

VIYON MIDDLE EAST L.L.C · UNITED ARAB EMIRATES

Advanced Laboratory & Industrial Machinery Solutions

High-Performance Consumables, Certified Reference Materials, Cleanroom
Sterilization Assurance, and Vacuum Engineering Equipment

Powered by **Viyon Middle East L.L.C.**, bringing the United Arab Emirates the high-tier
analytical and industrial brands we represent.

ISO 9001:2015
certified pipeline

BRANDS IN THIS BROCHURE



Global Enterprise Overview & Application Fields

The Core Viyon Mission

Analytical precision, quality validation, thermal sterilization hardware, and environmental containment represent the highest capital and operational investments in modern science. Viyon Middle East L.L.C delivers a fully audited, ISO 9001:2015 certified pipeline of certified reference chemistries, ultra-inert chromatography consumables, cleanroom bioprocess logistics, high-pressure steam sterilization machinery, and vacuum engineering arrays. We ensure that no process, sample, or large-scale manufacturing batch is ever compromised on its journey from preparation to final detection.

Our principals



Key Industrial Sectors We Serve

HC

Healthcare Clinics, Hospital CSSD Hubs & Dental Networks

Commercial pre-vacuum sterilizer validation packs, immediate load monitoring integrators, high-pressure square and round chamber autoclaves, and certified sterilization indicators.

PH

Pharmaceutical, Biopharma & Cleanroom Production

Multi-layer cell culture scaling arrays, closed-system sterile liquid handling manifolds, trace USP <232/233> elemental impurities standards, liquid-load spore ampoules, and hygienic wash-down vacuum processing pumps.

OG

Oil, Gas, Fuels & Petrochemical Laboratories

ASTM-compliant sulfur, chlorine, and metallo-organic in-oil matrix standards, polycarborane capillary columns, and robust dry screw vacuum blowers.

FR

Fragrances, Essential Oils & Cosmetics Formulation

High-polarity SolGel-WAX chromatography fields, inert needle autosampler paths, and automated calibration standard handling robotics.

EN

Environmental Regulatory Compliance & Water Quality Testing

EPA-certified multi-element water, wastewater, sludge, and soil reference controls, trace microextractions, and mobile multi-gas leak detectors.

AE

Advanced Aerospace, Automotive & Composite Materials Shops

Specialized high-consolidation composite vacuum autoclaves with multi-port independent tracking networks.

AC

Academia, University Teaching & Research Laboratories

Benchtop centrifuges, media autoclaves, ultra-low freezers, GC and LC consumables, ICP standards, and cell culture plastics for teaching labs and research groups.

Heavy Sterilization Hardware & Industrial Autoclaves



Sourced from The Rodwell Autoclave Company Master UK Portfolio

Portaclave Portable Series



Fully portable, single-phase "plug and play" autoclaves crafted from premium grade 316 stainless steel. Requiring zero permanent plumbing, these units are specifically tailored for culture media preparation and low-volume quick-turn laboratory tasks.

- **Vario Digital Logic Control Panel:** Available with manual or Vario controllers. The Vario digital screen supports adjustable temperatures from 100°C to 121°C, variable timing from 1 to 99 minutes, and preset cycles optimized for rapid processing (e.g., 15 mins @ 121°C or 30 mins @ 115°C).



Portaclave portable autoclave



Vario II digital controller

MODEL NAME	PORTACLAVE 15E	PORTACLAVE 22E	PORTACLAVE 30E	PORTACLAVE 15V	PORTACLAVE 22V	PORTACLAVE 30V
Model Number	ST1528E	ST2228E	ST3028E	ST1528V	ST2228V	ST3028V
Capacity	15 Litres	22 Litres	30 Litres	15 Litres	22 Litres	30 Litres
Autoclave Weight	19 kg	21 kg	23 kg	19 kg	21 kg	23 kg
Overall Dimensions (mm)	370w x 485h x 390d	370w x 600h x 390d	370w x 730h x 390d	370w x 485h x 390d	370w x 600h x 390d	370w x 730h x 390d
Chamber Dimensions (mm)	280Ø x 245d	280Ø x 360d	280Ø x 490d	280Ø x 245d	280Ø x 360d	280Ø x 490d
1L Media Bottle Capacity	4 Bottles	4 Bottles	8 Bottles	4 Bottles	4 Bottles	8 Bottles
Digital Vario Controller	No	No	No	Yes (Vario)	Yes (Vario)	Yes (Vario)

Phoenix Benchtop & Monarch Compact Series



- **Phoenix Benchtop (40L & 60L):** Space-saving standalone front-loading designs mountable on benches or mobile trolleys. The Phoenix 40 features a high-density internal footprint built to hold up to 13 x 1L media bottles in a single automated run. Outfitted with an integral drip tray beneath each door.
- **Monarch Top-Loading (50L & 75L):** Engineered with counterbalanced easy-open lids and angled control panels. The Monarch 50 features an exceptionally low loading height built to fit underneath standard laboratory workbenches, drawing single-phase 3kW power. The Monarch 75 incorporates a powerful 4kW heater built to fit up to 3 independent stainless steel loading baskets, accommodating large fermentation vessels and bioreactors.



Phoenix benchtop autoclave



Monarch top-loading autoclave

MODEL NAME	PHOENIX 40	PHOENIX 60	MONARCH 50	MONARCH 75
Chamber Capacity	40 Litres	60 Litres	50 Litres	75 Litres
Vessel Dimensions (mm)	350Ø x 460 deep	350Ø x 600 deep	350Ø x 520 deep	350Ø x 780 deep
Overall Dimensions (mm)	550w x 790h x 710d	550w x 790h x 860d	470w x 840h x 690d	470w x 1100h x 690d
Control Logic Platform	MP25 Controller	MP25 Controller	MP25 Controller	MP25 Controller

Ensign & Ambassador Medium Capacity Series



- **Ensign Top-Loading (100L & 125L):** Features space-saving footprints and counterbalanced lids for effortless chamber access. Configurable as an independent electrically heated version (6kW or 9kW options) or piped straight into a factory steam line source.
- **Ambassador Front-Loading (100L & 158L):** Built around a highly cost-effective hinge and bolt door with a fixed seal design and integrated door drip trays. Available in a double-door "pass-through" configuration (158L) to facilitate sterile containment transitions.



Ensign top-loading autoclave



Ambassador front-loading autoclave

MODEL NAME	ENSIGN 100	ENSIGN 125	AMBASSADOR 100	AMBASSADOR 158
Chamber Capacity	100 Litres	125 Litres	100 Litres	158 Litres
Vessel Dimensions (mm)	460Ø x 570 deep	460Ø x 723 deep	460Ø x 610 deep	460Ø x 960 deep
Overall Dimensions (mm)	560w x 1090h x 800d	560w x 1240h x 800d* / 1100d**	650w x 1240h x 1160d	650w x 1240h x 1310d

* Dimensions without loading step. ** Dimensions with integrated loading step.

Gemini 316 & Sovereign Large Round Chamber Series



- **Gemini Dual-Vessel Platform:** A highly unique process design offering two completely independent autoclaves isolated inside one space-saving frame (2 × 158L vessels; 316L total capacity). Each chamber has its own MP25 controller. Gemini comes electrically heated, fed from a piped steam source, or with an integrated steam generator, enabling a single installation to handle clean media runs on one side while processing active biological contaminated waste loads on the other.
- **Sovereign High-Capacity Systems (200L & 250L):** High-volume round-chamber design delivering economy space scaling. Features cost-effective heavy hinge/bolt doors, fixed seals, and multiple operational formats including internal elements or independent separate steam generators.



Gemini 316 twin-chamber autoclave



Sovereign large round chamber

MODEL NAME	GEMINI 316	SOVEREIGN 200	SOVEREIGN 250
Chamber Capacity	158 Litres x 2 (316L Total)	200 Litres	250 Litres
Vessel Dimensions (mm)	460Ø x 960 deep (x2)	545Ø x 860 deep	545Ø x 1057 deep
Overall Dimensions (mm)	650w x 1970h x 1310d	830w x 1800h x 1450d	830w x 1800h x 1450d

Sapphire & Crystal Square Chamber Systems



- **Crystal 300 Square Autoclave:** Compact square section chamber (300 liters) using space-saving design, hinge/bolt door setups, integrated fan-accelerated cooling, and fixed seals.
- **Sapphire Master Series (330L to 770L):** Premium large-scale heavy engineering square section chambers. Uses advanced, reliable "Hoist and Clamp" doors built for immense pressure loads. Features integrated steam generators, accelerated water-cooling jackets, and pass-through configurations.



