



KOMIX
WATERPROOFING AND GREEN SYSTEM



HYPERSTOP
HYDRO SWELING BENTONITE WATERSTOPS

DESCRIPTION

Hyperstop DB is a hydro swelling water stop which seals construction joints effectively. The principal component of **Hyperstop DB** is sodium bentonite a material which swells in the presence of water. **Hyperstop DB** is installed as a rubbery strip in the center of construction joints. Water which enters the joint will cause **Hyperstop DB** to swell. The high swelling pressure of **Hyperstop DB** seals any cracks and voids effectively.

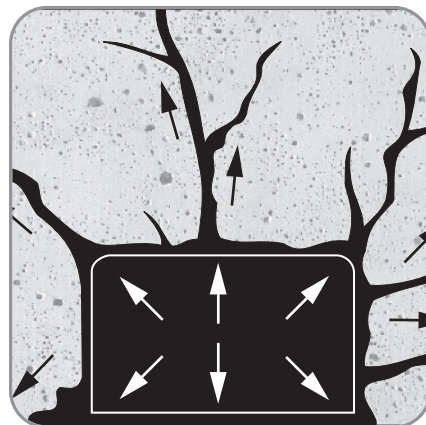
Hyperstop DB is made high performance modified bentonite strips. The swelling action is the result between water and hydrophilic groups which are part of the **Hyperstop DB** molecular structure. Expansion of the **Hyperstop** creates a positive seal against the face of the concrete joint and prevents the water entry into the structure through the protected joint.

Hyperstop DB is secured to the concrete surface with a primer or without primer. It is extremely easy to handle thus saving installation time and cost. **Hyperstop DB** is an ACTIVE **Hyperstop**, it swells in the direction of water and seals the voids and cracks through which water deeps. **Hyperstop DB** is very flexible and highly suited for Corners and pipe penetrations.

ADVANTAGE

Easy to install by bonding nailing or casting into joint face. Factory made connectors enable full integration of swellable and exciting **Hyperstop DB** networks.

Swelling properties unaffected by long term wet/dry cycling. Sustains effective seal in wet conditions.



PHYSICAL PROPERTIES

TEST ITE	TEST RESULT	TEST METHOD
Specific gravity at 25 °C	1.35	ASTM D-71
Heat-resistance Test		
Varition Rate of Length	±3/45%	
Deformity of Appearance	No Abnormality	
Cold-resistance Test	No Abnormality	
Color	Black	
Expansion volume rate	250% - 300%	

