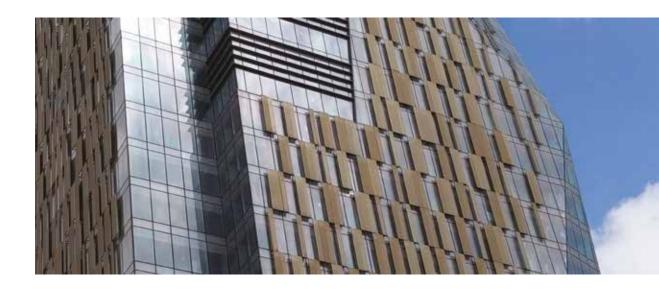
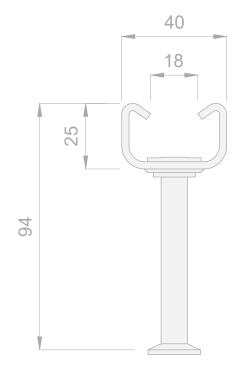


Anchor Channel Systems

We are offering a comprehensive portfolio of channels and accessories that can satisfy highest requirements according quality, load capacities and safety. Coming with that we can assure highest possible flexibility, easy handling and of course cost effectiveness.









HAZ products meets highest european quality standards

HAZ Metal Group of companies is located in Iskenderun, in the southeastern part of Turkey, based in their own property of 17.000 square meters. With more than 250 employees, the company provides services in the design and production of fixing systems for facade cladding, framing channel systems, brick support systems, anchor channels and a variety of products used in facade construction.

HAZ METAL's objective has always been to assist and advise its clients in choosing the most suitable fixing systems for their requirements and to provide them with quality production and supply with timely deliveries. The innovative design and production techniques offer practical and economic solutions to solve every possible problem within the scope of fixing applications in facade construction.

Throughout the years, production techniques and methods have been improved to achieve higher quality and productivity.

Haz Metal today implements modern technology in the production of channels in order to meet the requirements of the industry.

The presence of a work shop with the capability of preparing and maintaining the required moulding and tooling, provides flexible production. The urgent preparations, maintenance, revision and adjustment of machines and tooling are made without interrupting the production process which leads to saving time and costs. The company is capable of producing a minimum of 3.600 metric tonnes of anchor channels yearly, monthly spoken, over 1.000 tons of raw material can be processed. The finished products are transported via sea, air or road freight to the subsidiaries all over the world.

The production department is certified acc. to ISO and is monitorred internally and externally on regular bases. Corresponding certifications can be downloaded on our website **www.haz.eu**



Headquarter, Iskenderun, Turkey



Welding robots in Iskenderun



Production premises in Turkey



Warehouse for anchor channel stock in Wertheim



Profiling machines for production of anchor channels



Office building in Wertheim, Germany



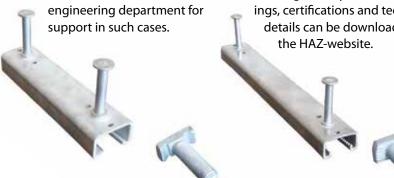
Anchor channels HMPR-CE – introduction, application, advantages

Effective and widely useful

Anchor channels are hot or cold-rolled profiles with punched studs that are used for connections made to concrete structures, such as concrete slabs, beams and columns. Matching T-head bolts and HMLN lock-nuts are used to allow convenient connections onto the channels. This makes the system a very simple, fast and secure solution for a wide range of applications. HAZ-CE anchor channels are applicable for a wide range of different constructions, for example the installation of facade panels, guiding rails in elevator installations or for fixation of pipes in drainage systems under bridges. According those particularly highly demanding requirements, it is necessary that the channels and its production are monitored very closely. HAZ-CE anchor channels are specified and manufactured according to the following Q&A principles:

- Quality production with strict control according European requirements
- periodic factory and production inspections carried out by thirdparty authorized controlling body
- management and service quality certified by ISO 9001:2015 and 14001
- Eurocode compatible design and production dimensioning using product selection software which can be downloaded under www.haz.eu

Besides the comprehensive standard portfolio HAZ is able to offer custommade solutions for every specific project requirement or situations in which a special technical solicitation is needed. Do not hesitate to contact our



Besides the standard portfolio of cold-rolled HMPR-Anchor channels (left) we can also offer toothed channels HMPR-CE-Z (right) with matching accessories. Additionally HAZ can provide a cold-rolled profile 40/26P that was developed for being used under circumstances requiring dynamic loading.

Focus on quality and safety

HAZ-CE anchor channels are designed according the conceptional requirements of CEN/TS 1992-4-3 and allow a use in montage situations where only small edge distances can be realized. Load capacities can be increased by using a higher concrete property class. Additional reinforcement can help to improve the sustainability for any kind of load arrangement. The European EOTA standard has been implemented for the purpose of standardising the dimensioning of fastenings used for concrete structures. Any connections in to concrete such as anchor bolts and anchor channels are regulated with this standard. The ETA approval includes thorough specifications on internal and third party quality control of an on-going production. Therefore quality assurance is in place to be certain that the quality of the HAZ-CE channels correspond with the samples tested during the approval procedure.

Easy and accurate planning

Careful planning needs to be done prior to concrete casting. Anchor channel types should be determined according to the load capacities, edge distances, area of applications etc. Anchor channel positioning should be incorporated in to the shop drawings of the form works in order to provide clear instructions for installation on site.

