

Profile of a Company future oriented Profil d'un Group orienté vers l'avenir GCN S.p.A. Via Castelletto, 5 - 37050 Belfiore (VR) Tel. 045 6149279 - Fax 045 6149275 www.gruppocentronord.it gcn@gruppocentronord.it



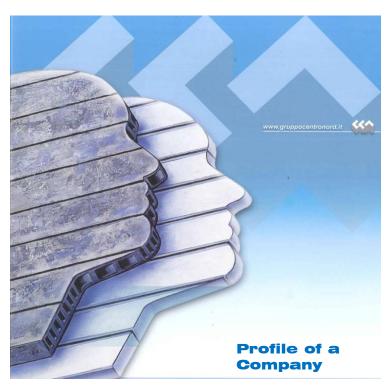
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# PROFILE OF GRUPPO CENTRO NORD

Head Office Belfiore (VERONA) Via Castelletto 5
President Dott. Ugo Della Bella
Chief Executive Officer Dott. Renato Della Bella
Technical Manager, R&D Ing. Bruno Della Bella



GRUPPO CENTRO NORD is an Italian precast Company, operating since 1964 and specialized in the design and manufacturing of hollow-core slabs, precast pillars and beams, and other special concrete precast elements and GFRC facades for the construction of residential, commercial, industrial and parking building.

Gruppo Centro Nord is operating in three production plants in North and Centre Italy, PCN Factory in the area of Milano, ICN close to Verona, MCN close to Pistoia, with headcount of about 105 peoples

Gruppo Centro Nord is leader in Italy and in Europe in the design and manufacturing of prestressed hollow core slabs up to 1000 mm depth and prestressed beams up to 1000 mm height with vibrofinishing process in continuous on long casting beds and the relevant know-how and production technology have been granted to other precasters in Italy, Spain, Malta, Portugal.

Production capacity of standard and deep H.C. elements is over 700.000 sq. mt/year.

In addition to many other special precast elements (floor and wall slabs, segmental tunnel, noise barriers, stadium stages, etc) a large production of prestressed and reinforced beams, rectangular pillars up to 1000 and circular up to 700 mm is performed with capacity of more than 100.000 mt/year.

Also a seismic Prefabrication system for multi-storey building, the FORAP System with hollow core bearing walls, has been largely developed and utilized in Italy and abroad.

GFRC division for design and production of facades and architectural elements has a capacity of more than 12.000 sq.mt/year.

Gruppo Centro Nord, before the economic crisis in 2008 that struck all of Europe, and particularly Italy in the construction sector, had an annual turnover of more than 26 MM € and a production of over 80.000 m3 of precast elements. During the five-year crisis at reduced production rate, however, Gruppo Centro Nord continued to invest in research to widen the scope of vibro-finished precast elements (see tunnel vaults and acoustic road barriers).

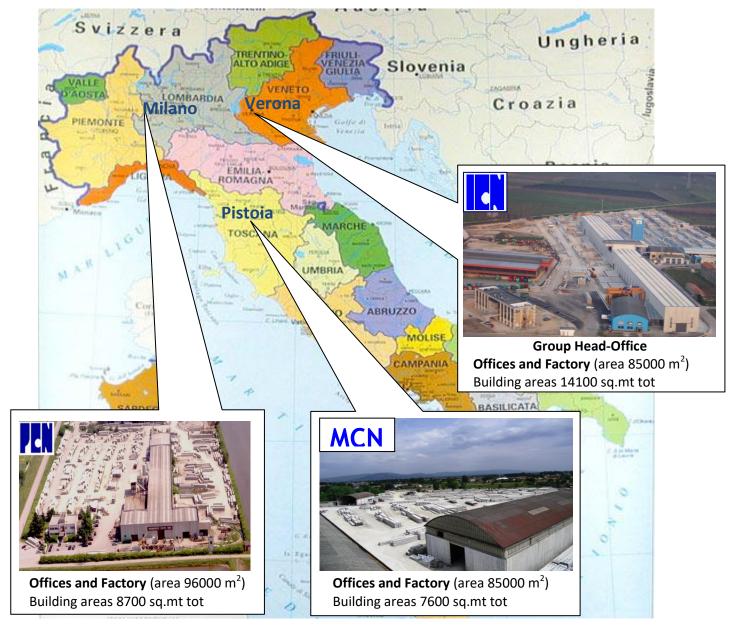
Now that crisis in Italy too is over, Gruppo Centro Nord is ready for a strong recovery of its production capacity and turnover, as foreseen in Industrial Plan 2017-2020 with the evolution and development of standard products and innovative elements that represent a unique know-how patrimony in Europe.

