Design & Engineering | Modellazione 3D | Prototipazione | Produzione seriale | Soluzioni integrate Plug & Play

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WHO WE ARE

AMA group is developed around AMA Srl, which was founded in 1967 by today's president of AMA Luciano Malavolti, to ensure the availability of accessories and spare parts for agricultural and garden machinery.
With 11 production plants and 14 distribution centres across Europe, AMA now has over 1000 employees in 20 different countries with over 100,000 items proposed. Today AMA is able to supply components and equipment for the fitting and maintenance of slow moving vehicles and agricultural and green care machinery.
AMA also includes AMA COMPOSITES (based in Campogalliano, Modena), which was established in 2004 to deliver "LWRT" (Light weight reinforced Thermoplastic) composite technology. LWRT is a composite material used mainly in the interior lining in the automotive sector and more specifically it is used for slow moving and recreational vehicles.

AMA Composites offers a wide range of high-tech plastic technologies of outstanding quality which is able to meet the most diverse needs of our international customers.
AMA Composites is placed in the market as a "full service provider" embracing the entire development process of a vehicle or it's parts. It takes into consideration all possible variables such as the environment, the most appropriate marketing tools to use, economic and productive objectives; the ergonomic and styling aspects; as well as the relative choices of the materials and technologies.

AMA Composites has structured the AMA NANOTECH division which is designed to meet the increasingly demanding environmental regulations in the field of sustainable development and wellbeing for the Building & Construction sector. Within this division, AMA is able to design and produce a range of products with unique and innovative technical-performance characteristics.
Over the years, AMA has obtained numerous European awards in the Horizon 2020 projects.

OUR MISSION

AMA Composites' mission is to provide efficient, reliable, innovative and high quality products and services for all sectors in which we are present; from the Automotive sector to the Building & Construction sector. We aim to pursue a constant process of identifying the needs and expectation of our customers. Our mission is to experiment the application of composite and Nano technological materials on everyday objects with solutions that are technologically advanced and economically sustainable for the customer.
Our technical department, thanks to their consolidated experience and strong passion for composite materials, is able to study customized solutions to create components for the most varied sectors.

COMPANY ETHICS

AMA Composites recognizes, accepts and shares moral values which are put into practice in both internal relations with the company and in external relations with customers and suppliers.
The ethical principles shared by all those working in AMA Composites:
Respect, Clear Understanding and Sincerity
The involvement of everyone as an important source of motivation
The practicality and the spirit of initiative
The sense of responsibility
Humility and Curiosity. This is the recognition of one's limitation and the constant desire to learn from every experience.
The moral integrity, the focus of the client and the constant tension towards superior performance are the conditions on which the work of the entire AMA group is based. This guarantees the commitment and loyalty that the group assures to its stakeholders.

QUALITY AND ENVIRONMENT

The implementation of an integrated management system, orientated towards Quality and the Environment, has meant that, in AMA Composites the development of business activities are being placed at the centre of planned and completed actions by the customer: intended both as a product user and environmental community and as both an internal operator and supplier & partner.
AMA Composites has implemented an officially recognised quality management system which provides indications regarding the objectives and strategies to be introduced in line with current regulations and allows progress to be monitored. The improvement of company performance is also achieved in terms of environmental protection. This is why AMA Composites is constantly committed to improving production processes and pays great attention to exploiting resources in terms of preventing risks and pollution.

THE SECTORS IN WHICH AMA COMPOSITES OPERATES

AGRICULTURE | CAMPER (RECREATIONAL INDUSTRY) | MARINE APPLICATION | EARTH MOVING MACHINERY | FORKLIFTS | AUTOMOTIVE | ROAD SWEEPERS | WELLNESS BEAUTY CENTRE | THERMAL-INSULATION – RADIANT SYSTEMS (AEROGEL-AEROPAN – THERMOEL- AMATHERM line)

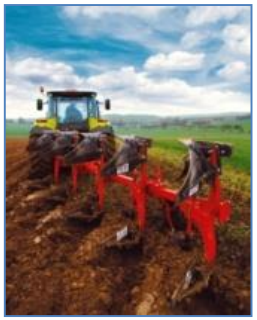
AGRICULTURAL SECTOR

The agricultural machinery sector (tractors, combine harvesters and other special machines) is a sector in which AMA Composites, and more generally the AMA group itself, is able to offer a wide range of products collaborating with the best producers in the sector. These products are made with great care, quality and originality.
AMA Composites presents itself as a “full-service provider”, embracing the entire development process of a vehicle, or it’s parts. It takes into consideration environmental variables, marketing tools, economic and production constraints, ergonomic aspects; as well as choices regarding materials and technologies.

AMA COMPOSITES IS ABLE TO SUPPLY:

3D Design and Engineering of the complete tractor or part of it in collaboration with the final customer
Cabin interior furniture (in composite material such as LWRT, Vacuum thermoforming up to 3mx2m, GRP, GRIT, RTM, S-RIM-R-RIM, Thermoplastic Injection)
Steering column assemblies complete with analogue/digital instrumentation and wiring (plug & play) and complete armrests
PU-Fimplite or Rubber sound-absorbing carpets, complete and not radiant heating using AMATHERM technology.
Seats and steering wheels.





RECREATIONAL INDUSTRY SECTOR

The Recreational Sector is a sector in which AMA Composites has considerable experience and is able to offer a wide range of thermoformed products, made with great care, quality and originality and through collaborating with the best manufacturers in the industry. In addition, leisure vehicles use increasingly lighter materials and AMA Composites is able to offer solutions for interiors up to x5 lighter than conventional thermoformed materials. We can also offer composite materials with honeycomb elements to replace much heavier wood parts.

