



 **AS ONE CORPORATION**

RECOMMENDED PRODUCTS CATALOG

LABORATORY & INDUSTRIAL SELECTION



Company Overview

Headquarters location 2-1-27 Edobori, Nishi-ku, Osaka 550-8527

Established June 1, 1962

Capital 5,075 million yen (end of March 2025)

President Takuji Iuchi

Number of employees 731 (as of the end of March 2025)
(consolidated)

Net sales(consolidated) 103,751 million yen (FYE 03/2025)

Business Sales of research equipment, nursing and elderly care products, and other scientific instruments

Website <https://www.as-1.co.jp>

Affiliates **AS ONE SHANGHAI CORPORATION**
(Business description: Sales of scientific instruments for research)

Nikko Hansen & Co., Ltd.
(Business: Manufacturing and sales of plastic containers)

Iuchi Logistics Co., Ltd.
(Business: Warehouse management and cargo handling)

AS ONE INTERNATIONAL INC. [USA]
(Business: North American product exports)

Tryumph21 Co., Ltd.
(Business: Online purchasing services)

CUSTOM CORPORATION
(Business: Manufacturing and sales of electronic measuring instruments)



Headquarters



AS ONE TV commercial

Like a lighthouse,
guides researchers.



EC × Logistics
(To the future)



EC × Logistics
(AXEL)



Overseas Bases

China

- AS ONE SHANGHAI CORPORATION
- Shenyang Branch
- Beijing Branch
- Beijing Logistics Center
- Shanghai Logistics Center
- Guangzhou Branch
- Suzhou Branch



AS ONE SHANGHAI CORPORATION

North America

- AS ONE INTERNATIONAL, INC.



AS ONE INTERNATIONAL, INC.

Domestic Bases

- Sapporo Sales Office
- Sendai Sales Office
- Tonomachi Solution Research Laboratory
- Shizuoka Sales Office
- Kyoto Sales Office
- Wakayama CIC
- Takamatsu Sales Office
- Hiroshima Sales Office
- Fukuoka Sales Office
- Okinawa Sales Office
- Nakanoshima Cross Lab
- Tryumph21 Co., Ltd.
- Nikko Hansen & Co., Ltd.



CONSTANT-TEMPERATURE DRYING OVEN (NATURAL CONVECTION)



100v

Order No.	Model No.	Inner dimensions (mm)	Capacity (L)	Heater capacity(W)
1-7477-51	EO-300V	300 x 300 x 300	27	1000
1-7477-52	EO-450V	450 x 430 x 450	87	1400
1-9381-51	EO-600V	600 x 500 x 500	150	
1-9381-52	EO-700V	450 x 430 x 700	135	

- Uses a highly visible color LCD display for improved operability.
- The natural convection method ensures no scattering even when powder or lightweight materials are added.
- The temperature control uses PID control, which enables stable temperature control with high accuracy.
- A security key is included.

Specifications

- Temperature control range: R.T. + 20 to 300 °C
- Type: Natural-Convection



AXEL

NATURAL CONVECTION CONSTANT TEMPERATURE OVEN

220v

Order No.	Model No.	Inner dimensions (mm)	Capacity (L)	Heater capacity(W)	Color
68-0581-62-90	MRNE-22	300 x 300 x 250	22	400	Pink
68-0581-63-90	MRNE-45	300 x 300 x 500	45		
68-0581-64-90	MRNE-22	300 x 300 x 250	22		Green
68-0581-65-90	MRNE-45	300 x 300 x 500	45		

- Quiet volume during operation as there is no air blowing noise
- Small size and lightweight to be placed on a desk.

Specifications

- Temperature control range: 60 to 200 °C
- Type: Natural-Convection
- Weight(kg): 22 (MRNE-22) / 29 (MRNE-45)
- Shelf size(mm): 248 x 286



AXEL

VACUUM DRYER (V SERIES)



100v

Order No.	Model No.	Inner dimensions (mm)	Capacity (L)	Heater capacity(W)
1-2186-11	AVO-200V	200 x 200 x 200	8	800
1-2186-12	AVO-250V	250 x 250 x 250	15	
1-2186-13	AVO-310V	310 x 310 x 310	30	1360
1-2186-14	AVO-450V	450 x 450 x 450	91	1680

- For easy piping and operation, a valve for connecting a vacuum pump and a vacuum gauge are placed on the front.
- Uses a double door consisting of a tempered glass door and a protective polycarbonate door.
- A standard model that can be digitally set for both temperature control and excessive rise prevention.

