RotoTrends

Exploring the potentials of rotational moulding in design

Rotoplas 2024 Edition





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From the Editor



As Chair of ARMO, it is my pleasure to introduce all ARMO members, both full and affiliate, to Riccardo Giovanetti and his Studio. We are excited to announce that Riccardo and his team will take the lead in developing our new communication efforts. While this is the first printed edition of RotoTrends, Studio Giovanetti have been producing a PDF version that we've shared with members for the past five years.

The first result of this collaboration is the very Rotoplas edition you are currently reading, and I'm excited to share that this is just the beginning. Soon to follow will be another publication for our upcoming meeting in India, scheduled for the spring of 2025. With Riccardo's design expertise and his Studio's creativity, we are confident that this publication plus new communication platforms will become an essential resource for everyone in the rotomolding industry.

These publications will feature numerous articles that delve into the current state of the rotational molding industry, offering insights that will guide future strategies, innovations, and industry trends. Readers can expect comprehensive coverage of groundbreaking new products, emerging technologies, and the challenges and opportunities shaping our future. This effort is designed to spark conversation, inspire collaboration, and serve as a platform where we, as an industry, can share knowledge and ideas. It's an exciting development for ARMO, one that I hope all members will contribute to, enjoy, and learn from.

What sets this initiative apart is not just its content but the vision and passion behind it. Riccardo Giovanetti brings a wealth of experience in design and communication. His background includes producing highquality publications that combine aesthetic excellence with practical utility. With his team's support, this platform will be more than just a newsletter or magazine; it will be a touchstone for industry professionals around the globe. For instance, the current edition includes a feature on the 7250 TTV Agrotron, an innovative tractor designed by Giugiaro Design and produced by Same Deutz-Fahr in Italy. This tractor exemplifies the intersection of technology and design. With a focus on 'downsizing'—a strategy to improve production efficiency—the 7250 TTV features powerful yet fuel-efficient engines with minimal pollutant emissions. This model also boasts state-of-the-art design elements, such as sleek lines, LED light clusters, and a Maxi Vision cab molded using rotational technology. These innovations not only enhance the functionality of machinery but also highlight the potential of rotational molding in the design world.

It will be my pleasure to watch these ARMO communications grow and evolve. I encourage all ARMO members to participate by contributing your insights, stories, and innovations. Your involvement will make it a publication we can all be proud of—a true reflection of our dynamic industry.

In closing, I would like to congratulate the entire ARMO Board for their vision in making this new communication platform a reality. I am confident that this partnership will benefit ARMO and strengthen the global rotational molding community. Let's embrace this opportunity to grow together as we continue to push the boundaries of what rotational molding can achieve.

1. Agriculture

Introduction

The rotational moulding industry is continuously and progressively expanding: important new market opportunities are opening up for those companies working in this sector.

The growing development of the sector also raises the level of competition and, consequently, forces companies to 'look further', to evolve and constantly improve in the development of new rotational moulded products. Within the agricultural sector, products must not only meet high standards of strength, durability, and precision, but also be lightweight. This combination of requirements increases complexity and thus forms the core of the tension field.

7250 TTV Agrotron An innovative tractor with high technical aspirations.

design Giugiaro Design, Italy production Same Deutz-Fahr, Italy

The 7 TTV tractor series is an example of the 'downsizing' strategy that is common to recent Deutz-Fahr models. Designed for very high production efficiency, the tractors are equipped with powerful, fuelefficient engines with minimal pollutant emissions. Also noteworthy is the standard equipment package and the focus on design and functionality. The bonnet with sleek lines and mudguards enriched by LED light clusters integrate with the new Maxi Vision cab, equipped with a large monolithic windscreen with high visibility. Inside, the controls are concentrated in the armrest with ergonomic joystick, while a colour display – already available in the basic version – allows all tractor functions to be controlled. The cab is moulded using rotational technology and specifically designed to ensure maximum visibility and comfort for the operator. The driving comfort is excellent: in many situations, the operator can forget about clutch, gearbox, accelerator and brakes, relying totally on the joystick.

www.sdfgroup.com









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Meteor R-Activ

design Evok - France production: Evrard, France

Meteor R-Activ represents a range of 4 innovative models from 4200 to 7200 liters designed to guarantee an excellent quality of application and crop protection, guaranteeing a very high level of comfort and safety for the user.

The new chassis architecture has been designed to improve the operator's visibility and maneuverability of the vehicle. The rotomoulded design of the tank and side parts allows for the elimination of unused volumes, compacting the structure and improving machine performance.

In vegetable crops, it is essential to intervene at the right time. The Meteor R-Activ retains this unique robustness thanks to an integral suspension of the frame, ensuring comfort for the operator and protection of the mechanical components.

The coil spring combined with the shock absorber provides great flexibility during the transport and field work phases.

The design of the Meteor allows it to turn with a significant steering angle of 54°. Combined with the gyroscope and the inclinometer, this automatically corrects wheel steering on slopes.

www.evrard.com











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Donky 2.0

design Evok - France production Etesia - France

Based on its experience with battery ride-on mowers, Etesia has developed equipment for easy transport and handling. With the Donky 2.0 electric wheelbarrow and the bahia VTE electric drive vehicle and mobile power source, you can protect operators while preserving the environment. No more heavy loads to painfully move with arm strength.

The Donky 2.0 is an electric wheelbarrow can serve as a tilting bucket, tool carrier and the machine can be equipped with a snow blade and scarifier rake. The wheelbarrow is electric and draws the power from 4 12-Volts lead-acid gel batteries.

The container that can be used for the transport of various types of goods is rotationally molded and is made up of rotatable side walls and a platform positioned on the vehicle.

The trailer can be coupled to the vehicle and can also be used as a tipping wheelbarrow. In addition to carrying loads, its rotomolded PE hollow body allows it to hold liquids and transform into a reservoir for watering the garden.

www.etesia.com





Hay Play The Original Spherical-shaped Slow Forage Feeder

production Parallax Plastics, Great Britain

The Hay Play is the original spherical shaped slow forage feeder, its unique design has thirty two flat faces that enable the feeder to roll around as the horse grazes from it. The movement of the hay play challenges and entertains the horse and offers all the benefits of slow feeding without the need for additional treats or feed. The feeder is made through rotational moulding in a single piece completed with a screw cap: its particular shape makes it resistant to impacts and stresses that the horse can apply. By unscrewing the cap it is possible to insert the hay into the internal cavity.

www.parallaxplastics.co.uk



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Introduction

The evolution that has characterized rotational molding in the world of furniture is closely linked to the development of knowledge of technology in the world of design.

