

Selection and Purchase of Used Food-Processing Equipment

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This guide is provided to assist food processors when selecting used equipment to be compatible with their product, facility, budget, and personnel.

The phrase “easier said than done” certainly applies to the selection and purchase of information. Most people will find identifying equipment options will take longer than expected. However, the basic process for locating equipment can be summarized in the following steps: 1) determine equipment needs, 2) determine the size of investment that is feasible, 3) locate equipment possibilities, 4) evaluate these possibilities, and 5) modify the selection, if needed, as new information becomes available.

Buying used equipment can be a confusing and time-consuming task. Many issues are at stake as a selection is made. Most of the selection takes place over the phone; the equipment is not in new condition; unfamiliar terms are used to describe the equipment; the equipment is not familiar to the buyer; and, usually, a large investment is involved.

The Used Equipment Suppliers Directory (UESD) was developed as a resource for locating a variety of used food-processing equipment. Some suppliers tend to specialize in various processing areas, equipment capacity, and the services offered.

After talking to several suppliers, processors will probably have a list of equipment and prices that may perform well with their process. At that time, it may help to consult with Extension specialists to evaluate these options for

their ability to perform the desired process and to give a return on investment based on cost and product price.

Following are some things that should be considered when locating equipment and using the UESD. Estimates should be used where exact amounts are not available, then the estimates revised as more information is obtained.

Getting Started

If the processor has never looked for used equipment before, figuring out where to begin the search may be frustrating. There are Extension specialists listed in this publication who are available to help answer questions and get the process started. For questions on a specific type or model of equipment, calling the original manufacturer may be quite helpful in determining the type of equipment needed for the process.

Ingredient suppliers also can assist with determining general types of equipment compatible with the ingredients in the formulations. Some ingredients are sensitive to equipment-

related processing conditions, such as shear or exposure to high temperature. For specific design questions or detailed analysis of a process or a piece of equipment, a private consultant can be hired.

Locating Suppliers

Aside from the UESD, there are two other directories widely used to identify suppliers of equipment. The *Thomas Food Industry Register* and the *Food*

Engineering Master are comprehensive “phone books” that classify suppliers in categories. Both should be available at the local library. However, both of these sources contain listings for only new — not used — equipment. New equipment suppliers, as previously mentioned, can be helpful even if the processor is not looking to buy new.

Important Tips

The intended batch size and the size of the containers that will be used should be known in advance.

It is helpful to have an idea of the intended plant capacity. Is it 5 gallons a day? 30 bushels a week? The capacity in terms of containers (or items) per minute or hour and pounds (net weight of product made) per hour or day should be known.

Desired capacity should be based on an analysis of costs for the operation and the product’s market potential.

Equipment cost comparisons should be made based on the initial cost and number of years of expected use. For example, a new machine costing \$10,000 with an estimated 10 years of

use will average \$1,000 per year. A used machine costing \$5,000 with 4 years of use will cost \$1,250 per year.

The average cost per unit for each machine on the production line should be estimated. This should be based on the process capacity of the slowest unit. Estimating the lowest costs per unit for one machine is done by dividing the total annual costs by the capacity of the machine. If the machine is not used at full capacity, the costs per unit will be higher.

The producer should have an idea of the amount that can be paid for equipment based on capacity and product price. There will be a range of equipment capacities that will be profitable for the operation. Operating outside this range with the wrong equipment will cost, not pay.

The degree of viscosity, chunkiness, and stickiness of the product should be determined. A watery product will require different equipment than chunky, thick salsa.

The food regulations that the product falls under are important considerations. For example, a sauce with more than 3 percent meat will be under USDA regulations if it is to be sold out of state; seafood gumbo, on the other hand, will fall under FDA regulations. This will affect selection and equipment price.

The producer should have an idea of how the facility may change over time. Will more products or container sizes be added? Could capacity be increased?

