

# Wharfsafe<sup>™</sup> Fender Slings an engineered lightweight solution to replace fender chains

Fender chains can be a port's biggest maintenance headache.

The Wharfsafe™ slings from Cortland are an engineered solution made of high strength synthetic fiber to replace fender chains, and offers:

- · A solution that is as strong as steel, but weighs 75% less
- · A "set and forget" design which is virtually maintenance free
- A significantly easier solution to maneuver and manipulate during installation and maintenance than chain
- · Substantial reductions in rigging time and manpower

This system is a straight forward replacement for steel chains; no modifications are required for the remainder of an existing fender assembly. It is a high performance, lightweight, maintenance-free solution which can be retrofitted to virtually any fixed wharf fender system. A core of high performance fiber surrounded by a customized multiple jacket protection system and finished with a PVC wear pad, protect the system from abrasion, mooring line interference, and weathering. The spool system is made from high grade stainless steel and is corrosion resistant.

Trial systems prove that the benefits of the Wharfsafe system far outweigh fender chains:

- · Port employee safety and productivity
- · Increased service life: 3x that of chain
- No moving parts
- · Virtually maintenance free
- · Less port downtime leading to increased port productivity
- · Decreased fender maintenance costs
- · Removes fender 'sag' issues leading to cone fender damage
- · Prevents fender face disorientation and premature component wear

#### This remarkable solution offers:

- · Lightweight alternative to heavy chain
- · Direct replacement for fender chains
- Low risk of injury during mobilization or demobilization
- No moving parts such as chain links to cause excessive wear
- Low creep, maintenance free design, no annual inspections necessary
- No port disruptions or wharf shutdowns for lifecycle of Wharfsafe™ system





# Wharfsafe<sup>™</sup> Fender Slings

# Port employee safety and productivity

The Wharfsafe™ system is substantially lighter and easier to work with than heavy chains. This lightweight engineered solution offers significant reductions in rigging time and manpower; improving safety and the productivity, health and welfare of port employees.

#### Long wearing

Additionally, since the Wharfsafe is engineered from high strength synthetic fiber, they are durable and the systems will not rust, corrode, or stretch like chain. They are not affected by salt or fresh water, and wear points are protected through a four-part jacket system.

### No moving parts

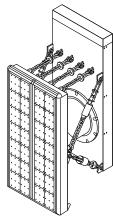
Slack or unmaintained chain slings cannot meet their design life criteria due to excessive wear caused by chain link movement and frequent maintenance requirements. Some ports have experienced fender chain life cycles of only 3–5 years, which is less than 20% of their original design life. The Wharfsafe system has no moving parts—such as chain links—to cause excessive wear and affect design life.

## Virtually maintenance free

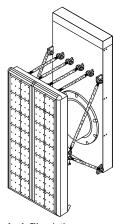
The Wharfsafe is a basic set-and-forget it system. Segments are manufactured to a set length, and do not creep over time; therefore do not require ongoing adjustment like chain systems.

The advantages of synthetic fiber vs wire and chain have been documented extensively over the last 25 years. The light weight, absence of corrosion, and higher flexibility drive widespread use of fiber ropes in place of steel in many applications in a variety of industries.

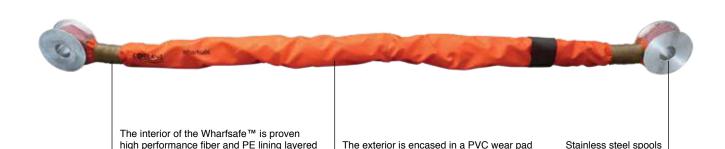
For more information on this innovative engineered high performance fiber system solution, contact cortland@cortlandcompany.com.



Fender chains



Wharfsafe™ solution



to protect the entire system from abrasion

are seized in place

with multiple encapsulated jackets