



# PRODUCT RANGE OF ANCHOR CHANNELS

June 2017

State-of-the-art  
Design  
ETA-11/0006  
ETA-16/0929



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## HILTI - THE COMPANY BUILDING A BETTER FUTURE

We believe that with the right tools, you can build a better future. That's why our products, systems and services are all built with the construction professional in mind. Our goal is to make your job easier, safer and more productive whatever your project and wherever you are.

Hilti is far more than a manufacturer of tools and equipment. For the people we serve every day, we're partners. No other company offers as much service, education, training, technical data and support. In fact, more than two-thirds of our team members work directly with customers on a daily basis. That means about 200.000 customer contacts per day. Those real-world interactions inspire us to develop better tools, better systems and better solutions.

Supported by this practical experience we develop and produce products, systems, software and services that feature leading-edge technology and provide the construction and energy sectors with outstanding added value for our customers.

## HILTI PRODUCT AREAS



Anchor Systems



Anchor Channels



Direct Fastening & Screw Systems



Firestop Systems



Diamond Systems



Measuring Systems



Installation Systems



Electric Tools & Accessories

## HILTI FACTS

- Family owned company founded in 1941
- 24.000 employees
- 4,6 Bn CHF turnover
- 280 m CHF R&D investment per year
- 165 new patent filings submitted per year
- 60 new products per year
- 124 nationalities in one global team
- Based in more than 120 countries
- Market leader in fastening technology

## HILTI SERVICES

### **Fleet management:**

Lease and manage the tool fleet

### **Tool service:**

Repairs made within three days  
or it is free of charge

### **Training and instruction:**

Comprehensive application and safety  
training for client companies and contractors

### **Technical advice:**

Phone and on-site consulting,  
from design to execution

### **Comprehensive online service offering:**

Product availability monitoring, store locator  
and much more

# HILTI ANCHOR CHANNELS & BOLTS

## A systematic approach to innovative anchoring

Hilti now offers a vast range of Anchor Channels for a variety of applications to the construction industry. Products have become an integrated part of the planning and calculation tools, software, engineering and delivery services with the aim to further increase efficiency from planning to completion. Hilti Anchor Channel Systems are designed to exceed expectations and are qualified to leading industry standards.

As of 2017 Hilti exclusively offers all three relevant production standards for Anchor Channel Profiles - Advanced TCRS (Temperature controlled Roll Shaping), hot-rolled and cold-formed. Now you have the choice between three different Anchor Channel Systems - depending on your applications.

## GUARANTEED PRODUCT QUALITY

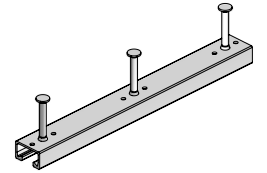
We produce high quality products which are certified according to the state-of-the-art European Technical Assessment (ETA) in our production facilities in Kaufering, Germany and Hilti (PEC Suzhou) Ltd. in China.

Consistent high quality products are the result of continuous in-house testing and documentation. Third-party monitoring of production procedures is conducted as per relevant specifications.

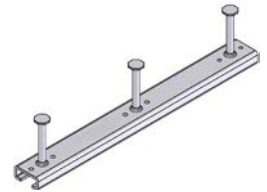
Hilti Anchor Channels are available in hot-dip galvanized and stainless steel material up to high corrosion resistant category C4 as per (ISO 12944-2) and Hilti Anchor Channels are suitable for use in cracked and non-cracked concrete. The design of all Anchor Channels is based on EOTA TR047 "Calculation Method for the Performance of Anchor Channels" or EN 1992-4. Load bearing capacities and other relevant factors are taken from the respective assessment documents to design the Anchor Channels. This design method is integrated into in our user-friendly Hilti PROFIS Anchor Channel design software.



HAC (TCRS) Anchor Channels



HAC-C hot-rolled Anchor Channels



HAC-C cold-formed Anchor Channels



Inhouse tests are conducted & recorded



## ADVANTAGES OF HILTI ANCHOR CHANNELS

- Adjustable & Flexible System
- Easy assembly without complicated tools to minimize construction time
- Special foam filler protects Channel from concrete intrusion
- Pull-out strip allows easy, quick and complete removal of the foam
- Time-saving bolted connections rather than field welding
- No damage to existing reinforcement
- Suitable for post-tensioned concrete components
- Hilti PROFIS Anchor Channel design software and engineering support for various design conditions
- ETA for static design
- Suitable for most environmental conditions due to hot-dip galvanization and stainless steel material
- Reduces pre-planning construction effort considerably



No field welding needed



Environmentally friendly products



Channel Manufacturing

## ANCHOR CHANNEL PRODUCTION PROCESSES

Hilti offers a unique portfolio of anchor channels based on sophisticated and established high quality production methods and processes. Anchor channel profiles offered by Hilti are either produced by advanced TCRS, hot-rolled or cold-formed manufacturing.

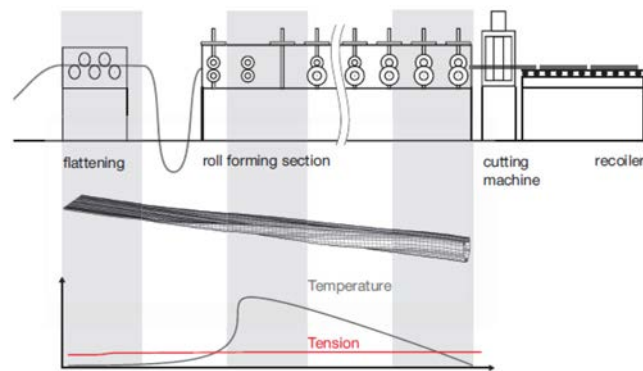
### Advanced TCRS (Temperature Controlled Roll Shaping) manufacturing process

The process is based on modern roll-shaping production with exceptionally gentle shaping of the steel over an extended process chain combined with selective heating of the material. TCRS allows controlled material shifting in order to optimize cross-sections, extremely tight radii, tightest tolerances and the best surface finish quality obtained. The strengthened channel lips enable the use of notched bolts and high torque moments.



"TCRS roll-shaping is a technique that has been refined and perfected over the years. It makes it possible to manufacture profiles with complex cross sections, excellent surface finish and tight radii in a process that keeps emissions to a minimum. Outstanding process reliability and high dimensional stability are further advantages of this technology."

Prof. Dr.-Ing. Dipl.-Wirtsch.-Ing. P. Groche  
Institute for Production Engineering and  
Forming Machines (PtU),  
Technical University of Darmstadt, Germany



### TCRS - A shaping process that reduces material fatigue effects

Hilti exclusively uses TCRS for the production of HAC Anchor Channel profiles. The environmentally sustainable TCRS production delivers the highest performing product measured in resistance per product weight and the best value for money. TCRS is a long proven technology in high precision industry sectors like aerospace and automotive. TCRS Anchor Channels are approved for fatigue loads.

### Advantages of HAC (TCRS) Anchor Channels

- High performance & high strength end product
- "Clean" production technology which saves 25% energy
- Best performance per weight
- Approved for static, fatigue, seismic and fire loading
- Established technology in global high-tech industries (Automotive, Aerospace)
- High precision manufacturing
- Anchor Channels made by Hilti in Germany

### Typical applications

- Curtain Wall façades
- Most traction based elevators
- Power Plants
- Mechanical appliances in production



HAC (TCRS) Channel with highest overall performance



## Hot-rolled Anchor Channel manufacturing process

Hot-rolling is a manufacturing process which involves rolling the steel at a temperature above its recrystallization point. When steel is above the recrystallization point, it can be shaped and formed easily, leaving the profiles free of residual stresses. Hot-rolled Anchor Channels offer increased wall thickness of the profiles and massive channel lips, leading to a trusted sturdiness. This production technology is industry standard for Anchor Channels and many other steel profiles.

The strengthened channel lips allow for use of notched / locking bolts with high installation torque to resist shear loads acting parallel to the axis of the channel.



Process of hot-rolling

## Advantages of HAC-C hot-rolled Anchor Channels

- High quality & high performance product
- High production temperature increases diffusion and distribution of chemical components
- Certified product quality available in hot dip galvanized and stainless steel A4
- Strengthened channel lips for 3D loads and high installation torques
- Cost competitive high quality production by Hilti in China



HAC-C hot-rolled Anchor Channel

## Typical applications

- Fastening in metro, railway and utility tunnels
- Curtain Wall façades
- Elevator application
- Bridges (Superstructure)

## Cold-forming Anchor Channel manufacturing process with roll shaping

Cold forming processes for channel profiles consists of folding a metal sheet to the desired shape under ambient temperature. This process is executed and comes with a high precision of the end product. Bending radii in this process mostly depend on the thickness of the steel sheet.

## Advantages of HAC-C cold-formed Anchor Channels

- Rounded profiles with constant thickness of material
- Good surface finish
- High precision
- Low consumption of energy and material
- Economic production
- For static tension and shear loads in 2 dimensions



Dreistern roll forming machine



HAC-C cold-rolled Anchor Channel

## Typical applications

- Building appliances
- Stadium seating
- Precast Components
- Bridges (Substructures)

# ANCHOR CHANNELS APPLICATION AREAS

## High-end fixing solutions for various application areas

Hilti offers a variety of products for applications in the construction industry. The significance of professional fixing solutions for safe, flexible and easy installation on construction sites has grown in the last few years. Engineers and architects take advantage of our products and our technical expertise in their projects. They profit from our local technical support and comprehensive service, resulting in an excellent price-performance ratio. Hilti products are used in the following application areas:

### Offices, Apartments & Industrial Buildings



In building construction you can find various uses for anchoring technology. Pre-configuring helps to ensure that the job onsite gets done efficiently, safely, and economically. You find fixing solutions for:

- Façade: Curtain Wall, Concrete
- Façades, Brick façades
- Elevators fastening
- Supply lines fastenings
- Machine and shelf fastening



### Subway & Railway Construction



The flexibility of anchoring solutions shows especially in tunnel and subway and railway construction. With our special curved channels we can support:

- Supply line fastening in tunnels & stations
- Traffic sign fastening
- Evacuation platform fastening
- Fastening of overhead wires



### Road & Bridge Construction



Anchor Channels are used in bridge and road construction, to reliably and safely secure several media. They are quick and easy to fit, are durable and reliable thanks to the use of corrosion-free and high-quality material.