Requirements according BIM

The increasing demand for planning according to the newest BIM-regulations can be fulfilled without any problem. A large library of 2D- or 3D-draw-



Advantages of HAZ anchor channels

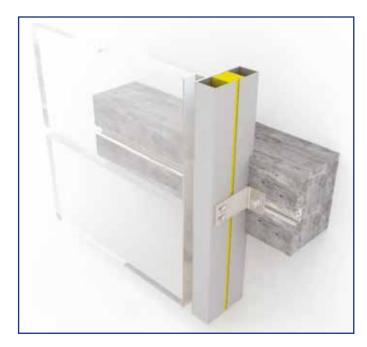
- Safe and reliable
- Easy to use and highly effective
- Economical installation
- No need for drilling, coming with that a reduction of fine dust pollution
- Ecological montage and disasemblement without vibrations or noise
- Assembly time can be reduced due to effective preliminary planning
- Tolerances in shell construction can be compensated easily
- With European Technical Assessment
- Certification includes dynamic loading for cold-rolled profile 40/26P
- Possibility to consider various concrete strength classes
- Recognizing reinforcement when designing the location of the anchor channel
- Highest cost effectiveness in choosing the most effective chanel
- Small edge distances are realisable with verified loadings
- Increased loads with additional or closely positioned reinforcements
- Optimised design considering concrete strength, reinforcement lay out and component thickness
- Compatible with newest requirements according BIM

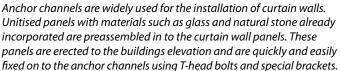


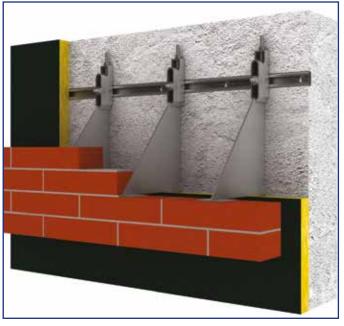
HMPR-H hot-rolled anchor channels



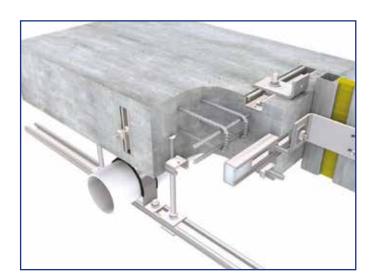
Multifarious applications for HAZ anchor channels







Brick walls are installed using special support brackets that are fixed on to the anchor channels using T-head bolts. A continuous anchor channel embedded into the concrete wall provides high adjustability and enables quick installation of the masonry brackets. Anchor channels cover the load capacity requirements for the brickwork installation.



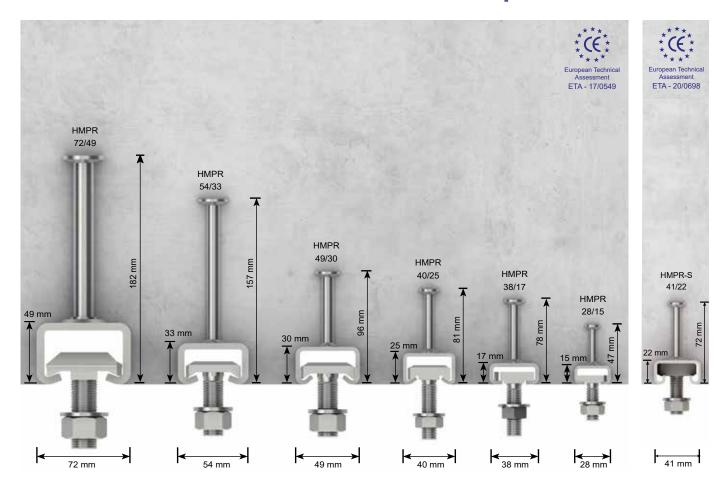
Anchor channels are used for a variety of construction applications which require attachments made onto concrete. Pipe and duct installation and the installation of electrical wiring are the most common applications that are made using anchor channels.



The prefabricated concrete industry is among the fastest growing fields within the construction industry. The use of anchor channels enhance the fast and economical solutions that are offered using prefabricated concrete panels. Speed and security are only some of the benefits anchor channels are providing.

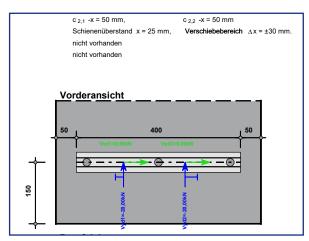


Cold-rolled anchor channels HMPR – the HAZ portfolio



Cold-rolled anchor channels are mainly used to withstand statical and quasistatical load situations. In that field the channels are used for a wide area of different load requirements.

The channels are available in stainless steel grades 1.4401, 1.4404 and 1.4571 as well as mild-steel 1.0038 and 1.0044 (S235JR and S355MC).



Our calculation software can be used to verify the HMPR-CE statically and to check the load capacities according project requirements. It can be downloaded from www.haz.eu.



All relevant technical information and details, e.g. the load capacities for every single profile, are included in our ETA-approval which can be downloaded from our website www.haz.eu.

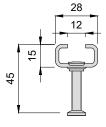


Anchor channels HMPR-CE 28/15, cold-rolled

Profile measurements: W 28 x H 15 mm, material thickness: 2.3 mm, material: hot-dip galvanized steel (HDG) or stainless steel (A4), profile filling: foam, certified acc. to ETA-17/0549

Tuno	Longth	Ctude	Waight	PU	Drice) (E)
Туре	Length	Studs	Weight		Price	,
Item description	(mm)	(pcs.)	(kg)	(pcs.)	HDG	A4
HMPR-CE-28/15-100	100	2	0.12	100	6.60	15.40
HMPR-CE-28/15-150	150	2	0.18	75	7.75	18.90
HMPR-CE-28/15-200	200	2	0.23	60	8.40	22.35
HMPR-CE-28/15-250	250	2	0.29	50	9.10	27.60
HMPR-CE-28/15-300	300	3	0.35	40	10.55	32.40
HMPR-CE-28/15-350	350	3	0.40	40	15.15	36.40
HMPR-CE-28/15-450	450	3	0.51	40	16.50	42.30
HMPR-CE-28/15-550	550	4	0.63	30	17.30	47.20
HMPR-CE-28/15-850	850	5	0.96	30	26.50	62.00
HMPR-CE-28/15-1050	1,050	6	1.18	30	31.70	86.05
HMPR-CE-28/15-3050	3,050	16	3.38	220	65.40	204.00
HMPR-CE-28/15-6070	6,070	31	6.76	102	132.60	410.10





