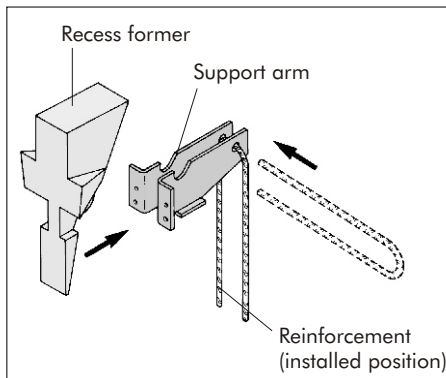


## Assembly and Installation Instructions for Halfen Panel Support Fixing Type FPA-3

FPA-3 - 6/97 - E

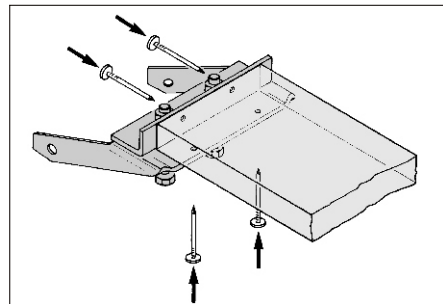
Page 1/2

### Installation of the top component FPA-3-E:



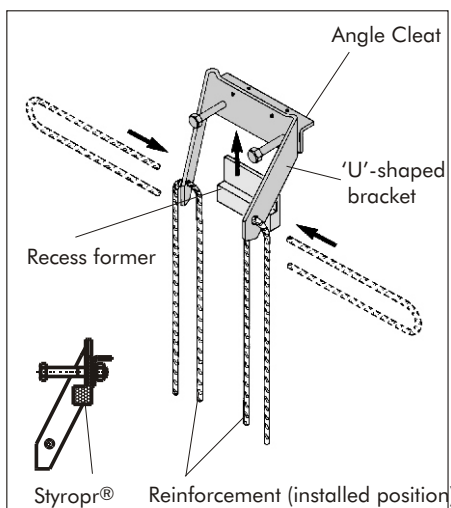
1. Place the polystyrene recess former onto the support arm.
2. Insert the reinforcing stirrup through the holes in the side straps of the support arm.
3. Attach the top component to the

2. Insert the reinforcing stirrups through the holes provided.
3. Fix with nails to the formwork. Nail holes are provided for this in both the 'U'-shaped bracket and the angle cleat.



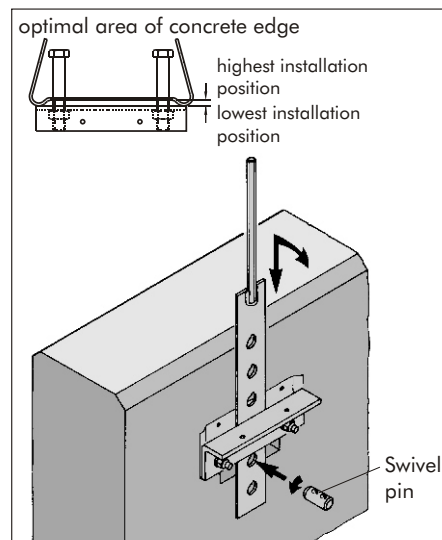
- pin (rotate swivel pin 180°). Bend the perforated strap over the angle cleat.
4. Nuts should be tightened to the torques quoted in the table below.
5. Assemble the rocker connector, placing the washer and nut on the threaded rod of the perforated strap and hang into the top fixing element.
6. Apply Molykote and position complete assembly on the support arm.

### Installation of the lower component FPA-3-E in the pre-cast panel:

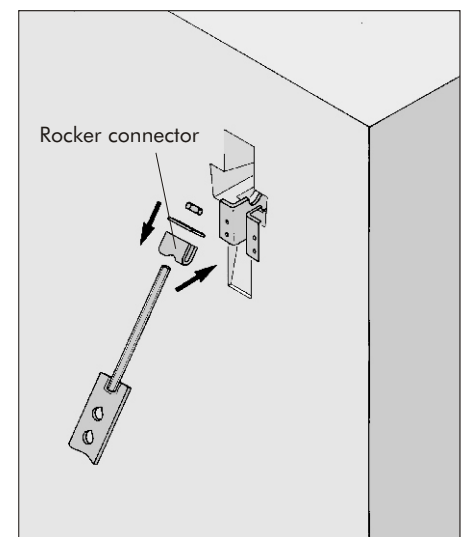


1. Insert the polystyrene recess former between 'U'-shaped bracket and angle cleat (thicker part into the panel) and tighten the nuts. Nuts should be tightened to the torque value quoted in the table below.

