



# HILTI TECHNOLOGIES AND SOLUTIONS

## Pharma Industry



# INTRODUCING HILTI

**We passionately create enthusiastic customers and build a better future.**



At Hilti we design and manufacture leading-edge technology, software and services, which power the professional construction industry.

We are global, based in over 120 countries with more than 30,000 employees.

Founded in 1941 in Schaan, Liechtenstein, Hilti is still wholly family owned, with all shares held by the Martin Hilti Family Trust.

6% of our sales revenue is invested into R&D and we ranked among the top 100 applicants for European patents in 2017. A growing number of our 2,000 active patent families relate to products we supply to your pharma plants.

A truly global company, we have links with businesses and universities across the world. Our pharma clients include many of the world's largest brands, all of which have come to rely on Hilti's expert blend of quality, innovation and customer service.



## YOUR DEDICATED PHARMA BUSINESS TEAM

**Bringing you local knowledge on a global scale**

With a dedicated pharma business team and colleagues based around the world, Hilti's global reach allows us to help you design, build and maintain pharma plants on any continent – bringing you efficiencies, speeding up your projects and delivering major savings.

Our dedicated pharma teams bring together all the people you need, in the region you need them and speaking your language, from Engineers, BIM experts and Business Developers to Account Managers and Customer Services. We also have a network of local Hilti Stores for immediate product pick-up and even Click & Collect. In addition, digital resources like the Hilti Website are available 24/7.

Team members on the ground can offer you excellent knowledge and experience of managing projects just like yours.





# HILTI IN INDUSTRY

Hilti team of highly qualified engineers and technical consultants provide daily support to thousands of construction projects throughout Europe, including highly complex ones. We focus on specific segments with high technical needs



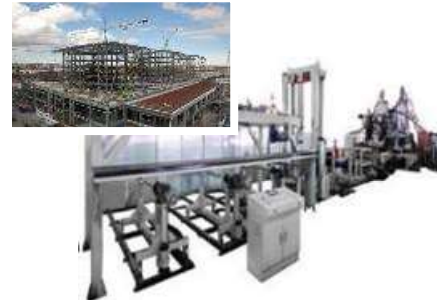
## Automotive



## Electronics



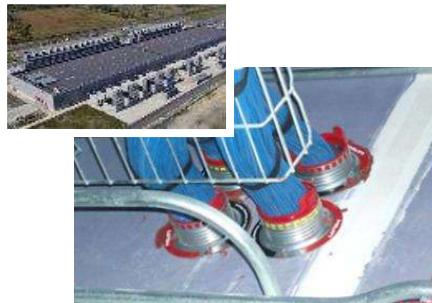
## Machinery



## Food & Beverage



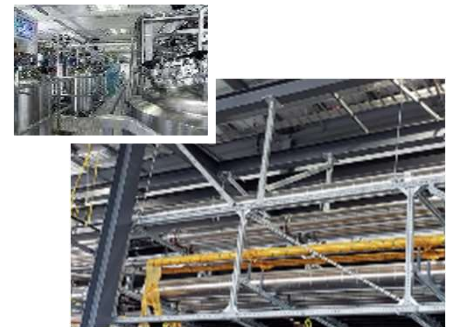
## Telecom & Data



## Elevators



## Pharmaceutical





# TOTAL OFFERING FOR PHARMA PLANT

From pharma plant design to fit-out, we have the solutions you need and can partner with you every step of the way.

As you read on, you'll learn how we bring together innovative hardware to build your pharma plant with software that helps you design them, as well as a range of services that cover everything from BIM design, engineering support, training on the jobsite and pre-assembly. Few other partners can offer you such a complete, end-to-end solution, on a global scale.

Our pharma dedicated solutions are built on the three pillars of **hardware**, **software** and **services**.



