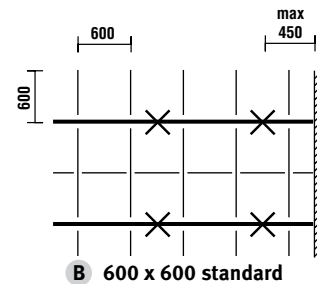
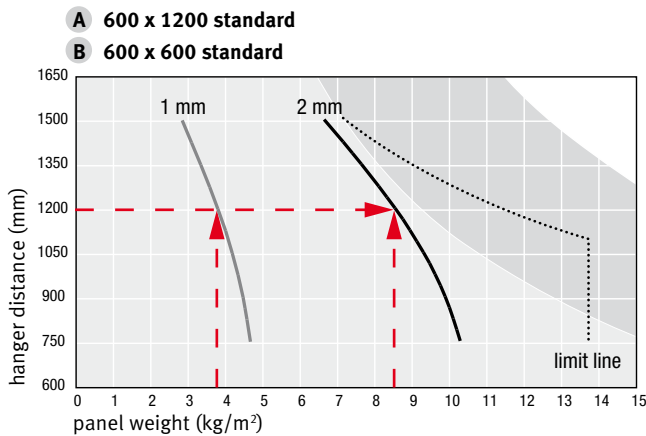
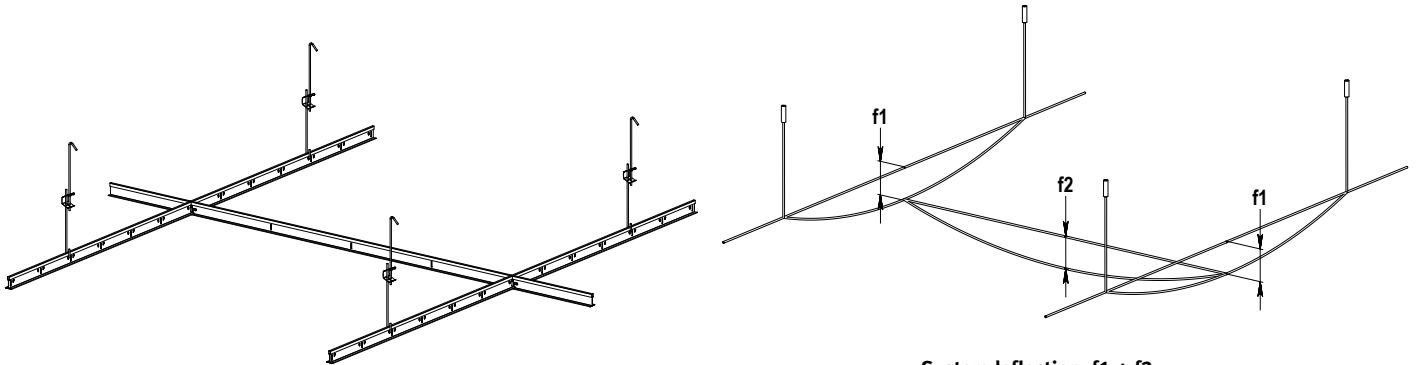
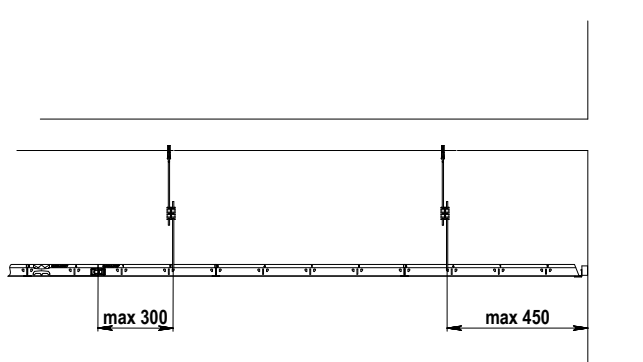


Permissible loads

The Quick-LOCK technical system data sheets show the permissible loads for the different systems. Reference must be made to these data sheets in order to ensure installation of a safe suspension system with adequate load-bearing capacity. The systems must be assembled and fitted in accordance with standards of good craftsmanship and the assembly instructions. The diagrams also indicate the expected flatness - deflection - of the suspension system. This is a measure of the ceiling's aesthetic quality. The permissible loads are based on the requirements specified in EN 13964. This standard permits greater deflections than would normally be acceptable from an aesthetic point of view. This is the reason why the diagrams indicate the loads at which a **systemdeflection** of respectively 1 mm or 2 mm is to be expected. A deflection of 2 mm is considered to be the limit of what is acceptable at normal ceiling suspension distances. The information is based on use in normal situations inside buildings. No allowance has been made in the calculations for extra loads caused by wind, fittings, items of building plant, etc. Application advice can be provided on demand for unusual situations.



