

The partnership as a strenght

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The company has started from the beginning with a clear strategy defined by plans lasting for the duration of three years each: the first three years have been spent in developing the engineering with the tools and the technologies already consolidated in the automation industry and adapting them to the marine applications; the second three years term has been dedicated to the application for the patent, to the implementation of the prototypes and to the real installation on board; the third triennial term has brought, eventually, to the synergies and to important partnerships, developed in a strategic way and oriented, on the one hand, to the expansion in new markets and, on the other hand, to the creation of a worldwide net of service, able to guarantee a prompt and professional response to the requests coming from the yachts in navigation.



The electrically operating stabilising fin Stabilis Electra, a CMC Marine European patent

La pinna stabilizzatrice ad attuazione elettrica brevetto europeo CMC Marine.



The Dialog control panel (for stabiliser and thruster) on the bridge.

Il pannello di controllo (sia stabilizzatori che thruster) Dialog in plancia.

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Launch of the new Azimut 95RPH with CMC Marine stabilizing fins.

Varo del nuovo Azimut 95RPH equipaggiato con pinne stabilizzatrici CMC Marine.

Giustiniano Caggiano, co-founder of CMC Marine.

Ing. Giustiniano Caggiano
Co-fondatore di CMC Marine.

The pioneers of innovation

While the first years have been dedicated to the development and the consolidation of the product, based on purely electrical components and no more on the hydraulic technology, the credibility on the market has been achieved by CMC Marine through the design and the installation of products based also on the hydraulic technology. This strategy has made the company credible on the market firstly as a manufacturer of hydraulic systems and later on, when the CMC technology was established, as a manufacturer and installer of purely electrical systems. «Once that the shipyards have acknowledged the credibility of the CMC hydraulic systems, we have started to make proposals on the market for the electrical systems and it resulted in the acquisition of new projects and cooperation with prestigious shipyards such as San Lorenzo, Benetti, ISA Yachts, Azimut, Tecnomar, Rossinavi, Baglietto, Palumbo, Apremare», states Ing. Caggiano. In order to carry out the innovation, the reliability of the product played a key role in the success of CMC Marine, reliability that has been assured through partnerships with leaders in different industries, such as Mitsubishi Electric Europe for the control electronics, Wittenstein ag for the mechanical transmission systems and Danfoss for the electrical management on board. The partnership with these companies with representatives all over the world are able to cover specific components, such as the inverter for the thrusters and the filters for the stray currents with Danfoss, the electronics with Mitsubishi and the mechanical devices with Wittenstein. The role of CMC in these prestigious partnerships is as the Marine System Integrator with the objective of adapting the technologies already established in the industrial automation field to the naval applications. The native reliability of the products used in the industrial sector, in millions of application that work continuously 24 hours per day, provides to the Owners the certainty of having a



The CMC Marine stand at Mets 2014 in Amsterdam.
Lo stand CMC Marine al Mets 2014 di Amsterdam.



The Dualis Electra electric thruster range on show at the CMC Marine stand at the 2014 Genoa Boat Show.

La gamma di thruster elettrici Dualis Electra esposti allo stand CMC Marine al Salone di Genova 2014.

fully tested system and with a completely established technology on board, as well as offering benefits in terms of performance, of simplicity of use, of significant reduction of the quantity of components, if compared with a traditional hydraulic system, and of less maintenance. When asking Ing. Caggiano about the role of CMC Marine in the partnerships with these big industrial Groups that have appreciated and have recognized a precious opportunity in this cooperation, it comes to a prompt answer: «CMC Marine acts as a system integrator, designer, developer and specialist for the marine industry, with the objective of adapting the industrial technologies, already used in fields such as the automotive and the mechatronic, to the marine sector. The partners see in us an advanced laboratory that provides a feedback about extreme applications such as the marine ones. The partnerships are implemented on multiple levels: firstly the continuous and planned activity of R&D, a second level of Production with the constant cooperation among our engineers and the engineers of the partners for the verification of the applications and, last but not least, a service level with a continuous activity of training of the professionals that are able to give a crucial full feedback during the warranty period.» The strategy of the company, that in 2015 will celebrate the first ten years of activity, continues in the innovation with an another challenge that consists, next year, in the development and the implementation of a fully integrated system on board, able to manage, through a single processor and one software, the steering, the bow thruster, the stern thruster and the stabilizers so that the comfort and the performance are optimized during the navigation and the manoeuvring. The R&D of CMC Marine is concentrated on the development and the implementation of three products that communicate all together: the stabilizer system, covered by an international patent under the name of SE Stabilis Electra, the electrical thruster Dualis Electra and the new electrical steering system Directa Electra. In addition to these three systems, the Dialog control software, covered by patent as well, allows to integrate all the three products in one unique system for the

stabilization, the steering and the control of the vessel. One of the main benefits is the transmission, in real time and remotely, of the information collected from the CMC systems installed on board so that the performances and, in case, the problems can be monitored.

