What is BlazeFrame?
BlazeFrame products are innovative steel framing profile/intumescent composites, that combine ease of installation, inspection, life safety and joint protection dependability into one unique product.

How does it work?
Using a cured factory metered dosage intumescent material, BlazeFrame profiles provide fire stopping, smoke and sound dampening that is effective immediately after framing components are installed. When exposed to heat above 375°F, the intumescent material expands up to 35 times its size. This provides additional protection from heat and flame passage during a fire event.

What does it replace?
BlazeFrame’s factory metered dosage intumescent material eliminates elastomeric fire proofing caulks and spray. The cured intumescent tape eliminates VOC’s and off gases associated with caulked spray fire proofing. With the intumescent tape factory applied it eliminates both overage and underage often associated with the messy caulks and sprays.

BlazeFrame Advantages:
- Installed & inspected as “joint framing” (before obstructions)
- Unaffected by dirty, oily, wet or freezing conditions
- Cured intumescent effective immediately (no VOC)
- No fatigue to joint or substrate materials for life of assembly
Fire Stopping
- UL 2079 Classified and listed for up to 3 hr assemblies
- Protection for up to 3” overall movement capability (1-1/2” up and 1-1/2” down)
- Eliminates fire proofing caulks and sprays
- Shaftwall Assemblies certified for use with all UL listed “liner” boards and finish side gypsum products

Sound Dampening
- NVLAP certified to provide up to STC 62 (based on wall assembly)
- Open unencumbered joints (no caulk required)
- Fluted deck exposed with only BlazeFrame Deck Plug or Flute Cover STC = 50+

Smoke barrier-air leakage - IBC 2009
BlazeFrame assemblies have been UL Classified with the lowest possible L-Rating (less than 1 CFM/lft).

Seismic Requirements
BlazeFrame is UL 2079 Classified for Class III Cycling of 500 cycles at 30 cycles per minute of vertical movement which may be capable of meeting seismic design and building code requirements.

Code Compliance
BlazeFrame joint protection complies with up to date building codes and is listed by Underwriters Laboratories Inc.

UL 2079 Tests for Fire Resistance of Building Joint Systems
ASTM E-814 Standard Method of Fire Tests of Fire Stop Systems
ULC S115-M95 Standard Method of Fire Tests of Fire Stop Systems
ASTM E-119 Evaluation of a Non-Load Bearing Wall Assembly with FAS-093X Control Joint
ASTM E-2837 Rated Wall Assemblies Installed to Non-Rated Assemblies (pending)
BlazeFrame Design Advantages

**CONCRETE DECK CONDITION**

- Clean transition from wall sheathing to substrate.
- Exposed and finished joints are fire and sound rated.

**METAL DECK CONDITION**

- Head of Wall assembly complete before studs are installed.
- Mineral wool only needed for flute fill.
- Earlier, easier, and accurate inspection.
**BEAM PENETRATION CONDITION**

- Eliminates contour cutting of wall sheathing, caulks/sprays.
- Spray fire proofing or mineral wool are the easy option for beam cavity fill.

**PARALLEL OFFSET CONDITION**

- Eliminates z-clips, lath basket, voids in fire proofing.
- 14 ga angle outrigger/profile preassembled prior to installation.
**DSL 2 (DEEP LEG - SLOTTED BOTH SIDES)**

Profile with two slotted legs w/ fire stop on both sides

Composite Fire Stop/Framing for use in fire rated wall assemblies. Provides 100% unencumbered joint protection. Accommodates up to 1 1/2” overall movement with UL 2079 Level III Certification. Minimum CP60 coating. Legs with slots spaced 1” o.c. for positive attachment of studs per listed assemblies in UL Fire Resistance Directory.

