



Fireline™

Expansion Joint Fire Barrier Systems

Architectural Products

inpro®

The Inpro[®] Advantage.

Our products allow for the natural shifting and movement of buildings. Our Expansion Joint Systems are engineered to handle unique conditions. We realize every building has different needs, so we have a team of experts on hand to help with your project-specific conditions.



Obsessively Engineered

We constantly test and review our systems to create designs engineered to meet your needs. Whether it's applying tapered plates for maximum durability and longevity, noise dampening elements to reduce noise pollution, or using recycled tires as an eco-friendly option, we continuously innovate to provide you with the best solutions.



Designed to Protect

From ensuring smooth transitions for equipment carts and wheelchairs, to protecting your parking facility from the elements, you can count on us to provide the protection your buildings require.



Experienced Experts

When you create the design for your building you create something unique, so why entrust just anyone to make your design come to life? Our experts obsess about your building and the people who use it and go to extreme lengths to fortify buildings in their stand against the elements. Unique building conditions, custom applications or installation training, our 'joint-masters' will help your team win big on your next project.



Put to the Test

We put our products to the test to ensure they can withstand the wear and tear of everyday use and can even perform in a catastrophe. We don't just build products to function, we build products to last and we put them to the test to prove it.



Manufactured with Care

We're committed to making the best products for our customers. With our on-site manufacturing capabilities we can ensure that only the best products are shipped out to your project. We manage our products under the accordance of ISO 9001:2008 which includes the design and distribution of proprietary interior and exterior architectural products.



Here to Serve

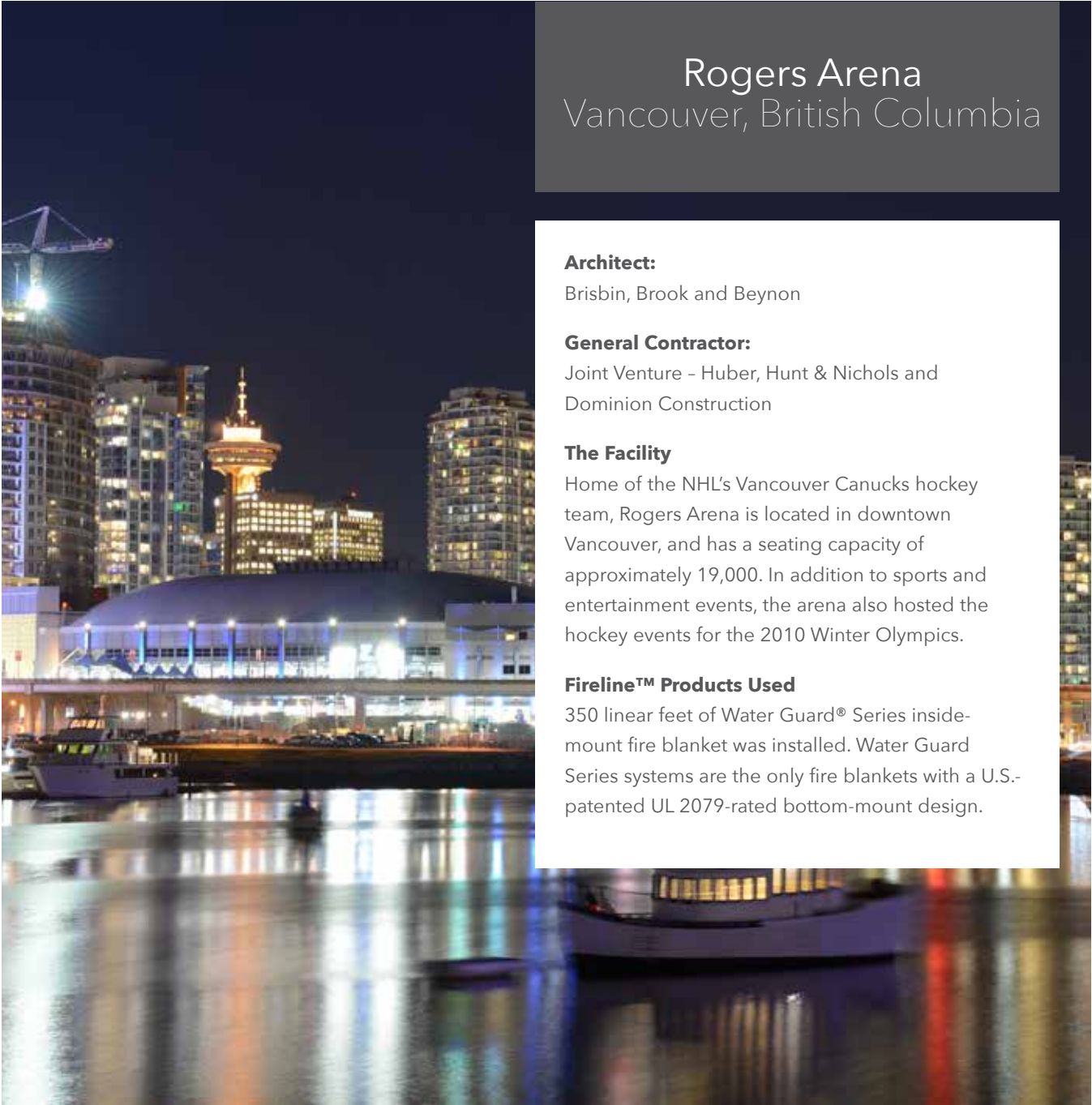
While our expansion joint products are here to serve your building, our team of seasoned experts is here to serve you and your team throughout the entire project. We don't just walk away once the last joint cover is installed - we're here to support you, your building and the function of our product for years to come. It's important to us that your systems continue to work as well as the day they were installed.



