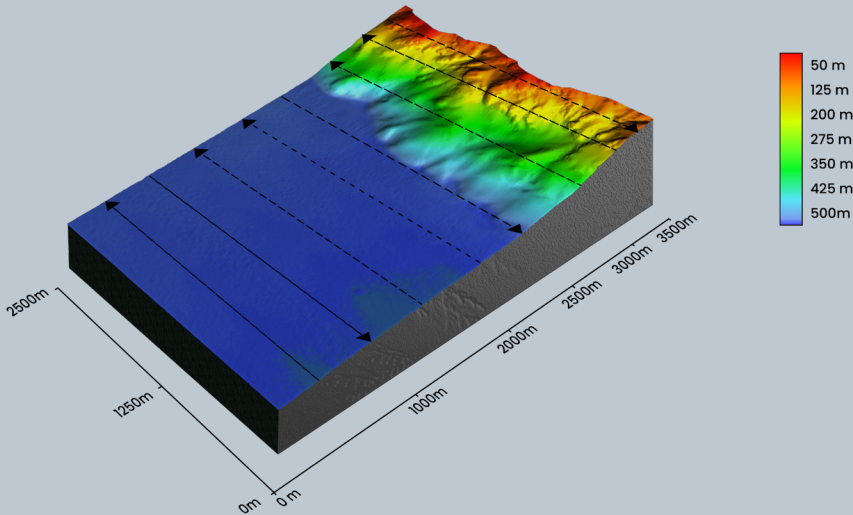




NORBIT WINGHEAD® X Midwater

Configurable Bathymetric Sonar System



Introducing WINGHEAD X Midwater.

Superior Performance High-Resolution 3D & 4D Long-Range Motion-Stabilised Bathymetric System

Designed to deliver unsurpassed performance in shallow and medium water depths, this high-resolution cylindrical curved-array bathymetric system enables rapid mobilisation anytime, anywhere. Built on NORBIT's state-of-the-art analogue and digital platform, it features powerful signal processing capabilities to ensure the highest quality survey data.

Motion Stabilisation, Sensor Integration and Platform Flexibility

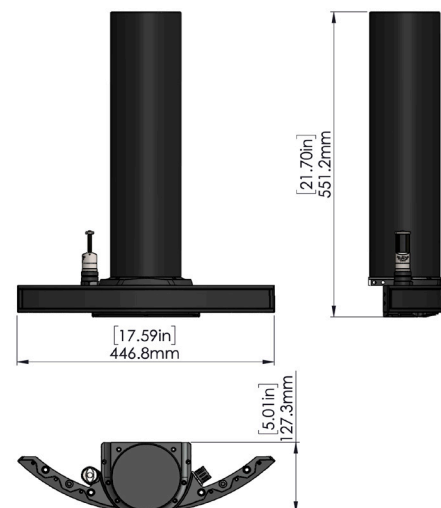
The WINGHEAD X Midwater system provides active roll, pitch, and yaw stabilised bathymetry, along with multiple imagery and backscatter outputs available as standard or licensed features. It can be equipped with high-end IMU/GNSS solutions for surface vessel applications, supporting reliable performance across a wide range of platforms—from medium-sized USVs to large vessels and permanent hull installations.

Leveraging NORBIT's extensive R&D expertise and advanced wideband curved-array technology, the WINGHEAD X Midwater model combines compact design, low power consumption, and tight system integration, enabling both existing and new applications to benefit from high-resolution, long-range multibeam sonar performance in demanding environments.

KEY FEATURES

- Software Controlled
- Active Roll, Pitch and Yaw Stabilisation
- Backscatter Outputs
- Dual Swath
- Integrated Field Replaceable Sound Velocity Probe
- Multidetect
- Exceeds IHO Exclusive Order & USACE New Work

Outline Dimensions



WINGHEAD X - Midwater



Specifications: Integrated and non-integrated

Sonar Specifications standard			
Depth Range	1000m+	Ping Rate	Up to 60Hz (Adaptive)
Weight (Alu version)	Excl. bracket: 15.3kg (air) 8kg (water) Incl. bracket: 18.5kg (air) 10.4kg (water)	Number of Beams	EA & ED: 1024 2x1024/Dual Swath (option)
Operating Frequency	Nominal 100kHz (frequency agility 80kHz-240kHz, FM & CW)	Environmental	Topside: IP67 compliant
Range Resolution	3.6cm @ 100kHz 1.8cm @ 200kHz	Backscatter Outputs	Intensity, Sidescan, Snippets, Water Column
Resolution (Across x Along)	2° x 2° @100kHz 1° x 1° @200kHz	Interface	Ethernet & Serial
Swath Coverage	5-210° flexible sector	Depth rating	100m
Power Consumption	Typical <95W, (10-28VDC, 110-240VAC)	Operating Temperature Storage Temperature	-4°C to +40°C (topside -20°C to +55°C) -20°C to +60°C
OEM GNSS/INS Integration Options			
	Applanix OceanMaster	SBG Apogee	
Position	HOR:±(8mm +1ppm x Distance from RTK station) VER:±(15mm +1ppm x Distance from RTK station)	HOR:±(10mm+0.5ppm x distance from RTK station) VER: ±(15mm+1ppm x distance from RTK station)	
Heading Accuracy	0.01° with 4m antenna separation	0.01° with 4m antenna separation	
Pitch/Roll Accuracy	0.01° (RTK) / 0.008° (IAPPK)	0.008° RTK/(0.005° PPK)	
Heave Accuracy	2cm or 2% (TrueHeave™), 5cm or 5% (Real Time)	2cm or 2% (Delayed heave), 5cm or 5% (Real Time)	
Software Options			
Pitch Stabilisation	Real-time compensation for vessel pitch to ensure even sounding density in dynamic conditions	STX Scanning	Rapid electronic transmit beam scanning to combine proven 2D bathymetry into 3D georeferenced bathymetry.
Yaw Stabilisation	Real-time compensation for vessel yaw to ensure even sounding density in dynamic conditions	Dual Swath	Doubles survey sounding density along track by transmitting two swaths per ping cycle
NORBIT Data Collection and visualisation	Data Collection Tool (DCT) and real time 3D Point Cloud visualisation available for INS-integrated systems	3 rd Party Data Acquisition & Post Processing	HYPACK, QPS, BeamworX, EIVA, and others
Hardware Options			
Cable Length	2m, 8m, 25m or 50m (For longer cables, please contact subsea sales for information)	Housing Material	Optional Titanium housing, available for hull mount
Pole Mount	NORBIT Carbon fibre mounting pole (PORTUS).	Fairing	For extra protection and improved flow dynamics Option only available for non-integrated models
Dual Head	Dual Head option available. Please contact Subsea sales for information		
Explore More Features			
Layered Media Detection	Layered Media Detection (LMD) is a NORBIT multibeam solution for hydrographic surveys in areas with suspended mud, enabling simultaneous identification of the fluid mud layer and navigable bottom concurrently.		