

MSD Auto Reset Slurry Injector



Specifications

- Attaches to a 4" X 6" tool bar
- Auto reset with 1400# 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
(featured on back page)
- Wing drop, 3", 3-1/2", or 4" O.D. slurry tubes available
- Separately replaceable sweeps & tubes

US Patents 5865131 • 6973884 • 8544395 • Other Patents Pending

Design Features

- No daily greasing
Only end of season shank pivot greasing
- Snap pin adjust coulter - No set screws
- New 800# coulter down pressure spring assembly -
Most others range from 200 - 350# down pressure
- 22-1/2" diameter coulter - Not 20"
- Auto reset - Not spring bundle
- 1-1/4" X 2" edge bent shanks - Not 1" X 2"
- Narrow 1/2" sweep shank
Sweeps lift the soil less than 1-1/4"
- Hi carbon, special bar quality, cast steel chisel
point sweep with front hi chrome casting and heavy,
abrasion-resistant hard surfacing on the wings
- Tube pivot

Advantages

- 70° forward angled zerk for easier access
- Grease after spring & fall seasons to minimize
rust when not in use.
- Easy - No tools required adjustment
- No set screws rusted and broken off
- No shafts sliding down
- New heavier spring maintains coulter depth to
prevent residue hair pinning
- Larger 22-1/2" diameter blade provides better
cutting action through tough GMO residue than 20"
- Provides 8" trip clearance and much more resistance
to floating. 1400# trip pressure plus benefits of lower
force at full trip.
- 250% stronger than 1" X 2" flat
- 1" X 2" flat shank does not maintain constant sweep
angle due to deflection in variable soil conditions.
- This allows shallow operation resulting in fuel
savings. Most tillage apparatus will require 100%
more horsepower when operated 50% deeper.
- Less breakage
- Longer wear
- Lower cost per acre
- Prevents hose damage



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THE DIETRICH SLURRY INJECTOR AND SOIL FERTILITY STRATIFICATION

Soil Fertility and Plant Nutrients

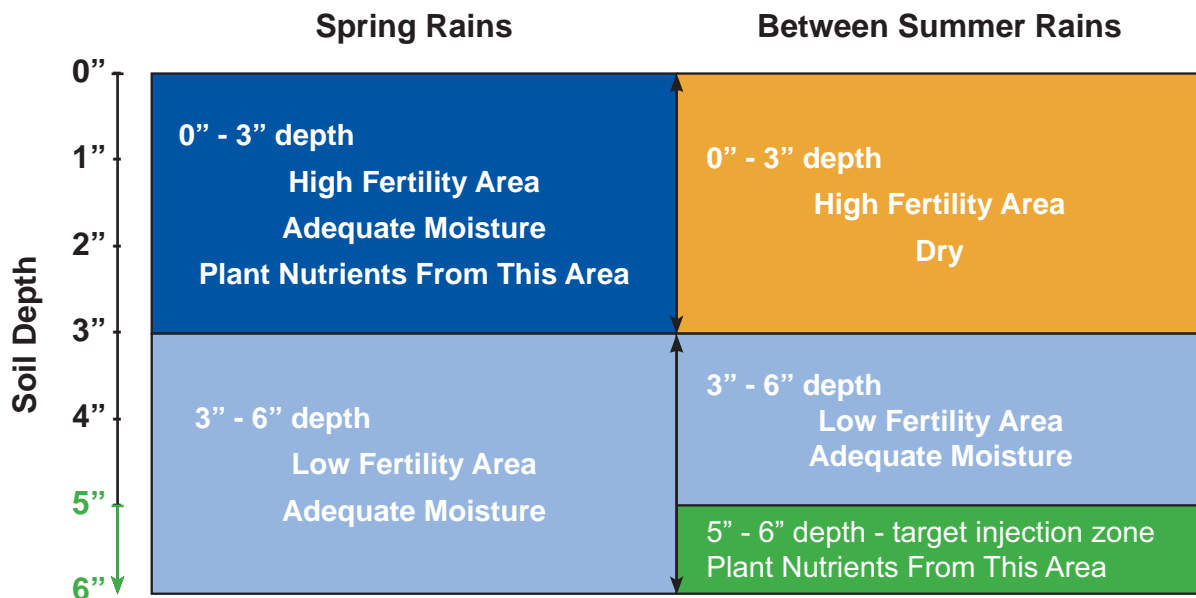
- Minimum Tillage causes soil fertility to be high in the top 3" of soil and low at deeper depths.
- Each year the nutrients from the previous year's crop residue are mixed mostly in the top 3" of soil.
- Spreading with disc incorporators or rotary injectors results in more fertility in the top 3".
- Between summer rains, quite often, the top 3" of soil is dry and the plant is unable to use this area of high fertility.

