

MDT Construction Submittals – Contractor Quick Reference

1. Purpose of Contractor Submittals

The purpose of contractor submittals is to verify that the contractor's proposed materials, equipment, and construction methods comply with the project's design requirements, specifications, contract documents, regulatory standards, and safety requirements before any physical work begins. Contractor submittals support inspection, verification, and the materials certification process.

2. Core Best Practices

- Review Standard Specifications, Special Provisions, project plans, and the Table of Contractor Submittals prior to preparing submissions.
- Create a complete Submittal Log based on contract requirements, including certifications, mix designs, shop drawings, and QA/QC documentation.
- Prioritize critical-path items such as structural components, traffic control devices, aggregates, concrete, asphalt, and proprietary products requiring Department review.
- Become familiar with MDT review periods and plan accordingly.
- Perform internal QC checks to confirm compliance with contract requirements prior to submitting.
- Submit complete, organized submittals using the applicable Department Submittal Cover/Check Sheet. (As of July 1, 2026, MDT is developing additional cover sheets for complex submittals.)

3. MDT General Submittal Requirements

Materials Documentation

- Provide certifications, mill test reports, QPL listings, and source approvals as required.
- Confirm suppliers are listed on the Department's QPL when applicable.
- Ensure all materials meet applicable BABA requirements.

Mix Designs

- Submit concrete, asphalt, and grout mix designs in accordance with contract requirements.
- Allow adequate time for Department review and trial batches.

Shop Drawings

- Include required structural details, rebar layouts, barriers, precast items, sign structures, and specialty components.

Traffic Control Submittals

- Provide traffic control plans compliant with MUTCD and Department Detailed Drawings.
- Include certifications and crash test compliance for temporary traffic control devices

4. Submittal Format and Delivery

- Use Department-approved formats such as PDF, Department electronic platforms, and project-specific naming conventions. MDT is piloting and will soon transition to an online submittal platform.
- Use Department Submittal Cover/Check Sheets for all submittals.
- Ensure each cover sheet includes: Project name and contract number, specification section and submittal type, submittal number and revision, contractor QC reviewer, and any deviations or alternatives.
- File Naming Example: 620.10 – Shop Drawing – Pedestrian Rail – SD 003 R1
- Submit electronic submittals by email to the Department's Project Manager, using the same naming convention.
- Review all contract documents to ensure complete compliance. **Attached examples may not reflect all required items.**

5. Review and Coordination

- Clearly identify deviations and provide supporting justification, calculations, or alternate product information.
- Coordinate with subcontractors and suppliers to ensure all submittals meet Department specifications.
- Submit complete submittals to the Project Manager.
- The Project Manager reviews submissions for completeness before forwarding them to Department Headquarters.

6. Schedule Management

- Plan submittals based on construction milestones such as paving windows, bridge closures, or traffic switches.
- Allow sufficient time for Department review cycles, resubmittals, and required certifications.
- Monitor long-lead items such as sign structures, precast components, signals, and ITS devices.

7. Common Pitfalls to Avoid

- Submitting materials or products without required certifications.
- Providing incomplete submittals.
- Providing unorganized submittals.
- Providing unnecessary information that takes up valuable review time.
- Overlooking project-specific Special Provisions.
- Submitting documents too late, causing delays in inspections or critical-path work.
- Not incorporating approved design revisions or RFI responses.

8. Closeout and Materials Certification

- Begin assembling materials certification documents early in the project.
- Ensure all installed materials comply with BABA requirements.



