

A typical system has the ability to sample up to 32 transducers. Custom arrays are designed to be mounted on a carriage and translated along the flume, thus enabling 3-D bottom profile measurements.



The SeaTek ultrasonic ranging system shown above is composed of 4, 8 element, stainless steel arrays, and an electronics package. The transducer spacing is 8 cm (center to center). All four arrays can be mounted to form a continuous 256 cm (8.4 feet) long array.

The operating frequency of this system is 2 MHz. The on board data logger communicates to a PC via a RS232 communications port. The electronics package has BNC inputs for 4 analog channels that can also be sampled during a data run. These analog channels are often used to log the X and Y position of the array during a run.

The data is streamed back to a logging PC via RS232 serial communications and captured using supplied software.

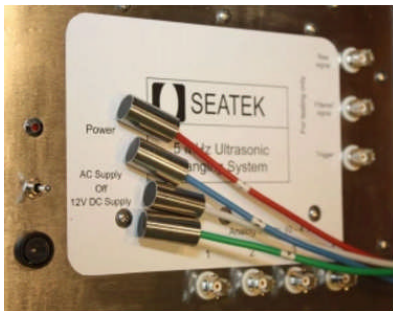




The SeaTek ultrasonic ranging system shown above is composed of 4, 8 element, stainless steel arrays. The transducer spacing is 1 inch. The arrays can be mounted to form a continuous 32 inch long array. The operating frequency is 5 MHz. The system is capable of sampling all 32 transducers at a rate of 5 Hz.

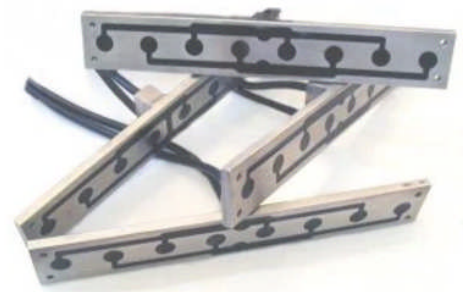


In addition to fixed arrays, individual transducers can also be used to form arrays. One of the advantages of individual transducers is that the transducer number and spacing can be changed to meet the specific requirements of a given laboratory setup. Above are some examples of individual transducers. Electronic packages can be built that will run up to 64 transducers.

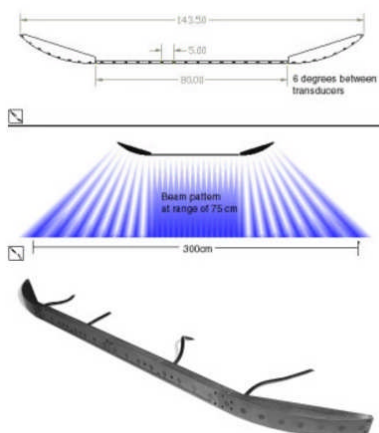


Our most popular and versatile transducer is the cylindrical transducer. They are housed in stainless steel housings and are 1 inch in height and 1/2 inch in diameter and are typically bundled four per cable.

These custom transducers were designed to mount on the end of threaded rods.



These transducer arrays were designed to mount together to form a continuous transducer array of 32 transducers with 4 cm transducer spacing.



This 32-element transducer array was designed to cover a large section of seabed with high-resolution.

The electronics were housed in a waterproof housing and the transducer connectors were under-water matable.

This 32 transducer field instrument was designed to measure bedforms in the energetic near-shore ocean environment.