The internationalization

The internationalization project, started some years ago by CMC Marine, is part of the strategy of the company. The necessity to assist the customers of the yachts navigating all over the world has determined the establishment of partnerships with service centres in many different places of the globe, able to give assistance on the CMC systems directly. The main aspect of the partnerships was to facilitate, even though still maintaining the control and the monitoring of the service for the CMC systems, the synergies and the interactions among the service centres, chosen in a highly selective way, and the assistance centres of the partners that had carried out the development of the product together with CMC. Such an approach, mainly oriented to the interaction and the communication, has been supported by training courses organized by the company in order to provide education to all the partners and the assistance centres regarding the CMC systems and has led to a really wide net for service, able to assist the customers all over the world, in a highly precise and prompt way. One of the last meetings with all the partners involved has taken place during the METS 2014 and it was the best opportunity to appreciate the «real team» that has been built over the last years. «On the one hand the partnerships with the service centres are the key factor to provide assistance to the Owners all over the world, on the other hand these synergies are an incredible opportunity to expand the business in new markets with new customers. This strategy has led us to the expansion of our portfolio of customers and to start to provide the leader shipyards outside Italy, such as Sunseeker and Moonen, with our products. This was the objective



CMC Marine stand at the 2014 Genoa Boat Show. Detail of Dualis Electra thruster.

Stand CMC Marine al Salone di Genova 2014_ particolare_thruster Dualis Electra.

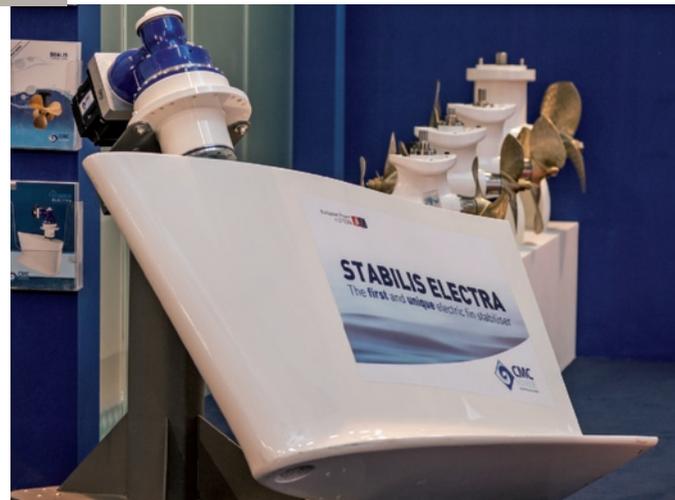
CMC Marine stand at the 2014 Genoa Boat Show. Stabilis Electra electric fin and Dualis Electra electric thrusters.

Stand CMC Marine al Salone di Genova 2014_la pinna elettrica Stabilis Electra ed i thruster elettrici Dualis Electra.

of the partnerships established with the service centres in the Caribbean, in Croatia, in the Balearic Islands, in Great Britain and in Turkey, with the coverage in the short term time of additional two areas: Hong Kong and Dubai», reveals Ing. Caggiano. The yacht market, even though involves lower volumes than other industries such as the automotive and the industrial automation – a challenge in the challenge for CMC Marine that has succeeded in involving leader Groups in the industrial automation, used to work with big volumes, in order to start partnerships for the marine industry with smaller volumes – is very heterogeneous: while the refit is spread over the globe with numbers much more significant that the new constructions, the new buildings are, for the 75%, carried out by the 10% of the shipyards. This means that the new constructions are managed by a small number of shipyards, mainly based in Europe, while the refit is potentially everywhere in the world: a challenge in the challenge.