TRANSMITTAL

TO: Montana Department of
Transportation

FROM: Prime Contractor

DATE: May 30, 2030

ATTN: EPM
Eng. Project Manager

RE: Crack Repair Work Plan REV02

TRANS #: Contract #00000_S003_05/01/2030

We are sending you: ☒ Attached ☐ Under Separate cover via _____ the
following:

- ☐ Shop Drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications
☐ Copy of Letter ☐ Change Order ☐ Contract Documents ☒ Work Plan

Document	Copies	Description
T015-S003 - Crack Repair Work Plan	1	Crack Repair Work Plan REV02

These are transmitted as check below:

- ☒ For approval ☐ Approved as submitted ☐ Resubmit for approval
☐ For your use ☐ Approved as noted ☐ Submit for distribution
☐ As requested ☐ Returned for corrections ☐ Return corrected
☐ For review and comment ☐ _____

Remarks:

Dear EPM

Please review the attached revised crack repair work plan and consider it for approval. Should you have any comments or require further information, please do not hesitate to contact us.

Kindly note that we have also included additional equipment option, a more compact, handheld solution intended for use in areas where the SealBoss PA3000 cannot be utilized due to its size and weight.

Kind regards,
Prime
Contractor's
Representative
xxx-xxx-xxxx

Submittal marked No Exceptions Noted

[Redacted]	☒ NO EXCEPTIONS NOTED	[Redacted]
	☐ EXCEPTIONS AS NOTED	
	☐ REVISE AND RESUBMIT	
	☐ REJECTED	
	☐ REVIEW NOT REQUIRED	
This review is for general conformance with design concept only. Any deviation from plans or specifications not clearly noted by the Contractor has not been reviewed. Review by Engineer shall not serve to relieve the Contractor of contractual responsibility for any error or deviation from contract requirements.		
By: [Redacted]		Date: [Redacted]

**Monta
Bridge
Crack Repair
Work Plan**

**MDT- Montana Bridge –
Contract#00000**

2	05/30/2030	Contractor			Third Issue
1	05/20/2030	Contractor			Second Issue
0	04/25/2030	Contractor			First Issue
Revision	Date	Preparation	Checking	Approval	Status / Comments

5	1	9	3	1	1
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Prime Contractor
Contact Infor

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	Montana Bridge	Revision: 02
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1 Purpose

This work plan outlines the procedures, materials, equipment, and personnel required to perform epoxy crack injection on the main span superstructure (Spans 1, 2, and 3) of the MONTANA Bridge.

1.1 Objective

- Restore structural integrity of cracked concrete
- Inject cracks exceeding 0.016 inch at the widest point of the crack
- Achieve full-depth bonding and watertightness
- Restore surfaces to a flush condition

2 Crack Identification and Inspection

2.1 Reference Documents

- Montana Bridge: Main Span Superstructure Inspection Report (Dec 30, 2022)

2.2 Field Verification

The Contractor will:

- Identify the person, listed in the experience qualifications section, that will be performing the crack inspection work in conjunction with MDT or designee.
- Perform a detailed visual inspection in conjunction with MDT personnel or designee of all accessible surfaces prior the start of the works.
- Verify crack locations and widths identified in the report.
- Identify additional cracks exceeding 0.016 inch at the widest point of the crack.
- Document crack locations, widths, and lengths.

2.3 Crack Mapping

- Cracks will be mapped on both interior and exterior faces prior to commencing crack injection within a given area
- Crack widths will be measured and compared to the report
- Final repair requirements will be confirmed with the Project Manager

3 Materials

3.1 Required Properties

Material intended to be used must meet the following requirements.

- Solids: $\geq 98\%$
- Viscosity: ≤ 700 cps @ 77°F
- Compressive strength: $\geq 12,000$ psi
- Flexural strength: $\geq 10,000$ psi
- Bond strength: ≥ 500 psi
- Non-shrink, full cure ≤ 24 hours

3.2 Crack Sealant

- Trowelable, non-sag epoxy
- Cure time: ≤ 4 hours
- Function: retain injected epoxy and seal surface

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3.3 Injection Epoxy

- ASTM C881 compliant (Type IV, Grade 1, Class B or C)
- Two-component, moisture-insensitive
- Hydrophilic formulation (for full-depth penetration ≥ 0.006 in cracks)