PACKAGES

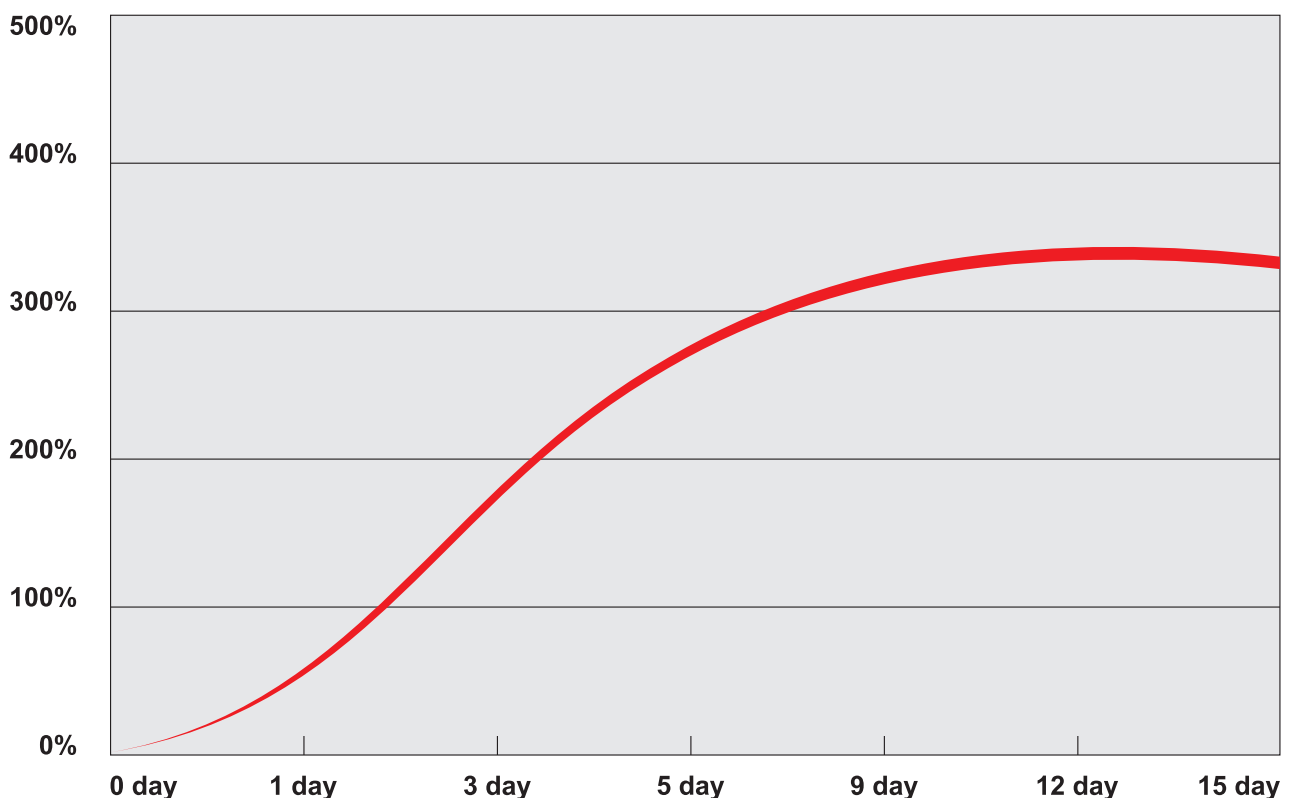
DB-2015, (N) : 20mm X 15mm (6m X 7roll/box)
 DB-2515, (N) : 25mm X 15mm (6m X 6roll/box)
 DB-2519, (N) : 25mm X 19mm (5m X 6roll/box)
 (N) option : center fiber net insert.

TECHNICAL SUPPORT

Provides a technical advisory service for on site assistance and device on curving membrane selection, evaluation trials dispensing equipment. Technical date and guidance can be provided for **Hyperstop DB** and other products for in the construction.

1. Where ground water may be contaminated badly with lime water or sea salt, consult the manufacturer for uitability of using this product.
2. Hyperstop DB should be centrally placed in the joint and requires a minimum concrete cover of 50mm to confine swelling pressure.
3. Do not immersion in water before the next concrete to be pour expansion of 250%- 300% is achieved after 6 days continuous contact with water.

