



General Catalogue n°7 exp



Tecfi SpA is your industrial partner in Europe

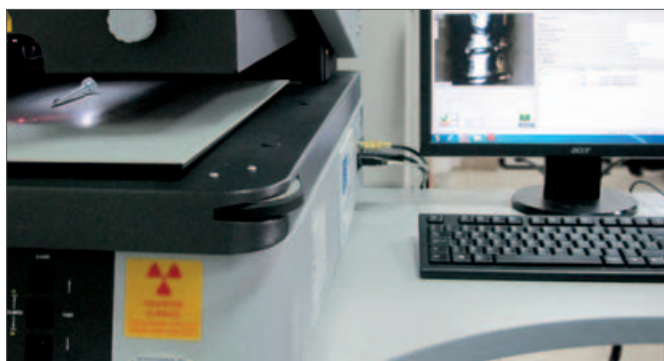
“Tecfi, Your Industrial Partner in Europe” is the “slogan” we have taken around the world with our products in recent years. These products are the result of the huge investments for the design, for the certifications, for the production facilities and factories we’ve developed over the last 10 years and that generated an industrial area almost unique.

In addition, the speed and the vehemence with which every day is made to run by our now numerous youth, provides enthusiasm. This year we have reached the 25th anniversary of our foundation with results, both numerical and qualitative, superior to those of companies even more than twice of our age, and with a completely original strategy, often at odds with current trends.





The labs



The automation

We believe that it is not easy to find, in Europe and in the global fastener and fixing scene, an own-brand company with:

- an advanced assessment laboratory equipped with the most important and certified facilities, testing from the raw material to the finished product, through dimensional, mechanical, metallurgical, corrosion and scanning calorimetry tests. In addition, since 7 years, we have also equipped a new laboratory with the very latest facilities for static, dynamic and seismic load tests, for the research and the development of anchors to be used in cracked concrete and seismic areas;



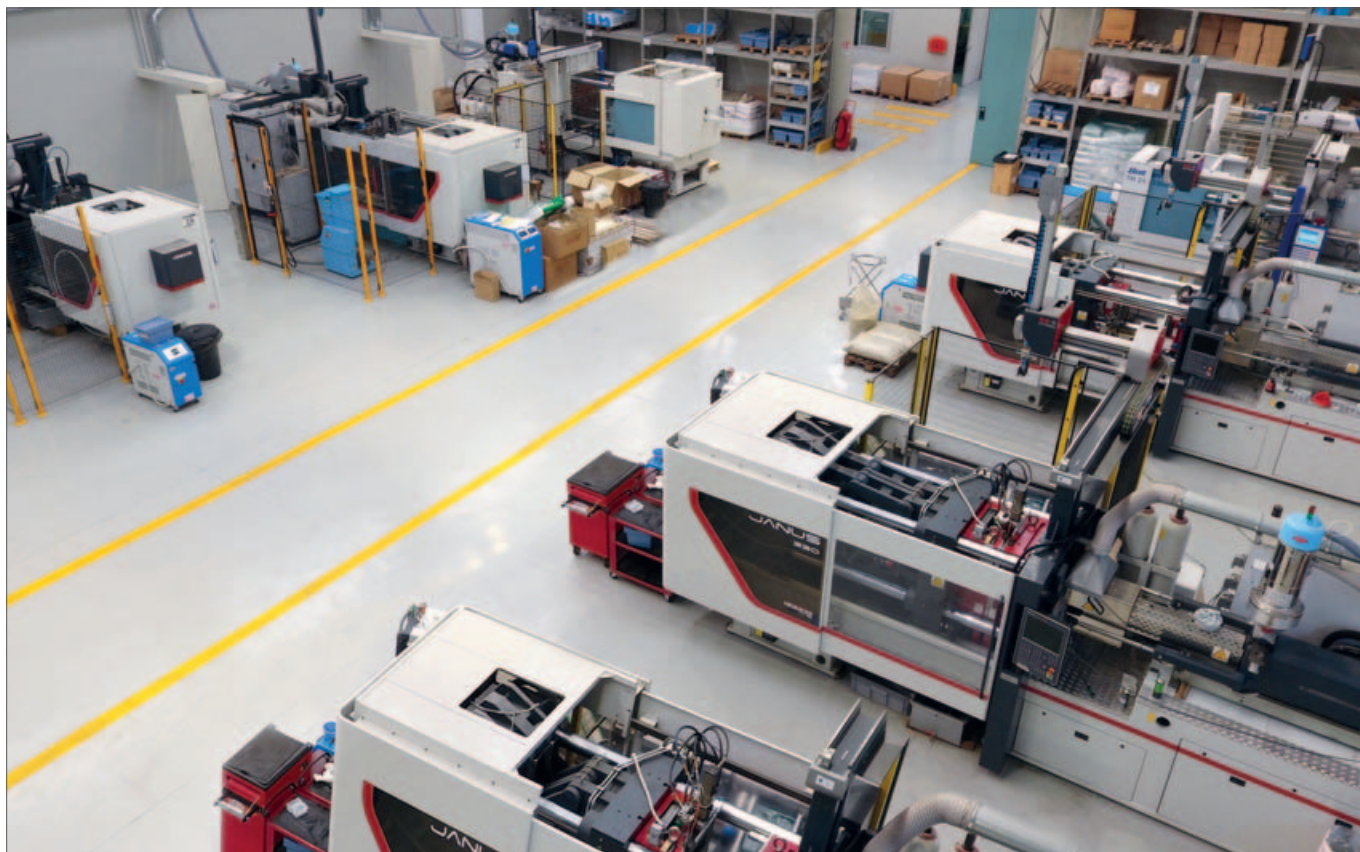
The production: wire cold forming



- such a large number of production processes in operation: metal sheet stamping, plastic materials injection, rubber materials injection, wire cold forming with the most technologically advanced Italian multi-station and 1 die 2 blow heading machines, and threading machines;
- automated lines for special treatments for screws;
- increasingly automated lines for product assembly and packaging;



The production: plastic and rubber injection



All this in 3 production plants on 2 neighbouring areas, logistically well located just a few hundred metres from the main Italian motorway, with an uncovered area of about 72,000 square metres and about 15,000 square metres of covered area (expandable up to 36,000 square metres).

The numerous interlocutors, customers, suppliers and friends who visited us were able to share this enthusiasm and passion. A tour of the plants is important in order to make the right choice of your “Fixing and Fastener Partner”, that can guarantee the innovation, the product range, the certifications (sometimes even customized), high quality packaging service satisfying all commercial needs, the daily handling of the procedures regarding the environment, the occupational safety and health, the civil life duties: for these reasons we’d like, again, to encourage all of our Customers to visit the beautiful plants we have made available in ITALY and touch our reality with their own hands.

