



Aeromaster

Pull Type Compost Turner

Features and Benefits

Midwest Bio-Systems



*Composting equipment designed
and built by compost professionals
engaged in sustainable agriculture.*



To Produce High Quality Compost, Turner MUST . . .

- **Remove CO₂ and replace with O₂** - the breakdown of organic matter and subsequent build-up of humus is a microbial process that uses oxygen and generates carbon dioxide. Without oxygen the process stops. To be effective, your turner must remove the built-up carbon dioxide and replace it with oxygen. Testing the windrow CO₂ levels before and after turning documents the effectiveness of this aspect of the turning process. Aeromaster compost turners consistently remove virtually all of the built-up carbon dioxide.
- **Manage Temperature** - particularly during the breakdown phase, considerable heat is generated during the composting process. If the temperature becomes too high, the heat can kill the microbes that are responsible for material breakdown. Aeromaster compost turners effectively cool down the windrow during the turning process.
- **Maintain Moisture** - Like oxygen, water is essential to the breakdown and build-up phases of the composting process. The unique turning action of Aeromaster compost turners expose the surface of each compost particle to the water spray coating all sides. This water coating action is particularly valuable when you are inoculating the compost with supplemental microbial species. The microbes can only work on the material they touch, so the more thorough the coating action, the more effective the inoculation process.



- **Mix Without Pulverizing** - composting is the management of a microbial process. In addition to managing CO₂, temperature, and moisture, the turning process must mix the material exposing particle surfaces to moisture and microbes without turning the material to dust. Aeromaster compost turners thoroughly mix windrow materials without pulverizing the humus crumb structure that develops during the build-up phase of the composting process.



Right Side Operation



Aeromaster compost turners operate on the right side of the tractor allowing the operator to watch turner operations with the tractor controls in full view.



Advanced Aeromaster Drum Design

- Variable Speed Drum
- Maximum CO₂ Release
- Peaks Windrow Naturally
- Superior Blending
- Adjustable Height



The Advanced Aeromaster Drum Design turns materials outside in and inside out for superior blending and maximum CO₂ release. The variable 150 - 270 RPM drum speed ensures flexibility for blending new rows and building crumb structure. With an open hood the drum design naturally forms a peaked windrow. Windrow size varies with turner model. The hydraulically adjustable rear axle adjusts on-the-go 6" up or down for optimum drum height when moving through the windrow.



Heavy Duty Construction

3/8" drum wall, 12 gauge sheet metal hood, 3/16" tubular steel frame, means low maintenance coupled with exceptional reliability.





Heavy Duty Protected Drive Train

The heavy duty drive train is protected by an Auto Trip PTO drive line.