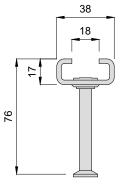
Other lengths on demand

Anchor channels HMPR-CE 38/17, cold-rolled

Profile measurements: W 38 x H 17 mm, material thickness: 3.0 mm, material: hot-dip galvanized steel (HDG) or stainless steel (A4), profile filling: foam, certified acc. to ETA-17/0549

Туре	Length	Studs	Weight	PU	Price	<u>;</u> (€)
Item description	(mm)	(pcs.)	(kg)	(pcs.)	HDG	A4
HMPR-CE-38/17-100	100	2	0.239	60	8.50	22.50
HMPR-CE-38/17-150	150	2	0.325	50	9.40	28.10
HMPR-CE-38/17-200	200	2	0.411	40	10.40	32.10
HMPR-CE-38/17-250	250	2	0.497	30	11.10	35.50
HMPR-CE-38/17-300	300	3	0.616	25	13.20	39.30
HMPR-CE-38/17-350	350	3	0.702	25	18.30	48.90
HMPR-CE-38/17-450	450	3	0.874	25	21.20	54.50
HMPR-CE-38/17-550	550	4	1.079	25	25.10	67.90
HMPR-CE-38/17-850	850	5	1.627	20	37.00	99.00
HMPR-CE-38/17-1050	1,050	6	2.004	20	46.20	123.60
HMPR-CE-38/17-3050	3,050	16	5.739	130	99.00	277.60
HMPR-CE-38/17-6070	6.070	31	11.461	65	210.00	564.30





Other lengths on demand

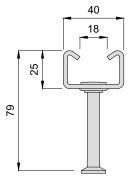


Anchor channels HMPR-CE 40/25, cold-rolled

Profile measurements: W 40 x H 25 mm, material thickness: 2.75 mm, material: hot-dip galvanized steel (HDG) or stainless steel (A4), profile filling: foam, certified acc. to ETA-17/0549

Туре	Length	Studs	Weight	PU	Price	` '
Item description	(mm)	(pcs.)	(kg)	(pcs.)	HDG	A4
HMPR-CE-40/25-150	150	2	0.378	40	10.90	31.45
HMPR-CE-40/25-200	200	2	0.483	30	11.50	35.95
HMPR-CE-40/25-250	250	2	0.588	25	13.90	42.50
HMPR-CE-40/25-300	300	2	0.693	25	14.55	48.20
HMPR-CE-40/25-350	350	3	0.830	25	19.80	57.45
HMPR-CE-40/25-400	400	3	0.934	25	22.50	63.40
HMPR-CE-40/25-550	550	3	1.249	20	27.75	79.90
HMPR-CE-40/25-800	800	4	1.805	15	39.60	104.30
HMPR-CE-40/25-1050	1,050	5	2.361	15	50.20	146.30
HMPR-CE-40/25-3050	3,050	13	6.767	96	112.20	303.60
HMPR-CE-40/25-6070	6,070	25	13.523	48	231.00	620.40
Other lengths on demand						

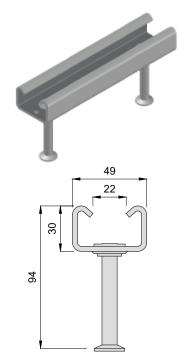




Anchor channels HMPR-CE 49/30, cold-rolled

Profile measurements: W 49 x H 30 mm, material thickness: 3.25 mm, material: hot-dip galvanized steel (HDG) or stainless steel (A4), profile filling: foam, certified acc. to ETA-17/0549

Туре	Length	Studs	Weight	PU	Price	e (€)
Item description	(mm)	(pcs.)	(kg)	(pcs.)	HDG	A4
HMPR-CE-49/30-150	150	2	0.576	30	15.20	37.60
HMPR-CE-49/30-200	200	2	0.728	20	17.85	43.80
HMPR-CE-49/30-250	250	2	0.881	20	19.15	50.80
HMPR-CE-49/30-300	300	2	1.033	20	22.20	58.65
HMPR-CE-49/30-350	350	3	1.245	20	29.05	71.30
HMPR-CE-49/30-400	400	3	1.397	20	33.00	85.80
HMPR-CE-49/30-550	550	3	1.854	20	39.60	102.00
HMPR-CE-49/30-800	800	4	2.675	20	58.10	158.40
HMPR-CE-49/30-1050	1,050	5	3.497	15	73.95	187.55
HMPR-CE-49/30-3050	3,050	13	10.006	60	165.00	461.40
HMPR-CE-49/30-6070	6,070	25	19.982	30	336.75	932.40
Other lengths on demand						



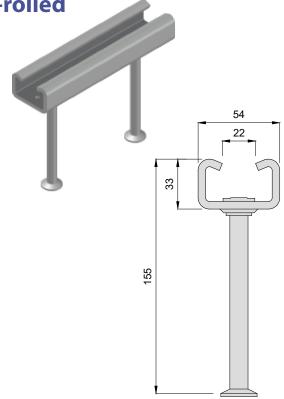


Anchor channels HMPR-CE 54/33, cold-rolled

Profile measurements: W $54 \times H 33$ mm, material thickness: 5.0 mm, material: hot-dip galvanized steel (HDG) or stainless steel (A4), profile filling: foam, certified acc. to ETA-17/0549

Туре	Length	Studs	Weight	PU	Pric	e (€)
Item description	(mm)	(pcs.)	(kg)	(pcs.)	HDG	A4
HMPR-CE-54/33-200	200	2	1.263	10	33.00	83.20
HMPR-CE-54/33-250	250	2	1.511	10	36.30	92.40
HMPR-CE-54/33-300	300	2	1.758	10	38.90	104.40
HMPR-CE-54/33-350	350	3	2.142	10	51.50	138.60
HMPR-CE-54/33-400	400	3	2.390	10	56.80	151.80
HMPR-CE-54/33-550	550	3	3.132	10	66.00	178.20
HMPR-CE-54/33-800	800	4	4.507	10	101.60	264.00
HMPR-CE-54/33-1050	1,050	5	5.881	10	129.40	330.00
HMPR-CE-54/33-3050	3,050	13	16.775	40	283.80	726.60
HMPR-CE-54/33-6070	6,070	25	33.463	20	587.40	1518.00

