

PENTA COSTRUZIONI s.r.l.

Project Manager

ELETTROQUADRI S.R.L.

Electrical Design and Installation

MIPRO s.r.l.

Industrial Automation

ITE

Continuous Lines for Large Production

APA SOLUTION

Soot Blowers

INNTEA

Energy Efficiency

PENTAGROUP
INTERNATIONAL ENGINEERING SERVICE

The art of building is not the subject of an intelligent speculation, but can only be understood as a vital process, as an expression of man's ability to win and dominate the surrounding environment.

Mies Van Der Rohe

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tel. +39.335.6854638 email: info@pentagroup.tech
web: www.pentagroup.tech

THE COMPANY



Our activity is driven by the wish to offer an absolute quality service. “Quality” means, first of all, ability in satisfying customer needs. In second place, making quality is understood as the overall philosophy of strategic management of the company.

Research in contemporary technologies, in competences and in specific professionalisms, are everyday tools of our job. The passion in what we do, our energy.

The study of the customer request, the proposals, the contemporaneity of procedures set through continuous openings and additions and full sharing of the final objectives, are fundamental to attainment of the final destination: the customer satisfaction .

The art of building is not the subject of an intelligent speculation, but can only be understood as a vital process, as an expression of man’s ability to win and dominate the surrounding environment.

Mies Van Der Rohe

Penta GROUP was born from the synergy of operational and organizational potentiality able to offer in compliance with the regulations, the oldest of the services associated with the most modern and up to dates technologies.

Our company has a many years of experience in the construction industry: from the restructuring of civil and industrial buildings to the reclamation and conservative renovations, from the structural works of coordination of activities and assistance to the realization of plant works, from the reorganization of the interior to the finishing works.

Increasing competition on this sector had a decisive influence on the strategies and organizational decisions of the company. We are also able to offer a valuable service consulting and management of all the paperwork, administrative and planning practices, which allows us to offer our customers a complete “keys in hand”.

We organize with technicians and highly qualified staff, also, the management of maintenance programs for real estate private entities and/or public: one of the complementary services increasingly demanded.

Worksite safety and in compliance with hygienic regulations in the workplace are handled by technical experts who have attended frequent training and refreshements.

Orders management is handled by a team of Professionals who carefully focus on the study and evaluation of the correct intervention to perform and interacts with the skills needed in the process steps, provides a constant monitoring of the pipeline that allows us to get a double result: get in tune with the expectations of the Works Direction and/or of the client and project management and optimize our operations.

Whether it is civil or industrial restructuring, whether it's architecture or interior finishing works, we believe that the active collaboration and the perfect executive know-how to be the right direction towards our principal objective: the customer satisfaction.

Below we present a technical and informative profile of our company and a list of the most significant works coordinated by us in recent years.

INDUSTRIAL DIVISION

DELTA ELETTRONICA SpA Renovation of the headquarters of Delta Elettronica Spa –

VARESE – ITALY

Gruppo Cobra – in Via Astico n.41 - Varese.

Customer: Delta Elettronica Spa



- ENGINEERING SERVICE SPA
ROME – ITALY

Buildings works and complementary to the constructions of the new headquarters Albacom Milano.

Customer: Engineering Service Spa Roma

- OLIVETTI SOLUTION SPA
MILAN – ITALY

Adaptation safety regulations on the headquarters of Via Lorenteggio - Milan.

Customer: Olivetti Solutions Spa

-AMA GROUP SPA

Construction of new office building renovation and productive unit. Buildings works and complementary to the renovation and expansion of the headquarters AMA - Group di Via Bonazzi, 2- Castel Maggiore – Bo.

