

Quality gives vegetable processor the edge

Company produces fresh, ready-to-eat vegetables in new 88,000-sq-ft facility.

H. Russell Ritchie, Associate Editor

Walk through the front doors of Redi-Cut Foods' new Franklin Park, Ill., plant and the first thing you see in the reception area is the fully equipped quality control lab. Two giant picture windows showcase the forward thinking of this creative vegetable processor: In-house lab controls ensure quality production and

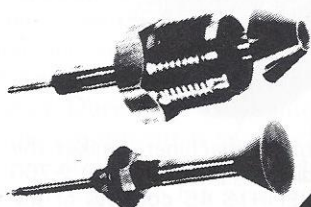
less rework for the customer.

Quality is especially important to the processed fresh vegetable industry. The industry serves a young and growing market where consumer demand for fresh, nutritional foods outside the home kitchen is changing the menus of mass foodservice suppliers. To meet the demand for top quality

freshly prepared vegetables, restaurant chains, airlines, food distributors and institutional foodservice operations have two options: Wash, peel, cut, slice and dice the vegetables themselves, or turn to a bulk processor such as Redi-Cut Foods.

Redi-Cut produces nearly 2 million pounds of raw vegetables each week, primarily lettuce, onions, cabbage, carrots and potatoes. It also processes smaller quantities of dozens of other vegetables. Raw vegetables are trucked to the plant directly from the farm or are delivered from local markets. The turnaround time from receipt of raw vegetables to shipping of finished product averages less than two days; lettuce usually spends less than 24 hours in the plant.

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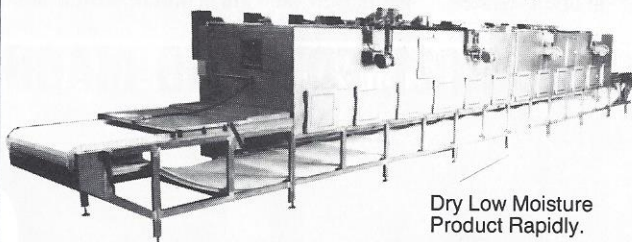
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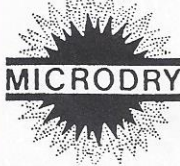
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Refrigeration, sanitation keys to quality

Sixty percent of Redi-Cut's 88,000-sq-ft facility is refrigerated. Raw vegetable storage, processing, finished product storage, and shipping areas each have unique temperature re-

quirements. Not only does room temperature need to be controlled, but many process unit operations require controlled refrigeration.

To meet the various cooling needs

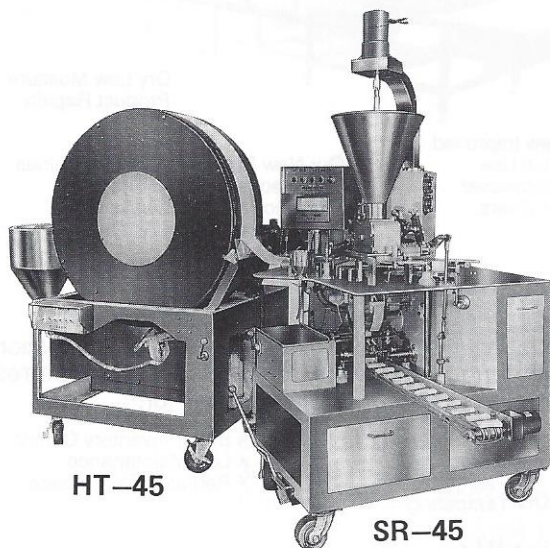
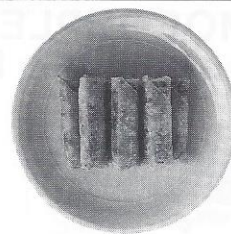
throughout the plant, Redi-Cut chose an ammonia refrigeration system. Two 150 hp pumps distribute the ammonia from a central control room. Flow is controlled by a computer system that monitors cooling needs at each location and assures the necessary distribution of coolant. The system is so tight that no ammonia odor can be detected in the control room.

Although ammonia is a more efficient coolant than freon, it must be handled carefully. Redi-Cut has established emergency procedures to deal with an accident, but the design of the system emphasizes prevention. To avoid an accidental rupture of the system, all evaporators in the process area are mounted at least 10 feet in the air. And the ammonia piping, as well as piping for chill water, tap water and hydraulic oil, is run overhead above a suspended ceiling.

Which brings us to sanitation. To start with, the suspended ceiling over the process area is totally enclosed. It can be hosed down from the process

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floor. And it can be walked on—which is how maintenance personnel change a light bulb, walking on the ceiling to the fixture with the dead bulb and replacing it from above.

All of the powerdrops to the processing floor are made through the ceiling using PVC piping. No conduit or piping is suspended directly above the processing floor, so there's no place for dust and grime to accumulate. And maintenance of the piping and conduit can be performed without disrupting production.

Even sanitation fluid piping runs above the suspended ceiling and drops to the processing floor at critical locations. The sanitation fluids (high pressure hot water, foam, sanitizer and cold water) are pumped to each sanitation station from a central area in the mechanical room. Four portable sanitation units from other plants have been permanently mounted and piped together to satisfy all the plant's sanitation needs.

