



# *Buying Small-Line Concrete Trailer Pumps*

*By Anne Balogh The Concrete Network*



On the typical concrete pour, your goal is to place the concrete as close as possible to its final destination—not only to save hauling time and boost productivity, but also to avoid overhandling of the concrete. But on many decorative concrete jobs, the ready-mix truck can't gain access to the work site. When you're placing a stamped concrete patio in a fenced backyard or a decorative floor inside in an enclosed building, you must find another way to move the concrete from the truck to the point of placement. [\*Continue >\*](#)



For conveying concrete to restricted sites such as these, a trailer-mounted small-line pump is often the ideal solution. Not only are these compact pumps convenient for small residential pours, they can also serve as an alternative to high-volume boom pumps on large decorative pours that require slower output rates, such as intricate stamped concrete projects. Most models can reach hundreds of feet and offer placement rates ranging anywhere from 5 to over 100 cubic yards per hour.



[Schwing America Inc.](#)

In today's construction equipment marketplace, you can find a trailer-mounted pump for almost any application, from pressure grouting and shotcreting to placing cement-based overlays and structural concrete. To find a machine that matches your specific job requirements without breaking your budget, ask these questions before you buy.

### **Is it more economical to own or rent?**

Unless you plan to use a pump frequently, buying your own machine may not pay off in the long run—especially if you factor in the costs and time required for pump maintenance, repair, and clean-up. Instead, it may make more sense to rent a pump (assuming you have a trained operator on your crew) or hire the services of a pumping contractor. Figure out how many hours you typically use a pump annually and then crunch the numbers, comparing the cost of buying a pump to the average hourly rental rates in your area.



[Reed Concrete Pumps.](#)



## Can the pump handle your concrete mix?

Many decorative concrete contractors have preferred no-fail concrete mixes they rely on for the majority of their projects. If you have your own gold-standard mix designs, you'll need a pump built to handle them.

Some pumps are multipurpose machines that can accommodate a variety of mixes while others are engineered for specific mix types. Generally, the maximum aggregate size the pump can accept will govern the type of material it can churn out efficiently. Pea-rock pumps, for example, are designed to pump cement-based mixtures containing a 1/2-inch top aggregate size, such as repair grouts, shotcrete, and self-leveling overlays. Other line pumps can handle higher-slump concretes containing larger coarse aggregate (3/4- to 1 1/2-inch rock). These models are better suited for placing concrete slabs and other structural elements.



Photo courtesy of [Multiquip](#).

## How far and how fast?

Look at the pump manufacturer's spec sheets for the machine's output rate (usually given in cubic yards per hour) and maximum horizontal and vertical pumping distances. Some models are capable of delivering concrete at rates topping 125 cubic yards per hour and distances as far as 1,500 feet horizontally and 400 feet vertically.



However, don't waste money buying more pump capacity than you need—or can feasibly handle. A high-capacity pump usually isn't necessary for placing thin cement-based overlays. And to take advantage of a pump with super-fast delivery rates, you must have enough workers on hand during the placement to keep up with the pace. This is especially critical on decorative stamped concrete jobs because you have a limited window of opportunity for finishing and stamping after the concrete hits the ground. For decorative work, consider going with a pump equipped with variable volume control, which lets you adjust the pump output to suit the tempo of the job. This will permit you to slow down concrete delivery if the finishing or stamping crew falls behind.



Photo courtesy of [Multiquip](#).

Also keep in mind that the maximum volume output and conveying distances touted by pump manufacturers are only theoretical. These capacities will vary depending on such factors as the mix design, job conditions, and diameter and length of the pipeline used.



## What type of valve is used?

When shopping around for a small-line trailer pump, you'll encounter a variety of terms describing the type of piston or valve system used to draw the concrete from the hopper and propel it through the delivery line, such as a ball valve, rock valve, S-valve, or swing tube. Some of these systems are proprietary to a particular pump while others are more generic. Ask the pump manufacturer to provide details about the performance capabilities and advantages of the system they use.



S-Valve with Large Capacity Hopper from [Putzmeister's](#).

## Can you tow the pump using your existing vehicle?

Although most trailer pumps are small enough to be towed by a standard pickup truck, make sure the cart you buy can be pulled by your horse. The spec sheets for a pump will give machine dimensions and towing weights.

For towing safety and convenience, look for a pump mounted on a highway-rated trailer equipped with such features as an adjustable-height hitch, hydraulic surge brakes, durable fenders, stop/directional tail lights, and a heavy-duty frame with torsion bar suspension.

