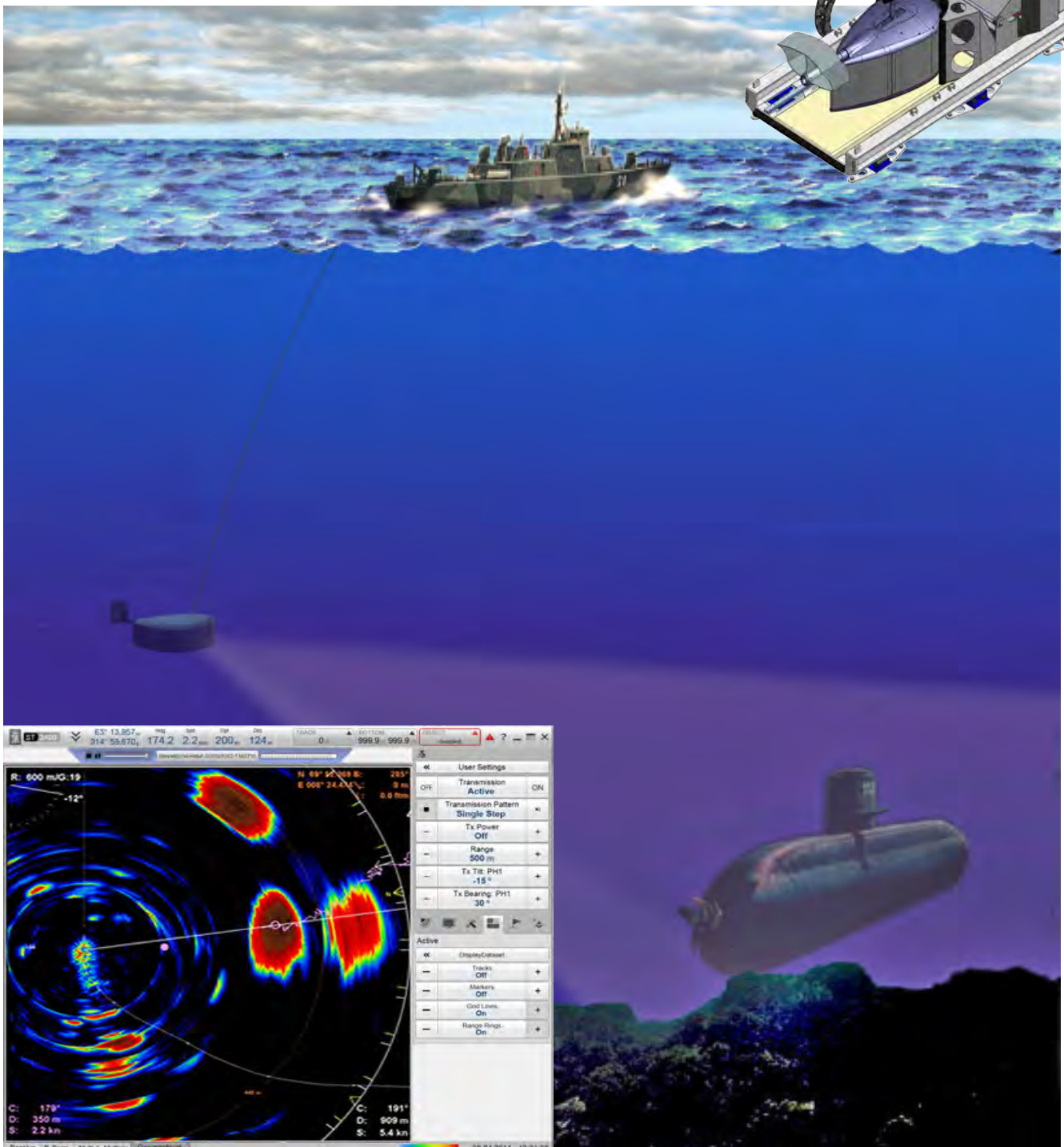
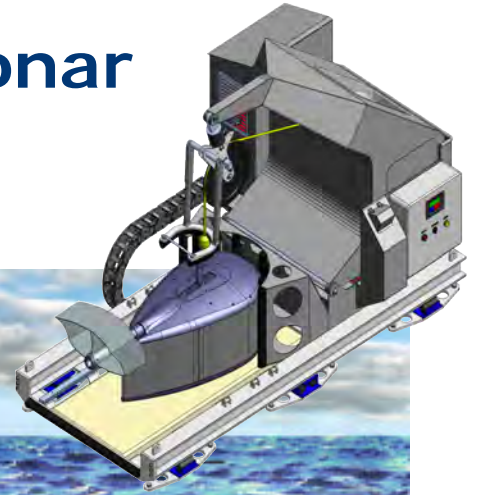


# ST2400



KONGSBERG

## Anti Submarine Warfare Sonar Variable Depth Sonar (VDS)



## Concept

The **ST2400** is a towed, lightweight, multiple frequency active sonar for Anti Submarine Warfare (ASW) and detection of other submerged items. The towed unit contains a fixed cylindrical array encapsulated in a robust hydrodynamic body. A passive mode where transmission is turned off is also available.

