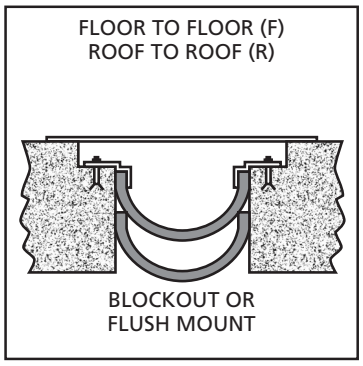
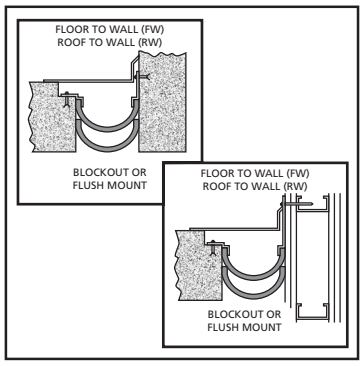
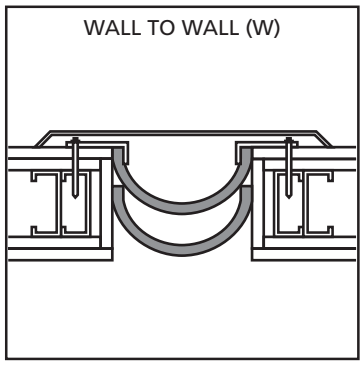
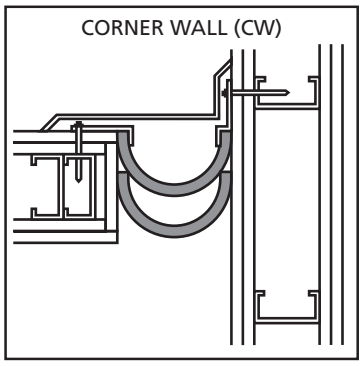
Thermal Structures Inc.

FS 5800
EXPANSION JOINT –EJ– FIRE BARRIER*
Installation Instructions
Attached Flange & Double Barrier System









Horizontal:	Horizontal:	Vertical:	Vertical:
FS 5800-F8	FS 5800-FW8	FS 5800-W8	FS 5800-CW8
FS 5800-F10	FS 5800-FW10	FS 5800-W10	FS 5800-CW10
FS 5800-F12	FS 5800-FW12	FS 5800-W12	FS 5800-CW12
FS 5800-F14	FS 5800-FW14	FS 5800-W14	FS 5800-CW14
FS 5800-F16	FS 5800-FW16	FS 5800-W16	FS 5800-CW16
FS 5800-F18	FS 5800-FW18	FS 5800-W18	FS 5800-CW18
FS 5800-F20	FS 5800-FW20	FS 5800-W20	FS 5800-CW20

General Instructions:

- Fire Barriers must be installed in accordance with installation instructions to maintain UL® Rating.
- These instructions are for all horizontal and vertical FS 5800 installations for 8" - 20" nominal joint widths.
- The 8" - 12" nominal joint width barriers are a single draped system.
- The 14" - 20" nominal joint width barriers are a double draped system as shown.
- The galvanized flanges are welded to the fire barriers and are always required for installation.
- Appropriate fasteners supplied by others are required for all the horizontal and vertical installations.
- Typically, the same fasteners can be used to fasten the cover plate mechanism and the fire barriers.
- If splicing is required, see the separate splicing instructions.
- Wear heavy duty work gloves and eye protection during the entire installation process.

Packaging:

Each carton contains: 10 foot lengths (custom lengths are also available) of FS 5800 EJ Fire Barrier with the galvanized flanges attached.
One kit with the necessary material for splicing
The installation and splicing instructions

Material Preparation:

Roll out product face up (the side with the UL® label) and cut to length. The insulation portion of the product can be formed into a "U" or "V" shape to help it fit into the expansion joint. This can be done by crimping the insulation along the center line with a pipe or board. (optional) (Fig. A)

