

Hiltinnovation Summer 2013

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Cordless tools, go completely cordless Accessories for combis and breakers Mathaf Project: Hilti anchors Chemical anchors, no more hole cleaning Hilton Hotel project: Hilti installation systems New diamond coring tool DD 160 Engineering Innovations: cast-in channels Short News

Hilti consumables with cordless freedom, a value you can trust.

Hilti. Outperform. Outlast.



Accessories Hot Stuff



TE 2-A22 Cordless rotary hammer SCM 22-A Cordless steel cutter SIW 22T-A Cordless impact wrench

Make it fit cordless 22V portfolio



Go completely cordless with Hilti — voltage that fits your needs.

Rise to new heights and experience new found freedom with Hilti's new range, offering you total mobility in your daily work. With 'Make it fit' how you select your tools is just as flexible. Buy as standard kits or as separate components depending on your requirements. Exactly as you please, exactly to meet your needs, with totally fair pricing.

Hilti Lithium CPC batteries and chargers feature some of the most advanced Li-Ion technology available today, to deliver the greatest work per charge with total system protection. Additionally Li-Ion chargers are able to charge all voltages of battery - 14V, 22V and 36V.

Advantages

- Easy to be used everywhere.
- No need for electricity and save the electricity setup time.
- Versatility of Hilti cordless system "one battery/charger for all tools".
- No cost warranty in the battery and charger for 2 years.





Make it fit cordless 22V portfolio

22V Li-Ion - B 22 / 1.6Ah, B 22 / 3.3Ah



B 22 / 1.6Ah



B 22 / 3.3Ah

HILTH	2 ^{Years}
LIFETIME SERVICE TM	NO COSTS
Lifetime	Lifetime
REPAIR COST LIMIT	MANUFACTURER'S



Hammer drill/driver SFH 22-A



Rotary hammer TE 2-A22



Angle grinder AG 125-A22



Rotary hammer TE 4-A22



Drywall screwdriver SD 5000-A22



Cordless steel cutter SCM 22-A



Impact wrench SIW 22-A



Impact wrench SIW 22T-A



Reciprocating saw WSR 22-A



HDE 500-A22

More power

Lithium-ion cells incorporating the latest technology provide unequalled power and capacity. Four LEDs keep you informed about the Hilti CPC battery's state of charge.

Higher reliability

Electronic battery management and motor control for extra-long lifetime. Rubberized, impact-resistant, fiberglass-reinforced casings make the tools and batteries exceptionally rugged.

Better services

All Hilti Lithium CPC tools, chargers and batteries come with Hilti Lifetime Service – this means no costs to you for up to two years from date of purchase in the event of a fault.

Hilti inserts.











Hot Stuff. Accessories by Hilti for higher performance.

Many dishes need a touch of a chili to bring out their full flavour. The same applies to your tools in the workshop and on the jobsite - only with the right Hilti accessories do they reach their full potential.

Drilling in concrete



333333333 TE-C and TE-Y hammer drill bits

With cold-formed double helical flutes and high-guality carbide cutting edge for long life and top performance in unreinforced materials



TE-CX and TE-YX hammer drill bits Solid carbide head with four cutting edges in innovative X-geometry design for high performance. No jamming in the event of drilling into rebar.

Chiseling in concrete





Featuring inductive hardening

TE-Y chisels

for lasting chiseling performance.



TE-CP, TE-YP, TE-SP and HEX 28 Polygon chisels The self-sharpening Hilti Polygon design for constant high performance. No resharpening costs, longer life, higher breaking power.

Working on metals



AC-D UP cutting and AG-D UP grinding discs High quality discs for cutting

and grinding metals of all

kinds including stainless steel.



AC-D USP cutting and AG-D USP grinding discs Superior-quality discs for cutting and grinding metals of all kinds including stainless steel



AF-D abrasive flap discs For gentle, even grinding of metal surfaces (aluminium, steel, stainless steel, cast iron). High rate of material removal and long life.



W-CSR reciprocating saw blades

A wide range of reciprocating saw blades for wood/plastics, metal/pipes, blades for universal use and special purposes



SC-C circular saw blades

Circular saw blades developed especially for cold cutting up to 20 mm thick steel plates or different aluminium materials.