Advantages of the ST2400 lie in the total performance of the sonar in the ASW role. Emphasis has been placed on shallow water capabilities.

## Functional description

The active operating modes are omni and sectoral transmission and multibeam reception covering 360° with 64 beams of 8° horizontal beamwidth each. The **ST2400** operates from 22 to 29 kHz.

The towed body itself contains several sensors, such as a Conductivity-Temperature-Depth (CTD) probe, compass and a vertical reference unit.

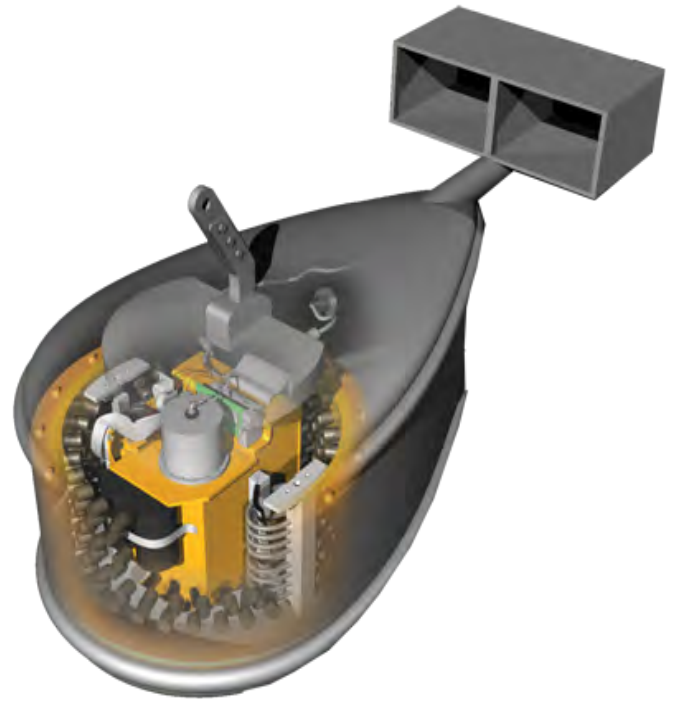
The lightweight and compact sonar can be installed without docking.

The design of the towed body provides stability at all operational velocities, including dipping mode. Automatic depth control is obtained by adjustment of the towing cable. If the towed unit is lost, an acoustic pinger will be activated, thus simplifying recovery.

## Operations

Multiple screen worksheets are available for control and presentation of the **ST2400** sonar. Presentation views include omni-directional, sector and B-scan with doppler and echogram, and also DEMON processing of passive data.

Sonar data can be presented in a geographical or vessel reference system. Features include automatic target and position tracking as well as an audio channel and built-in sound propagation model.



## Technical specifications

- Active frequency range: 22 to 29 kHz
- Source level (omni): 213 dB (re. 1  $\mu$ Pa at 1 m)
- Transmitter modes: FM, CW
- Receiver modes: FM, CW, Passive
- Operating modes: Omni, Sector, Single beam
- Beamwidths:
  - Sector, horizontal: 30°, 60°, 120°
  - Single beam, horizontal: 8°  $\pm$ 2°
  - Single beam, vertical: 12°  $\pm$ 2°
- Horizontal coverage: 360° omni mode
- Number of horizontal beams in reception (omni): 128
- Detection range (target strength 0 dB, salinity 20 ‰):
  - Typically 5500 m at 24 kHz
  - Typically 6000 m at 22 kHz
- Maximum sonar operating depth: 150 m
- Maximum towing speed: 16 knots
- Total length of tow cable: 200 m
- Stabilization in yaw: Yes
- Stabilization in roll and pitch: No

Kongsberg Maritime is engaged in continuous development of its products, and reserves the right to alter the specifications without further notice.

Kongsberg Maritime AS

Strandpromenaden 50  
P.O.Box 111  
N-3191 Horten,  
Norway

Telephone: +47 33 03 41 00  
Telefax: +47 33 04 47 53  
www.kongsberg.com  
E-mail: subsea@kongsberg.com



KONGSBERG