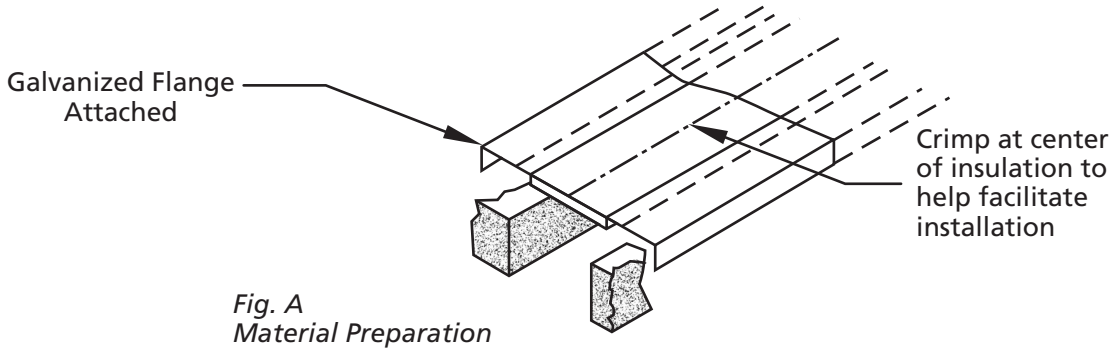


Fig. A
Material Preparation

*U.S. Patent No. 6,125,601

Installation Instructions
Horizontal or Floor and Roof Joints

Single Fire Barrier Installation: 8" - 12" Nominal Joint Widths

Step 1

After completing material preparation described on page 1 and as shown in Fig. A, place the barrier into the expansion joint cavity. Drill the appropriate size holes and secure the flanges with fasteners (by others) with a maximum spacing of 18" (See Figs. B & C)

Step 2

Cut the expansion joint covers (by others) over the joint, or in the blockout with appropriate fasteners. (by others)

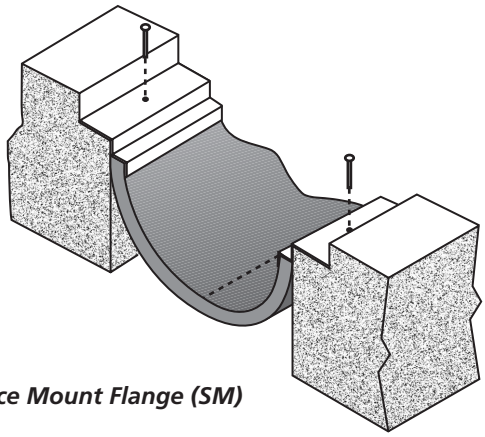


Fig. B
Surface Mount Flange (SM)

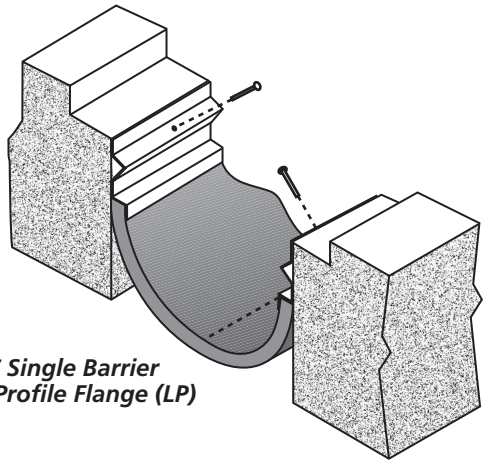


Fig. C Single Barrier
Low Profile Flange (LP)

Double Barrier Installation: 14" - 20" Nominal Joint Widths

Step 1

After completing material preparation described on page 1 and as shown in Fig. A, place the lower fire barrier into the expansion joint cavity. (See Figs. D & E).

Optional: Prior to installing the upper fire barrier, if the lower fire barrier requires fastening to hold it in place, drill appropriate size holes to the flanges and secure with fasteners (by others).

Step 2

Install the upper fire barrier and drill the appropriate size holes as shown in Fig. D. The fasteners (by others) need to be installed with a maximum spacing of 18". The same fasteners used to install the cover mechanism can generally be used to install the fire barriers.

Fire barriers with Low Profile flanges are secured with fasteners inside the joint cavity. (See Fig. E).

Note: Fire barriers with Surface Mount flanges can also be secured with fasteners inside the joint cavity.

Step 3

Install the expansion joint covers (by others) over the joint or in the blockout with appropriate fasteners (by others).