## HARDWARE

- **Modular Support Systems:** to design and install your infrastructure more quickly and safely
- **Firestop solutions:** including modular and pre-formed products which can be easily re-deployed when you need cable modifications
- **Fastening on steel:** innovative solutions that can save you significant time and money compared to traditional methods such as welding, clamping or through-bolting
- **Fastening on concrete:** chemical and mechanical fixings designed to help meet your project requirements
- **Power tools:** designed to outperform and outlast, delivering the speed and flexibility you need. Ideal for data centers, 95% of Hilti tools have a virtually dust-free solution
- **Measuring systems:** for more accurate layout including BIM-to-Field



## SOFTWARE

- **BIM / CAD Library:** an extensive library of Hilti products as 3D and 2D BIM/CAD objects – all able to integrate directly into leading construction design software, such as AutoCAD®, Revit® and Tekla Structures
- **Documentation Manager:** document penetrations using your smartphone, generate quick, professional compliance reports and help show your firestops meet the highest standards and relevant regulations
- **PROFIS Engineering suite:** provides cutting-edge calculations based on industry-leading standards, such as European Technical Approvals (ETA), as well as the latest Hilti design methods
- **Mobile Apps:** at your fingertips 24/7 is our suite of product selector apps, designed for your mobile device



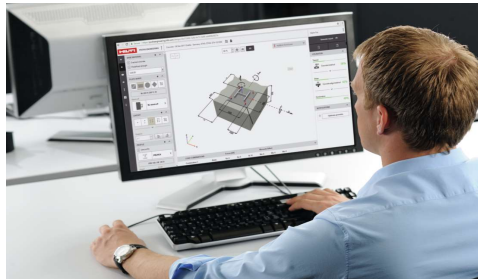
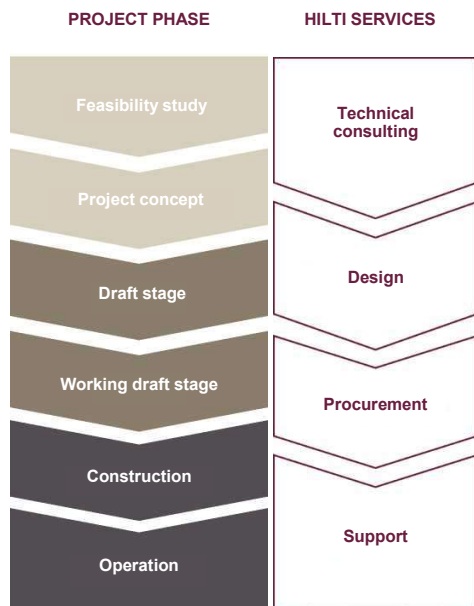
## SERVICES

- **BIM Services:** experienced engineers that can be with you on-site and in the office to help with Framework, Design, Modeling and provide Drawings and Bill of Materials
- **Engineering judgements:** custom drawings, which we create per your requirements, designed for applications without standards
- **Cutting, kitting and pre-assembly:** faster and safer installation of modular solutions that arrive on-site already prepared for fitting
- **Logistics:** including (but not limited to) scheduled, bulk or customized deliveries to site, storage or wherever you need it
- **Training:** use our expertise on engineering topics, software, on-site support, and more
- **Standard:** engineered solutions (book of standards) customized, available to speed up design, for seismic supports and firestop

# HILTI APPLICATION WORKFLOW

Partnering with you every step of the way.

Our dedicated pharma team can work with you from your initial concept designs and BIM modelling, through the procurement process and during construction. This end-to-end approach helps you to build and revamp your plant faster and get them up-and-running quicker. This means you have to wait less time before they are generating profit and improving your service level to your customers.



## ENGINEERING

Our teams of highly trained local engineers can offer you support either in your office or at your jobsite. They can help you create detailed design, including load calculations, as well as generate firestop specifications and BIM modeling. In addition, they can perform jobsite tests using regularly calibrated test equipment, providing you with reports that contain relevant data and resistance evaluation that can be incorporated into PROFIS ENGINEERING, our anchor calculation software.



## PROCUREMENT

During the procurement stage of your project build, retrofit or maintenance operations, we'll work closely with you to create a framework agreement that details roles and responsibilities as well as terms & conditions. This one-to-one service ensures that your needs are properly defined and met.