- Supply lines fastening in bridges
- Traffic signs fastening
- Security fence fastening
- Noise & safety barrier fastening

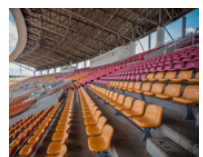


### More Applications...



With additional materials in various sizes you will find many more possibilities of use:

- Plant & power plant construction
- Cable cars & airports
- Water treatment plants
- Stadium construction: seat fastening and fastening of supply lines



## SPOT ON THE MOST RELEVANT APPLICATIONS



### Curtain Wall

Curtain wall systems are playing a more and more significant role in the construction industry because onsite installation is simpler, provides a safe working environment and saves time and money. Anchor Channel systems are the link between modern curtain wall panels and buildings. They represent an efficient and effective method to install curtain wall panels and to resist loads over the lifetime of a façade.

Complete façade elements consist of concrete, glass, metal, and natural stone elements. Even intelligent solar power and air conditioning systems can be integrated.

Curtain Wall Systems are pre-configured in a factory and lifted with a crane into position at the jobsite. The design of the anchor including the T-Bolts guarantees that the the outer loads are transferred to the Anchor Channel and T-Bolts and then into the concrete structure.

### Elevator Fastening

Using Anchor Channels in elevator construction is common in Central Europe and is spreading globally. They are applied to fasten brackets for guide rails, counter-weights for dividerbeams and for the fastening of sliding doors.

Pre-installation of the Anchor Channels increases the efficiency of elevator installation and later renovation significantly. The safety of the system as potential installation mistakes can be reduced in comparison to post-installed anchors because problems with onsite selection of correct embedment depth, reinforcement bars, road & bridge construction dimensions and direction of drill-holes are avoided.



Installing Anchor Channel systems is dust-free due to the lack of drilling, this avoids complications caused by concrete dust coming in contact with mechanical elevator components. The structural integrity of the elevator shaft is supported as Anchor Channels can be placed correctly in the reinforcement in between beams.



### Tunnel Construction

Anchor Channels are ideal for use in tunnel construction. The attachment of overhead wires on new subway & railway lines must satisfy special requirements with regard to their load-bearing capacity under static and dynamic loads. Short-circuit currents of several thousand amperes have to be dissipated without causing harm or damage. Hot-rolled Anchor Channels, together with high strength T-Bolts, are often used in this application.

Anchor Channels can support a flexible and maintenance free attachment for years, even in contaminated environments. Subsequent adjustment or repositioning of any attachments can be easily done at any time.



## NEW ERA FOR OUR ANCHOR CHANNELS

### State-of-the-art Anchor Channel design with the latest product specifications ETA-11/0006 & ETA-16/0929

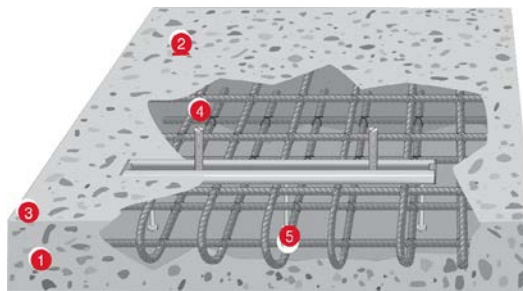
With the expiration of the current European Technical Approvals (in mid-2018), it is necessary to adapt to the new Regime of European Technical Assessments and EC-2 based designs. Hilti leads this development with the publication of the ETA (Assessment) 11/0006, dated Feb. 01st, 2016, Hilti is the industry's first producer to develop Anchor Channels that meet the new standard.

Customers benefit from reliable state-of-the-art testing and results, transparent assessment data and the application of EC-2 based design codes. In addition, the new provisions allow for complex designs, considering variable design conditions. This is strongly contrasting the regime of National Approvals (e.g. German abZ), which lack agreed international testing guidelines and design methods for Anchor Channels.

The new model allows better utilization of the materials involved and greater flexibility in designing the fastening. This leads to an optimized, more cost-efficient solution for the fastenings you are designing.

#### The following parameters are taken into account in the calculations:

- 1 Member thickness
- 2 Concrete grade, cracked / uncracked
- 3 Edge / corner distance
- 4 Load type / position
- 5 Supplementary reinforcement



NEW HAC ETA Assessment



NEW HAC-C ETA Assessment

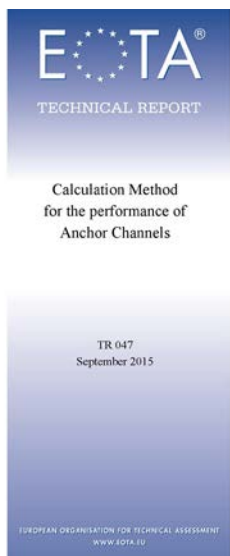
## UNIQUE MARKINGS FOR RELIABLE IDENTIFICATION



### Markings on Hilti Anchor Channels & HBC Channel Bolts

Hilti Anchor Channels have distinct markings on the outside surface that allow correct identification before casting in concrete. The markings consist of the Hilti logo, the channel type designation and the type of corrosion protection. The channels bear a unique production number that indicates the production lot as well as the channel type, to aid identification.

Hilti T-Bolts bear marks on the head indicating the bolt type, strength class, corrosion class and also include a manufacturing mark.



ETA TR047/EN 1992-4

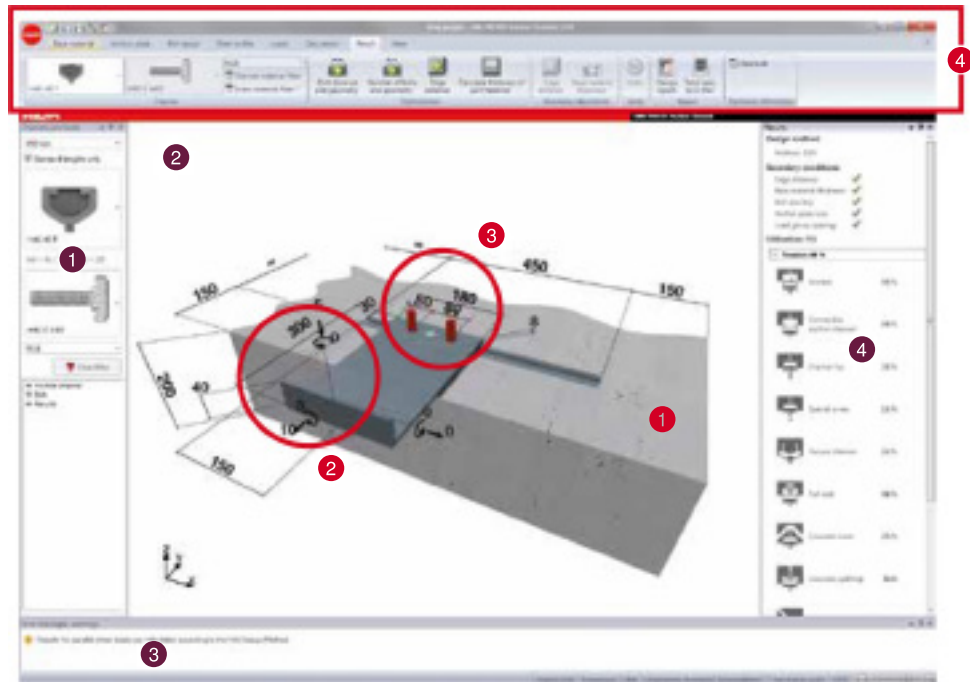


# HILTI PROFIS ANCHOR CHANNEL SOFTWARE

## Design software for accurate and reliable planning

Easy to use, up-to-date software is essential for the efficient specification of Anchor Channels. Hilti PROFIS software meets these requirements admirably. Design calculations are based on the latest international design provision e.g. Eurocode 2 / EOTA TR047, EOTA TR 050 and AC232. The software is kept up to date by a dedicated team of fastening and software experts.

- 1 Channel and bolt selector
- 2 3D graphics with interactive input of loads and dimensions
- 3 Immediate messages and warnings guide user toward optimized design
- 4 Direct indication of the utilization rate in total and per specific failure mode allows optimization of the fastening point



### 1 Base material: Concrete

- C12/15 up to C90/105 or customized
- Cracked / uncracked Reinforcement
- Takes existing reinforcement into account
- Calculates supplementary reinforcement to enhance concrete loading capacity Concrete

### 2 Loading

- Static or fatigue loading, calculation of fatigue resistance takes number of load cycles and static pre-loading into account
- Characteristic or design loads
- Calculations for loads occurring in the event of fire

### 3 Fastening groups




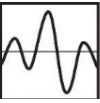



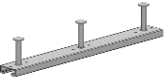


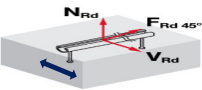

- Up to 8 fastening groups with up to 4 bolts per fastening group
- Each fastening group with loads and moments in 3 directions (x,y and z-axis)
- Different types of base plates and predefined brackets
- Stand-off fastenings




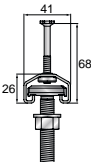
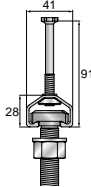
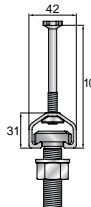
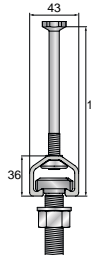
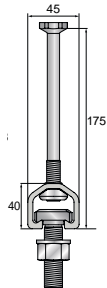
### 4 Result

- Automated optimization of the fastening point in terms of reduced edge distance, bolt size, number of bolts and bolt spacing
- Automated correction in case edge distance and slab thickness exceed the minimum values
- PDF file containing the results in summarized or detailed form, detailed report for easy-to-follow verification including formulas

Hilti PROFIS Anchor Channel can be downloaded from your local Hilti online website or from [www.hilti.com](http://www.hilti.com).

