



mact
ITALY

Marcantonini Concrete Technology

**PRE
CAST**

**TURNKEY SOLUTIONS
FOR CONCRETE
INDUSTRIES**

mmct ITALY

Marcantonini Concrete Technology





Since 1967 we have been managing the complexity of the production cycle, transport and distribution of concrete, developing for the customer **integrated and customized technological systems** in relation to his objectives.

In these first 55 years we have always remained faithful to the vocation for the science of our founder Lamberto Marcantonini who taught us to overcome every challenge with tenacity and rigor.



Today his son Andrea Marcantonini continues to hold the rudder firmly MCT looking proudly at the exceptional company experience and planning an increasingly international and performing future in the providing customized technical solutions. And our mission continues to be clear also for the next years:

providing custom solutions, collaborating with our partners with passion, to attain a common goal: to simplify work as much as possible.

We also want to create an atmosphere of trust and dependability with customers, aiming towards strong personal relations and stable bonds that go beyond the sole execution of the work.

Turnkey solutions for concrete

Our **turnkey solutions** include all the components of the system we build completely customized starting from the detailed design of the functional areas of the site, to get to the realization of the plant and the automation of the processes whose performances we measure, taking care of the maintenance.

We are highly specialized and organized to be the **only point of reference** for our customer who obtains the maximum return from tailor-made systems with flexible and modular technological solutions.

MCT Turnkey Approach



1

Thorough study of customer's requirements by our engineering departments



2

Development of the personalized offer



3

Engineers pool developing mechanical and software design. Automation software fully developed in-house

Our **added value** includes research in safety, risk prevention and knowledge that translates into total compliance with national regulations regarding plants, emissions and environmental impact.

Complexity can only be governed if it is understood in its entirety and tackled with research and technological innovation; with this awareness we live our mission of thinking and creating **the best concrete plant that the customer has ever used.**



4

Plant Manufacturing
in our workshops

5

Pre-installation,
wiring/plumbing and
testing in our factory
before shipment, by
modular assembly

6

Complete installation,
commissioning and
operators training on
site by our specialized
crews and engineers

7

After-sales assistance
and support directly
from our head quarter



Exclusive technology

Research and development are the engine of our technological innovations that we protect with international patents also in order to protect the customer's investment.



Fixed and mobile plants

MCT Plants in more than 70 countries include horizontal and tower type batching plants, modular plants, concrete distribution systems.



Total control

Software automation is developed and realized in-house, allowing the customer a full control on their plant, the access to the analysis of the working parameters and the production reports, and plan the management of the production and distribution activities, including all the auxiliary platforms of the batch plant.

Customized solutions

Optimization of existing sites

Faster batches with higher accuracy

Higher production capacity

COMPUNET

Moisture & Plasticity Control

Pre-testing in our Factory before shipment

Environmental friendly and energy efficient

Modular assembly

Fast erection and easy to replace

Wi-Fi Remote Control

Web Based HMI



Certified quality

From the first day we have chosen the path of internationalization by adopting internal audit models for quality control and achievement of important certifications valid in all countries where we are present.



Head Office in Italy and international operating centers

Our Head Office is based in Bettona in the province of Perugia and we are present with operating centers located in all strategic countries for shipbuilding and construction engineering.

Installations in 5 continents, over 72 countries

We feel Italians proud of having learned to be citizens of the world thanks to the comparison with the colleagues of our international teams and 55 years of systems designed, put into operation and implemented in over 72 countries and 5 continents.

**Headquarter
Bettona
Italy**

**Office
Reno, Nevada
USA**

**Office
Dubai
UAE**

**Office
Algeri
Algeria**

**Office
Florianopolis
Brazil**

**Office
Johor Bahru
Malaysia**

**Office
Adelaide
Australia**



THE ECO-SUSTAINABILITY OF OUR BATCHING SYSTEMS

Batching plants play a significant role in reducing carbon emissions and contribute to a climate-friendly ecological environment.

(source World Green Building Council)

We achieve this environmental benefit by using **special dust filters with self-cleaning systems for the control of dusty emissions** of silos, mixers and various internal areas present in all MCT plants. As well as the introduction of **new powder coating systems** that significantly reduces the environmental impact.

This type of painting is in fact, 99% recyclable and does not contain any solvents. Compared to liquid paint it allows zero Vocs (Volatile Organic Compounds) and atmospheric emissions of heavy metals, such as lead or chromium.

MCT tower batching plants are fully coated and buffered **to reduce noise emissions** and operate with **very low energy consumption** as the materials are metered by gravity. The container systems built by MCT respect the environment and the existing territory because they don't require special foundation work they can easily be installed and transported so they are reusable from one construction site to another.



ECO-SUSTAINABILITY IN THE COMPANY

For over 15 years we have installed photovoltaic panels on the entire coverage of our headquarters and our plants; this plant allows us to produce about 60,700 kWh in a single year, making us fully autonomous in our production needs, **with a CO₂ savings of about 30 tonnes per year.**

Inside our factory, the temperature and the switching off of the lights is regulated by an industrial automation of our invention, this software allows us to avoid unnecessary waste of energy.

