The standard range of StarFish Seabed Imaging Systems come with everything you need to get you started;
- A quick start guide
- Top box
- StarFish Scanline
- Software CD
- StarFish mains power adaptor
- StarFish DC power lead
- USB 2.0 cable
- GPS receiver
- Stainless steel rigging tackle
- 20m cable as standard

The following accessories are recommended you started;
- A quick start guide
- StarFish Scanline Software
- Top box
- Software CD
- StarFish mains power adaptor
- StarFish DC power lead
- GPS receiver
- Stainless steel rigging tackle
- 20m cable as standard

StarFish Scanline Software
The intuitive, easy to use data acquisition and logging package for the range of StarFish Seabed Imaging Systems, allows you to display StarFish side scan sonar imagery in real-time and digitally record along with data from other devices such as GPS receivers, compasses and speedometers.

Key Features include:
- Data Export Wizard - export as TIFF files
- Screen capture function (BMP, PNG, TIF, JPG)
- Comprehensive integrated help system
- Supported software packaged includes HyPack and SmartWize
- Software Development Kit (SDK) - compatible with 32bit & 64bit Windows OS (XP/Vista/7)
- Clever use of interactive displays, tabbed menus and ‘widgets’
- Software Development Kit (SDK) - for advanced users who wish to integrate a StarFish side-scan system into their own new or existing software package
- StarFish Scanline and the SDK are available for download free of charge from the Tritech website

Image of a submerged dam, Lake Conroe, TX, USA, image courtesy of Subsea Technologies Inc., Katy, TX.

StarFish Seabed Imaging Systems

The intuitive, easy to use data acquisition and logging package for the range of StarFish Seabed Imaging Systems, allows you to display StarFish side scan sonar imagery in real-time and digitally record along with data from other devices such as GPS receivers, compasses and speedometers.
Introduction to Tritech’s StarFish Seabed Imaging Systems - Side Scan Sonar Range

StarFish Seabed Imaging Systems are some of the most portable, shallow-water side scan sonars available on the market and have been designed with portability and simplicity in mind. StarFish sonars are ideal for shallow-water operations, including port and harbour surveys, wreck hunting and Search and Rescue (SAR) missions.

- **High Performance Imaging**
  - Using CHIRP® acoustic technology and DSP techniques.
- **StarFish** sonar systems have the ability to detect small closely spaced targets at far greater distances than conventional single frequency, monostatic systems: by sweeping the acoustic transmission from one frequency to another, the bandwidth of the chirped signal allows closely spaced targets to be imaged individually instead of typically becoming merged into one larger target. CHIRP techniques also help to reduce the risk of acoustic interference.

- **Advanced Design**
  - The signature full body three-fin hydrodynamic design.
  - This unique design improves stability of the sonar during towing and ultimately helps to ensure the system produces the highest quality sonar images possible and measuring less than 15” long, StarFish sonars are extremely portable.

- **Simple Operation**
  - ‘Plug & play’ technology.

StarFish Seabed Imaging Systems connect to a PC/laptop via a top-box with USB connection (AC or DC powered, in addition, StarFish Scantine software has an easy-to-use interface and has been designed for Windows operating systems.

**Cover Image:** Cover Image: Emerald Airways Hawker Siddeley HS-748. StarFish 990 F sonar image of an Emerald Airways Hawker Siddeley HS-748 G-BKBM. The acoustic shadow cast by the sonar, sets the scene, where further detail of the Siddeley’s outline; including the cockpit, wings and tail fin, captured at Capernwray Diving Centre, Lancashire, England.

**Engineering**

- Salvage operations, inspection of coastal structures, planning of seafloor installations, dredging operations, pipelines/ cable location and inspection and dam inspection.

- Wreck and cargo discovery, dive site navigation, wreck debris discovery, marine archaeology, professional geological surveys and marine environment monitoring.

**Features**

- **Simple Operation**
  - ‘plug & play’ technology.

- **Key Market Applications**
  - StarFish Seabed Imaging Systems are ideal for shallow-water survey applications in water depths up to 100m/1000'. Use the system to map a waterway, identify a target site or identify potential hazards before divers enter the water.

- **Search and Rescue (SAR) / Law Enforcement**
  - Assist in the identification of submerged evidence from a crime scene, perform a harbour patrol, retrieval of evidence or search for mines or other explosives.

- **Benefits**
  - Easily transportable, fits in a small rucksack
  - Fast evaluation of waterways and unknown hazards
  - Large area search from any surface vessel

**StarFish 450 series - entry level and increased image resolution systems**

- The original 450 series offers a powerful side scan sonar system with good, class image definition and is available in a towed or hull mounted option
- The 452F model has a narrower horizontal beam resulting in higher resolution images
- 100m per channel
- An inline connector permits upgrade to a longer deck cable (see the accessories page)

**StarFish 990 series - higher resolution system**

- Higher frequency (1MHz) CHIRP transmission with extremely narrow horizontal acoustic beam, providing higher resolution for enhanced image definition and target detection
- Optimised for SAR operations, where target identification and high-definition underwater mapping of the seafloor are critical in the search and recovery of missing persons

**StarFish OEM – developed for bespoke integrations**

- The StarFish OEM side scan sonar option offers impressive coverage and crisp images with a 450kHz operational frequency
- CHIRP transmission as per standard models and 100 meter range this is a comprehensive side scan for your ROV or AUV.

**Features**

- Compact and lightweight unit, quick to deploy and no pre-installation required
- Full-body, three-fin, hydrodynamic design, to improves operational stability
- Easily powered from almost any source
- Simple, intuitive software (StarFish Scantine)
- Utilises the latest digital electronics and acoustic Compressed High-Intensity Radar Pulse (CHIRP) and Digital-Signal-Processing (DSP) techniques

**Benefits**

- Easily transportable, fits in a small rucksack
- Plug & Play, use of any USB interface to a Windows®/PC
- Ease of integration, Software Development Kit available
- Obtain GPS reference positions of seafloor targets
- Fast evaluation of waterways and unknown hazards
- Large area search from any surface vessel

**Image courtesy of Ari Kapanen from DeepEye, to whom the Gulf of Finland and a summary of the depth of 33 metres.**