

EQUIPMENT

Generation of Pesticide Aerosols

A pulse jet heater for the thermal generation of pesticide aerosols has been developed by the Davenco Corp. Basically, the apparatus consists of a pulse jet heater, fuel tank, pesticide or fumigant tank, and a long exhaust tube. The pesticide or fumigant is introduced near the end of the heater exhaust tube where it is temporarily vaporized by the exhaust gases. In contact with the atmosphere, condensation takes place and a toxic aerosol or fog is formed.

The device weighs about 30 lb. including 1.2 qt. of gasoline and 4.7 qt. of insecticide, enough for half an hour's operation. Fog output is about 700 cu. ft. per min. **E1**

Balance with Micrometer Poise

Ohaus Scale Corp. is offering a balance with a micrometer poise, which gives the balance a range of 0.5 to 1000 grams without the use of additional weights. Capacity of the balance is 5000 grams with a sensitivity 0.5 gram. Other features: self-aligning agate bearings, tool-steel knife edges, and Duralumin balance beam. **E2**

Vibrating Screen for Vegetables

A vibrating screen for the food processing industry has been developed by the Link-Belt Co. Known as the Vibro-Clean Screen, the equipment is designed for removal of foreign matter from vegetables and for rapid dewatering without product damage. Dewatering and screening efficiency has been improved by a specially developed screening deck. The screen is available in two sizes, with or without supports. **E3**

Infrared Machine Combines Single- and Double-Beam

A direct, ratio-recording infrared spectrophotometer that can be operated either as a single- or double-beam instrument is now in production by Perkin-Elmer Corp. The manufacturers claim that the instrument combines the versatility of single-beam instruments with the efficiency of double beam spectrophotometers. It is based on the Savitzky-Halford ratio recording system which allows double-beam operation for recording infrared spectra of complex organic compounds directly in transmittancy.

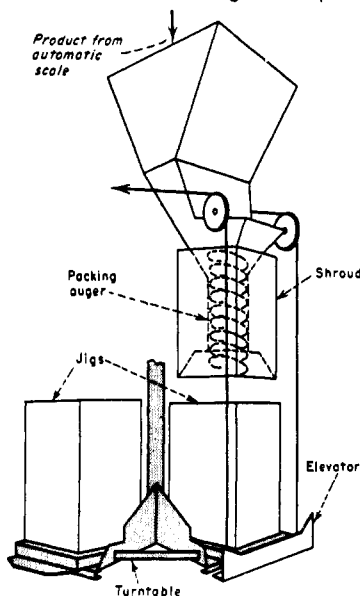
Range of the ratio recording spectrophotometer is 1 to 40 microns with suitable prisms. Resolution is 2 cm^{-1}

at 1000 cm^{-1} . The entire unit is contained in a self-contained mobile console. **E4**

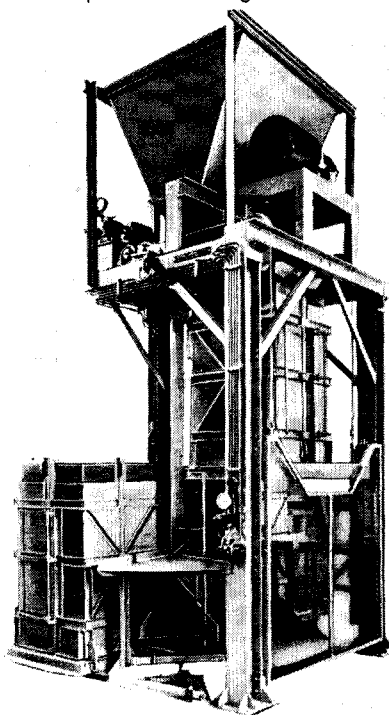
Bulk Packer Weighs and Delivers to 2000-Lb. Boxes

A bulk packer developed by Richardson Scale Co. automatically weighs and delivers bulk chemicals or food products to giant-size cardboard boxes. A two-

Flow of material through bulk packer



Bulk packer showing containers



man crew running the packer can turn out 20 tons of product in 2000-lb. ready-to-ship boxes every hour.

Basic parts of the bulk packer are a hopper scale for weighing the product, a loading hopper, a turntable that holds four $3 \times 3 \times 5$ ft. cardboard boxes and a packing auger. In operation one box is filled while the others are being prepared, strapped, or taken off the turntable. The finished container is supported on the sides by wooden staves.

The cardboard containers, recently designed by Container Corp. of America, may be collapsed and returned to the packer for reuse. Flour miller, for example, can use a carton up to four times. In chemical service, a box could probably be used a good many more times.

Many flour millers are switching to bulk packaging, using mostly plastic rubber, and fiber-board containers, according to Richardson. However, flour can only be dropped into these containers. If flour is to be packed with an auger, use 100- or 200-lb. bags. **E5**

Sanitary Mixer

A high speed sanitary mixer is being distributed by the Cherry-Burrell Corp. The device, called a Norman mixer, is recommended for blending liquids, dissolving powders and the like. Uses include the mixing of such products as yeast, milk, eggs, chemicals, and dehydrated eggs.

The unit similar to the standard laboratory blender is manufactured of stainless steel with capacities from 8 to 75 gal. Mixing action is supplied by a six-fluted agitator driven directly by an electric motor rated at 1750 r.p.m. **E6**

Heat-Sealing Machine

The Pack-Rite Machines Co. has designed a machine for manual or automatic feeding of bags requiring a heat sealed closure. The machine is especially adapted to operations involving different types and sizes of bags, some of which may be bulky or odd shaped and require hand feeding.

Change from manual to auto feeding requires only a change of the stainless steel protective chain guards on the feed-in end of the machine. The sealer is recommended for sealing cellophane, glassine, and also the heavier kraft-backed laminates used for military packaging. Two types of drive are available, fixed and variable speed. Approximate weight of the unit is 135 lb. **E7**

Use coupon, page 105, for further information