Heavy Duty Drive Line



Intermediate Shaft



Gearbox and Chain Coupler



Outboard Scoops Gather Extra Material

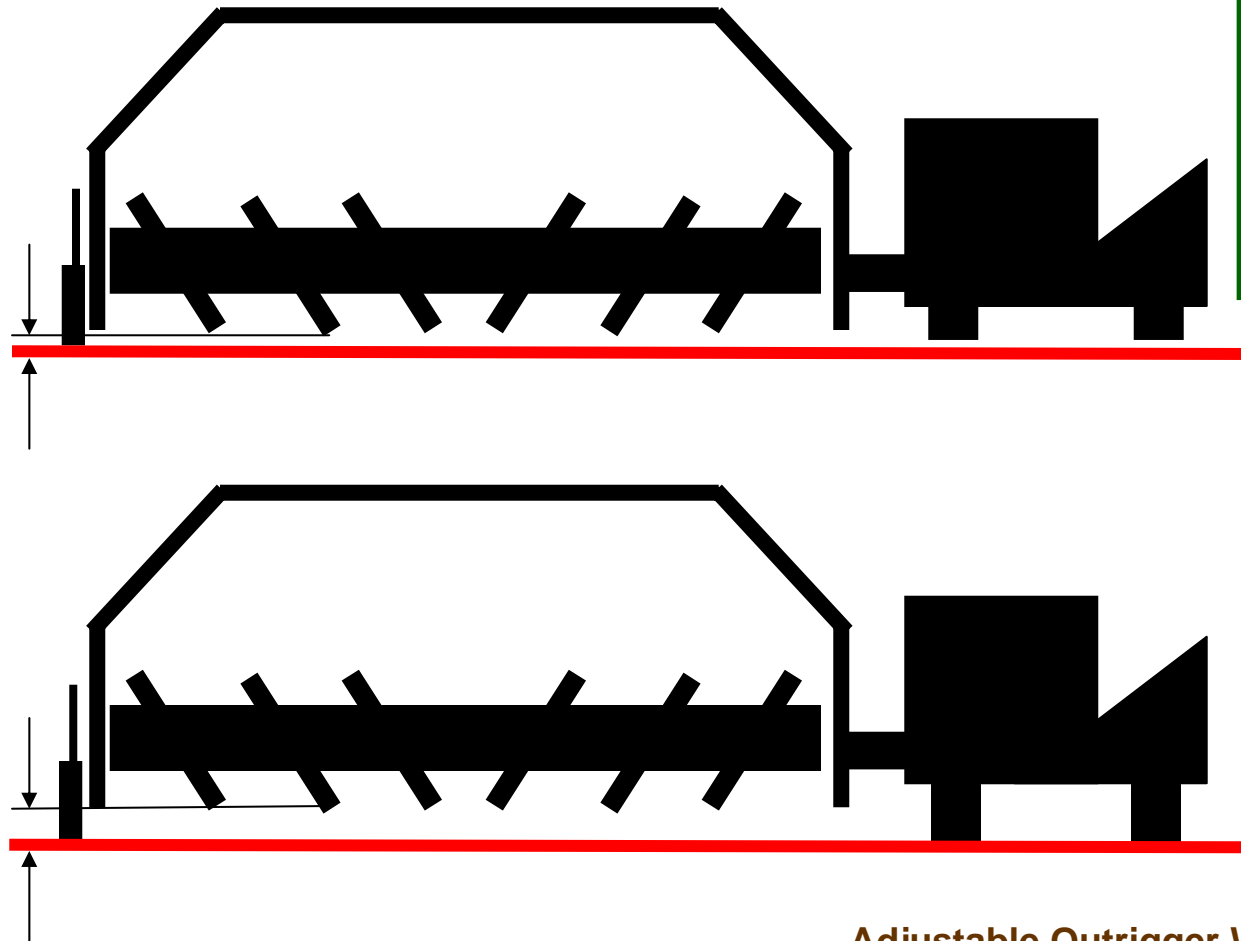


The outboard scoops located on either side of the turner hood gather material outside the turner's stated windrow width, incorporating that material into the windrow.



Drum Height Adjustment

Hydraulically Adjusted Axle



Adjustable Outrigger Wheel





Vertically Adjustable Hitch Keeps Hood Level



To properly aerate a compost windrow, the bottom of the hood must be parallel to the ground.

The hitch can be adjusted vertically 8" in 1" increments. In its current orientation, attaching the hitch block using the next set of holes achieves a 2" vertical adjustment. Turning the hitch block 180° in the same set of holes achieves a 1" vertical adjustment allowing the hood to remain parallel to the ground.



