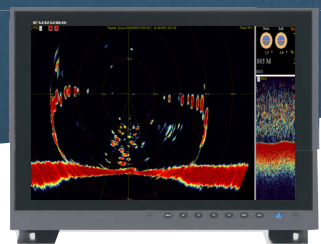


FURUNO NORGE

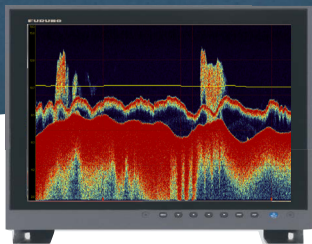
Furuno sees...



...what you don't



Double display solution



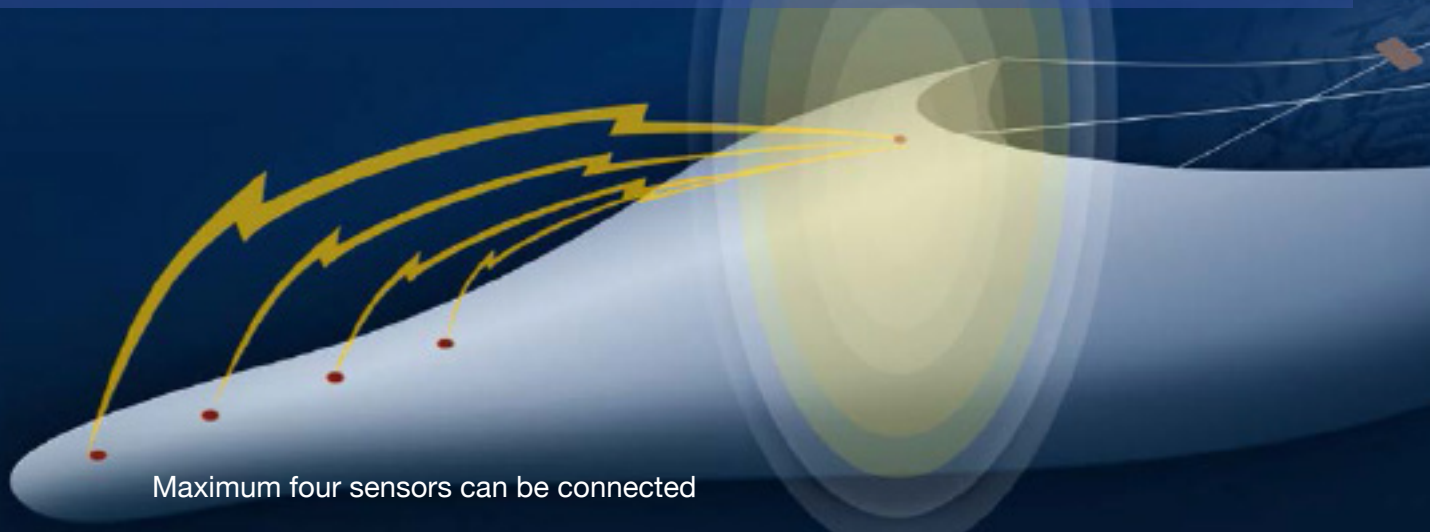
360° wired trawl sonar
Next level of catch control

TS-337A is the world's first real time 360 degree trawl sonar with updates every 0,8 sec. Now with option for double display solution and rapid down-sounding, with depth and temp info.

The key to successful fishing!

In order to find fish, sonar and echosounder are two fundamental equipments in the fishing industry, when the trawlsonar is one of the most important component for a successful fishing!

With up to 4 pcs. of catch sensors, CS-400 can be connected to the trawl sonar to get complete overview of the current catch. With catch sensors you can follow the filling rate into the trawl and it can be hauled up in at the right time. The signals from the CS-400 are transmitted wirelessly to the trawl sonar. CS-400 is also compatible with other 3rd part systems in the market.



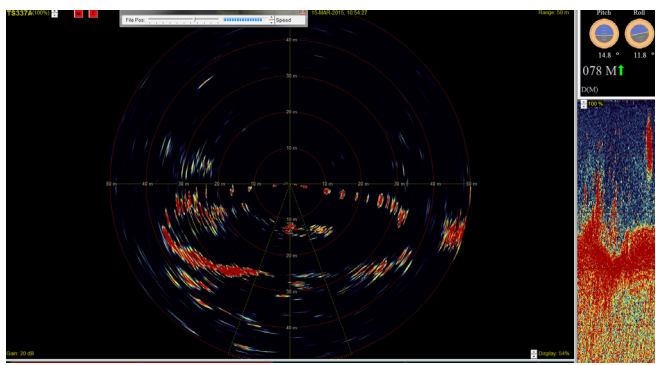
Features:

- Two screen option of vertical scanning and echo window
- Own zoom window of echo images
- NMEA output of headrope and footrope
- Echo Sounder presentation with higher ping rate.
- Graphical presentation of net depth and temperature
- Full monitoring of net opening and fish echoes for each transmission
- 240 beams scan 360 degrees in vertical direction for each transmission
- Vertical transmission update every 0,8 sek.
- Adjustable beam width of the echo sounder
- Depth/temp and net behaviour (pitch and roll)
- Trawlheading presentation (Underwater Unit)
- Monitoring up to 4 catch sensors and the filling rate
- All operations done from menu on Display
- No moving mechanical parts in Underwater Unit
- Robust design and high reliability

