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News and information to make you more competitive

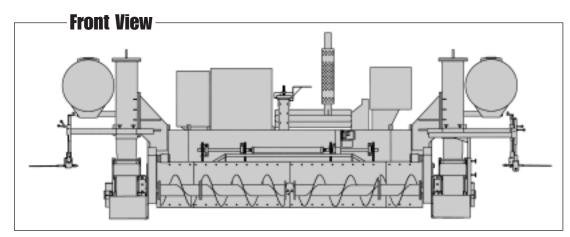
# **The Power Paver SF-2700**

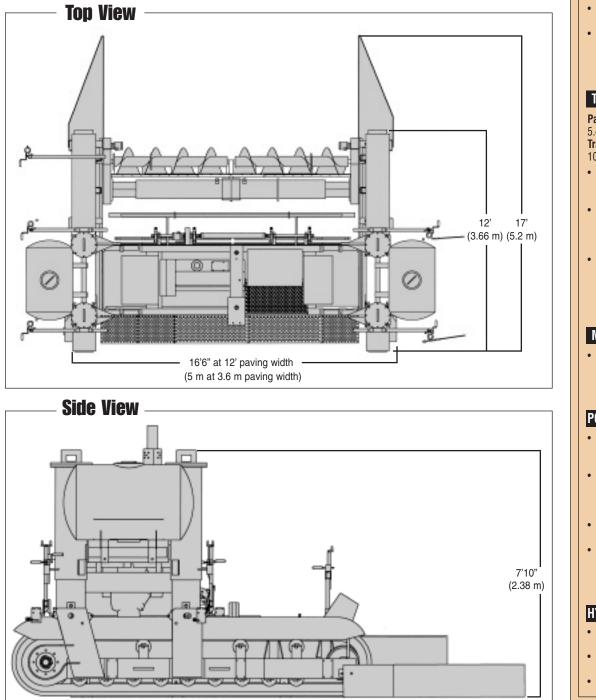
Power Pavers Inc., the new manufacturing company started in February by Power Curbers, Inc., to produce concrete slipform equipment, will put its first paver in the field this spring. The Power SF-2700, a residential paver, will pave up to 27 feet wide (7.32 m), and with extensions, up to 32 feet wide (9.75 m). It will pave up to 16 inches deep (40.64 cm).

The manufacturing plant is located in Cedar Falls, IA, with Fred Hite and Randy Hashman as managers. Together, they have almost 50 years of experience in the concrete slipform paving industry, having previously worked for CMI Corp. of Oklahoma City, OK, and Curbmaster of Cedar Falls.

In addition, Power Pavers has plans to manufacture the FP 2700 and FP 3000, form pavers, and is selling parts for existing Curbmaster and CMI Cedar Falls pavers. Parts and technical support are available by calling the Power Pavers factory in Cedar Falls, IA, at 319-266-6460.

Contractors interested in the SF-2700 may contact John Brincefield at 704-647-6147 or jbrincefield@powercurbers.com.





### **POWER PAVER SF-2700 SPECIFICATIONS**

### ENGINE

6-cylinder, 4-stroke Cummins 6CT8.3 Diesel 215 hp (@ 2,200 rpm (160 kw) 4.49-inch bore (114 mm); 5.32-inch stroke (135 mm); 504.5 cubic inch (8.27 I)

Displacement: 12-volt electric starting system with 95 amp alternator

Fuel Tank Capacity: 95 gallons (359.6 l) Engine Oil: 5.9225 gallons (22.4 l) Engine Coolant: 16.5 gallons (62.46 l)

### DIMENSIONS AND WEIGHT

Paving Depth: 0 to 16 inches (40.64 cm) Paving Width: 12 (3.66 m) to 27 feet (7.32 m)

Optional Paving Width: Up to 32 feet (9.75 m)

Overall Width: 54 inches (1.37 m) wider than paving width

Length: 16 feet (4.88 m)

Weight: 48,000 pounds (21,772 kg) to 50,000 pounds 22,679 kg)

### TRANSPORTATION DIMENSIONS

Width (assembled): 12 feet (3.66 m) Width (tracks off): 8 feet, 6 inches

(2.59 m) Height: 7 feet, 10 inches (2.39 m)