Considerations Before Making the Call

Equipment affects the product. Because of the wide variety of foods that are processed, there is an equal variety of equipment designed for specific types of foods. Equipment selected for a given process must be compatible with the food product in order for it to function properly. For example, a filling machine designed

for dry powders will simply not work with a fluid product such as salad dressing. A supplier, when given the necessary information, should be able to help determine equipment needs.

Every product will interact with the processing equipment differently. A more expensive piece of equipment may have fewer negative effects on the product, but they do so at a higher cost. A balance must be achieved between high product quality and high production costs. In some cases, less-than-ideal equipment must be selected with some compromise in product quality in order for a process to be feasible.

Some General Advice

- The producer should know the investment limits and stick to them.
- Several suppliers should be contacted.
- Both “used” and “new” suppliers should be contacted so comparisons can be made.
- Questions should be directed to both suppliers and specialists.

Know the Process

Continuous or batch — Before the type of equipment needed can be described to a specialist or a supplier, the desired type of process must be determined. A batch process is typically used for smaller processes since it is easier to control. For a batch process, a small amount of product is taken through the entire process, step by step. The procedure is then repeated. For a continuous process, ingredients continuously enter, and product continuously exits, the process stream. As a result, control and monitoring of the process is more complex.

Desired Capacity — As the processing operation is planned, the desired capacity should be determined. Capacity is estimated primarily from market analysis. If market conditions indicate 1,000 cases of product can be sold per month, then the equipment should be able to keep up with this demand.

Desired product characteristics — Every product has a set of characteristics that makes it unique. For niche-market food products that rely on novelty, uniqueness, or homemade appearance, this is especially true. Knowing what product characteristics are critical, such as relative chunkiness, color, and spice level, will have an effect on equipment selection. A whole-berry jam, for example, would lose an important characteristic if the equipment placed a dozen berries in one jar and only two in another.

Equipment terminology — It is difficult to know all about various types of equipment before contacting suppliers. Therefore, it is important to ask questions along the way while looking for equipment. Knowing capacities and product characteristics in precise terms will help.

Balancing Equipment Size and Cost

Two basic concepts balance the selection as a piece of equipment is considered.

Process capability — A unit’s ability to successfully complete a process step at a desired capacity is its process capacity. For example, one step in a food process requires 35 gallons of water be heated to boiling in 45 minutes. A 60-gallon kettle is found that is capable of heating approximately 40 gallons of water to boiling in 30 minutes. Therefore, this unit has both the capacity and ability to carry out the process step desired.

A process is only as fast as the slowest unit operation. The slowest unit operation must be able to keep up with the desired capacity, or the operation as a whole will fall behind. If there are three steps to a process having capacities of 200, 400, and 600 containers per hour (cph), then the process will have a capacity of only 200 cph due to the bottleneck in the second step.

Equipment capacity is not a parameter that can be exactly matched to the process. In other words, if 275 jars per hour in capacity are needed, the processor may have to choose from units having capacities of 100, 400, and 800 jars per hour. Some variability in capacity due to product characteristics and container size should be considered.

Economy — The selection of equipment ultimately depends on the economics of the process, product, and market. Regardless of the capability of a unit to perform a process step, the processor should select the equipment that is economically feasible with minimal sacrifice in capability. The 60-gallon kettle discussed previously is capable, but if a unit is too expensive for the operation, then alternatives should be found.

The most expensive equipment or processing step should be kept as busy as possible. In an efficient process, bottlenecks are kept to a minimum; but there are cases when the economic situation of a process and market will make a bottleneck necessary. For example, a snack food product will be packaged using a unit that can only package 200 cph due to the cost of the unit. However, the other processing steps, the cooking operation upstream and the boxing operation downstream, have capacities of 400 and 600 cph, respectively. The cooked product can be stored in bulk while waiting to be packaged; additional labor could be hired for another shift to oversee packaging of the product made at the cooking step. The boxing operation can catch up on the following process day or use additional labor.

