

A woman in a white lab coat and hairnet is working in a laboratory. She is looking at a piece of equipment. The background shows large glass vessels and pipes, suggesting a food or beverage processing plant.

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Optimizing Food & Beverage Processing

with Sanitary Design



## The Business Challenge

When it comes to new food and beverage facility builds, remodels, and expansions, BLÜCHER understands the challenge that project teams are up against. They're tasked with finding effective, new ways to improve safety and increase productivity at their operation while being mindful of budgets and return on investments.

They need solutions which deliver efficiency, performance, and durability — **24/7/365**.

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## A Need for Efficiency in Sanitation

Sanitation is of utmost importance for food and beverage processors—they develop Sanitation Standard Operating Procedures, Hazard Analysis and Critical Control Points, Master Sanitation Schedules, and more to ensure compliance with sanitation and safety standards. So why have meat and poultry recalls increased by two-thirds from 2013 to 2018? \* And why did 2018 see the most multi-state outbreaks of foodborne illness in over a decade? \*\*

Experts say the rise in recalls is a result of food safety regulators' improved capacity to trace connections between foods and microbes. Regulators now require even more transparency into a facility's sanitation and safety procedures, state laboratories now have an increased capacity to detect foodborne drug-resistant bacteria, and third-party audits are becoming more and more prevalent for food and beverage processors in the United States.

\* Food Recalls Up 10 Percent Since 2013 As Foodborne Illnesses Kill 3,000 Americans a Year  
Sean Rossman

\*\* 2018 Saw the Most Multistate Outbreaks of Foodborne Illness in More Than a Decade, CDC Says  
Laura Reiley

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## How Non-Compliance Impacts Operations

Non-compliance issues at any level can have a massive economic impact on businesses. In a survey conducted by the Grocery Manufacturers Association (GMA), half of international food and beverage companies reported being negatively impacted by a food recall\*. Of that segment, 18% said the associated costs and lost sales totaled between \$30 - \$99 million, while 5% said the financial impact on their business was \$100 million or more.

With operational performance at stake, there's zero room for compromise in your processing facility.

**18%** involved in recalls lost  
**\$30 Million - \$99 Million**

\* Scharff, Robert L. "Economic Burden from Health Losses Due to Foodborne Illness in the United States." *Journal of Food Protection*, vol. 75, no. 1, 2012, pp. 123-131., doi:10.4315/0362-028x.jfp-11-058.

## A Long-Term Investment for Long-Term Benefits

Once installed, the construction materials and equipment in your processing facility have a significant long-term impact on sanitary conditions, operational costs, and performance outcomes. For complete confidence in your selection, you need a solution that:

- Effectively limits contamination and delivers superior microbiological cleaning outcomes.
- Optimizes your use of resources (time, money, water, cleaning chemicals).
- Is reliable, durable, and versatile – regardless of what the future may bring.

Although the investment cost in solutions that meet these critical business needs may be more than basic materials, the benefits are abundant and long-lasting. In addition to helping protect companies against interruptions in production, hygienically designed drainage helps with regulatory and Hazard Analysis and Critical Control Points (HACCP) compliance.

Investing in a sanitary drainage system can also lead to long-term cost savings and increased operational efficiency by minimizing cleaning times, cleaning chemical and water usage, labor costs, and maintenance costs while maximizing production output.

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## Harborage Points in the Processing Environment

Harborage points are poorly designed, wet areas where liquid pools, putting them at high risk for bacterial growth. Common harborage sites result from:

- Cracks and crevices in floors
- Drainage systems that lack efficient flow
- Separation of drain from the floor
- No integration of drain in floor design

Once inside harborage points, bacteria can create biofilm and multiply, making it much more difficult to kill and remove from surfaces. This can lead to compliance issues for ultra-sanitary applications such as food and beverage processing.

Among the common mistakes when planning a drainage system are insufficient flow capacity to remove all water causing pooling on the floor, insufficient capacity to collect waste from processing, and inadequate access for cleaning inside the drainage system. Each of these mistakes contribute directly to the harboring and growth of bacteria in the processing environment.

The risk of non-compliance and potential production shutdown is only compounded by the lack of sanitary drainage systems in food and beverage manufacturing facilities.

Traditional drain cleaning can facilitate the spread of bacteria through use of high-pressure hoses and scrubbing with drain brushes—methods which are likely to splash, creating aerosols that spread contamination throughout the processing environment. Traditional drain cleaning is also labor intensive, which can lead to human error on the part of late-night sanitation crews.

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## Sanitary Design

Sanitary design, or hygienic design, is the application of design techniques that allow for the timely and effective cleaning of the entire manufacturing asset. Sanitary design is about food safety, food quality, and operational efficiency.

When it comes to drainage systems, sanitary design requires the use of non-porous, corrosive-resistant, chemical-resistant material and rounded corners to reduce areas of risk in the floor like cracks and crevices that harbor bacterial growth.

There are many different versions of sanitary design guidelines provided by organizations across the globe such as the Grocery Manufacturers Association (GMA), the European Hygienic Equipment & Design Group (EHEDG), the North American Meat Institute (NAMI), and more.

### Basic sanitary design principles include the following:

- Cleanable to a Microbiological Level
- Must Be Self-Draining
- Made of Compatible Materials
- Accessible for Inspection, Maintenance, and Sanitation



## Sanitary Drainage, Reimagined

Traditional drainage systems have advanced very little to keep up with the increasing demands of providing a sanitary processing environment. However, food and beverage industry thought leaders are increasingly recognizing the food safety risks inherent in traditional drainage systems and how they're cleaned, including what occurs in subfloor drainage. With this comes a growing awareness of contamination risks and need for new, innovative solutions.

Answering this need, we've created the HygienicPro® system: a durable, sanitary stainless steel drainage system engineered to meet the stringent sanitation demands of food processing and beverage production facilities. Its patented, design features round drains, engineered curves, and non-porous, stainless steel surfaces to ensure a cleaner, more sanitary facility – all while conserving time, money, and water. Between the unique design and use of stainless steel, HygienicPro minimizes wear and tear from facility traffic, harsh chemicals, and high-temperature cleaning.

With HygienicPro, your company can be future-ready – ready for new applications, new regulations, and decades of wear and tear.

- Production down-time reduced
- Easy and efficient floor cleaning
- Secure and durable bonding to floor
- Fast and easy drain cleaning
- Neat and safe installation
- Efficient flow towards outlet
- Hygienic floor concept

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We understand how important it is for food and beverage manufacturers to improve their business operations, protect their brand, and deliver great financial returns. That's why we offer an integrated portfolio of durable, customized stainless steel drainage solutions (flooring, piping, and drains) tailored to the complete sanitation ecosystem and every touchpoint within it.

Learn more about optimizing operational performance and reducing labor costs at your facility with HygienicPro®, our most efficient and most durable drainage system ever:

<http://go.watts.com/blucherfb>

Click [here](#) to request a call from one of our sales representatives.

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