MCT is strongly committed to the utilization and employment of **new wellness techniques** that combine **sport, health and culture**. MCT supports local associations and this allows us to promote outdoor sports activities such as **trail running** among olive trees and woods and **mountain bike competitions** along trails and villages enhanced by **direct and autonomous maintenance.**



PRECAST BATCHING PLANTS

Turnkey Solutions

Tailor Made Concrete Plants

Worldwide Service and After Sales Network

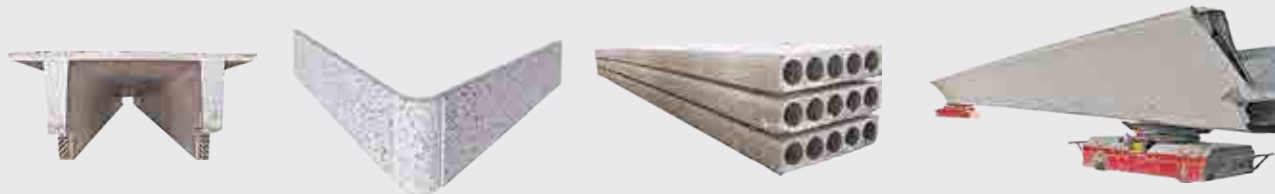
Automation Software CompuNet®

Concrete Distribution Systems

Customized Flying Buckets

Wi-Fi Control System





Plant for production of panels with colored aggregates.

Paris, France: colossal, giant, impressive and massive tower batch plant.

Another massive batch plant just installed in the northern part of Paris, France with extremely high level of automation. The new plant, fully integrated into an existing building, perfectly combines the requirements of high productivity with the attention to the quality of different types of the concrete. The customer is very famous for the supply of turn key projects of structure and architectural elements with exposed colored aggregates. The distribution and transport system of concrete is carried out with ground trolley, in this way MCT perfectly match customer needs' to deliver concrete inside existing building with low level. Another masterpiece by MCT Italy.

WINTER PACKAGE: CLADDING & HEATING

PRE-TESTING IN OUR FACTORY BEFORE SHIPMENT

OPTIMIZATION OF EXISTING SITES

CUSTOMIZED SOLUTIONS

ENVIRONMENTAL FRIENDLY AND ENERGY EFFICIENT

MOISTURE & PLASTICITY CONTROL



Automatic aggregates loading system

18 Aggregates Storage (840 m³ total capacity – 1.400 ton)

1 Planetary mixer MAV 3750 / 2500

2 planetary mixer MAV 1500/1000

5 powder silo (375 m³ – 650 Ton total capacity)

Humidity and Plasticity control

Automation and CompuNet® Software

2 High Speed Flying Buckets of 2.5 m³ capacity

3 Ground Battery Trolley for Concrete Transport



< Use QR Code and connect to our web site to learn more about MCT solutions in the Precast field

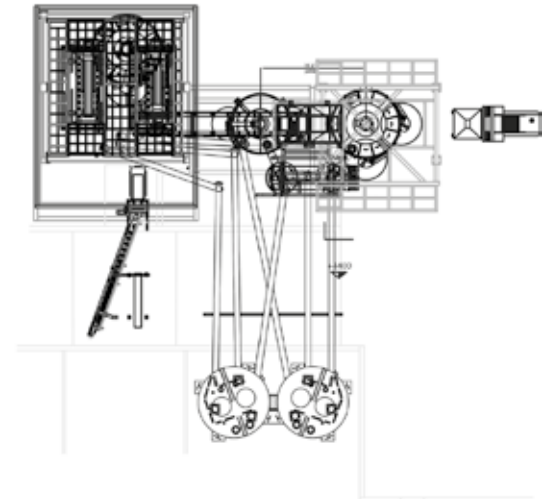
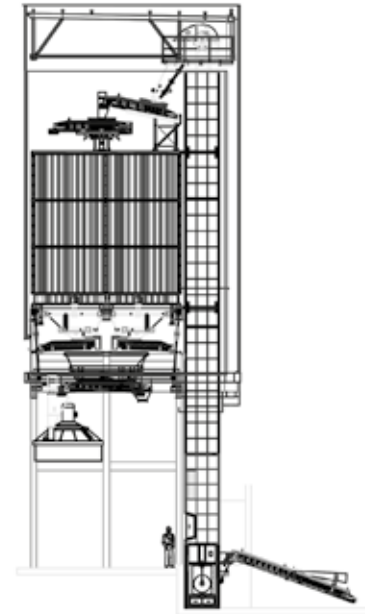
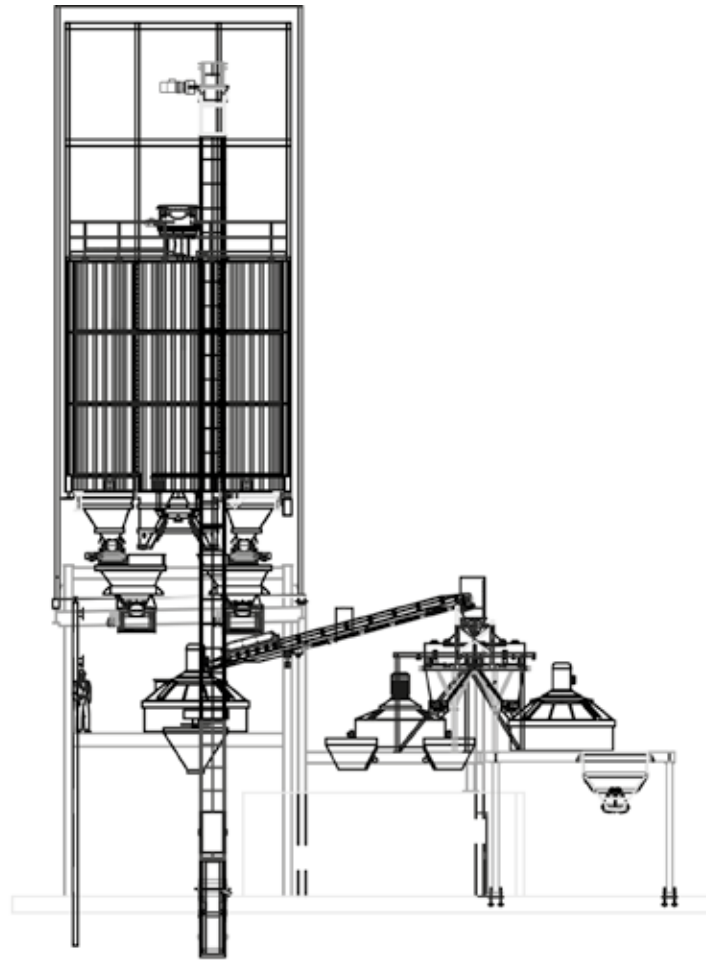


