## ABOUT THE COMPANY

Linear Chemicals S.L.U, known as LINEAR, is a Spanish company located in Montgat-Barcelona, which develops, manufactures and markets **in vitro diagnostic (IVD) instruments and reagents,** and accessories for clinical laboratory.

Linear is also an exclusive partner of Altamedica Incorporated here in the Philippines.

Since its foundation in **1994**, it collaborates and invests constantly in R&D projects to improve and facilitate work in the laboratory and clinical diagnosis field. With an international projection, the company exports all over the world: the brands Cromatest, Clonatest, Plus-Sed, LiNEAR and Neartip are distributed in **125 countries on 5 continents.**

The keys to the **success** of the company could be summed up in: highly qualified personnel, the constant improvement in productive processes and production, flexibility in production, and customer care.

# LINEAR CHEMICALS, S.L.U.

- Throughput: 420 tests/hour
- Sample tray: 100 positions
- Reagent tray: 80 refrigerated positions (at 2~10ºC)
- Sample probe: Liquid level detection, Collision protection, Inventory checking and Clot detection
- Probe cleaning: Automatic washing both interior and exterior, carryover <0.1%
- 2 reagent probes and 2 mixing probes
- Reaction system: 100 cuvettes with automatic washing station
- Water consumption: ≤20L/hour

## LIDA 500

FULLY AUTOMATED

ALTAMEDICA

# LINEAR CHEMICALS, S.L.U.

- Throughput: 200 tests/hour
- Sample Tray: 40 sample positions
- Reagent Tray: 40 refrigerated positions
- Sample probe: Liquid Level Detection, Collision Protection, Inventory checking, Clot Detection
- Probe Cleaning: Automatic washing both interior and exterior, carryover of <0.1%.
- Reading Cuvettes: 81 cuvettes, 9 per strip
- Automatic washing station for cuvettes
- 1 Mixing Probe
- Water consumption: ≤6 – 7 liters per hour

## LIDA 300
### FULLY AUTOMATED

ALTAMEDICA

# LINEAR CHEMICALS, S.L.U.

- Analytical Methods: End-Point, Fixed Time, Kinetics, Bichromatic, Turbidimetry, Multi-standard calculations
- Memory & Programs: 130 pre-programmed test protocols (e.g., Cromatest reagents), 600 patients automatically stored
- Light Source: Tungsten Halogen Lamp (6V/10W)
- Fluidic System: Peristaltic pump with flow-cell quartz cuvette, sample volume ~30 µl
- Mouse and Keyboard operation. User-friendly UI
- Display & Printing: LCD screen (color or monochrome), plus internal thermal printer included
- Weight: ~8 kg (17.6 lb)
- Easy system update and upgrade because of Windows based Operating System (WinCE).

## TEMIS

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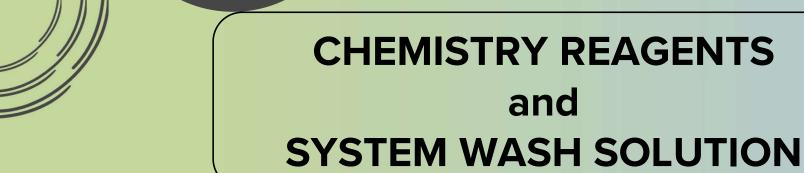
**CHEMISTRY**

# LINEAR CHEMICALS, S.L.U.

- Ergonomic design and soft ejector button that ensure a comfortable pipetting
- Individually calibrated to operate under International standards as EN ISO 8655 and IVD 98/79 EEC
- Strict manufacturing quality controls that it will last for years
- With an inaccuracy of below 1% and imprecision of lower than 1%

# PLUS-SED

PIPETTE

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# CHEMISTRY REAGENTS
# and
# SYSTEM WASH SOLUTION

- ❑ Cromatest
- ❑ Clonatest
- ❑ Human Multisera Normal Control
- ❑ Human Multisera Abnormal Control
- ❑ Calibrator (Multicalibrator)
- ❑ Systemic and De-protein Solution (KROMA)
- ❑ Cleaner Solution (LIDA)
- ❑ Extrawash Cuvette Solution
- ❑ ISO-Clean

# LINEAR CHEMICALS, S.L.U.

**STEL 3**

3 PARTS ANALYZER

- 20 parameters plus 3 histograms
- Counting Modes and Aspiration Volumes:
    - Whole Blood (9.8uL),
    - Peripheral Blood (9.8ul)
    - Pre-diluted Blood (20uL)
- Throughput: 60 tests/hour
- 3 reagent system (Diluent, Lyse, Cleaner) + 1 Concentrated Cleanser for maintenance
- Data Storage: Up to 50 000 sample results (including histograms)
- Display: LCD touch screen
- With built-in Thermal Printer
- LIS: Bi-directional connection

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# LINEAR CHEMICALS, S.L.U.

