Aluminum Grid Systems

Available in co-extruded aluminum*, Clean Room Grid systems offer a choice of 1-1/2" or 15/16" face to facilitate the use of clean room lay-in panels.

Key Selection Attributes

- Suitable for use in Class 5 or greater without hold down clips (Class 100 clean rooms as defined by ISO Standard 14644-1 (Federal Standard 209E) when used with Clean Room FL, Clean Room VL, Health Zone™ Optima®, and Health Zone Ultima®.
- Seismic Rx® Suspension
 System saves time and money;
 ICC-ES approach to installations
 (ESR-1308)

Co-Extruded Aluminum*

- Aluminum construction for maximum corrosion resistance and non-magnetic environments
- Lightly textured PVC face, to better match Clean Room VL panels
- Unique, factory-applied gasket for better seal between panel and grid
- Staked on main beam splice for easy connections and module control
- Integral hook cross tee end detail for easy connections and module control
- 10-year limited warranty;
 30-year with HumiGuard®
 Plus

Typical Applications

- Automotive & aerospace
- Computer rooms
- Hospitals
- High tech manufacturing
- · Non-magnetic areas

Color Selection

☐ WH - White

*All items are co-extruded aluminum with the exception of item ES7801 which is co-extruded steel.

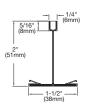
Product Description

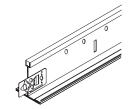
Materials

A. General: ASTM C 635 (Intermediate-duty) main beam classification. All surfaces are PVC.

B. Components:

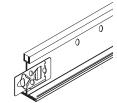
- Main Beams: co-extruded aluminum construction, 2" profile height and 1-1/2" flange
- ☐ EA7903 (144", routs 12" 0C, Heavy-duty)



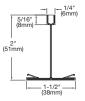


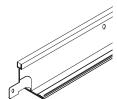
- Main Beams: co-extruded aluminum construction, 1-11/16" profile height and 15/16" flange
- ☐ EA7900 (144", routs 12" 0C, Intermediate-duty)





- Cross Tees: co-extruded aluminum construction, profile height 2" and 1-1/2" flange
- ☐ EA7947 (48", center rout) ☐ EA7927 (24")





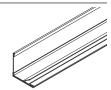
- 4. **Cross Tees:** co-extruded aluminum construction, 1-11/16" profile height and 15/16" flange
- ☐ EA7940 (48", center rout) ☐ EA7920 (24")



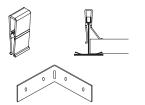


- Wall Molding: co-extruded aluminum
- ☐ EA7801 (144", extruded angle molding, nominal 15/16" x 15/16")





- 6. Accessories:
- ☐ CHDC PVC Hold Down Clip use with Co-Extruded Aluminum Clean Room Grid.
- □ XTAC Cross Tee
 Adapter Clip hot dipped
 galvanized steel, use to attach
 field cut cross tees to main
 beams





Aluminum Grid Systems

Physical Data

Material

Co-Extruded Aluminum with PVC face - Gasketed Co-Extruded Steel with PVC face - Gasketed (ES7801)

Surface Finish

Cross Tee/Main Beam Interface

Co-Extruded Aluminum Clean Room - Flush Fit

End Detail

Main Beam: Staked-on clip Cross Tee: Integral hook

Main Beam Load Test Data

| MAIN | | WEB | ASTM | | mple Span)** |
|--------------|---------------|---------------|-------------------|------------|--------------|
| BEAMS | LENGTH | HEIGHT | <u>CLASS</u> | <u>4</u> ' | <u>5</u> ' |
| EA7903 | 144" | 2" | Heavy-duty | 16.0 | 8.4 |
| EA7900 | 144" | 1-11/16" | Intermediate-duty | 12.0 | _ |

Cross Tee Load Test Data

| CROSS | | WEB | (Lbs./LF. Sin | |
|--------|---------------|---------------|---------------|------------|
| TEE | LENGTH | <u>HEIGHT</u> | <u>4</u> ' | <u>2</u> ' |
| EA7947 | 48" | 2" | 17.66 | |
| EA7927 | 24" | 2" | 60.55 | |
| EA7940 | 48" | 1-11/16" | 15.32 | |
| EA7920 | 24" | 1-11/16" | _ | 40.3 |

Seismic Performance

| MAIN BEAMS | MINIMUM LBS. TO PULL OUT COMPRESSION/TENSION |
|---|--|
| EA7903, EA7900 | 294.6 |
| CROSS TEES *EA7947, EA7927 EA7940, EA7920 | MINIMUM LBS. TO PULL OUT COMPRESSION/TENSION 492.4 |

^{*}Note: Requires use of #6 Phillips self-tapping screw through cross tee end detail.

ICC Reports

For areas under ICC jurisdiction, see ICC evaluation report number 1308 for allowable values and/or conditions of use concerning the suspension system components listed on this page. The report is subject to reexamination, revisions and possible cancellation.

NOTE: Specify light fixtures designed to install with 1-1/2" face suspension systems when using 1-1/2" face product to allow for fixture maintenance

| Compatible | MANU |
|-----------------|---------|
| l inht Fixtures | l ithon |

JFACTURER Guth Clean Air Solutions Morlite

ITEM

CLRM-150 SRT-2x4_F MP4270 KLEENSEAL KRT 200 CR*-xxx-ESB **CRGHEPA24 Series**

Maximum Fixture Weight

A. Main Beam to Main Beam

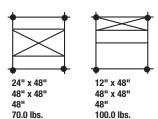
Main Beam Hanger Wire (•)

- 1. Fixture
- 2. Planning Module
- 3. Hanger Spacing
- 4. Item EA7903



48" x 48" 48"

100.0 lbs.