Crystal 300 square chamber



Sapphire square chamber

MODEL NAME	CRYSTAL 300	SAPPHIRE 330	SAPPHIRE 440	SAPPHIRE 550	SAPPHIRE 660	SAPPHIRE 770
Chamber Capacity	300 Litres	330 Litres	440 Litres	550 Litres	660 Litres	770 Litres
Vessel Dimensions (mm)	510w x 510h x 1030d	670w x 670h x 745d	670w x 670h x 936d	670w x 670h x 1099d	670w x 670h x 1274d	670w x 670h x 1455d
Overall Dimensions (mm)	830w x 1800h x 1450d	980w x 1930h x 1530d	980w x 1930h x 1530d	980w x 1930h x 1530d	980w x 1930h x 1750d	980w x 1930h x 1900d

DWELL 280 Pro Specialized Composite Autoclaves



Specialized autoclave system built for advanced composite manufacturing, motorsports racing teams, and delicate aerospace tooling components validation.

- **High-Consolidation Infrastructure:** Features an externally lagged grade 316 stainless steel chamber for maximum space and highest thermal efficiency. Outfitted with an easy-to-use IPT (intelligent process touchscreen control) system supporting completely programmable temperature, pressure, and dwell profiles across 5 standalone memory sets.
- **Vacuum Leak Alarms:** Delivers continuous vacuum for assured consolidation through up to 4 independent ports, all structurally monitored with built-in vacuum leak alarms to identify any vac leaks instantly. Available with an exceptionally competitively priced, built-in self-contained Hydrovane air compressor option.



DWELL 280 Pro composite autoclave



iPT touchscreen process controller

MODEL NAME	DWELL 280 (STANDARD FRAME)	DWELL 280 (WITH HYDROVANE COMPRESSOR OPTION)
Chamber Dimensions	545 mm Diameter x 1200 mm Depth	545 mm Diameter x 1200 mm Depth
Chamber Volume	280 Litres	280 Litres
Autoclave Weight	450 kg	520 kg
Packed Export Weight	600 kg	670 kg
Overall Dimensions (mm)	830w x 1800h x 1500d	830w x 1800h x 1500d

SECTION 03

Automation, Cooling Systems & Engineering Modules



Accelerated Load Cooling & Water Infrastructure



- **Fan-Assisted Cooling Arrays:** Powerful fans direct cool air blasts around the chamber walls to cut cycle liquid cooling times down by up to 50%.
- **Sapphire Water-Jacket Cooling:** Cold water passing through a full water jacket surrounding the square chamber walls, transferring heat rapidly without relying on interior cooling coils.
- **Air Ballasting Control:** Injects oil-free compressed air passed through carbon filters into the chamber during cooling loops to prevent dangerous "boil-over" spikes, container distortion, and fluid loss in sealed bottled liquid loads.
- **Advanced Scale Prevention Systems:** Industrial-grade electronic descalers and specialized inlet water filters that alter the physical matrix of incoming minerals, stopping chalk and debris from baking onto chamber surfaces.

Advanced Safety Drain Systems



- **Condense Collectors & Line Condensers:** Stainless steel condense collectors eliminate plumbed drain requirements for manual machines. Drain line condensers automatically inject cold water to protect municipal plastic plumbing if effluent streams exceed 50°C.
- **Condensate Retention & HEPA Bio-Containment:** For high-containment biosafety labs, dangerous CAT3 effluents are securely retained within the chamber to undergo a full second sterilization cycle before discharge. Inline HEPA exhaust filters trap active airborne pathogens with structural filter validation loops.

TS26 Touchscreen Control & USB SmartLog™ Logic



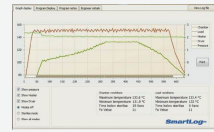
- **TS26 Touchscreen System:** Advanced processing panel supporting 26 cycles. Features multi-user PIN access, delayed start options for pre-prepared media, Wi-Fi for remote support and cloud file saving, cloud or USB cycle logging, and real-time graphical cycle analysis.
- **USB SmartLog™ Traceability:** Tamper-proof cycle data fully compliant with CFR21 Part 11 requirements. Stores comprehensive time, pressure, and temperature profiles directly to specialized USB flash memory keys for seamless auditing.



TS26 touchscreen controller



Classic MP25 controller



SmartLog cycle profile

SECTION 04

Cleanroom Sterilization Assurance & Accreditation Consumables

Sourced from the Excelsior Scientific Portfolio



SteriGo™ Self-Contained Biological Indicators (SCBI)



Spores, carrier, and growth medium integrated into a single protective vial for routine monitoring and absolute validation of steam and hydrogen peroxide sterilization cycles. A negative result ensures that the chosen micro-organism has been completely destroyed.

- **Steam Sterilization SCBI:** Utilizes *Geobacillus stearothermophilus* (Cell Line 7953) with standard spore populations available in certified 10^5 and 10^6 arrays. Delivers a reduced, rapid minimum incubation timeline of 24 hours alongside a stable 2-year shelf life.
- **Hydrogen Peroxide (VH₂O₂) SCBI:** Engineered explicitly for monitoring low-temperature gaseous hydrogen peroxide sterilizer processing loops, running a fast 24-hour incubation at a certified 10^6 population level.

Catalog: **MSCS-05E** **MSCS-06E** (steam) · **MSCH-06E** (VH₂O₂)



SteriGo steam indicators



SteriGo hydrogen peroxide indicators

SporeGo™ Spore Ampoules (For Liquid Load Validations)



Sealed 1 mL glass spore ampoules optimized specifically for validating the complete thermal sterilization of liquid loads, eliminating manual handling errors or sample cross-contamination.

- **Traceability Parameters:** Packed with *Geobacillus stearothermophilus* (Cell Line 7953) at certified 10^5 or 10^6 population variants. Supplied 50 ampoules per box with a 2-year shelf life, alongside matching 1 mL negative controls (10 per box) for a clean baseline.

Catalog: **SA1-50-05E** **SA1-50-06E** · Negative control **SA1-NC-10E**



SporeGo 1 mL spore ampoules

Bowie-Dick Test Packs (For Air-Removal Performance Check)



Single-use, non-hazardous daily performance check designed to confirm absolute pre-vacuum air removal and uniform steam penetration inside dynamic air removal steam sterilizers. Run in an empty chamber, it is ideal for routine checks, new installations, and post-repair validation.

- **Visual Verification & Standards:** Conforms strictly to EN 867-4 and ISO 11140-1 (Class 2) parameters. Features a specialized central chemical indicator sheet that delivers a sharp, unmistakable Blue-to-Pink pass color shift upon cycle success. Manufactured completely free from toxic lead or tracking heavy metals with a long 5-year shelf life.

→ PASS: BLUE TO PINK

Catalog: **BD-1XECS** · 20 packs per case · run at 134°C for 3.5 min or 121°C for 15 min



Bowie-Dick test pack

HyperGo™ VHP Spore Discs



Premium 6 mm structural steel spore discs individually packed in breathable Tyvek®-to-Tyvek® shielding. Engineered to be distributed across sterile cleanrooms, pharmaceutical isolators, and manufacturing enclosures to prove true bio-decontamination lethality during Vaporised Hydrogen Peroxide decontamination cycles.

- **Target Strain Array:** Available across calibrated 10^4 and 10^6 populations utilizing specialized Geobacillus stearothermophilus strains ATCC 12980 or ATCC 7953 to match specific validation parameters. 1-year shelf life. Code key: HPG + strain (129 = ATCC 12980, 795 = ATCC 7953) + population (06 = 10^6 , 04 = 10^4).