4 Equipment Requirements

4.1 Site Conditions

Injection equipment will meet the following requirements:

- Dual feed lines with automatic metering and mixing
- Mix ratio accuracy within $\pm 3\%$
- Continuous pressure capability (0–200 psi)
- Visible and accurate pressure gauges
- Controlled flow delivery system

4.2 Pre-Work Demonstration

Prior to production:

- Equipment will be demonstrated to the Project Manager
- Mix ratio accuracy will be verified
- Epoxy mixing quality (no streaking) will be confirmed

5. Sequence of Works

5.1 Operations

The work will proceed in a controlled sequence beginning with crack inspection and mapping, followed by surface preparation, installation of injection ports, and sealing of cracks. Prior to injection works ports will be installed on both interior and exterior face of the box, especially if it appears that the crack is spanning through the full width of the box. After the sealant has been cured, ports will be checked by inserting air to verify continuity. Epoxy injection will then be performed, cracks identified to be injected will be filled along the length of the crack down to the minimum crack thickness that can practically be injected per manufactures recommendations (0.006"), followed by curing, core verification, and final surface restoration and cleanup.

Ambient air temperature and concrete surface temperature will be measured using an infrared surface thermometer (or similar) and an ambient thermometer. Measurements will be taken at the start of each shift, at mid-shift, and whenever significant weather changes occur or temperatures approach minimum requirements. Additional readings will be taken if conditions change rapidly due to strong winds or declining temperatures. Temperature readings will be documented daily and maintained on site for review.

5.2 Surface Preparation

All cracks and adjacent surfaces will be cleaned of dust, debris, moisture, and contaminants using approved methods such as oil-free compressed air. Surfaces must be clean and dry to ensure proper bonding of the sealant and effective epoxy penetration.

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5.3 Injection Port Installation

Injection ports will be installed along the cracks on both interior and exterior faces of box girder using surface-mounted or embedded methods, depending on crack conditions. Ports will be spaced and installed in accordance with below mentioned points based on the crack size and secured with epoxy sealant to ensure a tight connection and proper injection.

Maximum Spacing Between Ports

- Fine Cracks (0.006" – 0.020") – 12 inches on center
- Structural Cracks (0.020" – 0.060") – 18 inches on center
- Wide Cracks (>0.060") – 24 inches on center

5.4 Crack Sealing

Cracks will be sealed with a non-sag epoxy to contain the injected material. Care will be taken to avoid blocking ports. The sealant will be allowed to be fully cured prior to injection and will only be applied when temperatures meet specified requirements. Crack sealant will be applied in accordance with SP 32 Section E.3f when temperature is at minimum of 50°F, or in accordance with the manufacturer's written recommendations if alternate temperature requirements are accepted by the Project Manager.

5.5 Epoxy Injection Procedure

Epoxy injection will be performed under controlled pressure and will be applied in accordance with SP 32 Section E.3h when temperatures are a minimum of 45°F, or in accordance with the manufacturer's written recommendations if alternate temperature requirements are accepted by the Project Manager. Exterior crack injection will be completed prior to interior injection unless adequate containment measures are in place. Epoxy injection will be performed in accordance with the SP 32 Section E.3h. For uniform cracks, injection will begin at the midpoint of horizontal cracks or at the lowest point of vertical and sloped cracks. For variable width cracks, injection will begin at the widest point and continue sequentially from port to port until full crack penetration is achieved. Ports will be capped sequentially to ensure full penetration. Injection will be continuous, and any leaks or interruptions will be addressed immediately. All epoxy will be allowed to be fully cured before further work. The interior face of the box girder will be monitored during crack injection operations to verify epoxy is not passing through the full depth of the crack or leaking from the opposite face.

