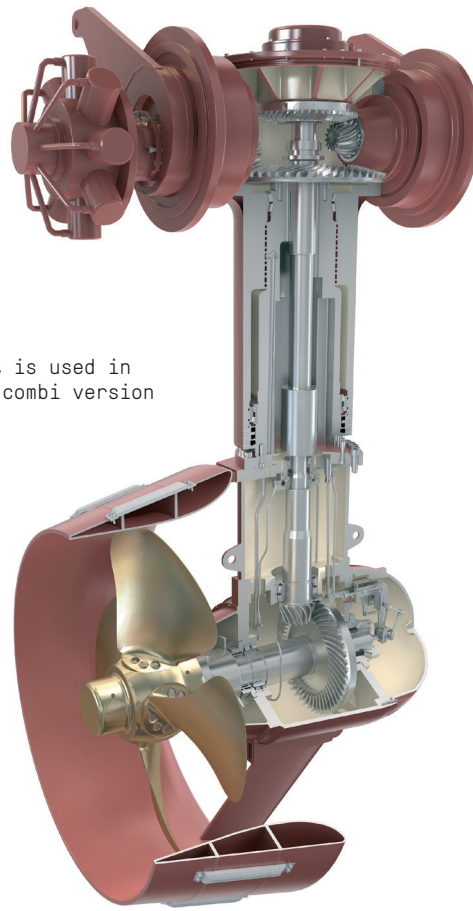


SWING-UP



This thruster unit is used in both swing-up and combi version



KONGSBERG

KONGSBERG MARITIME AZIMUTH THRUSTERS

Swing-up

Swing-up thruster

This thruster swings up into a housing in the hull when not in use. It can quickly be swung down about a horizontal axis into the operating position. In operation, it functions as an azimuth thruster and is designed to develop maximum bollard pull in the manoeuvring condition, or to provide positioning power for station keeping. The thruster has the added safety benefit of functioning as a 'get-you-home' drive. A high thrust is developed in relation to input power, and this thrust can be vectored in any desired direction.

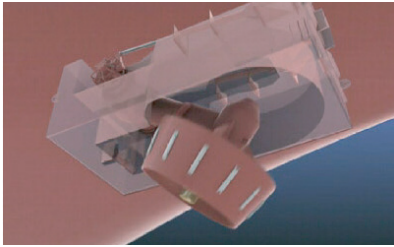
In the stowed position the thruster does not protrude below the vessel's keel/ baseline, an important consideration for shallow water operations. Additional azimuth thrusters are often located at the lowest possible position in the hull due to space envelope restrictions, especially for equipment mounted at the bow, and thrusters need to be retracted into the hull when not in use.

The thruster consists of the following main components

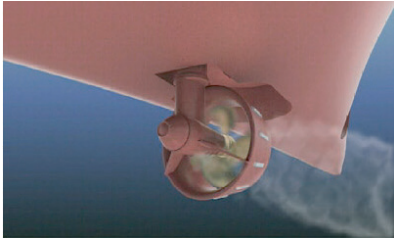
- Thruster unit with nozzle
- Steering gear with top bevel gear
- Hydraulic system
- Remote control system
- Drive motor system

TYPICAL APPLICATIONS

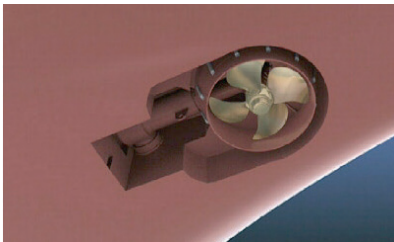
Suitable for offshore supply/service vessels, tankers, cargo vessels, cruise ships/ferries, arctic vessels, drilling rigs and various types of naval support vessels.



The thruster can quickly be swung down about a horizontal axis into the operating position.



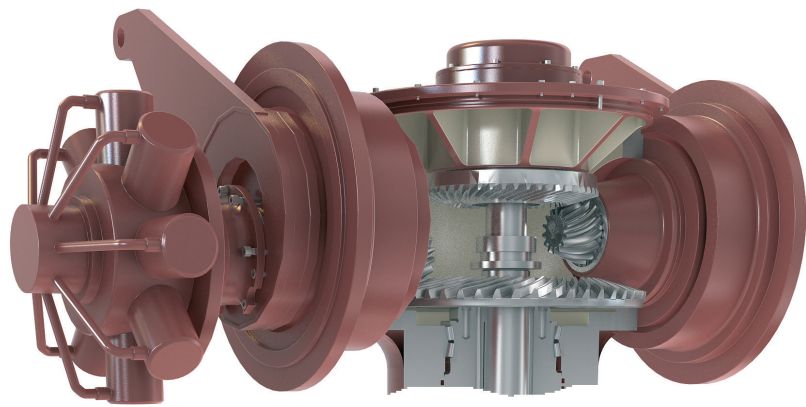
In operation, the thruster is 360° rotatable, and develop maximum bollard pull in the manoeuvring condition, or to provide power for station keeping.



The thruster swings up into a housing in the hull when not in use. In this position, the thruster does not protrude below the vessel's keel/baseline.

The main characteristics are

- Provides added safety as a “get-you-home” drive.
- Thruster swings up into a housing in the hull when not in use.
- Can quickly be swung down into operation position.
- Quick conversion from operational to stored thruster position.
- Thruster is 360° rotatable.
- Designed for max. bollard pull in manoeuvring condition, and can also be used in stand-by condition.
- Available in CP and FP propeller.
- Electric or direct diesel driven.
- Can be delivered as containerised unit.



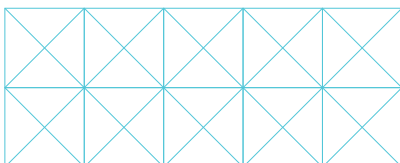
Top bevel gear integrated in steering gear. Combined steering gear for 360 degrees rotation.

The steering gear/top bevel gear is a complete unit with two bearing journals intended for mounting to the hull foundation.

TECHNICAL DATA

	TCNC 73/50 - 180	TCNC 92/62 - 220	TCNC 120/85 - 280
Prop diameter (mm)	1800	2200	2800 **)
Max. power (kw)	880	2 000*)	3 000 **)
Nominal input speed (RPM)	1800	1800	720-750 **)
Weight thruster w/steering gear	9500	17000	45000 **)
Weight hull module	10000	17000	50000 **)

All data is subject to change without prior notice.
 *) For electric drive only. **) Delivery upon special request.



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