

TAMA®
G R O U P
Trento • Lyon • Barcelona



A N T I P O L L U T I O N S Y S T E M S



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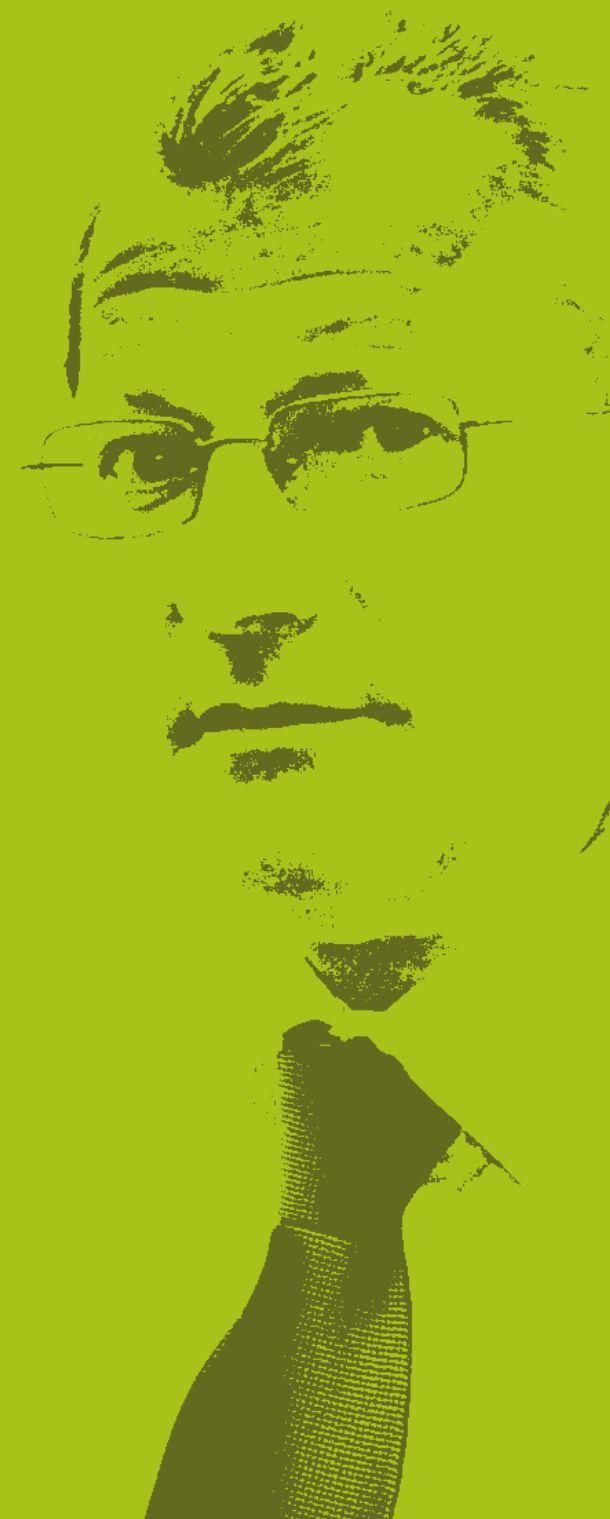
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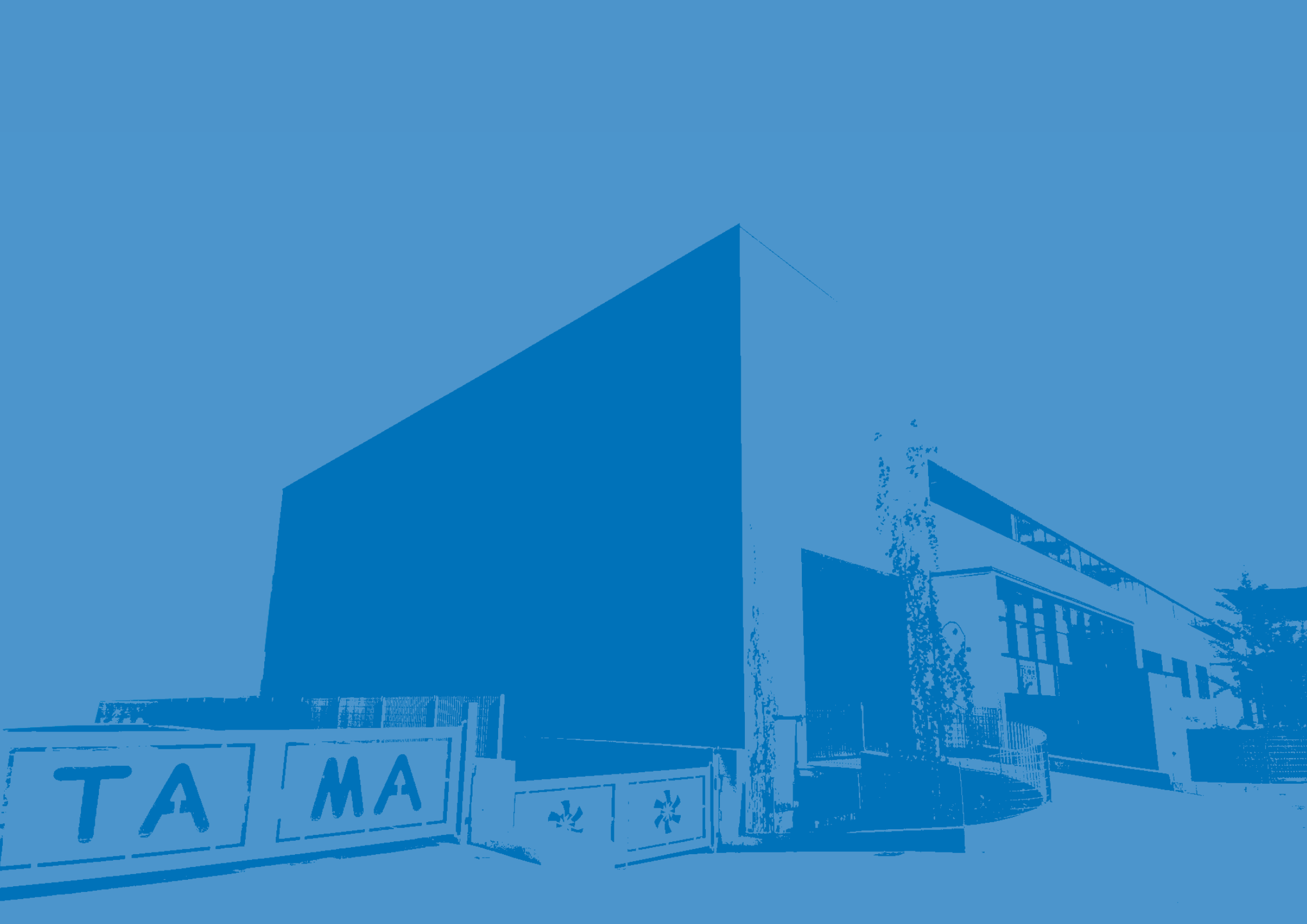