5.6 Concrete Core Verification

Concrete cores will be taken at approved locations to verify proper epoxy penetration and bond. Proposed core locations will be submitted to the Project Manager and Engineer of Record for approval in accordance with Section 32.E.3i(1). Prior to coring, reinforcing steel locations will be identified using scanning equipment to avoid damaging embedded reinforcement. Cores will be submitted to the Project Manager for testing and verification in accordance with Section 32.E.3i(2). If core results are deemed unsatisfactory, additional cores and corrective work will be performed as required. All core holes will be repaired using approved repair materials and procedures.

Requirements:

- Diameter: 2 inches / Depth: 6 inches
- Number of Cores: 2 exterior web, 2 interior web, 2 soffit
- Acceptance: No fracture along epoxy bond line

Core holes will be repaired using approved non-shrink repair material. Due to the 6-inch core depth and limitations of repair material, repairs will be completed in multiple lifts if required in accordance with the manufacturer's recommendations. Initial lifts will be roughened as required to ensure proper bond between applications. Repair work will only be performed when temperatures meet the requirements.

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5.7 Cleanup and Surface Restoration

All ports, sealant, and excess epoxy will be removed using hand tools and light surface preparation equipment such as scrapers, chisels, and variable-speed angle grinders equipped with grinding or abrasive pads suitable for concrete surfaces. Surface finishing will be performed in a controlled manner to avoid damage to the surrounding concrete. Visible areas will be restored and finished to match the adjacent concrete surface. All work areas will be left clean and free of damage.

6. Personnel and Qualifications

Contractor Super will oversee and supervise the crack injection operations onsite with support from Contractor Foreman. During the course of his career, Super and his teams have successfully completed crack injection repairs totaling more than 100,000 linear feet on various structures demonstrating extensive hands-on experience and expertise in this type of rehabilitation work. Both individuals meet the minimum project experience requirements and have successfully completed at least three similar crack injection projects. Contractor Employee will provide technical support and coordination for the project, however, he will not be present onsite at all times.

A qualified [REDACTED] technical representative will be present onsite during the initial crack injection operations in accordance with SP 32 Section D.1a. Based on the project Q&A response, the representative is anticipated to remain onsite through at least the first 100 linear feet of crack injection work, subject to MDT approval.

Technical Representative's Qualifications and Relevant Experience on similar projects.

Contractor Super

Prime Contractor

- Scope: Crack injection on support beams, parking lot crack injection and stripping, demolition and repair works, installation of carbon fiber reinforcement.
- 2012 – [REDACTED]
 - Scope: Structural rehabilitation works including crack injection and beam repair with carbon fiber strengthening.
- 2013 – [REDACTED]
 - Scope: Crack injection, post-tensioning works, and carbon fiber reinforcement applications.
- 2021 – [REDACTED]
 - Scope: Beam and concrete repairs, carbon fiber reinforcement, concrete replacement, and crack injection/repair works.
- 2025–2026 – [REDACTED]
 - Scope: Localized concrete restoration, crack sealing, carbon fiber repair of silos, and waterproofing works.

Contractor Foreman

Prime Contractor

- 2017 – [REDACTED]
 - Scope: Bridge rehabilitation works including "running duck" operations and cable-related installation works on Loop 12 bridges.
- 2018 – [REDACTED]
 - Scope: Structural rehabilitation works including crack injection and beam repair with carbon fiber strengthening.
- 2018 – [REDACTED]
 - Scope: Crack injection using AST RMP 317-C material, concrete repair works, and installation of expansion joints.

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Contractor A

Task Supervisor

- 2025–2026 – [REDACTED]
 - Scope: Localized concrete restoration, crack sealing, carbon fiber repair of silos, and waterproofing works.

Contractor B

Task Supervisor

- 2025–2026 – [REDACTED]
 - Scope: Localized concrete restoration, crack sealing, carbon fiber repair of silos, and waterproofing works.

