

# Kjeltec™ 2100 Distillation Unit



Simple to use distillation unit for analysis of Kjeldahl nitrogen/protein, ammonium-nitrogen, TKN, Direct distillation (DD), volatile acids/bases etc. (Also shown in picture; Tecator™ Digester 20 Auto Lift and the Scrubber)

## Features & Benefits:

- Automatic distillation procedure; incl. alkali addition and distillation. Provides ease of use.
- Official and accurate procedures (AOAC, EPA, DIN, ISO etc) simplify validation.
- Bellow pumps for dispensing of reagents provides accuracy.
- Built-in safety systems for user protection.
- Steam Addition for Equilibration\* (SAfE) feature for safe distilling of tubes with acid/salt cake contents.
- Alkali resistant plastic splash head for long life-time.

## Description:

The Kjeltec™ 2100 Distillation Unit provides a simple and reliable solution for safe and semi-automatic distillation.

The possibility to pre-program alkali addition and distillation time supports the production of accurate results independent of operator. Accurate

bellows pumps give long term stability in reagent delivery.

The Kjeltec 2100 Distillation Unit is safe to use. The unit is equipped with sensors for safety door and level/overpressure sensors for the steam generator. The door completely covers the area in front of the operator and the unit can not be operated with the door open. The SAfE\* (Steam Addition for Equilibration) technology improves safety by a mixing procedure, reducing the exothermic reaction between alkali and acid during distillation. The drip tray can be easily removed for cleaning.

Running costs are low through optimized applications. Downtime and service costs are minimized using selected components. A routine maintenance schedule supports GLP routines.

\* Patented

**Order numbers:**

2100-001 Distilling Unit 200-240 V, 50-60 Hz Distilling unit with automation of alkali addition and distillation cycle. Built-in steam generator for deionized water or tap water. Complete with alkali tank, a set of 10 receiver flasks, adapters for 100 & 250 ml tubes and digestion tube for 100 & 250 ml.

10003834 Separate feed water system 200-240 V, 50 Hz

10003880 Separate feed water system 200-240 V, 60 Hz

**Optional accessories:**

For a complete Kjeldahl system a Digester with appropriate accessories such as Exhaust, Scrubber, test tubes and catalyst tablets should be selected. Details can be found in the separate data sheet Tecator™ Digestion Systems.

1002-022 Titration unit complete, 50 ml

10009017 Adapter for Büchi tubes

10000427 Basket for 12 receiver flasks (250/300 ml)

10000164 Receiver flasks, 250 ml (set of 10)

10000347 Kjeltec DD kit for direct distillation (DD) procedure comprising 12 distilling tubes (750 ml), 12 receiver flasks (300 ml), stand for tubes, basket for flasks and application note

10000897 Handling device for digestion tubes

**Performance data at 230 V:**

Distillation time: 4 min at 30 mg N  
(7 min at 200 mg N)  
Distillation capacity: ~ 30 ml/min  
Measuring range: 0,1 - 200 mg N  
Reproducibility: 1% RSD (including the digestion step)  
Recovery: > 99,5 % at nitrogen levels between 1 - 200 mg N  
Reagent pump volumes: 0 - 150 ml in steps of 10 ml  
Delay: 12 s  
SAfE<sup>Patented</sup>: 2 s

**Installation requirements:**

Power supply: 200-240 V 50-60 Hz  
Power consumption: 1 900 W  
Water consumption: 2 l/min at water temp of 30°C  
(During distillation 1 l/min at water temp of 15°C only)  
Ambient temperature: max. 40°C  
Ambient humidity: max. 80 % relative  
Weight net: 25 kg  
Dimensions: L × D × H = 30 × 36 × 80 cm  
Drain: For cooling water only

\*Ordering information: Use the above specified Cat. Nos. together with the text.

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