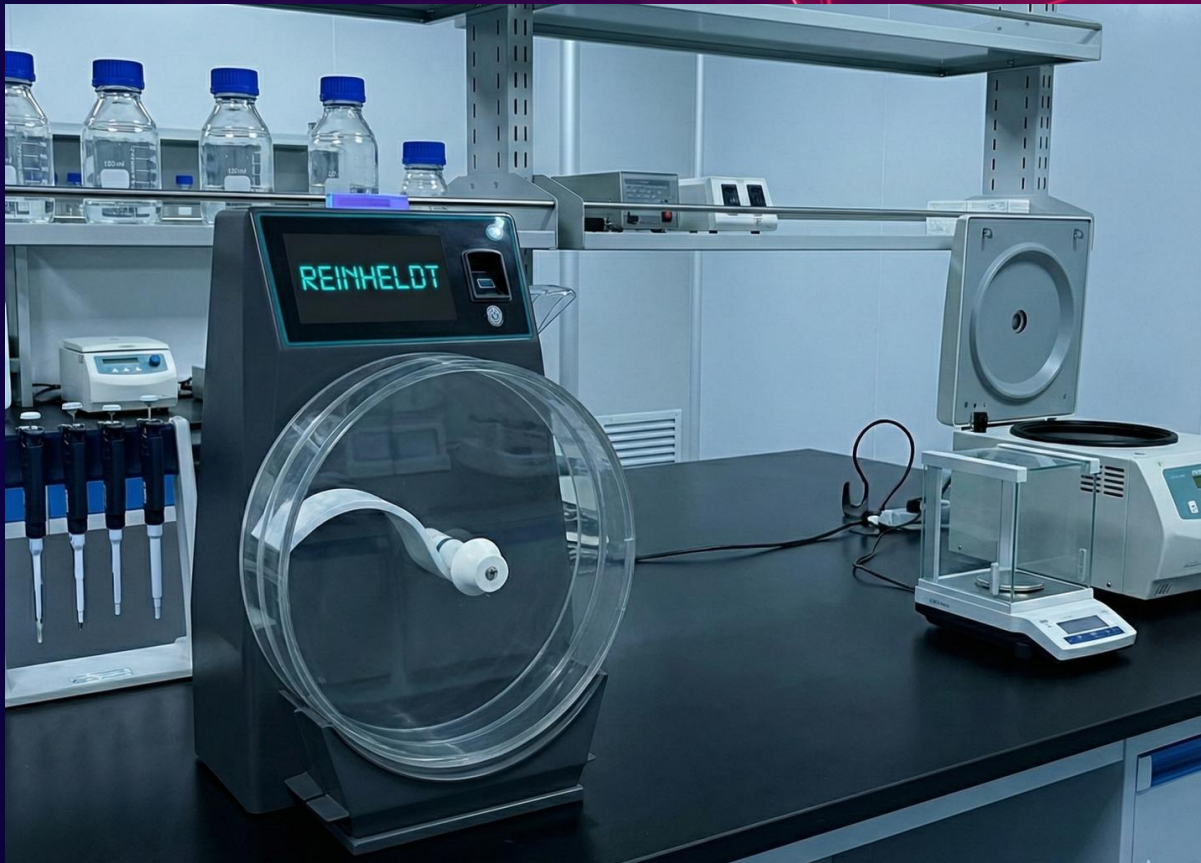


REINHELDT GmbH

Technical Overview:

RFT 150 New Gen Friability Tester

Manufacturer: Reinheldt



Reinheldt GmbH

Feldstr 14, 86922 Eresing Germany

Tel: +49(0)81939906-108

FAX: +49(0)81939961-409

1. System Description

The **Reinheldt GmbH New Gen** is an advanced friability testing apparatus designed with "Quality by Design" (QbD) principles. It integrates smart technology, including biometric security and intelligent weighing balance connectivity, to streamline the testing workflow while ensuring strict regulatory compliance.

