POWER CURBER 5700-C
#1 In The World

The One-Machine Solution
Curb & Gutter | Highway Safety Barrier | Sidewalks | Special Applications
About Power Curbers
Our Commitment Shows

Power Curbers was established in 1953 and has been the leader in slipform machines for more than 60 years. Owned and operated by the same family since it was established, President Dyke Messinger is the third generation of his family to lead the business. Based in Salisbury, NC, USA, Power Curbers is a global provider with machines located in over 90 countries.

After operating out of the same building for 40 years, Power Curbers moved into a new manufacturing facility in late 2007. In the new space the company embraces the latest innovations in lean manufacturing, cutting waste and improving response to our customers. Power Curbers has been recognized with many manufacturing awards including the US Department of Commerce’s E-Award for Excellence in Exports. With over 90,000 ft² (8370m²) at the facility, Power Curbers is positioned for growth.

In addition to expanded manufacturing capabilities, the new facility contains a state-of-the-art training center for customer use. Each winter, hundreds of Power Curber owners, operators, and mechanics learn new ways to keep their machines more productive. Power Curbers also prides itself on same-day parts shipments and our technical support department offers quick response to incoming service calls.

The following pages contain information on our number one selling slipform machine in the world, the Power Curber 5700-C. We hope you will find it beneficial and thank you for your interest in Power Curbers. We hope you’ll give us the opportunity to prove that “Our Commitment Shows.”
Design Strategy
Simplicity & Productivity

At Power Curbers we believe in keeping things simple. Our engineering and design are based around providing customers with an easy to operate, reliable, and productive machine. This design strategy is evident throughout the 5700-C.

▲ Compact Design
The 5700-C’s compact design allows operators to get in and out of tight spots like parking lot corners, islands and cul-de-sacs. The machine transports at legal width (8'6"/2.59m) and does not require a low-boy.

▲ Stability
The low center of gravity makes the machine stable on rough subgrade and when loading and unloading.

▲ Visibility
The operator has an excellent view of concrete as it exits the mold, allowing you to make adjustments immediately to minimize handwork behind the machine. The operator also has good visibility of all activity around the machine.

▲ Front Track Steering
In keeping things simple, the 5700-C turns tight radii by steering the front track only, eliminating the complication of coordinating all three tracks together. However, all crawler steering is available as an option. (See page 10.)
Maxim um Productivity & Jobsite Versatility
What makes the 5700-C the most productive slipform machine in the world?

**Auger Conveyor**
After years of building machines with conveyor belts and dealing with their inherent problems like ripping in the middle of a pour and the concrete splatter they cause, Power Curbers introduced the auger conveyor in 1994. It is the best change we've made to a machine.

The direct drive, high torque auger:
- Moves volume concrete faster
- Keeps the machine cleaner
- Continues the mixing process of the concrete
- Holds a cubic yard (3/4m^3) of concrete which is beneficial in radius and cul-de-sac work
- Conveys concrete regardless of the incline angle of the conveyor

The unique ability of the charge hopper to be positioned in front of the machine, allows a concrete truck to run lined up in front of the machine enabling you to pour in a single lane of traffic.

**Hydraulic Adjustable Offset**
The mold mount on the 5700-C moves hydraulically giving you the ability to raise, lower, and side-shift your mold quickly and easily. With 24” (610mm) of horizontal movement and 16” (406mm) vertical, the mold can be lowered into a trench for rehab curb or for pouring adjacent to existing pavement.

At catch basins, the machine never leaves the stringline and the mold can be positioned within inches of the obstacle, reducing labor intensive tie-in work. The offset also gives you greater versatility when setting up on jobsites that may have obstructions like manhole covers, planter strips, and uneven subgrade.

**Trimmer**
The stout 42” (1.07m) wide carbide-tooth trimmer handles the toughest of subgrade, minimizing your dependence on the grading contractor. Ideally the trimmer cuts 1-2” (25-50mm) of subgrade, but is capable of trimming up to 6” (150mm) in extreme situations.

