

## Package Contents

The SeaKing Hammerhead Survey System is available with 100m, 150m or 200m of cable on a reel.  
The system part numbers for the 700m depth rated systems are: 8796-100m-SYS, 8796-150m-SYS and 8796-200m-SYS.

### Equipment Provided

#### Hammerhead



Part No.  
SO8796

**Includes:**  
Accessory kit, Pelicase (with room for topside interface box), Seanet Pro Software & Image Tiler Programme

#### Tripod



Part No.  
SO9862

**Includes:**  
Pelicase, Hammerhead mounting gimbal and MicronNav Transponder bracket

#### Cable Reel



Part No.  
SO9923

**Includes:**  
Pelicase

#### Topside Interface Box



Part No. SO9575

**Includes:**  
Pelicase (if purchased with the Hammerhead sonar head)

### Recommended Options

For quick and accurate mosaicing of data collected by the SeaKing Hammerhead Survey System, the following is a recommended optional extra:

#### MicronNav System

Part No. Micron Navsys

Available with 10/20/50m deck cable

**Includes:**  
Pelicase



**SeaKing  
Hammerhead**  
Survey System

## System Specifications

### Sonar Head

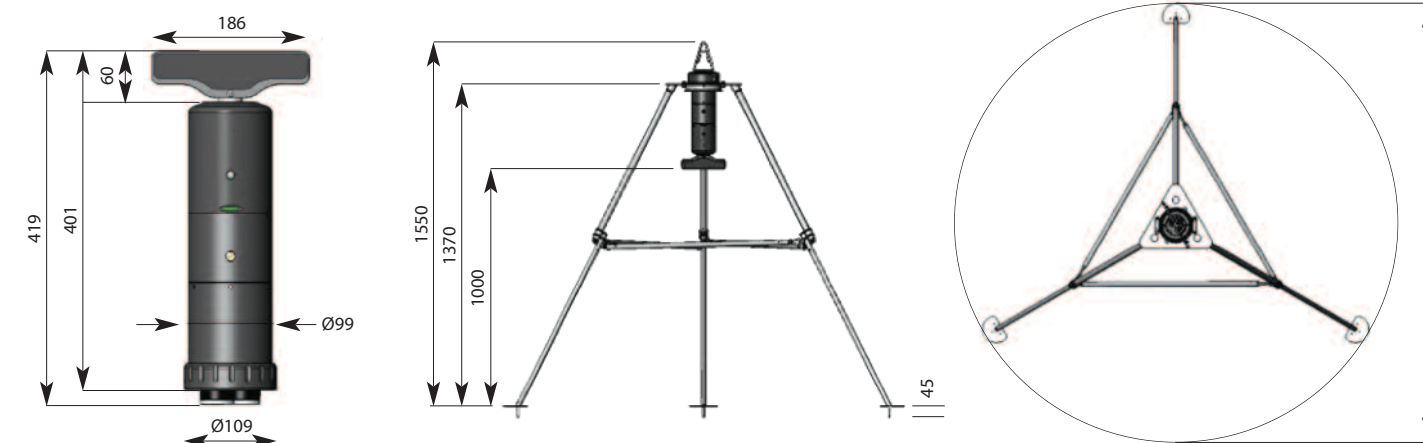
	Low Frequency Channel	High Frequency Channel
Operating Frequency	675kHz	935kHz
Beamwidth, vertical	30°	20°
Beamwidth, horizontal	0.9°	0.6°
Maximum range	100m	40m
Minimum range		0.4m
Acoustic range resolution		7.5mm
	(above range resolution may be limited by the available display resolution)	
Operating voltage	20V to 72V DC	
Power requirement	30W	
Communications protocols	RS232 RS485 ARCNET	
Connector	Standard MAIN & AUX connector: Trittech 6 pin with waterblock (Other options available on request)	
Maximum operational depth rating	700m / 4000m	
Weight in air	6.8kg	
Weight in water	3.8kg	

### Tripod

Material	Stainless Steel
Weight of tripod in air	9.5kg
Weight of tripod in water	8.1kg

All specifications are subject to change in line with Trittech's policy of continual product development.  
All dimensions are in millimetres

TIL-BRO-003.1



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# SeaKing Hammerhead

## Survey Sonar System



### 360° High-Resolution Imaging



## Introduction to Tritech's SeaKing Hammerhead Survey Sonar System

The SeaKing Hammerhead sonar is Tritech's high resolution, 360° mechanical scanning imaging sonar, suitable for a variety of underwater survey tasks.

The SeaKing Hammerhead utilises a wide transducer aperture to provide a narrow horizontal acoustic beam, very fine mechanical step size and proven Digital Sonar Technology (DST), resulting in very high resolution imagery.

Now available as a complete package with top box, tripod and cable reel, SeaKing Hammerhead can be deployed on the tripod for many survey tasks as well as underwater engineering projects such as bridge or pier inspections.

