



SEAPIX-T FOR TUNA SEINING

**iXblue**

# SPECIFICATIONS

Acoustic power	4kW
Frequency	150 KHz
Number of beams per swath	512 beams (256 per swath)
Volumetric resolution	0.6m <sup>3</sup>
Configurable system	Modular multi-head system up to 3 SeapiX heads
PRESENTATION OF DATA	
Sonar swath	Unlimited number of sonar view in all direction and tilt
Echograms	Unlimited number of echogram view in all direction, tilt and opening sectors
Mapping view	Mapping of digitalized biomass and vessel maneuvering
3D view	3D presentation of digitalized biomass and sonar signal, 3 cameras
TUNA ANALYSIS	
Biomass selection	Whole volume , Geographical, Historical, Seine gear, Area selection
Biomass & Tuna basket	Class of biomass utility for species-weighting discrimination
Tuna biomass indicators	Quantitative detection, class of biomass % recognition analysis
RANGE	
BFT Tuna	Up to 430m
YF Tuna	Up to 400m
Bait fish	Up to 300m

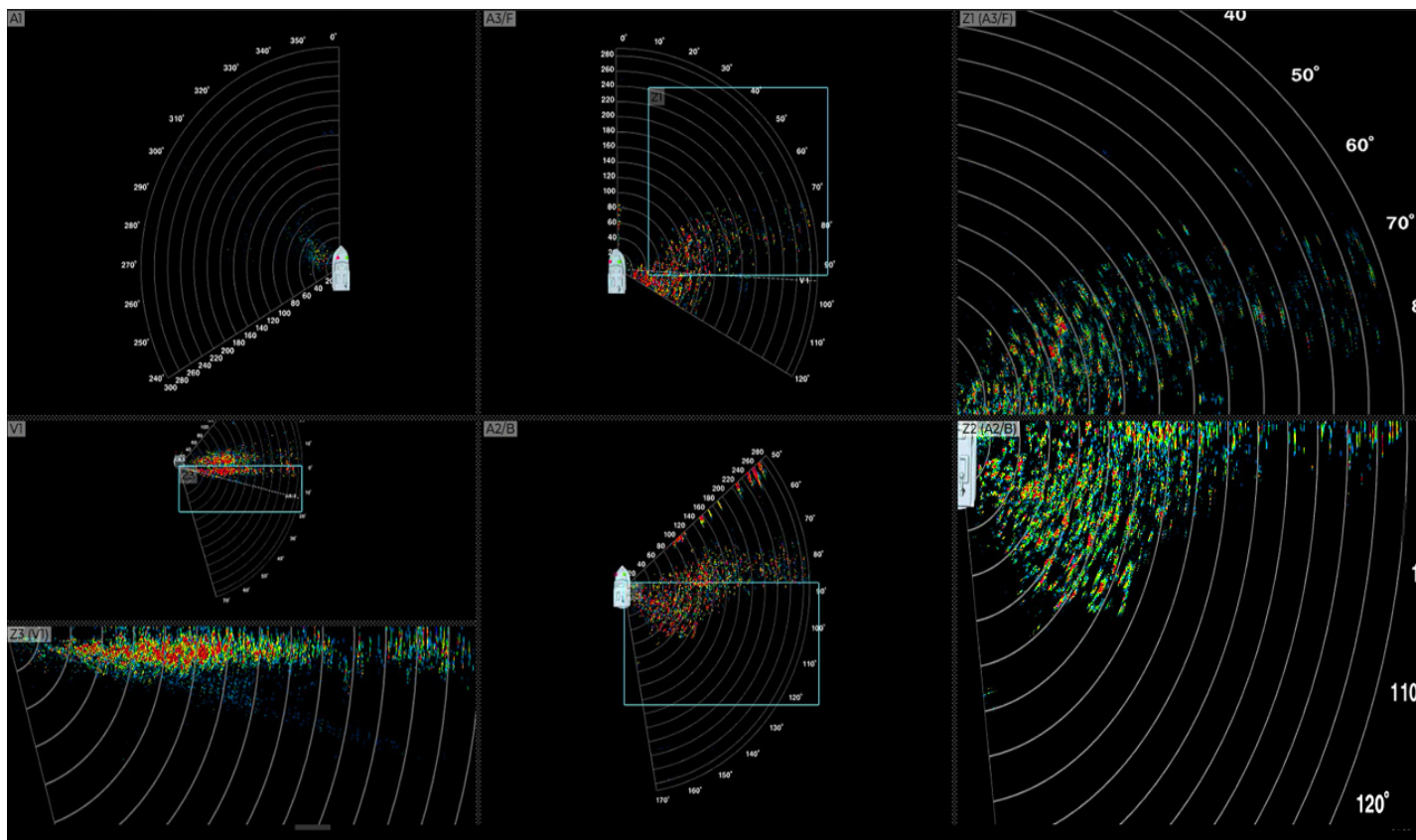
# FULL VOLUME TUNA FINDING SYSTEM

## From 120°x120° up to 360°x120° volume surveillance

- Single-head covers 120° x 120°
- Dual-head covers 120°x 240°
- Triple-head covers 120° x 360°