Other considerations — The amount of floor space needed by equipment and how it will fit into the flow of the process in the facility should be considered. Some equipment may be too tall for the ceilings in a facility. Placing a kettle near a freezer is an obvious problem to avoid. The

utility requirements for each piece of equipment must be considered. Many rural areas do not have three-phase electricity available to run larger electrical motors used on some equipment. Other units may require a steam or compressed air supply. These requirements will influence the cost of installing and operating the unit, and should be included in an economic analysis prior to purchase.

Safety and comfort of employees should not be forgotten as equipment is selected. Small facilities in particular may not be able to handle the heat and steam from an additional kettle. Adequate ventilation and cooling equipment will be needed to handle the additional loads. Ventilation may need to be upgraded if a new processing step will generate dust, which could create a health hazard or increase chances of an explosion. Placing a piece of equipment in a crowded facility may result in new hazards from hot or moving machine parts, requiring facility expansion or layout changes.

Making a Decision

There will be more than one “answer” that will work for the process, each having advantages and disadvantages.

Important Tips When Talking to a Supplier

Processors must stay in an affordable price range. They should be firm with the supplier (if needed) and not let themselves be talked into a piece of equipment that will not pay for itself based on plant capacity.

Understanding the economics of the process prior to contacting a supplier is critical. A sales representative is supposed to sell equipment; the processor’s job is to buy the *right* equipment.

Some suppliers are familiar with the equipment and will know its capabilities, some will not. They can be very helpful in developing equipment options and possibilities. At the very least, they should be willing to help the processor understand the terminology used and the effect various features have on equipment operation.

It is wise to get ideas and prices from several suppliers. Similar answers from two or more sources is a good indication of quality information.

It should be kept in mind that suppliers’ inventories change continuously. If they don’t have what is needed, the processor should find out if they typically carry the unit and ask them to call when they find one.

Terms of payment, warranty periods, delivery, and shipment costs need to be determined. Shipping heavy or bulky equipment over long distances will be a major cost.

Suppliers should be forthcoming with information, willing to fax details, and understanding when answering questions. If they are not, the processor may want to consider a different supplier.

Using the Directory

The information listed in the UESD was collected from those responding to a survey of 63 suppliers. Those that responded described their business, the sizes of food-processing customers they typically served, and other information about their operation. Many suppliers carry an inventory list or a catalog, but pricing information usually will have to be requested. Some suppliers have facilities to test and service their equipment and even do some test batches. Processors should ask for details on services offered by each supplier. The UESD does not contain all suppliers of used equipment; suggestions and comments regarding suppliers are welcome at any time.

For More Information

More information on process engineering, equipment selection, and facility layout can be obtained from Kent Rausch, food engineering specialist, at (913) 532-5813.

Donald Erickson, community enterprise development specialist, can provide information on economic analysis, return on investment, product pricing, and break-even analysis. His telephone number is (913) 532-1511.

References

Food Engineering Master. Annual publication. Chilton Company. Radnor, PA. (610) 964-4000.

Thomas Food Industry Register. Annual publication. Five Penn Plaza, New York, NY 10001. 1-800-699-9822.

Definitions of Terms Used in the Directory

Capacity — nominal capacity or speed or equipment typically carried by the company.

Dry fill — equipment capable of filling dry products into containers.

Flex. pkg. — equipment for flexible packaging.

Ret./can — equipment typically used for products processed in metal cans.

Typical customers — number of full-time employees hired by customers.

Wet fill — equipment capable of filling wet or fluid products into containers.

AAA Restaurant Supply

611 E. Central
Wichita, KS 67202
1-800-351-9124
Fax: (316) 265-4652

Typical equipment: Restaurant supplies, small wares, furniture.

Capacity: n/a

Catalog: No.

Equipment evaluation: Test facility.

Description: New and used restaurant-type equipment and small wares.

Aaron Process Equipment Co.

P.O. Box 80
Bensenville, IL 60106
(708) 350-2200
Fax: (708) 350-9047

Typical equipment: Ret./can, juice, wet grain, meat, dry fill, flex. pkg., dry grain, kettles, wet fill, convey, feed process.

