



COMPOSITE SPECIALS

RONDAL

ULTIMATE RELIABILITY

The background is a solid orange color with a pattern of thin, wavy, white lines that resemble topographic contour lines. On the right side, there is a faint, white silhouette of a human head in profile, facing right. The text is centered on the left side of the page.

**PLAN
FOR THE
UNEXPECTED**





PRODUCTS THAT ENSURE ULTIMATE RELIABILITY IN ANY SITUATION

Rondal designs and manufactures high-performance sailing systems and equipment for superyachts. Rondal is recognized as the best for its unrivalled Dutch build quality and innovative technical solutions, achieved through a dedicated focus on continuous improvement in both products and services.

As a building partner, Rondal leverages decades of experience and unburdens the client by taking on turn-key projects. The products of Rondal ensure ultimate reliability in any situation.

The Rondal team consists of approximately 75 professionals. The workforce includes highly qualified engineers, composite workers, CNC machine operators, welders and mechanics as well as a host of complementary specialists.

With decades of experience in composite and aluminum engineering and manufacturing, Rondal serves the market with specialized products for both sailing yachts and motor yachts.





RONDAL COMPOSITE EXPERTISE

Rondal's expertise in composite mast manufacturing, in combination with our dedicated facilities, provide an excellent infrastructure for diversification into other product groups.

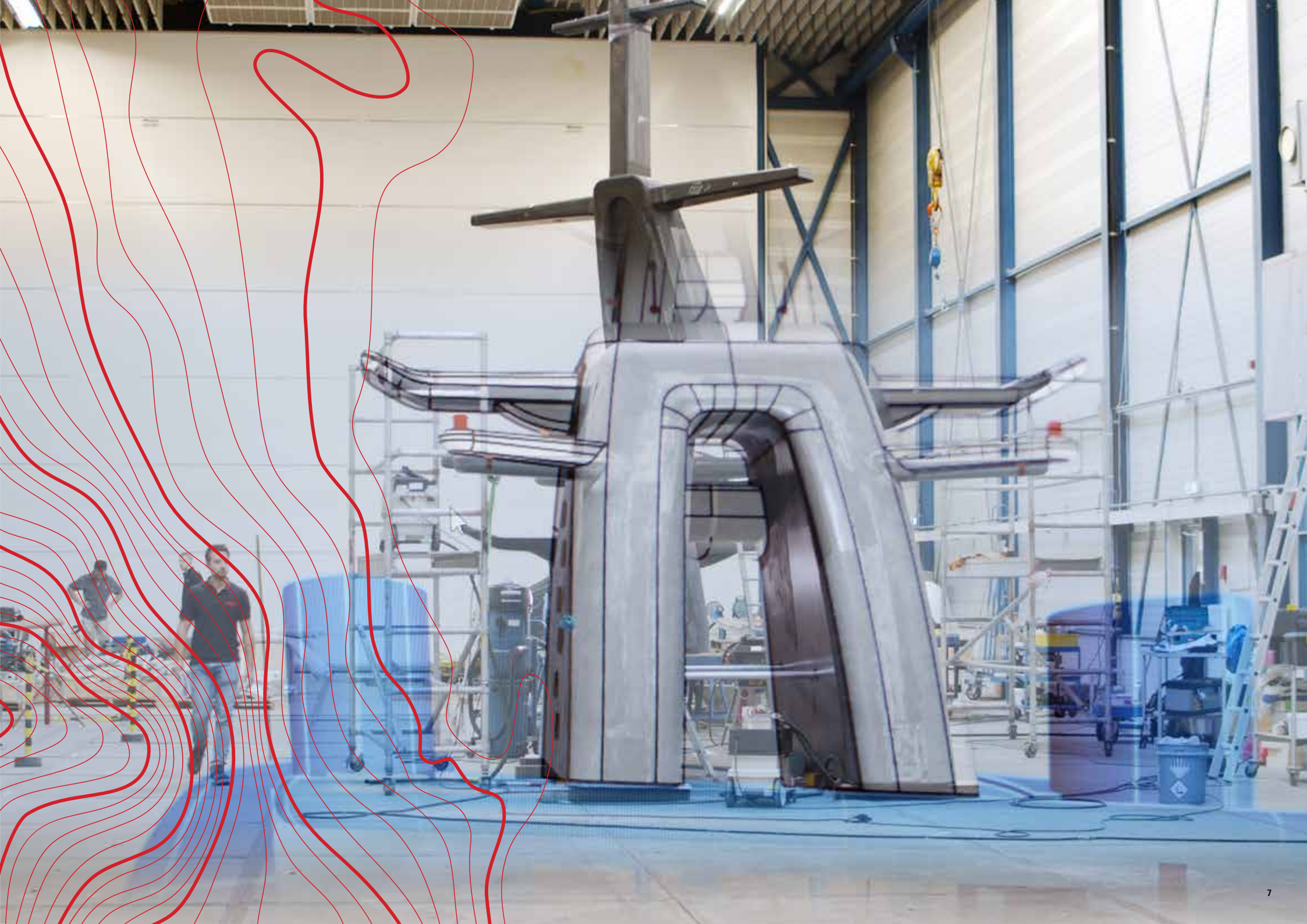
In recent years, Rondal has built up a significant portfolio of composite projects.