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We make our own.

We manufacture most of our innovative power tool accessories ourselves. That's why we can guarantee, among other things, that a Hilti drill bit will be replaced free of charge in the event of breakage – so long as the wear mark on the helix is still visible.

Lasting impact.

Hilti TE-YX drill bits never lose their head, even when faced with the toughest drilling jobs in concrete. Construction professionals swear by them.

- 12 to 40 mm diameter
- Lengths from 320 to 1300 mm
- The solid carbide head is fully embedded for exceptional durability and fast, trouble free drilling, even through rebar.





Count on Hilti.

Hilti power tools and accessories are developed together, tested together and are thus perfectly matched. So you benefit fully from the Hilti Power Effect.

Customer testimonial

Hilti Saudi supports the increasing of Mathaf's capacity in Makkah.

The building up of the bridges in Mathaf's area for the pilgrims performing Tawaf is a rush project with high challenges and responsibilities for the contractor Sbg PBAD. Saudi Bin Laden sought the support of Hilti for this remarkable construction.

Expanding the capacity of the Grand Mosque in Makkah is a key project for the Kingdom of Saudi Arabia and for all Muslims in the world. The expansion project will add 400,000 square meters, nearly doubling the existing space, and increasing its total capacity to 2.5 million worshippers at a time.

One of the tasks of the main contractor Saudi Bin Laden Group, Public Buildings & Airports Division was the construction of a temporary bridge in Mathaf's area to accommodate the pilgrims. This was a rush project with the additional difficulties of not damaging the holy area and with ongoing pilgrims performing Tawaf during the build-up.



For the columns fixing Sbg needed a system which provides safety under heavy loads and also a quick installation. After comparing different methods and suppliers, Sbg chose Hilti. The solution provided was the new chemical anchor Hilti HIT-HY 200 with steel rods HIT-V and HAS. HIT-HY 200 allows contractors to make structural fastenings on concrete without need to clean the anchor holes. This way the load values are completely guaranteed without loss of time or a negative effect coming from an anchor's defective installation. Hilti HIT-HY 200 has the shortest curing time in the market.

Sbg constructed the bridge in only 4 months, from April to July 2013, taking around 500 cartridges HIT-HY 200 and HIT-V anchor rods.

For the holes drilling Sbg was using Hilti combihammers TE 70 and TE 50, and for the case of hitting rebar, Hilti coring tools DD 120 with the respective drill and core bits. Other Hilti products used as complements were the Hilti vacuum cleaner VC 20, the laser range meters PD 5 and the laser ferrodetectors PS 35.

Sbg appreciates the high lifetime and performance of Hilti tools and consumables and the Hilti Lifetime Service for tools, with 2 years no repair cost. The average repair cycle for Hilti tools is actually around 5 days, including transport time to Hilti Repair Centre in Jeddah.

Mathaf project



Hilti's Key Project Manager in the site Mohammad Abu Dahab, supported by Hilti's field engineers and salesmen, was always in contact with Sbg's personnel, demonstrating the system and training the users in the project. Hilti's solution was approved and will be used for the construction of other bridges in the Grand Mosque's expansion.



Testimonial.



Mr. Osama Aldemiry, Senior Project Manager in Sbg PBAD, and his team were using the Hilti products for the bridge

erection and shares with us his opinions.

What were your company's needs for the application?

We need to fix steel plates on the floor using chemical anchors. Each column will be lifted on the ground fixed with 16 anchors.

Why did you choose the Hilti solution?

We usually prefer Hilti because of the unique site support and high service standard. Hilti is the only brand that makes demos and tries the material before selling it. Also we liked HY 200 as a fast curing chemical as it was easy for us to get the approval for it.

Are you satisfied with Hilti's contribution? Very satisfied.



Mr. Osama Aldemiry and his crew in the Mathaf project during work.

Hilti HIT-HY 200

System



Applications

- Post-installed rebar connections for concrete slabs, column or wall extensions.
- Heavy-duty anchoring in cracked or uncracked concrete, e.g. for steel beams, columns, manufacturing equipment or ledger angles.
- · Facade installation, steel and metal construction, installation of railings and safety barriers.

