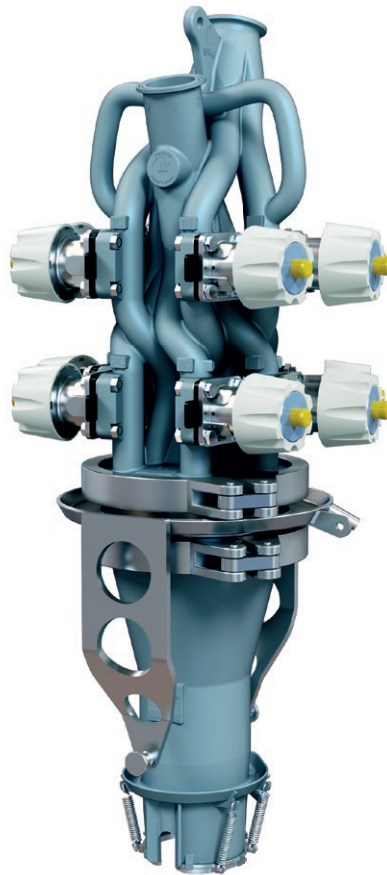




# Tetra Pak® Multi Section Extrusion Nozzle



## Application

Tetra Pak® Multi Section Extrusion Nozzle is a two-colour nozzle for production of ice cream featuring patterns and different shapes. It is suitable for both stick and sandwich production, and for dairy and non-dairy based products. The Tetra Pak® Multi Section Extrusion Nozzle can be mounted on all Tetra Pak® Extrusion lines.

## Highlights

- Fast start-up
- Easy to adjust
- Reduced waste
- Repeatable product quality
- Food safe

## Working principle

The Tetra Pak® Multi Section Extrusion Nozzle consists of two parts, an ice cream distributor and a nozzle.

Supply of two colours of ice cream is connected to the distributor which divides each of the two colours into six flows. The nozzle is connected to the distributor. It leads a total of twelve (2\*6) flows into the desired pattern and shape. The product will have a stick inserted and is cut onto the tray of the extrusion table.

## Standard design

The Tetra Pak® Multi Section Extrusion Nozzle is 3D-printed in FDA approved, detectable plastic material. The 3D printing technology allows complex designs and has no welding or dead ends in the product area.

The system requires stable supply of ice cream in terms of viscosity and flow to each production lane.



**Figure 1** Distributor

The distributor has twelve numbered valves for separate control of each flow to obtain the correct ice cream appearance.

The nozzle design is based on customer drawings of the product and the product drawings requires validation by Tetra Pak before ordering.

To produce other product designs, the nozzle is exchanged and the flow is adjusted with the valves on the distributor. Only the nozzle is exchanged and the distributor remains in position.

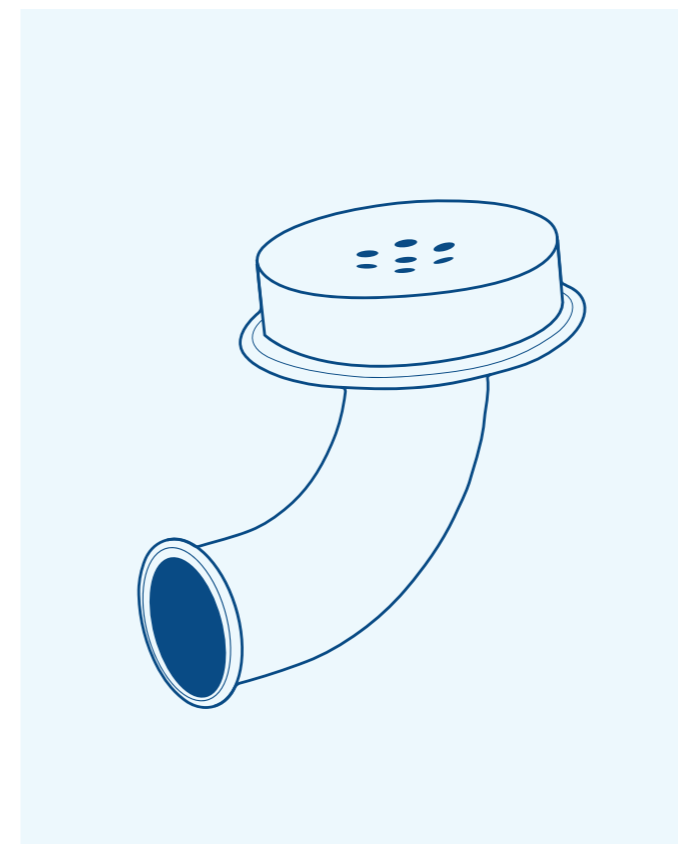


**Figure 2** Nozzle and tip protection

At the outlet of the nozzle there is a titanium tip protection, creating an ideal interface to the wire cutter.

To switch between different ice cream product designs, you only need to exchange the nozzle and adjust the flow on the valves.

Interface to both the manual and automatic stick inserter are supported.



**Figure 3** CIP collector

When a production run ends, the ice cream connection is exchanged with CIP supply and the nozzle is exchanged with a CIP collector. This will collect and lead CIP water in a controlled way and secure the right flow conditions in the distributor for optimal cleaning.



**Figure 4** Nozzle box

The Tetra Pak® Multi Section Extrusion Nozzle is delivered in a box for easy storage, preventing the unit from damage when it is not in use.

### Main components

- Distributor with valves
- Product specific nozzle
- Tip protection
- CIP collector
- Storage box

### Capacity

One system per extrusion lane, matching the extrusion line capacity.

### Product dimension:

Width	Length	Thickness
30 – 80 mm	70 – 105 mm	18 – 30 mm
Minimum volume per colour		Stick shape
12 ml		Standard paddle and straight stick