Fire-resistance protects lives and property.

Area separation walls are non-load bearing, 2-hour and 3-hour rated vertical wall assemblies that provide fire-resistant protection between adjacent living units in apartment buildings, condominiums and townhouses. They are also referred to as party walls, firewalls, multi-family walls and H-stud assemblies.

Assembled between two independent walls, area separation walls form a commonly shared party wall that extends from the foundation through the roofline. The walls are assembled with two 1” thick gypsum panel liners vertically installed between 2” H-studs spaced 24” o.c. At the top and bottom of the walls, C-runners are installed back-to-back between vertically stacked panels. Overall stacked area separation wall assemblies cannot exceed 50 feet or the limits of the applicable UL Fire Assembly.

A photo of an area separation wall system after a fire is shown below. Although this was a tragic event, it clearly proves the effectiveness of the system. It performed as designed by maintaining the integrity of the firewall, protecting the lives and property of the adjacent units.

Photo courtesy National Gypsum.
ClarkDietrich H-studs are nominal 2” wide vertical members used to secure two 1” thick pieces of gypsum shaftliner in area separation wall assemblies. H-studs are inserted into C-runners and slid over gypsum panel liner edges, repeating until the desired wall length is achieved. Once the wall is plumbed, it is secured with aluminum burn clips.

<table>
<thead>
<tr>
<th>Product code</th>
<th>Thickness</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gauge</td>
<td>Mils</td>
</tr>
<tr>
<td>HSN</td>
<td>25</td>
<td>18</td>
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<tr>
<td></td>
<td></td>
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</tbody>
</table>

ClarkDietrich C-runner (or H-track) is used to secure H-stud and gypsum shaftliner panels in area separation wall assemblies. Attached to the foundation with power-actuated fasteners, C-runner is also used as top track to cap the H-stud and 1” gypsum shaftliner panels, with a second track screwed back-to-back to the lower runner, to hold the next level of assembly.

<table>
<thead>
<tr>
<th>Product code</th>
<th>Thickness</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Gauge</td>
<td>Mils</td>
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<td>HRN1</td>
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<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

ClarkDietrich aluminum burn clips are used as part of the H-stud area separation wall assembly and are designed to melt when exposed to fire. The clips hold the area separation wall assemblies in place at the floor, roof and truss line between adjacent units. In a fire, the aluminum burn clips on the fire-ridden side of the wall will melt, allowing the wall structure for that side to collapse.

Note: Check listed fire assembly for details of construction, thickness and length of required burn clips.

<table>
<thead>
<tr>
<th>Product code</th>
<th>Thickness (in)</th>
<th>Size (in)</th>
<th>Packaging Pcs./Bucket</th>
</tr>
</thead>
<tbody>
<tr>
<td>AB</td>
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<td>500</td>
</tr>
<tr>
<td>AB63</td>
<td>0.063</td>
<td>2 x 2 x 2-1/2</td>
<td></td>
</tr>
<tr>
<td>AB40*</td>
<td>0.063</td>
<td>2 x 2 x 4</td>
<td>250</td>
</tr>
</tbody>
</table>

*For use with 3-hour Design Assembly based on GA File No. ASW 2600 other custom breakaway clip lengths available.
INSTALLATION PROCEDURES

1. Install C-runner along the floor in the desired position.

2. An additional track is installed vertically at the end of the wall.

3. Two 1” thick shaftliner panels are then inserted into the bottom and side tracks.

4. An H-stud is inserted into the lower track and slid over the edges of the shaftliner.

5. Repeat steps 3 and 4 until the desired wall length is achieved.

6. Cap the end and top of the wall with C-runner.

7. Confirm that the wall is plumb and then secure the assembly to the adjacent wall using aluminum burn clips on both sides of the wall. Make sure to leave a 3/4” gap between the area separation wall and adjacent wall. Clip spacing is dependent on the height of the wall. Wall assemblies can be stacked to a maximum height of 50’ or per the details of the applicable UL assembly.

