

HALFEN CAST-IN CHANNEL HZA 53/34 DYNAGRIP

TECHNICAL PRODUCT INFORMATION



NEW!

Amendment of the Dynagrip Channel Product Range HZA

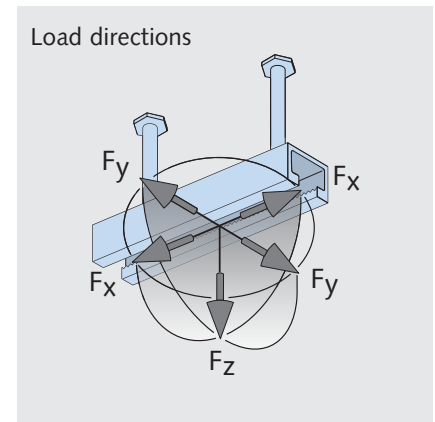
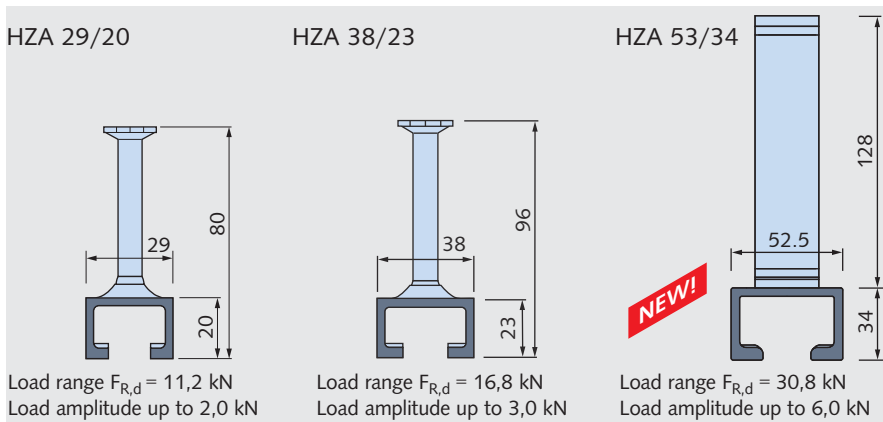


The new HALFEN channel HZA 53/34 Dynagrip completes the existing product range for high performance fixings HALFEN HZA. The new HZA 53/34 Dynagrip offers even higher loading

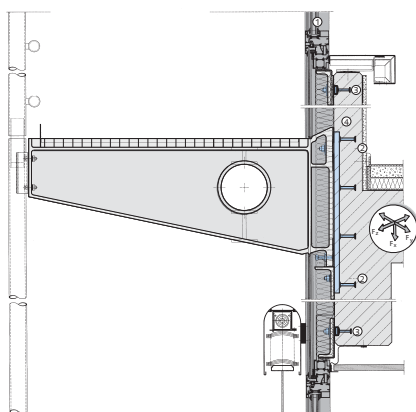
capacities. The HZA 53/34 as well as the known HZA 29/20 and 38/23 Dynagrip guarantee a positive locking loading capacity due to a tothing in the longitudinal direction of the

channel. Thus, loads into all directions can be safely and properly taken - even in the longitudinal direction of the channel loads up to $F_{R,d} = 30,8$ KN are possible.

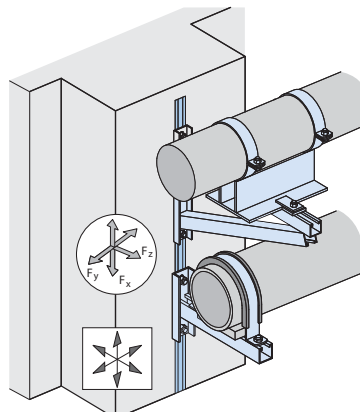
At a glance: Product range for high performance fixings