## Offers volumetric assessment & unique « all range » fish finding system

- Volumetric sonar swaths and volumetric echograms
- 512 sharpened pencils operating in high frequency with 4KW power from each head
- Detecting tuna fish from 3 to 430m distance
- Detecting all tunas in all tilts from surface to below keel without need of tilt adjustment



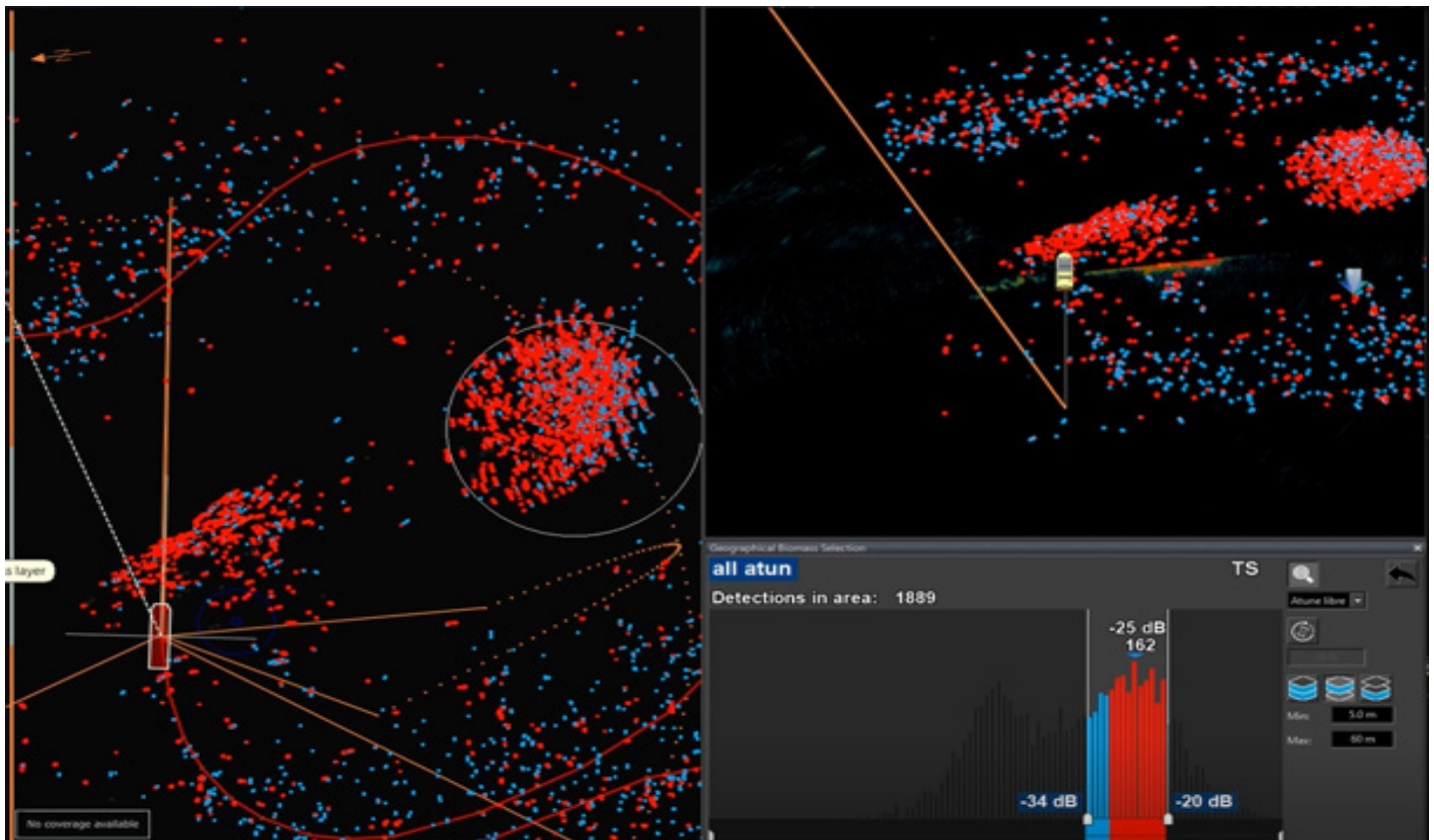
# REALISTIC TUNA EVALUATION

## Provides true abundance estimation

- Pencils of  $1.6^\circ$  forming 256 split beams in across track and 256 split beams in along track
- $0.6\text{m}^3$  volumetric resolution