The trimmer also hydraulically side shifts 80” (2.03m) giving you the ability to trim for a 5’ (1.5m) radius or to move the trimmer under the machine and out of the way when not in use. With 16” (406mm) of hydraulic vertical movement, the trimmer can lift over catch basins and other obstacles.
Pour on the Left and Right Side
The standard setup of the 5700-C is for left side pouring. If your work involves highway projects where you must pour with traffic, the dual side pouring option is a huge plus. Changeover from side to side is 3 to 4 hours.

Choice of Control Systems
In order to keep things simple for your operator, we’ve kept analog controls as the standard for many years. On the 5700-C, we offer our Smart Amp™ control system which combines the simplicity of analog with the added benefits of a digital controller.

The Smart Amp™ system offers the operator more accuracy and greater feel when setting sensitivity, without complexity. The system performs self diagnostics, automatically shuts off sensors if they leave the stringline, and has an easy to read digital display.

Our optional controller, the fully networked digital control system, gives you the added benefits of an advanced graphic display and auto-slope control on the go when transitioning from in-flow to out-flow. The network system also features cruise control, which can contribute to a smoother finished product.

Optional accessories are shown in red.
More Than A Machine — It’s A
A full understanding of the entire process is the key to your success

▲ Jobsite & Machine Set-up
• Grading and site preparation ahead of the curb machine is important to your productivity and quality.
• Stringline is set by your crew referencing the surveyor’s stakes.
• Accurate and tight stringline placement is very important to the quality of your work.
• The 5700-C, equipped with sensors for steering and elevation control, follows the stringline automatically around the jobsite.
• Machine follows stringline around a 2’ (610mm) radius.

▲ Ready-Mix Supply
• Consistent concrete mix design and slump is important to both productivity and quality.
• Steady supply of concrete is often the biggest determining factor in daily production.
• Recommended mix design will vary by application.
  Contact us for a recommendation.
• Concrete is your biggest variable. A good relationship with your concrete supplier is very important.

▲ Auger Conveyor
• Large capacity charge hopper, low to the ground, allows for easy discharge from ready-mix truck.
• Hydraulically adjustable tilt and slide, and manual pivoting – position it just like you need it for today’s pour.
• Long-lasting, segmented cast flighting lasts much longer than a belt.
• Delivers concrete up to 2 yards³ (1.5m³) per minute.
• The enclosed housing contains the concrete, keeping the machine clean and continues the mixing process all the way to the mold hopper.
• Lid opens for cleaning.
• Discharge chute is adjustable, further allowing for positioning flexibility of the auger.

▲ Trimmer
• Cuts grade allowing you to pour without wasting concrete or running the mold into high spots.
• Allows the mold and the soil to intersect, creating a perfect seal.
• Extensions available for trimming up to 78” (1.98m) wide.
• Choice of carbide teeth – bullet or chisel point – depending upon your soil type and conditions.
• Vertically and horizontally adjustable, independent of machine positioning. Adds flexibility in radius work, rehab, and sidewalk.
• Moves out of the way when pouring barrier or when steel is fed into the mold.

▲ Slipform Process
• Large capacity mold hopper.
• Constant head pressure, or the amount of concrete in the hopper, produces consistent results.
• Vibrators mounted into mold hopper consolidate concrete and, with gravity and machine movement, force it through the mold.
• Vibrator positioning is critical for filling the mold and producing a smooth finish. Mounting is easily adjustable in order to accommodate different mold shapes and sizes.
Mold
- All molds are custom built according to your specifications.
- Concrete flows from the mold hopper into the throat of the mold and exits past the screed/finishing plate.
- Screed section is adjustable allowing air to escape the concrete before final finishing.

Operator & Crew
- We offer jobsite training for your operator and crew, including instruction on machine setup, safety, operation, and maintenance.
- Crew size varies according to your application. A crew made up of an operator, a chute man, and 4-6 members working behind the machine is typical.
- Experienced crews may operate with fewer laborers while jobsites with many tie-ins and obstacles may require more.
- Tools typically required include trowels, floats, brooms, joint rakes, expansion material, a tape measure, and level, and forms for tie-ins.
- Best practice is keeping the same crew together regularly with the machine.