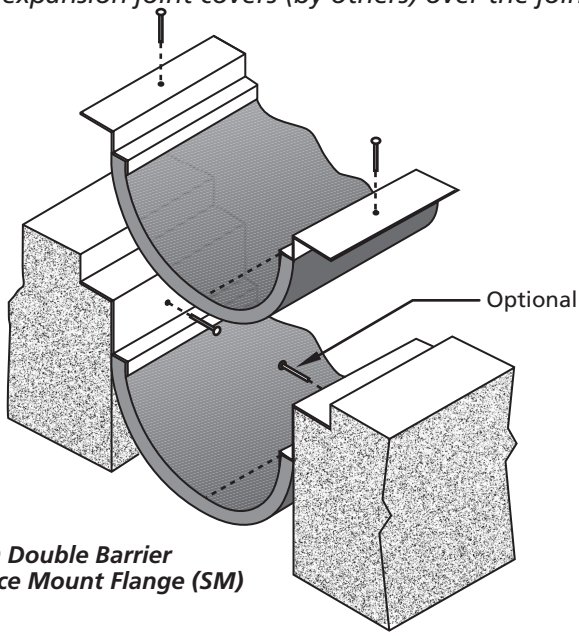


Fig. D Double Barrier
Surface Mount Flange (SM)

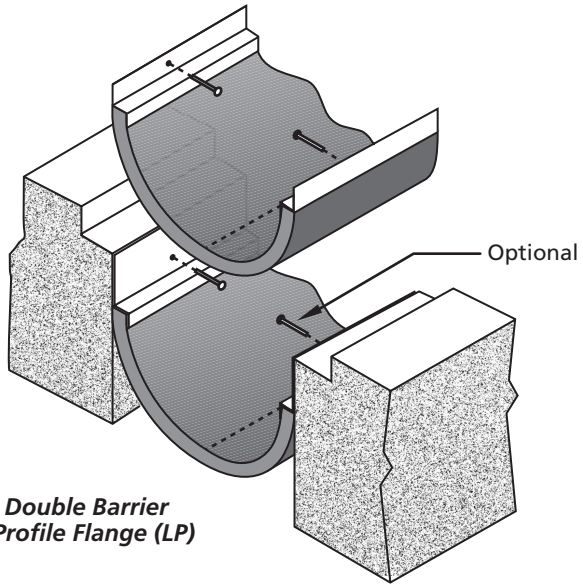


Fig. E Double Barrier
Low Profile Flange (LP)

Installation Instructions
Floor to Wall
Roof to Wall

Single Fire Barrier Installation: 8" - 12" Nominal Joint Widths

Step 1

After completing material preparation described on page 1 and as shown in Fig. A, place the barrier into the expansion joint cavity. Drill the appropriate size holes and secure the flanges with fasteners (by others) with a maximum spacing of 18" (See Figs. F & G)

Step 2

Cut the expansion joint covers (by others) over the joint, or in the blockout with appropriate fasteners. (by others)

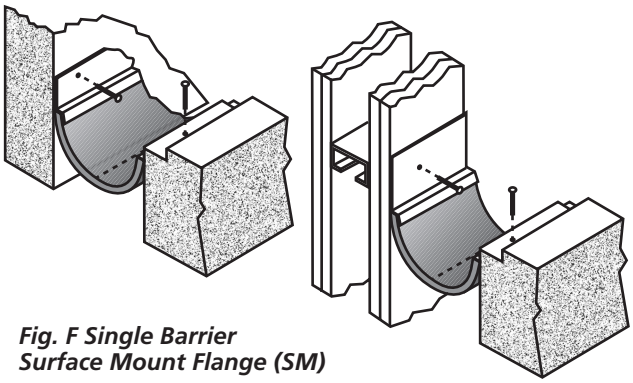


Fig. F Single Barrier
Surface Mount Flange (SM)

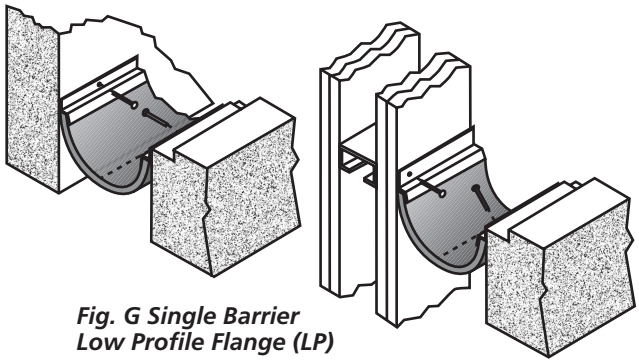


Fig. G Single Barrier
Low Profile Flange (LP)

Double Barrier Installation: 14" - 20" Nominal Joint Widths

Step 1

After completing material preparation described on page 1 and as shown in Fig. A, place the lower fire barrier into the expansion joint cavity. (See Figs. H & I).

