Seamless cold-weather asphalt repair can be achieved in under 20 minutes

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Winter rain, ice, and extreme weather are notorious for multiplying potholes and asphalt damage in public and private roads and parking lots. Snarled traffic, vehicle damage, injury, and even litigation can result if the asphalt damage is not repaired in a timely manner. But many contractors using traditional “remove and replace” asphalt repair essentially cannot work in winter.

Cash-strapped contractors, homeowners, businesses, and municipalities benefit from upgraded seamless infrared asphalt repair in under 20 minutes, at a fraction of traditional “remove and replace” cost.

“Municipal engineers typically prohibit asphalt repair in cold weather, because if the asphalt goes down cold, it starts to ravel or fall apart,” says Don Jimenez, owner of Asphalt Technology, a Clovis, CA-based asphalt repair company of public and commercial surfaces. “Water intrusion just accelerates the asphalt failure, particularly after the subgrade is compromised.”

Financial cutbacks in the tough economy have also made fixing potholes more difficult, as traditional “remove and replace” asphalt repair can take three vehicles and six men several hours to saw cut, jackhammer, and remove old asphalt, then replace with new asphalt in a typical 5’x5’ patch.

Fortunately, an upgraded infrared asphalt repair technology is making short work of winter potholes, as seamless cold-weather asphalt repair can be achieved in under 20 minutes at a fraction of traditional remove and replace cost.

Typical infrared technique shortens asphalt repair by heating, fusing, and compacting recycled asphalt with minimal equipment, labor, and new material.

Jimenez, however, turned to a new upgraded infrared asphalt repair option by Kasi, a worldwide leader in infrared asphalt repair, that makes the process even faster, deeper, and more uniform, which can accelerate winter asphalt restoration. The infrared chamber upgrade enables seamless asphalt repair in under 20 minutes (of a typical 5’x5’ patch including preparation and clean up), and doubles infrared chamber longevity to over 10 years. The improved infrared technique can provide superior public, commercial, or residential asphalt repairs (such as roads, parking lots, and driveways) at one-third the cost of conventional methods.

At the heart of what makes this possible is a new, deeper 8 converter chamber which allows more asphalt to be heated faster, deeper, and more evenly. The greater heating coverage, in fact, can soften existing asphalt to be patched, up to a 3” depth in as little as four minutes, about half the time of typical infrared heat chambers.

“With the greater heat coverage, we can put down more asphalt in half the time, even in winter,” says Jimenez, who transports his upgraded infrared asphalt repair equipment in Kasi’s Minute Man trailer-mounted system, which has an asphalt reclaimer that keeps asphalt at plant mix temperature in any kind of weather. “We’re busy through the winter because of this infrared method and our hot asphalt in the reclaimer box.”

“In 20 minutes we can complete an actual demo repair,” adds Jimenez. “A lot of people say, ‘I’ll just take 20 minutes of your time.’ But to literally fix an asphalt problem in 20 minutes and have it look better than saw cut and replace—it blows their mind. When I do a demo, I’ve won 99% of the jobs on everything from tract homes to parking lots to road repair.”
“There’s no bending over, scratching at a hard spot that never really got hot enough. By the day’s end, we’re only half as tired and can do more jobs.”

Since the wider heating converter design generates more heat with better coverage, it also reduces the need for replacement parts used in typical asphalt infrared repair technology. With fewer replacement parts, the new design doubles the life expectancy of Kasi’s upgraded infrared heat chamber to over 10 years.

“Usually, contractors don’t realize anything is going to break until they’re in the middle of a job because equipment doesn’t break until you use it,” says Jimenez. “But downtime is killer. For us, the infrared upgrade is even more cost effective because there’s less wear and tear and less need for replacement parts. So we’re more productive with less downtime.”

Unlike traditional "saw, cut, and remove" or "crack filler" asphalt repair techniques, Kasi’s infrared asphalt repair has no seams for water and ice to penetrate. “It’s a more permanent patch that should last twice as long as remove and replace because water intrusion won’t be a factor,” says Jimenez. Instead, the infrared restorations fuse to the existing pavement, creating a continuous surface.

“Many municipalities I’ve worked for now have a no-cut law after I’ve proven they don’t have to saw cut new roads to place a utility line,” says Jimenez. “We get business on a municipality scale and entire residential subdivisions because they don’t want the mis-matched 'saw cut' look.”

The infrared repair’s continuous surface also eliminates the need for tack-coating the edges, enhances durability, and allows roads to be opened to traffic immediately. It makes the repair process less expensive, since existing asphalt is recycled, crew size is typically limited to two; and only a single truck or trailer is used.

“With no saw cutting and jack hammering, no removing and replacing, no wait time for drying, our upgraded infrared asphalt repair equipment minimizes operating noise, downtime, and disruption,” says Jimenez. “We’re using 90% existing or recycled asphalt, and just one truck and two guys for less than 20 minutes on a typical 5’x5’ patch, instead of all new asphalt and typically three trucks and six guys for about three hours with traditional remove and replace repair.”

“With Kasi’s upgraded infrared asphalt repair equipment, we have about a 3-1 savings ratio in equipment, material, and labor over traditional remove and replace asphalt repair, so my bids are about 20% lower and my profit 30% higher than the competition. “My business has doubled in two years, and referrals are 80% of my business.”

Kasi’s infrared asphalt repair equipment is commonly used by both public and private maintenance/transportation managers for asphalt repair of potholes, utility cuts, trenches, depressions, joints, and other irregular pavement issues. Lab studies show there is no change in asphalt integrity from the use of its infrared equipment.

The company offers a complete line of asphalt repair equipment worldwide including infrared heaters, asphalt reclaimers, asphalt rollers, rakes, brooms, shovels, and more.