

Gentle De-agglomeration of Packaged Fruit Products



In many food plants, if the common ingredients for their end product are not grown or available locally, the only choice is to import them from abroad. In the case of dried fruit, such as raisins and cranberries, these are usually packaged and shipped in 25 or 50lb plastic bags inside cardboard boxes. This method of packaging creates its own set of challenges for the manufacturer before incorporating the fruit into their process. Fortunately, PTI was able to assist in overcoming these challenges and was able to supply a solution that was suitable and easily incorporated into the existing system.

During shipment, products such as raisins and cranberries tend to agglomerate or stick together in clumps. The challenge was to de-agglomerate these clumps so that the individual pieces of fruit are teased apart with no damage to the pieces themselves.

Initial trials were performed at the Powder Technologies test plant in NJ, and after various runs with the different products, a screen for our Nibbler was chosen with a suitably sized aperture. Due to the low speed/high torque of the Nibbler, and with the rotating blades set well back from the screen, the machine did what was asked of it. Both products were discharged from the outlet of the machine with no damage and were in their individual pieces.

If it is practical, we always recommend further trials with our machine on site at our client's facility so that tests are performed under actual operating conditions. This provides our clients with added assurance that the machine will do as we promise, along with our own test results. In this case, on site trials were feasible and were carried out. As usual, our client was impressed with the Nibbler and confirmed our test results with very successful tests at the manufacturing facility

Subsequently, an N300x450 Nibbler was chosen, inlet and outlet hoppers were designed to allow incorporation into the process stream and the client was up and running making food products we all enjoy.