Among the various solutions that can be embraced in the recreational industry sector through the use of our technology we can list:
Global Design & Engineering
Panels in composite material (attic/under-lining/door panels, etc.), through the LWRT technology of direct automotive derivation (up to x5 lighter than normal thermoforming), exceptional aesthetic appearance, dimensional stability in all climatic conditions and low investments
Production of models, moulds and templates both internal and external produced by vacuum thermoforming up to 3mx2m
GRP/GRIT and RTM panels with foamed resin up to 30/50% lighter than conventional resins

MARINE APPLICATION SECTOR

The Marine sector is a sector in which AMA Composites is investing both economic and intellectual resources. Currently we can offer a wide range of thermoformed and composite products made with great care, quality and originality through collaborating with the best producers in the sector.
producers in the sector.
Among the various solutions that can be embraced in the marine sector through the use of our technology we can list:
Global Design & Engineering

Panels in composite material (cabin interiors/ceilings/various panels, etc.), through the LWRT technology of direct automotive derivation (up to x5 lighter than normal thermoforming), exceptional aesthetic appearance, dimensional stability in all climatic conditions and low investments
Internal and external panels produced through vacuum thermoforming up to 3mx2m with the possibility of additional saddling
GRP/GRIT and RTM panels with foamed resin up to 30/50% lighter than conventional resins
Aero-gel based reflective paints and very high-performance insulation solutions in very low thickness, using nanotechnology both for living areas and for engine compartments
Ultra-thin radiant heaters with AMATHERM technology

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EARTH MOVING MACHINERY SECTOR

One of AMA Composites' strengths is the openness to new challenges. This allows us to take on new and interesting projects especially in the field of earth moving machinery such as backhoe loaders, telehandlers and various excavators. The integration of new high-performance technologies has allowed us to revolutionize the design method and to produce details with very important added value.

AMA COMPOSITES IS ABLE TO SUPPLY:

3D Design & Engineering of the complete tractor, or part of it, in collaboration with the final customer
Cabin interior furniture (in composite material such as LWRT, Vacuum thermoforming up to 3mx2m, GRP, GRIT, RTM, S-RIM-R-RIM, Thermoplastic Injection)
Steering column units complete with analogue/digital instrumentation and wiring (plug & play) and complete armrests
Sound-absorbing carpets made of PU-Fimplite or Rubber, complete and not radiant heating with AMATHERM technology
Seats and steering wheels




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FORKLIFT SECTOR – MATERIALS HANDLING

The Industrial Machinery sector, particularly related to the forklift sector (materials handling), is the frontrunner of AMA Composites.
The high professionalism of AMA Composites is based on the knowledge of all the problems that could arise in the Materials Handling sector and their consequent resolution in the shortest possible time. This together with a careful design allows us to create different materials/products with an increasingly higher final quality. This is why more and more customers rely on us and trust us and achieve excellent results.

WE OFFER OUR CUSTOMERS:

3D Design & Engineering in close collaboration with the final customer.
Production of plastic, thermoplastic and composite coverings suitable for any specific need
Construction of steering column units, integrated armrests, comprehensive and not wiring, integrated electronics for every need (plug & play)
Specialisation in all sectors such as counterbalanced / reach trucks / Vnas / Stackers etc.
Polyurethane and/or rubber sound –absorbing mats also heated on requested for cold store use, using AMATHERM technology
Thermal insulation of the batteries through AEROGEL
Seats and Steering Wheels

AUTOMOTIVE SECTOR

AMA Composites produces highly innovative and technological composite materials particularly suitable for the Automotive Sector.

Among the various solutions that can be embraced through the use of our technology we can list:
Aerodynamic funds
Imperials
Door panels and instrument panels
Coatings for trunk housings
Back-seat upholstery
It is well known that designers usually reduce the weight of an element, limiting the thickness of its walls to the limit of structural rigidity of the material it is made of.
Our composite materials offer an interesting alternative, allowing to increase the thickness of the walls of an element, reducing at the same time the density of the material, to the advantage of the stiffness and without increasing the weight.

Our composite materials are made of glass and PP fibres, previously reduced in mixed wool, then heated and laminated to saturate the reinforcing fibres with the thermoplastic matrix.
After having heated the plates through infrared ovens or hot air ovens, the frozen tensions inside the reinforcing fibres cause a considerable increase in the thickness of the walls, which reduces the density of the material. Subsequently, through low pressure thermos-compression, we can combine the composite base with different external materials (sandwich) in order to respond to the most varied production needs of our customers, such as PVC, TPO, fabrics with or without PU, non-woven fabrics, microfibre, etc.
Through a patent, we have developed for a major OEM Automotive (FORD) a composite solution that replaces the metal bulkhead inside LGV (Bulkhead) vehicles with a thermoplastic PLUG & PLAY solution, winning an award in 2017 for the best innovation in whilst working with FORD.

SEGUE >>

AUTOMOTIVE SECTOR

Details can be produced at low pressure (<5 bar), with the aid of aluminium tools or, in the case of prototypes, even in wood. Low pressure forming reduces investment costs and allows the use of combined tools, with which it is possible to form a complete set of underbody elements in a single pass. The individual elements can then be cut by moulding or by water jet.
We are also able to offer our customers, always within our group, other technologies / products made by thermoplastic injection moulding, PU, RIM and vacuum thermoforming.