Contractor Employee – Technical

Support, Project Engineer

- 2023 – [REDACTED]
 - Scope: Inspection & execution of remedial works on the cracked beams & columns in the building, water tower and V-shaped parking structure.
- 2023 – [REDACTED]
 - Scope: Technical support and structural strengthening works on five post-tensioned (PT) beams identified as deficient. The scope included crack injection, installation of additional reinforcement at both the top and bottom of the beams, and casting of an additional concrete layer for section enhancement. Works also involved installation of external post-tensioning (PT) systems to compensate for failed internal PT tendons, as well as application of carbon fiber reinforced polymer (CFRP) for additional strengthening and structural rehabilitation.
- 2022 – [REDACTED]
 - Scope: Inspection works of the cracked & displaced concrete elements and joints. Methodology preparation and execution of remedial works without closing area of the monument.
- 2021 – [REDACTED]
 - Scope: Structural assessment of a total of 51 silos that were affected by fire. Concrete and steel beam structure inspection with laboratory testing. Methodology preparation for remedial works based on the inspection & testing reports.

[REDACTED] – Manufacturer Representative

Subject to availability, either [REDACTED] or [REDACTED] will be present during the initial crack injection operations. Biographical summaries for both individuals are provided on the next page.

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Business Development Leader

is the Business Development Leader for Bridges and Highways at . He is based out of . has over 35+ years of experience in the construction industry that includes C-Suite management experience in combination with a strong knowledge of structural repair and strengthening of concrete structures, pre-construction planning and estimating, structural concrete materials, construction aggregates, and structural precast concrete.

Before joining team, he was the Director of Business Development & Marketing for , Inc. for 13 years based in with overall responsibilities that included business development and estimating of private and public sector projects, construction operations, and senior management responsibilities. is a registered Professional Engineer in and , holds a Bachelor of Science degree in Civil Engineering from , a Fellow in the International Concrete Repair Institute, and is a retired .

Mapei Technical Representative

With more than 15 years of experience in the construction industry, has built a diverse career spanning both contracting and technical manufacturer representation. Their expertise centers on concrete construction, structural restoration, and specialty repair systems, with extensive experience supporting contractors, architects, engineers, and project teams across a wide range of commercial and industrial applications.

Over the course of their career, has represented leading manufacturers in the construction materials industry, including , , and . Their work has focused on concrete flooring systems, epoxy and urethane repair technologies, and structural concrete repair solutions, providing both technical expertise and field support throughout the project lifecycle.

Known for combining hands-on field knowledge with strong product and systems expertise, brings a practical, solutions-oriented approach to helping clients address complex construction and restoration challenges. His background as both a contractor and manufacturer's representative provides a unique perspective that bridges jobsite execution with technical product performance.

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7. Equipment

7.1 Option A

SealBoss®

PA 3000 Epoxy Injection Pump



Product Data Sheet
Two Component
Pneumatic Epoxy Injection Machine

SealBoss® PA 3000 Epoxy Injection Pump Advanced Design Features

- Complete Set Including Hoses And Applicator
- 800 PSI
- 2:1 or 1:1 Mix Ratios
- 3" Air Cylinder
- Positive Displacement Piston
- Pressure Lines Included
- Compact And Lightweight
- Rugged Construction
- Very Affordable
- Easy To Use / Clean
- Reliable, Proven Design

The SealBoss® PA 3000 Epoxy Injection Pump combines high quality with a very competitive price.

The SealBoss® PA 3000 Epoxy Injection Pump sets new standards for performance and features.

The machine is furnished with male hose adapters and push-in tube connectors for the pneumatic lines. Hoses are available in a variety of sizes. We also supply surface ports in several sizes and split sets for multi port injection. Please refer to our data sheet on the **The SealBoss® Epoxy Injection Multiple Port System** for further information.

The SealBoss® PA 3000 Epoxy Injection Pump is suitable for the two component SealBoss® Epoxy Injection Line products and Polyurethane Resins and related products with viscosities between 10 and 1,000 cps. Contact your SealBoss® technician to confirm that your product is suitable for use with this machine.

