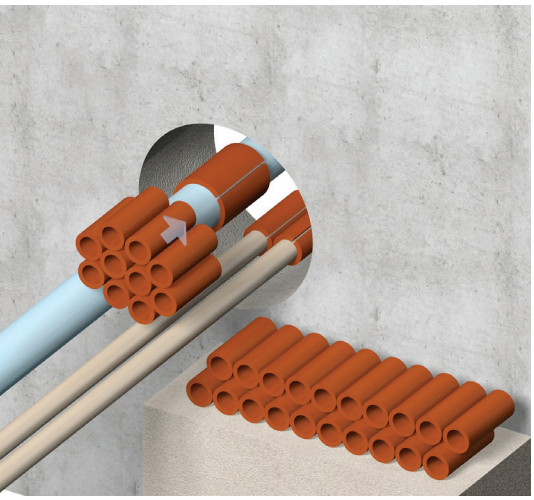
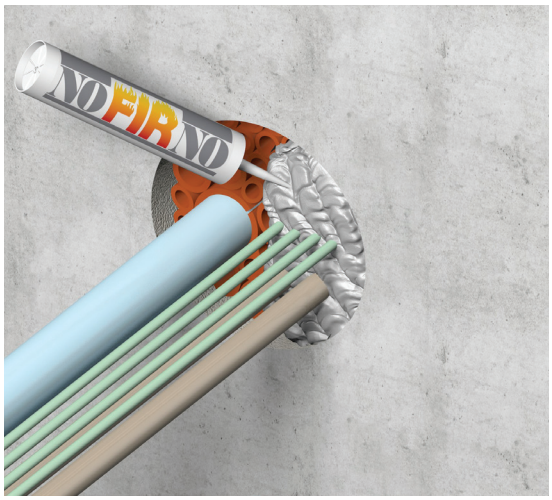
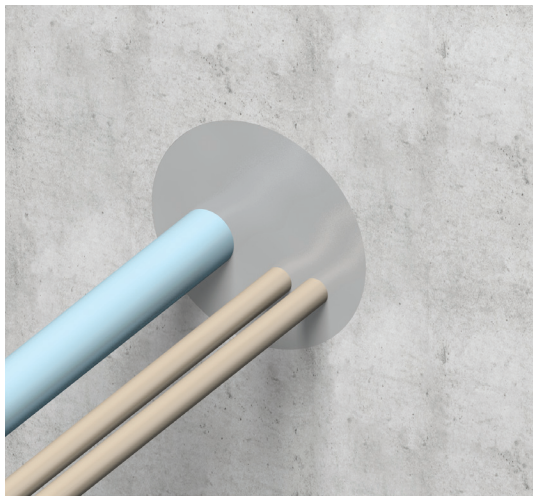
NOFIRNO®

CABLE DUCT SEALING SYSTEM







Easy Installation · Proven Technology · Long Term Performance

PERFECT SOLUTION FOR WET OR DRY DUCTS!

BEELE ENGINEERING

CSD sealing systems

DEDICATED TO SAFETY FOR OVER 45 YEARS

Beele Engineering / CSD Sealing Systems was founded in The Netherlands by Mr. Hans Beele over 45 years ago.

From the very beginning, our mission and driving force has been protection of lives and property, which is fueled by constant research and development. Engineers in our R&D center work daily to develop and test the most cutting-edge sealing products, using the highest quality raw materials available. We are experts in the field of rubber and plastics technology, and we produce the best possible products to withstand the harshest environments in industrial and marine applications.

Beele/CSD products have been installed worldwide in virtually every type of facility. Hans Beele is regarded as one of the leading authorities on passive fire safety, and he shares his expertise with fire test laboratories, governmental and regulatory agencies, and private industry engineers. In addition to passive fire protection, he has led the field with technology and products that seal against water, gas and environmental ingress. Protection of your installation is our primary mission.

Beele has also launched a revolutionary new project called “Sealing Valley”, which was inspired by Silicon Valley in California. Sealing Valley will be a campus for technology advancement, fire testing and concentration of expertise, which will provide education and training in the fields of fire safety and watertight and gas-tight sealing. Sealing Valley is Located in Aalten, Netherlands.

