



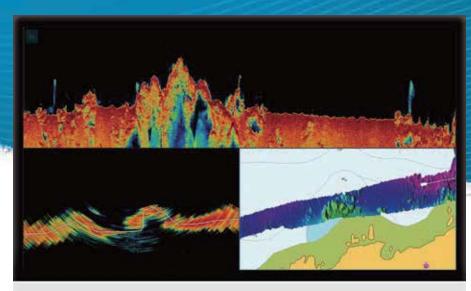
MULTI BEAM SONAR

Model F3 Series





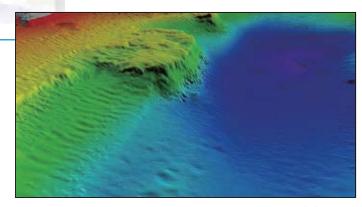
This next generation WASSP multi beam sona – accurate, versatile, user-friendly and most



User adjustable Multi Functional Display

Generate your own personal Multibeam Chart

The F3 series is set to revolutionise inshore fisheries with its Wideband CHIRP technology. Scanning a 120 degrees swath port to starboard and using 224 beams, the F3 series delivers each and every time. By using advanced signal processing, you get a complete picture of seafloor bathymetry with ease.



WASSP 3D



- Capability to save chart into the CDX software
- TIMEZERO compatible with optional licence

New easy-to-use interface

The F3 series inctoduce a new simplified software "WASSP CDX" for control, visualisation and data management while still providing a comprehensive set of functions to meet the most demanding fishing requirements.

- Cost-effective solution for multiple applications
- ▶ Choose your own functions with new licensing options





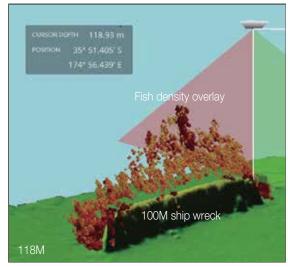
r delivers on every front importantly, scalable to your exact needs.

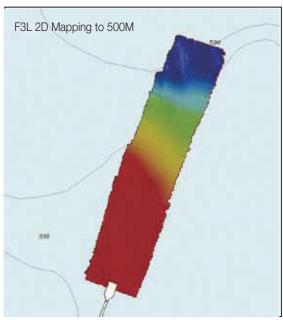
All-in-one DRX transceiver, incredibly versatile and ready for the next technology advances

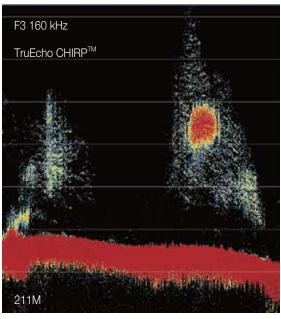
This innovative all-in-one "BlackBox" is not just a robust hardware platform but also introduces cutting-edge technical innovations and incredible versatility for finding your catch. This opens countless new possibilities for your operations.

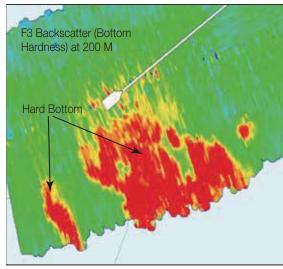


► Easy to install/commission





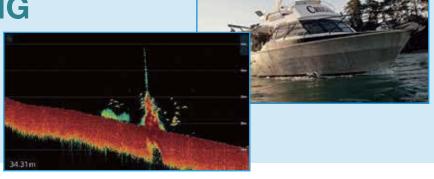




INSHORE FISHING

The scalable system has a wide range of features and capabilities; all manner of inshore fishing types can be optimised, ensuring efficiency and increased productivity in all fishing methods employed.

The system can be tailored for all types of inshore fisheries.



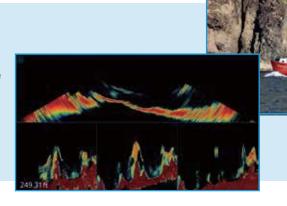
POTTING

The 3D presentation of the seabed, coupled with the optional backscatter function, to aid in the assessment of seafloor hardness, ensures the best location of pots in a range of environments.