Adjustable Hitch Keeps Hood Level

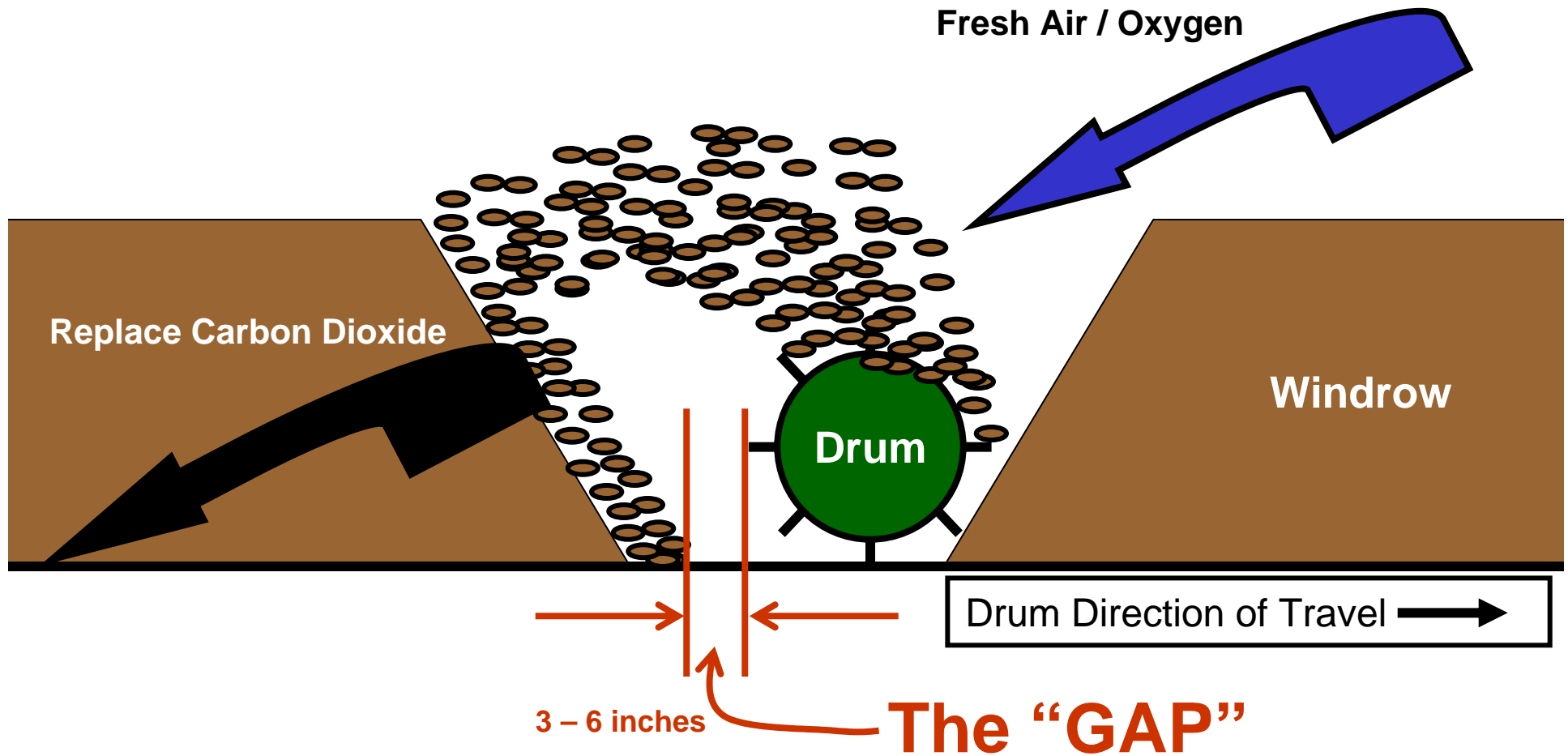


Removable tongue jack makes tractor attachment easy. Jack can be stored on the weight box during operation.





Adjust Ground Speed vs. Drum RPM to Create a “GAP”





Ground Speed and Drum RPM Impact CO₂ Removal Rates

Run Drum @
270-540 PTO RPM



Forward Ground Speed – 20- 35 feet per minute



Hydraulically Retractable Drum

- **Lifts Completely Out of the Row in Seconds for Windrow Inspection**
- **If Bogged Down in a Wet Row, Lift the Drum Out. You Don't Have to Dig It Out**
- **Locks in Place for Safe Transport on Public Roadways**





Safety Lock Pins Insure Turner Remains Vertical During Transport



With the hood in vertical transport position, Aeromaster pull type compost turners can be transported safely from site to site on public roadways.