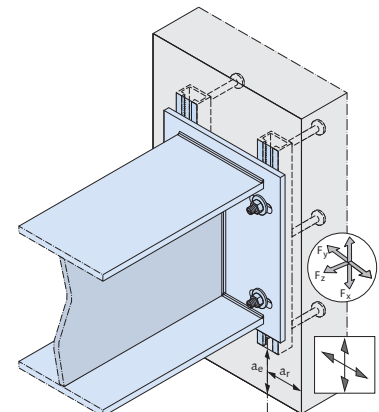
Application examples



Curtain wall with emergency balcony



Pipe support

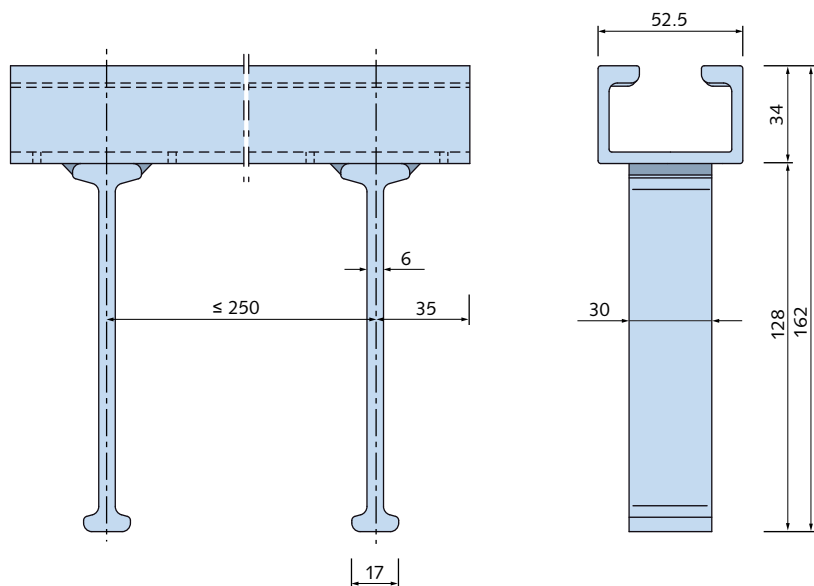


Connection steel girder to concrete column

HALFEN CAST-IN CHANNEL HZA 53/34 DYNAGRIP

Product Overview

Dimensions



Channel material:
S275 JR (1.0044)
Stainless steel
1.4401/1.4404/1.4571

Preliminary standard version with
welded black anchors.
On request deliverable with stainless
steel welded anchors.

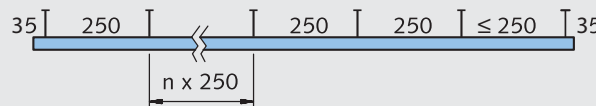
Available lengths and number of anchors

HZA 53/34 - Standard lengths			
Length [mm] / Number of anchors			
200 / 2	350 / 3	550 / 3	800 / 4
1050 / 5	3030 / 13	6070 / 25	

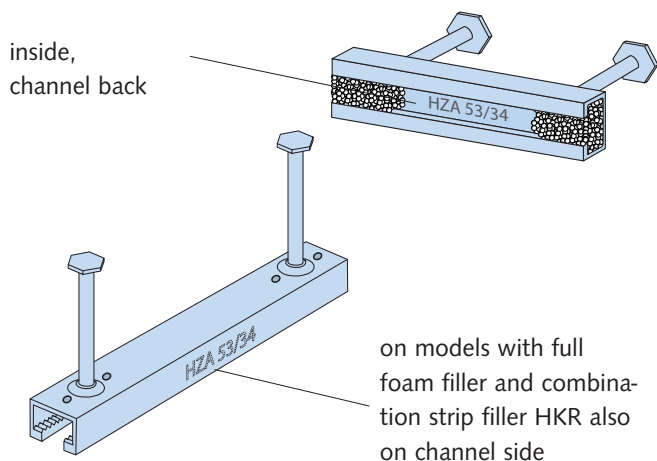
HZA 53/34 - Fixed standard lengths			
Length [mm] / Number of anchors			
-	1300 / 6	1550 / 7	1800 / 8
2050 / 9	2300 / 10	2550 / 11	2800 / 12
-	3300 / 14	3550 / 15	3800 / 16
4050 / 17	4300 / 18	4550 / 19	4800 / 20
5050 / 21	5300 / 22	5550 / 23	5800 / 24

Standard cut lengths for the HALFEN cast-in channel DYNAGRIP system result from positioning the anchors at the same distances.

