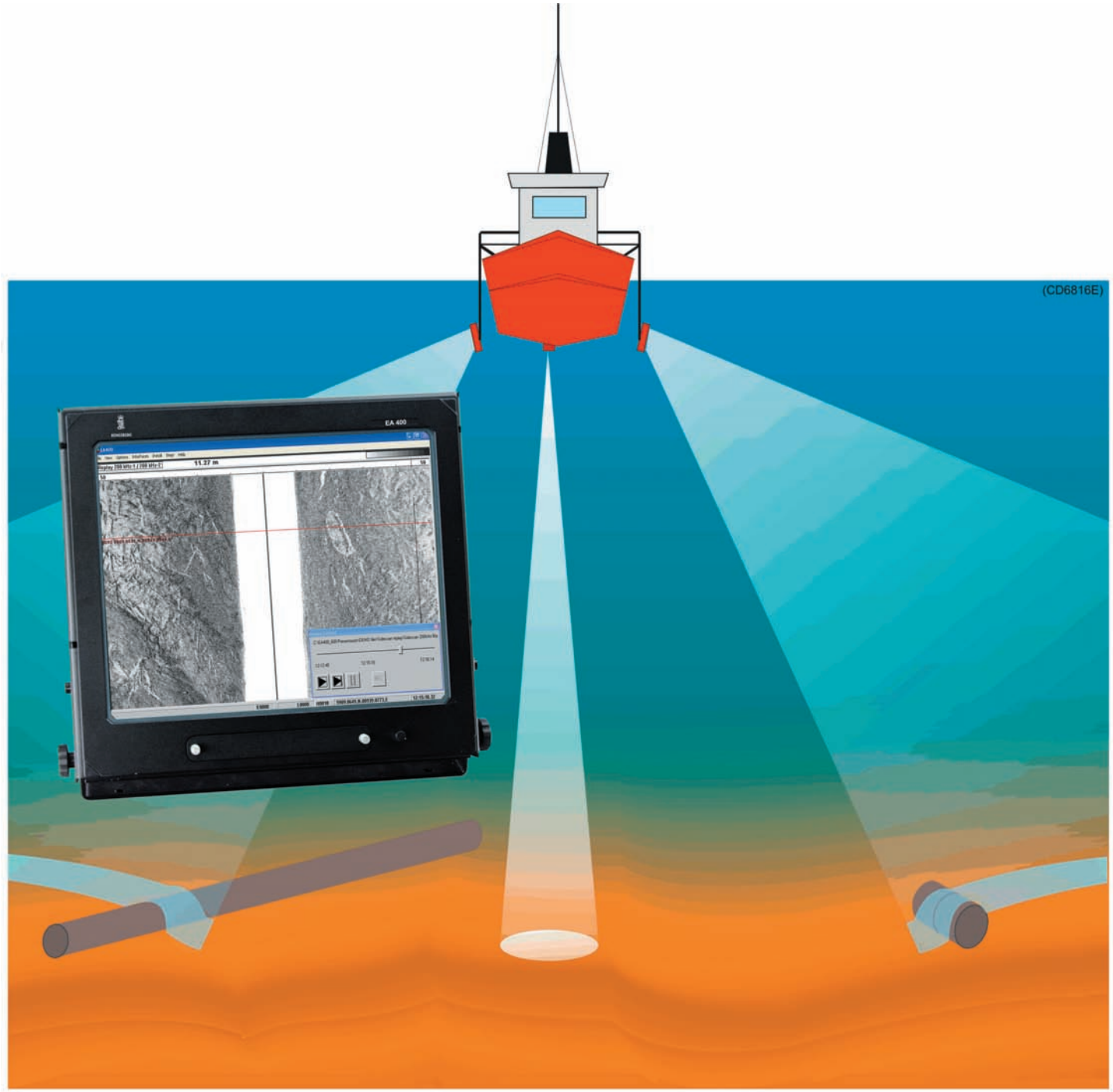
EA 400/600 Sidescan

KONGSBERG

Echo sounder with combined sidescan and depth soundings



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Side-looking image

The side-looking option is available for the EA 400, EA 400P and EA 600 hydrographic echo sounders. Using a sidescan sonar transducer, these echo sounders can produce a side-looking image on the side of the vessel the transducer is located. By employing two transducers (to port and starboard) both sides may be surveyed at the same time.