HyperGo discs in Tyvek packs

CATALOG CODE	CARRIER SIZE	BACTERIAL STRAIN	CARRIER MATERIAL	POPULATION / STRIP	PACKAGING FORMAT
HPG129-06E	6 mm	ATCC 12980	Stainless Steel	10^6 (1,000,000)	Tyvek / Tyvek
HPG795-06E	6 mm	ATCC 7953	Stainless Steel	10^6 (1,000,000)	Tyvek / Tyvek
HPG129-04E	6 mm	ATCC 12980	Stainless Steel	10^4 (10,000)	Tyvek / Tyvek
HPG795-04E	6 mm	ATCC 7953	Stainless Steel	10^4 (10,000)	Tyvek / Tyvek

Extended Excelsior Monitoring Range: EO, Dry Heat, Irradiation & VHP

- **Spore Strips, Threads, Wires & Discs:** *Geobacillus stearothermophilus* (steam, VHP), *Bacillus atrophaeus* (EO, dry heat), *Bacillus pumilus* (irradiation) and *Bacillus subtilis* (low temperature) carriers at 10^4 to 10^8 populations, with a 2-year shelf life.
- **SteriGo™ EO SCBI:** *Bacillus atrophaeus* (Cell Line 9372) at 10^6 , 48-hour minimum incubation (MSCE-06E).
- **Spore Suspensions & Prepared Media:** Suspensions at 10^6 to 10^8 per 0.1 mL, and modified TSB media tubes validated for 24-hour reads with steam and VHP spore strips (48 hours for EO and dry heat).
- **Growth Promotion Test Suspensions:** Ready-to-use USP <71> challenge organisms at under 100 CFU per 0.1 mL (GP-01E *B. subtilis*, GP-06E *G. stearothermophilus*, GP-10E *B. atrophaeus*).
- **VHP & EO Chemical Indicators:** VHP Type 1 (VHP-1E) and Plasma Type 4 (HPI-4E) strips, H_2O_2 plasma tape (TAP-H-E), EO tape (TAP-EO-E), and EO and radiation process indicator dots (≥ 10 kGy and ≥ 3 kGy).
- **Incubators & Pouches:** 10-well dry-block incubators, ambient to 70°C at $\pm 0.5^\circ\text{C}$, for SteriGo and SporeGo (INC-13 series). Self-seal autoclave pouches from 90 × 230 mm to 305 × 381 mm (L850 series), EN 868-5, with steam and EO indicators.



Spore strips



Spore discs



Spore wires



SteriGo EO indicators



H2O2 plasma tape



Dry-block incubator



Self-seal autoclave pouches



Spore suspension

GOOD TO GO™ Every-Load Chemical Indicators & Tapes



Advanced internal load monitors providing distinct, irreversible color conversions to verify cycle parameters instantly at a glance. Shipped with a long 5-year shelf life in boxes of 250 strips carrying formal ISO 11140-1 marked labels.

Type 4 Indicator

TST-4SE

 PURPLE TO GREEN

Multi-parameter strip converting dynamically from Purple to Green upon successful exposure to steam at 134°C for 3.5 minutes or 121°C for 15 minutes.

Type 5 Integrator

TST-5SE

 BLUE TO BLACK

High-tier integrating monitor responding to the aggregate lethality of time, steam, and temperature, transitioning from Blue to Black at 121°C for 20 minutes or 134°C for 4 minutes.

Type 6 Emulator

TST-6SE

 BLUE TO PINK

Ultra-precise cycle-specific emulation strip shifting sharply from Blue to Pink upon exposure to steam at 121°C for 15 minutes or 134°C for 3.5 minutes.

Chemical Process Indicator Dots

CPI-S01E · CPI-S02E

 PINK TO BROWN

ISO 11140-1 Type 1 self-adhesive 12.7 mm dots for various types of autoclave load, with a 3-year shelf life. The label colour indicates at a glance whether or not the product has gone through the process, turning from Pink to Brown after exposure to 121°C for 3–10 mins, or 134°C for 0.5–2 mins.

Steam Autoclave Indicator Tape

TAP-SCS-E

 WHITE TO DARK STRIPES

19 mm x 50 m tape with an irreversible White to Dark stripe transition. Can be written on. 12 rolls per pack, 3-year shelf life.



GO type 4, 5 and 6 steam indicators



Autoclave indicator tape



Indicator labels

SECTION 05

High-Performance Chromatography Consumables

Sourced from Trajan Scientific, SGE Analytics, and SilFlow MCD Portfolios

SGE® Ultra-Inert Inlet Liners & High-Life Septa



- **FocusLiner® Target Matrices:** Engineered with locked geometry internal quartz wool steps that cleanly wipe syringe needle tips, arresting aerosol droplet formations and removing high molecular weight compound discrimination. Advanced deactivation treatments executed at temperatures exceeding 400°C secure a long-term chemical inertness layout, making it perfect for active, polar, and heat-sensitive trace analysis.
- **MN & HT Septa Upgrades:** MN grade septa are pre-pierced for autosamplers to reduce coring, last up to 400 injections and are rated to 350°C. HT grade septa use BTO silicone rated to 400°C and stay soft and pierceable at high temperature (ratings for 11 mm septa). GP grade (275°C) covers low-temperature work and EC grade (350°C) gives low bleed and long injection life. EC, MN and HT grades carry a non-stick coating that reduces sticking in the inlet, eases replacement and stops dust building up. Plug-style septa are made for Shimadzu GCs.
- **Colour-Coded Liner Geometries:** Taper/gooseneck (splitless), split, FocusLiner, Tapered FocusLiner, ConnecTite™ direct, straight and double-taper PTV/LVI liners, each colour coded by injection technique. Wool is deactivated in place so it is never handled afterwards. Liners, O-rings and graphite sealing rings (to 450°C) are listed for Agilent, PerkinElmer, Shimadzu and Thermo Scientific inlets.



FocusLiner inlet liners



Septa, liners and syringe maintenance kit



Non-stick coated septa

High-Resolution SGE Capillary GC Columns



Optimized for seamless cross-platform compatibility with Agilent, Shimadzu, PerkinElmer, and Thermo Scientific gas chromatography systems.

- **BP1 & BP5 / BP5MS:** Classic non-polar 100% dimethyl polysiloxane and 5% phenyl-siloxane technology optimized for routine hydrocarbons, environmental organic pesticides, industrial solvents, and initial analytical validation runs.
- **BP20 (WAX) & SolGel-WAX™:** Elite high-polarity polyethylene glycol fields cross-linked in robust Sol-Gel matrix grids, forming the global standard for complex fragrance, flavor, residual solvent, and essential oil testing without phase degradation.
- **Specialized High-Temperature & Polar Phases:** HT5 polycarborane-siloxane (10°C to 380/400°C) for petroleum simulated distillation; HT8 and HT8-PCB for PCB congener separations; BPX70 for FAME and cis/trans isomers; BPX90 as a highly polar bonded phase; BP624 for EPA 624, 8240 and 8260 volatiles; BP21 (FFAP) for low-molecular-weight acids.
- **Operating Ranges:** BP1 -60°C to 340/360°C, BPX5 -40°C to 360/370°C (suits over 80% of routine work and GC-MS), SolGel-1ms™ 0°C to 340/360°C and SolGel-WAX™ 30°C to 260/280°C. Columns can be ordered with a 5 m integrated guard joined by a SilTite μ-Union.
- **BP BOND PLOT Columns for Gases:** BP BOND Q (100% divinylbenzene, -100°C to 300/320°C) for volatile solvents and hydrocarbons; BP BOND U (to 300°C) for trace H₂S, COS and mercaptans in hydrocarbon streams; BP BOND Molsieve 5A for permanent, refinery and natural gases, separating argon and oxygen at ambient temperature with up to 75% shorter runs than packed columns.



SGE capillary GC column



Fused silica column coil



BP BOND PLOT column

Advanced Microfluidic Splitters & Leak-Free Adapters



- **SilTite® Metal Ferrules:** Metal ferrules for connecting fused silica columns to injectors and MS interfaces that stay leak free without re-tightening after temperature cycles, a direct alternative to graphite/Vespel® in GC-MS. Ferrules, nuts and graphite or graphite/Vespel options are listed for Agilent, PerkinElmer, Shimadzu and Thermo Scientific systems.
- **SilTite FingerTite & μ-Union:** FingerTite ferrules install capillary columns by hand with no tools (kits hold 5 nuts, 10 ferrules and a measuring tool). The μ-Union joins columns from 0.1 to 0.53 mm ID and is 9 mm long and under 0.5 g, so it adds almost no thermal mass.
- **SilFlow® Planar Microchannel Device (MCD):** Deactivated stainless steel 3-port and 4-port splitters and a Deans' switch for multidimensional GC, backflush and column-to-two-detector setups. Rated above 25,000 psi, tracks oven ramps up to 20°C/min and is limited only by the column (≤420°C). Kits include FingerTite fittings, tool and mounting bracket.