Optional: Prior to installing the upper fire barrier, if the lower fire barrier requires fastening to hold it in place, drill appropriate size holes to the flanges and secure with fasteners (by others).

Step 2

Install the upper fire barrier and drill the appropriate size holes as shown in Fig. H. The fasteners (by others) need to be installed with a maximum spacing of 18". The same fasteners used to install the cover mechanism can generally be used to install the fire barriers.

Fire barriers with Low Profile flanges are secured with fasteners inside the joint cavity. (See Fig. I).

Note: Fire barriers with Surface Mount flanges can also be secured with fasteners inside the joint cavity.

Step 3

Install the expansion joint covers (by others) over the joint or in the blockout with appropriate fasteners (by others).

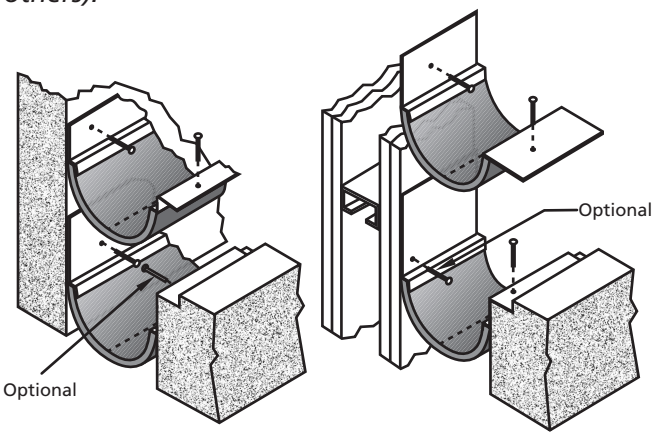


Fig. H Double Barrier
Surface Mount Flange (SM)

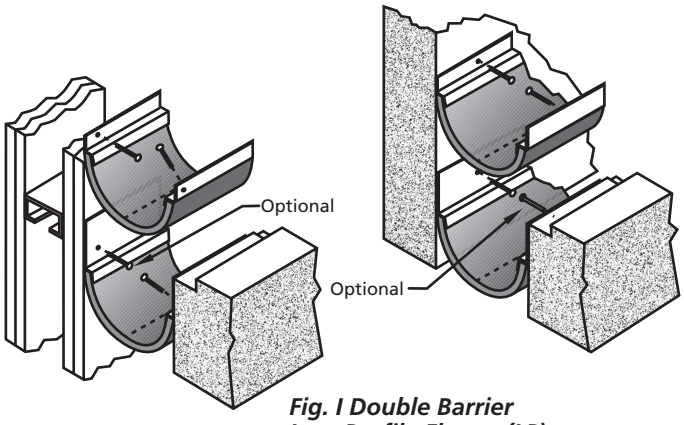


Fig. I Double Barrier
Low Profile Flange (LP)

Installation Instructions
Wall Joints

Single Fire Barrier Installation: 8" - 12" Nominal Joint Widths

Step 1

After completing material preparation described on page 1 and as shown in Fig. A, place the barrier into the expansion joint cavity. Drill the appropriate size holes and secure the flanges with fasteners (by others) with a maximum spacing of 18" (See Figs. J & K)

Step 2

Install the expansion joint covers (by others) tp either side or both sides of the wall when accessible with appropriate fasteners (by others).