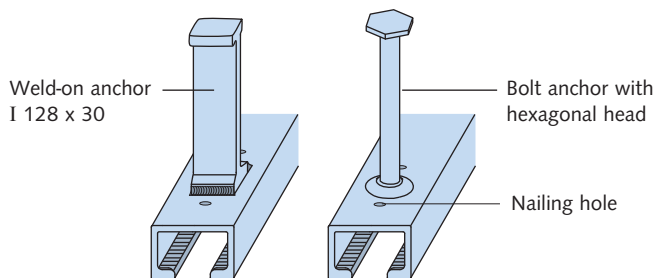
Anchor Placement:



Product identification



Anchor type

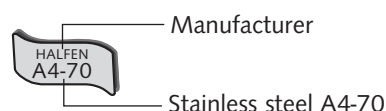
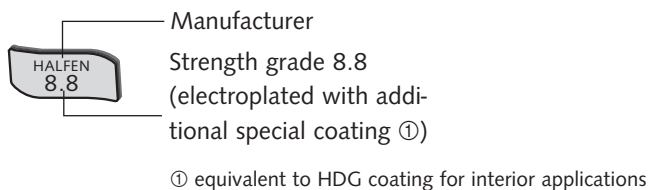
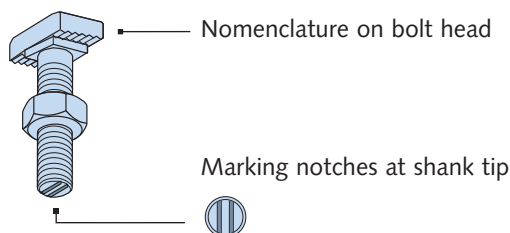


HALFEN CAST-IN CHANNEL HZA 53/34 DYNAGRIP

Product Overview

HALFEN bolt HZS 53/34

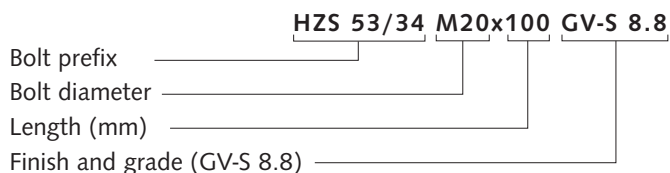
Product identification



HALFEN bolt HZS - dimensions and grade

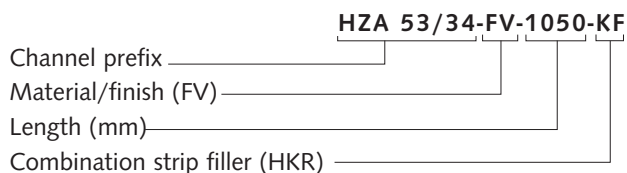
Bolt type	bolt diameter \varnothing (mm)	Grade 8.8 bolt length (mm)	Grade A4-70 bolt length (mm)
HZS 53/34	M20	65, 100	65, 100
	M16	60, 100	60, 100

Example order code for bolts:



(GV-S $\hat{=}$ electroplated with additional special coating)

Example order code for channels:



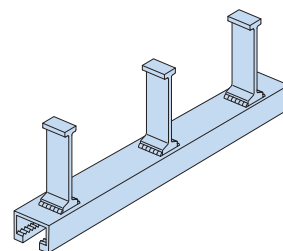
(FV $\hat{=}$ hot-dip galvanised)

Text for invitation of tenders

1. HALFEN cast-in channels

1.1 HALFEN cast-in channels type HZA Dynagrip

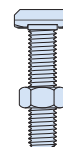
HALFEN cast-in channels HZA____, hot-dip galvanised (FV) with combination strip filler (KF), suitable for adjustable connections to concrete, channel length ____ mm, design resistance F_{Rd} = ____ kN in all directions, up to ____ kN dynamic loading. Deliver and install according to the HALFEN assembly instructions.