Customer: Ama Group Spa



**- COMUNE DI ROVETTA
(BG)**

Realization gym and pool - winter and summer

Committente: Pubblico



- **COMUNE DI PADENGHE SUL GARDA** Internal restructuring and different distribution of space– Municipal Building - Lido
Customer: Public



- **INTESA SANPAOLO – VIA CECHOV 50** Restructuring and upgrading building **High formation**
MILAN - ITALY
Customer: Private



INTESA  **SANPAOLO**



Via Washington n.33 – Milano

Realization of new national center
Italian Federation Bridge Game
Customer: Private



Via Don Carlo San Martino, nr.8 Milano

Construction and installation works for expansion of the headquarters **Andersen International School**
Customer: Private



**- COMUNE DI GERRE DE'
CAPRIOLI - CREMONA**

Construction new residential complex of 12
residential units and underground parking
Customer: Private



- COMUNE DI SARONNO

Contruction new residential complex of 9
residential units and underground parking
Customer: Private



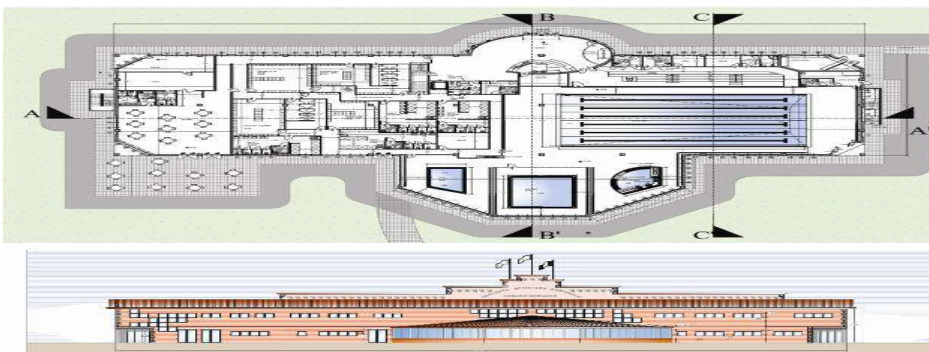
-COMUNE DI GAMBOLO'

New construction of residential complex of 44 units and parking
Customer: Teorema studio s.r.l.



- COMUNE DI CESANO BOSCONI

Construction of a new sporting center town multi-purpose municipal
Customer: Initiative in Project Financing



Building works and complementary Establishments Marcegaglia:

Industrial doors

Fire Doors

Sectional doors

Rolling doors



Building works and plant regeneration– Production Unit based in Nerviano - cosmetics company PIDIELLE s.r.l.



Building works and complementary routine maintenance - Production Unit based in Monza – cosmetics company AQUIMPEXSPA s.r.l.



Building works and complementary routine maintenance - Production Unit based in Ozzero – cosmetics company BBG s.p.a.





Dal sito: Marcegaglia plant in Kluczbork, Poland, currently completing its construction, spreads over 220,000 sqm of covered surface devoted to manufacturing and storage, within an overall area of 450,000 sqm served by railway tracks. The plant will be specialized in the manufacturing of carbon steel welded tubes (from hot-rolled, cold-rolled, pickled and galvanized strip), cold-drawn precision tubes, steel strips and sheets.

IMI – TRUFLO RONA Belgium
Construction and installation steel bunkers



Building works and complementary routine maintenance - Production Unit based in Busto Arsizio VA –
Valve for Oil & Gas Industry

FEMA s.r.l.



Industrial Company MARCEGAGLIA Casalmaggiore –BO-
Supply and installation

- Industrial doors and windows
- Sheet metal roof
- Acoustic panels



C.so Italia, nr.15 Milano

General Contractor for restructuring luxury flat

Committente: privato

Ravenna Building works and complementary routine maintenance -



 **MARCEGAGLIA**



Dal sito: Marcegaglia plant in Kluczbork, Poland, currently completing its construction, spreads over 220,000 sqm of covered surface devoted to manufacturing and storage, within an overall area of 450,000 sqm served by railway tracks. The plant will be specialized in the manufacturing of carbon steel welded tubes (from hot-rolled, cold-rolled, pickled and galvanized strip), cold-drawn precision tubes, steel strips and sheets.