In other words, as the potential of rotational molding becomes "common knowledge" among designers and manufacturers, the sophistication of designs using rotational technology for industrial applications grows. After having developed a growing number of applications in the main types of products that characterize furniture, such as chairs, sofas, lamps, rotational molding today also expands its presence towards new applications and market niches.

Costume A new way to produce sofa through rotational moulding

design Stefan Dietz - Germany production Magis - Italy

The basis of the construction system for the Costume modular sofa is a hollow rotomoulded body made from recycled and recyclable polyethylene, over which the various layers of upholstery are arranged. Held together by the cover alone, no adhesives need to be used. The use of materials is therefore minimised and the sofa is easy to dismantle, which simplifies cleaning, repair and recycling. Thanks to the modular structure, the furniture can be rearranged as required and extended to form a seating landscape, thus ensuring long-lasting use. The Costume sofa designed by Stefan Diez for Magis was honoured with the prestigious ADI Compasso d'Oro 2024 for its pioneering design. An innovative production process applied to a mature market sector has generated new areas of use for the public, who are increasingly responsible and aware in terms of sustainability issues over time.

www.magisdesign.com









Fat Fat

design Patricia Urqiola production B&B Italia - Italy

The Fat-Fat & Lady-Fat units recall the ashtrays of yesteryear, or Moroccan ottomans: an ideal surface for placing objects or for storage – once you lift the metal tray. The outside cover in synthetic fabric, felt, leather or pony skin conceals a frame made in orange polyethylene (created through rotational moulding), and a composite of polyurethane with flakes of regenerated pet that determines the shape of the piece.

www.bebitalia.com





> Inspired by the once popular sand-filled ash trays, hence the creation of tray/tables with built in storage

> The internal rotomoulded compartment can be used as a container by lifting the trays







Sitzbock

design Rudolph Schelling Webermann -Germany production Wilkhahan - Germany

The innovative pommel horse seat "Sitzbock" for kitchenettes, lobbies and similar semi-public spaces invites passersby to take a break and use it in all sorts of ways. It's 707 mm high, 627 mm wide and its legs splay out to 520 mm. Just like a real horse, you can sit astride or ride "side saddle" or use it to lean on. Rotomoulded from black, white, grey or orange through-dyed polyethylene and just 4.8 kg in weight, they're easy to place in groups for spontaneous meetups, stack cross-wise or pick up and put on patios for a while. Anyone preferring a little more comfort can add a non-slip felt saddle blanket that comes in anthracite, graphite, mango or a light mottled hue and adds extra splashes of colour. Positioned in casual groups, the pommel horse seats create an atmosphere that's just as playful as it is ergonomic and invites interaction.

www.wilkhahn.com







Mango

production Boss Design - Great Britain

Mango, our new personal workspace solution, is created with headspace in mind. Striking the perfect balance between privacy and ergonomics, Mango allows its user to comfortably escape distractions for extended periods of time without the need to leave the room.

Mango is available with or without a high upholstered screen surround, with the option of an extended privacy screen for acoustic insulation to minimise surrounding noise levels. A left-hand or right-hand writing tablet on an articulated arm lets the user position work and devices ergonomically, ensuring the user's physical wellbeing. Integrated power and data options provide connectivity, essential for modern day work and life. Developed in-house by our expert design team, Mango acts as a magnet for mobile workers, whilst also providing sedentary workers with more choice and privacy on demand. Transform third spaces into practical destinations for individual focussed work. Mango also fits seamlessly into public areas, including airport lounges, waiting areas, and hotel lobbies, offering users a private space to work, touchdown or

www.bossdesign.com



relax.

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ecoBirdy

production ecoBirdy - Belgium

Plastic pollution - a global issue affecting all of us - is no secret to anyone, and as we keep consuming plastic there is one industry that we try to ignore: kids' toys. Maybe it's because the small ones love them, or because we love giving them, but these inexpensive objects - with short lifespans - are becoming a big problem. This is why Antwerp-based designers have *launched ecoBirdy, a new brand that creates furniture* from 100% recycled plastic waste. best part of it all? it can be recycled again.

Following an in-depth two-year study period exploring how to sustainably recycle plastic toys, ecoBirdy creates rotomoulded pieces that are 100% made of recycled plastic waste. The process starts by collecting, sorting, cleaning and grinding old and unused toys. Once separated into colors, the flakes are transformed into a single item with a speckled look. Rounded edges and a smooth silky surface result in furniture pieces that are pleasant to touch and easy to clean.

www.ecobirdy.com











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Clever

design Nos - Mexico City

After analyzing the products on the market for rural schools in Mexico, local design studio Nos has come to redesign the traditional school desk. aiming to create a product that would be affordable, resistant to extreme weather conditions and easy to use, the designers developed Clever, a lightweight rotomoulded and stackable desk with a seat.

The result of the project is a two-piece school desk with a rotating board that students can move depending on their needs. It is light and can be produced in many colors, allowing the schools to choose a two-color combination if needed.

The seat has a conical shape so it can fit on top of other seats for storage. It has a hook on the backrest so students can hang their schoolbags. It also has a pocket under the seat where they can store books and school supplies Both pieces are mass produced by rotomolding, using polyethylene.

www.nos.mx



- > Rotationally moulded polyethylene (MDPE) seats
- > *The pocket under the seat to store books*







> *The hook on the backrest to hang schoolbags*





> Desk and chair are rotomoulded with a large range of mass colours

Candy A storage chair for children

design Enrico Azzimonti, Italy production Anfa Furniture, Italy

Candy is a multifunctional seat for children, whose rotomoulded structure also allows it to be used as a convenient container. Designed to stimulate creativity and sensory interactions, Candy allows children to actively participate in assembling and using the chair. The concept arises from the observation of natural elements and their forms modeled by nature itself over time. Candy is based on a principle of conscious living that respects the environment around us and is dedicated to children, tactile language and sensory interactions. Candy is designed through combinable elements that encourage children to actively use their hands in all phases of interaction: from assembling the product's components together with their parents, to using its textile accessories or container.

