



CASSIA

Roteva Advantages / Construction / Standard Features

★ LIFT

- Motorised lift, standards in all models
- Provision for manual lift in case of power failure.
- Minimum height adjustable stopper.

★ SEAL & DRIVE

- Proven PTFE / GLASS sealing mechanism
- Adjustable at any convenient angle
- 30 to 270 RPM
- Digital RPM indicator

★ BATH

- Oil cum Water Bath
- Independent safety cut-out set at 190°C
- Floating overshoot 10°C above set point.
- Temperature range up to 180°C
- Clear bottom easy to clean.
- Efficient insulation. Inner & outer vessel of SS.
- Evaporating flask: From 50 ml to 3000 ml.
- PID controller with display for set & actual temp.
- Replaceable heater.

★ GLASS SETS

- Threaded safety on all utilities joint.
- Continuous feed for higher volume distillations.
- Options of six glass sets for different applications.
- PTFE feed stopcock (unbreakable & interchangeable)

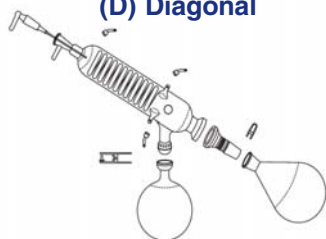
★ Uniquely designed condenser support enables smooth and snug fitting of all Glassware sets.

★ Effortless flask ejector. No more jammed flask.



CHOICES OF GLASS SETS

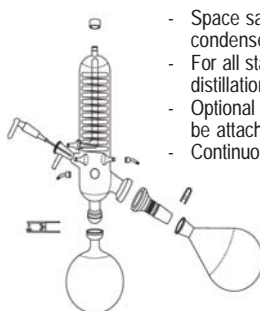
(D) Diagonal



Traditional Diagonal Condenser

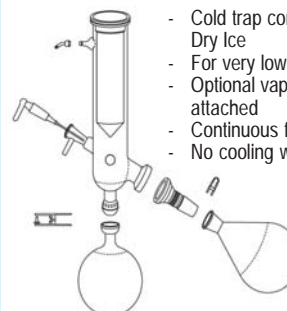
- For all standard & routine distillations
- Optional vapour sensor can be attached
- Continuous feed as standard

(V) Vertical



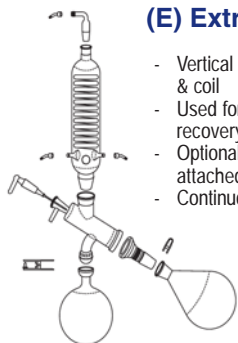
- Space saving vertical condenser
- For all standard & routine distillations
- Optional vapour sensor can be attached
- Continuous feed as standard

(C) Cold Trap



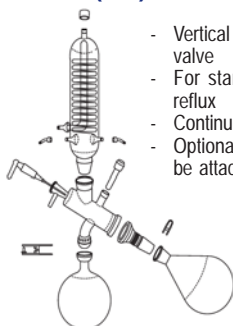
- Cold trap condenser used with Dry Ice
- For very low boiling solvents
- Optional vapour sensor can be attached
- Continuous feed as standard
- No cooling water required

(E) Extra Cooling



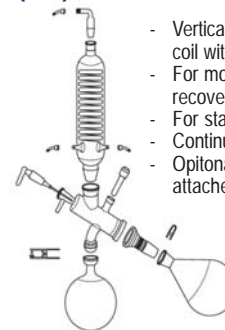
- Vertical condenser with jacket & coil
- Used for efficient cooling & recovery
- Optional vapour sensor can be attached
- Continuous feed as standard

(VR) Vertical with Reflux



- Vertical condenser with reflux valve
- For standard distillations & reflux
- Continuous feed as standard
- Optional vapour sensor can be attached

(ER) Extra Cooling with Reflux



- Vertical condenser with jacket & coil with reflux valve
- For more efficient cooling & recovery
- For standard distillations reflux
- Continuous feed as standard
- Optional vapour sensor can be attached.



Vacuum Pump

- Innovac-20 PTFE Diaphragm Vacuum Pumps are fully imported from UK.
- Fully chemical resistant to virtually all gases and solvent vapours.
- PTFE, Kalrez and PVDF are used for all wetted components, being the most chemically inert materials available.
- Innovac features a tough alloy case with unique "T-slot" rails for quick easy mounting of necessary attachments such as vapour traps or condensers.
- Thermal protection: 140°C and max ambient temperature: 40°C
- Use of solvent trap is highly recommended (available as option)

Model	Description	Capacity	App. Shipping Details Net / Gr. Volume
Innovac-20	Vacuum Pump	20 lit / min / 8 mbar ultimate vacuum	9 kg / 10 kg / 0.31 m ³
Innovac-40	Vacuum Pump	38 lit / min 8 mbar ultimate vacuum	9 kg / 10kg / 0.31m ³

Chilled Water Circulator - 4L

- EQUITRON Chilled Water circulator is ideal for chilling and condensing operations for Rotary vacuum evaporator, Viscosity Tests, Spectrophotometry, Water Baths (upto 28 lit)
- Four sturdy castors for easy manouverability
- Hermetically sealed environemnt friendly CFC free compressor.
- Built-in coolant reservoir of approximatly 4 litres
- Built-in pump with capacity of 15 lit/min - at zero head
- Built in Digital Temperatruue Controller - 1°C resolution.
- Supplied with two insulated silicone hose (1 met each) for external circulation

Model	Description	Capacity	App. Shipping Details Net / Gr. Volume
#8502.ROT.000	Chilled Water Circulator	700W at 15°C	41 kg / 65 kg / 0.345 m ³



Vacuum Trap

- Used for trapping uncondensed solvent vapours prior to vacuum source and / or controller.
- Suitable for chilling with dry ice or any other cryogenic mixture
- Highly recommended for all kinds of vacuum source & controllers.
- Made of Borosilicate glass

Model	Description	App. Shipping Details Net / Gr. Volume
#8841.CT0.00	Vacuum Trap	6 kg / 8 kg / 0.059 m ³



Bumping / Foaming Trap

Model	Capacity	Socket	Cone
#8825.029.0.29	100 ml	29/32	29/32
#8825.029.024	100 ml	29/32	24/29