Comparison of Hilti Anchor Channels		HAC (TCRS produced)	HAC-C (Hot-rolled)	HAC-C (Cold-formed)
	ETA certified product performance and quality	✓	✓	✓
	ICC certified product performance	✓	✗	✗
	Approved fatigue resistance	✓	✗	✗
	Approved for seismic zones (IBC Seismic Category A through F) as per evaluation report ICC-ESR 3520	✓	✗	✗
	Fire resistance	R90	R120	R120
	Environmental Product Declaration (EPD) - Clean Production	✓	✗	✗
	Hot dip galvanized	✓	✓	✓
	Stainless steel A4	✗	✓	✓
	Round anchors - Best suited for dense reinforcement	✓	✓	✓
	Highest overall performance	✓	✗	✗
	Smallest minimum edge distance	50mm	50mm	50mm
	End caps for best sealing	✓	✓ incl. nail holes	✗

## HAC Anchor Channels with European Technical Assessment (ETA) & ICC-ES Report

Profile		HAC-30 Advanced TCRS	HAC-40 Advanced TCRS	HAC-50 Advanced TCRS	HAC-60 Advanced TCRS	HAC-70 Advanced TCRS
Anchor		Round anchor				
		serrated profile 				
						
Material	Hot-dip galvanized	•	•	•	•	•
	Stainless steel A4	not available	not available	not available	not available	not available
T-Bolts <sup>1)</sup>		HBC-B		HBC-C		
Thread		M10 - M12		M10 - M16		
Tension design resistance of channel lips <sup>2)</sup>						
	$N_{Rd,s,l}$ [kN]	11,1	13,9	19,4	27,8	39,4
Shear design resistance of channel lips Y-direction <sup>2)</sup>						
	$V_{Rd,s,l}$ [kN]	13,2	19,4	26,4	40,1	53,2
<b>Geometry</b>						
Effective anchorage depth min.						
	$h_{ef,min}$ [mm]	68	91	106	148	175
Width of channel						
	$b_{ch}$ [mm]	41	41	42	43	45
Height of channel						
	$h_{ch}$ [mm]	26	28	31	36	40
Min. edge distance						
	$c_{min}$ [mm]	50	50	50	75	75
Min. anchor spacing						
	$s_{min}$ [mm]	50	100	100	100	100
Max. anchor spacing						
	$s_{max}$ [mm]	250	250	250	250	250
End spacing						
	$x$ [mm]	25	25	25	25	25
Further product information available on <a href="http://Hilti.com">Hilti.com</a> or your local Hilti website.						
<sup>1)</sup> Design resistance of the T-Bolt has to be proven additionally.						
<sup>2)</sup> The given resistance values are only steel capacities of channel lips per bolt. For the influence of other boundary conditions like concrete please use our software or contact your Hilti technical team.						

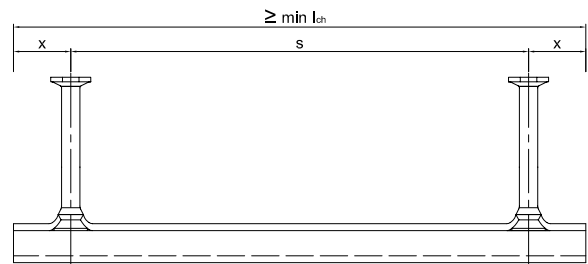
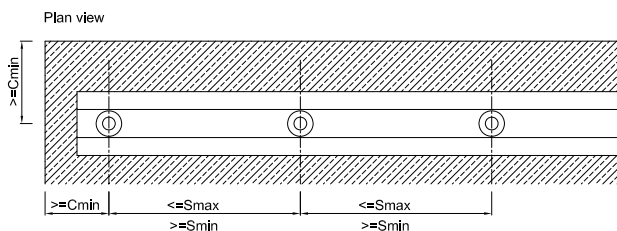
## HAC-C Anchor Channels with European Technical Assessment (ETA)

Profile		HAC-C 28/15 Cold rolled	HAC-C 38/17 Cold rolled	HAC-C 40/25 Cold rolled	HAC-C 49/30 Cold rolled	HAC-C 54/33 Cold rolled
Anchor		Round anchor				
Material	Hot-dip galvanized	•	•	•	•	•
	Stainless steel A4	•	•	•	•	•
T-Bolts <sup>1)</sup>		28/15	38/17	40/22	50/30	50/30
Thread		M 10 - M 12	M 10 - M 16	M 12 - M 16	M 12 - M 20	M 12 - M 20
Tension design resistance of channel lips <sup>2)</sup>						
$N_{Rd,s,l}$ [kN]		5,0	10,0	11,1	17,2	30,6
Shear design resistance of channel lips Y-direction <sup>2)</sup>						
$V_{Rd,s,l}$ [kN]		5,0	10,0	11,1	17,2	30,6
<b>Geometry</b>						
Effective anchorage depth min.						
$h_{ef,min}$ [mm]		45	76	79	94	155
Width of channel						
$b_{ch}$ [mm]		28	38	40	50	53,5
Height of channel						
$h_{ch}$ [mm]		15	17	25	30	33
Min. edge distance						
$c_{min}$ [mm]		40	50	50	75	100
Min. anchor spacing						
$s_{min}$ [mm]		50	100	100	100	100
Max. anchor spacing						
$s_{max}$ [mm]		200	200	250	250	250
End spacing						
$x$ [mm]		25	25	25	25	35


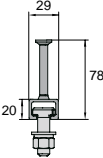
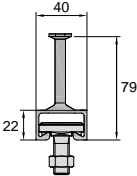
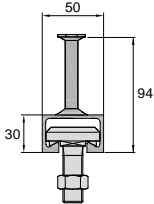
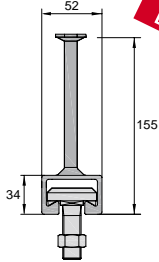
Further product information available on [Hilti.com](http://Hilti.com) or your local Hilti website.

<sup>1)</sup> Design resistance of the T-Bolt has to be proven additionally.

<sup>2)</sup> The given resistance values are only steel capacities of channel lips per bolt. For the influence of other boundary conditions like concrete please use our software or contact your Hilti technical team.



# HAC-C Cast-in Channels with European Technical Assessment (ETA)

Profile		HAC-C 29/20 <sup>1)</sup> Hot rolled	HAC-C 40/22 Hot rolled	HAC-C 50/30 Hot rolled	HAC-C 52/34 Hot rolled
Anchor		Round anchor			
		serrated profile  			
Material	Hot-dip galvanized	•	•	•	•
	Stainless steel A4	not available	•	•	•
T-Bolts <sup>2)</sup>		29/20	40/22	50/30	50/30
Thread		M 12	M 12 - M 16	M 12 - M 20	M 12 - M 20
Tension design resistance of channel lips <sup>3)</sup>					
N <sub>Rd,s,l</sub> [kN]		11,2	19,4	20,0	36,1
Shear design resistance of channel lips Y-direction <sup>3)</sup>					
V <sub>Rd,s,l</sub> [kN]		11,2	14,4	22,4	39,7
Geometry					
Effective anchorage depth min.					
h <sub>ef,min</sub> [mm]		78	79	94	155
Width of channel					
b <sub>ch</sub> [mm]		29	40	50	52
Height of channel					
h <sub>ch</sub> [mm]		20	22	30	34
Min. edge distance					
c <sub>min</sub> [mm]		100	50	75	100
Min. anchor spacing					
s <sub>min</sub> [mm]		100	100	100	100
Max. anchor spacing					
s <sub>max</sub> [mm]		200	250	250	250
End spacing					
x [mm]		25	25	25	35

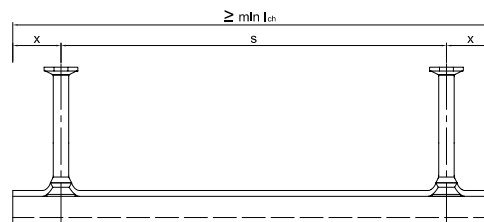
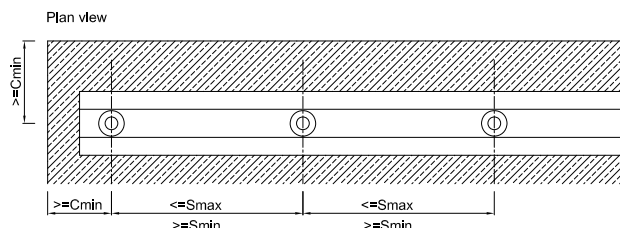
<sup>1)</sup> No ETA Assessment, covered by China TB code

<sup>2)</sup> Design resistance of the T-Bolt has to be proven additionally.

<sup>3)</sup> The given resistance values are only steel capacities of channel lips per bolt.

For the influence of other boundary conditions like concrete please use our software or contact your Hilti technical team.

<sup>4)</sup> Value for steel to steel contact.



## HAC-30 Anchor Channel

With LDPE foam filler and pull-out strip  
European Technical Assessment ETA-11/0006



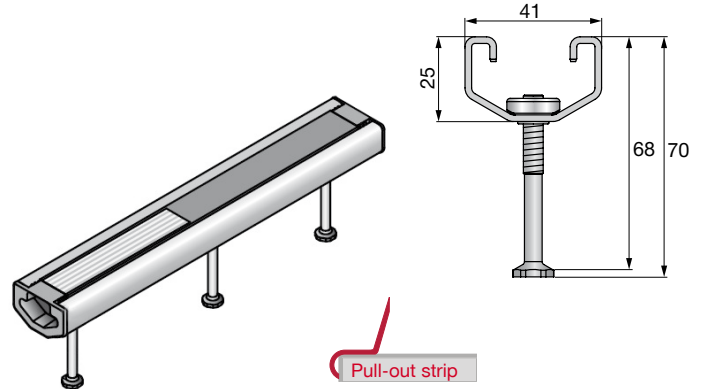
### Packing Unit

For L = 3.050: 1 bundle = 100 pcs = 305 m

For L = 5.800: 1 bundle = 100 pcs = 580 m

Hot-dip galvanized (F)			
Description	Length (mm)	Anchors	Item No.
HAC-30 68/200 F	200	2	431889
HAC-30 68/250 F	250	2	431890
HAC-30 68/300 F	300	2	431891
HAC-30 68/550 F	550	3	431892
HAC-30 68/800 F	800	4	431893
HAC-30 68/1050 F	1050	5	431894
HAC-30 68/1300 F	1300	6	2026152
HAC-30 68/1550 F	1550	7	2025327
HAC-30 68/2050 F	2050	9	2025328
HAC-30 68/2300 F	2300	10	431897
HAC-30 68/3050 F	3050	13	431898
HAC-30 68/5800 F	5800	24	431900

Other length: On request



## HAC-40 Anchor Channel

With LDPE foam filler and pull-out strip  
European Technical Assessment ETA-11/0006



