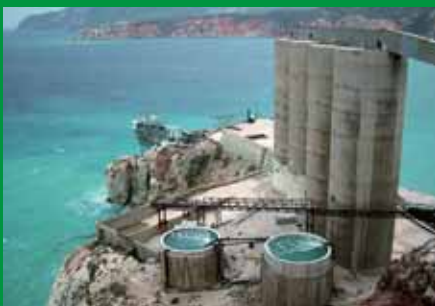


# FIBRWRAP®

Worldwide Specialized Contractors

## Industrial & Energy Producing Facilities

The application of the Tyfo® FIBRWRAP® System  
in industrial & energy producing facilities (buildings,  
silos, chimneys, plants, nuclear facilities and more)



**FIBRWRAP** CONSTRUCTION EUROPE Ltd.

Strengthening Structures | Protecting Lives Worldwide



**FIBRWRAP®**

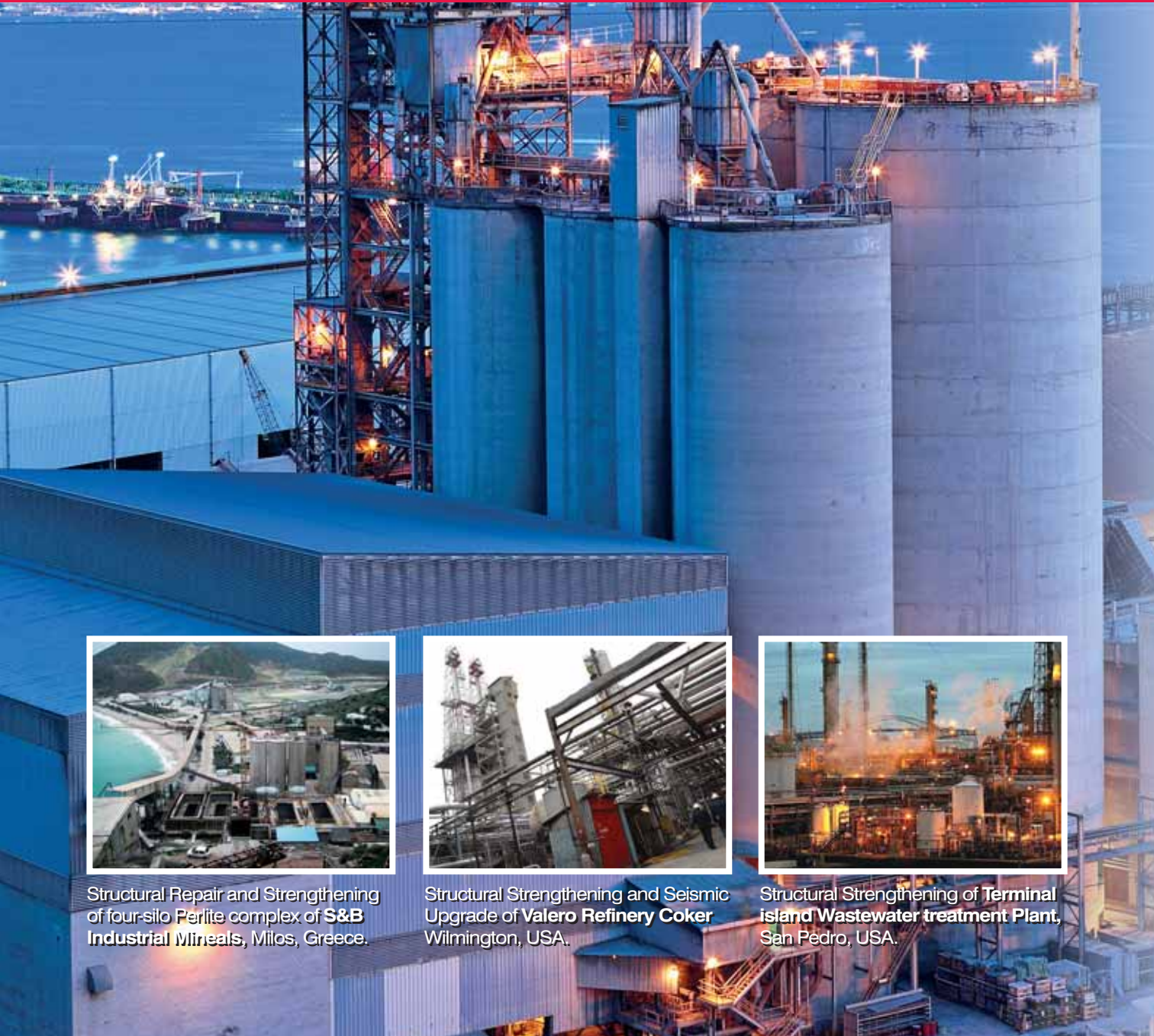
Worldwide Specialized Contractors

Protection of human life and assets is the first priority in any manufacturing environment. This is our priority and promise as well.

Industrial structures present many unique problems compounded by their challenging environments and they need fast, durable resolution to problems that otherwise might lead to unsafe working conditions and eventually lead to a shutdown with high cost.

