

Dr. Arch. Piero Marrucchi – Florence (IT) - Professional Profile Biography

Dr. Piero Marrucchi, architect, graduated from the Faculty of Architecture of Florence with full marks *cum laude* in 1968; his thesis was published and in the same year he qualified to practice the profession.

Since 1969: For about seven years he taught at the Faculty of Architecture of Florence, opening in the meanwhile his own firm in the city. In the same years he graduated as Steel Technician from the Faculty of Engineering of Florence, and participated in a project contest of the Pescia Flower Market, winning the third prize.

Since 1972: He opened his own engineering firm in Bologna, building several manufacturing plants throughout Italy, focusing on precast three-dimensional structures: two noteworthy main examples were SALVARANI plant in Parma and - especially - the new pharma-plant ITALCHEMI in Parma – Langhirano (nowadays GLAXO).

During the design and construction supervision of Italchemi plant, he solved the serious “cross-contamination” issue with the winning idea of applying the "PARTICLE CONTROL" technology (Isotech), which till then was used only in the nuclear field. Since then, for about ten years he joined the design staff of *La Calhène* company of Paris (nowadays GETINGE), co-operating with the French Atomic Energy Committee and the Pasteur Institute, opening then, for then years, his firm in Bezons-Paris.

In those years he was responsible for the application of "STERYLE ISOTECH" to the production of drugs and of the “particle control” for the protection of the plant /hospital operators.

For over two years he was responsible for the supervision of the application of the “Confined Volumes” technique at the Necher hospital in Paris, for children with immunodeficiency disorder (babies were born inside germ-free environment and grown in sterile isolator until the marrow transplant, with subsequent treatment for finally entering normal environment).

Since 1978 he kept developing the technology of Confined Volumes (Isotech) on a larger industrial scale, operating as specialist consultant for particle control in several pharmaceutical plants to solve the issues of contamination of the operators compounding biohazard products.

In 1982 he was hired by Travenol (today BAXTER) to apply Isotech (confined volumes) to the production of T.P.N. in their Florence plant. He studied a specific prototype of isolator device for this production, which is still used nowadays. The same technology was subsequently used for chemotherapy and anesthetics compounding in other European Baxter plants.

Since 1984 he has been technical consultant for European BAXTER plants, co-operating with the company’s internal engineering office.

In 1995, on behalf of Clintec he designed and built the TPN lab in Magenta plant.

In 1996 he was called by Lessin (Belgium) and Castlebar (Ireland) plants to solve particle contamination issues.

Subsequently he redesigned the production layouts of Grossotto and Mirandola Baxter plants, in order to update them according to the new standards (and rules).

He was responsible of the new partition of Don Baxter Trieste plant.

Since 2000, on behalf of BAXTER Hospital division, he has designed and built chemo/tpn compounding units (called UFA) for several Italian hospitals, in full compliance with current standards.

To date (2016), more than 25 UFA units were built, among which the most noteworthy are: European Institute of Oncology (IEO) in Milan, Policlinico Borgo Roma Verona, the Civic Hospital of Palermo, Policlinico S. Orsola-Malpighi in Bologna, Arcispedale S. Anna of Ferrara, Oncology Hospital Pascale in Napoli, Garibaldi Hospital in Catania, SS. Annunziata Hospital in Sassari, San Carlo Hospital in Potenza, Humanitas center in Catania, Cannizzaro Hospital in Catania, Legnano Hospital, A. Manzoni Hospital in Lecco, AOOR Papardo Piemonte in Messina, Vimercate Hospital.

The experience of these projects was recently described in official lectures held in IRCC Candiolo oncologic center, in University of Messina and in HPG23 of Bergamo.