- 20 parameters plus 3 histograms
- Counting Modes and Aspiration Volumes:
  - Whole Blood (9.8uL),
  - Peripheral Blood (9.8ul)
  - Pre-diluted Blood (20uL)
- Throughput: 60 tests/hour
- 3 reagent system ( Diluent, 2 Lyse,) + 1 probe cleanser for maintenance
- Data Storage: Up to 50 000 sample results (including histograms)
- Display: LCD touch screen
- With built-in Thermal Printer
- LIS: Bi-directional connection

# STEL 5

5 PARTS ANALYZER

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# LINEAR CHEMICALS, S.L.U.

**STEL 5 PLUS**

5 PARTS ANALYZER

- With auto-loading track
- 28 parameters plus 8 research parameters, 2 histograms and 4 scattergrams
- Counting Modes and Aspiration Volumes:
  - Open vial Whole blood (≤15uL)
  - Auto-loading Whole blood (20uL)
  - Pre-diluted blood (20uL)
- Throughput: 80 samples per hour
- 3 reagent system ( Diluent, 2 Lyse,) + 1 probe cleanser for maintenance
- Data Storage: 60,000 sample results with histograms and scattergrams
- Display: 10.4-inch touch screen LCD
- Printer: External printer
- HL7 protocol and Bi-directional LIS

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# LINEAR CHEMICALS, S.L.U.

- Detection Methods: Clotting, chromogenic, and immunologic assays
- Assays: Measures standard coagulation parameters including APTT, PT, TT, D-Dimer, Fibrinogen (FIB), ATW, PLG, and others
- Sample Positions: 27 positions
- Reagent Positions: 27 positions
- Onboard Cuvettes: 72 cuvettes
- Weight: 53 kg
- Probe Features:
  - Pre-heating capability
  - Automatic washing (reduces carry-over)
  - Collision protection
  - Liquid level detection
  - Sample/reagent inventory checking

# ALTHEA

FULLY AUTOMATED
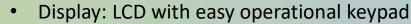
ALTAMEDICA

# LINEAR CHEMICALS, S.L.U.

- Number of channels: 4
- Test types supported: PT (Prothrombin Time), APTT (Activated Partial Thromboplastin Time), Fibrinogen, TT, D-Dimer etc.
- Sample positions: 24
- Reagent positions: 6
- Test result storage capacity: 10,000 results
- Detection method: Scattered light with percentage analysis; using a durable LED detector at 470 nm
- Test time / Sample cycle time: Approximately 20–60 seconds
- Sample handling: Includes an electronically linked pipette for sample processing
- Weight: 8 kg (approximately 17.6–18 lb)
- Built-in incubator for reagents and samples

# ARES

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# LINEAR CHEMICALS, S.L.U.

- Display: LCD with easy operational keypad
- Number of channels: 2
- Test types supported: PT (Prothrombin Time), APTT (Activated Partial Thromboplastin Time), Fibrinogen, TT, D-Dimer etc.
- Sample positions: 4
- Reagent positions: 2
- Test result storage capacity: 6,000 results
- Detection method: Scattered light with percentage analysis; using a durable LED detector at 470 nm
- Test time / Sample cycle time: Approximately 20–60 seconds
- Sample handling: Includes an electronically linked pipette for sample processing
- Weight: 5 kg (11lb)
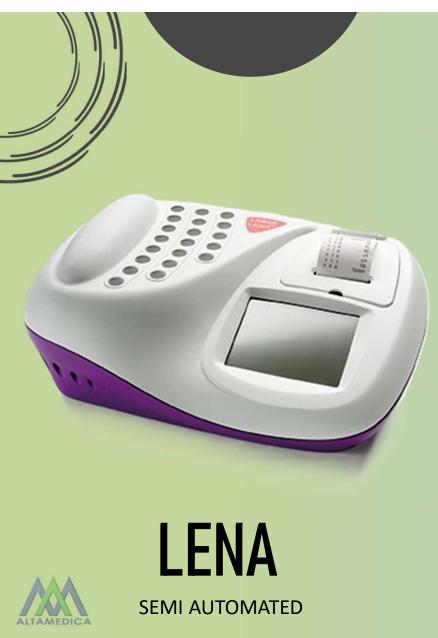- Built-in incubator for reagents and samples

## CERES

SEMI AUTOMATED

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# COAGULATION REAGENTS



❑ Reagent Kits

❑ Plasma Control Level 1

❑ Plasma Control Level 2

**Erythrocyte Sedimentation Rate (ESR)**

# LINEAR CHEMICALS, S.L.U.

- Random Access
- Display: LCD backlight, 24x2 characters
- 5 test tube positions
- Optical system: Infrared LED
- Throughput: 18 samples/hour
- Tubes: Plus-Sed (non-vacuum) or Vacused (vacuum)
- Testing time: 17 minutes (1st and 2nd hour results)
- Results in mm, Westergren
- Weight: 1 kg