TRAWLER

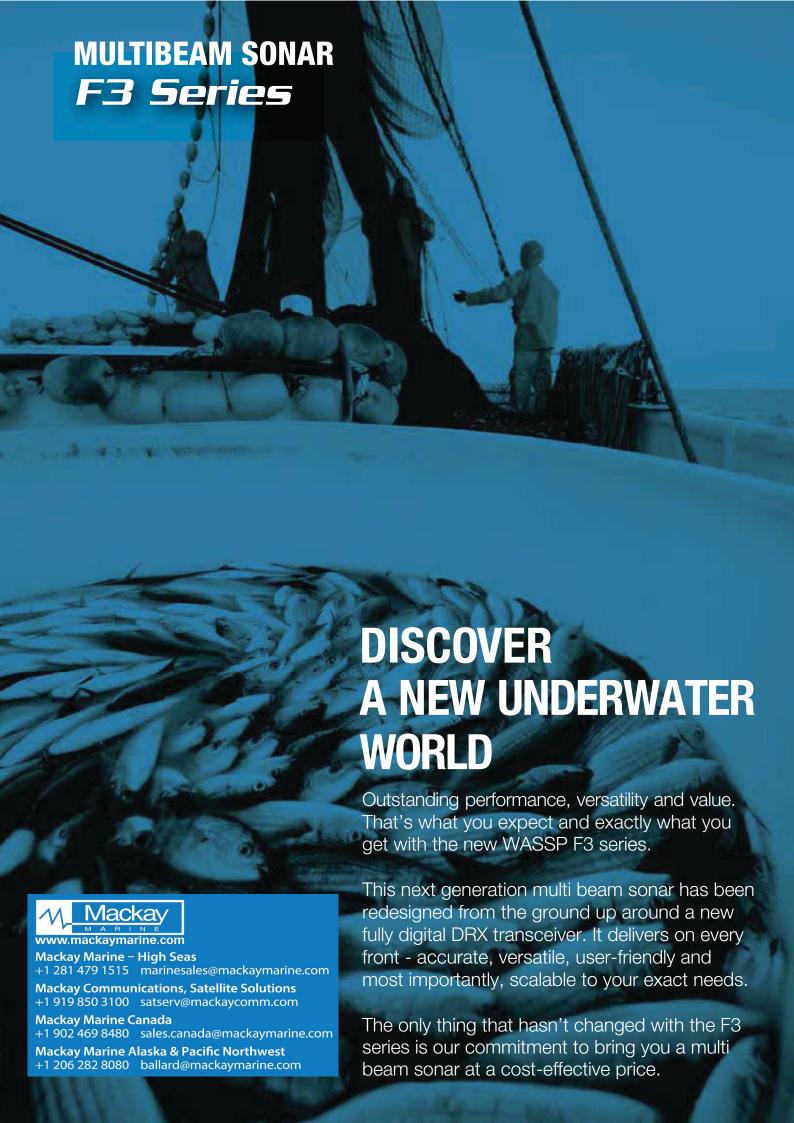
With accurate water column and seabed information at hand, skippers are better informed, and can make decisions ensuring they maximise their catch while minimising time at sea.



WASSP transducer

- ▶ The WASSP sonar transducer is available in 2 frequencies
 - 136-184 kHz Wideband (160 kHz center)
 - 68-92 kHz Wideband (80 kHz center)





Models: F3 (WMB-1320F) F3i (WMB-1320Fi) F3L (WMB-1320FL) F3Li (WMB-1320FLi)

Specifications

1. GENERAL

Transmitting frequency Wide band; F3/F3i: 160 kHz, F3L/F3Li: 80 kHz

Effective beamwidth F3/F3i: 200m, F3L/F3Li: 450 m 120° x 4° (Athwartships x Fore-aft) Beam width

PS: 4.4°

Beam spacing FA: 3.2°

F3: 200 m* (Side Beam Best Performance) Depth

400 m* (Main Beam Directly Under Boat) F3L: 450 m* (Side Beam Best Performance) 900 m* (Main Beam Directly Under Boat) *Depth capability subject to a variety of external factors

Max range resolution 2 cm Power supply unit 9 to 32 VDC **Bottom detections** Amplitude & Phase Tide correction Fully Geo Referenced