The curved shape of the seat has an iconic design that allows children to play safely and stimulates their creativity. Under the removable cover, the chair is suitable as a container for small objects or toys, with a view to extreme versatility and freedom of use. The armchair is available both in the neutral polyethylene version and with the seat and back covering in removable padded fabric.

www.anfa-furniture.com





3. Packaging

A

Introduction

The packaging sector is seeing an increasing evolution in the role of rotational moulding: from the production of certain product types such as containers, platforms and pallets for the transport and handling of goods, today rotational technology is used for the production of increasingly complex industrial machines. In particular, the possibility of replacing traditional metal parts with a rotomoulded structure makes it possible to create more interesting formal and functional solutions that meet the needs of the sector.

Self Propelled Robot S6 for Stretch Wrapping

production RoboPac, San Marino moulds XMTech, Italy

Robot S6 is a self-propelled wrapping machine for palletised loads of any shape, size and weight with stretch film. Equipped with a Touch Screen control panel that allows simple and functional adjustment of wrapping parameters and memorisation of wrapping programmes on the main panel. Designed and built according to criteria of maximum reliability, robustness and safety, it proves to be the undisputed market leader. The main structure is moulded using rotational technology.

The panel features Multilevel Control, a solution that breaks down the height of the product into 7 levels, with continuous differentiated adjustment of the rotation pull, film overlap and reinforcement turns, allowing the wrapping cycle to be customised in relation to the product with a reduction in the amount of film used, to the benefit of productivity.

www.robopac.com











OptiMax-i Connect Rapier Weaving Machine

production Picanol - Belgium

OptiMax-i Connect is the first specific weaving machine built with a rotomoulded outer frame. This machine is designed around the principle of "Intelligent Performance": the design of an intelligent machine, combined with self-regulating software, which allows you to obtain the highest possible speed and the best performance under any conditions. With OptiMax-i Connect, the robust machine structure is combined with the proven pitch geometry and the most suitable gripper system for any application: it is ideal for the production of bags and fabric components for the packaging of clothes and shoes.

To this end, the Sumo drive concept has become even more energy-efficient. The proven Picanol concept combines two solid side frames connected by large cross-section longitudinal members. The beater is actuated by conjugate cams located below the fabric line to ensure uniform beating forcethe full width. The structure consists of a metal frame completed by a series of rotationally molded elements which cover the mechanical parts and offer a coordinated and compact aesthetic of the machine.

www.picanol.be









4. Urban Furniture



Introduction

Rotational moulding is making its way into new and unexpected applications. We are only just beginning to scratch the surface of what is possible with this innovative technology.

In the street furniture sector, rotational moulding is playing an increasingly key role in renewing products for pedestrian and green areas. In particular, the integrationofnewtechnologies such as solar panels and LED sources makes it possible to create new products that can be powered by clean energy, are resistant to interference and are highly aesthetically recognisable.

Pod Collection

production Luminexcence - Italy design Giancarlo Zema - Italy moulding Moulding Service - Italy

With the Pod collection, you can have an intelligent solar-powered urban lighting system. The large photovoltaic panel covering is able to generate over 65W, enough to power the double high-power LED lighting with specific concentric lenses. In addition, an HD camera for video surveillance is also integrated into the body.

The pole becomes smart, thanks to the large optional touch screen display. Perfect for communicating tourist and advertising information, as well as for recharging smart phones. The solar-powered urban lighting of the Pod collection becomes Smart, thanks to the double, large, optional touch screen display. Perfect for communicating tourist and advertising information, as well as for recharging smart phones.

The centralised system means each pole could be equipped with a water-tight sockets SCAME for recharging electric cars in fast way. The recharge can be paid electronically with a cashpoint or credit card. A small screen allows, in additional to the instructions and pay, also car's charging status, traffic and advertising.

www.luminexence.com





> The lamp includes a solar-powered urban lighting system









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> Water-tight sockets for recharging electric cars in fast way







Poly Panels

production Aus Group Alliance - Australia

Aus Group Alliance is an Australian company that design, manufacture and install noise walls and protective screens for applications on freeways, bridges, industrial sites, shopping complexes, housing estates and landscape projects.

AGA's polyethylene noise panels are a heavy-duty rotary moulded plastic, designed to diffuse noise as it passes through the material. The panels have a design life of more than 40 years, and are easy to replace. The revolutionary rotomoulded Poly Panels offer many benefits in comparison to traditional concrete noise barriers. They are lightweight, weighing in at 60kg per panel, compared to a traditional concrete panel which weighs 250kg, making them quick to install and easy to transport.

Poly Panels are cost effective to produce and cost effective to install given reduced machinery needs, labour requirements and assembly time. They also improve safety in the event of a collision, absorbing impact.

Poly Panels are environmentally friendly with a lower overall carbon footprint to manufacture than concrete panels and offering 100% recyclability and they are corrosion and graffiti resistant.

www.ausg.com.au



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Enzos

design Anna Popelka and Georg Poduschka, Austria

The architects Anna Popelka and Georg Poduschka, with contributions from the designers Margarita Navarro and Ludwig Slezak, created the Enzos: abstract forms that are open to a variety of interpretations by their users; robust, washable objects that can be combined in endless variations to form new and always different structures.

These pieces stand in the courtyard of Vienna's MuseumsQuartier.

During the summer, the Enzos become lounge chairs of an extravagant shape and colour, which can be hooked up to each other and laid out in various ways. During the winter, they are stacked up vertically to form igloos or booths selling hot punch, "cinemas in the cold", ice labyrinths or fences.

www.prodomowien.at



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5. Transport

Introduction

The transport sector is constantly evolving with the gradual shift from combustion power to hybrid systems and electric motors. In this context, urban mobility is discovering new vehicle models that combine compact dimensions with great flexibility of use. Rotational moulding accompanies this ongoing revolution through many new applications to create light and strong vehicles, replacing components previously made of metal or other moulding technologies. Furthermore, even traditional typologies, such as the bicycle, are given a new life through innovative rotomoulded solutions.

LAMBROgio - LAMBROgino

design Makyo Hasuike, Japan production Repower, Italy

The LAMBRO Cargo bike project fits into the context of sustainable mobility. Lambro embodies the electric mobility of the future. The two pedalassisted cargo Trikers are called LAMBROogio and LAMBROgino in Milan, a laboratory sensitive to experimenting with new forms of mobility. Sustainability not only as a vision of mobility but also because they are designed to be recyclable.

The project respects the spirit of the bicycle, trying to preserve its essentiality through the enveloping, continuous and rounded shapes of the bodywork. The visual impact, the versatile use in urban and nonurban contexts, as well as the personalization potential are unique in the international panorama.