Widths: 2-1/2”, 3-5/8”, 4”, 6” and 8”

Thicknesses: 33mils (20ga), 43mils (18ga) and 54mils (16ga)

<table>
<thead>
<tr>
<th>Profile</th>
<th>Leg Length (L)</th>
<th>Tape Width (I)</th>
<th>Slot Height (S)</th>
<th>Joint Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSLE 2</td>
<td>2.50”</td>
<td>0.75”</td>
<td>1.50”</td>
<td>0.50”</td>
</tr>
<tr>
<td>DSL 2</td>
<td>3.00”</td>
<td>1.00”</td>
<td>1.50”</td>
<td>0.75”</td>
</tr>
<tr>
<td>DSLW 2</td>
<td>3.00”</td>
<td>1.25”</td>
<td>1.50”</td>
<td>1.00”</td>
</tr>
<tr>
<td>DSLX 2</td>
<td>4.00”*</td>
<td>1.75”</td>
<td>2.00”</td>
<td>1.50”</td>
</tr>
</tbody>
</table>

* 4” leg length is not available for 2-1/2” wide system

**SL 1 (DEEP LEG - SLOTTED ONE SIDE)**

Profile with one slotted leg and one solid leg w/ fire stop on slotted side

Composite Fire Stop/Framing for use in fire rated wall assemblies. Provides 100% unencumbered joint protection. Accommodates up to 1 1/2” overall movement with UL 2079 Level III Certification. Minimum CP60 coating. One leg with slots spaced 1” o.c. for positive attachment of studs per listed assemblies in UL Fire Resistance Directory.

Widths: 2-1/2”, 3-5/8”, 4”, 6” and 8”

Thicknesses: 33mils (20ga), 43mils (18ga) and 54mils (16ga)

<table>
<thead>
<tr>
<th>Profile</th>
<th>Slotted Leg Length (L1)</th>
<th>Solid Leg Length (L2)</th>
<th>Tape Width (I)</th>
<th>Slot Height (S)</th>
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<td>1.00”</td>
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<td>0.75”</td>
</tr>
<tr>
<td>SLW 1</td>
<td>3.00”</td>
<td>2.00”</td>
<td>1.25”</td>
<td>1.50”</td>
<td>1.00”</td>
</tr>
<tr>
<td>SLX 1</td>
<td>4.00”*</td>
<td>2.50”</td>
<td>1.75”</td>
<td>2.00”</td>
<td>1.50”</td>
</tr>
</tbody>
</table>

* 4” leg length is not available for 2-1/2” wide system
**DL (DEEP LEG - SOLID)**

Composite Fire Stop/Framing for use in fire rated wall assemblies. Provides 100% unencumbered joint protection. Accommodates up to 3” overall movement with UL 2079 Level III Certification. Minimum CP60 coating. Two solid legs supporting “free floating” studs per listed assemblies in UL Fire Resistance Directory.

Widths: 2-1/2”, 3-5/8”, 4”, 6” and 8”  
Thicknesses: 33mils (20ga), 43mils (18ga) and 54mils (16ga)  
DLE 30mils

**(DL 1 Series) Profile with two solid legs w/ fire stop on one side**  
**(DL 2 Series) Profile with two solid legs w/ fire stop on both sides**

<table>
<thead>
<tr>
<th>Profile</th>
<th>Leg Length (L)</th>
<th>Tape Width (I)</th>
<th>Joint Protection</th>
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</thead>
<tbody>
<tr>
<td>DLE</td>
<td>2.00”</td>
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<tr>
<td>DL</td>
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<td>0.75”</td>
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<td>DLW</td>
<td>2.00”</td>
<td>1.25”</td>
<td>1.00”</td>
</tr>
<tr>
<td>DLX</td>
<td>2.50”</td>
<td>1.75”</td>
<td>1.50”</td>
</tr>
<tr>
<td>DLZ</td>
<td>3.00”</td>
<td>2.25”</td>
<td>2.00”</td>
</tr>
<tr>
<td>DLY</td>
<td>4.00”*</td>
<td>3.25”</td>
<td>3.00”</td>
</tr>
</tbody>
</table>

* 4” leg length is not available for 2-1/2” wide system  
* Additional sizes available.

**JR (J-RUNNER)**

Profile with two solid legs w/ fire stop on one side

Composite Fire Stop/Framing for use in up to 3 hr fire rated shaft wall assemblies. Provides 100% unencumbered joint protection. Accommodates up to 1 1/2” overall movement with UL 2079 Level III Certification. Minimum CP60 coating. One leg (front) having intumescent per listed assemblies in UL Fire Resistance Directory.