Specifications

- Temperature setting range: 40 to 220 °C
- Power supply: AC100V (AVO-200V / 250V / 310V), AC200V (AVO-450V)
- Shelf board: 2 pcs (AVO-200V / 250V / 310V), 3pcs (450V)
- Material: Steel baked paint(Exterior), SUS304(Interior), Aluminium(Shelf board)
- Vacuum range: 0.1 to 101kPa ● Control method: PID control and SSR output
- Valve diameter: outer diameter ϕ 13 mm



AXEL

COOL INCUBATOR i-CUBE (HOT & COOL)

Order No.	Model No.	Temp. settings range(°C)	Capacity(L)
2-926-21	FCI-280G	3 to 45	28

- Heating and cooling systems from the inner walls (five sides) provide excellent internal temperature distribution.
- The natural convection system prevents the samples from drying out, allowing them to be cultured and stored in a low-vibration environment.
- It can be used in a wide range of applications, including food hygiene inspections, various cultures, and protein crystallization.

Specifications

- Temperature distribution accuracy: $\pm 0.5^{\circ}\text{C}$ (at 37°C)
- Outer dimensions(mm): 413 x 420 x 485
- Inner dimensions(mm): 219 x 329 x 369
- Power consumption(W): 75
- Material : Frame/Steel painted finish , Interior/Aluminium , Door surface/ABS Plastic



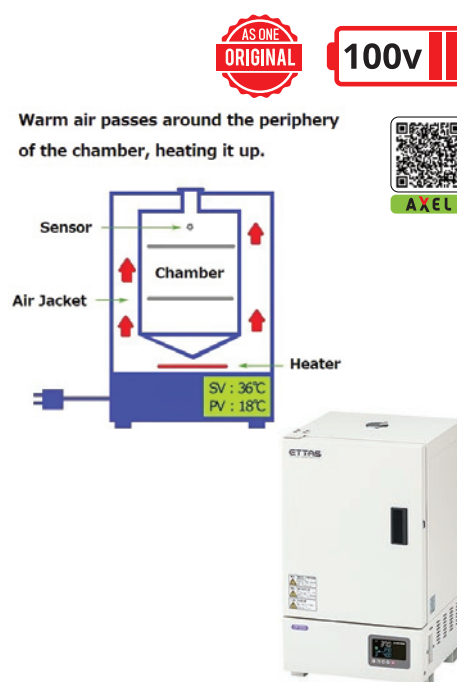
INCUBATOR (AIR JACKET NATURAL CONVECTION)

Order No.	Model No.	Temp. settings range(°C)	Capacity(L)
1-7473-41	EI-300V	R.T.+5 to 80	27
1-7473-42	EI-450V		91
1-9383-42	EI-600V		135
1-9383-41	EI-700V		150

- The air jacket type natural convection system provides a uniform and stable temperature environment and prevents the sample from drying out.
- You can observe the sample without opening the double door type inner door with transparent inner door.

Specifications

- Convective system: Natural convection air jacket
- Temperature distribution width (at 37°C): 2°C (300V) / 2.4°C (450V) / 2.2°C (600V) / 4.1°C (700V)
- Temperature control system: PID control and SSR output
- Exterior/interior: Steel powder coating/stainless steel (SUS304)
- Inner door material: Strengthened glass



HYBRIDIZATION OVEN

Order No.	Model No.	Type	Specification
4-2563-01	HDO-12H	Main Unit	—
4-2563-11	BK40-12	Attachment for bottle	Short bottle x24pcs Long bottle x12pcs
4-2563-12	CT50-12	Attachment for test tube	50ml test tube x12pcs
4-2563-13	MT15-96	Attachment for micro tube	1.5ml micro tube x12pcs
4-2563-14	DH-12H	Tray unit	W365 x D280 mm
4-2563-15	RP-12H	Seesaw unit	Shaking angle: $\pm 7^{\circ}$
4-2563-16	LB40-120	Short bottle	$\phi 40 \times \text{L120mm}$
4-2563-17	LB40-200	Long bottle	$\phi 40 \times \text{L200mm}$

- Supports three types of stirring methods: bottle rotation, tube overturning rotation, and seesaw shaking.
- It can be used for various purposes by changing the options such as special bottle, tube, Tupperware and Petri dish.
- This shaking incubator is capable of not only hybridization, but also dyeing and decolorizing gel, enzymatic reaction, and membrane cleaning.

