Bulletin G-18A

Specific Gravity Separators

for cleaning, separating and classifying raw and finished material

BAUER

Manufactured in India

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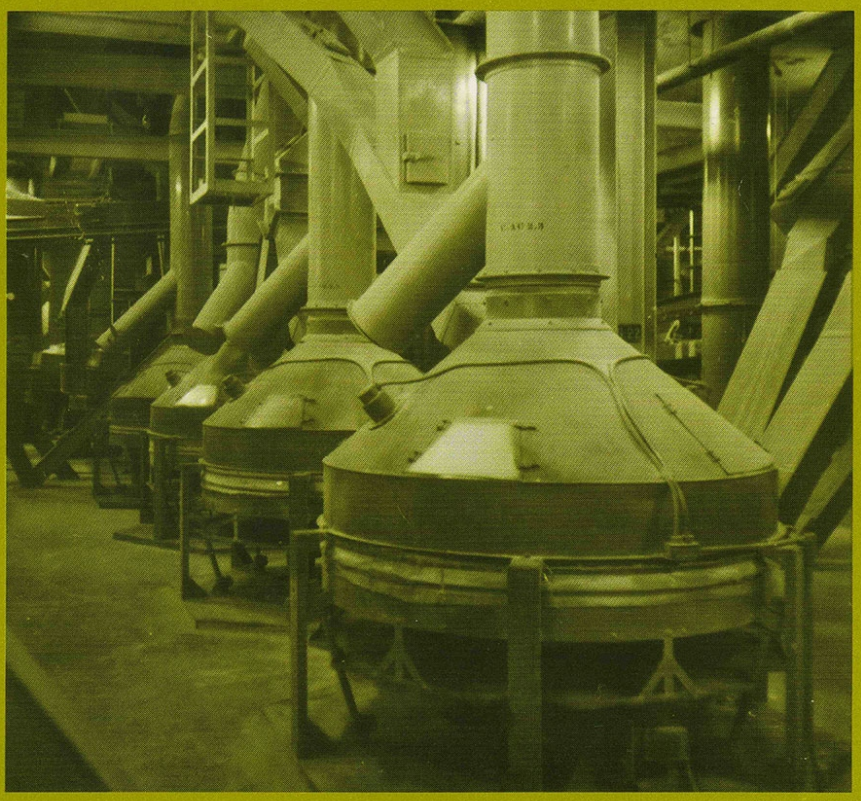


No. 308's in a prominent asbestos plant, removing rock particles, grit, mica and other foreign debris from asbestos fiber.

BAUER SPECIFIC GRAVITY SEPARATORS IMPROVE QUALITY, PROTECT OTHER EQUIPMENT, CONTROL DUST PROBLEM

Bauer Specific Gravity Separators are widely used to separate and classify dry materials of different or varying densities, sizes, consistencies and weights. Separation is attained through a unique mechanical and pneumatic action which accurately removes alien objects, imperfections and impurities, and separates materials according to predetermined specifications.

"Built-in" advantages of Bauer separators include: cleaner end product with higher quality and more sales appeal, protection of other equipment through removal of destructive foreign material, and positive in-plant dust control.

TYPICAL APPLICATIONS

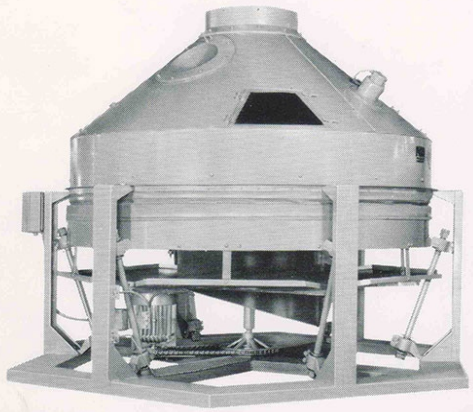
Particle Board Processing—No. 308-5B-72″ is very useful in classifying various wood stock at capacities up to 3 tons/hr. (See back page for photo and additional information.) This unit is also applicable for the removal of heavy contaminating materials.

Asbestos Processing—Nos. 208 and 308-BX units are universally used for removing grit, unopened fiber bundles, blasting wire and other foreign material from Group 3 through Group 7, including floats. Capacities range from 1 to 5 tons/hr.

