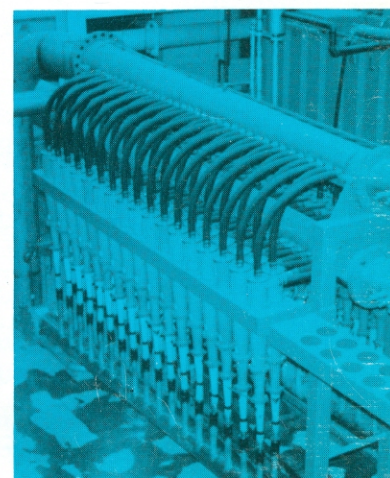
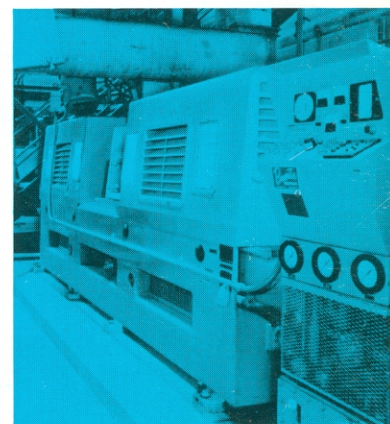
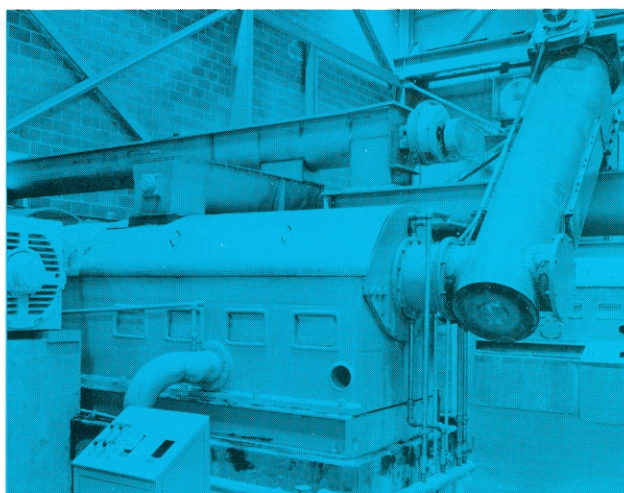


Condensed Catalog

Systems and equipment for

- digestion/extraction ■
- fiberizing/size reduction ■
- fluid expression/impregnation ■
- separation/classification ■
- special processing ■
- laboratory testing ■



BAUER EQUIPMENT FOR FIBERIZING/SIZE REDUCTION

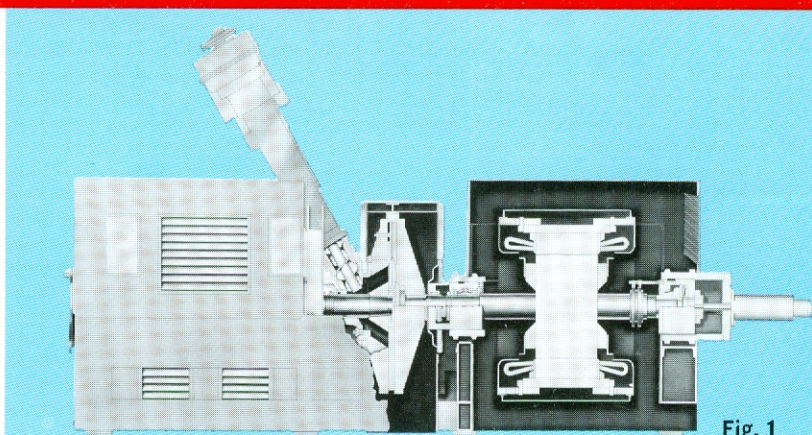
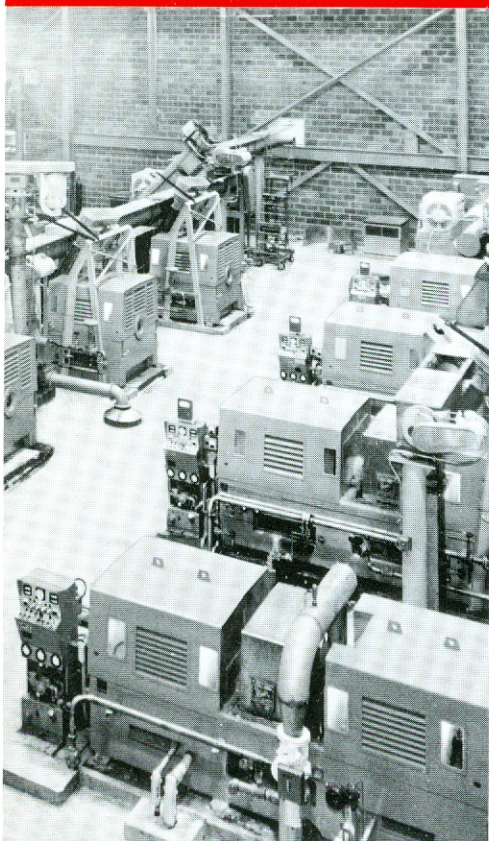


Fig. 1

◀ Bauer double revolving disc refineries in a west coast pulp mill.

