

Installation Guide

Montaj Rehberi

Cable tray system design shall comply with NEC Article 318, NEMA VE 1, and NEMA FG 1, and shall follow safe work practices as described in NFPA 70E. These instructions and information do not intend to cover all details or variations in cable tray systems nor provide for every possible installation contingency.

Construction Experience—It is recommended that the work described be performed by qualified persons familiar with standard electrical construction practices, electrical equipment, and safety of electrical wiring systems.

When considering the installation of the cable supports system it is imperative to avoid the cutting or drilling of structural building members without the approval of the project leader on site.

Cable ladders, cable trays, wire mesh cable trays and their supports should be strong enough to meet the load requirements of the cable management system including cables and any future cable additions and any other additional loads applied to the system.

Cable Tray Supports

Destek Sistemleri

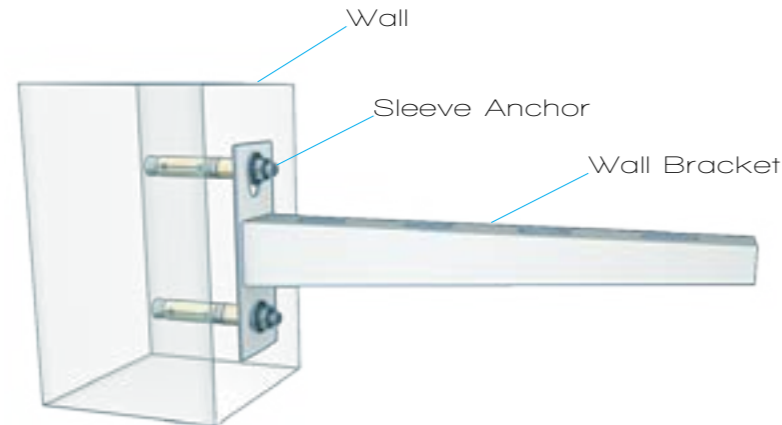
Support systems can be broken down into a number of elements or components.

To design a safe system it is necessary to check each element in turn to ensure:

- that it can safely support the loads being imposed upon it, and
- that the proposed fixings to adjacent components are also sufficient for the intended load and
- that any declared deflection limits are not exceeded.

Horizontal Wall and Profile Brackets

Duvar Konsolları

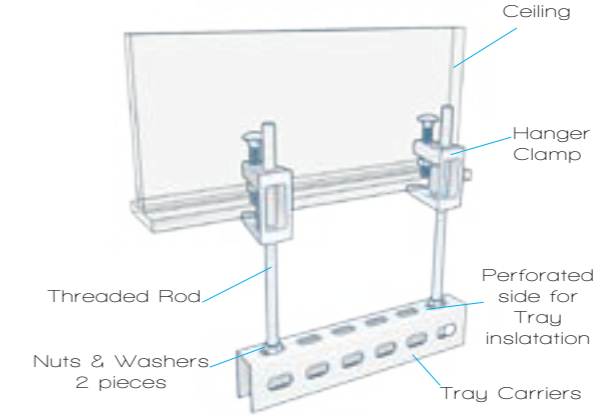


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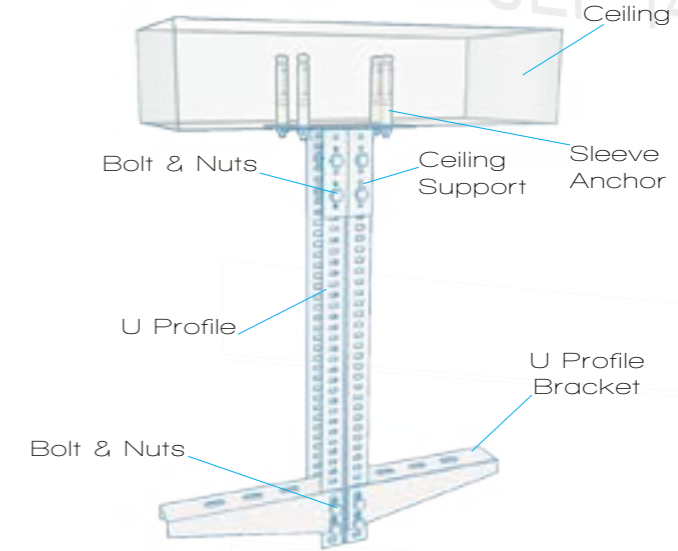
Threaded Rod Hanging

