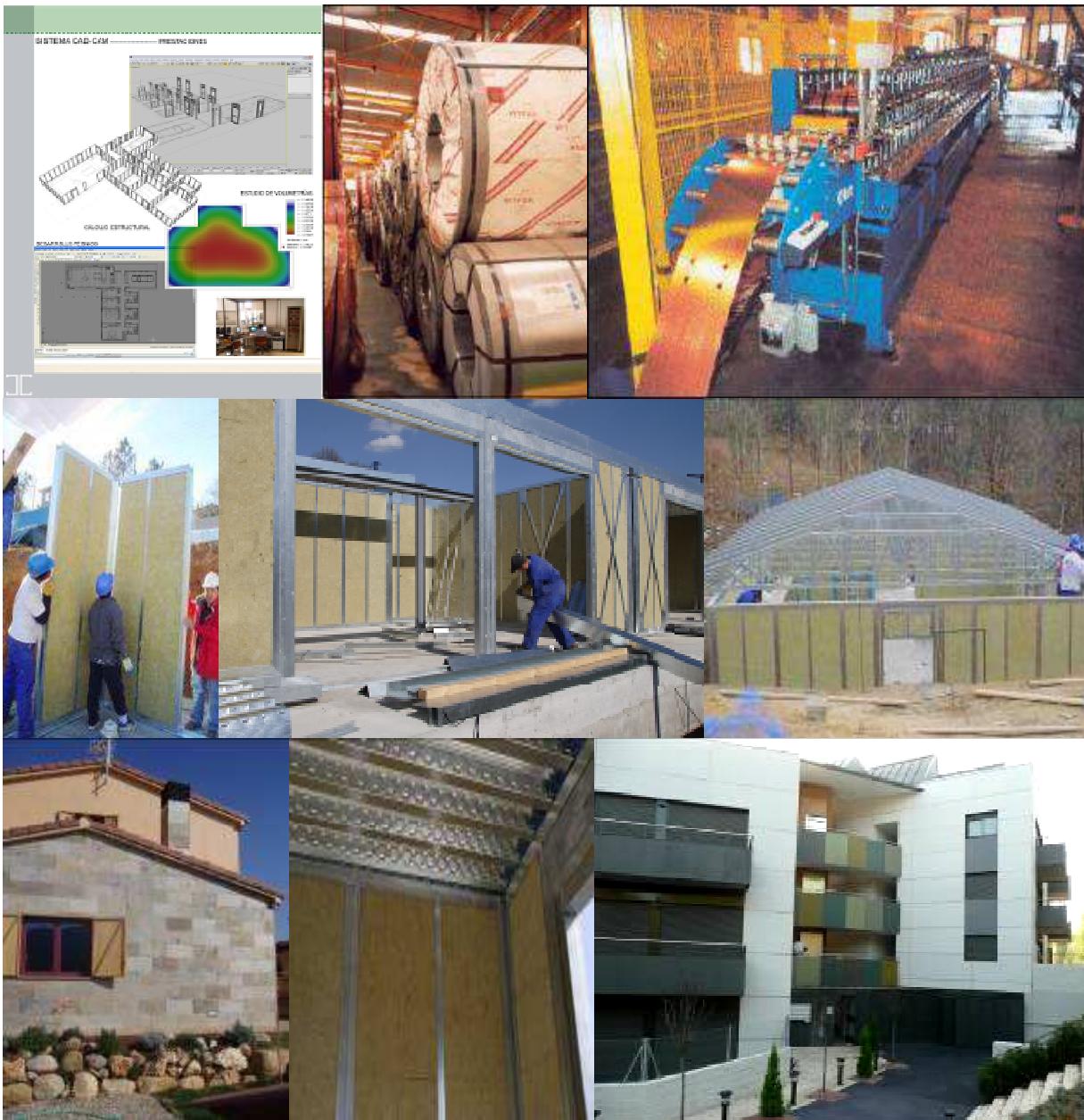




Advanced Construction Systems

INDUSTRIALIZED CONSTRUCTION SYSTEMS

TECCON SYSTEM INTRODUCTION



TECCON is a Spanish company with its own cutting-edge technology in the area of industrial construction. It offers a new system of construction based on industrially manufactured steel structures composed of pre-engineered and prefabricated components. Its technology is based in the use of thin galvanized steel sheet metal ("light steel framing") with unique characteristics different from those available on the market today.