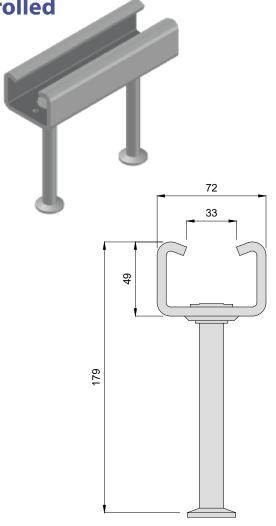
Other lengths on demand



Anchor channels HMPR-CE 72/49, cold-rolled

Profile measurements: W 72 x H 49 mm, material thickness: 6.0 mm, material: hot-dip galvanized steel (HDG) or stainless steel (A4), profile filling: foam, certified acc. to ETA-17/0549

Type	Length	Studs	Weight	PU	Price	e (€)
Item description	(mm)	(pcs.)	(kg)	(pcs.)	HDG	A4
HMPR-72/49-200	200	2	2.163	10	48.85	158.40
HMPR-72/49-250	250	2	2.574	10	55.50	171.60
HMPR-72/49-300	300	2	2.984	10	62.10	191.40
HMPR-72/49-350	350	2	3.395	10	68.65	217.80
HMPR-72/49-450	450	3	4.476	10	106.95	270.60
HMPR-72/49-650	650	3	5.297	10	128.10	310.20
HMPR-72/49-950	950	4	9.663	10	217.80	574.20
Other lengths on demand						



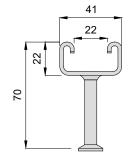


Anchor channels HMPR-CE-Z 41/22, cold-rolled, toothed

Profile measurements: W 41 x H 22 mm, material thickness: 2.5 mm, material: hot-dip galvanized steel (HDG) or stainless steel (A4), profile filling: foam, certified acc. to ETA-20/0698

Туре	Length	Studs	Weight	PU	Price	e (€)
Item description	(mm)	(pcs.)	(kg)	(pcs.)	HDG	A4
HMPR-CE-Z-41/22-150	150	2	0.354	40	10.70	31.50
HMPR-CE-Z-41/22-200	200	2	0.450	30	11.40	36.00
HMPR-CE-Z-41/22-250	250	2	0.547	25	13.30	42.50
HMPR-CE-Z-41/22-300	300	2	0.664	25	14.20	48.20
HMPR-CE-Z-41/22-350	350	3	0.772	25	17.80	57.50
HMPR-CE-Z-41/22-400	400	3	0.869	25	19.80	62.70
HMPR-CE-Z-41/22-550	550	3	1.158	20	22.40	79.90
HMPR-CE-Z-41/22-800	800	4	1.805	15	39.60	118.80
HMPR-CE-Z-41/22-1050	1,050	5	2.188	15	46.00	146.30
HMPR-CE-Z-41/22-3050	3,050	13	6.308	96	99.60	313.20
HMPR-CE-Z-41/22-6070	6,070	25	12.487	48	196.70	543.90
Other lengths on demand						

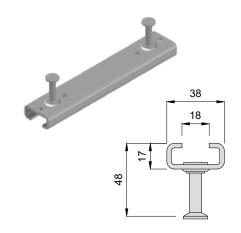


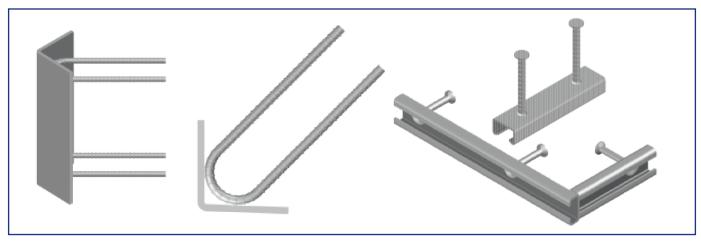


Anchor channels HMPR-SHS-38/17K, cold-rolled, short studs

Profile measurements: W $38 \times H 17 \text{ mm}$, material thickness: 3.0 mm, material: hot-dip galvanized steel (HDG) or stainless steel (A4), profile filling: foam

Туре	Length	Studs	Weight	PU	Price (€	Ξ)	
Item description	(mm)	(pcs.)	(kg)	(pcs.)	FV	A4	
HMPR-SHS-38/17-1050	1,050	5	0.13	40	_	_	
HMPR-SHS-38/17-3050	3,050	13	3.40	30	_	_	
HMPR-SHS-38/17-6070	6,070	25	6.76	25	_	_	
Prices, lengths or other profile sizes on demand							

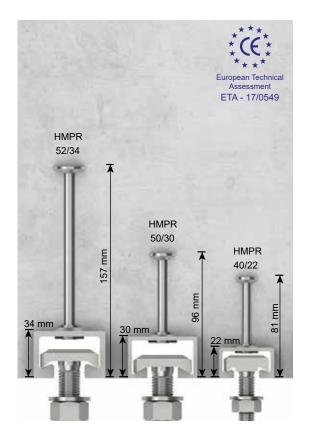


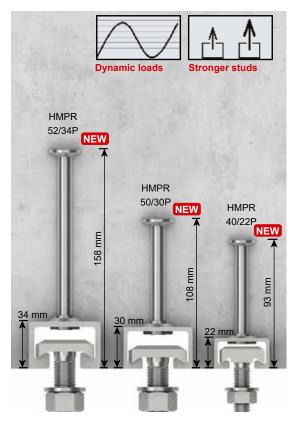


If your projects require special solutions HAZ METAL can provide a possibility to help you. Please do not hesitate to contact us.



HAZ anchor-channels certified for dynamic loading*



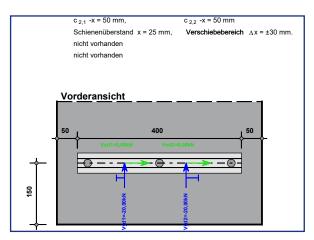




If an installation requires an anchor-channel that can withstand dynamic changes of necessary load capacities, the solution to chose is the hot-rolled profile segment.