Finished Product
- Broom finish behind the machine is common in most curb applications.
- Spray-on curing compound helps in the hardening process of the concrete.

Addressing these points contributes to a smooth completed product with very little hand finishing required.
Curb & Gutter and Rehab
5700-C has the features to make your work easier

Though used in a variety of applications, the 5700-C is most often used for pouring curb or curb & gutter. From sprawling subdivisions to highway DOT work, to cramped parking lot islands, the 5700-C has labor-saving features to make you more productive.

▲ Quick Connect Mold Mount
Our most popular optional feature, the patented Quick Connect mold mount, allows you to change molds in as little as five minutes. The hydraulically activated hooks release one mold and grab the next one with little manual work. For contractors changing molds often on jobsites or going from one application to another in the same day, our Quick Connect makes the job quick and easy. In addition to picking up the mold, it automatically aligns the mold and locks it securely in place.

▲ Hydraulic Mold Offset Lock
After using the hydraulic adjustable offset to position your mold, the optional hydraulic mold offset lock enables you, at the flip of a switch, to lock the offset rigidly to the machine. Firmly locking the mold to the machine eliminates play in the mold which can affect the finished product. The standard is a manual mechanical lock.
**Radius Work**
Pour islands as tight as 2' (610mm). Our tight radius abilities make the 5700-C ideal for parking lot islands. Eliminating days of hand labor in large retail parking lots, the 5700-C can handle the narrowest of parking lot islands.

For work in areas with less extreme radii the optional **hydraulic front grade sensor arm** allows the front sensor to stay on line without manual adjustment.

**Mold Options**
Our curb & gutter **molds** can be built with a variety of options to give you added flexibility on the jobsite. Options include **block-outs** for varying the curb width, **extensions** for varying the curb height, and **removable side plates** for pouring adjacent to existing pavement.

For pouring through driveway cuts, we offer two options of labor and concrete saving **driveway knives**. One uses a rotating plate, while the other uses a side-entry tapered plate that reduces hand finishing on top of the curb. Please contact our mold department or visit the molds page of our website (www.powercurbers.com) to learn about the many options we offer in mold design.

Optional accessories are shown in red.
Barrier/Parapet Applications
Enhance the 5700-C with equipment specific to your work

Though Power Curbers has poured barrier wall for decades, the evolution of the 5700-C has allowed us to pour larger barrier than ever before. In addition to standard Jersey barrier, the 5700-C pours variable barrier and other vertical structures for tunnels and high speed rail. The low center of gravity and size-to-weight ratio makes the 5700-C ideal for barrier and parapet.

▲ Barrier Mold Lift
At the end of a day’s pour, the hydraulic barrier mold lift allows you to raise the mold up and off the steel cage. With 24” (610mm) of stroke in the mold lift and 36” (914mm) of post extension the 5700-C can clear tall steel cages, allowing you to quickly move the machine out of traffic for cleanup and until the next day’s pour.

▲ All-Crawler Steering
Some contractors find that when pouring large wall or wall adjacent to an existing structure, our all-crawler steering option is an added benefit. In these large applications, coordinating the steering of all the crawlers can enhance the machine’s performance.
Variable Barrier Molds
Contractors pouring barrier on highways with super-elevations love the ability of the 5700-C to tackle these walls. The 5700-C pours with variable barrier molds typically weighing between 8,000-10,000 lbs. (3630-4535kg) and with up to 24” (610mm) of variability.

Parapet Sensor Mount
Like barrier, the 5700-C pours bridge parapet in a variety of configurations. To help set up for parapet pours, Power Curbers offers a parapet sensor mounting kit and weighted, free-standing stringline stations.

Other optional accessories frequently used when pouring barrier include polyurethane track pads and weight pods.

