



Massimo Fioravanti was born in Milan in 1967. He has been the Managing Director at Brizio Basi since 2007. Before he had a position of Technical Director at Alfa Metal Corporation, and Technical Specialist at Elettromeccanica Santagostino.

He obtained Master of Business Administration (MBA) degree from SDA Bocconi in 2006, a Degree in Mechanical Engineering from Politecnico Milan in 1990, Electrical Engineer Diploma from Technical Institute ITIS Alessandrini, Milan in 1985, and Mechanical Designer Diploma also from Technical Institute ITIS Alessandrini, Milan in 1983.

MASSIMO FIORAVANTI MANAGING DIRECTOR AT BRIZIO BASI & C

Oil treatment specialist

The company BRIZIO BASI & C is a globally recognized, innovation-oriented leader in vacuum technology. We have been specifically recognized in the field of transformer oil treatment. The company was established in Milan, Italy, in 1930 by the engineer Brizio Luigi Basi.

In the beginning, the company's activity consisted of producing vacuum pumps for industrial applications. Later, our engineers introduced products for several markets, making sectors in which we operate nowadays manifold, even as we are best known for transformer oil treatment systems, and increasingly, in reference to the Industry 4.0.

BRIZIO BASI is a globally recognized innovation-oriented company for vacuum technology, particularly in the field of transformers as an oil treatment specialist

tems DOV, Fuller's Earth oil filters and Vacuum groups.

Oil treatment and purifier systems
DOV are vital for extracting humidity and gases from the oil, in order to achieve the highest dielectric properties and avoid electric discharges. With DOV we use a special method to achieve thin oil film under vacuum and, in this way, impurities are easily extracted.

Fuller's Earth oil filters are used to remove acids and soluble surface contaminants by adsorption. Treatment that uses Fuller's Earth will increase the oil IFT (Interfacial Tension) and reduce the PF (Power Factor) to the desired levels.

Vacuum groups are used to create vacuum in the transformer tank.

Our customers are market leading producers of oil-filled power and distribution transformers, energy producers and distributors, as well as service companies that use our systems to make the treatments on site where the customers need them. We sold more than 600 systems all around the world to customers such as ABB, SCHNEIDER Electric, SIEMENS, GETRA, IRAN TRANSFO, TAMINI, ANSALDO ENERGIA, FARATEC, TERNA RETE ITALIA, ENEL, ENI, SNAM, AL SAFAD, NIDEC, CARLO GAVAZZI ARABIA, ALUMINIUM BAHRAIN, ELETTROMECCANICA TIRONI, GECOL, SEA MARCONI, SHELL, Ducati, Brembo, FCA Group, Piaggio Group, Same Deutz Fahr, Prysmian Powerlink, but also Zambon, ACS Dobfar, Menarini, Sigma Tau and many more.

DOV - market leading technology

Products for transformers market include: Oil treatment and purifier sys-

Due to the quality, durability, innovation, smart solutions and service, our systems are the top products available on the market. Hundreds of systems sold globally and the satisfaction of our customers, that in many cases have more than one BRIZIO BASI oil treatment system, Fuller's Earth and vacuum pumping groups, confirms this.

In fact, thousands of systems using Brizio Basi vacuum technology are installed all over the five continents, demonstrating the validity of the solutions implemented in response to the numerous and diversified industrial needs.

Innovation is our legacy

The history of our company is full of unique achievement based on innovations in different fields, which help and inspire us to develop for future. Brizio Basi is one of the first ASSOLOMBARDA members since 1944. Assolombarda is the largest entrepreneurial association in Italy, nowadays a part of Confindustria, Italian Entrepreneurial Association. Between 1952 and 1954, Brizio Basi set up products subject to technological innovation in the physics experience classroom of the Leonardo da Vinci Museum of Science and Technology in Milan.

In the 1970, Brizio Basi began a collaboration with ENEL for the design and construction of vacuum treatment plants for insulating oils essential for the production of transformers, switches, joints, etc.

Our products for energy market include oil treatment and purifier systems DOV, Fuller's Earth oil filters and vacuum groups



The years from 1980 to 2000 were the period of the greatest development in all sectors, from pharmaceutical industry to energy industry, when the company had over 100 people, including technicians and engineers.