SilFlow microchannel device in a GC oven



SilFlow 3-port and 4-port devices



SilTite FingerTite nut, tool and ferrules

GC Gas Filters & Big Trap Purifiers



- **Point-of-Use Filters:** Oxygen filter (150 mL O₂ capacity, outlet below 50 ppb, green to grey indicator), moisture filter (7.2 g water, below 0.1 ppm, green to pale brown), hydrocarbon filter (below 0.1 ppm) and a combined carrier gas filter, all rated at 1 to 10 L/min.
- **Connecting Units & Kits:** Bench or wall mounted units in 1, 2 and 4 positions for 1/4" and 1/8" lines, plus a carrier gas kit and a four-filter FID kit. Fast stabilisation cuts helium use and keeps moisture out of GC-MS and column phases.
- **Big Trap:** Heavy-wall aluminium bulk purifier with 750 cm³ capacity, rated to 250 psig, in hydrocarbon, moisture, oxygen and universal versions for supplying several instruments from one source.



Big Trap gas filter

SECTION 06

Precision Liquid Handling & Liquid Manipulation



Sourced from Trajan, SGE, L-MARK, MEPS and EasyPREP Robotics Portfolios

L-MARK® & L-MARK® Gold LC Syringes



- **Zero Carryover Liquid Chromatography:** Crafted explicitly for high-throughput LC autosamplers. The L-MARK Gold series incorporates a chemically inert needle body that aggressively limits system carryover, trace contamination, and analytical discrimination. Delivers precision volume delivery with reproducible accuracy metrics exceeding ±1%.
- **Instrument Fit:** L-MARK syringes for CTC Analytics PAL (including DLW), PerkinElmer and Waters LC autosamplers, 10 µL to 10 mL. SGE LC manual syringes with 90° square, polished tips protect the rotor seal of Rheodyne and Valco injection valves.



LC autosampler syringe



LC manual injection syringe

SGE® GC Autosampler Syringes



- **Instrument-Matched:** Built to the fit, form and function of Agilent (7693A, 7683, 7650A, 6850ALS), CTC Analytics, PerkinElmer, Scion, Shimadzu and Thermo Scientific autosamplers, with ±1% accuracy and reproducibility (±2% for 0.5 and 1 µL).
- **Colour Coded by Volume:** Plunger buttons are coloured by capacity, from 0.5 µL to 10 mL, so the installed syringe can be identified at a glance. Cone tips extend septum life; Superflex™ titanium/nickel plungers resist bending.



Colour-coded GC autosampler syringes



Syringe stand

Manual, Gas Tight & NanoVolume Syringes



- **PTFE/PE Tipped Plungers:** Gas-tight syringes from 10 μL to 100 mL, plus Jumbo gas syringes of 0.5, 1 and 2 L for air sampling, featuring replaceable, easily wiped plunger ends perfect for volatile gas headspace injections and high-contaminant samples.
- **NanoVolume Plunger-in-Needle:** Built to submicron tolerances to eliminate needle dead volume, drawing samples strictly into the needle core to accurately inject quantities as low as 0.05 μL (50 nL), in 0.5, 1 and 5 μL sizes with $\pm 2\%$ accuracy. A repeating adaptor pre-sets the volume for repeat injections.
- **Luer Lock, Luer Tip & Valve Syringes:** Gas-tight syringes from 50 μL to 100 mL with universal Luer connections; valve versions let samples be stored and carried from the field to the lab.
- **Care & Cross Reference:** Needle cleaning kit with stylet wires, tweezers and barrel cleaner (031782), and a Hamilton cross-reference so existing part numbers map directly to SGE equivalents.



Manual GC syringe



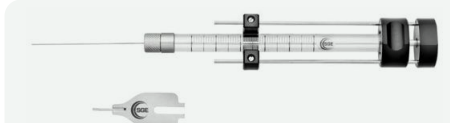
Small-volume syringe, 0.5 to 10 μL



Gas-tight headspace syringe



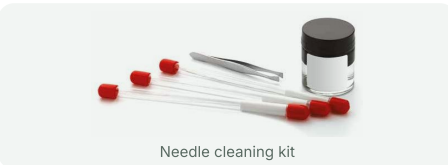
Jumbo gas syringe, 0.5 to 2 L



NanoVolume syringe with repeating adaptor



Gas-tight Luer Lock syringe



Needle cleaning kit

Automated Liquid Manipulation Platforms



- **eVol® xR Digital Analytical Syringes:** Handheld electronic analytical syringe taking interchangeable 5 μL , 50 μL , 100 μL , 500 μL and 1 mL eVol syringes. Accuracy is $\pm 0.2\%$ for a calibrated syringe at full volume (± 0.7 to 1.0% uncalibrated) and precision ± 0.3 to 0.5% at full volume. Fully traceable for modern GMP/GLP documentation compliance.
- **MEPS® Microextraction by Packed Sorbent:** SPE shrunk to microlitre beds inside a barrel insert and needle (BIN) on a 50, 100 or 500 μL eVol MEPS syringe, so extraction and injection happen in one syringe and prep drops from hours to minutes. Phases C18, C8, C2, APS, HVDB and SDVB, with LC (22 gauge) or GC (23 gauge cone) needles.
- **EasyPREP Sample Handler Systems:** High-throughput laboratory robotics engineered to automate routine liquid manipulations, including automated dispensing, precise sample aliquoting, sample serialization, normalization, and liquid transfers.



eVol handheld digital syringe



eVol starter kit

Certified Chemicals & ICP-AES/MS Reference Material

Sourced from SCP SCIENCE, PlasmaCAL, PlasmaPURE, and Chem-Lab Pico-Pure Portfolios

SCP SCIENCE

analytichem
your science enabled

PlasmaCAL NIST-Traceable Single-Element Standards

SCP SCIENCE

High-purity single-element calibration standards typically within $\pm 0.5\%$ of nominal concentration, with 70 elements available from stock, manufactured under ISO 17025 and ISO Guide 34, designed for total compliance auditing in modern ICP-AES and ICP-MS testing regimes. Shipped with complete Certificates of Analysis listing actual concentrations and direct traceability to National Institute of Standards and Technology (NIST) 3100 Standard Reference Materials series.

- **Concentrations and Formats:** Available at 1,000 $\mu\text{g/ml}$, 10,000 $\mu\text{g/ml}$, and 50,000 $\mu\text{g/ml}$ scales packaged in convenient formats of 2 $\times$ 25 ml (perfect for maintaining constant headspace stability and preventing cross-contamination), 125 ml, and 500 ml bottles. Shipped with dual tracked expiration profiles providing up to 24 months unopened shelf life and 15 months opened shelf life.



PlasmaCAL single-element standards



PlasmaCAL 125 ml bottles

Multi-Element Calibration Sets & Quality Control Standards

SCP SCIENCE

- **EPA Regulated Method Mixes:** Cost-effective pre-blended standard solutions designed for U.S. EPA Methods 200.7 (Water and Wastes by ICP-OES), 200.8 (ICP-MS Groundwaters), and 6010c (Soils and Industrial Sludges).
- **Custom Multi-Element Standards:** Individually formulated combinations prepared in an A2LA accredited ISO 17025 facility within 72 hours, tracking density metrics and exact weight/weight and weight/volume units.
- **USP <232/233> & 2232 Compliance Mixes:** Specialized Elemental Impurities Standards matching permissible oral and parenteral daily dosages for dietary supplement and pharmaceutical validations.
- **PlasmaTEST Calibration & Verification Kits:** Comprehensive diagnostic instrument control sets (RQC-1 and RQC-2 matrices) designed to evaluate spectrometer warm-up times, plasma robustness, repeatability, and resolution.



Multi-element calibration standards with CoA



PlasmaTEST verification kit

PlasmaPURE High-Purity Grade Acids & Matrix Blanks

SCP SCIENCE

- **Ultra-Low Impurities:** High-purity trace chemical acids (Nitric, Hydrochloric, Hydrofluoric, and Sulphuric) manufactured for sample preparation digestions. PlasmaPURE Plus grade keeps trace metal impurities below 0.01 ppb in most cases, packed in pre-leached Teflon bottles for ultra-low trace evaluations below 1 ppb.
- **Ready-To-Use Matrix Blanks:** Pre-prepared blank solutions (e.g., 5% v/v HNO_3 or 5% v/v HCl) using 18 megaohm double-deionized water to expedite accurate background subtraction calibration curves.