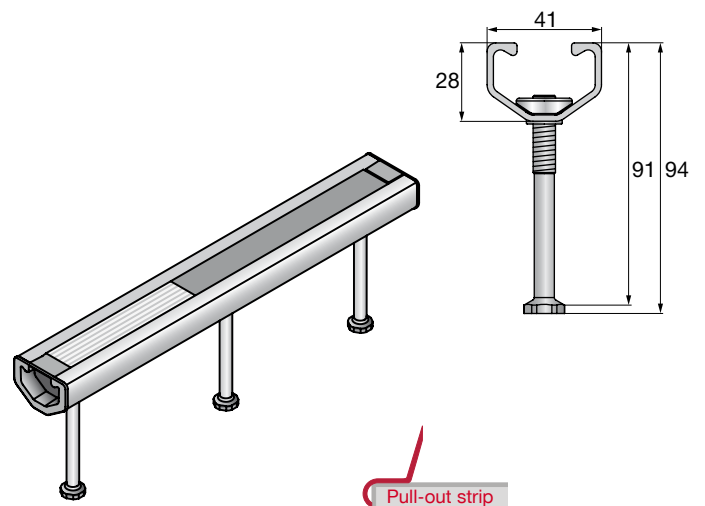
### Packing Unit

For L = 3.050: 1 bundle = 100 pcs = 305 m

For L = 5.800: 1 bundle = 100 pcs = 580 m

Hot-dip galvanized (F)			
Description	Length (mm)	Anchors	Item No.
HAC-40 91/150 F	150	2	2107348
HAC-40 91/200 F	200	2	2122491
HAC-40 91/250 F	250	2	2122492
HAC-40 91/300 F	300	2	2107349
HAC-40 91/350 F	350	3	2122493
HAC-40 91/450 F	450	3	2122494
HAC-40 91/550 F	550	3	2122495
HAC-40 91/800 F	800	4	2122496
HAC-40 91/1050 F	1050	5	2122497
HAC-40 91/1300 F	1300	6	2122498
HAC-40 91/1550 F	1550	7	2122499
HAC-40 91/1800 F	1800	8	2122530
HAC-40 91/2050 F	2050	9	2122531
HAC-40 91/2300 F	2300	10	2122532
HAC-40 91/2550 F	2550	11	2122533
HAC-40 91/2800 F	2800	12	2122534
HAC-40 91/3050 F	3050	13	2122535
HAC-40 91/5800 F	5800	24	2122536

Other length: On request



## HAC-50 Anchor Channel

With LDPE foam filler and pull-out strip  
European Technical Assessment ETA-11/0006

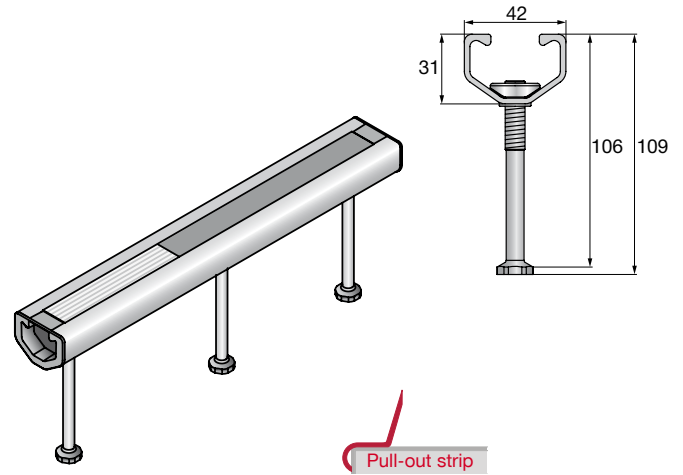


### Packing Unit

For L = 3.050: 1 bundle = 70 pcs = 213 m  
For L = 5.800: 1 bundle = 50 pcs = 280 m

Hot-dip galvanized (F)			
Description	Length (mm)	Anchors	Item No.
HAC-50 106/150 F	150	2	2107510
HAC-50 106/200 F	200	2	2122537
HAC-50 106/250 F	250	2	2122538
HAC-50 106/300 F	300	2	2107511
HAC-50 106/350 F	350	3	2122539
HAC-50 106/450 F	450	3	2122540
HAC-50 106/550 F	550	3	2122541
HAC-50 106/800 F	800	4	2122542
HAC-50 106/1050 F	1050	5	2122543
HAC-50 106/1300 F	1300	6	2122544
HAC-50 106/1550 F	1550	7	2122545
HAC-50 106/1800 F	1800	8	2122546
HAC-50 106/2050 F	2050	9	2122547
HAC-50 106/2300 F	2300	10	2122548
HAC-50 106/2550 F	2550	11	2122549
HAC-50 106/2800 F	2800	12	2122550
HAC-50 106/3050 F	3050	13	2122551
HAC-50 106/3550 F	3550	15	2122552
HAC-50 106/5800 F	5800	24	2122553

Other length: On request



## HAC-60 Anchor Channel

With LDPE foam filler and pull-out strip  
European Technical Assessment ETA-11/0006

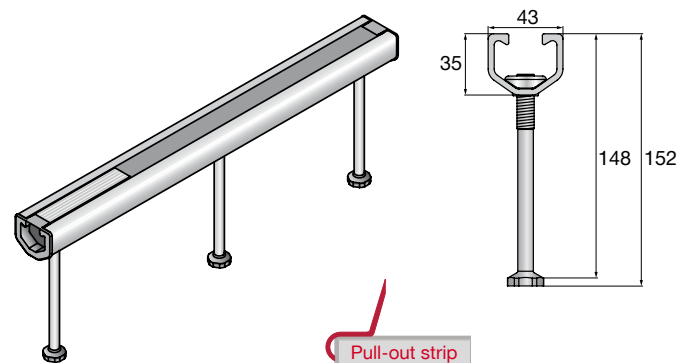


### Packing Unit

For L = 5.800: 1 bundle = 30 pcs = 174 m

Hot-dip galvanized (F)			
Description	Length (mm)	Anchors	Item No.
HAC-60 148/300 F	300	2	431850
HAC-60 148/350 F	350	3	431851
HAC-60 148/450 F	450	3	431852
HAC-60 148/550 F	550	3	431853
HAC-60 148/1050 F	1050	5	431854
HAC-60 148/1300 F	1300	6	2019813
HAC-60 148/1550 F	1550	7	2021268
HAC-60 148/2300 F	2300	10	431855
HAC-60 148/5800 F	5800	24	431856

Other length: On request





## HAC-70 Anchor Channel

With LDPE foam filler and pull-out strip  
 European Technical Assessment ETA-11/0006

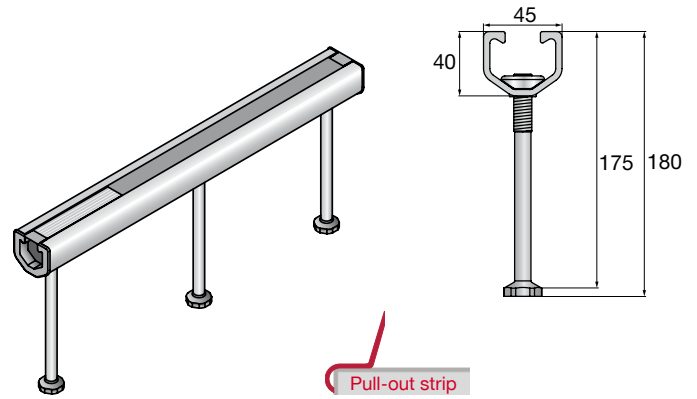


### Packing Unit

For L = 5.800: 1 bundle = 20 pcs = 116 m

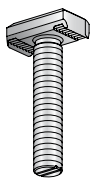
Hot-dip galvanized (F)			
Description	Length (mm)	Anchors	Item No.
HAC-70 175/300 F	300	2	431860
HAC-70 175/350 F	350	3	431861
HAC-70 175/450 F	450	3	431862
HAC-70 175/550 F	550	3	431863
HAC-70 175/1050 F	1050	5	431864
HAC-70 175/1550 F	1550	7	2021269
HAC-70 175/2050 F	2050	9	2021731
HAC-70 175/2300 F	2300	10	431865
HAC-70 175/5800 F	5800	24	431866

Other length: On request



## HBC-B T-Head Bolts for serrated Anchor Channel HAC-30

Type HBC-B serrated



Material: galvanized or hot dip galvanized.  
Packaging incl. Bolts and hex-nuts.  
Washers need to be ordered separately.

**Suitable for serrated HAC-30 Anchor Channels.**

### HBC-B T-Head Bolt galvanized (G) 4.6

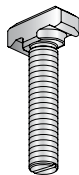
Description	Nominal Diameter	Length of thread (l) (mm)	Item No.
HBC-B M10x40 4.6G	M10	40	433527
HBC-B M10x60 4.6G	M10	60	433528
HBC-B M10x100 4.6G	M10	100	433529

### HBC-B T-Head Bolt hot dip galvanized (F) 4.6

Description	Nominal Diameter	Length of thread (l) (mm)	Item No.
HBC-B M12x40 4.6F	M12	40	433534
HBC-B M12x60 4.6F	M12	60	433535

## HBC-C T-Head Bolts for Anchor Channels HAC-40 to HAC-70

Type HBC-C



Material: galvanized or hot dip galvanized.  
Packaging incl. Bolts and hex-nuts.  
Washers need to be ordered separately.

**Suitable for all Anchor Channels HAC-40 to HAC-70.**

### HBC-C T-Head Bolt galvanized (G)

Description	Nominal Diameter	Length of thread (l) (mm)	Item No.
HBC-C M10x30 4.6G	M10	30	2095573
HBC-C M10x40 4.6G	M10	40	2095574
HBC-C M10x50 4.6G	M10	50	2095575
HBC-C M10x80 4.6G	M10	80	2095577
HBC-C M10x100 4.6G	M10	100	434360
HBC-C M12x30 4.6G	M12	30	434362
HBC-C M12x80 4.6G	M12	80	434366
HBC-C M12x125 4.6G	M12	125	434368
HBC-C M16x50 4.6G	M16	50	434371
HBC-C M16x150 8.8G	M16	150	2138452

### HBC-C-E T-Head Bolt (G) 8.8 - also compatible with 40/22 Anchor Channels

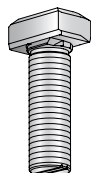
Description	Nominal Diameter	Length of thread (l) (mm)	Item No.
HBC-C-E M12x40 8.8G	M12	40	433538
HBC-C-E M12x50 8.8G	M12	50	433539
HBC-C-E M12x60 8.8G	M12	60	433540
HBC-C-E M12x100 8.8G	M12	100	433541
HBC-C-E M12x150 8.8G	M12	150	433542
HBC-C-E M16x50 8.8G	M16	50	433543
HBC-C-E M16x60 8.8G	M16	60	434347
HBC-C-E M16x80 8.8G	M16	80	434348
HBC-C-E M16x100 8.8G	M16	100	434349
HBC-C-E M16x125 8.8G	M16	125	434350
HBC-C-E M16x150 8.8G	M16	150	434351

**HBC-C T-Head Bolt hot dip galvanized (F) 8.8**

Description	Nominal Diameter	Length of thread (l) (mm)	Item No.
HBC-C M12x40 8.8F	M12	40	2095644
HBC-C M12x50 8.8F	M12	50	2095645
HBC-C M12x60 8.8F	M12	60	2095646
HBC-C M16x50 8.8F	M16	50	2095649
HBC-C M16x60 8.8F	M16	60	2095650
HBC-C M16x80 8.8F	M16	80	2095651
HBC-C M16x100 8.8F	M16	100	2095652
HBC-C M20x60 8.8F	M20	60	434408
HBC-C M20x80 8.8F	M20	80	2019735
HBC-C M20x100 8.8F	M20	100	434409
HBC-C M20x125 8.8F	M20	125	434410
HBC-C M20x150 8.8F	M20	150	434411

**HBC-C T-Head Bolt Stainless A4-50**

Description	Nominal Diameter	Length of thread (l) (mm)	Item No.
HBC-C M10x40 50R	M10	40	433460
HBC-C M10x50 50R	M10	50	433461
HBC-C M12x40 50R	M12	40	433463
HBC-C M12x50 50R	M12	50	433465
HBC-C M12x80 50R	M12	80	433466
HBC-C M12x100 50R	M12	100	433467
HBC-C M16x50 50R	M16	50	433471
HBC-C M16x60 50R	M16	60	433472
HBC-C M16x80 50R	M16	80	433474
HBC-C M16x100 50R	M16	100	433475

**HBC-C-N Notched T-Head Bolts for Anchor Channels HAC-40 to HAC-70**
**Type HBC-C-N**


Material: hot dip galvanized.  
 Packaging incl. Bolts and hex-nuts.  
 Washers need to be ordered separately.