In 2007, Brizio Basi created the largest and most modern vacuum drying and filling plant for distribution transformers for Getra. 2008 was an exceptional year as we produced over 20 transformer oil treatment plants for ABB, Getra,

Tamini, but also Iran Trasfo, Ansaldo Energia etc.

After 2008, we continued to implement technological innovations for treatment of dielectric oils by building the first machine equipped with a computer capable of managing the treatment of the transformer completely automatically.

Between 2009 and 2010, we started the Messina 2 project with Prysmian Pow-

erlink, a 40 km long submarine power line leading from the Italian mainland to Sicily. The project was completed in 2015, and it is still the longest oil cable AC link in the world.

In 2013, Brizio Basi also renewed the production of systems for vacuuming and charging SF6 insulating gas in MV circuit-breakers by implementing a mass spectrometer capable of managing the cycle online and automatically.

In 2014, at the request of the market for dielectric vegetable ester oil, the Green Line series of treatment plants was developed. This model is expressly designed for efficient online processing, i.e. when the transformer is in operation. The same year, at the request of Swiss Railways, we installed one of the most advanced VPI impregnation systems for electric motors with epoxy and silicone resins and a vacuum oven for drying with the Vapor Phase principle, which can, at the same time, fill the machines. These systems, together with a renewed computerized drying oven, are completely inserted in the plant network anticipating the concepts of "Industry 4.0".

At the end of 2015, Brizio Basi received a large order for the supply of transformer oil treatment plants for Libya. The peculiarity of these machines is the power combined with the simplicity of use, along with the construction completed with components easily available on the international market.

In 2016, Brizio Basi, with Prysmian Powerlink, studied a new 31 km long power line in the south China sea, between the mainland and the island of Hainan. This project will end in 2019.

In 2017, Brizio Basi further innovated its flagship product for the DOV series by producing a completely automated system compliant with the Industry 4.0 standard and able to estimate the duration of a transformer treatment cycle by simply analysing the oil with the sensors on board.

In 2018, the DOV series was further innovated by introducing sensors for oxygen and 4 other dissolved gases in addition to water. With this system, Brizio Basi intends to increase the analysis capacity of the machine during oil treatment.

Thanks to the quality, durability, innovation, smart solutions and service, our systems are the top products available on the market



Solutions for future are already available

Since we have always been focused on innovation, our systems contain all the latest technologies and solutions.

Nevertheless, we will remain constantly focused on possible improvements of our systems.

Regarding the VPI autoclave systems, we have developed a system to control



Green and smart solutions are required for future in order to enable circular economy and reduce pollution and we have such solutions already available

Regarding, in particular, the oil treatment systems for transformers, our recent innovation is the complete control of the machine remotely via WiFi or Bluetooth (with built-in router), especially useful in the case of online connections with the transformer in operation in addition to tube breakage control, with remote monitoring and alarms via GSM. By using these devices, the system can work even without the supervision of the operator, for example at night. In the event of a breakdown, for example the breaking of the oil pipes, the system stops and the GSM phone installed on board sends SMS and telephone calls to various memorized numbers, so that the staff can go and check the error reported and repair it.

The use of vegetable oils is increasing everywhere and must be treated differently than mineral or silicone oils. For this reason, we have developed a series of treatments for 'Green Line' oil, specially designed for processing vegetable oils.

More future oriented ecological and intelligent solutions are needed in order to enable the circular economy and reduce pollution and we already have such solutions available.

Committed to customers

Brizio Basi, as a family-owned company, first owned by Eng. Brizio Basi and then by his son Mr. Adriano Basi, has been nurturing a customer-centric culture and approach to business. The result of such approach is that our customers benefit from our:

- Over seventy years of experience in the field
- Leading market position
- Company's internal know-how
- Projects carried out on five continents
- High level references
- Wide range of services to support

Our customer service ensures fast response, such as providing answers and possible interventions in a very short time, which is a very important value for customers who rely on us. Also, we at BRIZIO BASI are not only good at realizing our systems with typical Made in Italy care and attention, using top quality materials and components, so that after 30 years or more our DOV systems still work regularly, but are always committed to updating these systems with the latest technological innovations.

Growing further

BRIZIO BASI wants to expand its presence on the energy market globally, wherever transformers are - we would like to ensure that they can be served by one of our DOV systems. In that respect, we are also open to evaluate co-operations with qualified distributors or agents. Political changes in the world can sometimes make supply more difficult, and in such cases, we could approach the particular markets together with a local partner who could handle local import procedures.

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