



Mundus HD[®]
by EQUASHIELD

Overview

One Platform. Fully Integrated Protection.

Meet **EQUASHIELD® Mundus HD** – the next evolution in automated hazardous compounding. Designed to redefine pharmacy performance, Mundus HD brings together unmatched safety, intelligent automation, and proven efficiency in a single, powerful platform.

Built on EQUASHIELD's industry-leading CSTD technology, Mundus HD significantly reduces exposure risk and contamination while delivering precise, consistent compounding every time. Its streamlined workflows and high-throughput performance – up to 37 doses per hour – keep pharmacies moving faster without compromising quality.

Advanced image-based dose verification and enhanced traceability, combined with broad compatibility, support a wide range of medication vials, IV bags, infusion devices, and cassettes used in standard clinical practice.

With Mundus HD, compounding becomes safer, smarter, precise, and scalable – no matter the size of your pharmacy.



Dosage Error
Protection



High
Throughput



Compact
Footprint



Seamless
Integration with
EMR

The Future of Safe Compounding

Up to **37**
Individual doses
per hour

02
Shaker stations for
reconstitution

03
Compounding
stations

03
Advanced image
processing cameras

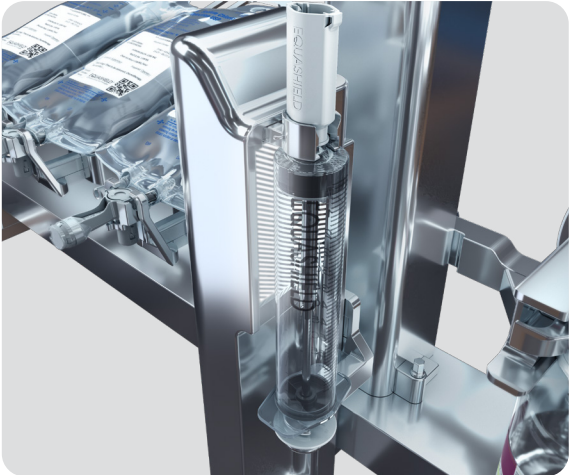
32 kg
72 lbs

H608 × W788 × D414 mm
H24 × W31 × D16.3 in

One system. Every workflow.



IV Bag Preparation / Standard IV Bag
/ Semi Rigid Bottle
/ Luer IV Bag

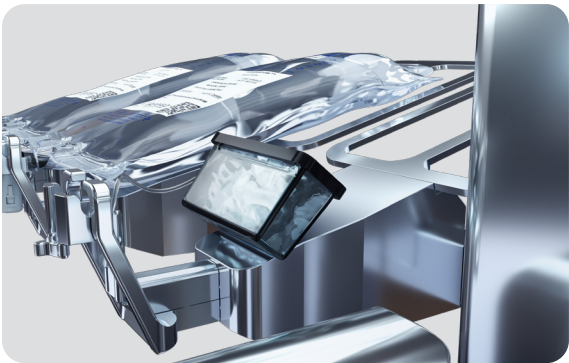


Syringe Unit Preparation / Size 1ml-60ml
/ Smallest dose 0.3ml
/ Fully closed Syringe Unit

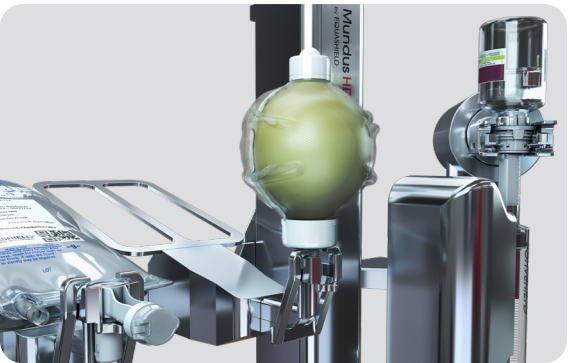


Reconstitution / Reconstitute and shakes
/ Modifiable shaking parameters

Infusion Devices



Cassettes / Fills with IV Solution and
medication as per order



Elastomeric Pumps / Fills with IV fluid and
medication as per order

Accuracy & Quality Assurance



-  Servo motor precision control
-  Multi-step validation
-  Advanced image processing
-  Bubble detection
-  Track and trace

Modular by Design

Modular design enables fast assembly, disassembly, and **self-calibration** for efficient **cleaning** and maintenance. **Stainless steel** construction ensures durability, chemical resistance, and compatibility with cleanroom cleaning agents, **minimizing downtime** during cleaning and service.



