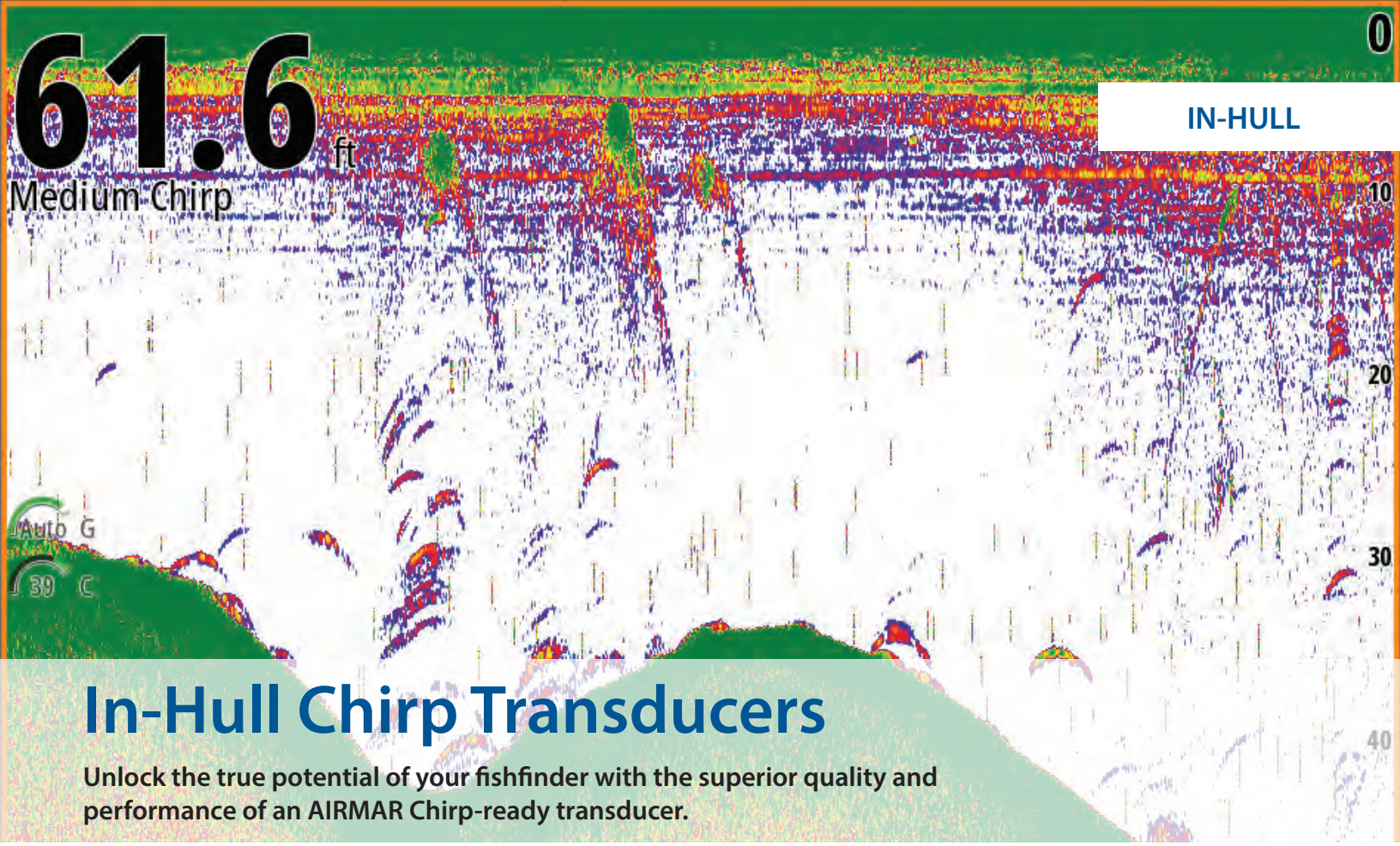


In-Hull Chirp Transducers

Unlock the true potential of your fishfinder with the superior quality and performance of an AIRMAR Chirp-ready transducer.

