



30 Years of Automation Technology, Thanks to all of you.

In 2014, Pulsar celebrates 25 years of business in the field of engineering services, machines and automatic systems manufacturing to handle products in converting and packaging lines, applicable to various industries, among which the Tissue one.

Instead of celebrating the company, the work performed, its evolution and its success, I think it is more appropriate to quote all the people that made it possible to achieve this goal.

I introduce myself, my name is Massimo Franzaroli, born in 1958, General Manager of Pulsar srl.

These pages are going to be employed to thank everyone helped me realize my dream. Below, you will find the names and the reason for my gratitude.



I am writing this article because I am convinced it is interesting to know the origins of companies, their roots.

I have seen the creation, developing and shutdown of many companies.

I have seen the creation and expansion of districts and industries, such as the automation district for the automotive industry in the North East of Italy or the bottling district in Parma. Then I witnessed them heavy downsizing.

Today it's almost Christmas and also the day of the funeral of Nelson Mandela. I feel obliged to quote, in his honor, one of his statements:

“A winner is a dreamer who never gives up”.

This article tells the story of three decades of automation technology seen with my own eyes.

It all started back in 1983, 30 years ago, when I started working on my own and I was a citizen of the world. My city was not a place to live in, but a place to return to.

This way of approaching life and work, born from a great passion for mechanics, I could learn and develop at the Technical High School Aldini Valeriani of Bologna.

A great school that has trained a long list of entrepreneurs.

Entrepreneurs who studied in this school created the largest companies in Bologna, in the field of mechanics and electronics. I am referring, for example, to Clementino Bonfiglioli, founder of Bonfiglioli Gearboxes, to Massimo Marchesini, founder of Marchesini Group and finally the well-known Bruto Carpigiani, who in his career as designer supported the creation of automatic machines' school and then became himself entrepreneur.

Besides, I can mention Paolo Cassoli, who created the eponymous company of automatic machines for the packaging of toilet paper rolls.

There is a long list of names of entrepreneurs and technicians, who attended the first lesson of mechanical engineering at this great school.

Imagine a 20-years-old boy who left one of the best schools in the city and before enrolling at the university receives at least four job offers.

How much confusion could I have in my mind?

I have been lucky in my life; I have always found people willing to help me, who offered me great opportunities.

I would thank MARPOSS that among approximately 1,000 employees chose me to make a fascinating and unique career: I changed job and department each year for four years.

The job was an ongoing training; if I could, I would have worked also for free: it was like attending the university to become a manager or an entrepreneur.

I learned how to work in this Hi-Tech company, in a high-skill environment, multi-lingual, with branches all over the world, computers everywhere, in-house training in all languages and high competition.

This was 1979, when Marposs was the only Italian company together with Olivetti, which sold electronic measuring instruments to the Japanese, and had, and still has, a skyscraper in Tokyo, called by the employees "The Marposs Building".

I would especially thank Sergio Solaroli, Technical Director of Marposs machinery division, which in 1979 hired me and taught me to become a designer of automatic machines.

Giuliano Longhi, Technical R & D department, who taught me how to make machines, not only to draw them.

Narciso Selleri, Head of machines' department, who taught me how to win the trust of customers and deal with the branches around the world, from Japan to South America.

The experience at school, together with the experience made in Marposs, made me chase a dream: "Being able to know customers and solve their problems. Working with them to find new solutions and alternatives; innovating, transforming and improving all their automation related needs.

In summary "realizing the dreams of my customers".

My first partner was, from 1983 to 1990, MAPOR CALDART

I moved my first step as an entrepreneur managing two mandates: one as a designer, the other as a representative on behalf of a firm of Turin, Mapor Caldart, which was working for Fiat (the automotive group) to manufacture automatic assembly systems with robots and manipulators.

Mapor CALDART had a department that sold imported products.

In Europe, in those days, there were barriers between different countries and every state had its own currency.

The owner and founder was very eclectic, forward-looking. He had acquired the Italian distribution of Swedish products (Flex Link, in those days service division of SKF Bearings, which developed plastic chain conveyors to connect the different machines), the distribution of linear guides and ball screws manufactured by German companies and pneumatic units of Japanese companies.

I would thank Armando Caldart, for giving me the opportunity to start my own business and to learn how to manufacture automated assembly systems for the automotive industry.

In FLEX LINK, now belonging to the Coesia group, a special thank you goes to my former colleagues, the Division Director Mr. Laconius, who designed and manufactured for me special chains for the tobacco and pharmaceutical industries, which became a standard; the Technical Manager Björn Hamsten, for all the visits to clients we did together, having fun inventing new solutions to provide.