Beele/CSD products are distributed worldwide in every industrialized country. Our North American facilities are located in Gilford, NH, USA and service USA, Canada & Mexico.

Trusted Everywhere

The Beele / CSD Products are subjected to the most rigorous testing and quality assurance standards in the world. Our company is ISO 9001 2015 Certified, and our facilities are constantly inspected by independent regulatory agencies to insure the utmost in quality and integrity.

OUR EXPERIENCE IN NORTH AMERICA

Experts in Fire, Water & Gas-tight sealing

For the last 30 years in North America, Beele/CSD has focused heavily on the shipbuilding and offshore platform environments. Installations in US Navy Ships, passenger vessels, commercial vessels, offshore oil and gas platforms and US Coast Guard Cutters demand the highest quality and integrity to prevent the spread of fire and flood. Years of testing are required to secure approval for installation on US Navy Surface Combatant Ships (including nuclear powered aircraft carriers). Products must be able to demonstrate that they can maintain their integrity when a fire, flood or other disaster occurs at sea – not only when they are installed, but also for the life of the installation.

Our experience and success in the harsh shipbuilding environment has driven us to introduce our products to the industrial markets in North America. We have seen the demand for a cable duct sealing system in the electrical and telecommunications utility environments that will actually perform under harsh conditions, and that will protect critical equipment from environmental attack. The extensive product testing and long-term installations of Beele/CSD products worldwide will ensure that your installation is guaranteed the utmost in protection for decades.

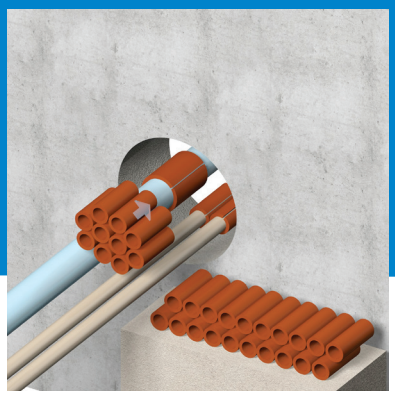
NOFIRNO
Product Characteristics

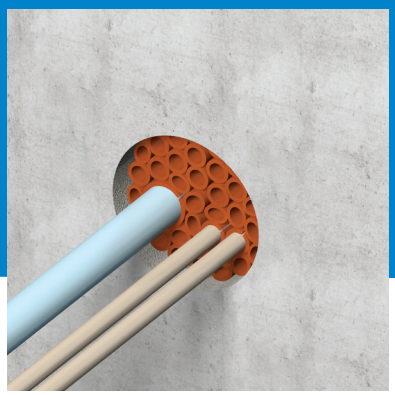
- FIRE RESISTANT
- WATERTIGHT
- GAS-TIGHT
- SMOKE TIGHT
- RODENT PROOF
- SOUND DAMPENING
- NO CORROSION
- RE-ENTERABLE
- EASY INSTALLATION
- LONG TERM INSTALLATION
- WIDE SERVICE TEMP RANGE

PRODUCT OVERVIEW

NOFIRNO® Cable Duct Sealing System

The NOFIRNO Cable Duct Sealing System is the preferred choice for fire-tight, watertight and gas-tight protection for cable ducts, manhole entries, duct bank entries, and similar applications where cables exit ducts or core drilled holes. NOFIRNO is used worldwide to protect critical applications in substations and other utility distribution installations where environmental attacks must be prevented.