Tijli Askı Taşıyıcılar



U support, C support, I Support, L Support

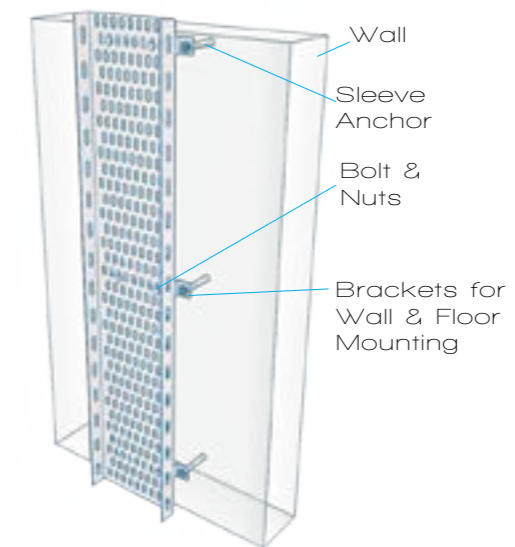
U, C, I ve L Destek Sistemleri



Vertical Wall or Floor Application

Yere ve Duvara Sabitleme

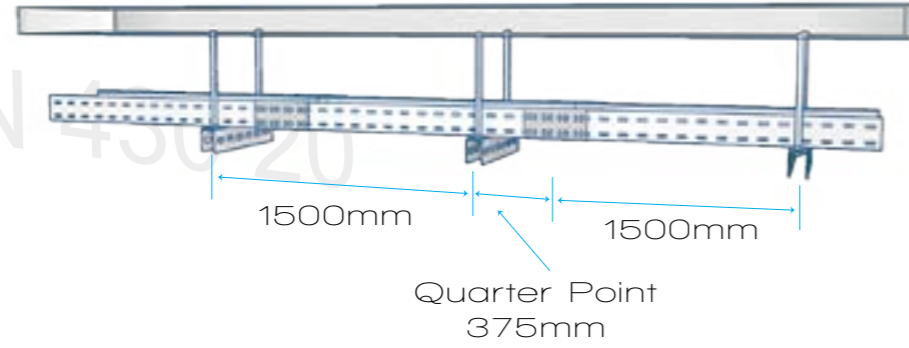
Cable tray should not be laid directly on the floor or roof. It should be mounted far enough off the floor or roof to allow the cables to exit through the bottom of the cable tray.



Straight Section Position

Boy Kanalların Uygulaması

When supports are installed, the installation of the cable tray can begin at any place that is convenient. It is not necessary to start at one end of the run. It is ideal to lay out the system so that tray connectors fall between the support and the quarter point. This maximizes the rigidity of the cable tray.

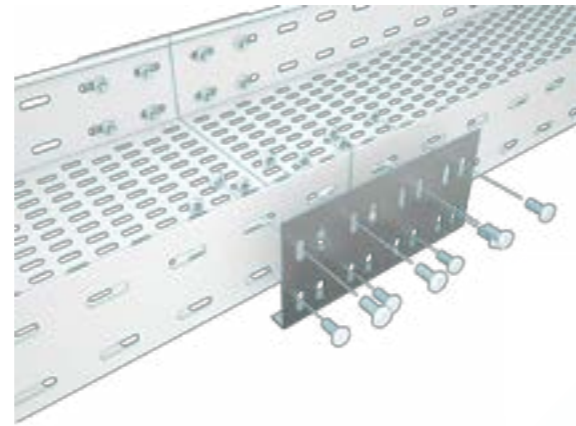


The support span should not be greater than the straight section length to ensure no more than one connector is located between supports. As a general practice, avoid placing connector over supports or at mid-span. However, certain cable tray systems and certain connection plate designs allow for random coupling location.

Straight Connectors (Couplers, Splice Plates)

Bağlantı Elemanları

Place the next straight section across the next support, and attach it to the previous section with a pair of connection plates and hardware. Connection plates should be placed on the outside of the cable tray, with the bolt heads on the inside of the cable tray. Metal Cable tray connectors require bonding for electrical continuity. Supports should be located within 600 mm of each side of connection plates.



Vertical Adjustable Connectors (Splice Plates)

Dikey Seviye Değişirme Ek Elemanı

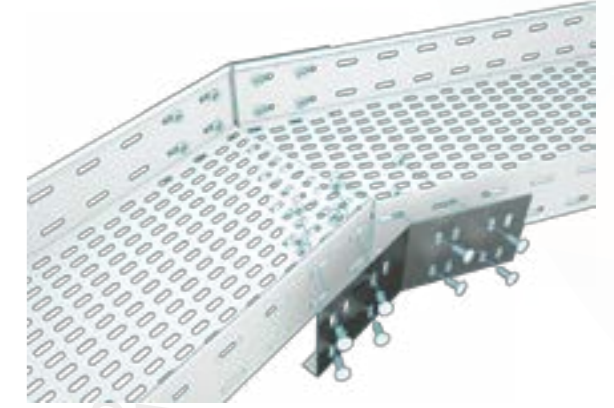
Place the next straight section across the next support, and attach it to the previous section with a pair of connection plates and hardware. Connection plates should be placed on the outside of the cable tray, with the bolt heads on the inside of the cable tray. Metal Cable tray connectors require bonding for electrical continuity. Supports should be located within 600 mm of each side of connection plates.