Fire Barrier Basics

An expansion joint is a predetermined gap in a structure designed to absorb environmental movement. This includes thermal and seismic movement and wind sway. Expansion joints separate a building vertically from the roof through every wall and floor, down through the slab to the foundation.

It is important to not only cover these expansion joints but also to install fire barriers within the joints. In a building without fire barriers, smoke and fire spreads rapidly through the chimney-like expansion joints. Fire barriers can stop the actual flame as well as compartmentalize the smoke and noxious chemicals they carry with them.



Rogers Arena

Vancouver, British Columbia

Architect:
Brisbin, Brook and Beynon

General Contractor:
Joint Venture - Huber, Hunt & Nichols and Dominion Construction

The Facility
Home of the NHL's Vancouver Canucks hockey team, Rogers Arena is located in downtown Vancouver, and has a seating capacity of approximately 19,000. In addition to sports and entertainment events, the arena also hosted the hockey events for the 2010 Winter Olympics.

Fireline™ Products Used
350 linear feet of Water Guard® Series inside-mount fire blanket was installed. Water Guard Series systems are the only fire blankets with a U.S.-patented UL 2079-rated bottom-mount design.

Testing

With lives on the line, fire barriers are put through extremely rigorous testing to ensure they are capable of withstanding the rigors of a fire.

Fireline™ fire barriers were tested under the following requirements and passed!

- **UL 2079** - Test for fire resistance of building joint systems
- **ULC S-115 "FTH"** - FTH: Rating Fire, Temperature and Hose
- **ASTME1399** - Standard test method for cyclical movement and measuring the min/max joint widths of architectural joint systems.
- **EN 1366-4** - Fire Resistance test for Service Installations. Linear Joint Seals. (Equivalent to BS 476, Part 20). 120 minutes.
- Fireline products are accepted by many local Civil Defense authorities throughout Middle Eastern/GCC Counties. Contact your local Inpro representative for territory specific details.



Note: Tested product configurations vary by region. Please contact your regional Inpro office for more information.

The testing process consists of three stages:

Stage 1

Cycling to simulate seismic movement and make sure the fire barrier remains in place/intact.



Stage 2

Oven test for heat capabilities.



Stage 3

Hose-stream test for vertical barriers to make sure the fire barrier remains in place/intact.



