

# HILTI

**Professional  
fastening  
solutions**  
for elevator systems



**Take the efficiency elevator.**

**Hilti. Outperform. Outlast.**



**Hilti – expertise to rely on.**  
Because in elevators there's no room for compromises.



We're there, where you are. Providing on-the-spot advice has been a matter of course for Hilti for decades – worldwide.

#### **The partner for professionals**

Hilti is a world leader in the development, manufacture and supply of high-grade products that present an outstanding value proposition for professionals in the construction industry and building maintenance trades.

Fastening applications in the field of elevator systems installation place particularly high demands on the functional reliability and long-term dependability of the product systems used. At the same time, these products must ensure high efficiency during the installation phase.

Hilti uses specialized equipment under laboratory conditions to measure and record the loads acting on anchors during the operation of various types of elevator. The know-how obtained from evaluation of this data is invested in the development of tailor-made fastening systems. This puts Hilti in a position to provide clients in the elevator business with highly competent advice, to contribute toward greater safety and to support installation specialists by developing cost-efficient installation methods.

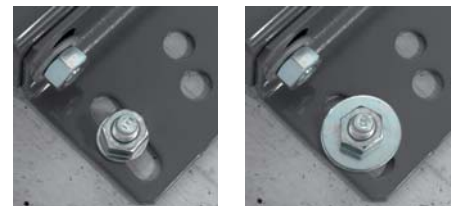
The application-oriented complete system solutions and services offered by Hilti extend far beyond state-of-the-art fastening technology. They begin with planning and consulting in the early stages of a project, continue through an extensive portfolio of measuring, drilling, fastening, installation and firestop systems products and culminate in a whole series of innovative services, many of which are unique throughout the world.



## Anchor systems for demanding tasks. Fastening in elevator shafts.

### Lateral forces and slotted holes present a challenge

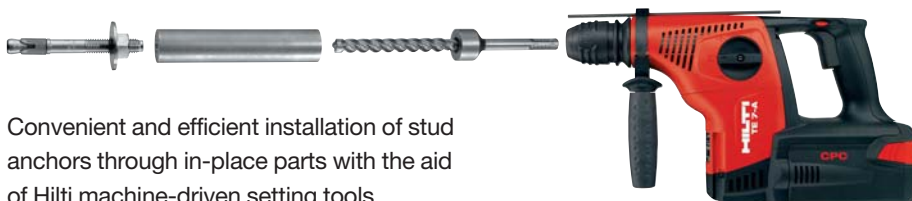
Slotted holes in the brackets and plates commonly used to secure elevator components prevent the transfer of lateral forces in the direction of hole elongation. Anchors equipped with larger washers, however, have been found to exert greater surface pressure on the bracket or plate and are therefore capable of taking up higher lateral forces due to greater friction. Accordingly, Hilti anchors for use in elevator systems feature large-diameter DIN/ISO washers.



Hilti stud anchors transfer lateral forces optimally thanks to use of special extra-large washers (right).

### Machine-driven setting tool for stud anchors

Setting stud anchors through in-place parts using the conventional hammer method is often difficult due to lack of space. Hilti has overcome this by developing a machine-driven setting tool for the M12 anchor size normally used in elevator installations. The tool consists of a stop-type drill bit to ensure holes are drilled to the correct depth, plus an impact sleeve that is fitted over the drill bit and used to drive the anchor by means of the rotary hammer – there's no need to remove the drill bit from the chuck. This makes the anchor installation process quicker, easier, less tiring and, above all, safer.



Convenient and efficient installation of stud anchors through in-place parts with the aid of Hilti machine-driven setting tools.



**Anchors put to the test.**  
With certified simplicity.



The Hilti Anchor Tester 28 with VdTÜV certification for testing elevator anchor systems on brick or block walls. Complete with all accessories, neatly packed in an impact-resistant plastic Hilti toolbox.

### **On-the-spot anchor and materials testing**

In situations where old elevator systems are to be completely replaced, the process of anchoring new components frequently presents some demanding challenges. How can you be sure that the forces involved will be taken up reliably by the walls of the old, existing elevator shaft, often made of brick or block? Hilti leaves nothing to chance and has therefore developed a compact and dependable, easy-to-use testing system with VdTÜV certification (German safety standards authority).

With this equipment, various anchor systems can be tested on the spot, in the material in which they are to be installed, by applying a test load of up to 2.5 tons. The tester can also be used to check the loading capacity of existing overhead lifting points for temporary hoists.



Very easy to use, even in tight corners – the handle can simply be replaced with a nut.



Widely-spaced support legs allow not only the anchor to be tested, but also the material in which it is set.