**Suitable for all Anchor Channels HAC-40 to HAC-70.**

**HBC-C-N Notched T-Head Bolt hot dip galvanized (F) 8.8**

Description	Nominal Diameter	Length of thread (l) (mm)	Item No.
HBC-C-N M12x40 8.8F	M12	40	2066370
HBC-C-N M16x40 8.8F	M16	40	2069471
HBC-C-N M16x50 8.8F	M16	50	433478
HBC-C-N M16x60 8.8F	M16	60	2019736
HBC-C-N M16x80 8.8F	M16	80	433479
HBC-C-N M16x100 8.8F	M16	100	2019737
HBC-C-N M16x150 8.8F	M16	150	2019738
HBC-C-N M20x60 8.8F	M20	60	434345
HBC-C-N M20x80 8.8F	M20	80	2019739
HBC-C-N M20x100 8.8F	M20	100	434346
HBC-C-N M20x150 8.8F	M20	150	2019820

## HAC-C Anchor Channel 28/15

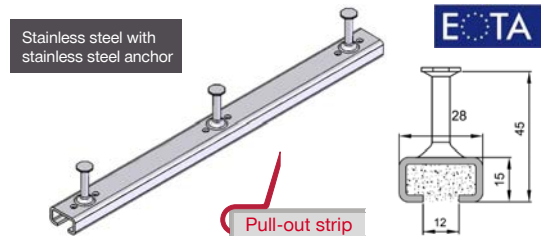
With foam filler and pull-out strip  
European Technical Assessment ETA-13/0245

### Packing Unit

For L = 3.050: 1 bundle = 84 pcs = 256 m  
For L = 6.070: 1 bundle = 84 pcs = 510 m

Hot-dip galvanized (F)			
Description	Length (mm)	Anchors	Item No.
HAC-C 28/15 100 F	100	2	2168307
HAC-C 28/15 150 F	150	2	2168308
HAC-C 28/15 200 F	200	2	2168309
HAC-C 28/15 250 F	250	2	2168410
HAC-C 28/15 300 F	300	3	2168411
HAC-C 28/15 350 F	350	3	2168412
HAC-C 28/15 400 F	400	3	2168413
HAC-C 28/15 450 F	450	3	2168414
HAC-C 28/15 550 F	550	4	2168415
HAC-C 28/15 850 F	850	5	2168416
HAC-C 28/15 1050 F	1.050	6	2168417
HAC-C 28/15 3050 F	3.050	16	2168420
HAC-C 28/15 6070 F	6.070	31	2168421

Other length: On request



Stainless steel 1.4571/1.4401 (A4) with stainless steel anchor			
Description	Length (mm)	Anchors	Item No.
HAC-C 28/15 100 A4	100	2	2168422
HAC-C 28/15 150 A4	150	2	2168423
HAC-C 28/15 200 A4	200	2	2168424
HAC-C 28/15 250 A4	250	2	2168425
HAC-C 28/15 300 A4	300	3	2168426
HAC-C 28/15 350 A4	350	3	2168427
HAC-C 28/15 400 A4	400	3	2168428
HAC-C 28/15 450 A4	450	3	2168429
HAC-C 28/15 550 A4	550	4	2168430
HAC-C 28/15 850 A4	850	5	2168431
HAC-C 28/15 1050 A4	1.050	6	2168432
HAC-C 28/15 3050 A4	3.050	16	2168433
HAC-C 28/15 6070 A4	6.070	31	2168434

Other length: On request

## HAC-C Anchor Channel 38/17

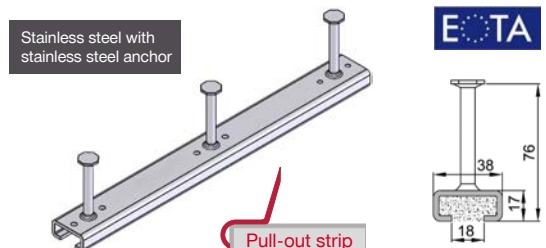
With foam filler and pull-out strip  
European Technical Assessment ETA-13/0245

### Packing Unit

For L = 3.050: 1 bundle = 84 pcs = 256 m  
For L = 6.070: 1 bundle = 84 pcs = 510 m

Hot-dip galvanized (F)			
Description	Length (mm)	Anchors	Item No.
HAC-C 38/17 100 F	100	2	2168435
HAC-C 38/17 150 F	150	2	2168436
HAC-C 38/17 200 F	200	2	2168437
HAC-C 38/17 250 F	250	2	2168438
HAC-C 38/17 300 F	300	3	2168439
HAC-C 38/17 350 F	350	3	2168440
HAC-C 38/17 400 F	400	3	2168441
HAC-C 38/17 450 F	450	3	2168442
HAC-C 38/17 550 F	550	4	2168443
HAC-C 38/17 850 F	850	5	2168444
HAC-C 38/17 1050 F	1.050	6	2168445
HAC-C 38/17 3050 F	3.050	16	2168448
HAC-C 38/17 6070 F	6.070	31	2168449

Other length: On request



Stainless steel 1.4571/1.4401 (A4) with stainless steel anchor			
Description	Length (mm)	Anchors	Item No.
HAC-C 38/17 100 A4	100	2	2168450
HAC-C 38/17 150 A4	150	2	2168451
HAC-C 38/17 200 A4	200	2	2168452
HAC-C 38/17 250 A4	250	2	2168453
HAC-C 38/17 300 A4	300	3	2168454
HAC-C 38/17 350 A4	350	3	2168455
HAC-C 38/17 400 A4	400	3	2168456
HAC-C 38/17 450 A4	450	3	2168457
HAC-C 38/17 550 A4	550	4	2168458
HAC-C 38/17 850 A4	850	5	2168459
HAC-C 38/17 1050 A4	1.050	6	2168460
HAC-C 38/17 3050 A4	3.050	16	2168461
HAC-C 38/17 6070 A4	6.070	31	2168462

Other length: On request

## HAC-C Anchor Channel 40/25

With foam filler and pull-out strip  
European Technical Assessment ETA-13/0245

### Packing Unit

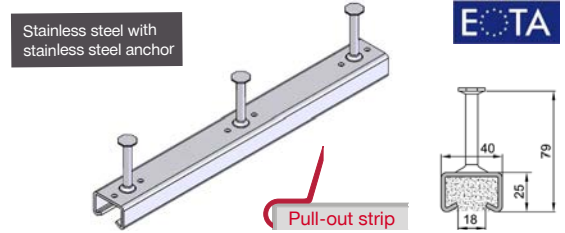
For L = 3.050: 1 bundle = 70 pcs = 214 m  
For L = 6.070: 1 bundle = 70 pcs = 425 m

Hot-dip galvanized (F)			
Description	Length (mm)	Anchors	Item No.
HAC-C 40/25 150 F	150	2	2168490
HAC-C 40/25 200 F	200	2	2168491
HAC-C 40/25 250 F	250	2	2168492
HAC-C 40/25 300 F	300	2	2168493
HAC-C 40/25 350 F	350	3	2168494
HAC-C 40/25 400 F	400	3	2168495
HAC-C 40/25 450 F	450	3	2168496
HAC-C 40/25 550 F	550	3	2168497
HAC-C 40/25 800 F	800	4	2168498
HAC-C 40/25 1050 F	1.050	5	2168499
HAC-C 40/25 3050 F	3.050	13	2168506
HAC-C 40/25 6070 F	6.070	25	2168507

Other length: On request

Stainless steel 1.4571/1.4401 (A4) with stainless steel anchor			
Description	Length (mm)	Anchors	Item No.
HAC-C 40/25 150 A4	150	2	2170359
HAC-C 40/25 200 A4	200	2	2170380
HAC-C 40/25 250 A4	250	2	2170381
HAC-C 40/25 300 A4	300	2	2170382
HAC-C 40/25 350 A4	350	3	2170383
HAC-C 40/25 400 A4	400	3	2170384
HAC-C 40/25 450 A4	450	3	2170385
HAC-C 40/25 550 A4	550	3	2170386
HAC-C 40/25 800 A4	800	4	2170387
HAC-C 40/25 1050 A4	1.050	5	2168505
HAC-C 40/25 3050 A4	3.050	13	2170388
HAC-C 40/25 6070 A4	6.070	25	2170389

Other length: On request



## HAC-C Anchor Channel 49/30

With foam filler and pull-out strip  
European Technical Assessment ETA-13/0245

### Packing Unit

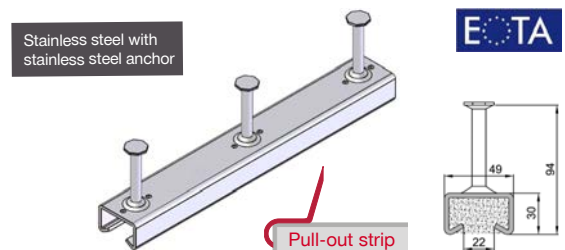
For L = 3.050: 1 bundle = 54 pcs = 165 m  
For L = 6.070: 1 bundle = 54 pcs = 328 m

