

# CONTROLLER CALIBRATION CHART - GEN I

Row Spacing	Standard Rate	High Output Rate
20 Inch Row Spacing	375 lb/acre	375 lb/acre
22 Inch Row Spacing	341 lb/acre	341 lb/acre
30 Inch Row Spacing	250 lb/acre	250 lb/acre
34 Inch Row Spacing	220 lb/acre	220 lb/acre
36 Inch Row Spacing	208 lb/acre	208 lb/acre
38 Inch Row Spacing	197 lb/acre	197 lb/acre
40 Inch Row Spacing	187 lb/acre	187 lb/acre

	Standard Meter 2 Inch Hose	High Output Meter 2½ Inch Hose
Auger Shaft Speed (RPM)	60	31
Product Density (lb/cu-ft)	62	62
Test Speed (MPH)	5	5
Displacement Per Row (cu-ft/rev)	0.0016	0.0032

## CALIBRATION INFORMATION - GEN I

- Flow Control Valve = PWM Closed  
12 Volt  
110 Hertz
- Meter Control Valve Cal # = 1023 (See Controller manual for fine tuning)
- Meter speed Sensor = Option 1- Raven 5 Volt 36 Pulse (External Mount)  
Option 2- Eaton 12 Volt 60 Pulse (In Hydraulic Motor)
- Auger Drive = 14 tooth #40 drive sprocket (encoder)  
22 tooth #40 driven sprocket (auger)  
1.57 to 1 Ratio
- Meter Speed Sensor Cal # = Option 1 Raven 36 x 1.57 = 56 (pulses per auger revolution)  
Option 2 Eaton 60 x 1.57 = 94 (pulses per auger revolution)
- Low limit/High limit = (Use default setting see controller manual for instructions)  
Auger RPM Standard meter 10 – 130 MAX  
Auger RPM High Output meter 10 -165 MAX
- Tank Capacity = 6 Ton 187 cubic ft. or 150 bushels  
9 Ton 281 cubic ft. or 225 bushels
- Displacement per Row = Standard Meter (2" hoses) 0.0016 Cubic Ft.  
High Output Meter (2 ½" hoses) 0.0032 Cubic Ft.
- CFR (cubic ft / Revolution) = Displacement per Row X Number of Rows = CFR
- Adjust CFR =  $\frac{\text{Actual Rate or Scale weight}}{\text{Desired Rate or Weight displayed on controller}} \times \text{Current CFR} = \text{New CFR Cal\#}$
- Spreader Constant =  $\frac{\text{Meter Speed Sensor Cal\#}}{\text{CFR}} = \text{Spreader Constant}$
- Adjust Spreader Constant =  $\frac{\text{Spreader Constant}}{\text{Actual Rate}} \times \text{Desired Rate} = \text{New Spreader Constant}$

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**Controllers with Automatic Calibration Functions:**

The Montag applicators fan must be running at normal operating pressure when performing automatic calibration functions on a controller such as PWM limits or performing catch tests.

**Typical Controller Calibration for 30 inch Rows:**

Set your product density to 62, your application rate to 250 lbs. / acre, test speed at 5 MPH and run the controller in test mode. The auger shaft should turn 60 RPM for a standard machine and 31 RPM for a High Output machine. If it does not you can raise or lower your CFR # or Spreader Constant # to achieve the proper RPM.

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