Ordering Information

Technical Specifications

Item	Specification	Item	Specification
Heating bath dimensions	φ 230 x 130 mm	Power Supply	230 V, AC, 50 Hz
Volume of heating bath	4 lift. approx.	Rotation speed	30 to 270 rpm
Bath heater capacity	1200 watts	Rotation speed display	Yes
Heating bath controller	PID with display for set & actual temp.	Lift	Motorised
Bath temperature range	Ambient + 5 to 180°C	Manual lift (When power fails)	Yes
Temperature accuracy	±2°C	Height adjustment	170 mm approx.
Independent safety cutouts @ 190°C	Flast ejector	Yes	
Heating bath material	SS 304	Condenser support	Yes
Min / Max flask size	50 ml / 3000 ml	Foot print	220 cm ²
Cond. cooling area: D, V, VR	1200 cm ²	Glass sets available	D, V, C, E, VR, ER
Cond. cooling area: C	580 cm ² approx.	Thredded connectors for utilities	Yes
Cond. cooling area E, ER	2000 cm ² approx.	Feed stopcock & tube made of	PTFE
Environmental conditions (Temp.)	10 to 40°C	Environmental Conditions (% RH)	Max 80% NC

Note: All the evaporators are supplied with one litre evaporating and receiving flasks as standard

Roteva Main unit & Optional Accessories Ordering Information

Model	Item	App. Shipping Details Net / Gr. / Volume
#8763.RD0.000	Roteva-63 series with Diagonal Glass Set (D)	
#8763.RV0.000	Roteva-63 series with Vertical Glass Set (V)	CB:
#8763.RC0.000	Roteva-63 series with Cold Trap Glass Set (C)	28 kg / 44 kg / 0.486m ²
#8763.RE0.000	Roteva-63 series with Extra Cooling Glass set (E)	
#8763.RVR.000	Roteva-63 series with Vertical with Reflux Set (VR)	WC:
#8763.RER.000	Roteva-63 series with Extra cooling with Reflux Set (ER)	
#8911.DVS.199	Digital Vapour Sensor	
#6990.X35.050	Float Balls Pack (for Water Bath)	
#8717.OX0.000	Spare PTFE seal flask side	
#8715.OX0.000	Spare VISION seal condenser side	
#8780.OX0.00	Spare bath heater, 1200 watts	
#1034.B-29.000	C clip, B-29	
#3305.B-29.000	Clip Evaporating Flas S-35, SS	

Vacuum Controller

- Enhance solvent recovery to more than 90%
- Compatible with any laboratory vacuum source. Inert gas port for aeration.
- Evacuation: Fine tuning by a special valve for better control.
- Use of solvent trap is highly recommended (available as option)
- Control accuracy: ± 2 mm of Hg.
- Automatic barometric correction

Model	Description	Capacity	App. Shipping Details Net / Gr. Volume
#8920.DVC.XHF	Vacuum Controller	0-760 mm of Hg	4.2 kg / 5.0 kg / 0.02 m ³



ROUND WATER / OIL BATH CLEAR BOTTOM SERIES Digital Control with Timer

Equitron Advantages

- A clear bottom, uniquely designed Bath, Ensures no heater burn out due to lack of water.
- A state of the art PID Controller with timer ensures a fully automatic control over the process.
- A floating overshoot alarm & an absolute over-temperature alarm with auto cut off.

Construction / Standard Features

- Double walled, internal and external chamber full stainless steel construction.
- External Body SS & oven baked epoxy finished
- One stainless steel ϕ 12 x 600mm rod for clamping
- Insulated handle(s) on sides for easy handling.
- Digital electronic PID controller with following parameters programmable by user:
Temperature range: ambient +5°C to 100°C (water) / up to 300°C (oil) Time: upto 99 hours and 59 minutes.
- Pt 100 Sensor for precise control.
- End cycle visual indication with heater cut off.
- Industrial grade long life special heaters for efficient transfer of heat.

Model*	Round Flask Capacity	Bath size ϕ x deep in mm	App. Shipping Details Net / Gr. / Volume
#8481CB-	1 lit.	ϕ 165 x 90	4.3 kg / 5.0 kg / 0.04 m ³
#8483CB-	3 lit.	ϕ 230 x 130	7.0 kg / 8.0 kg / 0.05 ³
#8485CB-	5 lit.	ϕ 260 x 150	8.2 kg / 9.3 kg / 0.05 ³
#8490CB-	10 lit.	ϕ 350 x 200	18.0 kg / 20.0 kg / 0.10 m ³
#8690C7	Lid - Conc. Rings for 10L	ϕ 75 mm x 7 holes	
#8470-	Stirrer for Round bath 10L	-	

* Add suffix PW / PO to the model number.

ROUND WATER / OIL BATH Immersion Series - Thermostatic / Digital

Equitron Advantages

- Double walled construction with efficient insulation system.
- Bath chamber of stainless steel - seamless
- Outer body and control panel of MS duly finished in heat cured epoxy coating.
- On/Off switch and pilot lamp indication for mains and heater.
- Stainless Steel immersion heater - peripheral shape to eliminate direct contact with flask.

Construction / Standard Features

- Thermostatic Range: Ambient +5 to 100°C / 50°C to 180°C
- Digital Range: Ambient +10 to 250°C

Model	Round Flask Capacity	Bath size ϕ x deep in mm	App. Shipping Details Net / Gr. / Volume
#8481IS-	1 lit.	ϕ 165 x 90	3.5 kg / 4.0 kg / 0.020 m ³
#8483IS-	3 lit.	ϕ 230 x 130	5.0 kg / 6.0 kg / 0.025 m ³
#8485IS-	5 lit.	ϕ 260 x 150	7.0 kg / 8.0 kg / 0.030 m ³
#8490IS-	10 lit.	ϕ 350 x 200	15.0 kg / 17.0 kg 0.060 m ³
#8492IS-	20 lit.	ϕ 450 x 300	
#8690C7	Lid - Conc. Rings for 10L	ϕ 75 mm x 7 holes	
#8470	Stirrer for Round bath 10L / 20L	-	

* Add suffix TW / TO / DWO to the model number.





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ROTARY VACUUM EVAPORATOR

Equitron Advantages

- The Ideal partner for all routine rotary vacuum evaporation's at Universities, colleges, schools, small to mid size companies, and as a standby unit.

EVATOR Advantages

- Spark-less drive unit AC motor with assured speed regulation - 50 to 250 RPM.
- Flask sizes from 100 to 1000 ml.
- Digital Temperature Controller for Water Bath up to 99°C
- PTFE / GLASS sealing mechanism.

Construction / Standard Features

- Smooth, adjustable, maintenance free and user friendly single lever manual lift.
- Seamless Stainless steel Round Bath inner vessel
- Vertical Glass Set with 1000 ml B29 Evaporating Flask & 1000 ml S35 Receiving Flask B29 plastic C Clip & S35 Ball Joint Clip
- Flast ejector for easy removal of evaporating flask.