P75M screenshot courtesy of Navico

The Benefits of AIRMAR's Chirp-ready Transducers

- One broadband transducer covers up to 117 kHz of bandwidth – greater opportunities to detect fish in the water column
- Superior resolution – precise separation between baitfish and gamefish represented on the display with crisp images
- Enhanced bottom definition – resolve targets close to the bottom or near structure/wrecks
- Amazing detail – recognize haloclines and thermoclines
- Improved signal to noise ratio – find fish and track bottom at high boat speeds

Benefits of In-Hull Transducers

In-Hull transducers are installed inside the boat hull. The transducer is suspended in a liquid filled tank and transmits sonar directly through the solid fiberglass hull. And, the wide frequency band of a Chirp transducer allows you to select the best frequency for your hull's thickness.

Other Advantages:

- No holes to be drilled through the hull
- Installation and service can be performed while the boat is in the water
- No exposure to marine growth; no drag
- Ideal for trailered boats and tough to fit, multi-hulled boats

AIRMAR®, DEFINING CHIRP TECHNOLOGY.

AIRMAR® TECHNOLOGY CORPORATION

Why does frequency matter?

Selecting the best frequency for your specific application is very important. The good news is that once you know what frequency will work best for the type of fishing you do, there's an AIRMAR transducer designed to maximize the performance of your sounder.

AIRMAR Chirp transducers are available in various frequency combinations:

- Dual Band:
  - Low/High (LH)
  - Low/Medium (LM)
  - Low/High Wide (LHW)
  - Low Wide/Medium (LWM)
  - Medium Ultra Wide/High Wide
- Single Band:
  - Low
  - Medium
  - Medium Ultra Wide (MW)
  - High
  - High Wide

Low Frequency = Greater Depth (ex. 42-65 kHz)

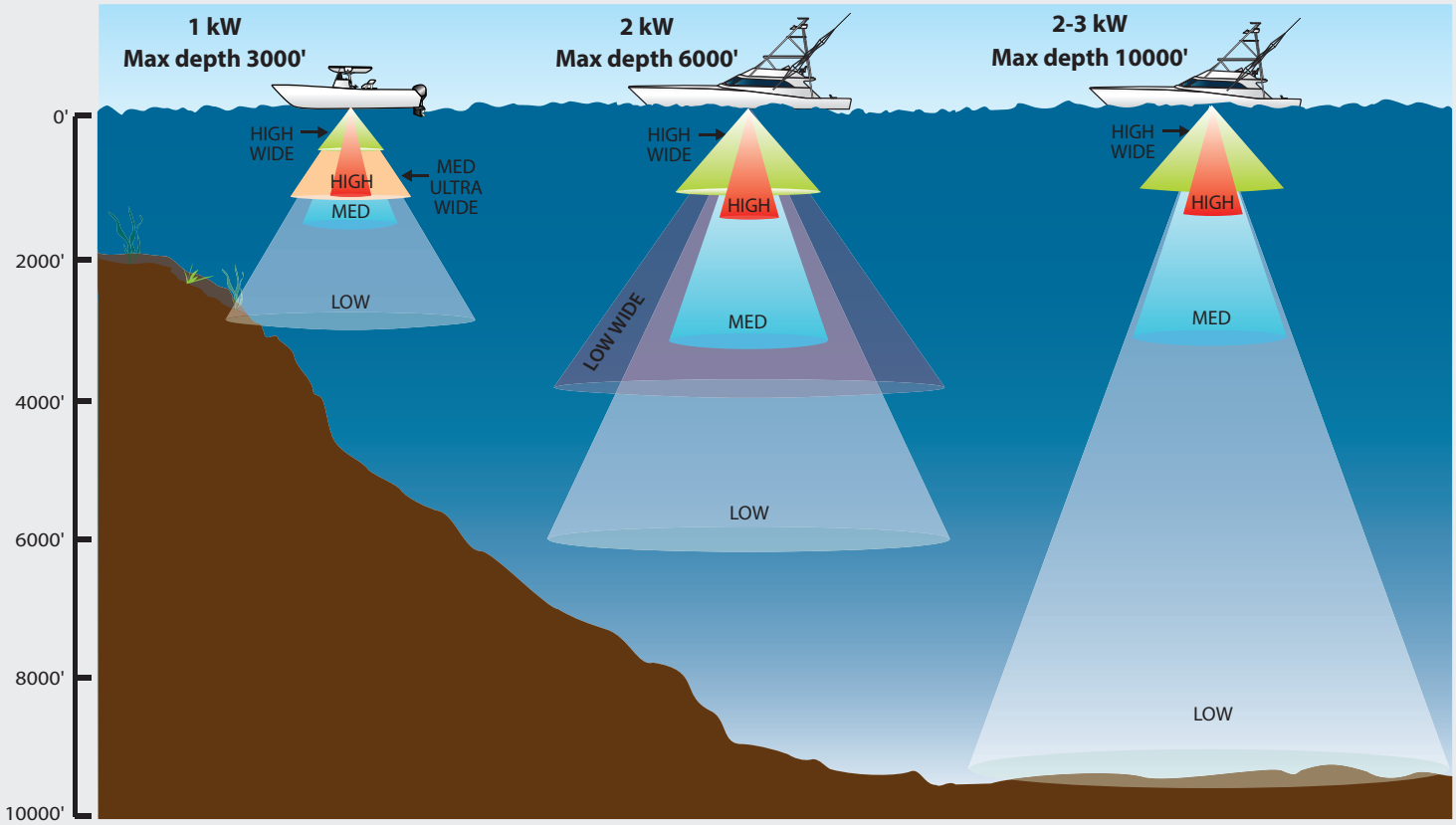
- Sound waves will not present as clear a picture of the bottom on the display, but will sound down in very deep areas where high frequency sound waves cannot reach
- Provides greater depth range, wider beamwidth, and ultimately more coverage under the boat
- Chirp signal processing technology used with AIRMAR broadband, Chirp-ready transducers provides more detail at greater depths and is less susceptible to noise
- Great for operating at high boat speeds

