



## AUTOMATIC KJELDAHL ANALYZER TT-K1100F

The Automatic Kjeldahl Analyzer TT-K1100F combines distillation and titration functions, following the traditional Kjeldahl nitrogen determination method.

Automatic Kjeldahl Analyzer TT-K1100F features a state-of-the-art core control system, robust automation, and top-notch components. This Automatic Kjeldahl Analyzer TT-K1100F device effortlessly manages automatic waste disposal and cleaning of digestion tubes and titration cups, controls steam supply, and monitors condensation temperature in real time. Its high-precision charging pump and titration system ensure precise test results, while multiple fluid level detections maintain a seamless testing process.

## APPLICATIONS

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- **Food & Beverage Industry:** Determines protein content in meat, dairy, grains, and processed foods for nutrition labeling, product development, and quality control.
- **Feed & Agriculture:** Measures nitrogen and protein levels in animal feed, fertilizers, and soil samples to optimize formulations and monitor soil fertility.
- **Pharmaceutical & Biotechnology:** Ensures accurate nitrogen determination in pharmaceutical raw materials and formulations to meet regulatory compliance.
- **Environmental Testing:** Analyzes nitrogen compounds in wastewater, soil, and sludge for pollution monitoring, sustainability, and environmental protection.
- **Tobacco Industry:** Evaluates nitrogen content in tobacco leaves and finished products to support production control and research studies.
- **Research & Education:** Provides reliable, automated nitrogen and protein analysis for universities, R&D centers, and training laboratories.
- **Quality Assurance & Compliance Labs:** Supports AOAC, ISO, and pharmacopeial testing with automated distillation and titration for efficient reporting.

## FEATURES

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- The Automatic Kjeldahl Analyzer TT-K1100F offers automated distillation, titration, calculation, printing, drainage, and cleaning functions, enhancing safety and saving time.
- Its transparent titration cup design provides operators with real-time control over the entire testing process.
- The steam flow is adjustable to meet various test requirements.
- The reagent tank features a fluid absence warning function, ensuring uninterrupted testing.
- High-precision charging pump and titration system guarantee accurate test results.
- The large LCD touch screen allows for visual operation, providing users with comprehensive control.
- It offers optional USB or RS485 interfaces for PC connectivity.
- Real-time detection of distilled liquid temperature enables emergency stops in case of temperature anomalies.
- The double distillation model caters to diverse experiments, slowing down the acid-base reaction.
- A rapid drainage function for digestion tubes helps prevent operator contact with hot distilled reagents, ensuring operator safety.
- Additionally, it includes a built-in printer for added convenience.

## Complete microcomputer control

The system automatically handles distillation, titration, calculations, printing, waste disposal, and multiple safety measures. This includes self-detection for failures, alerts for condensed water shortages, displacement warnings for safety doors and digestion tubes, ensuring a comprehensive safeguarding system.

## Large LCD Touch Screen Panel

The sizable LCD touch screen provides visual operation and comprehensive information, empowering users with clear and easy control over the system.

## Automatic Kjeldahl Analyzer TT-K1100F

The design ensures complete compatibility, seamlessly integrating with similar products from the same category.

### Performance advantage

- Compatible with  $\phi$  42mm digestion tubes for seamless integration.
- Simultaneous titration during distillation for increased efficiency.
- User-friendly design featuring a color touch screen for easy operation.
- Utilizes a faster ARM system for improved operating speeds.
- Compatible digester models SH220F and SH420F with  $\phi$ mm digestion tubes are suitable matches for the K1100F.

### TECHNICAL SPECIFICATIONS

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|                 |                                          |
|-----------------|------------------------------------------|
| Measuring range | 0.1mg □ 240mg N                          |
| Analysis time   | 5□ 10min/sample                          |
| Reproducibility | Average value relative error $\pm 0.5\%$ |
| Recovery        | $\geq 99.5\%$                            |
| Burette volume  | 1.0 $\mu$ L/step                         |

|                                               |                                                                               |
|-----------------------------------------------|-------------------------------------------------------------------------------|
| Sample capacity                               | solid $\leq$ 5g/sample, liquid $\leq$ 20mL/sample                             |
| Water consumption in the distillation process | 1.5L/min                                                                      |
| Data storage capacity                         | 1800 groups                                                                   |
| Power supply                                  | 220VAC $\pm$ 10%, 50Hz (110V is also available. Please specify when ordering) |
| Power                                         | 2Kw                                                                           |
| Net weight                                    | 83.8 lbs.                                                                     |
| Dimensions                                    | 17.9 inches X 15.4 inches X 28.7 inches                                       |



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