Capacities: All kinds.

Typical customers: All sizes of processors.

Payment options: Finance, lease.

Catalog: Yes, with no price list.

Equipment evaluation: Test facility, does test batches, customer can be present during test.

Description: Used or surplus and reconditioned equipment dealer.

Alard Equipment Corp.

6483 Lake Ave., P.O. Box 57
Williamson, NY 14589-0057
(315) 589-4511
Fax: (315) 589-3871

Typical equipment: Ask sales representative.

Description: Carry large inventory of used equipment.

Barr Inc.

229 County Road FF
Pickett, WI 54964
(414) 589-2721
Fax: (414) 589-2731

Typical equipment: Refrigeration, freezers.

Typical customers: All sizes of processors.

Payment options: Cash.

Catalog: Yes, with no price list.

Equipment evaluation: None.

Description: Sales, used refrigeration equipment, coolers, freezers, compressors, condensers, evaporators, and chillers.

C & R Refrigeration

405 Center St.
Center, TX 75935
(409) 598-2761
Fax: (409) 598-7858

Typical equipment: Refrigeration.

Typical customers: 10 to 30, seasonal.

Payment options: Cash.

Catalog: Yes, with no price list.

Equipment evaluation: Test facility, doesn't do test batches, customer can be present during test.

Description: Used refrigeration equipment.

Can Seamer Specialties, LTD

P.O. Box 5210
Baltimore, MD 21224
(410) 665-2206
Fax: (410) 665-6557

Typical equipment: Canning, bottling.

Capacities: All kinds.

Typical customers: All sizes of processors.

Payment options: Cash.

Catalog: None. Ask for inventory list.

Equipment evaluation: Test facility, does test batches, customer can be present during test.

Description: Supply rebuilt, new and used canning and bottling equipment of all types, engineering, in-plant training and service.

Certified Machinery Inc.

993 Lenox Dr., Suite 101
Lawrenceville, NJ 08648
(609) 844-7525
Fax: (609) 844-7574

Typical Equipment: Flex. pkg., kettles, convey.

Capacities: 20 to 100, 100 to 300 cpm.

Payment options: Finance.

Catalog: Yes, with no price list.

Equipment evaluation: Test facility, doesn't do test batches, customer can be present during test.

Custom Food Machinery

1881 E. Market St.
Stockton, CA 95205
(209) 463-4343
Fax: (209) 463-3831

Typical equipment: Ask sales representative.

Description: Carry large inventory of used equipment.

Cuyler Associates, Inc.

468 Salt Road
Webster, NY 14580
(716) 265-0715
Fax: (716) 265-1724

Typical Equipment: Ret./can, juice, dry fill, flex pkg., kettles, wet fill, feed process.

Capacities: All kinds.

Typical customers: All sizes of processors.

Payment options: Lease.

Catalog: Yes, with no price list.

Equipment evaluation: Test facility, doesn't do test batches, customer can be present during test.

Description: Supplies of used or reconditioned food-processing machinery. Certified equipment appraisers, liquidations.

Diequa International Inc.

180 Covington Drive
Bloomington, IL 60108-3105
(708) 980-1133
Fax: (708) 980-1232

Typical equipment: Packaging equipment, canning equipment.

Capacities: 100 to 300 cpm.

Typical customers: More than 30.

Payment options: Cash.

Catalog: No.

Equipment evaluation: Test facility, doesn't do test batches.

Description: Supplier of rebuilt, repaired or broken can-making and handling equipment. This includes seamers, flangers, knockers, shears, metal presses, beadings, compound-

ers, conveyors, etc. Provides all types of packaging machinery and services to put entire lines together.

DJS Enterprises

40 Cardico Drive, Unit #5
Gormley, Ontario, L0H 1G0
(905) 888-9644
Fax: (905) 888-9492

Typical Equipment: Ret./can, dry fill, flex. pkg., kettles., wet fill, convey.
Capacities: pilot, 1 to 20, 20 to 100, 100 to 300 cpm.

