FIXING TECHNOLOGY LIFTS AND ELEVATORS
With us to the very top: product application
Under the Leviat brand, we are uniting the expertise, skills and resources of HALFEN and its sister companies to create a world leader in fixing, connecting and anchoring technology.

The products you know and trust, including HALFEN Fixing technology, will remain an integral part of Leviat’s comprehensive brand and product portfolio. As Leviat, we can offer you an extended range of specialist products and services, greater technical expertise, a larger and more agile supply chain and better, faster innovation.

By bringing together CRH’s construction accessories family as one global organisation, we are better equipped to meet the needs of our customers, and the demands of construction projects, of any scale, anywhere in the world.

This is an exciting change. Join us on our journey.

Read more about Leviat at Leviat.com
Our product brands include:

- Ancon
- HALFEN
- PLAKA


60 locations

sales in
30+ countries

3000 people worldwide

Leviat.com
SAFETY
you can rely on!

Not content on just being good, but always striving to be better; we have continuously developed and optimized our anchoring, reinforcement and framing technology products. Success when using HALFEN products proves we are on the right track. When it comes to connections for the construction industry, one thing is especially important: Quality!

This applies especially to elevator construction; safe and adjustable fixtures in the lift shaft for installation and during maintenance are essential; and vital for personal safety. Good that you can rely on tried and tested quality; our products for elevator construction ensure your projects stay safe!

This brochure illustrates applications of HALFEN Cast-in and framing channels as well as the HALFEN Lift-Box in elevator construction. We show how you can optimize planning your project with effective use of HALFEN Products!
Did you know?
Our products can be used in concrete, masonry and steel shafts.
WHAT’S IN A LIFT SHAFT?

Safe and reliable anchorage is essential for installation or maintenance work in lift shafts: Quality is also decisive. You won’t just find our product portfolio here, but also see typical applications of where our products are used in lift shafts.

HALFEN HLX-Lift-Box – Cast into the concrete slab at the top of a shaft

The attachment point is used to secure loads during initial installation and subsequent maintenance work

Cast-in channels and bolts

Cast-in channels to fix guide rails, doors and attachment points

Framing channels and bolts

Framing channels for welding or dowel and bolt fixing; for connection of steel components such as lift guide rails, handrails, guard rails, and control units.

© 2020 · Application in elevator construction · www.halfen.com
From planning to the finished lift:

YOUR ADVANTAGES WITH US

› Pre-planning with Cast-in channels for quick installation
› Quick, efficient installation reduces costs
› Dust free installation, no on-site drilling or doweling required
› Safety against fatigue related failure
› High quality products using high quality steel
Cast-in channels

- Efficient installation and adjustment
- Cost effective, economic solution
- Reliable quality
- Versatile application
- Reliable connection
OVERVIEW:

HALFEN Cast-in channels

With HALFEN Cast-in channels you can select the channel profile as required. Hot-rolled HALFEN Channel, either toothed or smooth, are suitable for dynamic loads, and cold-rolled channels are the right choice for predominantly static loads and for lower demands. Our Software can dimension all channels for any situation in advance to facilitate planning and to shorten overall construction time and therefore reduce costs.

The solution for high loads: Hot-rolled Cast-in channels for guide rails

HALFEN Channels HTA-CE hot-rolled, smooth

HALFEN Channels HZA hot-rolled, toothed
Facilitates planning due to load distribution in all directions (3D load distribution)

HALFEN Bolts for Cast-in channels

A combination of channels and the tried and tested HALFEN Bolts provide maximum reliability

HALFEN HS Bolts
Suitable for all smooth framing channels. For loads in two directions.

HALFEN HZS Bolts
Suitable for toothed framing channels. Positive load transfer also in channel longitudinal direction.

What does HTA-CE involve?

HTA-CE signifies that the channel is CE marked. We as the manufacturer declares, that it is responsible for the conformity of the product with the (DoP – Declaration of performance), and that the specified performance and compliance with all relevant European legislation has been applied.
HOT-ROLLED CAST-IN CHANNELS: KEY VALUES HTA-CE

<table>
<thead>
<tr>
<th>Typical application in elevator construction</th>
<th>Attachment points</th>
<th>Guide rail fixing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profile</td>
<td>HTA-CE 55/42</td>
<td>HTA-CE 50/30P</td>
</tr>
<tr>
<td>Dimensions HALFEN HTA-CE Channels</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Material</td>
<td>Steel</td>
<td></td>
</tr>
<tr>
<td>Bolts</td>
<td>HS 50/30</td>
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</tr>
<tr>
<td>Thread</td>
<td>M10 – M20</td>
<td></td>
</tr>
<tr>
<td>$N_{ap}[kN] / V_{ap}[kN]$</td>
<td>44.4/61.1</td>
<td></td>
</tr>
<tr>
<td>Suitable for fatigue related tension loads.</td>
<td>✔</td>
<td></td>
</tr>
</tbody>
</table>