Field Tests

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

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.



The top 6" of soil depth is generally considered the aerobic zone - i.e. the zone with oxygen. Below 6" of soil depth is called the anaerobic zone because of the lack of oxygen. Plant Nutrients are more available in the top 6" of soil because a much greater amount of oxygen is present in the soil. The oxygen in the aerobic zone also helps break down the nutrients in animal waste to become available to the plants. Placing the nutrients in the 5"- 6" depth rather than the surface has several benefits.

1. Plants cannot take up nutrients in dry soil. As soon as the surface soil dries, the nutrients are not available.
2. Nitrogen does not escape to the atmosphere.
3. Nutrients are not lost to erosion.
4. Less weed pressure - High surface fertility promotes weed germination.

Each 1,000 gallons of Grow-Finish Hog Manure contains approximately:

	<u>Cost per lb.</u>	
* 45 lbs. of Nitrogen	.42	\$18.90
38 lbs. of Phosphorus	.50	\$19.00
30 lbs. of Potassium	.33	\$ 9.90
Total Value per 1,000 gal:		\$47.80

Each 1,000 gallons of Dairy Manure contains approximately:

	<u>Cost per lb.</u>	
* 35 lbs. of Nitrogen	.42	\$14.70
15 lbs. of Phosphorus	.50	\$ 7.50
26 lbs. of Potassium	.33	\$ 8.58
Total Value per 1,000 gal:		\$30.78

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

* Commercial Fertilizer Prices change frequently.

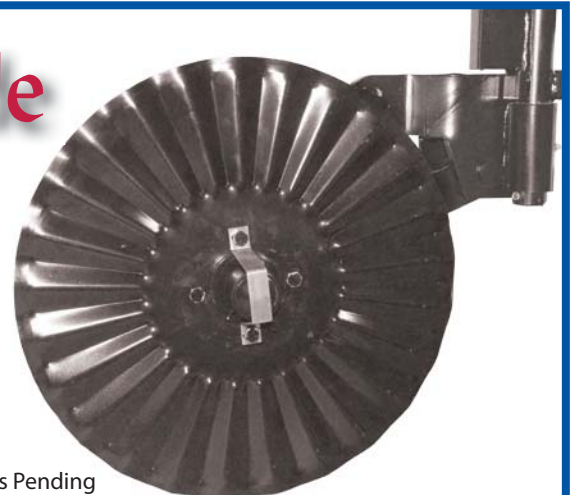
For More Information Please Visit www.dsiag.com

DSI, INC

Goodfield, IL 61742
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25 Wave Conical Blade

- Optional shallow form conical blade for sweep injecting in corn on corn conditions
- Clears a pathway ahead of the sweep



Patents Pending

THE COMPLETE DIETRICH CONICAL BLADE ROTARY/SWEEP INJECTION SYSTEM FOLLOWED BY THE DIETRICH SLURRY CLOZR

Patents Pending



This complete injection system includes the Dietrich Series 70 Assembly with 800# Down Pressure Coulter Assy, Coulter Mount, 13 Wave Swivel Conical Blade, 4" Rotary Injection Discharge Tube & Bracket, your choice of Chisel Point Sweep & Discharge Tube, & the Dietrich Clozr with choice of Notched Blades.

The vertical tillage industry does not yet know what the maximum gallons per acre will be in wet soil conditions. Wet soil tends to have a plastic characteristic. This condition creates minimal cavity size plus wet soil does not soak up excess liquid.

To get a better perspective of the liquid volume, imagine a circle of liquid 3.8" in diameter will be created in the direction of travel at a 10,000 GPA rate. At 5,000 GPA the circle of liquid is 2.7" in diameter. Now it is possible to inject up to 15,000 gallons or more per acre in any soil condition using Rotary Injection for lower gallons per acre and easily convert to Sweep Injection for wet or compacted soil conditions that limit gallons per acre.