Industrial Company Marcegaglia Poland

Supply and installation

- Industrial doors and windows
- Sectional doors
- Rolling doors
- High speed doors
- Fire doors



Industrial Company MARCEGAGLIA Boltiere -BG-
Supply and installation

- Industrial doors and windows
- Shelters
- Emergency doors



Industrial Company MARCEGAGLIA Ravenna -RA-
Supply and installation

- Industrial doors and windows
- Shelter



Business Center Touristic MARCEGAGLIA Isola di Albarella –RO-

Supply and installation

- Curtain wall
- Special Windows
- Steel structures



SITAV Industrial Company Maintenance, Assembly and Revamping High Speed Trains San Nicolò a Trebbia –PC-

Supply and installation

- Special panels
- Industrial doors and windows
- Sectional doors
- High speed doors
- Steel structures

PARTNERS PENTA GROUP

PENTAGROUP
INTERNATIONAL ENGINEERING SERVICE

 **MARCEGAGLIA**



Marcegaglia is the leading industrial group worldwide in the steel processing sector, with a yearly output of 5.5 million tons (2015). The group has operations worldwide with 6,500 employees, 60 sales offices, 210 representations and 43 manufacturing plants covering 6 million square metres, where 5,500 kilometres of carbon and stainless steel products are manufactured every day, serving more than 15,000 customers.

 **IMI TRUFLO RONA**



IMI Critical Engineering is a world-leading provider of critical flow control solutions that enable vital energy and process industries to operate safely, cleanly, reliably and more efficiently. As part of IMI plc, we operate a global service network, with manufacturing facilities in 16 countries. We employ over 4,000 talented professionals across a range of disciplines. These include over 400 engineers, 150 project managers and over 200 dedicated aftermarket specialists - all committed to providing excellent service to our customers. We design, manufacture and install customised, highly-engineered solutions for new plant builds and also provide complete plant lifecycle service support. This ensures that our customers benefit from efficient maintenance, speedy issue resolution and plant optimisation at all times. Our products are at the heart of complex energy and production processes. They control the flow of steam, gas and liquids in harsh environments - they are designed to withstand temperature and pressure extremes, as well as intensely abrasive or corrosive cyclical operations. Our engineering expertise sets us apart. We combine technical knowledge, engineering design capability, application experience and innovative custom-designed products to deliver safe, reliable and durable solutions.

PARTNERS PENTA GROUP

PENTAGROUP
INTERNATIONAL ENGINEERING SERVICE



Orton is an international leader in the manufacture of triple eccentric metal seated valves and rubber seated butterfly valves for any industry.

Founded by Mr. Licini (ENI Group Mgr.) in 1963 as A.M.I S.R.L. to produce centred rubber seated valves up to 24"; the company changed its name to Orton Italiana S.R.L. in 1966, becoming a national leader of rubber seated butterfly valves.

In 1982 Orton initiated the production of Double Eccentric Rubber Seated Valves and in 1987 the production of Triple Eccentric Metal Seated Valves, obtaining the certification by DNV for its compliance with ISO 9001 in 1992.

In 1993 The British multinational public group Charles Baynes plc acquired ORTON.

Orton was acquired by IMI in 2006 and is an international leader in the manufacture of triple eccentric metal seated valves & rubber seated butterfly valves for almost any industry.



FEMA was founded in 1952 and since then it has developed its activity in the safety valve sector with continued product improvement and utmost attention to current market needs. Over the years, it has become a reference point within the Italian and foreign markets with the application of its products in sectors requiring specialized safety valves. An example is the S.2000 valve used in polypropylene plants.

In 1960, anticipating the needs of the cryogenic industry, FEMA began the design and construction of specialized valves.

In 1985, proving its excellent products, FEMA became the official supplier of the safety and check valves for the aerospace plants such as Ariane, Lampoldshausen, and Vernon.

Since 1993, in order to achieve ultimate customer satisfaction, FEMA's quality control system has been certified in accordance with UNI ISO 9001:2000.

In 2010 FEMA became part of the VRV Group.

PARTNERS PENTA GROUP

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Emerging Abrasive
Lamina s.p.a.
Exergy s.p.a.
Sirio Technologies S.A.
G.T. Engineering
C.T. 2000 s.r.l.
Sirio Technologies S.A.
Kopron s.p.a.
Plating Innovation s.r.l.
Sirio s.r.l.
Master s.r.l.
IM&T s.r.l.
Comes snc
Fomat s.r.l.
MDT s.r.l.
Metecno Industrie s.p.a.
Technodrying s.r.l.
Italmatic s.r.l.

