

- **384.6 Listing Requirements.** Strut-type channel raceways and accessories shall be listed and identified for such use.

## Part II. Installation

**384.10 Uses Permitted.** The use of strut-type channel raceways shall be permitted in the following:

- (1) Where exposed.
- (2) In dry locations.
- (3) In locations subject to corrosive vapors where protected by finishes approved for the condition.
- (4) As power poles.
- (5) In hazardous (classified) locations as permitted in Chapter 5.
- (6) As extensions of unbroken lengths through walls, partitions, and floors where closure strips are removable from either side and the portion within the wall, partition, or floor remains covered.
- (7) Ferrous channel raceways and fittings protected from corrosion solely by enamel shall be permitted only indoors.

The installation shown in Exhibit 384.1 is typical of how a strut-type channel raceway can be used.

**384.12 Uses Not Permitted.** Strut-type channel raceways shall not be used as follows:

- (1) Where concealed.
- (2) Ferrous channel raceways and fittings protected from corrosion solely by enamel shall not be permitted where subject to severe corrosive influences.

**384.21 Size of Conductors.** No conductor larger than that for which the raceway is listed shall be installed in strut-type channel raceways.

**384.22 Number of Conductors.** The number of conductors or cables permitted in strut-type channel raceways shall not exceed the percentage fill using Table 384.22 and applicable cross-sectional area of specific types and sizes of wire given in the tables in Chapter 9.

**TABLE 384.22** Channel Size and Inside Cross-Sectional Area

Size Channel	Area		40% Area*		25% Area†	
	in. <sup>2</sup>	mm <sup>2</sup>	in. <sup>2</sup>	mm <sup>2</sup>	in. <sup>2</sup>	mm <sup>2</sup>
1⅝ × 1⅝	0.887	572	0.355	229	0.222	143
1⅝ × 1	1.151	743	0.460	297	0.288	186
1⅝ × 1⅜	1.677	1076	0.671	433	0.419	270
1⅝ × 1⅞	2.028	1308	0.811	523	0.507	327
1⅝ × 2⅞	3.169	2045	1.267	817	0.792	511
1⅝ × 3¼	4.308	2780	1.723	1112	1.077	695
1½ × ¾	0.849	548	0.340	219	0.212	137
1½ × 1½	1.828	1179	0.731	472	0.457	295
1½ × 1⅞	2.301	1485	0.920	594	0.575	371
1½ × 3	3.854	2487	1.542	995	0.964	622

\*Raceways with external joiners shall use a 40 percent wire fill calculation to determine the number of conductors permitted.

†Raceways with internal joiners shall use a 25 percent wire fill calculation to determine the number of conductors permitted.

The adjustment factors of 310.15(C)(1) shall not apply to conductors installed in strut-type channel raceways where all of the following conditions are met:

- (1) The cross-sectional area of the raceway exceeds 2500 mm<sup>2</sup> (4 in.<sup>2</sup>).
- (2) The current-carrying conductors do not exceed 30 in number.
- (3) The sum of the cross-sectional areas of all contained conductors does not exceed 20 percent of the interior cross-sectional area of the strut-type channel raceways.

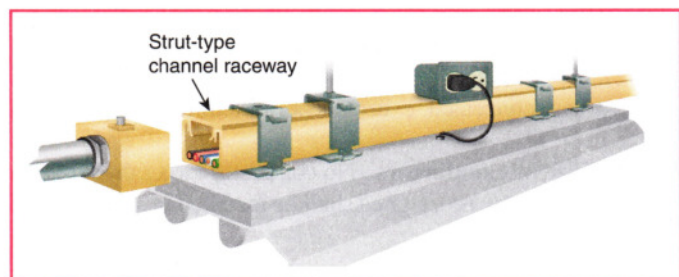
### 384.30 Securing and Supporting.

**(A) Surface Mount.** A surface mount strut-type channel raceway shall be secured to the mounting surface with retention straps external to the channel at intervals not exceeding 3 m (10 ft) and within 900 mm (3 ft) of each outlet box, cabinet, junction box, or other channel raceway termination.

**(B) Suspension Mount.** Strut-type channel raceways shall be permitted to be suspension mounted in air with identified methods at intervals not to exceed 3 m (10 ft) and within 900 mm (3 ft) of channel raceway terminations and ends.

**384.56 Splices and Taps.** Splices and taps shall be permitted in raceways that are accessible after installation by having a removable cover. The conductors, including splices and taps, shall not fill the raceway to more than 75 percent of its area at that point. All splices and taps shall be made by approved methods.

**384.60 Grounding.** Strut-type channel raceway enclosures providing a transition to or from other wiring methods shall have a means for connecting an equipment grounding conductor. Strut-type channel raceways shall be permitted as an equipment grounding conductor in accordance with 250.118(A)(13). Where a snap-fit metal cover for strut-type channel raceways is used to



**EXHIBIT 384.1** An example of a strut-type channel raceway using accessories to support and supply power to luminaires.