- Full 4K acoustic resolution available in sonar swath and echogram windows including zooms facilities

## Classifies fishes in real-time

- Calibrated TS split beam in all beams allowing individual tuna detection from the whole volume
- Classification by tuna categories and bait fish
- Multi criteria filtering tuna biomass analysis by areas, layers, history and TS





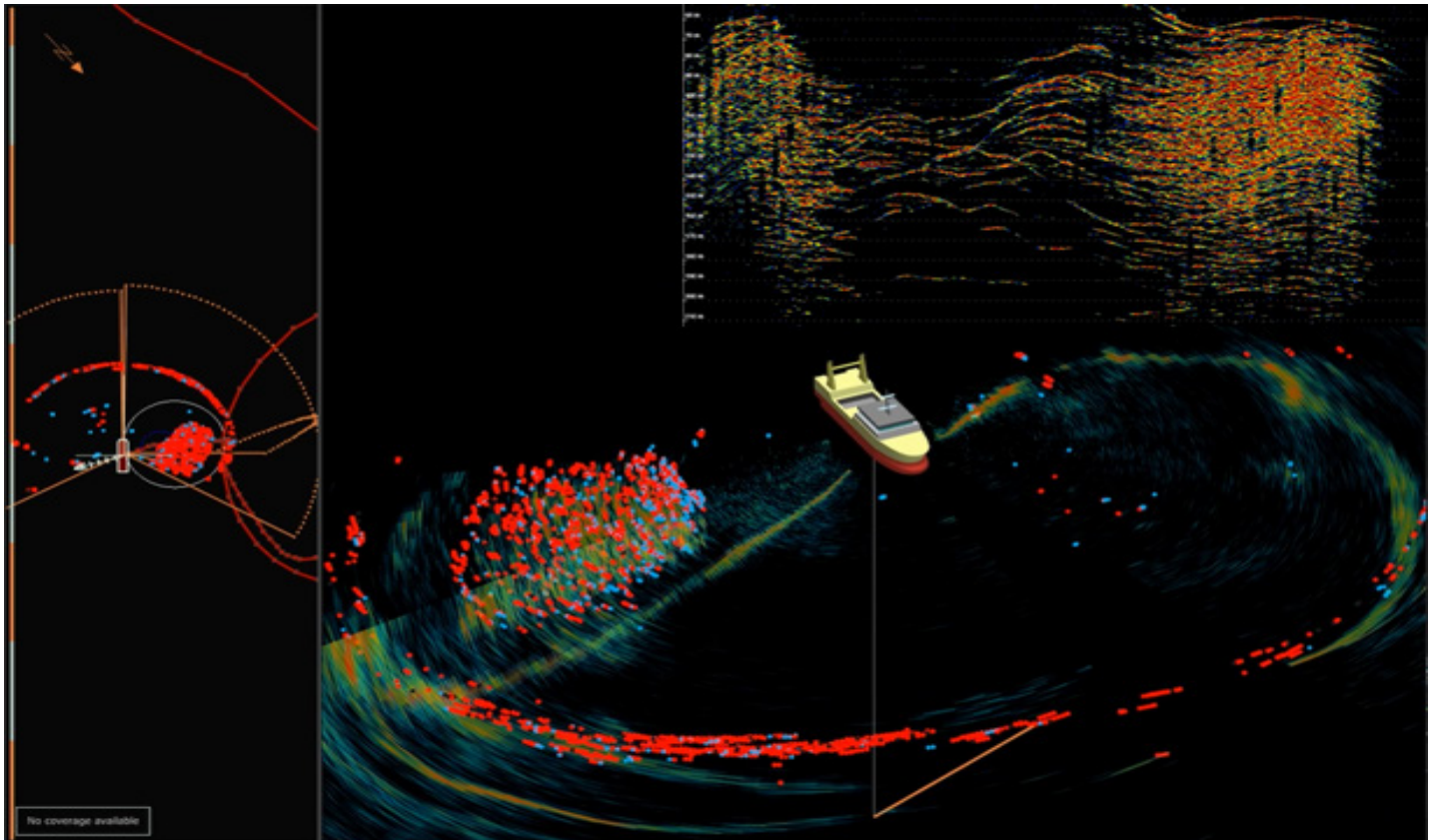
# TUNA CATCH AT A GLANCE

## Tuna control for smarter maneuvering

- Sonar swaths, echograms in all direction, 2D/3D scene
- Free shoal of FADs estimate
- In seine estimate and hauling control

