

**PLANT OPERATIONS/CASEBOOK**

## Shredder doubles production, gives cleaner cut

A versatile shredder is helping a family-run business that has evolved from a small grocery into a \$9 million-a-year operation to solve the welcome problem of growing pains.

Located in Kearns, Utah, Condis Foods consists of a 40,000-sq.-ft. processing plant and farming operation, which supplies Condis with fresh produce for further processing. The 120-employee company provides fresh salad preparations, processed potato products, and fruits and vegetables under their own label to retail food operations, restaurant chains and institutions within a 100-mile radius of the Salt Lake City area.

The company has recently expanded its distribution to the Las Vegas area, and is now considering markets in Arizona, New Mexico, and Colorado. The expansion has compelled the company to increase its production capacity, especially that of its shredder. To that end, Condis has added an Urschel model CC shredder to its processing line.

According to Bruce Black, plant manager, the shredder provides several benefits.

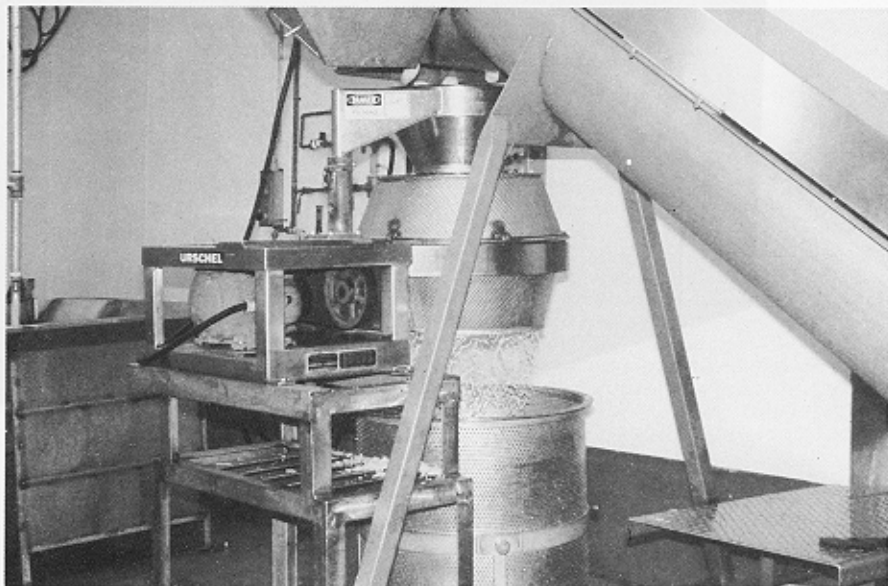
"The model CC shredder has increased our productivity and improved the quality of the final shred. And for sanitation purposes, we have found that the unit is cleaned very easily."

### Makes uniform hash browns

One of Condis more popular items is cooked hash brown potatoes. Burbank Russet potatoes from Idaho arrive by the truckload. After curing, which gives the potatoes the optimum "golden brown" color upon frying, the potatoes are ready for processing.

Processing begins with the potatoes being fed to a destoner and augered to a steam peeler where they are subjected to 200 lbs. pressure for 10 to 15 seconds. When the batch is done, the potatoes are rinsed and conveyed into the blanching room and onto an inspection belt. A hydrolift conveys the potatoes to a blancher.

The cooked potatoes are then conveyor fed to the model CC shredder which is equipped with an oval shred head.



*Cooked potatoes are conveyor fed to a compact centrifugal shredder equipped with an oval shred head.*

The model CC shredder uses sufficient centrifugal force to cause the potato to press against the inner surface with pressure equal to about seven times its weight. Each potato slides over a series of eight knives in the slicing head at a smooth, continuous rate. The sliced portion discharges from the unit while the remainder of the potato continues to be cut within the shredder. The shreds are very consistent; 80% of the cut potatoes will vary in thickness less than 0.004 in.

Uniformity is of prime concern to Condis, and Black has observed improvements both in the uniformity of the individual shred and in a cleaner cut that is confirmed by microscopic observations. He attributes this to daily replacement of knives for the high-volume potatoes. For lower volume products that contain little foreign material a change is not required as often.

The blades are disposable and constructed of specially tempered razor-sharp steel. The blades are inexpensive and take only seconds to install. Discharged hash browns move first against a conical ring, then move through a chute and onto a holding table. At the sorting table, 5- and 10-lb. bags of potatoes are weighed,

clip sealed and marked.

Other products that Condis run through the same shredding procedure are onions and carrots. They have found that it takes only two minutes to change from the oval shred cut to a straight cut, and only 10 minutes for a complete product change from potatoes to carrots or onions.

Products are delivered to customers in one of the company's ten refrigerated trucks or picked up by the distributor at the Kearns plant.

According to Black, Condis can now shred 2200 lbs. of hash browns an hour, and has shredded as much as 2800 lbs. in an hour. This contrasts with the 700 lbs. per hour they were getting with the old shredder.

The unit can also be used for shredding other products such as cabbage for slaw, nut slices, potato chips, granulating pie crust, cheese shreds, apples and carrots.

With a look to the future, Black notes that the model CC unit can handle twice as much product as the company is currently shredding. And with the track record that Condis has shown, they're probably going to need it.