PlasmaPURE Plus high-purity acids

Chem-Lab Pico-Pure® & Pico-Pure Plus ICP-MS Acids

High-purity acids, bases and water from Chem-Lab, an AnalytiChem company, with metal specifications in the ppb and ppt range. Produced from selected raw materials and ultrapure water, filled in clean rooms, and tested by ICP-MS in Chem-Lab's own ISO 17025 accredited laboratory, with a detailed Certificate of Analysis for each lot.

- **Pico-Pure (low ppb, HDPE bottles):** Nitric 67–69%, hydrochloric 30% and 34–37%, hydrofluoric 47–51%, perchloric 65–71%, sulfuric 93–98%, acetic $\geq 99\%$ and ammonia 20–22%, in 500 mL, 1 L and the new 2.5 L sizes.
- **Pico-Pure Plus (ppt level, FEP bottles):** Nitric, hydrochloric 32–35%, hydrofluoric, hydrobromic 44–49%, perchloric, sulfuric and acetic acids, ammonia, hydrogen peroxide 30–32% and ultrapure water, in 250 mL to 1 L.
- **New 2.5 L bottle:** Fluorinated bottle with low permeation, an integrated ergonomic handle, a drip-free pouring lip, and UN approval 3H1/X1,9/250. Lighter than glass and safer than welded handles.



Pico-Pure nitric acid, HDPE



Pico-Pure Plus acid, FEP



New 2.5 L Pico-Pure bottle

EnviroMAT™ & AgroMAT™ Matrix Reference Materials

Certified Reference Materials (CRMs) prepared using real-world field substrates certified via extensive consensus round-robin studies, providing method-dependent tolerance and confidence intervals to validate every stage from sample digestion to final instrument readouts.

- **Substrate Offerings:** Includes Contaminated Soils (SS-1, SS-2), Sewage Sludge (BE-1), low/high level concentrates for Wastewater, Drinking Water, and Groundwater testing fields, alongside used industrial oil matrices.



EnviroMAT reference materials



AgroMAT reference materials

Hydrocarbon Matrices & Petroleum Testing Controls

Sourced from the CONOSTAN® Petroleum and Fuel Portfolio

CONOSTAN®
Oil Analysis Standards

analytichem
your science enabled

Metallo-Organic Element-in-Oil Standards

CONOSTAN®
Oil Analysis Standards

The premier market product for organometallic calibration, manufactured using stable sulfonate chemical baselines with a commonality of organic base molecules to deliver superior accuracy, precision, and complete miscibility in virtually any non-polar hydrocarbon oil or solvent fluid.

- **Single Element Standards:** Stocked across 38 distinct elements, mostly at 1,000 ppm and 5,000 ppm (As, Hg, and Se at 100 ppm; Sc at 2,000 ppm), in a 20 cSt mineral oil matrix. Shipped in a convenient 50 g format with an ISO 17025 compliant Certificate of Analysis.
- **S-12 & S-21 Multi-Element Blends:** Gold standards for Testing of Metals in Oil and wear metals analysis. Blended in a 75 cSt mineral oil matrix across standard concentrations spanning 10 ppm to 900 ppm. S-12 contains a calibrated mix of Ag, Al, Cr, Cu, Fe, Mg, Mn, Na, Ni, Pb, Si, Sn. S-21 contains the complete S-12 matrix augmented with B, Ba, Ca, Cd, Mo, P, Ti, V, Zn.

Ag Al Cr Cu Fe Mg Mn Na Ni Pb Si Sn B Ba Ca Cd Mo P Ti V Zn

☒ S-12 and S-21 ☐ S-21 only

- **Military-Grade D-Series:** The original source for Department of Defense Spectrometric Oil Analysis Program wear metals tracking, available in Original and MIL-DTL-85694 compliant formulations across D3, D12, and D19 element matrices.



CONOSTAN oil analysis standards



CONOSTAN S-21 multi-element blend

ASTM Fuel, Sulfur, and Chlorine Certification Standards

CONOSTAN®
Oil Analysis Standards

- **Sulfur in Petroleum Products:** Tailored standard lines in Crude Oil, Residual Oil, Isooctane, Mineral Oil, and Diesel Fuel to calibrate XRF, ICP, and UV-F analyzers in accordance with regulatory emissions and performance frameworks (including ASTM D2622, D4294, D5453, D6334, and D6443).
- **Biodiesel Alternative Standards (B100 / B20 / B5):** Specialized multi-element sets matching Ca, K, Mg, Na, and P constraints in biodiesel blends, manufactured in accordance with ASTM D7039, D6751, and EN14214 methods.
- **Chlorine Standards:** Formulated in mineral oils from 10 to 50,000 ppm to control corrosion risks during crude oil blending or cutting fluid efficiency evaluations.



Sulfur in crude oil



Sulfur in isooctane



Chlorine standard and blank

Lubricant Condition Monitoring Controls



- **FTIR Operational Testing Standards:** Highly stable petroleum-oil based fluid configured to look and act like field used-oil samples to calibrate Fourier-Transform Infrared instrument repeatability.
- **Flash Point Standards:** Certified reference standards spanning 53°C to 260°C for validation testing under ASTM D93 Pensky-Martens closed-cup methods.
- **TAN and TBN Standards:** Total Acid Number and Total Base Number standards crafted to deliver strong, dramatic inflection points and high pH differentials during potentiometric titrations.
- **PartiStan™ Automatic Particle Counter Fluid:** Secondary calibration standards directly traceable to NIST SRM 2806b, using ultra-clean hydraulic base fluid and latex sphere suspensions to verify automatic particle counters (APCs) under ISO 11171 parameters.
- **PremiSolv™ ICP Solvent:** A zero-point alternative to kerosene or xylene for use as a diluent in ICP analysis of metals in oil, tracking an extremely low trace metal content across 34 elements.



Flash point standard



PremiSolv ICP solvent

Fuel Product Analysis Portfolio



One AnalytiChem source for testing petroleum and refined products, made under ISO 17034, ISO/IEC 17025 and ISO 9001.

- **Sulfur CRMs:** CONOSTAN sulfur standards in 9 stocked matrices from 0 to 50,000 ppm, for ASTM D5453, D2622, D4294, D7039 and D7220.
- **Hydrocarbon Standards for GC:** Neats, solutions and ready-to-use mixes for ASTM D2887, D3606 and D4815, DRO, GRO, EPH, TPH, VPH, PCB and VOC analysis.
- **Physical & Chemical Property Standards:** More than 200 CONOSTAN CRMs for TAN, TBN, viscosity and flash point, for ASTM D93, D445, D664, D2896 and D7042, ISO 2719 and IP 34.
- **Metal Additive & Contaminant CRMs:** CONOSTAN metallo-organic and aqueous ICP standards for RDE, ICP and XRF calibration, QC checks and internal standards, for IP 501, IP 377, ASTM D5184, D5708, D5863, D6728 and D6751. Custom blends on request.
- **Instrument Consumables:** Stocked XRF sample cups and film, autosampler tubes, nebulizers, spray chambers, torches and pump tubing.
- **Microbial Content Test Kit:** Bacteria and fungi screening for fuel systems from upstream to downstream, with no complex incubation or storage. Available in the UAE through Viyon.

SECTION 09

GMP Bioprocessing & Production Fluid Logistics



Sourced from the Jet Biofil Portfolio

Upstream Biomass Scaling & Fluid Management



- **CellFac® Multi-Layer Cell Culture Systems:** Multi-layer vessels in 1, 2, 4, 5, 10, 20 and 40 layer versions with five surface types (non-treated, TC-treated and specialised treatments), made from medical-grade PS in an ISO Class 7 cleanroom to streamline large-scale therapeutic protein and vaccine bioprocess production.
- **Contamination-Free Closed Bottle Interconnects:** Specialized two-port and three-port closed-system caps matched to PETG/PET media bottles, using MPC connectors, FLL connectors, and heat-sealing ports to isolate fluid transfers.
- **Large-Capacity Erlenmeyer Scaling Flasks:** Plain and baffled flasks from 125 mL to 1 L and in 2 L, 3 L and 5 L sizes, in polycarbonate or PETG, with an optional handle on the 5 L flask.