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ROAD SWEEPER SECTOR

The Road Sweeper sector, and more generally Municipal Machines, is a sector in which AMA Composites is able to offer a wide range of products made with great care, quality and originality through collaborating with the best producers in the sector.
AMA Composites is placed in the market as a “full service provider”, embracing the entire development process of a vehicle, or it’s parts. It takes into consideration environmental variables, marketing tools, economic and production objectives, the ergonomic and styling aspects, as well as the relative choices regarding materials and technologies

AMA COMPOSITES IS ABLE TO SUPPLY:

3D Design & Engineering of the whole vehicle, or part of it, in collaboration with the final customer
Cabin interior furniture (in composite material such as LWRT, Vacuum thermoforming up to 3mx2m, GRP, GRIT, RTM, S-RIM-R-RIM, Thermoplastic Injection)
Steering column units complete with analogue/digital instrumentation and wiring (plug & play) and complete armrests
Sound-absorbing carpets made of PU-Fimplite or Rubber, complete and not radiant heating with carbon nanotubes
Seats and steering wheels


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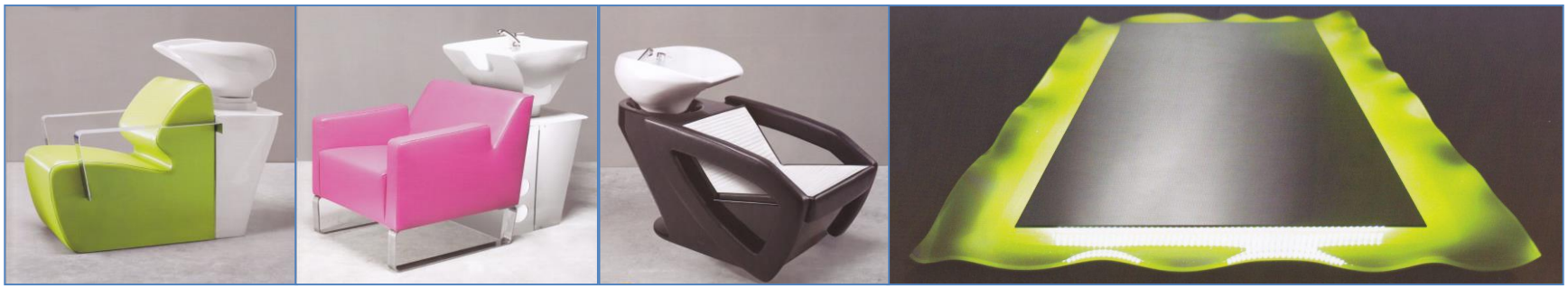
WELLNESS SECTOR – BEAUTY CENTRE

AMA Composites produces composite technologies such as GRP, RTM (also with the aid of foamed resins), Vacuum Thermoforming, Polyurethane and Thermoplastic Injection for the world of Wellness and Hair-styling, particularly related to the creation of products as structures for shampoo basins, frames for mirrors and various objects.

Among the various solutions that can be embraced in the Wellness sector through the use of our technology we can list:
Global Design & Engineering
Panels made of composite material using the LWRT technology of direct automotive derivation (up to x5 lighter than normal thermoforming), exceptional aesthetic appearance, dimensional stability in all weather conditions and low investment
Various panelling made by vacuum thermoforming up to 3mx2m with the possibility of additional saddling
Panels in GRP/GRIT and RTM with foam resin up to 30/50% lighter than conventional resins – painted in mould (gelcoat) or painted industrially
Production of models, moulds and templates



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THERMAL INSULATION SECTOR – AEROGELS

Aerogels are substances that we encounter in everyday life! Let's think about the meringues that confectioners have been preparing for years and years: the meringue is made from whipped egg whites, sweetened and cooked and holding it in your hand you immediately feel that it is warm. This is due to the fact that the air contained in the meringue is trapped in millions of microscopic bubbles.
Just as in the case of amorphous silica aerogel, the air contained in the meringues cannot therefore circulate and exchange heat and in this way, becomes an excellent thermal insulator. The first molecules of Aerogel date back to 1931, when Steven Kistler of the College of the Pacific in Stockton in California discovered the secret to dry the gel to avoid it collapsing.
By bring the liquid to the supercritical state, and therefore to supercritical conditions both the temperature and the pressure, the pressure is slowly decreased. The supercritical fluid is then expelled from the gel without the destructive effects due to surface tension.

What remains is an Aerogel, today the lightest solid substance in the world together with graphene, composed of 98% air and 2% amorphous silica, the main component of glass. In addition to being super-light, the Aerogel is an excellent thermal insulation and withstands extremely high temperatures.
Aerogel is a type of synthetically amorphous silica that stands out from crystalline silicon.
Synthetically amorphous silica has no effect on health – as stated by the OECD (United Nations' Organisation for Economic Cooperation and Development) – compared to crystalline silicon that can cause respiratory diseases such as silicosis. In order to make the most of the extraordinary thermal characteristics of the product, a system has been patented in order to "trap" the Aerogel inside a fibrous structure, guaranteeing the same insulation potential without renouncing the ease of handling and transforming the product.
The products based on Aerogel has demonstrated and guaranteed the maintenance of thermal insulation performances even under important mechanical stresses. This allows the material to be used even under conditions of permanent and/or dynamic loads in absolute safety.

BUILDING & CONSTRUCTION

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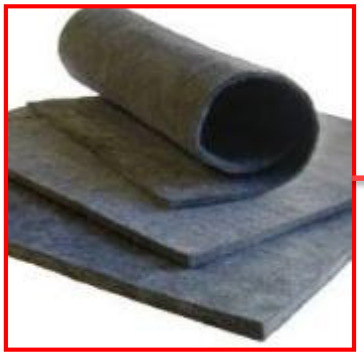
AEROGEL

1930s

Aerogels invented

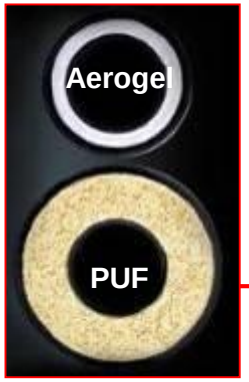
1993

Aerogels for spacesuits



1995

Aspen makes fiber-reinforced aerogels



1997

Aerogels offshore

1999

Pyrogel 6350 created for the petrochemical processing industry

2001

Aspen Aerogels born

2003

Plant 1 opens

10 MM sqft capacity

2005

2007

Plant 2 opens

100 MM sqft capacity

AMATHERM RADIANT FABRIC SECTOR

AmaTherm® is a conductive fabric designed to product electrical resistances capable of producing a diffuse and homogeneous heat on large surfaces. It is composed of a continuous conductive metal wire and from glass filaments with non-textured continuous yarn.
It can be used for a large number of applications, from 12-400V and, maintaining its characteristics of electrical insulation, withstands temperatures up to 250°C.