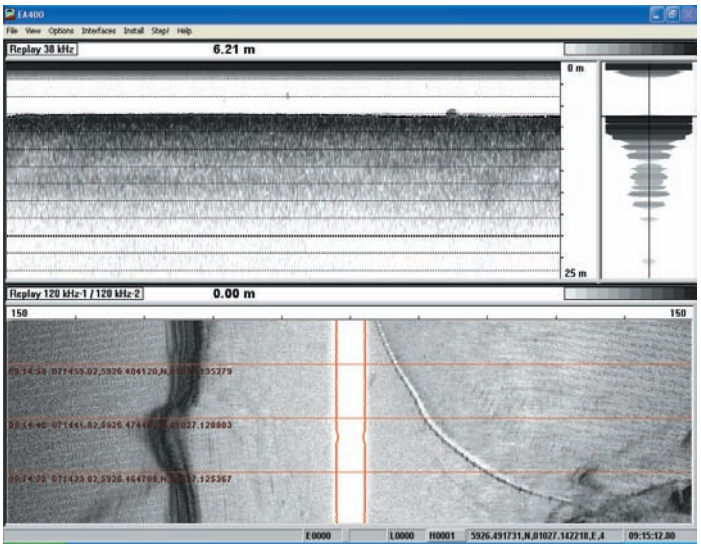
Mounted, not towed

An other very handy solution is to use hull mounted or over-the-side boom mounted sidescan transducer(s) to survey shallow areas such as harbors, rivers and canals. This eliminates the need for a towed sidescan sonar or similar device. Another advantage is that fixing the correct geographic location of detected objects is made much simpler and done more precisely since the uncertainty concerning the position of a towed body has been eliminated.

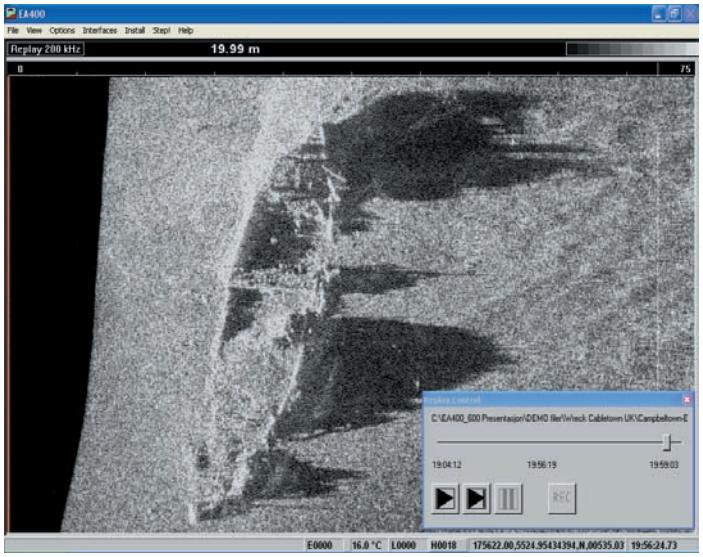
Side-looking option

The sidelooking option is equally useful when searching for wrecks or surveying navigable channels for obstacles. Sidescan data is captured and stored in a digital format and further data processing to a sidescan sonar mosaic image (by combining data from a number of survey lines) is possible and easy to perform.

Georef output datagram can be exported through network if vertical channel is available.



Dual sidescan with bottom depth channel.



Sidescan with only starbord TD mounted.

Combining dual sidescan with normal depth sounding

It is also possible to allocate one or two vertical channels to normal echo sounding in addition to dual acoustic imaging. EA400SP is limited to run either dual sidescan or single sidescan with one vertical channel.