- *Easy change over in the field between Sweep & Rotary Injection*
- *13 Wave Swivel Conical Blade to widen slot for nutrient placement*
- *Unique Swivel-mounted Conical Coulter Blade enters the soil parallel to the direction of travel and exits moving soil laterally resulting in maximum depth penetration for maximum gallons per acre. Does not create excessive side load on mounting or tank.*
- *Individual depth adjustment*
- *Option to run Coulters deeper behind tank tires in muddy conditions*
- *Designed for speeds up to 8 MPH*
- *Available 8" Low Rate, 8" Hi Rate, or 12" Hi Rate Chisel Point Sweeps depending on your desired gallons per acre.*
- *Wing drop or 3", 3-1/2", or 4" OD Tube available on all Chisel Point Sweeps*
- *4" Rotary Injection Discharge Tube & Bracket for use with 2-1/2" & 3" hoses*

01/15/16



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DIETRICH SLURRY CLOZR

Patents Pending

Designed to be used continuously as part of the Dietrich Conical Blade Rotary/Sweep Injection System or as desired with the Dietrich AR Slurry Sweep Injector



* Shown with spherical notched blades and 4" Rotary Injection Discharge Tube & Bracket



* Shown with spherical notched blades and 8" Hi Rate Chisel Sweep & 3" Tube

- *Clamps to shank for improved residue flow*
- *Vertically adjustable*
- *Larger spindle than anhydrous ammonia sealers*
- *Square holes for carriage bolts to prevent rounding when adjusting*
- *High tensile steel for durability*
- *Choice of 18" spherical or new flat notched blades*
- *Substantial rock clearance*
- *Grease zerks for rust prevention when not in use*

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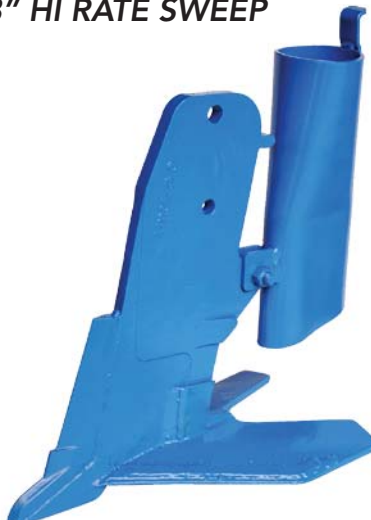
Dietrich Series 70 Chisel Point Sweeps

8" LOW RATE SWEEP



- Shown with standard 3" tube
- 8" wing width
- Designed for hi speed (5 – 8 mph) and lower rates (2,500 – 5,000 gallons per acre) to meet the E.P.A. Phosphorus Rules.
- Lifts the soil less than 1"
- Vertical shank portion is 1/2" thick
- The 8" Low Rate Sweep moves less soil, allowing higher speeds at low rates.

8" HI RATE SWEEP



- Shown with optional 3-1/2" tube and clip (2-1/2" hose fits inside)
- 8" wing width
- Designed for higher rates (5,000 – 10,000 gallons per acre)
- Lifts the soil less than 1-1/4"
- 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.
- The 8" hi rate sweep parts the soil more and creates a larger soil cavity than the 8" low rate sweep to contain the liquid.

12" HI RATE SWEEP



- Shown with optional 4" tube and clip (3" hose fits inside)
- 12" wing width
- Designed for higher rates (10,000 – 15,000 plus gallons per acre; 20,000 gal. optional)
- Lifts the soil less than 1-1/4"
- 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.
- The 12" hi rate sweep parts the soil more and creates a larger soil cavity than the 8" hi rate sweep to contain the liquid.

Design Features (Series 70 Sweeps)

- Series 70 Chisel Point Sweeps are designed to penetrate frozen soil.
- 1/2" thick Chisel Point Sweep shank combined with 62 degree swept back wings results in minimum soil disturbance and allows shallow placement of nutrients.
- The sweeps are designed with thin Vertical Portion Hi Carbon steel to minimize soil disturbance at high speeds.
- To prevent breakage, the sweeps are attached to a 1-1/4" X 2" edge bent alloy steel shank to allow side movements when striking rocks.
- Standard 3" or optional 3-1/2" & 4" OD tubes with clip available on all sweep sizes.

US Patents 5865131

6973884

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Other Patents Pending

Wing Drop Tube

- Option for sweep injecting
- Fits both 2-1/2" & 3" Hoses
- Enhanced plug-free performance