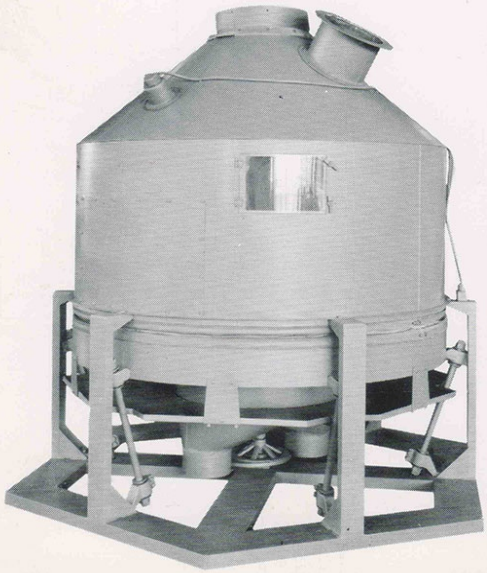
Peanut Cleaning—The No. 208-42″ unit removes sticks, stones, twigs, immature peanuts and other foreign debris from shelled or unshelled stock at 2000 lbs./hr. (Note cross section drawing on opposite page.)

Lead Reclamation—The all stainless steel No. 208-AS-42″ unit has proven very successful in separating lead from crushed battery tops at 2000 lbs./hr. or more.

Miscellaneous—A great many dry, hard to screen materials of similar size but differing in specific gravity are efficiently separated in these Bauer units. Examples of such applications include corn, cocoa beans, soy beans, puffed cereals, corn germ and grit, plastics, scrap insulated wire, cork, flax, and bagasse.



No. 308-1BX as used in the processing of asbestos.



No. 308-5B as used in particle board processing.

GENERAL OPERATING PRINCIPLE

Material to be processed is admitted to the unit through a feed inlet and directed downward to the center where it is deposited on a metal distributor (or rotating disc in some models). This is vibrated in a circular pattern by an eccentric weight. Mechanical impulses of a controlled intensity cause the mass to flow in a rotary direction away from the disc axis, discharging onto a perforated deck or screen. Heavier materials, motivated by these impulses, travel in an inwardly curved path on this deck to the center discharge. Buoyancy, attained by drawing air through the deck perforations and exhausting it from the separator hood, floats lighter materials in outward spirals over the separating rings or direct to side discharge outlets. Dust, lint, chaff and other small light weight particles are carried away by exhaust air to cyclone collectors, dust arresters or other types of recovery equipment. Recirculation of material, common with other types of air flotation equipment, is seldom required.

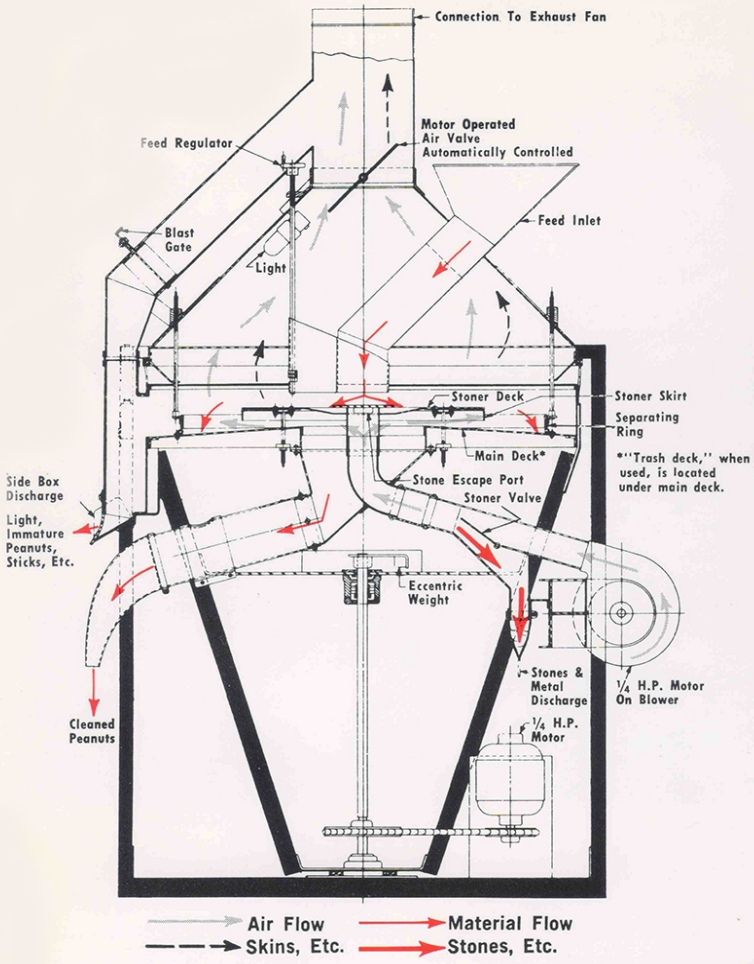
Bauer Specific Gravity Separators were originally developed for cleaning and grading edible nuts and related food products. However, the versatility and efficiency of these separators soon resulted in highly successful applications in numerous other areas of industry. Extensive test and performance data are maintained by Bauer and information relative to the solution of many separation and classification problems is available on request.