High Frequency = Greater Detail (ex. 130-210 kHz)

- More sensitive to small targets and will send back detailed information which will display as crisp, high-resolution images on the echosounder screen
- Best for shallower water and popular with anglers fishing at depths less than 1500 feet

Medium Frequency = The Best of Both Worlds (ex. 80-130 kHz)

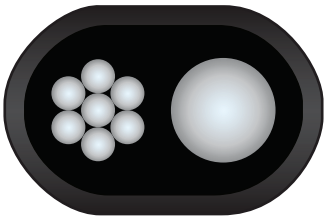
- Provides the ability to sound deeper than the high frequency, along with better resolution than the low frequency
- Wider beam than the high frequency, achieving more coverage under the boat and greater opportunity to find fish
- Clear images at higher boat speeds



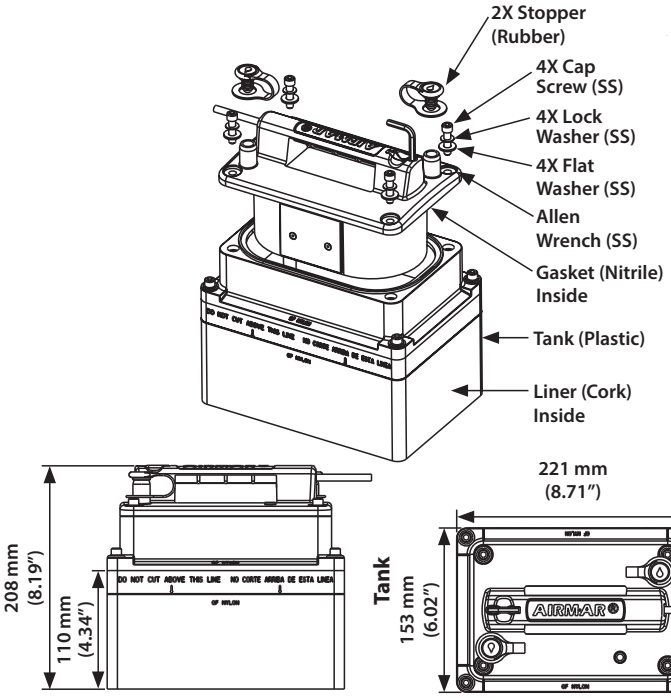
In-Hull
1 kW

Features:

- Depth only
- Hull Type: Solid fiberglass stepped, planing or displacement hull types
- Plastic / Urethane transducer housing
- Hull deadrise: Up to 30°
- Engine type: Can be used with single or twin inboard, I/O, OB and jet drive propulsion



8-Internal Broadband Ceramic Assemblies



M265LH

Low & High Frequency

- **Low**—42 kHz to 65 kHz
  25° to 16° beamwidth
  Maximum depth 914 m (3000')
- **High**—130 kHz to 210 kHz
  10° to 6° beamwidth
  Maximum depth 304 m (1000')
- 103 kHz of total bandwidth from one transducer

