



# CLOCK SPRING®

**Innovative solutions.....**

## **PERMANENT PIPE REPAIR SYSTEM**

Clock Spring's patented design re-defines the economics of pipeline repair, ensuring permanent field repair that is easy, fast and inexpensive.

Clock Spring® pipe reinforcement system is a high strength corrosion resistant composite sleeve, a high-performance adhesive and a high compressive strength filler material. The composite sleeve is uniquely coil-shaped and sized to wrap tightly around pipe diameters from 4" to 56" providing eight (8) individual layers bonded together insuring permanent field repairs and reinforcement of pipe sections.

Clock Spring® repairs are fast, economical and easy. Since no cutting or welding is required, there are no risks to the environment, release of greenhouse gases or waste disposal problems.



**It's simply the smartest pipeline repair decision you can make!**

# Clock Spring Pipe Reinforcement System

## Product Specification Sheet

### I. SLEEVE SPECIFICATIONS

<i>Use</i>	Designed to repair/reinforce damaged or corroded sections of line pipe with less than 80% thru-wall loss
<i>Standard Configuration</i>	8 layers
<i>Nominal Thickness</i>	1/2" (13 mm)
<i>Application Temperature</i>	0° F to 120° F (-18° C to 49° C)
<i>Service Temperature</i>	-20° F to 130° F (-29° C to 54° C) (For temperatures below -20° F (-29° C) contact Manufacturer)
<i>Material</i>	e-glass, polyester
<i>Width</i>	11.500" ± 0.500" (292 mm ± 13 mm)
<i>Service Life</i>	>50 years

### II. ADHESIVE SPECIFICATIONS

<i>Lap Shear Strength</i>	>1200 psi
<i>Shelf Life</i>	12 months from Date of Manufacture

### III. FILLER SPECIFICATIONS

<i>Compressive Strength</i>	>8000 psi
<i>Shelf Life</i>	12 months from Date of Manufacture

### IV. ACTIVATOR SPECIFICATIONS

<i>Shelf Life</i>	12 months from Date of Manufacture ( <i>Note:</i> Refrigeration at 38° - 52° F (3° - 11° C) will extend material shelf life an additional 3 months)
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# CLOCK SPRING® PS

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## **PIPE SUPPORT**

Clock Spring® Pipe Support provides effective protection at support or hanger locations and can be applied quickly and easily - requiring no special tools or training.

Clock Spring® PS is a high-strength corrosion resistant fiberglass composite sleeve, a high performance adhesive and a filler material. The fiberglass composite sleeve is uniquely coil-shaped and sized to wrap tightly around pipe diameters from 3/4" to 36" providing two (2) individual layers bonded together resulting in a laminate thickness of approximately 1/8".



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# Clock Spring Pipe Reinforcement System

## Product Specification Sheet

### I. SLEEVE SPECIFICATIONS

<i>Use</i>	Designed as full encirclement wrap to provide wear surface and eliminate crevice corrosion at pipe support interface. May be used on pipe with less than 30% thru-wall loss
<i>Standard Configuration</i>	2 layers
<i>Nominal Thickness</i>	1/8" (3 mm)
<i>Application Temperature</i>	0° F to 120° F (-18° C to 49° C)
<i>Service Temperature</i>	-20° F to 130° F (-29° C to 54° C) (For temperatures below -20° F (-29° C) contact Manufacturer)
<i>Material</i>	Fiberglass and Polyester Resin
<i>Width</i>	11.500" ± 0.500" (292 mm ± 13 mm)

### II. ADHESIVE SPECIFICATIONS

<i>Lap Shear Strength</i>	>1200 psi
<i>Shelf Life</i>	12 months from Date of Manufacture

### III. FILLER SPECIFICATIONS

<i>Compressive Strength</i>	>8000 psi
<i>Shelf Life</i>	12 months from Date of Manufacture

### IV. ACTIVATOR SPECIFICATIONS

<i>Shelf Life</i>	12 months from Date of Manufacture ( <i>Note:</i> Refrigeration at 38° - 52° F (3° - 11°C) will extend material shelf life an additional 3 months)
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# CLOCK SPRING® SW

**Innovative solutions.....**

## **SNAP WRAP**

An economical repair alternative for low-pressure piping that can be applied quickly and easily - requiring no special tools or training..

Clock Spring® SW is a high strength corrosion resistant fiberglass composite sleeve, a high performance adhesive and a filler material. The composite split sleeves are uniquely shaped and sized to wrap around pipe diameters of 3/4" and larger. The individual layers are bonded together and to the pipe surface to fully restore serviceability.



Clock Spring® repairs are fast, economical and easy. Since no cutting or welding is required, there are no risks to the environment, release of greenhouse gases or waste disposal problems.

**It s simply the smartest pipeline repair decision you can make!**

# Clock Spring Pipe Reinforcement System

## Product Specification Sheet

### I. SLEEVE SPECIFICATIONS

<i>Use</i>	Designed to repair/reinforce damaged or corroded sections of small diameter pipe operating up to 500 psi with less than 90% thru-wall loss
<i>Standard Configuration</i>	8 layers (Number of layers may be modified based on manufacturer s analysis)
<i>Nominal Thickness</i>	3/8" (9 mm)
<i>Application Temperature</i>	0° F to 120° F (-18° C to 49° C)
<i>Service Temperature</i>	-20° F to 130° F (-29° C to 54° C) (For temperatures below -20° F (-29° C) contact Manufacturer)
<i>Material</i>	E-glass and Polyester Resin
<i>Width</i>	11.500" ± 0.500" (292 mm ± 13 mm)

### II. ADHESIVE SPECIFICATIONS

<i>Lap Shear Strength</i>	>1200 psi
<i>Shelf Life</i>	12 months from Date of Manufacture

### III. FILLER SPECIFICATIONS

<i>Compressive Strength</i>	>8000 psi
<i>Shelf Life</i>	12 months from Date of Manufacture

### IV. ACTIVATOR SPECIFICATIONS

<i>Shelf Life</i>	12 months from Date of Manufacture ( <i>Note:</i> Refrigeration at 38° F - 52° F (3° - 11° C) will extend material shelf life an additional 3 months)
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