

MODEL 5500 SERIES PAN FEEDER HOPPERS

DESCRIPTION

The Pan Feeder Hopper is essentially a stationary bin with a vibratory pan feeder mounted under the bin's discharge funnel. Parts are gravity fed down where they are conveyed to the pan's discharge end. Most often the parts drop off the end of the pan and into devices like the bowl of a vibratory feeder. Pan Feeder Hoppers are both a means of storing parts and a means of delivering them to other devices, often in a controlled manner. The pan feeder section of the Pan Feeder Hopper is powered by an electrically insulated electromagnet. During a portion of the power cycle, electrical power is applied to the to the electromagnet. The electromagnet then pulls on the armature attached to the pan assembly, which is pulled backward and downward. The pan assembly is mounted on leaf type springs which are released by the electromagnet at the end of each power cycle, returning the pan back to its starting position.

This back-and-downward motion (power cycle) combined with the up-and-forward motion (release cycle), causes parts lying on the pan to move forward until they finally begin to drop off the tray. A controller is often used to reduce the amplitude of the pan's vibration, adding a measure of precision to the delivery of parts to the using machine. In common usage are various forms of *delivery-on-demand* sensing and switching devices which are added to the electrical system to signal the need for parts (by the using machine) and to serve as a means of preventing the Pan Feeder Hopper from overfilling the using machine.

APPLICATION NOTES

ADI offers the Pan Feeder Hopper as a convenient way to provide extra parts storage and as a bulk delivery system to keep its line of bowl-style parts feeders filled with parts. Innovative systems designers have expanded the Pan Feeder Hopper's uses to include the random delivery of parts to packaging stations and to the controlled conveying of granular materials (powders). Pan Feeder Hoppers serve any application where a bulk storage requirement is coupled with a need to convey a product to processing equipment.

ADI's version of the *delivery-on-demand* sensing and switching device previously mentioned is the Level Control Switch designated as Model 8650, which is described in a separate product bulletin.

FEATURES

Pan Feeder Hoppers are constructed of 11 and 12 gage sheet metal. Wherever practical, welding is the method of assembling the fabrications. Convenience holes have been located throughout the structure to facilitate mounting, wiring and height adjustments (when using the optional stands). The shape of the pan was designed to keep parts from going over the sides and also to preclude the possibility of parts jamming between the pan and the bin's discharge funnel.

See section on STANDS (on the reverse side) which describes the method for increasing the tray's discharge height above the standard 8 1/2 inch level (19 inches for the Model 5500D).

SPECIFICATIONS

NOTE: Refer to the back side of this sheet for product drawings and dimensions.

Model Number	Capacity (cubic ft.)	Discharge Height (inches)
5500A	2/3	8 1/2
5500B	2	8 1/2
5500C	5	8 1/2
5500D	6	19

ELECTRICAL REQUIREMENTS:

5500x.1 120 Volt AC, 2.50 Amps
5500x.2 240 Volt AC, 1.25 Amps
(x represents A, B, C, or D Series Hopper)

OPTIONAL CONTROLLER:

6000.1 Series 120 Volt AC
6000.2 Series 240 Volt AC