

RIM DRIVE TUNNEL THRUSTER (RD-TT)



KONGSBERG

KONGSBERG TUNNEL THRUSTERS

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The Rim Drive Tunnel Thruster (RD-TT) is one of the latest additions to the KONGSBERG family of thrusters, building on a completely new approach to thruster design and motor integration, with low environmental footprint. The RD-TT meets operational requirements with focus on hydrodynamic efficiency, low noise and reliability.

The RD-TT has been engineered with reliability and through life cycle costs as focus. Permanent Magnet (PM) motor technology increases efficiency and makes the installation more compact. Only the variable frequency drive unit is housed in the thruster room, freeing up space on board. The RD-TT will meet very strict requirements for performance, noise and vibration, and will be an excellent choice for operations where low noise and high performance are required. Fast response time to full power gives improved maneuverability and operability.

Features

- Small inboard footprint
- Electric and Hydrodynamic efficiency
- Robust design
- Thruster unit cooled by surrounding seawater, no additional cooling required
- Efficient and space saving PM technology with high torque density
- Robust design with few rotating parts
- Robust centre shaft carries all propeller loads
- Simplified system design with limited auxiliary equipment
- Prepared for easy connection to Equipment Health Management (EHM) system

PRODUCT BENEFITS

- Equal thrust in both directions
- Reduced footprint in thruster room
- Low level of vibrations and low airborne, structural and hydroacoustic noise (URN)
- Fast response time (efficient roll-damping)
- Reduced life cycle cost
- Reduced installation time of unit
- Long service intervals
- Strong operational support

Rim Drive Tunnel Thrusters are currently available in two sizes with powers of 1,000 and 1,600 kW. These thrusters have been developed for the most demanding applications such as dynamic positioning.



Rim Drive Tunnel Thruster side angle



Rim Drive Tunnel Thruster front view

TECHNICAL DATA

| | RD-TT 1600 | RD-TT 2000 |
|-------------------------|-----------------------|-----------------------|
| Power (kW) | 500 - 1000 | 1000 - 1600 |
| Thruster (kN) | 156 kN | 243 kN |
| RPM | 340 | 280 |
| Propeller diameter (mm) | 1600 | 2000 |
| Propeller type | Monobloc/FP | Monobloc/FP |
| Direction of rotation | CW/CCW | CW/CCW |
| Drive | AFE or 12-pulse drive | AFE or 12-pulse drive |