Customized Solutions

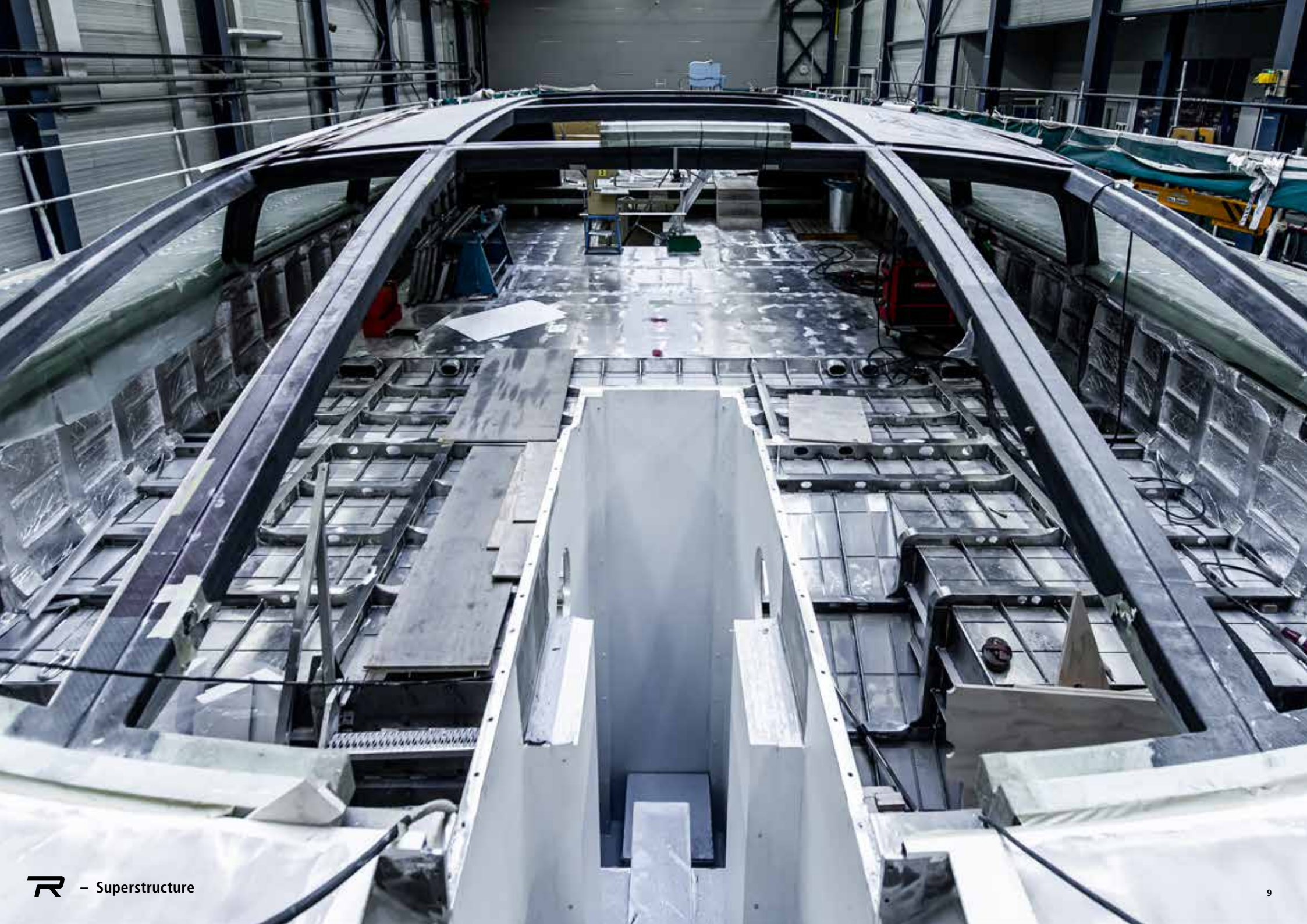
Rondal offers a full range of options, from 'plug-and-play' systems to exclusive composite construction. Rely on the expertise of specialized composite design and engineering companies to consistently ensure the best possible design.

