4front

Sonavision's Newsletter *leading the way*

Special Edition

Titan - Packing a Punch

Sonavision have completed the design, development, production and delivery of the first batch of Titan sonars, the long awaited replacement for the world beating SV4000 sonar. This Special Edition looks at Titan in depth and celebrates the effort and dedication of the Sonavision team.

Harbour Tests

SV4000 vs. Titan

Story of Titan - from concept to reality "development of a market leader"

Titan was developed to provide an up-to-date replacement for the SV sonar range. From its beginnings in the early 1990's, the SV4000 was acknowledged as the best sonar available for acoustic performance and had a reputation for high engineering standards and reliability.

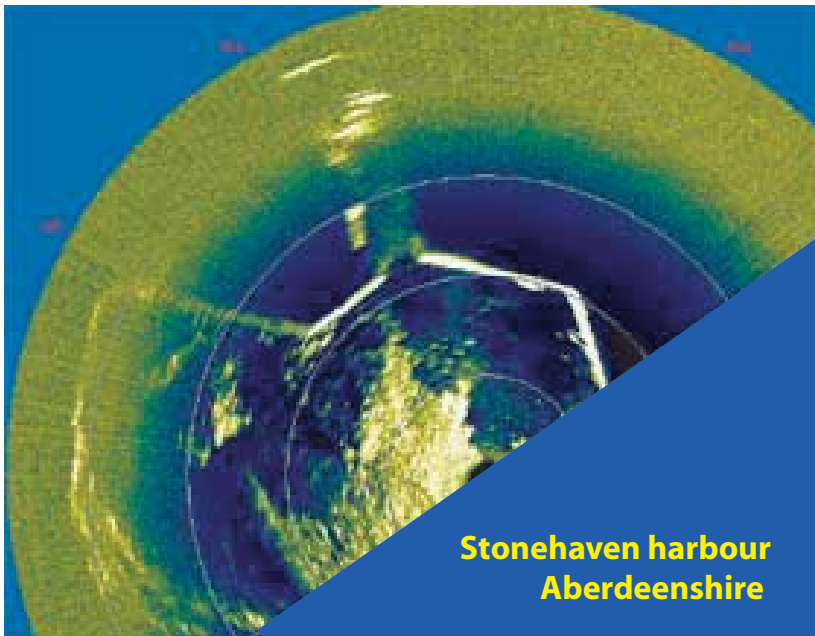
Over its lifetime, other sonars came to market, which although were no match for the SV4000's performance, were cheaper.

So, one year ago our project goals were clear:

1. Sonavision's high engineering standards would be maintained.
2. Acoustic performance would be as good as the SV4000.
3. Titan would be smaller but not be made witn inexpensive materials likely to fail.
4. Retain product longevity (See 1, 2 & 3!). SV4000 systems are still working in the field after 10 years! (NB. accountants - great for depreciation of capital assets!)
5. Manufacturing costs would be reduced so Titan can be offered at an attractive price.

All our goals have been achieved and we have "**witnessed the development of a market leader**".

Results of harbour tests showing clear and distinct targets up to full range of sonar



Under Pressure

Every Titan is subjected to a hydrostatic pressure test at its maximum operating depth and is supplied with a certificate.

In addition, Titans are also dynamically tested and cycled to full operating depth whilst in operation before it leaves our test facility.

This ensures that ***your*** Titan works first time when you receive it!

More...

Transducer Production

Testing Times

One of the major challenges for the development team was the slip-ring assembly.

We have developed an internal slip ring, housed within the gearbox and clutch assembly.

Unlike others, we have used dual and opposite facing brushes with gold contacts.

The reliability of this has already been proven with continuous testing on a specially developed test jig. After testing samples continuously for 24 hrs a day to sample the average life - there hasn't been a single failure yet!

Pretty good, Huh?

Confounding the Sceptics

The transducer is the most important part of the sonar. It is the part we pay most attention to. No matter how good, how expensive, how big or how small the electronics are, a poor transducer will gives a poor sonar image!

The Titan transducer is 1:3 composite. It has a bandwidth from 250kHz to 500kHz. The process in production involves cutting, machining, moulding, encapsulating, baking and grinding.

Between each step we measure transducer response for performance and consistency.

The result? A sonar that locates targets at full range of 300m but gives high definition close up.

All in one Sonar!

Others may say that's impossible - we are proving them wrong!

1st shipment ready for the Gulf of Mexico!

Now we have your attention!

What other information do you need? Detailed specifications and operational software can be found at : ***www.sonavision.co.uk/pages/titan_tech.html***

Ready to place your order? Contact us at: ***info@sonavision.co.uk***

Technical Specifications

Subsea Unit

Height	226mm
Diameter	90mm
Weight (in Air)	4kg
Weight (in Water)	2.4kg
Operating Temp	0˚C to +40˚C
Storage Temp	-20˚C to +50˚C
Construction	Steel Titanium Body UPVC Transducer
Depth Rating	1,000m (Standard)
Deeper Housings	3000m, 6000m
Power Consumption	15 Watts
Power Requirements	+18 to 32VDC
Max Umbilical Length	1,500m *(RG108 or similar twisted pair with a DC Loop Resistance of less than 220 Ohms)*
Telemetry Link	RS232 RS422 RS485
Mounting	Upright Inverted Profile
Scan Modes	Forward Reverse Auto
Speed Selection	Variable
Automatic Software Controlled Receiver	
Fully Field Serviceable	
Packing Case Supplied	

250-500kHz Transducer Specification

Transmit Beamwidth (at 500 kHz)	27º vert. x 2.1º horz.
Receive Beamwidth (at 500kHz)	27º vert. x 3.0º horz.
MDS	74dB
Source Level	210dB re 1µPa at 1m
Pulse Length	100µsec (adjustable)
Bandwidth	10kHz (adjustable)

Frequencies & Ranges

Single

Frequency	Range
500 kHz	100m
200 kHz	300 m

Dual

Frequency	Range
250 / 500 kHz	300 / 100m

SONAVISION World Class Underwater Technology

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