NEW

THE HALFEN CHANNELS WITH EXTRA LOAD CAPACITY

Features overview:

- CE marking with European Technical Assessment
- hot-rolled HALFEN Channels
- up to 45% higher load capacities
- suitable for dynamic loads
- high fire resistance
- planning with our Software
# HOT-ROLLED TOOTHED CAST-IN CHANNELS: KEY VALUES HZA

<table>
<thead>
<tr>
<th>Profile</th>
<th>HZA 64/44 DYNAGRIP</th>
<th>HZA 53/34 DYNAGRIP</th>
<th>HZA 38/23 DYNAGRIP</th>
<th>HZA 29/20 DYNAGRIP</th>
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<td><img src="image3.png" alt="Dimensions" /></td>
<td><img src="image4.png" alt="Dimensions" /></td>
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<tr>
<td>HALFEN HZA Channels</td>
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<td></td>
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<tr>
<td>Material</td>
<td>Steel</td>
<td>Steel</td>
<td>Steel</td>
<td>Steel</td>
</tr>
<tr>
<td>Thread</td>
<td>M20 + M24</td>
<td>M16 + M20</td>
<td>M12 + M16</td>
<td>M12</td>
</tr>
<tr>
<td>(F_{\text{FRd}})</td>
<td>37.8 kN All load directions</td>
<td>30.8 kN All load directions</td>
<td>16.8 kN All load directions</td>
<td>11.2 kN All load directions</td>
</tr>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
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### COLD-ROLLED CAST-IN CHANNELS: KEY VALUES

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<tr>
<th>Profile</th>
<th>HTA-CE 40/25</th>
<th>HTA-CE 38/17</th>
<th>HTA-CE 28/15</th>
<th>HZA 41/22</th>
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<td><img src="image7.png" alt="Dimensions" /></td>
<td><img src="image8.png" alt="Dimensions" /></td>
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<tr>
<td>HALFEN HTA-CE Channels</td>
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</tr>
<tr>
<td>Material</td>
<td>Steel</td>
<td>Steel</td>
<td>Steel</td>
<td>Steel</td>
</tr>
<tr>
<td>Thread</td>
<td>M10 – M16</td>
<td>M10 – M16</td>
<td>M6 – M12</td>
<td>M12 – M16</td>
</tr>
<tr>
<td>(N_{\text{k}}[\text{kN}] / V_{\text{as}}[\text{kN}])</td>
<td>11.1</td>
<td>10.0</td>
<td>5.0</td>
<td>7.0 kN All load directions</td>
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<tr>
<td>Suitable for fatigue related tension loads.</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
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</tr>
</tbody>
</table>

All product variants can be found in our technical catalogue at www.halfen.com
FRAMING CHANNELS

- Free positioning and dimensioning
- Fine adjustment in seconds
- Cost reduction due to high level of standardization of the versatile bolt connections
WIDE SELECTION OF CHANNELS:
HALFEN Framing channels

For fixing guard rails, doors and control units we have a wide range of framing channels, available for weld-on, bolt-on or for dowel fixing. On the following pages you will find a selection of our framing channels, which are especially suited for use in elevator construction.

For dynamic loads we provide the hot-rolled HALFEN Channel, either toothed or smooth, and the cold-rolled channels are the right choice for pre-dominantly static loads.

The solution for very high loads and dynamic loads: Hot-rolled framing channels

Framing channels HM, hot-rolled, smooth
For approved longitudinal loads of up to $F_{\text{app}} = \text{up to } 7.5 \text{ kN}$

Framing channels HZM, hot-rolled, toothed
For high longitudinal loads $F_{\text{app}} = \text{up to } 27 \text{ kN}$

With holes or without holes for low loads: Cold-rolled framing channels

Framing channels HL, HM, cold-rolled, smooth

Framing channels HZL, HZM, cold-rolled, toothed

HALFEN Bolts for framing channels
The framing channels used in combination with HALFEN Bolts provide a versatile bolt connection

HALFEN HS Bolts
 Suitable for all smooth framing channels. For loads in two directions.

HALFEN HSR Bolts
 Only for hot-rolled carbon steel framing channels. Nibbed non-slip bolt. For loads in all directions.

HALFEN HZS Bolts
 Suitable for toothed framing channels. Positive load transfer also in channel longitudinal direction.