A prototype sanitation station was built on plywood during the design of the new plant to test the optimal configuration for the hoses and valves. Only cold water is used to hose down the equipment and floor during the two processing shifts. A unique trench drainage system, which was also prototyped, acts as a flume to carry vegetable waste to a collection and treatment area. During the daily sanitation shift, the equipment is swabbed and the three cleaning hoses on each station (high pressure hot water, foam and sanitizer) come into play. Until needed, they are out of the way and cannot be confused with the cold water hose.

In its plant design, Redi-Cut has implemented many details that make sanitation and a clean operation easier. There is only one way for operating personnel to enter the processing area as they arrive for their shift, and that's through the locker room. Lockers are installed on platforms and have sloped tops for easy cleaning. The locker doors are ventilated and allow supervisors to see inside to insure no food is being stored.

In the processing area, all the doors and window frames are fiberglass, and all piping, valves and powerdrops are PVC. The processing floors are topped with a layer of epoxy. A wall separates the start of each line, where



The lettuce line processes iceberg lettuce, Redi-Cut's largest volume product.

raw vegetables are dumped into hoppers and conveyed to begin processing.

Process design in-house

Adhering to the adage that no one knows more or cares more about your business than you do, Redi-Cut personnel designed and directed the installation of all the process equipment. Existing equipment from other plants

was used whenever possible, and local suppliers provided new equipment. A general contractor executed a design/build contract for the building and utilities. Utility suppliers, such as for the HVAC system, provided the engineering for their individual systems. Without using fast-track engineering/construction methods, the facility was designed and constructed in 1-1/2 years.

Many of the processing systems are custom designed and patented by Redi-Cut. For example, it has developed a machine to cut celery sticks, which traditionally were cut by hand. The cutter reduces a labor-intensive task to a fast, simple activity while producing a uniform celery stick.

Another innovation at the new plant is an air drying system for radishes, peppers and cucumbers. When subjected to centrifugal drying, the cell structure of these delicate vegetables tends to break down, allowing water to leach from the cell. The net result is soggy vegetables with a short

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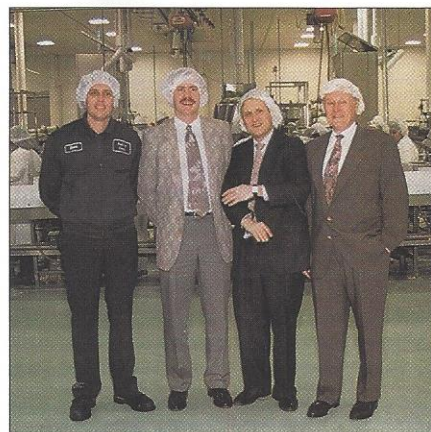
shelf life.

To eliminate the problem, Redi-Cut developed a patented air drying system. In a chilled room separated from the general processing area, the sliced vegetables pass over a conveyor where chilled air is blown over them. At the same time, a vacuum is applied from below, pulling moisture from the product. A vibrating conveyor shakes

off any remaining moisture and carries the finished vegetables to packaging, dry on the outside and crisp and juicy on the inside.

What customers think

Redi-Cut's attention to detail has not gone unnoticed by its customers. A leading national fast-food restaurant

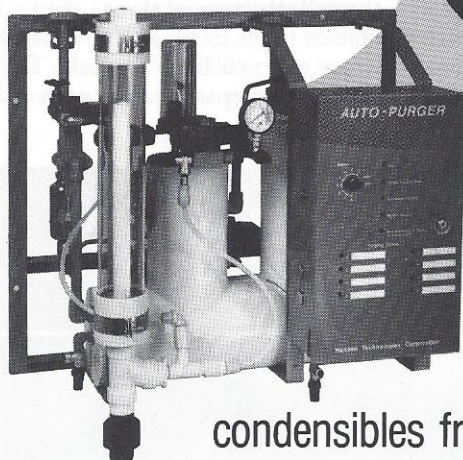
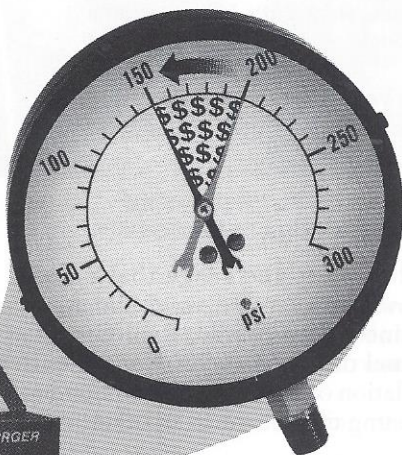


From left, Brian Hill, vice president, operations; Ed Schriener, vice president, sales; Carey Cooper, president; and Phillip Cooper, founder.

chain that has been using Redi-Cut's products for 15 years says it appreciates the consistent quality of the vegetables it buys from the processor.

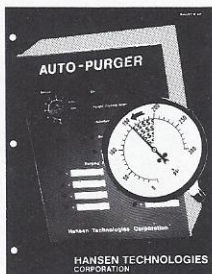
"Redi-Cut's products make our job easier," says the chain's regional purchasing manager. "We don't have to rework the product because its uniform quality is assured, day after day. In 15 years, we've always gotten the very best product available." **FP**

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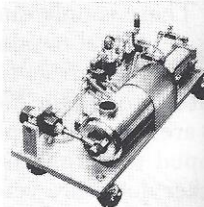
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