**“Living in a healthy environment and breathing clean air are inalienable needs of man.
Working with respect for the environment is an obligation”.**

Inspired by this principle, I established Tama in 1985, which is a company that has always followed this guideline since its foundation in order to establish its position in the market. This principle is shared by everyone who works at my company as well as by everyone who come into contact with it. Respect for the environment was just as important then as it is today. And it will be increasingly so as society evolves. It is for this reason that Tama is committed to constantly studying innovative and advanced applications in order to create a better future for our environment.”

cav. Giovanni Coletti





01. company history

Advanced Technologies Environmental Improvement

Tama is a company located in Trentino, which was founded by Giovanni Coletti in 1985, whose main line of business is the production of filtering units, components and systems for air suction plants. During its first years of business, Tama focused mainly on installing intake and filtering units for small and medium sized businesses. Over the years, and with the experience it gathered mainly in the porphyry and wood sectors, Tama started to fully produce its own systems, enlarging its business sector to collecting atmospheric pollutants

in metal working and mechanical engineering, pharmaceutical, food, chemical and painting industries as well as in companies that process sheet metal, plastic, cement and any other productive sector with the need to install dust and gas collection systems.

In 1990 Tama changed from an S.n.c. to an S.r.l., which considerably reinforced its industrial capacity. During that period, for logistical and space-related requirements, Tama moved its offices from Tuenetto to the industrial area of Mollaro in a new building.

Tama France was established in 2002 and is headquartered in Saint Quentin Fallavier - Lyon. Tama Ibèrica was established in December 2006 and is headquartered in Barcelona. Due to its position, together with the French and Italian offices, it helps ensure an optimal European distribution network.





Tama S.p.A. plant | year 1990



year | 2003

At the end of the 90's, the company decided to increase its market competitiveness and started its winning strategy. Business was targeted towards designing and producing filtering units instead of fully producing the entire system.

In this way, many companies who were previously direct competitors became Tama's main customers, as Tama proved to be a highly specialised supplier with exceptional professionalism, experience and product quality.



year | 2012

In May 2005, Tama changed from an S.r.l. to an S.p.A. and transferred its heavy structural work business to a new building next to the main production unit in order to separate the noisiest production activities and concentrate them in a single production department. In 2008, assembly and storage were transferred to another new area, located next to the two existing ones. Currently, the Tama headquarters covers an area of 9500 m².









02. the heart of Tama

Tama's strength is people who work for it

Tama's heart and force is represented by its employees. The Chairman has dedicated each award that was received, every goal that was reached and each result that was obtained to them.

Tama is a very young company, and its employees have an average age of 32. For this reason, a specific apprentice training program has been offered over the past years. Tama is in fact one of the few companies in Trentino that decided to provide in-house training, organising meetings with apprentices so they can interact with various company managers

who have teaching roles. This training is also offered to all of Tama's employees, guaranteeing refresher and regular professional training courses.

A human resource development program was started in 2001, which made it possible to considerably limit the amount of personnel turnover while helping many employees grow professionally and take on roles with responsibility. Based on the company policies and strategies that have been implemented over the past years, company employment practically doubled during the period 2001-2005.

To promote learning opportunities, the company evaluates the possibility of internal job rotation in order to increase the skills and professional abilities of all its employees, with the advantage of having multiple people being able to carry out multiple activities.







Tama S.p.A.
Group,
March 2010



03. Tama's main products

Tama put into action the plans of its customers

Sectors of application:

- > METAL WORKING
- > MECHANICAL ENGINEERING
- > CEMENT
- > PAINTING
- > PLASTIC
- > ENVIRONMENT
- > SANDBLAST
- > GLAZING
- > FOOD
- > CHEMICAL
- > PHARMACEUTICS

All TAMA products are subject to machine directive 2006/42/EC. Since 2003, Tama has started to produce filtering units intended for use in manufacturing areas with potentially explosive atmospheres, which required the implementation of a series of procedural, process and training requirements.

TAMA's main product categories are as follows:

- > BAG FILTERS
- > CARTRIDGE FILTERS
- > OIL MIST FILTERS
- > WET FILTERS
- > ACTIVE CARBON ADSORPTION FILTERS
- > CYCLONE SEPARATORS
- > FILTERING SUBSTATIONS
- > STORAGE SILOS
- > CUTTING TABLES
- > ARCHIMEDEAN SCREWS, EXTRACTORS, ROTARY VALVES
- > SOUNDPROOFING BOXES
- > DRY ENAMELLING BOOTHES
- > TUBING AND PIPING

These filtering units foresee the issuing of a specific CE conformity declaration according to European Directive 94/9/EC - ATEX.

Tama offers different equipment solutions and electrical and non-electrical protection systems that can be used in atmospheres with potentially explosive dust/air mixtures. Tama also provides safety, control and regulation components and devices.