The SeaKing Hammerhead system is supplied with an Image Tiler Programme, which complements Tritech's survey data acquisition, display and logging software package, SeaNet Pro. The software builds an accurately mapped area of the seabed by stitching together data from each 360° sweep, this is collected by moving the tripod to different locations. The Image Tiler Programme is available at point of purchase from Tritech.

The SeaKing Hammerhead, as part of the SeaKing Family of imaging sonars, can be easily networked with other SeaKing equipment and complimentary products such as the MicronNav USBL tracking system.

### Key Market Applications

#### Survey/ Law Enforcement/ Search And Rescue (SAR)

The SeaKing Hammerhead has been designed for static seabed deployment and is therefore suitable for tasks including: area survey, object location and diver monitoring.

#### Engineering & Construction (Bridge & Pier Inspection)

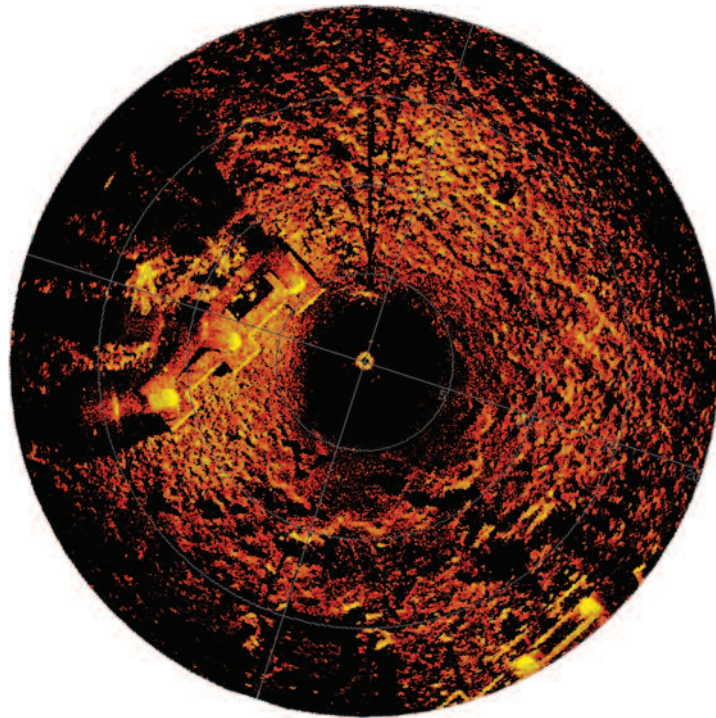
The SeaKing Hammerhead is also suitable for Civil Engineering projects, for example in bridge and pier inspections.

#### 1. Horizontal Scanning - Bridge at Lake Conroe

The bridge at Lake Conroe: 'real-life' image (below the sonar image) shows the construction of the bridge. Visible targets include the bridge supports and rock debris on the seabed.

#### 2. Vertical Scanning - Bridge Inspection

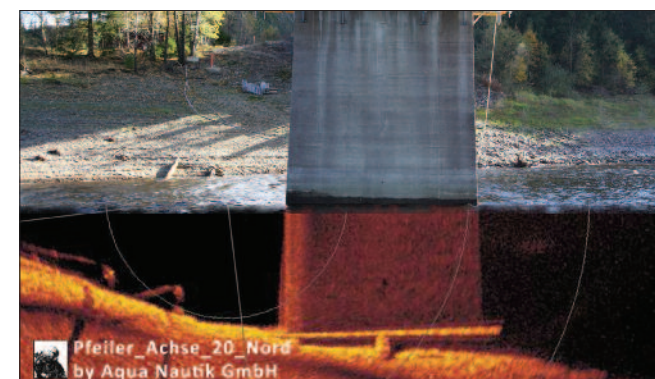
The 'real-life' image and sonar cross-section below shows the bridge as inspected at Weißwasserbrücke, Okersee reservoir, in the Harz Mountains, Lower Saxony, Germany, which clearly shows the construction of the bridge.



SeaKing Hammerhead DST Sonar image taken at Lake Conroe, Montgomery County, Texas, USA



Bridge at Lake Conroe



Pfeifer\_Achse\_20\_Nord  
by Aqua Nautik GmbH

## No trade-offs - in range or resolution with Hammerhead's dual frequency options

### Benefits

- Dual frequency option to promote higher visibility of smaller targets
- Built in compass for accurate area mapping
- Built in attitude sensors to provide accurate positioning of system during deployment
- Networkable with compatible Tritech products
- Acoustic zoom box for increased resolution of target

### Features

- Available in 700m or 4000m depth ratings
- More than twice the resolution than other mechanical sonars
- DST (Digital Sonar Technology)
- Narrow horizontal beam angles for maximum resolution
- Dual frequency operation
- 675kHz for large area survey up to 100m radius
- 935kHz for high-definition target examination at up to 40m radius
- Geo-referenced plotter display for accurate marking
- Motor-driven shaft uses a unique dual seal arrangement for maximum reliability in adverse conditions
- An Image Tiler Programme compliments the standard Seanet Pro software, to build up an accurate mapping of the area in post-processing