CellFac multi-layer cell factories



Erlenmeyer flasks, plain and baffled



Closed-system bottles and transfer sets

Filtration, Clarification, and Downstream Concentration



- **Vacuum Bottle Filters:** Sterile bottle-top and tube-top vacuum filters with PES membranes at 0.10, 0.22 and 0.45 µm for culture media, sera and reagents, irradiation-sterilised to SAL 10⁻⁶. Syringe filters come in MCE, nylon, PVDF, CA, SFCA and PES.
- **Centrifugal Spin Filters:** JetSpin® PES centrifugal filters (0.5, 5 and 15 mL) at 3 to 100 kDa MWCO for protein and nucleic acid concentration. PES ultrafiltration membranes extend to 300 kDa.
- **PureFlow™ Capsule Sterilizing Filters:** Single-use capsule filters for sterilising bioprocess media and buffers, in four sizes from 122 to 340 mm high.



Bottle-top vacuum filter



JetSpin centrifugal filters



Syringe filters



PureFlow capsule filters

Clinical IVF Consumables & ProGro™ Biological Reagents



- **IVF-Specialized Culture Dishes:** Centre-well dishes, four-well plates and 35, 60 and 90 mm dishes for embryo culture, droplet culture, freezing and thawing. Made under ISO 13485 and GMP and third-party tested as non-embryotoxic, non-pyrogenic, non-cytotoxic and non-genotoxic (Guangdong registration GDMDR 20232181838).
- **ProGro™ Fetal Bovine Serum:** Traceable, screened raw serum, filtered three times at 0.1 µm and aseptically filled in GMP cleanrooms, with endotoxin below 1 EU/mL.
- **ProGro™ Media:** Serum-free and classical media including DMEM (high and low glucose), DMEM/F12 and RPMI-1640.
- **CellSafe™ GMP-Grade Consumables:** GMP-grade flasks, plates, dishes, CellFac vessels, Erlenmeyer flasks, centrifuge tubes, pipets and vacuum filters, made in Class 100,000 (partly Class 10,000) cleanrooms and sterilised to SAL 10⁻⁶.



IVF culture dishes and plates



ProGro fetal bovine serum



ProGro media range

Industrial Vacuum Infrastructure & Gas Analyzers



Sourced from the Leybold Vacuum Components Portfolio

Industrial Fore Vacuum Pumps & Rough Vacuum Control



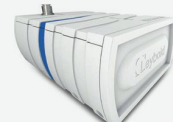
- **Oil-Sealed Rotary Vane Pumps (SOGEVAC & TRIVAC Lines):** SOGEVAC single-stage pumps deliver 10 to 840 m³/h down to $\leq 5 \cdot 10^{-2}$ mbar, and TRIVAC dual-stage pumps reach 10^{-4} mbar (TRIVAC B, 4 to 65 m³/h). Both feature dynamic shaft seals, integrated exhaust filtration with oil loss under 1 ppm, and ATEX (2014/34/EU) or O₂-compatible versions.
- **ECODRY plus Multi-Stage Roots Pumps:** 100% oil-free and particle-free compact vacuum generation (25, 35, 45 and 70 m³/h) in one compact frame under 30 kg, with adaptive speed control via a Leybold gauge. The ECODRY 40 and 65 plus variants have the lowest noise level in their class.
- **SCROLLVAC plus Dry Scroll Pumps:** Universal dry roughing solutions with whisper-quiet, low-vibration operation in four sizes (SCROLLVAC 7, 10, 15 and 18 plus), single or three phase.
- **VARODRY and LEYVAC Dry Screw Pumps:** Rugged dry screw pumps with no process oil migration, reaching $\leq 1 \cdot 10^{-2}$ mbar. VARODRY is fully air-cooled at 65 to 200 m³/h, and LEYVAC is hermetically sealed for hazardous gases at 80 to 160 m³/h.
- **Multi-VAControl & CAB Automation Modules:** Intelligent electronic smart management frameworks that link multiple variable or fixed-speed pumps concurrently, optimizing energy usage on-demand via integrated PLC touch panels.



SOGEVAC rotary vane pump



TRIVAC dual-stage rotary vane pump



ECODRY plus dry roots pump



SCROLLVAC plus scroll pump



VARODRY dry screw pump



LEYVAC dry screw pump



RUVAC roots pump



Multi-VAControl

High Vacuum Pumps, Leak Detection, and Gas Analyzers



- **TURBOVAC i/iX Hybrid Bearing Turbomolecular Series:** Advanced high-vacuum generators providing pumping speeds up to 1,450 l/s, utilizing mechanical/permanent magnetic hybrid bearing networks installable in any orientation.
- **PHOENIX 4 Helium Leak Detectors:** The highest standard in helium leak detection components testing, for mobile or stationary vacuum and sniffer testing, with USB data logging, a colour touchscreen and an integrated webserver for secure Wi-Fi remote operation.
- **LEYSPEC Residual Gas Analyzers:** All-in-one compact mass spectrometers tracking 100, 200, or 300 amu data blocks, mountable in any orientation with standalone on-board displays to spot trace chamber contamination. Bakeable up to 300°C; the LEYSPEC Cart adds its own SCROLLVAC 7 plus and TURBOVAC 350i pumping.



TURBOVAC i turbomolecular pump



PHOENIX 4 leak detector on cart



LEYSPEC Cart residual gas analyzer



GRAPHIX vacuum controller

SECTION 11

Benchtop & Floor Standing Centrifuges

Sourced from the Excelsior Scientific Pharma+ Centrifuge Portfolio



CENTRIFUGES

Pharma+ Centrifuge Range



Designed by analytical chemists and laboratory scientists, with over 25 years of centrifuge manufacturing behind it. Capacities run from micro to 4 litres, all with bright blue touch screen LCD displays and ω^2t as standard for full run repeatability. All centrifuges and rotors carry a 2-year warranty.

- **Through Flow Air System:** keeps samples and motor cool in ambient models, allowing longer run times.
- **Dynamic Efficiency Control refrigeration:** compressor hot-gas bypass with PID valve control holds set temperature to 0.5°C, compared with 3.5°C for on/off controlled competitors, while cutting power use by 25%.
- **Rotors built for chemical resistance:** salt-saturation tested stainless steel bowls, CNC-machined polypropylene fixed-angle rotors, and double-anodised aircraft-grade aluminium swing-out and high-speed rotors.
- **Operator features:** rotor recognition, 10 acceleration and 10 deceleration rates, 99 program memory, pulse short run, speed in rpm or RCF in 1 rpm steps, sound below 60 dB.
- **Safety:** multi-point lid locking, emergency lid release, lid lock and imbalance detection, overspeed sensor, barrier ring, and motor overheat sensor.
- **Class 3 containment:** hermetically sealable rotor buckets are available for work in Class 3 containment areas.



Pharma+ centrifuge with touch screen



Pharma+ centrifuge, lid open

K1015E / K1015RE Microtube Centrifuges



High-speed micro centrifuges in ambient and refrigerated versions.

- **Applications:** micro rotors for 0.2, 0.4, 0.5, 1.5, 2.0, 2.2 ml and PCR strips; haematocrit (PCV) rotor for capillaries and 2.0 ml tubes; fixed-angle rotors for 5 to 15 ml tubes; swing-out rotor for 2 to 5 ml tubes.



K1015E microtube centrifuge

SPECIFICATION	K1015E	K1015RE
Speed	500–15,000 rpm	500–15,000 rpm
Max RCF	22,000 G	22,000 G
Temperature	Ambient	-20°C to +40°C, PID ±1°C
Dimensions HWD (mm)	280 × 240 × 360	320 × 280 × 575
Weight (without rotor)	12.8 kg	41.8 kg
Power	125 W	575 W
Memory	99 programs	99 programs

K2015E / K2015RE Centrifuges



Compact general-purpose centrifuges with cytology and microplate options.

- **Applications:** micro rotors 0.2 to 2.2 ml and PCR; haematocrit (PCV) rotor; fixed-angle rotors for 15 and 50 ml tubes; swing-out rotor for 0.5 to 125 ml tubes; cytology rotors in 4, 8 or 12 place (double holder).
- **Swing-out rotor BRK5506E:** 4 × 125 ml, 4,000 rpm / 2,200 RCF, with adaptors for Monovette, Vacuette, Falcon, and Nalgene tubes.