The new development will also see the restart manufacturing of precast segments for rail and metropolitan tunnels, of which Gruppo Centro Nord has already acquired a great deal of experience producing the elements for the 1st part of the Blue Line of the new Milan Metropolitan Line from Linate to Forlanini.

In order to acquire the new large private and public works that will start soon in Italy, Gruppo Centro Nord needs corporate and financial strengthening with the entry of a strong international partner



#### PRODUCTION CENTERS AND OFFICES OF GCN in ITALY



PRECAST PRODUCT TYPES MANUFACTURED BY GRUPPO CENTRO NORD with added value due to high innovative capacity in production and application of slipformed elements (as shear reinforcement, jumbo elements, new wall H.C. slabs)

Gruppo Centro Nord since its foundation in 1964, has been always at the forefront in the production and application not only of standard hollow-core floor slabs (depth 120÷500 module 1200 mm) for the prefabrication of residential, commercial and industrial building, but also of special jumbo hollow core/ribbed slabs (depth up to 1000 mm) for large span commercial building and infrastructure works.

Those new special elements, with new design, shape and reinforcement, are produced by means of special vibrofinishing machines allowing depth up to 1000 mm and possibility of incorporating a shear reinforcement in the ribs, and are suitable for use in case of large span and dynamic loads, as for bridges up to 24 m span.

Gruppo Centro Nord has developed furthermore know-how and experience in application of special hollow core slabs as bearing walls in multistory buildings also for seismic areas, as noise barriers in highways, and as tunnel elements to realize the precast vault of tunnels.

Here after the types (standard and special) of precast elements manufactured in the units of Gruppo Centro Nord are listed.



# PRECAST PRODUCT TYPES OF GCN FACTORIES WITH STANDARD TECNOLOGY



#### **Hollow Core Slabs RAP**

(with slipformed)
Depth H=120 up to 500 mm
Width B = 1200 mm





# Prestressed/Reinf beams I,T,L

Width B up to 1150 mm Height H up to 1100 mm Length L up to 30.0 m



# Rectangular or circular pillars

Rectangular dim. up to 1000 mm Circular dim  $\phi$  500÷700 mm Height up to 18.0 m



#### Garage wall element

Dim. L up to 7200 mm H up to 3000 mm

Thk s 120÷200 mm

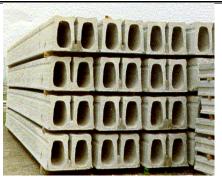


#### **GFRC** elements

Facades and architectural elements, with spray system



# PRECAST PRODUCT TYPES OF GCN FACTORIES WITH SPECIAL KNOW HOW AND TECHNOLOGY OF GCN PROPERTY



# **Jumbo Hollow Core FORAP**

(with shear reinforcement In webs) Depth H=50 up to 1000 mm Width B=1200 mm



### Jumbo ribbed slabs PAV

(slipformed with shear reinforcements)
Depth H 500 up to 1000 mm
Width B 750÷1200 mm



# U-ribbed slabs MAGNUM

Slip formed (shear reinf, in the webs)

Depth H = 500 up to 800 mmWidth B = 1200 mm



# **FORAP SYSTEM**

Building prefabrication with H.C. wall slabs (with vertical and horizontal cores to be filled and reinf. in-situ)
Wall height H = 2500÷4000 mm
Width B = 1200 mm

Width B = 1200 mmDepth  $s = 160 \div 200 \text{ mm}$ 



#### **WALL SYSTEM**

Noise barriers (with H.C. slabs)

 $\begin{array}{ll} \mbox{Width} & \mbox{B} = 1200 \mbox{ mm} \\ \mbox{Length} & \mbox{L} = 3000 \div 8000 \mbox{ mm} \\ \mbox{Depth} & \mbox{s} = 150 \div 200 \mbox{ mm} \end{array}$