# LABORATORY TESTING FACILITIES

**TECNIGLOBALRACK, S.L.** C/Max Planck, 529 - Polígono Roces 3 – 33392 – Gijón, España
Tel:(+34) 985098468 Fax:(+34) 985098471 e-mail: contact@tecniglobalrack.es

## TECNIGLOBALRACK LABORATORY ACITIVITIES

- Performance of tests defined and required for different storage systems (EN 15512, FEM 10.2.02, FEM10.2.06, FEM 10.2.09,..) to obtain the characteristic values of profiles and connections.

    - Material test (tensile, bending, chemical)
    - Compression test on uprights (local, distorsional, flexural and torsional buckling)
    - Compression test on upright frames (buckling curves)
    - Upright to beam connection (strength, stiffness, looseness and shear resistance)
    - Bending test on uprights and beams
    - Shear test on upright frames
    - Upright to base connection (strength, stiffness)
    - Shelf test
    - Full scale prototype test for shelving systems

- Performance of unstandardized tests to evaluate a new system / product (static, dynamic and fatigue).

- Optimizing designs by testing and generation of loading tables.

- Elaboration of technical test reports according to testing results.

- Periodic testing for factory production control (FPC) according to EN 15512.

- Processing of approval of test results by DIBt (Deutsches Institut für Bautechnik).

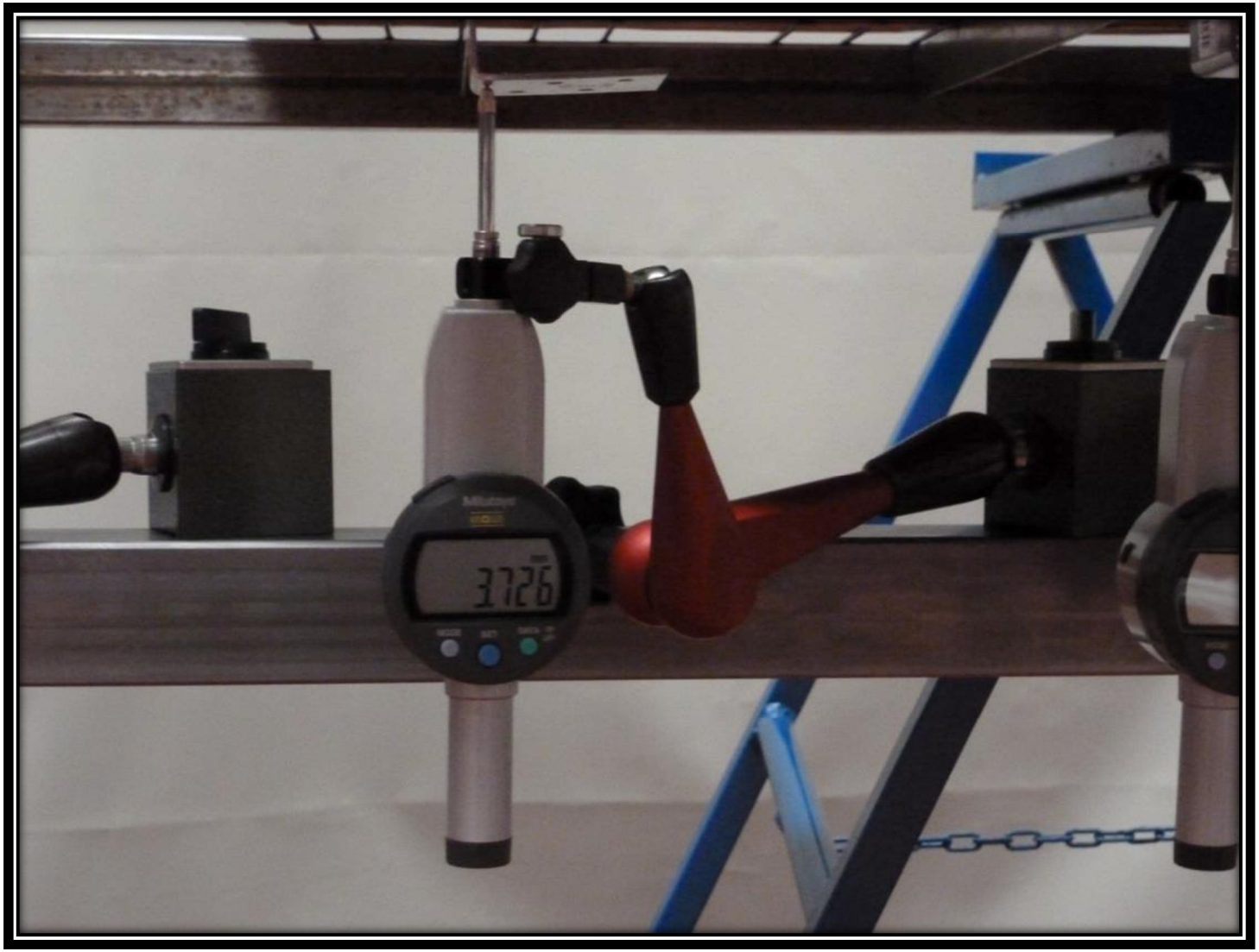
## TECNIGLOBALRACK LABORATORY EQUIPMENT

Equipment with the most advanced technology (MTS, MITUTOYO, …) to develop tests (measurement and application of loads and displacements)