What does HTA-CE involve?
HTA-CE signifies that the channel is CE marked. We as the manufacturer declares, that it is responsible for the conformity of the product with the (DoP – Declaration of performance), and that the specified performance and compliance with all relevant European legislation has been applied.
## HOT-ROLLED FRAMING CHANNELS

### HEAVY DUTY FRAMING SYSTEM

<table>
<thead>
<tr>
<th>Product</th>
<th>HM 72/48</th>
<th>HM 55/42</th>
<th>HM 52/34</th>
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<td>HS 72/48, HSR 72/48</td>
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### HOT-ROLLED TOOTHED FRAMING CHANNELS – HEAVY DUTY FRAMING SYSTEM

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<thead>
<tr>
<th>Product</th>
<th>HZM 64/44</th>
<th>HZM 53/34</th>
<th>HZM 41/27</th>
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<tr>
<td>Article name</td>
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<td>HZS 53/34</td>
<td>HZS 38/23</td>
<td>HZS 38/23, HS 38/17</td>
<td>HZS 29/20, HS 28/15</td>
</tr>
</tbody>
</table>

## MATERIALS AND FINISHES

- **FV** hot-dip galvanized or WB mill finished
- **A2** stainless steel 1.4307
- **A4** stainless steel 1.4571/1.4404
- **HZM / HZL** toothed profile
### COLD-ROLLED FRAMING CHANNELS

#### HEAVY DUTY FRAMING SYSTEM

<table>
<thead>
<tr>
<th>Product</th>
<th>HM 49/30</th>
<th>HM 40/25</th>
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<tbody>
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<td>Article name</td>
<td>HS 50/30</td>
<td>HS 40/22, HSR 40/22</td>
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#### LIGHT DUTY FRAMING SYSTEM

<table>
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<tr>
<th>Product</th>
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<th>HM 28/15, HL 28/15</th>
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<tbody>
<tr>
<td>Article name</td>
<td>HS 38/17</td>
<td>HS 28/15</td>
</tr>
</tbody>
</table>

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**Versatile application:**

**FRAMING CHANNELS IN ELEVATOR CONSTRUCTION**

HALFEN Framing channels are a flexible and adjustable solution for numerous types of fixing situations in elevator construction - for example: fixings directly to the lift car and for fixing the doors.
Attachment points

- For lift and fall protection equipment
- Effective fixing even at great heights
- Dependable quality
HALFEN HLX LIFT-BOX

The HALFEN Lift-Box is an auxiliary aid for the installation and maintenance of lifts. It ensures a safe, temporary fixing point when working on the lift. It is set in the concrete as an anchor point on the shaft ceiling. Even heavy lift equipment can be temporarily attached.

Product Range

The HALFEN HLX Lift-Box is delivered to site as a complete pre-assembled unit.

HALFEN HLX Lift-Box with attachment point: Chain-link automatic release and self-locking or with wire cable loop

The most important features and benefits at a glance:

- High load capacity (1500 kg, 2000 kg, 4000 kg)
- CE marking in compliance with ETA European Technical Assessment
- Modern plastic design
- Execution with loop and chain-link
- Automatic release and self-locking chain-link
- Easy to fold back
- Protection against twisting
- Complete pre-assembled unit.
- Quick and easy to install
- Usable for minimum slab thickness of 150 mm due to small edge distances
- Detailed, multilingual installation and usage instructions
- CAD Data

Certificates

- European Technical Assessment ETA-17/0488
- CE marking in compliance with ETA

Technical Data

- Load classes 1500 kg, 2000 kg, 4000 kg

HALFEN PSA ATTACHMENT POINT

for personal fall protection equipment

The attachment point for personal fall protection (PSA) is complemented with an approved stainless steel DEMU T-FIXX®, Fixing anchor, an identification cap and an attachment hook. The suitability of the approved DEMU T-FIXX® Fixing anchor was proven in a DGUV test based on CEN/TS 16415.

Identification cap

Suitable securing hook, for example: RUD PSA INOX STAR M16
Building Information Modeling: YOUR BIM PARTNER

HALFEN product and detailing plans created by our engineers for your projects are also provided as BIM (Building Information Modeling) CAD files to generate a 3D model of your building. Using BIM software for the design, construction process and maintenance of a building makes it much easier for architects, builders and suppliers to coordinate all aspects of a project. All information relevant to a building is made available in one place. Problems between various building disciplines can be quickly checked. All involved parties are able to cooperate more effectively resulting in real time and cost saving.

We can provide the CAD files for your BIM project:

VISIT THE HALFEN CAD-PORTAL: free, international and versatile with numerous 2D and 3D downloadable files!
Easy to calculate – safe planning:

SOFTWARE FOR HALFEN CAST-IN CHANNELS

Our Software is a easy-to-use, powerful tool for calculation and design of HALFEN Channels. The program is easy to use and intuitive, it provides all necessary calculations and verifications for channels for a specified load situation in a matter of seconds. Further tools, catalogues and installation instructions can be found online at www.halfen.com.

HALFEN HTA-CE Software; input screen

Interactive 3D display

The result in a listbox

Further tools are available at www.halfen.com

Catalogues
CAD drawings
Installation instructions
Videos
Innovative engineered products and construction solutions that allow the industry to build safer, stronger and faster.
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