The TECCON ® System is suitable for single family homes, multiple family homes, schools and other service buildings (residences, hospitals, etc.) with a maximum height of five floors.

The TECCON ® System reduces construction time up to 50% when compared to traditional systems, at market price. The technology used is easily implemented industrially and offers performance and adaptability using simple logistics planning. It is particularly suitable for large scale housing projects.

TECCON regularly participates in cutting-edge research and development projects within Europe, as a result, the TECCON System has received some of the most prestigious prizes in Spanish innovation.

The TECCON ® System is patented and is the only prefabricated light gauge steel structural system currently approved throughout Europe. TECCON can be sold and installed in any international market through our internationally approved equipment. We strictly follow European Technical Building Standards and applicable European legislation.

Metal structural systems are particularly suitable for seismic risk areas because of its elasticity and lightness (e.g. California, Hawaii, Caribbean, Turkey, Japan, North Africa, etc.).

Its technology is based on light gauge steel ("light steel framing") which is currently experiencing increase in growth globally as a prefabricated construction system.

TECCON is deeply rooted in Spain and is currently in the process of expanding internationally.

TECCON offers a technical department capable of providing additional support anywhere in the world, during both the development phase of the project or on-site during construction. The crew, formally trained for their specific activity, consists of civil engineers, industrial engineers and architects.

System Features:

PREFABRICATED

Fewer teams of onsite workers, reduced costs, reduced tolerances, effective quality control and maintenance, onsite work quickly completed.

HIGH-PERFORMANCE

Altogether, TECCON® System's performance ensures compliance with the main international technical building codes.

SUSTAINABLE

All materials used are recycled. Constructed using completely dry methods.

No waste is produced on site. Once it has finished being used, the system can be dismantled and the majority of its components reused.

SAFE

Thanks both to the quality control required when producing vertical and horizontal sections and to TECCON® System's onsite assembly, there is zero risk of errors (an important factor in designs using large numbers of prefabricated elements and low-skilled workers).

FAST AND EASY

TECCON® System arrives on site prefabricated. Quickly assembled. Facilitates the work of the rest of the professionals on site. The technical project manager's monitoring of assembly time is more accurate.

FINANCIAL

It leads to, on average, a 15% reduction in the budget for structures and foundations and a 40% reduction in construction time, compared with conventional systems. It also leads to other advantages, variable depending on the promoter-building contractor, in the areas of logistics and finances (greatest benefits in capital turnover).

FLEXIBLE

Any exterior finish is possible (TECCON® System is only the interior framework).

VERIFIED

TECCON® System has been awarded the internationally recognized ETA (European Technical Approval).

Other Advantages of the System:

- a) No structural maintenance of the building, because the structure is completely galvanized.
- b) The structure is easily and quickly disassembled after its life. The cost of disassembly is much less than any other existing system. It should also be kept in mind that most disassembly will take place in more than 10 years, at the time, there will be strict regulations regarding selection and recovery of materials which forces these materials to be linked to their recovery in the construction process. This last phase will have very high associated costs. The Teccon system presents a dismantling phase where the material is automatically selected. As for the validation of the recovered materials, we must remember that all are already today and that in the case of steel, it is the most recycled material on the market.
- c) Allows quick expansion of the building.
- d) Does not limit the later phases of construction.
- e) Cutting edge technology in "Steel Framing." This technology has experienced a global growth in non-conventional construction systems.
- f) Theft is minimized on the work site, the elements of the system are only used in this type of building.
- g) High performance energy saving.
- h) It is a flexible structural system, better performance in seismic zones compared to conventional rigid systems (concrete, laminated structure).
- i) Ensures an adequate level of quality, even before starting construction (due to being a fully industrialized system tested in official laboratories).



