

SOIL PROBE

CUSTOM PRECISION SOLUTIONS



Locations in SD, ND, NE, MN & WI | dakotafluidpower.com

Hydraulic Cylinder Options & Features

Single Stage Cylinder

For soil samples 24" or less, we offer our 30" stroke single stage cylinder. Typically this cylinder is used in conjunction with our DC hydraulic power unit and a regenerative block. The regenerative block adds faster extension speed versus the DC power unit alone.

Two Stage Cylinder

When you are looking for a little more depth for your soil samples, we offer our 42" two stage cylinder allowing for soil sample depths up to 36". This two stage cylinder is typically used in conjunction with the gas engine driven hydraulic power unit or a clutch pump kit. With a shorter retracted length, the two stage cylinder is more ergonomic because of the ability to mount the cylinder higher inside the vehicle. (*Clutch Pump kit is not available for every vehicle, please call for more information.*)

Image on the left is Single Stage, image on the right is Two Stage.



Hydraulic Directional Control Valve Options & Features

DC Hydraulic Power Unit Control Valve

The DC hydraulic power unit has a control valve incorporated into the pump assembly. No extra directional valve is needed, but the option to use the regenerative block is available upon request.

Manual Directional Control Valve

Made by Prince Hydraulics, this valve incorporates another relief valve along with a pressure release valve, which centers the directional valve to neutral once cylinder reaches its full retract position. For cylinder extension, the valve handle must be held in the down position; once handle is released, the cylinder movement stops.



Manual Directional Valve Pictured

GPS Guidance System "WITH" Compaction Kit Valve Option

If the complete guidance kit is purchased with the "compaction kit" the hydraulic power unit will incorporate an electronic valve, which will be controlled by the tablet (not included in kit price). This valve works with a string potentiometer which accurately measures an exact depth of customers choosing. Once the down cycle has been actuated on the tablet, the cylinder will automatically extend to the requested depth and then fully retract to the home position.

Hydraulic Power Unit Options & Features

Electric DC Power Unit

As a very base starter package, this power unit is used only with the 30" stroke single stage cylinder and has the directional valve incorporated into the pump. It is controlled by either a dash switch or hand pendant.

Gas Engine Driven Power Unit

Standard Gas Power Unit: With a 5x faster cylinder speed vs. the DC power unit, this option is a major step up in productivity levels. We also have the ability to make this power unit automatically idle up and down when used with the manual directional control valve.

Ultimate Compaction Gas Power Unit: When the Navigation & Compaction Kits are requested, DFP suggests using a much more user friendly power unit. The Ultimate Compaction Gas Power Unit has the same cycle speed as the Standard Gas Power Unit, but with a smaller foot print which allows for much easier transport and the ability to incorporate the electric valve into this power unit. Along with the smaller foot print, the added benefit of an electronic choke and computerized auto engine throttle.



Ultimate Compaction Gas Power Unit pictured above.

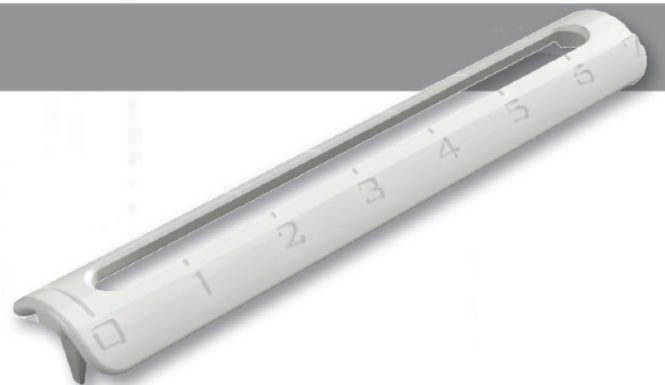
Clutch Pump Driven Power Unit

For applications when gas engine power units aren't feasible or if a clutch pump kit is preferred, complete kits including brackets, new belt, pulleys and pump are available for purchase for certain vehicles. In addition to the kit, a hydraulic tank and return filter would need to be purchased separately.

Core Cutter Tool

Cut Off the Topsoil - Fast & Accurate

The Core Cutter is easy to use, just put it over probe before dumping out the soil. It's spike will only let the topsoil fall out, then toss it aside and empty the rest of the soil into the other container. It makes soil sampling so much more accurate and consistent.



Soil Probe Packages are 100% customizable.
Call your local branch for package options.

www.dakotafluidpower.com

Soil Sampling Navigation System

Consistent Locations Year to Year

To build an accurate history of your field, this navigation system helps interpret changes in your soil results. Today's agriculture requires consistent and accurate data to truly benefit your soil. The powerful software is very easy to use. If your point is under water, you can choose another one and be sure it is really in the same zone. Your systems will even send files in real time to the SuperMap mapping program for viewing acres, points, boundaries and even downloading point and boundary files. It can use the internet to keep you connected to the office, if connection is available.