K2015E ambient centrifuge



K2015RE refrigerated centrifuge

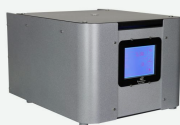
SPECIFICATION	K2015E	K2015RE
Speed	500–15,000 rpm	500–15,000 rpm
Max RCF	22,000 G	22,000 G
Temperature	Ambient	-20°C to +40°C, PID ±1°C
Dimensions HWD (mm)	320 × 350 × 470	325 × 360 × 610
Weight	22.8 kg	45.8 kg
Power	175 W	575 W

K241E / K241RE Medium Prime Centrifuges (1 L)

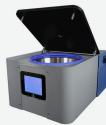


Mid-size benchtop centrifuges reaching 24,000 G.

- **Applications:** micro rotors 0.2 to 2.2 ml and PCR; haematocrit (PCV) rotor; fixed-angle rotors for 15 and 50 ml tubes; swing-out rotor for 0.5 to 250 ml tubes.
- **Swing-out rotor BRK1001E:** 4 × 250 ml buckets (1 litre), 4,000 rpm / 2,650 RCF, with adaptors for blood collection tubes, Falcon, and Nalgene/Oakridge tubes.



K241E medium prime centrifuge



K241RE refrigerated centrifuge

SPECIFICATION	K 241 E	K 241 RE
Speed	500–15,000 rpm	500–15,000 rpm
Max RCF	24,000 G	24,000 G
Temperature	Ambient	-20°C to +40°C, PID ±1°C
Dimensions HWD (mm)	340 × 400 × 520	330 × 435 × 650
Weight	25.8 kg	57.8 kg
Power	275 W	625 W

K242E / K242RE Large Centrifuges (2 L)



Large-capacity benchtop centrifuges with an optional trolley (XMFSE, total height 98 cm).

- **Applications:** micro rotors and PCR; haematocrit (PCV) rotor; large fixed-angle rotors for 15, 50, and 100 ml tubes; swing-out rotor for 0.5 to 750 ml tubes; microplate rotor for 4 standard or 2 high plates.
- **Swing-out rotor BRK3000E with B2001E buckets:** 4 × 500 ml, 4,000 rpm / 3,600 RCF.



K242E large centrifuge



K242RE refrigerated centrifuge on trolley

SPECIFICATION	K 242 E	K 242 RE
Speed	15,000 rpm	22,000 rpm
Max RCF	24,000 G	24,000 G
Temperature	Ambient	-20°C to +40°C, PID ±1°C
Dimensions HWD (mm)	375 × 540 × 620	410 × 825 × 650
Weight	54.5 kg	87.8 kg
Power	750 W	1,200 W

K243E / K243RE Large Prime Centrifuges (3 L)



The largest benchtop models, with an optional trolley (XMFSE).

- **Applications:** micro rotors and PCR; haematocrit (PCV) rotor; large fixed-angle rotors for 15, 50, and 100 ml tubes; swing-out rotor for 0.5 to 750 ml tubes; microplate rotor.
- **Swing-out rotor BRK3000E with B3001E buckets:** 4 × 750 ml, 4,000 rpm / 3,600 RCF.



K243E large prime centrifuge



K243RE refrigerated centrifuge on trolley

SPECIFICATION	K243E	K243RE
Speed	15,000 rpm	22,000 rpm
Max RCF	24,000 G	24,000 G
Temperature	Ambient	-20°C to +40°C, PID ±1°C
Dimensions HWD (mm)	375 × 570 × 660	410 × 845 × 660
Weight	59 kg	105 kg
Power	750 W	1,200 W

K2FS4E / K2FS4RE Floor Standing Centrifuges (4 L)



Floor-standing high-capacity centrifuges for bulk processing.

- **Applications:** micro rotors and PCR; haematocrit (PCV) rotor; large fixed-angle rotors for 15, 50, and 100 ml tubes, plus BRK5256E for 6 × 250 ml at 10,000 rpm / 15,650 RCF; swing-out rotor for 0.5 to 1,000 ml.
- **Swing-out rotor BRK3000E with B4001E buckets:** 4 × 1,000 ml, 4,000 rpm / 4,500 RCF, with B5319E sealed lids.



K2FS4 floor standing centrifuge

SPECIFICATION	K2FS4E	K2FS4RE
Speed	500–15,000 rpm	500–15,000 rpm
Max RCF	24,000 G	24,000 G
Temperature	Ambient	-20°C to +40°C, PID ±1°C
Dimensions HWD (mm)	1000 × 575 × 660	1000 × 575 × 660
Weight	80 kg	115 kg
Power	1,200 W	1,200 W

Rotor Selection Guide



Fixed-angle rotors spin samples down fastest; swing-out rotors suit separations that need a flat pellet or layer. Rotors are autoclavable at 121°C.

ROTOR	TYPE	MAX SPEED	MAX RCF	FITS
BRK5424E	Fixed, 24 × 2 ml	15,000 rpm	22,000 G	All models
BRK5401E	Haematocrit, 24 capillary + 12 × 2 ml	13,000 rpm	15,800 G	All models
BRK5248E	Fixed, 48 × 2.2 ml	15,000 rpm	24,000 G	K241, K242, K243, K2FS4
BRK5208E	High speed fixed, 8 × 50 ml	10,000 rpm	13,400 G	K242, K243, K2FS4
BRK5256E	High speed fixed, 6 × 250 ml	10,000 rpm	15,650 G	K2FS4
BRK5540E	Microplate, 4 standard or 2 high plates	3,500 rpm	2,500 G	K2015RE, K241, K242, K243, K2FS4
4460E	Cytology, 12 × 0.2–6 ml	2,000 rpm	550 G	K2015
BRK5506E	Swing-out, 4 × 125 ml	4,000 rpm	2,200 G	K2015
BRK1001E	Swing-out, 4 × 250 ml	4,000 rpm	2,650 G	K241
BRK3000E + B2001E	Swing-out, 4 × 500 ml	4,000 rpm	3,600 G	K242
BRK3000E + B3001E	Swing-out, 4 × 750 ml	4,000 rpm	3,600 G	K243
BRK3000E + B4001E	Swing-out, 4 × 1,000 ml	4,000 rpm	4,500 G	K2FS4

SECTION 12

Thermostatic Laboratory Equipment

Sourced from the Excelsior Scientific Laboratory Equipment Portfolio



THERMOSTATIC EQUIPMENT

SL Drying Ovens



Drying ovens reaching from 5°C above ambient up to +300°C, with natural (SLN) or forced (SLW) air convection, acid-proof DIN 1.4301 stainless steel interiors, and 0.1°C resolution.

- **Applications:** thermal resistance analysis of building materials and electronic components, ageing and curing, drying of laboratory glass, vulcanization studies, conditioning, digestion of proteins, drying of plant tissues, drug metabolism, life and exposure studies, serum protein analysis, and suspended solids evaluation.
- **Protection:** over-temperature class 2.0 to DIN 12880, with class 3.1 as an option and standard in TOP+.



SL drying oven

MODEL	SL 15	SL 32	SL 53	SL 115	SL 180	SL 240	SL 400	SL 750	SL 1000
Chamber capacity (L)	15	32	56	112	180	245	424	749	1005
Overall W x H x D (mm)	510 × 550 x 440	590 × 630 x 500	590 × 700 x 600	650 × 850 x 700	650 × 1030 x 760	810 × 1200 x 760	1010 x 1430 × 750	1260 x 1600 × 850	1260 x 2000 × 850
Nominal power (W)	600	1100	1600	2400	2400	3000	3900	5400	5400
Weight (kg)	27	35	50	65	94	126	174	260	330

SLWP Pass-Through Ovens

Forced-convection ovens with doors on both sides, up to +300°C, holding $\pm 0.5^{\circ}\text{C}$ at 105°C.

- **Use:** moving dried or heat-treated material between rooms, such as from a preparation area into a clean area, without opening a shared door.

MODEL	SLWP 115	SLWP 240	SLWP 1000
Chamber capacity (L)	112	245	997
Overall W x H x D (mm)	655 × 885 × 700	815 × 1180 × 815	1106 × 1716 × 965
Nominal power (W)	2400	3000	5600
Weight (kg)	65	126	350

KK Climatic Chambers & Phytotron (FIT)

Chambers that hold temperature from -10°C to $+60^{\circ}\text{C}$ and humidity from 30% to 90% RH, with optional day/night lighting (FIT phytotron system) up to 15,000 lux per shelf. TOP+ control with a 5.7" colour touch screen and Ethernet remote control.

- **Applications:** photostability tests, drug metabolism, life and exposure studies, tests of building materials, food preservation experiments, plant and fungus growing, seed germination, microorganism and insect breeding.
- **Standard equipment:** double door (solid outside, glass inside), USB and RS 232, stainless steel shelves, deionised water and waste water containers, open door alarm, 30 mm access port, and a test certificate at 25°C and 60% RH.
- **Protection:** over-temperature class 3.3 to DIN 12880.