Terruzzi Ferclax s.p.a.

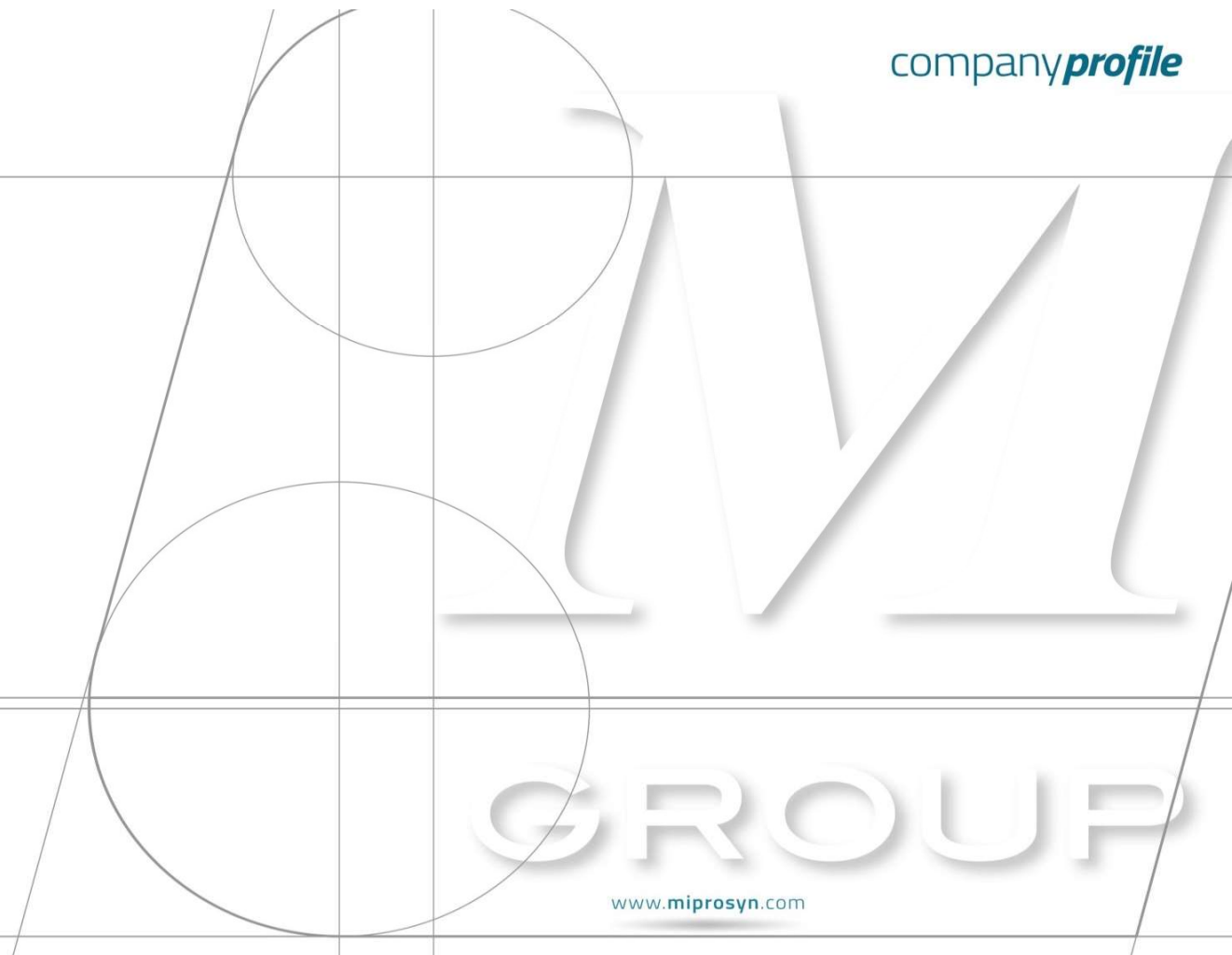
DUBAI

ACCIAIERIE BERTOLI
RUSSIA
ALGERIA
GALBUSERA s.p.a.
BRASILE
FINCANTIERI-MARGHERA
AUSTRALIA
VENEZUELA / MAROCCO
BANGLADESH
GIAPPONE
MESSICO
INDONESIA
COLOMBIA
AUSTRALIA
SRI LANKA / RUSSIA
FRANCIA
INGHILTERRA
AUSTRIA
EGITTO
ILVA TARANTO