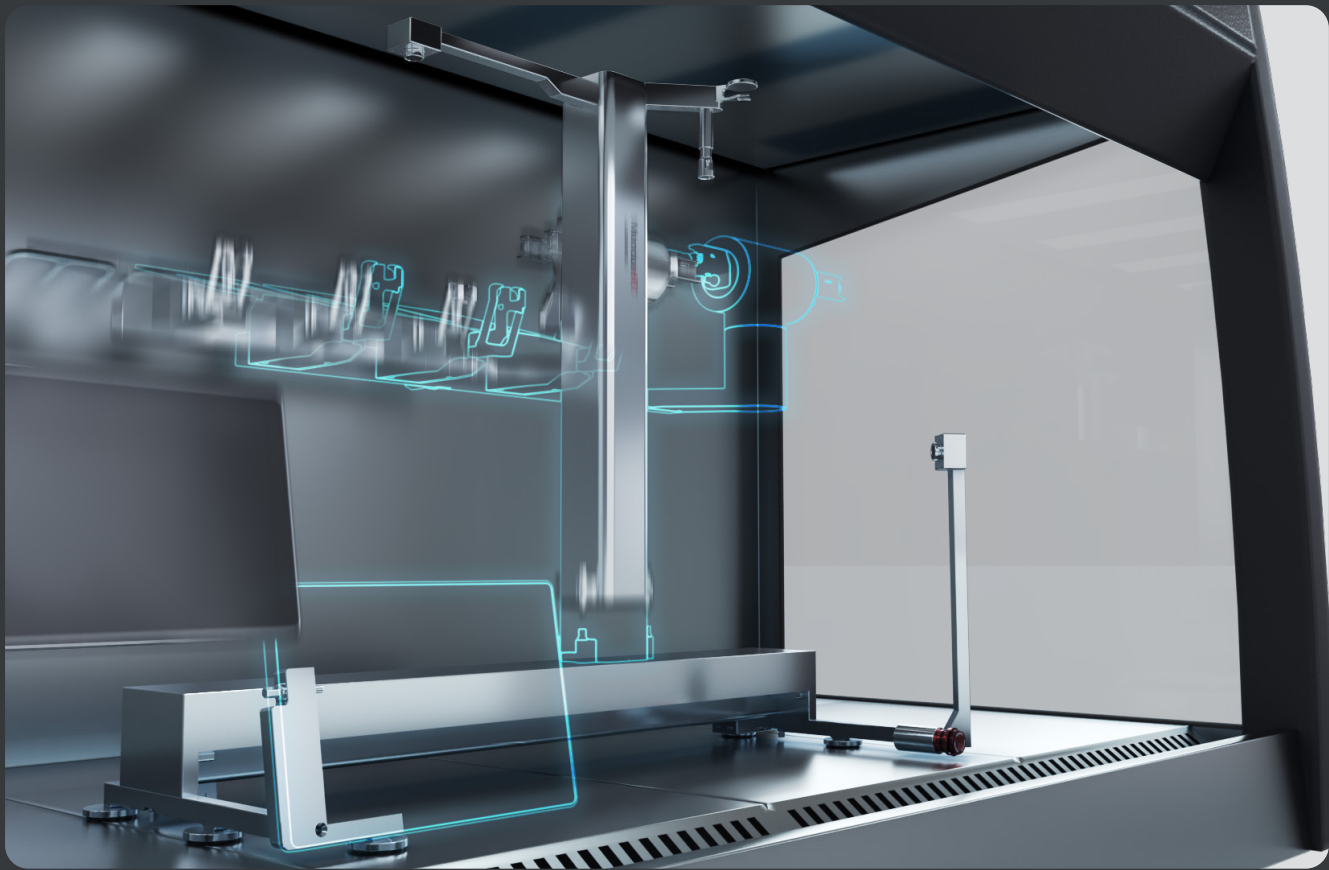
Dose Accuracy

Volumetric with Advanced Image Control

- / Accelerates compounding speed
- / No reliance on specific gravity inference
- / Eliminates volume calculation assumptions
- / Reduced need for frequent calibration
- / Less sensitivity to external environmental factors