Model	Description	App. Shipping Details Net / Gr. / Volume
#EV11	EVATOR Rotary Evaporator	20 kg / 25 kg / 0.220 m ³

VACUUM REGULATOR - ANALOGUE

- Use of a Vacuum Regulator with a suitable vacuum pump enhances solvent recoveries to above 90%
- Ideal partner for EVATOR
- Easy readout with large analogue dial; Range 0 to 750 mm/Hg
- Compatible with any laboratory vacuum source

Model	Description	App. Shipping Details Net / Gr. / Volume
#8925.REG.760	Vacuum Regulator - Analogue	1.5 kg / 2.5 kg / 0.015 kg.

CHILLER - MANUAL

- Cooling - manually by ice, fill up volume of 20 lit.
- All water contact parts of inert material.
- Continuously rated maintenance free motor with pumping capacity @ 9 lit/min at zero head.

Model	Description	App. Shipping Details Net / Gr. / Volume
#8930.X00.EVA	Chiller - Manual	6 kg / 14 kg / 0.12 m ³

TUBING SET

- PVC tubings for water circulation of 3 met length - 2 nos.
- Tap adapter - 1 no for connecting to normal tap.
- NBR pipe for vacuum connection

Model	Description	App. Shipping Details Net / Gr. / Volume
#S-1271	Tubing Set: 6 met PVC tubing with tap adapter for water inlet & drain, 3 met NBR tubing for vacuum pump	1 kg / 2 kg / 0.015 m ³



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VERTICAL AUTOCLAVE - DIGITAL

EQUITRON Advantages

- Automatic purging for efficient sterilization
- Low water level cut off.
- Supplied with traceable certificate for Pressure Gauge and Digital Indicator.

Construction / Standard Features:

- Inside and outside chamber, lid, flange, carrier and reservoir are fully stainless steel.
- Digital Temperature Controller with 1°C resolution and $\pm 1^\circ\text{C}$ accuracy.
- Handy-raise device for lid in #7441DT & #7451DT - the safe & easy way.
- Lid is fitted with pressure gauge, safety valve, manual exhaust valve & vacuum breaker cum purge valve.
- Custom made energy efficient heater reduces power bills buy 16 to 40%

Model	Working Chamber Size (ϕ x D) / Litres	Carrier (ϕ x D) in cm	Heater	App. Shipping Details Net / Gr. Volume
#7421DT	30 x 50 cm (12 x 20") / 35	1 of 25 x 45	1.80 kW	34 kg / 65 kg / 0.32 m ³
#7423DT	30 x 50 cm (12 x 20") / 35	1 of 25 x 45	3.00 kW	44 kg / 75 kg / 0.32 m ³
#7431DT	35 x 55 cm (14 x 22") / 53	1 of 30 x 50	2.25kW	39 kg / 68 kg / 0.40 m ³
#7433DT	35 x 55 cm (14 x 22") / 53	1 of 30 x 50	3.00 kW	49 kg / 78 kg / 0.40 m ³
#7441DT	45 x 71 cm (18 x 28") / 113	2 of 40 x 33	3.50 kW	77 kg / 125 kg / 0.92 m ³
#6451DT	55 x 76 cm (22 x 30") / 180	2 of 50 x 35	5.00 kW	110 kg / 180 kg / 1.28 m ³



VERTICAL AUTOCLAVE - STANDARD

Equitron Advantages

- Automatic purging for efficient sterilization.
- A sturdy & tension free Autoclave. Can be operated repeatedly even in remote places.
- Comes with an additional Safety Valve & Low Water Level Indication for added safety.

Construction / Standard Features:

- Inside and outside chamber, lid, flange, carrier and reservoir are fully stainless steel.
- Handy-raise device for lid in #7441ST & #7451ST - the safe & easy way.
- Lid is fitted with pressure gauge, safety valve, extra safety valve, manual exhaust valve and vacuum breaker cum purge valve.
- Custom made energy efficient heater reduces power bills by 16 to 40%.

Model	Working Chamber Size (ϕ x D) / Litres	Carrier (ϕ x D) in cm	Heater	App. Shipping Details Net / Gr. / Volume
#7421ST	30 x 50 cm (12 x 20") / 35	1 of 25 x 45	1.80 kW	34 kg / 65 kg / 0.32 m ³
#7423ST	30 x 50 cm (12 x 20") / 35	1 of 25 x 45	3.00 kW	44 kg / 75 kg / 0.32 m ³
#7431ST	35 x 55 cm (14 x 22") / 53	1 of 30 x 50	2.25 kW	39 kg / 68 kg / 0.40 m ³
#7433ST	35 x 55 cm (14 x 22") / 53	1 of 30 x 50	3.00 kW	49 kg / 78 kg / 0.40 m ³
#7441ST	45 x 71 cm (18 x 28") / 113	2 of 40 x 33	3.50 kW	77 kg / 125 kg / 0.92 m ³
#7451ST	55 x 76 cm (22 x 30") / 180	2 of 50 x 35	5.00 kW	110 kg / 180 kg / 1.28 m ³



Portable Autoclave - Automatic / Standard

Equitron Advantages

- Ideal for sterilization, discard and as a stand by unit.
- Die pressed seamless body of SS.
- PA model with preset electronic time & temp. control & auto switch off. ST model control by safety valve.
- Lid fitted with pressure gauge, safety valve, manual exhaust valve and vacuum breaker cum purge valve.

Model	Working Chamber Size (ϕ x D)	Dressing Drum (ϕ x D)	Heater	App. Shipping Details Net / Gr. / Volume
#7407PA	30 x 23 cm (12 x 9")	28 x 23 cm (11 x 9")	1.8 kW	10.5 kg / 12.0 kg / 0.10 m ³
#7407ST	30 x 23 cm (12 x 9")	28 x 23 cm (11 x 9")	2.0 kW	9.0 kg / 11.0 kg / 0.10 ³



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AUTOCLAVE - Table Top Sterilizer

Equitron Advantages

- Equitron Table Top High Speed Sterilizers are ideal for all applications requiring rapid, reliable and total destruction of all living microorganisms.
- Sterilizing exhaust of water & steam and drying are fully automatic.
- Requires a sterilizing time if just 7 minutes at 134°C (instead of 20 minutes at 121°C).
- Drying with door open facility

Construction / Standard Features

- Full stainless steel construction
- μ P Controller with following parameters programmable by user:
 - Sterilizer Time: Upto 99 minutes.
 - Sterilizing Temperature: Up to 134°C
 - Drying time: up to 99 minutes
- Pt 100 Sensor for precise monitoring
- Pressure interlock on door.
- Spring loaded safety valve for over pressure

Model	Chamber size	Tray	App. Shipping details (Air) Net / Gr. / Volume
#7471	ϕ 230 x 400 mm (16 lit)	2 trays	50 kg / 65 kg / 0.3m ²

JACKETED AUTOCLAVE - SLJ Series

Equitron Advantages

- The SLJ Series Autoclaves are ideal for Clinics, Primary Health Centres & Institutes, Nursing Homes, Hospitals & Doctors.
- Unique single lever lock for lid with single hand opening.
- Microprocessor Based Control ensures repeatability & better accuracy.
- Conformance to National and International Standards.
- External Jacket provides drying at the ended of sterilization cycle.