Typical customers: 10 to 30, pilot/r&d.
Payment options: Finance, lease.
Catalog: Yes, with no price list.
Equipment evaluation: Test facility.
Test batches depends on each situation. Customer can be present during test.

Description: Buy and sell used and new process and packaging machinery for the pharmaceutical, food, and confectionery industries.

Eischen Enterprises Inc.

P.O. Box 6136
Fresno, CA 93703
(209) 251-6038
Fax: (209) 251-9620

Typical equipment: Juice, kettles, wet fill, milk and dairy products.

Capacities: 20 to 100 cpm.

Typical customers: More than 30.

Payment options: Cash.

Catalog: Yes, with no price list.

Equipment evaluation: Test facility, does test batches, customer can be present during test.

Description: Sell used and reconditioned dairy processing equipment. Does consulting and can arrange for equipment installation.

Electronic Liquid Fillers Inc.

1535 S. Hwy 39
LaPorte, IN 46350
(219) 393-5541
Fax: (219) 324-2884

Typical equipment: Wet fill, convey.

Capacities: 1 to 100 cpm.

Typical customers: All sizes of processors.

Payment options: Cash.

Catalog: Yes, with no price list.

Equipment evaluation: Test facility, does test batches, customer can be present during testing.

Description: Manufacturer of packaging equipment.

Federal Equipment Co.

8200 Bessemer Ave.
Cleveland, OH 44127
(216) 271-3500
Fax: (216) 271-5210

Typical equipment: Wet grain, dry grain, dry fill, kettles, reactors.

Payment options: Finance.

Catalog: Yes, with no price list.

Equipment evaluation: Test facility, does test batches, customer can be present during testing.

Frain Industries

313 S. Rohlwing Rd.
Addison, IL 60101
(708) 629-9900
Fax: (708) 629-6575

Typical equipment: Ret./can, juice, dry fill, flex pkg., kettle, wet fill, convey, feed process, reactors.

Capacities: All kinds except high-speed or capacity.

Typical customers: All sizes of processors.

Payment options: Finance, lease.

Catalog: Yes, with no price list.

Equipment evaluation: Test facility, does test batches. Customer can be present during testing after initial setup.

Description: Provide used packaging and processing equipment for the food, pharmaceutical, chemical, and cosmetic industries.

Global Machine

528 East E Street
Wilmington, CA 90744
(310) 816-8000
Fax: (310) 816-8003

Typical equipment: Ret./can, juice, dry fill, kettles, wet fill.

Capacities: 20 to 300 cpm, greater than 300 cpm, high-speed or capacity.

Typical customers: More than 30 full-time.

Payment options: Cash.

Catalog: No.

Equipment evaluation: Test facility, does test batches, customer can be present during testing.

Henry Enterprises

1926 East 7th St., P.O. Box 24
Concordia, KS 66901
(913) 243-4188

Description: A metal-working machine shop. Does repairs to mostly ag machinery, tool and die work for factories, and stainless steel for food-processing machinery. Does custom modifications to machinery.

Payment options: Net due within 30 days.

Heritage Equipment Co.

9000 Heritage Dr.
Plain City, OH 43064
(614) 873-3941
Fax: (614) 873-3549

Typical equipment: Kettle, wet fill.

Capacities: Only high-speed.

Typical customers: More than 30 full-time.

Payment options: Cash; net 10 with 50 percent, deposit with prior credit approval.

Catalog: Yes, with price list.

Equipment evaluation: Test facility, possibly does test batches.

Description: Reseller of stainless steel processing equipment for the food, dairy, beverage, and pharmaceutical industries.

Indeck

1111 S. Willis
Wheeling, IL 60090
(708) 541-8300

Typical equipment: Boiler, water treatment.

Typical customers: More than 30 full-time Fortune 500 companies.