M265LM

Low & Medium Frequency

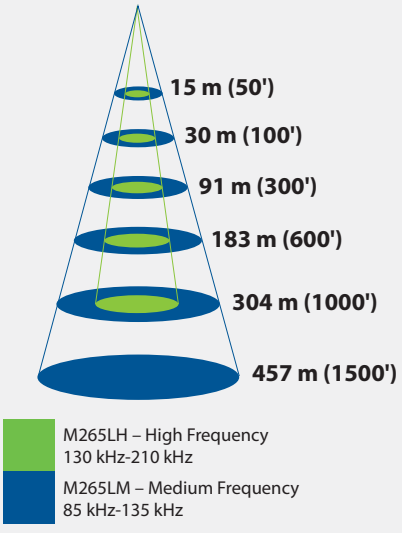
- **Low**—42 kHz to 65 kHz
  25° to 16° beamwidth
  Maximum depth 914 m (3000')
- **Medium**—85 kHz to 135 kHz
  16° to 11° beamwidth
  Maximum depth 457 m (1500')
- 73 kHz of total bandwidth from one transducer

Bottom Coverage Relative to Frequency and Depth

Depth	Bottom Coverage at Widest Beam	
	M265LH 130 kHz-210 kHz	M265LM 85 kHz-135 kHz
15 m (50')	2 m (8')	4 m (14')
30 m (100')	5 m (18')	9 m (28')
91 m (300')	18 m (58')	26 m (84')
183 m (600')	32 m (104')	51 m (168')
304 m (1000')	53 m (174')	86 m (282')
457 m (1500')	Too Deep	129 m (422')

This chart compares the high and medium ceramic element inside the transducer, showing the difference in bottom coverage under the boat.

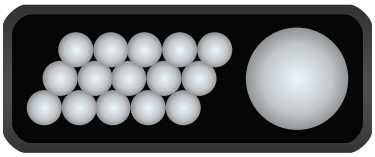
Low frequency in each of these transducer models is the same (42-65 kHz). This low frequency can range to 914 m (3000').



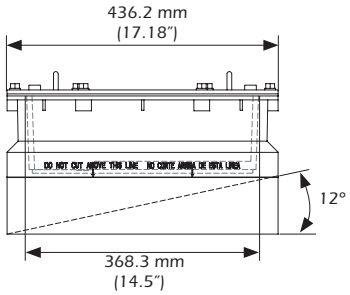
In-Hull
2 kW

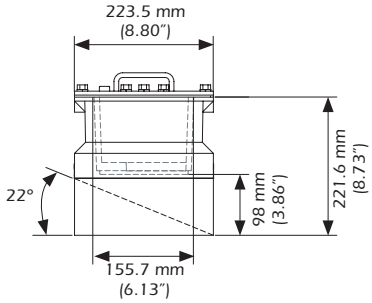
Features:

- Depth only
- Hull Type: Solid fiberglass stepped, planing or displacement hull types
- Plastic / Urethane transducer housing
- Hull deadrise: Up to 22° short side, up to 12° long side
- Engine type: Can be used with single or twin inboard, I/O, OB and jet drive propulsion



16-Internal Broadband Ceramic Assemblies





R111LH
Low & High Frequency

- **Low**—38 kHz to 75 kHz
  19° to 10° port-starboard
  10° to 5° fore-aft beamwidth
  Maximum depth 1829 m (6000')
- **High**—130 kHz to 210 kHz
  8° to 4° beamwidth
  Maximum depth 457 m (1500')
- 117 kHz of total bandwidth from one transducer

R111LM
Low & Medium Frequency

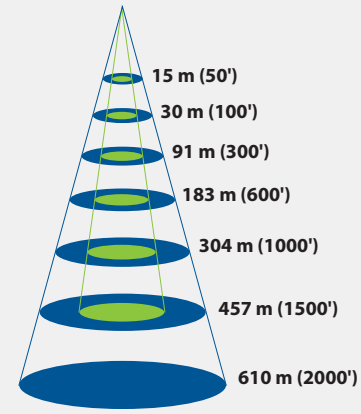
- **Low**—38 kHz to 75 kHz
  19° to 10° port-starboard
  10° to 5° fore-aft beamwidth
  Maximum depth 1829 m (6000')
- **Medium**—80 kHz to 130 kHz
  13° to 8° beamwidth
  Maximum depth 914 m (3000')
- 87 kHz of total bandwidth from one transducer

Bottom Coverage Relative to Frequency and Depth

Depth	Bottom Coverage at Widest Beam	
	R111LH 130 kHz-210 kHz	R111LM 80 kHz-130 kHz
15 m (50')	2 m (6')	3 m (10')
30 m (100')	4 m (14')	7 m (22')
91 m (300')	13 m (42')	21 m (68')
183 m (600')	26 m (84')	41 m (136')
304 m (1000')	43 m (140')	69 m (228')
457 m (1500')	64 m (210')	104 m (342')
610 m (2000')	Too Deep	139 m (456')

This chart compares the high and medium ceramic elements inside the transducer, showing the difference in bottom coverage under the boat.

