



Manufactured By Trinity Sling

Patent No. US 8,991,031 B2

## PROTECTING PEOPLE, PROPERTY AND PROFITS

### Innovation At Work: *Gangline*<sup>™</sup>

Trinity Sling Authority is proud to introduce the latest innovation in its oil field service product line – *Gangline*<sup>™</sup>. Peace of mind in this business is about protecting your assets: people, property and profits. *Gangline*<sup>™</sup> is an engineered Pipe Restraining System designed to limit the whip range of the pipe should a catastrophic failure occur to the flow line or union connections. *Gangline*<sup>™</sup> consists of only two parts: restraints and shackles. It offers a lightweight, high-strength installation solution for your peace of mind.

### *Gangline*<sup>™</sup> Product Highlights

- Lightweight, High Performing/Flexible
- Easy/Quick Assembly/Disassembly
- Clear access to connection points for leak repair
- Hydrophobic - does not absorb oil or water, washable
- UV protected and corrosion resistant
- Easy use in sub-zero conditions
- Customizable to specific job requirements
- Traceable by serialization & date of manufacture
- Easily stored & transported, shippable world-wide

### *Gangline*<sup>™</sup> is Different

Our professionally engineered design uses the highest quality materials to create the most durable, lightweight and easy-to-use temporary pipe restraint on the market. *Gangline*<sup>™</sup> restraints are installed in a leap-frog configuration. Each pipe section is secured by both the upstream and downstream sections of the pipeline in the event of a failure. *Gangline*<sup>™</sup> layout creates a choke on either side of a rupture, reducing in-line flowline movement as well as lateral (whip) movement. *Gangline*<sup>™</sup> offers end to end restraint of flowlines for all lengths of pipe sections as well as swivels and joints.

Each *Gangline*<sup>™</sup> is serialized and dated on durable waterproof tags. The *Gangline* is identified to material lots and manufacturers for full traceability. *Gangline*<sup>™</sup> receives annual recertification and refurbishment from Trinity Sling.

The *Gangline*<sup>™</sup> saves money with the fastest assembly and disassembly times. The innovative and simple design is trainable, inspectable and reliable. The *Gangline*<sup>™</sup> disassembles mid-flowline allowing quick flowline refits and leak repairs.



# Gangline™ Specifications

## HIGH STRENGTH SYNTHETIC FIBER CAPACITY RETENTION AFTER CHEMICAL IMMERSION

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*Strength retention  
after 6-month immersion*

AGENT	HMPE
Sea Water	100%
Hydraulic Fluid	100%
Kerosene	100%
Gasoline	100%
Glacial Acetic Acid	100%
1 M Hydrochloric Acid	100%
5 M Sodium Hydroxide	100%
Ammonium Hydroxide (29%)	100%
Hypophosphite Solution (5%)	100%
Perchloroethylene	100%
10% Detergent Solution	100%
Bleach	91%

- Chemically Inert

## Gangline™ Sizing

The *Gangline™* is available in three rating sizes:

RD, HD and XD. It is certified for a maximum pressure pumping rating of 15,000PSI for 2", 3" and 4" 1502 iron. Each system is flexible and easily adaptable to a variety of flow-line configurations and site conditions. See sizing chart below to identify which *Gangline™* model to use.

Nominal Iron Size	Gangline™ Model RD	Gangline™ Model HD	Gangline™ Model XD
2"	15,000PSI		
3"		15,000PSI	
4"		10,000PSI	15,000PSI

*Gangline™* rating is applicable to gas and liquid in energized and non-energized operations.

### *Peace of Mind Training*

Trinity Sling offers Qualified Person training for *Gangline™* to ensure your temporary pipeline is efficiently and accurately installed.



## Gangline™: Protecting People, Property and Profits