Construction / Standard Features

- All wetted parts fabricated form Stainless Steel.
- Single lever pronged closure system with a specially designed Silicone Gasket
- Easy access to all critical components due to its modular panel design.
- Low water detection.
- Spring located safety valve for over pressure.
- Pressure interlock on door.
- MCB for electrical safety.



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SPECIFICATION & ORDERING DETAILS

Model	Type of Autoclave	Working Chamber Size (ϕ x D) / Capacity	OPTIONAL		App. Shipping Details Net / Gr. / Volume
			Carrier	Dressing Drum	
#7447SLJ	SLJ - Jacketed	40 x 60 cm (16 x 24") / 75 lit	1 of f 35 x 55 cm	2 of 38 x 30 cm	160 kg / 250 kg / 2.5 m ²



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SPARES AND ACCESSORIES FOR VERTICAL AUTOCLAVES

PRODUCT	#7421 f30 x 50 15 psi	#7423 f30 x 50 30 psi	#7431 f35 x 55 15 psi	#7433 f35 x 55 30 psi	#7441 f45 x 71 15 psi	#7451 f55 x 76 15 psi
Gasket	#S1203	#S1205	#S1207	#S1209		
Heater	#S4251-V	#S4251-HS	#S4253	#S4251-HS	#S4255	#S4257
Heater for Jacketed Autoclave	Industrial type 1 1/4" BSP - 2 kW #S-4246 Industrial type 1 1/4" BSP - 3 kW #S-4248					
Pressure Gauge	#S3805	#S3805-W50	#S3805	#S3805-W50	#S3808	
Safety Valve-ST	#S2463-15	#S2463-30	#S2463-15	#S2463-30	#S2463-15	
Safety Valve - DT/FA	#S2463-20	#S2463-33	#S2463-20	#S2463-33	#S2463-20	
Extra Safety Valve	#S2461-ESV-22	#S2461-ESV-34	#S2461-ESV-22	#S2461-ESV-34	#S2461-ESV-22	
Exhaust Valve	#S2475					
Vacuum Breaker cum Purge Valve	#S2472-M				#S4272-B	
QRC for FA	#S-3632					
Flynut Assembly	#S2701 - (6 required)				#S2701 (8 required)	#S2701 (12 required)
Carrier (Basket)	#S3084 - (1 required)		#S3086 (1 required)		#S3088 (2 required)	#S3090 (2 required)
Design Drum	#S0082-11x9 - 27 x 22 cm (2 required)		#S0082 - 13x11 - 33 x 28cm (2 required)		#S0082-15x12 38 x 30 cm (2 required)	NA
Temperature Sensor Model - FA	#S5392					
Solenoid Valve Model-FA	#S4340-06				#S4340-08	
SSR for FA	#S4325-DC-16	#S4325-DC-25			#S4325-DC-40	
Float Switch for FA	#S-4322					
Drain Valve	#S-2476					
MCB	#S4350-10DP	#S4350-16DP			#S4350-20DP	#S4350-25DP
Chart Paper 90-140°C, f150	#S3851 - pack of 100					
Pen for Chart Recorder	#S3855 - pack of 5					
Paper Roll for Printer	#S3857 - pack of 10					
Ribbon for Printer	#S3859 - pack of 1					

SPARES AND ACCESSORIES FOR PORTABLE AUTOCLAVE - STANDARD & PRESET AUTOMATIC

PRODUCT	#7407ST	#7407PA
Gasket 'C' type	#SGAPA12	
Heater	#S4235	#S4251-P
Flynut Assembly	#S2703 (6 required)	

SAPRES FOR SLR, SLV, SLJ & TABLE TOP

PRODUCT	#7431 SLR	#7441 SLR	#7431 SLV	#7441 SLV	#7447 SLJ	# 7471
Heater	#S4253	#S4255	#S4248	#S4248, #S4246	#S4248, #S4246	#S4273
Gasket	#S1205.SLL	#S1207.SLL	#S1205.SLL	#S1207.SLL	#S1207.SLL	#S1216



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JACKETED AUTOCLAVE - FULLY AUTOMATIC

EQUITRON Advantages

- Enables reproducibility of results as full cycle including purging of stale air, sterilizing temperature, hold time, cycle end and exhaust is automatic.
- Supplied with traceable Test Certificates for Temp. Controller and Pressure Gauge.
- Equipped with low water level cut off and alarm.

Construction / Standard Features

- Inner chamber, jacket, outer chamber, lid, flanges, fly screws, cross pins, heater cover stand are fully stainless steel.
- MProcessor based Controller with time & temperature (up to 122.0°C) programmable by user.
- A backlit alphanumeric two line 32 character LCD display.
- Solenoid Valve for better purging as well as automatic end of cycle exhaust.
- Industrial grade heaters.
- Lid is fitted with compound gauge, safety valve, extra safety valve cum manual exhaust valve.
- Handy-raise device for lid-safe and user friendly - on #7447FA.

Model	Working Chamber Size (φ x D) / Liters	Accessory Suffix Controller	Independent	App. Shipping Details Net / Gr. / Volume
#7427FA	30 x 50 cm (12 x 20") / 35	O/p to external	Plotting to Printer* with F ⁰ Chart Recorder #CR	45 kg / 80 kg / 0.5m ³ inbuilt Circular
#7447FA	40 x 60 cm (16 x 24") / 75	#OP		80 kg / 140 kg / 1.0 m ³

VERTICAL JACKETED AUTOCLAVE - DIGITAL

Equitron Advantages

- A reliable, tension free Autoclave. Can safely be operated repeatedly in remote places.
- With low water level indication, audio alarm & cut-off

"Construction / Standard Features"

- Inner chamber, jacket, outer chamber, flange, fly screws, cross pins are fully stainless steel.
- Digital temperature controller with bright LED display - visible even from a distance.
- Industrial grade heater
- Lid is fitted with compound gauge, safety valve, extra safety cum manual exhaust valve.
- Handy-raise device for lid in #7447DT.