AmaTherm® is able to offer electrical insulation up to +200°C for continuous use. These features make AmaTherm® extremely suitable for use even in the most demanding applications.

Semi-finished products with different degrees of insulation
AmaTherm® can be supplied as a simple fabric or can be coupled with different materials to meet different application needs. It can be laminated with silicone rubbers, EPDM or with insulating fabrics, thermal insulation, glass, metal, wood, ceramic, etc.
AmaTherm® is available in various heights of standard fabrics with different electrical characteristics.

AMATHERM RADIANT FABRIC SECTOR



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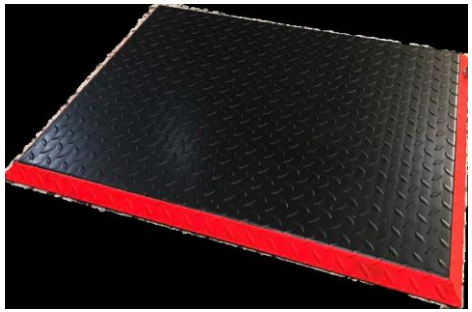
AMATHERM RADIANT FABRIC SECTOR









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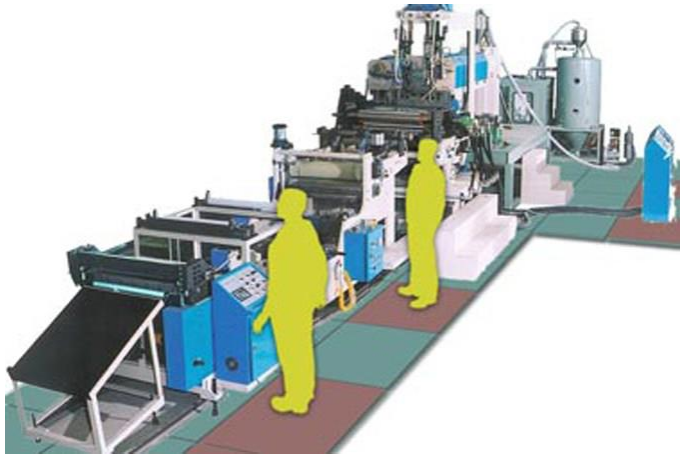
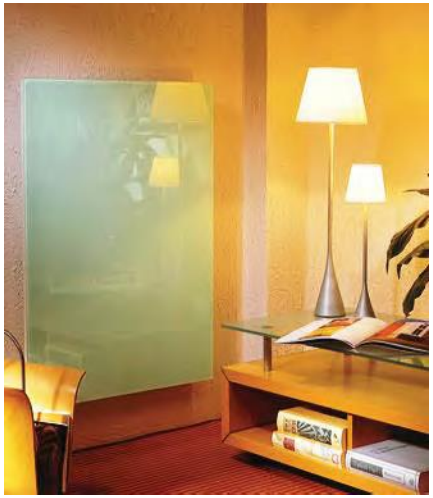
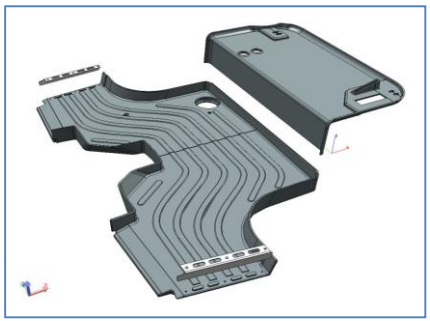
AMATHERM RADIANT FABRIC SECTOR







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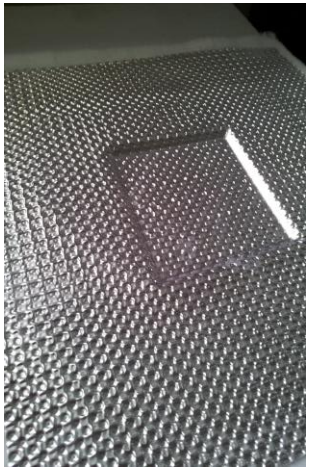
THERMAL SHIELDS – REPAIR HEAT AND INSULATION
CRYOGENIC SECTOR / REFIRGERATION

Operating successfully for years in the vehicle components sector, AMA Composites deals with all the stages of processing: from design to prototyping, from production to testing of a wide range of heat shields through AEROGEL for the industrial and automotive sector with profile in aluminium, in steel and in composite material, that is in fibreglass coupled with an aluminium foil, a product particularly suitable for mufflers and the bonnet.
The AEROGEL has an exceptional thermal insulation capacity and a very low thermal conductivity that is guaranteed at all temperatures (-200°C to +650°C), due to its Nano-porous nature, which also gives it a good lightness. Thanks to its versatility, ease of installation, its incombustility and its total hydrophobicity, it finds one of its major applications in the industrial sector in the cryogenic sector, where super-cooling gas performances are required, showing its innumerable advantages both in application site and in use.