### Assembly of the pre-cast wall panel:



1. Remove the polystyrene recess former.
2. Slide the perforated strap between the 'U'-shaped bracket and the angle cleat. Any polystyrene remaining in the gap between the 'U'-shaped bracket and the angle cleat can be pushed out with the perforated strap.
3. Adjust the perforated strap roughly to the required length, fix the perforated strap by means of swivel



### Assembly accessories:

- open ring spanner
- Molykote (available to order)

### Recommended torque for bolts to the wall panel - lower fixing

Load capacity [kN]	Recommended torque [Nm]	
	Initial torque	Final torque
5,0	1	5
8,0	2	5
11,5	2	10
16,0	5	15
22,0	5	15
34,0	10	30
46,0	15	60
56,0	15	60

## Assembly and Installation Instructions for Halfen Panel Support Fixing Type FPA-3

FPA-3 - 6/97 - E

Page 2/2

\* When the last hole at the top end is used, the angle cleat must be loose-ened. After assembly of the swivel pin retighten to recommended torque (see page 1).

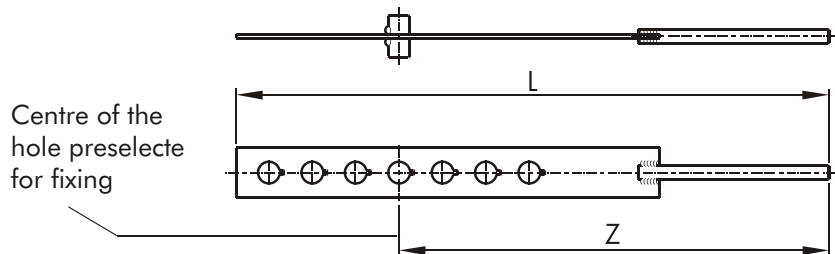


Table for assembly of the perforated strap type FPA 3

Type FPA-3 Cavity b [mm]	Load Capacity [kN]															
	5,0		8,0		11,5		16,0		22,0		34,0		46,0		56,0	
	Z [mm]	L [mm]	Z [mm]	L [mm]	Z [mm]	L [mm]	Z [mm]	L [mm]	Z [mm]	L [mm]	Z [mm]	L [mm]	Z [mm]	L [mm]	Z [mm]	L [mm]
60	251		284		283		320		378		392,5		458		499,5	
70	293		309		316		361		378		442,5		514		561,5	
80	314		334		349		361		419		442,5		514		561,5	
90	335	435	359	453	382	506	402	515	460	614	492,5	630	570	724	623,5	794
100	356		384		382		402		460		492,5		570		623,5	
110	377		384		415		443		501		542,5		626		685,5	
120	398		409		448		443		501		542,5		626		685,5	
130	419		434		448		484		542		592,5		682		747,5	
140	461		459		481		525		583		592,5		682		747,5	
150	482		484		514		525		583		642,5		738		747,5	
160	503	645	509	653	547	704	566	679	624	860	642,5	830	738	948	809,5	1042
170	524		534		547		566		665		692,5		794		809,5	
180	545		559		580		607		665		692,5		794		871,5	
190	566		584		613		648		706		742,5		850		871,5	
200	587		609		613		648		706		742,5		906		933,5	

Subject to alteration

All dimensions in mm

**Halfen GmbH & Co. KG**  
Liebigstr. 14  
D - 40764 Langenfeld  
Telephone +49 - (0)2173 - 970 - 0  
Fax +49 - (0)2173 - 970 123  
E - Mail: info@halfen.de  
Internet: www.halfen.de

**Halfen GmbH & Co. KG**  
Wurmberger Str. 30 - 34  
D - 75446 Wiernsheim  
Telephone +49 - (0) 70 44 - 24 - 0  
Fax +49 - (0) 70 44 - 24 - 10  
E-Mail: halfen.wi@t-online.de

The Halfen - Quality-  
Management- System has  
been certified according  
to **DIN EN ISO 9001**  
certificate no. QS-281 HH  
for the locations in Germany

