

# Zero Energy Expansion: GTA Food & Beverage Facility's New Production Line



Client: Food & Beverage Manufacturing Facility, Greater Toronto Area (GTA)

## The Challenge

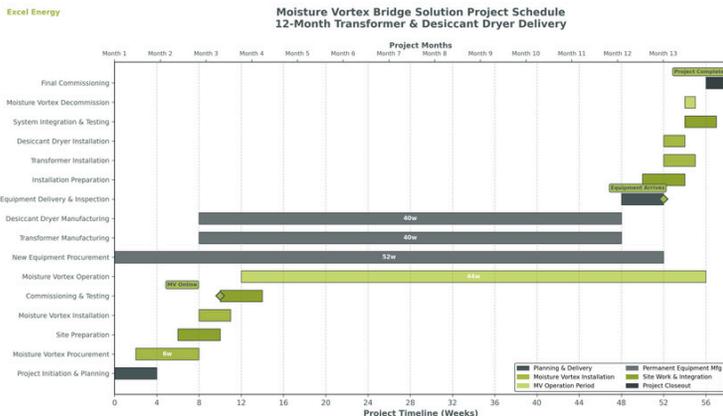
A food and beverage facility required quantification of dewpoint and chiller capacity for a new automated portioning line. Lean measurements and ASHRAE calculations confirmed near-condensing conditions without supplemental desiccant dehumidification. A new transformer for permanent dewpoint control was 18 months away.



## Our Approach

Excel deployed a FEL methodology to bridge project milestones:

- Deployed lean measurement and expert calculation for humidity and temperature trends.
- Designed a micron droplet removal system (Munters droplet vortex) targeting the new line's cabinet.
- Implemented the moisture vortex as a 12-month interim solution pending full desiccant drying.



## The Solution

The vortex removed ~70% of the added moisture load while recycling conditioned air, minimizing chiller demand. After initial operation without the vortex confirmed elevated humidity, the system and closed-loop piping were installed to maintain RH below 60%.



## Remedial Actions:

- Munters vortex moisture separator
- Closed-loop piping returning conditioned air to the space

## Outcomes

- Millions in additional high-season production revenue
- CFIA compliance achieved during the bridge period
- Revenue enabled further expansion once the new electrical supply was installed

## Partners

Munters • Multitester Electric

**Ready to accelerate your production expansion? Contact Excel for a no-obligation consultation.**