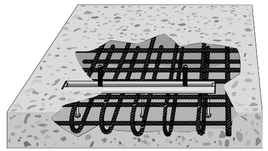
New design method.
For anchor channels, based on CEN/TS 1992-4-3.

Already several years ago, the design of anchor fastenings in concrete with partial safety factors in accordance with European guidelines led to better utilization of each fastening point. This is now also possible with the design of cast-in anchor channels. Both of these fastening methods have thus been adapted to the European standards applicable in the field of construction.

- Design of fastening points for static and dynamic loads as well as loads occurring in the event of fire is according to the state of the art.



Takes specific conditions into account, such as
- Concrete member thickness
- Concrete grade
- Edge distances
- Type of load / direction of application
- Supplementary reinforcement

New design software.
Hilti PROFIS Anchor Channel for cast-in anchor channels and hammerhead bolts.

The specification of anchor channels in accordance with CEN demands use of flexible, up-to-date software that lets engineers work efficiently. PROFIS Anchor Channel, the new PC application from Hilti, meets these requirements admirably.

- Fast, flexible and user-friendly – based on the proven PROFIS application platform.
- Detailed, easy-to-follow calculation approach shown on the screen and on printed copies.
- Database link to DWX/DWG files in 2D and 3D for integration in CAD drawings.

- Individual design of anchor channels and T-head bolts
- Loads can be entered directly on the baseplate
- Instant display of calculation results upon changing parameters
- Optimisation options

Technical advice.
Hilti supports and advises you in all technical matters.

We provide a comprehensive package of services for engineers. Our own engineers are pleased to offer their advice – in your office or on your jobsite. In particularly complex situations, Hilti's central team of experts and a global network of highly competent technical staff are at your service.

- Support with planning and design
- Support with tenders and quotes
- On-site tests and assessments
- Seminars and training

Matched system for fastenings rated up to 39 kN*.
HAC cast-in anchor channels, HBC T-head bolts and connecting parts from the MQ installation channel system.

Overview of anchor channels, T-head bolts and connecting parts

	HBC-A T-head bolt Versions available: Thread sizes M8-M12 Electrogalvanized 4.6 (8 µm) Hot-dip galvanized 4.6 (45 µm) Stainless steel A4-50	**HBC-B T-head bolt** Versions available: Thread sizes M8-M12 Electrogalvanized 4.6 (8 µm) Hot-dip galvanized 4.6 (45 µm)	**MQ system connecting parts** (Not part of approval) Versions available: Electrogalvanized 4.6 (8 µm) Hot-dip galvanized 4.6 (45 µm)	**HBC-C T-head bolt** Versions available: Thread sizes M16-M20 Electrogalvanized 4.6 / 8.8 (8 µm) Hot-dip galvanized 4.6 / 8.8 (45 µm) Stainless steel A4-50	**HBC-C-N T-head bolt** Screw-in head bolt for loads acting longitudinally Versions available: Thread sizes M16-M20 Hot-dip galvanized 8.8 (45 µm)	**HBC-C-E T-head bolt** Bolt for elevator installation Versions available: Thread sizes M12-M16 Electrogalvanized 8.8 (8 µm)
The fastening system for design loads N_{Rd} from 5 to 10 kN*						
HAC-10 anchor channel Channel lengths from 100 to 5850 mm Hot-dip galvanized (55 µm)**	■					
HAC-20 anchor channel Channel lengths from 100 to 5850 mm Hot-dip galvanized (55 µm)**	■					
The plumbing, heating and air-con. fastening system for design loads N_{Rd} up to 10 kN*						
HAC-30 anchor channel Channel lengths from 200 to 5800 mm Hot-dip galvanized (55 µm)**		■	■			
The fastening system for design loads N_{Rd} from 13 to 39 kN*						
HAC-40 anchor channel Channel lengths from 200 to 5800 mm Hot-dip galvanized (55 µm)**				■	■	■
HAC-50 anchor channel Channel lengths from 200 to 5800 mm Hot-dip galvanized (55 µm)**				■	■	■
HAC-60 anchor channel Channel lengths from 300 to 5800 mm **Hot-dip galvanized (70 µm)****				■	■	■
HAC-70 anchor channel Channel lengths from 300 to 5800 mm Hot-dip galvanized (70 µm)**				■	■	■

* Design loads N_{Rd} for C20/25 concrete without edge influence
** Mean counting thickness of channel