Powered by Industry Leading Technology

- / Servo-driven precision with advanced image processing
- / Exceptional dosing accuracy, every step of the way
- / Closed-loop control driven by real-time visual feedback



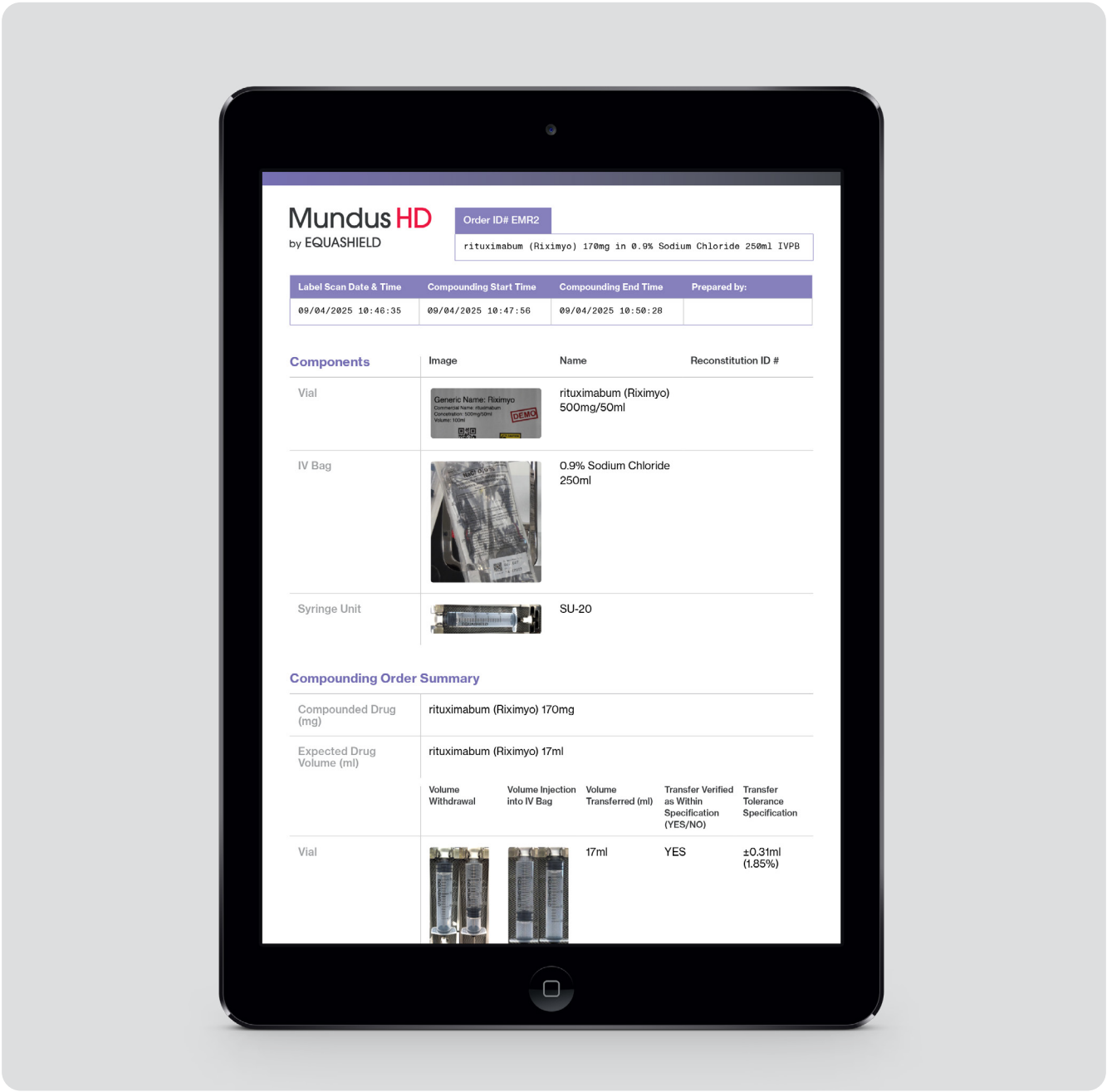


Intuitive Interface

Designed with a guided, intuitive interface that simplifies operation and supports users throughout the entire workflow.