**AUTOMAZIONE INDUSTRIALE
E DI PROCESSO**

**INDUSTRIAL AUTOMATION
AND PROCESS**

company **profile**



50 anni di MIPRO | 50 years of Mipro

E' con il marchio Syncroflow che nel 1967 inizia il percorso di Mipro nel settore dell'impiantistica di comando di sistemi per l'automazione e la movimentazione nel quale vanta migliaia di installazioni. Mettiamo a vostra disposizione decenni di affermata esperienza nel settore dell'automazione industriale, garantendo al Cliente un prodotto e un servizio personalizzato, qualitativamente elevato ed affidabile.

Mipro began in 1967 with Syncroflow brand working in plant design industry for automation and electric-drives control systems, proud of thousands of installations.

Mipro can offer to its customers many years of successful experience in the industrial automation, able to guarantee a high quality and reliable tailor made product and service.

MIPRO
GROUP

_ profilo | profile

Negli anni Mipro ha reso sempre più completo il servizio e le competenze nel campo dell'automazione. Per questo motivo si sono unite realtà complementari quali Elettroquadri, A.P.A. Solution, ITE, al fine di offrire un servizio globale che inizia con lo studio di fattibilità e che prosegue con la realizzazione e l'installazione del progetto, fino a estendersi alla messa in servizio dell'impianto, con il supporto di un adeguato servizio post vendita world wide.

Una rete di impresa riunisce le attività del gruppo che può così offrire dall'impiantistica elettrica agli avanzati sistemi DCS, passando per la fornitura e la gestione della strumentazione di processo a sistemi di comando e di controllo di macchine e processi di produzione, fino alla progettazione e costruzione di sistemi di efficientamento per caldaie e forni industriali (soffiatori di fuliggine).



Over the years, Mipro has always extended its services and expertises in the automation area. For this reason we have joined complementary realities such as Elettroquadri, APA Solution and ITE, to be able to offer an overall service from the feasibility study up to the fulfillment and installation of the project and plant installation, having an appropriate world wide after sales service support.

Companies network join group's activities, so it can offer from basic electrical systems to DCS advanced systems, supply and management of process instrumentation, control systems and machines and manufacturing process, up to the planning and construction of systems for improving the efficiency of boilers and industrial furnaces (soot blowers).

_ mission | mission

Lo spirito di innovazione e la costante evoluzione tecnologica fanno sì che vengano realizzati impianti complessi e automazioni di piccola entità a costi contenuti. Il nostro principale obiettivo rimane la piena soddisfazione del Cliente e la sua fidelizzazione, come dimostrato dalla composizione del nostro portafoglio clienti pluridecennale.

The spirit of innovation and constant technological improvement ensure that both complex systems and small automation plants are low cost made. Our main target is the full satisfaction and customer loyalty, as proved by our longterm clients portfolio.

_ vision | vision

Crediamo che l'automazione industriale sia strumento indispensabile per il raggiungimento dell'obiettivo di elevate performance, eppure semplici da gestire, e che l'utilizzo di tecnologie innovative renda costante e proficua la produzione.

We believe that the industrial automation is essential for achieving high performances, although simple to operate, and the use of innovative technologies makes the production constant and profitable.