Specifications

- Temperature control range: R.T. + 5 to 80°C
- Temperature distribution accuracy (JTM K05): $\pm 0.6^{\circ}\text{C}$ (at 55°C)
- Shaking system: Bottle rotation type, Tube falls rotation type, Seesaw Shake Type
- Rotational speed(rpm): 7 to 40
- Convection formula : Forced convection formula
- Inner dimension(mm): 365 x 280 x 286
- External dimension(mm): 520 x 420 x 360



WATER BATH (THERMAX)



220v

Order No.	Model No.	Temp. settings range(°C)	Program Operation	Plug Type
1-4594-31-90	TMK-1A-F	R.T.+5 to 80	–	Type-F
1-4594-31-91	TMK-1A-I		–	Type-I
1-4594-32-90	TMK-2A-F		Equipped	Type-F
1-4594-32-91	TMK-2A-I		Equipped	Type-I

- High precision temperature control is possible by adopting microcomputer type PID control.
- Four timer states (ON, OFF, ON/OFF, SV) are provided as standard.
- Key lock setting, accumulated operation time, timer and program remaining time can also be displayed.

Specifications

- Heater capacity(kW): 1
- Pump capacity: Maximum discharge/10 L/min, Maximum pump head/1.4 m
- Temperature adjustment accuracy: $\pm 1.0^{\circ}\text{C}$ (Our test value)
- Effective inner dimension (mm): 180 x 252 x 153
- Main unit outer dimensions (mm): 150 x 160 x 308



WATER BATH



220v

Order No.	Model No.	Temp. settings range(°C)	Inner dimensions(mm)
1-4595-31-90	EWK-100R-F	R.T.+5 to 95	$\phi 208 \times H123$

- Since the control part cover is made of PP, it has excellent chemical resistance.
- Heater is forcibly turned off when the temperature is too high and an error message is displayed.

Specifications

- External dimensions(mm): 220 x 278 x 124
- Material: Control part cover/PP, Water tank/SUS304, Heater/SUS304 with nickel plated
- Heater capacity(W): 750
- Safety device: Circuit breaker, Bimetal thermostat



THERMOSTATIC WATER BATH

220v

Order No.	Model No.	Temp. settings range(°C)	Inner dimensions(mm)
2-2671-01-90	T-105 LM AC220V	R.T.+5 to 80	W470 x D350 x H300

- Can measure and set the temperature at 0.01°C .
- With observation window, it is convenient for measuring samples.

Specifications

- External dimension(mm): W640 x D445 x H370
- Temperature stability: $\pm 0.01^{\circ}\text{C}$ (at 40°C)
- Heater capacity(kW): 1.4
- Material: Inner basin : (SUS-304), External housing: Steel plate with baked enamel finish



LOW-TEMPERATURE SHAKING WATER CIRCULATOR

220v

Order No.	Model No.	Temp. settings range(°C)	Inner dimensions(mm)
3-3393-01-90	T-22LAS AC220V	R.T.+5 to 50	W480 x D350 x H150

- With a cryocooler, it can perform various cultivation and shaking tests in a wide temperature range of +5 to +50°C.
- The shake rack is a stretchable spring net that allows test tubes and flasks of different sizes to be loaded simultaneously.
- The rack is removable and can also be used as a cold water bath.

Specifications

- Outer dimension (mm): W630 x D395 x H485
- Shaking count: 12 - 110 stroke/min (50Hz), Amplitude 20, 30, 40mm (3 stages variable type)
- Temperature stability: $\pm 0.1^{\circ}\text{C}$
- Refrigerating machine: Air-cooled type 130W
- Heater: Sheathed wire type 500W



CONSTANT TEMPERATURE OIL BATH

220v

Order No.	Model No.	Temp. settings range(°C)	Inner dimensions(mm)
64-5197-03-90	T-201 AC220V	R.T.+10 to 200	W300 x D220 x H200

- Highly accurate temperature control is achieved by PID control of the digital temperature controller.
- The maximum temperature of +200°C can be reached in approx. 100 minutes.

Specifications

- External dimensions(mm): W500 x D385 x H410
- Temperature stability: within $\pm 0.1^{\circ}\text{C}$
- Heater: Sheath Wire Type 1.2 kW
- Safety devices: Earth leakage breaker, Alarm for excessive temperature rise in tank and liquid level drop



OIL BATH STIRRER

AS ONE
ORIGINAL

100v

Order No.	Model No.	Type	Temp. settings range(°C)	Inner dimensions (mm)
1-2950-01	EOS-200R	Analog	R.T.+5 to 200	φ208 x H123
1-2952-01	EOS-200RD	Digital	R.T.+5 to 230	

- Stable rotation speed control is possible by microcomputer type feedback control.
- Temperature and rotation speed can be operated independently for easy setting.