High technology retrofit project consisting of the replacement of a tower dosing plant in the heart of the production building

with significant design requirements due to the configuration of the factory and the layout restrictions. Recover of existing lower structure and mixing section, with new interface for higher section of dosing tower, including dosing sections for aggregates, cement and water, aggregates loading and storage.

Smart aggregates dosing system with 2 scales feeding 3 mixers, fully integrated in the areas between the existing building and the new tower plant. New concrete distribution systems by conveyors into 6 production beds for pipes and concrete elements. New complete cladding for tower plant, fully integrated with existing production building, enclosing also stair tower and aggregates bucket elevator.

Complete automatic control system with central server and 6 satellite stations for the production beds, integrating existing and new equipment in the same automation structure.



Batching Tower

6 Aggregate Bins - 360 m³ total capacity

3 Planetary Mixers MAV 3000/2000

2 Aggregate Scales

2 Split Cement Silos - 240 Ton total capacity

1 Aggregates Loading System

Moisture & Plasticity Control System

CompuNet®



< Use QR Code and connect to our web site to learn more about MCT solutions in the Precast field



MCT sets the bar: Engineering the most efficient automated precast plant in North America.

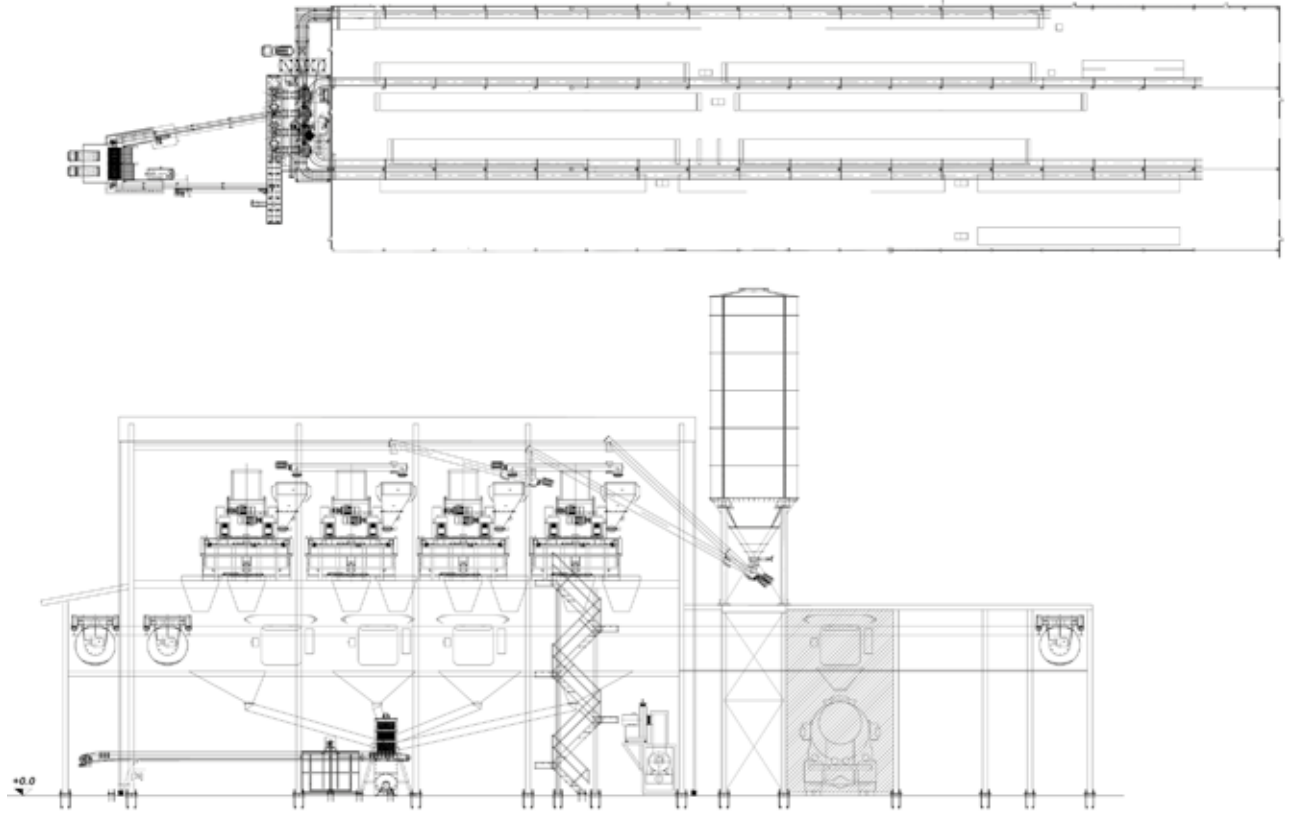
The plant is composed of two primary hoppers, two separate aggregate storage systems, four mixers featuring fully automatic concrete distribution systems including high-speed flying buckets and automatic casting machines.