Payment options: Finance, lease, rents. Sells and leases all available components.

Catalog: No.

Equipment evaluation: Test facility, doesn't do test batches, customer can be present during testing.

Description: Boilers, power generation, water treatment, rental boilers, owners, operators and builders of co-generation plants.

Jarboe Equipment Co. Inc.

411 N. Bedford St.
Georgetown, DE 19947
(302) 856-7988
Fax: (302) 856-7408

Typical Equipment: Ret./can, juice, wet grain, meat, dry fill, flex pkg., kettles, wet fill, convey.

Capacities: 100 to 300 cpm, more than 300.

Typical customers: More than 30 full-time.

Payment options: Cash.

Terms: 50 percent with purchase order, 50 percent before delivery.

Catalog: Yes, with no price list.

Equipment evaluation: Test facility, does test batches, customer can be present during testing.

Description: Used food-processing equipment, as is or reconditioned. Installation of equipment, complete lines, or individual pieces.

Keith Machinery Corp.

34 Gear Ave.
Lindenehurst, NY 11757
(516) 957-1200
Fax: (516) 957-9264

Typical equipment: Dry fill, flex pkg., dry grain, kettle, wet fill, feed process, reactors.

Capacities: All kinds.

Payment options: Cash, lease.

Catalog: Yes, with no price list.

Equipment evaluation: Test facility, sometimes does test batches, customer can be present during test.

Kelly Trailer and Container Inc.

P.O. Box 1132
West Springfield, MA 01090
1-800-628-0497
Fax: (413) 785-1955

Typical equipment: Refrigeration, freezers and coolers.

Payment options: Cash.

Catalog: Yes, with price list.
Equipment evaluation: Test facility, doesn't do test batches.

Kull Auction and Real Estate Co. Inc.

5020 SW 28th St., Suite 202
Topeka, KS 66614-2348
(913) 271-8900
1-800-466-5516

Description: Auctions food-processing and food-service equipment regularly. Call to be placed on the mailing list.

Lehman Equipment Sales Inc.

P.O. Box 177, 5901 S. Bird St.
Sun Prairie, WI 53590
1-800-825-0133
Fax: (608) 837-8421

Typical equipment: Meat, cheese, fish.
Capacities: High-speed.

Typical customers: All sizes of processors.

Payment options: Cash.

Catalog: Yes, with no price list.

Equipment evaluation: No test facility.

Description: Used and new food-processing equipment for meat, fish, poultry, and milk (cheese).

Machinery and Equipment Corp.

P.O. Box 7632
San Francisco, CA 94120
1-800-227-4544
Fax: (415) 467-2639

Typical Equipment: Ret./can, juice, wet grain, meat, dry fill, flex pkg., dry grain, kettles, wet fill, convey, feed process, reactors.

Capacities: All kinds.

Typical customers: More than 30 full-time.

Payment options: Cash.

Catalog: Yes, with no price list.

Equipment evaluation: No test facilities, doesn't do test batches.

Description: Used processing and packaging equipment for food, chemical, and mining industries.

Madison Equipment Co.

2950 W. Carroll Ave.
Chicago, IL 60612
(312) 533-6600
Fax: (312) 533-5820

Typical equipment: Ask sales representative.

Description: Carry large inventory of used equipment.

Northeast Dist. Inc., Crepaco Comp. Parts

210 Essex
Whitman, MA 02382
(617) 447-0073
Fax: (617) 447-6337

Typical equipment: Compressors.

Typical customers: More than 30 full-time.

Payment options: Cash, lease.

Catalog: No.

Equipment evaluation: No test facilities.

Description: Service, contractor, and designer of computer panels for refrigeration companies.

Polk Machinery Co. Inc.

4040 W. Ogden Ave.
Chicago, IL 60623
(312) 521-8800
Fax: (312) 521-8810

Typical equipment: Dry fill, flex pkg., kettles, wet fill, convey.

Capacities: All kinds.

Typical customers: All sizes of processors.