Specifications

- Material: Body/Noryl resin R, Tank/SUS304, Heater/SUS304 nickel plating
- Heater capacity(W): 750
- Rotation speed setting range(rpm): 100 to 1500
- External dimensions(mm): W240 x D280 x H220
- Safety device: Temperature excessive rise prevention device, overcurrent prevention fuse

EOS-200RD



EOS-200R



HOT PLATE (NINOS)



220v

Order No.	Model No.	Top plate size(mm)	Temp. settings range(°C)
1-4600-82	NAK-2K	250 x 250	R.T.+10 to 350
1-4600-83	NAK-1K	170 x 170	

- A microcomputer type proportional control system enables stable temperature control.
- The top plate has a ceramic coating on aluminum, so it has excellent chemical resistance.
- A safety lamp is provided between the front operation section and the hot plate section.

Specifications

- Heater capacity(W): 680(NAK-1K) / 1000(NAK-2K)
- Temperature settings: Analog scale method (scale width 50°C)
- Temperature distribution width: 4°C (*Temperature distribution width is indoor environment 25°C)
- Safety device: Abnormal heating prevention device (thermostat), Overcurrent
- Plate material: Aluminum (Ceramic coating)



LARGE SIZE HOT PLATE



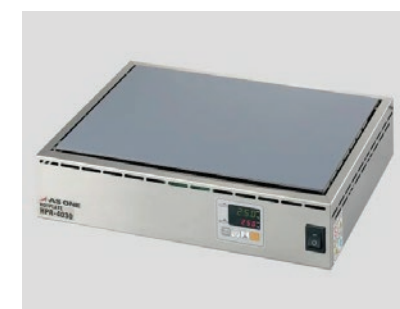
220v

Order No.	Model No.	Top plate size(mm)	Max Temp.(°C)
2-644-81	HPR-4030G	400 x 300	300

- Chemical resistant top plate series with ceramic coating on top plate.
- Manual return type bimetal is used to prevent excessive temperature rise.

Specifications

- Material: Stainless steel (SUS304, SUS430 for bottom plate only)
- Plate material: Aluminum with ceramic coating
- Heater capacity(W): Mica heater 1600
- Withstand load(kg): 10
- Temperature control timer: 0 to 99 hours 59 minutes (with equipment stop function)



CERAMIC HOT PLATES



100v

Order No.	Model No.	Top plate size(mm)	Max Temp.(°C)
1-9387-41	CHP-170DF	175 x 178	500
1-9387-42	CHP-250DF	251 x 254	
1-9387-43	CHP-400DF	400 x 300	350

- The temperature of the digital type can be set by button input (10°C unit).
- Ceramic glass plate with excellent heat and chemical resistance.
- The warning lamp lights when the top plate becomes hot.

Specifications

- Material: Plate/ceramic, Body/aluminum die cast (Heat-resistant coating)
- Temperature control system: PID control by K thermocouple sensor
- Safety device: Over current fuse, internal temperature fuse, high temperature warning display function
- Heating capacity(W): 900(-170DF) / 1400 (-250DF, -400DF)



COOLING DEVICE UNIT

Order No.	Model No.	Top plate size(mm)	Temp. settings range(°C)
1-1614-01	SCP-85	85 x 85	5 to 105
1-1614-02	SCP-125	120 x 120	

- It has a thin design and can be used for simple cooling and heating of samples.
- High precision temperature control is possible with peltier module.
- Can be combined with your own stirrer for cooling and heating stirring.

Specifications

- Temperature control accuracy: $\pm 0.2^{\circ}\text{C}$
- Plate material: Aluminum
- Cold part: Peltier module
- Temperature control system: Digital PID control
- Available beaker capacity(mL): 300 (SCP-85) / 1000(SCP-125)



MINI-BLOCK BATH

Order No.	Model No.	Specification
1-2812-01	MyBL-10	Temp Range: 5 to 100°C
1-2812-11	A-10 Block	For PCR tube(0.2mL) x40pcs
1-2812-12	B-10 Block	For Micro tube(0.5mL) x24pcs
1-2812-13	C-10 Block	For Micro tube(1.5mL) x15pcs
1-2812-14	D-10 Block	For Micro tube(2.0mL) x15pcs
1-2812-15	E-10 Block	For Cuvet(12.5 mm) x8pcs
1-2812-16	F-10 Block	For Conical tube (15ml) x4pcs
1-2812-17	G-10 Block	For Conical tube (50ml) x2pcs

- Very small! This palm-sized item is recommended for small samples or for personal use.
- A wide range of blocks can be used for various reaction experiments and adjustments of samples.
- Easy-to-set LCD display for easy checking of current temperature, etc.

