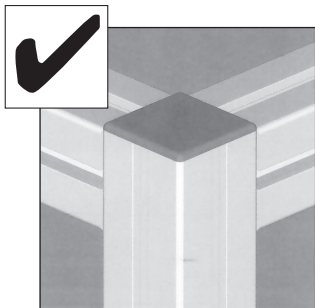
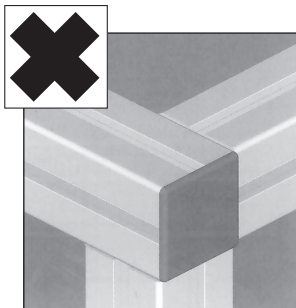


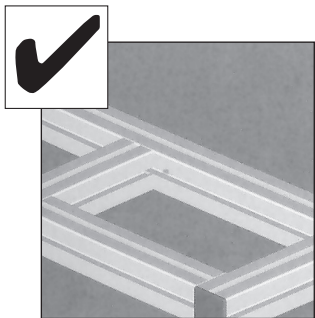
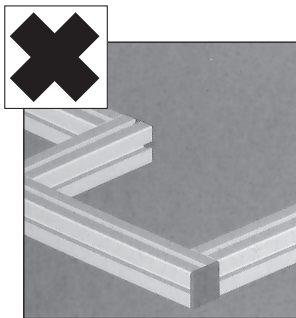
PRF aluminium profile assembly

MiniTec

Assembly instruction



If possible join the horizontal crossheads to the vertical posts

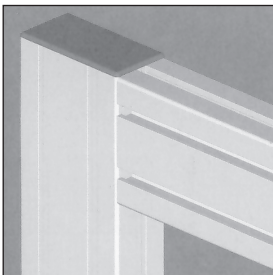


Avoid interrupting the carrying profile

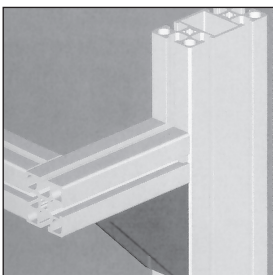
PRF aluminium profile assembly

Assembly instruction

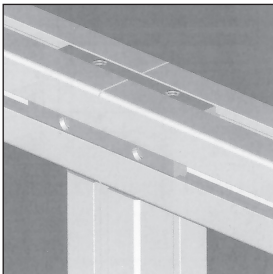
MiniTec



To reduce prefer an deflection, favour the upwards assembly of rectangular profiles



Frames subjected to large torque can be reinforced with a right angle



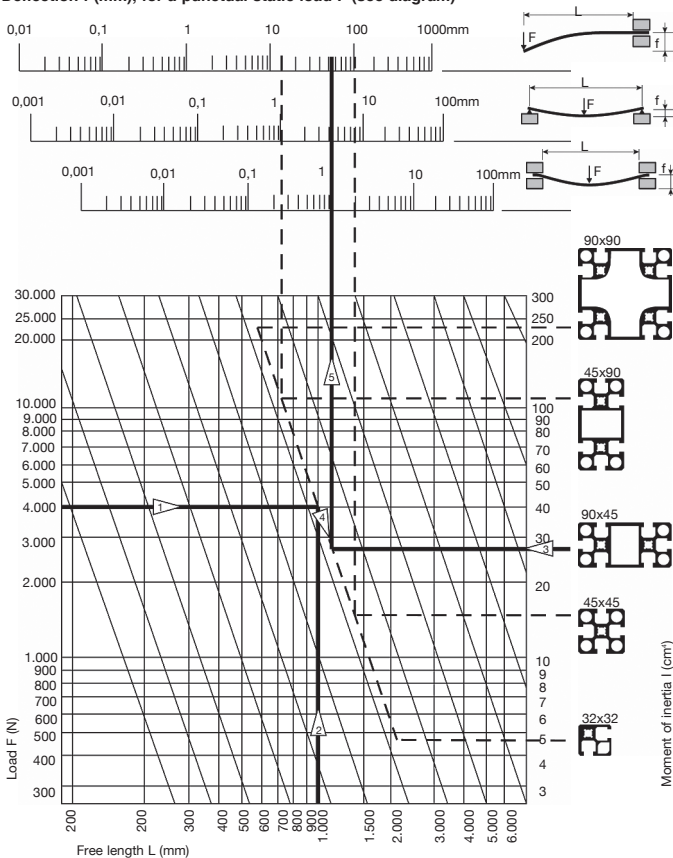
If possible join 2 profiles end to end on a support profile

Aluminium profiles

MiniTec

Calculating deflection

Deflection f (mm), for a punctual static load F (see diagram)



The different formulae and equations can only be applied to punctual static loads.

For any other kind of load, refer to appropriate methods of calculation.

The security coefficients applicable to profiles are those used all the time in mechanics.

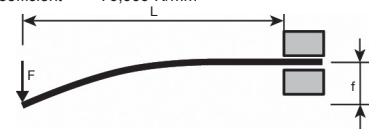
Material resistance calculation

Profile deflexion calculation

Example	f = Deflection	mm
	F = Load	8,000 N
	L = Length	700 mm
	I = Moment of inertia	30.4 cm ⁴
	E = Elastic coefficient	70,000 N/mm

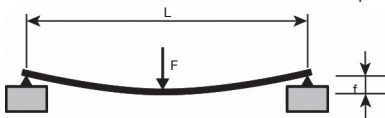
1st example:

$$f = \frac{F \times L^3}{E \times I \times 3 \times 10^4} = 42.1 \text{ mm}$$



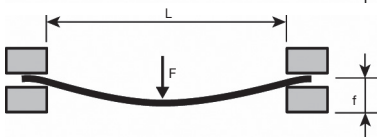
2nd example:

$$f = \frac{F \times L^3}{E \times I \times 48 \times 10^4} = 2.7 \text{ mm}$$



3rd example:

$$f = \frac{F \times L^3}{E \times I \times 192 \times 10^4} = 0.67 \text{ mm}$$



On the previous page, you can easily reference the result at the top of the table. To determine the value of the deflection, follow the order indicated by the arrows.

Deflection (f)



Load (F)



Profile section



Free length (L)