MTS

Mitutoyo

TECNI
GLOBAL
RACK


3726

## TECNIGLOBALRACK LABORATORY STAFF

Tecniglobalrack staff has an extensive experience with more than 10 years of work on the storage systems sector.

Deutsches Institut für Bautechnik DIBt

**Institutions in the approval procedure for racking systems acknowledged by DIBt**

**Institution A** (*VersuchsLabor = Research laboratory*)

| | |
|---|---|
| **Institutes for steel construction and professorships** | |
| Prof. Dr.-Ing. Ungermann | Technische Universität Dortmund |
| Prof. Dr.-Ing. Ummenhofer | KIT Stahl- und Leichtbau |
| Prof. Dr.-Ing. Lange | Technische Universität Darmstadt |
| Prof. Feldmann | RWTH Aachen |
| ..... | |
| **Consulting engineers** | |
| Hr. Stangenberg | Ingenieurbüro Dr. Möll GmbH, Darmstadt |
| Dr.-Ing. Fröhlich | Sigma Karlsruhe GmbH, Malsch (bei Karlsruhe) |
| ..... | |
| **Europe** | |
| Prof. Francesc Roure, Barcelona | LERMA - Universitat Politècnica de Catalunya |
| John Steven Cowen, Colin Hinton | Cowen Associates Ltd, UK |
| Prof. J.P. Jaspart, Liège | M&S, Laboratoire de Mécanique des Materiaux et Structures, Université de Liège |
| Prof. Dr. eng. Riccardo Zandonini, Trento | LABORATORY FOR MATERIALS AND STRUCTURAL TESTING Università degli Studi di Trento |
| ..... | |

**Institution B** (*Gutachter = Expert*)

| | |
|---|---|
| **Institutes for steel construction and professorships** | |
| Prof. Dr.-Ing. Ungermann | Technische Universität Dortmund |
| Prof. Dr.-Ing. Ummenhofer | KIT Stahl- und Leichtbau |
| Prof. Dr.-Ing. Lange | Technische Universität Darmstadt |
| Prof. Feldmann | RWTH Aachen |
| ..... | |
| **Consulting engineers** | |
| Hr. Stangenberg | Ingenieurbüro Dr. Möll GmbH, Darmstadt |
| Dr.-Ing. Fröhlich | Sigma Karlsruhe GmbH, Malsch (bei Karlsruhe) |
| Dr.-Ing. Becker | Verheyen - Ingenieure GmbH Co. KG, Bad Kreuznach |
| Dr.-Ing. Ebenau | Ingenieurpartnerschaft Karvanek-Ebenau, formerly: Prof. Dr.-Ing. Thierauf GT Ingenieurbüro, Essen |
| ..... | |
| **Europe** | |
| Prof. Francesc Roure, Barcelona | LERMA - Universitat Politècnica de Catalunya |
| John Steven Cowen, Colin Hinton | Cowen Associates Ltd, UK |
| ing. Stefano Sesana | SCL Ingegneria Strutturale, Milano |
| Hervé Degée<br>Research Associate F.R.S.-FNRS | M&S, Laboratoire de Mécanique des Materiaux et Structures, Université de Liège |
| Prof. Dr. eng. Riccardo Zandonini, Trento | LABORATORY FOR MATERIALS AND STRUCTURAL TESTING Università degli Studi di Trento |
| [illegible] | [illegible] |
| Alejandro Pérez Amandi | TECNIGLOBALRACK, Gijón (Spain) |
| ..... | |

**(four-eye principle shall be observed!)**

FEM AEM
Asociación Española de Manutención

# CERTIFICADO

**Nº 129/13-2013 Acreditativo de empresa asociada a la FEM-AEM (Comité Nacional de la FEM)**

FEDERATION OF EUROPEAN MATERIALS HANDLING

F.E.M.

*La Asociación Española de Manutención (FEM-AEM) mediante el presente certificado acredita que la empresa*

**TECNIGLOBALRACK, S.L.**

*es miembro de la citada asociación de empresas desde 18 de febrero de 2013, habiendo sido registrada con el nº 129 de socio.*

*Barcelona, 18 de febrero de 2013*

*El Presidente*
José María de Simón

*El Secretario Ejecutivo*
Martí Colomina