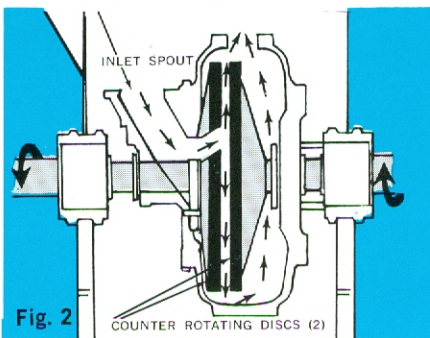


Fig. 2

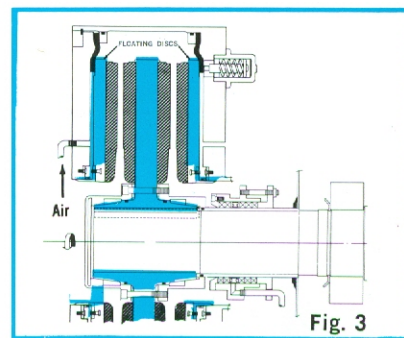


Fig. 3

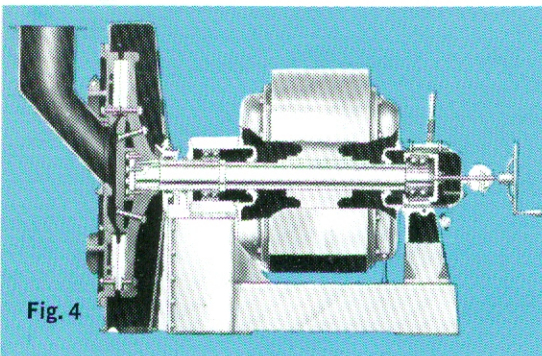


Fig. 4

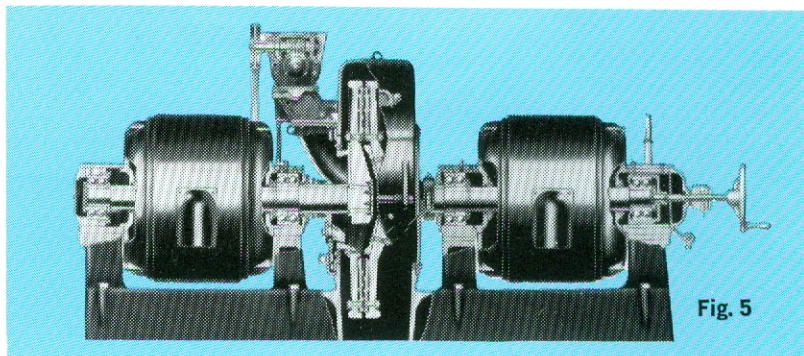


Fig. 5

Double Revolving Disc Refiners — (Fig. 1) — Seven models, 200 to 6,000 HP. Disc diameters, 24" to 52". Provide ultimate fiberizing action. Widely used in pulp preparation and starch refining.

Pressurized Double Revolving Disc Refiners — (Fig. 2) — For high density refining at digester pressures up to 150 psig, and elevated temperatures. 600, 800, 1000 HP at 1200 RPM.

Pump-Through Refiners — (Not shown) — Single disc units. Three sizes, 75 to 1,000 HP. Disc diameters, 24", 32" and 44". Pressurized, high capacity, slow speed units for final stock preparation and dispersion.

Four-Disc Pump-Through Refiners — (Fig. 3) — Versatile units feature floating, self aligning discs. Eight sizes, 15", 18", 24", 28", 32", 36", 44" and 48" diameter; 150 to 3,000 HP.

Single Revolving Disc Refiners — (Fig. 4) — Up to 250 HP, 36" diameter disc. For reducing coarse material when top quality fiberizing is not a "must."

Double Revolving Disc Mills — (Fig. 5) — Two sizes, 24 and 36" diameter discs. Power ratings, 50 to 200 HP.

Single Revolving Disc Mills — (Fig. 4) — Four sizes, 8, 18, 24 and 36" diameter discs. Power range, 20 to 200 HP.

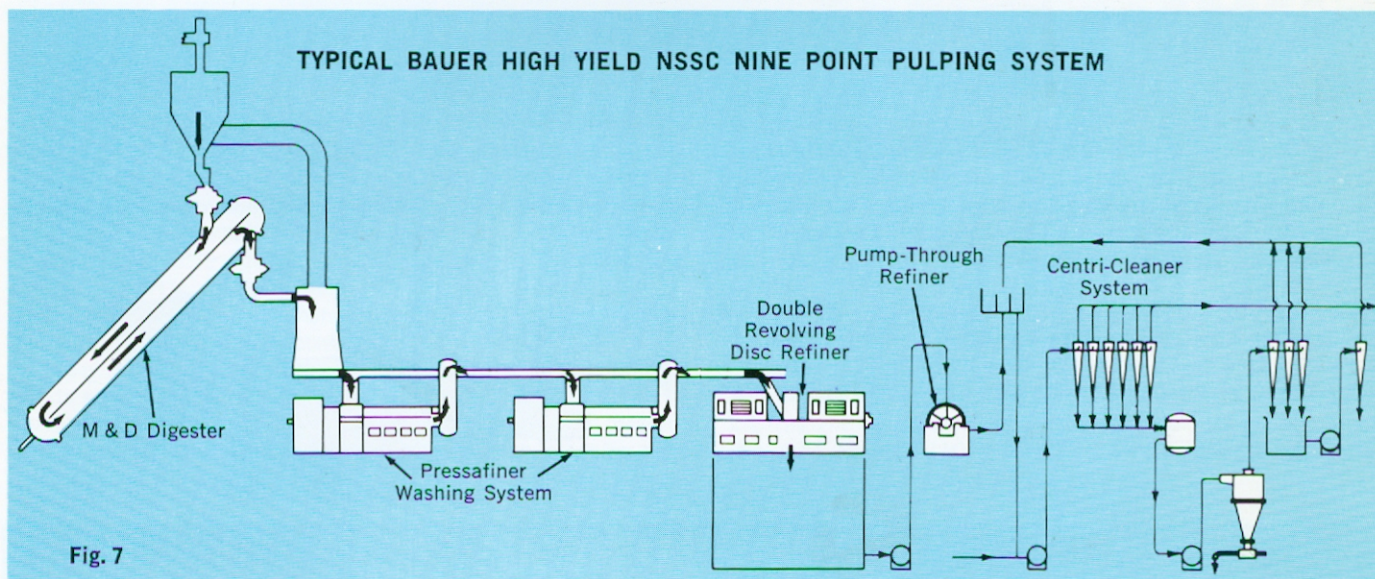
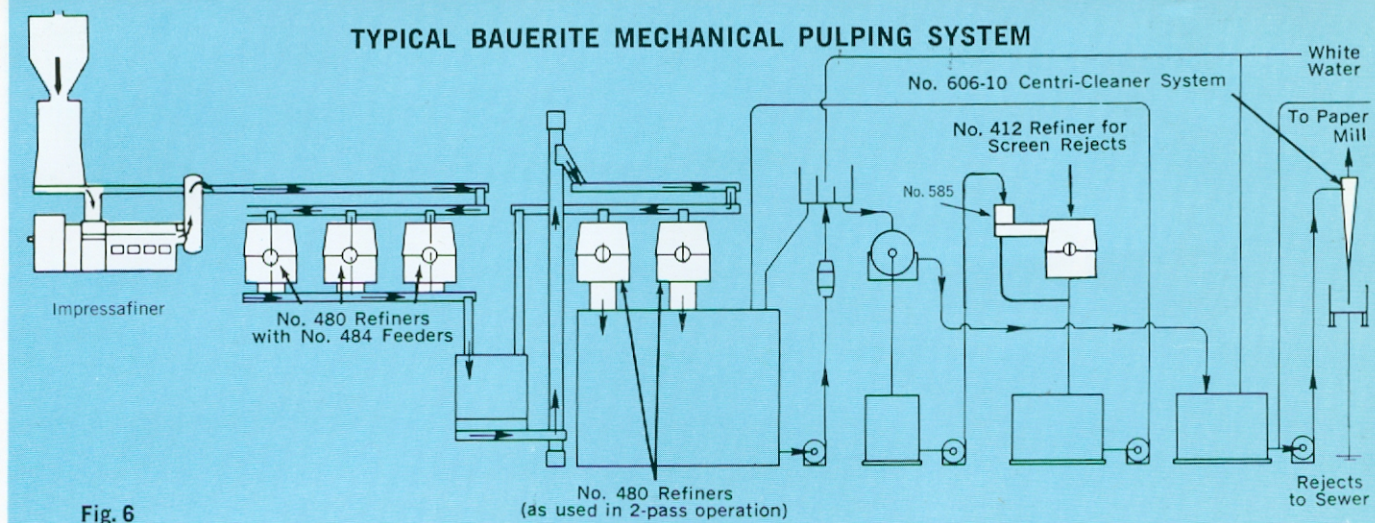
Two designs for "coarse-to-fine" wet or dry reduction. Uses: chemicals, pulp fluffing, asbestos, grain, starch, food, powdered metal, oil seed, and many other industrial grinding applications. Stainless steel construction available.