HAZ Metal can provide the common hot-rolled channels and additionally has introduced a cold-rolled profile for usage in non-statical load situations. This profile combines the advantages of hot-rolled profiles with the economical benefits of cold-rolled production process.

Hot-rolled profiles 40/22(P), 50/30(P) and 52/34(P) are only available in hot-dip galvanized mild steel, grades 1.0038 and 1.0044 (S235JR / S2355MC).



Our calculation software can be used to verify the HMPR-CE statically and to check the load capacities according project requirements. It can be downloaded from www.haz.eu.



All relevant technical information and details, e.g. the load capacities for every single profile, are included in our ETA-approval which can be downloaded from our website www.haz.eu.

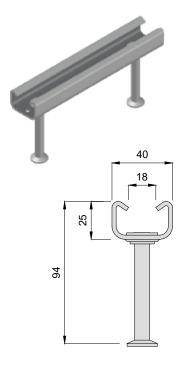
* Certification for dynamic loads only for channel version "P" available.



Anchor channels HMPR-CE 40/26P cold-rolled, certified for dynamic loads

Profile measurements: W 40 x H 26 mm, material thickness: 2.75 mm, material: hot-dip galvanized steel (HDG) or stainless steel (A4), profile filling: foam, certified acc. to ETA-17/0549

Туре	Length	Studs	Weight	PU	Price	e (€)
Item description	(mm)	(pcs.)	(kg)	(pcs.)	HDG	A4
HMPR-CE-40/26P-150	150	2	0.378	40	12.50	36.00
HMPR-CE-40/26P-200	200	2	0.483	40	13.20	41.10
HMPR-CE-40/26P-250	250	2	0.588	25	15.80	48.80
HMPR-CE-40/26P-300	300	2	0.693	25	16.60	55.20
HMPR-CE-40/26P-350	350	3	0.830	25	22.70	63.60
HMPR-CE-40/26P-400	450	3	0.934	25	25.60	72.60
HMPR-CE-40/26P-550	550	3	1.249	20	31.80	91.40
HMPR-CE-40/26P-800	850	4	1.805	15	45.30	119.50
HMPR-CE-40/26P-1050	1,050	5	2.361	15	57.40	167.55
HMPR-CE-40/26P-3050	3,050	13	6.767	96	126.50	348.00
HMPR-CE-40/26P-6070	6,070	25	13.523	48	264.00	710.00
Other lengths on demand						

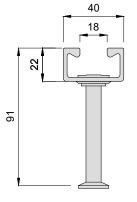


Anchor channels HMPR-CE 40/22P hot-rolled, certified for dynamic loads

Profile measurements: W 40 x H 22 mm, material thickness: 2.5 mm, material: hot-dip galvanized steel (HDG), profile filling: foam, certified acc. to ETA-17/0549

Type Item description	Length (mm)	Studs (pcs.)	Weight (kg)	PU (pcs.)	Price (€) HDG
HMPR-H-CE 40/22P-150	150	2	0.393	40	12.60
HMPR-H-CE 40/22P-200	200	2	0.503	40	14.00
HMPR-H-CE 40/22P-250	250	2	0.614	25	15.40
HMPR-H-CE 40/22P-300	300	2	0.724	25	16.80
HMPR-H-CE 40/22P-350	350	3	0.865	25	21.00
HMPR-H-CE 40/22P-400	400	3	0.975	25	25.10
HMPR-H-CE 40/22P-550	550	3	1.306	20	27.00
HMPR-H-CE 40/22P-800	800	4	1.889	15	33.90
HMPR-H-CE 40/22P-1050	1,050	5	2.471	15	47.30
HMPR-H-CE 40/22P-3050	3,050	13	7.086	96	127.20
HMPR-H-CE 40/22P-6070	6,070	25	14.163	48	242.90
Other lengths on demand					



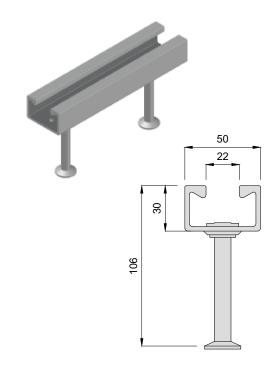




Anchor channels HMPR-CE 50/30P hot-rolled, certified for dynamic loads

Profile measurements: W 50 x H 30 mm, material thickness: 3.0 mm, material: hot-dip galvanized steel (HDG), profile filling: foam, certified acc. to ETA-17/0549

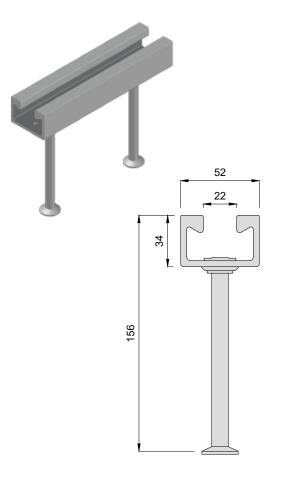
Type Item description	Length (mm)	Studs (pcs.)	Weight (kg)	PU (pcs.)	Price (€) HDG
HMPR-H-CE 50/30P-170	170	2	0.790	30	16.85
HMPR-H-CE 50/30P-200	200	2	0.790	30	19.00
HMPR-H-CE 50/30P-250	250	2	0.958	20	21.05
HMPR-H-CE 50/30P-300	300	2	1.127	20	23.20
HMPR-H-CE 50/30P-350	350	3	1.353	20	29.00
HMPR-H-CE 50/30P-400	400	3	1.522	20	32.00
HMPR-H-CE 50/30P-570	570	3	2.027	20	37.30
HMPR-H-CE 50/30P-820	820	4	2.928	20	51.60
HMPR-H-CE 50/30P-1070	1,050	5	3.828	15	65.00
HMPR-H-CE 50/30P-3070	3,050	13	10.964	60	173.00
HMPR-H-CE 50/30P-6070	6,070	25	21.904	30	332.95
Other lengths on demand					