Installed singly and in batteries to meet various capacity requirements and production standards, or as a part of a completely integrated plant with specially-designed Bauer auxiliary equipment, these high capacity units are upgrading quality in countless processing operations. Exhausters, drives, cyclone collectors, piping, elevators, magnetic separators, surge bins and other accessory items are optional.

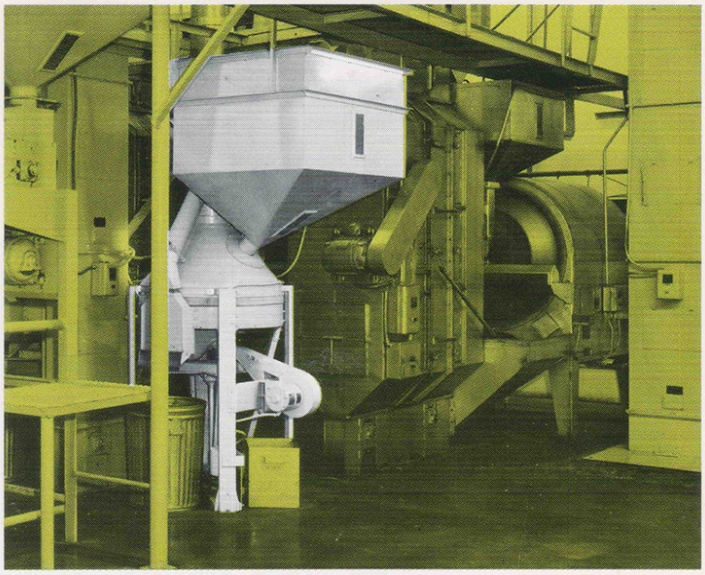
TYPICAL SEPARATOR INSTALLATION

The schematic drawing on the back page shows a single machine installation. Normally, elevation of material to storage tanks or surge bins is accomplished by a bucket type elevator with built-in motor and starter. Material is then gravity fed to the machine. To protect end product quality and to prevent lodging of nails, wire or tramp iron in the perforations of the deck, a permanent non-electric magnetic separator is normally installed in the flow line ahead of the separator.

The separators are designed and constructed to conform to sanitary requirements of the food industry. They operate under suction, hence no dust or minute particles are released into the area. In the 208 series separators, carbon steel or stainless steel construction is available.