Model	Working Chamber size (φ x D) / Liters	Optional Carrier (φ x D) in cm	App. Shipping Details Net / Gr. / Volume
#7427DT	30 x 50 cm (12 x 20") / 35	1 of 25 x 45 - #S3084	45 kg / 80 kg / 0.5 m ³
#7447DT	40 x 60 cm (16 x 24") / 75	1 of 35 x 55 - #S3086	80 kg / 140 kg / 1.0m ³

VERTICAL JACKETED AUTOCLAVE - STANDARD

EQUITRON Advantages

- A sturdy and tension free Autoclave. Can safely be operated repeatedly in remote places.
- Water level indicator.

Construction / Standard Features

- Inside chamber, jacket, outer chamber, flange, fly screws, cross pins are fully stainless steel.
- Industrial grade heater.
- Lid is fitted with pressure gauge, safety valve and extra safety cum manual exhaust valve.
- Handy-raise device for lid in #7447ST.

Model	Working Chamber Size (φ x D) / Liters	OPTIONAL Carrier (φ x D) in cm	App. Shipping Details Net / Gr. / Volume
#7427ST	30 x 50 cm (12 x 20") / 35	1 of 25 x 45 - #S3084	42 kg / 75 kg / 0.32 m ³
#7447ST	40 x 60 cm (16 x 24") / 75	1 of 35 x 55 - #S3087	85 kg / 140 kg / 0.92 m ³



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SHAKING BATH

EQUITRON Advantages

- Digital RPM as standard
- Constant shaking speed even during heater operation

Construction / Standard Features

- Double walled, insulated, full stainless steel construction.
- Removable SS tray accommodates flask holders of different capacities
- Control: Digital 0.1°C resolution, with control accuracy: $\pm 0.2^\circ\text{C}$ at 37°C
- Temperature Range: Ambient + 5 to 80°C
- Shaking Speed: 30 to 175 oscillations
- Control Accuracy ± 3 RPM
- Stroke Length: 25 mm

Flask Capacity	Number of Flasks
100 ml	9
250 ml	6
500 ml	4
1000 ml	2
2000 ml	1



Model	Size L/W/D in cm	Flask holders supplied as Standard	App. Shipping Details Net / Gr. / Volume
#8406	45 x 28 x 21	6 flask holders for 250 ml	32 kg / 49 kg / 0.27 m ³

REFRIGERATED CIRCULATING EQUIBATH

Applications

- Ideal for Rotational Viscosity tests, Spectrophotometers, Refractometers, Electrophoresis, Isoelectric Focusing, Calibration, Chromatography, Condensers, Densitometers, Polarimeters and General Laboratory cooling.

EQUIBATH Advantages

- EQUIBATH provides heating & cooling in an extremely compact table top design.
- Built in circulator, pumps to external devices @ 9 lit / min at zero head.

Construction / Standard Features

- Crevice free stainless steel die pressed vessel
- Temperature Range - 10 to +150°C
- PID Temperature Controller with Soak Timer.
- Control accuracy of $\pm 0.1^\circ\text{C}$ for water with a uniformity better than $\pm 0.2^\circ\text{C}$
- High Temperature safety cut-out - self resetting type.
- Bath opening: 145 mm x 150 mm.



Model	Bath	Temp. Range	Capacity L/W/D in cm	External Size Net / Gr. / Volume	App. Shipping Details
#8506	Refrigerated Circulating	-10°C to +150°C	6 lit.	46 x 41 x 41 cm	30 kg / 32 kg / 0.1 m ³



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ACCESSORIES FOR STIRRED WATER BATH

Chilled Water Circulator

- Ideally suitable for below ambient operations upto +5°C in Stirred Water Bath #8414 & #8428
- Environment friendly CFC free compressor.
- Inbuilt Digital Temperature Controller
- Sturdy castors for easy maneuverability.

Model	Product	Suitable for	App. Shipping Details Net / Gr. / Volume
#8501.D05.000	Chilled Water Circulator	#8414 upto +5°C	32 kg / 50 kg / 0.2 m ³
#8502.ROT.000	Chilled Water Circulator	#8428 upto +5°C	41 kg / 65 kg / 0.345 m ³

Gabled Lid

- Full SS construction
- Insulated Handle for easy removal and placing.
- Ergonomic design for dripping of all condensate into the Bath inside periphery.

Model	Product	Size
#6928.GL.14	Gabled Lid for 14 lit	23 x 30 cm
#6928.GL.28	Gabled Lid for 28 lit.	41 x 30 cm

Concentric Rings Lid

- Lid of SS with insulated knobs for easy removal and placing
- Concentric Rings moulded for engineering plastic to withstand temp & long use.
- Rings in steps of 75, 50 & 25 mm.

Model	Product	Size
#6926.CR.14	Concentric Rings Lid for 14 lit.	4 holes x 75 mm
#6926.CR.28	Concentric Rings Lid for 28 lit.	8 holes x 75 mm

Weight Rings

- Moulded Lead Rings to stabilize glassware immersed in Water Baths
- Reduces breakage & chemical spills due to floating.
- Plastic coating is general chemical resistant and will not scratch flasks.

Model	Product	Size
#6955	Weight Rings for Conical Flasks 150 to 1000 ml	Pack of 10 rings

Float Ball

- Form 2 layers of the float balls over water's surface and improve performance.
- Reduces breakage & chemical spills due to floating.
- Plastic coating is general chemical resistant and will not scratch flasks.

Model	Product	Size	Require (Pack(s))
#6990	Float Ball	Pack of 50 balls	1 pack for #8405, 2 packs for #8414 & 3 packs for #8428

Immersion Height Adjustable Tray

- SS construction
- Enables immersion height adjustment for small flasks / tubes in stirred baths.
- Set of two shelves of 30 mm ht enables immersion reduction by 30 / 60 mm

Model	Product	Size
#6920.11.3x2	Set of two shelves 30 mm ht	110 x 300 mm

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STIRRED WATER BATH (Constant Temperature Bath)

EQUITRON Advantages

- Excellent control accuracy & uniformity due to its modular & innovative design

Construction / Standard Features

- Stirring achieved by an efficient, continuously rated, self cooling motor with SS shaft and propeller of anti-corrosive material
- Full SS construction.
- Temperature Range: Ambient + 5°C to 90°C
- Accuracy: $\pm 0.1^\circ\text{C}$ at 37°C & Uniformity: $\pm 0.2^\circ\text{C}$ at 37°C

Model	Capacity	Size L/W/D in cm	Optional Accessory	App. Shipping Details Net / Gr. / Volume
#8405	5 Lit	30 x 15 x 15	External pumping: #P	5.5kg / 6.5 kg / 0.05 m ³
#8414-	14 Lit	32 x 30 x 15	@ 300 ml / min	9.0 kg / 12.0 kg / 0.135 m ³
#8428-	28 Lit	50 x 30 x 20	at same level	13.0 kg / 16.0 kg / 0.185 m ³

* Add suffix TW / TO / DWO to the model number.