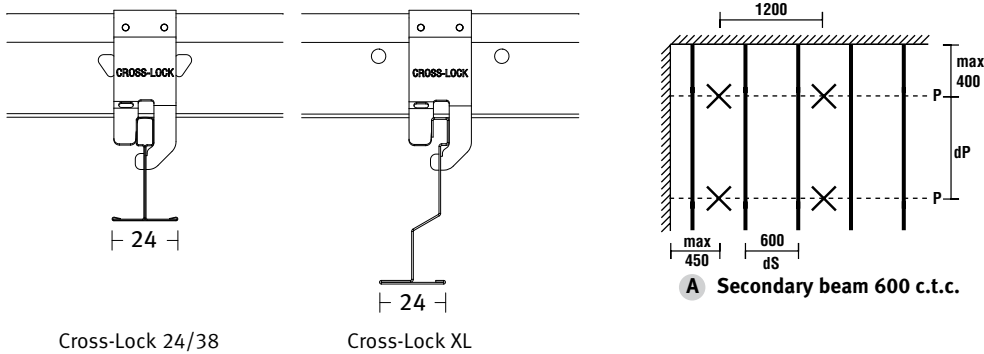
The example above shows how the expected **systemdeflection** can be determined for a specific system based on panel weight and suspension distances. Intermediate deflections can be extrapolated linearly. The limit line may not be exceeded. This line indicates when the stress in a profile becomes excessive and/or the deflection to class 1 according to EN 13964 is exceeded (per profile 1/500 l, maximum of 4 mm).



In principle, main beams may not be supported by the wall profiles. Consequently, the first suspension point for a standard* ceiling situation may not be located at a distance of more than 450 mm from the side. In order to ensure the most favourable possible load transfer in the carrier profiles, length couplings should not be fitted at a distance of more than 300 mm from the nearest suspension point.

CROSS-LOCK 24/38, XL • permissible loads and quantities

Ceiling lay-out



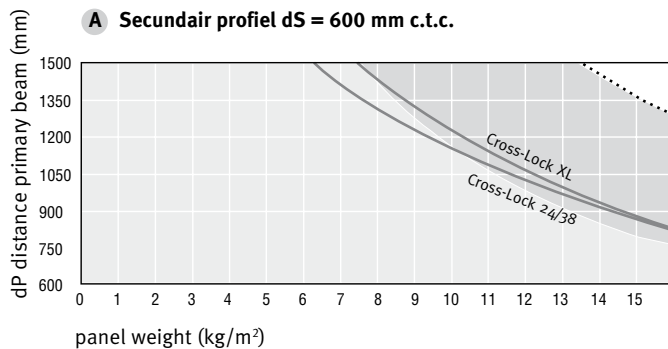
- Primary beam QL 24/38
- Secondary beam QL 24/38, QL stepped T-profile
- × Suspension

Permissible loads

The diagrams below state the permissible system loads and the flatness of the ceiling to be expected in relation to system layout and suspension distances. The diagram below, “Secondary profile 600 mm c.t.c.” also applies to distances of 300 mm or 400 mm.

The information is based upon application in usual indoor situations. Any additional loads resulting from wind, fixtures, systems etc. have not been included in the calculations. One-sided heavy loads may cause the profile to warp. In order to prevent this from happening, a smaller distance can be chosen between the primary profiles. We can advise you about this.

The first primary beam must not be placed any more than 400 mm from the edge (end of the ceiling plane), the first suspension point not more than 450mm. Length couplings should not be fitted at a distance of more than 300 mm from the nearest suspension point.



- System deflection - 1 mm
- Application area limit
- (M_{adm}, deflection class 1 c.f. EN 13964)
- up to 15 kg load per suspension point, quick suspender
- up to 25 kg load per suspension point, nonius hanger

Qty per m²

| Ceiling lay-out | Primary beam 3600 | Secondary beam 3600 | Cross-Lock connector |
|--------------------------|-----------------------|-----------------------|--------------------------|
| Primary beam 900 c.t.c. | 1,12 m/m ² | 1,67 m/m ² | 1,85 pce./m ² |
| Primary beam 1200 c.t.c. | 0,84 m/m ² | 1,67 m/m ² | 1,37 pce./m ² |
| Primary beam 1500 c.t.c. | 0,67 m/m ² | 1,67 m/m ² | 1,11 pce./m ² |

Disclaimer

No rights can be derived from this product information sheet in relation to omissions in the details and/or incorrect recommendations for use. API reserves the right to make technical changes.