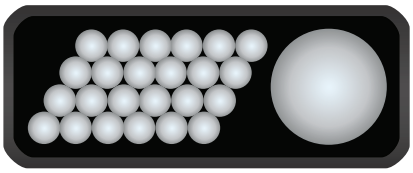
Low frequency in each of these transducer models is the same (38-75 kHz). This low frequency can range to 1829 m (6,000').



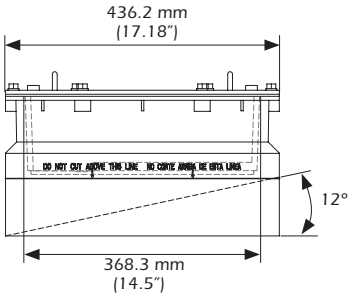
In-Hull
2-3 kW

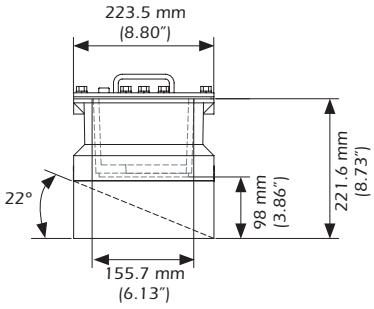
Features:

- Depth only
- Hull Type: Solid fiberglass stepped, planing or displacement hull types
- Plastic / Urethane transducer housing
- Hull deadrise: Up to 22° short side, up to 12° long side
- Engine type: Can be used with single or twin inboard, I/O, OB and jet drive propulsion



25-Internal Broadband Ceramic Assemblies





R599LH
Low & High Frequency

- **Low**—28 kHz to 60 kHz
  23° to 9° port-starboard
  11° to 5° fore-aft beamwidth
  Maximum depth 3048 m (10000')
- **High**—130 kHz to 210 kHz
  8° to 4° beamwidth
  Maximum depth 457 m (1500')
- 112 kHz of total bandwidth from one transducer

R599LM
Low & Medium Frequency

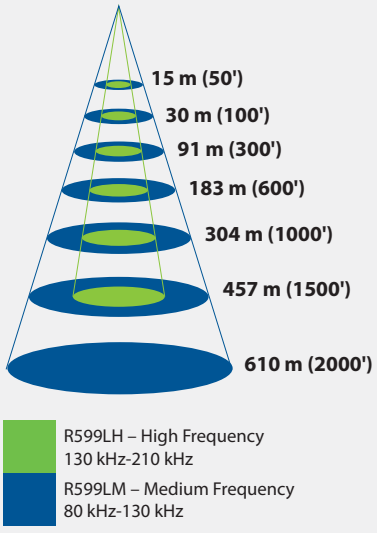
- **Low**—28 kHz to 60 kHz
  23° to 9° port-starboard
  11° to 5° fore-aft beamwidth
  Maximum depth 3048 m (10000')
- **Medium**—80 kHz to 130 kHz
  13° to 8° beamwidth
  Maximum depth 914 m (3000')
- 82 kHz of total bandwidth from one transducer

Bottom Coverage Relative to Frequency and Depth

Depth	Bottom Coverage at Widest Beam	
	R599LH 130 kHz-210 kHz	R599LM 80 kHz-130 kHz
15 m (50')	2 m (6')	4 m (12')
30 m (100')	4 m (14')	7 m (24')
91 m (300')	13 m (42')	21 m (68')
183 m (600')	26 m (84')	41 m (136')
304 m (1000')	43 m (140')	69 m (228')
457 m (1500')	64 m (210')	104 m (342')
610 m (2000')	Too Deep	139 m (456')

This chart compares the high and medium ceramic elements inside the transducer, showing the difference in bottom coverage under the boat.

Low-frequency in each of these transducer models are the same (28 kHz - 60 kHz). This low frequency can range to 3048 m (10000').