In the direction described above, in recent years we have intensified our R&D & Certification efforts, and the results were:

- Improving the environmental impact of certain product coatings: the new, beautiful yellow galvanized coating “GOLD Type - CrVI-free”, an intense bright yellow, highly appreciated by the customers and fully compliant with regulations and directives;





- New Products (or existing products) with new Special Coatings, with high corrosion resistance;

- New Products (or existing products) with new (or renewed) Technical Assessments and new CE Certifications, accompanied by a highly professional Technical Service for Customers and Users, for the appropriate choice and correct installation. This service can be provided both by our Laboratory (in-house) and by the "Field Engineering" (on-site technical support activities): all this as clear evidence of Tecfi's will towards TOTAL safety in the applications of its products;

In summary, the competitive leverages on which we want to build our future are the research and innovation, the safety of our products, the technical support to our customers, the internationalization and the organic (and inorganic!!) growth of our company. In fact, Tecfi believes in the capability of creating products and services that are globally recognized as reliable, safe, innovative, beautiful and valuable for customers.

Now our resources are dedicated to reaching the target of a worldwide business establishment, keeping the same high level of service that we offer in our national territory.

In this year in which we celebrate our 25th anniversary, we will begin a further course of investment that will see us, once again, committed for several years to consolidating, strengthening and innovating what we have already achieved so far. All of this while continuing (as we have always done) to respect and respect ourselves: in fact, we also have an ongoing commitment to our stakeholders in complying rigorously to the idea of Corporate Social Responsibility (CSR), developing a Company with a built in philosophy. It ensures that all our business processes are in accordance with both national and international ethical standards. We are striving to severely limit any environmental impact resulting from our operations and to provide equally professional commitment to the consumer, employees, local communities and all further stakeholders.

Once again, as for 25 years, our sincere appreciation to all of our customers, suppliers, staff members and friends who have believed in us and continue to offer us their support and cooperation.

Tecfi S.p.A. *Gianluca Bertamino / GM
Antonio Guarino / President
Team Tecfi*



TECFI S.p.A. is a Company associated with:



European Consortium of Anchors Producers



TECFI S.p.A. is a Company associated with UNI:



Ente Nazionale Italiano di Unificazione
(Italian Standards Institution)

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QUALITY MANAGEMENT SYSTEM
Certified in compliance with standard UNI EN ISO 9001



ENVIRONMENT MANAGEMENT SYSTEM
Certified in compliance with standard UNI EN ISO 14001



Tecfi S.p.A.

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Share Capital 10.000.000

Tecfi is an environmentally friendly Company

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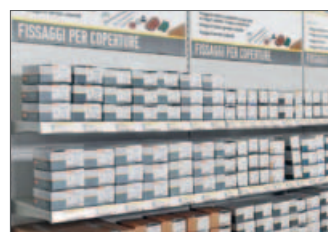


Tecfi invested in a Renewable Power plant with Photovoltaic Technology, that produces electricity exceeding its needs.

As a environmental benefit, in the next 20 years we will reduce the emission to the atmosphere of CO₂ of around:

1.929.438 kg

Events and Technical training



Trademarks



Tecfi trademarks and all the above mentioned trademarks are registered trademarks and belong exclusively to Tecfi S.p.A. Via A.D'Isernia, 38 - 80122 Naples, Warehouse in Pastorano (CE) - 81050 S.S. Appia, km 193.

The items drawings shown in this catalogue are approximate and Tecfi S.p.A can modify or erase some products, without prior notice. Items drawings shown in this catalogue have been realised from Tecfi S.p.A and belong exclusively to Tecfi S.p.A: nobody is allowed to reproduce or copy it without Tecfi prior authorization.

Tecfi, the product certifications and the CPR

1. Introduction

Despite the historical events of the last two years, all activities related to revisions, updates and improvements of technical references of our industry never stopped.

Likewise, the improvement of knowledge through research for the certification, assessment and increase of both performances and suitability of the products in our sector have also continued.



2. The CE marking of construction products and the DoP

The CE mark is something that the recent worldwide events have made us more familiar with.

For our serenity, we demand that all protective equipments we use bear this mark.

Somehow, we have entrusted our security and serenity to this mark and we have also learnt that it is worth more than just the certificate that come with the product. The CE mark gives us greater confidence in the product, in the manufacturer and in its ability to guarantee the highest and most up-to-date standards of production stability and quality, from the raw material to the finished product, through all stages of processing and production, both in-house and subcontracted.

What has been said so far also applies to products for the construction industry, for which the European Commission has implemented the well known CPR (Construction Product Regulation, EU 305/2011).

The CPR require that all construction products must have both a CE marking and a clear and unambiguous document, a sort of product ID card: the DoP, Declaration of Performance.

Through this document, the designer, the site engineer and the installer can understand if a product is suitable to meet the design requirements and if it can fulfil the task that should be assigned to it.

The main objective of the CPR, of the CE marking and of the DoP, is to make the characteristics of the product safer, stable and clear and to increase safety in applications in the construction sector.

Tecfi S.p.A. offers a wide range of products with CE marking, in response to the requests and needs of its customers and driven by the potential of European and non-European markets.

In compliance with the provisions of the CPR, Tecfi SpA has drawn up the Declaration of Performance according to EU 305/2011 available to all users, on its website in a free access area.

Tecfi S.p.A. offers a wide range of information about the products, according to the following classification:

a) Products covered by:

- European Assessment Documents (EAD)
- European or International standards (EN, ISO), which can lead to CE marking

b) Products for which there are no mandatory regulations



Tecfi, the product certifications and the CPR

2.a Products for which have been endorsed national, European or International (UNI, DIN, BS, EN, ISO) guidelines or standards

In Europe there are two different organization involved in the issuing of harmonized technical specification, they are:

- The CEN, European Committee for Standardization, which includes the standardization bodies of the member states of the EU and draws up the technical specifications, defined harmonized standards;
- The EOTA (European Organisation for Technical Assessment) which draws up technical specifications defined European Assessment Documents in CPR (EADs, the European Assessment Documents).

In the case of metal anchors, plastic anchors, chemical anchors, three-dimensional nailing plates, which have been classified in the category of “innovative products”, the European Commission has invested EOTA of the task of formulating the different guidelines, obtaining so far that for some products the superseded Guidelines (ETAG), have been transformed into European Assessment Documents, accompanied by some ancillary documents, the technical reports (TR); in the fasteners sector, the following EADs exist:

EAD 330232-01-0601	<i>Mechanical fasteners for use in concrete</i>
EAD 330499-02-0601	<i>Bonded fasteners for use in concrete</i>
EAD 330747-00-0601	<i>Fasteners for use in concrete for redundant non-structural systems</i>
EAD 330087-00-0601	<i>Systems for post-installed rebar connections with mortar</i>
EAD 330196-01-0604	<i>Plastic anchors made of virgin or non-virgin material for fixing of external thermal insulation composite systems with rendering</i>
EAD 330047-01-0602	<i>Fastening Screws for Metal Members and Sheeting</i>
EAD 330076-00-0604	<i>Metal injection anchors for use in masonry</i>
EAD 330087-01-0601	<i>Systems for post-installed rebar connections with mortar</i>
EAD 331522-00-0601	<i>Post-installed rebar with mortar under seismic action</i>
EAD 330284-00-0604	<i>Plastic anchors for redundant non-structural systems in concrete and masonry</i>
EAD 130186-00-0603	<i>Three dimensional nailing plates</i>

Submitting products to the tests required by the EADs, it is possible to obtain an ETA (European Technical Assessment), and therefore, a technical evaluation for use of the product, released only after the fulfilment of many essential requirements. These technical compliances are the mandatory requirements in order to complete the process for the CE marking.

