

## Fan Speed Recommendations

Adequate air volume is necessary at all times to carry the product in the air stream. Air volume can be controlled by adjusting hydraulic oil flow on hydraulic fan drives or adjusting engine speed on engine fan drive models.

Air volume; hence fan speed requirements will vary with:

1. Ground speed
2. Metering rate
3. Number of primary runs
4. Width of machine
5. Density and size of material

Excessive fan speed can cause seed damage, seed bouncing and premature wear of the system.

Generally fan speed is adequate if product flows through the hoses without surging and the hoses empty quickly and evenly when the system shuts down.

The charts on the next page list *suggested fan speeds* for various application rates.

**Note:** The charts should be used only as a guide. If plugging or surging occurs increase the fan speed to eliminate the problem.

**Note:** It is recommended that after a rain or dew the fan be run two to three minutes to expel any moisture in the system.

## Important

Keep fan impeller blades clean at all times.

**Note:** Once fan speed is properly set, be sure to adjust the monitor fan alarm setting accordingly. See Monitor Section “Monitor Programming”.

### Dual Fans

Use application rate of individual air stream to determine fan speed for that air stream.



# Operation

## Fan Speed Recommendations - Continued

Charts are based on a 41 foot machine traveling at 5 mph (8 kph).

<b>17 inch Diameter Impeller Suggested Fan RPM @ 5 mph (8 kph) on a 41 ft unit</b>		
<b>Combined Application Rate</b>	<b>Fan Speed Setting</b>	
	<b>Single Shoot</b>	<b>Double Shoot</b>
3 - 50 lbs/acre 3 - 56 kg/ha	3000 - 3250 RPM	2900 - 3150 RPM
50 - 100 lbs/acre 56 - 112 kg/ha	3250 - 3500 RPM	3150 - 3400 RPM
100 - 150 lbs/acre 112 - 168 kg/ha	3500 - 3750 RPM	3400 - 3650 RPM
150 - 200 lbs/acre 168 - 224 kg/ha	3750 - 4000 RPM	3650 - 3900 RPM
200 - 250 lbs/acre 224 - 280 kg/ha	4000 - 4250 RPM	3900 - 4150 RPM
250 - 300 lbs/acre 280 - 336 kg/ha	4250 - 4500 RPM	4150 - 4400 RPM
300 - 350 lbs/acre 336 - 392 kg/ha	4500 - 4750 RPM	4400 - 4650 RPM
> 350 lbs/acre > 392 kg/ha	4750 - 5000 RPM	4650 - 4900 RPM
<b>Note: Fan Speeds given are when applying product. It is normal for fan speed to drop when not applying product.</b>		

**Note: In a variable rate application set fan speed to match maximum product rate being applied.**

### Dual Fans

**Use application rate of individual air stream to determine fan speed for that air stream.**

## Fan Speed Recommendations - Continued

Charts are based on a 71 foot machine traveling at 4.5 mph (7.2 kph).

<b>17 inch Diameter Impeller Suggested Fan RPM 4.5 mph (7.2 kph) on a 71 ft unit</b>		
<b>Combined Application Rate</b>	<b>Fan Speed Setting</b>	
	<b>Single Shoot</b>	<b>Double Shoot</b>
3 - 50 lbs/acre 3 - 56 kg/ha	3250 - 3500 RPM	3000 - 3250 RPM
50 - 100 lbs/acre 56 - 112 kg/ha	3500 - 3750 RPM	3250 - 3500 RPM
100 - 150 lbs/acre 112 - 168 kg/ha	3750 - 4000 RPM	3500 - 3750 RPM
150 - 200 lbs/acre 168 - 224 kg/ha	4000 - 4250 RPM	3750 - 4000 RPM
200 - 250 lbs/acre 224 - 280 kg/ha	4250 - 4500 RPM	4000 - 4250 RPM
250 - 300 lbs/acre 280 - 336 kg/ha	4500 - 4750 RPM	4250 - 4500 RPM
300 - 350 lbs/acre 336 - 392 kg/ha	4750 - 5000 RPM	4500 - 4750 RPM
> 350 lbs/acre > 392 kg/ha	-	4750 - 5000 RPM
<b>Note: Fan Speeds given are when applying product. It is normal for fan speed to drop when not applying product.</b>		

**Note: In a variable rate application set fan speed to match maximum product rate being applied.**

### Dual Fans

**Use application rate of individual air stream  
to determine fan speed for that air stream.**

# Operation

## Plenum Settings - Continued

### Plenum Damper Settings

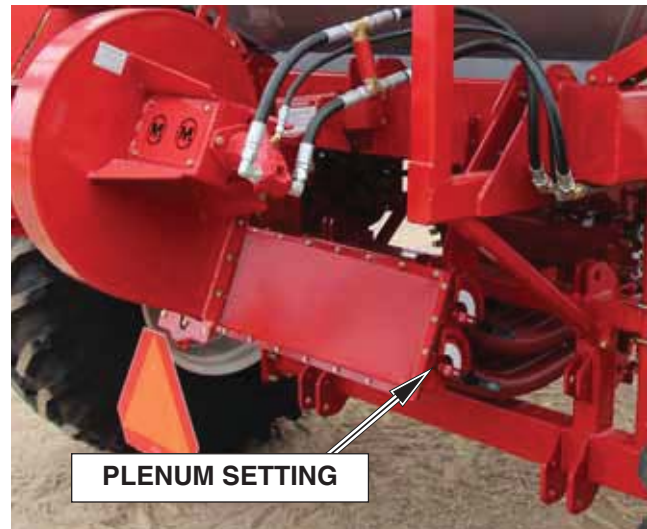
#### 18 Outlet Plenum

Adequate air volume is necessary at all times to carry the product in the air stream. Air volume can be controlled by adjusting the plenum damper settings.

The table below lists initial plenum damper settings for certain products.

**Note: The settings in the table should be used only as a guide.**

- If **fertilizer** plugging or surging occurs **decrease** the seed damper setting to eliminate the problem.
- If **seed** plugging or surging occurs **increase** the seed damper setting to eliminate the problem.



Set Plenum Damper so that setting is in the middle of slot.  
This Damper is set at the 2 position.

Suggested Plenum Settings				
Product	Seed		Fertilizer	
	Rate lb/acre	Damper Setting	Rate lb/acre	Damper Setting
<b>Fine Seeds</b>	All Rates	1	All Rates	Open
<b>Coarse Grains</b>	90 lb (100 kg/ha)	Open	50 lb (56 kg/ha)	2
	90 lb (100 kg/ha)	4	100 lb (112 kg/ha)	Open
	90 lb (100 kg/ha)	3	150 + lb (168 kg/ha)	Open
<b>Large Seeds</b>	180 lb (200 kg/ha)	Open	40 lb (45 kg/ha)	2
<b>Single Shoot</b>	<b>Lower Pipes</b>	- Top Damper Closed - Bottom Damper Open		
	<b>Upper Pipes</b>	- Top Damper Open - Bottom Damper Closed		

**Note: See "Fan Speeds" for Fan RPM.**