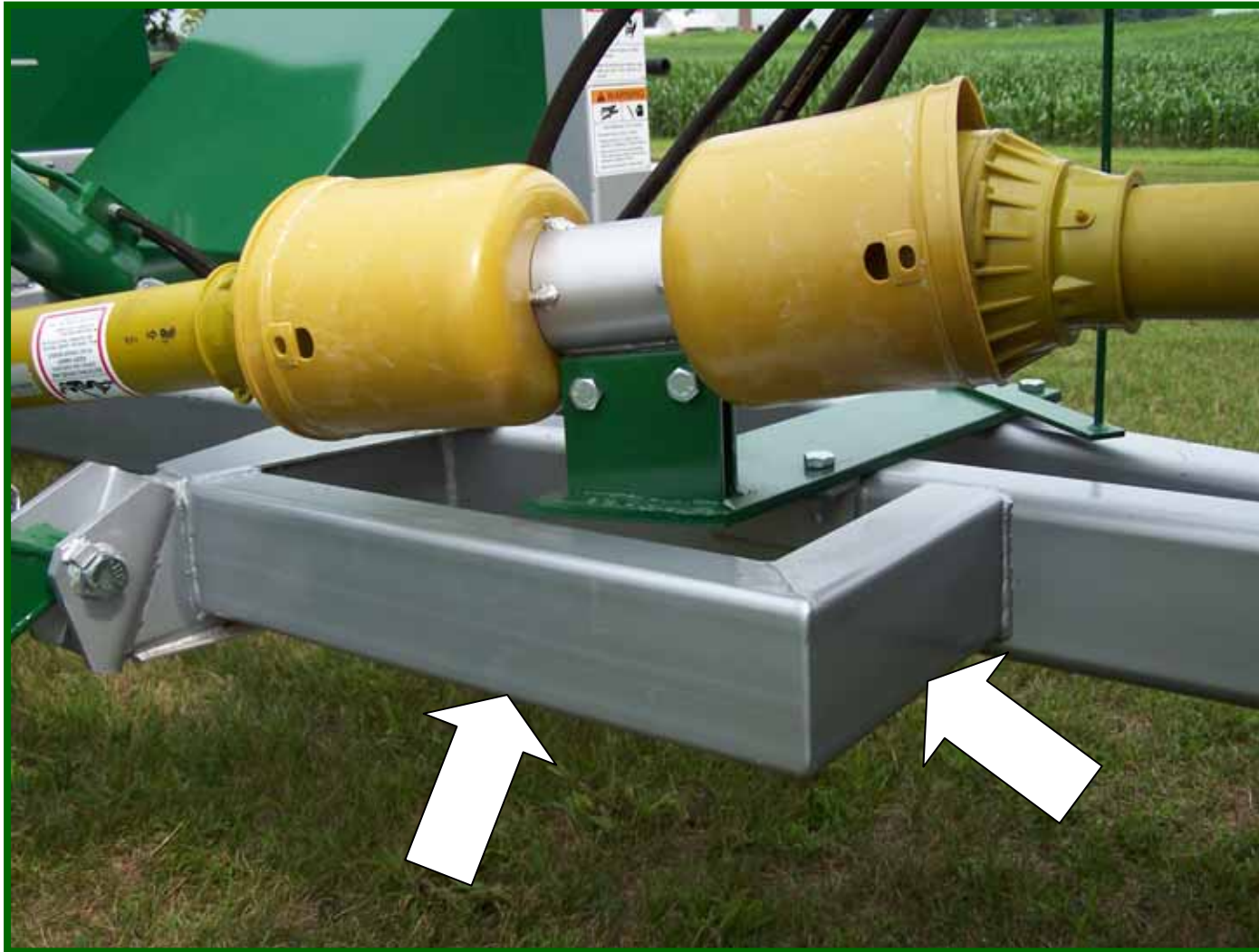
Hood Locked in Vertical Position for Transport



Hood NOT Locked During the Turning Operation



Drive Line Guard



Steel Tube Guard Protects Drive Line in Tight Turns



Aeromaster PT Features



Easy Grip Color Coded Hydraulic Connectors



Large Floatation Tires



**Large Hydraulic Ram Lift
with Safety Valve**



Auto Trip PTO Drive Line



The Auto Trip PTO shaft protects the drive line from excess force by allowing a spring clutch to disengage stopping the transmission of power to the turner drum before any permanent damage is done. Once the condition that caused excess stress on the drive line has been eliminated, the clutch is reset and turning operation resumed.