The tests are performed by an accredited laboratory, while the issuing of ETA is the responsibility of a Technical Assessment Body. Achieved the ETA, the company is subject to annual inspections by a third-party Notified Body, in order to ensure that the product is manufactured in accordance with the samples tested and that it is subjected to a constant control process, following the basic principles of “Quality”.

The continuous surveillance of the production process, from the verification of compliance with the official drawing of the product to the final packaging, is necessary to ensure consistency of performances as declared in the ETA and in the DoP.

For products under the technical responsibility of the European Committee for Standardization (CEN), the mandatory tests to obtain the CE mark are prescribed in the related European harmonized standard.

2.b Technical specifications for products not covered by harmonized standards

In absence of specific guidelines or standards for certain products, Tecfi SpA will also provide the necessary data for a suitable and safe installation of the fastener.

In order to define all the necessary technical data for these products Tecfi SpA technical team will refer to:

- Standards covering similar products;
- An internal test program, defined by Tecfi SpA, in cooperation with the final user

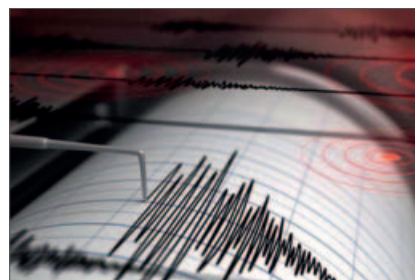
The planned tests will be carried out in the Tecfi Laboratory and/or external accredited laboratories, with certified and periodically calibrated equipment.

Tecfi, the product certifications and the CPR

3. Anchorages under seismic action, seismic assessment and performance category

Until 2013 in the European Guidelines for assessment and design of anchors, there was not any reference to seismic design and qualification of anchors; this was a major issue for seismic affected countries like Italy, Spain and Greece. Furthermore, the provisional design of ICC was quite old and showed some limitation for the high seismic hazard zones.

In 2013, thanks to the excellent scientific results on the knowledge of the behaviour of structural anchors achieved in Europe (by companies and institutions involved in the process of writing assessment documents), the first edition was released of Annex E of ETAG001 and the document TR045.



These documents specified details of the test, qualification and evaluation of the anchors and the design rules for structural anchors for the use in areas of medium and high seismic hazards, with a leading edge guideline, that came out by the need of safety, simplicity and reliability.

The design document EN 1992-4:2018 identify the Performance Category that must be reached by the anchors to be used in structures built in areas subject to different levels of seismic hazards; Annex C of EAD 330232-01-0601 describe how test and assess the anchors to ensure proper performances.

The classification of Performance Category foreseen is:



- **Products that have achieved the qualification in Option 1:** useful for structural and non-structural fixing only in areas of low Seismic Hazard and structures in all Importance Class (as identified in EC8)



- **Products that have achieved the qualification in Performance Category C1:** useful in all the cases provided for the "Option 1" and, in addition, for non-structural fixing in areas of moderate Seismic Hazard for structure of Importance Class I II and III



- **Products that have achieved the qualification in category C2 Performance, the highest level:** ability to use for structural and non-structural fixing in building in areas of moderate to high Seismic Hazard, of all Importance Class

The correct identification of the "Seismic Hazard" and "Importance Class" will guide the designer within a required "Performance Category" for the anchor. Therefore, the designer can only qualify and use, for its needs, products that were evaluated in the "Performance Category" thus identified.

This process of selection of suitable product provides maximum security for all parties involved in the construction process, from the designers thru the installers up to the end users of the building.

SEISMIC FIXING SOLUTIONS



ETA-CE Certified anchors Option 1, for cracked and non-cracked concrete, and **C2-C1 Performance Category** for fixing in low to high SEISMIC RISK areas

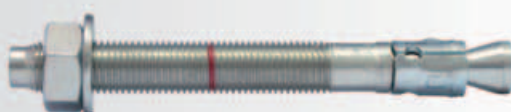
HVE



HXE



AJE 01



ETA-CE Certified chemical anchors Option 1 & Option 7, for cracked and non-cracked concrete, and certified for fixing in high SEISMIC RISK areas

SWE



XWE



DGE



DGE12 - LOW TEMPERATURE

DGE22 - HIGH TEMPERATURE



Corrosion and Coatings

1. Atmospheric corrosion and Coatings by Tecfi

Constructions have always been challenged by the passing of time, allowing us to enjoy their anti-que charm, projecting us into an extraordinary ancient atmosphere. All of this is not to be considered obvious, as even the most magnificent structures are victims of the years that go by, of which often creates more damage than the handling of mankind.

Modern civil structures must not only remain intact throughout the years, but must also maintain their functionality and require a minimum need of maintenance, in terms of corrosion and alteration in time.

The fastening systems, which have always been asked to accomplish the non-simple job of connection within the structures, cannot be excluded from this matter. All metal anchors and generally all types of metallic materials are subject to atmospheric corrosion to varying degrees, according to their electrochemical characteristics and the environmental conditions in which they operate.

The ISO 9223: 1992 standard establishes three critical environmental factors that influence the corrosion phenomenon:

- the "time of wetness", i.e. the average annual exposure time to humidity
- the concentration of SO₂
- the salinity of the air

For materials such as steel, zinc, copper and aluminium, according to the values of the three factors above-mentioned, the ISO 9223 identifies 5 classes of corrosivity of the atmosphere.

Each of these classes can be associated with certain, generic, easy-to-interpret environmental conditions, (ISO 12944-2-1998):



Corrosivity category		Example of Typical exterior environment	Example of Typical interior environment
C1 (Very low)		-----	Heated building with clean atmosphere (e.g. Offices, Hotels, schools)
C2 (Low)		Atmospheres with low level of pollutant: mostly rural areas	Unheated buildings where condensation can occur, e.g. depots, sports hall
C3 (Medium)		Urban and industrial atmospheres, moderate sulphur dioxide pollution; coastal areas with low salinity	Production rooms with high humidity and some air pollution e.g. food-processing plants, laundries, breweries, dairies
C4 (High)		Industrial areas and coastal areas with moderate salinity	Chemical plants, swimming pools, coastal ship and boatyards
C5 (Very high)	Industrial	Industrial areas with high humidity and aggressive atmosphere	Buildings or areas with almost permanent condensation and pollution
	Marine	Coastal areas with high salinity	
Cx (Extreme)		Offshore areas with high salinity and industrial areas with extreme humidity and aggressive atmosphere and subtropical and tropical atmospheres	Industrial areas with extreme humidity and aggressive atmosphere

Tecfi developed over the years its products with materials and coatings that give customers the opportunity of choosing the most appropriate solution.