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SERVICES

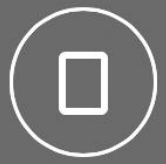
DESIGN | ENGINEERING | RESEARCH & DEVELOPMENT

The AMA Composites Team is able to carry out all the phases of design, prototyping up to the series production of the component.
Our engineers can customize every single part, creating ad-hoc projects for each customer.
For years, in addition to producing high performance thermoplastic materials and integrated plug & play solutions, such as steering column module assemblies, roof module assemblies and complete integrated armrest solutions, we have worked in industrial design for different production sectors. Our passion for Design, Creativity and advanced Technology are the components that characterize our work, from concept to product realization.

Having numerous and well-trained staff, both internal and external, the best and most up-to-date software on the market today and a network of very highly qualified companies, we are able to carry out projects of different complexity and offer our customers the complete product package
Our working methods demonstrate a close integration between the various process phases, with constant communication with the customer and awareness of the project timeline: the target is the reduction of the time-to-market and the whole quality of the product.

Design & Engineering

Modellazione 3D



Prototipazione

Produzione seriale

Soluzioni integrate Plug & Play

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AMA COMPOSITES PRODUCTION

STRUCTURAL COVERINGS | AESTHETIC SOUND-ABSORBING COVERINGS | AESTHETIC SOUND-DEADENING COVERINGS | PLASTIC COVERINGS | HEAT SHIELD | INTEGRATED ASSEMBLIES | SEATS AND STEERING WHEELS | INTEGRATED ARMRESTS | COMPLETE STEERING COLUMN UNIT AND ASSEMBLED DASHBOARDS | INTEGRATED A/C MODULES | ANALOGUE AND DIGITAL INSTUMENTATION

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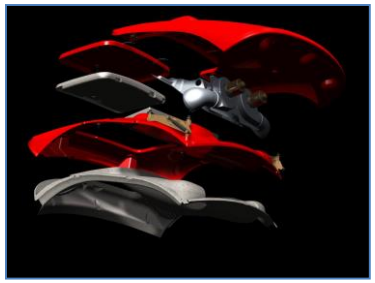
PRODUCTION OF STRUCTURAL COVERS

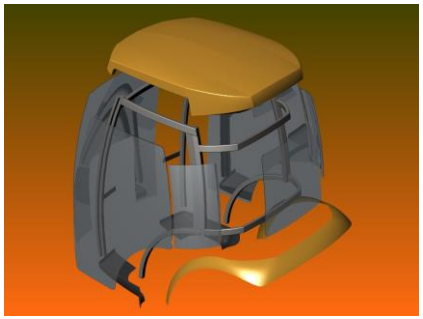
AMA Composites designs and manufactures structural coverings and body components, with production processes that do not require additional and costly painting processes because the colour and gloss of the aesthetic surface is obtained from gelocoat in the mould or by means of ABS / PMMA preventively thermoformed support.

It is also possible to co-mould inserts and metal structures. The CNC finishing and cutting guarantee both precision and extreme production flexibility.









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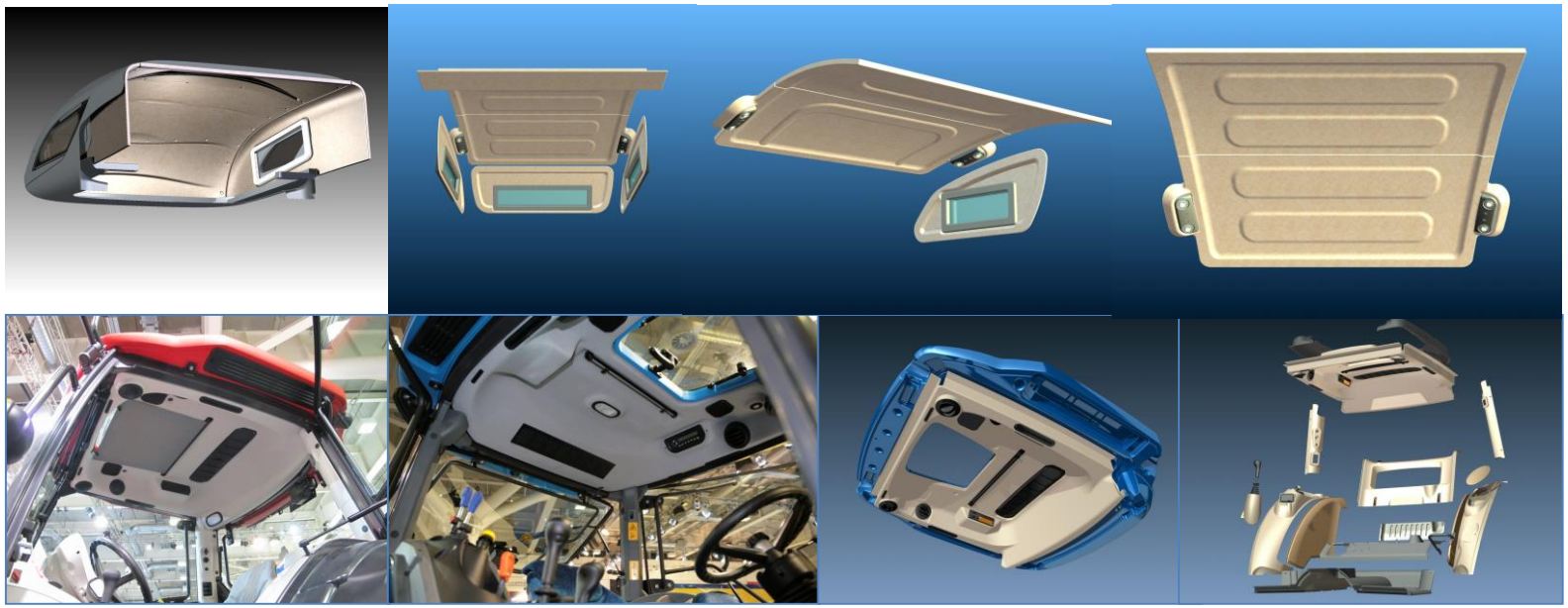
PRODUCTION OF AESTHETIC SOUND-ABSORBING COVERINGS

Ultra-light – LWRT technology

Focusing on acoustic comfort (e.g. Inside a vehicle cab) AMA Composites has developed various technical solutions to create aesthetic coverings characterised by excellent soundproofing properties, excellent resistance to chemical agents, high rigidity and super light-weight.