Easy to operate

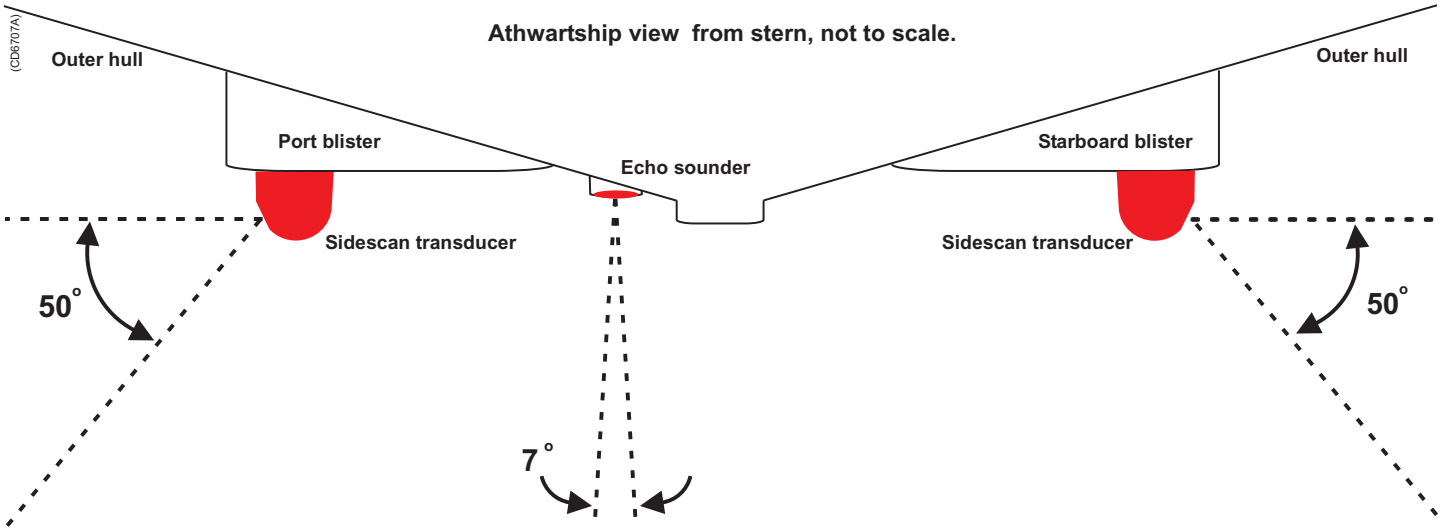
The presentation of dual sidescan image can easily be changed in the operator menu. The normal echo sounding view(s) can be turned on or off in the menu. The bottom line for third or the fourth channels, can be overlaid on the sidescan presentation (one or both) as a red line.

The sidescan transducers

With a working frequency of 120 or 200 kHz, Kongsberg Maritime has combined both high accuracy and resolution with robustness and wide coverage.

The **120-2x50** is a sidescan transducer with a narrow longitudinal beamwith of 1.9 degrees, and a wide transverse beam of 55.0 degrees. The 200kHz transducer has a longitudinal beamwith of 0.5degrees and a transverse beam of 49.0 degrees. Both transducers has a scanning sector narrow enough to reveal the secrets of the seafloor, including small objects and wrecks in great detail, but wide enough to allow faster survey speeds than possible with conventional side-looking units.