The following table shows the characteristics of the main materials and their available coatings.

Material	Coating	Thickness	NSST resistance	Limit of environmental conditions of use
Steel	Electrolytically applied zinc plating	3 ÷ 12 µm	12 – 72 h	Dry internal areas
Steel	Hot dip Galvanized	40 ÷ 50 µm	200 – 400 h	Internal areas with limited condensation
Steel	Steel Saver	8 ÷ 15 µm	500 – 1.500 h	External areas with moderate pollution and low salinity
Stainless Steel A2	Passivation	-	-	External areas with moderate pollution and moderate salinity
Stainless Steel A4	Passivation	-	-	External areas with high pollution and high salinity

The table is based on the wide Tecfi experience with its customers.

However, considering the complexity of the phenomenon and the variability of the agents involved in corrosion phenomena, to involve experts and run additional tests is suggested, to avoid problems that are not in the usual literature cases.

In this catalogue, the comparison in terms of salt spray test performance between the special "Steel Saver" coatings and galvanic zinc platings, are carried out using the Fe / Zn 5c1A and Fe / Zn 8c1A Electrolytic Zinc Plating according to ISO 4042: 1999.

Corrosion and Coatings

2. TECFI finish "Type GOLD – CrVI Free

The Regulation 1907/2006 (EC) (REACH, "Registration, Evaluation, Authorization and Restriction of Chemicals"), born with the aim of improving the knowledge of the dangers and risks deriving from the use of chemical substances, involves different sectors of the industry. In the amendment of 17 April 2013, Regulation (EU) no. 348/2013, in force since September 2017, particular attention has been given to the use and disposal of hexavalent chromium. In the field of fixing systems, this innovation has strongly affected the coating and finishing treatments sector (galvanic, ...).

Tecfi S.p.A. is a ISO 14001 certified Company since 2004 and has always been attentive to the impact on the environment and on all stakeholders of its activities and products. For this reason, Tecfi has immediately started the procedures to comply with this legislation.



For more than 10 years (in compliance with the RoHS Directive 2002/95 / EC, then replaced by the RoHS Directive 2 2011/65 / EU), despite the construction sector was not involved in the application of these restrictions, Tecfi S.p.A. had already abandoned the use of CrVI for ALL coatings, with the exception of the galvanized finish with yellow passivation (often called "tropicalization", which nevertheless represented less than 0.5% of treatments on products sold), because the technological solutions, at that state of the art, did not allow to fully satisfy the aesthetic needs of users.

During the two-year period 2016-2017, Tecfi S.p.A. intensified its efforts in the R&D, in cooperation with coating industry companies and, in compliance with the regulations in force since September 2017, also amended the galvanization with yellow passivation. The result was the new and beautiful TECFI coating "Type GOLD – CrVI Free", an intense bright yellow, highly appreciated by customers and totally in compliance with the regulation.



Traditional yellow zinc plated



"Gold Type - CrVI Free" new Tecfi coating

This new coating achieved multiple objectives, including maintaining and improving the aesthetic result, the protective capability of the coating (and therefore, the durability of the fastening systems), the health and safety.

Tecfi S.p.A. in this way succeeded in transforming the risk of change into an opportunity for technological growth and respect for the environment and civil life, for the benefit of all its customers and stakeholders.

3. "Steel Saver" Coatings

For years Tecfi has been introducing special coatings for some of its products, whose resistance to corrosion were considerably higher than normal galvanic coatings.

The "special features" of these coatings can be grouped as follows:

- Higher corrosion resistance in high salinity environments, such as coastal areas;
- Higher corrosion resistance in heavily polluted industrial areas or in processing areas with particularly aggressive atmospheres (e.g. acid);
- Thinner coating combined with higher corrosion resistance;
- Higher corrosion resistance, maintaining the original mechanical and metallurgical properties of the product;
- Special tribological properties required in specific applications (for example, low friction coefficients);
- Low environmental impact
- Aesthetic aspects;

During the last two years, the requests for a greater number of products with these "specialties" have intensified, and Tecfi S.p.A. intensified the R&D efforts in this sector too.

The new Tecfi "**Steel Saver 1.000h - ZL**" coating is one of the solutions in this direction, which allows:

- Resistance to corrosion in NSST of over 1.000 hours;
- Excellent chemical resistance to industrial fluids;
- Reduced thicknesses of the coating (4-5 times lower) not affecting the geometry and functionality of the product, in comparison with the obsolete hot-dip galvanizing coating;
- Coating process not affecting the original mechanical and metallurgical properties of the product;
- Lower coefficient of friction;
- Pleasant appearance;
- Low environmental impact, in compliance with the RoHS Directive 2 (Directive 2011/65 / EU) and the REACH Regulation (Regulation 1907/2006 (EC))



Field Engineering

Nowadays the challenges of modern design and execution of jobs, put the final user and engineer work supervisor in front of unpredictable difficulties not foreseen during the design phases.

For this scenario, Tecfi S.p.A. offers to its customer a service of "Field Engineering", directed mainly to final users, construction companies and who daily uses fastening systems in their work. The intervention on the site aims to help end users in the event of particular complication in the technical planning and / or during the realization phase.

Tecfi, thanks to on site interventions, with advanced equipment and skilled technicians, it allows a systematic approach to the problem. Starting from an analysis of the critical issues, Tecfi's Technician will understand, together with the final user, the requirements of the application. With standard or special tests on the construction site or, where necessary, in laboratory Tecfi's Technician will define the most effective solution to solve the problem, even for situations not foreseen by European Guidelines.

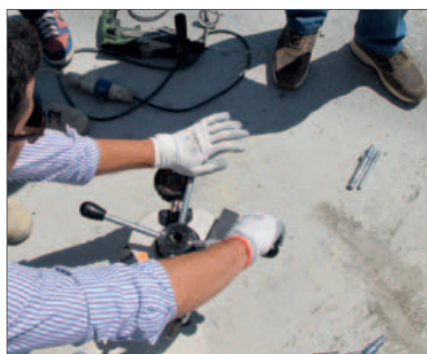


Technical Training

The world of fixing, as well as the construction sector in general, is in continuous and constant evolution. The technical solutions known as cutting edge for many years, can now be obsolete or, even, does not comply with current regulations.