A special thanks is dedicated also to Mr Pasquale Berti, Technical manager of the SAPRI company of Imola (Bologna) (a joint venture between the firm Cogne, which made machines for the textile industry, and Eni), my first client in the robotics industry from 1984 to 2003.

They were the pioneers in Italy for the production of 5-axel anthropomorphic robots with DC motors and large-sized Cartesian robots.

For them I realized grippers for robots in the textile industry, grippers for welding cells, a small and fast robot with steel cables handling and stepper motors for "Ferrero Rocher", in order to package 120 chocolates per minute and many other groups and prototypes.

Unfortunately, today this company exists no more; it was acquired by ABB Italy, then sold to others and finally closed.

The first customer of the packaging industry, since 1984 to the present, has been MARCHESINI GROUP of Bologna, and I want to thank one person in particular, Giuseppe Monti, the Technical Manager.

The most demanding in those days.

The first real manager in the world of automatic machines of Bologna: he used to fix meetings early in the morning, the answers we gave were never enough for him, his technical questions were the most difficult, he was never satisfied.

He considered conveyors' components as part of the automatic machine: they had to be calculated and verified; he forced us to improve each time.

We manufactured for them, as first application, conveyor systems for L'Oreal, in France.

Currently, they are still customers of Pulsar.

Let us talk about the first customer of the tobacco industry: GD SpA, now Coesia Group. I have to thank a dear person who left this world, Eng. Antonio Gamberini, who was the technical director and the engineer Librizzi, his co-worker for handling issues.

Antonio Gamberini taught me the so-called "technical honesty", one of his famous statements was, "You cannot tell lies to the technical customer; if you do not know something, you have to admit it right away".

On behalf of GD, we manufactured the first conveyor system running from the cigarettes' warehouse to the packaging machine and many other special automation systems for cartons of cigarettes.

The first customer of automatic systems to load machine tools was BONFIGLIOLI RIDUTTORI, first installation in 1985, then collaboration until 1991.

We must thank the owner Cav. Clementino Bonfiglioli and its plant manager Mauro Ottaviani, for allowing us to realize the first autoloader of "Minganti lathes for gearboxes' gears for endless screw".

The first client who has entrusted us with the manufacturing of a complete line to handle 600 packs of cigarettes per minute was SASIB, a company located in Bologna, today belonging to the Coesia Group. Our cooperation began in 1997 and ended in 2002. We have to thank Mr Belletti, Purchasing Director, who selected us among many suppliers and offered us the opportunity to manufacture the first 50 complete lines from packaging machine output to the wrapper input.

The first customer belonging to the automatic machines' industry for electronic components (condensers and batteries) has been since 1984 and is still today, ARCOTRONICS BOLOGNA (now KEMET).

We sincerely want to thank the Production Manager Mr Fabbri. We had just opened Pulsar; we did not aim at only designing and selling, but also realizing prototypes. It was our dream. He taught us how to work with method and quality; we have developed for them the first automatic assembly line of lithium-ion batteries for mobile phones, on behalf of Energizer USA.

The first customer of automatic carton packing machines was PRB of Osteria Grande, now part of the TMC Network.

We have to thank Mr. Agostino Biagini and Cinzia Manfredini, for giving us the chance to manufacture the first conveyor system for sponges at 3M, Spain in 1985 and many other automatic systems worldwide, until 2002.

There was a broad understanding; we were their technical sales office for new and challenging projects. They also used to show our 3D drawings to submit offers to their customers.

The first system completely made in stainless steel for liquids, was realized for IMA, LIQUIDS DIVISION. We thank Mr. Gabriele Vitali, for having allowed us to realize in 2003 a system of bottle handling in stainless steel to feed the vials' filling machine.

We manufactured for BEMAK, now belonging to the CAM MARTELLI GROUP, the first vertical spiral conveyor.

We started working together in 1984, until 2002. A special thanks to Mr. Giuseppe Benassi and his son Claudio, first customer we addressed informally.

We developed the first automated warehouse for soft bottles, employed in the pharmaceutical industry and many other special units, from the capping machines to the star for the "Amaretto di Saronno" liqueur.

The first customer belonging to the food industry was Barilla SpA. A special thank goes to the Technical Director of those days. He was a great person, he had a hobby of writing poetry, we met in 1986. He had just hired a young engineer, Giuseppe Concari; they entrusted us with the design of an automatic system which fed the packaging machine.