SWELLING CHART

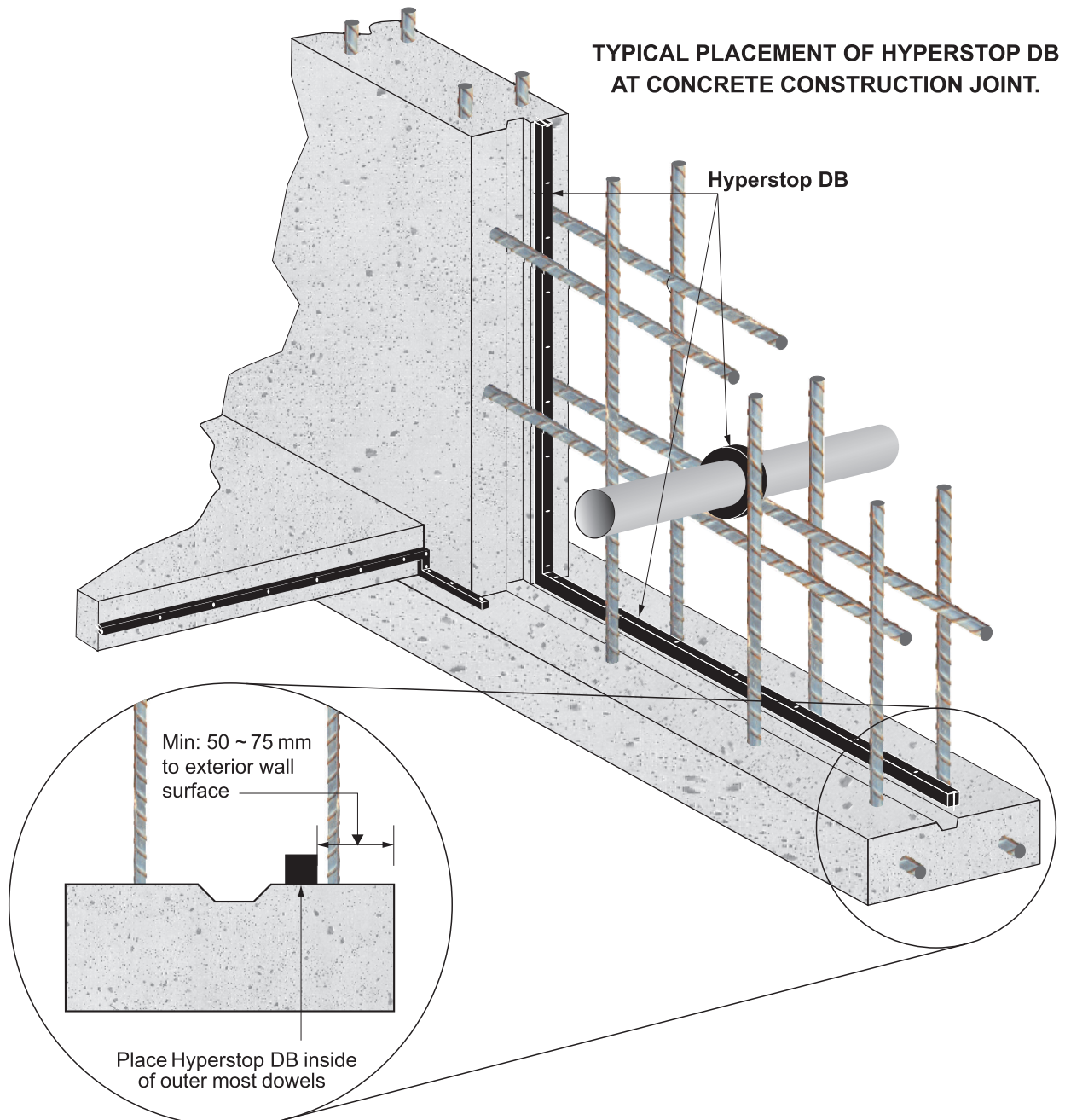


SWELLING CHART AND INSTALLATION

GENERAL APPLICATIONS

Hyperstop DB application include both vertical and horizontal concrete construction joints, new-to-existing construction, irregular surfaces, and around through wall penetrations, such as plumbing and electrical conduit. **Hyperstop DB** is designed for both hydro static and nonhydrostatic conditions. **Hyperstop DB** is not designed, nor intended to function as an expansion joint sealant. Contact manufacturer for precast concrete application, technical information and approval. **Hyperstop DB** is designed for structural concrete with a minimum of 3000 psi. **Hyperstop DB** require a minimum 3" (75 mm) of concrete coverage of 2"(50mm).

Hyperstop DB products are designed for vertical and horizontal reinforced concrete 8"(200mm) thick or greater, with two rows of reinforcing steel. **Hyperstop DB** products are designed for vertical reinforced concrete 5" (125 mm) thick or greater; and horizontal reinforced concrete 4" (100 mm) thick or greater. **Hyperstop DB** products are designed primarily for concrete with one row of reinforcement, concrete curbs, planter walls, and light weight concrete.



GENERAL APPLICATIONS

The **Hyperstop DB** may be installed either into a groove cast in the concrete or directly onto the concrete surface. Full application instructions, including the use of the ancillary products, are contained in a separate application leaflet which is available on request.

