



Pipe Spring™ Metal Loss Repair Kits

The Pipe Spring LLC laminated steel coil repair kits are intended for the repair of metal loss defects on pipelines and pressure piping systems. The kits are standardized to facilitate field operations, minimize installation variables and maximize confidence in the permanent repair of metal loss defects.

The repair system utilizes a redundant thin-layer prime quality steel strip with a specialized toughened adhesive system. The field installation process minimizes variables and promotes consistent high quality. The thin-layer laminated design creates integral mitigation of integrity threats associated with potential future mechanical damage or third-party interference. This system is optimized for straight sections of pipe. It provides the restraint and pressure carrying ability of type “A” welded steel sleeves, composite sleeve systems, and wet applied composite wraps. The system offers the advantages of lower costs of acquisition and installation while minimizing or eliminating field variables, human error, material property degradation, and integrity threats associated with traditional repair options.

Specifications:

General Characteristics	<ul style="list-style-type: none">• Laminated Steel coil reinforcement system• MMA adhesive system• Two component epoxy filler material
System	<ul style="list-style-type: none">• Design failure stress ≥ 60 Ksi• Design Elastic modulus $\geq 25 \times 10^6$ psi
Steel	<ul style="list-style-type: none">• AISI 1010. ¼ hard tempered prime quality steel strip• .025 -+ .001 inches thick• 12 inches wide -+ .005 inches
Adhesive	<ul style="list-style-type: none">• Tensile strength 2500- 3000 psi (ASTM D638)• Lap Shear 1800-2300 psi (ASTM D1002)• Max operating temperature 180° F
Filler Material	<ul style="list-style-type: none">• Compressive strength ≥ 12000 psi (ASTM D695)