2. Planning Module 3. Hanger Spacing 4. Item EA7903

1. Fixture*



70.0 lbs.

1. Fixture* 2. Planning Module 3. Hanger Spacing

48" x 48" 48" 69.0 lbs

4. Item EA7903

Main beams tested as follows: EA7903 tested at 16.74 lbs./lin. ft. to 1/360 of 4' span.

B. Cross Tee to **Cross Tee**

Main Beams Hanger Wire (•)

- 1. Fixture*
- 2. Planning Module 3. Hanger Spacing
- 4. Item EA7947



24" x 48" 48" x 48" 48"

24" x 24" 48" x 48" 48" 100.0 lbs. 100.0 lbs.

48" cross tees tested as follows: EA7947 tested at 18.4 lbs./lin.ft. to 1/360 of 4' span.

* Fixtures weighing more than 56 lbs. should be independently supported. Fixture weight is based on single fixture only. For end-to-end fixtures or other configurations not shown, consult your Armstrong representative.

NOTE: The above data is based on 48" hanger wire spacing, board weight of 1 lb./sq. ft., maximum deflection of tees not to exceed 1/360 of the span, and suspension system installed in accordance with ASTM C 636.

** To derive maximum lbs./SF, divide the on-center spacing of the component into the lbs./LF given in the load test data table.



Steel Grid Systems

Available in co-extruded steel, Clean Room Grid system has a 15/16" face to facilitate the use of clean room lay-in panels.

Key Selection Attributes

- Suitable for use in Class 5 or greater without hold down clips (Class 100 clean rooms as defined by ISO Standard 14644-1 (Federal Standard 209E) when used with Clean Room FL, Clean Room VL, Health Zone™ Ultima®, and Health Zone Optima®
- Seismic Rx® Suspension
 System saves time and money;
 ICC-ES approach to installations
 (ESR-1308)

Co-Extruded Steel

- Lightly textured PVC face, to better match Clean Room VL panels
- Unique, factory-applied gasket for better seal between panel and grid
- Staked on main beam splice for easy connections and module control
- Integral hook cross tee end detail for easy connections and module control
- 10-year limited warranty;
 30-year with HumiGuard®

Typical Applications

- Hospitals
- Automotive and aerospace
- Data Centers
- High tech manufacturing

Color Selection

☐ WH - White

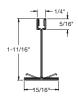
Product Description

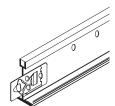
Materials

A. General: ASTM C635 (Heavy-duty) main beam classification, co-extruded steel. All surfaces are PVC.

B. Components:

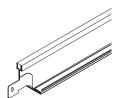
- Main Beams: co-extruded steel construction, 1-11/16" profile height and 15/16" flange
- ☐ ES7901 (144", routs 12" 0C, Heavy-duty)





- Cross Tees: co-extruded steel construction, 1-11/16" profile height and 15/16" flange
- ☐ ES7940 (48", center rout) ☐ ES7920 (24")



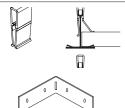


- Wall Molding:
 co-extruded steel
- ☐ ES7801 (144", extruded angle molding, nominal 15/16" x 15/16")





- 4. Accessories:
- ☐ XTAC Cross Tee Adapter Clip hot dipped galvanized steel, use to attach field cut cross tees to main beams
- ☐ CHDC PVC Hold Down Clip use with co-extruded Steel Clean Room Grid





Steel Grid Systems

Physical Data

Material

Hot Dipped Galvanized

Co-Extruded Steel with PVC face - Gasketed

Surface Finish

Cross Tee/Main Beam Interface

Flush Fit

End Detail

Main Beam: Staked-on clip Cross Tee: Integral hook

Main Beam Load Test Data

| | | | | HANGER | SPACING |
|--------|--------|----------|------------|--------------------------|-----------|
| MAIN | | WEB | ASTM | (Lbs./LF. Simple Span)** | |
| BEAMS | LENGTH | HEIGHT | CLASS | 4' | <u>5'</u> |
| ES7901 | 144" | 1-11/16" | Heavy-duty | 16.0 | _ |

Cross Tee Load Test Data

HANGER SPACING

| | | | HANGEN | 3F AUINU |
|--------|--------|----------|---------------|--------------|
| CROSS | | WEB | (Lbs./LF. Sir | nple Span)** |
| TEE | LENGTH | HEIGHT | 4' | <u>5'</u> |
| ES7940 | 48" | 1-11/16" | | |
| ES7920 | 24" | 1-11/16" | | |

Seismic Performance

| MAIN BEAMS | COMPRESSION/TENSION | |
|--------------------------------------|--|--|
| ES7901 | 294.6 | |
| <u>CROSS TEES</u> *ES7940, ES7920 | MINIMUM LBS. TO PULL OUT COMPRESSION/TENSION 492.4 | |

^{*}Note: Requires use of #6 Phillips self-tapping screw through cross tee end detail.

For areas under ICC jurisdiction, see ICC evaluation report number 1308 for allowable values and/or conditions of use concerning the suspension system components listed on this page. The report is subject to reexamination, revisions and possible cancellation.

Maximum Fixture Weight

A. Main Beam to Main Beam

Main Beam 1

Hanger Wire (•) 1. Fixture*

1. Fixture*

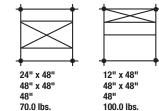
2. Planning Module

3. Hanger Spacing

- 2. Planning Module 3. Hanger Spacing
- 4. Item ES7901



48" x 48" 48" 100.0 lbs.



- 4. Item ES7901 70.0 lbs.
- 1. Fixture* 12" x 48" 48" x 48" 2. Planning Module Hanger Spacing 48" Item ES7901 69.0 lbs.

Main beams tested as follows: ES7901 tested at 16.0 lbs./lin. ft. to 1/360 of 4' span.