A flexible butyl rubber and swelable clay waterproofing compound that swells upon contact with water to form a long-lasting compression seal in non moving concrete joints. **Hyperstop DB** requires a 2inch minimum clear coverage from the face of the concrete. **Hyperstop DB** is used primarily for foundation walls slabs, slabs-on-grade, precast wall panels, main holes, pipe connections, box culverts, utility and burial valuets, wet wells, and portable water tanks.



Hyperstop DB
on rough sur face



Hyperstop DB
expansion and seal
all the rough surface



GENERAL INSTALLATION PROCEDURES

Surface Preparation. Surfaces should be clean and dry. Remove all dirt, rocks, rust or other debris. Do not install **Hyperstop DB** in standing water.

Installation. Roller or brush apply Volclay® WB Adhesive a minimum of 5 mils thick, by the width of **Hyperstop DB**. Apply the adhesive over the entire surface to receive

Hyperstop DB. Allow the adhesive to dry 10-15 minutes or until it turns black. At temperatures below 55°F (13°C), or in damp conditions, allow a longer period to dry. Adhesive application rate is 400-600 linear feet (120 meters) per gallon (3.78 liters).

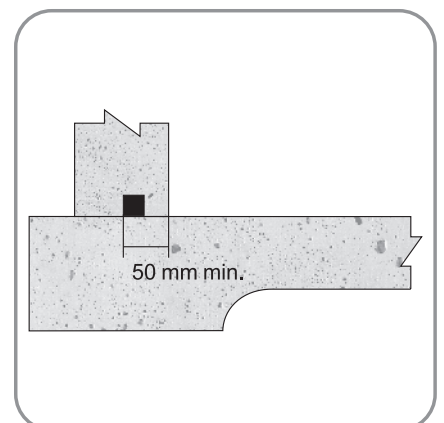
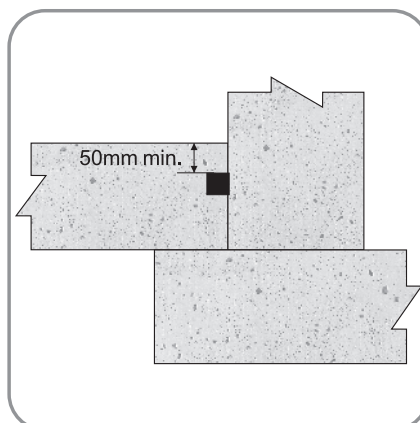
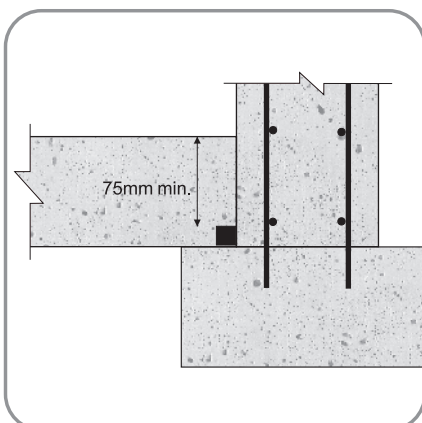
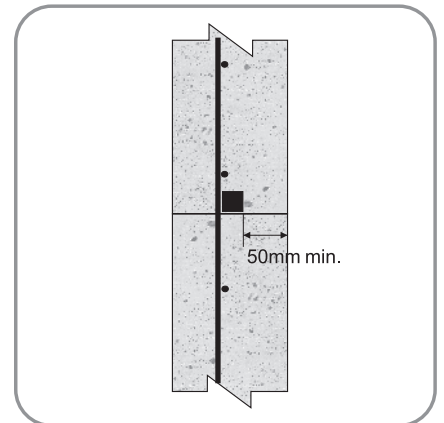
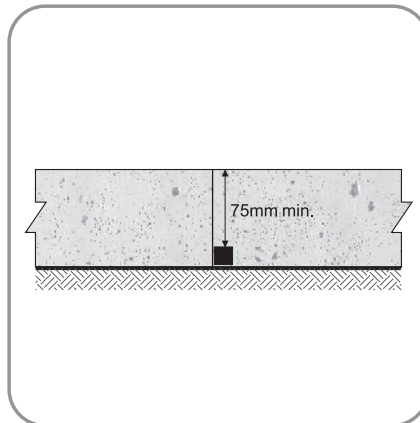
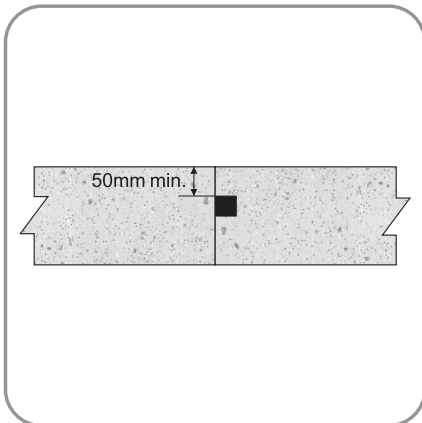
After allowing adhesive to dry black, remove release paper and firmly press the entire length of **Hyperstop DB** onto the adhesive. Press firmly for several seconds - especially at the highest coil end on vertical applications. For best results, apply **Hyperstop DB** within two hours of adhesive turning black. Areas not receiving **Hyperstop DB** within six (6) hours shall be recoated.