In addition, we can create an automatic material take-off and arrange any logistics services you need.



## CONSTRUCTION

To increase speed and productivity on-site, we can cut your Modular Support Systems in one of our fabrication centers, consolidate components into kits, or deliver everything pre-assembled, so you can minimize your material and labor costs.

Our logistics service also ensures that items reach you exactly when and where you need them.



# DESIGN

Project managers, designers and installation technicians put their trust in Hilti engineers' extensive experience, technical expertise and profound understanding of the construction market needs. The engineering team is ready to provide support in the analysis and selection of fasteners for concrete and steel, the choice of firestopping solutions that meet your requirements when designing these solutions in the software packages AutoCAD and Inventor with their further integration into PDMS AVEVA and SmartPlant Intergraph.



## BENEFITS OF DESIGN WITH HILTI

By choosing Hilti, you receive the following services:

- Basic design
- Detailed design including load calculation
- Standard solution book
- Complete certificate package
- Technical library
- Software for the analysis and selection of design solutions
- Full integration of the project into a 3D model (PDMS & SP3D)
- Dedicated 3D objects specialist for design support



## BUILDING INFORMATION MODELING (BIM)

BIM is a game changer for design and installation technology. It is a tool that streamlines the collaboration of all project participants.

**BIM opens up the following possibilities:**

- Reduced potential for errors and costs.
- Elimination of errors and risks at every design stage
- Increased speed and efficiency of collaboration
  - Online data exchange streamlines the collaboration of all project participants and prevents errors

## RESEARCH AND TESTING

Research and development is one of the most important areas of focus for Hilti. Certification specialists conduct research projects in their own laboratories and test facilities around the world. In Italy, long-term cooperation has been built with leading construction universities such as Eucentre in Pavia. Hilti has over 20 years of experience in testing for resistance to fire, corrosion and dynamic stress.



## HEALTH AND SAFETY

Hilti carefully inspects the behavior of modular structures and anchors or fireproof penetrations, ensuring reliable calculations and solutions that enable people to leave the building in the event of a threat safely.

A continuously expanding library of approvals and test reports takes the reliability of our products to a new, unmatched level.

Our experience, the advice we provide and the software solutions we offer make us a partner you can rely on.



# SOLUTIONS FOR PHARMA APPLICATIONS

Hilti has solutions for all relevant trades and applications in a pharma project

Hilti can help you from the design stage right through to execution and maintenance.

From our Modular Support Systems used to build MEP supports, overhead grids and integrated floor systems, through to firestopping and fastening on concrete or steel, we have the quality materials you need and can get them to you fast.



## Fasteners & Fixings for CSA



Shell/Envelope



Forming

## Modular Supports & Racks for All Building Services



Utility Piping



Electrical



HVAC



Sprinkler



Process Piping

## Firestopping



Penetrations

## Other Fastening on Concrete



Equipment



Utility Devices



High Racks



Multi-purpose



Cleanroom  
Ceilings



# FASTENING ON STEEL AND CONCRETE

Fast, simple and reliable fastening systems – no matter what your base material is.

With over 60 years of experience in fixing systems, Hilti can be your reliable partner for secure fastening solutions. With a range of over 20,000 fasteners you are covered for applications that range from the complex to the everyday.



## FASTENING ON STEEL

Pharma buildings are often built with a lot of steel, meaning that pipes, cable trays and HVAC need to be hung from steel beams. Traditional methods include welding, bolting or clamping, each with significant drawbacks:

- **Welding:** is a time consuming process which needs preparation of the steel, a certified welder and repainting once the area has cooled down
- **Through-bolting:** requires time consuming drilling, access to both sides of the steel and often small parts such as nuts, washers and bolts that can get dropped or lost
- **Clamping:** can be limited in direction and, if the clamp is exposed to vibration, periodic maintenance may be needed

Hilti has three fast, simple and reliable ways for fastening on steel that overcome these issues and allow you to complete fastenings in less than 2 minutes:

### Sharp tip fastening:

- A sharp tip stainless steel fastener is driven by a powder-actuated nailer into the base material

### X-BT blunt tip fastening:

- A blunt-tip stainless steel fastener with a smooth cylindrical or conical shank is driven by a powder-actuated nailer into a pre-drilled hole in the base material

### S-BT blunt tip screw fastening

- A blunt-tip stainless steel fastener with a screw type shank is driven by a torque-controlled screw driver into the pre-drilled hole in the base material creating a tapped connection



**HILTI**

## FASTENING ON CONCRETE

Hilti has a wide range of fast, simple and reliable methods for fastening to concrete with mechanical or chemical anchors ETA seismic C2 approved – no matter what your load requirements are.

### Steel structure baseplate:

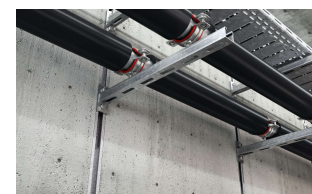
Hilti has a wide range of approved solutions for even the most challenging design requirements or geometrical conditions. Static, seismic, shock or fatigue loading, edge distances or concrete strength won't hold you back. HST3 metal expansion anchor is your solution for safety relevant fastenings in cracked and uncracked concrete. HIT-HY 200 chemical anchor allows you to make heavy load fastenings without having to clean the holes.

### Medium-duty fastening

For medium load applications like fastening MEP heavy supports, securing equipment to floors and walls or installing facade or elevators we also have a diverse portfolio with mechanical or chemical anchors. For the ultimate in ease of install, our HAC cast-in anchor channel can be placed around the rebar before the concrete is poured, meaning no labor intensive drilling or harmful dust. We also have a wide variety of post-installed solutions, like mechanical anchors HSA

### Light-duty fastening

When it comes to everyday applications, like MEP supports, we can also provide the flexibility, reliability and cost effectiveness you need. Standard solutions like HUS3 and HUS-I screw anchors that allow you to support loads equal or greater than stud anchors. HUS are adjustable and re-usable, come in a wide variety of sizes, diameters and head geometries. Fast and easy to install





# MODULAR SUPPORT SYSTEMS

When you design and build a pharma plant, you need to think ahead. How can you increase capacity to meet future demand? How can you quickly and cost-effectively change the internal layout? And how can you design a cleanroom that can be easily replicated anywhere in the world, using products available locally and complying with national codes?

Hilti Modular Support System provide a quick and easy solutions to these questions.. They are designed to be used and re-used in as many different configurations as you need, so when your needs change you can simply re-deploy the same equipment, saving you both time and money.

Because there's no welding involved, installation is quicker, easier and safer. You can add pipe supports, cable trays, HVAC ducts, electrical outlets, or adapt it as your needs change.



## Typical uses include:

- **Mechanical and electrical supports:** a fast, flexible, seismic and fire certified system is key when you have to support pipes, sprinkler systems, HVAC ducts and electrical cable trays in a small space such as in pharma production area.
- **Overhead grid system:** an easy way of routing pipes, and cables as needed and support cleanroom ceiling through modular overhead space, and add to it as your requirements change.
- **Integrated floor system:** similarly, you can quickly create a space through which you can run multiple services and support floor and electrical equipment in a single system.

## Light to medium-duty

**Hilti MQ system** allows for safer and easier handling and offers load bearing capacity for light and medium duty applications. It is designed to support static and seismic stresses and any other need such as compensation of piping expansion.

Our integrated system solution provides a match between anchors and U-shape channel holes, optimizes loads and increases ease and speed installation.



Offering the versatility to install in a wide variety of configurations – goal post, bracket, U-frame, trapeze, T-shape – and with a wide variety of fastening components such as seismic hinge, angle and end caps. As a system it is designed to be installed quickly and comfortably – for example, Hilti MQN 'push button' channel connectors are an easy-to-use, one-part fastener that replaces a spring nut, bolt and washer.