An integral part of the design process was the identification of the molding technique rotational for the construction of body shops, an innovative method for this type of product. Both vehicles are designed and manufactured, with all the parts that make up the bodywork in recyclable polyethylene, with rotomoulding molding.

www.repower.com





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Birò O2 Car

production Estrima, Italy design Mandalaki Studio, Italy

Mandalaki Studio teamed up with Italian car company Estrima to design the "first" electric concept car made from 80 per cent recycled plastics.

The O2 model is an electric car made with a higher percentage of recycled plastic than any other vehicle on the market. The O2 concept is based on the original Birò car – a fully electric vehicle designed for commuting in the city, which is compact enough to be parked in scooter spaces and features a removable battery.

Instead of the thick, high-density ABS plastic used for the main body of the original model, Mandalaki's Birò O2 gives waste plastics a new life by recycling them into a non-polluting vehicle.

After discovering the large amount of waste left by road maintenance, such as cones and signboards, Mandalaki began working with suppliers to see which of these elements they could recycle.

These plastic waste elements were ground into a fine powder and put through a rotational moulding process to form the structural parts of the vehicle, including the front and rear components and the rear hatch.

All other elements of the car, such as the seats, the tachometer, steering wheel and doors, have been produced from various types of non-recycled plastic, chiefly thermo-formed PVC.



www.estrima.com



Edgeout Teardrop

producer Edgeout, South Africa design RKid, South Africa

The new Edgeout Teardrop, a 4,565-mm long compact hard-body camper, is the "world-first molded LLDPE (Linear low-density polyethylene) composite teardrop," as claimed by the South African manufacturer.

Edgeout collaborated with the experts in rotational molding 4WVR plastic products and industrial design firm RKID to introduce the latest camper to production earlier in the year.

The Edgeout consists of two separately moulded units – a sleeping cabin and a kitchen at the back. This robust, low-maintenance trailer sleeps two (a rooftop tent as an optional extra can sleep two more).

Alongside the side doors windows, a roof window is perfect to enjoy stargazing from the bed. Storage choices comprise a nosecone in the front with shelves, drawers, and cupboards to store things in the rear kitchen and around the sleeping space.

The rotomolded frame is set on a galvanized chassis equipped with torsion bar suspension, electric brakes, and 15-in alloy wheels.

www.edgeout.co.za





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Nomad 2 Exploring, touring or driftin

production Ariel Motor, Great Britain

Ariel Motor Company has once again pushed the boundaries of traditional sports car engineering with the launch of the all-new Ariel Nomad 2. The second-generation model, aptly named 'Nomad 2,' maintains the company's philosophy of blending form with function while offering a serious dose of fun. As the rugged sibling to the Atom, the Nomad 2 retains its outstanding off-road expertise with features like exposed outboard suspension, long-travel dampers, and damage-resistant body panels. The raised air intake and easily washable interior are practical touches that highlight its go-anywhere DNA.

The Nomad 2 is a complete redesign from the ground up, incorporating only three parts from its predecessor. This new iteration exemplifies Ariel's dedication to evolution and customer feedback, showcasing an allnew chassis, suspension, steering, and brakes. The design improvements and significant aerodynamic refinements reflect Ariel's R&D efforts. The front components are rotomoulded and built into the aluminium frame. The Nomad 2 is built for those who seek to explore its full potential, with options like fully selectable driver aids, a three-stage engine map controller, adjustable launch and traction control, and an ABS system tailored for both on- and off-road driving.

www.arielmotor.co.uk





THOR 50M ATD

Producer: Kistler - Switzerland Moulds: Maus - Germany

Crash test dummies simulate human response to impacts, accelerations, deflections, forces and moments of inertia generated during a crash. Each dummy is designed to model the form, weight and articulation of a human body. Hundreds of sensors and transducers located within the dummy provide life-saving data to safety test engineers, measuring the precise physical forces exerted on each body part in a crash event. Kistler, one of the world's leading system providers, supplies solutions based on measurement technology for vehicle safety tests.

THOR-50M ATD (Anthropomorphic Test Device) represents a complete solution, including a crash test dummy and – due to the inbuilt DTI technology – the entire measuring chain. The benefits are high reliability, high-quality data and utmost flexibility. THOR-50M is rotomoulded using elastic PVC plastisole as needs to present skin like features for this crash test dummy, but also to be able to install all the electric gear and sensors in the body.

www.kistler.com



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Dolly Cargo Bike

production Dolly Bikes - Netherlands

Designing the Dolly Family was not an easy task: a two-wheel cargo bike with a design that stands out in the current bicycle market. The result is a cargo bike with a modern, new and trendy design which can be customized by the numerous colour combinations to make it even more personal.

In addition to the design, a lot of attention was paid to the geometry of the fame and the dimensioning of the box. This enabled us to give the Dolly not only a beautiful look and excellent final assembly but also outstanding cycling qualities and a practical, usable box.

Unique is also the material and shape of the box. The slightly slanting shape of the box extending over the head tube gives the Dolly its unique look. The box is made of polyethylene and is made by means of rotational moulding. The roto technology produces a double-walled box which is strong, sustainable, light and recyclable.

www.dolly-bikes.com



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Igus Bike Mobility According to the

production Mtrl - Netherlands

Virtually Zero Waste Principle

Rotomoulded using recycled polymers, the bicycle designed by Dutch company Mtrl was born as a vehicle for traveling in urban areas.

The bicycle components, almost all of which are plastic, require no lubricants, do not rust and can be recycled. The low-wear moving parts are self-lubricating, and the encapsulated belt drive is protected from environmental influences. For production, Mtrl uses specially built machines with durable, lubricationfree igus components. The structure of the bicycle is moulded in polyethylene using rotational technology. The bike looks ecologically groundbreaking, striking in appearance and practical for everyday use in the urban environment. The ball bearings, crank, pedals and freewheel were newly developed for the innovative all-plastic planetary gear. The interplay between the colour, frame, fork and rims is style-defining.

www.mtrl.bike



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Alpen Bike Capsule

production Alpen Storage - USA

The ultimate solution to your bike storage needs. Built from virtually indestructible roto-molded polyethylene and equipped with an integrated locking mechanism, it's a custom home for your beloved bicycle, engineered to protect and extend the life of your investment. The unique, patented design offers secure, waterproof bicycle storage, perfect for outside your home or fitting comfortably inside a garage or building common area. The circular design gracefully blends form with function, providing easy access to almost any type of bike, including mountain bikes with wide handlebars. There is even plenty of space for all your cycling accessories.

www.alpenstorage.com



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6. Sport

Introduction

Thanks to the possibility of creating hollow components with a high resistance to stress, rotational molding represents an ideal technology for reinterpreting in a contemporary way many equipment of different sports disciplines.