Traceability

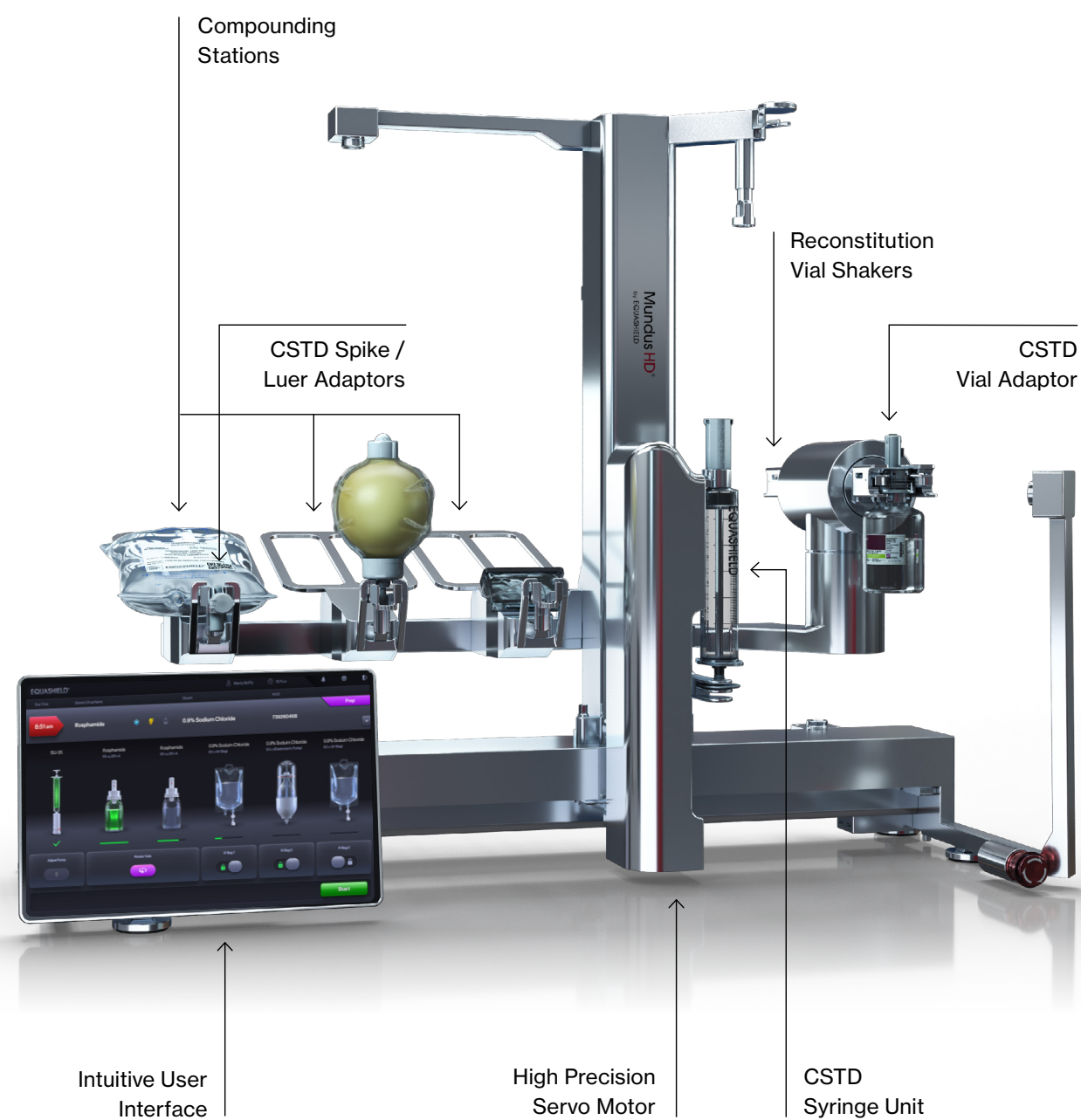
Upon completion of each preparation, a comprehensive traceability report is generated, providing full transparency into all components and every step of the preparation process. The report is available for remote review, enabling effective oversight and quality control for supervisors and management.



