



# Insulet Omnipod

Insulet Corporation is an innovative medical device company based in Bedford, Massachusetts. It was founded in 2000 with a mission to improve the lives of people with diabetes. Specifically, Insulet seeks to expand the use of insulin pump therapy through its revolutionary OmniPod Insulin Management System.

## The Product

The OmniPod is a small, discreet device that delivers insulin without shots or tubing. The Pod is watertight and durable and weighs just 1.2 ounces when filled.

## Project Scope

Insulet partnered with Flextronics to meet high-volume manufacturing requirements and speed time-to-market, while realizing significant cost savings. Our objective was to reduce Insulet's product cost by 50 percent, allowing them to significantly expand their market penetration by making the device more affordable. By achieving this cost target, this unique insulin therapy device could be positioned as both an innovative tube-free, simple to use product and a cost effective alternative to traditional devices.

## Challenges

The duplication of a fully-automated line was expensive and had an aggressive lead time of eight to 12 months.

## Solution

Flextronics and Insulet partnered to transfer the product to our Shenzhen facility, which has been manufacturing medical devices for over 20 years. The facility is ISO 13485 certified and compliant with FDA and SFDA requirements. The Flextronics team also analyzed the production line and recommended a semi-automated line that utilized automated work stations for each key function but eliminated the need for the closed automated system.

## Key Success Factors

Quality Assurance:

- Customized quality control plan created for Insulet
- Fully certified with ISO 9001 and 13485
- Experienced in IQ, OQ, and PQ, including software validation and automation validation
- Comprehensive knowledge acquisition planning based on similar product experience from basic product knowledge to advanced trouble-shooting skills, self-sustaining on managing, and maintaining mass production activities
- Knowledgeable and skillful dedicated customer-focused team, designing and maintaining production fixtures, semi-automated and automated equipment

## Business Benefits

- Installed semi-automated line in 3 months
- Obtained Value Added Tax (VAT) waiver
- Reduced overall plastic components costs by 50 percent
- Slashed unit price by more than 60 percent

Fast Time-to-Market:

- Innovative process development – short lead-time for semi-automated equipment, usually 12 weeks after design approval (ready for validation) versus an eight to 12 month lead-time for a highly automated system
- Easier and faster verification and validation – the semi-automated system takes weeks for validation, whereas the highly automated system usually takes months for validation
- More flexibility – semi-automated system usually more configurable and can ramp up the production quantity much easier than the highly automated system

**Results**

By partnering with Flextronics, Insulet achieved multi-million dollar cost savings while building and validating the semi-automated equipment in China versus the fully-automated system. The semi-automated line was installed within three months, one quarter of the time required for the fully automated system. The new semi-automated line has 40 percent more capacity than the original fully automated line. This additional capacity enabled Insulet to defer setting up a duplicate line for 12 months.

Flextronics also leveraged its long term relationship with the Chinese government to obtain a Value Added Tax (VAT) waiver for this customer's product category, which provided a four percent tax savings.

Best of all, the unit price of the Pod has dropped by more than 60 percent.



**QUALITY**  
**INNOVATION**  
**SPEED**  
**COST**

For more information, please visit [www.flextronics.com](http://www.flextronics.com) or contact [medical@flextronics.com](mailto:medical@flextronics.com)

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