



Trinity Sling Authority
ONG Market Place Article

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Patented Pipe Restraining System Protects People and Profits in Oil Fields

The **Gangline™** Pipe Restraint System is the dependable, go-to solution for restraining temporary pipelines and frack irons in oil fields.

The **Gangline™** System 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. Brilliantly engineered, the **Gangline™** System consists of only two parts: restraints and shackles. It offers a lightweight, high-strength installation solution for your peace of mind.

The **Gangline™** System's patented design uses the highest quality materials to create the most durable, lightweight and easy-to-use temporary pipe restraint on the market. **Gangline™** 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. The **Gangline™** layout creates a choke on either side of a rupture, reducing in-line flowline movement as well as lateral (whip) movement. The **Gangline™** System offers end-to-end restraint of flowlines for all lengths of pipe sections as well as swivels and joints.

The **Gangline™** is an exceptional product with equally great service from Trinity Sling. "The system is one of the first on the market to be designed from the start as a restraint system, not something that was retrofitted or simply retagged to be a restraint system. "[Trinity Sling is] definitely the pioneer of dedicated restraint systems and I base that opinion on 15 years of pressure pumping experience along with 7 years in the HSE field," comments Jim Richardson of Texas-based Mercer Well Service.

Every **Gangline™** System is serialized and dated on durable waterproof tags. **Gangline™** is traceable from end user through restraint fabrication back to original manufacturers and material lots. **Gangline™** receives annual recertification and refurbishment from Trinity Sling. **Gangline™** saves money with the fastest assembly and disassembly times in pressure pumping services. The innovative and simple design is trainable (Trinity Sling offers complete training to ensure the temporary pipeline is efficiently and accurately installed), inspectable and reliable. The **Gangline™** System disassembles mid-flowline, allowing quick flowline refits and leak repairs.



Gangline™ System Product Highlights

- Lightweight and flexible
- Easy/quick to assemble and disassemble
- Provides clear access to connection points for leak repair
- Hydrophobic – is washable and does not absorb oil or water
- UV-protected and corrosion-resistant
- Easy to use in frozen conditions
- Suitable for wide operating temperature range
- Customizable to specific job requirements
- Traceable by serial number and date of manufacture
- Shippable world-wide, easily stored and transported

Gangline™ System Sizing

The **Gangline™** System is available in two rating sizes: Regular Duty and Heavy Duty. These products are certified for a range of applications from pumping pressures of 15,000PSI for 2" and 3" to 10,000PSI for 4" 1502 iron. Each system is flexible and easily adaptable to a variety of flow-line configurations and site conditions. Upon request, Trinity Sling can furnish **Gangline™** Systems for larger diameters of pipe and higher pressures.

Gangline™ is manufactured and marketed worldwide by Trinity Sling Authority in Dallas/Fort Worth, Texas. For more information, contact Trinity Sling Authority at 877.589.2404 or see trinitysling.com.

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Photo 1

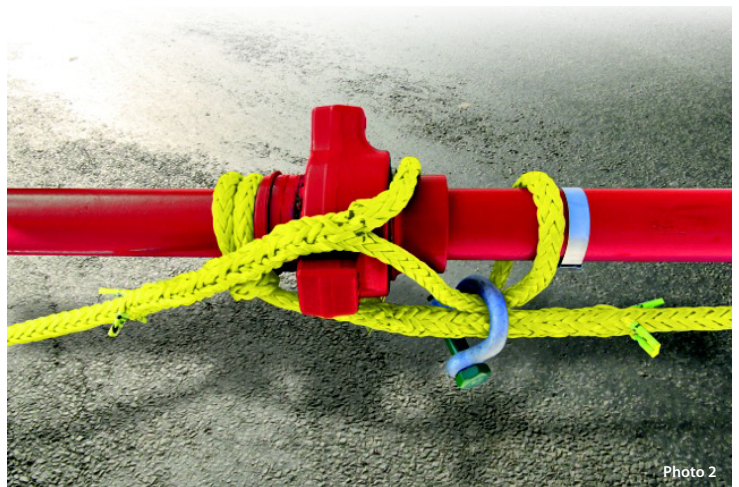


Photo 2

PHOTO CUTLINES:

Gangline™ Photo 1

A quick installation technique of **Gangline™** on hammer union iron. **Gangline™** saves money with the fastest assembly and disassembly times in pressure pumping services.

Gangline™ Photo 2

Gangline™ installed on hammer union iron, providing easy access to inspect tags, examine proper restraint installation and check for potential leaks.