Strengthening applications typically include structural repair and upgrade, seismic retrofit, corrosion mitigation, change-of-use, protection from aggressive environments, design/construction error remediation and blast hardening.

Industrial facilities present many challenges including chemicals attacks, temperature, and impact forces, and in certain cases, regulatory compliance requirements. In certain facilities the threat of spontaneous blast events poses additional challenges.



Structural Repair and Strengthening of four-silo Perite complex of **S&B Industrial Minerals**, Milos, Greece.



Structural Strengthening and Seismic Upgrade of **Valero Refinery Coker** Wilmington, USA.



Structural Strengthening of **Terminal island Wastewater treatment Plant**, San Pedro, USA.





Structural Repair and Protection of steel support columns of INEOS Enterprises, Salt Plant, UK



Structural Strengthening Perilite silo of S&B Industrial Mineals, Milos, Greece



Structural Strengthening & S industrial building Micron, F

Fibrwrap focuses in the realization of structural rehabilitation, strengthening and renovation projects applying Tyfo Fibrwrap advanced technologies. Fibrwrap's personnel engage in both the design and construction phases in order to propose and implement the most suitable rehabilitation solution, tailored to the needs of a project. Fibrwrap offers a number of benefits to the industrial facility owners; through its advanced technology Fibrwrap guarantees the unmatched prolongation of the expected life-cycle of existing structures, the undisturbed productivity during repair, the reduced maintenance cost due to the sustainable quality of the technical solution and the positive and long-lasting effect that Fibrwrap's work has on the environment – helping its clients to reduce their own carbon footprint.

### TFS® Solutions:

- Rehabilitation of corroded or distressed members
- Strengthening of overstressed support structures
- Damage/Leak remediation and prevention
- Protection from corrosion and rectification
- Protection from aggressive environments
- Fire protection, impact force protection and blast hardening
- Seismic retrofit of structural components and seismic upgrade
- Emergency repairs



### TFS® Applications:

- Used extensively to retrofit reinforced concrete support structures such as pipe racks, equipment structures, pedestals, Coker units, industrial chimneys, silos, tanks, pressure vessels, pipelines and much more.
- The TFS® products have excellent durability and chemical resistance properties and have been specially formulated to deliver long-lasting protection.
- Repair and strengthening buildings and structural members to guard against structural failure in the case of an overpressure event. Control rooms, and all structures which house employees in hazardous areas are prime candidates.

The Tyfo® FIBRWRAP® System (TFS®) has been applied in various industrial facilities around the world. They have proven to be a long term solution completely satisfying the specific needs of each project.



Seismic Upgrade of Prato, Italy



Structural Strengthening of new plant of High voltage Unit of DEI, Evia, Greece



Pre-stressed Concrete Pipe Repair of PPL Montana, USA

## TFS® Features:

- Thoroughly tested at independent laboratories
- Extension of the service life of existing structures
- Significantly lowers the corrosion rate when confining existing members
- Can prevent the onset of corrosion when applied to new structural elements
- Can be used on circular, square, rectangular, hexagonal, flared and odd-shaped cross sections with negligible shape and size modifications
- Cost-effective
- Low impact to facility function
- Fast and safe application process



## Advantages - Benefits:

- Value-engineered approach to identify the cause and the nature of the problem
- Prolongation of the expected lifecycle of existing structures
- Minimum disturbance of facility operation during repair
- Reduced maintenance costs due to excellent long-term material behavior
- “Green” facility upgrade with a minimum environmental footprint
- Resistant and protection of structural members in aggressive environment.





**Tyfo<sup>®</sup>**  
**FIBRWRAP<sup>®</sup>**  
**System**  
**(TFS<sup>®</sup>)**



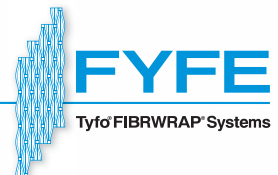
Since its establishment in 1988, Fyfe Co LLC, through a vigorous research and development program, has managed to produce the **Tyfo<sup>®</sup> FIBRWRAP<sup>®</sup> System (TFS<sup>®</sup>)**.

The **TFS<sup>®</sup>** has been reviewed and approved by more independent authorities than any other composite system.

Carbon, glass or aramid reinforcing fibers are combined with high quality resins to produce a multitude of high performance FRP strengthening systems, which - in turn - provide design engineers with a wide range of options to meet the individual needs of a project.

The success is proven by the fact that the **TFS<sup>®</sup>** is a reliable composite strengthening system with more approvals, demonstrations and proven installations than any other competitive system in the industry.

The **TFS<sup>®</sup>** includes a carbon fiber solution that meets the International Building Code<sup>®</sup> (IBC<sup>®</sup>) requirements.



# Network

Fibrwrap Construction Europe Territory

www.ThinkBAG.eu



**FIBRWRAP** CONSTRUCTION EUROPE •

## An ever-expanding network beyond Europe

Working with FIBRWRAP Construction Europe Ltd. is equivalent to entering the largest family of companies worldwide, dealing with any kind of structural rehabilitation need. With offices across the globe, Fibrwrap is an international business with a local twist strengthening and protecting people, properties and assets everywhere.



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