2. HALFEN bolts

2.1 HALFEN bolts type HZS

HALFEN bolt toothed HZS _____ belonging to correspondent cast-in channel HZA, electroplated with additional special coating, including nut. Deliver and install according to the HALFEN assembly instructions.



HALFEN CAST-IN CHANNEL HZA 53/34 DYNAGRIP

Technical datas

Load capacities and minimum edge distances

Design resistance F_{Rd}		s = anchor spacing $\leq 250\text{mm}$											
F_{Rd} with simultaneous loading in <u>all</u> directions		Single loads		Load pairs									
Concrete $\geq \text{C20/25}$													
To check: Ⓐ $F_{Ed} = \sqrt{N_{Ed}^2 + V_{xEd}^2 + V_{yEd}^2} \leq F_{Rd}$		F_{Rd} [kN]		F_{Rd} [kN] ①									
HZA profile 53/34		$b_1 \geq 250$ 30.8 ②		<table border="1"> <tr> <td>$p_i = 100$</td> <td>$p_i = 150$</td> <td>$p_i = 200$</td> <td>$p_i = 250$</td> </tr> <tr> <td>19.25</td> <td>22.0</td> <td>25.7</td> <td>30.8 ②</td> </tr> </table>		$p_i = 100$	$p_i = 150$	$p_i = 200$	$p_i = 250$	19.25	22.0	25.7	30.8 ②
$p_i = 100$	$p_i = 150$	$p_i = 200$	$p_i = 250$										
19.25	22.0	25.7	30.8 ②										

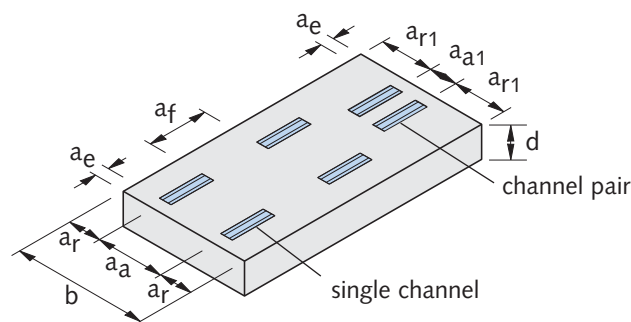
① Intermediate values may be linearly interpolated

② Concerning profiles from stainless steel: in longitudinal direction 26,6 kN

Minimum edge distances and spacings							
	a_r	a_a	a_e	a_f	a_{r1}	a_{a1}	d
HZA 53/34	200	400	175	350			162 ④ + c

④ applies when using the I 128-anchor

c = min concrete cover (specified by others)



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HALFEN bolt HZS 53/34 - Tightening torque and Load capacities						
Bolt diameter (mm)	Tightening torque (Nm)		Moment capacity M_{Rd} (Nm)		Design value F_{Rd}	
	Grade 8.8	A4-70	Grade 8.8	A4-70	Grade 8.8	A4-70
M16	200	200	155,4	116,6	50,5	33,0
M20	350	350	303,0	227,2	79,0	51,5

Load amplitude for load cycles $N = 2 \times 10^6$				
	Design load amplitude $\Delta F = F_o - F_u$ in tension		Permissible bolts HZS 53/34	
	St	A4	St	A4
HZA 53/34	6,0 kN	4,0 kN	M16, M20	

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