We manufactured for the plant of Forno an automatic 5-axel Cartesian robot for loading and unloading the racks of the rusks' ovens.

In the confectionary industry, our first customer was FERRERO SpA, from 1996 to 2002. Thanks to Eng. Corrado Luigi, manager of R&D department, which manufactured prototypes of machines employed in Ferrero Engineering. He requested us to remedy a problem connected to the feeding of the tictac sugarcoated sweets line. Then, we manufactured, on their behalf, all the packaging units for the new born "Ferrero Rocher", in all their manufacturing facilities located in Belgium, Brasil, Costa Rica, Poland, Russia and South Africa.

In 1998, we met our first customer, a drugs' producer, WYETH LEDERLE in Catania, now PFIZER. We should be grateful to Eng. Orazio Garozzo and to Eng. Giovanni Mazzarino, who taught us how to realize our first conveyor system to handle and discard automatically bottles of penicillin in a sterile environment, with a frequency of 250 bottles per minute.

On behalf of TETRA PAK, Technical division of Frankfurt, we developed the first system for products in aseptic environment, in 2002.

We must express our gratitude to Eng. Philip Macini; from them we have learnt how to produce a stainless steel handling system for bottles of beer and milk running from the blowmoulder to the filling machine, in a sterile environment, with washing system and automatic cleaning.

We manufactured also the first fully automated plant for Tetra Pak cartons of wine, for a company located in Forlì called CAVIRO, in 2001.

Thanks Eng. Vitolo , Plant Manager, Mr. Domenico Dosio and Mr Alberto Zavoli and their co-operators for teaching us the techniques of handling square and rectangular cartons. They provided us the unique opportunity to realize the entire plant to handle wine, with a capacity of 920 liters per minute: the first fully automated system, running from the 8 filling machines manufactured by Tetra Pak to the palletizing.

The first 500 safety guards have been realized for AXIS SPA of Florence, now ATOP SPA. We have to thank Mr. Moreno Santini and Giuliano Ricci, for helping us to realize all the safety guards for their plants which produce electric motors, exported all over the world. This experience improved substantially the technical skills of Pulsar's technicians.

The first systems for blow molded containers for UNILOY COMEC SpA of Florence. We want to acknowledge Eng. Faraoni, who selected us for the manufacturing of their automatic loading and unloading systems for blow molders of plastic containers.

In 1998, we had another great opportunity: the Italian tissue producers of Lucca chose us to implement their new handling and conveying systems. Therefore, we could combine our expertise to their needs and provide new insights in the world of Tissue.

In Lucca, I found values that did not exist in other parts of the world. Lucca resembles a feud; it is closed, but if you have the possibility to explore it, you can find a fantastic world with great values and contrasts.

The enthusiasm of the paper industry entrepreneurs in Lucca gave us the incentive and the courage to face new challenges.

With our curiosity and desire to learn, it was like entering a new world, where we could answer questions by using our large archive of solutions, employed for different industries. In this way, we found new solutions and applications for the Tissue industry.

In accordance with their requests, we produced:

- In 1999, conveyor systems with 5 years warranty for chains we manufacture,
- In 1998, compact diverters for double branch packaging line,
- In 1999, Software for the supervision and management of the whole converting line, including all machines, from the rewinder to the palletizing, also if not supplied by Pulsar (Reds Systems Harmonizer Software)
- In 2000, we introduced the concept of ergonomic, compact and integrated layout
- In 2003, components suitable to work without maintenance, in environments with a lot of dust, such as Tad paper.
- In 2006, conveying systems with automatic adjustment
- In 2008, Software, which simulates the converting line functioning and the related costs, called PLS

Today, proudly, we can express our gratitude to those who trusted us in Tissue industry. We have filed 25 patents and installed 270 complete plants providing with our technology 18 production plants in Europe. We are now working on the next generation of systems and solutions, which will be launched into the market shortly.

Finally, I cannot forget to say THANK YOU to Angelo Del Carlo, director of the Giuseppe Lazzareschi foundation, who in 2006 believed in our idea to create an event focused on people.



He helped us to organize the first edition that we called "Technology & Passion Award".

The idea came up like this article: we felt the need to say "thank you" to the people and not to companies; to acknowledge those who have raised problems to be solved and that together have been solved and realized.

The first edition was held in 2006. In 2009, we created the Club Technology and Passion, based on this idea of success.

A heartfelt thanks to all the readers. If you are curious, next year I will retrace with you the last 10 years of activity, celebrating together the 25 years of my dream.

Massimo Franzaroli