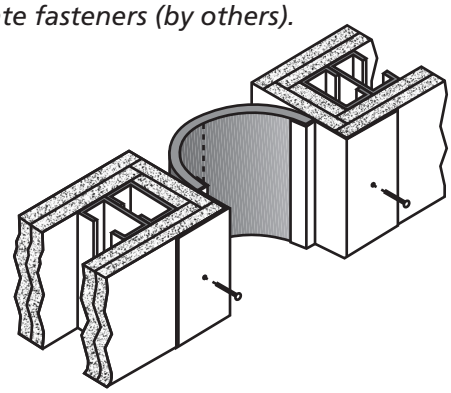


Fig. J Single Barrier
Surface Mount Flange (SM)

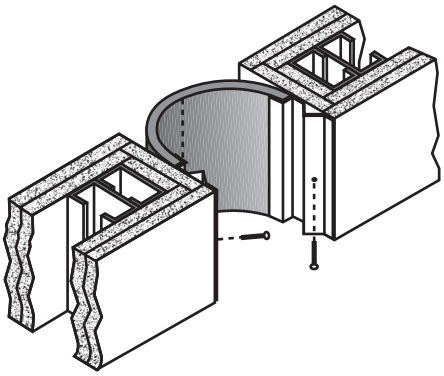


Fig. K Single Barrier
Low Profile Flange (LP)

Double Barrier Installation: 14" - 20" Nominal Joint Widths

Step 1

After completing material preparation described on page 1 and as shown in Fig. A, place the inner fire barrier into the expansion joint cavity. (See Figs. L & M).

Optional: Prior to installing the outer fire barrier, if the inner fire barrier requires fastening to hold it in place, drill appropriate size holes to the flanges and secure with fasteners (by others).

Step 2

Install the outer fire barrier and drill the appropriate size holes as shown in Fig. L. The fasteners (by others) need to be installed with a maximum spacing of 18". The same fasteners used to install the cover mechanism can generally be used to install the fire barriers.

Fire barriers with Low Profile flanges are secured with fasteners inside the joint cavity. (See Fig. M).

Note: Fire barriers with Surface Mount flanges can also be secured with fasteners inside the joint cavity.

Step 3

Install the expansion joint covers (by others) to either side or both sides of the wall when accessible with appropriate fasteners (by others).

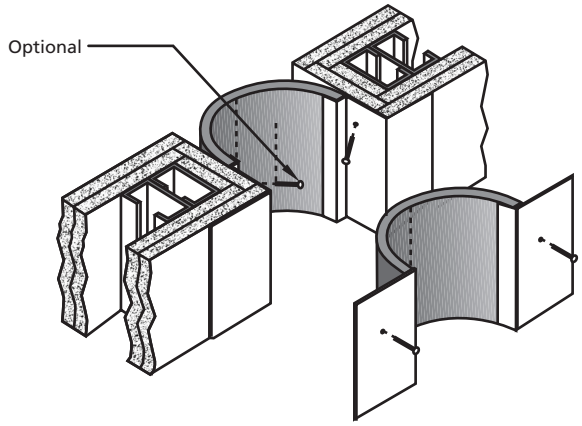


Fig. L Double Barrier
Surface Mount Flange (SM)

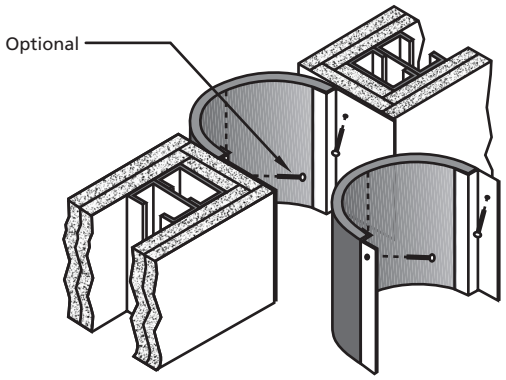


Fig. M Double Barrier
Low Profile Flange (LP)

Installation Instructions
Corner Wall

Single Fire Barrier Installation: 8" - 12" Nominal Joint Widths

Step 1

After completing material preparation described on page 1 and as shown in Fig. A, place the barrier into the expansion joint cavity. Drill the appropriate size holes and secure the flanges with fasteners (by others) with a maximum spacing of 18" (See Figs. N & O)

Step 2

Install the expansion joint covers (by others) tp either side or both sides of the wall when accessible with appropriate fasteners (by others).

