

Northern Marine setzt in neuen Schiffen auf die Qualitäten von Corecell-Sandwich-Strukturen.

北部的海运业，在他们的新船里使用了高质量的发泡芯料夹层材料。

# INNOVATING HAND-IN-HAND

SP, the marine business of Gurit, has built a remarkable relationship with US-based Northern Marine, a prominent builder of mega yachts and trawlers in the US Pacific Northwest – all based on SP's unique ability to not only provide customers with best-performance materials but also the highest levels of engineering expertise.

Al Horsmon and Harry Warticovschi – US chief naval architect and senior naval architect for SP respectively – have nurtured a long-lasting relationship with Northern Marine that has allowed SP to work hand-in-hand to innovate exciting new structures and innovations to boat designs. This successful relationship typifies SP's dedication in building strong, dependable links with boat builders the world over.

Having established a working relationship with Northern Marine in 2001 by designing the structure of the Northern-built 39m M/Y «Magic» and 46m M/Y «Lia Fail», Al Horsmon and Northern Marine began discussing the potential benefits of a Corecell™ sandwich construction on the new vessel with the captain and designer of Magic.

The proposed design offered a vessel with a structure that would be stronger, lighter, naturally insulated and quieter without giving up structural integrity, safety damage tolerance or toughness of the vessel. The biggest obstacle would be to convince the customer that a Corecell™ sandwich laminate was better than a monolithic one usually used by most of the other large composite yacht builders. However the owner of Magic, Magic's designer and Northern Marine were fully impressed with the rock solid feel Corecell™ had helped give the boat in rough seas.



**A fuel tank nestled between two bottom girders**

«We surfed that boat down some 10ft waves – and when it hit the trough it didn't even shudder, it felt solid and safe,» recalled the Northern trials captain. «And all this was possible with what I thought was much lighter construction than we had in our smaller trawler-style long range motor yachts.»

In producing a premium product, Northern Marine already understood the benefits that premium materials add to the value of their product. Most impressively, Northern had independently tested all kinds of structural foam – and declared Corecell™ to be the best on the market.

«We made our own independent tests on all different laminate structures using various core materials as well as various glass material choices in our «makeshift lab,» explains Tom Camp, Northern's Structural Components Manager. «By devising our own «destructive» tests to judge the samples, we could develop our own conclusions on what material is the best: We chose Corecell™, solely because of these results!»



**A web frame and a freshly landed bulkhead support the bottom girders**

By adding design, processing and technical support to the provision of Corecell™, SP could offer a value-added total package to help the customer not only build better boats but significantly advance their business. So when Northern Marine won contracts to build a series of 46m tri-deck motor yachts, but didn't have the in-house capabilities to do the structural engineering of the vessel, this was no problem – SP not only stepped in to create the structure, but also provided the drawing package to submit the craft to the American Bureau of Shipping (ABS) for certification.

As the project progressed, and with a change in ownership of the yard, new president Ken Kurtenbach worked closely with Harry Warticovschi to bring more of SP's technical skills to bear on the project.

«At the time we acquired Northern it was apparent that we had limited engineering capabilities and were in immediate need of structural engineering support,» says Ken.

«Our philosophy is to engineer and then build product, and have been on a mission to beef up our internal engineering department. However it is reassuring to have an outsider's perspective and input into design in that it provides a quality check for our builds, and I see a continued relationship with SP irrespective of our own in-house engineering capabilities.»

With such a strong endorsement, the relationship with Northern has continued to grow. SP now provides ongoing onsite technical support that includes monthly onsite visits, has secured an additional contract to revise the drawings and act as liaison for submittal of plans for Hull No. 2 of the 46m series. Additional modifications have been made for Hull No. 3 and SP continues to provide engineering, drafting, design and ABS approval coordination services. Most recently, NMC have also asked SP to undertake the structural engineering for a new 26m trawler.

Overall SP's relationship with Northern over the past seven years typifies the SP approach to customers: to offer a complete package of materials and support that doesn't just meet expectations but aims to completely exceed them, providing customers the chance to transform their products and give them a technical edge that will distinguish them from their competitors.

Ken Kurtenbach sums it up: «SP's input has been invaluable,» he says. Long may that continue.