### WATER SYSTEM

- Two 110-gallon tanks standard (416.35 l)
- Hydraulically driven 4 gallons per minute (15.14 liters per minute) pump delivers 2000 psi (544.3 kpa) for clean-up and utility

### TRACK DRIVE SYSTEM

Paving Speed: 0-18 feet per minute (0-5.49 meters per minute) Travel Speed: 0-36 feet per minute (0 to 10.97 meters per minute)

- 2 heavy duty 12-foot (3.66 m) long tracks with 12-inch wide (30.48 cm), triple grouser steel track pads
- · Track components with sealed links, 9roller track frame, lifetime-lubricated rollers, grease gun type hydraulic track tension adjustment
- Side clearance (edge of slab to outer portion of track) 27 inches (69.56 cm) with 2-speed motor. With optional single-speed motor, 24.75 inches (62.86 cm)

### MAINFRAME

### **GRADE CONTROL**

- Automatic machine elevation by proportional hydraulic controls through hydraulic sensor system and referenced through 4 sensor units
- Hardware for dual stringline control (4 corners) or "lock to grade" referencing

### ELEVATION CONTROL

Manual or automatic

### STEERING

- Manual or automatic
- Counter rotation in manual mode
- · Fully proportional sensing system for automatic steering control
- Plumbing for right-hand or left-hand steering reference

### OPERATOR'S CONSOLE

- Pressure gauges for all systems
- · Master switch for synchronizing start and stop of all paving functions
- Engine controls and monitoring devices

### SPREADER AUGER

- 16-inch (40.64 cm) diameter split, reversible auger with hard-surfaced flighting
- Each side independently driven by constant volume, heavy-duty 29.9 cubic inch (489.97 cc) hydraulic motor with 3.27 to 1 reduction
- Adjustable height

### HYDRAULIC STRIKE-OFF Operator controlled for metering concrete flow to enclosed vibrator and

tamper section in front of profile pan Sections telescope for width adjustment

### HYDRAULIC VIBRATORS

- Rated at 10,000 vpm at 4 gallons per minute (115.14 liters per minute)
- 12 vibrators standard with individual pressure compensated flow control valves
- Operator controlled hydraulic vertical
- · Removable baffle plates between vibrators for use on super elevations PAVING PAN • Rigid box frame 39 inches deep (99.06 cm) with half-inch plating (12.7 mm) 46 inches (1.17 m) long with power for more rigidity at widths more than crown Automatically adjusts for grade varia-tions up to 18 inches (457.2 mm) 30 feet (9.14 m) Over-built edges to compensate for **POWER DRIVE SYSTEM** edge slump Engine flywheel mounted pump drive Tracks and side forms automatically gear box with hydraulic pumps flangeadjust for running with both tracks on mounted and spline shaft engaged the ground, or one or both tracks on Variable volume pressure compensated adjacent slab pump for vibrator system; maximum of Curb mold inserts installed quickly 64 gallons per minute (242.26 liters per minute) Two each, tandem stack pump arrange-OPTIONAL EQUIPMENT ments • Extension kit to 32 feet (9.75m) Speed controlled functions remain at Additional hydraulic vibrators set flow rate, regardless of changes in • Four bank vibrator control manifolds working load pressure, for smooth, · Additional curb molds even extrusion of concrete Continuous keyway inserter (per side) • Male sideform key (per side) **HYDRAULIC OIL/FILTRATION** Center bar inserter • 275-gallons (1040.97 I) main hydraulic Lock package for vandalism protection 14-foot tracks (4.27 m) One speed track motors reservoir with visual fluid indicator Filtration system with three sump filters Hydraulic belt finisher and three 10-micron spin-on filters Inline filters on sensors Automatic reverse steering

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# We're turning 50 and we want to hear your stories about the early days of running a curb machine

Next year will be a big year for Power Curbers. On Jan. 3, 2003, the company will celebrate its 50th year in business.

And we want customers to be a part of it. If you've been working with Power Curber machinery for more than 30 years, please call Linda Bailey, our marketing director, at 704-647-6133 or e-mail her at <u>lbailey@powercurbers.com</u>. We want you to share your stories about changes in your business and our equipment.

# **A Curb Business Pioneer** Ken Ross Has Watched Industry Move From 75-Pound Steel Forms to Push-Button Computer Networks

Ken Ross, 75, has watched the development of machines that pour curb and gutter for 45 years.