DISC MACHINE PLATES



Bauer disc machine plates (for 8" to 52" machines) have set quality and performance standards for over half a century. Products of Bauer's highly-automated foundry, they are precision cast to meet industry's most critical production requirements. Over 250 designs in current use, in many alloys. Three basic types: Flat, Waveline, and Devil Tooth. For specific information ask your Bauer representative for Bulletin G-19.

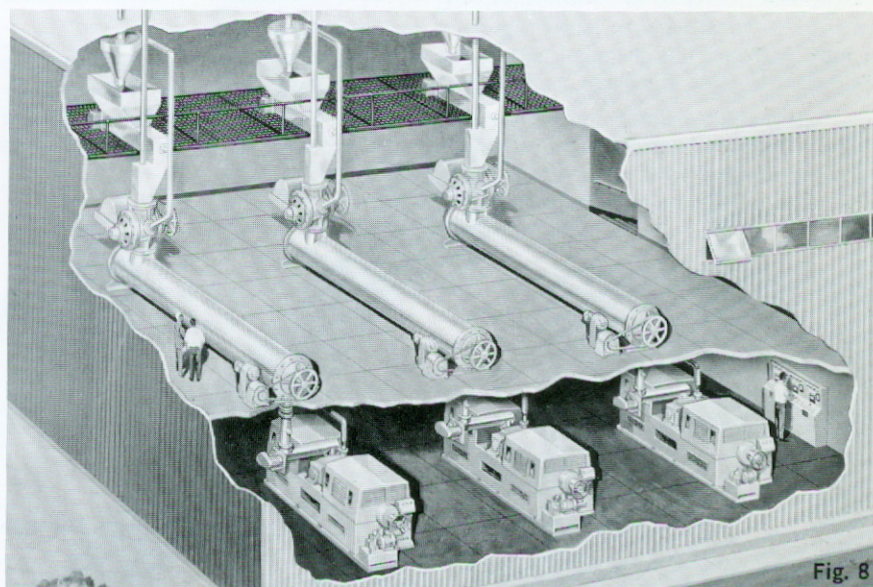
BAUER SPECIALIZED PULP EQUIPMENT/SYSTEMS



Bauer digesters, screw presses, refiners, cleaners, and auxiliary equipment are used throughout the world in the pulp and board industry.

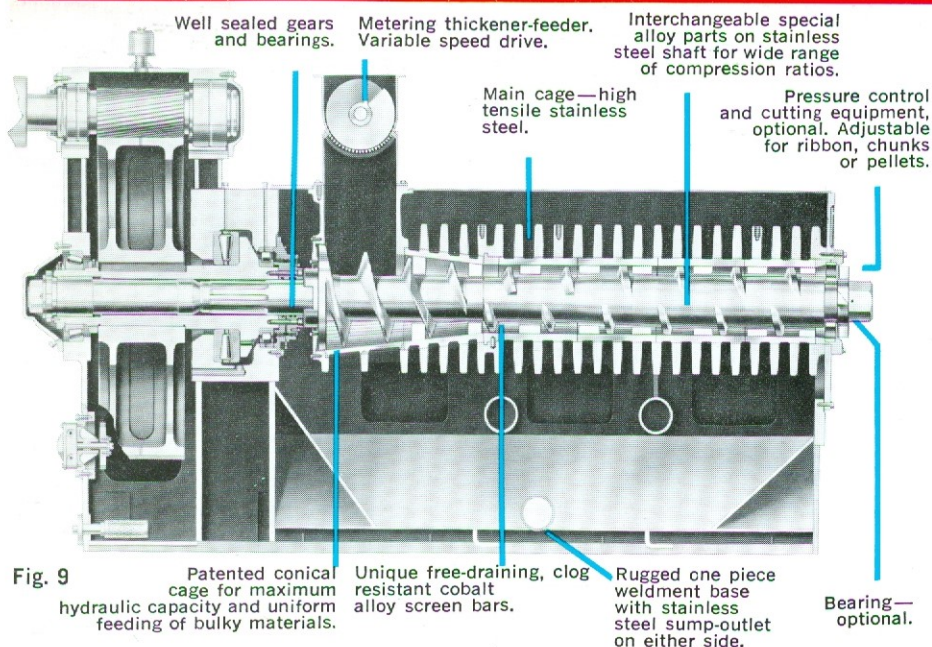
Bauer pioneering in pulp preparation methods has led to many of this industry's technological advancements. These include Bauerite mechanical and chemi-mechanical groundwood process systems, continuous pulping of sawdust and/or chips, HCR pulp refining process, Bauer-Bale, and other high yield systems.

AT RIGHT — (Fig. 8) — Artist's conception of typical multiple unit system consisting of No. 418 pressurized double revolving disc refiners and digesters.