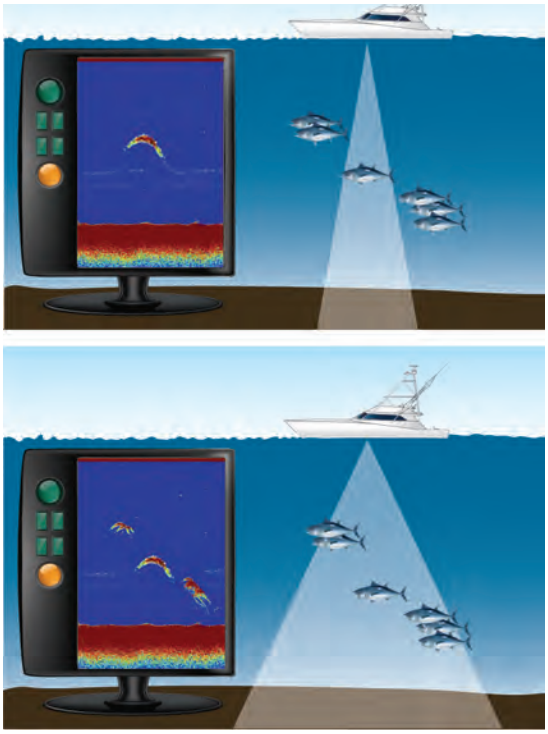
The Chirp Advantage

Traditional sounders operate at only two discrete frequencies – typically 50 kHz and 200 kHz. This results in limited depth range, resolution, and ultimately what targets can be detected in the water column.

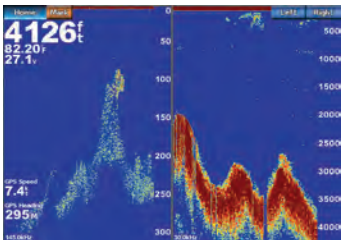
In contrast, AIRMAR's game-changing Chirp-ready transducers provide over 70+ kHz of bandwidth. Transmitting over a wide frequency band results in a greater opportunity to detect what is in the water column. As a result, all targets detected in the entire bandwidth will be seen on the display–even those fish holding close to the bottom–ultimately improving target detection, detail, and range resolution.

Most Chirp transducers vary their beam width as they sweep through their frequency range (low, medium, and high). At the lowest frequency the beam is the widest and it narrows as the frequency increases.

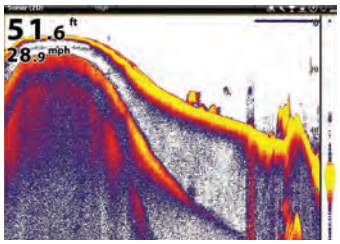
AIRMAR's new wide beam Chirp transducers are the exception to this rule and have a fixed beam width of either 25° or 40° across the frequency band. This translates into even more coverage under the boat, revealing more fish in the water column than ever before.



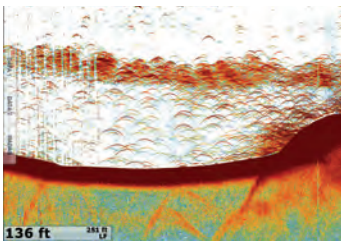
The fish must be in the beam to be represented on the display.



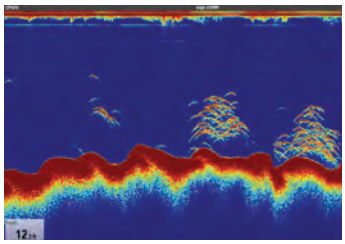
Courtesy of Garmin



Courtesy of Humminbird



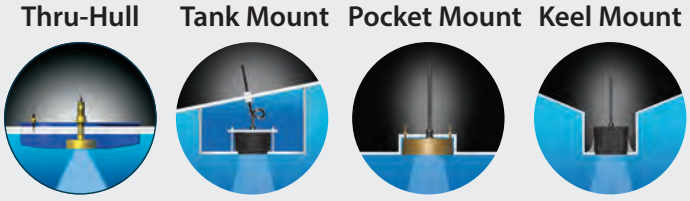
Courtesy of Furuno



Courtesy of Raymarine

Additional Mounting Options

Choosing your mounting option depends on the design of the hull as well as the material it's manufactured with, the boats intended use, and the desired level of performance.



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Xducer ID™ CHIRP

broadband

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