The two insulated primary hoppers with a capacity of 26 y³ each one (20 m³), in order to avoid any material contamination, feed the 2 separate aggregate storage bins dedicated to architectural and structural concrete production.

The primary hoppers serve distribute the material in the 2 storage systems: 18 aggregate bins, 6 dedicated to the structural concrete production with a total capacity of 360 y³ (280 m³) and 12 dedicated to the architectural concrete production with a total capacity of 120 y³ (100 m³).

Both aggregate storage units can serve all the 4 mixers of the plant, providing a wide range of choices in terms of mixing solutions.

The plant is equipped with a reliable state of the art concrete distribution system using 4 flying buckets, capable of delivering up to 13ft/sec (240 metres per minute), served by 4 high intensive output planetary mixer 3000/2000 with an output capacity of 2.6 y³ per cycle (2.0 m³): every mixer is equipped with 2 discharging gates in order to serve all the buckets operating in the facility and the system can guarantee a high level of flexibility and quality concrete production.



The mixing section includes dedicated cement scales and water dosing system for each mixer. The flying buckets move on a double rail track system with a total length of over 3,300 ft (1.000 meters), helping the distribution of the material to all the areas of the production facility through the casting machine. 3 units of automatic casting machine and 1 unit of concrete distributor for hollow-core production complete the distribution system, allowing the delivery of the material to the different moulds all over the factory.



^ Use QR Code and connect to our web site to learn more about MCT solutions in Precast field

2 Double Primary Hoppers 20 m³ (26 yd³) each

18 Aggregates Bins 380 m³ (500 yd³) storage

4 Planetary Mixers 3000/2000 (2.6 yd³)

3 Cement Silos 110 m³ each

4 High Speed Flying Buckets

3 Automatic Casting Machines for Precast

1 Concrete Distributor for Hollow Core

Concrete Recycling System

Moisture & Plasticity Control Systems



High technology structural and architectural precast greenfield and turnkey project,

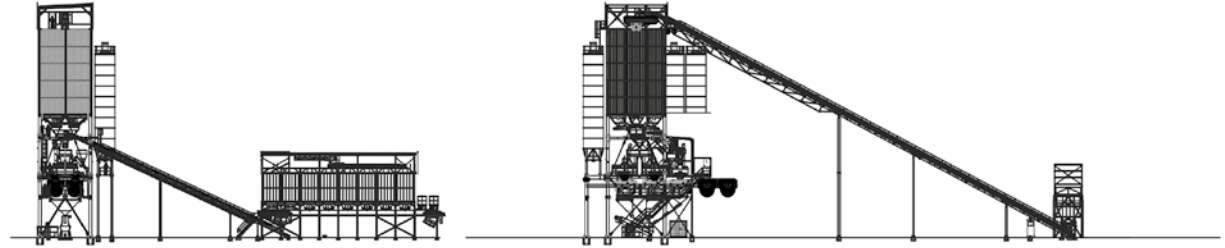
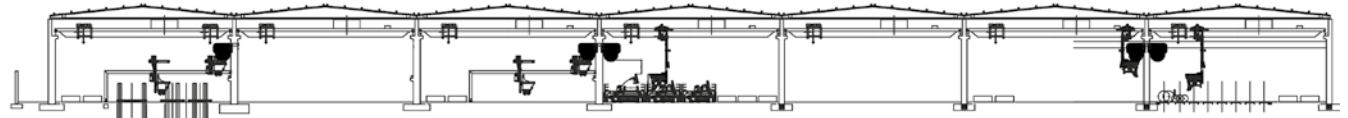
developed in full partnership with the customer, with design and manufacturing of the batch plant, concrete distribution system and automation software.

Architectural concrete module composed of horizontal aggregates storage with no.8 compartments (total storage capacity 240 m³) and no.2 removable hoppers for special aggregates, with independent loading system, aggregates mobile scale for accurate dosing and prevention of contamination, planetary mixer MAV 1500/1000 with concrete holding hopper.

Complete integrated cladding package for architectural and structural batch plant modules.

Fully automatic concrete distribution system onto the 2 production halls by 2 rails line with 2 flying buckets type AV3000, 2 m³ capacity.

Smart casting machines type BR3000, 2 m³ capacity, installed on customer's overhead cranes, detachable type for the use of the machine only when pouring concrete and to be able to use the same overhead crane for lifting purposes when not pouring concrete. Automatically fed by flying buckets and very flexible with 180° rotation of the bucket and hydraulic discharge gate.