The SealBoss® PA 3000 Epoxy Injection Machine has been refined and improved over many years for highest reliability and daily use. The pump features a three inch air cylinder for pressures up to 800 psi. The higher injection pressures allow for better performance with thicker resins and with all materials at lower temperatures.

The tanks are unitized and mounted on four easy roll caster wheels with brakes. The machine is very mobile. The pump is available in 2:1 or 1:1 mixing ratio versions. With purchase of a separate piston/cylinder unit mixing ratios can be easily interchanged.



This complete package includes material reservoirs, the applicator with static mixer and a 12' set of high pressure hoses.



Metering Pump Specifications

Standard Ratios	1:1 or 2:1
Material Flow Rate	Approx. 0.4 GPM
Dimensions	14" x 22" x 29"
Weight	60lb
Tank Capacities	3 1/3 gal ea
Material Viscosity	Pourable, 10-1000 cps
Outlet Pressure	15-800 psi
Air Requirements	1 CFM 40-120 psi

Limited Warranty Policy and Disclaimer for Products Supplied and/or Distributed by SealBoss Corp.: SealBoss Corp. Products are for Professional Use. All recommendations, comments and technical data herein are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty either expressed or implied. User shall rely on his or her own information and tests to determine suitability of the product for the intended use and user assumes all risk and liability resulting from his or her use of the product. Nothing contained in any supplied materials releases the user of the obligation to read and follow the warnings and instructions for each product as set forth in the current Technical Data Sheet, product label and Safety Data Sheet prior to product use. SealBoss Corp. warrants supplied / distributed products to be free of manufacturing defects. Seller's and manufacturer's sole responsibility shall be to replace that portion of the product of the manufacturer which proves to be defective. There are no other warranties by SealBoss Corp. of any nature whatsoever expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. SealBoss Corp. shall not be liable for damages of any sort, including remote or consequential damages resulting from any claimed breach of any warranty whether expressed or implied. SealBoss Corp. shall not be responsible for use of this product in a manner to infringe on any patent or any other intellectual property rights held by others. In addition, no warranty or guarantee is being issued with respect to appearance, color, fading, cracking, staining, shrinkage, peeling, UV damage, excessive temperature exposure, normal wear and tear or improper application by the applicator. Damage caused by abuse, neglect and lack of proper maintenance, acts of nature and / or physical movement of the substrate or structural defects are also excluded from the limited warranty. SealBoss Corp. reserves the right to conduct performance tests on any material claimed to be defective prior to any repair by owner, general contractor, or applicator. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of or inability to use the product. Recommendations and statements other than those contained in a written agreement signed by an officer of the manufacturer shall not be binding upon the manufacturer or seller. SealBoss Corp. reserves the right to change the properties of products without notice.

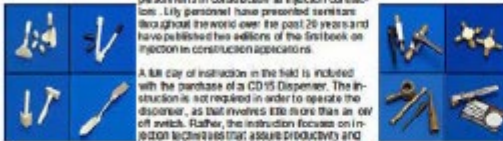
SealBoss® PA 3000 Epoxy Injection Pump

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7.2 Option B

Tools Lily Corporation offers a complete line of injection accessories. They include surface socket, and corner mount porting adapters, port connectors, valves, porting adapter closure caps and crimps, nylon tubing, permanent and disposable nozzles, vacuum and hydro drilling assemblies, adapter setting tools, manifolds, and air compressors. For a complete accessory menu visit www.lilycorp.com.

Training Lily is uniquely trained to provide instruction in epoxy injection. The background of key personnel is in construction as injection contractors. Lily personnel have presented seminars throughout the world over the past 26 years and have published two editions of the first book on injection in construction applications.



A full day of instruction in the field is included with the purchase of a CD15 Dispenser. The instruction is not required in order to operate the dispenser, as that involves EOE more than an on/off switch. Rather, the instruction focuses on injection techniques that assure productivity and cores that satisfy clients. The instruction is included, but board, and airplane from Chicago are not. Certificates of instruction are issued.

