# Aluminum Cable Tray

## 7” Straight Sections
## Series 2-7, 2C-7, 3-7
## Ladder, Ventilated and Solid Trough

### Straight Section Number Selection

**(AH2-7)-24-L09-144**

| Material | Style | Series | Siderail Depth | Width | Bottom Type | Length |
|---|---|---|---|---|---|---|
| **A** • Aluminum | **H** • H-Beam | **2** • Series 2<br>**2C** • Series 2C<br>**3** • Series 3 | **7** • (7") | **06** • (6")<br>**09** • (9")<br>**12** • (12")<br>**18** • (18")<br>**24** • (24")<br>**30** • (30")<br>**36** • (36") | **L06** • 6" rung spacing<br>**L09** • 9" rung spacing<br>**L12** • 12" rung spacing<br>**V** • Ventilated<br>**S** • Solid Trough | **144** • (12ft)<br>**288** • (24ft)<br>**3** • (3 meters)<br>**6** • (6 meters) |

**Note: See appendix for information on “Heavy Load” bearing trays and spans beyond 6 m.**

## Technical Specifications

**All calculations and data are based on 36" wide cable trays with rungs spaced on 12" centers with tray supported as simple spans with deflection measured at the midpoint. Continuous spans may reduce deflection by as much as 50%.**

**Deflection factor**
**For lighter loads, deflection at any length can be calculated by multiplying the load by the deflection factor.**

**For Fittings consult pages 60 to 99.**

| SERIES | | SUPPORT SPAN (Feet) 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |
|---|---|---|---|---|---|---|---|---|---|
| **AH2-7** | **Load (lb/ft)** | 844 | 475 | 304 | 211 | 155 | 119 | 94 | 76 |
| | **Deflection (in.)** | 0.149 | 0.265 | 0.415 | 0.597 | 0.813 | 1.061 | 1.343 | 1.658 |
| | **Deflection Factor** | 0.0002 | 0.001 | 0.001 | 0.003 | 0.005 | 0.009 | 0.014 | 0.022 |
| **AH2C-7** | **Load (lb/ft)** | 1167 | 656 | 420 | 292 | 214 | 164 | 130 | 105 |
| | **Deflection (in.)** | 0.130 | 0.229 | 0.440 | 0.673 | 0.914 | 1.195 | 1.517 | 1.868 |
| | **Deflection Factor** | 0.0001 | 0.0003 | 0.001 | 0.002 | 0.004 | 0.007 | 0.012 | 0.018 |
| **AH3-7** | **Load (lb/ft)** | 1456 | 819 | 524 | 364 | 267 | 205 | 162 | 131 |
| | **Deflection (in.)** | 0.168 | 0.298 | 0.466 | 0.671 | 0.913 | 1.192 | 1.509 | 1.863 |
| | **Deflection Factor** | 0.0001 | 0.0004 | 0.001 | 0.002 | 0.003 | 0.006 | 0.009 | 0.014 |

T&B aluminum cable tray is composed of two distinct systems H-Style and U-Style. These systems are interchangeable.