Cartridge filter for fumes and dusts suction generated by thermal cutting



Filter for wet abatement



Bag filter for abatement of dusts and fumes generated by grinding and welding + Active carbon adsorber for absorption



Cartridge filter for powdercoating extraction



Cyclone separator



Atex bag filter for carpentry lab in vocational school



Cartridge filter for food industry



Portable cartridge filter for dusts extraction generated by industrial sandblasting



Bag filter for aspiration of metal dusts from draw-benches



Bag filter for sanding dust extraction from wood processing



Filters for oil mists extraction from mechanical lathes



Cutting shuttle table with automatic swap system



Filter for welding fume abatement



Cutting table for dusts and fumes extraction generated by flame cutting and plasma treatments



Active carbon adsorber for solvent abatement



Bag filter for dusts and fumes extraction from waste



Atex cylindrical cartridge filter for food and drug industry



Silos for shaving abatement and storage



Bag filter for cement dust extraction



Ceramic tube filter for fume extraction from animal carcass burning oven



Active carbon adsorber for solvent abatement and bag filter for fumes extraction generated by bram cutting



Soundproofing booth



Splitter attenuator



Galvanised piping



Piping with inner wear lining



Expulsion terminals with attenuator



Galvanised piping



04. partnership and development

Looking for new opportunities

KAI ZEN:
IMPROVING BY CHANGING

IN TAMA PROBLEMS ARE OPPORTUNITIES FOR CHANGE

KAI = change
ZEN = good

STOCK VALUE:
-50%

FREED SPACE:
+37%

LEAD TIME:
-70%

Since 2011 Tama has started a continuous improvement process; in this context it has identified the Kaizen method as an ideal tool, where **suppliers and customers become partners** for business development. This experience isn't just a way to create new opportunities, but also to spread a new vision, in which problems themselves are seen as opportunities.

The shared work organisation and the reduction of activities that create no value for the customer (MUDA)

have allowed to achieve excellent results. In the first three months of the "Gemba Kaizen" workshop we have achieved important results:

> **The stock value** (raw materials, semi-finished products, finished products) has decreased by 50% thanks to the redesign of the material arrangement systems.

> **The total production space which has been freed** amounts to 37%; this result has been achieved by adopting the "PULL" logic: pro-

ducing what we need, when we need it", thus avoiding useless material stocks, occupying valuable space.

> **The lead time** a product takes to complete its progress through the production system has reduced by 70%, by streaming each individual product (one product at a time), reducing the waiting time of semi-finished products when moving to an other department.

AND THIS IS JUST THE BEGINNING...



改善



Gemba Kaizen



Value stream map



Sheet Kanban



Production Planning

STRUCTURAL AND FLUID DYNAMIC ANALYSES

Tama works in close contact with universities, institutes and vocational schools, through agreements or conventions because it strongly believes in young people. In particular our R&D department collaborates with Trento University, even for the implementation of new projects. In order to improve the current process and to offer the customer a product providing excellent performances, Tama has started a project providing for the use of **structural** and **fluid dynamic** analyses to im-

prove its products, using the ANSYS (*Simulation Driven Product Development*) simulation software. This system allows to study in depth both the behaviour of the air flow inside the filter and its structural behaviour.

