HAMILTON DESIGN

The Hamilton Drum Seeder

How it works:
The drum has galleries along its length which connect to vacuum and pressure sources. Vacuum is applied to the holes, which picks up the seeds and carries them under two air curtains to remove multiple pick-ups. The seeds are then carried round to the discharge position where the vacuum is replaced by low pressure air to discharge the seeds accurately into the tray. Following discharge, a high pressure air blast cleans the holes before the cycle repeats. The drum is driven by a hybrid stepper motor, linked electronically to a speed pick-up on the conveyor. As the tray passes under the seeder it breaks an infra-red beam, which starts the drum rotating in perfect timing with the conveyor belt.

Speed:
Typical sowing rates for a plug tray would be around 700 trays per hour, or 300,000 seeds per hour. Direct sowing into bedding plant packs is also possible at even higher rates. Variable speed is a standard feature.

Versatility:
One of the major advantages of the Hamilton Drum Seeder is that it will sow into virtually any plug tray, seed flat or bedding plant container on the market today. Changing the drum and making adjustments for the tray is remarkably quick and easy.

Drums:
Duplex drums can be manufactured to singe, double or multi-sow in one pass of the tray. The standard 0.3mm hole size will sow a wide range of flower seeds from lobelia up to salvia. 0.5mm holes are required for heavier seed such as brassicas. Each drum can be drilled with two different hole sizes, or for two different tray types. Even unusual hex-trays can be accommodated.

Standard Equipment:
The Drum Seeder is supplied ready-assembled on a heavy duty 2.0 or 2.8 metre aluminium frame conveyor with one drum of your choice. The seeder is fitted with an oscillating seed tray, to ensure constant seed agitation. A tool kit and seed collection vacuum cleaner are also provided.

Power Requirements:
A domestic single-phase electrical supply is required. Machines can be built for either 220-240 volt or 110-120 volt operation. A compressor with an output of 6 cfm (150 l/min) at 60 psi (4 bar) is also required.

Accessories

Roller Dibbler:
The Roller Dibbler is a simple but effective device for dibbling the cells of plug trays prior to seeding. The roller has dibble pegs protruding to produce neat, uniform depressions in the growing media as it rolls over the tray. Roller Dibblers can be manufactured for almost all sizes of plug trays.

Vermiculite Coverer:
This unit provides a quick and accurate method of covering the seeds with vermiculite after sowing. A motorised roller feeds vermiculite through a gate while the plug tray passes underneath the unit. The motor speed and gate are adjustable to vary the depth of covering and grade of vermiculite. The coverer motor is electronically linked to the conveyor to ensure constant covering at different conveyor speeds.

Watering Bar:
Can be fitted to the conveyor to water before or after sowing, with the minimum of run-off. Water flow is fully adjustable.

Tray Vibration Kit:
This kit can be fitted to the oscillating tray to provide extra agitation for irregular shaped seeds.

MaxiPro Model:
The seeder head is available with an extended drum, allowing trays up to 480mm wide to be accommodated. (Standard is 380mm)

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