Technology The CD15 is designed exclusively for construction applications by those with more than 35 years of experience in construction. This background is important, for in designing equipment that must perform in a construction environment, it cannot be presumed that temperatures will be constant, resin ratios will remain the same, flow rates will be constant, or an experienced operator will be at the helm. Dispensing demands in construction are unique, and seldom met by systems designed primarily for industrial applications.

Lily Corporation enjoys numerous patents for innovations in epoxy and polyurethane injection, porting, motion monitoring at cocks, valve sequencing and low pressure injection. In addition, Lily has pioneered new technology that enables the injection of gel viscous products, the injection of numerous ports simultaneously, hydro-drilling of porting sockets, and the mechanical pinning of deteriorated concrete castings in conjunction with injections.



Lily Corporation
260 S. Broadway Avenue, Suite 2000-400
United States of America
Phone: 630-692-0888 Fax: 630-692-9023
Website: www.lilycorp.com Email: info@lilycorp.com

- All pneumatic operation. No electricity.
- Precise, automatic ratio regardless of ratio, temperature, viscosity of components, flow rate, pressure or self displacement.
- Motion, motion and injects super for viscosity ratios as well as gel viscous products.
- Self monitoring pressure responsive.
- Once a pressure is set, the dispenser provides a steady ratio until the injection process is done.
- Diametrically increase production by injecting up to new ports at once.
- Precise technical assistance with the equipment or the injection process to those who have done it for more than twenty years.
- Counter monitors resin consumption.
- Tailor made design at the end of the shift.
- Welded stainless steel frame.
- Available for rent.
- On site training, available and certification of operators.



The CD15 Dispenser



Lily CD15 High Pressure Epoxy Injection System

- Always on ratio – any ratio! 1:1 to 10:1
- Simple to operate and easy to clean!
- Inject numerous ports at once!
- Any viscosity – super low or gels
- Instruction & certification of instruction.
- Rental or purchase
- All pneumatic & all weather

Innovative Products Through Research And Imagination

Our Philosophy, Our Mission, And Our Reputation



The CD15 Dispenser has become the construction industry standard for epoxy injection, grouting or fills in more than 40 countries. It has a reputation earned by consistently delivering precisely metered resin under difficult construction adverse conditions. Regardless of the ratio, the difference is verified by built-in components, the new ratio, the pressure or the experience of the operator, the CD15 Dispenser consistently delivers thoroughly cured resin.

The CD15 is user friendly. The control consists of a single on/off switch, a single pressure regulator and a pressure gauge. Once the dispenser pressure is set, the system will maintain that pressure. The built-in flow meter allows a single operator to inject numerous ports at once.

USES:

- Crack injection of concrete & masonry
- Injection of sealers and concrete
- Spray grouting of reactive bases
- Injection of voids beneath a base plate reinforcing
- Injection of electrical conduits

FEATURES:

- All pneumatic operation
- Fixed ratio, nothing to go out of adjustment or require monitoring
- Patented "COCK" ball valves
- Long lasting wear compensating SHAW-DC seals
- Welded stainless steel frame
- Cycle counter to monitor resin consumption
- Very portable

SPECIFICATION:
Dispense Pressure:
Ratio Accuracy:
Air Pressure:
Material Tanks Available:
Maximum Delivery Rate:
Viscosity:
Currently Available Ratios:

~20 PSI to ~800 PSI
~2%
40 - 120 PSI @ 2-3 SCFM
1.5 Gallons
1-15 GPM depending on material viscosity
1 up to gel viscosity
1:1, 1.25:1, 1.5:1, 2:1, 2.5:1, 2.85:1, 3:1, 3.5:1, 4:1, 10:1
17.5" tall x 7.75" wide x 16" deep
37 pounds

Dimensions:
Weight: