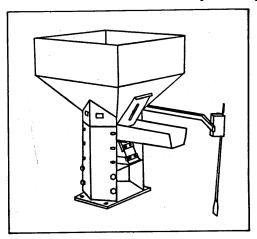


# Service Instructions Syntron® Parts Feeder Machine (PFM)



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#### SAFETY INSTRUCTIONS

Product safety labels must remain highly visible on this equipment. Establish a regular inspection routine to verify visibility. If replacement safety labels are needed, contact Homer City Automation for an additional supply free of charge.

#### **GENERAL DESCRIPTION**

The PFM Supply Hoppers provide bulk storage of parts and controlled feed rates of parts from the hopper. Fabricated from mild steel or stainless steel, units are available in ¼, ½, 1, 2, 3 or 5 cubic foot capacities. The ¼ and ½ cubic foot units use a Syntron® F-T0-C Feeder to convey parts from the hopper. The 1, 2, 3 and 5 cubic foot units use the Model F-010 Feeder. A Syntron® vibrator may be used to assist the parts from the hopper.

The rate of feed is controlled by setting the rheostat knob on the controller. A Syntron<sup>®</sup> flow switch included with the PFM provides automatic control of parts feeding for the 1, 2, 3 and 5 cubic foot units.

For the ½ and ½ cubic foot PFM, a separate flow switch must be ordered.

#### **INSTALLATION**

The PFM, when received, should be carefully uncrated. All packing bands, paper, etc., must be removed.

Inspect the equipment for damage which may have occurred during shipment. If damage is found, notify Homer City Automation and the shipping carrier promptly.



The discharge height of the 1, 2, 3 and 5 cubic foot hoppers is adjustable in 3" increments. Place hopper into position and bolt to floor or base plate using mounting holes provided. (Refer to Figure 1 for outline dimensions). Refer to the separate manuals provided for instructions pertaining to the feeder, vibrator and flow switch. Make this adjustment by removing the column bolts and sliding the inner column on outer column, replace bolts.

Install the controller on a clean, dry wall, free from vibration and as close to the system as possible, where it will receive adequate ventilation.

Connect each piece of equipment to the terminal block in the controller, in accordance with the wiring diagram furnished with the system.



WARNING: The electrical power supply connection to the Homer City Automationsupplied controller must be made through a customer-supplied safety disconnect switch, which must be mounted next to the controller.

#### **OPERATION**





WARNING: Before operating parts feeder machine, make sure controller is closed and secured.

With all installation procedures completed, the system is now ready for operation. Before starting the unit, check all bolts for tightness.

Rotate all control knobs counterclockwise to the zero setting.

If a flow switch has been installed for intermittent operation, adjust it in accordance with the instructions supplied with the flow switch.

Adjust the gate opening to supply the quantity of parts to the feeder trough, as desired.

Close the line switch on the controller to begin operation. The PFM will begin its operation at a very low rate. With the unit running at this low rate, check all mounting hardware for tightness.

Adjust the feeder control knob to give the desired feed rate. Adjust the hopper gate opening, as required, and adjust the vibrator amplitude (if one is included with the hopper) by turning the vibrator control knob until material flows out of the hopper at the required rate. Do not flood the feeder trough.

#### **MAINTENANCE**





WARNING: Before performing any maintenance work, the electrical power supply must be disconnected at the safety disconnect switch.

Periodically check all mounting hardware on the complete assembly for tightness. Instructions for the operation and maintenance of the Parts Feeder, Flow Switch, and Vibrator, if furnished, are included in separate instructions.

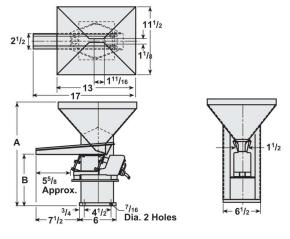


### **TROUBLESHOOTING**

Refer to the separate manuals provided for replacement parts and troubleshooting the Parts Feeder, Vibrator and Flow Switch.

## **Parts Feeder Machines**

1/4 & 1/2 Cubic Foot Capacity



Dimensions in inches

Design	Hopper Capacity	А	В							
Low Frame	<sup>1</sup> / <sub>4</sub> cu. ft <sup>1</sup> / <sub>2</sub> cu. ft.	17 <sup>1</sup> / <sub>2</sub> 20 <sup>1</sup> / <sub>2</sub>	8 <sup>1</sup> / <sub>2</sub> 8 <sup>1</sup> / <sub>2</sub>							
High Frame	<sup>1</sup> / <sub>4</sub> cu. ft. <sup>1</sup> / <sub>2</sub> cu. ft.	23 <sup>1</sup> / <sub>2</sub> 26 <sup>1</sup> / <sub>2</sub>	14 <sup>1</sup> / <sub>2</sub> 14 <sup>1</sup> / <sub>2</sub>							

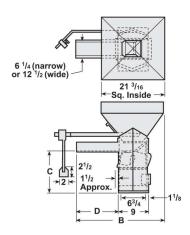
## **Parts Feeder Machines**

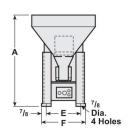
## 1, 2, 3 & 5 Cubic Foot Capacity

Dimensions in inches

Design	Hopper Capacity	A* Adjustable (Narrow or Wide)	В	C* Adjustable Narrow	C* Adjustable Wide	D	E Narrow	E Wide	F Narrow	F Wide
Low Frame	1 cu. ft. 2 cu. ft. 3 cu. ft. 5 cu. ft.	26 to 36 <sup>1</sup> / <sub>2</sub> 29 to 39 <sup>1</sup> / <sub>2</sub> 33 to 43 <sup>1</sup> / <sub>2</sub> 41 to 51 <sup>1</sup> / <sub>2</sub>	27 <sup>3</sup> / <sub>8</sub> or 30 <sup>3</sup> / <sub>8</sub> 27 <sup>3</sup> / <sub>8</sub> or 30 <sup>3</sup> / <sub>8</sub>	12 <sup>1</sup> / <sub>4</sub> to 22 <sup>3</sup> / <sub>4</sub> 12 <sup>1</sup> / <sub>4</sub> to 22 <sup>3</sup> / <sub>4</sub> 12 <sup>1</sup> / <sub>4</sub> to 22 <sup>3</sup> / <sub>4</sub> 12 <sup>1</sup> / <sub>4</sub> to 22 <sup>3</sup> / <sub>4</sub>	12 <sup>1</sup> / <sub>4</sub> to 22 <sup>3</sup> / <sub>4</sub> 12 <sup>1</sup> / <sub>4</sub> to 22 <sup>3</sup> / <sub>4</sub>	12 <sup>1</sup> / <sub>4</sub> or 15 <sup>1</sup> / <sub>4</sub> 12 <sup>1</sup> / <sub>4</sub> or 15 <sup>1</sup> / <sub>4</sub>	12 <sup>1</sup> / <sub>2</sub> 12 <sup>1</sup> / <sub>2</sub>	17 <sup>3</sup> / <sub>4</sub> 17 <sup>3</sup> / <sub>4</sub> 17 <sup>3</sup> / <sub>4</sub> 17 <sup>3</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>8</sub> 14 <sup>1</sup> / <sub>8</sub> 14 <sup>1</sup> / <sub>8</sub> 14 <sup>1</sup> / <sub>8</sub>	19 <sup>3</sup> / <sub>8</sub> 19 <sup>3</sup> / <sub>8</sub> 19 <sup>3</sup> / <sub>8</sub> 19 <sup>3</sup> / <sub>8</sub>
High Frame	1 cu. ft. 2 cu. ft. 3 cu. ft. 5 cu. ft.	36 to 46 <sup>1</sup> / <sub>2</sub> 39 to 49 <sup>1</sup> / <sub>2</sub> 43 to 53 <sup>1</sup> / <sub>2</sub> 51 to 61 <sup>1</sup> / <sub>2</sub>	27 <sup>3</sup> / <sub>8</sub> or 30 <sup>3</sup> / <sub>8</sub> 27 <sup>3</sup> / <sub>8</sub> or 30 <sup>3</sup> / <sub>8</sub>	22 <sup>1</sup> / <sub>4</sub> to 32 <sup>3</sup> / <sub>4</sub> 22 <sup>1</sup> / <sub>4</sub> to 32 <sup>3</sup> / <sub>4</sub> 22 <sup>1</sup> / <sub>4</sub> to 32 <sup>3</sup> / <sub>4</sub> 22 <sup>1</sup> / <sub>4</sub> to 32 <sup>3</sup> / <sub>4</sub>	22 <sup>1</sup> / <sub>4</sub> to 32 <sup>3</sup> / <sub>4</sub> 22 <sup>1</sup> / <sub>4</sub> to 32 <sup>3</sup> / <sub>4</sub>	12 <sup>1</sup> / <sub>4</sub> or 15 <sup>1</sup> / <sub>4</sub> 12 <sup>1</sup> / <sub>4</sub> or 15 <sup>1</sup> / <sub>4</sub>	12 <sup>1</sup> / <sub>2</sub> 12 <sup>1</sup> / <sub>2</sub>	17 <sup>3</sup> / <sub>4</sub> 17 <sup>3</sup> / <sub>4</sub> 17 <sup>3</sup> / <sub>4</sub> 17 <sup>3</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>8</sub> 14 <sup>1</sup> / <sub>8</sub> 14 <sup>1</sup> / <sub>8</sub> 14 <sup>1</sup> / <sub>8</sub>	19 <sup>3</sup> / <sub>8</sub> 19 <sup>3</sup> / <sub>8</sub> 19 <sup>3</sup> / <sub>8</sub> 19 <sup>3</sup> / <sub>8</sub>

<sup>\*</sup>Frames adjusted in 11/2 inch increments







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