

Kjeltec™ 8200 Auto Distillation Unit



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

Features & Benefits:

- Automatic fully programmable distillation, incl. sample dilution, alkali & receiver addition, distillation and tube draining; provides ease of use
- Variable output steam generator broadens application area to other volatile components
- Official and accurate procedures (ISO, AOAC, EPA, DIN etc.) simplify validation
- Patented SAFE* feature for safe distillation of tubes with salt cakes
- Built-in safety systems for user protection
- Self adjusting cooling water control saves water and reduces costs
- Temperature control on distillate secures accurate results
- Bellows pumps for accurate reagent dispensing
- Alkali resistant plastic splash head/tube draining vessel for long lifetime
- Modularly upgradeable to analyser and sampler system

Description:

The Kjeltec™ 8200 Auto Distillation unit is the ultimate solution for safe, automatic distillation. Accurate bellows pumps give long term stability in reagent delivery. The unit is equipped with sensors for safety door, tube platform, distillate temperature as well as level and over-pressure sensors for the variable output steam generator.

The patented SAFE* technology improves safety by a mixing procedure, reducing the exothermic reaction between alkali and acid during distillation and removing the need for manual pre-dilution. A fast tube draining system removes the need for handling hot reagents after distillation.

The user is fully protected by the unique automatic safety door which must be closed with a tube in place before the unit will operate. The safety door and drip tray can be easily removed for cleaning.

Cooling water is used only during analysis and further savings are achieved through an automatic flow control function.

The Kjeltec 8200 provides the option to upgrade your unit to a complete Kjeltec 8400 analyser as your business grows. You can also add 20 or 60 place sampler changer to the analyser unit providing a fully automatic unattended operation.

** Steam Addition for Equilibration*

Order numbers:

- 82000001 Auto Distillation unit, 200 – 240 V, 50 – 60 Hz comprising:
Microprocessor controlled distillation unit with tube draining and automatic addition of water, alkali and receiver solution, Built-in steam generator for deionised water or tap water.
Complete with alkali/water/receiver/waste tanks with level sensors, receiver flask, combi-adapter for 100, 250, 400 & 750 ml tubes and digestion tubes for 100 & 250 ml, and handling device for digestion tubes
- 60032041 Kit for distillation by-pass
- 60032073 Cable for connection of external titrator
- 60032040 Kit for upgrade of Kjelttec 8200 Distillation unit to Kjelttec 8400 Analyzer unit

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™ Digester Systems.

- 60032042 Tank 20 l (Alkali/water/waste) without level sensors.
- 60032043 Level sensor kit for waste
- 60032044 Level sensor kit for reagents
- 1002-022 Titration unit complete, 50 ml
- 60030343 Adapter for Büchi tubes
- 10000089 Basket for 20 receiver flasks (250 ml)
- 10000164 Receiver flasks, 250 ml (set of 10)
- 10000897 Handling device for digestion tubes

Performance data at 230 V:

- Distillation time: 3.5 min at 30 mg N
(6.5 min at 200 mg N)
- Distillation capacity: ~ 40 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
- Tube draining: 200 ml in less than 10 seconds
- Reagent pump volumes: 0 – 150 ml in steps of 10 ml
- Delay: 0 – 1800 seconds
- SAfE_{Patented}: 0 – 15 seconds

Installation requirements:

- Power supply: 200 – 240 V 50 – 60 Hz
- Power consumption: 2 200 W
- Water consumption: 2 l/min at water temp of 30°C
(during distillation only) 1 l/min at water temp of 15°C
- Ambient temperature: 5 - 40°C
- Ambient humidity: max. 80 % relative
- Weight net: 30 kg
- Dimensions: (W×D×H) 480 × 580 × 690 mm
- Drain: For cooling water only

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