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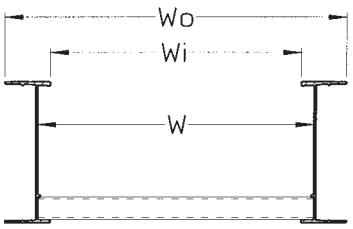
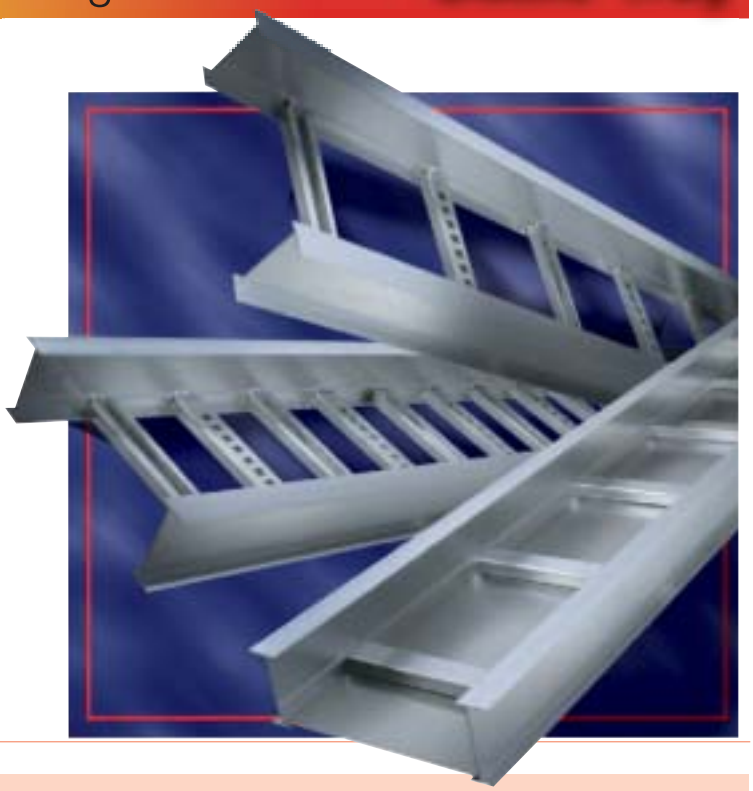
**Aluminum Cable Tray**





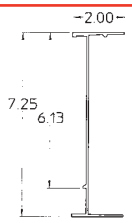
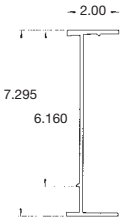
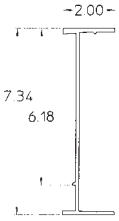



| W (in.) | AH2-7 | | AH2C-7 | | AH3-7 | |
|---|---|---|---|---|---|---|
| | Wo (in.) | Wi (in.) | Wo (in.) | Wi (in.) | Wo (in.) | Wi (in.) |
| **6** | 8.90 | 4.90 | 8.97 | 4.97 | 9.00 | 5.00 |
| **9** | 11.90 | 7.90 | 11.97 | 7.97 | 12.00 | 8.00 |
| **12** | 14.90 | 10.90 | 14.97 | 10.97 | 15.00 | 11.00 |
| **18** | 20.90 | 16.90 | 20.97 | 16.97 | 21.00 | 17.00 |
| **24** | 26.90 | 22.90 | 26.97 | 22.97 | 27.00 | 23.00 |
| **30** | 32.90 | 28.90 | 32.97 | 28.97 | 33.00 | 29.00 |
| **36** | 38.90 | 34.90 | 38.97 | 34.97 | 39.00 | 35.00 |

**Note: See appendix for information on “Heavy Load” bearing trays and spans beyond 6 m.**

## Technical Specifications

**LOAD RATINGS**
1.5 Safety factor. All tray sections will support an additional 200 lb concentrated load on any portion of tray (siderail, rung, etc.) above and beyond published load class.

| SERIES | DIMENSIONS | SIDERAIL DESIGN FACTORS • 1 PAIR | CLASSIFICATIONS NEMA | CSA | UL |
|---|---|---|---|---|---|
| **AH2-7** |   | Ix = 16.50 in$^4$<br>Sx = 4.06 in$^3$<br>Area = 2.14 in$^2$ | **20B** | **E/6m** | UL Cross Sectional Area : 2.00 in$^2$ |
| **AH2C-7** |   | Ix = 20.24 in$^4$<br>Sx = 5.00 in$^3$<br>Area = 2.66 in$^2$ | Exceeds **20C** | **–** | UL Cross Sectional Area : 2.00 in |
| **AH3-7** |   | Ix = 25.32 in$^4$<br>Sx = 6.35 in$^3$<br>Area = 3.30 in$^2$ | Exceeds **20C** | **–** | UL Cross Sectional Area : 2.00 in$^2$ |

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