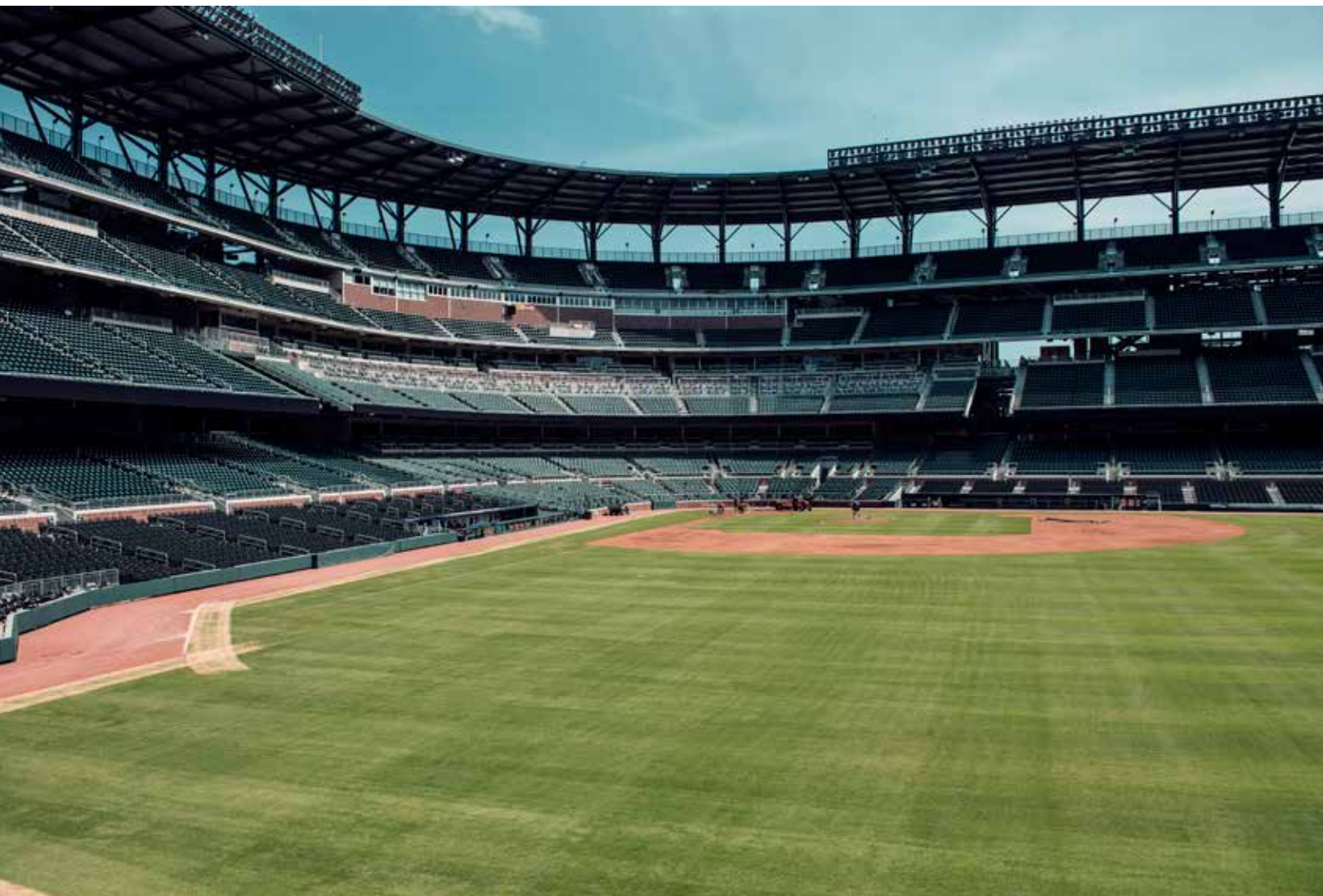
Guard against the biggest threats to fire barriers

Threat 1: Water

One of the biggest obstacles with traditional fire barriers is that they can never get wet. Many times, fire blankets will arrive before the job site is ready for installation and it must sit out, exposed to the elements. With that type of exposure the barrier will have to be replaced because once the barrier is wet, it is destroyed...unless you're using Water Guard®.

Fireline™ Water Guard® Series systems are the only fire blankets with a US patented, UL 2079 rated water proof design. The Water Guard® protects the integrity and performance of the fire barrier from extended exposure to the elements.

No need to worry if the fire barrier is installed for a few days, weeks or months before the building is enclosed. Water Guard has been utilized in stadium projects where they were installed and exposed to the elements before cover-plate installation.



Threat 2: Installation

A poor installation can result in gaps which will cause a chimney effect, allowing smoke and noxious fumes to spread. Fireline™ reduces the margin of error with pre-attached metal flanges for drop-in installation and male/female splices.

Unlike other fire barriers, we've gone to extreme measures to ensure that installation is not only correct, but easy. All Fireline™ fire barriers are engineered for one-step, drop-in installation saving time and money.