Thus, in recent years, numerous new applications have been born in which rotational molded components have replaced other more traditional materials, guaranteeing new performances and greater efficiency.

Challanger 10"-12" Engineered for performance. Designed for convenience.

production Innovo, USA moulds XMTech, Italy

Designed to redefine the paddle boarding and kayaking experience, the Challenger rotomoulded board embodies versatility, practicality and performance, satisfying both novice adventurers and experienced enthusiasts. The Challenger board addresses a critical market need, offering a rigid and stylish alternative to inflatable paddle boards without compromising performance or practicality. Unlike traditional or inflatable boards, the seamless hollow construction of the Challenger board boasts superior durability and portability, all while offering more riding options without the need for additional tools or pumps.

The modular design of the Challenger board allows for a seamless transformation from a rigid paddle board to a sit-on kayak, offering users unparalleled versatility on the water and practicality on land. Integrated first storage compartments ensure convenient transportation of essential equipment, while the board's compactness makes it ideal for both city dwellers and outdoor enthusiasts.

www.innovo.plus

production PlayMoovin', France

PlayMoovin' is a new company based in the Puy-de-Dôme region, committed to the inclusion of disabled people. PlayMoovin' wants to make sports accessible to all, by "fading" discrimination at school.

In France, 240.000 children with reduced mobility are deprived of physical activity at school because of the lack of adapted equipments, the cost of a sports chair being nearly 6000 €.

To solve this problem, PlayMoovin' had the idea to create wheelchairs for able-bodied children. This allows them to play with their disabled friends on an equal footing.

PlayMoovin' wanted to make a wheelchair that was totally different from an existing wheelchair, in order to change the way people look at disability.

Thanks to the creation of a rotomoulded seat shell, they have designed a fun chair (developed by Wally Salvan, founder of wheelchair rugby) that is six times less expensive than a sports chair.

Making such hulls was a big challenge, because of the complex shape of the parts and the presence of inserts. The development of the project lasted eight months from the first contact to the realization of the finalized parts. This is the time needed to develop such complex parts.

www.playmoovin.com

Aquatic Bike Two

production Aqquatix, Italy

The Aquatic Bike Two is recommended for highperformance activities, with the possibility of mechanically adjusting the pedalling intensity during

The bike represents one of the most innovative example in the world of aquatic fitness. It's equipped with a rotomoulded polyethylene shell and stainless steel frame with oval outlines.

The brake system studied by the R&D department to guarantee increased fluidity and durability.

Wide handlebar allowing more positions and a better grip, while resistive pedal in polyethylene, designed to increase the pedalling fluidity and strength.

The stability of the bike is ensured by the perfect balance between the front and rear axle, the new reinforced bases and the four suction cups in transparent PVC. The 74 ° saddle-handlebar angle ensures the best position during use, excluding horizontal saddle adjustments. Wheels on the front base allow easy movement of equipment during surfacing and movement along pool side.

www.aqquatix.com

7. Gardening

Introduction

The gardening sector represents one of the most important markets for rotationally moulded products: from plant pots to garden furniture, rotational technology has progressively invaded this sector, offering a vast series of solutions.

But research does not stop and today we are witnessing the continuous development of new applications that reinterpret existing typologies in a modern way or introduce new functional solutions that were not present before.

Pure RainDrop

production Elho - Netherlands

The beauty of nature along with modern-day architecture have been the source of inspiration in creating the stunning rotomoulded Pure collection. They are then carefully finished by hand to achieve the desired end result.

The use of polyethylene combined with the rotational technology ensures that the Pure products are strong, *lightweight, unbreakable and frost and uv resistant.* Not only does the pure rain barrel have an eyecatching and trendy design, it is also a functional product for the garden. The rain barrel has a 70-litre capacity, is easily installed between the drainpipes and that is how it collects rain water. Any excess water flows away through the drain.

The system includes a watering can with a 5-litre capacity which can be easily placed under the tap. The garden hose can also be attached to the tap to quickly water the entire garden. The rain barrel can be placed in full sun, its UV-filter makes it colourfast. Moreover, it can withstand temperatures down to -20 degrees. However, during periods of frost, the tap should be opened so that water can drain out.

www.elho.com

> The garden hose can be attached to the tap to quickly water the entire garden

> The rain barrel has a 70-litre capacity and it is easily installed between the drainpipes

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Bigmow **Robot Mower**

production Belrobotics, Belgium

Bigmow is one of the most innovative and highperformance professional robot mower in the world and it can mow up to 24.000 m^2 of turf. It can live up to the challenge on sports grounds, driving ranges and golf courses, as well as public spaces.

Bigmow is programmed for mowing with mulching up to 24.000 m^2 in a few hours. The vegetable matter from mulching will fertilise the soil in a 100 % natural way. The technology allows you to reduce inherent maintenance costs of green spaces around your business, in a way that benefits a sustainable policy and a reduction in your ecological footprint. It also equipped with an intuitive interface, an anti-theft and malfunction alert, various on-board safeties, a GPS guidance and accident prevention system.

Belrobotics robotic mowers are equipped with an extremely robust aluminium chassis that is separate from its hood, and the main body is rotational moulded HDPE. Each part can be replaced individually, so the mower can almost always be repaired.

www.belrobotics.com

> Bigmow has a rotomoulded body and it is equipped with an intuitive interface

> Parcmow is fitted with 3 floating cutting heads that adapt instantly to the ground elevation.

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> Bigmow is fitted with sonars deactivating its cutting system if it detects an obstacle.

> Bigmow works with 9 its stainless steel blades.

8. Work Machines

Introduction

Work machines represent a technical sector in itself, where the aesthetic value is subordinated to the performance and functional capabilities of the machines. In reality, through rotational molding it is possible to best combine the functional side with the aesthetic side, creating efficient machines with a precise recognizability. Rotational molding adapts perfectly to the characteristics of the frame and engine compartment and offers the possibility of creating a "shell" that protects the machine from any physical mechanical stress to which it is subjected.

