

## Stainless Steel Panel PC Features to Consider as a Food Processing Facility



Application Story

In the food and beverage processing industry, maintaining high standards of cleanliness and hygiene is essential. These sectors operate under strict regulations to ensure that food is processed in a clean environment. Any violation of food safety regulations can have serious consequences for consumer health and can significantly impact businesses. Food contamination incidents can harm brand reputation and affect a company's profitability.

[Industrial panel PCs](#) have become a vital part of automated control systems, enhancing processes, productivity, and data collection. In industries with high demands for corrosion resistance, durability, and hygiene—such as food, beverage, and pharmaceuticals—stainless steel industrial panel PCs offer distinct advantages. The [Darveen SPC stainless steel industrial panel PCs](#), with their sleek design and robust performance, perfectly meet the needs of these sectors.

### Main Challenges in Food Processing Factories

- **Challenging Environmental Conditions**

Food and beverage processing environments are often humid, harsh, and subject to extreme temperatures. Standard PCs can corrode or fail under these conditions, while stainless steel industrial panel PCs offer waterproof, dustproof, and corrosion-resistant properties, making them ideal for these demanding environments.



- **Touchscreen**

The equipment should be easy for production workers to operate. Resistive touchscreens respond to single-point pressure, making them suitable for gloved use. Capacitive touchscreens support multi-touch functionality, allowing actions like zooming and dragging.

- **Resistant to Water and Industrial Cleaners**

The food industry imposes strict hygiene standards on all equipment in production lines, requiring frequent cleaning with water and cleaning agents. Hardware must have a sealing rating of at least IP65, IP66, or even IP69K.

- **Corrosion-Resistant Stainless Steel**

Equipment in food production facilities is typically made from non-corrosive materials, such as corrosion-resistant SUS 304 stainless steel. For even greater durability, SUS316 is the toughest, most corrosion-resistant option, suitable for marine, military, or acid-resistant applications.

- **Seamless Design**

To prevent bacterial growth, equipment design should avoid seams and crevices. However, seamless hardware designs are rare in the market due to the increased production complexity and cost.

## Darveen Stainless Steel Panel PCs

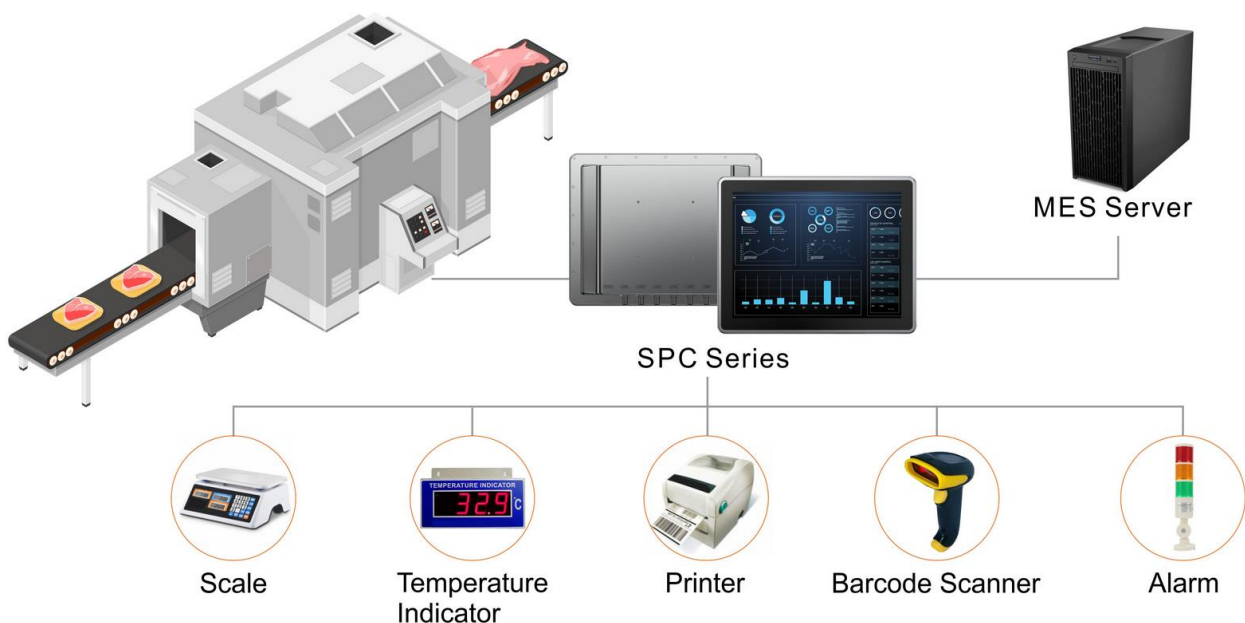
The Darveen SPC Series is a fully sealed, waterproof stainless steel industrial panel PC designed for the food processing industry. It serves as an HMI, supports ERP software, and facilitates data collection, operating reliably in harsh environments for extended periods.

Key features include:

- **High-Performance Processors:** Powered by Intel® Core™ processors for fast data analysis and real-time decision-making, with options for economical Intel® Celeron® or ARM-based processors.
- **Corrosion-Resistant Stainless Steel:** Made with SUS304/316 stainless steel, the housing offers excellent corrosion resistance, able to withstand cleaning agents and high-pressure washing.
- **IP66 Fully Sealed Design:** Easy to clean during production, meeting stringent hygiene standards.
- **Durable M12 Connectors:** Robust and secure, these connectors are waterproof and dustproof, ensuring long-term stability.
- **Seamless Enclosure:** The [SPC-9150](#) and [SPC-9185](#) feature a seamless one-piece molding rear casing, creating a smooth, seamless design that is rare in the market.
- **True Flat Surface:** Enhances aesthetic appeal while also improving cleanability.
- **Comprehensive I/O Options:** Includes USB 2.0, RS232/RS485, and GigaLAN ports for equipment data collection and data upload to MES or cloud.



The [Darveen SPC Series](#) connects to MES servers or ERP systems via Ethernet, while scanners, scales, and other peripherals connect through serial or USB ports for barcode or QR code scanning and weight measurement. Operators collect data such as product name, origin, and production time into the SPC computer for processing. The SPC then transmits this information to a printer, which produces a QR code for packaging. This allows businesses and end consumers to scan the QR code to trace the production history and distribution path of the food products.



## Recommended Products



### Stainless Panel PCs (SPC Series)

- 12th Gen Intel® Core™ i5-1235U or Celeron® J6412
- 10.4"/12.1"/15"/18.5" capacitive or resistive touchscreen
- Stainless steel SUS304/316 housing
- M12 I/O connectors
- -10-50°C wide operating temperature
- Fanless and IP66 protection
- 9-36 VDC input

For more information visit [www.darveen.com](http://www.darveen.com) | Send us an email to [sales@darveen.com](mailto:sales@darveen.com).

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