Anchor channels HMPR-CE 52/34P hot-rolled, certified for dynamic loads

Profile measurements: W 52 x H 34 mm, material thickness: 4.0 mm, material: hot-dip galvanized steel (HDG), profile filling: foam, certified acc. to ETA-17/0549

Type Item description	Length (mm)	Studs (pcs.)	Weight (kg)	PU (pcs.)	Price (€) HDG
HMPR-H-CE 52/34P-170	170	2	1.168	30	25.50
HMPR-H-CE 52/34P-200	200	2	1.258	30	27.60
HMPR-H-CE 52/34P-250	250	2	1.506	20	30.55
HMPR-H-CE 52/34P-300	300	2	1.754	20	33.60
HMPR-H-CE 52/34P-350	350	3	2.135	20	42.70
HMPR-H-CE 52/34P-400	400	3	2.383	20	54.70
HMPR-H-CE 52/34P-570	570	3	3.127	20	61.80
HMPR-H-CE 52/34P-820	820	4	4.500	20	79.30
HMPR-H-CE 52/34P-1070	1,050	5	5.874	15	101.85
HMPR-H-CE 52/34P-3070	3,050	13	16.759	60	276.75
HMPR-H-CE 52/34P-6070	6,070	25	33.435	30	550.60
Other lengths on demand					





HMPR-CE anchor channels – Installation instructions

Installation of channels



Anchor channels are fixed to form work after careful planning and positioning, for example by using magnets or nails. Concrete is then casted into the form work.



After the concrete is cured, the filler inside the channel, set for the purpose of preventing concrete filling the channel's slot, is removed as shown.



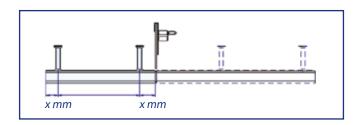
Connections to the cast in channels are made with hammerhead or hookhead bolts and lock nuts. T-bolts are inserted in to the channels horizontally and then turned right through 90 degrees. This locks them vertically in the channel.



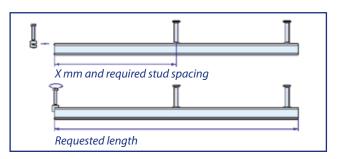
Fixtures are fastened with the hammer-/hookhead bolts and nuts as shown above. Correct loading and torque values need to be applied in accordance with the allowable loads of the channels and bolts.

Length cutting at construction site

Standard long lengths can be cut to size on construction sites according to the desired length. It is absolutely necessary to take care for the correct edge distances given in our ETA-approval.



Special lengths can be cut to size.



An end anchor is available to be fixed at the end of the cutted channel



HAZ-TU channels for profiled metal sheets – introduction

HAZ-TU Anchor channels for profiled metal sheeting installation on reinforced concrete beams and columns are available in 3 and 6 mm thicknesses and 60/22 sections.

Benefits of HAZ-TU channels

- Load capacities in three different directions manageable
- Very flexible, even in tight spaces, due to three different anchor types
- Highly ecological as no drilling is necessary
- Available filling materials (foam filling and styrofoam) secures profile from concrete diffusion
- Cutting to special lengths possible

Typical application areas of HAZ-TU channels

- Fixation of steel-sheets or trapeze sheets
- Fixation of window or door frames
- Fixation of roof structures

The different anchor types guarantee a suitable solution even in cramped installation surroundings.

Channels are available in two standard types in 3 meter length with foam filling or styrofoam. Available materials are stainless steel grade 1.4301 (A2) & 1.4401 (A4) and hot dip galvanized mild steel (HDG).



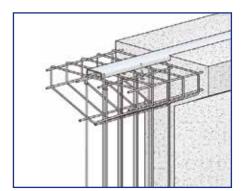
HAZ-TU channels – installation instructions



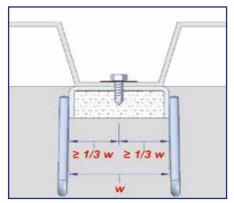
The installation of profiled metal sheets on to prefabricated concrete components with embedded HAZ-TU channels enables easy and economical fixing.



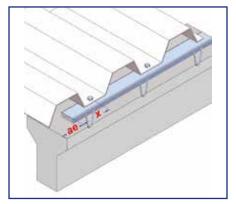
Fixing is done with self drilling screws on to the HAZ-TU cast in channels, without the need of pre-drilled holes. Power screw driver with 1500 rpm is required for fixing.



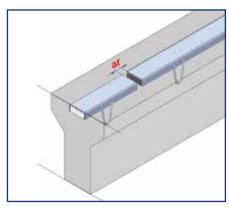
HAZ-TU channels are cast flush to the surface. The concrete surface should be trowelled smooth enabling the metal sheets to be positioned directly over the channels.



Drilling positioning should be made in the middle of the channels, leaving a minimum distance 1/3 of the width from the side of the channel.



The minimum edge spacing (ae) should be no less then 20 mm. The distance (x) between the channel end the screw position should be no less than 25 mm.



The minimum spacing (ar) between channels should be 20 mm.

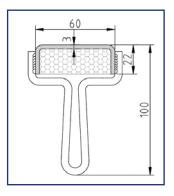


Channels HAZ-TU 60/22

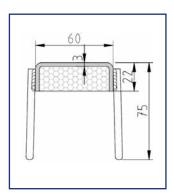
Profile measurements: W 60 x H 22 mm, material thickness: 3.0 or 6.0 mm, material: hot-dip galvanized steel (HDG) or stainless steel (A4), profile filling: foam, certified acc. to DIBt-Z-21.4-1921

Type Item description	Length (mm)	Material thick- ness (mm)	Studs (pcs.)	Weight (kg)	PU (pcs.)	Price HDG	e (€) A4	
HAZ-TU-3-3000-Typ A2	3,000	3	8	7.19	80	70.50	282.00	
HAZ-TU-3-3000-Typ A3	3,000	3	20	7.88	80	99.90	333.60	
HAZ-TU-3-3000-Typ B2	3,000	3	16	7.29	80	71.10	338.40	
HAZ-TU-3-3000-Typ B3	3,000	3	40	8.13	80	99.90	378.00	1
HAZ-TU-3-3000-Typ C2	3,000	3	8	7.30	80	71.10	282.00	
HAZ-TU-3-3000-Typ C3	3,000	3	20	8.13	80	99.90	333.60	
HAZ-TU-6-3000Typ A2	3,000	6	8	19.94	80	114.80	564.00	
Other lengths on demand								