2. Key Operational Features

A. Operational Efficiency & QbD

- **Automated Calculation:** The system automatically calculates percentage friability, eliminating manual errors.
- **Smart Discharge:** Features a specialized **10° drum tilt** mechanism that allows for the automatic discharge of test samples upon completion.
- **Front-Loading Design:** Samples can be loaded directly into the drum without the need to dismantle or remove the drum from the shaft.
- **Connectivity:** Seamless integration with smart weighing balances for automated weight data transfer.

B. Construction & Durability

- **Compact Form Factor:** Designed to minimize bench space usage.
- **Compliance Ready Body:** Built according to **cGMP standards** with an **IP 42 equivalent** ingress protection rating.
- **Certified Hardware:** Utilizes moulded, certified drums for consistent testing results.

C. Interface & Data Security (21 CFR Part 11)

- **User Interface:** Features an interactive 5-inch TFT touch screen.
- **Access Control:** Biometric fingerprint login ensures secure and verified user access.
- **Data Integrity:** Equipped with an electronic logbook, comprehensive audit trails, and date/time synchronization via network.
- **Disaster Recovery:** Includes automatic backup services and disaster management protocols to prevent data loss.
- **Storage:** Expanded storage for protocols, user profiles, and access levels.

3. Technical Specifications

Parameter	Specification Details
Rotation Speed	Variable: 20 to 60 RPM
Drive Motor	Stepper Motor
Timer Range	5 Sec. to 9 Hrs. 59 Min. 59 Sec.
Timer Display	0 Sec to 9 Hrs. 59 Min. 59 Sec.
Time Resolution	01 Second
Revolution Counter	1 to 9,999 revolutions
Display Type	5" TFT Color Display
Compatible Drums	Abrasion Drum (Patented) & Standard Friability Drum
Balance Interface	9-Pin D-Sub (RS-232). <i>Note: Img resolution scale recommended.</i>
Printer Support	LAN Printer; 40 or 80 column Dot Matrix
Power Input	220/230 VAC (50/60 Hz) or 100/110 VAC (50/60 Hz), 28VA
Dimensions	L=350mm, W=260mm, H=430mm (Approx.)
Weight	Approx. 10 Kgs (including drum)

4. Accessories & Maintenance

Part Numbers

Item Description	Type	Reference
Friability Drum	Standard Accessory	RH-FRI-001
Tablet Collection Tray	Standard (with drawer)	RH-FRI-002
Abrasion Drum	Optional Accessory	RH-FRI-003

Care Guidelines

- Periodically inspect drums for any signs of cracks or chipping.
- Clean drums thoroughly using de-ionized water.
- Dry using a lint-free cloth to prevent residue buildup.

5. Software License Configurations

The Reinheldt GmbH system offers scalable software licenses to meet varying facility requirements.

A. Storage & Capacity Limits

Feature	Basic	Network	Adv. Reporting	CFR	OPC
User Accounts	50	50	250	250	250
User Roles	10	10	10	10	10
Audit Trails	-	-	-	200,000	200,000
Report Templates	-	-	10	10	10
Stored Reports	1 (Last)	1 (Last)	50,000	50,000	50,000
Product Storage	20	20	1,000	1,000	1,000
Method Storage	20	20	1,000	1,000	1,000
Logbook Entries	-	-	200,000	200,000	200,000

B. Module Availability Matrix

Module / Feature	Basic	Network	Adv. Rep	CFR	OPC	DM
Basic Security	✓	✓	✓	✓	✓	
Serial Port Printing	✓	✓	✓	✓	✓	
D'light Indicator	✓	✓	✓	✓	✓	
Buzzer	✓	✓	✓	✓	✓	
Machine-to-Machine Data		✓	✓	✓	✓	
LAN Port Printing		✓	✓	✓	✓	
DHCP/Static LAN		✓	✓	✓	✓	
Network Time Sync		✓	✓	✓	✓	
Advance Security			✓	✓	✓	
Logbook			✓	✓	✓	
Report Template			✓	✓	✓	
Audit Trail				✓	✓	
Backup/Restore				✓	✓	
LIMS/MES Transfer					✓	
Disaster Recovery						✓