These products, made with the LWRT technology based on the thermocompression process of a mat that differs in terms of type and size of fibres of which it is composed, which can by synthetic or natural, additivated with epoxy resins, components and fibreglass.



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PRODUCTION OF AESTHETIC SOUND-DEADENING COVERINGS

Using high-pressure injection machines, AMA Composites has developed a line of high-density polyurethane saturating and damping components with or without mineral filler. To these elements, it is possible to co-print different types of inserts to improve thermal insulation and sound absorption.

From an aesthetic point of view, the surface of the sounds-deadening carpets can be smooth, embossed or with a specific texture customized according to the customers' requirements, which can also include any embossed graphics and customizations.

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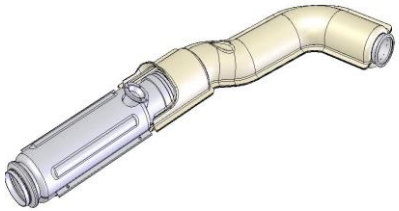
PRODUCTION OF PLASTIC COVERINGS

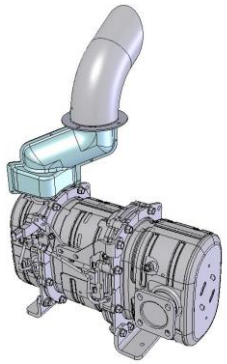
Through the thermoplastic thermoforming and moulding process, AMA Composites produces single layer aesthetic coatings with various types of materials, ABS, HDPE, PP TPU and double shell structural components, characterized by an external shell in ABS/PMMA combined with a structural adhesive inner layer of ABS.
This type of component can be reinforced with metal structure and inserts.

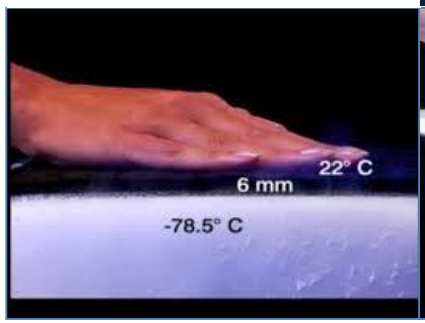
AMA Composites is equipped with computerized process control systems, capable of transforming slabs with a maximum dimension of 3000mm x 2000mm and a thickness of 10mm. Finishing and cutting is carried out by CNC which guarantees dimensional precision and flexibility in the management of cutting variants.

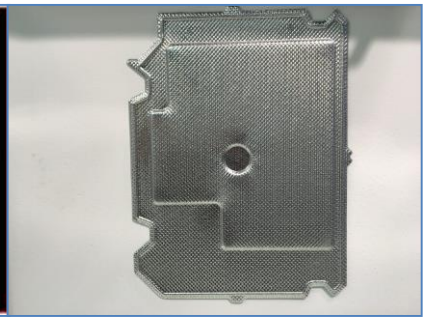
HEAT SHIELD PRODUCTION

Settore Automotive – Off Highway-



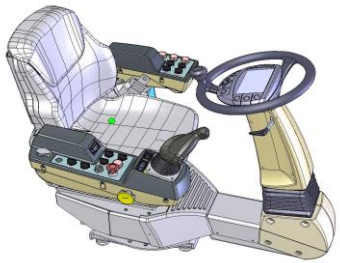


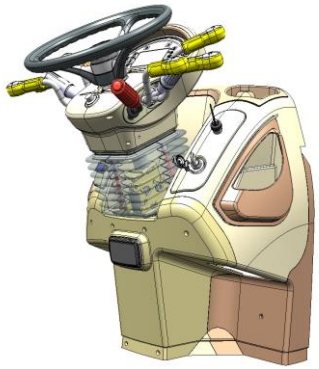




PRODUCTION OF INTEGRATED ASSEMBLIES FOR SLOW MOVING VEHICLES

Plug & Paly solutions .







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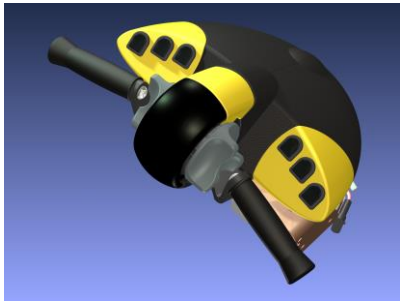
PRODUCTION OF COMPLETE STEERING COLUMN UNITS AND ASSEMBLED DASHBOARDS

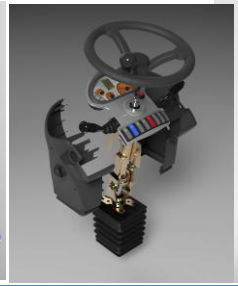
The assembly of the steering column module assemblies, represents the vehicle's reliability and functionality.
The AMA Group, surpassing the concept of a single company and making the IMEL and Pertex divisions work together with the company, AMA Composites is undoubtedly one of the most interesting global companies for this type of product.