Detailed bulletins available on all Bauer equipment shown on these pages

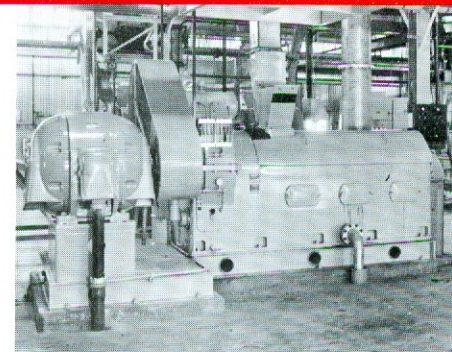
BAUER EQUIPMENT FOR FLUID EXPRESSION/IMPREGNATION



Pressafiner®—Patented screw press (Fig. 9) for continuous, high pressure dewatering or thickening of cellulosic pulps, rubber slurries, and many medium or high-moisture fibrous materials. It permits substantial economies in chemical recovery systems and aids in elimination of stream pollution problems. Six sizes available, including a laboratory or pilot plant model, 20 to 1000 HP.

Helipress®—(Fig. 10)—Unique counter-rotating, intermeshing screw press conveys, mixes and dewater or thickens, under low-to-medium pressure, fibrous materials that are excessively wet. Facilitates handling, drying or disposal. Power used, up to 25 HP.

Impressafiner®—For fast, uniform, continuous, mechanical impregnation of fibrous materials, such as wood chips. Screw press action exerts pressures to 10,000 psi...softens, heats, partially fiberizes...removes air, excess moisture, resinous materials. Instant expansion of compressed materials while submerged in impregnating liquor provides maximum impregnation.



Auxiliary Dewatering Devices: For preliminary dewatering of very low consistency slurries ahead of the Helipress or Pressafiner, Bauer offers several types of thickening equipment. The Hydrasieve, a unique, inexpensive stationary dewatering screen is well suited for removing free water. Several sizes of screw type metering feeders with drainage for gravity or extremely low pressure fluid removal are available.



DIGESTERS/EXTRACTORS

A complete line for batch or continuous processing. Diagrammed here are the three types of Bauer Digesters, most commonly used in high yield and full chemical pulp processing but being found applicable to other processes, such as those involving extraction.

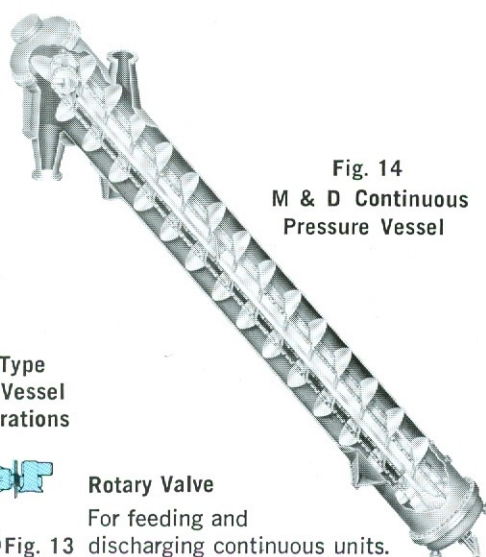
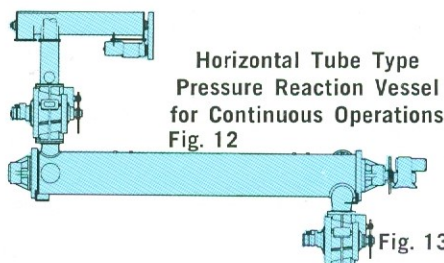
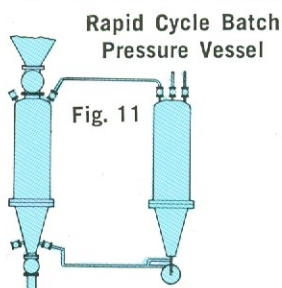
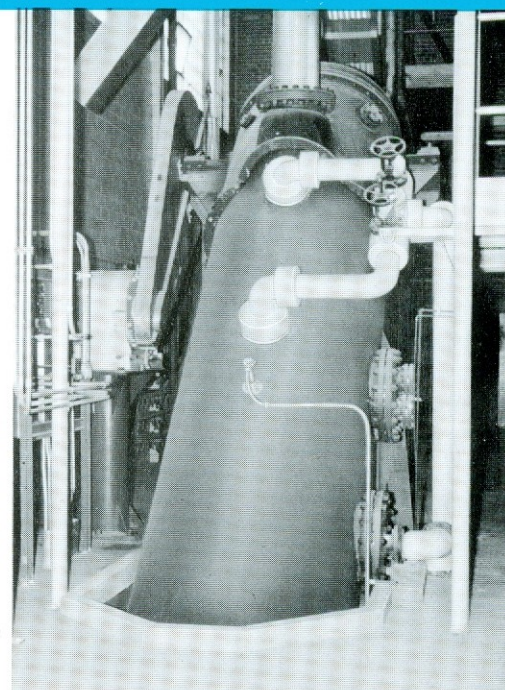


Fig. 14
M & D Continuous Pressure Vessel

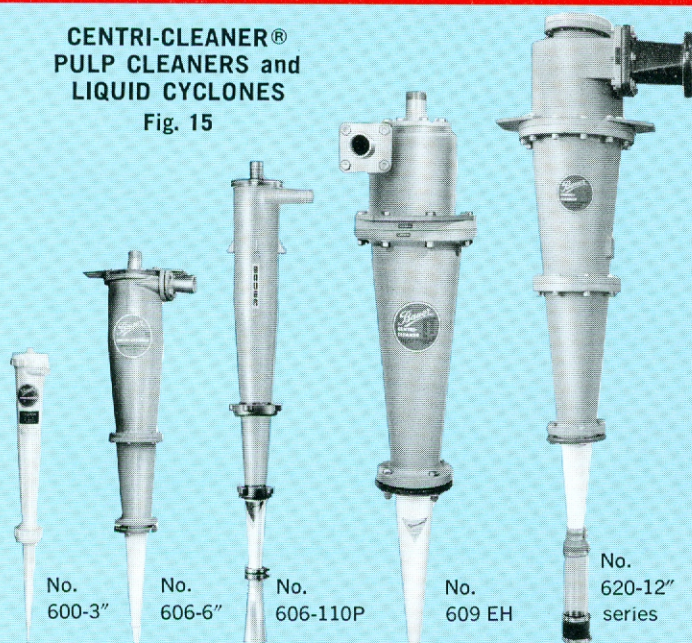


M & D Digester installed in a pulp mill.

