

eca-lift[®]

"The better anchor
for double wall
elements and
sandwich panels"



Patent Pending



Made and developed
in Flanders

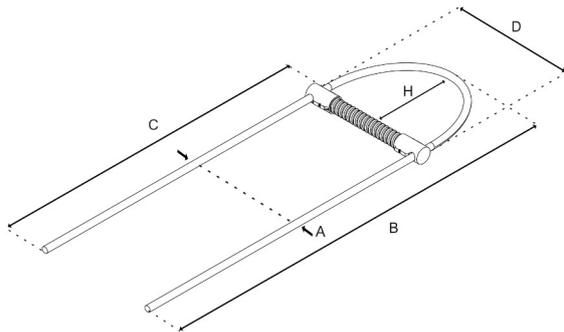
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1 What is an ECA-LIFT anchor?

The patented **ECA-lift-anchor** consists out of a compression element, made out of **GFRP bar** and a **steel wire**. There are two weight classes, a 3 Ton and a 5 Ton.

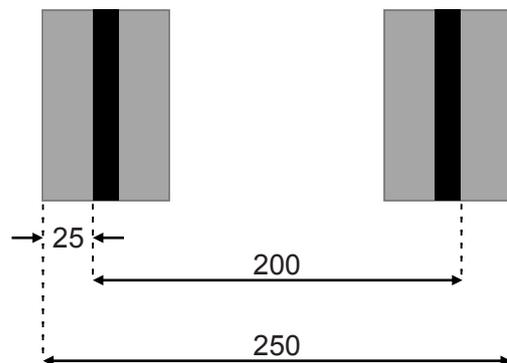


All three types exist in 29 different sizes

(A = from 120mm to 400 mm)

Taken into account a concrete cover according to the EC2 of 25 mm for a wall thickness of 250 mm, an ECA-lift anchor of 200 is to be used $A=200$ ($A=250-50=200$).

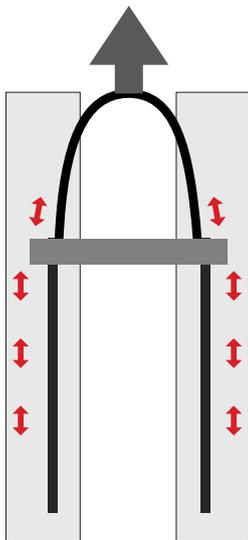
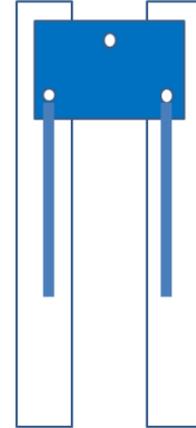
Anchor Size	sizes (mm)				
	A	B	C	D	H
120	120	679	579	100	90
130	130	676	571	110	95
140	140	674	564	120	100
150	150	671	556	130	105
160	160	718	598	140	110
170	170	715	590	150	115
180	180	712	582	160	120
190	190	709	574	170	125
200	200	706	566	180	130
210	210	704	559	190	135
220	220	701	551	200	140
230	230	748	593	210	145
240	240	745	585	220	150
250	250	742	577	230	155
260	260	739	569	240	160
270	270	737	562	250	165
280	280	734	554	260	170
290	290	781	596	270	175
300	300	778	588	280	180
310	310	775	580	290	185
320	320	772	572	300	190
330	330	769	564	310	195
340	340	767	557	320	200
350	350	814	599	330	205
360	360	811	591	340	210
370	370	808	583	350	215
380	380	805	575	360	220
390	390	802	567	370	225
400	400	799	559	380	230



2 Why is an ECA-lift-anchor a better anchor?

ECA-lift in comparison to a 'classic' anchor

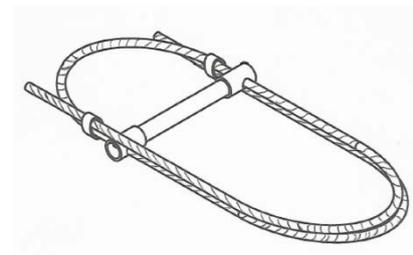
The steel plate with punched holes is not easy to fix. The additional rebars left and right can easily be cut by the punched holes in the steel plates. These holes have a sharp edge due to the punching process. Furthermore the solide steel plate has a 300mm² section; which makes it a big thermal bridge. One need a special lifting device ('Frimeda') hook to lift the elements.



The ECA-lift-anchor uses a high resistant GFRP bar in connection with a steel wire. Upon load, the forces are equally distributed through the incemented steel cable whereas the GFRP bar only serves as a spacer between the steel cables. The anchorage of the steel cable is distributed over the whole length of the cable.

The GFRP bar has almost no thermal bridge in comparison to a steel.

Due to its design, the ECA-Lift can be packed starting from 300 up to 600 pieces on 1 palet which is beneficial for both transport and storage costs.



3 Additional advantages of the ECA-lift anchor in comparison to the other anchors:

- The cable of the ECA-lift anchor is galvanised, (no rust problems when outside in rain or aggressive environments).
- The ECA-lift cable gradually breaks when overloaded (ductile fracture, strand by strand) so that one is warned. With the other anchors, the metal rod can break abruptly (no warning).
- Due to the flexible cable of the ECA-lift anchor, the installation of the ECA-lift anchor is very easy and the legs can be bended in the area of recesses or reinforcements.
- If one wants to avoid the thermal bridge, the thin cable of the ECA-lift anchor is much simpler to cut (1x) than to cut twice the 14 mm thick rod of the other anchors.
- The ECA-lift anchor is significantly lighter (20 to 40%) by weight than the other anchors because less steel was used and because the wire rope is made of a material having a much higher tensile strength ($> 1770 \text{ N} / \text{mm}^2$). This makes it easier to work with ECA-lift in terms of ergonomics.
- A full pallet of the ECA-Lift anchor can hold almost 3 times more than the 'standard' packaging for the anchors. Hence less transport cost, less CO₂, less storage, ...

Tests for the ECA-Lift have shown following results:

ECA-Lift 3T: max breakload of 11,5T

ECA-Lift 5T: max breakload of 19,87T

