

For years, the hand-held drill was a necessary evil on any concrete patching job. "Evil" because its use consisted of slow, backbreaking work, bending or kneeling down struggling to hold the drill in place while boring out multiple holes for concrete dowels.

DRILL EVOLUTION

With time, necessity became the mother of invention. The fact was that jobs were demanding a faster, safer way to drill holes for patchwork. When considering that each concrete patch typically requires 20 dowel holes, and it can take up to 15 minutes to complete one hole with a hand-held drill, it's no wonder a change was on the horizon—especially when jobs requiring 50 to 100 patches were becoming commonplace.

Enter the hydraulic-powered dowel drills. First hitting the scene about 30 years ago, the concept was a virtual quantum leap for concrete patching contractors. Instead of drills that required operators to manually carry and guide them during the drilling process, here were machines that minimized the human element. The drills were designed to guide themselves, making for faster, more accurate holes. And there was nothing hand-held about them.

A much better mousetrap had been built. There was just one major problem—the expense. The hydraulic drills themselves were expensive, but add to that the expense of a large hydraulic power pack to drive the drill and an air compressor to flush out the holes, and the overall price tag became a limitation. Though there was no doubt this new technology would do the job

CONTRACTOR AIRS IT OUT

By Jon Thorp



Construction company hangs up hydraulic dowel drills in favor of pneumatic technology.



faster, better, and safer than a hand-held drill, the older, slower, and strenuous manual method remained the norm.

Since, the pneumatic dowel drill has become the standard in the industry. Manufacturers that once only offered hydraulic dowel drills now mostly offer their own lines of pneumatic units. Though some might see this development of pneumatic over hydraulic dowel drills as a rather pedestrian change, the fact is it made the technology affordable for everyone, essentially signaling the end of hand-held practices. Yet, even with the equipment advantages and the fact that manufacturers have focused their attention on pneumatic machines, some companies continue to struggle with hydraulic rigs. And up until relatively recently, G.M. Sipes Construction, Inc., of Rushville, Illinois, was one of them.

THE SWITCH TO BETTER TECHNOLOGY

G.M. Sipes is a highway/heavy construction contractor that exclusively does concrete and asphalt patching all over the state of Illinois, including some work on I-80 near the Quad Cities (Rock Island and Moline, Illinois; Davenport and Bettendorf, Iowa). State work in an age of budgetary constraints and cash-strapped governments puts a fine point on productivity. Efficiency and ready-to-roll availability mean steady work and better margins for contractors, like Sipes, that depend solely on road patching contracts. And with productivity and uptime being paramount concerns, the hydraulic drills just weren't pulling their weight.

"We just kept fighting them and fighting them," says Eric

ABOUT the AUTHOR

Jon Thorp is the public relations director at the Promersberger Company. For more information, call 701.492.9194, e-mail jon@promersberger.com, or visit www.ezdrill.com.

Unland, G.M. Sipes' service manager, referring to the five-gang hydraulic drills that were charged with the duty of producing dowel holes.

The biggest fight was trying to keep the drills on the job. "The maintenance was eating us up," says Unland. "First off, there were blown hoses. If you blow a hose on a hydraulic piece of equipment, you know what it does? It makes a hell of a mess."

Beyond the mess and subsequent cleanup, the bigger issue was any trouble with the hydraulic drills meant considerable downtime. "The older hydraulic drills were always a pain to maintain and repair," says Unland. "It seemed anytime we had a problem, we had to send them off somewhere to get fixed. It wasn't something we could take care of ourselves ... and that alone cost us a lot of money."

Worse ... it cost them time. Equipment, no matter what it is, has to earn its keep on the jobsite. If it's in the shop, then it's not on the job. And worse still, there is likely a contractual timeline and adding hours is not an option. "Let's say we're doing night work from 6:00 p.m. to 6:00 a.m.," says Unland. "We have to be off the road by 6:00 in the morning. If we're not—it's a big fine—like \$15,000 for every 15 minutes we remain beyond the agreed timeline."

So after years of struggling with the "old way" of drilling dowel holes, G.M. Sipes decided to investigate the promise of pneumatic drill technology and purchased an E-Z Drill model 210-5 EQ five-gang drill to mount onto one of its John Deere 410E backhoes. It didn't take long for the people at Sipes to realize they had made the right decision.

"Shortly after we first pulled up on a patch with the new drill, we knew it wouldn't be long before we bought another one," says

Unland. "They just worked better and quicker—that was enough to sell us on replacing our hydraulic units."

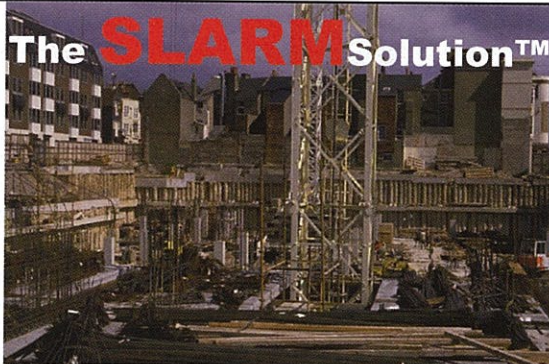
VALUE INCREASED PRODUCTIVITY

The value of this increased productivity was exemplified on a recent job in Springfield, Illinois. In March of 2008, G.M. Sipes started work on Interstates I-55 and I-72. As was typical with most of Sipes' work, the job required about 500 patches and, no surprise, the schedule was tight from day one.

As soon as the Interstate lanes were closed, the Sipes crew would quickly saw a relief cut around the ailing road sections with a Vermeer diamond-blade wheel saw. Following this step, the John Deere backhoes were used to dig the patches out and the attached pneumatic drills were right on the spot to be quickly lined up and start drilling immediately.

In the end, it took two crews only 3 weeks to do 500 patches on the Springfield job. Though the Sipes crew saw the increased speed and efficiency as an important factor contributing to the productivity on this job, the primary benefit of the pneumatic units is their ability to stay on task.

Obviously G.M. Sipes' switch to pneumatic drilling technology has been a positive experience, but what about those other contractors who continue to patch with older technologies? Well, for E-Z Drill and other manufacturers of pneumatic dowel drills, they really don't need to put much effort into selling the concept. With tightening schedules and larger penalties looming over contractors' heads, necessity will continue to drive contractors to the method that offers the least resistance to achieving a goal. ■



- Construction Sites • Road Construction
- Community/OSHA Noise Ordinances
- Neighbor's complaints can shut you down

- ◆ Show Compliance (History)
- ◆ Self Enforce (Alarms)

Know when you're too loud and prove you're in compliance with the -



Sound Level Alarm

ACO Pacific, Inc.
2604 Read Ave., Belmont, CA 94002 USA
Tel: 650-595-8588 Fax 650-591-2891
www.acopacific.com sales@acopacific.com
ACOustics Begins With ACO™



We offer training in the following areas:

- MSHA classes
- OSHA classes
- Mobile Equipment training
- Confined Space Entry
- Trench Competent Person
- First Aid CPR
- Florida Outdoors First Aid
- First Responder
- ...and many more!

- Our classes are billed by the hour not by the person – a potential cost savings to the client.
- We also offer on-site safety by the day, week, month, or duration the client needs us.
- We offer Industrial Hygiene, can do safety audits and write safety manuals.

Call today, before an injury occurs:

1-877-782-2670

www.STCsafety.com