

DIETRICH

Designed for
Durability, Performance,
& Convenience



Series 70 Auto Reset Sweep Injector

Not an Ordinary Injector!



US Patents
6973884,
8544395

Design Features

Advantages

No daily greasing on shank pivot
Requires only seasonal greasing.

Non-Grease
hub on coulters.

Snap pin adjust coulters,
No set screw

840 lb. coulters down
pressure spring assembly.

22 1/2" diameter coulters.

Auto reset – not spring bundle.

1 1/4" x 2" edge bent shank –
Not 1" x 2".

Narrow 1/2" sweep shank.

High carbon, special bar quality
cast steel chisel point sweep
with front high chrome casting
and heavy abrasion-resistant
hard surfacing on wings.

Tube pivot.

Grease after spring & fall
seasons to minimize rust
when not in use.

For maintenance free operation

Easy, no tools required adjustment
No set screws rusted and broken off
No shafts sliding down.

Heavy spring maintains coulters depth to
prevent residue hair pinning with pressure
steady through trip range.

22 1/2" blade provides cutting action
even through tough GMO residue.

Provides 1400 lbs of trip pressure with the
benefits of lower pressure at full trip of 8"
trip clearance plus high resistance to floating.

250% stronger than 1" x 2" flat shank.

This allows shallow operation at 5"
to 6" depth resulting in fuel savings.
Low disturbance wings require low HP
when operated in the Green Zone.

Prevents breakage.
Longer wear.
Lower cost per acre.

Prevents hose damage.

Specifications

Adaptable to any tool bar.

Auto reset with 1,400 lb. reset force.

1 1/4" x 2" edge bent 5160 alloy steel shank.

22 1/2" heavy duty spring coulters.

Cast steel chisel point sweeps.

Separately replaceable sweeps
& tubes.

Optional 25 Wave Conical Blade

Optional shallow form
conical blade for sweep
injecting in corn on corn
conditions.

Clears a pathway ahead
of the sweep.

Does not create side load on
mounting or tank.

Swivels freely.

Unique swivel-mounted
conical blade enters
the soil in the direction
of travel ahead of the
spindle and moves soil
laterally behind the
spindle.





DIETRICH

Series 70 Chisel Point Sweeps

- Designed to penetrate frozen soil
- 1/2" thick sweep shank combined with steep 62° swept-back wings results in minimum soil disturbance and allows for proper depth placement of nutrients in the Green Zone.
- High chrome tip casting with high abrasion-resistant hard surfacing on the wings.
- Thin vertical portion, high carbon heat treated steel casting to minimize soil disturbance at high speeds.
- Slurry tubes pivot preventing hose damage.
- To prevent breakage, sweeps are attached to a 1 1/4" x 2" edge bent alloy steel shank to allow side movements when striking rocks.

8" Hi Rate Sweep



Shown with 3" Tube
(3" ID hose fits outside)
8" Wing Width
Up to 10,000 GPA
Lifts Soil Less than 1 3/8"

Vertical portion is 1" thick at the lower rear to create a wide slot to facilitate the filling of the soil cavity created by the wings.

12" Hi Rate Sweep



Shown with 3 1/2" Tube with Clip
(2 1/2" ID hose fits inside)
12" Wing Width
10,000 – 15,000 GPA
Lifts Soil Less than 1 1/2"

Vertical portion is 1" thick at the lower rear to create a wider slot to facilitate the filling of the soil cavity created by the wings.

12" sweep parts the soil more and creates a larger cavity than the 8" sweep to contain more liquid.

12" Max Lift Sweep



Shown with 4" Tube with Clip
(3" ID hose fits inside)
12" Wing Width
20,000 GPA

Hi carbon rear extensions provide higher lift to create a larger cavity than the 12" sweep to contain more liquid.

Excellent choice for dairy and municipal application



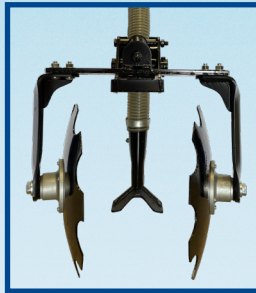
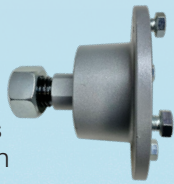
Optional Wing Drop Tube

- Fits both 2 1/2" & 3" ID hoses
- Enhanced plug-free performance
- Hi carbon steel for longer wear

DIETRICH Slurry Clozr

Design Features

- Clamps to shank for excellent residue flow
- Vertically adjustable
- Non-grease hub for maintenance free operation
- Square hole for carriage bolts prevent corner rounding when adjusting
- High strength steel for durability
- 18" spherical or flat notched blades
- 10' heavy spring
- Substantial rock clearance
- Easy to reach grease zerks
- End of season greasing on pivots



DIETRICH

The Complete Sweep/Conical Blade Rotary Injection System followed by the Dietrich Slurry Clozr

Design Features

Inject in any soil conditions

Rotary Injection for lower gallons per acre

Sweep Injection for rates 3,500 to 20,000 gallons per acre

- Easy change over in the field between Sweep & Rotary Injection.
- Patented 13 Wave Swivel Conical Blade to widen slot for nutrient placement.
- Unique Swivel-mounted Conical Coulter Blade enters the soil in the direction of travel and exits moving soil laterally resulting in maximum depth penetration for maximum gallons per acre.
- Individual depth adjustment.
- Option to run Coulters deeper behind tank tires in muddy conditions.
- Designed for speeds up to 10 MPH.

