



Recipient, E-Award for Excellence in Exports, US Department of Commerce

# POWER CURBER PROFILES

Our Commitment Shows

## The Barrier Issue

Over the past several years we've seen more of our customers, both domestically and internationally, pouring barrier wall than ever before. Countries across the globe are making large investments in infrastructure creating many highway jobs with thousands of miles of barrier work. Recent walls range in both complexity – basic walls to

variable barrier to walls with 11 reinforcing rebars, and in size – from 2' 4" (70cm) to 6' 8" (2m) tall, and have been poured with machines from early 5700-B models to the new 5700-C-MAX. In this issue of Profiles we'll take a look at some of the more interesting recent work we've seen from Power Curber customers worldwide.

## 5700-C-MAX Shines in Phoenix



“People need to realize what Power Curbers can do.”

5700-C-MAX pouring variable barrier on Loop 101 in Phoenix, AZ, working mainly at night.



Rebar is fed into the wall through ports at the front of the mold.

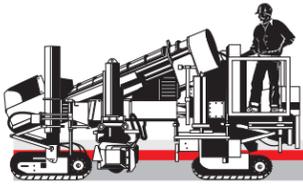
Phoenix, Arizona commuters got good news early last spring when the Arizona DOT announced busy Loop 101 that circles the city would receive 30 miles of new HOV (High Occupancy Vehicle) lanes in each direction. When complete, Phoenix drivers would have more than 60 miles of HOV lanes to utilize during their daily commute. The project was admittedly ambitious as state officials targeted an 11-month completion time for the paving and barrier project. Like many urban projects with limited widths in which to work, architects used a variable barrier design ranging from 42" to 68" in height and over a steel cage.

In anticipation of the job, RGG United Contractors of Glendale, AZ, traveled to Las Vegas to ConExpo to add a slip-form machine to its fleet from its usual manufacturer – a Power Curbers competitor. A visit to the Power Curber booth quickly changed RGG United President

Martin Rangel's mind. After studying the new 5700-C-MAX up close during the show, Rangel placed the order shortly afterwards and didn't look back.

The 5700-C-MAX began pouring on Loop 101 in May and performed perfectly in both quantity and quality. "The C-MAX poured the best wall we've ever done and outperformed the four-track machines on the same project. The C-MAX held grade better than the four-track machines" stated Rangel at the project's completion. I'm now even more convinced that Power Curbers is the way to go. They make a great machine and provide great support. People need to realize what Power Curbers can do."

Travelers were delighted as the project was completed in only eight months, well ahead of the targeted completion date. And Power Curbers, once again made a believer of a new customer. 



# New Barrier Built to Blend with the Old



Before and after photos of slip-formed barrier with natural stone facing.

**F**or centuries the countryside of northern Wales has been dotted with farms and stone walls which define property lines and keep sheep from venturing into neighboring pastures. Recently, realignment of the A470 trunk road north of Llanrwst between Penloyn and Tan Lan required a barrier wall to be placed between the new road and the existing Conwy Valley railway line. Engineers at Balfour Beatty had their hands full as the project required not only redirecting the road, but included a walking/bike path, a box culvert for bat migration and a requirement to encase the barrier in stone. In addition to the physical work, contractors faced numerous constraints like flood alleviation measures for the local fishing club, working in close proximity to the existing rail line, and limited lane closures due to heavy traffic on the busy two-lane highway.



5700-C-Max with barrier mold and rebar feeder pouring in the UK.

Roocroft Fencing of Leyland, UK, poured the 1.65m (5' 5") high barrier with 9 20mm diameter (#6) rebar with their Power Curber 5700-C-MAX. The machine, painted bright yellow to meet UK safety requirements, slip-formed the job with ease. The height of the wall was required to create maximum containment between the road and railway. After completion of the barrier wall, stone masons placed natural stones over the front, back, and top of the wall so that it would match the centuries-old walls throughout the valley.

David Roocroft, Commercial Director of Roocroft Fencing, who previously owned a 5700-C before adding the 5700-C-MAX, has been pleased with his latest machine. "It has been working great on our large and wide barriers." Roocroft Fencing entered the slipform market in 2007 and pours curb and barrier across the United Kingdom.

# FLOOD DAMAGE: To Repair or Replace?

**I**n 2011, middle Tennessee scrambled to make repairs and rebuild roads from the May 2010 floods that ravaged the region. Tennessee State Route 7 which connects Nashville suburbs Dickson and Columbia was particularly hard hit, with sections of the road washed away completely. One Santa Fe, TN section was so hard hit that TNDOT officials opted to build a bridge to replace it rather than attempting a road reconstruction. A Power Curber 5700-C poured the 32" (.9m) parapet totaling 730' (220m) in length and helped create a picturesque scene.

5700-C pouring bridge parapet in middle Tennessee. »





# More Traffic Lanes in Same Space

**“The 5700-C is smoother and has better speed control. I like the machine’s simplicity of design which gives it high productivity.”**



Choice Construction averaged over 1,250 ft. (380m) of 56” (1.4m) tall barrier per day.

Stretching across a heavily traveled section of the state, Wisconsin State Highway 41 shuttles high volume traffic between Milwaukee and Green Bay along the west side of Lake Winnebago. To better accommodate these vehicles, the state widened the route from two to three lanes and added a barrier between the north and southbound lanes. In the Oshkosh/Appleton area, the barrier is built like a fortress, 56” (1.4m) high, 24” (.6m) wide, and filled with 11 pieces of rebar reinforcement.

Choice Construction of Menomonee Falls called on their new 5700-C to tackle the 6 mile (10k) long job and did they ever. In their first few pours, Choice averaged about 800 ft. (240m) per day and, as they perfected their mix, production quickly rose to 1,200 ft. (360m) daily. By late fall and with winter weather on the horizon, Choice finished the phase with production reaching 1,600 ft. (480m) per day.

