Hilti HAC Anchor Channels
Innovation in V-form

MATCHED SYSTEM FOR CAST-IN FASTENINGS
HAC cast-in anchor channels, HBC T-head bolts and connecting parts from the MQ installation channel system.

DESIGN METHOD
For anchor channels, based on SA TS 101:2015
For several years now, the design of post-installed anchor fastenings in concrete and the design of cast-in channels with partial safety factors in accordance with European guidelines, has led to better utilization of each fastening point. Both of these fastening methods have recently been listed in the Australian standard 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.

DESIGN SOFTWARE
Hilti PROFIS Anchor Channel for cast-in anchor channels
The specification of anchor channels in accordance with SA TS 101 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.

TECHNICAL ADVICE
Hilti supports and advises you in all technical matters
We provide a comprehensive package of service 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.

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

HAC-30 anchor channel
Channel lengths from 200 to 5800 mm
Hot-dip galvanized (55 μm)*

HAC-40 anchor channel
Channel lengths from 150 to 5800 mm
Hot-dip galvanized (55 μm)*

HAC-50 anchor channel
Channel lengths from 150 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)*

*Min. mean average coating thickness of channel

Innovation in V-form
Hilti HAC anchor channels

Learn more about our anchors and
NCC compliance

Hilti HAC anchor channels
Innovation in V-form
With V-form for outstanding performance, versatility and savings

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.

**ADVANTAGES**

- Innovative system
  - New V-form that allows high 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.
- Issued with an EPD
  - Independent Environmental Product Declaration, basis for sustainability-oriented building certification systems such as BREEAM or LEED.

**HIGHLIGHTS**

- Hilti HAC anchor channels are manufactured in five different standard profiles in lengths between 150 mm and 5800 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 galvanising with a zinc layer of at least 55 μm min.
- Hammerhead screws in relevant lengths, diameters and stell grades.
- Designed for static, dynamic and fire loading.
- Designed for static loads
  - Only very low displacement occurs under service loads with Hilti anchor channels. 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 employs 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.
- Matching, simplified system
  - Only three bolt types are needed to cover the entire range of anchor channels.
  - The HAC 30 channels are compatible with the Hilti MQ anchor channel system.

**Innovative V-form for high performance.**

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

**Volume of concrete taking up shear loads**

**Tests and approvals.**

Under the number E 2461/10-06 issued 1/2/2016, 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. Approved for use under seismic loads as per ICC-ES AC 322, ACI 318-11.