Plastic Concepts, Inc.

Project Profile

Custom Ventilated Balance Safety Enclosure (VBSE)

www.plastic-concepts.com
2 Sterling Road, Billerica, MA 01862
978-663-7996

Project Overview

This project profile highlights a custom-designed and manufactured Ventilated Balance Safety Enclosure (VBSE) developed from the ground up to meet our customer's unique requirements. The client sought a VBSE with highly specific interior features, and our engineering team responded with a solution that prioritizes safety, accuracy, and ergonomic design.

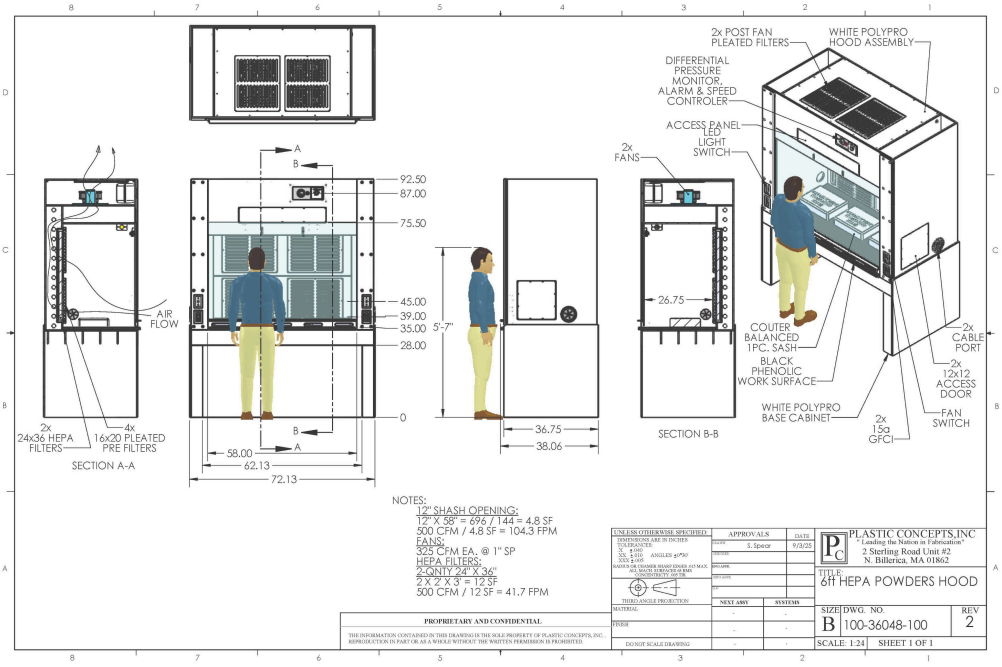
"UNDERSTANDING THE CUSTOMERS NEEDS IS THE FIRST STEP TO DESIGNING THE RIGHT SOLUTION"

DESIGN OBJECTIVES

- Client-Centric Customization: Every aspect of the unit's interior was tailored to the client's specifications, ensuring optimal workflow and usability for their weighing processes.

- ANSI Z9.5 Compliance: The enclosure was meticulously designed and manufactured to fully comply with ANSI Z9.5 standard for performance, design, safety, and energy efficiency.

- Low Flow Control System: Integrated low flow control mechanisms maintain precise airflow, enabling highly accurate weighing operations and minimizing disturbances within the enclosure.



Key Features and Conclusion

KEY FEATURES

1. Redundant Filtration: The unit incorporates dual HEPA filtration at the rear plenum and secondary HEPA filtration at the top of the enclosure. This built-in redundancy ensures maximum containment and air purity, exceeding standard safety protocols.

2. Precision Engineering: Each component was selected and placed with careful attention to detail, supporting the client's need for precision during sensitive weighing procedures.

3. Ergonomic Design: The enclosure layout was developed to provide comfortable and efficient access, reducing operator strain and enhancing overall productivity.

4. Safety First: Safety was the paramount responsibility throughout the design and manufacturing process, with every feature rigorously evaluated to protect personnel and product integrity.

CONCLUSION

The custom VBSE unit stands as a testament to our commitment to delivering solutions that meet and exceed customer expectations. By combining advanced airflow control, redundant filtration, and ergonomic design within the framework of ANSI Z9.5 compliance, we have created a product that supports precise laboratory operations while ensuring the highest standards of safety and usability.

"The custom VBSE unit stands as a testament to out commitment to delivering solutions that meet and exceed customer expectations"