TECCON® SYSTEM - ELEMENTS



TECCON® SYSTEM - MANUFACTURING



SYSTEM APPLICATIONS:

Individual Home

Multiple-Family Housing

Social Family Housing

School Building

Hospital

Hotel
Police Station

Office Building

TECCON® SYSTEM - INDIVIDUAL HOME



TECCON® SYSTEM - MULTIPLE-FAMILY HOUSING





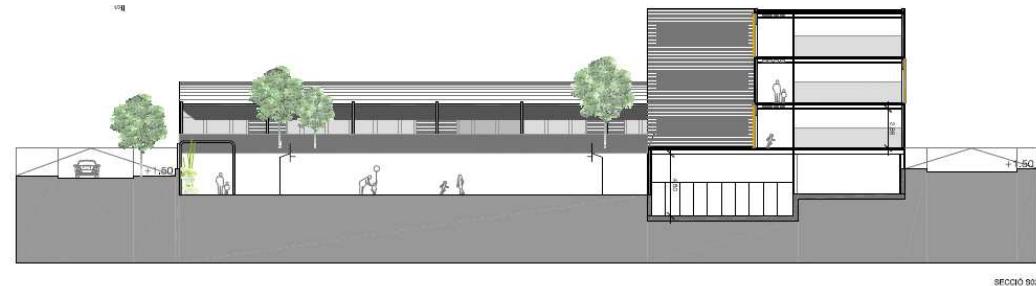






PROJECT IMPLEMENTATION WEEKLY SCHEDULE

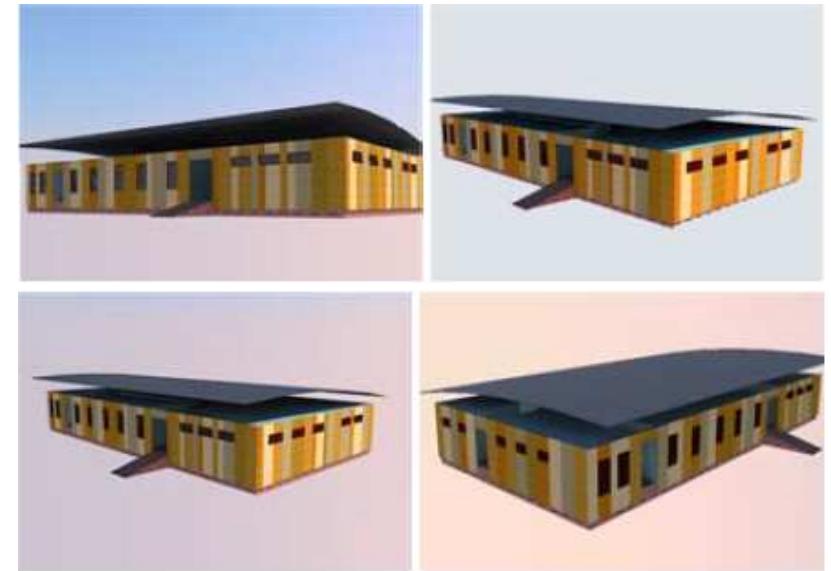
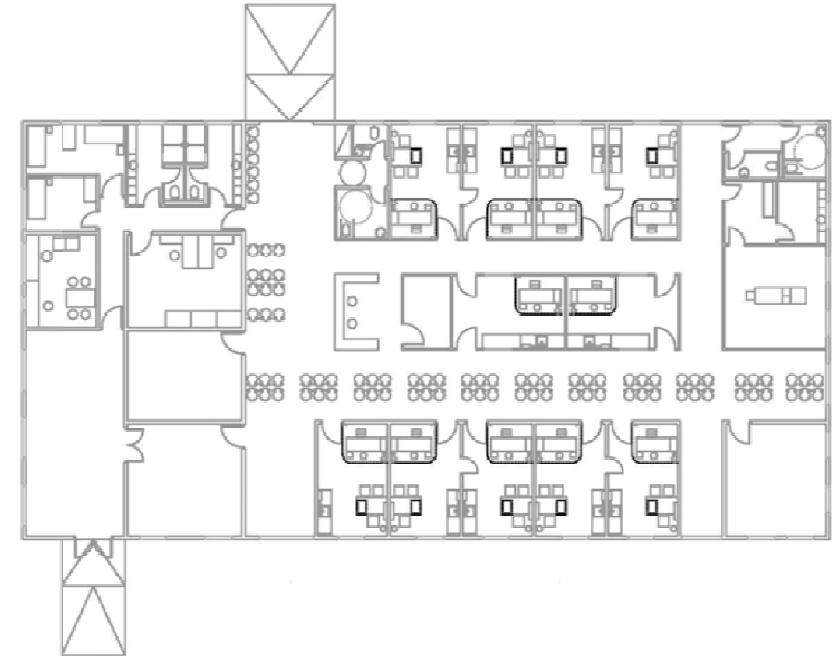
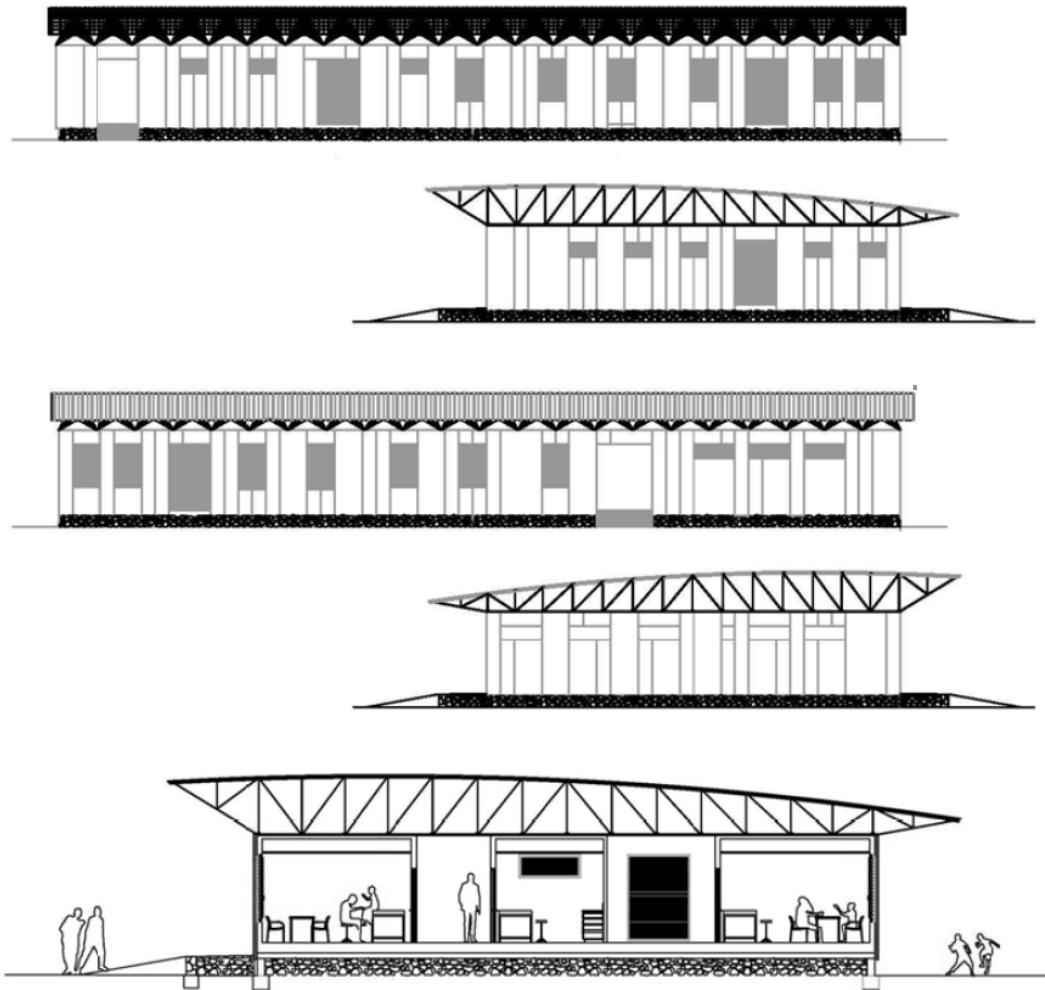