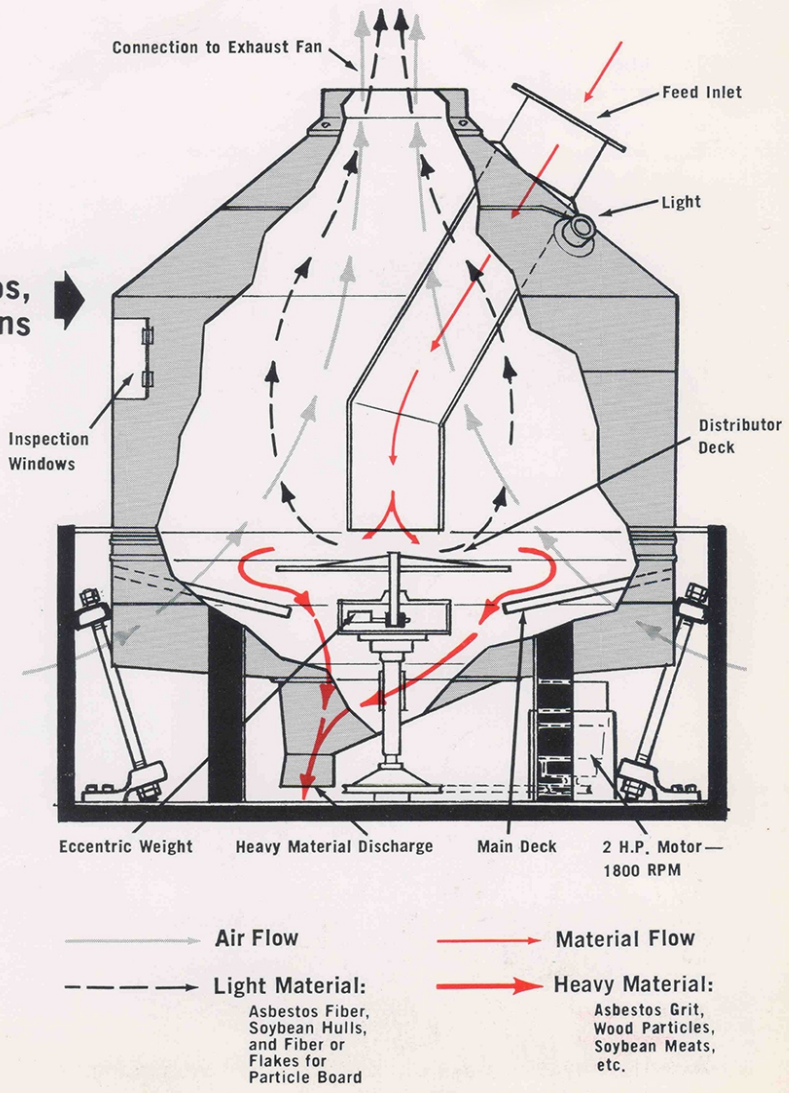


No. 208 as used in peanut processing



Typical installation of a Model 208 in a Bauer integrated peanut butter system in the plant of a nationally-known manufacturer.

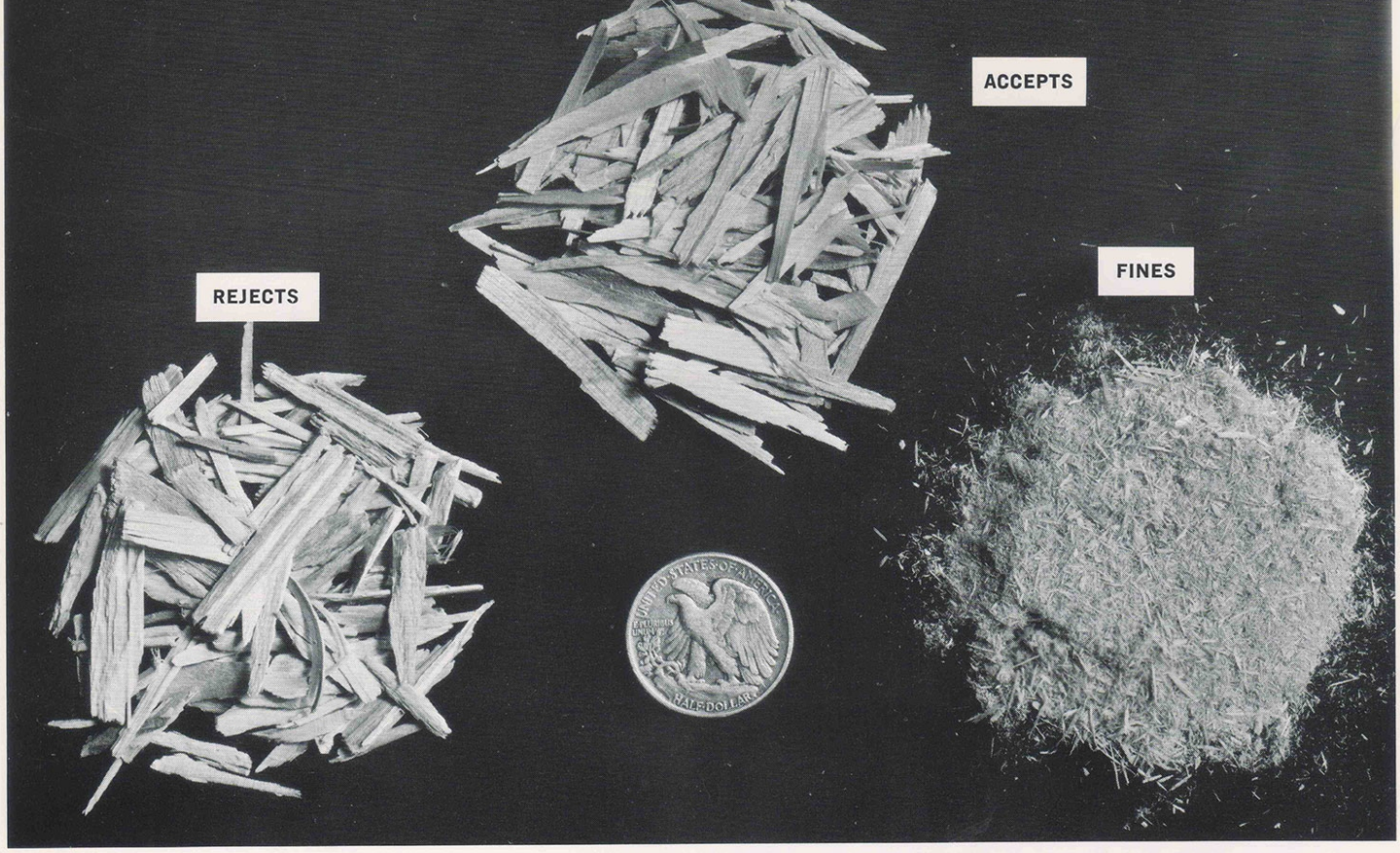
No. 308 as used in processing asbestos, particle board and other similar applications