L 504 Compact

production Liebherr, Germany

L 504 Compact represents an innovative machine ideal for applications of every kind, such as road construction, municipal services and construction sites. Thanks to a compact and low-line structure, the compact loader boasts exceptional flexibility and guarantees you unbeatable stability in all respects. Ease of operation and optimised all-round visibility from the cabin are also key features allowing safer and more productive work.

The engine compartment is protected by a large cover with open side parts that connect to the rear bumper, both rotomoulded.

Thanks to the low overall height, even the narrowest passages are no obstacle. A wide range of hydraulic and mechanical attachments can be changed fully automatically, safely and without any oil leaks direct from the cab in a matter of seconds by pressing a button.

www.liebherr.com

Light Towers LTN5Y Portable, independent lighting for large construction sites

production Wacker Neuson - Germany

Thanks to its powerful LED panels, the LTN5Y Light Tower provides bright, daylight-like illumination for large areas. The tower can be easily raised and lowered automatically while the external structure of the trailer is made up of a series of rotationally moulded components.

The road-approved trailer and installed diesel generator make the LTN5Y a mobile, independent light source for illumination during road and bridge construction, concreting work, parking lots and events. The rotomoulded HDPE structure allows the trailer to withstand the stresses to which it is subjected during use in outdoor spaces.

LED lamps are particularly energy efficient. In this way they reduce fuel consumption and guarantee a long range with a full tank.

www.wackerneuson.com

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CityCat 1000

production: Bucher, Switzerland

The CityCat 1000 is the product of years of experience in developing and manufacturing compact sweepers for professional applications. With its slender frame, this compact sweeper is the ideal solution for cleaning all confined spaces and areas with limited access. It's a machine for sweeping larger premises, car parks, shopping centres, factory sites and housing estates. The chassis consists of a welded frame with sprung axles, the front axle being fitted with coil springs and shock absorbers and the rear axle with double cone springs. Optimum axle load distribution ensures safety and comfort even when performing complex manoeuvres, such as mounting and dismounting kerbs and operating on slopes.

The two rotational moulded polyethylene tanks supplying clean water to the water spray jets on the brushes and suction nozzle are designed to maximise productive time on site. A special construction ensures that water remains in the recycled water tank when the hopper is emptied. This integrated water recirculation system results in drier loads and increases the supply of water for sweeping, thereby extending on-station time.

www.bucher.com

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Single Direction Vibratory Plate BP

production Bomag - Germany

Power, performance and innovation are the distinguishing features of the nine models of one-way vibratory plates produced by Bomag. The plates can be used in many fields of application: For carrying out earthmoving works, for laying asphalt and paving. They are also suitable for repairing roads and agricultural roads, for the construction of pipelines and trenches and for gardening.

The removable rotomoulded water tank has a larger capacity and is even equipped with a level indicator. No scuffs on the asphalt surface when turning and the model ensures a perfect surface finish.

The transport handles guarantee a safe grip on all models for loading. The V-belt guard, standard on all models, provides the operator with permanent protection from injury and the fully enclosed design results in fewer repairs

www.bomag.com

> The roto noulded water tank 's equipped with a level indicator.

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Sanitizer Sanex

production Comac - Italy moulding Moulding Service - Italy

Sanex is a mobile compressor sanitizer that's perfect for spraying sanitizing products in small and mediumsized environments.

Lightweight and easy to transport, Sanex is the ideal solution for sanitizing and deodorizing rooms and offices in any sector. The battery-powered versions also allows even more freedom of movement in places without a power socket. The structure consists of two main rotomoulded parts while the solution supply takes place so as to ensure extended and distributed product permanency in the air of the treated location, to reach and sanitize all surfaces therein

The compressor sanitizer is easy to use: the equipment is started using the dedicated master switch and the dedicated spray gun is used to direct the nebulized solution easily and effectively

This equipment adapts to various requirements, allowing the use of sanitizing, disinfectant or deodorizing solutions and use inside cars and air conditioning circuits.

All this makes Sanex extremely versatile. It can also be used in larger environments like entrance areas and convention rooms or offices, bars, restaurants, shops, schools, gyms and any other place where effective sanitization is needed.

www.comac.it

> Lightweight and easy to transport, Sanex is a flexible solution for sanitizing

9. Climate Change

Introduction

The ongoing climate changes pose new fundamental challenges to humanity and, at the same time, represent an extraordinary opportunity to rethink the logic through which man exploits the environment and impacts the ecosystem.

Thanks to its intrinsic flexibility of use, rotational technology represents a valid tool through which to create new solutions to contain the advance of the seas or contribute to removing the gigantic quantities of waste accumulated in the oceans. Or creating valid solutions to protect things and people during the violent action of hurricanes.

Vertical Garden

project Sean McKenna - RCA England

Rubbish accumulates in ocean patches across the world, and one of the largest is located off the coast of California and Hawaii and is known as the Great Pacific Garbage Patch.

If this problem is not solved, then ecosystems and humans' lives will be at risk, along with large areas of polluted sea water. The biggest problem is large pieces of rubbish which begin to break up into smaller pieces and therefore are harder to collect.

One solution involves using rotomoulded buoys to round up the collection of rubbish in the oceans and then taking it back to shore to be recycled, making the process sustainable.

These plastic buoys are assembled out at sea on platforms and are connected using ropes and nets and are then pulled along by a tug boat, collecting rubbish as it moves along.

The introduction of rotomoulded light beacons will also help boats to follow correct shipping lanes in poor lighting conditions.

> Rotomoulded buoys to round up the collection of rubbish

SandSaver Beach Erosion

production Granger Plastics - USA

The Sandsaver is quickly becoming one of the most sought after natural solutions to beach erosion. The sandsaver drastically reduces the costs of beach renourishment, via using the energy and wave activity of the water. Based on simple conservative economics, that show the modules can be used on a temporary or permanent basis contingent upon the breadth of the given re-nourishment project. With recent proven success, the Sandsaver continues to garner immense international interest as a viable replacement to traditional, less effective methods, ranging from beach dredging, or re-nourishment and other hardened structures such as coastal armoring, sea walls and more.

The Sandsaver is an improved, innovative technology based on past proven technology that was readily used in multiple locations spanning multiple decades, called "The Sandgrabber". The Sandgrabber technology worked in multiple installation locations across the United States, including Hawaii, New Jersey and Louisiana.

www.sandsaver.com

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ISS Tornado Shelter

production Granger Plastics, USA

When thinking about buying a tornado shelter, the type, size, material and installation are several main considerations. Finding a tornado shelter manufacturer that can be trusted and will be available for their customers should also be high on the priority list. It is essential to research and trust the company making this life saving product for your family.

