

# Wärtsilä NACOS Platinum Solid State S-Band Radar



The new NACOS Platinum Solid State S-Band Radar is a next generation marine radar system using a stabilized high power solid state transceiver. It utilizes advanced signal processing technology and comes with a new 12 ft lightweight antenna, as well as a new gearbox.

## Benefits

The major advantages for customers are the added safety provided through optimized target detection under all environmental conditions, reliability thanks to the compactly designed transceiver, gearbox and antenna, and reduced lifecycle costs as a result of drastically reduced maintenance (no magnetron, fully capsuled antenna, low maintenance drive).

## Antenna

The new NACOS Platinum Solid State S-Band Radar comes with a new lightweight, low profile antenna design.

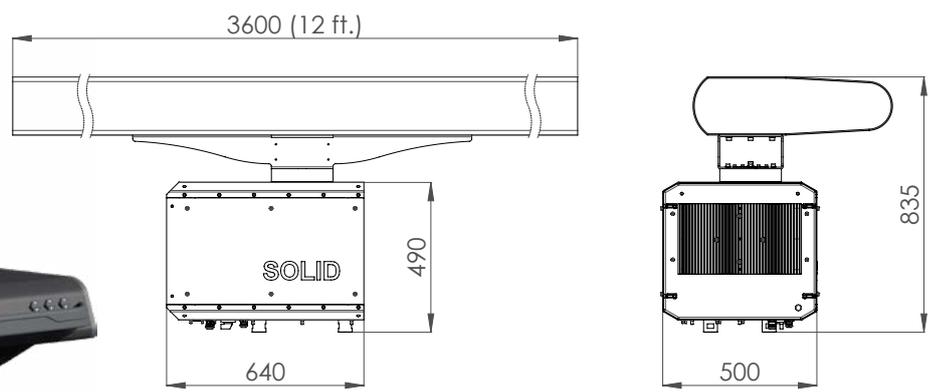
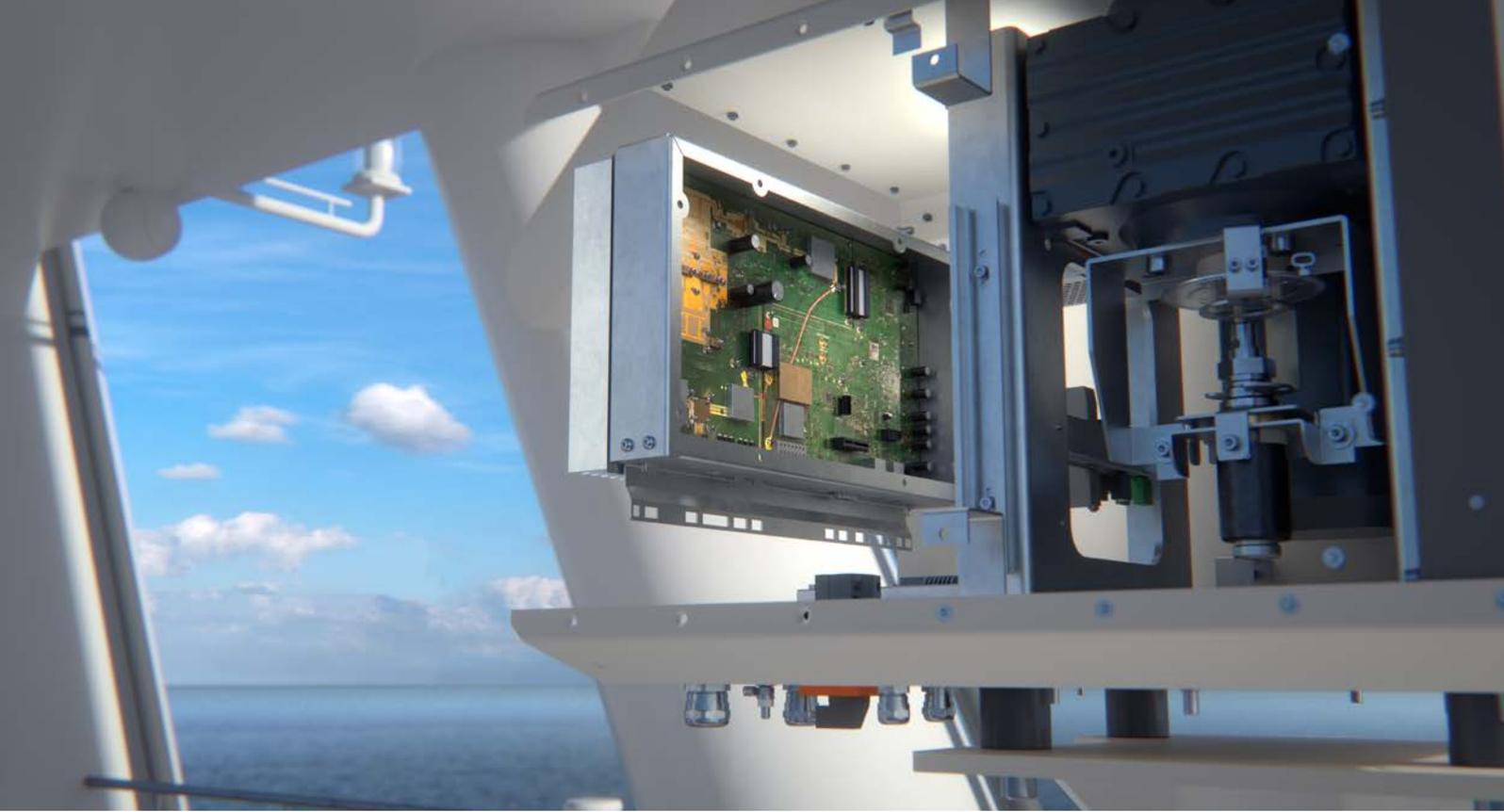
The 12 ft antenna comprises a single piece hull manufactured from glass fibre epoxy composite. The construction is extremely resistant against weather and environmental conditions, as well as against aging.

Furthermore, the new antenna shape comes in a vastly improved aerodynamic form, which reduces the power requirements of the gearbox.

## Gearbox

The heart of the new gearbox is a compact, powerful, and reliable motor-gear combination that ensures lasting durability. The built-in frequency converter allows adaptation to all major power sources. All components are driven by just one single-phased electrical power source. The multiple drive parameters are monitored constantly, allowing automatic adaptation to changing environmental conditions.





**Transceiver**

The Solid State pulse compression transceiver is incorporated within a compact housing in the Gearbox. The major advantages of the new Transceiver are:

- Low peak power, high energy radiation
- Fully coherent design
- Doppler processing for advanced clutter suppression
- Adaptive pulse train, allowing optimized energy transmission according to user requirements
- Low maintenance
- Fully digital signal generation and processing
- Multiple user selectable frequencies

**Optimized target presentation**

The advanced signal processing and intelligent filter algorithms make first class target presentation possible. Utilizing the built-in doppler processing, advanced clutter suppression can be achieved. Further advantages of this new technology include better long range target detection, and the elimination of the need for pre-heating and tuning.

**Easy to retrofit**

The new Solid State S-Band is fully compatible with all NACOS Platinum Navigation Systems, since it features the same IP-based radar system. Retrofitting is, therefore, simplified with a minimum of installation requirements.

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09.2018 / Book's Office