## Medium to heavy-duty

**Hilti MIQ system** sets new standards in modular flexibility. Based on closed 90x90mm profile it combines the strength and rigidity of the well proven MI system with the versatility of our market leading MQ system. Featuring cleverly designed, time saving connectors, it's the ideal solution for medium and heavy duty applications.



The wide range of connectors available makes it easy to find those that fit the needs of your application. Thanks to the MQ41 profile on two sides of the girder, parts can be fitted extremely easily, including brackets, supports, piping accessories and various connectors.



## MEP Supports selector

With the MEP supports selector we make it easier for you to create typical solutions.

Just enter your requirements and the selector presents a range of solutions at different price and performance levels. A tedious, tricky task can be completed in a fraction of the time. The tool helps you keep costs and scheduling under control too.





# FIRESTOP SOLUTIONS

Hilti firestop systems enhance the overall building performance in many areas. They meet the latest industry needs and are easy to install, retrofit and inspect.

Hilti helps you maintain uptime with its pre-formed firestop products which help to reduce the risk of fires spreading and helps limit the costs of reconstruction.

Focused on innovative, pharma specific solutions, we work closely with you to help bring down total costs over the life cycle of an asset through accelerated project schedules and improved operational efficiency.



## BENEFITS

- For over 30 years Hilti has been producing, certified, tested and globally recognized firestopping systems including specific solutions for industry facilities.
- We have acquired a lot of experience in research and development of fire protection solutions working closely with our customers, so we know what is needed on site.
- Firestop products combine the most advanced and reliable technologies to save lives and protect buildings and equipment from fire. In addition, Hilti produces high-quality software, and provides training for inspectors, engineering companies, and installers

- Firestop solutions for pharma are designed to deliver safer and faster design and installation, as well as full operational flexibility and lower downtime due to maintenance.
- Easy to install and inspect and comply with the strictest international standards included ETA, UL, DIN, BS, FM.
- Firestop products can cover a large variety of penetrations with pipes and cables in wall and floor applications up to EI180, some products suitable also for damper penetrations.

- High number of certified applications for any kind of wall/floor material such as concrete, aerated concrete, bricks, drywall even sandwich panels and wood.
- Preformed products specifically designed to increase simplicity and speed during the installation and to leverage health and safety.
- Thanks to the flexible nature of our products, they can account for thermal or mechanical movements included seismic.
- The fabric-free and low volatile organic compound (VOC) solutions help you create a healthier environment in your building, complying with respected green building standards LEED and BREEAM.

## TYPICAL USAGES

**Mechanical firestopping:** our range of firestop products for mechanical applications can cover:

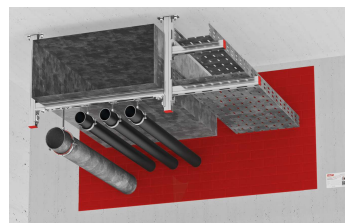
- Combustible piping (PVC - PEHD - PP - non-standardized plastic pipes)
- Non-combustible piping (steel - copper)
- Steel piping with combustible insulation (Armaflex or similar)
- Steel piping with non-combustible insulation (mineral wool)

**Electrical firestopping:** our range of firestop products for electrical penetrations can cover:

- Single cable up to 80mm diameter
- Cables in bundle
- Cables on cable trays and cable ladders
- Conduit: single or in bundle

**Joints & Façade firestopping:**

- Top of wall
- Wall to wall, floor to wall and floor to floor
- Curtain wall and edge of slab







Hilti Italia S.p.A.  
Piazza Indro Montanelli, 20  
20099 Sesto San Giovanni MI

[www.hilti.it](http://www.hilti.it)

**Ing. Luca Ceruti**

Business Developer Industry  
Segment Pharma

**Hilti Italia S.p.A.**

Piazza Montanelli, 20  
20099 Sesto San Giovanni (MI)

**C** +39 342 50 59 887

**E** [luca.ceruti@hilti.com](mailto:luca.ceruti@hilti.com)

[www.hilti.com](http://www.hilti.com)