Collaborative approach

For valuable insights, Rondal collaborates with external partners, including the nearby Royal Netherlands Aerospace Centre (NLR) and various universities.









ADVANCED COMPOSITES & PRODUCTION

Rondal's manufacturing facility stand as a testament to precision and innovation. The space is meticulously designed and optimized to cater to various aspects of composite manufacturing, housing specialized areas tailored for distinct production stages.

These facilities collectively highlight Rondal's commitment to superior manufacturing standards and their ability to meet the most demanding composite production requirements.

8,407 M²

total facilities

2,450 M²

composite workshop all temperature and humidity controlled

1,750 M²

composite assembly area facilities

750 M²

dedicated painting hall

CNC CUTTING MACHINE

for fibres

LLOYD'S RINA AND DNV

certified workspaces

TWO AUTOCLAVE'S

- 7m long and 1.2m in diameter
- 9m long and 1.7m in diameter

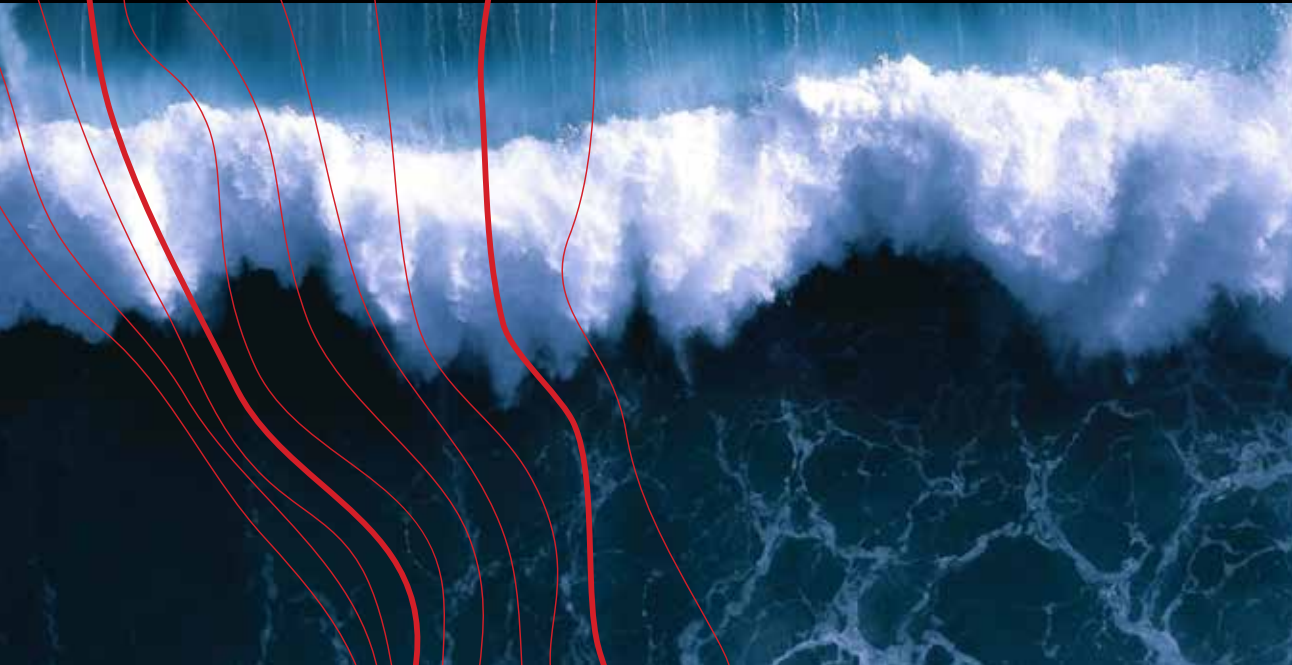




OUT OF AUTOCLAVE (OOA) MANUFACTURING

Rondal was an early adopter of the OOA (Out of Autoclave) production method and has since perfected the art. OOA allows production to be very lean and flexible, with virtually unlimited freedom in size and shape. OOA and advanced pre-preg laminate products yield fast production times whilst easily achieving aerospace-grade results.

Our purpose-built ovens, measuring one more than 1000m² and another one more than 20m² (modular oven) can both cure at temperatures up to 100 degrees Celsius.



COMPOSITE BENEFITS

- High strength / low weight
- Cost effectiveness
- Aesthetics: freedom of geometry
- Insulation
- Sonar / radar transparency
- Non-magnetic
- Low maintenance
- Chemical / corrosion resistance
- Fatigue resistance
- Limited thermal expansion
- Cosmetic carbon



RONDAL COMPOSITE PRODUCTS

- Masts, booms and spreaders
- Rudders and foils
- Superstructures and bimini's
- Canopies and hardtops
- Radarmasts
- Custom highloaded parts (main sheet arch, keeltrunk)
- Deck hatches
- Large hatches / garage doors / hullside doors
- Specials: interior/exterior furniture (cosmetic/ structural), louvres, steeringpedestals, stanchions, ladders, helm stations, protective covers, boom cradle, etc.