Hot-dip galvanized (F)			
Description	Length (mm)	Anchors	Item No.
HAC-C 49/30 150 F	150	2	2168283
HAC-C 49/30 200 F	200	2	2168284
HAC-C 49/30 250 F	250	2	2168285
HAC-C 49/30 300 F	300	2	2168286
HAC-C 49/30 350 F	350	3	2168287
HAC-C 49/30 400 F	400	3	2168288
HAC-C 49/30 450 F	450	3	2168289
HAC-C 49/30 550 F	550	3	2168510
HAC-C 49/30 800 F	800	4	2168511
HAC-C 49/30 1050 F	1.050	5	2168512
HAC-C 49/30 3050 F	3.050	13	2168519
HAC-C 49/30 6070 F	6.070	25	2168520

Other length: On request

Stainless steel 1.4571/1.4401 (A4) with stainless steel anchor			
Description	Length (mm)	Anchors	Item No.
HAC-C 49/30 150 A4	150	2	2170301
HAC-C 49/30 200 A4	200	2	2170302
HAC-C 49/30 250 A4	250	2	2170303
HAC-C 49/30 300 A4	300	2	2170304
HAC-C 49/30 350 A4	350	3	2170305
HAC-C 49/30 400 A4	400	3	2170306
HAC-C 49/30 450 A4	450	3	2170307
HAC-C 49/30 550 A4	550	3	2170308
HAC-C 49/30 800 A4	800	4	2170309
HAC-C 49/30 1050 A4	1.050	5	2168518
HAC-C 49/30 3050 A4	3.050	13	2170390
HAC-C 49/30 6070 A4	6.070	25	2170391

Other length: On request



## HAC-C Anchor Channel 54/33

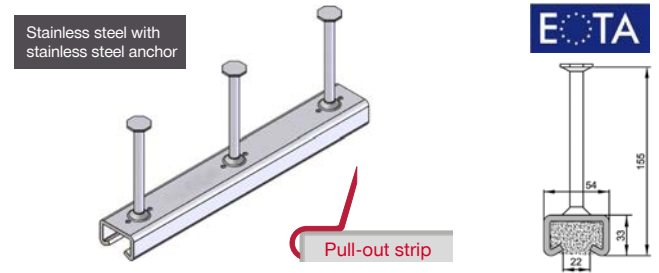
With foam filler and pull-out strip  
European Technical Assessment ETA-13/0245

### Packing Unit

For L = 3.050: 1 bundle = 27 pcs = 82 m  
For L = 6.070: 1 bundle = 27 pcs = 164 m

Hot-dip galvanized (F)			
Description	Length (mm)	Anchors	Item No.
HAC-C 54/33 150 F	150	2	2168294
HAC-C 54/33 200 F	200	2	2168295
HAC-C 54/33 250 F	250	2	2168296
HAC-C 54/33 300 F	300	2	2168297
HAC-C 54/33 350 F	350	3	2168298
HAC-C 54/33 400 F	400	3	2168299
HAC-C 54/33 450 F	450	3	2168560
HAC-C 54/33 550 F	550	3	2168561
HAC-C 54/33 800 F	800	4	2168562
HAC-C 54/33 1050 F	1.050	5	2168563
HAC-C 54/33 3050 F	3.050	13	2168564
HAC-C 54/33 6070 F	6.070	25	2168565

Other length: On request



Stainless steel 1.4571/1.4401 (A4) with stainless steel anchor			
Description	Length (mm)	Anchors	Item No.
HAC-C 54/33 150 A4	150	2	2170430
HAC-C 54/33 200 A4	200	2	2170431
HAC-C 54/33 250 A4	250	2	2170432
HAC-C 54/33 300 A4	300	2	2170433
HAC-C 54/33 350 A4	350	3	2170434
HAC-C 54/33 400 A4	400	3	2170435
HAC-C 54/33 450 A4	450	3	2170436
HAC-C 54/33 550 A4	550	3	2170437
HAC-C 54/33 800 A4	800	4	2170438
HAC-C 54/33 1050 A4	1.050	5	2168517
HAC-C 54/33 3050 A4	3.050	13	2170439
HAC-C 54/33 6070 A4	6.070	25	2170440

Other length: On request

## HAC-C Anchor Channel 40/22 hot rolled

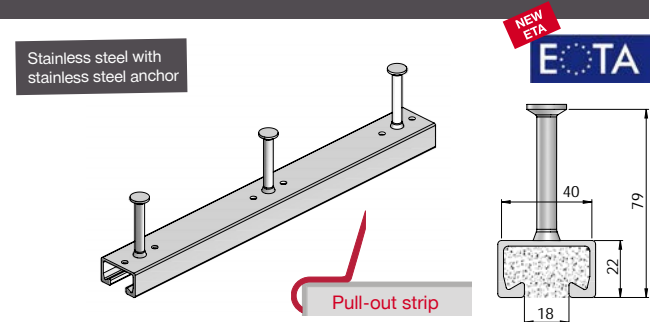
With foam filler, pull-out strip and additional end-caps up to 1.050 mm.  
European Technical Assessment ETA-16/0929

### Packing Unit

For L = 3.050: 1 bundle = 70 pcs = 244 m  
For L = 6.070: 1 bundle = 70 pcs = 486 m

Hot-dip galvanized (F)			
Description	Length (mm)	Anchors	Item No.
HAC-C 40/22 150 F	150	2	2168469
HAC-C 40/22 200 F	200	2	2168470
HAC-C 40/22 250 F	250	2	2168471
HAC-C 40/22 300 F	300	2	2168472
HAC-C 40/22 350 F	350	3	2168473
HAC-C 40/22 400 F	400	3	2168474
HAC-C 40/22 450 F	450	3	2168475
HAC-C 40/22 550 F	550	3	2168476
HAC-C 40/22 800 F	800	4	2168477
HAC-C 40/22 1050 F	1.050	5	2168478
HAC-C 40/22 1300 F	1.300	6	2168479
HAC-C 40/22 1550 F	1.500	7	2168480
HAC-C 40/22 1800 F	1.800	8	2168481
HAC-C 40/22 2050 F	2.050	9	2168482
HAC-C 40/22 2300 F	2.300	10	2168483
HAC-C 40/22 2550 F	2.550	11	2168484
HAC-C 40/22 3050 F	3.050	13	2168485
HAC-C 40/22 6070 F	6.070	25	2168486

Other length: On request



Stainless steel 1.4571/1.4401 (A4) with stainless steel anchor			
Description	Length (mm)	Anchors	Item No.
HAC-C 40/22 150 A4	150	2	2170263
HAC-C 40/22 200 A4	200	2	2170264
HAC-C 40/22 250 A4	250	2	2170265
HAC-C 40/22 300 A4	300	2	2170266
HAC-C 40/22 350 A4	350	3	2170267
HAC-C 40/22 400 A4	400	3	2170268
HAC-C 40/22 450 A4	450	3	2170269
HAC-C 40/22 550 A4	550	3	2170360
HAC-C 40/22 800 A4	800	4	2170361
HAC-C 40/22 1050 A4	1.050	5	2170362
HAC-C 40/22 1300 A4	1.300	6	2170363
HAC-C 40/22 1550 A4	1.550	7	2170364
HAC-C 40/22 1800 A4	1.800	8	2170365
HAC-C 40/22 2050 A4	2.050	9	2170366
HAC-C 40/22 2300 A4	2.300	10	2170367
HAC-C 40/22 2550 A4	2.550	11	2170368
HAC-C 40/22 3050 A4	3.050	13	2170369
HAC-C 40/22 6070 A4	6.070	25	2170370

Other length: On request

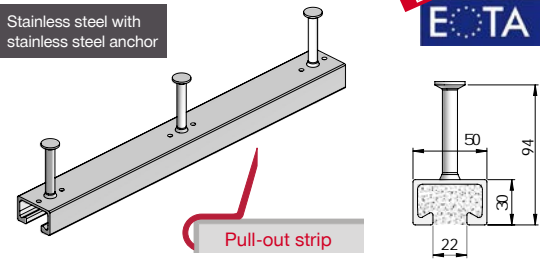
## HAC-C Anchor Channel 50/30 hot rolled

With foam filler, pull-out strip and additional end-caps up to 1.050 mm.  
European Technical Assessment ETA-16/0929

### Packing Unit

For L = 3.050: 1 bundle = 54 pcs = 165 m  
For L = 6.070: 1 bundle = 54 pcs = 328 m

Stainless steel with stainless steel anchor



Hot-dip galvanized (F)			
Description	Length (mm)	Anchors	Item No.
HAC-C 50/30 150 F	150	2	2168521
HAC-C 50/30 200 F	200	2	2168522
HAC-C 50/30 250 F	250	2	2168523
HAC-C 50/30 300 F	300	2	2168524
HAC-C 50/30 350 F	350	3	2168525
HAC-C 50/30 400 F	400	3	2168526
HAC-C 50/30 450 F	450	3	2168527
HAC-C 50/30 550 F	550	3	2168528
HAC-C 50/30 800 F	800	4	2168529
HAC-C 50/30 1050 F	1.050	5	2168530
HAC-C 50/30 1300 F	1.300	6	2168531
HAC-C 50/30 1550 F	1.550	7	2168532
HAC-C 50/30 1800 F	1.800	8	2168533
HAC-C 50/30 2050 F	2.050	9	2168534
HAC-C 50/30 2300 F	2.300	10	2168535
HAC-C 50/30 2550 F	2.550	11	2168536
HAC-C 50/30 3050 F	3.050	13	2168537
HAC-C 50/30 6070 F	6.070	25	2168538

Other length: On request

Stainless steel 1.4571/1.4401 (A4) with stainless steel anchor			
Description	Length (mm)	Anchors	Item No.
HAC-C 50/30 150 A4	150	2	2170392
HAC-C 50/30 200 A4	200	2	2170393
HAC-C 50/30 250 A4	250	2	2170394
HAC-C 50/30 300 A4	300	2	2170395
HAC-C 50/30 350 A4	350	3	2170396
HAC-C 50/30 400 A4	400	3	2170397
HAC-C 50/30 450 A4	450	3	2170398
HAC-C 50/30 550 A4	550	3	2170399
HAC-C 50/30 800 A4	800	4	2170400
HAC-C 50/30 1050 A4	1.050	5	2170401
HAC-C 50/30 1300 A4	1.300	6	2170402
HAC-C 50/30 1550 A4	1.550	7	2170403
HAC-C 50/30 1800 A4	1.800	8	2170404
HAC-C 50/30 2050 A4	2.050	9	2170405
HAC-C 50/30 2300 A4	2.300	10	2170406
HAC-C 50/30 2550 A4	2.550	11	2170407
HAC-C 50/30 3050 A4	3.050	13	2170408
HAC-C 50/30 6070 A4	6.070	25	2170409

