Kongsberg Mesotech DDS 9000/9001®
A breakthrough in reliable underwater security.

DSS Design
Kongsberg Mesotech’s commitment to technical excellence and a decade of experience have combined to produce the DDS 9000 system. This major advance in the evolution of multibeam sonars. The DDS 9000 employs high-bandwidth transducers for assured operation, giving improved range performance. With the addition of pulse compression (chirp), DDS 9000 series sonar heads detect targets at range greater than 500 m at longer ranges due to improved signal-to-noise ratios. DDS 9000 systems employ state of the art technology advanced materials and design for optimal performance.

Proper functionality of DDS is assured through BIST, the built-in self test function programmed into each system. Sensors in every DDS 9000 series sonar head incorporate changes to pitch, roll, or bearing, ensuring the most accurate target position possible.

Requirements for shipborne diver detection systems today specify horizontal coverage of either 200° or 360°. The DDS 9000 covers a major advance in the evolution of multibeam sonars. The DDS 9000 and DDS 9001 meet all of these mission capability requirements. Either system can be lowered by a winch cable, tripod mechanism in fixed position or in mobile and temporary deployments. With sonar heads weighing less than 200 pounds (90 kg), the DDS 9000 and DDS 9001 can be easily deployed by a small crew in less than one hour.

All DDS heads are equipped with pitch and roll sensors as well as an azimuth (bearing) sensor enabling their use in portside or starboard applications. DDS systems can be easily integrated into larger C2 / C4ISR systems to provide greater situational awareness.

System Support
Kongsberg Mesotech is dedicated to providing its customers with world-class long-term parts availability and support. DDS systems have a mean time between failure of one week, year-round. And Kongsberg Mesotech stands behind every system it produces with a solid product guarantee.

DDS Deployment Flexibility
Dive direction sonar has evolved from its early application as a dipole sonar system to its use today in a variety of missions. These additional roles include fixed arrays for port security and mobile systems where scan area capability is important. Systems with high-resolution capability must be able to detect targets from one type of deployment to another high enough to be deployed by a small crew and able to be fully set up in less than one hour.

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DDS Reliability
DDS systems experience minimal downtime and a very low rate of false alarms. Updated electronics based on the advanced SM 2000™ system have been extensively tested to ensure reliable operation. All software and devices used in construction of the DDS 9000 series are carefully selected for their mission-critical performance. Automatic track classification and filtering keep false alarm rates to a minimum.

With over thirty SM 2000 systems deployed in the dive detection field, Kongsberg Mesotech has demonstrated the effectiveness and reliability of our systems worldwide. Systems are in use with the US Navy, US Coast Guard Service, and other military and government agencies.

DDS Operator Interface
The DDS 9001 with Sonar Processor, Display and Standalone display provide a tactical look and feel familiar to users of many other Kongsberg sonar systems, has been adapted for this software.

The Tactical Processor and Tacticas™ Display operate using Defender II™ software.

- Universal operation with automatic alerts, reducing false alarms
- Track selection in situational awareness and maintaining operator alertness
- Clockwise from top left: Rugged rack mount cases provide protection for transportation and field operations; tripod mechanisms are quickly deployed to a fixed height for surveillance in drug interdiction or temporary high security situations.

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The Role of Sonar
The applications for diver detection sonar have expanded from early use by the military for the protection of major assets. Today, active sonar is utilized in a range of military, government, law enforcement, and industrial applications. Despite the challenges posed by environmental conditions, active high-frequency sonar remains the method of choice for diver detection systems.

Value
The DDS 9000 is the first COTS diver detection system to break through the Department of Homeland Security’s low cost goal of less than $100,000 per 1,000 feet of protected shoreline. The DDS 9000 Series provides increased functionality, is easier to use, and is one third the weight of competitive 360° systems. DDS 9000 systems provide additional value through their versatility, being easily re-configured for new missions.

Kongsberg Mesotech Imaging

Search & Recovery

Mine Counter Measures

Pier Inspection

Hull Inspection

The DDS 9000™ Series Diver Detection Sonar
The evolution of underwater security.