

## **Custom Solutions Bulletin**

Industry: Food ProcessingApplication: Spray Drying

**Product Descriptions:** Knife-edge Twist & Dry™ Carrier

**Situation:** A dairy processor was experiencing buildup on the nose of the standard Twist & Dry carrier while spray drying a high fat content product. Buildup needs to be prevented in this type of application because if the buildup dries when exposed to the hot air, there is a risk of combustion within the drying unit.

## Technical Questions?

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**BETE's solution:** The reasons behind this type of buildup are complex and largely related to the air flow within the dryer. To avoid the buildup, BETE Applications Engineers modified an existing Twist & Dry carrier design to arrive at the "knife-edge" carrier #10 nose design (the lugless version is carrier #12). The knife-edge carrier tapers down to form a sharp ridge at the tip. The conventional Twist & Dry carrier design has a flat face. The new knife-edge design is typically for use in high fat content dairy applications, such as whole milk and etc. The knife-edge carrier design significantly reduces product buildup, thus reducing the risk of combustion.