How Fireline™ Fire Barriers Make Installation Easier

Factory Fabricated Splices



Preattached, Integral Flanges for Drop-In Installation



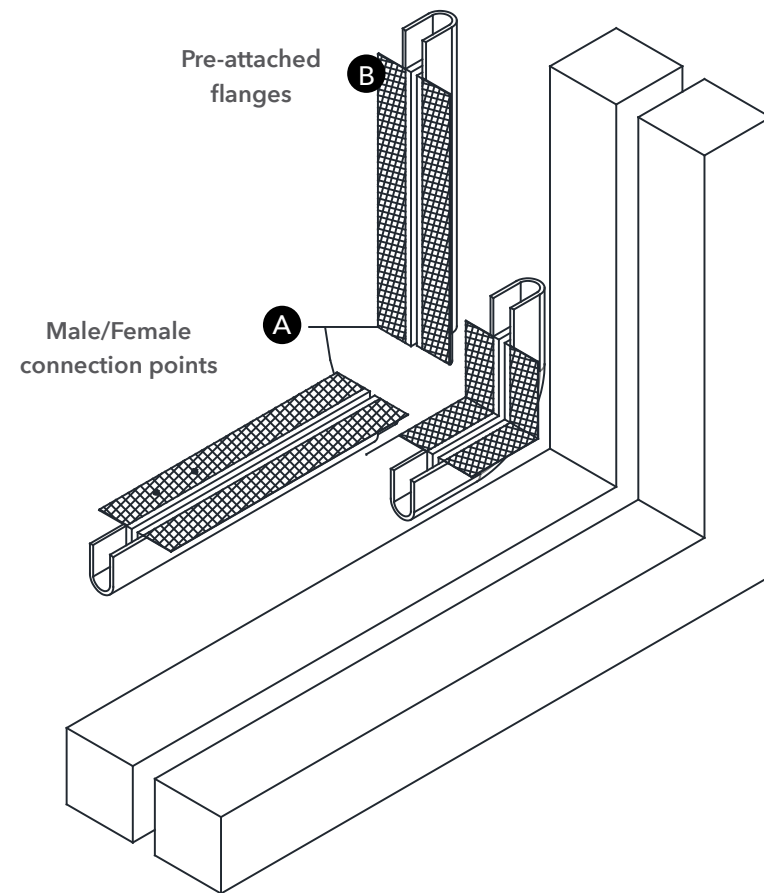
5 Key Tips for Successful Fire Barrier Installation

1. A solid substrate free of voids is critical for securing the fire barrier in place. **This substrate UST be constructed in accordance with either UL or EN fire-rated construction assemblies.**
2. Consider the fire barrier as a complete system. Seams, changes in direction, and multi-layered systems are good places to check first.
3. Expansion joint covers matching the tested conditions are a required part of a complete system. Pursue judgments or align your specifications with manufacturers that have completed this for you.
4. Inspect test document or request test data when writing specifications to ensure your product can meet the project demands.
5. Provide separate details for rated conditions - do not utilize canned or boilerplate details that were not developed with barriers specifically in mind.

With lives on the line
**there's only one
fire barrier you
can trust.**

Fireline™ Fire Barriers are the only products of their kind that took on the challenge to improve fire barriers and succeeded. When it comes to protecting your building and the people inside, we make it as easy as possible.

Achieve consistent and efficient installation with patented:



Our Fireline™ products have been tested and approved.
Visit our website for more information.



Fireline™
Fire Barriers

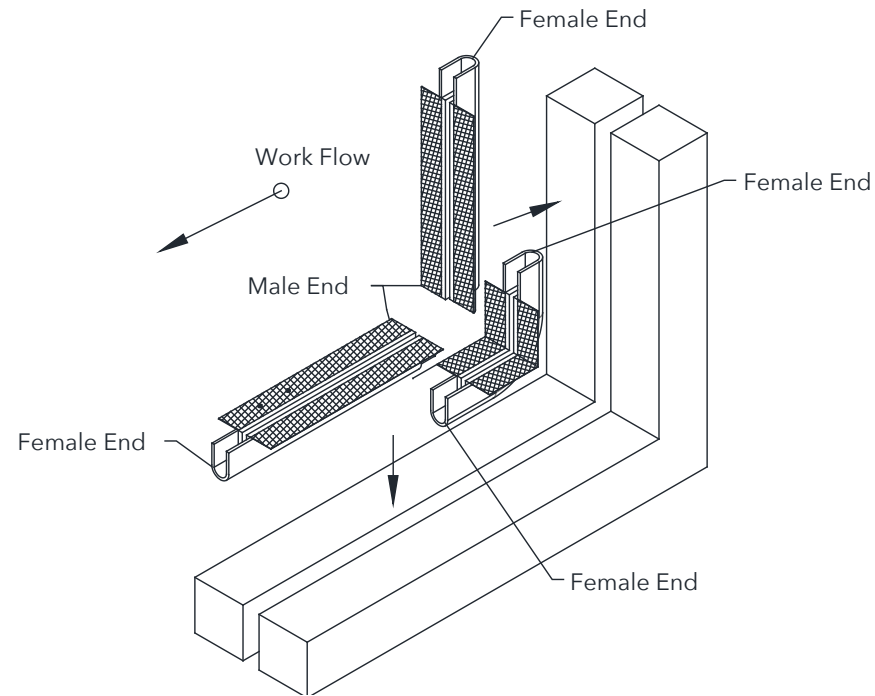
Fireline™ 520 Fire Barriers

Fireline™ 520 Expansion Joint Fire Barriers not only prevent the spread of smoke, heat and fire, but they are specifically designed for easy installation to maintain effectiveness even when the unthinkable happens. Inpro's commitment to protecting buildings and the people who use them has been proven time and again in Expansion Joint projects throughout the world. Protect your buildings and yourself from liability and let one of our Expansion Joint experts find the perfect solution for your project.