No more hole cleaning. Introducing Hilti Safe Set™ Technology.

R

TH-TH

HIT-HY 200

What does Safe Set™ mean?

Hilti Safe Set[™] Technology eliminates the most load-affecting and timeconsuming step in the installation process: cleaning the hole before injection of the adhesive. The system improves reliability because the specified application is being performed on the jobsite just as it has been designed to in the plans.



Performance data

MANUFACTURE

	HIT-HY 200-R	
Working time/curing time at 30°C	9 min/1 hour	
Working time/curing time at 40°C	6 min/1 hour	
Installation temperature range	-10 °C/+40 °C	
Approval	ETA-12/0006; ETA-11/0493; ETA-11/0492	
Suitable for use with	Hilti HIT-Z, rebar, HIT-V, HAS, HAS-E, HIS, HZA-R	
Hole cleaning	No hole cleaning required with HIT-Z	
Rebar diameter range	8 – 32 mm	
Anchor rod diameter range	8 – 30 mm	
We reserve the right to make technical changes.		

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Hilti HIT-HY 200

System



No cleaning required. **HIT-Z Anchor Rods.**

Annon The new Hilti HIT-Z Anchor Rod with its cone-shaped helix works as a torque controlled bonded anchor. This means that because of their shape, HIT-Z anchor rods are not affected by uncleaned, hammer-drilled holes in dry or water saturated concrete in base materials above 41°F (5°C) when used with HIT-HY 200. The benefits are clear: fewer steps and extremely high reliability in anchoring applications.

Holes that clean themselves. Hollow Drill Bits.

Hilti TE-CD and TE-YD Hollow Drill Bits, in conjunction with HIT-HY 200, make subsequent hole cleaning completely unnecessary. Dust is removed by the Hilti VC 20/40 Vacuum System while drilling is in progress for more reliability and a virtually dustless working environment.







The traditional method. Brush and blow.

The current industry standard installation method uses compressed air and a wire brush to clean the drill hole. Like all Hilti adhesive anchors, HIT-HY 200 can be installed using the traditional blow-brush-blow method. Because HIT-HY 200 only requires two blows of compressed air, two brushes, and two more blows of compressed air when using the traditional method, it is still faster to install than many other adhesives on the market. The blow-brush-blow cleaning technique maximizes the application range for HIT-HY 200.







diamond coring system



Applications

Wet coring, making penetrations in concrete, for example, for:

- Heating pipes and ventilation ducts.
- Water supply or waste water pipes.
- Cables and cable trays.

Drilling anchor holes for:

- Large-diameter anchors and postinstalled rebars.
- Installation of hand rails, railings or barriers.

Advantages

- Exceptionally user-friendly thanks to self-explanatory design.
- Compact design and low weight for easy handling.
- Easy to transport and set up.
- Optimum speeds for each application.
- Less downtime: the service indicator reminds users in good time when servicing is due.

Highlights

- Sturdy 3-speed gearing for outstanding coring performance across the entire diameter range.
- Easy-to-use, high-quality, quick-release chuck featuring weight-saving design.
- Clear and concise range of accessories for added versatility.

Outstanding performance. Exceptional simplicity.





Drills through-holes for pipes of all kinds quickly and accurately.

Takes the effort out of drilling penetrations for ventilation ducts and cable installations.

The simple SFL stand makes the installation of DD 160 very easy and rapid which results in maximum efficiency.





Performance in perfection.

Thanks to the LED performance indicator, even less experienced users can achieve the optimum rate of progress and maximum core bit life.







Hilti tools + Hilti accessories.

Lower costs.

The innovative change module system, an exclusive Hilti feature, saves money again and again, significantly lowering costs.

Performance data

	DD 160
Rated power (W, 230 V)	2200
Rated speed (/min) 1st gear / 2nd gear / 3rd gear	420 / 700 / 1570
Coring diameter range (mm)	25 - 202
Suitable core bits	P-line
Max. coring depth (mm)	450
Dimensions, L×W×H (mm)	400×165×945
Weight as per EPTA 01/2003 (kg) with SFL drill stand	16.3
Weight as per EPTA 01/2003 (kg) with CTL drill stand	19.3
We reserve the right to make technical changes.	

