



NORBIT WINGHEAD® i80S



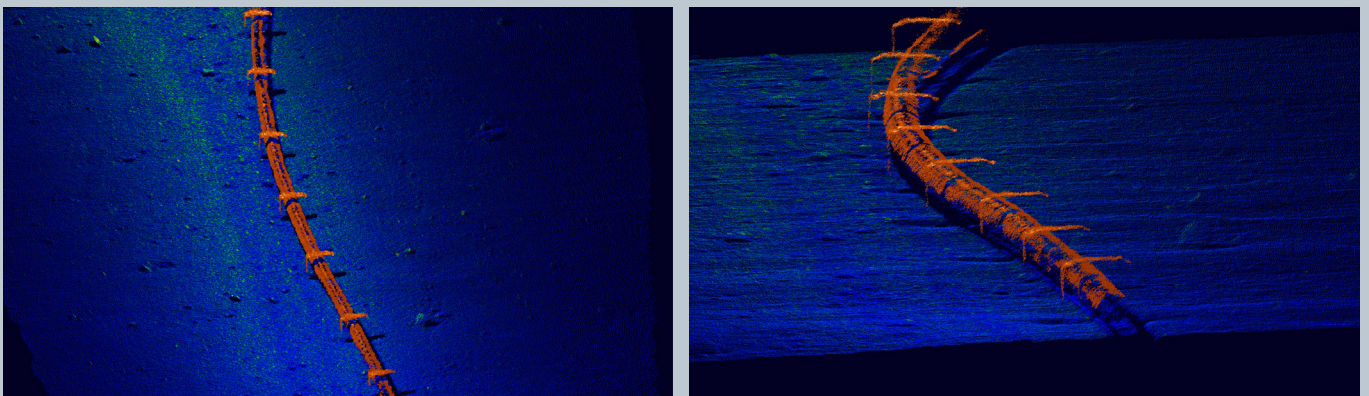
Superior Performance Ultra High-Resolution Integrated 3D&4D Medium Range Motion Stabilised Bathymetric System.

Designed to perform in extreme operational environments with high vessel motion, this cylindrical ultra-high resolution curved array bathymetric system, allows for rapid anywhere anytime mobilisation

NORBIT WINGHEAD “S” series sonars are based on a state of the art analogue and digital platform featuring powerful signal processing capabilities, offering active roll and pitch stabilized bathymetry plus several imagery and backscatter outputs as standard ensuring the highest quality survey data performance. With broad R&D expertise, NORBIT has developed - from the ground-up - exciting new technology that allows existing and new applications to benefit from the advantages offered by a compact wideband curved-array multibeam sonar.

The NORBIT WINGHEAD i80S is a compact ultra-high resolution curved array broadband multibeam sonar designed for use in the most demanding operational environments. Characterised further by a small form factor; low power draw and tight integration, WINGHEAD i80S installation can occur on surface survey platforms ranging from small USVs to large vessel permanent hull mounts.

Supported by DCT (NORBIT Integrated Data Acquisition Software) for efficient survey data acquisition.





Features	Applications	Options
<ul style="list-style-type: none"> ✓ Active Roll, Pitch & Yaw Stabilisation ✓ 80kHz Bandwidth ✓ Backscatter Outputs (Intensity, Sidescan, Snippet Sidescan, Snippets, Water Column) ✓ Multidetect ✓ Pipeline Mode ✓ Simple Ethernet Interface ✓ Integrated Sound Velocity Probe ✓ 1024 Dynamically Focused Beams ✓ Mounting Bracket Included ✓ FM & CW Processing ✓ Exceeds IHO <i>Special Order</i>, CHS <i>Exclusive Order</i> & USACE <i>New Work</i> 	<ul style="list-style-type: none"> ✓ USV & UUV platforms ✓ Offshore Inspection, Repair and Maintenance (IRM) operations ✓ Harbour; Quay wall, Bridge and structure engineering inspection surveys ✓ Wreck and seabed Search and Investigation ✓ Pond, River, Lake and Estuary Surveys ✓ Coastal Surveys ✓ Renewable Energy ✓ Mineral and Geological Surveys 	<ul style="list-style-type: none"> ✓ Dual Head Configuration ✓ Titanium Non-corrosive Version ✓ NORBIT Integrated Data Acquisition Software - DCT ✓ Sound Velocity Profiler ✓ Turnkey Survey Solutions ✓ Permanent Hull Mount Option ✓ Pole Mount ✓ Supports NORBIT iLiDAR ✓ Acquisition, Navigation and Post Processing Software ✓ Senior Hydrographer for Support and Training ✓ Can be Delivered with Software Packages e.g. DCT, HYPACK, Qinsy, EIVA, CARIS and Others

TECHNICAL SPECIFICATION

SWATH COVERAGE	5-210° FLEXIBLE SECTOR (SHALLOW WATER IHO SPECIAL ORDER >155°)
RANGE RESOLUTION	<10mm ACOUSTIC w. 80kHz BANDWIDTH
NUMBER OF BEAMS	256, 512, 1024 EA & ED STABILISED (ROLL, PITCH & YAW)
OPERATING FREQUENCY	NOMINAL FREQUENCY 400kHz (FREQUENCY AGILITY 200-700kHz)
DEPTH RANGE	0.2m to >400m*
PING RATE	UP TO 60Hz, ADAPTIVE
RESOLUTION (ACROSS X ALONG)	STANDARD: 0.5° X 0.9° @400kHz, 0.3° x 0.5° @700kHz
POSITION	HOR: ±(8mm +1ppm X DISTANCE FROM RTK STATION) VER: ±(15mm +1ppm X DISTANCE FROM RTK STATION) (ASSUMES 1m GNSS SEPARATION)
HEADING ACCURACY	0.02° (RTK) WITH 2m ANTENNA SEPARATION
PITCH/ROLL ACCURACY	0.01° INDEPENDENT OF ANTENNA SEPARATION
HEAVE ACCURACY	2 cm OR 2% (TRUEHEAVE™), 5 cm OR 5% (REAL TIME)
INTERFACE	ETHERNET
POWER CONSUMPTION	100W (10-28VDC, 110-240VAC) TOTAL
DIMENSIONS	DIMENSIONS WITH BRACKET H: 413mm/16.2", L: 447mm/17.6", W: 159mm/6.25"
WEIGHT	8.9kg (AIR) 4.8kg (WATER) INCL. BRACKET
CABLE LENGTH	STD 8m, OPTIONAL: 2m, 25m
OPERATING TEMP.	-4°C to +40°C (TOPSIDE -20°C to +55°C)
STORAGE TEMP.	-20°C to +60°C
ENVIRONMENTAL	TOPSIDE: IP67: DUST TIGHT, PROTECTED AGAINST THE EFFECT OF IMMERSION UP TO 1m WET-END (SONAR): 100m

OUTLINE DRAWING