US Patents
6973884,
8544395,
9226437

Rotary Conversion Kit

Available for currently owned Dietrich Sweep Injectors

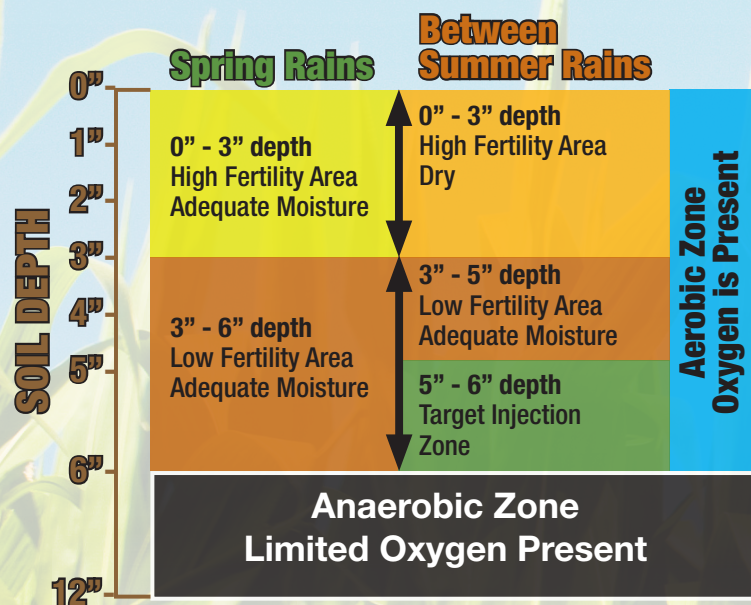
- 13 Wave Swivel Conical Blade
- 4" Rotary Injector Discharge Tube & Bracket
- Dietrich Slurry Clozr



DIETRICH Sweep Injector and Soil Fertility Stratification

Soil Fertility & Plant Nutrients

- Minimum tillage causes soil fertility to be high in the top 3" of soil and low at deeper depths.
- Each year the nutrients from the previous year's crop residue are mixed mostly in the top 3" of soil.
- Spreading with disc incorporators or rotary injectors results in more fertility in the top 3".
- Between summer rains, quite often, the top 3" of soil is dry. Plants cannot take up nutrients in dry soil.



Nutrient Costs

A large amount of manure is still being surface applied. With the increased cost of nitrogen, it is very profitable to sweep inject. These charts show the approximate amount of nutrients found in dairy and hog manure.

Each 1,000 Gallons of Dairy Manure Contains:

Nutrient	Cost	Value
35 lbs Nitrogen	\$ 0.37	\$ 12.95
15 lbs Phosphorus	\$ 0.63	\$ 9.45
26 lbs Potassium	\$ 0.46	\$ 11.96
Total Value per 1000 Gallons		\$ 34.36

Each 1,000 Gallons of Grow/Finish Hog Manure Contains:

Nutrient	Cost	Value
45 lbs Nitrogen	\$ 0.37	\$ 16.65
38 lbs Phosphorus	\$ 0.63	\$ 23.94
30 lbs Potassium	\$ 0.46	\$ 13.80
Total Value per 1000 Gallons		\$ 54.39

*Not all nitrogen is available during the first growing season. Amount available varies according to climate and location.

**Commercial fertilizer prices change frequently. Contact your local fertilizer supplier for current prices.

Field Tests

- Various field tests have often shown deep placement of plant nutrients substantially increases yields compared to surface application.

Proper Nutrient Placement Depth

- Oxygen helps break down the nutrients in animal waste to become available to the plants.
- The top 6" of soil depth is generally considered the Aerobic Zone. This zone contains oxygen.
- Below 6" of soil is the Anaerobic Zone. This zone lacks oxygen.
- Plant nutrients are more available in the Aerobic Zone because a much greater amount of oxygen is present in the soil.

Conclusion

- With injection 5" – 6" deep, a substantial amount of nutrients are available between summer rains.
- All agronomists agree nutrients should be placed in the Green Zone (5"-6" depth) for maximum yield.

When Placing the Nutrients in the Green Zone (5"-6" depth) rather than on the Surface

- Nitrogen does not escape to the atmosphere
- Nutrients are not lost to erosion.
- There is less weed pressure. High surface fertility promotes weed germination.

Horsepower Requirement, Time & Costs vs. Proper Nutrient Placement ROI

Most soil types will require 8 – 11 HP per shank at the optimum nutrient availability depth of 6". Setting the toolbar to hold this depth for proper placement of nutrient availability, staying in place where applied (especially Nitrogen) & the ability to do so at any GPA with sweep & tube options will be one of the fastest ROI on the farm as above inset & chart to the left show.

Summary

With high fertilizer and fuel prices, it is very important to place nutrients in the Green Zone (5"-6" depth.) for maximum ROI crop production.