STRUCTURAL ANALYSIS

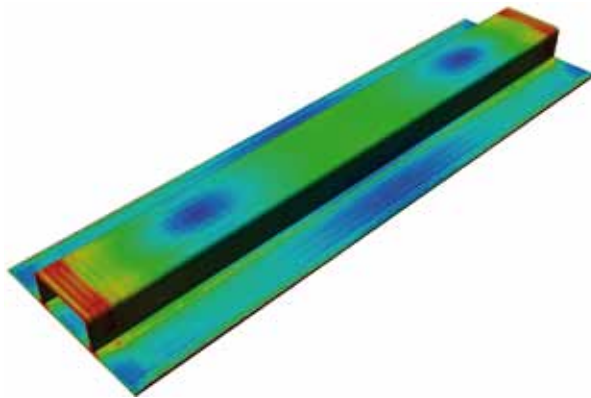
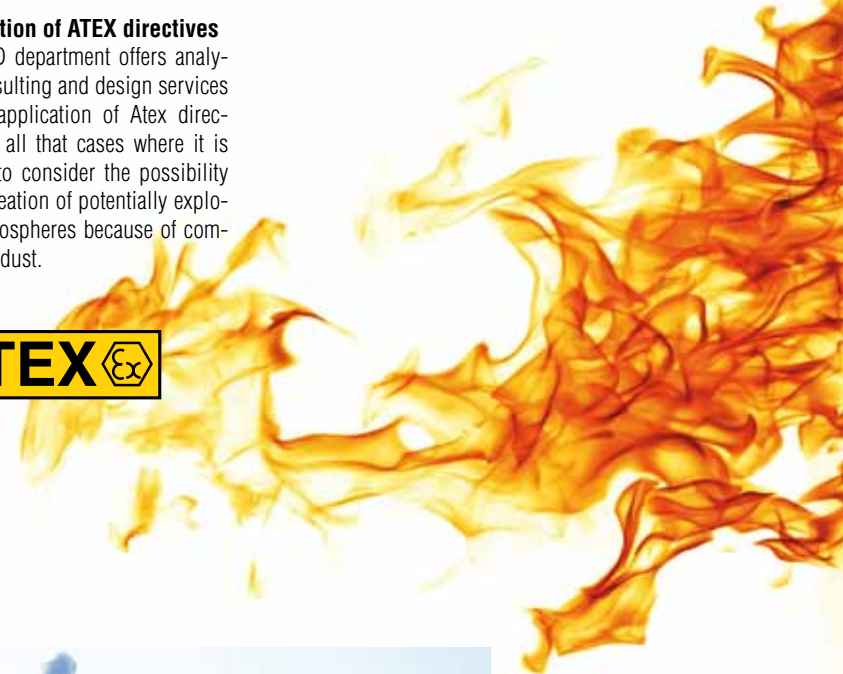
Analysis of stress constraint of material resistance (FEM - Finite Element Method).

FLUID DYNAMIC ANALYSIS

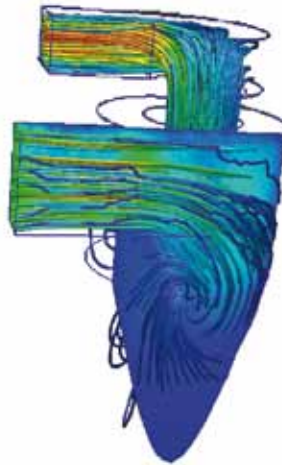
Analysis of air flow distribution, pressure change and speed.

Application of ATEX directives

The R&D department offers analysis, consulting and design services for the application of ATEX directives. In all that cases where it is needed to consider the possibility of the creation of potentially explosive atmospheres because of combustible dust.