Adhesive may be applied to damp surfaces and green concrete, but not in free standing water.

Hyperstop DB is recommended for installation outside of any formed keyway in poured-in-place concrete construction. **Hyperstop DB** can be installed in a formed keyway with the approval of the structural engineer.

Consult manufacturer for recommendations on conditions not represented herein.

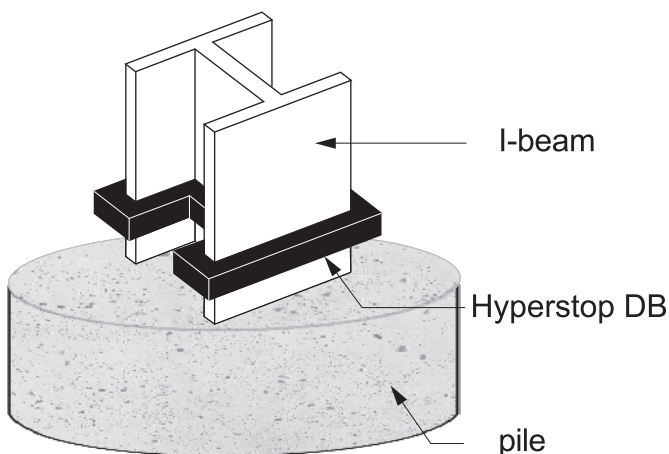
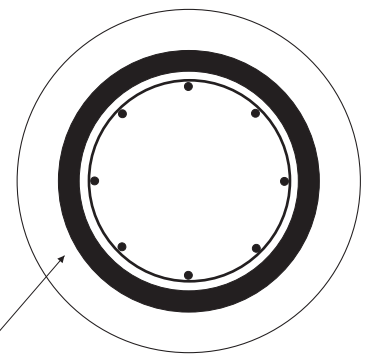
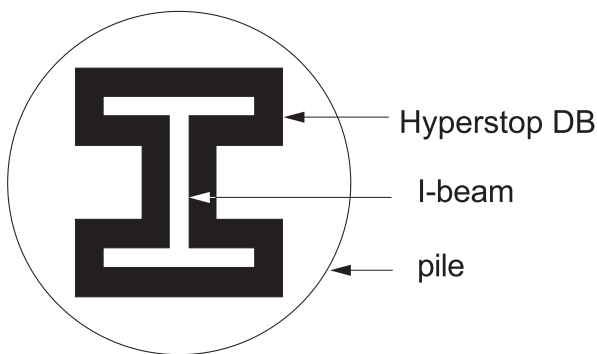
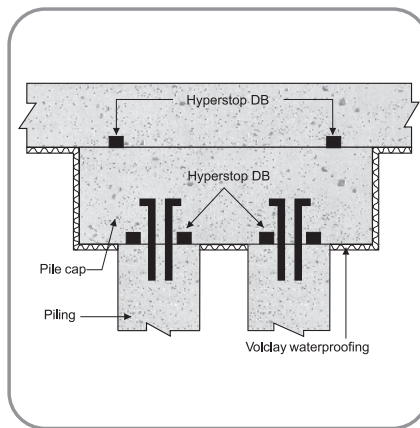
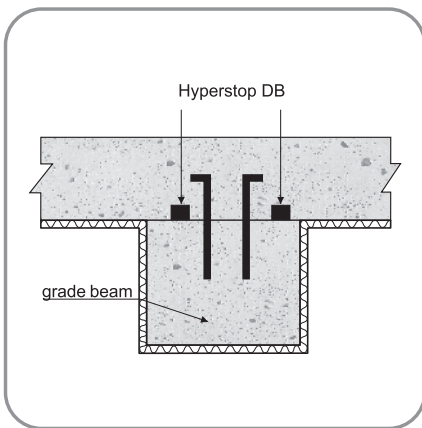
Hyperstop DB is not designed, nor intended to function as an expansion joint sealant.