NOTE: Check listed Fire Assembly for details of construction, thickness and length of required burn clips.

Conforms to the following UL Assemblies:
- UL U336
- UL U347
- UL U366
- UL U375
**ALUMINUM BURN CLIP**

**Clips melt away under intense heat.**
ClarkDietrich aluminum burn clips are used as part of the H-stud area-separation wall assembly and are designed to melt and break away when exposed to fire. The clips are used to hold the area-separation wall assembly in place at the floor, roof, and truss line between adjacent units. Should a fire break out in one unit, the Aluminum Burn Clips on the fire-ridden side of the area-separation wall will melt, allowing the wall structure for that side to collapse. The burn clips on the non-fire side will remain intact and hold the area-separation wall in place as a barrier to contain the fire within the unit of origin.

Note: Check listed fire assembly for details of construction, thickness and length of required burn clips.

**INSTALLATION PROCEDURES**

1. Attach an aluminum burn clip to the completed area-separation wall assembly.
2. One clip should be located at each H-stud on both sides of the wall.
3. Attach the aluminum burn clip to the H-stud with a screw.
4. Attach to the adjacent framing with a screw or a nail, as applicable.
The technical content of this literature is effective 10/10/17 and supersedes all previous information.

**CODE APPROVALS AND PERFORMANCE STANDARDS**

ClarkDietrich products meet or exceed these applicable performance standards.

- **AISI** “North American Specification for the Design of Cold-Formed Steel Structural Members”, 2012 edition
- **ASTM American Society for Testing and Materials**
  - A653  "Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process"
  - A1003  "Standard Specification for Steel Sheet, Carbon, Metallic- and Nonmetallic-Coated for Cold-Formed Framing Members"
  - C645  "Standard Specification for Nonstructural Steel Framing Members"
  - C754  "Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products"
  - C1002  "Standard Specification for Steel Self-Piercing Tapping Screw for the Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs"
  - E72  "Standard Test Methods of Conducting Strength Tests of Panels for Building Construction"

- **UL® Underwriters Laboratories testing standard**
  - UL 263 “Fire Tests of Building Construction and Materials”
  - UL 500 “Test Method of Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements”

- **PEI AER-12061 (Shaftwall)**

- **Additional code approvals**
  - Independent product testing and certification

- **Sound ratings: (RAL)**

**LOCATIONS**

**ClarkDietrich Building Systems**

**Manufacturing and Sales Locations:**

- **CALIFORNIA**
  - Riverside: P 951.360.3500 F 951.360.3333
  - Sacramento: P 951.360.3500 F 951.360.3333

- **GEORGIA**
  - McDonough: P 678.304.5500 F 678.304.5555

- **OHIO**

- **CLIP EXPRESSSM**
  - P 866.638.1908 F 330.372.4055

**Technical Services:**

- Toll-Free Phone: 888.437.3244
- Toll-Free Fax: 877.832.3208
- Technical Services: 888.437.3244
- Email: engineering@clarkdietrich.com

**ClarkDietrich Engineering Services. A full spectrum of solutions.**

- **Toll-Free Phone:** 877.832.3206
- **Toll-Free Fax:** 877.832.3208
- **Technical Services:** 888.437.3244
- **Email:** engineering@clarkdietrich.com

**ClarkDietrich Building Systems** has prepared this literature with the utmost diligence and care for accuracy and conformance to standards.

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**LEED® Services**

**BUILD GREEN with ClarkDietrich Building Systems**

ClarkDietrich Building Systems is an active member of the U.S. Green Building Council and is committed to supplying quality products that are environmentally responsible. We are continually working to develop greener building products and sustainable business practices. ClarkDietrich steel framing helps contribute points toward LEED® certification. For more details contact Technical Services at 888-437-3244 or visit www.clarkdietrich.com/LEED.