Specifications

- Temperature distribution accuracy: $\pm 0.5^{\circ}\text{C}$ or less (at 100°C)
- Temperature control system: PID control
- Temperature rise time (from 40°C to 100°C): 15 minutes or less
- Size(mm): 120 x 152 x 112
- Power consumption(W): 35



CERAMIC HOT STIRRER

Order No.	Model No.	Top plate size(mm)	Max Temp.(°C)
2-8081-41	CHPS-170DF	175 x 178	550
2-8081-42	CHPS-250DF	251 x 254	

- Ceramic glass plate with excellent heat and chemical resistance.
- A new algorithm for PID temperature control improves plate temperature control.
- It can be used for high temperature heating up to 550°C.

Specifications

- Rotation speed(rpm): 100 to 1200
- Temperature control system: PID control
- Temperature, rotation speed control: Digital setting (10°C/10rpm unit)
- Material: Plate/ceramic, Body/aluminum die cast heat-resistant coating
- Heater capacity(W): 900(-170DF) / 1400(-250DF)



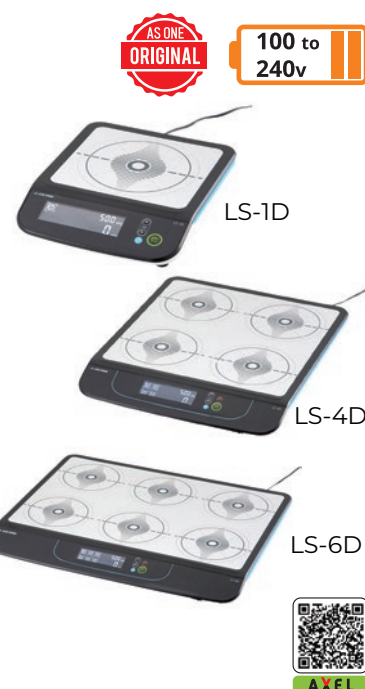
MAGNETIC STIRRER (REXIM)

Order No.	Model No.	Top plate size(mm)	Stirring capacity(mL)
1-4602-42	LS-1D	158 x 143	50 to 3000 x 1place
1-4604-42	LS-4D	313 x 303	50 to 2000 x 4places
1-4605-42	LS-6D	473 x 303	50 to 2000 x 6places

- It's a DC brushless motor type, so it's durable.
- The plate is made of stainless steel (SUS304) with excellent chemical and corrosion resistance.
- The speed setting is the digital setting, and the set value and the measured value are displayed simultaneously.

Specifications

- Speed (rpm): MAX approx. 1500
- Speed control system: Microcomputer type rotation feedback system
- Material: Body/ABS Resin, Plate/SUS 304
- Motor: DC brushless motor
- Rotational speed display system: Digital liquid crystal display (simultaneous display of set and measured values)



DIGITAL UNDERWATER STIRRER

Order No.	Model No.	Specification	Rotation speed (rpm)
4-3880-01	WDS-C	Controll unit	—
4-3880-02	WDS-S	Stirring unit	20 to 1500

- Up to six stirrers can be controlled individually.
- It is waterproof and can be submerged in water.

Specifications

- Stirring capacity(L): 1 (H₂O)
- Material(stirring unit): Nylon
- Operating temperature: 0 to 60 °C (underwater)
- Size(mm): Plate/φ120, Body/120 x 120 x 20



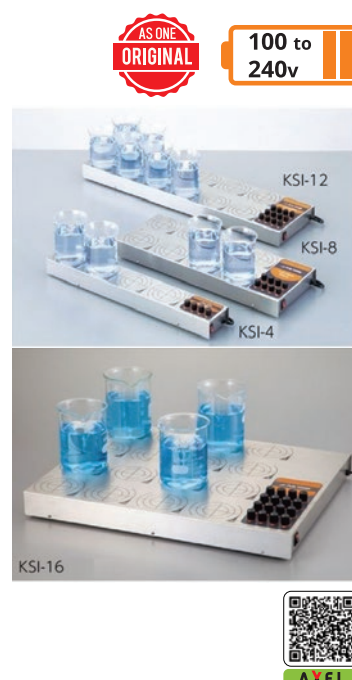
SLIM STIRRER

Order No.	Model No.	Rotation control	Rotation speed (rpm)
1-4239-11	KSI-4	Individual (4places)	100 to 1700
1-4239-12	KSI-8	Individual (8places)	
1-4239-13	KSI-12	Individual (12places)	
1-4239-14	KSI-16	Individual (16places)	

- It is small, horizontal and flat, so you can utilize limited space.
- Since the rotation speed can be set individually, various stirring can be performed simultaneously.
- Although small, 500 mL beakers can be used multiple times.