Use your existing tablet for a screen! PCX is compatible with Apple, Windows & Android. System includes:

- GPS Soil Sampler tablet app
- PCX Wireless Controller
- High Sensitivity GPS Antenna/Receiver w/ Magnetic Bottom

Soil Sampling Compaction Kit

Consistent Depth and Two Free Hands

The optional compaction kit makes this system the only system to record compaction information as you sample, and naturally gives a consistent depth every time! This also gives you two free hands while the probe is operating so you can prepare the soil bag which saves you time, makes your depths consistent and collects compaction data as you go. *(Patent Pending) (This is an add-on to the Soil Sampling Navigation System. Must have SS-NAVSYS in order to add on Compaction Kit).*



Tailor Made for Your Vehicle & Application

Soil testing is the best tool available to Agricultural Producers for determining the amount of nutrients needed for the next crop year. Extend your soil sampling season and increase soil sample precision with our Soil Probe. At Dakota Fluid Power, we build top of the line precision Soil Probes in house and can **easily customize a system to suit any application**. DFP has designed and installed systems to fit pickup's and UTV's (Call for information on ATV & SUV packages.)

We take the guess work out of taking soil samples. With the Soil Probe and automatic system control, we can cut margin of error down to less than 5%. Taking soil samples has never been faster, easier or more accurate than with the DFP Soil Probe.



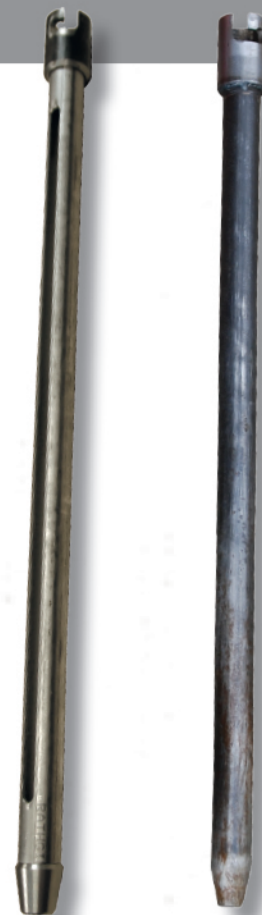
Probe Body & Tips Options & Features

Stainless Steel Slotted Probe Body & Tips

This standard probe body and tips are made from stainless steel. The probe body is slotted and allows for easy soil removal. There are various tips to choose from: HD OS Tip, Wet Tip, 3/4" Tip, 5/8" Tip, 1/2" Tip.

Heavy Duty Oversize Probe Body & Tip

This new probe body and tip are made from a very hard metal (chromoly steel aircraft tubing). This probe and tip were designed specifically for very wet sticky soils, but also works very well in frozen or dry soil conditions.



Soil Probe Packages are 100% customizable.
Call your local branch for package options.

www.dakotafluidpower.com

**Sioux Falls Corporate**

3409 N. Lewis Ave.
 Sioux Falls, SD 57104
 P. 605.338.9982
 P. 800.727.2420
 F. 605.332.0988

**Sioux Falls OEM**

3409 N. Lewis Ave.
 Sioux Falls, SD 57104
 P. 605.338.9982
 P. 800.727.2420
 F. 605.338.5109

**Aberdeen Branch**

39229 133rd St.
 Aberdeen, SD 57401
 P. 605.225.8165
 P. 800.425.9925
 F. 605.225.8169

**Fargo Branch**

2210 W. Main Ave
 W. Fargo, ND 58078
 P. 701.281.7852
 P. 800.441.9194
 F. 701.281.6161

**Rapid, City Branch**

2610 Seger Dr.
 Rapid City, SD 57701
 P. 605.716.4750
 P. 855.833.2821
 F. 605.716.1725

**Minot Branch**

2907 4th St. SW
 Minot, ND 58701
 DFP P. 701.852.0494
 DFP F. 701.838.0451
 PTE P. 701.838.7439
 PTE F. 701.852.2756

**Lincoln Branch**

4001 N. 48th St.
 Lincoln, NE 68507
 P. 402.465.0290
 P. 866.439.3909
 F. 402.465.0296

**Mandan Branch**

2001 Twin City Dr.
 Mandan, ND 58554
 P. 701.663.9878
 F. 701.751.0647

**La Crosse Branch**

2022 Oak St.
 La Crosse, WI 54603
 P. 608.781.6500
 P. 866.227.1348
 F. 608.781.7058

**Grand Rapids Branch**

34718 Industrial Blvd. Rd.
 Cohasset, MN 55721
 P. 218.326.8910
 P. 866.519.8625
 F. 218.326.8911

Soil Probe Packages are 100% customizable.
 Call your local branch for package options.

www.dakotafluidpower.com