



# Steam distillation unit Kjeldahl Semi-Automatic "Pro-Nitro S"

DETERMINATION OF ORGANIC NITROGEN (KJELDAHL METHOD).  
AUTOMATIC BORACIC AND NaOH DOSAGE, SAMPLE DRAINAGE AND TEMPORIZED STOP.



Semi-automatic steam distillation Kjeldahl unit. Simple secure systematic analysis suitable for medium to large throughput of samples.

## FEATURES

Steam distillation system. Compact steam generator with safety over temperature thermostat and over pressure device. Safety door, the system will not operate if the door is open.

"Tube in place" sensor: if the tube is not located, the dosing process of NaOH will not take place.

Universal adapter for digestion/distillation tubes MACRO (Ø 42mm) and MICRO (Ø 26 mm).  
**Small footprint, saves bench top space:** The H<sub>2</sub>O, NaOH and H<sub>3</sub>BO<sub>3</sub> reservoirs are placed within the unit.

**Empty** Digestion/Distillation tube system.

Stainless steel case with reinforced ABS plastic front.

Green LED 2 digit display.

Distillation program: (Add NaOH, Add Boric Acid, Distillation time, Empty tube.)

Automatic distillate titration kit. (See accessories).

## SPECIFICATIONS

Measuring range: from 0.2 to 200 mg Nitrogen.

Programmable distillation time.

Nitrogen recovery >99.5%

Distillation speed : from 35-40ml/minute

Typical distillation time: from 7-10 minutes.

Water consumption rate: from 80-100 litres/Hr.

Steam generator water consumption: 2.5 Litres/ Hr.

Water reservoir for steam generator: 6 litres

NaOH reservoir: 2 Litres.

Boric Acid reservoir: 2 Litres

## ALARMS

Low water level for the steam generator.

Safety door open or no distillation/digestion tube in place.

Steam generator over temperature.

## AUTOMATIC

Single push button to start the distillation cycle:

- Boric acid dosing
- Start distillation.
- NaOH dosing
- Stop Distillation (Programmed time transpired.)
- Acoustic indicator at the end of the cycle.

## ADDITIONAL REQUIREMENTS

To complete Kjeldahl Nitrogen analysis a digestion block is also required.

(See Bloc Digest pages 246 and 247).

## MODEL

Part No.	Height / Width / Depth cm	Power W	Weight Kg
<b>4002851</b>	<b>75 50 50</b>	<b>1800</b>	<b>32</b>

Supplied complete with a MACRO Ø 42 mm tube, set of connection tubes, set of reservoirs.

## ACCESSORIES



**Digestion and distillation tube** Series MACRO of 250 ml volume. Graduated to 100 ml 42 mm Ø x 300 mm high.

Part No. **4042300**



**Tube for digestion and distillation** Series MICRO of 100 ml volume. 26 mm Ø x 300 mm high.

Part No. **4001045**



**Adapter kit** for automatic determinations. Vessel with location positions for pH electrode, stirrer and reagents and distillate sample.

Part No. **4001724**



## CONTROL PANEL

1. Illuminated indicator. Steam generator
2. Low water in the steam generator
3. Door open or no tube present indicator.
4. Over temperature indicator.
5. Push button and display to select parameters.
6. Mode push button, Manual or Automatic.
7. Push button, dose Boric Acid/ Push button START in automatic mode.
8. Dose NaOH push button.
9. Push button, start the distillation in manual mode.
10. Push Button, empty sample tube.

