

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





### DETERMINATION OF ORGANIC NITROGEN (KJELDAHL METHOD).

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 onen.

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 H2O and NaOH 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 140 mg Nitrogen.

Programmable distillation time. Nitrogen recovery >99.4%

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 Litres/ Hr. Water reservoir for steam generator: 6 litres

NaOH reservoir: 2 Litres. Boric Acid reservoir: 2 Litres

## **ALARMS**

Low water level in the reservoir 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.
- Empty the distillation/digestion tube.

## ADDITIONAL REQUIREMENTS

To complete Kjeldahl Nitrogen analysis a digestion block is also required. (See Bloc Digest pages 233 and 234).

### MODEL

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

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

# Compatible with the closed circuit refrigerated water circulation unit INTERCOOLER I. Water saver, (see page 96). **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



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

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Part No. 4001724



## **CONTROL PANEL**

- 1. Illuminated indicator. Steam generator
- 2. Low water in the reservoir indicator.
- 3. Door open 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.