Tecfi SpA, thanks to its know how in the field, arranges for its customers theoretical and practical technical training sessions in order to spread the knowledge of the most innovative fastening solutions and the most effective installation techniques.

This training is held at the headquarters of Tecfi SpA or directly at the customer, it takes place through theoretical insights on the technology of fixing and in-depth analysis of new regulations, with tests on products not yet fully known by the final user and through demonstrations of correct installation for different types of fasteners.



TADS - Tecfi Anchor Design Software

Design and Verification of anchorages and fixing

In 2018 CEN published EN 1992-4,

“Eurocode 2 - Design of concrete structures - Part 4: Design of fastenings for use in concrete”, a state of the art design standard for cast in and post-installed anchors for both static, seismic and fire design.

Despite this document, available since 5 years, still a lot of designer follow former approach of annex C of ETAG001, mostly by habit.

Tecfi, always beside professionals, has just launched a major update of its calculation software for anchors, the TADS, Tecfi Anchor Design Software, a “*Computer Assisted Design (CAE - Computer Aided Engineering)*” software for anchors.

The software allows the immediate check of the most common cases of structural anchorages, with the use of a real time 3D graphics simple and intuitive. The latest release of the software include:

- Seismic design for anchors, for both performance category C1 and C2
- Custom base plate design
- Multiple loading scenario calculation performed at once

The program is also in continuous and fast evolution, with frequent releases of upgrades to increase the numerous features of the calculation program.

Also a module for calculation of post installed rebar with chemical anchor is available as built-in module in the TADS, together with a module for calculation of fixing of ETICS.

Tecfi invest in timber sector as well, releasing a state of the art design software for structural timber connection, TADS Wood, for calculation of both screw connection and 3D nailing plate joints, to support all the professionals who have to face problem of structural timber connections.

The calculation software is freely downloadable on the Tecfi’s website, www.tecfi.it, in the “Download” area.



- ✓ Extremely easy to use, all the functions in a single multi-language window
- ✓ 3D graphics with real time update
- ✓ Multi-languages
- ✓ Able to calculate up to nine anchor units and with different base plate geometry
- ✓ Optimization of depth of insertion for chemical anchors: don’t waste resin anymore!
- ✓ Updatable software and database with live updates
- ✓ Complete and clear calculation reports
- ✓ Verifications in accordance with current European regulations





Tecfi S.p.A. has always been committed in offering its customers a service for the most suitable display of the products in the sales point.

It's now two years that this service has been "structured" with a new function, the **"Trade Marketing"**. A huge investment in terms of human resources, knowledge and industrial facilities at the service of the **commercial innovation**, in order to optimize the visual merchandising in the sales point, advising the ideal spaces for the most effective visibility of Tecfi products and creating the best emotional impact.

The Know-how obtained from the Trade Marketing dept. of Tecfi S.p.A. is a result of many installations already executed throughout Italy and worldwide, facing a great variety of requests and needs.

All of this for the one target: **to focus the attention of the end user to the correct Mix of Products, increasing the volumes and**

improving the structure of the sales.

Tecfi offers to the customers a "sales point restyling" consultancy service, that starts from the initial site inspection, the designing of the layout for the dedicated spaces, the realization and installation of the merchandising (including info-boards and additional informative material), to end with a final analysis of the results achieved.

The process:

- Customer Mix sales analysis
- On site inspection
- Product ranges and sales strategies
- Planning of the display for the merchandising, software computer aided
- Realization of informative material of the products
- Installation and Staff training
- Periodical analysis of the performance

All Tecfi Customers can ask our Trade Marketing Dept. for assistance in order to study the most effective esthetic solutions, based on the available spaces and the needs of the sales point and the targets of the entrepreneur.







1. Roofing fixing systems	33
<ul style="list-style-type: none"> Systèmes pour fixation de couvertures Befestigungssysteme für Dachkonstruktionen Sistemas para Fijaciones de Cubiertas Кровельные крепежные системы 	
2. Fixing systems for renewable energy plants	85
<ul style="list-style-type: none"> Systèmes pour fixation de panneaux photovoltaïques Befestigungssysteme für Photovoltaikanlagen Sistemas de fijaciones para instalaciones de energías renovables Крепежные системы для возобновляемых энергетических установок 	
3. Heavy duty fixing systems	99
<ul style="list-style-type: none"> Systèmes pour fixation lourde Schwere Befestigungssysteme Sistemas para fijaciones Pesadas Крепежные системы для тяжелых конструкций 	
4. Windows and frames fixing systems	185
<ul style="list-style-type: none"> Systèmes pour fixation légères de bâtis Systeme für die Befestigung von Fenster- und Türenrahmen Sistemas para fijaciones de Ventanas y Marcos Рамные и дверные крепления 	
5. Light fixing systems	235
<ul style="list-style-type: none"> Systèmes pour fixations légères Systeme für leichte Befestigungen Sistemas para fijaciones ligeras Крепеж для легких конструкций 	
6. Drywall and hollow fixing systems	259
<ul style="list-style-type: none"> Systèmes pour fixation sur cartonplâtre et murs vides Systeme für Befestigungen an Gipskarton und leere Wände Sistemas para fijaciones de paneles de cartón yeso Крепежные системы для гипсокартона и пустотелых стен 	
7. Woodpecker® - Wood line	279
<ul style="list-style-type: none"> Woodpecker® - Ligne bois Woodpecker® - Holz-Linie Woodpecker® - Línea madera Woodpecker® - Линии для дерева 	
8. Rivets	347
<ul style="list-style-type: none"> Rivets Blindnieten Remaches Заклепки 	
9. Sealants, Adhesives and Foams	371
<ul style="list-style-type: none"> Mastics, Adhésives et Mousses Dichtstoffe, Klebstoffe und Schäume Selladores, Adhesivos y Espumas Герметики, клей и Пены 	
10. Cables and Hydraulic fixing systems	385
<ul style="list-style-type: none"> Systèmes pour fixation de câbles Systeme für die Befestigung von Kabel Sistemas para fijaciones de cables Крепежные системы для труб и кабеля 	
11. General fasteners	411
<ul style="list-style-type: none"> Boulonnerie et visserie Allgemeine Befestigungen Tornillería Метрический крепеж 	
12. Fixing tools and accessories	437
<ul style="list-style-type: none"> Outils et Accessoires de fixation Befestigungswerkzeuge und Zubehör Brocas y Herramientas Инструменты и аксессуары 	
13. T-Store® - inBlister® - Merchandising	453
<ul style="list-style-type: none"> T-Store® - inBlister® - Marchandisage T-Store® - inBlister® - Merchandising T-Store® - inBlister® - Merchandising T-Store® - inBlister® - Рекламная продукция 	