## Realistic estimate to make decision

- Tuna biomass extraction without vessel wake
- Understanding of individual tuna behavior and direction
- Quantitative estimate and spread out of Tuna categories

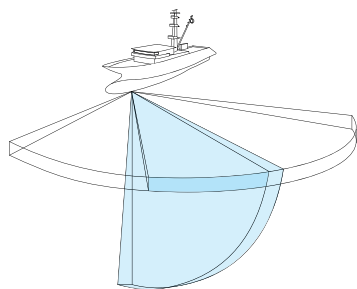


# SMART OPERATIONS MODES

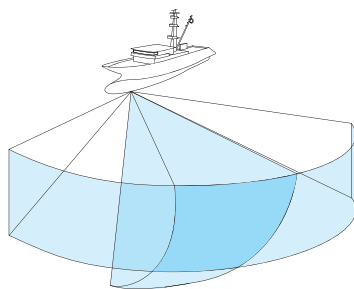
SeapiX-T offers both preconfigured operation modes and customizable ones by adding echograms and sonar swaths.

## Unique narrow and volumetric echogram

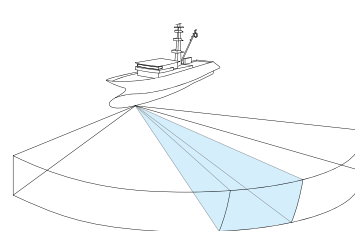
- Unlimited number of echograms, from horizontal or vertical sonar swath
- Adjustable echogram aperture from 1,6° to 120°
- Volumetric echogram from desired azimuth and/or tilt
- Tuna biomass points extraction from configurable sectors and tilts



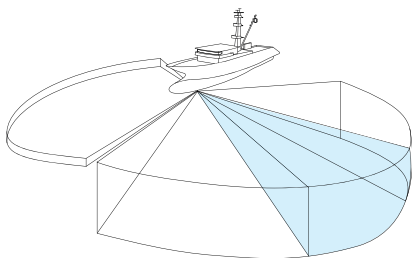
Single head



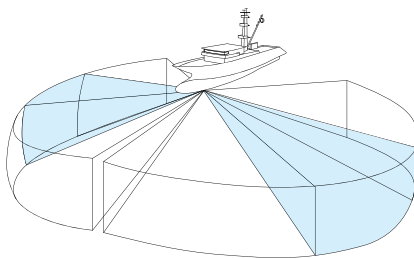
Single head



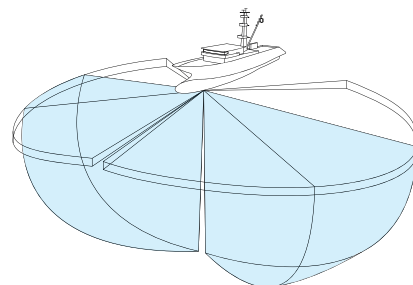
Single head



Dual head



Dual head



Dual head

## Advanced modes of tuna operation

- Choice of Factory preconfigured mode depending on fishing stage
- Automatic optimized settings
- Entirely tunable by skipper

# 3D MULTIBEAM SONAR FOR TUNA SEINERS

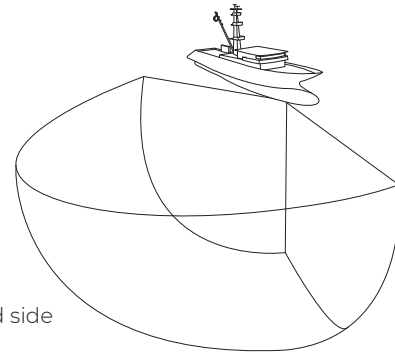


SeapiX-T carries out real-time full 3D tuna shoal assesment, from surface up to 400m range and down to 300m depth.

SeapiX-T enables the formation of across and along track sonar swaths and echograms, in all azimuth and tilts angles.

It provides true estimate of tuna shoal and categories, combined with 3D Tuna fishing operation to ease selectivity and to secure shooting decision.