Widths: 2-1/2”, 4” and 6”  
Thicknesses: 33mils (20ga), 43mils (18ga) and 54mils (16ga)

<table>
<thead>
<tr>
<th>Profile</th>
<th>Front Leg Length (FL)</th>
<th>Back Leg Length (BL)</th>
<th>Tape Width (I)</th>
<th>Joint Protection</th>
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<tbody>
<tr>
<td>JR 1</td>
<td>2.00”</td>
<td>3.00”</td>
<td>1.00”</td>
<td>0.75”</td>
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<td>JRW 1</td>
<td>2.00”</td>
<td>3.00”</td>
<td>1.25”</td>
<td>1.00”</td>
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<tr>
<td>JRX 1</td>
<td>2.00”</td>
<td>3.00”</td>
<td>1.75”</td>
<td>1.50”</td>
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</tbody>
</table>
**ODL 2 (OFFSET DEEP LEG)**

Profile with two solid legs w/ fire stop on both sides

Composite Fire Stop/Framing with "offset step" accommodates various depths of fireproofing in head of wall and wall to wall (column) assemblies. (Other offset depths available to accommodate other sprayed thicknesses). Provides 100% unencumbered joint protection. Accommodates up to 2" overall movement with UL 2079 Level III Certification. Minimum CP60 coating. Two solid legs per listed assemblies in UL Fire Resistance Directory.

Widths: 3-5/8", 4", 6" and 8"
Thicknesses: 33mils (20ga), 43mils (18ga) and 54mils (16ga)
“D” Dimension: Varies with depth of fire stop material required.

<table>
<thead>
<tr>
<th>Profile</th>
<th>Lower Leg Length (L)</th>
<th>Tape Width (I)</th>
<th>Joint Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>ODL 2</td>
<td>2.00&quot;</td>
<td>1.00&quot;</td>
<td>0.75&quot;</td>
</tr>
<tr>
<td>ODLW 2</td>
<td>2.00&quot;</td>
<td>1.25&quot;</td>
<td>1.00&quot;</td>
</tr>
<tr>
<td>ODLX 2</td>
<td>2.50&quot;</td>
<td>1.75&quot;</td>
<td>1.50&quot;</td>
</tr>
<tr>
<td>ODLZ 2</td>
<td>3.00&quot;</td>
<td>2.25&quot;</td>
<td>2.00&quot;</td>
</tr>
</tbody>
</table>

**ODSL 2 (OFFSET DEEP SLOTTED LEG)**

Profile with two slotted lower legs w/ fire stop on both sides

Composite Fire Stop/Framing with "offset step" accommodates various depths of fireproofing in head of wall and wall to wall (column) assemblies. (Other offset depths available to accommodate other sprayed thicknesses). Provides 100% unencumbered joint protection. Accommodates up to 1-1/2” overall movement with UL 2079 Level III Certification. Minimum CP60 coating. Two legs with slots spaced 1” o.c. for positive attachment of studs per listed assemblies in UL Fire Resistance Directory.

Widths: 3-5/8", 4", 6" and 8"
Thicknesses: 33mils (20ga), 43mils (18ga) and 54mils (16ga)
“D” Dimension: Varies with depth of fire stop material required.

<table>
<thead>
<tr>
<th>Profile</th>
<th>Lower Leg Length (L)</th>
<th>Tape Width (I)</th>
<th>Slot Height (S)</th>
<th>Joint Protection</th>
</tr>
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<tbody>
<tr>
<td>ODSL 2</td>
<td>3.00&quot;</td>
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<tr>
<td>ODSLW 2</td>
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</tr>
<tr>
<td>ODSLX 2</td>
<td>4.00&quot;</td>
<td>1.75&quot;</td>
<td>2.00&quot;</td>
<td>1.50&quot;</td>
</tr>
</tbody>
</table>
FC (FLUTE COVER)
Profile strap for under fluted decks
Corrugated strap for horizontal use to span fluted areas of unprotected or protected metal decks in up to 2 hr rated assemblies. Profile attached to deck "valley" surfaces a max 16" o.c. on both sides. Profiles provide a surface area for attachment of head of wall partition track profiles centered or offset underneath and parallel to deck fluted areas per listed assemblies in UL Fire Resistance Directory.