Customer testimonial





ThyssenKrupp speeds up in Hilton project with Hilti's installation system

Working in key projects under time pressure is always a big challenge for elevator contractors. ThyssenKrupp found in Hilti's installation systems a solution to increase its productivity and to keep its high quality standards. At Riyadh, the new Hilton Hotel & Residence project consists of two buildings: one five star hotel tower of 20 floors and one executive residence tower of 14 floors. Apart from this the scope of work includes two car parkings and one 500 m suspended bridge to connect the Granada Oasis project with the Granada Mall through the Hilton Hotel.

The international elevator contractor ThyssenKrupp had a challenge to complete

Hilton project



The Hilti MI Installation System provides unmatched flexibility for building up structures with highest speed due to the elements design and light weight.



The Hilti MI Installation elements offer the best corrosion behavior and can work with very high loads. In case of design change, the MI components can be reused and adapt to every need.

all elevators on time and maintain the quality level needed. As a rush project, time is the most critical aspect of construction. From this perspective, Hilti continuously innovates and tailors its products to meet such demands.

ThyssenKrupp will install all elevator components including separator beams as shown in the picture. Traditionally I profile beams are used, but Hilti offers MI guirder beams as a better alternative.

Hilti MI Installation is a modular system consisting of channels, connectors to concrete and steel and other elements, all of them reusable. The components are highly flexible and light to build quickly all the necessary structures suitable for the customer's pipes and loads, reducing the downtimes.

After meeting Eng. Zaydoon (Director of operations) at the ThyssenKrupp Head Office the Hilti sales engineers explained and demonstrated the value features of using Hilti's installation system; no welding is needed at site, beams can be easily adjusted to meet various lengths, hot dip galvanized steel, lighter in weight and assured engineered solution to resist the loads acting.

Hilti's Key Project Manager Ismail Ismail

worked with ThyssenKrupp Engineer Tamer to obtain the needed data to design the cases. Afterwards, his technical colleague Engineer Ismail designed the system using Hilti Profis Installation software with continuous coordination with ThyssenKrupp engineers. In addition to that, Hilti's Account Manager Qusay Nour followed up at ThyssenKrupp's Head Office especially Eng. Ashraf (Procurement manager) to ensure the proposal was submitted as per Thyssen's requirements.

Due to the valuable services offered by Hilti Saudi Arabia and the excellent time-saving solution the customer had significant productivity gains in the project.

Testimonial.



Eng. Zaydoon Al Khzouz, Director of Operations in ThyssenKrupp, expresses his opinion about Hilti's contribution in the Hilton site.

What were your company's needs for the application? First we were concerned about the time needed to install the system, then the solution should be flexible and easy to install on site, finally the product must be based on the design according to acting loads.

Why did you choose the Hilti solution?

Because it's an engineered new system that will save us valuable time to execute the project. In addition we avoid the welding & painting needed with the traditional system.

Are you satisfied with Hilti's contribution? Yes.

Engineering Innovations

New cast-in anchor channels with innovative V-form.

Drawing from over 60 years of experience, Hilti is now extending its product range by anchor channels as an addition to dowels offering both fastening solutions from one source. If fastenings can be planned at an early stage, the new Hilti HAC anchor channels offer higher loading capacities, shorter edge distances and quicker, easier installation. The system also allows greater flexibility that brings benefits over the entire life-cycle of the building.

Hilti HAC anchor channels and the corresponding HBC bolts are suitable for various fastening applications such as curtain wall facade substructures, elevator installations, prefab connections, and the installation of pipe and cable tray suspension systems or temporary fastening points.

Innovative V-form for high performance

The innovative V-form of the new Hilti HAC anchor channels is immediately obvious. This new shape ensures that working loads are taken up exceptionally well by the concrete and allows a higher loading capacity where shear loads occur close to edges.

Simple and coordinated system

Thanks to this new channel geometry, Hilti has been able to cover all requirements to be fulfilled by the anchor channel range with only three types of HBC bolts in different steel grades and lengths. This reduces complexity, and thereby the risk of confusion, while increasing the system's flexibility and simplifying inventory management.

