



**PREFABRICATED      ELECTRICITY      SUBSTATIONS**  
DECOMPRESSION      CHAMBERS      FOR      NATURAL GAS  
SOLUTIONS                              FOR                              ENVIRONMENT



**SOLUTIONS FOR ENVIRONMENT**



**DECOMPRESSION CHAMBERS FOR NATURAL GAS**

# F E R R A R I



**PREFABRICATED ELECTRICITY  
SUBSTATIONS**

Electricity and natural gas are our light and air and for them we build prefabricated stations with low environmental impact.

Respecting nature is a commitment we took wittingly, since we want to lend a strong value to our production choices.

This working philosophy is rewarding us not only as for trade strategies but also toward our customers.

Environment protection has a high social value and represents a competitive advantage in a world requiring more and more politics of sustainable development.

“Mankind lives of light and air in full harmony with nature.”  
*Zenone*



# E N T E R P R I S E



## **Ferrari Giuseppe S.p.A. An enterprise with firm foundations**

Since 1979, our enterprise produces and installs electricity substations and decompression chambers for natural gas of vibrated ferroconcrete complete with equipment. Our today is the result of a past made of products of concrete (building enterprise, production of concrete piles, electricity substations). Our 80 years experience allowed us to complete our mission oriented to the market and to the quality of the service, with the target to satisfy customers and to upgrade their needs by means of the configuration of suited and customized plants.

The whole production is realized in our plant of Camisano Vicentino: 40 thousand square meters of which 11 thousand indoor, equipped with concrete-mixer, thermal plant for the maturation of beton, machine workshop for the construction of structural works, test room and a separate department for storage and wiring of electrical devices.



## **High quality products**

One of our strengths is the realization of products of high quality.

95% of our working processes is performed inside our plant, under our steady control from the beginning to the end over every part, as well the small components. Installation and start up through our personnel and media: the final step is basic in order to have guarantee of a traceable quality product.

Our electricity substations are certified and type-approved by ENEL (Italian National Electricity Board) – Direction of Supply – and by a private lab of Bergamo (ISMES) complying with parameters documenting their safety, suitability and their standards of high quality.

## **Total punctuality**

Observing delivery terms is a matter on which we are unbending. Therefore we are equipped with strict production programs keeping though a flexibility margin which allows us to deliver our products timely. The observance of the delivery terms is guaranteed above all by the installation wholly performed in our structure.

Works performed till today all around Italy bear witness of our trustworthiness and efficiency.



### **Electricity substations for delivery by the supplier agency**

The substations for delivery are to be used solely by ENEL or the local supplier agency for the transformation and supply of electric power in low tension.

They are built of a sole room containing the medium tension devices for the different equipments by ENEL for the insulation tension of 24kv to be transformed in a sole tension to be used on the network with 20-15-10kv underground wires. Each substation allows the connection of 2 or 3 lines and the housing of transformers (with disconnectable plug terminals) with max power 630kva; the board of low tension is equipped for automatic four-pole switches up to 250A and allows max. 4 outputs in underground wire.



### **Electric substations for the supply in medium tension**

If electricity is delivered by the supplier agency in medium tension, a transformation substation must be built for the power supply of the plant of motive power and lightening. For the connection to the network of medium tension, with reference to the provisions contained in the CEI rule 0-16, the user must have available two rooms, one for the delivery, where the entry is allowed only to authorized persons from the supplier agency and one for the count of the power, and a possible third room for the sole entry of the user, where the transformation of electric power takes place. The door of the room of delivery room, of the count room and of the user's room, like the possible vent windows are of fiberglass, type-approved by ENEL and supplied by us.



### **Cabinets for delivery in low tension**

For the connection with low tension, the supply company requires a product to host the counters for the connection to the electric network and the user's master switch.

The prefabricated structure of vibrated ferroconcrete can be transported and installed as a unique block and laid on every kind of surface. All boards are of vibrated ferroconcrete with a thickness of 8 cm, on their bottom there is a slot for the way through of cable-lines.

The door is of fiberglass of the kind type-approved by ENEL. Indoor and outdoor seals are made with high quality products preventing from each water penetration, therefore cabinets are made with a protection degree IP33.





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# PREFABRICATED ELECTRICITY SUBSTATIONS



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The booth is realized complying with the provisions of the rules in force for the discipline of ferroconcrete and complying with CEI-regulations (Italian Electro Technical Committee) of reference for the field. Units are of vibrated concrete Rck350 made of high resistance 525 cement suitably reinforced (material with low inflammability as provided for by the CEI rule 11-1 under item 6.5.2 and CEI 17-63 under item 5.5); couplings of the different units and the roof are sealed with suited high quality products for a perfect water tightness to the purpose to lend the structure a degree of protection IP33 complying with CEI rules 70-1.

As a rule, ventilation doors and grilles of fiberglass of the kind type-approved by ENEL as required by the CEI rule 0-16 are installed in the booth.

The prefabricated foundations with underground basin is equipped with openings with fixed fracture hosting waterproof wire-carriers; in this way what required by the CEI rule 11-1 under item 7.7 about environment is accomplished guaranteeing the collection of oil from the transformer in case of leakage. The foundations can be of the kind with bed realized on the spot making tunnels and piping necessary for the path of the wires.