Horizontal Adjustable Connectors (Splice Plates)

Yatay Seviye Değişirme Ek Elemanı

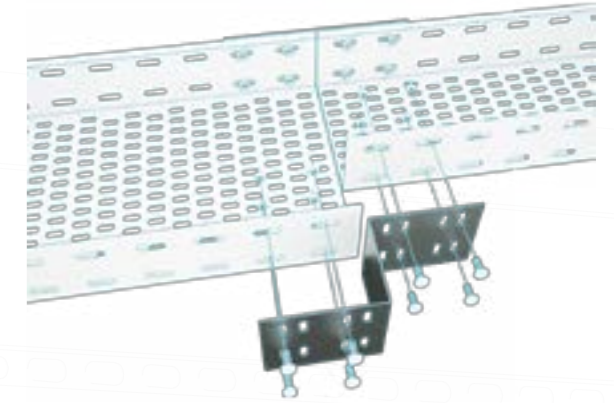
For changes in horizontal direction not requiring a radius, horizontal adjustable connectors can be used. Supports should be located within 600 mm of each side of horizontal adjustable connectors.



Reducer Bends, Partial Reduce Connectors (Reducing Splice Plates)

Redüksiyon Eki

For immediate width changes, use reducing bend or partial reducer. Supports should be located within 600 mm of each side of reducers.



Stop Ends (End Plates)

Sonlandırma

For dead-end closure indicating termination of cable tray run use stop ends.



Recommended Support Locations for Fittings

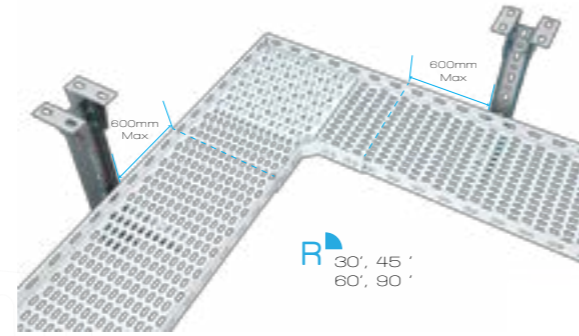
Aksesuarların Montajı

Horizontal Elbow Support

Yatay Dönüş Desteği

Supports for horizontal cable tray fittings should be placed within 600 mm of each fitting extremity, and as follows:

- 90° supports at the 45° point of arc.
- 60° supports at the 30° point of arc.
- 45° supports at the 22-1/2° point of arc (except for the 300 mm radii).
- 30° supports at the 15° point of arc (except for the 300 mm radii).

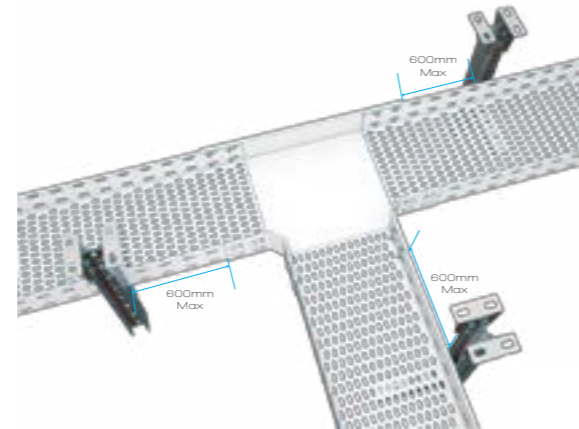


Central support not required on 300mm radius 30° and 45° fittings

Horizontal Tee Support

T-Dönüş Desteği

Place horizontal tee supports within 600 mm of each of the three openings connected to other cable tray items for the 300 mm radius. On all other radii, at least one additional support should be placed under each side rail at the horizontal tee, preferably as shown.