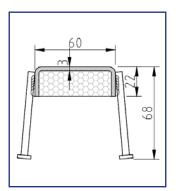
Anchor type A



Anchor type B

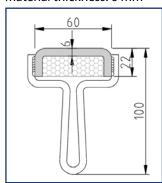


Anchor type C

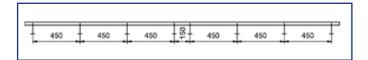


Anchor type A

Material thickness: 6 mm



HAZ-TU – Positioning of anchors and anchor distances



Example: Anchor type A2 with 8 anchors



Example: Anchor type A3 with 20 anchors



HAZ METAL – brick-tie channels and wall-ties

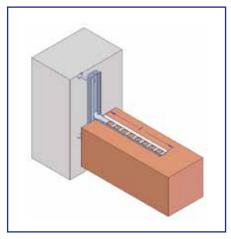
HAZ-MAS brick tie channels are cold rolled pre-galvanized channels that have punched lugs on the back of the channels. This channel provides similar loading performance as the anchor channel 28/15 and is an economic option for use in restraining brick walls onto concrete or metal substructures. In order to prevent concrete to ingress into the profile, the channels are filled with foam filler, which can be easily removed after placing the concrete.

Matching wall-ties HAZ-MA are designed for restraint attachments of both masonry wall facades and masonry walls to load bearing walls. The sliding capability of the ties along the length of the channels decreases the risk of the masonry cracking due to structure movements.

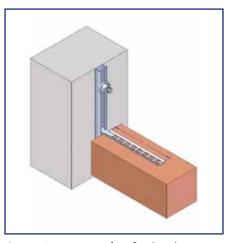
The wall ties are inserted on the channel at desired points (our suggestion is a distance of max. 25 cm) and are positioned by turning the ties 90 degrees clockwise. The perforated holes in the wall ties allow mortar filling to improve bonding.

We differentiate wall-ties that are compatible with profile sizes 28/15 and 38/17.

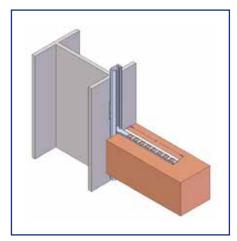
To be effective in different project requirements and installation situations the brick-tie channels as well as wall-ties are available in material grades pregalvanized and A4.



HAZ-MA wall ties can be used with cast in channels type 28/15 and 38/17.



Connections on to surface fixed anchor or montage channels type 28/15 and 38/17 can also be made.

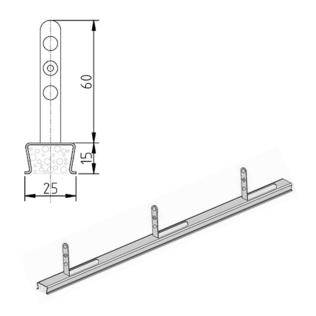


Montage channels can be welded on to structural steel to allow wall tie connections.

Brick-tie channels HAZ-MAS

Profile measurements: W 25 x H 15 mm, material thickness: 0.80 mm, Material: sendzimir galvanized steel (SV) or stainless steel (A4), assessment according load capacities: IFBT Leipzig Nr. 10-143

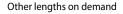
Туре	Length	Weight	PU	Price	(€)		
Item description	(mm)	(kg)	(pcs.)	SV	A4		
HAZ-MAS 25/15-D	2,500	0.85	40/960	13.20	57.00		
Other lengths on demand							





HAZ-MA wall-ties for profiles 28/15 and 38/17

Туре	Length	Material	Weight	Price (€)
Item description	(mm)	dimensions (mm)	(kg)	SV	A4
HAZ-MA-28-85	85	25 x 2	0.046	1.25	3.60
HAZ-MA-28-120	120	25 x 2	0.060	1.50	4.10
HAZ-MA-28-180	180	25 x 2	0.085	1.90	5.50
HAZ-MA-38-120	120	30 x 3	0.070	1.70	4.60
HAZ-MA-38-180	180	30 x 3	0.090	2.20	6.20





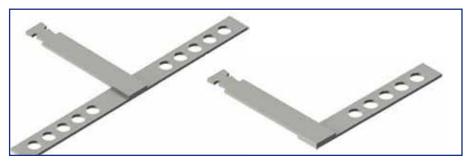
HAZ-MA-D wall-ties for profiles 28/15

Type Item description	Length (mm)	Material dimensions (mm)	Weight (kg)	Price (€) A2
HAZ-MA-D-28-150-A2	150	30 x 1	0.090	1.35
HAZ-MA-D-28-180-A2	180	30 x 1	0.105	1.90

Other lengths on demand



Special versions of HAZ-MA wall-ties



We offer a wide variety of different wall-ties. Please do not hesitate to contact us according your requirements according profile size, anchor type or length.



The perfect bolts for the HAZ channel system

As a perfect addition to the HAZ-channel systems, the HAZ T-head bolts type HS guarantee a safe and reliable connection of every installation made to the channel profiles. For each channel profile there is a separate size of HS-bolts and nuts available in order to be flexible according every project requirement.

HAZ hammerhead bolts

Hammerhead bolts are perfectly designed for smaller, plain profiles such as 28/15 and 38/17. By using those small-headed T-heads the fit into the above mentioned profiles can realize safest possible connection between channel and installation. Certified according ETA-17/0549.

HAZ hookhead bolts

For bigger and heavier profiles, especially hot-rolled, normally the so-called hookhead-bolts are used. Those bolts can take higher loading capacities and due to the perfect fit into the channels, those loads from different directions can be transferred into the embedded substructure. Available for profile sizes from 40/22 - 72/49, certified according ETA-17/0549.