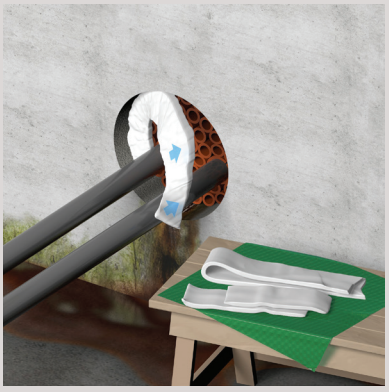




- Provides high level of fire, water & gas-tight integrity
- Easy to install
- Easy re-entry for future modifications - No need to replace material
- No metal parts = no corrosion
- No inflatable bags or messy foams
- No mixing of 2-part components
- Watertight up to 60 p.s.i.
- Provides vibration absorption and sound dampening
- Age tested to over 50 year service life
- If water is currently present when installing, utilize AQUASTOP Rubber as shown below

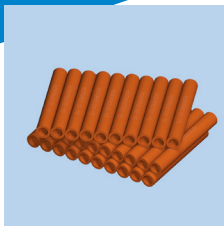
NOFIRNO® / AQUASTOP System

The AQUASTOP Rubber is used in conjunction with the NOFIRNO Cable Duct Sealing System **only** when real-time water leakage is present in the cable duct. AQUASTOP Rubber is only used to dam the water so that the NOFIRNO Sealant can be applied to dry surfaces. The AQUASTOP Rubber can be applied to wet surfaces, and will adhere well to concrete, plastic, metal and all types of cable jackets.



COMPONENTS / HOW TO ORDER

The NOFIRNO System consists of just two different components: NOFIRNO Filler Sleeves & NOFIRNO Sealant. AQUASTOP Rubber is utilized only if water is present when the duct is going to be sealed.



Part # 80-5070
NOFIRNO Filler Sleeves
Multi-Bundle Type
22/15 – 60mm length
(10 sleeves / bundle)

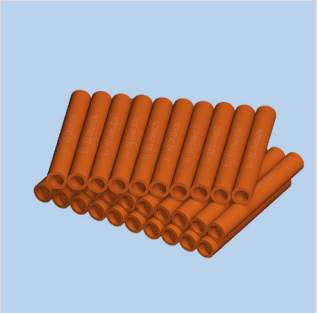
Part # 50-0111
NOFIRNO Sealant 310ml.
Color: Grey

Optional: NOFIRNO Cable Sleeves (split lengthwise) are also available for installation around each cable in the duct. These sleeves provide additional cable separation to facilitate ease of application of the NOFIRNO sealant between the cables. Ask us for the separate data sheet on the NOFIRNO Cable Sleeve sizes.

Part # 80-0939
AQUASTOP Rubber
Small Roll
(single strip 39" x 1-1/2" x ¼")

Part # 80-0940
AQUASTOP Rubber
Large Roll
(two strips 39" x 1-1/2" x ¼")

Duct Kits



Duct Kits are available for standard size ducts.
The kits contain NOFIRNO Filler Sleeves and NOFIRNO Sealant. Kits do not contain AQUASTOP Rubber, which must be ordered separately.

2" Duct	**Part # NFNKIT 2**	**5" Duct**	**Part # NFNKIT 5**
3" Duct	**Part # NFNKIT 3**	**6" Duct**	**Part # NFNKIT 6**
4" Duct	**Part # NFNKIT 4**	**8" Duct**	**Part # NFNKIT 8**

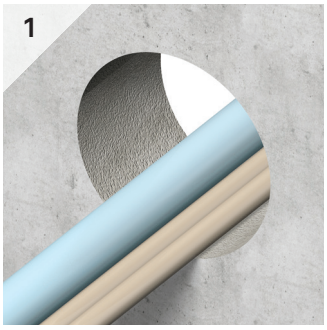
For nonstandard duct / opening sizes, please contact CSD for assistance with material selection. Non-standard size kits can also be produced upon customer request.

INSTALLATION INSTRUCTIONS

NOFIRNO Cable Duct System

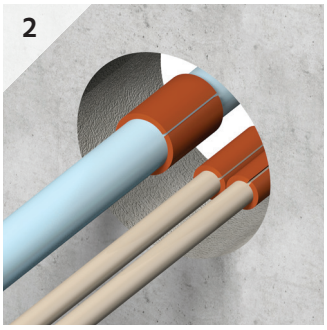
If the duct currently has water present or is wet in any way, please utilize the AQUASTOP® instructions on next page. For re-entry and adding new cables, please contact us for the separate NOFIRNO "Re-Entry" instruction sheet.