The Granger ISS is a rotationally molded tornado shelter made almost entirely of polyethylene. This shelter has a double wall design which is foam filled for extra rigidity and strength. The foam also acts as an insulator making the interior of the shelter more comfortable. The Granger ISS has a reverse taper design which does not require the unit to have an anchoring system. This means a faster easier installation and that it can be installed in many areas other underground shelters would have issues. Regardless of soil condition, water tables or almost any space construction, this shelter installs in 4 hours or less, seats six or more, has a number of additional safety features and comes with a lifetime warranty against material deterioration including cracking, leaking, rotting or rusting.

www.grangerindustries.com

AquaPass Moving with high water

design Akshata Bhurke, India Domus Academy, Italy

In Venice, a city known for its picturesque canals, the occurrence of floods, often referred to as "high water", is not uncommon. During periods of high tide and heavy rainfall, the water level in the lagoon surrounding the city can rise significantly, causing streets and squares to flood. To navigate through these temporary conditions of saturation, residents and visitors of Venice rely on various mechanisms, like walkways over water.

When floodwaters begin to rise, authorities quickly install specially designed walkways, known as "walkways." Walkways are typically made from materials such as wood and metal, providing safe passage to work for Venetians. This system has a number of problems. For example, wood panels deteriorate rapidly due to moisture, fungi, bacteria and lack of maintenance and need to be replaced frequently. The Municipality of Venice has organized a competition of ideas for the replacement of these footbridges in order to improve the existing conditions. The project involves the construction of new rotomoulded platforms completed with a metal frame and telescopic legs. When not used for high water emergencies, these structures take on a second function and can be used as bases and tables for the numerous public events that the Municipality organizes in the lagoon city.

www.domusacademy.com

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> The HDPE platforms are complemented by a set of telescopic legs which allow them to be adapted to the water level. They can also be used as tables for public events.

8. Renewable Energy

RAGE

Introduction

The creation of clean and renewable energy is a key objective for the world today. The exploitation of solar and wind power plants and the development on an industrial scale of a new civilization based on hydrogen represent crucial challenges for the entire humanity. In this context, rotational technology offers multiple opportunities to create applications capable of accompanying this development in an increasingly efficient and globally widespread manner.

Rotomoulded Liners

production Persico - Italy

A type IV hydrogen pressure vessel is composed by: - Polymer liner: The thermoplastic inner liner is gas-tight storage and guarantees a good barrier.

- Composite: by bearing the load, the composite material is the structural part of the composite vessel.

- Bosses: The metal boss serves as the connection between the liner and the filling valve.

- Dome protection: The dome protection shields the carbon fiber against external damage.

Persico has recently developed and delivered several projects to produce liners for high-pressure hydrogen tanks and CNG Cylinders. These projects have included the design and development of the liner, prototyping and delivery of machine and tooling in 'turnkey' production cells.

Using their experience in these projects, Persico has now developed a new generation of 'SMART®' machines (all patent pending) specifically for the production of tank liners:

TRADITIONAL SMART® 2.8 Can be chosen for the manufacturing of small liners and prototype. 'KIT H2®' Starting from the TRADITIONAL SMART® 2.8 machine, KIT H2® is composed by a frame with a dedicated rotation system, able to manage the rock&roll motion for the production of mid-dimension liners.

'SMART® H2' It provides rock and roll motion with independent rolling speeds, specifically for tank liners.

www.persico.com

Premium HDPE Floaters

production Rotovia, Iceland

The custom moulding business from Rotovia provides premium HDPE Floaters based on the customer's requirements. One of the markets Rotovia is very active in is the renewable energy market. One of the segments in this market is solar energy. In this market HDPE floaters are deployed for long-term use, especially for modern floating photovoltaic installations. Thanks to rotational moulding process, Rotovia create plastic floaters with an extremely strong structure and unique hollow shape.

The material used in the production of the floaters is extremely durable, which makes these products very strong and reliable in long-term use. Polyethylene plastic floaters are perfect for equipping floating farms in reservoirs, as well as coastal marine conditions. The modular design of the floaters provides great opportunities for their application, both under a floating photovoltaic (PV) panel system and as floating marinas and service piers.

At present, solar energy plays a key role among renewable sources for heat and electricity generation. The application of fully recycled plastic floaters in floating PV systems is the best choice for this type of installation, and, in addition, it fits in very well with current eco trends.

www.rotovia.com

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9. Nautical

Introduction

Water has always been a natural complement for rotomolded products: through hollow bodies without joints it is possible to create floating structures of various types that satisfy multiple needs. The nautical sector is continuously exploring new ways to apply rotational technology to boats and products ranging from large to small scale, offering innovation and reliability over time.

Waterscape

design Alexander Lotersztain - Australia

Creators John Hogan and Alexander Lotersztain are passionate about changing the perception of 'water appeal'. Street appeal, they explain, is a commonly recognised real estate and architectural concept; water appeal is underestimated and misunderstood. Waterscape changes that: it provides a beacon from the water to the front door of a resort or home. Now, a property has two front doors – from the street and from the water.

Waterscape has been designed for both the commercial and domestic user, providing the market with a visionary new option in waterfront living. Waterscape *is a product for the global market – the patented design* and construction features mean that it can be adapted and customised to suit any user from the large scale corporate and commercial to residential.

Design functionality allows for rotomoulded multi compartment buoyancy, post installation buoyancy trimming and subsea anchoring to negate the need for any visual detraction as a result of anchor piles. Rotomoulded furniture, service and accessory options are easily clip on or off, or changed, due to the custom designed waler.

www.water-scape.com

> Modular flotation that allows for buoyancy adjustment

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AM Nautic Chaise Longue

production Riccardo Giovanetti, Italy production Azimut Yachts, Italy

This chaise longue is a day bed created with an innovative and revolutionary seating concept. *Its perfect ergonomics and smooth lines inspired by the* dynamics of a body at rest, recall feelings of serenity and well-being, perfectly embracing its forms.

The possibility to change its angle of inclination, allows you to enjoy of total relaxation, making it an *object of unique and exclusive design.*

Functionality and stability are guaranteed by HD polyethylene, produced with rotational molding, making it suitable for any type of environment, professional and private yachhts.

Changing the legs or using the chaise longue directly in its ground position, you get four different versions, without varying its functions.