The steering unit will therefore be equipped with the steering column previously studied on the customer's specifications, the relative plastics, the instrumentation (if necessary) and also including wiring and all the accessories that are part of the assembly.
In addition, the vocation to design, combined with the ability to transform ideas into projects and projects into products, come together to assist the customer and start from the concept up to the final industrialisation of the product







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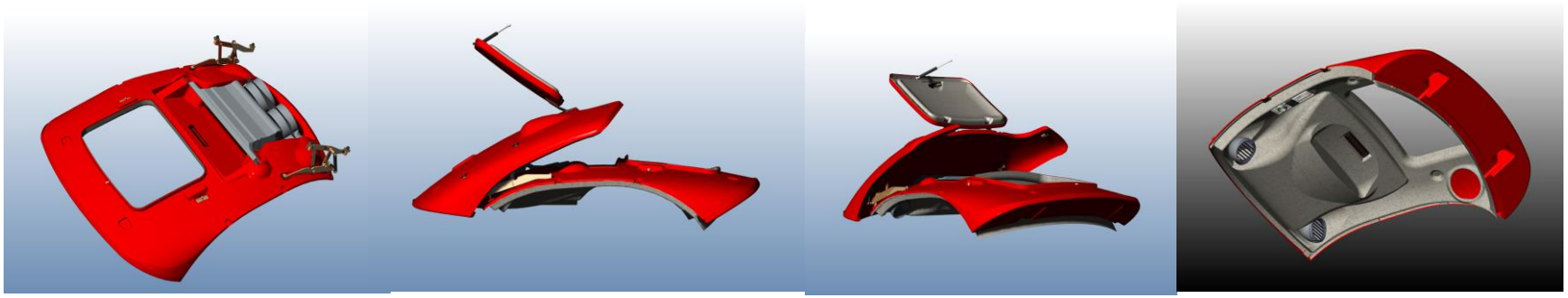
PRODUCTION OF INTEGRATED A/C MODULES

AMA Composites is able to develop, for tractor manufacturers, pre-assembled systems of roof modules, including roof A/C systems (collaborating with the best manufacturers) in addition to the external body (which can vary from thermoformed ABS/Rotational – RIM – etc..) to the internal finish (imperial, air vents, rocker switches, radio, A/C control system, wiring, etc.).
This solution is suitable to guarantee greater speed in the final assembly of the modular roof to the cab.
Time-to-market is reduced by 75% compared to an on-site execution.



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PRODUCTION OF ANALOGUE AND DIGITAL INSTRUMENTATION

The AMA group, through the AMA Instruments division, takes care of the entire design, aesthetic and above all the technological development of the control instrumentation.
The AMA Instruments product range consists of three main families that contain hundreds of variations compared to the size and information composition:
Standard products: diameter 52 instruments applicable to all types of sensors currently on the market, diameter 80 instruments with the possibility of having the hour counter on board, the versatile quick diameter 100 line to mount the hour metre of the kilometre's counter combined with a maximum of 11 indicator lights and alarm or an additional instrument. 50x100 lines for the insertion of 2 standard instruments or, optionally, for a combination of hour metre, analogue instrumentation and 4 indicator lights, the 100x100 line for the same configuration of the diameter 80 or the 50x100 with the possibility of greater combinations.

Custom Products: Tools able to offer the widest possible customisation by the customer, not only in the graphic aspects and for the choice of the type of instrumentation to be inserted, but also with regard to realisation with LCD display specifically designed following the customers' requirements, with the possibility of connection to the main automotive BUSs available on the market.

Advanced Products: Virtual instrumentation on a graphic screen with the possibility of connection on the Automotive BUSs and with the integration of sophisticated control logics that confirm the research activity and the attention paid to the advantages brought by the application of new technologies.

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AMA COMPOSITES TECHNOLOGIES

VACUUM THERMOFORMATION | LWRT | GRP – RTM – GRIT
SRIM | THERMOPLASTIC INJECTION MOLDING | HD-PUR
AEROGEL – SUPER INSULATION MATERIALS | CNC ROBOT – FINISH

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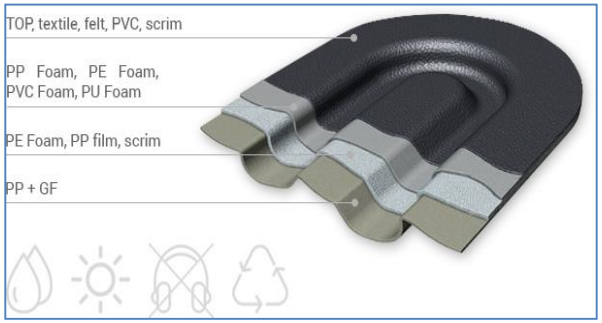
VACUUM THERMOFORMING TECHNOLOGIES

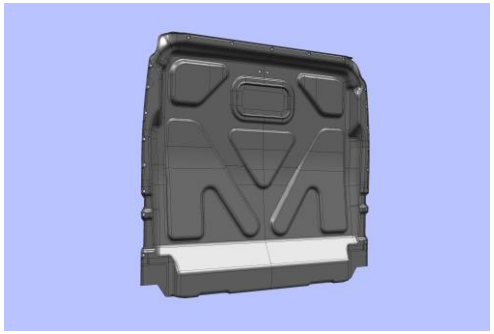
Vacuum thermoforming is a technique of molding hot plastics from slabs and is, without a doubt, one of the oldest and most common methods of processing plastics. The materials used are Abs, Polystyrene (Ps), Transparent PETG and POLYTHENE, Abs + Pmma (methacrylate), Abs + Tpu, Polycarbonate (Pc).
The range of colours available is wide and the surface of the thermoformed products can have a smooth, rough and coarse finish. The molding department is made up of several single-stage and rotary thermoforming machines, with automatic, semi-automatic and computerised control. The maximum size of the mold holder plate is 3000mm x 2000mm.

