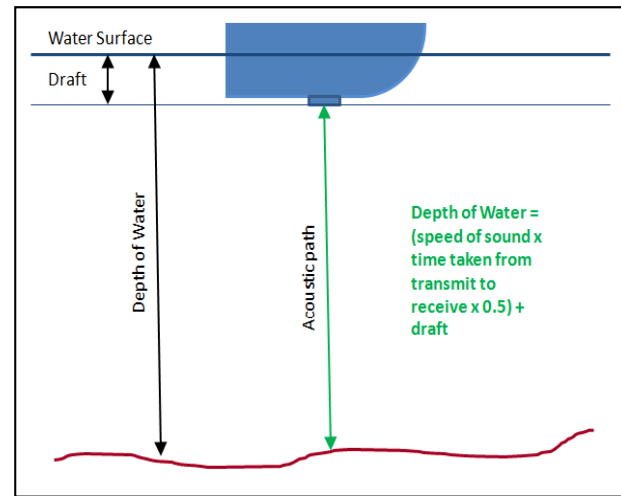




Why Choose Teledyne Odom Echo Sounders?



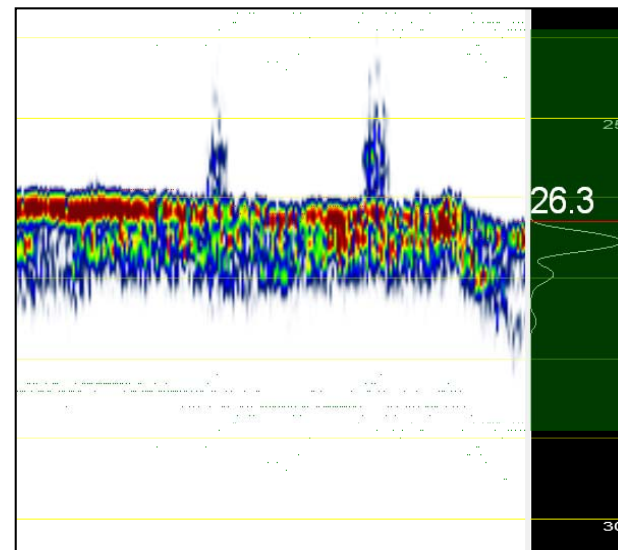
Principle of echo sounding

To answer this question, we must look at how an echo sounder works. All single beam echo sounders generate an electrical pulse that is sent to a transducer, which converts that pulse into an acoustic pulse, sometimes called a 'ping'. This ping then travels through the water, reflects off the sea floor (or anything else that may be in the way) and back to the transducer. The transducer then converts the acoustic energy received back into an electrical pulse. The time taken from sending the pulse to receiving it is therefore a two way travel time. If the speed of sound in water is known, and the time is known, the distance travelled (or depth in this case) is equal to the (speed of sound x time x 0.5).

Any single beam sounder, including your fish finder, can perform this calculation, and this brings us back to our question – why buy a Teledyne Odom sounder?

Let's look at the raw acoustic signal in the picture below. On the left we can see a time progression of the acoustic intensity received by the sounder. On the right we can see a single ping – the wavy line in the green box is the received intensity. The red line shows where the 'first return' is identified on the received intensity plot, and this is where the sea bottom is detected.

The bottom detection for most of our customers is crucial. This could mean the difference between a ship running aground, an unidentified wreck being missed or a dredger being paid for their work. Our signal processing and bottom detection algorithms are of paramount importance for us, and this is demonstrated in every one of our sounders. Would you trust ship safety on a survey carried out with a fish finder?



Screengrab from Odom E-Chart



The durable Hydrotrac (courtesy EMC Survey)

We build our sounders to last, as we know that the maritime environment is hard on electronic equipment. Couple this with the demands of many of our dredging customers, and it does not get any tougher. We have sounders still working in the field with over 15 years of service. And not just those units safely hidden in cabins – the picture above shows a Hydrotrac with 11 years of sounding in the hot and humid conditions of the gulf coast.

Frequency agile processor boards mean we can work with a wide range of transducers, including ones that may be already installed in your vessel. Tell us the model and we can advise if we can interface with it – saving you the cost of replacing a transducer and associated downtime and drydock costs.

We build sounders for almost every hydrographic application. Single frequency, dual frequency, triple frequency, paper or electronic chart, waterproof or permanent fit, we have a solution to fit your requirements. Coupled with a wide range of hydrographic quality transducers, we can also supply the right mounting, frequency and beamwidth.

Customer Support is what we take pride in. Whether you need on-site installation and training or just help on the phone, we have a team of dedicated hydrographic surveyors on our staff. And we won't charge you a penny for phone support during office hours.



The MkIII with paper or electronic chart



EchoTrac MkIII



CV100



CVM



CV200/300



Hydrotrac II



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