Specifically, he has watched Power Curbers, Inc., soon to celebrate its 50<sup>th</sup> anniversary in business, develop its products.

He has worked with machines that ran between steel tracks and were driven by the force of the concrete poured into them. And today, although retired, he sees the high-production curb-and-gutter machines of the new century that are controlled by sophisticated electronic networks.

Ken was 30 years old in 1958 when he began working for Spangler & Sons, Inc., a general contractor in Shelby, NC. The readymix portion of the business was sold in 1982, but the construction side of the business remained with Spangler. A long-time employee, Gene Fortenberry, bought the construction business in 1994 and renamed it Concrete Specialty. Today, about 40 percent of the business is curb-and-gutter.

Ken has tried to retire about 6 times, Gene says, but he has concrete in his blood. He has a collection of photos, letters and magazines about Power Curbers' machinery and loves to share stories about the early days.

"I started out in concrete as a 17-year-old kid," he says, at a company in Asheville, NC. After he began working for Spangler, he carried 75-pound steel forms for hand forming curb-and-gutter for several years. He



The Curb King 6500, the first slipform paver manufactured by Power Curbers, Inc., was the first machine to pour in the offset position, now an industry standard. The Curb King was the second curb machine that Ken used.



The Power Curber 3000 was the first extruder that Ken used. It poured curb and gutter 33 inches wide (83.8 cm) and had to be lifted by a boom truck on to the tracks that it ran between.



Ken Ross, center, with Gene Fortenberry, right, owner of Concrete Specialty of Shelby, NC, and Jerry Blanton, left, estimator. Ken has

remembers a job in 1963 that required 6 miles of steel forms.

The first extruder that he worked with, the Power Curber 3000, poured curb and gutter up to 33 inches (83.8 cm) wide, weighed 6,000 pounds (2,718 kg) and had to be lifted by a boom truck on to the tracks that it ran between to pour curb and gutter. It was one of many extruders produced by Power Curbers in the decade of the 1960s, including the 55-A, the 56-W, the 606-A, the 606-W, the 2400, and the 700.

"Another big advantage with a machine is that you can pour up to quitting time," says Ken. "If you're pouring with forms, bear in mind that you are going to be there awhile after you pour."

Ken and Gene remember the time when a 50-yard (45.7 m) day in curb and gutter was a pretty good day. "Concrete was a little more of a problem in those days," Ken says. "Most ready-mix companies were not too familiar with a curb machine."

After the extruder, Ken then worked with the Curb King 6500, the first slipform paver manufactured by Power Curbers. That machine was in production from late in 1970 until 1979 and held a patent for the first 4crawler slipform curb-and-gutter machine. It was also the first machine to pour in the offset position (1971), which is now an industry standard.

The footprint of the 6500 was used to build

later models — the 5500 and then the 5700, which has a larger footprint. The 6500 was also the first machine to turn a 15-foot (4.57 m) radius with regularity. This also became an industry standard and a Power Curber trademark.

To Ken, the development of these machines over the years is simply the American way.

"It's the American way to find a better way ... a faster way," he says. "The thing that

To Ken, the development of these machines over the years is simply the American way. 'It's the American way to find a better way ... a faster way,' he says.

worked in concrete for 58 years.

Power Curbers did to really improve the machine was to add the trimmer." Gene agrees that being able to trim and pour at the same time is the biggest improvement, winning out over making the mold easier to change and going to an auger system over a belt conveyor, although they are in themselves big improvements, he says.

The 6700, manufactured in the early 1980s, was the first Power Curber to trim and pour at the same time. Again, it became the industry standard.

The 5700 Series was introduced in 1985 with the popular hydraulic offset feature. The 5700-B, introduced in 1994, replaced the conveyor belt with the auger to increase mixing power and increase productivity. Currently, more than 1,200 machines in the 5700 series have been sold, making the machine the market leader.

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# **Mastering Tight Radius**

# 1. The book is a good place to start but it takes practice and knowing your machine – Power Curbers Technical Support

Ernie Martinez has discovered that you can't go exactly by the book when putting your curb machine through the paces of turning a tight radius.

Ernie, owner of Ernie Martinez Concrete Inc., in Bakersfield, CA, went with a Power Curber 5700-B last year when he decided to purchase his first curb machine.