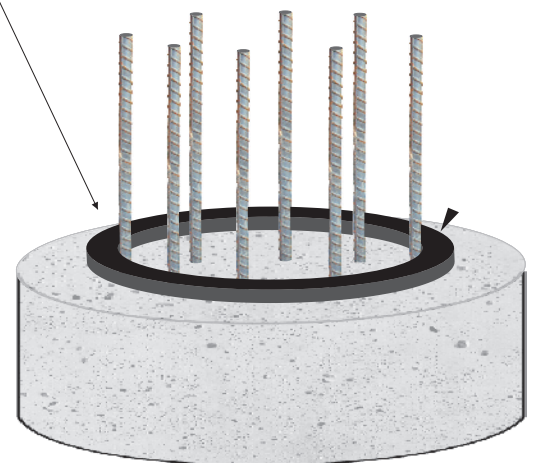
PILE CAPS AND GRADE BEAMS

Following the General Installation Procedures in Section 7, install **Hyperstop-DB** in all applicable concrete construction joints around or adjacent to pile caps and grade beams.

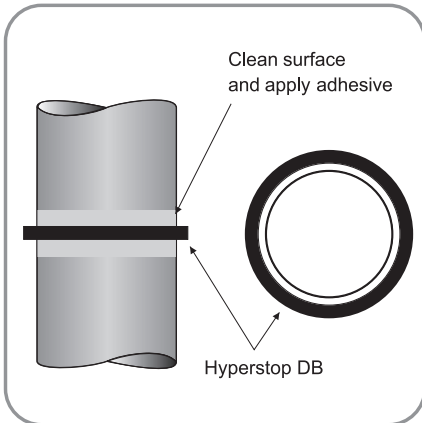
Install **Hyperstop DB** around pile caps and grade beams above the layer (not contacting) of exterior waterproofing to establish a separate Hyperstop layer. Contour all I-beams extending outward from pile caps with **Hyperstop DB** or encircle all metal reinforcement rods extending out of pile caps.