CONCENTRIC RINGS WATER BATH Digital / Thermostatic

EQUITRON Advantages

- Fitted with a water level indicating device
- A removable flat drop-on lid for concentric rings enables multi utility of the bath.
- Supplied with mercury in glass thermometer in Thermostatically controlled water bath.

Construction / Standard Features

- Double walled, insulated, full stainless steel construction.
- Rings in steps of 25 & 50 mm ID moulded from industrial grade non-corrosive materials.
- A precise Digital Temperature Controller with control accuracy of + 1°C in digital model.
- A precise capacity thermostat enables reliable control in thermostatic model.
- Temperature range: Ambient +5°C to 100°C

Model	Bath	Control	Concentric Rings	App. Shipping Details Net / Gr. / Volume
#6806DI	30 x 20 x 10 cm	Digital	with steps of 25 mm	5.0 kg / 5.6 kg / 0.04 m ³
#6812DI	40 x 30 x 10 cm	Digital	with steps of 25 mm	9.0 kg / 10.0 kg / 0.06 m ³



SEROLOGICAL WATER BATH

EQUITRON Advantages

- Easy to set capillary thermostat with 37°C calibrated mark & control of + 0.5°C
- Supplied with Thermometer, Clip and Mains Cord

Construction / Standard Features

- Fully stainless steel, including bottom, makes it rust proof.
- Glasswool insulation for energy efficiency.
- Range: Ambient plus 5°C to 65°C

Model	Size L/W/D in cm	Racks (Optional)		Optional SS Gabled Lid Model	Optional Flat Ball Packs Model	App. Shipping Details Net / Gr. / Volume
		Kahn 30 #6205	Kahn 48 #6209			
#6701	27 x 13 x 12	-	1	#6901	#6990 x 1	3.5 kg / 4.0 kg / 0.030 m ³
#6721	30 x 27 x 12	1	3	#6921	#6990 x 2	5.5 kg / 6.1 kg / 0.050 m ³





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POLYCARBONATE - Anaerobic Culture Jar

EQUITRON Advantages

- A strong moulded transparent jar, makes it ideal for critical tests requiring visual in process monitoring

Construction / Standard Features

- Aluminium cast lid, heat cured epoxy coated with a bridge clamp for easy tightening.
- Carrier can accommodate twelve petri dishes, with gas pack sachet holder.
- Lid fitted with a compound gauge, two needle valves, safety valve and cold catalyst on the underside.

Model	Description	Approx. Size	App. Shipping Details Net / Gr. / Volume
#8160	Anaerobic Jar - Polycarbonate*	12.5 x 23 cm	2.0 kg / 3.0 kg / 0.03 m ³

* Gas pack is not part of standard supply.



STAINLESS STEEL - Anaerobic Culture Jar

EQUITRON Advantages

- A seamless stainless steel body coupled with SS flange and SS Lid ensures reliability and durability.
- A single knob for tightening the lid makes it easy to use.

Construction / Standard Features

- Single Bridge clamp for small jar (#8151) and a three pronged single knob tightening clamp for big jar (#8155)
- Carrier (only with #8151) can accommodate twelve petri dishes.
- Semi lucas type indication facility.
- Lid fitted with a compound gauge, two needle valves safety valve and cold catalyst on

Model	Description	Approx. Size	App. Shipping Details Net / Gr. / Volume
#8151	Anaerobic Jar - Small*	12 x 20 cm	2.3 kg / 2.9 kg / 0.025 m ³
#8155	Anaerobic Jar - Big*	22 x 22 cm	6.0 kg / 7.0 kg / 0.050 m ³

* Gas pack is not part of standard supply.



OPTIONAL SPARES & ACCESSORIES FOR ANAEROBIC JARS

Model	Spares	Model	Spares
#S1117	Gas Pack - Pack of 5	#S1222	Spare Gasket - for #8155
#S1114	Spare Catalyst - Pack of 5	#S1223	Spare Gasket - for #8160
#S1115	Test Strip - Pack of 5	#S3811	Compound Gauge - 50 mm
#S1220	Spare Gasket - for #8151	#S2711	Spare Side Arm Rubber + tube



CASSIA

ULTRASONIC BATH LCD SERIES

The EQUITRON 40/59 kHz dual frequency Ultrasonic Cleaners deliver maximum penetration and power to address the most demanding and critical cleaning and mixing applications.

EQUITRON Advantages

- Use selectable frequency: 40 / 59 kHz (in dual freq. Models)
- Digital Control of Frequency, Temperature & Time
- Simultaneous display of all parameters on large LCD display

Construction / Standard Features

- Seamless (jointless) all chambers of SS 304 grade
- Inbuilt Heater - range up to 80°C (in heater fitted models only)
- Built in Digital Timer 1 to 1999 minutes
- Non volatile memory
- Drain valve in models of capacity 10L & above





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SLIDE CABINET

EQUITRON Advantages

- Full MS construction, duly pre treated and heat cured epoxy coated
- Unique patented design of drawers - requiring 1.25² feet to store 21600 slides (bulk) or 7560 slides (individual) - if three cabinets stacked one above the other.
- A highly flexible storage system, where mix and match is possible, with one bulk cabinet (7,200 slides) and two individual (2520) slides each = 5040) or vice versa.

Model	Type	Capacity	App. Shipping Details Net / Gr. / Volume
#6001	Bulk Storage	7,200 slides	20 kg / 21.5 kg / 0.094 m ³
#6005	Individual Storage	2,520 slides	20.5 kg / 22 kg / 0.094 m ³
#6050	Base for above	up to 3 cabinets	-

SLIDE STAINING ASSEMBLIES

EQUITRON Advantages

- Full SS construction. Slide staining trough with loose lid.
- Staining Rack die slotted for easy individual holding and bulk staining.