Optional accessories are shown in red.
Sidewalk, No-Mow Strips & Wide Paving
5700-C offers flexibility and options for flat slipform paving

▲ Sidewalk
The 5700-C pours sidewalk or monolithic sidewalk and curb up to 7’ wide (2.1m) in the offset position. Equipping the machine with trimmer extensions, you can match the cut to your sidewalk.

The 5700-C’s adjustable offset allows you to pour behind existing curb and over planter strips. Sidewalk mold options include detachable side plates for pouring adjacent to curb and for secondary sidewalk widths.

▲ Cable Barrier Installations
In some highway applications as an alternative to concrete barrier, cable barrier is used. In these applications the 5700-C contributes in two ways. Using a custom mold in the traditional setup, the machine easily pours a “no-mow” concrete strip which reduces vegetation maintenance under barrier cable.

Before paving the no-mow strip, our post hole digger attachment allows you to quickly and accurately bore holes for anchor posts. Because of the automatic steering and leveling of a slipform machine, the holes are bored more accurately than with traditional auger equipment. Then, pour over the holes and insert the post sleeves into the wet concrete.
**Center Pour Paving**

The 5700-C can be converted into a center-pour paver for wide golf cart and bicycle path paving. Using inserts, the right rear crawler post is moved to allow a paving mold to be installed for widths up to 10’ (3m).

Sectionalized with side plate assemblies and inserts at 4’ (1.5m), 2’ (1m), and 1’ (.5m) widths, the center pour kit gives you the flexibility to pour between 4’ (1.5m) and 10’ (3m) wide in 1’ (.5m) increments. The hydraulically adjustable side plates allow the paving depth to vary up to 12” (305mm) thick.

Conversion from the standard offset paving setup requires dropping the auger conveyor and trimmer. Concrete is dumped directly into a hopper at the front of the mold and the spread auger on the paving package spreads the concrete across the hopper.

*Optional accessories are shown in red.*
Special Applications
The 5700-C is only limited by your creativity.

▲ Ditch Liners
Frequently in mountainous areas, concrete lined ditches are required for water control. V-ditch molds easily mount to the 5700-C similar to sidewalk molds. Because the trimmer cannot be used in V-ditch applications, preparation of the ditch profile in front of the machine is critical for good results and to avoid wasted concrete. The 5700-C pours ditch liners up to 7’ (2.2m) wide and 2’ (610mm) deep in the offset position.

▲ Slotted Drain
One unique application for the 5700-C is for slotted drain pours. In this application, an inflated polymer-based tube is fed into the front of a custom mold during the pour. The mold is built with a slot from the gutter pan to the cavity created by the tube. After the concrete has cured, the tube is deflated and pulled from the curb leaving a hidden drainage channel.

▲ Canals
The size and versatility of the 5700-C makes large multi-pass canal projects possible, with custom engineering from the Power Curbers team. Massive molds and long conveyors can be specifically designed to meet the requirements of the most complex projects.
▲ Stadium Risers
The 5700 series machines have poured concrete risers beginning with stadiums used in the 1996 Atlanta Olympics. Since that time Power Curber machines have poured risers for baseball, football and soccer stadiums worldwide. Typically, custom molds for this application encompass two risers in one pass. Beginning at the bottom of the stadium, risers are poured and the machine works its way up, running on the risers poured the previous day.

▲ Agricultural Applications
From the foundations of large poultry houses to livestock feeding troughs, to beds and flush lanes in cattle barns, the 5700-C adapts to the job with a variety of custom molds.

▲ Tunnel Applications
Tunnel jobs include several perfect slipform opportunities for the 5700-C. Inverts with either a curved or flat profile and rail beds can be poured on the tunnel floor. Walls, walkways, and specialized profiles for housing electrical conduit or other utilities can be poured along the walls. Custom molds can be built to adjust in height and width to handle varying tunnel diameter. Optional accessories are shown in red.
5700-C-MAX
Add the MAX Package to Take Command of your Work

Think the 5700-C isn’t big enough to handle your work? Consider adding the MAX Package to upgrade the capabilities of the machine. Since 1985, Power Curbers has constantly developed and expanded the 5700 series. From its roots as strictly a curb and gutter machine, the 5700 has evolved into the 5700-C, a “one machine does it all” slipform paver.