## How easy is the pump to maintain?

The effort required to keep a particular pump in top running condition will depend on a number of factors, including the simplicity of the piston/valve design, the number of wear parts, and ease of accessibility to components that require regular servicing or cleaning.





Some manufacturers simplify servicing by equipping the pump with a central lubrication system that enables the operator to quickly grease every critical service point. For ease of cleaning, look for a hinged or removable hopper and a hinged discharge manifold that doesn't require special tools for disassembly. To be assured of long equipment life, ask the manufacturer if the pump components are made of high-quality long-wearing materials, such as hard-chromed pump cylinders and forged-steel pistons.



Photo courtesy of [United Equipment Sales, Inc.](#)

### What options are available?

Many trailer-mounted pumps are available with a wide assortment of bells and whistles. This gives you more versatility to match the machine's capabilities to your specific needs. Options available on some models include:

- Electric motor, in lieu of a gas or diesel engine
- Wireless remote control
- Hydraulic outriggers
- Hopper remixer or agitator
- High-pressure water washout pump
- Chemical additive pump



## *Sherpa info*

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### **ABOUT THE AUTHOR**

Anne Balogh writes feature articles each month for The Concrete Network. She is a freelance writer based in Glen Ellyn, Ill., and a former editor of Concrete Construction magazine. For questions regarding this guide please contact Dan Tate by email at [dan@concretenetwork.com](mailto:dan@concretenetwork.com). To read more on the Concrete Network from Anne, [Click Here](#).

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# Sherpa info

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## SUMMIT DATE

This document reached the summit (was created) on December 29, 2005 and is based on the best information available to the Sherpa at that time. To check for updates please click here <http://www.ConcreteSherpa.com/trailerpumps>.

## NAVIGATION & USER TIPS

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Full screen/normal screen view	[Ctrl] [L]	[⌘] [L]

## ABOUT THE CONCRETE SHERPA

The Concrete Sherpa is a team of people that represent the experience, teaching and learning of our team members and other industry leaders *on a mission to make life better for the concrete contractor*. We are an idea center striving to deliver thought provoking ideas based on “Concrete Advice for Business and Life” to stimulate you to reach new heights. As a user, you should remember to consider all information you receive, here at the Concrete Sherpa or elsewhere, not as a *cast in concrete* recommendation, but rather as an idea for you to consider and ponder.

## *Sherpa info*

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### THE JOURNEY LEADING TO THE CONCRETE SHERPA PROJECT

The Concrete Sherpa Project (A [Sherpa](#) is a “guide”) was born at The Concrete Network in mid 2004. Here is how it happened:

The biggest surprise, or gift, since starting The Concrete Network in 1999 has been the concrete contractor friends from around the country we’ve made and witnessing the passion they have for what they do. These people include Dave Pettigrew, up in the San Francisco Bay Area, or the Verlennich brothers in Minnesota, or Bob Harris in Georgia, the list goes on and on. It’s quite inspiring.

We were once asked, “How are you so excited every day about concrete?” Well the answer is simple, it is impossible to not be excited about concrete when you have the job we do—interacting with hundreds of concrete contractors from every state in the country.

The thing we’ve learned about concrete contractors is that most are passionate *craftsmen*—they are often less passionate and experienced in the “office stuff”. Human nature channels us to do what we are most comfortable with; learning how to use a new saw-cutting tool is comfortable; learning and implementing a new estimating strategy, or job management tool, is not so comfortable.



## *Sherpa info*

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### THE JOURNEY CONTINUES...

So Sherpa was born to provide FREE and easy to use information on topics many contractors are not too comfortable with.

- Concrete Sherpa is here to provide help to contractors who are often 'Lone Rangers' and don't have anyone to get solid business advice from.
- Concrete Sherpa is here to provide help for contractors who have to work too hard and too many hours in their business, and one day realize they need to work *on their business, not in their business*.
- Have fun with Concrete Sherpa and go faster towards reaching success than you might have on your own.
- To skeptics who think something free can't be valuable, or there must be a trick- visit Concrete Sherpa and decide for yourself.

We hope you make great use of the Concrete Sherpa and it helps you to become an awesome success for yourself, your family, your church, and your community.

### VISIT THE CONCRETE SHERPA

To visit the Concrete Sherpa click here <http://www.ConcreteSherpa.com>.