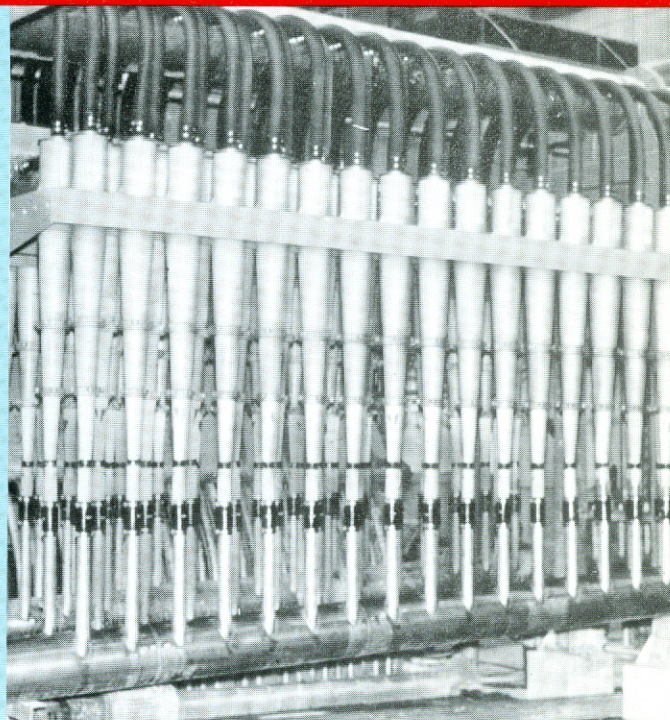
BAUER EQUIPMENT FOR SEPARATION/CLASSIFICATION

CENTRI-CLEANER® PULP CLEANERS and LIQUID CYCLONES

Fig. 15



Typical installation of No. 606-110P Centri-Cleaners in a fine paper mill. ▶



(Fig. 15) Patented Centri-Cleaner® centrifugal cleaners (liquid cyclones) were developed originally to meet the strict quality requirements of the pulp and paper industry.

Because of their unique efficiency in removing suspended solids, or "dirt" ... ranging from tiny, lightweight specks up to gross objects ... Bauer cleaners quickly established new, revolutionary standards of quality control in pulp, paper and board mills.

Today, these liquid cyclones are used in countless liquids/solids separation operations in many industries.

A few uses include removal of suspended materials, both organic and inorganic; continuous decanting, fractionation; cleaning process water or fluids; and protecting cooling towers, heat exchangers,

boilers, etc., by removing scale, sand and other foreign matter from water systems.

Recovery of usable solids ... such as rubber fines ... from slurries or effluent is an important use, as is the desilting of drilling muds in the oil industry.

To assist in pollution control, many plants use Bauer liquid cyclones to remove solids in waste water treatment systems.

Bauer Centri-Cleaners or liquid cyclones are available in sizes and capacities ranging from 20 GPM to more than 6,000 GPM. Lightweight nylon construction is optional on certain models (No. 600, No. 606-110P). Wear resistant ceramic cone sections are optional, for highly abrasive conditions.

DEWATERING/THICKENING

Hydrasieve—(Fig. 16)—A simple, highly efficient, low cost dewatering device. It is used as a thickener and classifier for the pulp industry and in a wide range of dewatering and fractionating operations in sewage treatment, food and chemical processing, meat packing, textiles and other industries.

The Hydrasieve has no moving parts, requires no motor, and is available in five sizes for flow rates up to one million gallons per day. It can be used singly or arranged in a compact, multi unit system. All parts, including the support frame, are made of 316 stainless steel. The self cleaning sieve section is a one-piece assembly of specially shaped traverse bars with three distinct slopes and is readily replaceable. Bar profiles with slot widths of .005 inches to .100 inches are available as standard items.

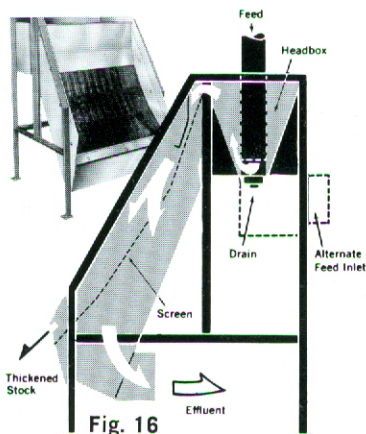


Fig. 16

COOLANT CLARIFICATION

Clarifiers—(Fig. 17)—Unique clarifier, designed around patented Centri-Cleaner® units, removes solids from industrial fluids and coolants such as used in various machine shop operations. Clarifiers remove swarf, chips and other solid contaminants ranging in size from turnings to all particles greater than 10 microns in size. When thus cleaned, coolant lasts longer, helps improve finish and extends tool or wheel life.

The Clarifier is a compact, ready-to-install package including reservoir, pump, headers, and all electrical components. Sizes range from 22 GPM to 500 GPM capacity, with both dragout and non-dragout models available. Units require no filter media, eliminate heavy manual labor. They can operate continuously without supervision. Bauer Clarifiers meet all automotive industry electrical specifications.

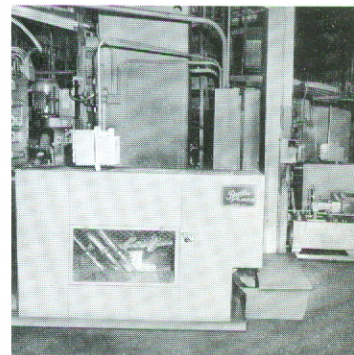


Fig. 17

BAUER EQUIPMENT FOR PULVERIZATION/SEPARATION/CLASSIFICATION

HURRICANE PULVERIZER-CLASSIFIER

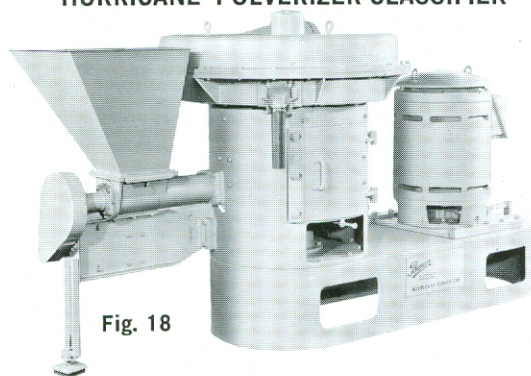


Fig. 18

Air attrition mill with internal classifier provides superfine particle reduction and accurate classification. Fig. 19 shows complete Hurricane system. Two sizes: No. 724 with 60-75 HP, and No. 730 with 100-150 HP.