1



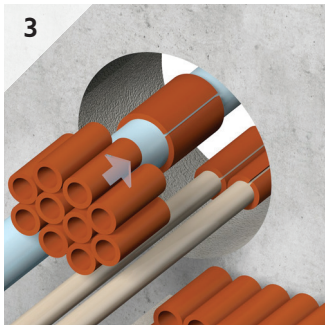
The duct and cable jackets must completely clean & dry, and free of dirt, dust, oil or other residues prior to installation.

2



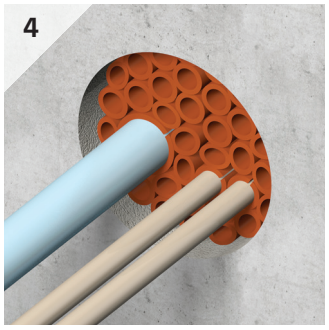
Cables should be separated by use of NOFIRNO filler sleeves or the optional NOFIRNO Cable Sleeves. Individual sleeves can be torn from the multi-bundle using a front-to-back motion, and can be split on-site to allow fitting between cables.

3



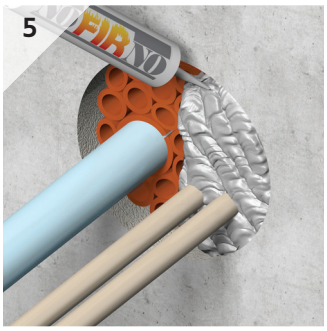
Empty space in the duct is packed tightly with NOFIRNO Filler Sleeves. Sleeves should be recessed ¾" inward from end of duct. Sleeves can be removed from bundle as necessary to ensure a tight fit in the duct.

4



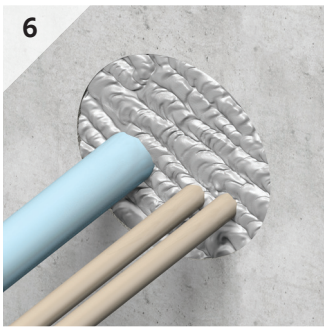
Tight packing of the filler sleeves is important in order to provide proper mechanical stability for the NOFIRNO sealant.

5



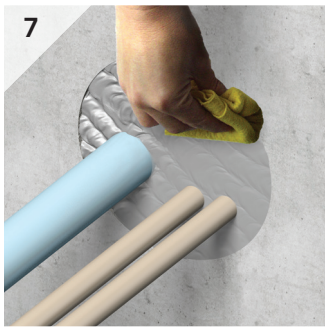
A ¾" layer of NOFIRNO sealant is applied over the face of the filler sleeves, taking care to apply sufficient sealant in between the cables.

6



The duct should be overfilled slightly with sealant so that some of the sealant can be pressed between, and partially into the filler sleeves during final finishing. This will contribute to the highest tightness ratings.

7

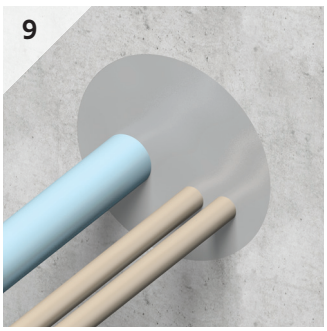


Spray a clean cloth with water, then pack down the sealant layer flush with the end of the duct. Care must be taken to ensure that the sealant is packed properly around and between each cable.

8

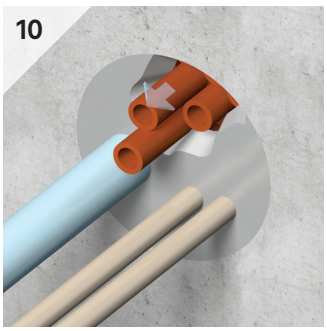
The sealant surface can be smoothed by using a small amount of soap and water. Lightly stroke fingers across sealant layer to create a smooth, professional finish. Note: People with sensitive skin should use gloves when working with NOFIRNO® sealant.

9



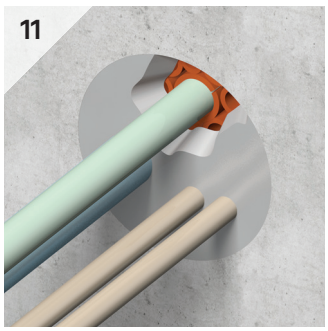
The finished NOFIRNO® Cable Duct Seal.

10



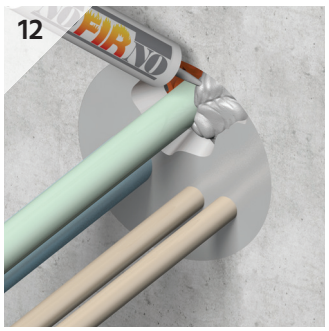
Re-entry into the duct is quick and easy. Cut away some sealant in an open area of the duct.

11



Remove enough filler sleeves to allow for a new cable to be pulled.

12



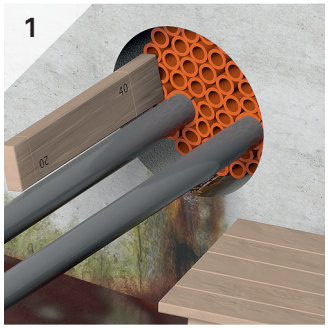
Apply new NOFIRNO sealant to the open area. The new sealant will fully adhere to the existing sealant.

INSTALLATION INSTRUCTIONS

AQUASTOP/NOFIRNO System

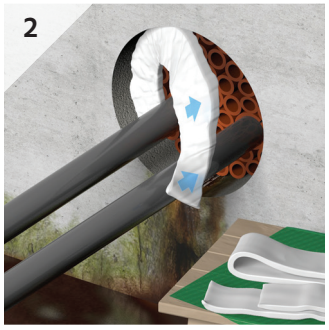
If the duct currently has no water present, please utilize the standard NOFIRNO®Cable Duct instructions on prior page. Do not utilize the AQUASTOP material.

1



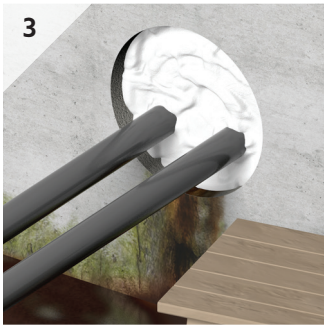
Install the sleeves for the NOFIRNO Cable Duct System as shown on prior page. With a block of wood or needle nose pliers, push the entire set of sleeves into the duct approximately 1-1/2".

2



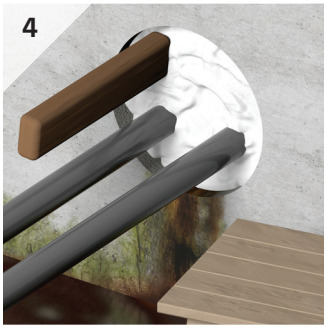
A ¾" layer of AQUASTOP rubber must be applied to stop the water flow. Pack the AQUASTOP rubber from the top of the duct down to the bottom of the duct.

3



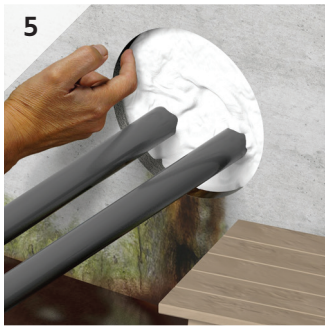
Fill the entire duct with ¾" layer of the AQUASTOP rubber.

4



Tightly compress the AQUASTOP rubber with a piece of wood or by hand. This is critical in order to create a solid mass of rubber inside the duct.

5



Smear the AQUASTOP rubber tightly against the entire inner wall of the duct. Be sure to maintain ¾" free space in order to apply the NOFIRNO sealant.

6

Carefully smear the AQUASTOP rubber tightly around the outside of each cable.

7

Dry the entire surface of the AQUASTOP rubber and cable jackets with a hair dryer or air gun in order to ensure proper adhesion of the NOFIRNO sealant.