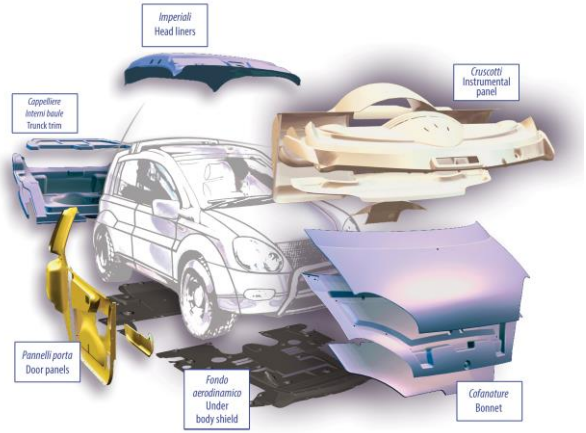
LWRT TECHNOLOGIES (Light Weight Reinforced Thermoplastic)

LWRT Technology was born in the late 90s in the automotive sector, with the intent to remove weight and cost in different automotive components, while maintaining excellent durability, soundproofing, heat management, corrosion resistance, as well as high stiffness and strength to the shocks. These are solid materials, combined with each other, in order to offer the final customer, the specific properties they require. They consist of a base consisting of fiberglass and thermoplastic resin (PP, PC, etc.) with a density ranging from 600 to over 2,000 gsm (gr/m2), thus ensuring maximum flexibility of choice as regards the mechanical resistance; subsequently, through low pressure thermos-compression, we can combine the above base, with different external materials (sandwich) such as PVC and TPO.

Fabrics with or without PU, Non-woven fabrics, Microfibres, etc., ensure an aesthetic and qualitative impact of the highest level. The cutting and finishing is performed by a 5-axis water cutting robot. The approximate maximum dimensions of the pieces that we can print with this technology is 1,500mm x 2,200mm.
This technology is the best solution for the production of large parts for the automotive industry (imperial, door panels, dashboards, trunk interiors, aerodynamic bottoms), but can be used with excellent results in areas such as recreational vehicles, tractors, earthmoving machines, combine harvester, forklifts and special machines.







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GRP TECHNOLOGIES – RTM –

We produce structural coverings with different technologies:
GRP/RTM and foamed Resin (through our Ukraine office)
Plug & Play solutions complete with metal inserts, grigliet, etc.
..

The quality achievable is good if we consider in fact the cost of the investment that is modest, while the production cycle is quite high.
Technology suitable for 50/500 pcs year.

SRIM (Structural Reaction Injection Molding) TECHNOLOGIES

This process, which represents a valid alternative to RTM (Resin Transfer Molding) combines reinforced fibrous materials (FRP) with PU of specific density, combined or not with a pre-formed 2mm (variable) layer of ABS + PMMA. These composite materials have different characteristics that vary depending on the type of individual FRP and determine its field of application.

The advantages of this process are an excellent resistance to UV rays combined with ABS + PMMA, the possibility of reinforcement by ribs, inserts and fixing points and guaranteed dimensional accuracy. This technology finds its main application in manufactured goods where a high-quality aesthetic surface is required combined with factors such as lightness, solidity and impact resistance. The main applications are external roofs for agricultural, earth-moving and industrial machinery and various enclosures also in the industrial field.

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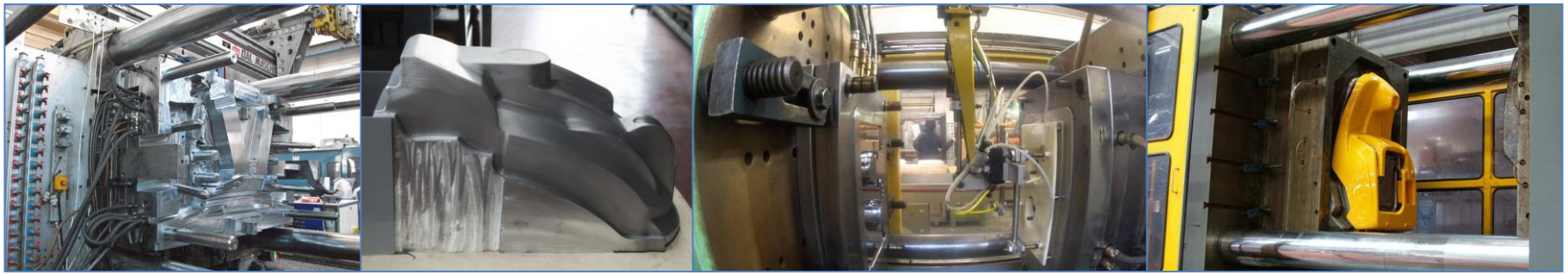
THERMOPLASTIC INJECTION MOLDING TECHNOLOGIES

Injection molding is an industrial production process in which a plastic material is melted and injected under high pressure into a closed mold, which is opened after cooling the product. This technology is the most common for the production or large-scale plastic objects at reduced prices. The quality that can be obtained is decidedly high considering the cost of the product, the cycle time and the constant and precise reproducibility of the piece.

AMA Composites has several thermoplastic injection machines with manual, semi-automatic and computerized control, up to a maximum of 1,500 tonnes.



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HD-PUR TECHNOLOGIES

We manufacture polyurethane mats (with or without additional additives and foams) for interior cabins, both in agriculture, construction and industrial applications, where acoustic reduction and vibration, combined with a high-quality appearance, play a key role in the development of the project.

Properties and characteristics: comfort and softness, support and resistance, hygiene, high flexibility, noise and vibration absorption. The mat structure can be reinforced by inserts and additives to achieve the desired stiffness and hardness.
We can also combine our AMATHERM radiant technology to make the carpet a real heating element. Ideal for electric vehicles.

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CNC & WATER JET ROBOT TECHNOLOGIES

The finishing is performed by means of several 5-axis CNC cutting robots of the latest generation or through 5-axis waterjet and also assembled on request all the parts processed by the departments using ultrasonic gun and bi-component glues (also used for plastic-metal).




THANK YOU FOR YOUR ATTENTION

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