**Take a load off your mind.**  
Reliable hoist anchor points in elevator shafts.



Quick installation of a reliable lifting point on the roof of the shaft.

tool, undercut anchors suitable for low depth of embedment and use in the tension zone, anchor plates with threaded boss and suitable ring bolts.

### **Tested and approved**

To avoid restriction of space in the safety area at the head of the lift shaft, the anchor plate and ring bolt can be removed individually. The anchor used is the extensively tested Hilti HSC-I M12 safety anchor with individual ETA approval for use in cracked concrete and BZS shock load certification. This well-proven system has been tested by a number of independent agencies and certified for a maximum working load of 2 tons.

### **Hilti Hoist Anchor Kit - the clever, complete solution**

Temporary anchor points are required during elevator installation work for attaching chain hoists used for vertical lifting in the shaft. When the work begins, it's often found that the necessary lifting points are either missing or the loading capacity of existing lifting points is unknown. Hilti has put together a system of parts that allows reliable hoist attachment points to be installed very quickly. The set contains all the necessary components, neatly arranged in an impact-resistant plastic Hilti toolbox: stop drill bit, anchor setting



The Hilti Hoist Anchor Kit: all items required in an impact-resistant plastic Hilti toolbox.

**Fastening is our passion.**  
It's reflected in our products.



Hilti SIW 144-A cordless impact wrench with Hilti Lithium CPC technology.



Hilti GX 100-E gas-actuated fastening tool with 20-nail magazine.



Step on the gas: Flexible cable clasps for quick, easy retrofitting.

### **Incredibly compact, impressively powerful.**

Working with power wrenches in cramped conditions, where a large number of extremely tight nuts and bolts have to be removed during the course of elevator modernization work, can be difficult, slow and tiring. In these situations, cordless impact wrenches offer exceptional convenience and speed of use, especially where high torque is needed. The new Hilti SIW 144-A takes impact wrench performance to a level previously unattained by cordless tools. Featuring Hilti Lithium CPC Cordless Power Care, this tool sets entirely new standards in terms of battery capacity and life.

- Extremely rugged thanks to dual spindle bearings
- Unique triple LED lighting system at the nose of the tool for optimum illumination of the immediate working area
- Good access in tight corners

### **Step on the gas when fastening cables**

Time is money in the elevator installation business. And fastening electric cables, conduits and ducting in lift shafts can be a very time-consuming process. With the Hilti GX 100-E gas-actuated fastening system, a fastener can be anchored reliably on concrete or masonry block walls in a fraction of a second – no drilling required. This cordless tool needs no battery charging and is thus always ready for immediate use. In addition to the tool, the system comprises a nail magazine, nails for various purposes, cable clips and cable clasps. It's simply the quickest and easiest way to fasten cables and conduits.

- No battery, no charging, no charger
- For high-speed repetitive fastening
- Extensive range of electrical installation fasteners available



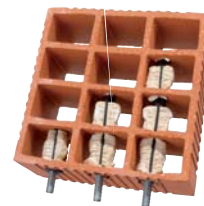
### Raise the limits - on brick and block of all kinds

Especially in older buildings, lift shafts often consist of masonry block or brick walls. Particularly where hollow blocks or bricks have been used, mechanical anchors may be unable to transfer forces to the wall reliably over an extended period of time. Injectable adhesive systems (also known as “chemical” anchors), however, are ideally suited to this task and are capable of achieving the maximum in terms of loading capacity at each anchor point, even in weak base materials.

Hilti HIT-HY 70 is a fast-curing, two-component injectable adhesive mortar which, in conjunction with various combinations of plastic mesh sleeves, offers the highest level of flexibility as well as maximum security.

- Optimum mortar distribution for a superior bond between the anchor rod and base material
- Visual check of hole filling level ensures use of only as much mortar as is necessary – for a perfect fastening capable of taking up high loads
- Trouble-free transport and easy disposal thanks to the well-proven foil pack system

The Hilti HIT-HY 70 injectable adhesive mortar system has been certified by the German safety standards authority VdTÜV (VdTÜV elevator code of practice 104:08.2006) for anchoring guide rails for centrally-guided and centrally-suspended elevator cars on brick or blockwork.



Only from Hilti: two mesh sleeves in 5 possible combinations for a wide range of hole depths.



Composite mesh sleeves and Hilti HIT-HY 70 hybrid adhesive mortar in the practical foil pack.



Ergonomically-designed dispensers allow effortless, precise control of the mortar injection process. Available in a choice of manual, pneumatic, cordless and corded models to suit all requirements.

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Hilti Corporation | 9494 Schaan | Liechtenstein | T +423-234 2111 | F +423-234 2965 | [www.hilti.com](http://www.hilti.com)