Camera-Based Verification & Validation



System Configuration Overview



Electrical Specifications

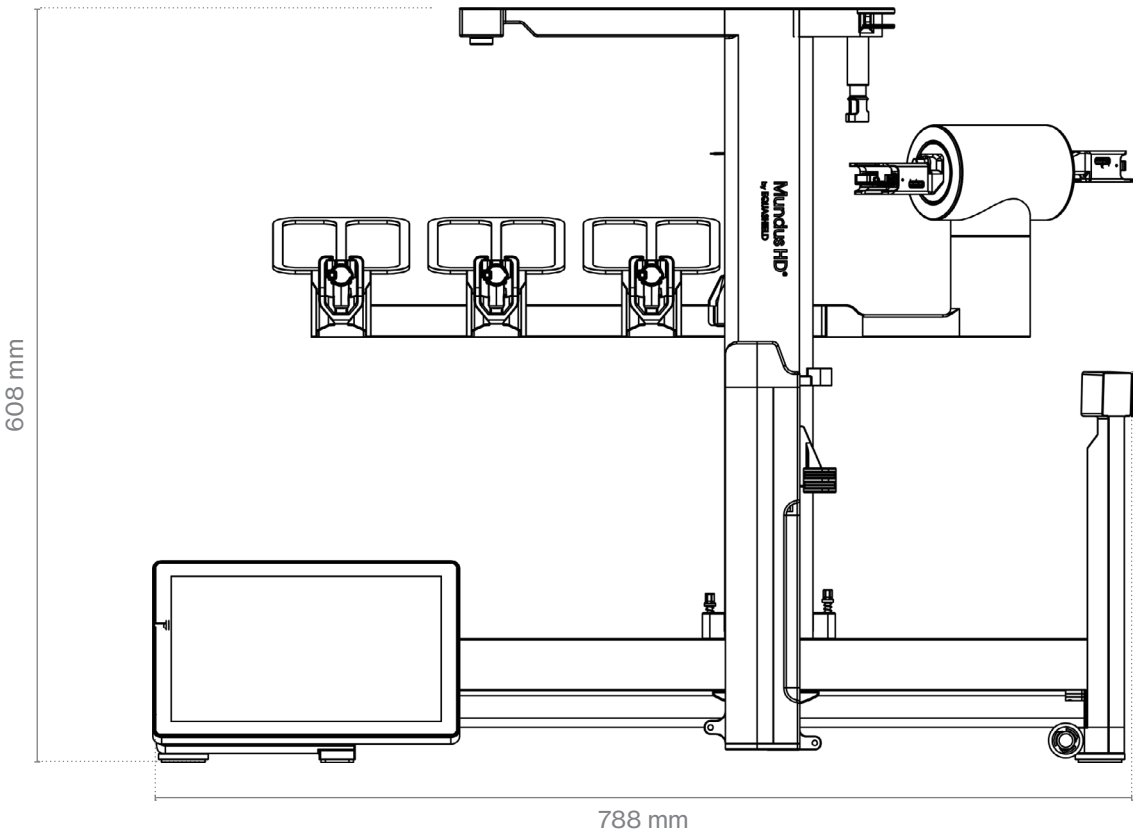
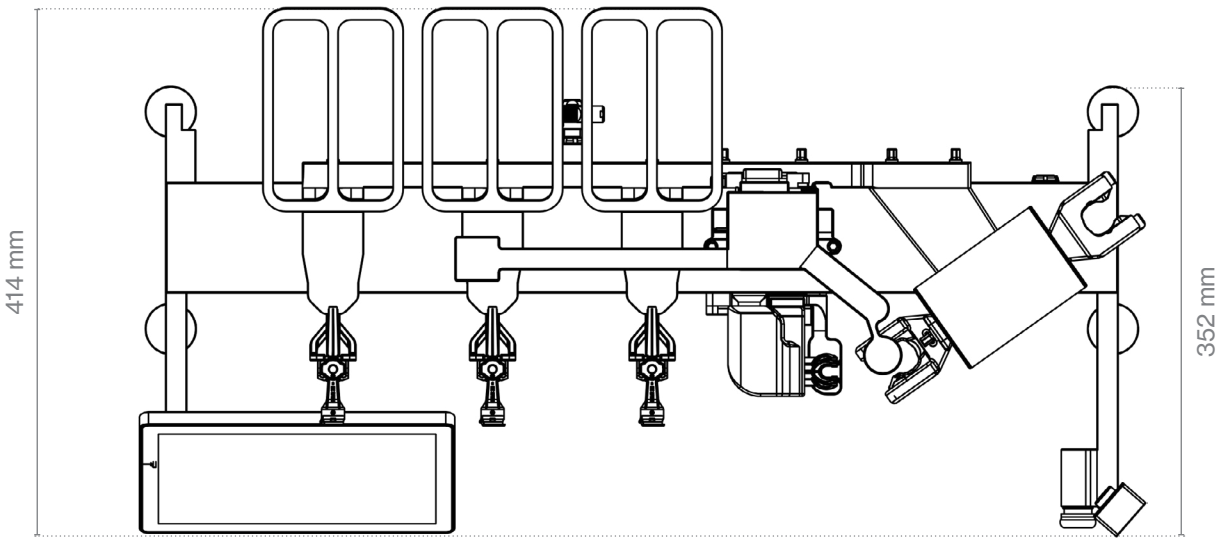
- / Ingress protection: IP 52 (DIN EN 60529)
- / Supply type: 1P
- / Connection type grounding: TT, TN
- / Input: 230 V~, 50 Hz, 8 A
110 V~, 60 Hz, 16 A
- / Electrical power consumption: 3.7 kW max
- / Arrival line protection required: Circuit breaker
- / Incoming line differential protection: Not expected
- / Framework for the EMC: Class A (according to IEC 61326-1)
- / Power supply: 24V