Specifications

- Motor: DC brush motor (rotation axis center interval 100mm)
- Exterior material: Stainless steel (SUS304)
- Stirred capacity: Up to 500mL



MANTLE HEATER(TRIPLE TYPE)

220v

Order No.	Model No.	Flask capacity(mL)	Heater capacity(W)
4-5972-01-90	MS-EAM-3-1	100	80
4-5972-02-90	MS-EAM-3-2	200	150
4-5972-03-90	MS-EAM-3-3	300	200
4-5972-04-90	MS-EAM-3-5	500	260
4-5972-05-90	MS-EAM-3-10	1000	380

- Triple mantle heaters with independent controllers allow operation under the same or different conditions.
- The exterior is powder coated for corrosion resistance and the top cover is stainless steel.



Specifications

- Specifications: For flasks
- Heater output adjustment: Analog
- Maximum operating temperature: 450°C



ELECTRIC FURNACE

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100v

Order No.	Model No.	Temp. settings range(°C)	Inner dimension(mm)	Capacity (L)	Observation window
1-6032-01	MMF-1	100 to 900	120 x 155 x 100	2	—
1-8991-01	MMF-1W			2	Equipped
1-6032-02	MMF-2		170 x 170 x 150	4.3	—
1-9023-01	MMF-2W			4.3	Equipped

- Four-sided heater reduces the temperature rise time.
- The in-furnace observation window allows you to observe the condition of the sample.
- Up to 4 patterns of 16 step programs can be set.

MMF-1



MMF-1W



Specifications

- Temperature settings range: 100 to 900°C (regular use: 800°C)
- Temperature settings unit: 1°C
- Time settings unit: 1 minute
- Material: Exterior/Steel coating finish, Interior/ Ceramic fiber
- Heating Capacity(W): 800(MMF-1) / 1000(MMF-2)

TUBULAR ELECTRIC FURNACE

AS ONE
ORIGINAL

100v

Order No.	Model No.	Inner Dimension(mm)	Temp. settings range(°C)
1-7555-21	TMF-300N	φ30 x L300	100 to 1200
1-7555-42	TMF-500N	φ50 x L300	
1-7555-23	TMF-700N	φ70 x L300	

- Normal maximum temperature is 1200°C and the temperature is increased rapidly.
- Using a core tube and gas replacement unit allows heating in an inert environment.
- You can choose the material of the core tube according to the application.



Specifications

- Control system: PID control, SSR output
- Function: Program setting (16 steps, 8 patterns), timer
- Sensor: R thermocouple x 2
- Exterior/furnace material: Steel heat-resistant coating/refractory brick



REFRIGERATED SHOWCASE

Order No.	Model No.	Temp. settings range(°C)	Inner Dimension(mm)	Capacity (L)	Specification
2-1199-11	IM-552	2 to 14	808 x 488 x 1447	550	Standard type
2-1199-12	IM-1198		1708 x 488 x 1447	1002	
2-1199-13	IM-552-RA		808 x 488 x 1447	550	Slide rack type
2-1199-14	IM-1198-RA		1708 x 488 x 1447	1002	
2-1199-15	IM-552S		808 x 488 x 1447	550	With blackout film type

- The compressor, internal fan and condensing fan are controlled by an inverter, which also provides excellent quietness.
- It reduces power consumption by about 52% compared to conventional models, saving energy.

Specifications

- Power Consumption(W): 150(IMS-552) / 202(IMS-1198)



BIO FREEZER

Order No.	Model No.	Temp. settings range(°C)	Outer dimension (mm)	Capacity (L)
1-6644-01	GS-1376HC	-28 to -14	550 x 655 x 850	104
1-6644-12	GS-3120HC	-30 to -14	660 x 710 x 1840	310
1-6644-13	GS-5210HC	-28 to -14	750 x 792 x 1725	513

- Can be stored with little change in temperature, and prevents drying of the stored material by wind.
- The inside of the cabinet is pull-out type, so the leakage of cold air caused by opening and closing the door can be suppressed.