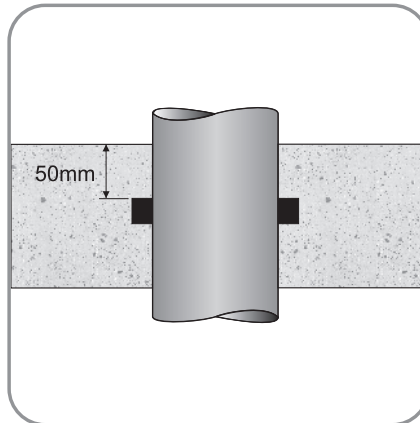
Hyperstop DB



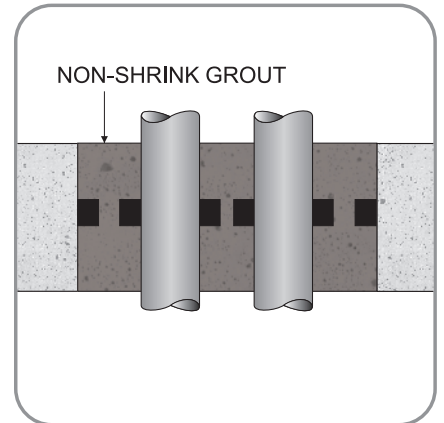
PENETRATIONS



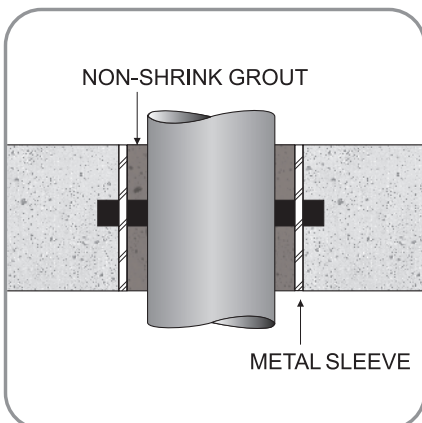
Following the General Installation Procedures in Section 7, install **Hyperstop DB** directly around all applicable single and multiple poured-in-place or sleeved pipe penetrations.



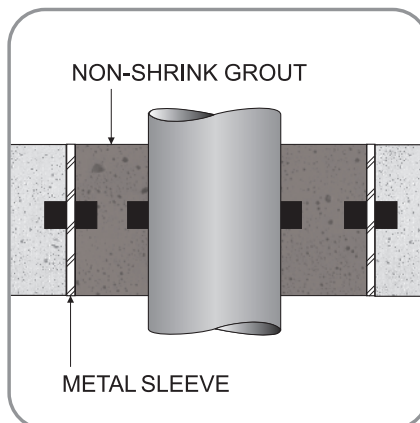
Single Pipe Penetration: Install **Hyperstop DB** around outer diameter of the pipe. **Hyperstop DB** 103 shall be installed around all polyvinyl chloride (PVC) pipes.



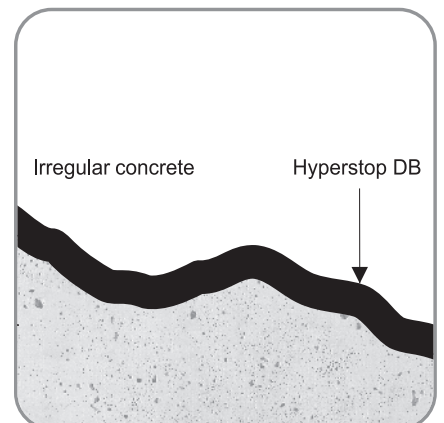
Multiple Pipe Penetrations. Install **Hyperstop DB** around each pipe, as well as, around any block out box construction joint. **Hyperstop DB** 103 shall be installed around penetrations with less than 4" (100 mm) between penetrations & all polyvinyl chloride (PVC) pipes.



Sleeved Pipe Penetrations. Install **Hyperstop DB** around the outer diameter of the sleeve. Install another **Hyperstop DB** strip between the sleeve's inner diameter and the pipe, contacting both surfaces continuously.



When there is an excessive gap between the inner diameter of the sleeve and the pipe, it may be necessary to install two separate **Hyperstop DB** strips one on the inner diameter and the other on the pipe. Then completely fill the void area between the sleeve and the pipe with non-shrink grout.



Install **hyperstop db** to existing irregular concrete or stone surfaces. Press **HYPERSTOP DB** continuously against irregular surface, contouring all rises and depressions.