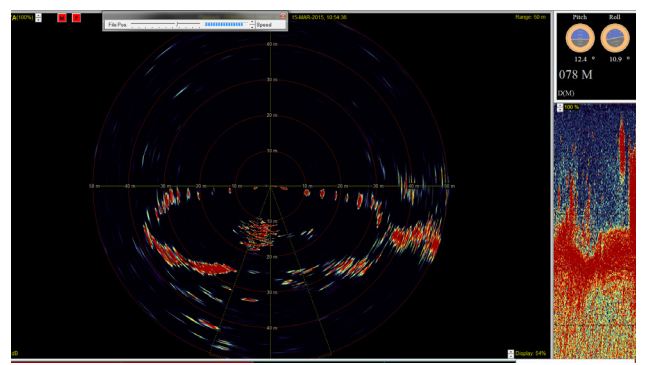


CS-400 sensor

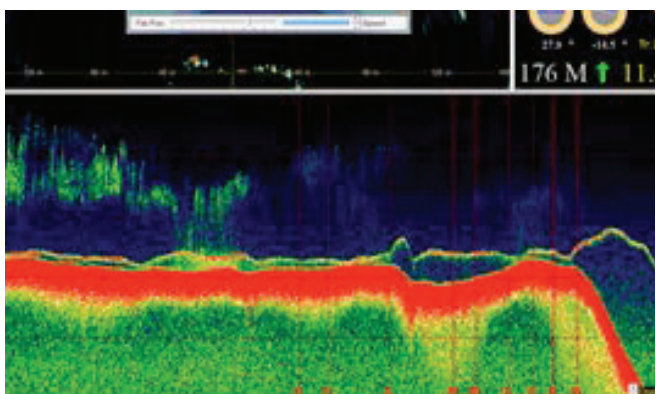
Display Unit



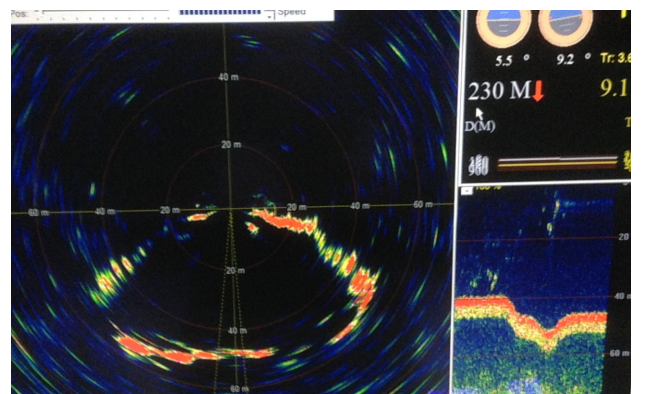
Fish coming in...



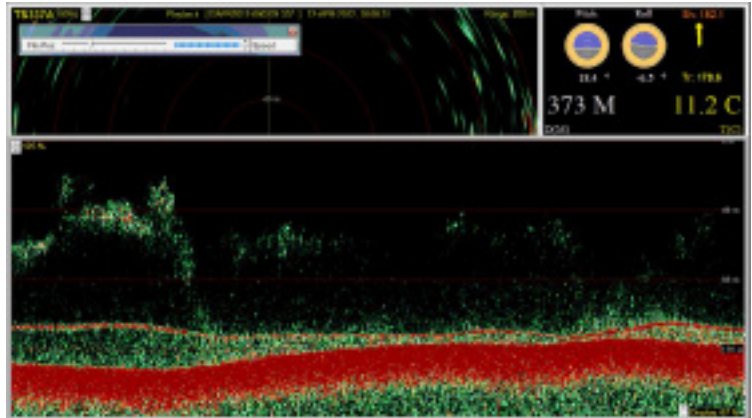
Fish targets on vertical scanning and echo window



Maximum echo sounder image



Clear view of the foot rope



240 beams scan 360 degrees in vertical direction for each transmission. New transmission update every 0,8 sec.

Clear view of the trawl foot rope. With update every 0.8 sec. you will have good control of the foot rope close to the sea bed.

Specifications:

GENERAL

Display 1280 x 1024
Display Mode Beam Test or 360° image
Presentation Color of echogram
 Full color (2 types of contrast selectable for day or night time operation), Green, Grey (normal/reverse)

UNDERWATER UNIT

Operating Depth 2,000 m
Vertical Scanning Sonar
Display mode 360°. Full picture scanning every 0,8 sec.
Echo Sounder
Frequency 120 kHz
Ranges 10, 20, 30, 40, 50, 60, 80, 100, 150, 200, 250 m.

Temperature Sensor
Measurement Range
 - 5°C to +35°C

Dept Sensor
Measurement Range
 0 to 2,000 m

Pitch/Roll Sensor +/-60°

CATCH SENSOR CS-400

Operating Depth 2,000 m
Frequency channel 1: 69.75/70.25 kHz,
 channel 2: 72.25/72.75 kHz
 channel 3: 74.75/75.25 kHz
 channel 4: 77.25/77.75 kHz
Power Supply 3 Alkaline batteries
Operating Time 1,000 h

POWER SUPPLY

115/230 VAC

EQUIPMENT LIST

Standard: 1 Unit Underwater, 1 Surface Processor Unit, Installation Material and Standard Spare Parts
Option: Catch Sensor CS-400

Third Wire System

Winch system Shipyard supply
Cable Armored coax cable
Loop Resistance 100 ohm
Attenuation 20 dB, 100 kHz
Length 3,000 m