Specifications

- Refrigerant gas: R-600a (non-CFC)
- Storage boxes: 4pcs(-1376HC) / 8pcs(-3120HC) / 14pcs(-5210HC)
- Compressor Rated Output(W): 125(-1376HC) / 190(-3120HC, -5210HC)



ULTRA-LOW TEMPERATURE FREEZER

Order No.	Model No.	Temp. settings range(°C)	Capacity(L)	Type
61-3774-49-90	CLN-32UD2	-80 to -70	324	Upright
61-3774-50-90	CLN-42UD2		430	Upright
61-3774-53-90	CLN-52UD2		548	Upright
61-3774-55-90	CLN-35CD2		354	Chest
61-3774-58-90	CLN-50CD2		507	Chest

- The use of a one-compressor system significantly reduces the failure rate compared to conventional dual cooling systems.
- No annoying filter cleaning required.

Specifications

- Material: Exterior/Electro-galvanized steel, Inner/ Stainless steel
- Safety function: A buzzer sounds when the temperature has risen by 15°C from the setting value or a power failure has occurred



AGITATOR(TORNADO N)



100 to 240v

Order No.	Model No.	Rotation speed(rpm)	Maximum torque(N · m)
4-2087-01	PST-101	50 to 3000	0.173
4-2087-02	PST-102	25 to 1500	0.43
4-2087-03	PST-103	5 to 300	1.73

- A newly designed exclusive DC brushless motor is installed to realize compact high power, low vibration and low noise.
- The feedback system constantly responds to changes in load during stirring and maintains the set speed.
- Forward/Reverse/Speed/Torque/Timer/Mode is displayed.

Specifications

- Rotation control: Feedback control by brushless motor
- Material: ABS resin/Aluminum/SUS304
- Size(mm)(main unit): 136 x 175 x 242
- Functions: Forward/reverse rotation switching function, ON/OFF timer function



AGITATOR(THREE-ONE MOTER)

220v

Order No.	Model No.	Rotation speed(rpm)	Maximum torque(N · m)
1-7124-01-91	BL300-220V	5 to 300	1.3
1-7124-02-91	BL600-220V	10 to 600	0.7
1-7124-03-91	BL1200-220V	20 to 1200	0.3
1-7124-04-91	BL3000-220V	50 to 3000	0.1

- Since it uses a brushless motor, maintenance of the motor body is unnecessary.
- With free joint hand tightening chuck.

Specifications

- Motor: DC brushless motor Type B Insulated (130°C) 40 W
- Rotation control: Feedback Control/Normal/Reverse Rotation Switching (Timer Mode/Manual)
- Forward reverse timer: 5, 10, 20, 30, 45, 60 sec. Setting can be switched.
- Safety Device: Current limiting circuit, Thermal protector: Motor coil temperature 90°C safety cover



JAR TESTER

220v

Order No.	Model No.	Type	Rotation speed (rpm)
3-697-11-90	SF4	4-Places	20 to 300
3-697-12-90	SF6	6-Places	

- It uses a brushless motor with excellent durability.
- Timer setting allows forward and reverse rotation.

Specifications

- Stirring capacity(mL): Maximum 2000
- Rotation control: Feedback control
- Timer: 99 hours 59 minutes



VORTEX MIXER

Order No.	Model No.	Rotation speed(rpm)	Rotation speed display
1-4611-21	HM-1N	200 to 2500	—
1-4611-22	HM-1FN		—
1-4611-23	HM-2N		LED (10-steps)
1-4611-24	HM-2FN		LED (10-steps)

- Stable, vigorous shaking and stirring from low to high speeds.
- With a stirrer base, it can be used as a stirrer and can be stirred up to a volume of 2000 mL (maximum speed 1500rpm).
- Two types of operation modes can be selected: touch mode and continuous operation mode.

Specifications

- Amplitude(mm): 4.5
- Rotation control system: Microcomputer method rotation speed feedback system
- Material: Aluminum die cast
- Size(mm): 125 x 155 x 100
- Accessories: Flat attachment x 1 (HM-1N / -2N)
Many attachment set (HM-1FN / -2FN)



MINI SHAKER

Order No.	Model No.	Shaking type	Shaking speed (rpm)
4-1724-01	MS-LR	Recipro / Orbital	10 to 180
4-1724-02	MS-R	High speed Orbital	10 to 340
4-1724-03	MS-LR	Recipro	10 to 180
4-1724-04	MS-S	Seesaw	10 to 120

- Various shaking methods are available to choose from according to the application.
- Shaking speed can be adjusted intuitively with simple knob structure.
- Uses a brushless motor to achieve a low rotation range.
- Has excellent durability.
- Holder and racks are not included, please contact us.

