

PUCK CUSTOM ENTERPRISES, INC.

Applying Liquid Manure Since 1979

PCE

PCE Drag Hose Equipment

EQUIPMENT

- Hose Carts
- Pump Trailers
- Applicator Bars
- Boom Trucks
- Industries



LEAD PUMPS - BOOSTER PUMPS

HOW DOES 1600 GAL/MIN SOUND?



DECREASE Line Pressure
MAXIMIZE Gallons\$\$\$

Pump Trailers

A PCE Pump Trailer sits on flotation tires with suspension for superior trail through the field. Stocked to hold 290 gallons of fuel, these compact units are designed to run long days. Engine setups vary to fit various needs and applications - see model types below. A key advantage in PCE's design is the pig bypass - no more uncoupling hoses to clean lines!

Features

- PCE Clean-Out Bypass
- [Cornell® Pump](#)
- Pump clean-out Access
- Flow shut-off valves
- Powered by a John Deere® Engine
- Tilt hood
- Two 143 gallon fuel tanks with at-a-glance fuel visibility
- Compact trailer
- Super-single tires
- 1600 lb Dexter axles
- Leaf spring suspension
- Hitch and lighting
- Electric brake option

Advantages

- Affordability
- Pig bypass for easy hose clean out without messy uncoupling
- Compact design, quick to set up
- Self-sufficient trailer: pump, motor, and plenty of fuel
- Easy mobility with a pickup: leaf spring suspension, semi-trailer tires, well balanced with lighting

Benefits

- Increased liquid velocity maximizes application rates - INCREASED EFFICIENCY(\$\$\$)
- Application over longer distances
- Safer (lowered) overall line pressure when using multiple pumps
- Lower line pressure on the intake side also provides some additional safety in high risk areas

Engine Mounted Pump

The engine mounted pump eliminates all problems associated with a hand clutch and removes the driveline. It eliminates many maintenance requirements and makes the unit much safer to operate. PCE uses exclusively Cornell® run-dry seal pumps and all engines feature ox drives for additional utility hydraulic hook-ups.



Cornell® Pumps

[Cornell's® Agricultural Brochure](#)

[Cornell's® Manure Slurry 4pg Flyer](#)

[Cornell's® Manure Slurry Flyer \(Spanish\)](#)

John Deere® Powered

[9.0L Tier 3 PowerTech™ Plus 6090](#)

[6.8L Tier 3 PowerTech™ Plus 6068](#)

PCE Clean-Out Bypass

A pig bypass allows the foam pig to be shot through the line and through the pump trailer pipes without detaching and reattaching hoses.



PCE Pump Trailer Models

PT 14

4x4x14 Cornell® Pump (14") [see specifications](#)
6.8 L John Deere® Tier 3 Engine [specifications...](#)
PCE Clean-Out Bypass

PT 17

4NHTB Cornell® Pump (17") [see specifications](#)
9.0 L John Deere® Tier 3 Engine [specifications...](#)
PCE Clean-Out Bypass

Options

Pump trailers can be made to fit individual needs.

Thoughts on Pressure and Flow

Pressure and flow are not directly related. High flow rates are good, high pressure is not so good. Mainline hose is designed to withstand 200-250 psi of pressure. By increasing the velocity of the liquid with an additional pump, high flow rates can be achieved without high pressure. A single pump will produce 200 psi of pressure to achieve the distance of 1 mile and 1,200 GPM - which falls in the higher limits of the hose's strength. With 1 mile of distance, still achieving 1,200 GPM two pumps about evenly spaced only produce about 110 psi of pressure. Overall line pressure is reduced to safer operating conditions, and the opportunity to increase the flow rate if desired is available. A favorite analogy of this is a baseball relay from outfield to home plate. Two teammates can achieve much faster movement of the ball using a relay. Less stress is placed on the arm and the responsibility of the play is now divided into a very reasonable goal.

■ How To Pump 1600 Gal/Min.

PCE has found that with 6" mainline hose and 5" drag hose, 1,600 GPM can be obtained very easily by placing an inline pump trailer every 3/4 of a mile. When pumping a distance of 1 mile, having a 4NHTB Cornell® pump as a lead pump and after 5 lengths of hose (5/8 mi) placing a 4NHTB Cornell® as an inline pump trailer, 1,600 to 1,800 gal/min can be obtained. This volume can be maintained over any distance with the placement of a pump trailer every 5 to 6 lengths of hose, the final pump being 1 length before the drag hoses.

1,300 gal/min can be achieved in the same scenario with 4x4x14 Cornell® Pumps. This may be the best solution for finishing barn manure and low application rates per acre. Contact a PCE representative for details.

■ Economically Viable Investment

PCE recycles used or rebuilt motors to maintain affordable pricing. The real savings though is found in an increased efficiency of gallons applied using an inline PCE Pump Trailer:

1 pump for 1 mile = 1200 GPM = 72,000 gal/hr @ \$0.01/gal= \$720/hr

2 pumps for 1 mile = 1600 GPM = 96,000 gal/hr @ \$0.01/gal = \$960/hr

A difference of 400 GPM = 24,000 gal/hr @ \$0.01/gal is \$240/hr @ 200 hrs/yr = \$48,000/yr!!!

A PCE inline Pump Trailer is nearly free.

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