Horizontal Type

1 Planetary Mixer MAV 1500/1000

10 Aggregates Bins 240 m³ storage

1 Aggregates Mobile Scale

2 Cement Silos 160 Ton storage

2 Chemical Admixtures

Automatic Aggregates Loading System

Concrete Recycling System

Tower Type

2 Planetary Mixer MAO 3000/2000

6 Aggregates Bins 750 m³ storage

5 Cement Silos 600 Ton

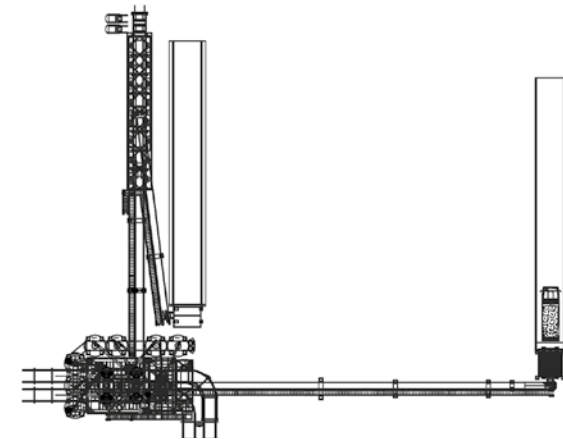
4 Chemical Admixtures

2 Flying Buckets AV3000

1000 m Flying Bucket Rails

3 Casting Machine BR3000

Automatic Aggregates Loading System



Structural concrete module composed of vertical aggregates storage with no.6 compartments (total storage capacity 750 m³), with independent loading system, aggregates mobile scale in the tower plant for the dosing of aggregates in both structural and architectural mixers, twin shaft mixer MAO 3000/2000 with concrete holding hopper.



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PRECAST BATCHING PLANTS FOR SPECIAL ELEMENTS

Turnkey Solutions

Tailor Made Concrete Plants

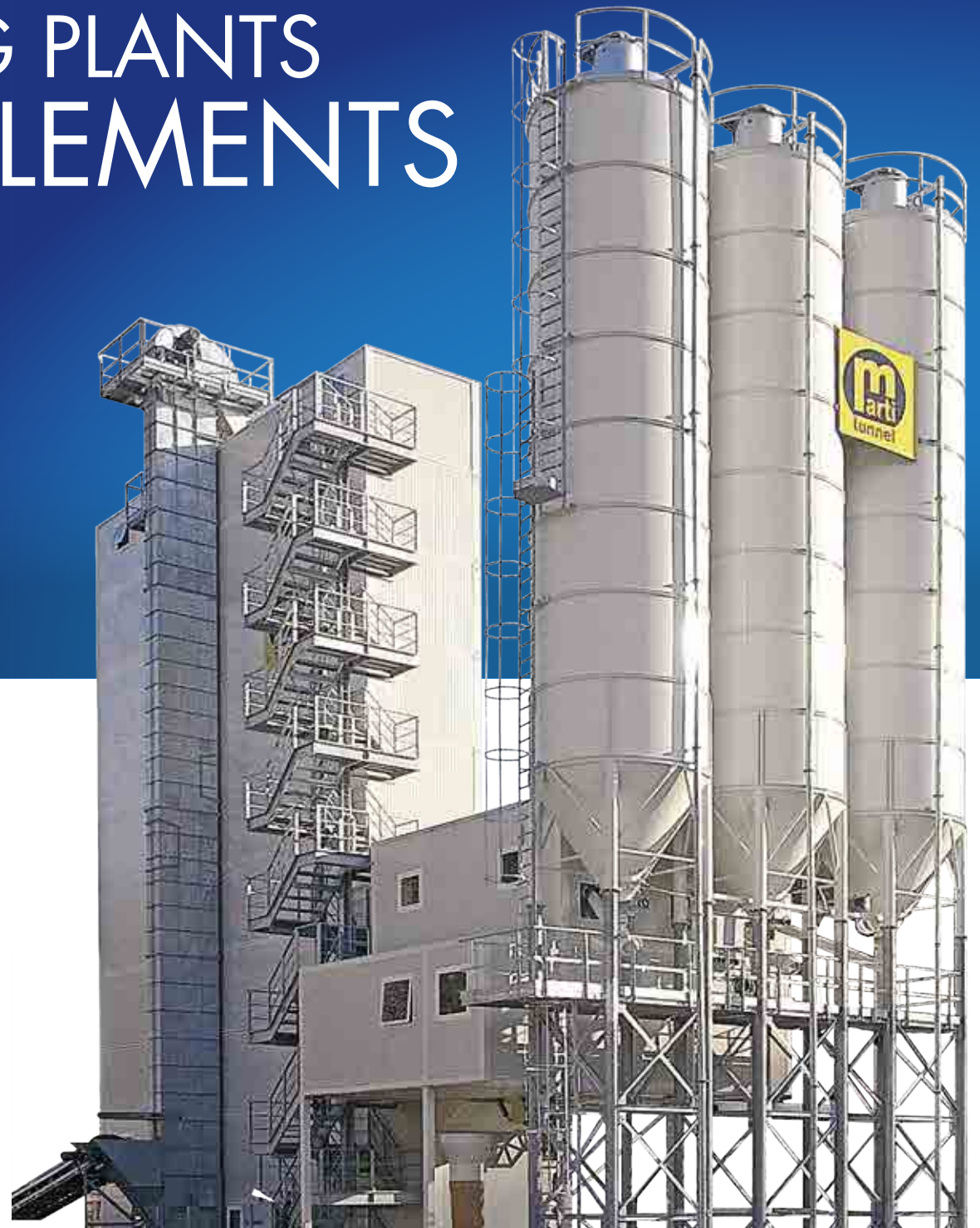
Worldwide Service and After Sales Network