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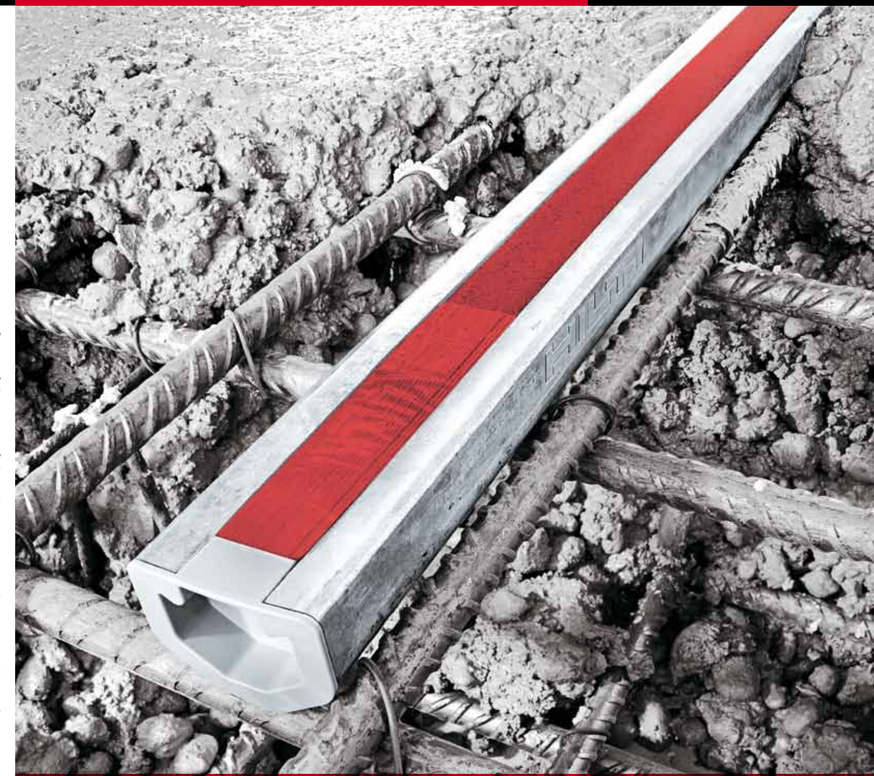
HAC
anchor channels



Innovation in V-form.

Hilti. Outperform. Outlast.

HAC
anchor channels

Advantages

- **Innovative system**
  New V-form that allows higher loads to be taken up close to slab edges where shear loads occur.
- **Well-sealed system**
  The foam filling strip and end caps ensure that no concrete slurry finds its way into the channel.
- **Time-saving system**
  Thanks to the new time-saving tear-out strip, the foam filling can be removed quickly and easily without leaving any remains.
- **Simple, matched system**
  Use of a single hammerhead screw type for several channel sizes greatly simplifies the range of bolts required. The serrated anchor channels are compatible with the familiar Hilti MQ channel system for general installation work.

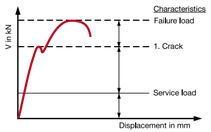
Highlights

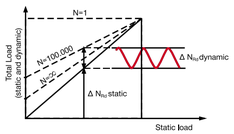
- Hilti HAC anchor channels are manufactured in seven different standard profiles in lengths between 100 mm and 5850 mm.
- The channels feature an LDPE closed-cell foam filling with tear-out strip.
- Channel ends are sealed by plastic end caps.
- Life expectancy of 50 years thanks to galvanizing with a zinc layer of at least 55 µm.
- Hammerhead screws in various lengths, diameters and steel grades.

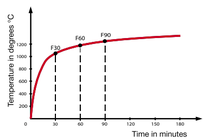
The new cast-in anchor channel generation.
With V-form for outstanding performance.

With over 60 years of experience in fastening systems, Hilti is your reliable partner for secure anchor solutions. We have now further extended our range of products to include a new generation of cast-in anchor channels for reliable load transfer to concrete structures – the Hilti HAC anchor channel.

Designed for static and dynamic loads as well as loads occurring in the event of fire.







Designed for static loads.

Only very low displacement occurs under service loads with Hilti anchor channels in cracked concrete. The anchor channels exhibit ductile behavior when the ultimate limit state is exceeded and provide clear advance warning before failure occurs

Designed for dynamic loads.

The new design method employed allows dynamic loads to be taken into account in terms of short-term as well as long-term fatigue strength for tensile loads acting in conjunction with static loads. The basis for this is formed by the Wöhler fatigue strength curves determined experimentally for the entire oscillation spectrum.

Designed for loads occurring on exposure to fire.

An all-encompassing design concept for anchor channels was developed for the first time. This concept takes the loads that occur during exposure to fire into account in accordance with the standard temperature curve (ETK and ISO 834, DIN 4102 T.2) for pure tensile as well as shear loading. Design calculations are made according to EOTA TR020 or, respectively, CEN/TS 1992-4.

Innovative V-form for high performance.

The classic anchor channel cross section has been optimized with the aid of advanced computer simulation and through intensive testing. The resulting innovative V-form allows higher loads to be taken up at edge zones where shear loads occur.

Volume of concrete taking up shear loads

V-form Classic cross section

Matching, simplified system.

- One anchor channel type for static and dynamic loads as well as loads occurring in the event of fire.
- Only three bolt types are needed to cover the entire range of anchor channels.
- The HAC 30 channels are compatible with the Hilti MQ installation channel system.

Time-saving, well-sealed system.

The new environmentally friendly LDPE closed-cell foam filling equipped with a tear-out strip can be removed quickly, thus saving labor costs. Plastic end caps also help keep concrete slurry out of the channels.

Tests and approvals.

Under the number ETA-11/0006, the Hilti HAC cast-in channel system has been approved for use under static as well as dynamic loads and loads occurring in the event of fire.