Sample results of a structural analysis



Sample results of a fluid dynamic analysis



Results of the structural analysis of a frame

B: Static Structural

Directional Deformation

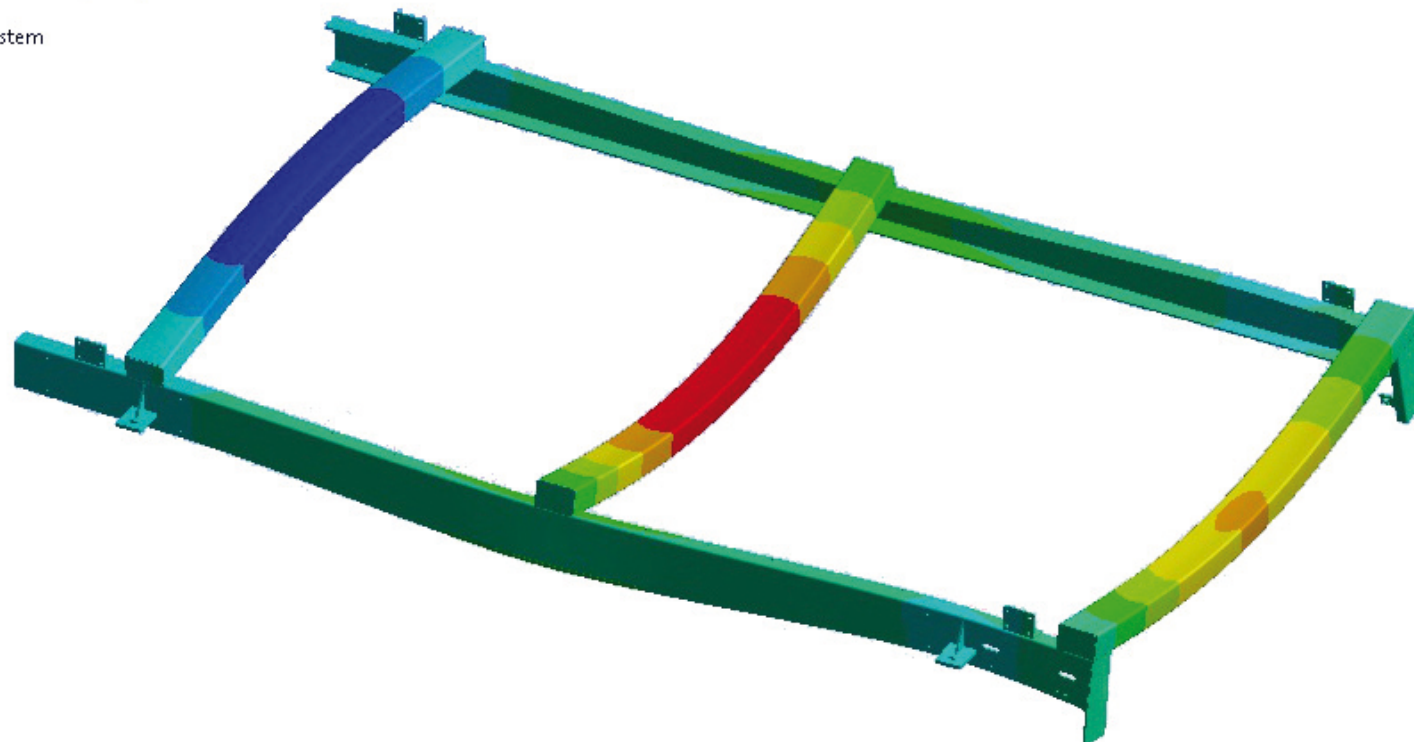
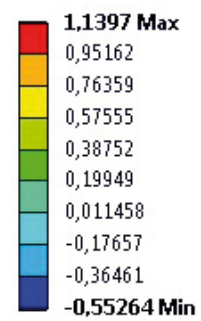
Type: Directional Deformation(X Axis)

Unit: mm

Global Coordinate System

Time: 1

02/08/2012 08:08







With the organisational expansion and the assertion of its presence in the market, at the end of the 90's, Tama structured its Management System in compliance with the international standard UNI EN ISO 9001:1994 and obtained the quality certification of "Air purification plants". In 2003, the quality management system adopted by Tama was adapted to the new edition of the reference standard – Vision 2000 – which resulted in obtaining the certification UNI EN ISO 9001:2000 for its activities of "Design and production of filtering units and components for air purification plants".

Tama spa guarantees its products through a civil responsibility insurance policy, with a maximum coverage of 5,000,000 Euro.

05. quality and environment

The quality of our products starts from the quality of our ideas

Tama also wanted to go beyond what is foreseen by the standard UNI EN ISO 9001:2000 because it is strongly convinced that quality does not only mean offering products and services that are of a high quality and appreciated by its customers, but also includes working to improve the environment as well as the quality of life of its employees and developing the territory and society in which it works. Within this scope, Tama is continuing to implement the

EFQM excellence model (*European Foundation for Quality Management*), which was developed in the early 90's and that today is adopted by more than 20,000 European organisations. Starting in 2004, Tama started to implement an Environmental Management System according to standard UNI EN ISO 14001:2004 that, although not being explicitly required by customers and by the market, was an important goal for the company.

In 2009, Tama updated its Quality and Environment Management Systems, obtaining the relative certifications UNI EN ISO 9001:2008 and UNI EN ISO 14001:2004.



Premio Imprese x l'Innovazione



06. awards

Commitment and consistency help in reaching important goals

In 2003, 2005 and 2006, Tama participated in Premio Qualità Italia (Italy Quality Award) obtaining an overall score that was considerably higher than the average score of the small and medium sized businesses that participated in the national award during that period.

