

Beyond Standard: A Custom SS Series™ Drainage Project

Vitamin (Food) Processing Warehouse



Problem

The project presented several unique challenges that required a 316L stainless steel drainage system capable of handling demanding conditions, varying load requirements, and high-capacity flow rates within an industrial application. Large sump pits, up to 2' x 8', needed to support forklift-rated traffic, while metric run-length requirements created gaps that could not be accommodated with standard channel lengths. The layout also included transitions between designated forklift and pedestrian-rated sections, as well as multiple high points and changes in flow direction.

Solution

The drainage system needed to be designed around the project's industrial equipment, unique dimensions, loading conditions, and flow patterns. As a result, the in house engineering department at Trench Drain Systems designed and fabricated a custom SS Series drainage solution specifically for the project. The system incorporated large 316L stainless steel sump pits, along with custom channels and grates to meet the required run lengths and load ratings to accommodate areas where standard components and configurations were impractical.

Custom layouts were developed for the transitions between forklift and pedestrian rated sections, providing the appropriate loading capabilities for each area. The overall drainage layout was engineered to work around multiple high points and directional changes, allowing flow to be managed throughout the system.

The result was a fully customized stainless steel drainage system designed to work with the project's complexities while meeting its specific demanding requirements.

<https://trenchdrain.com/pages/manufacturers-trench-drain-systems/custom-products>

Technical Data

Product: TDS custom metal fabrication

Process: Concrete installation

Materials: 316L Stainless steel

Application: Industrial processing warehouse

Sizes: Varied custom sizes and dimensions

Manufactured By: Trench Drain Systems

This case study highlights the use of TDS products. Installation, workmanship, and project-specific design are the responsibility of the installing contractor and appropriate project professionals.