520 Advantages

- Patented male/female joint system ensures fire barrier seam integrity.
- All fire barriers are pre-assembled with integral flanges and ready to install out of the box.
- Available in top, inside and bottom mount version for horizontal joints.
- Horizontal joint openings from 2"-32" (50mm -810mm) with 25%, 50% and 100% movement.
- Vertical fire barriers are available with 1-4 hour fire ratings.



Every Solution

Fireline™ offers multiple installation versions that give you the perfect fire barrier for your expansion joint. We don't believe that one-size-fits-all when it comes to fire protection so we offer top, inside and bottom mount configurations.



Easy Installation

When installation is simple, there is less room for error. Ensure your building and the people within are properly protected. Our drop-in installation design makes the process run much smoother and decreases the amount of time you and your team are on site.



Factory-Made

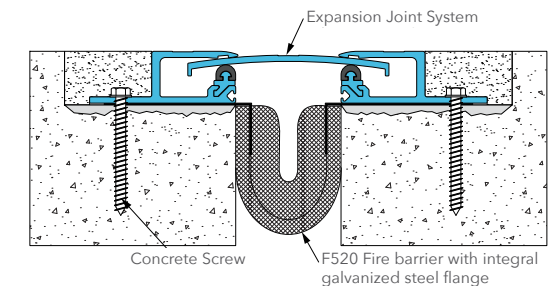
Because multiple components of a Fireline™ Fire Barrier System are factory pre-assembled, you spend less time on site manipulating and cutting material.

Fire Barriers

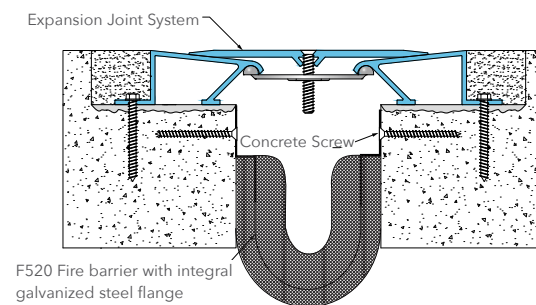
We have Fire Barrier configurations available to meet any project's needs. Building expansion joint and slab openings inherently create a pathway for fire and smoke to travel and spread throughout the structure. Our broad array of Fire Barrier products provide protection for 1, 2, 3 and 4-hour rated conditions to keep the threat contained.

Our website offers quick links direct to 3rd party testing information as well as a number of engineering drawings. Please visit our website for additional information.

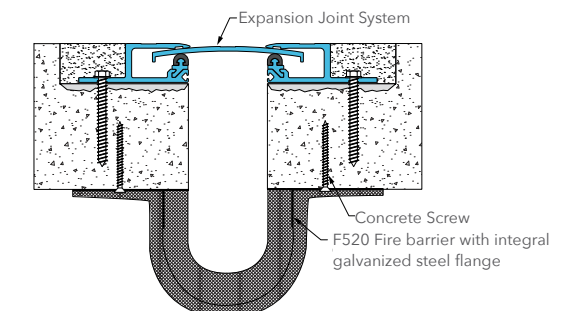
Fireline™ 520 Fire Blanket



Top (Flush) Mount - Floor to Floor
(300-A01-100 System Shown)



Inside (Recessed) Mount - Floor to Floor
(430-A01-100 System Shown)



Bottom Mount - Wall to Wall
(300-A01-100 System Shown)

Designed with installation in mind, the Fireline™ 520 system installs 3x faster than other products on the market.

- Accommodates floor and wall joints from 2" (50mm) to 26" (660mm) wide.
- ± 50% movement.
- 1, 2, 3 and 4 hour rated systems available.
- No fire caulk required at splices.
- Single sided installation.
- Mounting configurations available for both wall and floor conditions:
 - Top (flush) Mount
 - Low Profile (recessed) Mount
 - Bottom Mount
- Contact your regional Inpro representative for additional testing information.

Watch the Installation video on our YouTube page.

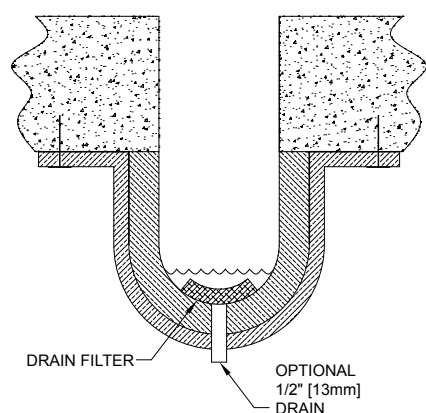


Thunder Horse PDQ Gulf of Mexico

Fireline™ Water Guard® Fire Barrier

Fireline™ Water Guard® Series systems are the only fire blankets with a US patented, UL 2079 rated waterproof design. The Water Guard® protects the integrity and performance of the fire barrier from extended exposure to the elements.