# IRIA

SEMI AUTOMATED

**Erythrocyte Sedimentation Rate (ESR)**

# LINEAR CHEMICALS, S.L.U.

- Random Access
- LCD touch screen with backlight display
- Built-in thermal printer
- 20 test tube positions
- Optical system: Infrared LED
- Throughput: 50 samples/hour
- Tubes: Plus-Sed (non-vacuum) or Vacused (vacuum)
- Testing time: 24 minutes
- Results in mm, Westergren
- Weight: 4 kgs

# LENA

SEMI AUTOMATED

**Erythrocyte Sedimentation Rate (ESR)**

# LINEAR CHEMICALS, S.L.U.

- Random Access
- LCD backlight 320x240 display
- Built-in thermal printer
- 100 test tube positions
- Optical system: Infrared LED
- Throughput: 250 samples/hour
- Tubes: Plus-Sed (non-vacuum) or Vacused (vacuum)
- Testing time: 24 minutes
- Results in mm, Westergren
- Weight: 8 kgs

# THERMA

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# ESR Tubes and Reagents

- ❑ Plus-Sed auto
- ❑ Vacused
- ❑ Visual-Sed rack
- ❑ ESR Control QC1
- ❑ ESR Control QC2

# LINEAR CHEMICALS, S.L.U.

- Test method: Electro-Chemiluminescence Immunoassay (eCLIA)
- Controllable signaling process
- Even, strong and long-lasting planar luminescence
- High sensitivity and precision
- Small sample volume needed
- Stable label and reagent
- Suitable for the detection of small molecular analytes
- 86 tests/hour
- Reagent system: 10 positions, 4-15 C onboard refrigeration
- Sample position: 30 positions; continuous loading
- Sample volume: 5-100 uL
- Incubation System: 100 positions; 37$\pm$0.3 C incubation
- Liquid level detection, Clot detection, Anti-collision function
- Windows 10, Touch-screen LCD

# JUNO

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# CHEMISTRY REAGENTS

| Reference | Producto | Sample Type |
|---|---|---|
| 1100005 | Acid Phosphatase | Serum/Plasma |
| 1101000 | Albumin | Serum/Plasma |
| 1103005 | Alkaline Phosphatase | Serum/Plasma |
| 1105000 | ALT/GPT | Serum/Plasma |
| 1107005 | Amylase | Serum/Plasma/Urine |
| 1109000 | AST/GOT | Serum/Plasma |
| 1110005 | Bilirubin Direct | Serum |
| 1111010 | Bilirubin Total | Serum |
| 1113000 | Calcium Arsenazo | Serum/Plasma/Urine |
| 1115000 | Calcium OCC | Serum/Plasma/Urine |
| 1116005 | Chloride | Serum/Plasma/CSF |
| 1118005 | Cholesterol | Serum/Plasma |
| 1119005 | Cholinesterase | Serum/Plasma |
| 1120010 | Creatinine Kinase BR | Serum/Plasma |
| 1121005 | Creatinine Kinase-MB | Serum |
| 1123005 | Creatinine | Serum/Plasma/Urine |
| 1126005 | GGT | Serum/Plasma |