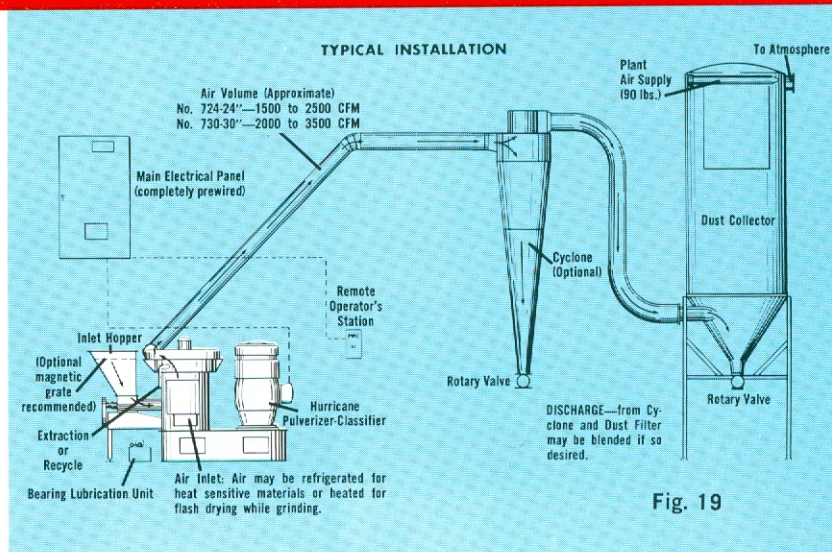


Fig. 19

Bauer Hurricane's three-in-one action saves time, labor, space and power. Sharp classifying is accomplished *during* the pulverizing pass. As optional feature in many applications, **Hurricane extracts impurities to upgrade quality.** Particle reduction is

uniform to average fineness desired in 150 to below one micron range. Designed for high capacity sub sieve processing of a wide variety of dry, friable materials. Supplied with specially designed control system to start and automatically regulate load.

Typical applications of Hurricane: Metallic and non-metallic minerals such as asbestos, clay, bentonite, natural earth pigments, talc, diatomaceous earth, mineral oxides, polishing rouges, etc.

Dry, friable chemicals, pigments, fillers, resins, plastics, ceramics, pharmaceuticals, ingredients for insecticides, etc.

For confectionery coatings, the Hurricane is used for superfine grinding, mixing, fluidizing and air conveying of sugar, cocoa, dry milk solids, and similar ingredients to the range of 40 microns or below, to enhance blending and improve quality. These ingredients can be pulverized separately or in combined formulation.

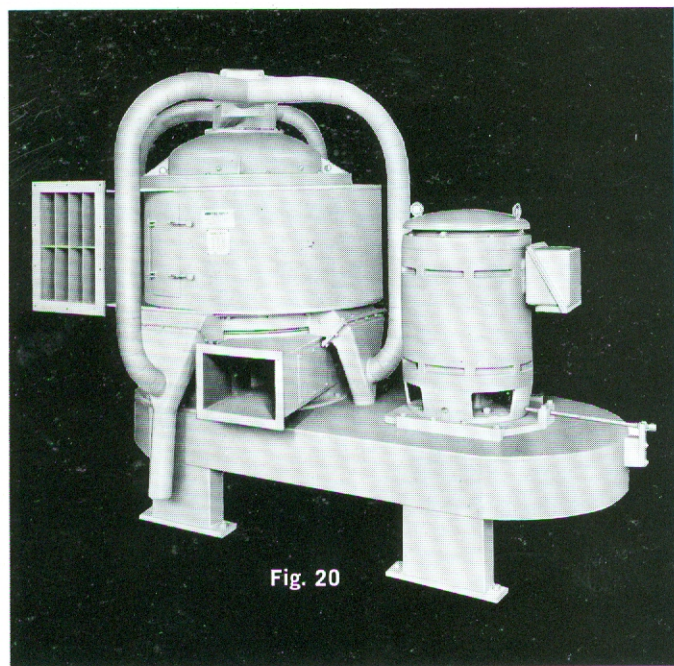


Fig. 20

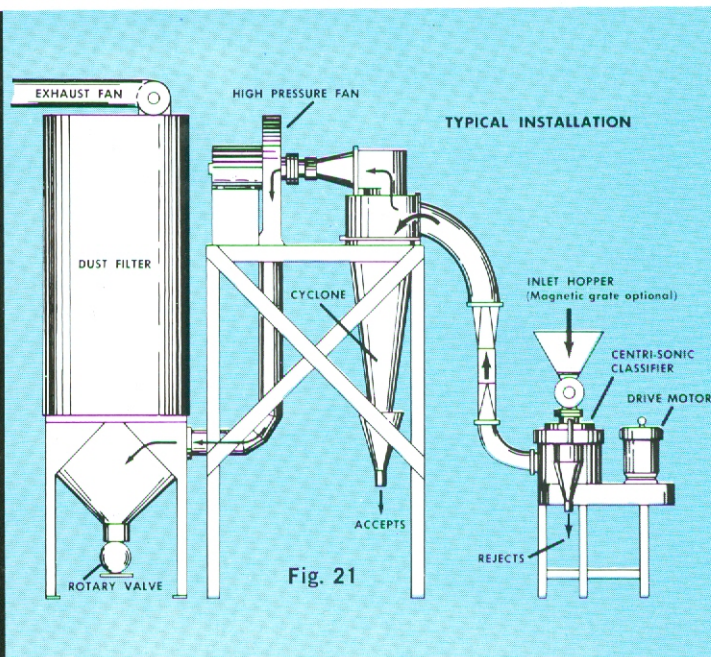


Fig. 21

Centri-Sonic Classifier—This compact, highly-efficient, economically-operated centripetal classifier (Figs. 20 and 21) is available in three models, with capacities ranging from 100 lbs. to 10 tons per hour. Provides sharp "one-pass" classification of almost any dry, finely-powdered material in the low micron range. Material is separated into two sharply defined fractions, above and below a desired particle size in the sub sieve range of 200 mesh,

or finer. The rotor disintegrates incoming agglomerations and thoroughly aerates and fluidizes material as it enters the classification chamber.

Typical applications include clay, chemicals, cocoa, drugs, dyes, fillers, flour, insecticides, limestone, metal powder, pigments, pharmaceuticals, powdered resin, salts, talc, wood flour, etc. Bauer supplies complete systems as above.