Quick, well-sealed

The environmentally-friendly LDPE foam insert in each channel features a practical tear-out strip for quick, easy, complete removal while plastic end caps prevent ingress of concrete slurry at the ends of the channel, avoiding the need for subsequent tedious and time-consuming cleaning.

PROFIS Anchor Channel design software This new Hilti anchor channel system has been in possession of a European approval, for static and fatigue loads as well as loads occurring in the event of fire, since



The new type foam filling can be removed easily and without residues thanks to the practical peeling strip.

The new HAC cast in anchor channel from Hilti has an innovative V-form for higher loads and reduction of the edge distance.

February 8th 2011, ETA-11/0006. Moreover, design calculations in accordance with CEN are greatly simplified through the use of Hilti PROFIS Anchor Channel, the user-friendly PC application that allows the design of cast-in anchor channel points quickly, efficiently and with great flexibility

Comprehensive technical support

Hilti's competence when it comes to providing technical advice is already renowned. With this extension of the Hilti product range, the tremendous know-how available can now also be applied to castin anchor channels. No matter whether at the planning stage or during execution of the work, Hilti's technical specialists and engineers can always be relied upon to provide sound advice. In addition, a central team of experts backed by Hilti's global competency network is ready to help find the answers to particularly complex questions.



In the system with the HBC bolts, the HAC anchor channels by Hilti enable simple and fast mounting.

Khaled Juffali- New partnership in Saudi Arabia

Hilti Saudi Arabia and Khaled Juffali Company (KJC) announce their joint venture in Saudi Arabia. KJC as a dynamic local/international player will further strenghen Hilti's footing in KSA, opening new business opportunities in both the mainstream and energy sector. As a family business KJC is well placed to understand our long term business approach and is well aligned to our culture and values.



From left to right: Mr. Thomas Stumpp, Hilti Region Head, Sheikh Khaled Juffali and Mr. Rolf Riedl, CEO Hilti KSA.



Hilti repair centre in Jeddah expanded

The high increase in Hilti tool sales in the last years has put the central Jeddah repair centre under pressure. To keep and improve the service level Hilti Saudi has opened a new, much bigger, repair centre in Jeddah's Khumrah area to allocate 25 persons and all the materials related to them. This is a state of the art repair center with the latest technologies to ensure the best quality repairs for our customers. Actually Hilti KSA repairs 30,000 tools per year in an average time of 5 days, which makes Hilti a reference in the Saudi construction market.

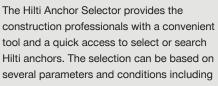
New Hilti central warehouse in Jeddah

Hilti continues to invest in KSA to keep on improving its service levels to customers. In June the central warehouse moved to the Jeddah's Khumrah area to a more spacious building to accommodate an increasing stock in collaboration with



the international logistics company Schenker. Hilti augmented the pallet positions from 1,800 to 5,000 with a total stock value of 30 Mio. SAR. Hilti's target is to serve customer's orders in 24/48 h through direct delivery or with customer pick up in any of our 10 Hilti Centres in KSA.

Anchor selector app for mobile phones





location of the anchor, geometry of the plate, loads, etc. This app is available for Android (Google Play) and iPhone (iTunes Store) in over 40 countries. Other Hilti customer apps available are Firestop selector and Fix Point calculator. Hilti continues to develop other useful apps for our customers' convenience.

Hilti event in the new Madinah airport

The construction of the new Prince Mohamed bin Abdelaziz airport is under a Joint Venture



between TAV, Turkish airport Co. And Al-Arrab. Hilti organized last February a product presentation and seminar for them in the site. Hilti salesmen and product managers had the great opportunity to explain the advantages of the Hilti products, especially Chemical Anchor HIT-HY200, cordless tools, DX tools (powder and gas guns), installation systems and Hilti combihammer TE70.

Hilti Centres: Kingdom of Saudi Arabia

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Baladia Street Al Shoaili Center 21454, Jeddah Phone +966 2 667 8475

Old Jeddah Road, Imam Bukhari Street Al Sultan Building 24231, Makkah Phone +966 2 549 0773

Jeddah Road – King Abdul-Aziz street Mohammed AL-Juhani Building 41911, Yanbu **Phone +966 4 322 4661**

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Hilti. Outperform. Outlast.

Hilti Saudi Arabia for Construction Tools

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