NEW PRODUCTS



PLC 01
Hexagonal flat
washer head
screw with
reduced point

page 43



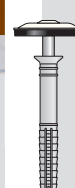
B6C 01
Hexagonal flat
washer head
screw with
reduced point

page 42



ED
Metal cap for
roofing

page 80



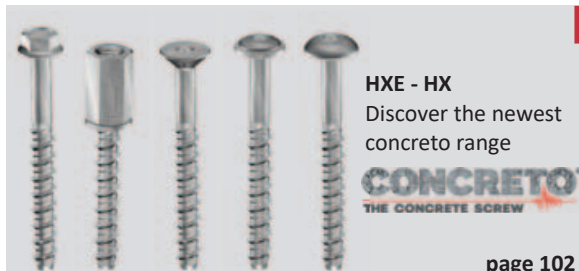
SB - UI - NO - UV
Gutter/Tinsmith
screws & plugs
NEW COLOURS

page 59



RWA
Dual thread screw,
for solar panels
fixing on steel
supports

page 90



HXE - HX
Discover the newest
concrete range

page 102



FX - FXL
Welded eyebolt
(eye Ø 23 mm)
concrete screw, for
scaffolding fixing to
buildings

page 153



DXE 25 - LZ 25
Anchors assembled
with special double
curved hooks, for
ropes and nets

page 159



DXE 35 - MR 01
Anchors assembled
with special single
curved hooks, for
ropes and nets

page 160



SO 01
HDPE hole-covering
plug (cap) with cross
thorns

page 162



ACQ 01
"L" welded steel
pipe, for connection
eyebolt-scaffolding

page 164



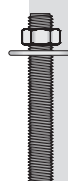
XWE 01
Dual component
Epoxy resin
(ratio 3:1)
for heavy duty
fixings, ETA-CE

page 162



DGE 03
Epoxy Acrylate
Vinylester Resin,
ETA-CE

page 162



DA 05
DIN 976-1/A
Metric thread stud
bolt, 8.8 grade,
with nut and
washer

page 178



MAC 02
Hydraulic Pull-out
tester kit (25kN),
with accessories,
in carrying case

page 184



XA
Hexagon
through-holed
set screw, in
aluminium

page 214



XB
Flat cylinder head
through-holed
screw (hex recessed
in one end)

page 214



YT - YTR
Knurled open
cylindrical shank
rivet nut

page 215



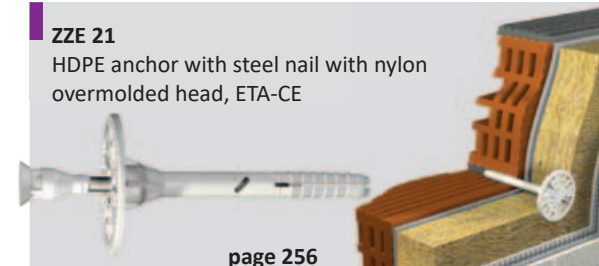
UB - UBS - UBL
Oval washer with
hole, for water-
proofing sheath or
insulation panels
fixing

page 254



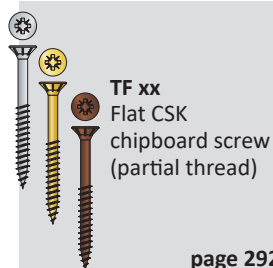
ABS
Round deep-drawn
plate, for membranes
induction fixing

page 255



ZZE 21
HDPE anchor with steel nail with nylon
overmolded head, ETA-CE

page 256



TF xx
Flat CSK
chipboard screw
(partial thread)

page 292



QBS 31
EN 912-C2 type Single
side toothed plate
wood connector

page 333



QBD 31
EN 912-C1 type
Double side toothed
plate wood connector

page 333



XU - XUL
Open end blind
folding rivet with
gasket

page 351



RA xx
Painted aluminium
open end blind
rivets dome head,
New colours

page 354



RO xx
Aluminium
alloy closed end
blind rivets,
dome head

page 365



VLU
Multipurpose
acetic silicone
sealant

page 372



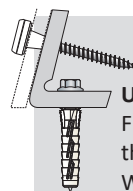
VRU
Multipurpose
neutral curing
silicone sealant

page 374



VR xx
Polyurethane
medium-high
modulus sealant,
New colours

page 374



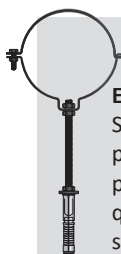
UK 10
Fixing system to
the floor for
WC/Bidet with
lateral holes

page 402



AI 05
Copper collar
with pressed nut
for light PVC pipe
fixing

page 408



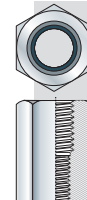
EG 03
Satiny black
painted steel flue
pipes collar with
quick coupling
system

page 408



QJ 01
Steel hexagonal
flanged nut with
locking serration
property class 8

page 425



TC 01
Hexagonal coupling
nut with two
different inner
threads

page 425



BF 01
Zinc plated steel
threaded rod
(4.8 grade),
length 2.000 mm

page 412



































BF 05
Zinc plated steel
threaded rod,
(8.8 grade)
length 3.000 mm









page 413



BF 51
A2-70 (AISI 304)
stainless steel
threaded rod
(8.8 grade)

page 414

































































ITEM CODE		PAGE	Concrete	Metal supports	Wood supports
adaptable 					
1. Roofing fixing systems					
AA		34	-	✓	-
GB		35	-	✓	-
SD / SDF / SDC		38	-	✓	-
AB		40	-	✓	-
AB06 / B6C PLC / PT		42	-	✓	-
KD		44	-	✓	-
TX / BIM		46	-	✓	-
KB / KMF / KLF		48	-	✓	-
AG / AGM		50	-	-	✓
GX		52	-	-	✓
KX / KXC		53	-	-	✓
HY / HYF		54	-	-	✓
GL		55	-	-	✓
LF / AH		57	-	-	✓
NK / NM / NP NQ / SB <i>New</i> / UI <i>New</i>		58	-	-	✓
NR / NS / NT NU / NO <i>New</i> / UV <i>New</i>		60	✓	-	-
GZ01		62	✓	-	-
AC / ACM		63	-	✓	
BG / CJ / BZ		65	-	-	✓
AD - CM		66	-	-	-
EQ		67	-	-	-
FI / RZ / NF / CX		68	-	-	-
FIM / CXM / NFM		69	-	-	-
CB - DV		70	-	-	-
AE - WE		72	-	-	-
ED / AE		80	-	-	-
AF		80	-	-	-
KC		81	-	-	-
CCE - CCM		82	-	-	-
FS / CO		83	-	-	-

ITEM CODE		PAGE	Metal supports	Wood supports
adaptable 				
2. Fixing systems for renewable energy plants				
NW		86	-	✓
NW51		89	-	✓
PF51		89	-	-
RWA		90	-	-
PT / KB		91	✓	-
NI		92	-	-
RQ		93	-	-
SR		93	-	-
PD <i>New</i> / DJ / PE		94	-	-
PA <i>New</i> / NJ		95	-	-
PC / PH		97	-	-