Fireline™ Water Guard® Series



- Straight 4 ft. (1.2M) sections for easy handling.
- 2" - 32" Joint Opening (50mm - 810mm).
- 1-3 Hour Fire Rating.
- Optional drain tube.
- Contact your regional Inpro representative for additional testing information.
- Water Guard Series U.S. Pat. No 8,397,453



Jobsite Flexibility

In order for a project to run smoothly, everything has to come together just right - especially timing. While traditional fire barriers would be ruined by exposure to the elements if not immediately covered, Water Guard® fire barriers can sit uncovered for weeks at a time. With Water Guard, there's no need to worry if your cover plates didn't arrive in time for your fire barrier installation.



Seismic Protection

Just like the Fireline™ system, our Water Guard® can handle seismic movement. So not only does the Water Guard protect your building from the spread of smoke and fire AND eliminate the threat of water rendering your fire barrier useless...it also withstands seismic events keeping one of the most passive fire protection pieces in your building in place.



An Expert Team

One of the biggest benefits of the Water Guard® is the team of experts that accompanies every installation. With over 65 years of experience in the field, our team of experts know exactly what it takes for your project to run smoothly. Instead of generic installation courses, our experts will come directly to your project to teach you how to install based on the unique needs of your site. There's no building just like yours, just like there's no team of experts just like ours.

Thunder Horse PDQ is a semi-submersible oil platform on location over the Mississippi Canyon Thunder Horse oil field, in deep-water Gulf of Mexico. It is moored in waters of 6,040 ft., 150 miles southeast of New Orleans.

Thunder Horse PDQ is the largest offshore installation of its kind in the world, displacing 140,000 tons, and hosting an on board crew of 300. It's as tall as a 43-story bldg., with a main deck the size of two football fields laid side by side.

Fireline™ was asked to tackle the large obstacle of providing fire protection in an environment destined to get wet. We were able to use the same technology that's in our Water Guard® to build removable fire blankets for the steam lines and boilers. The installation in Thunder Horse tested our Fire Barrier in the harshest of environments and confirmed the protection level that the Water Guard® Series brings to any structure. The platform went into production in 2005, and now produces in excess of 200,000 barrels of oil per day.



NEW! Fireline™ 140 Fire Barrier



Springs Into Action

Our design experts engineered the Fireline™ 140 system for a true drop in installation. The system features adjustable compression springs that provide outward pressure within the throat of the joint, meaning you don't have to deal with screws, sealants or complex seaming. Just place the system in the joint, cut the zip-ties and move on to the next section.