SCHOOL BUILDING – 3500 m²



HOSPITAL – Family Assistance Center



HOTEL



TECCON®

NOUVEAU SYSTÈME MÉTALLIQUE PREINDUSTRIALIZADO POUR CONSTRUCTION DE DEMEURES UNIFAMILIALE,
MULTIFAMILIAL ET BATIMENTS D'ÉQUIPAMENT (LES ÉCOLES, LES RÉSIDENCES ET LES BUREAUX)

RAPICITÉ ET PRÉCISION

TECCON

Barcelona – 2.014

TECCON® SYSTEM – POLICE STATION



TECCON® SYSTEM - OFFICE BUILDING



NECESIDADES DE INVERSION INICIAL

1) DESARROLLO DEL SISTEMA A PARTIR DE IDEAS (2004-2006):

- Diseño modular y estructural
- Definición de prestaciones para mercado
- Ensayos en centros oficiales
- Homologación europea
- Definición de proceso de fabricación de paneles y desarrollo de utilajes
- Fabricación de prototipos y preserie final

2) PUESTA EN PRACTICA DEL PLAN DE EMPRESA (2004 – 2006):

- Organización interna
- Selección de personal altamente cualificado
- Puesta en marcha de la nave industrial
- Entrada en mercado

3) PLAN DE CRECIMIENTO (2006-...):

- Definición de nuevos segmentos de mercado
- Disusión a través de medios específicos (arquitectos, jornadas técnicas, programas Idi europeos, concursos, etc.)
- Red representantes en España
- Internacionalización

PLAN DE FINANCIACION:

- a. ¿Proyecto de desarrollo tecnológico, o de empresa? En el inicio de una empresa de base tecnológica: proyecto y empresa es lo mismo.
- b. Capital inicial: si no hay capital, mejor no empezar.
- c. El capital de Teccon era suficiente según el plan de empresa teórico que habíamos previsto: 400.000 €. Sin embargo, a los 3 meses, hicimos una primera actualización del plan de empresa: el presupuesto en desarrollo tecnológico se había detallado mucho más, había crecido un 100%... (personal, homologación, tiempo previsto).
- d. Necesitábamos financiación externa: ¿bancos? ¿subvenciones? ¿nuevos socios? Decidimos que la mejor financiación para nosotros era CDTI.
- e. En 2007 obteníamos un préstamo NEOTEC por importe de 300.000 €, a interés cero, sin aval, y con devolución del principal en base a un canon anual sobre cash-flow obtenido.

EXPERIENCIA CDTI:

- a. En una primera reunión, nos dirigieron al programa NEOTEC de CDTI. Tuvimos un interlocutor técnico que nos asesoró hasta su aprobación. Y, lo más importante, **"estaba de nuestro lado, motivaba"**. Seguro que saben lo que es tratar con las Administraciones... Tratar con CDTI es una grata experiencia.
- b. CDTI nos ayudó a detallar mejor el plan de negocio, a contemplar aspectos que no habíamos previsto.
- c. El proceso de evaluación duró 6 meses: contenido técnico, plan financiero, plan comercial, tiempo para ver la progresión inicial de la empresa, etc. **Es recomendable ir a CDTI (a NEOTEC) con un plan de empresa bien elaborado, y con la organización de la empresa bien definida.** Una idea inicial a desarrollar debe esperar.
- d. Durante estos años, Teccon ha participado en el Programa Marco Europeo, en el antiguo Programa del Carbón y Acero, en Programas del Fondo Social Europeo; ha solicitado ayudas a fondo perdido al Ministerio de Trabajo, al Ministerio de Economía y Ciencia, al CIDEM (ACC10), etc.
- e. Nuestra experiencia sólo ha sido positiva con CDTI y con ACC10. Con CDTI, por su profesionalidad (no es "Administración"), contacto permanente (no teníamos sensación de "lotería", sino de un proceso que iba a buen fin) y **ayuda financiera en el momento en que lo necesitábamos**. ACC10, por su proximidad y apoyo en todo momento; aunque la financiación era pequeña y llegaba tarde. El resto de experiencias, mejor no haberlas vivido (consorcios mal planteados, contenidos de trabajo sin definir, ingreso de las ayudas fuera de tiempo, devolución parcial de ayudas, etc.). Hay que tenerlo en cuenta, antes de meterse en caminos sin salida.