Sizes: 675 (6-3/4") or 700 (7")
Length: 10'-0"
Thicknesses: 33mils (20ga)

FAS-093X FIRE RATED CONTROL JOINT
Profile for protection of control joints
A composite control joint with intumescent tape factory applied to the back side of the control joint. The FAS-093X has been tested according to UL-2079 “Test For Fire Resistance of Building Joint Systems” and is used to relieve stresses of expansion and contraction of drywall interior partitions or ceilings running in a horizontal or vertical direction. The opening is protected by an orange plastic tape to indicate the fire rating this tape is removed after joint compound has been applied and the finish is completed. The section is fabricated from hot-dipped galvanized steel complying with ASTM A653, and ASTM A1003.

Width: 2"
Length: 10'-0"
Thicknesses: 13mils
Packaging: 20 Pcs./Ctn. - 24 Ctn. per pallet
BlazeFrame Sample Details

**Post Tension or Structural Concrete Overhead**

PT-1

HW-D-0498

**Chase Wall Post Tension or Structural Flat Concrete**

PT-2

HW-D-0505

**Perpendicular Unprotected Deck (UD) – Mineral Wool Fill**

UD-1

HW-D-0513

**Head of Wall Beam Penetration**

SS-1

HW-D-0495
Centered Under Flute
Unprotected Deck (UD) – Flute Cover

UD-6
HW-D-0544

Perpendicular Protected Deck
(PD) – Mineral Wool Flute Fill

PD-12
HW-D-0513

Parallel Under Structural
Support (Z-Clips)

SS-16
HW-D-0502

Wall to Wall Gypsum to
Protected Steel (I-Beam)

VM-3

Design Based on
WW-S-0055
HW-D-0558

clarkdietrich.com

The technical content of this literature is effective 5/12/16 and supersedes all previous information.

Pub. No. CD-BlazeFrame 5/16
### BlazeFrame Sample Details

**Wall to Wall Gypsum to Concrete Column/Wall**

**VM-1**

5/8\" TYPE X GYPSUM WALLBOARD

STEEL STUD

BLAZEFRAME COMPOSITE TRACK / FIRE STOP (DL2)

----

**Parallel Under Structural Support (Offset Leg Profile)**

**SS-2**

5/8\" TYPE X GYPSUM WALLBOARD

STEEL STUD

BLAZEFRAME COMPOSITE TRACK / FIRE STOP “OL” - SERIES (ODL2, ODSL2)

----

**Hollow Steel Shape - Non Rated**

SS-21

Design Based on HW-D-0543

HW-D-0559

---

**Edge of Structural Support with Angle (Offset Leg Profile)**

**SS-28**

14GA STRAP / ANGLE OUTRIGGER

STEEL STUD

---

**Edge of Structural Support with Angle (Offset Leg Profile)**

**SS-28**

14GA STRAP / ANGLE OUTRIGGER

STEEL STUD

---

**Hollow Steel Shape - Non Rated**

SS-21

Design Based on HW-D-0543

HW-D-0559

---

**Wall to Wall Gypsum to Concrete Column/Wall**

**VM-1**

WW-S-0055

CONCRETE COLUMN / WALL

5/8\" TYPE X GYPSUM WALLBOARD

STEEL STUD

BLAZEFRAME COMPOSITE TRACK / FIRE STOP (DL2)

----

**Parallel Under Structural Support (Offset Leg Profile)**

**SS-2**

HW-D-0502

---

**Hollow Steel Shape - Non Rated**

SS-21

Design Based on HW-D-0543

HW-D-0559

---

**Edge of Structural Support with Angle (Offset Leg Profile)**

**SS-28**

HW-D-0631

---

**Wall to Wall Gypsum to Concrete Column/Wall**

**VM-1**

WW-S-0055

CONCRETE COLUMN / WALL

5/8\" TYPE X GYPSUM WALLBOARD

STEEL STUD

BLAZEFRAME COMPOSITE TRACK / FIRE STOP (DL2)

----

**Parallel Under Structural Support (Offset Leg Profile)**

**SS-2**

HW-D-0502

---

**Hollow Steel Shape - Non Rated**

SS-21

Design Based on HW-D-0543

HW-D-0559

---

**Edge of Structural Support with Angle (Offset Leg Profile)**

**SS-28**

HW-D-0631

---

**Wall to Wall Gypsum to Concrete Column/Wall**

**VM-1**

WW-S-0055

CONCRETE COLUMN / WALL

5/8\" TYPE X GYPSUM WALLBOARD

STEEL STUD

BLAZEFRAME COMPOSITE TRACK / FIRE STOP (DL2)