Aeromaster PT Compost Turner Options

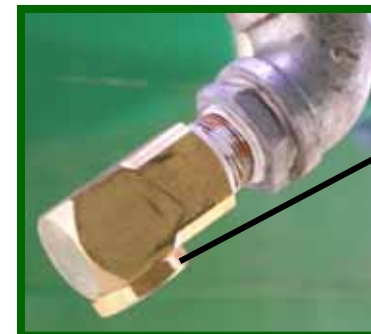
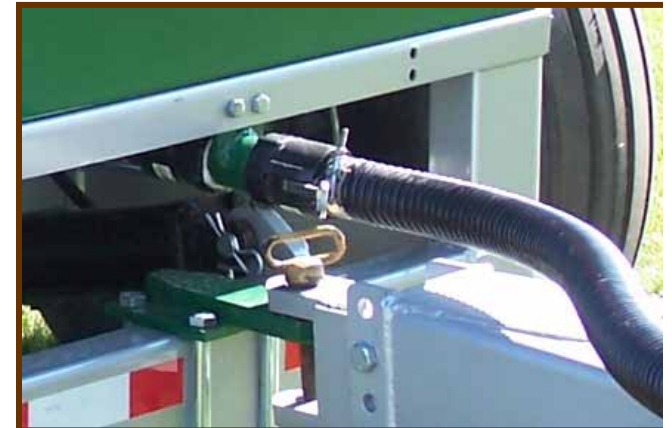
Optional Complete Turner Water System



PT-120 3 Nozzle Configuration



PT-130 5 Nozzle Configuration



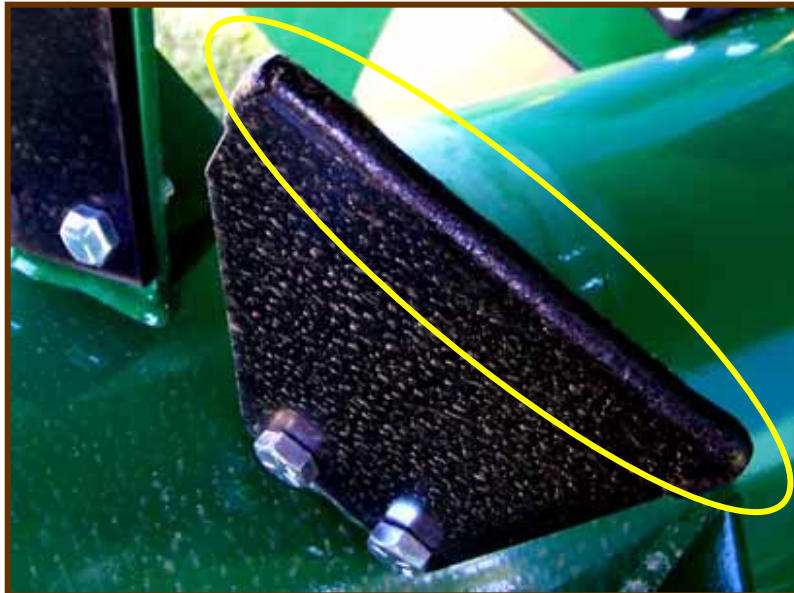
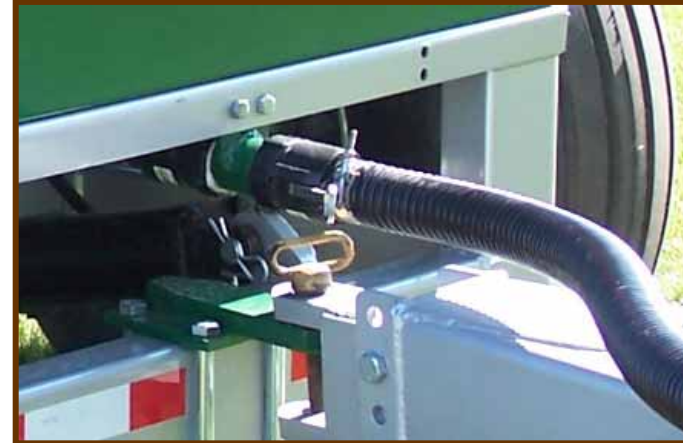
Nozzle Insert

Water Requirements per Nozzle	
Nozzle Insert	gal./ minute
120	24
80	18
60	12
40	5-6



Aeromaster PT Compost Turner Options

Customize your Aeromaster Turner with popular options



Optional AR Hard Face Tines



Optional Rear Hitch



Weight Boxes Provide Ballast for Vertical Lift Capability



Aeromaster pull type turners are shipped standard with empty weight boxes to reduce shipping cost. The weight boxes are filled with concrete at the customer's site (and at customer expense). Optionally, Midwest Bio-Systems can fill the weight boxes before shipment, for an additional charge.