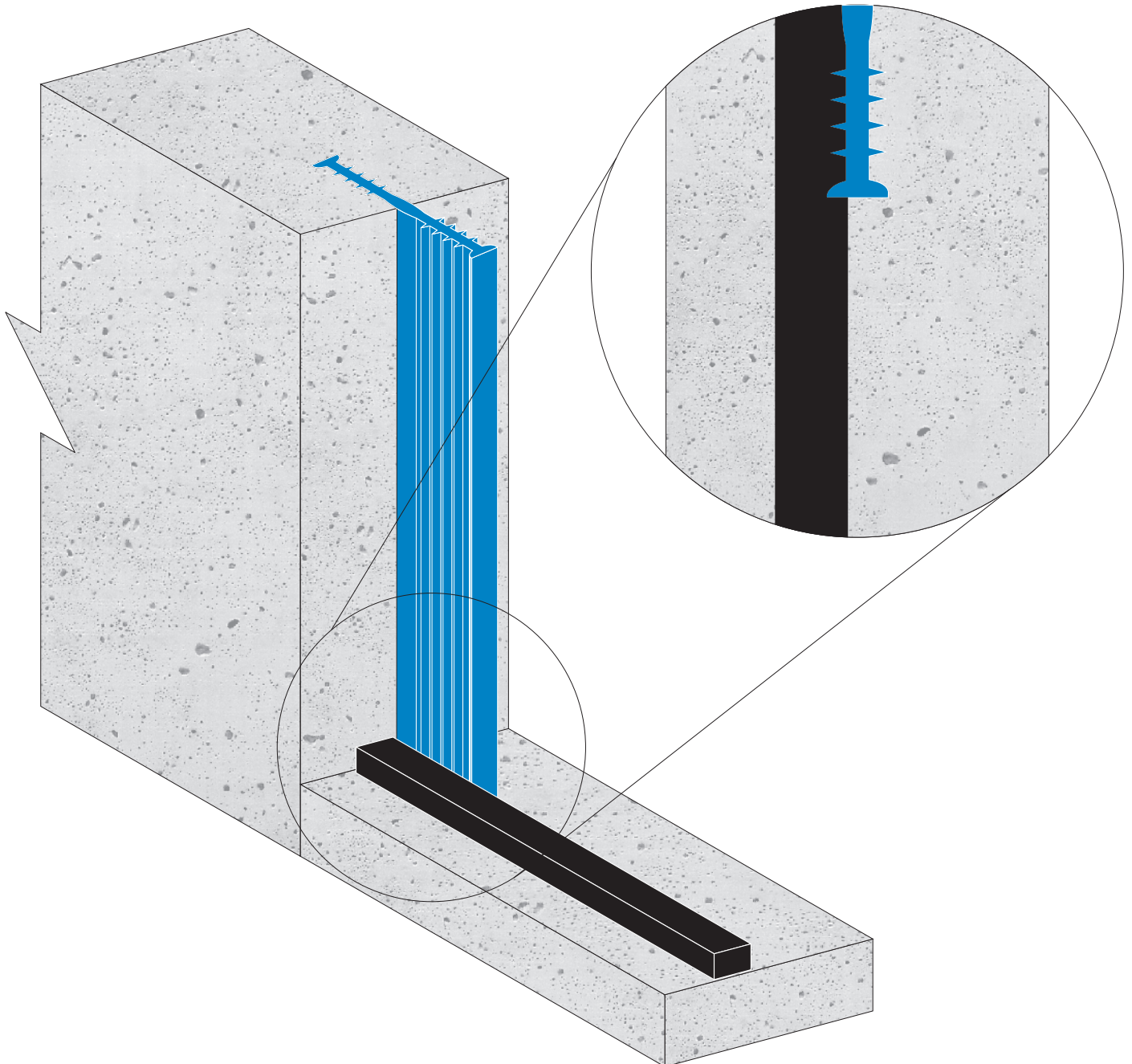
IRREGULAR CONCRETE & STONE SURFACES

Do not span cavities or cracks leaving a gap between the surface and the **Hyperstop DB**. In special conditions it may be necessary to install Hyperstop DB in an irregular path to circumvent deep depressions or cracks.

JOINING HYPERSTOP DB TO PVC WATERSTOP

Install **Hyperstop DB** on the interior side of the **PVC dumbbell Hyperstop**. **Hyperstop DB** should be in direct contact and overlap the passive PVC dumbbell hyperstop by a minimum of 6" (150 mm).

Consult manufacturer for recommendations on conditions not represented herein.





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