

Marcantonini s.r.l., Via Perugia 101 06080 Passaggio di Bettona (PG), Italy

Ecological and sustainable ready-mix concrete production plant

Marcantonini S.r.l. company from Italy is a worldwide manufacturer in the field of concrete batching plants and transport systems for ready mix and precast producers. Marcantonini S.r.l. strives to provide its worldwide clients with the best possible technology and innovation that can be applied to the science of concrete by means of advanced production through ecological and sustainable plants. During the 2012 year, the Mexican associate of Buzzi Unicem, Concretos Moctezuma, witnessed the construction of one of the largest, most modern ready-mix concrete production plant in the country. The new plant will strengthen Concretos Moctezuma's position in the market and extend its operating range within the huge urban sprawl of Mexico City.

Marcantonini S.r.l and Buzzi Unicem have delivered the plant in true partnership: efforts not pursue the innovation only, but customer's satisfaction is accompanied with the absolute respect of environment.

Marcantonini designed the plant with very high standards to ensure the production of high quality concrete while optimizing the efficiency of its processes, but still keeping an eye on the environmental impact. The design of the plant emphasizes functionality, practicality, ease of maintenance and the reduction of environmental impact by greatly decreasing water consumption by means of an innovative recycling system for the water used to wash the concrete mixers and also includes a rainwater collection system.

The high-performance batching plant was built not only to produce large quantities of concrete but also to demonstrate the commitment of Corporación Moctezuma toward the environment and their community by focusing on the growth of Mexico and its capital city.

Marcantonini S.r.l delivered the plant to the third largest ready-mix concrete company in Mexico, Concretos Moctezuma: it is a social responsible firm committed to the growth and development of Mexico. Concretos Moctezuma recently invested in new technology to increase its market share in Mexico City by building a new ready-mix concrete production plant with an initial capacity of over 200 m³/h.

Features

The tower batching plant is equipped with the latest generation systems (including a 2.5 m³ concrete mixer) to produce high quality products for its customers. Thermal and acoustic insulation systems have been installed to make it one of the most eco-plants currently in operation.



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After over 8 months of extensive design and construction work, Planta Central is now a high-performance facility



Aggregates storage system with 8 hoppers – total capacity of 600 m³

The plant also includes a completely automated storage system for cement and aggregates in metallic silos; a concrete recycling system which reuses all the water in the production cycle, thereby greatly reducing water consumption; a rainwater collection system; three loading stations (one with a mixer and two dry) that can load simultaneously two concrete mixers with the third mixer standing by under the third loading station.

Over the years, Marcantonini tower plants have become more widespread throughout the world with multiple applications in a variety of countries: United States, Canada, Brazil, Mexico, Italy, France, Spain etc. Their basic advantages include high quality concrete production, the high speed loading of the concrete mixers, and the reduction of environmental impact (low ambient noise level and zero emissions into the atmosphere).

The modular aggregates storage system is one of the contributing factors in the concrete production rate, which ranges between 150 and 200 m³/h, thanks to:

- Primary aggregate hopper with 36-meter high buckets elevator loading system;
- Aggregates storage system with 8 hoppers – total capacity of 600 m³;
- 6 cement silos with 480 ton cement storage capacity;
- 2.5 m³ horizontal twin shaft mixer;
- 2 dry point of charge;
- Water, cement and 9 admixtures dosages systems;
- Waste water recycling system;
- Rainwater collection system.



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The vertical structure of the plant provides high production yields and large storage areas, while the design creates a construction footprint that is relatively small. The concrete mixing system with the 2.5 m³ horizontal mixer ensures a high quality product and facilitates the creation of special types of concrete. The tower is located in the middle of a densely populated area so an acoustic insulation had to be installed in the aggregates handling area which greatly reduces noise emissions and provides more peace and quiet for the surrounding residents.

Because the plant requires large quantities of water, a concrete recycling system was installed to reduce water consumption and re-utilize the washed aggregates. The system uses a galvanized screw to separate water from aggregates and a basin equipped with an agitator that keeps the fine residue present in the water in suspension. The rainwater collection system can store up to 100,000 liters of water that can be used to produce the concrete and for other production activities. The admixtures system supplies 9 types of different materials that can produce a wide range of concrete.

Marcantonini S.r.l., is aware of the importance of this plant for 35th anniversary of Concretos Monctezuma and for the city. Collaboration with the customer to decora-

te all the facades of the buildings on the site, including the silos and the tower, with a series of different designs, joining those that for years have already adorned the cement mixers serving the metropolitan area and other operational units of the company.

The tower will be the first plant in the country to vaunt an innovative artistic touch on the facades of its silos and buildings, plus the additional motive of harmonizing the industrial area within the urban area, emphasizing the characteristics of the zone and communicating a message of sustainability and respect for the environment.

After over 8 months of extensive design and construction work, Planta Central is now a high-performance facility created not only to produce large quantities of concrete but also to demonstrate the commitment of Corporación Moctezuma toward the environment and society, focusing on the growth of Mexico and its capital city, and last but not least by creating jobs throughout the area.

The internationalization of Marcantonini Srl on the world markets has been stable for years and now it covers a majority of countries.

Thanks to an active marketing and sales organization which keeps abreast of various markets, both in Italy and abroad, Marcantonini, after consolidating a forefront position in the domestic market, has year after year gained experience in exports and expanded its world-wide market share with commercial and productive associated companies.

The North and South American continents can rely on the continued support of Marcantonini Srl and continues to look for new challenges to be achieved through our American companies:

- MCT (Marcantonini Concrete Technology) Group, Inc., based in Nevada follows all the North and Central America markets, included countries like Canada and Mexico.
- Marcantonini Do Brasil, based in Santa Catarina, follows all the South America market.

Marcantonini is proud to announce the birth of Marcantonini Poland and Marcantonini Argentina, that starting from the next year, will join to our associated companies in Middle East, France, Australia, Romania, Turkey, India and Magreb (North Africa).

FURTHER INFORMATION



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