Automation Software CompuNet®

Highly Customized Concrete Distribution System

High Precision Dosing of Special Components

Wi-Fi Control System



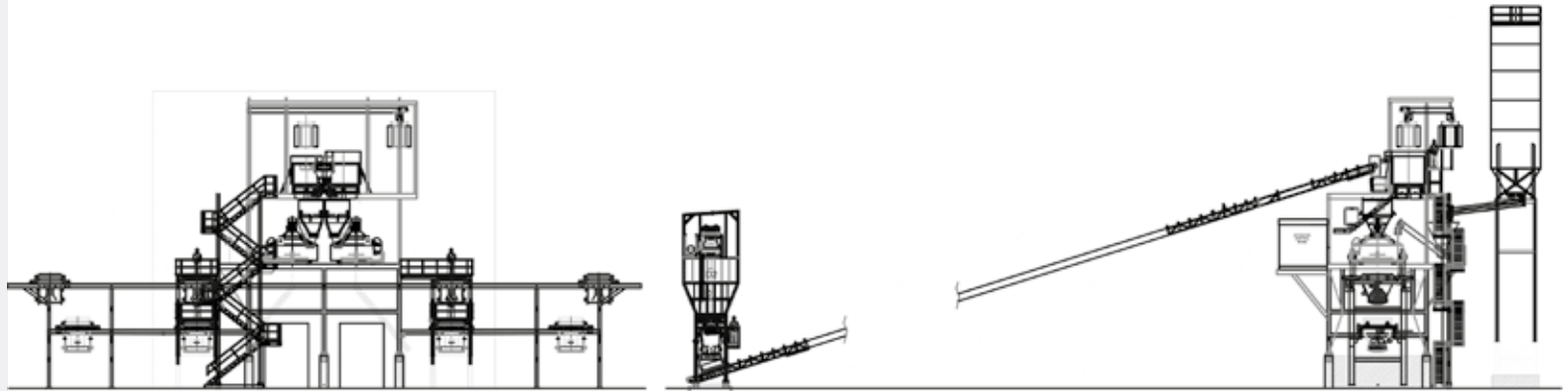


 MCT Italy shapes Australia's biggest public transport project in Sydney.

This new standalone railway will deliver 31 metro stations and more than 66 kilometres of metro rail, revolutionizing the way Australia's biggest city travels: it will run from Sydney's booming North West region under Sydney Harbour, through new underground stations to the south west. The high quality concrete containing 40 kg of steel and 1.5 kg of polypropylene fibers per cubic meter, is batched by no. 2 Eurostar planetary mixer 3000/2000. The concrete has undergone a series of tests to ensure it meets the required standards for strength and durability.

Concrete transport is guaranteed by no. 2 high speed flying buckets and no. 2 concrete distributors pour the concrete into double circulation plants.

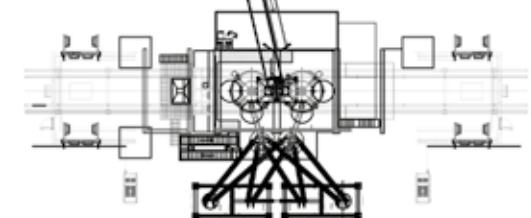
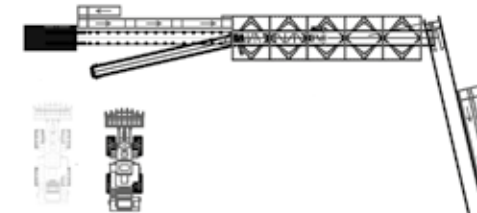
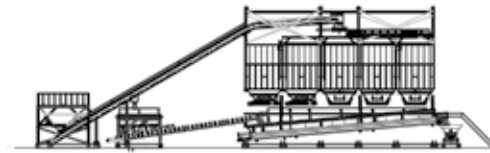
The turn key project as concerns site organization, erection and lifting equipment has been really well organized by all the three parties involved: MCT Italy, MCT Italy local partner & the customer.



In-Line Plant for Tunnel Segments Production

- 5 Aggregates Bins - 150 m³ storage
- 2 Planetary Mixers 3000/2000
- 4 Cement Silos - 80 Ton capacity each
- 1 Automatic Polypropylene Fiber Dosing System
- 1 Automatic Steel Fiber Dosing System
- Integrated Moisture & Plasticity Control System
- 2 High Speed Flying Buckets
- 2 Concrete Distributors
- CompuNet®


The batching plant confirms that our customers' oriented solutions together with high quality components are the win-win cards to play.



< Use QR Code and connect to our web site to learn more about MCT solutions in the Precast field