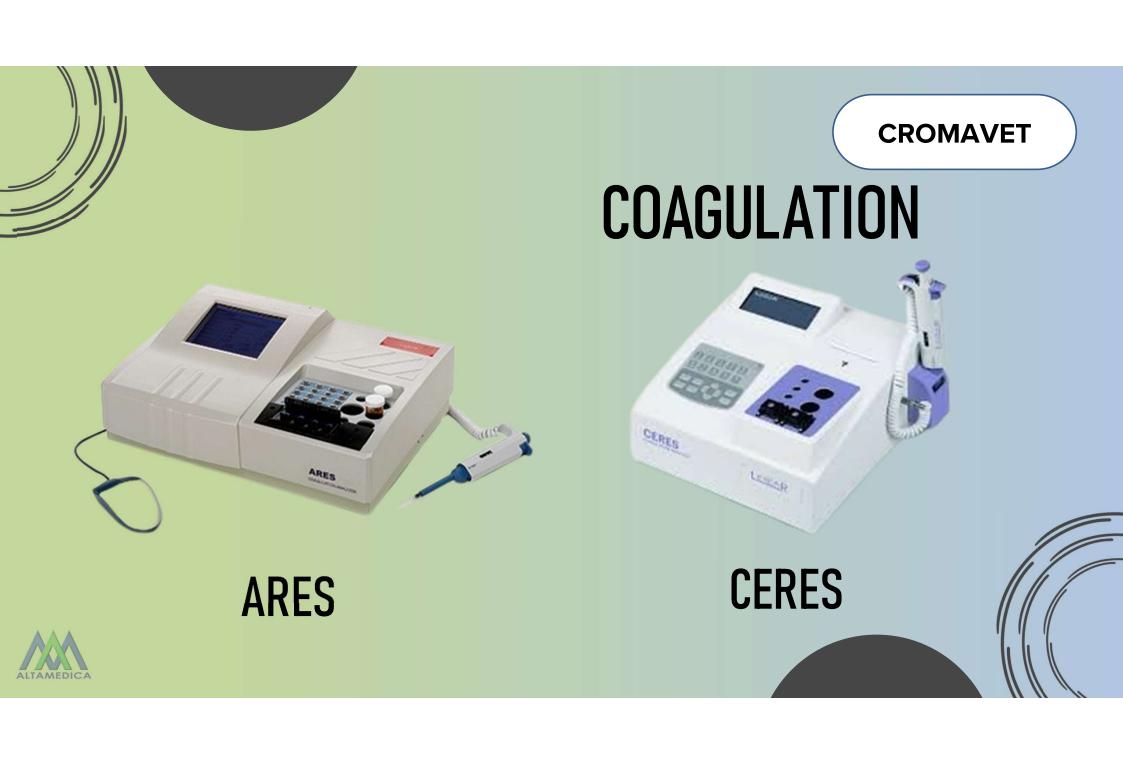| Reference | Product | Sample Type |
|---|---|---|
| 1129005 | Glucose | Serum/Plasma/CSF/Urine |
| 1133010 | HDL-Cholesterol | Serum/Plasma |
| 1134015 | Hemoglobin | WB |
| 1135105 | Iron Cromazurol | Serum/Plasma |
| 1135005 | Iron Ferrozine | Serum/Plasma |
| 1141010 | LDH | Serum |
| 1133105 | LDL-Cholesterol | Serum/Plasma |
| 1143010 | Lipase | Serum/Plasma |
| 1144005 | Magnesium | Serum/Plasma |
| 1148010 | Phosphorus | Serum/Plasma/Urine |
| 1149005 | Phosphorus UV | Serum/Plasma/Urine |
| 1150015 | Potassium | Serum |
| 1162005 | Protein (Urine and CSF) | Urine/CSF |
| 1151015 | Sodium | Serum |
| 1137010 | TIBC | Serum/Plasma |
| 1153005 | Total Protein | Serum/Plasma |
| 1155005 | Triglycerides | Serum/Plasma |

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**CROMAVET**

# LINEAR CHEMICALS, S.L.U.

- Principle: Microfluids and Colorimetry
- Specimens: Canines, Felines, etc.
- Automatic dilution of the sample during testing
- It only requires 100 uL of whole blood, serum or plasma
- Results obtained between 9 and 12 minutes
- Automatic calibration by QR code
- Integrated printer and QRscanner

# DRY CHEMISTRY

ALTAMEDICA

CROMAVET

COAGULATION

ARES

CERES

ALTAMEDICA

**CROMAVET**

# LINEAR CHEMICALS, S.L.U.
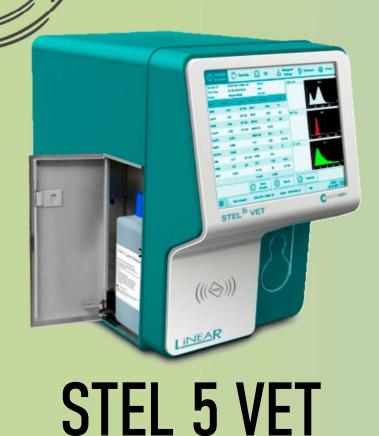
- Smart Counting Mode: Smart WBC mode, smart PLT mode, smart WBC/PLT mode especially designed for low value samples
- Built-in 10.4 inches touch-screen
- 25 parameters + 2 histograms and 4 scattergrams
- Throughput: 60 samples/hour
- Species: Cat, Dog, Rabbit, Sheep, Goat, Cattle, Horse, Rat, Mouse, Llama, Deer, Musk deer, Monkey, Tiger, Dolphin, Pig, Camel, Ferret
- 3 Reagent system: 2 Lyse and 1 Diluent + 1 Probe Cleanser
- Interface: 4 USB ports, 1 LAN port, Support WIFI adapter, HL7 protocol, Bi-directional LIS

# STEL 5 VET

5-PARTS ANALYZER

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# Difference of Open System and Close System

**Open System:**

➢ *The equipment can be installed with any compatible reagent*

➢ *Does not require a barcode or RFID*

➢ *The system could be programmed freely with any brand*

**Close System:**

➢ *Usually, the equipment has a barcode installed or RFID*

➢ *It needs a Factory Access Level code before programming*

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