He does a lot of tight radius work with stand-up curb and was intrigued with a machine that had poured a 2-foot radius (.6 m) . "That caught my eye," he says. But he was skeptical. "I said, 'No way," and I bet my guys. I bet two of them a case of beer that it wouldn't do it and I lost."

Ernie is a believer now, but not before the crew did a lot of trial-anderror work, perfecting the radius. Right after taking delivery of the machine, they weren't getting the results they wanted. They followed the manual, but the curb still wasn't right. Then, Ernie said that he read the fine print that said, "Minor adjustments in the sensor might have to be made."

So, he and the guys staked up a planter in his yard with a 2-foot radius (.6 m) on each end to try to figure out that "minor adjustment" part. "We spent one whole day running the



Ernie Martinez Concrete, Inc. crew pours tight radius stand-up curb as a demonstration at Power Curbers West Coast service school held in March

machine and adjusting the tight radius sensor and front steering sensor back and forth until we got it to turn (the 2-foot turn) and straighten back up," Ernie says.

On entering the radius, the front-grade sensor is turned off and the machine is switched from front steering to tight radius steering to prevent the mold from crashing into the stringline and to maintain the desired back-of-curb offset. Once around the curve, the machine is switched back to the front-steering sensor after it comes in contact with the stringline. The critical part is when to switch back to front-steering sensor. If you do it too early, it can cause "a dog-leg" in the curb. A starting point is 10 inches (25.4 cm) from the tangent, but Ernie's crew found that to be too late for their machine.

Alan Champion, technical support engineer for Power Curbers, Inc., says that Ernie took the right approach in maneuvering the machine through a tight radius. "The book is a good place to start, but it takes practice and knowing your machine," he says.

Ernie's crew found that they needed to switch

### 3. 'How-To' Video For Tight Radius Applications

A video that explains the "how-to" of pouring tight radius curb and gutter will soon be available from the Power Curbers factory.

The video demonstrates how to set up the stringline and sensors for 3-foot radius (.9 m) and how to grade for success. Then, it takes you through an all-important dry run to make sure everything is set before the ready-mix truck arrives.

Other "how-to" videos on 5700-B applications available from the factory include:

• 5-foot (1.5 m) offset side walk

• 8-foot (2.5 m) center pour If you would like a copy of any of these videos, please contact Chris Yelton at 704-647-6170 or e-mail her at

cyelton@powercurbers.com.

back to front-grade sensor at 7 or 8 inches, not 10, as he had been trying (17.5 cm or 20.3 cm, not 25.4 cm). Also, the slump on the mud is critical, Ernie says. "You get it too dry, it will turn it but you won't have a nice curb."

Ernie says that he has the only machine in Kern County that will pour a 2-foot (.6 m) radius. "Grading and paving contractors have come out and looked at it and they couldn't believe it," he said.

Neither Ernie nor his machine operator, Cruz Rodriguez, had any experience with a slipform curb machine when their 5700-B was delivered. They've been able to take a lot of the labor out of their work since the machine eliminates hand setting.

Ernie says that his dealer, Justin Wakeham of Western Equipment Service in Riverside, CA, is straightforward and conscientious. "He is on top of any problem and if he doesn't have the answer, he will get it," Ernie said. PC

You can reach Ernie Martinez at 661-837-4095 or Justin Wakeham, general manager of Western Equipment Service in Riverside, at 909-315-3910 or e-mail: iwakaham@powarcurbers.com

jwakeham@powercurbers.com.



Once the machine is around the curve and comes in contact with the stringline, it is switched from tight radius back to the front-steering sensor. The critical part is when to switch back. If you do it too early it can cause "a dog-leg" in the curb





### 2. Pretty As A Picture



Mark Emswiler of F.A. Rohrbach Inc., of Allentown, PA, says the secret of good tight radius work is "practice, practice, practice." This work is 4-foot radii (1.22 m) in a parking lot in Allentown, poured with a 6-inch by 8-inch by 18-inch header mold (15 cm by 20 cm by 45.7 cm) on the Power Curber 5700-B.

Mark also credits his crew with making good tight

radius happen and says if you're doing it to make sure your grade is about an inch below the bottom of curb because the mold sweeps around.

The other photo shows a series of "S" curves in 6inch header curb (15 cm) poured to border walkways at an amusement park. This was designed to make the walkways more esthetically pleasing, Mark says.