HAZ double notch toothed bolts

The double-notch toothed T-bolts are used with hot-rolled untoothed anchor channels. When the T-bolts are tightened, their teeth craft into the channel lips to create a positive, non-slip connection to resist longitudinal loads. It is therefore possible to transmit force in all directions. Available for profiles 40/22 and 50/30.

HAZ toothed bolts

The bolt teeth fit perfectly into toothed anchor channels. In combination with toothed T-bolts, the toothed anchor channels HMPR-CE-Z 41/22 can support loads in all directions. Certified according ETA-20/0698.

Hammerhead bolts HS-28

Туре	Dimensions	PU	Weight	Pric	e (€)		
Item description	(mm)	(pcs.)	(kg)	EG	A4		
HS-28/15-M8x30	M8 x 30	100	0.022	1.08	7.70		
HS-28/15-M10x30	M10 x 30	100	0.035	1.54	8.60		
HS-28/15-M10x50	M10 x 50	100	0.045	1.83	12.00		
HS-28/15-M12x30	M12 x 30	10	0.048	2.55	12.00		
HS-28/15-M12x50	M12 x 50	50	0.060	2.75	16.50		
Other material grades,	Other material grades, lengths and specifications on demand.						

Suitable for profiles 28/12, 28/15, 28/28, 26/26 and 26/18, Material: EG 8.8 or A4-70



Hammerhead bolts HS-38

Туре	Dimensions	PU	Weight	Pric	e (€)
Item description	(mm)	(pcs.)	(kg)	EG	A4
HS-38/17-M10x30	M10 x 30	100	0.039	1.88	12.00
HS-38/17-M10x50	M10 x 50	100	0.055	2.22	15.40
HS-38/17-M12x30	M12 x 30	100	0.060	2.12	13.75
HS-38/17-M12x50	M12 x 50	50	0.075	2.45	17.50
HS-38/17-M12x80	M12 x 80	50	0.095	3.35	23.80
HS-38/17-M16x30	M16 x 30	50	0.100	3.00	16.55
HS-38/17-M16x50	M16 x 50	50	0.125	3.70	23.20
HS-38/17-M16x80	M16 x 80	25	0.165	4.66	29.70

Other material grades, lengths and specifications on demand.

Suitable for profiles 38/17, 36/36, 38/45 and 36/20, Material: EG 8.8 or A4-70





Hookhead bolts HS-40

Туре	Dimensions	PU	Weight	Pric	e (€)
Item description	(mm)	(pcs.)	(kg)	EG	A4
HS-40/22-M10x30	M10 x 30	50	0.055	2.25	24.30
HS-40/22-M10x50	M10 x 50	50	0.065	2.40	29.70
HS-40/22-M12x30	M12 x 30	50	0.065	2.70	20.90
HS-40/22-M12x50	M12 x 50	50	0.080	3.00	24.74
HS-40/22-M12x80	M12 x 80	50	0.105	4.10	31.90
HS-40/22-M16x30	M16 x 30	20	0.110	3.85	22.00
HS-40/22-M16x50	M16 x 50	20	0.125	4.40	25.00
HS-40/22-M16x80	M16 x 80	20	0.175	5.50	34.10

Suitable for profiles 40/22, 40/25 und K422, Material: EG 8.8 or A4-70



Other material grades, lengths and specifications on demand.

Hookhead bolts HZS-41, toothed

Тур	Dimensions	PU	Weight	Price	e (€)
Bezeichnung	(mm)	(pcs.)	(kg)	EG	A4
HZS-41/22-M12x35	M12 x 35	20	0.035	6.10	21.45
HZS-41/22-M12x50	M12 x 50	20	0.080	8.00	26.95
HZS-41/22-M12x100	M12 x 100	20	0.170	9.75	44.35
HZS-41/22-M16x35	M16 x 35	20	0.120	8.35	27.45
HZS-41/22-M16x50	M16 x 50	20	0.145	11.30	39.25
HZS-41/22-M16x100	M16 x 100	20	0.209	16.35	_

Other material grades, lengths and specifications on demand.

Suitable for profiles 41/22 und 41/41, Material: EG 8.8 or A4-70



Hookhead bolts HS-50

Type	Dimensions	PU	Weight	Pric	e (€)
Item description	(mm)	(pcs.)	(kg)	EG	A4
HS-50/30-M10x30	M10 x 30	50	0.064	4.25	21.70
HS-50/30-M10x50	M10 x 50	50	0.080	4.45	24.50
HS-50/30-M12x30	M12 x 30	50	0.085	4.00	23.45
HS-50/30-M12x50	M12 x 50	50	0.101	4.40	26.60
HS-50/30-M12x80	M12 x 80	50	0.125	5.15	36.85
HS-50/30-M16x30	M16 x 30	20	0.130	4.75	37.40
HS-50/30-M16x50	M16 x 50	20	0.158	5.50	44.00
HS-50/30-M16x80	M16 x 80	20	0.200	6.50	55.00

Other material grades, lengths and specifications on demand.

Suitable for profiles 49/30, 50/30, 50/40, 52/34 und 486, Material: EG 8.8 or A4-70



Hookhead bolts HS-72

Type	Dimensions	PU	Weight	Pric	e (€)
Item description	(mm)	(pcs.)	(kg)	EG	A4
HS-72/48-M20x50	M20 x 50	20	0.310	15.80	_
HS-72/48-M20x75	M20 x 75	20	0.550	17.90	_
HS-72/48-M24x50	M24 x 50	20	0.430	17.05	98.40
HS-72/48-M24x100	M24 x 100	20	0.700	21.50	132.00
HS-72/48-M27x75	M27 x 75	20	0.665	22.40	_
HS-72/48-M27x100	M27 x 100	20	0.850	25.40	_
HS-72/48-M30x75	M30 x 75	20	0.800	26.45	_
HS-72/48-M30x100	M30 x 100	20	1.000	30.55	_

Other material grades, lengths and specifications on demand.

Suitable for profiles 72/48 und 72/49 Material: EG 8.8 or A4-70





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