The grounding plant is performed with bare copper wire and ground plate with pipe bit 1 mt. away from the booth and must guarantee the absence of dangerous contact and transit voltage complying with CEI rule 11-1.

### **Decompression stations for natural gas**

*These prefabricated stations are used for the allocation of natural gas supplied by Snam with primary pressures and delivered in grid through equipments for receipt, decompression and gauging installed inside. The deflagrating roof is built of board of green asbestos cement, in order to observe the norms contained in the Italian Ministerial decree 24.11.84 and in Italian Law nr. 1083 of 06.12.71. Our firm is able to supply with its own personnel and means the stations complete of foundations beds, fences and arrangements of outdoor areas. We can deliver as well the electric plants complying with the CEI norms 31-33 and the plants of protection rom atmospherics (Faraday cage).*



### **Natural gas filling stations**

*The station is meant to house the equipments to run road filling stations; it can be made of a room containing storage vats, a room for the compressors and an electricity room. The product has such building features to guarantee the containment of materials both sideways and upwards in case of blast (safety 1st degree) and is built complying with the technical rules of fire prevention for road filling stations of natural gas determined by the Italian decree of June 28th, 2002.*



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## DECOMPRESSION CHAMBERS FOR NATURAL GAS

The prefabricated booth is built complying with the rules in force about the discipline of works of reinforced concrete and with the technical rules and the reference laws of the field. As a rule, the chamber is made of three rooms: decompression chamber, boiler room and equipment room.

The roof is light and made of self-supporting plates of ecological asbestos cement and is suitably fastened to the structure. The downflow of rain water is guaranteed by gutters and downspouts of plate varnished in advance.

Ventilation inside the booth takes place through the vent grilles of aluminum equipped with bird-dissuader nets, which are located in the decompression chamber covering a net vent surface of 1/10 of the plan surface. The installation system of frameworks guarantees their grounding through the reinforcement of the prefabricated boards. In the foundations there are tunnels and pipes of PVC to host the devices and the input of telephone, ENEL and water.

The electric plant is realized complying with the CEI rule 31-33. An anti-explosive device is housed in the decompression room while in the boiler and electronic counter rooms there is an anti-explosive device with protection degree IP55.

To the purpose of safety and in order to equip the chamber with a protection from atmospherics, there is a Faraday cage made complying with CEI rule 11-1





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## SOLUTIONS FOR ENVIRONMENT



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Our enterprise is specialized in the realization of particular boxes in order to satisfy the increasing needs of Municipalities and Agencies for the Protection of Environment and Landscape.

These are just a couple of our recent realizations: an example of what we can manufacture and customize on request.



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# E L E C T R I C P L A N T



Ferrari Giuseppe spa is specialized in the delivery of electric substations equipped with electric plant. In particular, the block structures can be laid on the site equipped with the plant of medium and low tension and the transformer, ready for the connection to the medium tension delivered by the supply agency.

In the coordinated survey of the building standard, the Ferrari Giuseppe spa proposes its customer many kinds of configurations in order to satisfy all possible needs. Usually the delivered electric plant includes an inside grounding, the indoor lightning plant, the emergency lightening in the user's room, the working sockets, the outdoor emergency button, the set of accident-prevention tools. The basic part is made of the medium tension chamber, the low tension board with components for the transformer and the transformer of the required size isolated by a net and a three-set of wires with terminals. The whole plant is connected and tested inside our factory; the box, with its equipments is sent to the site with the arrangements for the connection to the medium tension from the supply agency reducing to the max. the actions to be performed on the spot. Together with each delivery we give a technical booklet including all declaration of conformity complying with CEI rules.

# O T H E R P R O D U C T S



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*Ferrari Giuseppe S.p.A. delivers as well other high quality products like:*

- 1 *Military sentry boxes*
- 2 *Boxes for transformers*
- 3 *Cabins for photovoltaic plants*
- 4 *Ecogas for haulage*
- 5 *Technological service room*
- 6 *Site for mobile telephone*
- 7 *Shelter for mobile telephone*

# W A L L - C O V E R I N G



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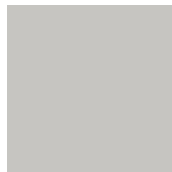
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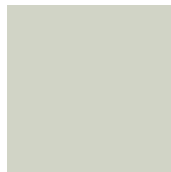
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RAL 1012



RAL 7047



RAL 9002



RAL 6021



RAL 5010



RAL 3014

# C E R T I F I C A T I O N S



The booths by Ferrari Giuseppe SPA are certified and type-approved complying with parameters proving their safety, suitability and high quality standard. These certifications witness a work performed with an eye to our first target: the delivery of a quality product giving the customer the best possible service.

## **Certificate ISO 9001:2000**

For production and installation of booths of vibrated ferroconcrete to house technological plants.

## **Type-approval ENEL**

For the production of prefabricated booths for electrical equipments.



## **Certificate of technical suitability**

For the mass production of prefabricated products issued by the Servizio Tecnico Centrale del Consiglio Superiore del Ministero delle Infrastrutture (Central Technical Service of the Governing Board of the Italian Ministry of Infrastructures).

## **Certificate ENEL of suitability**

For the supply of prefabricated structures of vibrated ferroconcrete for substations equipped with electromechanical devices.



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