▲ Features
Now, the MAX Package adds yet more capability. It outfits the machine with larger crawlers, all crawler steering, and a secondary mounting location for the rear post. Additional features include low speed crawler torque hubs and three extra vibrator circuits (9 total). These features allow pouring large barrier up to 8’ (2.5m) high, paving up to 12’ (3.65m) wide, variable barrier with up to 24” (610mm) variability, and other large profile applications.
Crawlers on the 5700-C-MAX are 1’ (305mm) longer, heavier, and have an additional roller. This keeps the machine stable even with very large molds and the low-speed crawler torque hubs keep the machine pouring at a steady crawl.

All Crawler Steering, a long-time option on the 5700-C, improves steering accuracy when paving, pouring large walls, and in other demanding applications. Our network control system is included for the coordinated steering.

The MAX Package includes a secondary mounting location to allow contractors to bring the rear post forward. This changes the machine’s geometry and redistributes the weight, improving the machine’s performance when using large barrier molds and when paving in the center-pour position. **Dual side pouring** and our other optional accessories are available to go along with the MAX Package.

**Not Too Big For Curb & Gutter**
When you’ve completed the job with your 5700-C-MAX and want to return to curb & gutter work, the rear post is moved back to its standard position. The machine then turns a 2’ (610mm) radius as always and maintains its 8’6” (2.6m) transport width in the standard configuration with C&G mold.

Optional accessories are shown in red.
### 5700-C
#### Specifications & Dimensions

### Slipform Paving

**Curb/Sidewalk Width:**
- Maximum 7’ (2m) in the offset position or 10’ (3m) in the center pour position.
- Maximum 8’ (2.5m) wide offset or 12’ (3.65m) center pour with MAX Package.

**Barrier/Parapet Height:**
- Maximum 5’ (1.5m)
- Maximum 8’ (2.5m) tall with MAX Package.

**Mold:**
- One, up to 32” (813mm) wide, with quick release, interchangeable hopper is standard.

### Engine

**Type:** Cummins QSB4.5-130C diesel 4-cylinder/4-stroke, turbo charged, Tier 4f emissions compliant. Optional Tier 4i or Tier III emissions compliant engines available where regulations allow.

**Power:** 130 HP (97kW) @ 2400 RPM

### Service Capacities

**Fuel Tank:** 66 gallons (250 liters)

**Hydraulic Tank:** 50 gallons (189 liters)

### Controls

**Smart Amps™:** Digital amplifiers provide electronic over hydraulic control for grade, forward and reverse steering, and slope.

**Features:** Adjustment for sensitivity and deadband offering the operator accuracy and feel, without complexity; self diagnostics; and automatic shut-off for sensors that leave the stringline.

**Convenience & Safety:** Synchronized ON/OFF for vibrators & crawlers. Five Emergency-Stop switches and a Horn for operator and chute man.

### Trimmer

**Cutting Width:** 42” (1070mm); up to 78” (1980mm) with optional extensions. Carbide teeth.

**Cutting Head Diameter:** 21” (530mm)

**Maximum Trim Depth:** 6” (150mm)

**Lateral Shift:** 80” (2030mm) hydraulically

**Vertical Shift:** 25” (635mm); 16” (406mm) hydraulically, 9” (228mm) mechanically

**Options:** Trimmer Extensions in 6” (152mm), 12” (305mm), and 24” (610mm) widths. (Page 12)

### Auger Conveyor

**Drive:** Direct drive with high torque motor; variable speed and reversible.

**Volume:** 1 yd³ (3/4 m³) capacity and 0-2 yd³/min (0-1.5m³/min) rate of movement.

**Positioning:** Pivots, hydraulically tilts and slides 24” (610mm). Discharge chute swivels providing additional flexibility in set-up.