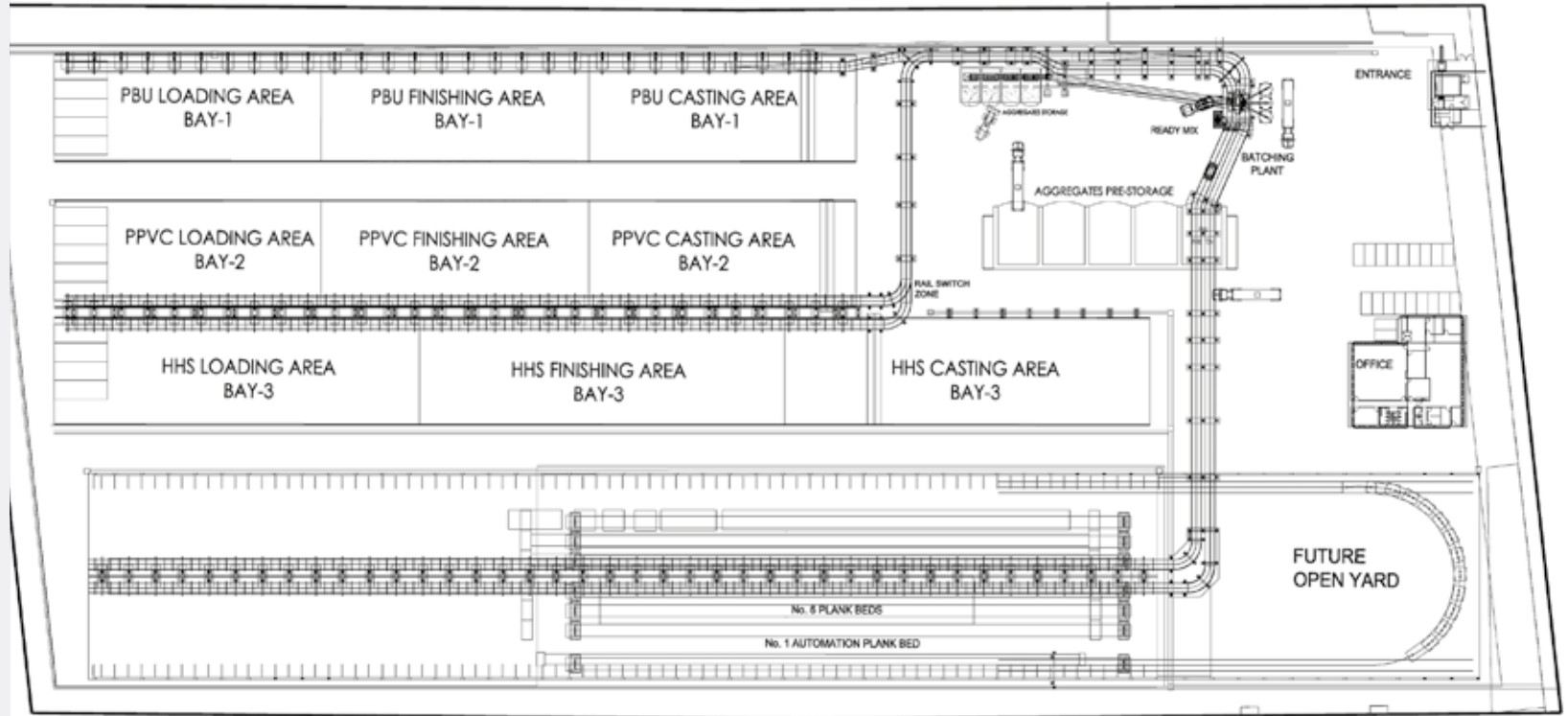


 **MCT Italy**
a pioneer in 3D Volumetric Precast.

SouthEast Asia is already one of the most advanced precast manufacturing places in the world and now the building industry is jumping into the 21st Century by pressuring to adopt modular construction techniques and ramping up the productivity of its workforce.

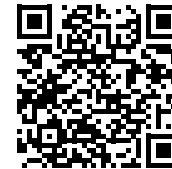
“Prefabricated Pre-finished Volumetric Construction (PPVC)” & “Prefabricated Bathrooms Units (PBU)” means a construction method whereby free-standing volumetric modules (complete with finishes for walls, floors and ceilings) are constructed and assembled in an accredited fabrication facility and then easily installed in a building.

The system can achieve a productivity improvement of up to 40% in terms of manpower and time savings; furthermore, dust, noise pollution can be minimized as more activities are done off-site. With the bulk of the installation activities and manpower moved off-site to a factory controlled environment, site safety is also improved.



MCT Italy has developed a pioneer technique to cast the concrete in a fast, reliable and flexible way thanks to the joint action of high speed flying bucket and automatic casting machines:

- Flying bucket up to 4m³ capacity and 270 m/min speed
- Casting machine up to 4 m³ capacity and 180° Rotation
- Variable stroke from 0.5m to 5.5m
- System fully integrated through industrial Wi-Fi



< Use QR Code and connect to our web site to learn more about MCT solutions in the Precast field



 **South Korea:**
everlasting trust in MCT Italy.

Jisan is one of the fastest growing South Korean precast company with high skilled engineers able to provide turn key solutions: planning, designing, production and installation in a very competitive way thanks to the wide use of precast elements.

Hollow Core slabs are prestressed and precast concrete elements, manufactured using long line steel casting beds. They are typically 1200mm wide, and between 150mm – 1.000mm deep. Spans can be anywhere up to around 20m, and applications range from individual houses to residential apartments, office buildings, hotels, schools, hospitals, supermarkets, industrial units and car parks. Longitudinal voids run throughout a Hollow Core Slab. These reduce raw material consumption, costs, the self-weight of slabs themselves and provide ready-made ducts for services.

“This time the decision was easier: after the two previous successful experiences with MCT, we teamed up immediately with their technical offices to get the best of their know-how from their specialized organization. We learnt that prestressed hollowcore requires the use of high-quality raw materials, such as high strength concrete, and low relaxation steel wire/strand. The produced elements have high load resistances thanks to a low water/cement ratio of concrete from 0.32 to 0.38” adds Mr. Han, ByungMin.



ENVIRONMENTAL FRIENDLY AND ENERGY EFFICIENT

HIGHER PRODUCTION CAPACITY

MOISTURE & PLASICITY CONTROL

COMPLY OF LOCAL REGULATION

1 MCT CompuNet® Automation Software

5 Flying Buckets, speed 240 m/min

2 Automatic Concrete Distributors for Extruder Feeding

2 Automatic Washing system for Flying Buckets



< Use QR Code and connect to our web site to learn more about MCT solutions in the Precast field



RECYCLING SYSTEM

MCT reclaiming systems are fully integrated with the batching plant and distribution system and their automatic washing systems.

