



## CASE STUDY DoubleTrac® for Generator Applications

- Saves Time
- Saves Money
- Increases Installation Options

**Product:**  
DoubleTrac® Stainless Steel Double Containment Fuel Piping for Emergency Backup Generators

**Location:** Stamford CT

Commercial buildings with office space are categorized by classes A, B, or C. Class A buildings owners charge the highest amount for rent. Class A buildings typically include amenities, such as, covered parking, building security, and emergency backup generation. Class A building owners are required to follow the latest state and local code requirements for emergency backup generation. These emergency backup generator systems include an Above Ground Storage Tank (AST) at street level connected to fuel piping installed throughout the building to a rooftop generator.

Installing an AST at street level and a backup generator on the roof top of a building are fairly easy to accomplish. The challenge is installing the fuel piping throughout the building that connects the AST to the backup generator. In the past most piping was ridged piping that had to be threaded or welded together in 10-20 ft sections. This process of installing rigid pipe throughout the building caused additional construction requirements and the labor costs were excessive. As a result, oftentimes building owners did not want to spend the capital to install backup generation. Therefore, classifying their building as a B, or C building, lessening their ability to rent their spaces for the highest price.

Whether building owners need to change their outdated backup generation system or they want to upgrade their building with a backup generation system they needed a cost-effective solution. A product that complies with state and local codes and can be easily installed with minimal interruption to the building's daily operations.

Paul Targonski of B & G Piping Company located at 92 Erna Avenue Milford Connecticut 06460 was awarded the job and tasked with installing a new 500 Gallon Aboveground Storage Tank (AST), new pump set and new double containment fuel piping to an existing day tank and roof top emergency generator. The 11-story office Building is located at 1055 Washington Blvd. Stamford Connecticut.

Paul and his technicians opted to Pull the 1" DoubleTrac® (UGF-FSP-16) supply and return piping in two directions. They went downward from a 5th floor mechanical room adjacent to the parking garage down to a parking garage, suspending the horizontal sections from the parking garage ceiling. The piping was passed through each floor in 4" core drilled holes then sealed with fire stop caulk all the way to the AST and Pump Set in the basement level of the parking garage.

The 5th floor mechanical room had a stairway that required the use of 1" DoubleTrac® 90-degree elbows (UGF-SSEL-16) to make a tight corner. These elbows are designed to carry the interstitial communication through the fitting internally so no monitoring or secondary bypass hoses were required.

The upward sections of the 1" DoubleTrac® (UGF-FSP-16) supply and return piping were pulled up through each floor's mechanical room through 4" core drilled holes then sealed with fire stop caulk all the way to the penthouse mechanical room. The piping then passed outside and was terminated at the Day Tank for the Rooftop emergency backup generator.

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Flexibility of 1" DoubleTrac®  
(12" minimum bend radius)



Mechanical Room Floor penetration  
(4" Casing filled with Fire Caulk)

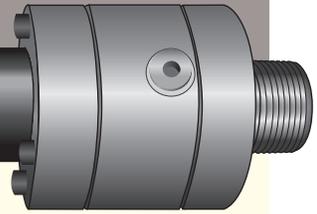


DoubleTrac 90 Degree fittings that  
allows for continuous interstitial  
communication. (NO BY-PASS  
HOSES NEEDED)



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*(continued from front)*

The piping was terminated at basement and rooftop with DoubleTrac<sup>®</sup> 1" NPT Straight Stainless-Steel Fittings (UGF-SSFST-16). Both the Pump Set and rooftop required the interstitial space be monitored. The motoring was accomplished by installing a DoubleTrac<sup>®</sup> Secondary Test Port Adaptor M10 x 1/8th NPT (UGF-M10ADAPTER) in each of the secondary ports of the DoubleTrac<sup>®</sup> 1" NPT Straight Stainless-

Steel Fittings (UGF-SSFST-16). The adaptors were then plumbed to the monitoring points with Brass compression fittings and copper tubing.

Paul and his technicians were pleased with ease of pulling DoubleTrac<sup>®</sup> piping through the 11-floor office building with minimal interruption to buildings day to day operations. All the piping was installed in the building during normal business hours and the final tie in at the rooftop emergency backup generator was done on a weekend.

The building owner and B & G Piping Company benefited from the ease of installation, labor savings and reliability of the DoubleTrac<sup>®</sup> Stainless Steel Double Containment Fuel piping system. Which is an ideal for a cost-effective solution for backup generation in both new and existing buildings. Contact B & G Piping Company for Backup Generator sales and services.

The DoubleTrac<sup>®</sup> Double Containment Fuel Piping system is optimized for Installations in existing building structures. The outer shell is smooth Nylon 12, this allows it to slide easily over and around structure during installation. The Outside Diameter of the DoubleTrac<sup>®</sup> piping is equivalent to Steel piping (NPS) so off the shelf pipe hangers and mounts can be used. The DoubleTrac<sup>®</sup> piping is available in 1", 1 1/2" and 2" sizes to accommodate most fuel system requirements. It is sold in off the shelf reel quantities for quick delivery and can be ordered in custom lengths to accommodate long continuous runs.

Stainless Steel 90-degree fittings are available for installations requiring turns below the DoubleTrac<sup>®</sup> piping's minimum bend radius and Stainless-Steel Tee fittings are available for multi branch systems. The 90° and Tee fittings carry the interstitial communication internally and are not required to be inside containment sumps.

DoubleTrac<sup>®</sup> is a double wall fuel piping that has a 316L Stainless Steel primary and an Engineered Fluoropolymer EFEP (Ethylene Fluorinated Ethylene Propylene) as a secondary barrier that is bonded to a Nylon 12 UV Stabilized outer jacket. DoubleTrac<sup>®</sup> can be considered a "Green Product" because the Stainless-Steel piping has zero permeation and EFEP/Nylon 12 outer jacket has a nearly zero permeation (.000001%). DoubleTrac<sup>®</sup> is true Future Fuel piping system and is the best choice for Fuel oil, Low Sulphur Diesel Blends, Biodiesel, Gasoline, Aviation and Jet Fuels.

DoubleTrac<sup>®</sup> Piping and Fittings are UL 971A (for below ground flammable fuels) and UL1369 listed (for above ground flammable fuels).

DoubleTrac<sup>®</sup> passed a 2-hour Fire test witnessed by UL (Underwriters Laboratory).

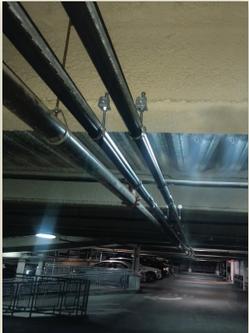
DoubleTrac<sup>®</sup> has a patented mechanically field attachable fitting that creates a Metal to Metal seal that requires NO O-Rings which have finite lifespan and can degrade over time.

DoubleTrac<sup>®</sup> has a 15 Year Aboveground Warranty and a 30 Year Belowground Warranty.

**Omegaflex offer a team of in-house engineers dedicated to assist with piping layouts, Technical questions about the DoubleTrac<sup>®</sup> piping system. Omega flex offers no cost training and certification of new installers.**



*DoubleTrac piping supply and return line to day-tank*



*Parking garage (1" DoubleTrac long continuous piping runs).*



*(right) Day-tank supply line with secondary containment continuous monitoring*



*Day tank return line secondary containment continuous monitoring*