In fall 2005, Tama participated in the *Premio Ambiente Trentino Alto-Adige* (Trentino Alto-Adige Environmental Award): a competition that awards the best environmental initiative carried out in the Trentino Alto Adige region during 2004-

2005. The project presented by Tama called "Water: from a consumer good to a resource" concerned the realisation of an internal system for recycling and reusing washing water and rain water, with a considerable environmental impact, eliminating the release of industrial residues to the sewer system. This project took second place in the "Legal persons" category.



Delivery of the Business Innovation Award | 2008




Delivery of the Business Innovation Award | 2009



In October 2009 Tama was invited to Madrid, to the Royal Palace of El Pardo, to the V Symposium Cotec Europa. The event is an annual institutional meeting between COTEC Italy, Spain and Portugal for the competitive development of Mediterranean Europe. The Honorary Presidents of the three COTECs, the President of the Republic Giorgio Napolitano, His Majesty the King Juan Carlos I of Spain and the President of Portugal Aníbal António Cavaco Silva were present, with an audience that included the main representatives of the business and research world in the three countries, of which also Tama was proud to be a part.



V Symposium Cotec Europa | 28 October 2009 – Royal House of Spain, Madrid

A photograph of two men in dark suits shaking hands in a grand, ornate room with chandeliers and large mirrors. The man on the left has grey hair and glasses, while the man on the right is bald with glasses. In the background, other people and photographers are visible.

In 2009 Tama received the 2009 Award on National Innovation Day at the Quirinal Palace directly from the President of the Republic Giorgio Napolitano.

The 2009 Award valorises the best innovative capabilities of companies, universities, directors, bodies or individual inventors.

Tama S.p.A. was included among those who received this honour .

“...for innovation and continuous improvement, that together with strong partnerships with customers made it possible for the company to obtain excellent results in national and international markets”.



In June 2008, Tama was awarded the Business Innovation Award, placing among the first seven Italian companies. Tama went to the Quirinal Palace in Rome to receive the award directly from the hands of the President of the Republic Giorgio Napolitano, in the presence of the Ministers Renato Brunetta, Andrea Ronchi, Mariastella Gelmini and the President of Confindustria (Italian Manufacturers' Association) Emma Marcegaglia. Tama received the *Prize* award assigned by the Jury based on the scores assigned by an assessment team according to the criteria of the EFQM Excellence Model.

Tama also participated in the Business Innovation Award in 2009, placing among the first seven companies in the Small-Medium sized business category, receiving the "*Prize*" award for the 2009 edition.



Delivery of the Awards for Excellence | Torino 2009 | acknowledgement

On the 100th anniversary of the foundation of the Italian Confindustria, the "*Confindustria Awards for Excellence Andrea Pininfarina 2010*" was established, which was held in Turin in February with the purpose of awarding the model Made in Italy company in the world, the model company of innovation and the model company that enhances the territory. Tama also participated and received a Certificate of Excellence.



The turning point that made it possible for Tama S.p.A. to obtain optimal results concerns the period of 2002-2007; a change in terms of organisation, environmental certification, application of EFQM, of market positioning, product and process innovation and internationalisation projects. The continuous involvement of customers in design and production targeted towards the detected needs made additional company development possible.



Fondazione Trentina per l'Autismo Onlus

The founder and current Chairman of Tama, Mr. Giovanni Coletti is very attached to his territorial roots. This has helped him establish and promote values within the company such as team spirit, respect for the individual, respect for the environment, respect for the customer, product quality and territorial development.

Tama is highly committed to its social responsibility towards the territory and towards the environment. Tama gives back to society by responding to the numerous requests the company receives in the form of sponsorships, free donations and support of charitable activities. Tama is a company that places great

07. Tama and its territory

An international company that always pays attention to its roots

importance on youth, sports and hardship, especially on a local level. For many years, Giovanni Coletti has taken part to the *Association of Autistic Subjects Parents of Trentino* and has been the Chairman of the Autism Foundation in Trentino, strongly supported personally by him and all his collaborators.

Tama plays a very important role on a local economic level. In the Non valley, it is among the top industrial companies due to its employment effects on the territory.

Thanks to its environmental policy, Tama has been able to invest substantial economic resources to improve the level of health of its own production processes and their environmental impact.





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