Our customized solutions in the reclaiming of materials are meant to reduce the wastes and minimize the production costs.



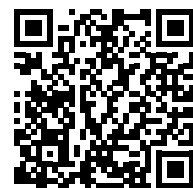
MOBILE BATCHING PLANTS

Mobile Plants, easy to install
and ready to use

Modular Batching Plant
Type MCM >



Discover all Mobile
Batching Plants on
MCT website



^ Semi-Mobile Batching Plant Type MCM



^ Mobile Plant On-The-Road Type MCR

MATERIALS TERMINALS

Cement Silos
Trucks Feeding Station



CompuNET[®]

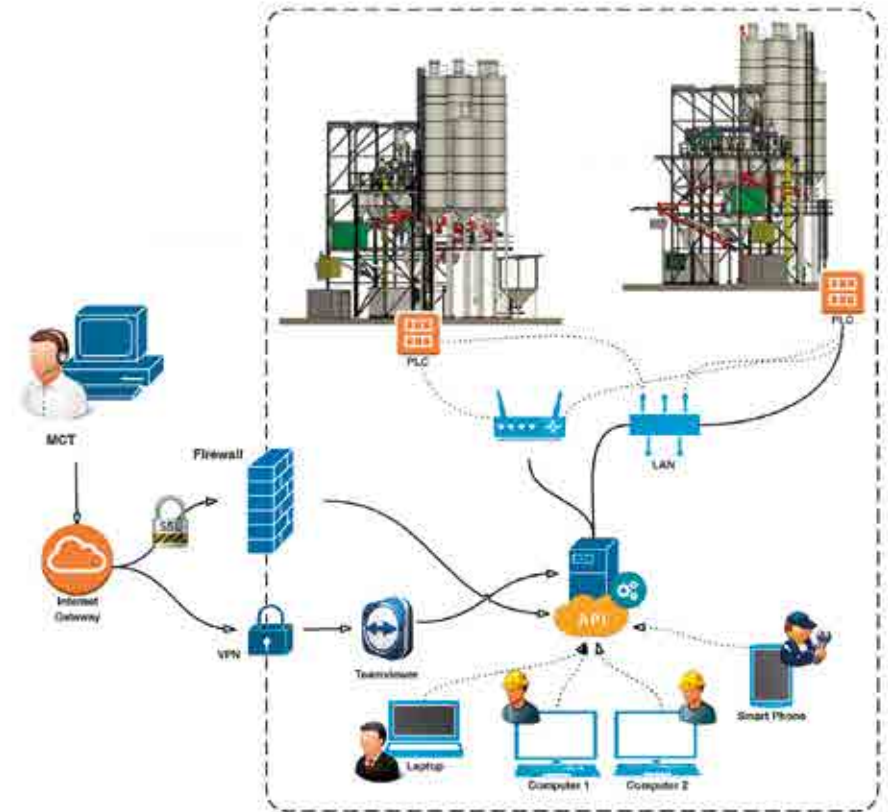
CompuNet[®] is our software for management and control of both batching plants and concrete transport and delivery systems.

Years of experience and top-notch connection technologies are what CompuNet[®] is made of. The automatic system control is assigned to a modular, Windows running software. With CompuNet[®] it is possible to **monitor and manage** all the aspects and stages of the whole process of the concrete production and distribution systems.

With our remote technical support we provide a **24/7 assistance** to help in case of required support, to check or restore the operations of the batching plant or of the transport and delivery system. It is possible to **check and modify processes on-line**, while it is running, just by an internet connection.



The fastest and most direct channel of assistance is through our **Marcantonini Customer Assistance App**, available on Apple Store, Google Play Store and in Desktop version.



Software

- HMI Web Based
- Ease of use
- High reliability: downtime reduced to zero
- Flexibility
- Expandability
- Management features

Management

- Weight dosing
- Volumetric batching
- Additives control
- Temperature control
- Steam and ice dosing
- Aggregates moisture and hygrometry control
- Measurement of consistency and fluidity

Additional software packages

- Recipes formulation and archive
- Daily production management
- Jets power management
- Stock management
- Production process optimization
- Automatic system diagnosis
- Data archive
- In-house or third party database software support

Discover all CompuNet[®] advantages on MCT website





PRECAST

Best Quality through Design and Process Optimization



SPECIAL BETON MIX

Special Color Blending Machines



MOBILE

Mobile Plants type MCM and MCR, easy to install and ready to use



CASTING MACHINES

Customized Casting Machines for every application



Marcantonini Concrete Technology



MARCANTONINI IS A WORLDWIDE LEADER

in the field of Batching Plants for Concrete Production and Distribution Systems since 1967



CompuNet®

Exclusive Management and Control System



DISTRIBUTION

Customized Flying Buckets for Concrete Distribution



READYMIX

Innovative Solutions for Concrete Production



MATERIALS TERMINALS

Cement Silos, Trucks Loading Stations



RECYCLING SYSTEM

Customized Solutions for Reclaiming Materials



Concrete Batch Plant Solutions for Precast, Blocks & Paver and Ready Mix Producers
Concrete Distribution Systems
Plant Automation Software and Control Systems



#BLUEHEART
Our commitment
to our heritage



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