**Size:** 12’ (3.7m) long and 14” (356mm) diameter.

**Features:** Heavy duty cast flighting with lid for full enclosure.

### Vibration

**Vibrator Circuits:** Six hydraulic circuits with variable speed and independent control.

### Light Kit

**Light Kit:** Four post mounted spot lights

**Option:** Networked Digital Control with autoslope, cruise control, 3-D readiness, advanced set-up flexibility, and a large graphic display. (Page 5)

### Hydraulic Adjustable Offset

**Lateral Shift:** 24” (610mm) hydraulically with positive mechanical locking.

**Vertical Shift:** 25” (635mm); 16” (406mm) hydraulically, 9” (228mm) mechanically.

**Option:** Hydraulic Mold Offset Lock (Page 8)

### Water System

**Washer:** 2,000 psi (138 bar or 13.8Mpa) high pressure system with trigger control and adjustable spray nozzle.

**Tank:** Stainless steel with 132 gallons (500 liters) capacity.

**Options:** Low Pressure system, Mold Misting kit, Charge Hopper Water kit, and Auxiliary Water Tank, 92 gallons (348 liters).

### Crawlers & Elevation Posts

**Type:** Three hydraulically powered crawler tracks with planetary gear reduction.

**Tracks:** 12’ (305mm) wide steel pads

**Speed:** Travel at 0 - 110’/min (33.5m/min)
0-70’/min (21m/min) with MAX Package
Pouring at 0 - 50’/min (15m/min)
0-35’/min (10.5m/min) with MAX Package

**Minimum Turning Radius:** Left at 2’ (610mm) Right at 20’ (6.1m)
Post Extension: 36” (914mm) hydraulic cylinders
Straddle Leg: 22” (559mm) of hydraulic side shift adjustment.
Options: Polyurethane Track pads (page 11) and All Crawler Steering. (Page 10) Requires optional Networked Digital Controls.

▲ Optional Equipment
Quick Connect Mold Mount: Hydraulically operated (Page 8)
Hydraulic Front Grade Sensor Arm: In operator controlled and automatic versions (Page 9)
Dual Side Pouring: Allows you to pour from either the left or right side (Page 5)
Barrier Mold Lift: Hydraulically operated, with 24” (610mm) lift, independent of the machine’s post extension. (Page 10)
Weight Pod: 1,980 lbs. (900kg) (Page 11)
Post Hole Digger: 12” (305mm) auger diameter. Maximum hole depth is 34” (864mm) (Page 12). Requires optional Quick Connect Mold Mount.
Center Pour Paving Kit: Available in several widths and configurations (Page 13)
Stringline Accessories: Stakes, rods, clamps, string, radius materials, winches, etc., available individually or in kits.

▲ Net Weight
Machine: 24,700 lbs. (11,200kg)
Weight is approximate and will vary depending on optional accessories and size of mold.
Full Water Tank: Add 1,100 lbs. (500kg)
Full Fuel Tank: Add 480 lbs. (215kg)
Quick Connect: Add 750 lbs. (340kg)
Dual Side Pouring: Add 600 lbs. (270kg)
MAX Package: Add 2,500 lbs. (1,135kg).
Tier 4i Engine: Subtract 100 lbs. (45kg)
Tier III Engine: Subtract 300 lbs. (136kg)

▲ Transport Dimensions
Length: 20’ (6.1m). Add 8” (203mm) for MAX Package.
Width: 8’ 8” (2.6m)
Height: 10’ 7” (3.2m)
8’ 1” (2.5m) without exhaust stack
Add 5” (127mm) for MAX Package.

Machine set-up for pouring in a single lane with the ready-mix truck lined up in front.
Power Curbers Family Of Products
Your Single Source for all your Concrete Paving Needs

Power Pavers SF-1700, SF-2700 and SF-3000 Slipform Pavers

Power Curbers 150 Extruded Curb Machine

Power Pavers Full-Sized, 4-Track SF-2404 Slipform Paver

Power Curbers 7700 Multipurpose Slipform Machine Pouring Barrier

Power Pavers PS-2700 and PS-3000 Belt Placer/Spreaders

Power Pavers TC-2700 Texture/Curing Machine

Anvil American Stringline Accessories

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