Model	Type	Capacity	App. Shipping Details Net / Gr. / Volume
#6142	Slide Staining Racks - SS	10 slides	0.30 kg / 0.60 kg / 0.006 m ³
#6145	Slide Staining Racks - SS	25 slides	0.4 kg / 0.80 kg / 0.005 m ³
#6152	Slide Staining Trough - SS	10 slides	1.10 kg / 1.60 kg / 0.006 m ³
#6155	Slide Staining Trough - SS	25 slides	2.0 kg / 2.80 kg / 0.012 m ³

SLIDE TRAY & STAINING STAND

Model	Purpose	Construction	App. Shipping Details Net / Gr. / Volume
#6105	Viewing	Aluminium - Powder Coated - holds 24 slides in flat position	2.2 kg / 2.6 kg / 0.009 m ³
#6115	Drying	SS - 4 grooves - 30 cm (12") Long	1.0 kg / 1.3 kg / 0.004 m ³
#6121	Staining	Full SS - 2 Rods - 28 cm (11") Long	1.5 kg / 2.0 kg / 0.009 m ³

DRESSING DRUMS

EQUITRON Advantages

- Fully stainless steel, Die punched burr free perforations.
- Robust sliding & latching mechanism and polished crevice free interiors.

Model	Size	Suitable for	App. Shipping Details Net / Gr. / Volume
#S-0082-7x7	17 x 17 cm	Very small loads	1.0 kg / 1.5 kg / 0.015 m ³
#S-0082-9x9	22 x 22 cm	Small loads	1.5 kg / 2.0 kg / 0.025 m ³
#S-0082-11x9	27 x 22 cm	30 Autoclaves	1.7 kg / 2.5 kg / 0.035 m ³
#S-0082-13x11	33 x 28 cm	35 Autoclaves	2.5 kg / 3.3 kg / 0.054 m ³
#S-0082 - 15x12	38 x 30 cm	40 x 45 Autoclaves	4.0 kg / 5.0 kg / 0.073 m ³



PIPETTE AND PETRI DISH STERILIZING BOX

- Full stainless steel construction.
- Petri dish box is seamless, die pressed with a removable stainless steel rack to hold ϕ 100 mm petri plates

Model	Product	Size	App. Shipping Details Net / Gr. / Volume (For 10 nos)
#6601	Pipette Box - SS	38 x ϕ 6 cm (15 x 1/2")	3.0 kg / 3.5 kg / 0.022m ³
#6605	Pipette Box - SS	45 x ϕ 5 cm (18x2)	3.0 kg / 3.5 kg / 0.019 m ³
#6621	Petri Box with carrier - SS	25 x ϕ 11cm (10x4 1/4")	6.8 kg / 7.5 kg / 0.050 m ³

TEST TUBE RAK

- Die punched - Burr free holes
- SS racks are polished and aluminium racks are powder coated.
- SS rings on two-sides (for Kahn Racks) for easy lifting
- Top & Centre with holes & bottom plain.

Model	Type	Mat.	Size Holes x (Row x No.)	App. Shipping Details Net / Gr. / Volume (For 10 nos)
#6205	Kahn Rack	SS	30 holes x ϕ 13 mm (3x10)	1.7 kg / 2.2 kg / 0.013 m ³
#6209	Kahn Rack	SS	48 holes x ϕ 13 mm (4x12)	2.0 kg / 2.6 kg / 0.020 m ³
#6210	Kahn Rack	SS	96 holes x ϕ 13 mm (8x12)	4.0 kg / 5.0 kg / 0.033 m ³
#6321-SS	"S" type Rack	SS	12 holes x ϕ 20 mm (3x4)	1.8 kg / 2.5 kg / 0.014 m ³
#6235	Double Tier Rack	SS	24 holes x ϕ 20 mm (3x8)	3.0 kg / 3.7 kg / 0.024 m ³
#6242	Double Tier Rack	SS	12 holes x ϕ 26 mm (2x6)	3.0 kg / 3.7 kg / 0.023 m ³
#6245	Double Tier Raci	SS	12 holes x ϕ 32 mm (2x6)	4.0 kg / 4.8 kg / 0.022 m ³
#6248-12	Double Tier Rack	SS	12 holes x ϕ 40 mm (2x6)	5.0 kg / 6.0 kg / 0.041 m ³
#6248-24	Double Tier Rack	SS	24 holes x ϕ 40 mm (3x8)	10.0 kg / 11.3 kg / 0.078 m ³
#6351	Double Tier Rack	Alu.	8 holes x ϕ 32 mm (2x4)	2.0 kg / 2.5 kg / 0.032 m ³
#6361	Double Tier Rack	Alu.	8 holes x ϕ 40 mm (2x4)	2.5 kg / 3.0 kg / 0.032 m ³

DIFFERENTIAL BLOOD CELL COUNTER

- Ideal accompaniment for speedy differential count and for timing other laboratory procedures with the in-built timer and stop watch.
- 16 characters alpha-numeric LCD display - eliminates ambiguity and errors while recalling and noting.
- Splash proof keys for reliability & durability
- Small & compact - requires little bench space and works on 230V mains supply.
- Brightly & easily indentifiable labeled keys for reducing operator error
- Total count upto 999,999 with percentage & individual count possible at any stage count.

Model	Channels / Keys	Max. Total Count	App. Shipping Details Net / Gr. / Volume
#8308	8 keys	999999	1.0 kg / 1.2 kg / 0.0006 m ³

ESR BLOOD SEDIMENTATION APPARATUS

- Stainless Steel base rest manufactured or coated with non-corrosive material.
- Unique spring mechanism at bottom permits single hand operation for Westergren.

Model	Product	Capacity*	App. Shipping Details Net / Gr. / Volume
#6535	Westergren Apparatus	6 Pipettes	6.0 kg / 8.5 kg / 0.084 m ³
#6539	Westergren Apparatus	12 Pipettes	10.0 kg / 14.0 kg / 0.013 m ³
#6505	Wintrobe Apparatus	6 Tubes	2.2 kg / 3.5 kg / 0.012 m ³

*Supplied without Pipettes.



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SLL - Regular Series

Equitron Advantages

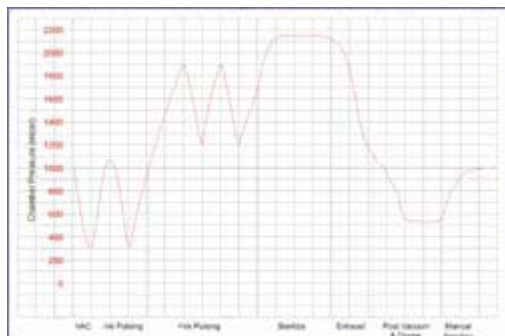
- Unique single lever lock for lid with single hand opening.
- Free steaming facility - improves penetration and reduces lag time.
- Online f_0 calculations along with set & process temperatures' while printing to external compatible DMP (printer optional) - eliminates ambiguity.
- Built in reservoir to recondense exhausted steam - eliminates steaming of room.