ITEM CODE	PAGE	Concrete	Full brick	Hollow brick	Wood supports
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adaptable 

















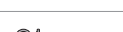










3. Heavy duty fixing systems





















HXE-CONCRETO® HXE Novita / HX			102	✓	-	-	-
HVE-ROCK®			118	✓	-	-	-
DSE			122	✓	-	-	-
DS			126	✓	-	-	-
LZ			128	✓	-	-	-
DXE			130	✓	✓	-	-
DX			132	✓	✓	-	-
CP / CQ CS / CT / CR			138	✓	✓	-	-
AJE / SPS			140	✓	-	-	-
ZJE			144	✓	-	-	-
AJ			148	✓	-	-	-
HLE / HME			150	-	-	-	-
HL / HM			151	✓	-	-	-
AW / EB			152	✓	✓	-	-
FX / FXL / ZM <i>New</i>			153	✓	-	-	-
DE / DC			154	✓	✓	-	-
LQ / UF <i>New</i> / LS / LV			156	✓	✓	-	!
LW / LM			157	✓	✓	-	-
DF / DD			158	✓	-	-	!
DXE / GF / LZ <i>New</i> MR / QK / SG <i>New</i>			159	✓	-	-	!
SO <i>New</i>			162	✓	✓	✓	-
AL			163	✓	✓	✓	-
AK			163	✓	✓	-	!
HD / ACQ <i>New</i> / HO			164	-	-	-	-
SWE01 / XWE01 <i>New</i> DGE02 / DGE12 / DGE22			168	✓	✓	✓	-
DGE03 <i>New</i> / EHE			172	✓	✓	-	-
DGE01 / DGE00			174	✓	✓	✓	-
DAF / DAT / LN / DA			176	-	-	-	-
CV / CU			179	-	-	-	-
FV / PM / FZ			180	-	-	-	-
DH			181	-	-	-	-
DW / DI / MAC			183	✓	✓	✓	-























ITEM CODE	PAGE	Concrete	Full brick	Hollow brick	Hollow masonry	Plastic	Metal supports	Wood supports
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adaptable 

4. Windows and frames fixing systems

































VS Handyplug®		188	✓	✓	✓	✓	-	-	!
AT / FR		198	✓	✓	✓	!	-	-	-
GS / GSC		200	✓	-	-	-	-	-	-
YZ / BE01 / BE06		202	✓	✓	-	-	-	-	-
CN / BE02 / BE04		204	✓	✓	!	!	-	-	-
BE		206	✓	✓	!	!	-	-	-
HH		210	✓	✓	!	!	-	-	-
BE12		211	-	-	-	-	-	-	-
WU		211	-	-	-	-	-	-	-
JY		212	-	-	-	-	-	-	-
XA / XB YTR / YT		214	-	-	-	-	✓	-	-
CK		216	-	-	-	-	✓	-	-
RK		218	-	-	-	-	✓	-	-
CH		220	-	-	-	-	✓	-	-
RH / HZ		222	-	-	-	-	✓	-	-
LK		224	-	-	-	-	✓	-	-
LH		226	-	-	-	-	✓	-	-
FH		228	-	-	-	-	✓	-	-
LX		230	-	-	-	-	✓	-	-
HU		230	-	-	-	✓	-	-	-
EF / CZ		231	-	-	-	-	✓	-	-
AY		232	✓	✓	✓	✓	-	-	-
DY		232	✓	✓	✓	✓	-	-	-
CQ		233	✓	✓	✓	✓	-	-	-
HX		233	✓	✓	✓	✓	-	-	-
LZ		233	✓	✓	✓	✓	-	-	-
WT / HG		234	-	-	-	-	-	-	-

ITEM CODE		PAGE	Concrete	Full brick	Hollow brick	Hollow masonry	Drywall	Cellular concrete
adaptable 								
5. Light fixing systems								
VZ Handyplug®		237	✓	✓	✓	!	✓	✓
JC		237	✓	✓	✓	!	✓	✓
VZB / VZX		238	✓	✓	✓	!	✓	✓
AX		242	✓	✓	✓	!	-	✓
SE		245	✓	✓	✓	!	-	✓
LA		246	✓	✓	✓	!	-	✓
MF / MG / MH / MJ		246	✓	✓	✓	!	-	-
AZ / BV		247	✓	✓	✓	!	-	✓
AY		248	✓	✓	✓	✓	-	✓
DY		250	✓	✓	✓	✓	-	-
BN		253	✓	✓	✓	✓	-	-
LU / LY		253	✓	✓	✓	-	-	-
UB / UBS / UBL <small>New</small>		254	✓	✓	✓	✓	-	-
ABS <small>New</small>		255	✓	✓	✓	✓	-	-
ZZE 		256	✓	✓	-	-	-	✓
ZZER 		257	-	-	-	-	-	-
WS / WV		258	-	-	-	-	-	-

ITEM CODE		PAGE	Concrete	Full brick	Hollow brick	Hollow masonry	Drywall	Fiber cement	Cellular concrete	Metal supports
adaptable 										
6. Drywall and hollow fixing systems										
DQ / DR		260	!	!	✓	✓	✓	-	!	-
BT		261	!	!	✓	✓	✓	-	-	-
HP		262	-	-	!	-	✓	-	-	-
HQ		264	-	-	-	-	-	-	-	-
TZ		265	✓	-	-	-	-	-	✓	-
HE / HF		266	-	-	-	-	✓	-	-	-
YZ / BD		268	✓	✓	✓	✓	-	-	-	-
YZB		268	-	-	-	-	-	-	-	-
BP 		270	-	-	-	-	-	-	-	✓
BPB 		270	-	-	-	-	-	-	-	-
DU / LC 		271	-	-	-	-	-	-	-	✓
VJ / VN 		272	-	-	-	-	✓	✓	-	-
CI 		273	-	-	-	-	-	-	-	✓
BJ		274	-	-	✓	-	✓	-	-	-
BK		276	-	-	✓	-	✓	-	-	-
HN		277	✓	-	-	-	-	-	-	-

ITEM CODE	PAGE	Wood supports
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7. Woodpecker® - Wood Line

TT		280	✓
TTR01 / TTR50		282	-
TK		284	✓
TF		292	✓
TJ		296	✓
FT / FJ		302	✓
XP		304	✓
TM		306	✓
TL		309	✓
AAA / AAD		310	✓
BA01		312	✓
BA02 / BA03		313	-
AAC		314	✓
LD / LB		315	✓
IV / IX / IW / RN		316	-
EA / FU / GG		319	✓
LI / HJI / HWI JWI / FWI		321	✓
JN		322	✓
KT / KW		324	-
KY / KO		324	-
KS / KZ		326	-
TD / TA		328	-
TN / KJ / TE		330	-
TB / TBR		332	-
QBS / QBD <small>New</small>		333	-
MN / MO / MP MQ / MS / MT		334	-
NN / MU / MV / MW NA / NC / MZ / NE		335	-
TG / MK / TV TR / TU		338	-
TP / TQ		341	-
KIT woodpecker®		342	-
GH / JZ		344	✓
CY / CW		345	✓