Photo shows minimum amount of hand tie-in work, after the 5700-B lifts off the curb and gutter



Lee Myers from the Power Curbers factory conducts service school in Bakersfield, CA

### **First West Coast Service School**

Power Curbers, Inc., in cooperation with California dealer Western Equipment Service, sponsored its first service school on the West Coast in March. The format for the 5700-B technical training was pretty much the same as the traditional school held each winter at the factory in North Carolina except the participants didn't show up at the East Coast school in shorts as they did in sunny California.

Some 150 machine owners, operators and mechanics attended service schools this year, either at the factory in Salisbury, NC, or in California. The schools were taught by Lee Myers and Chad Hedrick of Power Curbers Technical Support.

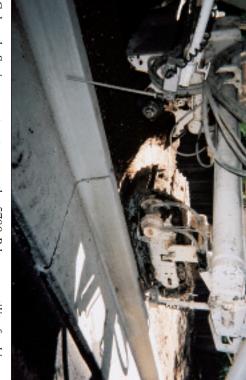
Colin Gockley, 5700-B operator for Latshaw Brothers in Denver, PA, says that he likes to come to tech school every other year. "The classes are fast paced, and you get to talk to people from Power Curbers and find out what's in the developmental stages," he says. "You also get to talk to different operators. If you take half of an idea from one guy and another half from someone else, it might work for you."

A schedule for the 2003 schools will be available on the Power Curbers' web site and published in *Profiles* in the fall.

# ng off Existing Curb and

ran a competitor's rubbertry in the 1970s, and he popular on flat terrain. tired curb machine that is was in the concrete indusmachines. Their father him, grew up around curb who is in business with and his brother, Steve, in Colorado Springs, CO, Knights Construction, Inc. dent and owner of Rick Martinez, presi-Nine years ago, when

Rick established his own petitive machine that he went with another comcurb machine operator, he business with Steve as the felt had more horsepower.



expanding markets. In this stringless sidewalk pour, the machine is skiing off the existing curb and gutter 2 feet (.6 m) away from the sidewalk Colorado Springs contractor says the 5700-B has versatility for his

one pour. I was real impressed with the track speed and the production," he says. chose the Power Curber 5700-B. "I saw how Power Curbers kept coming up with new features and new design and I saw But when it was time to upgrade the machine a year ago, he

next day, go to a parking lot and do tight radius," he says. this machine. We're in heavy highway, commercial and resithousands of feet of curb-and-gutter in straight runs and the dential development. We do sidewalks and then we might do ent markets, Rick says. "We're pleased with the versatility of The competitive machine was bigger and wasn't as easy to Machine versatility is important because of Knight's differ-

as far as moving them in and out." turn, Rick says. "It didn't have as much versatility in the legs.

# hustles them up," Rick says.

dirt and one on the asphalt," Rick says. Ski devices were 4-foot sidewalk (1.22 m) while skiing off existing curb-and-gut machinecstable. mounted to the sensors. The offset mold package kept the ter 2 feet (.6 m) away. "We were able to keep two tracks in the Construction, a stringless sidewalk pour. This involved pouring The 5700-B performed well on a new application for Knights

cjustice@powercurbers.com. ment Service which sells and services slipform equipment exclusively and Metal Forms Products in Colorado. He can be reached at 719-930-4337 or you can e-mail him at Chris Justice is general manager of Rocky Mountain Equip-

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shirts printed after his

American Curb Dawg!" had his "Proud to be an

finishing crew started

yapping like dogs. It was

tracting of Belton, MO, owner of Crabtree Conevery T-shirt and this is

There's a story behind

**Curb Dawgs** 

Bill Crabtree's: Bill,

been so popular, he said, that people who have nothing to do with curb-and-gutter work ask for Curb Dawg shirts. been one of those high-production days! The shirts have like dogs. It must have

that he was working them their way of complaining



when we order parts, he pops in (to the office) and Equipment Service. "He tice of Rocky Mountain Rick is also pleased The Power Curber is

a lower profile and is more compact," he says. steering is simpler. "It has foot (.9 m)," Rick says. only turn a 15-foot radius with his dealer, Chris Jusfriendly, he says, and the easier to run and user 5700-B, we can turn a 3-(4.5 m), but with the legs made it harder to turn a radius. "We could

Photo by Chris Justice, Rocky Mountain Equipment





Knights Construction, Colorado Springs, CO