The value of the patent and the change in the market

To the question about the additional value brought by the electrical systems on board if compared to the traditional ones, Ing. Caggiano makes multiple considerations: «The electrical systems have a reduced quantity of components, work in a direct way and without the necessity of a complex maintenance. In addition to these benefits, they require less space and the refit is much easier than in the hydraulic systems. The direction towards the electrical system, that has been the future from CMC from when we started our company, has been recently confirmed by the reaction of the market: the reaction of our competitors, after that our system was ready and established, has been the confirmation of our choice. The initially skeptical behaviour has been replaced by a more direct confronting and competition, though attacks to our patent, all rejected up to now, and through the introduction on the market of «electrical» solutions, however based on partial solutions that we had evaluated and excluded during the initial development of our project. There are many considerations when evaluating a stabilizer system and there is a clear difference between the purely electrical systems and those systems that, even though are activated by electrical pistons, use the same components inside as the traditional systems presented on the market up to now. The system developed



by CMC Marine has won the Dame Award 2011, as well as being covered by patent for the hardware and for the software, and has been designed in order to assure the final performance required by the customer: one of the first activities carried out in the company was to implement a software for the monitoring and the management of the system on board; moreover, our proposals to the shipyards include a prediction of the behaviour of the system, identified through some key parameters, such as the percentage of damping. This is due to the fact that, when using electrical systems, there is no reason to compare the proposal by evaluating the surface area of the fins or the kilowatt, but defined performance indexes are required. The electrical CMC systems have a very high efficiency if compared to the traditional systems, which means less power, higher speed and less surface area for the fins. Therefore, the parameters for the evaluation of the stabilization systems have changed and they are quite different that the ones used some years ago for the traditional systems».

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CMC: la partnership come punto di forza

CMC MARINE È NATA QUASI 10 ANNI FA DALL'INIZIATIVA E DALL'ESPERIENZA PLURIDECENNALE MATURATA DAI DUE SOCI E COMPAGNI D'UNIVERSITÀ, L'ING. CAGGIANO E L'ING. CAPPIELLO. IL NOME STESSO DI CMC DERIVA DALLE INIZIALI DEI DUE TITOLARI, CON LA LETTERA M NEL MEZZO A INDICARE IL MARE.



L'azienda si è mossa fin dalla nascita con una strategia ben definita scandita da piani a cadenza triennale: il primo triennio è stato improntato alle attività d'ingegneria, seguendo l'intuizione di utilizzare le tecnologie già ampiamente consolidate in ambito industriale e adeguandole, al contempo, alle applicazioni di tipo marino; il secondo triennio è stato dedicato al percorso di ottenimento del brevetto, alla realizzazione dei prototipi e alle installazioni vere e proprie sulle imbarcazioni; il terzo triennio, infine, ha portato alla costituzione di importanti alleanze, sviluppate in modo tutt'altro che casuale e orientate, da una parte, all'espansione su nuovi mercati e dall'altra alla creazione di una rete di assistenza veramente worldwide, in grado di rispondere con prontezza e professionalità alle esigenze delle imbarcazioni in navigazione.

I pionieri dell'innovazione

Mentre i primi anni di vita dell'azienda sono stati

improntati allo sviluppo e al consolidamento del prodotto, basato su componenti di tipo elettrico e non più idraulico, la credibilità sul mercato è stata ottenuta da CMC Marine attraverso lo sviluppo e l'installazione di prodotti anche idraulici. Questo approccio ha reso credibile l'azienda sul mercato prima come produttore di componenti per la nautica basati su tecnologie idrauliche, per passare successivamente, quando il prodotto elettrico era ormai messo a punto, a installazioni di tipo puramente elettrico. «Una volta che i Cantieri hanno riconosciuto la credibilità dei sistemi idraulici di CMC Marine abbiamo iniziato a proporre anche i sistemi elettrici, acquisendo nuove commesse e collaborando con clienti prestigiosi come San Lorenzo, Benetti, ISA Yachts, Azimut, Tecnomar, Rossinavi, Baglietto, Palumbo, Apremare», ci rivela l'Ing. Caggiano. Per compiere il percorso legato all'innovazione, l'affidabilità del prodotto ha avuto un ruolo

chiave nel successo di CMC Marine, affidabilità garantita attraverso partnership con i leader dei rispettivi settori di mercato, come nel caso di Mitsubishi Electric Europe per l'elettronica di controllo, di Wittenstein ag per i sistemi meccanici di trasmissione di precisione e di Danfoss per i sistemi di gestione elettrica di bord. Le partnership con queste aziende che hanno rappresentanze in tutto il mondo vanno a coprire elementi specifici, come nel caso degli inverter per i thruster e i filtri per limitare le correnti parassite con Danfoss, dell'elettronica con Mitsubishi e della meccanica con Wittenstein. Il ruolo che CMC riveste in queste partnership d'eccezione è quello di Marine System Integrator con l'obiettivo ben preciso di riportare in ambito navale, adeguandole alle esigenze specifiche del cliente, le tecnologie già ampiamente consolidate nel settore industriale. L'affidabilità intrinseca di prodotti che sono impiegati in ambito industriale, in