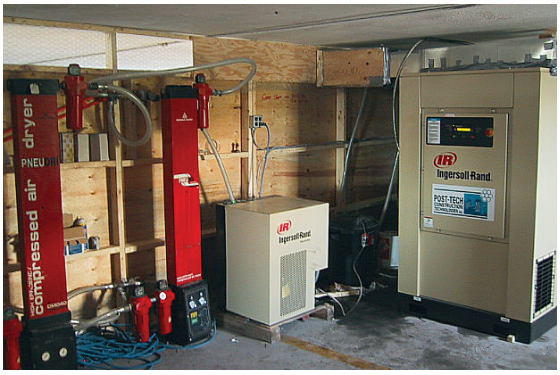
Post-Tech® PT Cable Drying

Unbonded Post-Tensioned Concrete Structures

DESCRIPTION

Post-Tech PT Cable Drying is an economical corrosion mitigation solution for unbonded post-tensioned cables encased in push-through or heat sealed sheaths. The process purges moisture from the cable by cyclically pressurizing a dry, non-corrosive gas such as air or nitrogen into the cable sheath. The process continues until the full length of the cable is dry. PT Cable Drying is typically a single treatment that can be adapted for permanent installation when the source of moisture ingress cannot be eliminated. Performance can be monitored manually or by means of electronic sensors installed for remote off-site monitoring and control.



Post-Tech PT Cable Drying Equipment

APPLICATIONS

- Parking Structures
- Office Buildings
- Balconies
- Roof Slabs
- Beams

FEATURES AND BENEFITS

- **Proven technology -** supported by independent test findings.
- **Economical -** low cost method of providing corrosion mitigation to extend the service life of the structure.
- **Focused protection -** provides corrosion mitigation directly to individual heat-sealed or push-through cables. Reduced risk of future corrosion damage.
- **Non destructive -** minimal disruption to the structure during the treatment process.
- **Customized -** custom designed for each structure to suit conditions and user requirements for control and monitoring.
- **Versatile -** used as a single treatment or can be adapted for permanent installation.

HOW IT WORKS

The Post-Tech PT Cable Drying system reduces the moisture content inside the cable sheaths by cyclically pressurizing and purging the cables with a manufactured dry gas such as air or nitrogen. The dry gas, which is injected under controlled pressure and flow, causes the existing moisture to exhaust through exit ports, cracks and defects where moisture may have penetrated. The PT Cable Drying system can use the same ports installed to test the cables when the Post-Tech PT Corrosion Evaluation test method is used.

A single PT Cable Drying treatment is utilized for structures where the future ingress of moisture is unlikely, such as interior slabs of fully enclosed office buildings. A single treatment is also suitable when used in conjunction with the PT Grease Injection system of re-packing cables or if the application of a membrane has eliminated the source of moisture intrusion.

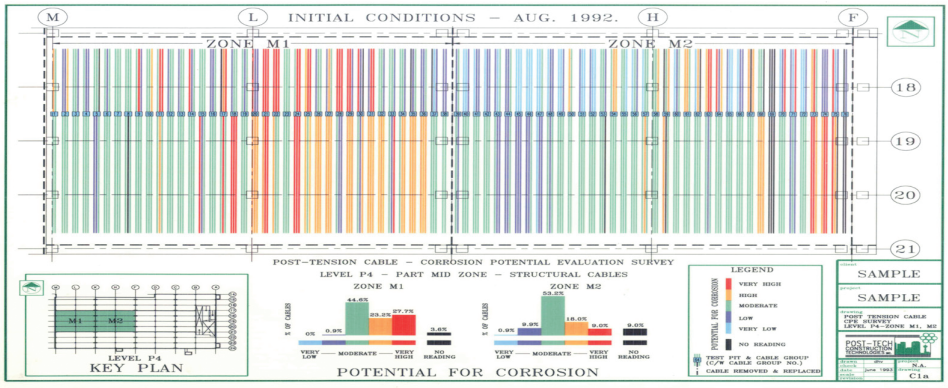
A permanent cable drying system incorporates a dry gas manufacturing plant, gas distribution lines to all identified cables in a structure, and utilizes control and testing equipment to ensure specified levels of protection. Performance can be monitored manually or by means of electronic sensors installed for remote off-site monitoring and control.

Post-Tech PT Cable Drying Gas Distribution Line

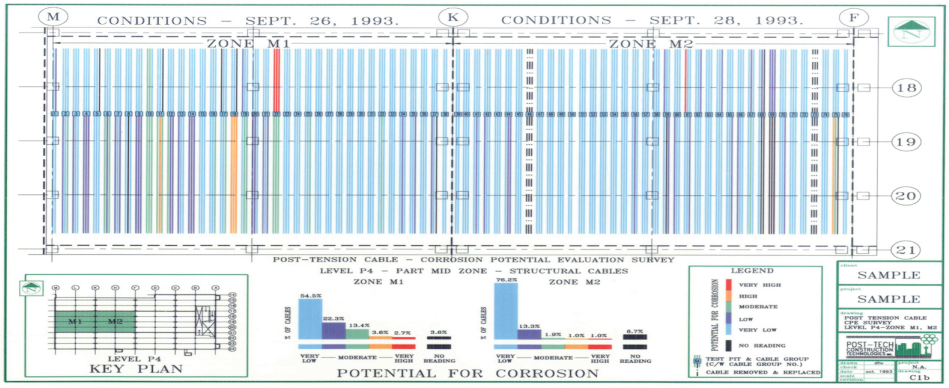
Post-Tech® PT Cable Drying

Unbonded Post-Tensioned Concrete Structures

After Post-Tech PT Cable Drying is complete, the potential for future corrosion is significantly reduced. The following diagrams show the results of PT Corrosion Evaluation testing before and after the PT Cable Drying process.



Post-Tech PT Corrosion Evaluation Detail - Initial Conditions



Post-Tech PT Corrosion Evaluation Detail - 1 Year after PT Cable Drying

The Post-Tech range of PT Corrosion Solutions is utilized as part of an overall strategy for the evaluation, identification, and protection of post-tensioned concrete structures. Structural assessments should be conducted by a qualified structural engineer. For corrosion mitigation of metals directly embedded in concrete such as temperature reinforcement and anchors, Vector recommends the use of galvanic corrosion protection systems. For additional product information, please contact www.vector-corrosion.com.

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VECTOR CORROSION TECHNOLOGIES