Light and handy, it is easily movable for any subsequent relocation and is simple to sanitize with the most common household products.

www.azimutyachts.com

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Introduction

The care of people in hospitals is increasingly based on the creation of spaces with high quality. Functional machines and furnishing elements contribute decisively to the well-being and care of patients. In recent years, rotational molding has gained increasing applications for the industrial production of objects and machines.

The integration between rotomolded elements and others made with other materials represents a growing way through which to create innovative solutions.

Inspire Next Discovery bed - removable siderails

production Favero - Italy moulding Simplast - Italy

An innovative bed for care home settings, providing highly advanced infection control and prevention. With a focus on the latest technologies, industry-leading disinfection, eye-catching design and using durable materials, we have produced a truly innovative bed. All exposed parts are rotomoulded in an antibacterial, non-toxic plastic and may be fully removed for thorough disinfection and cleaning so as to guarantee both incredible durability and the highest standards of hygiene and disinfection.

Siderails can be unlocked and dropped down by means of a central lever and dampened movement. Simple, swift and safe. All surfaces are completely rounded, with no sharp edges, reducing the risk of injuries and trauma, and ensuring maximum patient safety.

The four-section platform is made of moulded onepiece plastic sections which are removable, easy to clean and disinfect and have no sharp edges or corners. Height adjustment, Trendelenburg and reverse-Trendelenburg controlled electrically. Centralized parking brake with levers on the foot side.

Backrest and leg section movements are accompanied by auto-regression to reduce pressure on the abdomen and increase patient comfort.

www.favero.it

Blood Bank Refrigerator Solutions for safely storing plasma

production B Medical Systems, Luxembourg

Throughout our 40+ years of experience, B Medical Systems has been creating innovative solutions to store and transport vaccines, blood components, laboratory specimens, etc across the world safely and reliably. The portfolio includes blood bank refrigerators, plasma storage freezers, ultra-low temperature freezers, transport boxes for all blood components, and plasma contact shock freezers – an innovative patented technology ensuring fast freezing of blood plasma. B Medical Systems' Plasma Storage Freezers are devices intended for the safe storage of your frozen blood plasma or blood components at temperatures below $-27^{\circ}C$.

Specifically designed for blood banks, hospitals, clinical laboratories, and processing centers, the 5 upright freezers offer a wide variety in terms of volume storage and temperature requirements.

Polypropylene cabinets are injected with polyurethane foam providing strong thermal insulation. The onepiece cabinet is rotomoulded while the internal cavity includes LED lighting for lower energy consumption. The sealed gaskets and 4-layer glass window are designed to minimize cold air loss.

www.bmedicalsystems.com

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PMT Qs The Potential of Magnetotherapy

production Asalaser, Italy moulding: Moulding Service, Italy

PMT Qs is the ergonomic and easy to use device, equipped with trolley, bed and an innovative design, designed for the treatment of different body areas such as the spine, limbs, hips and shoulders, ensuring the utmost comfort to the patient during therapy.

The PMT Qs devices generate pulsed magnetic fields at extremely low frequency (ELF - Extremely Low Frequency) and at low intensity, which are able to pass through the body, acting on all tissues (muscle, bone, nerve, epithelial, etc.). Effective even in depth, they are not invasive and do not cause pain.

PMT Qs allows applying magnetic fields in a direction parallel to the longitudinal axis of the body, through the use of solenoids, or perpendicularly to the surface to be treated, through the use of the Flexa applicators, particularly suitable for localised treatments thanks to their flexible conformation.

The solenoid consists of a rotomolded cylindrical body which is positioned on the area to be treated to return to its initial position at the end of the performance. With the addition of optional accessories, it is possible to build different configurations, connecting up to 4 beds, two of which in automatic mode.

www.asalaser.com

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CHELT Therapy Cryo High Energy Laser Therapy

production Creanova, Italy

As the result of collaboration between Mectronic Medicale and renowned research centers, CHELT Therapy (Cryo High Energy Laser Therapy) is an innovative device in the physiotherapeutic, medical and rehabilitative fields. It represents the unique synergy between the THEAL lasertherapy and the cryotherapy with dry air at -30° with thermal control. Since 7 years, Mectronic Medicale and Creanova have been combining their expertise to market successful and design-awarded physiotherapy devices.

The main challenge in design phase was to lend a light and compact look to a device which boasts technologies requiring significant cryotherapy and laser therapy. The large vertical display of this physiotherapy device ensures a wide and easy-to-use interface.

Creanova completed the CHELT Therapy development process with the production phase, leveraging PUR and roto-molding technology. These technologies are selected according to the complex geometries, small-scale production and required high quality of this physiotherapy device.

www.creanovagroup.com

Credits

Liebherr, Germany Wacker Neuson, *Germany* Bucher, Switzerland Bomag, Germany Comac, Italy Granger Plastics, USA Persico, Italy Rotovia, Iceland Waterscape, Australia Azymut Yachts, Italy Favero, Italy B Medical Systems, Luxembourg Asalaser, Italy Creanova, Italy

> **Cover Pictures** courtesy Euro3Plast, Italy

Projects RCA. Great Britain Domus Academy, Italy

Concept Studio Giovanetti, Italy

Same Deutz-Fahr, Italy Evrard, France Etesia, France Parallax Plastics, Great Britain Magis, Italy B&B Italia, *Italy* Wilkhahan, Germany Boss Design, Great Britain ecoBirdy, Belgium Nos, Mexico Anfa Furniture, *Italy* RoboPac, San Marino Picanol, Belgium Luminexcence, *Italy* Aus Group Alliance, Australia Popelka Poduschka, Austria Repower,, *Italy* Estrima, Italy Edgeout, South Africa Ariel Motor, Great Britain Kistler, Switzerland Dolly Bikes, Netherlands Igus Bike, *Netherlands* Alpen Storage, USA Innovo, USA PlayMoovin', France Aqquatix, Italy Elho, Netherlands Belrobotics, Belgium

AFR - Association Francophone du Rotomoulage

ARM - Association of Rotational Molders

ARMA - Association of Rotational Moulders Australasia

ANIPAC - The Mexican Plastic Association

ARMSA - Association of Rotational Moulders Southern Africa

ARM-CE - Association of Rotational Moulders Central Europe

StAR - Society of Asian Rotomoulders

Nordic ARM - Nordic Association of Rotational Moulders

BPF - Rotational Moulders Group

IT-RO - Italia Rotazionale

RPC-CPPIA

Rotopol Association