Payment options: Cash.

Catalog: Yes.

Equipment evaluation: Test facility, does test batches, customer can be present during test.

Description: Dealers in processing and packaging equipment.

Production Packaging & Processing Equipment Co.

1450 E. Van Buren St.
Phoenix, AZ 85006-3522
Fax 602-254-2630

Typical Equipment: Ret./can, juice, dry fill, flex pkg., kettles, wet fill, convey, reactors.

Payment options: Cash.
 Catalog: Yes, with price list.
 Equipment evaluation: Test facilities, does test batches, customer can be present during test.

Ralston Purina Company

5100 Columbia Avenue
 St. Louis, MO 63139
 (314) 773-2505
 Fax: (314) 771-5099

Typical Equipment: Ret./can, wet grain, meat, dry fill, flex pkg., dry grain, kettles, wet fill, convey, feed process.

Capacities: High-speed. Most excess equipment is generated by upgrade to existing plant production line.

Typical customers: More than 30 full-time. From small "Mom & Pop" operation to large.

Payment options: Cash.

Catalog: Yes, without price list.

Equipment evaluation: No test facility, doesn't do test batches.

Description: Manage idle surplus assets to obtain maximum reutilization or recovery when they are no longer required for the original purpose. Catalog all idle assets for potential reuse or direct sale to other companies.

Roy Ricke

3730 Pilot Knob Road
 Eagan, MN 55123
 (612) 686-7643

Description: Consultant in food processing. Expertise in filling, capping, labeling, and other food operations. Can build unique prototype equipment.

Union Standard Equipment

4248 W 47 St.
 Chicago, IL 60632
 (312) 376-5400
 Fax: (312) 376-0634

Typical equipment: Juice, meat, dry fill, flex pkg., kettles, wet fill.

Typical customers: 1 to 30 full-time.

Payment options: Cash, lease.

Catalog: Yes, with no price list.

Equipment evaluation: Test facilities, does test batches, customer can be present during test.

United Dairy Machinery Corp.

301 Meyer Rd. P.O. Box 257
 Buffalo, NY 14224
 (716) 674-0500
 Fax: (716) 674-0511

Typical equipment: Juice, wet grain, meat, dry fill, kettles, wet fill.

Capacities: All kinds.

Typical customers: More than 30 full-time.

Payment options: Used equipment sales are generally prepayment required, but other terms, such as leasing, are available.

Catalog: Yes, with price list.

Equipment evaluation: Test facilities, does test batches, customer can be present during test, testing facilities are not exactly extensive.

Description: Dealer and distributor in dairy, food, chemical, beverage, and pharmaceutical industries. Has engineering, installation, service, and used and new equipment divisions.

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Warwick Manufacturing & Equipment Co. Inc.

150 East Main St.
 Bridgeport, CT 06608
 (203) 334-2147
 Fax: (203) 334-2147

Typical equipment: Ret./can, juice, wet grain, meat, dry fill, flex pkg., dry grain, kettles, wet fill, convey, reactors.

Capacities: All kinds except high-speed.
 Typical customers: All sizes of processors.

Payment options: Cash.

Catalog: No.

Equipment evaluation: Test facilities, does test batches, customer can be present during test.

Description: Buy and sell used equipment for chemical process, material handling, packaging, food process, and metal working.

Wohl Associates Inc.

50 Floyd's Run
 Bohemia, NY 11716
 (516) 244-7979
 Fax: (516) 244-6987

Typical equipment: Ret./can, juice, wet grain, meat, dry fill, flex pkg., dry grain, kettles, wet fill, convey, feed process, reactors.

Capacities: All kinds.

Typical customers: All sizes of processors.

Payment options: Cash, finance, lease.

Catalog: Yes, with no price list.

Equipment Evaluation: Test facility, doesn't do test batches, customer can be present during test.

Description: Suppliers of used processing and packaging equipment for the food, pharmaceutical, cosmetics, and chemical industries.



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