2. INTERFACE

GGA, GGK, GLL, HDG, HDM, HDT, HVE, NMEA0183/RS422/RS232

PASHR, PTNL PFEC, RMC, RCD, TSS1, ZDA

Ethernet NMFA2K

PPS, KP, Remote Power Other Interfaces

3. DISPLAY & FUNCTIONALITY

Bathymetry, Sonar polar view, Sounder (single, triple & quint beam)

(Licensing options)

Backscatter, Open Client Support, Water Column Targets, Uncorrected Data, XYZ export, Sidescan, RTK tides,

other export formats*

* available in 2017

4. USER INTERFACE WASSP CDX

TimeZero pro** Option

* Requires WASSP interface module & excludes 3rd party software.

5. MINIMUM PC SPECS

Windows 8.1, 10 os

CPU 2 Ghz, 4 Cores/4 Threads

Memory 8 GB (Min. 4 GB) Graphics Direct X11

Screen resolution Full HD 1920 x 1080 (Min. XGA 1024 x 768)

2 TB (Min. 250 GB) SSD

Ethernet - GbE, Wifi-802.11ac Network

Dual screen support

6. ENVIRONMENTAL CONDITIONS (Transceiver unit)

0°C to +50°C (storage:-20°C to +85°C) Ambient temperature Humidity/Damp heat IEC60945, 93 % or less at +40°C

IFC60945 Fd.4 Vibration

Waterproofing IP53, Bulkhead mounted (IP67 option available)

Equipment List

Standard

- 1. Transceiver unit DRX
- 2. WASSP CDX (PC application)

3. Transducer unit F3 (G3 TRANSDUCER: 160 kHz) with 10 m cable Transducer unit F3L (G3 TRANSDUCER: 80 kHz) with 20 m cable

4. WASSP sensor package* *For F3i (WMB-1320Fi)/F3Li (WMB-1320FLi).

F3 (G3 TRANSDUCER: 160 kHz) with 20 m cable

Gland (aluminum/plastic/steel)

Satellite Compass plus cable with WASSP sensor box*

WASSP sensor box

*For F3 (WMB-1320F)/F3L (WMB-1320FL).

DRX (F3 DRX) 8.3 kg 18.3 lb 9 260 377 14.8" 216 8.5 **TRANSDUCER** WMB-160 (G3 TRANSDUCER:160 kHz) 15 kg 33.1 lb (cable dependent) 27 1.1" Bow Mark 318 12.5" 156 6.1" 6 0.2 330 13" 168 6.6" WMB-80 (G3 TRANSDUCER: 80 kHz) 39 kg 86 lb (cable dependent) Bow Mark 127 133 510 20.1" 316 12.4 10 0.4 533 21 340 13.4 Satellite Compass™ Laptop or Desktop PC FURUNO Marine Display MU-150HD (15") Monitor MU-190HD (19") MU-231 (23.1") Keyboard مسللللللللل Heading sensor Sound velocity probe 0000 0 Interface unit IF-NMEASC External KP DRX Smart Transce (G3 TRANSCEIVER - Option or Local supply 12-24 VDC 9-32 VDC WASSP™ Transducer

Ø6.6

TRANSCEIVER UNIT

Ø5.75

Beware of similar products

All brand and product names are registered trademarks, trademarks or service marks of their respective holders.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

FURUNO ELECTRIC CO., LTD. **FURUNO U.S.A., INC. FURUNO PANAMA S.A. FURUNO (UK) LIMITED FURUNO NORGE A/S**

FURUNO DANMARK A/S FURUNO SVERIGE AB FURUNO FINLAND OY FURUNO POLSKA Sp. Z o.o. FURUNO DEUTSCHLAND GmbH

Germany | www.furuno.de

FURUNO FRANCE S.A.S. FURUNO ESPAÑA S.A. FURUNO ITALIA S.R.L. FURUNO HELLAS S.A. FURUNO (CYPRUS) LTD

FURUNO EURUS LLC FURUNO SHANGHAI CO., LTD. **FURUNO CHINA CO., LTD. FURUNO SINGAPORE**

PT FURUNO ELECTRIC INDONESIA

1-A-17083SS Catalogue No. CA000001048