MIPRO
SyncoFlow®



ADA
Solution

ELETTROQUADRI

_ attività principali

_ main activities

Progettazione e messa in opera di impianti industriali
Design and installation of industrial plants

Software di gestione Commesse
Orders/production management software

Produzione di servozionamenti, motori ed elettronica industriale
Production of servo drives, motors and industrial electronics

Progettazione e realizzazione di quadri elettrici di comando
Design and production electrical control panels for energy distribution

Linee di produzione pannelli sandwich
Continuous lines for the production of insulated sandwich panels

Sistemi di efficientamento per caldaie ad energia rinnovabile
Systems for renewable energy boilers efficiency

Progettazione e realizzazione di quadristica per la distribuzione
Design and implementation of switchboards for distribution

_ prodotti supportati

_ products

Controllori logici programmabili
Programmable logic controllers

Terminali programmabili
Human-machine interfaces

Inverter
Inverter

Motion control
Motion control

Sistemi di supervisione "SCADA"
Supervisory Control And Data Acquisition systems

Sistemi di controllo distribuiti nei processi industriali DCS
Distributed control systems (DCS) in industrial processes

_ servizi

_ services

Studio di fattibilità
Feasibility study

Quadri elettrici certificati CSA UL
Switchboards certified CSA UL

Quadri ATEX
ATEX switchboards

Cablaggi a bordo Macchina
Machine wiring

Servizio post vendita
After sale service

Realizzazione di software per l'automazione
Automation software realisation

Revamping e ammodernamento di impianti industriali
Revamping and modernization of industrial plants

Contratti di manutenzione e assistenza.
Maintenance and assistance contracts

_ settori operativi

_ business activities

Abrasivo
Abrasive Sector

Aerospaziale
Aerospace Industry

Alimentare
Food industry

Chimico
Chemical Industry

Difesa
Defence sector

Energie Rinnovabili
Renewable energies

Farmaceutico
Pharmaceuticals Sector

Galvanica
Galvanic Industry

Packaging
Packaging

Petrochimico
Petrochemical Sector

Siderurgico
Steel Industry

Tessile
Textile Industry





prodotti | products



Azionamenti D.C. a thyristori (SCR)/A mosfet mono e bidirezionali

Azionamenti brushless

Inverter

Potenziometri digitali tipo PTC 0/10V

Filtri per normative EMC

Motori in c.c./pacco lamellare a campo avvolto tubolari auto-servoventilati

Motori c.c. a Magneti Permanenti

Motori brushless

D.C.S.

Valvole di controllo

Strumentazione da campo per la misura e controllo di variabili di processo:

- temperatura
- pressione
- portata
- livelli
- densità (concentrazione)
- Ph
- Redox
- Conducibilità

Soffiatori di fuliggine rotativi, retrattili, semiretrattili e a rastrello. Con relativo sistema di controllo

Thyristor drives (SCR)/Mono and bidirectional MOSFET drives

Brushless drives

Inverters

Digital potentiometers type PTC 0/10V

EMC filters

D.C. and tubular self-servoventilated motors

D.C. fully laminated servoventilated motors

D.C. permanent magnet motors

Brushless motors

D.C.S.

Control valves

Field Instrumentation for measuring and process control of:

- temperature
- pressure
- flow
- levels
- density (concentration)
- Ph
- Redox
- Conductivity

Rotative, retractible, semi-retractible and rake soot-blowers with relative control system.

MIPRO
GROUP

il valore dell'esperienza **the value of experience**

L'elevato numero di impianti realizzati e la conoscenza acquisita nel settore dell'automazione applicata e nel controllo di processo nei più svariati settori industriali garantiscono la condivisione del know-how per sviluppare progetti ad elevato valore aggiunto affidabili e sicuri.

Pensiamo che il coinvolgimento nel processo produttivo dei nostri collaboratori e la loro valorizzazione mediante la continua formazione on the job costituiscano i migliori presupposti per la riuscita del progetto. In questo modo, **Mipro Group**, anche solo con le proprie risorse interne, è in grado di portare a termine commesse articolate in maniera completa ed immediatamente utilizzabile.

La sinergia tra il settore impiantistico, elettrostrumentale ed ingegneristico consentono di utilizzare soluzioni che tengano conto delle problematiche software, hardware, di assemblaggio e di installazione in campo.

Questo permette di intervenire sulla commessa con un adeguato riesame e validazione del progetto anche in corso d'opera.

The large number of systems installed and the knowledge gained in applied automation and process control in many industrial sectors ensure the know-how sharing for developing high added value projects reliable and safe.

