MASTIC PATCHING WITH SEALANT BINDER
In Pavement Maintenance the two most troubling problems are Cracks and Potholes. There are different methods for each repair, and different machines for these repair types. The C1 will combine these two processes into one machine with the performance and results the user is expecting.

**Cracks**
- Crack Seal (hot)
- Crack Pour (hot or cold)

**Potholes**
- Throw and Roll
- Spray Injection
- Remove and Replace
- Mastic Sealant
The Cimline C-1 Crack Sealer / Mastic Patcher

The C1 Combination Machine combines two crews into one by utilizing your crack sealing crew with best practices to provide solutions for crack seal and mastic patch using one machine. This is done by using the proper sealant binder and local crushed stone material that is available in your area. No longer is factory packaged mastic your only repair choice.
What is it

Factory Packaged Mastic

Factory packaged mastic today in its standard application is 1/3 sealant and 2/3 engineered aggregate.

Example of Factory Packaged Mastic Sealant Block
What is it

Mastic Patching with the C1
The patent pending design blends aggregate and sealant to make mastic patch.

Aggregate Local Crushed
Crushed aggregate that is sized to specification and washed.
- 1/8” crushed
- ¼” crushed
- 3/8” crushed
- ½” crushed

Sealant Climate and Type
Sealant specified for the climate region, surface, and application.
- Type 1 Parking Lot
- Type 2 DOT ”3405”
- Most Common
- Job specific sealants
- Aviation
How It Works

Aggregate

Aggregate is moved from the rock hopper through the heating chamber using a centerless screw. Each revolution drops a measured amount of dried, pre-heated stone into the mixing chamber. A hopper guard prevents oversized stone from entering the system.

Hopper

- Sized Screened Aggregate
- Damp is OK
- Fines will produce a stiffer mix
- Hopper Guard keeps out oversize

Heating

- Diesel burner
- Aggregate is heated to a minimum of 240 degrees
- Removes all moisture
- Ensures proper blending
- Heated Tool Carrier
How It Works

Sealant

A measured flow of sealant binder is introduced into the mixing trough at the same location as the pre-heated aggregate. The mix has 100% binder coverage in the first third of the mixing system. The mix continues to flow down the second centerless screw to the placement chute.

Mixing

- Metered Sealant Flow introduced at application temperature
- Centerless screw folds sealant through mixing chamber
- Mixing chamber is insulated and heated

Placing

- Electrically heated placement chute transfers mastic to buggy or screed box
- Chute swings left to right from lane center line to center rear of machine
How It Works

Flow controls for rock and sealant can be set for a variety of mixture rates and application speeds. This also allows the user to specifically blend mastic to the characteristics of the application.

- Potholes
- Transverse cracks for smooth ride
- Centerline segregation
- Bridge Joints
- Curb to street or transition leveling
Installation
Best Practices

**CLEAN!** Like all pavement preservation techniques, operators should follow best practices in job site preparation.

**Good-Compressor**
- Clean dry surfaces promote a strong bond to surrounding pavement
- A 100 + CFM compressor is ample in size

**Best-Heat Lance**
- Heat lances clean with compressed air while heating the repair area
- This dries where necessary, softens the asphalt, and exposes fresh binder which promotes bond to sealant
Installation
Best Practices

Placement. Mastic is HOT. Safety first. Gloves, long sleeves, and safety glasses. This operator is using a 10” placement screed box on a curb to asphalt transition.

Screed Box 10”
• Keep your tools HOT! There is a heat chamber on all machines

Hot Iron
• Heat lances clean with compressed air while heating the repair area
• This dries where necessary, softens the asphalt, and exposes fresh binder which promotes bond to sealant
Installation
Best Practices

Aggregate Selection is an important step. Remember to consider your traffic load, average depth, and surface friction when choosing your stone. Maximize your production and performance.

1/4-1/8” Stone
- Higher skid resistance
- Higher static load capacity
- Impermeable to water

1/8” Only Stone
- Smoother texture
- Best for banding on smaller cracks and depressions
- Impermeable to water
Customer Value

The C1 offers value to the customer through the entire process.
- Less Disruption
- Safer
- Faster
- Material Savings

Less Disruption
- One closure for two processes
- One Crew
- One disruption to the public

Safety
- Lowest load height
- Best visibility to operator with moveable placement chute
- Electric heated placement chute
- Simple operator control
Customer Value

The C1 offers value to the customer through the entire process.
- Less Disruption
- Safer
- Faster
- Material Savings

Faster
- C1 1 Tank = 450 Gallons
- Others Tank = 200 Gallons
- C1 on demand heats material faster
- 1 Machine does the work of 2
Customer Value

The C1 offers value to the customer through the entire process.
• Less Disruption
• Safer
• Faster
• Material Savings

Material Savings
• Local Aggregate Cost $40 Ton or $0.02 per pound
• Local Sealant Cost $0.55 per pound
• C1 Mastic Cost $0.20 lb.
## Customer Resources

- **Cost of Operation**
- **C1 Operator Instructions**
- **Product and Application Instructions**

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### Cost of Operation

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost/lb</th>
<th>Savings</th>
<th>Cost of Operation</th>
<th>Material Cost</th>
<th>Labor Cost</th>
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<tr>
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