



ENHANCING TOKAI CARBON'S MANUFACTURING

Facility with Swift Drain 6-Inch Pre-Sloped HDPE Trench Drain System

INTRODUCTION

Tokai Carbon, a renowned global manufacturer of carbon materials, embarked on an expansion project for its manufacturing facility in Louisiana.

To facilitate this expansion, Tokai Carbon enlisted the expertise of engineering firm Hunt, Guillot & Associates (HGA) to design and specify a robust trench drain system.

Swift Drain, a leading provider of drainage solutions, was selected to supply their 6-inch wide pre-sloped HDPE trench drain system with heavy-duty ductile iron grates.

This case study highlights Swift Drain's role in the project, focusing on the technical aspects, installation process, and the benefits of their trench drain system.

PROJECT OVERVIEW

CLIENT

Tokai Carbon

LOCATION

Louisiana,
United States

ENGINEERING FIRM

Hunt, Guillot & Associates (HGA)

INSTALLATION

Performed by
a local contractor

DRAINAGE SYSTEM PROVIDER Swift Drain

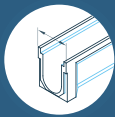
PRODUCT SPECIFICATIONS

Tokai Carbon required a reliable and efficient trench drain system to support the expansion of its manufacturing facility, particularly for the electrical building.

HGA, in collaboration with Swift Drain, determined that a 6-inch wide pre-sloped HDPE trench drain system would best meet

the project's needs. The system included heavy-duty ductile iron grates for added strength and durability. With 148 linear feet in each run, the trench drains provided comprehensive water management capabilities for the electrical building area.

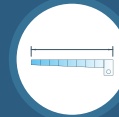
TRENCH DRAIN SYSTEM SPECIFICATIONS



TRENCH DRAIN WIDTH
6 inches



MATERIAL
HDPE



LENGTH
2 runs of 148 linear feet each,
total of 296 linear feet



OUTLET
4 inch side outlet



GRATE
Class C ductile iron grates
for added durability
and functionality

TECHNICAL CONSIDERATIONS

Swift drain's 6-inch wide pre-sloped HDPE trench drain system with heavy-duty ductile iron grates offers several technical advantages:

HDPE Material

The trench drains are constructed using High-Density Polyethylene (HDPE), a robust and corrosion-resistant material. HDPE provides exceptional durability, ensuring long-term performance even in harsh industrial environments.

Pre-Sloped Design

The trench drain system is pre-sloped, enabling efficient water flow towards the outlets. This design feature minimizes the risk of water pooling or flooding within the facility, preventing potential damage and maintaining a safe working environment.

Load-Bearing Capacity

The heavy-duty ductile iron grates used in the trench drain system provide superior strength and load-bearing capacity. They can withstand heavy machinery, equipment, and vehicle traffic commonly encountered in industrial settings.

Chemical Resistance

HDPE is highly resistant to a wide range of chemicals, making the trench drain system suitable for environments where corrosive substances may be present. This chemical resistance ensures the longevity and reliability of the drainage system.

INSTALLATION PROCESS

The installation of Swift drain's trench drain system was entrusted to Trade Construction, an experienced contractor specializing in drainage installations.

Site Assessment and Planning

Trade Construction assessed the site layout and collaborated with HGA to determine the optimal location and layout of the trench drains.

Excavation and Sloping

Trenches were carefully excavated according to the project specifications, ensuring the proper slope for efficient water drainage.

Trench Drain Installation

Swift drain's pre-sloped HDPE trench drains were precisely positioned within the excavated trenches. The modular design of the system facilitated easy installation and ensured a seamless fit.

Grate Integration

Heavy-duty ductile iron grates were securely attached to the trench drains, providing maximum load-bearing capacity and effective debris filtration.

Connection and Testing

The trench drain system was connected to the existing underground plumbing, and rigorous testing was conducted to validate water flow and system functionality.

BENEFITS AND OUTCOMES

The integration of Swift drain's trench drain system within Tokai Carbon's plant expansion project yielded several benefits, including:

Enhanced Water Management

The pre-sloped HDPE trench drains efficiently directed water away from the electrical building, preventing potential water damage and ensuring a safe working environment.

Durability and Longevity

Swift drain's trench drains, manufactured using high-quality HDPE, offer exceptional durability and resistance to corrosion, chemicals, and heavy loads. This ensures a long lifespan for the drainage system, reducing the need for frequent maintenance or replacement.

Compatibility with Expansion Plans

The modular design of Swift drain's trench drain system allows for easy expansion or modification in the future. This feature aligns well with Tokai Carbon's ongoing expansion plans, providing flexibility for any future facility upgrades or alterations.

Compliance with Industry Standards

Swift drain's trench drains meet industry standards for load-bearing capacity and drainage efficiency, ensuring compliance with relevant codes and standards.