Chris Kapla, a long-time Power Curber operator, was thrilled with the 5700-C. “Compared to other machines I’ve run, the 5700-C is smoother and has better speed control. I like the machine’s simplicity of design which gives it high productivity. We were able to put 1,300 hours on the machine, even in our short season.”

One of the unique things about the job was the 11 pieces of rebar that were required in the wall. To accommodate Choice’s needs, Power Curbers’ engineers designed a rebar guide at the mold’s front which fed rebar into the mold. The rebar guide uses rollers to maneuver the rebar into bell-shaped ports. “It was built with adjustability in mind so that we can reconfigure it for a different mold to be used next year,” commented Kapla.

The Choice Construction crew spent the winter cheering for the Green Bay Packers and getting ready to take on the project’s next section, the North Mainline this summer. 



5700-C pouring 56” (1.4m) tall barrier on the Hwy 41 project near Oshkosh, WI.

## CONCRETE PAVING Conversion

In the Republic of Ecuador, modern technology for concrete road construction is solving a significant number of problems which arose with asphalt roads. Past methods didn’t produce the quality needed in this environment with a mix of beautiful but challenging mountains and plains.

In 2008, the government of Ecuador launched an aggressive campaign to construct concrete roads to connect the high altitude, cold climate, Andes region with the Amazonian east and to the hot western coast lowlands. After years of deteriorating asphalt road conditions, residents of these regions are already seeing the benefit of these modern slip-formed concrete highways.

The challenge to take on concrete paving in Ecuador was accepted by two large firms with long histories in road building, Herdoiza Crespo Construcciones and Hidalgo & Hidalgo SA. With the stakes high, these companies chose the Power Paver SF-2700 and SF-3000 due to their reputation for reliability and with the support of local dealer Imocom.

Among other roads paved, Herdoiza’s work included the Tramo Salado – Lentag of the Cuenca – Giron – Pasaje Highway and Hidalgo built the Santo Domingo de los Tsachilas – El Carmon Road and the Santiago – Saraguro – Loja Road. Both companies performed excellent work and paved the way for a bright future for concrete roads in Ecuador. 



SF-3000 paving in Ecuador.

# A Roundabout Way to Cleaner Air



**A**ir pollution is not only caused by the number of vehicles. The problem is that the vehicles are stopping, starting, and idling. These actions all produce more emissions than simply driving down the road. It's not a long leap, then, to understand that if you can keep traffic moving, you'll cut down on emissions – and air pollution. That reasoning can serve as a rationale for replacing traffic lights with roundabouts – circular intersections designed to keep traffic flowing.

*Traffic doesn't have to stop at roundabouts. Only slowing down and yielding keeps traffic moving more fluidly and reduces air pollution.*

"There are good reasons to have a roundabout in terms of air quality," says Cindy Hauser, a Davidson College professor who will be working with students on another type of air monitoring project this summer that focuses more on ozone. Roundabouts provide a way for cars to get from one street to another

er without stopping at a traffic light or stop sign. When cars stop and go for short periods, it causes more air pollution than if cars keep moving. Plus, starting and stopping uses far more gasoline than cruising.

"You can design traffic signals to give more green time, but it delays the side streets. A roundabout removes that. As long as no one's coming, you're free to go," explains Pate Butler, regional traffic engineer for North Carolina Department of Transportation (NCDOT) District 10, which covers Mecklenburg, Union, Anson, Stanly and Cabarrus counties. "They're especially good on a lower volume road where you sit at a signal even when no one is coming," Butler says. But they can also keep traffic moving on major roads, she adds. In fact, NCDOT constructed roundabouts in Davidson on two main roads between Interstate 77 and downtown in 2008.

"The traffic wasn't alarming at the time we began planning them, but looking at the projected volumes, you knew it would be a huge problem later on," says Lauren Blackbum, the town's planning manager. "We were concerned about air quality, as well as minimizing congestion....It's not a good thing for us to have idling traffic when we're already out of compliance as far as air quality."

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## Trade Show Update

Thank you to everyone who stopped by to see us at the World of Concrete this year in Las Vegas. We had on display a 5700-C and the new model SF-1700 from Power Pavers, set up for narrow 10 ft. wide paving.

Visitors generally voiced a lot more optimism this year as compared to the last three years. Let's hope that the upward trend in construction work continues and gains momentum.

See us next at Intermat in Paris. We'll be at the Nord Villepinte Exhibition Centre, April 16 – 21. We hope to see you in Paris.



Our Commitment Shows  
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# POWER CURBERS POWER PAVERS PROFILES

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Power Curbers, Inc.



## New SF-1700 Compact Paver

*SF-1700 pouring a street in the Philippines.*

**P**ower Pavers introduced last year our new compact slip-form paver, the SF-1700. With the ability to pave up to 21 ft. (7.5m) wide, the SF-1700 was developed to react to contractor demand for two-pass paving in many highway applications. The response to the SF-1700 has been excellent and we are getting great reports from our customers who have put them to work. We placed machines in three countries within a month of the machine's introduction.

The frame of the SF-1700 is based on Power Paver's current leading machine, the SF-2700. By reducing the engine size and main frame width, we were able to make the SF-1700 a more compact, economical alternative for contractors desiring to pave highways in two

passes. In many developing countries concrete supply is an issue, so paving in two passes is more practical than one pass. Standard equipment on the SF-1700 includes a 160 HP (127kw) Cummins engine, spread auger and tamper bar, and 12 vibrator circuits.

**We placed machines in three countries within a month of the machine's introduction.**