COMPOSITE RUDDERS

The demands for steering solutions are continually growing, and Rondal offers the perfect solution with custom composite products.





RHS

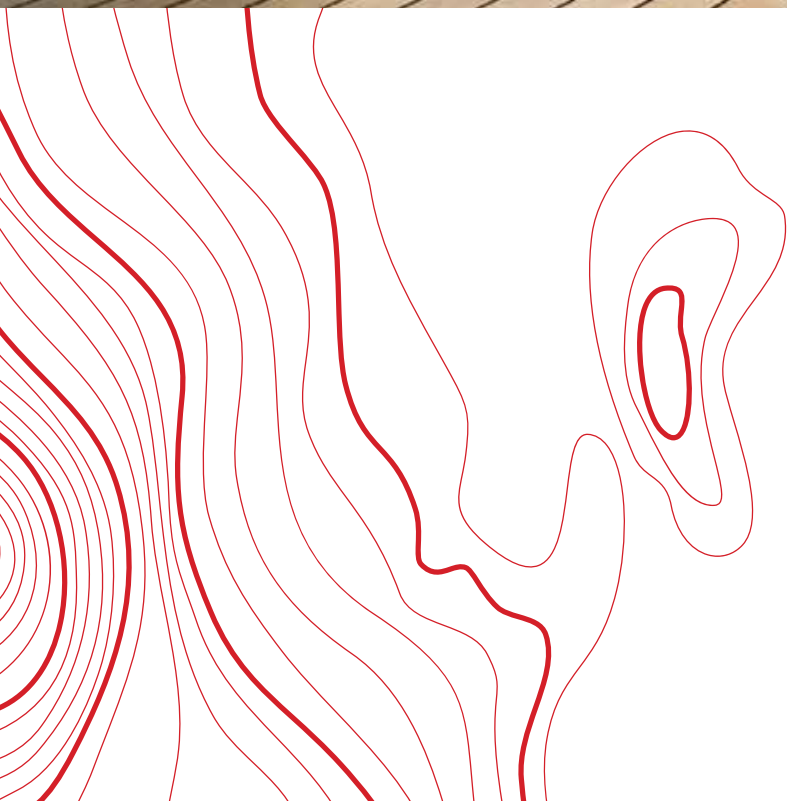


SUPERSTRUCTURE COMPOSITE BENEFITS

Saving weight onboard, in general, will improve performance and fuel economy, but saving weight aloft, in particular, will increase stability – and that is just one example of the many advantages of carbon composite structures, benefitting both motor yacht and sailing yacht naval architecture.

It is widely recognized that carbon composite is incredibly strong, stiff, and lightweight. One of the less well-known benefits is unlimited freedom of geometry (opening up new possibilities for style and design that are impossible to achieve in metal). Additionally, because of its high chemical and corrosion resistance, high fatigue resistance, low thermal expansion the material requires no maintenance.

Finally, there is one last major advantage - the absence of hot works during installation, which greatly enhances safety.





COMPOSITE SPECIALS

Rondal is happy to prove its value where one-off products are required, appreciating that our industry is a creative and challenging world in which architects and yards strive to offer the best possible solution for engineering challenges and unique, innovative features.

Think of:

- Windscreen surrounds / window frames
- Interior / exterior furniture (cosmetic / structural)
- Louvres
- Steeringpedestals
- Saildrum
- Winches
- Stanchions
- Ladders
- Helm stations
- Furniture
- Protective covers
- Boom cradle
- Pool covers
- Platforms
- Windscreen surrounds







PRODUCTION QUALITY

Quality is ensured throughout the production process:

- Lloyd's, RINA and DNV certification for used materials
- Stringent work process and records kept for each layer of material, date, batch number, etcetera
- Controlled temperature and humidity in production hall
- Controlled temperature and humidity in storage facilities
- Controlled temperature en vacuum during curing cycles
- NDT inspections
- More than 25 years of experience in composite production



The background of the entire page is a light blue color with white, wavy, contour-like lines that resemble a topographic map. These lines are irregular and flow across the page, creating a sense of movement and depth. The lines are more densely packed in some areas and more spread out in others, suggesting different elevations or terrain features.

ADVENTURE IS WAITING FOR YOU THERE

**WITH PRODUCTS THAT ENSURE ULTIMATE RELIABILITY
IN ANY SITUATION**

Rondal

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