BAUER EQUIPMENT FOR SEPARATION/CLASSIFICATION/SIZE REDUCTION

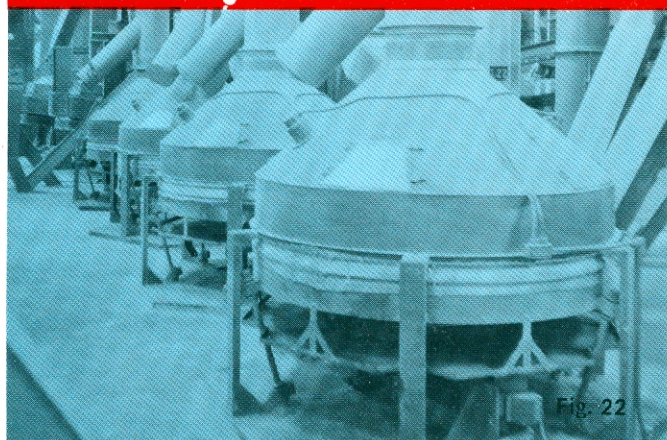


Fig. 22

SPECIFIC GRAVITY SEPARATORS

Three sizes—36", 42" and 72" with many modifications. Used to clean, separate or classify dry materials of different or varying densities, sizes, consistencies and weights. Pneumatic and mechanical action accurately removes alien objects, imperfections and impurities, and sorts material according to predetermined specifications. Typical applications include asbestos, raw or roasted and 'shelled and unshelled peanuts, shelled corn, oil bearing seeds, cocoa beans, soy beans, corn germs and grits, nut meats, puffed cereals, flax, cork, fibers, bagasse, wire trimmings, wood chips and flakes, and many other industrial products.

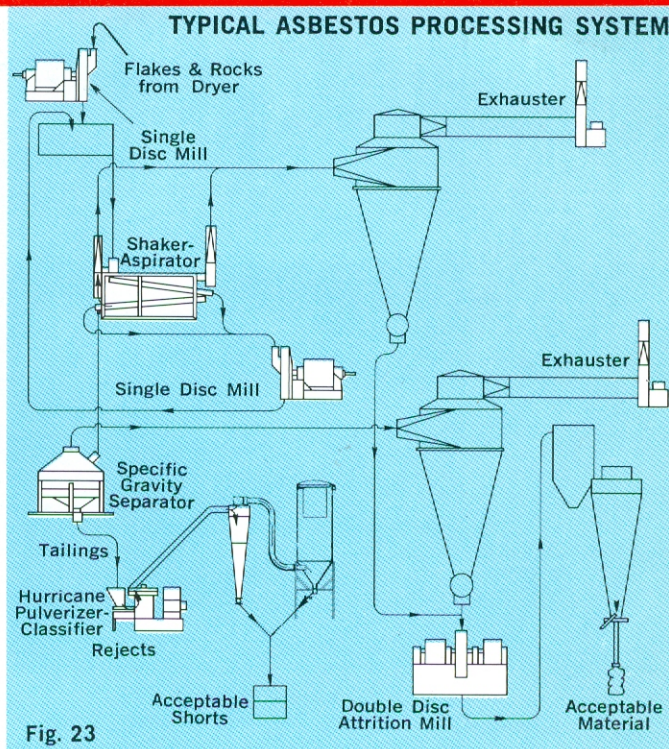


Fig. 23

SINGLE/DOUBLE SHAFT CRUSHERS

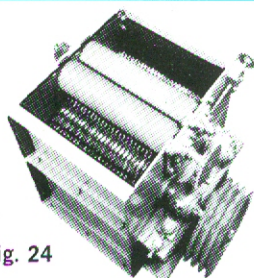


Fig. 24

Crusher-Shredders versatile, heavy duty No. 7-AB (Fig. 24) with 18" or 35" openings. Ideal for crushing, breaking or shredding where a minimum of fines is desired.

ALSO: Single shaft No. 249-CS crusher in 15" and 27" inlet sizes and double shaft No. 249-C with 21" wide inlet.

BREAKERS: Swing hammer type in 60, 100 and 150 HP sizes, for dry size reduction of wood chips and many friable materials of chunky or semi-solid nature. Heavy duty construction. Heat treated alloy steel hammers. Renewable breaker bars.

SHAKERS AND SCREENS

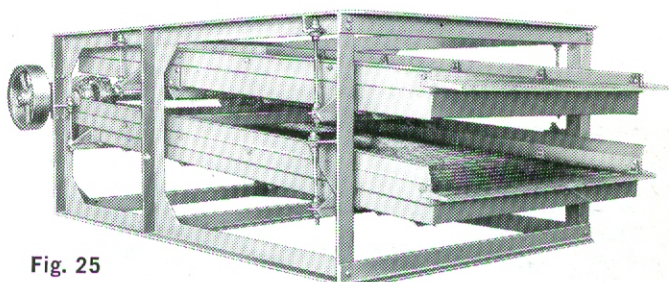
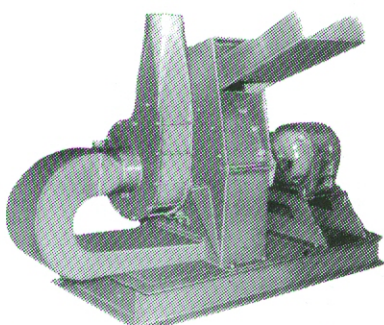


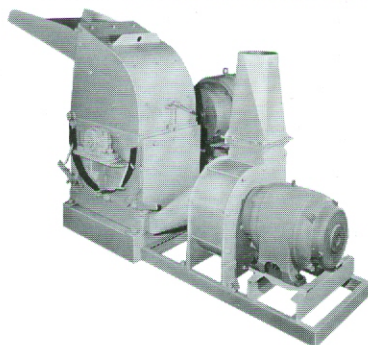
Fig. 25

Single and double series (parallel arrangement available) (Fig. 25). Twelve models, three sizes. Trays 36, 48 and 60" wide. This rigid, all steel equipment is widely used to clean, sift, and/or classify dry materials. Aspirator hoods optional. A great variety of screens are available from Bauer stock.

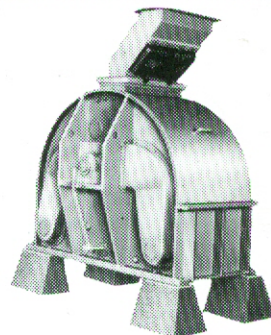
HEAVY DUTY HAMMER MILLS



SB Series—(Fig. 26)—Four models with 13, 16, 20 and 24" width single screens. Direct drive: 30-150 HP ratings.