8

A ¾" layer of NOFIRNO sealant is applied over the face of the AQUASTOP rubber, taking care to apply sufficient sealant in between the cables.

9

Spray a clean cloth with water, then pack down the sealant layer flush with the end of the duct.

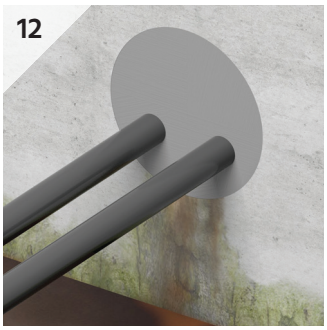
10

Care must be taken to ensure that the sealant is packed properly around and between each cable.

11

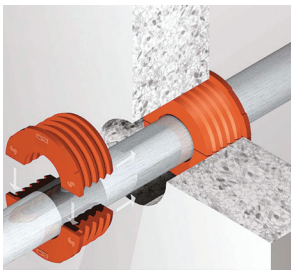
The sealant surface can be smoothed by using a small amount of soap and water. Lightly stroke fingers across sealant layer to create a smooth, professional finish. Note: People with sensitive skin should use gloves when working with NOFIRNO® sealant.

12



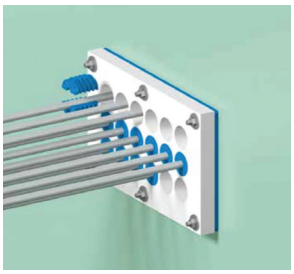
The finished AQUASTOP / NOFIRNO® Cable Duct Seal. For re-entry and adding new cables, please contact us for the separate NOFIRNO "Re-Entry" instruction sheet.

Check out some of our other innovative products at www.csd.us.com



SLIPSIL
Cast-In sleeves & Plugs

Embedded pipe & plug system for casting into concrete. Sleeves provide an exact fit for SLIPSIL Sealing Plugs. An alternative to link-type systems, providing a high degree of fire, water & gas protection. No metal parts guarantees no corrosion.

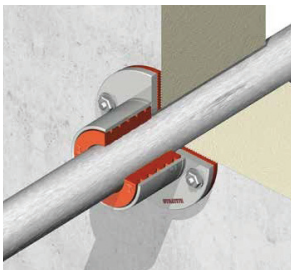


GLANDMOD
Cabinet Seals

The perfect alternative to cable glands in electrical cabinet entries. System provides water & gas-tight integrity, blast protection and offers an IP 68 rating. Modules available in HMPE plastic or aluminum.

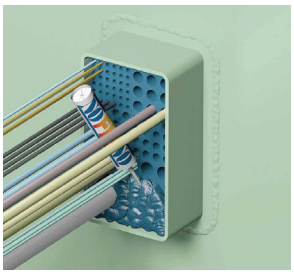
FISSIC
Corrosion and fire retardant coating

FISSIC Coating is fire proof, salt water resistant, water impermeable and resistant to diesel and gasoline. FISSCC contains no solvents with VOC's, and is gas tight up to 30 mBar.



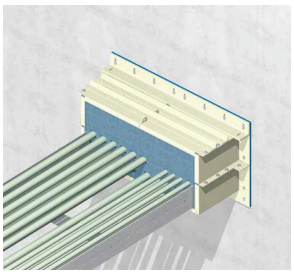
DYNATITE
High Pressure Seals

The DYNATITE System is designed for applications where a high degree of instantaneous tightness is required. Specially designed plugs and collars allow the system to get tighter as pressure increases. Tested for pressure up to 217 p.s.i. (15 bar).



CONTROFIL
Multi-Cable Transits

CONTROFIL is a practical alternative to traditional block-style cable transit system. Unlike regular block systems, CONTROFIL is based on adhesion, not compression. No damage to fiber optic cables can occur. CONTROFIL provides fire, water & gas protection.



FIRSTO
Cable Tray Firestop System

The FIRSTO System has been a favorite of engineers and architects for over 20 years. The system allows easy access for cable changes, and offers up to a 4-hour fire rating for walls and floors. Available in enamel or hot dipped galvanized finishes.

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