KK climatic chamber



KK climatic chamber with phytotron lighting

MODEL	KK 115	KK 240	KK 350	KK 400	KK 500	KK 700	KK 750	KK 1200	KK 1450
Chamber capacity (L)	112	245	335	424	493	625	749	1365	1467
Working capacity (L)	112	245	335	424	386	450	749	1229	1307
Temperature ($^{\circ}\text{C}$)	-10 to +60	-10 to +60	-10 to +60	-10 to +60	-10 to +60	-10 to +60	-10 to +60	-10 to +60	-10 to +60
Humidity (% RH)	30-90	30-90	30-90	30-90	30-90	30-90	30-90	30-90	30-90
Nominal power (W)	1000	1500	1400	2000	1600	1600	2500	2200	2200
Weight (kg)	90	140	125	185	130	170	275	220	230

THERMOSTATIC EQUIPMENT

ST Cooled Incubators



Heated and cooled incubators that hold a stable temperature from +3°C to +40°C (up to +70°C as an option) regardless of room conditions. Single, double, and triple chamber versions, with photoperiodic (FOT) or phytotron (FIT) day/night lighting options.

- **Applications:** BOD determination, microbiological research, plant growing and microorganism breeding at set temperatures, and storage of liquids and samples for physicochemical analysis.
- **Programs:** six-segment temperature-time profiles, 3 user programs, start delay up to 99:59 h, and min/average/max recording per segment.



ST double-chamber cooled incubator

MODEL	ST 1	ST 2	ST 3	ST 4	ST 5	ST 6	ST 500	ST 700	ST 1200	ST 1450
Chamber capacity (L)	70	150	200	250	300	400	500	625	1365	1460
Working capacity (L)	55	122	163	203	243	324	386	450	1229	1307
Nominal power (W)	160	170	170	330	330	330	400	400	550	550
Weight (kg)	32	54	59	69	75	90	105	115	185	200

THERMOSTATIC EQUIPMENT

ILP Peltier-Cooled Incubators



Compressor-free incubators cooled by Peltier elements, from +15°C to +70°C (+100°C in TOP+).

- **Advantages:** quiet, vibration-free operation with no refrigerant, lower weight and power use, and excellent temperature stability and recovery after door opening.



ILP Peltier-cooled incubator

MODEL	ILP 53	ILP 115	ILP 240	ILP 400
Chamber capacity (L)	56	112	245	424
Overall W x H x D (mm)	600 × 710 × 660	660 × 850 × 770	820 × 1140 × 810	1040 × 1380 × 840
Nominal power (W)	400	400	800	800
Weight (kg)	69	90	140	190

THERMOSTATIC EQUIPMENT

CL Laboratory Incubators



Heated incubators from 5°C above ambient up to +100°C, in 15 to 1005 litre sizes, with natural or forced air convection and stainless steel interiors.

- **Applications:** incubation of samples for microbiological examinations, antibody testing, bacterial research, cultivating thermophilic bacteria, crystallisation studies, pharmaceutical stability testing, and thermal resistance of pigments and lacquers.
- **Standard equipment:** USB and RS 232, stainless steel shelves, test certificate at +37°C, open door alarm, and an air flap.



CL laboratory incubator

THERMOSTATIC EQUIPMENT

CHL Laboratory Refrigerators



Single or double chamber laboratory refrigerators from 0°C to +15°C, with -10°C to +15°C available as an option. Forced air convection, defrosting, and microprocessor time and temperature control.

- **Applications:** storing water and sewage samples and piezometer leachate, AAS, GC, and HPLC calibration standards, reagents, and chemicals.
- **Standard equipment:** solid door (glass optional), RS 232, wire shelves, and a test certificate at +4°C.



CHL laboratory refrigerator

MODEL	CHL 1	CHL 2	CHL 3	CHL 4	CHL 5	CHL 6	CHL 500	CHL 700	CHL 1200	CHL 1450
Chamber capacity (L)	70	150	200	250	300	400	500	625	1365	1460
Working capacity (L)	55	122	163	203	243	324	386	450	1229	1307
Nominal power (W)	160	170	170	330	330	330	400	400	550	550
Weight (kg)	32	54	59	69	75	90	105	115	185	200

THERMOSTATIC EQUIPMENT

ZLN Laboratory Freezers



Freezers from -25°C to 0°C (ZLN 85) and -40°C to 0°C (ZLN-T and ZLW). ZLW models use forced-air "no frost" operation, so they never need manual defrosting.

- **Applications:** long-term storage of samples and biological material, storing easily decomposing material, pre-freezing, and freeze resistance tests of building materials such as concrete and wood.



ZLN laboratory freezer

MODEL	ZLN 85	ZLN - T 125	ZLN - T 200	ZLN - T 300	ZLW 200	ZLW 300
Air convection	Natural	Natural	Natural	Natural	Forced	Forced
Chamber capacity (L)	95	130	210	310	210	310
Temperature (°C)	-25 to 0	-40 to 0	-40 to 0	-40 to 0	-40 to 0	-40 to 0
Nominal power (W)	200	450	470	470	500	500
Weight (kg)	60	90	120	185	120	185

THERMOSTATIC EQUIPMENT

ZLN-UT Ultra-Low Freezers



Ultra-low freezers from -40°C down to -86°C for deep freezing of biotechnological samples, with separate internal solid doors for each compartment and stainless steel drawer racks.

- **Performance:** cools from +20°C to -80°C in 3.5 hours; takes 1.5 hours to warm from -80°C to -60°C after a power failure.
- **Options:** spare controller batteries, alarm output, and an extra port for CO₂ and Pt100 backup.



ZLN-UT ultra-low freezer with drawer racks



ZLN-UT ultra-low freezer interior

MODEL	ZLN - UT 200	ZLN - UT 300
Chamber capacity (L)	237	326
Internal chambers	3	4
Boxes (133 × 133 × 50 mm)	108	144
Test tubes (Ø12.5 mm)	8,748	11,664
Energy use at -80°C (kWh/24 h)	16	18
Overall W x H x D (mm)	850 × 1620 × 950	850 × 1910 × 950
Weight (kg)	180	200

Controllers, Software & Qualification

Every Excelsior thermostatic unit uses a PID microprocessor controller. All products can be supplied with a calibration certificate from an accredited measurement laboratory and with IQ, OQ, and PQ qualification.

- **STD controller:** LCD graphic display, six-segment profiles, 3 user programs, alarms, power failure recovery, and memory for 2,046 data records.
- **TOP+ controller:** 5.7" colour touch screen, up to 100 program segments, 20 user programs, user accounts with login, password-protected settings, 4,100 records per user, USB export, and remote control over Ethernet or the internet.
- **EasyLab software:** EasyLab Basic downloads stored data to a PC free of charge; EasyLab Professional adds continuous logging, charts, reports, and TOP+ programming.



STD microprocessor controller



TOP+ colour touch screen



EasyLab software screen

SECTION 13

Regulatory Clearance, Local Assurance & Contact

Certified Local Quality Assurance & Machinery Safety

- **UAE Compliance:** Viyon Middle East L.L.C ensures that 100% of our distributed machinery, high-pressure vessels, and chemical standard stocks are fully compliant with the regulatory guidelines of the United Arab Emirates.
- **High-Pressure Vessel Authorization:** Rodwell autoclaves operate as precision-engineered pressure systems creating door forces up to 11 tonnes. Viyon manages the mandatory structural safety, validation, and calibration alignments required for local mainland and free zone operations.
- **Industrial Compliance Coordination:** Registered to support direct chemical, petroleum, sterilization, and medical data logistics required by ADNOC Research, free zone safety inspectorates, the Dubai Municipality portal (Montaji parameters), and the Ministry of Health and Prevention (MOHAP).

Request a quotation



CORPORATE ENTITY

Viyon Middle East L.L.C

REGIONAL HUB

Abu Dhabi / Dubai, United Arab Emirates

EMAIL

scientific@viyonmiddleeast.com

TOLL FREE

800 VIYON

TELEPHONE

+971 56 671 6788

WEB

www.viyonscientific.com



Toll Free: 800 VIYON · scientific@viyonmiddleeast.com · +971 56 671 6788 · www.viyonscientific.com

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