

## Pipe Repair Systems

Unique Polymer Systems LTD Pipe Repair Systems consist of the following product ranges:

**Composite Repair** – Based on GRP technology

**Metal Repair** – Based on solvent free 100% solids epoxy technology.



UniquePolymerSystems.com

The Engineer's Choice

... for Solutions

The product can be used for emergency repairs or as part of planned maintenance shutdowns to seal leaking pipe work, flange faces and welded seams.

The type of repair that can be performed using these materials can range from emergency short-term fix to semi-permanent encapsulation of low & high pressure pipeline systems.

## Pipe Repair Systems Information

These types of pipe repair have been used for many years in all areas of industry. Typically they are seen as short to mid-term solutions for problematic pipe surfaces that have been badly corroded or eroded. In low pressure applications up to (100psi) the products are proven to give over 15,000 hours of protection to lines transporting weak to low level industrial chemicals or water.

The Unique Polymer Systems LTD Pipe Repair Systems can be applied to the following types of substrate:

**Concrete** (composite repair only)

**Steel**

**Plastic** (composite repair only)

The maximum pressure tolerance that can be achieved using *Unique Polymer Systems LTD* Pipe Repair Systems is 300psi.

The repair systems are simple and easy to use and are based on the latest solvent free epoxy technology. They can be used in confined space without the need for expensive air fed equipment for the applicators and come in a range of grades that can include extra fast curing to the repair procedure.

## Pipe Repair Systems Information – Composite Repair Systems

### UPS 19000 RH – UPS 19002/3 A&B – UPS 19007/9/11 GT

These products are used for encapsulating long lengths of problematic pipework where the steel wall has been thinned due to corrosion or erosion. The materials are surface tolerant and can be used in pipe diameters up to 36". Once cured they can give up to 300psi tolerance on abrasive blast cleaned surfaces.

## Pipe Repair Systems Information – Metal Repair Systems

### UPS 105 EG – UPS 115 XL – UPS 19065 RG

These products are ideal for bonding formed metal plates to holed or weeping pipe surfaces. The materials are available in a range of grades from fast cure to extended working life for hot surfaces. Typically these products can be applied to hand prepared, mechanically ground or abrasive blast cleaned surfaces with a pressure tolerance range from 20 – 300psi.

## Products that can be used for this type of repair include;

### UPS 105 EG

Paste grade metal filled epoxy for adhering formed steel plates

### UPS 115 XL

Extended working life metal filled epoxy paste for adhering formed metal plates to hot surfaces

### UPS 19065 RG

Fast curing paste grade metal filled epoxy for adhering formed steel plates

### UPS 19000 RH

Multi-purpose epoxy repair gel for use with glass fibre matting, glass tape or fillers

### UPS 19002/3 A&B

A surface tolerant fairing compound for filling pitted and scarred pipe surfaces

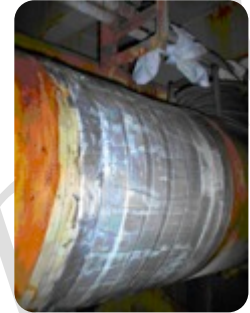
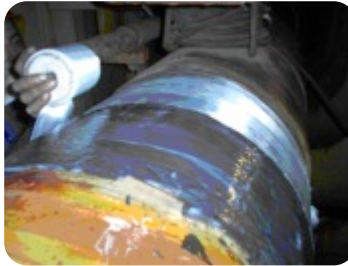
### UPS 19007/9/11 GT

Unique woven glass scrim tape

## **Composite Repair Systems**

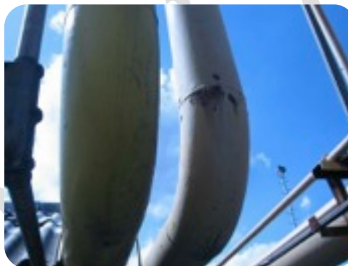
### **Low pressure repairs 75psi or below, hand surface preparation with Composite Repair Systems**

These types of repair can be used on small diameter pipework carrying low temperature, mild industrial chemicals and water. Ideally, surface would be degreased using *UPS TAC 883 Universal Cleaner* and then the surface of the pipe abraded using a wire brush or sand paper.



### **Low pressure repairs 100psi or below, mechanical surface preparation with Composite Repair Systems**

These types of repair can be used on 1" to 12" diameter pipework carrying industrial chemicals, water, effluent or sewage up to 60°C (140°F). Surfaces must be degreased prior to and after abrading using *UPS TAC 883 Universal Cleaner* or solvent. Typical preparation equipment used includes rotary wire brush, angle grinder or MBX Bristle Blaster.



### **Higher pressure repairs up to 300psi or below, abrasive blast cleaning with Composite Repair Systems**

These types of repair can be used on 1" to 36" diameter pipework carrying industrial chemicals, water, effluent or sewage up to 60°C (140°F). Surfaces must be degreased prior to and after abrading using *UPS TAC 883 Universal Cleaner* or solvent. Standard surface preparation guidelines are Sa2½, with 75 microns profile using angled grit.





## ***Metal Repair Systems***

### ***Low pressure repairs 75psi or below, hand surface preparation with Metal Repair Systems***

These types of repair can be used on small diameter pipework carrying lower temperatures, mild industrial chemicals and water. Ideally surfaces would be degreased using *UPS TAC 883 Universal Cleaner* or solvent, and then the surface of the pipe abraded using a wire brush or sandpaper.



### ***Low pressure repairs 100psi or below, mechanical surface preparation with Metal Repair Systems and Formed Metal Plate***

These types of repair can be used on any diameter pipework carrying industrial chemicals, water, effluent or sewage up to 60°C (140°F). If repairing a hole to the pipe surface, then steel plate must be oversized by 200mm in all directions, for weeping surfaces or cracks then the plate must cover the length of the repair and be oversized by 200mm in all directions. Surfaces must be degreased using *UPS TAC 883 Universal Cleaner* prior and after abrading. Typical preparation equipment used includes rotary wire brush, angle grinder or MBX Bristle Blaster.



### ***Higher pressure repairs up to 100psi or below, abrasive blast cleaning with Metal Repair Systems and Formed Metal Plate.***

These types of repair can be used on any diameter pipework carrying industrial chemicals, water, effluent or sewage up to 60°C (140°F). Surfaces must be degreased prior and after blasting using *UPS TAC 883 Universal Cleaner* or solvent. Standard surface preparation guidelines are Sa2½, with 75 microns profile using angled grit. The formed steel plate will need to be overlapped by 50mm in all directions for holed, cracked or weeping pipe surfaces.