TYPICAL SPECIFICATIONS

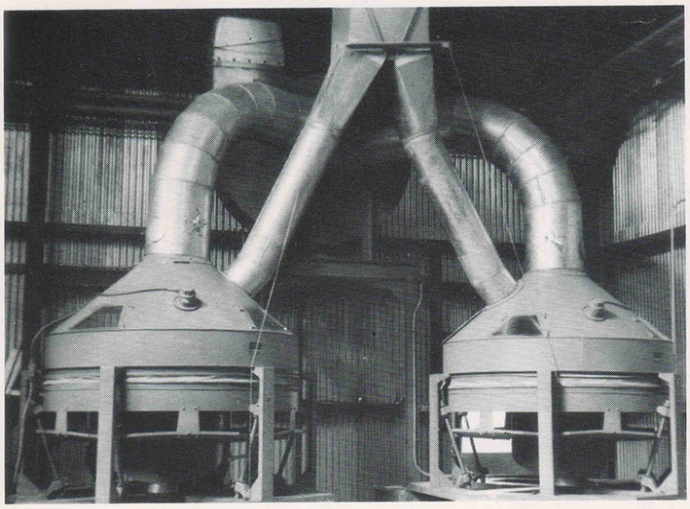
Model No.	Height* (inches)	Diameter (inches)	Feed Inlet Dia. (inches)	Exhauster Conn. Dia. (inches)	Motor HP	Motor RPM	Floor Space (sq. ft.)	Weight Approx. (lbs.)
208-42″	86	42	5	10	¼	1725	12¼	700
208-42″ Extended	98	42	8	13	¾	1725	12¼	700
308-72″	73¾	72	10	18	2	1800	43	1500
308-72″ Extended	94⅜	72	12	18	2	1800	43	1600

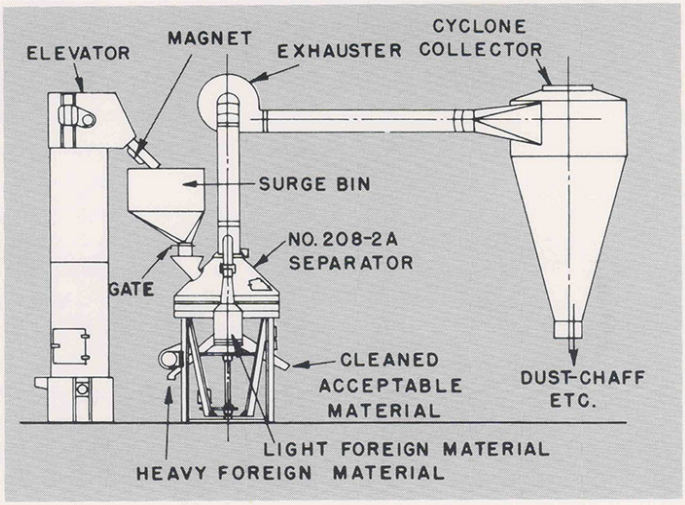
*Overall machine height is measured from floor to top of air outlet. Allow sufficient head room for installation of fan and piping as indicated by size and capacity requirements. Individual drawings will be sent on request.



AN EXAMPLE OF CONTROLLED CLASSIFICATION

The above separation of stock for processed flake board shows the degree of sizing obtainable between acceptable and rejected material with Bauer Specific Gravity Separators. Although barely discernible in the above photo, the rejects in this application are only slightly thicker and heavier than the accepts. In this instance, the fines are routed to another department for use in preparing and finishing particle board surfaces. Photo at lower left shows a typical installation of twin Bauer No. 308 Separators utilized in removing coarse shivy stock and fines from dry wood fiber in a dry process board plant. Diagram below shows a typical industrial installation.





LABORATORY SERVICE

The Bauer Experimental Laboratory is available to clients who desire personal demonstration tests with confidential data regarding their materials. All machines (crushing, grinding, separating, etc.) in the lab are of commercial size so all accumulated processing data can be transferred into commercial practice on a sound engineering basis.
If no data is available on specified materials, test projects can be established to provide the necessary background for evaluating our equipment.
Ask for full details on this service.

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