Other length: On request

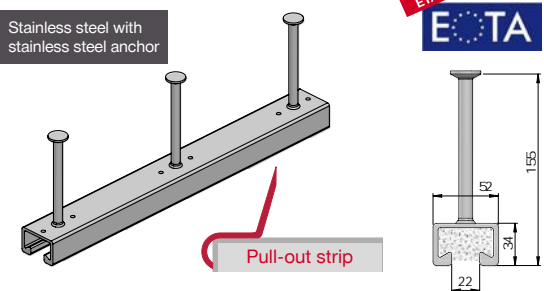
## HAC-C Anchor Channel 52/34 hot rolled

With foam filler, pull-out strip and additional end-caps up to 1.050 mm.  
European Technical Assessment ETA-16/0929

### Packing Unit

For L = 3.050: 1 bundle = 27 pcs = 82 m  
For L = 6.070: 1 bundle = 27 pcs = 164 m

Stainless steel with stainless steel anchor



Hot-dip galvanized (F)			
Description	Length (mm)	Anchors	Item No.
HAC-C 52/34 150 F	150	2	2168539
HAC-C 52/34 200 F	200	2	2168540
HAC-C 52/34 250 F	250	2	2168541
HAC-C 52/34 300 F	300	2	2168542
HAC-C 52/34 350 F	350	3	2168543
HAC-C 52/34 400 F	400	3	2168544
HAC-C 52/34 450 F	450	3	2168545
HAC-C 52/34 550 F	550	3	2168546
HAC-C 52/34 800 F	800	4	2168547
HAC-C 52/34 1050 F	1.050	5	2168548
HAC-C 52/34 3050 F	3.050	13	2168555
HAC-C 52/34 6070 F	6.070	25	2168556

Other length: On request

Stainless steel 1.4571/1.4401 (A4) with stainless steel anchor			
Description	Length (mm)	Anchors	Item No.
HAC-C 52/34 150 A4	150	2	2170253
HAC-C 52/34 200 A4	200	2	2170254
HAC-C 52/34 250 A4	250	2	2170255
HAC-C 52/34 300 A4	300	2	2170256
HAC-C 52/34 350 A4	350	3	2170257
HAC-C 52/34 400 A4	400	3	2170258
HAC-C 52/34 450 A4	450	3	2170259
HAC-C 52/34 550 A4	550	3	2170410
HAC-C 52/34 800 A4	800	4	2170411
HAC-C 52/34 1050 A4	1.050	5	2170412
HAC-C 52/34 3050 A4	3.050	13	2170419
HAC-C 52/34 6070 A4	6.070	25	2170420

Other length: On request

## HAC-C-T Anchor Channel 29/20 hot rolled, serrated

With foam filler & pull-out strip

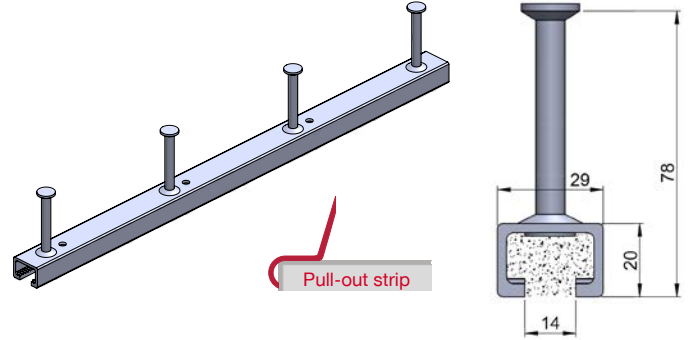
### Packing Unit

For L = 3.050: 1 bundle = 84 pcs = 256 m

For L = 6.070: 1 bundle = 84 pcs = 510 m

Hot-dip galvanized (F)			
Description	Length (mm)	Anchors	Item No.
HAC-C-T 29/20 015 F	150	2	2168993
HAC-C-T 29/20 200 F	200	2	2168994
HAC-C-T 29/20 250 F	250	2	2168995
HAC-C-T 29/20 300 F	300	2	2168996
HAC-C-T 29/20 350 F	350	3	2168997
HAC-C-T 29/20 400 F	400	3	2168998
HAC-C-T 29/20 450 F	450	3	2168999
HAC-C-T 29/20 550 F	550	3	2169020
HAC-C-T 29/20 800 F	800	4	2169021
HAC-C-T 29/20 1050 F	1050	5	2169022
HAC-C-T 29/20 3050 F	3050	13	2169023
HAC-C-T 29/20 6070 F	6070	25	2169024

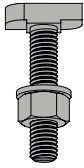
Other length: On request





## HBC T-Head Bolt 28/15

Type HBC-28/15



Material: Hot-dip galvanized or stainless steel A4.  
Packaging incl. Bolts and Hex-nuts. Hex-nuts delivered in separate plastic bags.  
Washers need to be ordered separately.

Suitable for profile 28/15.

### T-Bolts 28/15 Hot-dip galvanized (F) 8.8

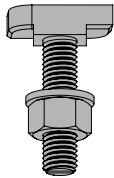
Description	Nominal Diameter	Length of thread (l) (mm)	Item No.
HBC-28/15 M10x30 8.8F	M10	30	2170173
HBC-28/15 M10x40 8.8F	M10	40	2170174
HBC-28/15 M10x60 8.8F	M10	60	2170175
HBC-28/15 M12x40 8.8F	M12	40	2170176
HBC-28/15 M12x60 8.8F	M12	60	2170177
HBC-28/15 M12x80 8.8F	M12	80	2170178

### T-Bolts 28/15 Stainless Steel A4-70

Description	Nominal Diameter	Length of thread (l) (mm)	Item No.
HBC-28/15 M10x30 A4-70	M10	30	2170179
HBC-28/15 M10x40 A4-70	M10	40	2170590
HBC-28/15 M10x60 A4-70	M10	60	2170591
HBC-28/15 M12x40 A4-70	M12	40	2170592
HBC-28/15 M12x60 A4-70	M12	60	2170593
HBC-28/15 M12x80 A4-70	M12	80	2170594

## HBC T-Head Bolt 38/17

Type HBC-38/17



Material: Hot-dip galvanized or stainless steel A4.  
Packaging incl. Bolts and Hex-nuts. Hex-nuts delivered in separate plastic bags.  
Washers need to be ordered separately.

Suitable for profile 38/17.

### T-Bolts 38/17 Hot-dip galvanized (F) 8.8

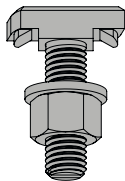
Description	Nominal Diameter	Length of thread (l) (mm)	Item No.
HBC-38/17 M10x30 8.8F	M10	30	2168616
HBC-38/17 M10x40 8.8F	M10	40	2168617
HBC-38/17 M10x60 8.8F	M10	60	2168618
HBC-38/17 M12x40 8.8F	M12	40	2168619
HBC-38/17 M12x60 8.8F	M12	60	2168780
HBC-38/17 M12x80 8.8F	M12	80	2168781
HBC-38/17 M16x50 8.8F	M16	50	2168782
HBC-38/17 M16x80 8.8F	M16	80	2168783

### T-Bolts 38/17 Stainless Steel A4-70

Description	Nominal Diameter	Length of thread (l) (mm)	Item No.
HBC-38/17 M10x40 A4-70	M10	40	2168784
HBC-38/17 M10x50 A4-70	M10	50	2168785
HBC-38/17 M10x60 A4-70	M10	60	2168786
HBC-38/17 M12x40 A4-70	M12	40	2168787
HBC-38/17 M12x50 A4-70	M12	50	2168788
HBC-38/17 M12x60 A4-70	M12	60	2168789
HBC-38/17 M16x50 A4-70	M16	50	2168790
HBC-38/17 M16x60 A4-70	M16	60	2168791
HBC-38/17 M16x80 A4-70	M16	80	2168792

## HBC T-Head Bolt 40/22

Type HBC-40/22



Material: Hot-dip galvanized or stainless steel A4.  
Packaging incl. Bolts and Hex-nuts. Hex-nuts delivered in separate plastic bags.  
Washers need to be ordered separately.

**Suitable for profile 40/22 and 40/25.**

### T-Bolts 40/22 Hot-dip galvanized (F) 8.8

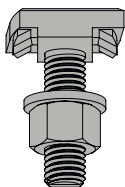
Description	Nominal Diameter	Length of thread (l) (mm)	Item No.
HBC-40/22 M12x40 8.8F	M12	40	2169073
HBC-40/22 M12x60 8.8F	M12	60	2169074
HBC-40/22 M12x80 8.8F	M12	80	2169075
HBC-40/22 M16x50 8.8F	M16	50	2169076
HBC-40/22 M16x60 8.8F	M16	60	2169077
HBC-40/22 M16x80 8.8F	M16	80	2169078
HBC-40/22 M16x100 8.8F	M16	100	2169079

### T-Bolts 40/22 Stainless Steel A4-70

Description	Nominal Diameter	Length of thread (l) (mm)	Item No.
HBC-40/22 M12x40 A4-70	M12	40	2169080
HBC-40/22 M12x60 A4-70	M12	60	2169081
HBC-40/22 M12x80 A4-70	M12	80	2169082
HBC-40/22 M16x50 A4-70	M16	50	2169083
HBC-40/22 M16x60 A4-70	M16	60	2169084
HBC-40/22 M16x80 A4-70	M16	80	2169085
HBC-40/22 M16x100 A4-70	M16	100	2169086

## HBC-N T-Head Bolt 40/22 with notch

Type HBC-40/22-N



Material: Hot-dip galvanized or stainless steel A4.  
Packaging incl. Bolts and Hex-nuts. Hex-nuts delivered in separate plastic bags.  
Washers need to be ordered separately.

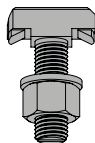
**Suitable for profile 40/22.**

### Notched T-Bolts 40/22 Hot-dip galvanized (F) 8.8

Description	Nominal Diameter	Length of thread (l) (mm)	Item No.
HBC-40/22-N M16x50 8.8F	M16	50	2169142
HBC-40/22-N M16x60 8.8F	M16	60	2169143
HBC-40/22-N M16x80 8.8F	M16	80	2169144

## HBC T-Head Bolt 50/30

Type HBC-50/30



Material: Hot-dip galvanized and stainless steel A4.  
Packaging incl. Bolts and Hex-nuts. Hex-nuts delivered in separate plastic bags.  
Washers need to be ordered separately.