Benefits of both highest volumetric resolution and unparelell water volume coverage make SeapiX as must have for tuna operations, offering an operational benefit far superior compared to conventional omnidirectional sonar.

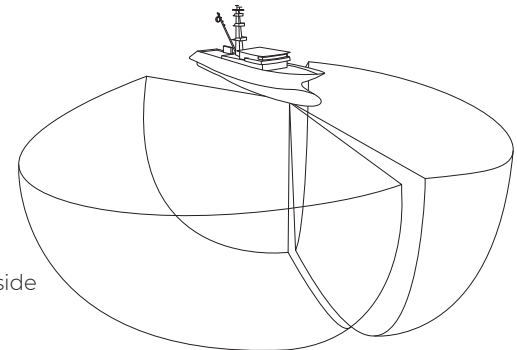


Single-head side

SeapiX is a unique modular concept on the fishery market.

SeapiX-T transducer provides surveillance of  $120^\circ \times 120^\circ$  water volume. A second or a third transducer can be installed to form a genuine "multi-head" SeapiX system.

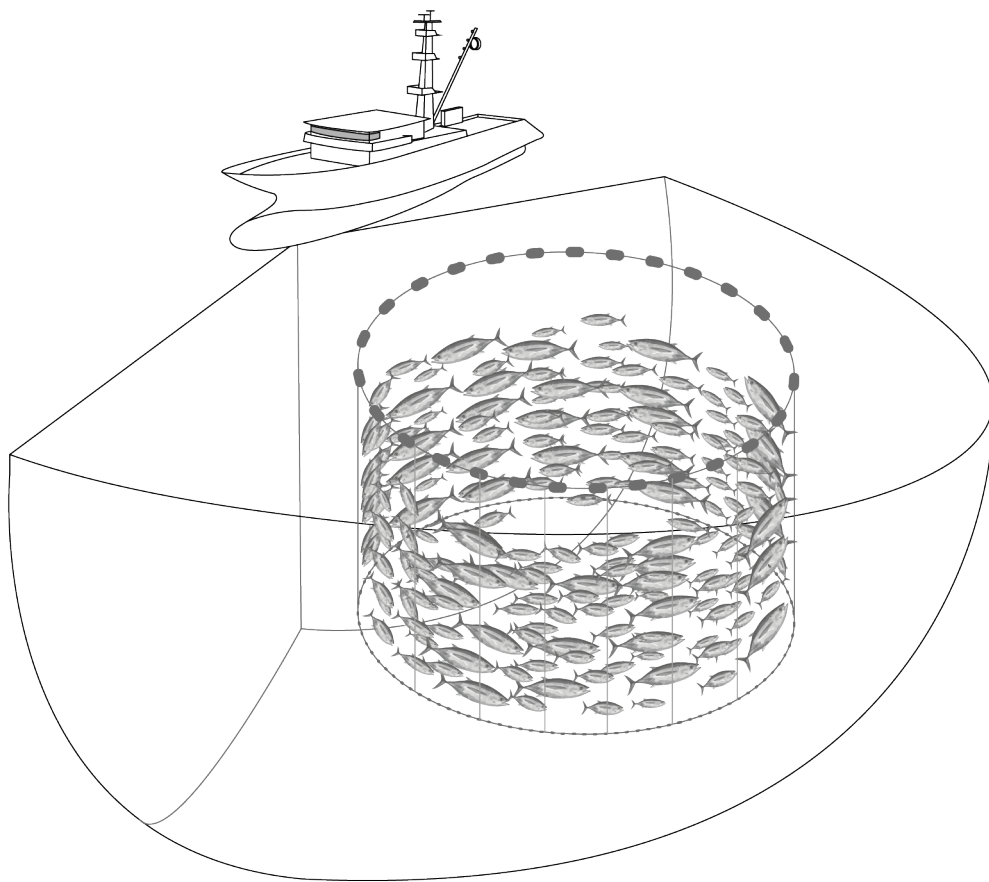
Skippers can take advantage of SeapiX-T features in various configurations (down, side, forward, etc...) to gather fish data in all directions and depth with the highest volumetric resolution. A dual head covers the volume of water from surface over a sector of  $240^\circ$ .



Dual-head side



# SOLUTION FOR TUNA SEINING



EMEA: +33 1 30 08 88 88  
AMERICAS: +1 303 993 4649  
APAC: +65 6747 4912

[www.ixblue.com](http://www.ixblue.com)

**ixblue**