Environmental Specifications

- / Dimensions: H 608 x W 788 x D 414 mm (24 x 31 x 16.3 in)
- / Weight: 32 kg (72 lbs)
- / Operation Temperature: +10°C to +40°C (50°F to 104°F)
- / Operation Humidity: 0% to 60% (non-condensing)
- / Operation Altitude: 0 to 2000 meter (6561 feet) above sea level

*The device is designed to be used in a PEC placed in a clean room.

Technical Specifications



Key Features in Compounding Automation

Essential capabilities for modern pharmacy compounding

- 

Throughput

Delivers up to 37 doses/hour, supporting the demands of high-volume HD compounding.
- 

Full Automation

Automates all of the compounding steps to ensure consistent, standardized technique for every preparation.
- 

EQUASHIELD CSTDs

A fully closed system ensures all fluid transfers remain contained, safeguarding the preparation while protecting staff and the environment throughout the process.
- 

Automated Verification

Verifies every item and step in the process, engineering potential sources of error out of the workflow.
- 

Knowledge-Driven

Powered by an easy-to-manage drug knowledge database that supports accurate and repeatable preparation.
- 

EHR Integration

Supports HL7 and RDS interfaces with bidirectional integration to electronic health record systems.
- 

Resource Efficient

Utilizes multidose vial contents efficiently to help minimize drug waste.
- 

Compact by Design

A compact, thoughtful design that fits effortlessly into existing cleanroom environments and BSCs.
- 

Cost Effective

Flexible purchase and rental options provide cost predictability while supporting sustainable operational planning.
- 

Staffing Efficient

Reduces the need for additional staff while streamlining pharmacist inspection and review.
- 

Regulatory Compliance

Designed to support compliance with USP <797> and USP <800> requirements.
- 

Future Ready

Built to support scalability and evolving needs.

EQUASHIELD®
Compounding Technologies



Learn more at <http://www.equashield.com/products/mundus-hd>