

Quadro® Comil®

DELUMPING FROZEN VEGETABLES

BACKGROUND/REQUIREMENT

An international manufacturer of prepared frozen foods approached Quadro to develop a process to delump and disperse frozen vegetables into a sauce mixture. The vegetables, a combination of peas, carrots, and beans, were prepared for the manufacturer by an outside supplier. During their preparation, the vegetables were individually quick-frozen. They were then filled into cardboard cases lined with plastic bags and shipped to the manufacturer. During the shipping and storage times, the vegetables coalesced into solid blocks measuring 9" x 6" x 12".

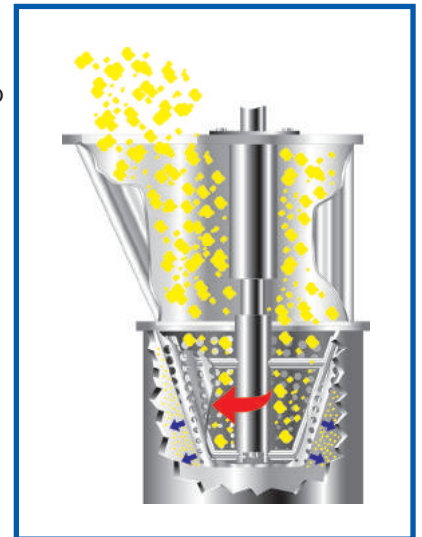
Typically, the manufacturer would dump the frozen vegetable blocks into a standard jacketed stir tank and heat to temperatures over 40°C. Steam lances would then be inserted to facilitate vegetable break up. In some cases, this addition of heat creates undesirable characteristics such as changes in flavor and consistency in the final product.

COMIL® PERFORMANCE

To overcome the problems associated with the addition of heat, a Quadro® Comil® was used to break apart the frozen blocks of vegetables. The Comil®'s gentle milling action created no excess heat transfer to the product. Quadro's specially-designed tooling completely delumped the blocks of vegetables. The vegetables were separated into individual pieces, retaining their frozen format without damage.

SUMMARY

The Quadro® Comil® met the challenge posed by the frozen blocks of vegetables with no apparent problems. The frozen block size will determine the appropriate model required.



Frozen Vegetable Blocks



Damage-Free Delumped Frozen Vegetables



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