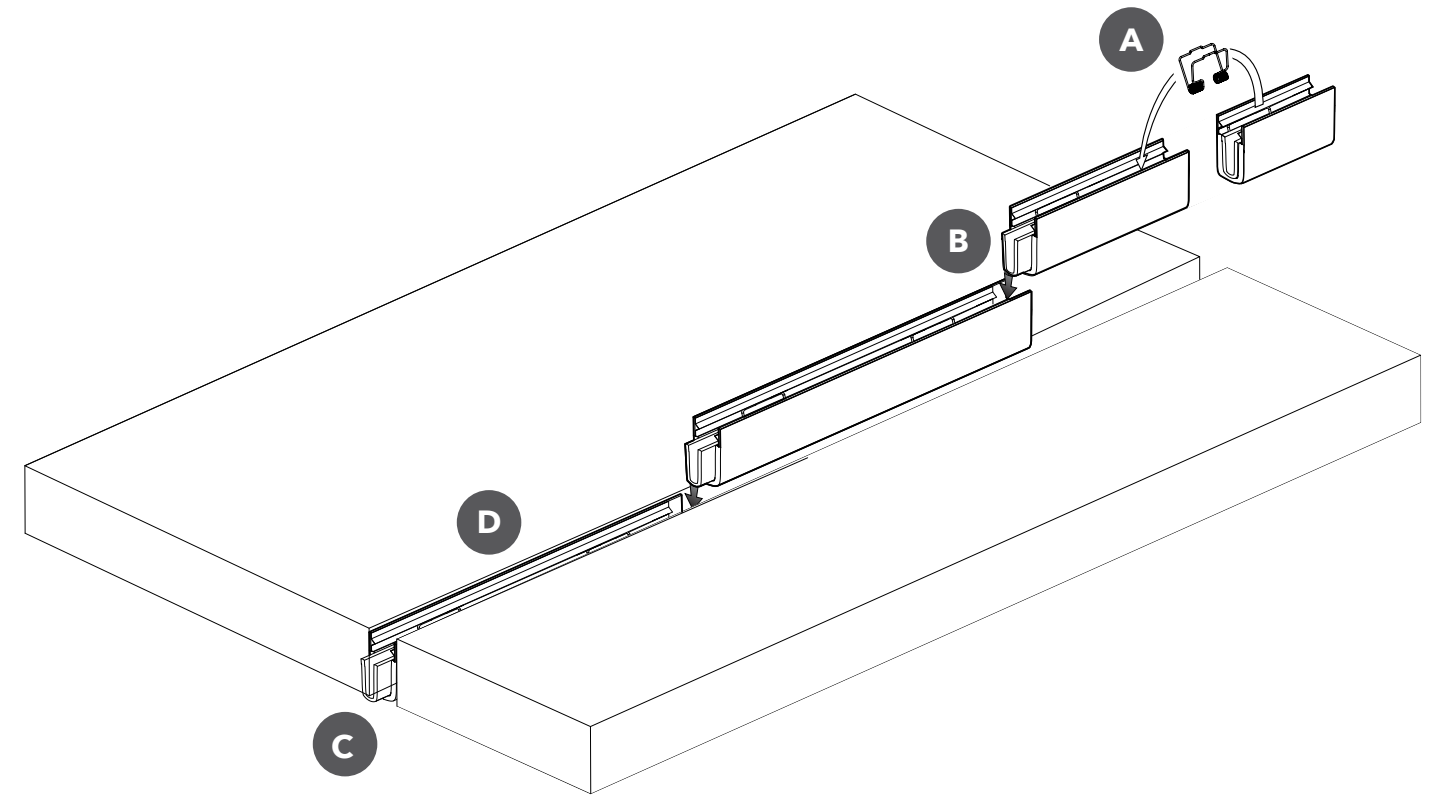
Inclusive Benefits

Whether you're an architect, designer, contractor or installer - the Fireline™ 140 System has benefits for you. If you're an architect or designer, rest easy that you'll have a consistent installation leaving your project looking great. And if you're a contractor, take joy in our drop in installation which saves you time and money on the jobsite.

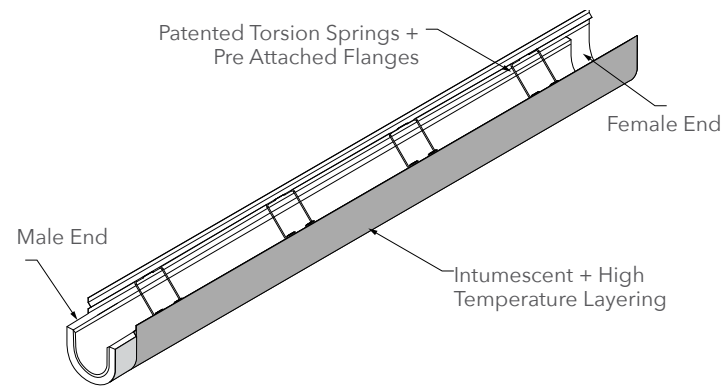
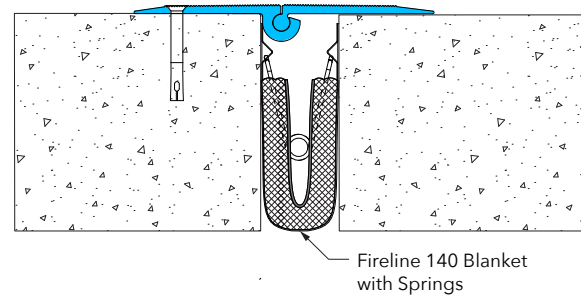


Tried and Tested

We obsess about the safety of buildings and the people who use them which means we test our products to the most extreme criteria. Contact your regional Inpro representative for testing information.



NEW! Fireline™ 140 Fire Barrier



The first fire barrier of its kind, the Fireline™ 140 requires no mechanical fastening. The 140 'springs' into action during installation utilizing our patented spring technology for consistent outward pressure.

- System sold in 6 ½' (2m) lengths.
 - Accommodates floor and wall joints ranging 2-4" (50-100mm) in size.
 - 50% +/- seismic movement rating
 - Passive Fire barrier system for 1 and 2 Hr. Fire Ratings.
 - Inside mount eases installation of any coverplate or chase wall system.
 - Contact your regional Inpro representative for additional testing information.
- U.S. Pat. No. 9,745,597

Watch the Installation video on our YouTube page.

Fireline™ 140 is designed with everyone's best interest in mind; not only do we want a fast and cost-effective installation, but we also want consistent installation and design approved finish.

- A** Our Fireline™ 140 features patented pre-attached flanges that utilize adjustable compression springs for consistent outward pressure within the joint.
- B** Similar to our Fireline™ 520 system, sections of the 140 come with factory made male to female ends, eliminating the need for complex field manipulation at the seams. The days of layering fire blanket in the field are OVER! Not to mention, the 140 system does not require mechanical fastening or fire caulks for installation - no complicated tools or messy adhesives required.
- C** However, the simple installation of the Fireline™ 140 system certainly does not take away from its protective qualities. Within the tough outer walls of the 140 that are used for transportation and installation protection, there are layers of intumesces and high temperature insulation to resist toxic smoke and fire.
- D** The 140 system mounts against the inside face of the expansion joint. This not only eases installation of the 140 system, but also of any coverplate or chase wall system installed above. This allows for a more consistent finish throughout your design and more flexibility in your coverplate selection.