Hull mounting

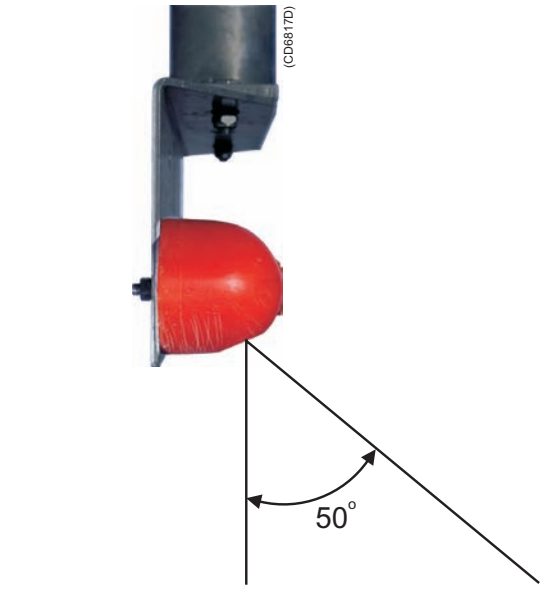


Typical hull mounting arrangement

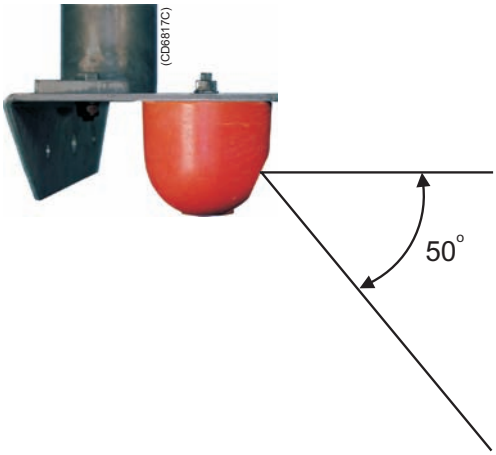
Over-the-side mounting

Vertically mounted

Horizontally mounted



Typical vertical installation



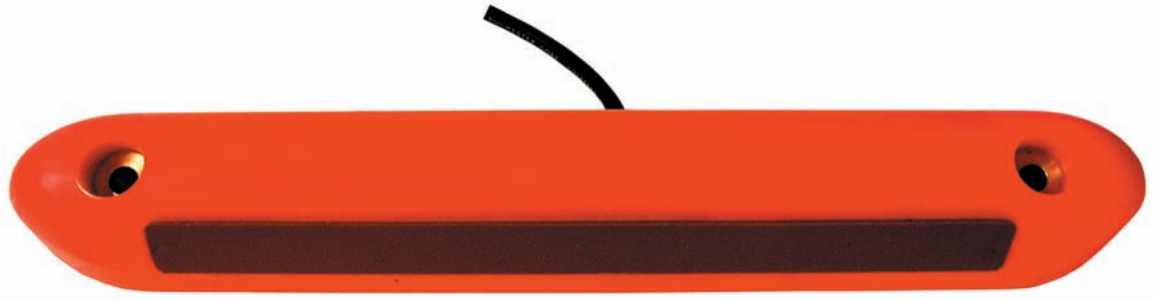
Typical horizontal installation (down to 50 m)

Technical specifications

120-2x50 Sidescan transducer

The 120-2-50 transducer has a narrow longitudinal and a wide transverse beam.

Measuring slant range (approx.) ..... 0 to 300 m
Survey speed (max).....6 - 8 knots
Resonant frequency.....120 kHz
Longitudinal beamwidth ..... 1.9 degrees
Transversal beamwith ..... 55.0 degrees
Maximum pulse power input .....1000 W
Maximum continous power input .....10 W
Maximum transducer depth ..... 20 m
Cable length ..... 20 m
Weight with cable .....5.5 kg
Storage temperature .....+70 to -40 C



200-0.5x49 Sidescan transducer

The 200-0.5x49 transducer has a narrow longitudinal and a wide transverse beam.

Measuring slant range (approx.) ..... 0 to 200 m
Survey speed (max).....6 - 8 knots
Resonant frequency.....200 kHz
Longitudinal beamwidth ..... 0.5 degrees
Transversal beamwith ..... 49.0 degrees
Maximum pulse power input .....1000 W
Maximum continous power input .....27 W
Maximum transducer depth ..... 10 m
Cable length ..... 20 m
Weight with cable .....8 kg
Storage temperature .....+48 to -6 C

Note: The proceeding photographs are not representative of the relative size of the two transducers.

Due to the continuous development of its products, Kongsberg Maritime reserves the right to alter the specifications show above without notice. Please contact a sales representative for further information.

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