**Suitable for profiles 49/30, 50/30, 54/33 and 52/34.**

### T-Bolts 50/30 Hot-dip galvanized (F) 8.8

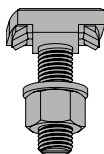
Description	Nominal Diameter	Length of thread (l) (mm)	Item No.
HBC-50/30 M12x50 8.8F	M12	50	2168741
HBC-50/30 M12x60 8.8F	M12	60	2168742
HBC-50/30 M12x80 8.8F	M12	80	2168743
HBC-50/30 M12x100 8.8F	M12	100	2168744
HBC-50/30 M16x50 8.8F	M16	50	2168745
HBC-50/30 M16x60 8.8F	M16	60	2168746
HBC-50/30 M16x80 8.8F	M16	80	2168747
HBC-50/30 M16x100 8.8F	M16	100	2168748
HBC-50/30 M16x125 8.8F	M16	125	2168749
HBC-50/30 M20x60 8.8F	M20	60	2168800
HBC-50/30 M20x80 8.8F	M20	80	2168801
HBC-50/30 M20x100 8.8F	M20	100	2168802
HBC-50/30 M20x125 8.8F	M20	125	2168803

### T-Bolts 50/30 Stainless Steel A4-70

Description	Nominal Diameter	Length of thread (l) (mm)	Item No.
HBC-50/30 M12x50 A4-70	M12	50	2168804
HBC-50/30 M12x60 A4-70	M12	60	2168805
HBC-50/30 M12x80 A4-70	M12	80	2168806
HBC-50/30 M12x100 A4-70	M12	100	2168807
HBC-50/30 M16x50 A4-70	M16	50	2168808
HBC-50/30 M16x60 A4-70	M16	60	2168809
HBC-50/30 M16x80 A4-70	M16	80	2168810
HBC-50/30 M16x100 A4-70	M16	100	2168811
HBC-50/30 M16x125 A4-70	M16	125	2168812
HBC-50/30 M20x60 A4-70	M20	60	2168813
HBC-50/30 M20x80 A4-70	M20	80	2168814
HBC-50/30 M20x100 A4-70	M20	100	2168815
HBC-50/30 M20x125 A4-70	M20	125	2168816

## HBC-N T-Head Bolt 50/30 with notch

Type HBC-50/30



Material: Hot-dip galvanized and stainless steel A4.  
Packaging incl. Bolts and Hex-nuts. Hex-nuts delivered in separate plastic bags.  
Washers need to be ordered separately.

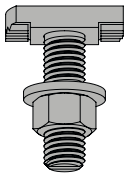
**Suitable for profiles 50/30 and 52/34.**

### Notched T-Bolts 50/30 Hot-dip galvanized (F) 8.8

Description	Nominal Diameter	Length of thread (l) (mm)	Item No.
HBC-50/30-N M16x50 8.8F	M16	50	2169148
HBC-50/30-N M16x60 8.8F	M16	60	2169149
HBC-50/30-N M16x80 8.8F	M16	80	2169160
HBC-50/30-N M20x60 8.8F	M20	60	2168515
HBC-50/30-N M20x80 8.8F	M20	80	2168516

## HBC T-Head Bolts for serrated channels

Type HBC-T 29/20



Material: Steel 8.8, hot-dip galvanized serration.  
Packaging incl. Bolts and Hex-nuts. Hex-nuts delivered in separate plastic bags.  
Washers need to be ordered separately.


Suitable for profiles 29/20.

T-Bolts 29/20 Hot-dip galvanized (F) 8.8

Description	Nominal Diameter	Length of thread (l) (mm)	Item No.
HBC-T 29/20 M12x40 8.8F	M12	40	2170595
HBC-T 29/20 M12x60 8.8F	M12	60	2170596
HBC-T 29/20 M12x80 8.8F	M12	80	2170597


## Washers & Accessories - ISO 7089 (previously DIN 125)

Flat Washer	Packaging Qty	Material	Nominal Diameter	Inner Diameter (mm)	Outer Diameter (mm)	Item No.
 Flat washer A 10.5/20-F	100	Hot dip galvanized	M10	10.5	20	304770
Flat washer A 13/24-F	100	Hot dip galvanized	M12	13	24	304771
Flat washer A 17/30-F	100	Hot dip galvanized	M16	17	30	304772
Flat washer A 21/37-F	50	Hot dip galvanized	M20	21	37	2038968

 Flat washer A 10.5/20-A4	50	Stainless steel A4	M10	10.5	20	58042
Flat washer A 13/24-A4	50	Stainless steel A4	M12	13	24	58041
Flat washer A 17/30-A4	25	Stainless steel A4	M16	17	30	387989
Flat washer A 21/37-A4	25	Stainless steel A4	M20	21	37	387990

## Washers & Accessories - ISO 7093 (previously DIN 9021)

Flat Washer	Packaging Qty	Material	Nominal Diameter	Inner Diameter (mm)	Outer Diameter (mm)	Item No.
 Flat washer A 10.5/30-F	50	Hot dip galvanized	M10	10.5	30	409401
Flat washer A 13/37-F	50	Hot dip galvanized	M12	13	37	409402
Flat washer A 17/50-F	25	Hot dip galvanized	M16	17	50	409403
Flat washer A 22/60-F	25	Hot dip galvanized	M20	22	60	2038969

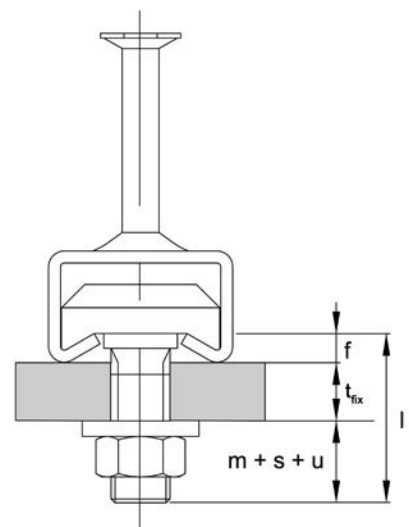
 Flat washer A 10.5/30-A4	50	Stainless steel A4	M10	10.5	30	409405
Flat washer A 13/37-A4	50	Stainless steel A4	M12	13	37	409406
Flat washer A 17/50-A4	25	Stainless steel A4	M16	17	50	409407

## Determination of required T-Bolt length

Profile	Type	f (mm)
28/15	Cold rolled	2,3
38/17	Cold rolled	3
40/25	Cold rolled	6
49/30	Cold rolled	7,5
54/33	Cold rolled	8
72/49	Cold rolled	10
40/22	Hot rolled	6
50/30	Hot rolled	8
52/34	Hot rolled	11,5

T-Bolt	m+s+u (mm)
M10	13,9
M12	17,3
M16	21,8
M20	27,0

I = nominal length of channel bolt  
 $t_{fix}$  = fastenable thickness  
 (Thickness of the attached part)  
 f = height of channel lip  
 m = thickness of the nut (ISO 4032)  
 s = thickness of the washer  
 u = channel bolt projection



Required T-Bolt length:  $I = t_{fix} + f + (m+s+u)$

## SPECIALIZED TECHNICAL ADVICE



Hilti supports and advises you in all technical matters. We offer a broad range of services to engineers worldwide. Close cooperation and coordination with engineers right at the planning stage ensures optimum design for your individual project. Our advice during definition of the correct specifications helps ensure safe, cost-efficient fastenings. Hilti engineers are pleased to offer their support in the office, on the jobsite, or by providing training on the new design provisions or the introduction of new Hilti software solutions.

## GLOBAL LOGISTICS TO KEEP YOUR JOBSITE RUNNING



Our global logistics network is the key to having Hilti anchor channels and bolts on the site when they're needed. We aim to keep your jobsite running, even in the event of unplanned specification changes, by maintaining product availability through a multi-location storage system consisting of local, regional and global stocks. We also help you avoid costly express delivery and air freight charges. In addition to our standard range, Hilti anchor channels are available in various other lengths on request. Please contact your local Hilti organization or agent for further information.

## GLOBAL LOGISTICS TO KEEP YOUR JOBSITE RUNNING



As your reliable partner, we constantly make every effort to further improve the products and services we offer. We would therefore be very pleased to receive your feedback and look forward to answering any questions you may have, at any time, on the topic of anchor channels.

### **HILTI QUALITY PROMISE**

Consider us your 24/7 online partner. Have questions? Need help? Chat with us online under [www.hilti.com](http://www.hilti.com), or call us.

**Phone 800-879-8000**

# REFERENCES

Worldwide reference projects		
424 Chatham Rd. Kowloon	Hong Kong	China
8 South Lane	Hong Kong	China
93 King's Road	Hong Kong	China
Tai Seng Bank, Wan Chai	Hong Kong	China
TMTL 422 Siu Lam. Tuen Mun	Hong Kong	China
TPTL 188, Pak Shek Kok, Tai Po	Hong Kong	China
CMCC Tower	Shenzhen	China
Construction Bank Disaster Recovery Centre	Wuhan	China
Suzhou Center	Suzhou	China
Green Town Shenlan Plaza	Qingdao	China
Imperial Kennedy	Hong Kong	China
LVMH Tower & Podium Structure	Shanghai	China
Novartis Camp	Shanghai	China
New Century Grand Hotel (Kaiyuan Hotel)	Hangzhou	China
Ningbo Fortune Plaza	Ningbo	China
One Bay East	Hong Kong	China
Pingan financial center	Shenzhen	China
Xiamen world trade tower	Xiamen	China
YUJIAPU Financial District	Tianjin	China
QE2 Medical Center Carpark	Nedlands	Australia
Lodha World One	Mumbai	India
Lodha World Crest	Mumbai	India
Marco Polo Hotel	Pasig City	Philippines
Jurong Entertainment Mall	Singapore	Singapore
Lum Chang Building	Singapore	Singapore
National Continuing Education and Training (CET) West Campus	Singapore	Singapore
South Beach Mixed Development	Singapore	Singapore
DCCT, Doha Convention Center and Tower	Doha	Qatar
World Trade Center, Qatar	Doha	Qatar
King Abdul-Aziz International Airport	Jeddah	Saudi Arabia
Mataf Expansion	Holy Makkah	Saudi Arabia
Standard Chartered Bank	Abu Dhabi	UAE
Astor Place	New York	US
Forrest Park	San Antonio	US
BP4	London	Great Britain
Canary Warf "BP4"	London	Great Britain
King's Cross Central	London	Great Britain
Parkhouse	London	Great Britain
Regents Place	London	Great Britain
Riverwalk	London	Great Britain
6, Bevis Marks	London	Great Britain
Buckimham Gates	London	Great Britain
Yenitepe, Kadikoy	Kadikoy	Turkey



One Bay East, Hong Kong



Ningbo Fortune Plaza, China



Scania Automotive Plant, Sweden



Porta Vittoria Hotel, Italy



BP4, Great Britain



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