World Trade Center New York, New York

Architect/Contractor:

Beyer Blinder Belle Architects
Turner Construction

The Project

World Trade Center - Towers 3 & 4

Inpro® Products Used

Fireline™ Products

A total of 1,200 linear feet of Water Guard® blankets in bottom-mount and wall-to-wall mounts; and 520 Fireline blanket in top-mount configuration. Joint widths varied from 3" to 24".



Visit [Inprocorp.com](https://www.inprocorp.com) to see a video testimonial of this project.

FAQ's

We know that there are a lot of questions when it comes to protecting your building and the people inside. Here are a few frequently asked questions about fire barriers.

Q: What is the purpose of expansion joint fire barriers?

A: Expansion joint fire barriers are Passive fire protection systems. They are designed to keep your building intact and prevent the further spread of smoke and fire allowing more people to evacuate the building.

Q: Are there concerns regarding moisture and water in fire barriers?

A: Yes, not only does water ruin the structural and protective properties of expansion joint fire barriers, it also creates an environment for the growth of mold and mildew.

Q: At one time my fire barriers were wet but now they are dry, are they ok to use?

A: No, once the fire barrier material is wet, the performance and physical characteristics have been altered and you must replace them.

Q: If my fire barrier is installed, uncovered and left exposed to the elements, will it get ruined?

A: In standard fire barriers, yes. However, the Fireline™ Water Guard® system is the only US patented, UL 2079 certified water proof fire barrier. It has proven effective even after being installed and left uncovered for up to two years!

Q: Are fire barriers able to protect in seismic zones?

A: Like expansion joints, different fire barrier systems have different seismic capabilities. Fireline™ fire barriers have been cycle tested and proven to perform and stay intact during severe seismic events.

Experienced Experts

We know what a challenge it can be to meet every building requirement or accommodate for changes in the design. Expansion joint and fire barrier systems can be confusing so let us eliminate your toughest challenges so you can focus on more important things like your building's design and construction.

Our team constantly tests and reviews our systems to create designs engineered to meet your needs. If your project presents a unique obstacle, we offer assistance specific to your needs. From custom designs to on-site visits, we make sure you're fully equipped to handle your project from start to finish.



Project List

SunTrust Park

Atlanta, GA

This new \$622M, 42,000 seat stadium is the home of the professional baseball team in Atlanta. The ballpark opened with its first regular season game on April 14, 2017, and replaces the former Turner Field. .
Fireline™ 520 Fire Barriers and Water Guard® Fire Barriers.

Norwich Free Academy Slater Hall

Norwich, CT

Scripps Green Hospital Stairwell

San Diego, CA

Children's Medical Heart Center

Dallas, TX

Augusta Health Heart & Vascular Center

Fishersville, VA

Owensboro Hospital

Owensboro, KY

Exploratorium® at Pier 15

San Francisco, CA

San Diego Airport

San Diego, CA

San Diego International Airport Rental - Car Center

San Diego, CA

San Diego International Airport Terminal 2

San Diego, CA

Citrus Bowl

Orlando, FL

Arrowhead Stadium - Kansas City Chiefs

Kansas City, MO

Citi Field - NY York Mets

New York City, NY

Georgia Dome - Atlanta Falcons

Atlanta, GA

Gillette Stadium - New England Patriots

Foxborough, MA

International Tocumen Airport - South Terminal

Tocumen, Panama

MGM National Harbor

Oxon Hill, MD

Lucas Oil Stadium - Indianapolis Colts

Indianapolis, IN

Lincoln Financial - Philadelphia Eagles

Philadelphia, PA

MetLife Stadium - NY Jets & Giants

East Rutherford, NJ

New York Yankees Stadium

New York, NY

Papa John Stadium - University of Louisville

Louisville, KY

Ralph Wilson Stadium - Buffalo Bills

Orchard Park, NY

Rogers Arena - Vancouver Canucks

Vancouver, BC

Changi T4 Airport

Singapore

Pondok Indah Hotel, Indonesia

Aeon Mall, Vietnam

Okada Resort Manila, Philippines

Novotel Hotel Taipei Airport, Taiwan

An International Airport

United Kingdom



Architectural Product Categories

Door + Wall Protection

Elevator Protection

Commercial Window Treatments

Privacy Systems

Washroom Systems

Architectural Signage

Expansion Joint Systems

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