Construction / Standard Features :

- Internal Chamber and lid along with all wetted parts fabricated from Stainless Steel.
- Built in validation port enables self calibration checks.
- Flexible sensor enables in-situ control and monitoring of cycles.
- Control is by a Microprocessor based Controller having 2 line 32 character alphanumeric backlit display.
- Online printing to an optional Epson LX-300+ / LQ-300+ printer.
- Prints - as per user set time interval - to an A4 sized paper / continuous stationery with date & time, set temperature, process temperature & F_0 value.
- Low water detection.
- Spring loaded safety valve for over pressure.
- Pressure interlock on door. MCB for electrical safety.



SLL-Vacuum Series



Equitron Advantages:

- Unique single lever lock for lid with single hand opening.
- User friendly programmable Controller with options of pre-vacuum, free-steaming & post vacuum, besides time & temperature.

Construction / Standard features :

- Internal Chamber and lid along with all wetted parts fabricated from Stainless Steel.
- Built in validation port enables self calibration checks
- Flexible sensor enables in-situ control and monitoring of cycles.
- Control is by a Microprocessor based Controller having alphanumeric backlit display.
- User settable: 1) No. of - ve pulsing 2) No. of +ve pulsing 3) Sterilisation temp. & time 4) Post vacuum & drying time.
- Low water detection
- Spring loaded safety valve for over pressure in jacket as well chamber.
- Pressure interlock on door. MCB for electrical safety.



SPECIFICATION & ORDERING DETAILS

Model	Type of Autoclave	Working Chamber Size (φ x D) / Capacity	Accessory Suffix	Carrier (φ x D)	App. Shipping Details Net / Gr. / Volume
# 7431 SLR-	SLL - Regular	35 x 55 cm (14 x 22") / 53 lit	SDOP3P: Simultaneous display of 3 Temp. Ch. + 1 Pressure Ch.- O/p to external Printer* with 1 F_0	1 of f30 x 50 cm	105 kg / 190 kg / 1.682 m ³
# 7441 SLR-	SLL - Regular	45 x 71 cm (18 x 28") / 113 lit		2 of f40 x 33 cm	130 kg / 230 kg / 2.522 m ³
# 7431SLV-	SLL - Vacuum	35 x 55 cm (14 x 22") / 53 lit		1 of f30 x 50 cm	150 kg / 225 kg / 1.682 m ³
#7441SLV-	SLL - Vacuum	45 x 71 cm (18 x 28") / 113 lit		2 of f40 x 33 cm	190 kg / 280 kg / 2.522m ³



VERTICAL AUTOCLAVE - Fully Automatic

EQUITRON Advantages

- Enables reproducibility of results as full cycle including purging of stale air, sterilizing hold time, cycle end with exhaust of pressure is automatic, requiring no human intervention.
- Widest options for documenting available.
- Supplied with Test Certificates along with traceabilities for Temp. controller & Pressure Gauge.

Construction / Standard Features:

- Both chambers, carrier(s), lid, flange, fly screw, cross pin, heater cover stand are fully SS.
- A backlit alphanumeric two line 32 characters LCD display, displays all the information.
- Flexible Pt 100 sensor, enabling precise in load monitoring
- Low water level alarm and cut off. End of cycle buzzer and auto reset.
- Miniature Circuit Breaker for On/Off plus safety. Solenoid Valve for automatic purging and exhaust.
- Custom made energy efficient ring type heater reduces power bills by 16 to 40%.
- Lid is lifted with Pressure Gauge, Safety Valve, Extra Safety valve, Manual Exhaust Valve Vacuum Breaker cum Purge valve and Quick Release coupling for online pressure calibration checks.
- Handy-raise device for lid-safe and user friendly - on #7441FA and #7451FA.

Model	Working Chamber Size (φ x D / Ltr.)	PSI / 0C	Carrier (φ x D) in cm	App. Shipping Details Net / Gr. Volume
#7421FA-	30 x 50 cm (12 x 20" / 35)	15 / 121	1 of 25 x 45	40 kg / 80 kg / 0.48m ³
#7423FA -	30 x 50 cm (12 x 20" / 35)	30 / 134	1 of 25 x 45	45 kg / 85 kg / 0.48 m ³
#7431FA-	35 x 55cm (14 x 22" / 53)	15 / 121	1 of 30 x 50	45 kg / 85 kg / 0.58 m ³
#7433FA-	35 x 55cm (14 x 22" / 53)	30 / 134	1 of 30 x 50	45 kg / 90 kg / 0.58 m ³
#7441FA-	45 x 71 cm (18 x 28" / 113)	15 / 121	2 of 40 x 33	86 kg / 145 kg / 1.16m ³
#7451FA-	55 x 76 cm (22 x 30" / 180)	15 / 121	2 of 50 x 35	117 kg / 200 kg / 1.42m ³

* Suffix Documenting Options to the model numbers.



CR Chart Recorder - Circular

- Independent online plotting of one flexible sensor - allows in-situ monitoring.
- At-a-glance-easy & quick readability. Small 150mm - easy to handle circular chart size.
- Plotting temperature range 90 to 140°C - enables 1°C readability & eliminates ambiguity.
- Four hours / 1 revolution enables a meaningful plot length.

#SDOP3P Simultaneous Display with Online printing of 3 temperature channels with 1 F₀ + 1 pressure channel to external DMP (Optional)

- Independent display of three flexible sensors - plus one pressure sensor - allows in-situ monitoring - and online documenting. Header with preset Company Name.
- Prints with date, time set point, process temperature of 3 temperature channels & F₀ of Channel A, plus pressure channel.
- Prints with date, time, set point, process temperature of 3 temperature channels & F₀ of Channel A, plus pressure channel.

OP Online printing of temperature with F₀ to external DMP

- Direct online printing of Controller displayed data.
- Header with preset Company Name.
- Automatic four digit sequential batch numbering, with manual over-ride facility.
- Prints with date, time, set point, process temperature, F₀ and pressure.

Model	Process	Source
#CR	Chart Recorder - Circular 90 ~ 140°C / 4 Hrs / 150 mm	Independent
#SDOP3P	Simultaneous Display with Online printing of 3 temp. ch. with 1F ₀ + 1 pressure ch. to external DMP (Optional)	Independent
#OP	Online printing of temp. with F ₀ to external DMP (Optional)	FA Controller
#OPP	Online printing of temp. with F ₀ + pressure to external DMP (Optional)	FA Controller
#SDOP3	Simultaneous Display & Online printing of 3 temp. ch. with 1 F ₀ to external DMP (Optional)	Independent
#SP3	Scanner - 3 temp. ch. with built in 18 col. DMP	Independent
#SP3P	Scanner - 3 temp. ch + 1 pressure ch. with built in 18 col. DMP.	Independent