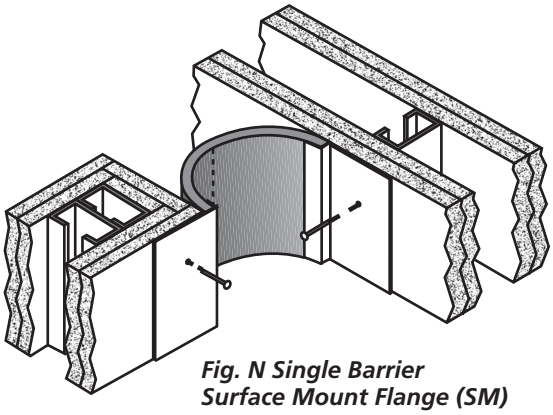


Fig. N Single Barrier
Surface Mount Flange (SM)

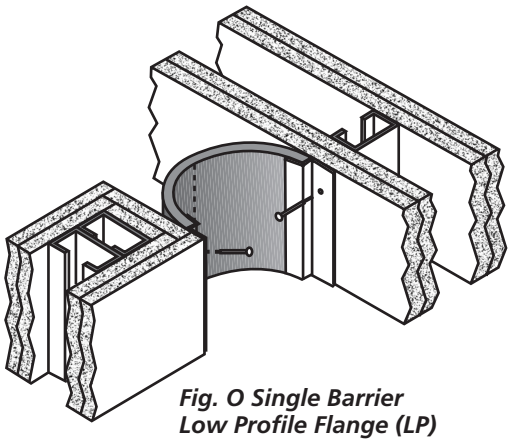


Fig. O Single Barrier
Low Profile Flange (LP)

Double Barrier Installation: 14" - 20" Nominal Joint Widths

Step 1

After completing material preparation described on page 1 and as shown in Fig. A, place the inner fire barrier into the expansion joint cavity. (See Figs. P & O).

Optional: Prior to installing the outer fire barrier, if the inner fire barrier requires fastening to hold it in place, drill appropriate size holes to the flanges and secure with fasteners (by others).

Step 2

Install the outer fire barrier and drill the appropriate size holes as shown in Fig. P. The fasteners (by others) need to be installed with a maximum spacing of 18". The same fasteners used to install the cover mechanism can generally be used to install the fire barriers.

Fire barriers with Low Profile flanges are secured with fasteners inside the joint cavity. (See Fig. Q).

Note: Fire barriers with Surface Mount flanges can also be secured with fasteners inside the joint cavity.

Step 3

Install the expansion joint covers (by others) to either side or both sides of the wall when accessible with appropriate fasteners (by others).

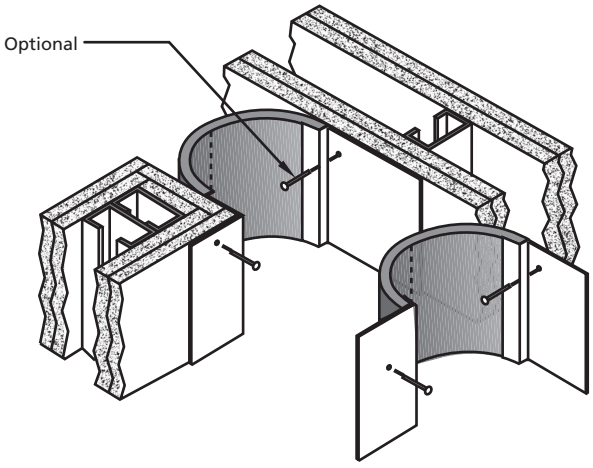


Fig. P Double Barrier
Surface Mount Flange (SM)

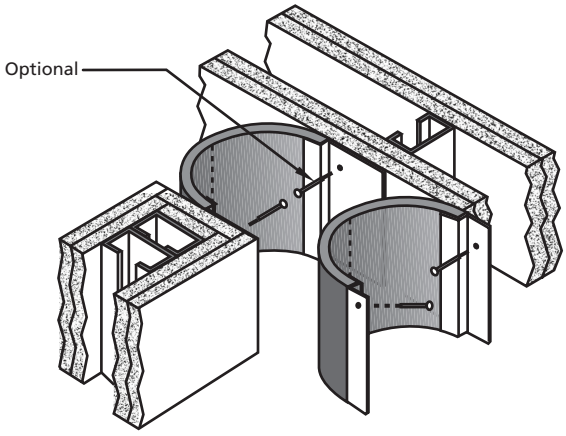


Fig. Q Double Barrier
Low Profile Flange (LP)