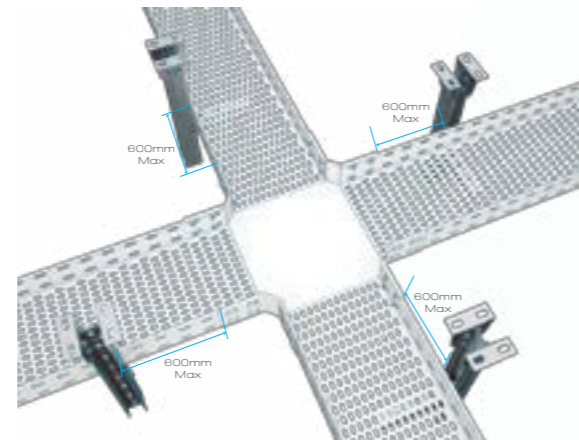


Central support not required on 300mm radius fittings

Horizontal Cross Support

Dörtlü Bağlantı Desteği

Place horizontal cross support within 600 mm of each of the four openings connected to other cable tray items for the 300 mm radius. On all other radii, at least one additional cross support should be placed under each side rail of the horizontal cross, preferably as shown.

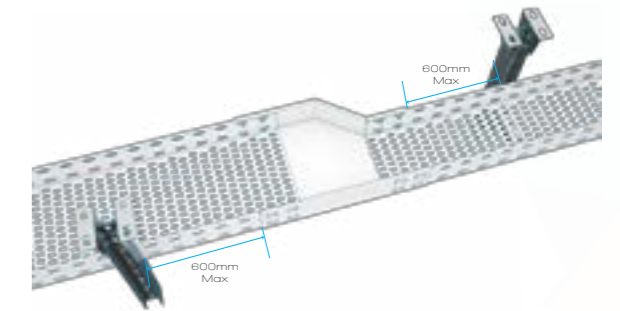


Central support not required on 300mm radius fittings

Reducer Support

Redüksiyon Desteği

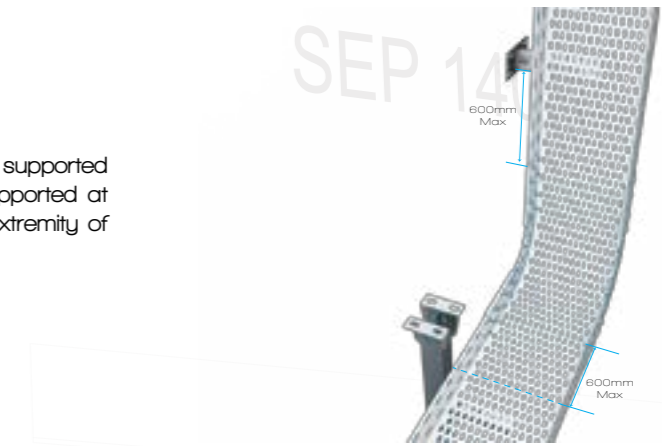
Place reducer supports within 600 mm of each fitting extremity.



Vertical Cable Tray Elbow Support

İç Dış Bükümlü Desteği

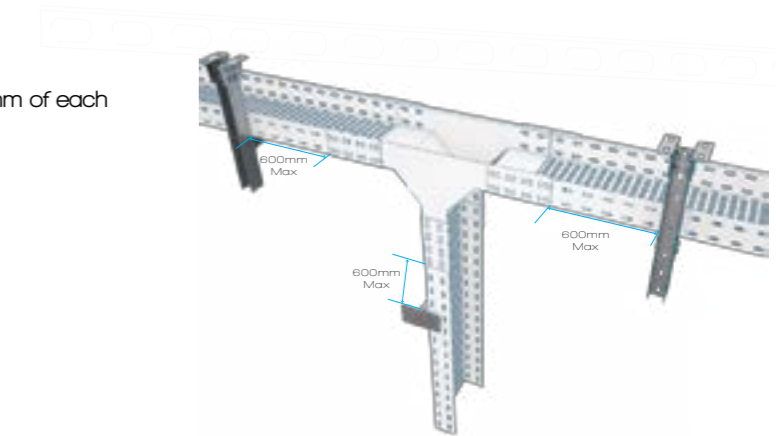
Vertical cable tray elbows at the top of runs should be supported at each end. At the bottom of runs, they should be supported at the top of the elbow and within 600 mm of the lower extremity of the elbows.



Vertical Cable Tray Tee Support

Dikey T- Bükümlü Desteği

Vertical cable tray tees should be supported within 600 mm of each fitting extremity.



Aksesuarların dönüş radyüsleri, montajlanacak kabloların bükülme yarıçapı değerlerine bağlıdır. Genellikle üreticiler kabloların minimum yarıçapını açıklar. Aksesuarların dönüş radyüsleri en kalın kablo minimum bükülme yarıçapına eşit veya ondan büyük olmalıdır. Aksesuarlara eklenecek desteklerin mesafesi yukarıdaki resimlerde açıklanmıştır. Aksesuarlardan sonra gelen kanallara destekler maksimum 600 mm uzaklıkta konumlandırılmalıdır.