

## Dosing of different food fillings using just a single pump.

A well-known Austrian manufacturer of potato, dough, dumpling and strudel specialities produces ready made strudel filled with a variety of fillings.

These fillings, which contain apples, damsons, vegetables, pasta or quark among other foodstuffs, must be dosed onto the wafer-thin strudel pastry.

### **The starting situation**

The manufacture of strudel type products is complex and requires care and attention to ensure that the filling product is not damaged and is evenly and accurately dosed onto the strudel pastry. Traditional methods of applying the filling onto the pastry are very labour intensive with manual lifting to discharge bins into dispensing hoppers at high level. Other limitations of this method are the limitations of the dispensing unit and its' ability to handle a variety of products with different fillings and particle sizes (fruit, vegetable) without damage or blocking.

### **The solution**

seepex were commissioned to find a solution for all of these complex issues. This was found in the BTCI range, a food pump with open hopper and auger feed screw, integrated bridge breaker with specially designed paddle shafts.

The special features of these pumps are:

- Special auger feed screw to optimise filling of rotor/stator cavities to ensure nearly no air inclusion and pulse free dosing of product onto the strudel pastry.
- Paddles on the bridge breaker can be adjusted 360° to enable the auger feed screw filling to be optimised dependant on the product and size of particles being handled (fruit, vegetables, pasta etc)
- Metering accuracy of strudel filling of less than 4 % by weight compared with traditional methods of over 12 %



**View inside the hopper with adjustable paddles above the conveying screw**



**seepex BTCI range pump on mobile transport device**

### The benefit

A considerable reduction in manual handling and lifting of product into depositor hoppers at elevated heights is achieved as the pump hopper is situated at operator level and the pump delivers the product directly onto the pastry base. Increased production efficiencies are a result of the pumps ability to handle product directly from the freezer and accurately meter the strudel contents: less than 4 % variance by weight (calculated by weighing individual cut to size pieces of strudel). Further flexibility is built in with the ability to alter the paddles on the bridge breaker which enables a wide range of products to be handled without damaging the particles and therefore maintaining product integrity and consumer appeal.



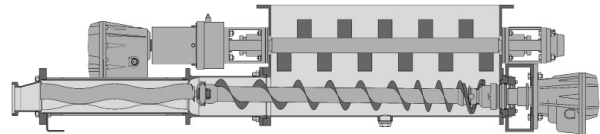
**Strudel filling before and after being pumped onto the pastry base**

### Key Facts

- High metering accuracy of very viscous product containing large solids
- Minimal structure change to the product and solids (fruit, vegetables)
- Virtually pulse free metering without inclusions of air
- Ability to handle frozen product

### Significant Cost Savings

- Controlled metering of product onto strudel pastry
- Less product wastage
- Less manual handling
- Improved production efficiencies



### Installed Pump Type

- Range BTC1

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