



NORBIT WINGHEAD® i80S



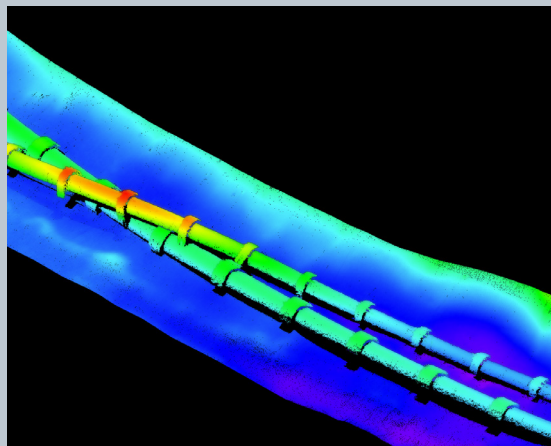
Superior Performance Ultra High-Resolution Integrated 3D&4D Medium Range Motion Stabilised Bathymetric System.

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

- ✓ Active Roll & Pitch 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 *Special Order*, CHS *Exclusive Order* & USACE *New Work*

Options

- ✓ Yaw Stabilisation w. Single Head
- ✓ Dual Swath w. Single Head
- ✓ 2048 Dynamically Focused Beams
- ✓ STX 4D Scanning
- ✓ Backscattering Strength Output
- ✓ Sound Velocity Profiler
- ✓ Dual Head Configuration
- ✓ Permanent Hull Mount Option
- ✓ Pole Mount
- ✓ Supports NORBIT iLiDAR
- ✓ Can be Delivered with Software Packages e.g. NORBIT DCT, HYPACK, Qinsy, EIVA, CARIS, beamworX and Others

Applications

- ✓ SV & USV 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

TECHNICAL SPECIFICATION

| | |
|-----------------------------|---|
| SWATH COVERAGE | 5-210° FLEXIBLE SECTOR (SHALLOW WATER IHO SPECIAL ORDER >155°) |
| RANGE RESOLUTION | <10mm ACOUSTIC w. 80kHz BANDWIDTH |
| NUMBER OF BEAMS | EA & ED: 256, 512, 1024 (2048 OPTION) |
| STABILISATION | ROLL, PITCH (YAW OPTION) |
| OPERATING FREQUENCY | NOMINAL FREQUENCY 400kHz (FREQUENCY AGILITY 200-700kHz) |
| DEPTH RANGE | 0.2m to >300m* |
| 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 | 2cm OR 2% (TRUEHEAVE™), 5cm OR 5% (REAL TIME) |
| INTERFACE | ETHERNET |
| POWER CONSUMPTION | <95W (10-28VDC, 110-240VAC) TOTAL SYSTEM POWER CONSUMPTION |
| 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): 50m |

*Observed with 40deg swath, salinity 30ppm, 10°C

OUTLINE DRAWING