TB Series—(Fig. 27)—Ten models with 16, 20 and 24" width twin screens. Fans and main drive each have own direct coupled motor. Forty to 150 HP on main drive, plus up to 40 HP on blower. Belt drives available too.



No. 406—(Fig. 28)—Reversible, top capacity model. Low, 1150 to 1750 rpm. Dual screens (total of 2,200 square inches). Two 12 x 25½" bottom discharge ports.

BAUER SPECIALIZED EQUIPMENT/SYSTEMS FOR FOOD PROCESSING

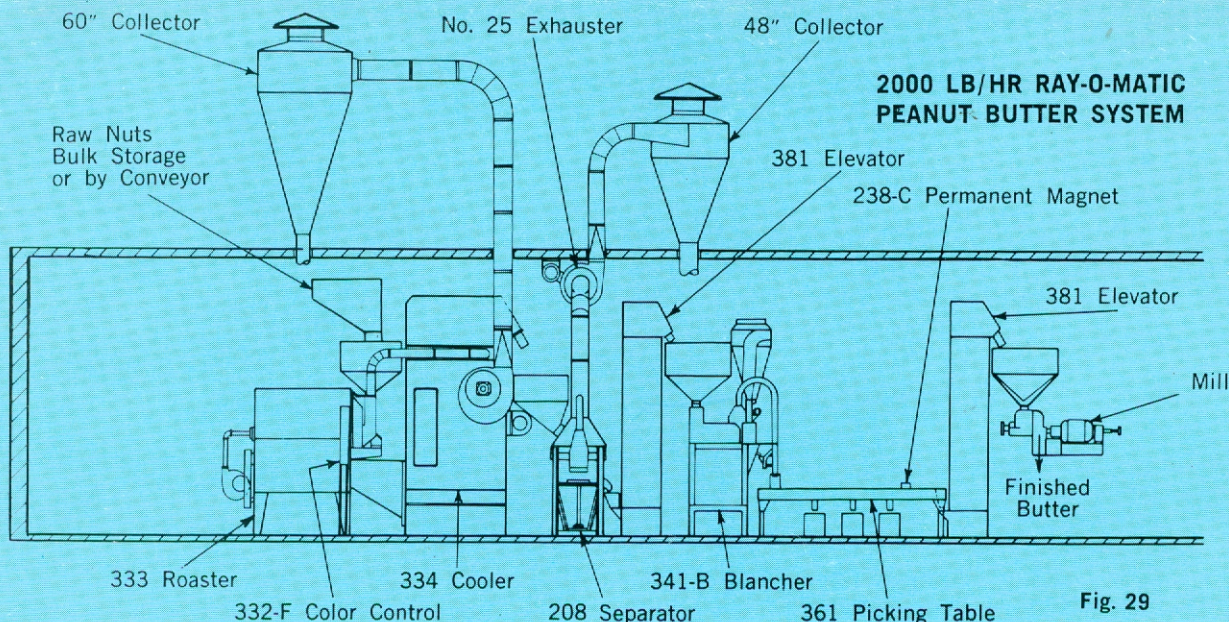


Fig. 29

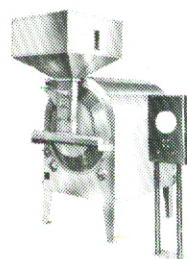


Fig. 30

Ray-O-Matic® Roaster/Toaster with Color Control (Fig. 30)—Automatic push button control of roasting or toasting. Uniformity assured, quality improved. For peanuts, almonds, filberts, bread crumbs, corn specialties, etc. Capacity: 350 to 2000 lbs./hr. depending on product being processed. Color Control provides record of each roast; automatically controls charging and discharging of roaster and cooler.

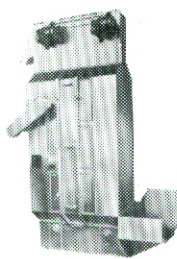


Fig. 31

Vertical Cooler

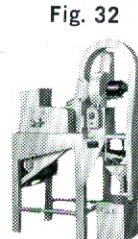
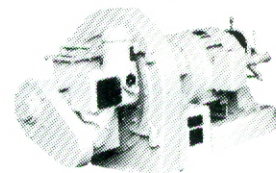


Fig. 32

Split Nut Blancher



Mills and Texturizers (Fig. 33)—Three sizes, up to 75 HP and with capacities from 500 lbs. to over 4,000 lbs./hr. For nut butters, cottage cheese, raw bone meal, etc.

Other Bauer equipment for food processing includes bucket elevators, cooling and salting tables and cars, nut granulators, shellers, hullers, metering units, picking tables, magnets, whole

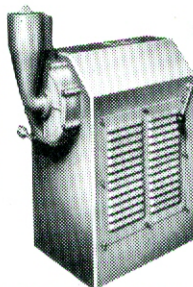
nut blanchers, nut fryers, Hurricane Pulverizer-Classifer, Centri-Sonic Classifier, Pressafiner and Helipress for oil expression and dewatering, specific gravity separators, and liquid cyclones.

LABORATORY EQUIPMENT

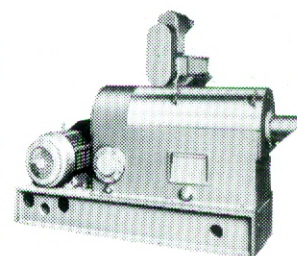
Bauer-McNett Fiber Classifier (Fig. 34) for precise, reproducible data in control of organic and inorganic fiber preparation operations. Widely used in pulp and asbestos industries.



Bauer-Mead Refiner (Fig. 35) for rapid refining of pulp (cellulosic) fibers. Motor and starting switch built into this compact unit.



No. 591 Pressafiner (Fig. 36) 20-50 HP unit for high pressure dewatering or thickening of pulps, rubber and plastic slurries, and fibrous materials.



LABORATORY FACILITIES

Bauer's well equipped, well staffed laboratories will conduct demonstrations or pilot plant research on the processing of your materials. All Bauer equipment used in this work is commercial size, and is operated under normal, in-plant production conditions. This provides accurate, practical production data and

eliminates the need for extrapolation of test results. It saves time, eliminates guesswork, helps solve processing problems faster. Test results are confidential.

For details on this helpful laboratory service, contact your nearest Bauer representative.



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