We think that the involvement in the production process of our employees and their development through on-the-job continuous training constitute the best prerequisites for successful projects.

*In **Mipro Group**, even by its own resources, is able to carry out complex works in a comprehensive way and for immediate use.*

The synergy between the plant engineering industry, electrical instrumentation and engineering allows to adopt solutions which evaluate software, hardware, assembly and installation issues. This permits us to intervene on each order with an appropriate review and validation of the project even in progress.



qualità | quality



Strategia della Qualità: affidabilità ed efficienza nel tempo mediante elevati parametri qualitativi nel rispetto delle normative armonizzate anche per il mercato nord Americano mediante abilitazione alla costruzione di sistemi a norme CSA UL.

MIPRO è un'azienda certificata ISO9001.

Quality strategy: reliability, efficiency and credibility over time by high standards and guaranteed qualitative parameters in compliance with the harmonized regulations even on the North American market by certification for construction of systems subjected to CSA UL rules.

MIPRO Company is certified ISO9001.

**AUTOMAZIONE INDUSTRIALE
E DI PROCESSO**

**INDUSTRIAL AUTOMATION
AND PROCESS**

Quanto descritto è reso possibile grazie al rapporto di fiducia e credibilità stabilito con i **nostri fornitori** e i **nostri clienti** ed è nostro vanto affermare che alcuni di essi sono **leader** nel loro settore di appartenenza.

*Our activities are possible thanks to the relationship of trust and confidence established with **our suppliers** and **customers**, and we are proud to say that some of them **are leaders** in their sector.*

company**profile**



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GROUP

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Development Project in NOVOSIBIRSK REGION - Siberia



YOUR PARTNER FOR ENERGY EFFICIENCY

BUSINESS DEVELOPMENT COM – Aug 2015



WE CONTRIBUTE TO THE FUTURE OF SUSTAINABLE THE PLANET

The NOVOSIBIRSK Project:

After the agreement signed between the Lombardy Region the Novosibirsk Region would like to contribute by participating in this nascent project, the synergy between **TEKN & CO** and **INNTEA** dedicated companies in the **world in energy efficiency** and in *collaboration with* **PENTAGROUP** operating in the **field Civil and Industrial** born this proposal,

Thanks to our many years of technical and construction experience in plants for the production of energy from renewable sources, and to our strong financial strength, we provide clients with a highly reliable and technologically advanced product which is always at the right price.

Today We are presents and we developed **efficient energy solutions** with Design, Building up and initiated turnkey systems for the production of energy from renewable sources it is one of our main purpose.

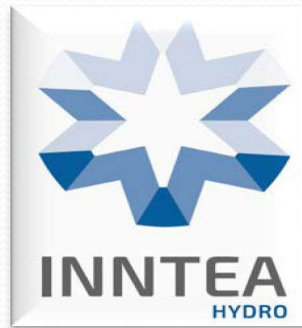
Together we wish to actively contribute to the future of our planet, its development and its well-being.

we trust in what we do...

Who We Are

INNTEA

FIELD OF BUSINESS



WATER TO WIRE PACKAGES :

turbine, generator, mounting frames,
turbine inlet valves, switchgear,
control and protections,
Scada System for Generating Plant.

EPC CONTRACTOR:

Reduction of time / costs of construction
Ensure performances
Customer refers only to the contractor



EPC Contractor - turnkey:

With many years of experience in
construction of photovoltaic systems INNTEA
Power becomes an EPC contractor, providing
the service of "turnkey" to install photovoltaic
systems combining intelligent technology
accumulation and/or profile management
loads through remote monitoring.

EPC CONTRACTOR:

Reduction of time / costs of construction
Ensure performances
Customer refers only to the contractor



System for ENERGY EFFICIENCY:

helps you to monitor data & control,
Energy audit
Lighting energy efficiency
Energy management systems
receiving and handling alerts
Remote control

**The data collected in real time provide a lot
of information including:**

the instant energy consumed and produced the
total energy produced
the value of daily gain and the total installation
of the system



Sede operativa

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