ITEM CODE	PAGE	Rivet body						Mandrel		
		Natural aluminium	Painted aluminium	Zinc plated	A2 Stainless Steel	Copper	Copper anodized aluminium	Zinc plated	A2 Stainless Steel	Aluminium








8. Rivets

RA00		348	✓	-	-	-	-	-	✓	-	-
RB		350	✓	-	-	-	-	-	✓	-	-
XU / XUL		351	✓	-	-	-	-	-	-	-	✓
RA		352	-	✓	-	-	-	-	✓	-	-
PRA		359	-	✓	-	-	-	-	✓	-	-
RA05		360	-	-	-	-	✓	-	✓	-	-
RD		361	-	-	-	✓	-	-	✓	-	-
RC		362	-	-	-	✓	-	-	-	✓	-
RJ		363	-	-	✓	-	-	-	✓	-	-
RV		364	✓	-	-	-	-	-	✓	-	-
RO		365	✓	✓	-	-	-	-	✓	-	-
YF / YH / YI / YO		366	-	-	-	-	-	-	-	-	-
YG / YJ / YL / YQ		367	-	-	-	-	-	-	-	-	-
YT / YTR		368	-	-	✓	-	-	-	-	-	-
YS		368	-	-	✓	-	-	-	-	-	-
YU		368	-	-	✓	-	-	-	-	-	-
DK / DKR		369	-	-	-	-	-	-	-	-	-
YX / YXR		370	-	-	-	-	-	-	-	-	-

ITEM CODE	PAGE	DIY	Mold-retardant	Suitable for building materials and wood	Suitable for glass	Indoor / Outdoor	Paintable	High temperature	Adhesive
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adaptable 




























9. Sealants, Adhesives and Foams

VLU	CE		372	-	-	-	-	-	-	-
VM	CE		372		-	-	-	-	-	-
VLP	CE		373		-	✓	✓	✓	-	-
VU			373	-	✓	-	-	✓	-	✓
VRU <i>New</i>	CE		374	-	✓	✓	✓	✓	-	-
VR / VRF	CE		374	-	✓	✓	✓	✓	-	-
ZR	CE		375	✓	✓	✓	-	✓	✓	
VPP / VPPS	CE		376	-		✓	-	✓	✓	-
VQ	CE		376	-		✓	-	✓	✓	-
VX			377	✓	✓	✓	✓	✓	-	
VXV			377	✓	✓	✓	✓	✓		✓
DH / WL WM			378	-	-	-	-	-	-	-
BAD / ZU / ZO ZK / ZV / ZW			379	-	-	-	-	-	-	-
BR			381	-	-	-	-	✓	-	-
BRC			382	-	-	-	-	✓	-	-
BRR			383	-	-	-	-	✓	-	-
BS			383	-	-	-	-	-	-	-
BRP			383	-	-	-	-	-	-	-

ITEM CODE	PAGE	Concrete	Mattone Pieno/Forato	Hollow Masonry	Cellular Concrete
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adaptable 

10. Cables and Hydraulic fixing systems

JK / JR	CE		386	-	-	-	-
JKM / JRM	CE		388	-	-	-	-
JM			389	-	-	-	-
JS			389	-	-	-	-
XD / XE XG / XH			390	-	-	-	-
XK			394	-	-	-	-
XQ / XR / XS			395	-	-	-	-
AS			396	-	-	-	-
BH / BI			397	✓	✓	-	-
DP			398	✓	✓	✓	-
DO			398	✓	✓	✓	-
JD / JG JH/ JHA <i>New</i>			399	-	-	-	-
JE / JEB / JF			400	-	-	-	-
AM / ET / EU			401	✓	✓	✓	
UK <i>New</i>			402	✓	✓	✓	-
AV			403	-	-	-	-
ANR / ANW			404	✓	✓	✓	
AO / AU / AP			405	✓	✓	✓	
AI / EG			406	✓	✓	✓	
CF / DL			409	✓	✓	✓	
CL			410	✓	✓	✓	

ITEM CODE	PAGE
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11. General fasteners

BF01		412
BF05		413
BF51		414
AQ		415
RL		416
NI		418
LT		419
CG / CGI		420
ZA		423
RQ		423
SR		423
AR / QT / QJ <small>New</small>		424
DJ / HC / TC <small>New</small>		424
PD / DJ / PE		426
CY / CW / CD		427
GT		428
GV		428
HB / LJ		429
BO / JO		430
BW / GH / JZ		432
PA / NJ		434
FQ		436
DB		436
LB		436

ITEM CODE	PAGE	Concrete / Brick	Marble / Stone	Granite	Iron	Hard steel / Alloys	Stainless Steel	Aluminium	Plastic
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12. Fixing tools and accessories

EK		438				✓		✓	✓
EL		439				✓	✓	✓	✓
EM		440				✓	✓	✓	✓
EP		441				✓	✓	✓	✓
GQ		442				✓		✓	✓
ES		443	✓						
EN		444	✓	✓					
ER		444	✓	✓	✓				
EO - EOX		445	✓	✓					
EOX41		446							
FO / JJ		448							
FK / FN		448							
FL / RG		449							
FM / JB		449							
FP / JP		450							
GC		451							
GD		451							
GE		451							
GY		452							

PRODUCT DESCRIPTION		PAGE	Blister	Desk stand	Floor stand	Metallic wall stand	Accessories for metallic wall stand	Kit	Trade marketing (Sales Assistance)
13. T-store® - Tecfi store									
13.1 - inBlister products									
Blister - Roofing fixing systems		466	✓						
Blister - Heavy duty fixing systems		469	✓						
Blister - Windows and frames fixing systems		473	✓						
Blister - Light fixing systems		481	✓						
Blister - Drywall and hollow fixing systems		486	✓						
Blister - Woodpecker® - Wood line		489	✓						
Blister - Rivets		497	✓						
Blister - Cables and Hydraulic fixing systems		506	✓						
Blister - General fasteners		511	✓						
KIT inBlister®		524	✓		✓	✓		✓	
13.2 - Metallic wall stand									
Metallic wall stand		536			✓	✓			
Accessories for metallic wall stand		540					✓		
13.3 - Merchandising									
VZXC		544		✓				✓	
KIT EOX41		545		✓	✓			✓	
KIT BF		546			✓			✓	
Display stand		547							✓
Brochure		548							✓
"Sale Point" Signboard		548							✓