----

**Parallel Under Structural Support (Offset Leg Profile)**

**SS-2**

HW-D-0502

---

**Hollow Steel Shape - Non Rated**

SS-21

Design Based on HW-D-0543

HW-D-0559

---

**Edge of Structural Support with Angle (Offset Leg Profile)**

**SS-28**

HW-D-0631

---
Under UL G500 Series Design
VM-6
HW-D-0503

Bottom of Wall
VM-12
BW-S-0021

ECA - End Cap Angle
Exterior Corner Application

Flat Strap Patch
Vertical Cavity Obstructions
### BlazeFrame Sample Details

**Shaft Wall Post Tension or Structural Concrete**

- **PT-3**
- **HW-D-0496**

![Diagram of Shaft Wall Post Tension or Structural Concrete](image1.png)

**Shaft Wall Perpendicular to Unprotected Deck**

- **UD-10**
- **HW-D-0504**

![Diagram of Shaft Wall Perpendicular to Unprotected Deck](image2.png)

---

**FAS-093X Control Joint**

- **one layer each side (1-hour)**
- **UL-2079**

![Diagram of FAS-093X Control Joint (1-hour)](image3.png)

**FAS-093X Control Joint**

- **two layers each side (2-hour)**
- **UL-2079**

![Diagram of FAS-093X Control Joint (2-hour)](image4.png)
## Code Approvals

### UL Approvals

UL Control - R25833 (US) - 1, 2 and 3 hr designs - UL 2079 standard compliant

### UL Listings

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>HW-D-0495</td>
<td>Protected Beam Penetration</td>
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<tr>
<td>HW-D-0496</td>
<td>Under Flat Concrete (shaft wall)</td>
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<tr>
<td>HW-D-0497</td>
<td>Parallel to Protected Beam (shaft wall)</td>
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<tr>
<td>HW-D-0498</td>
<td>Under PT or Structural Concrete</td>
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<td>HW-D-0499</td>
<td>Parallel to Unprotected Fluted Metal Deck</td>
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<tr>
<td>HW-D-0500</td>
<td>Perpendicular Unprotected Fluted Metal Deck</td>
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<tr>
<td>HW-D-0501</td>
<td>Parallel to Beam (standard wall)</td>
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<tr>
<td>HW-D-0502</td>
<td>Parallel &amp; Edge Overlap Under Structural Support</td>
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<td>HW-D-0503</td>
<td>Under Layer &quot;Type C&quot; UL 500 Series Designs</td>
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<tr>
<td>HW-D-0504</td>
<td>Under Unprotected Fluted Metal Deck (shaft wall)</td>
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<td>HW-D-0505</td>
<td>Under PT or Structural Concrete (chase wall)</td>
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<tr>
<td>HW-D-0506</td>
<td>Under Fluted Metal Deck (chase wall)</td>
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<td>HW-D-0512</td>
<td>Perpendicular Protected Deck w/Fire Proofing Flute Fill</td>
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<td>Perpendicular Unprotected Deck w/Mineral Wool only Flute Fill</td>
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<td>Stair Shaft (093 Control Joint Optional)</td>
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<td>HW-D-0544</td>
<td>Parallel under Flute (Flute Cover Plate)</td>
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<td>Offset Leg Standard Wall Protected Roof Deck/Substrate</td>
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<td>Offset Leg Shaft Wall Protected Roof Deck/Substrate</td>
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<td>Shaft Wall Parallel &amp; Edge Overlap Under Structural Support</td>
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<td>PT or Structural Concrete Bare Slotted with Caulks</td>
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<tr>
<td>HW-D-0633</td>
<td>Fluted Metal Deck Bare Slotted with Flute Plate/Caulks</td>
</tr>
<tr>
<td>WW-S-0055</td>
<td>Vertical Wall to Wall Joint</td>
</tr>
<tr>
<td>BW-S-0021</td>
<td>Bottom of Wall</td>
</tr>
</tbody>
</table>

Details shown are a limited sample of assemblies based on UL certified and listed assemblies. Additional assembly details, submittal sheets, and constructability designs are periodically added upon design and approval. Information can be viewed, downloaded, and printed from [www.clarkdietrich.com/BlazeFrame](http://www.clarkdietrich.com/BlazeFrame).

---

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