Specifications

- Rotation speed controll: Variable with knob
- Top plate dimensions(mm): 150 x 150
- Amplitude(mm): 20 (MS-LR, MS-L) / 10 (MS-R)
- Allowable load(kg): 1 (Holder Excluded)
- Material : Main unit/SPCC top board/SUS430



UNIVERSAL SHAKER

Order No.	Model No.	Shaking type	Shaking speed (rpm)
1-5175-31	US-S200	Vertical / horizontal	Max. 300

- The definitive version of a large shaker!!
- By replacing various optional holders, it can be widely used for shaking liquid funnels, test tubes, centrifuge tubes, flasks, etc.
- You can shake up and down and change direction to make a horizontal shake.

Specifications

- Setting range of oscillation speed(rpm): 300(maximum loaded weight)/150 (horizontal oscillation)
- Shaking width(mm): 40
- Timer: 0 to 60 minutes (continuous operation possible)
- Maximum payload weight(kg): 5 (including holder)



BEADS GRINDING MACHINE

100 to 240v



Order No.	Model No.	Description
4-461-01	BHA-6	Main Unit
4-461-11	Tube holder	For replacement
4-461-12	Adapter for 2ml	For replacement
4-461-13	Adapter for 5ml	For replacement
4-461-14	2ml Tubes	100 pcs
4-461-15	5ml Tubes	100 pcs
4-461-16	Ceramic beads ϕ 1.4mm	1kg
4-461-17	Ceramic beads ϕ 2.8mm	1kg
4-461-18	Stainless beads ϕ 3mm	1kg
4-461-19	Stainless beads ϕ 6mm	1kg
4-461-20	Glass beads ϕ 1mm	1kg
4-461-21	Glass beads ϕ 3mm	1kg



- It can be used to crush tissues and cells of animals and plants, as well as yeast and algae.
- Compatible with 2/5mL tubes.
- Intermittent timer function reduces heat generation in the tube during crushing.

Specifications

- Sample throughput: 0. 5/1. 5/2mL screw cap tube x 6 pieces or 5mL screw cap tube x 2 pieces
- Frequency(rpm): 2500 to 4350 ● Timer: 1 to 90 seconds (Per Second)



SMALL HEAT PRESS MACHINE



100v

Order No.	Model No.	Max Load(t)	Pressure Meter
2-7903-11	H300-01	1	Analog
2-7903-12	H300-05	5	
2-7903-13	H300-15	15	
1-6002-32	H300-10D	10	Digital
2-7903-14	H300-01K	1	
2-7903-15	H300-05K	5	
2-7903-16	H300-15K	15	



- Operated by hydraulic pressure.
- Weighted values are displayed.

Specifications

- Hot plate size(mm): 200 x 150
- Hot plate stroke(mm): 0 to 90
- Heating temperature: R.T. +20 to 300°C



AXEL

POT MILL SHAKER WITH SEESAW FUNCTION



100v

Order No.	Model No.	Number of Pot Mill	Size(mm)	Weight(kg)
4-1718-01	PM-001S	1	432 x 310 x 231	20

- Since the number of revolutions can be adjusted, it is possible to grind according to the sample.
- Roller pitch can be adjusted according to the pot mill.
- With seesaw function, stirring efficiency is high.

Specifications

- Rotation speed(rpm): 40 to 280
- Roller size(mm): ϕ 38 x L255
- Roller pitch(mm): 76 to 132
- Applicable pot mill: Size/ ϕ 90 to 180 mm, Weight/10 kg (including contents)
- Timer setting: 0 to 9 hours 59 minutes (1 Minute Units)



AXEL

POWDER MEASURING FEEDER

Order No.	Model No.	Supply capacity(g/min)	Minimum Unit(g)
4-803-01	PSF-100SA	1 to 50	0.1

- High-precision tabletop compact powder feeder
- A footswitch (sold separately) lets you work with both hands, making it convenient for routine work or when you have a large sample size.
- The unique vibration mechanism allows for seamless and smooth supply.
- In the weighing mode, the powder is fed to the set value while the sample is weighed (An electronic balance and communication cable are required separately).
- Hoppers and screws can be disassembled and cleaned for clean use.

Specifications

- Supply ability: 1 to 50 g/min ※ In the case of flour
- Accuracy: Target weight $\pm 0.02\%$ * In the case of flour
- Hopper capacity(mL): about 500



100 to 240v



AUTOMATIC MORTAR

Order No.	Model No.	Size(mm)	Mortar Size(mm)
1-300-01	ANM-150	210 x 350 x 600 to 775	φ150
1-300-02	ANM-200		φ200
1-300-03	AMM-140D		φ140

- It has a powerful grinding ability due to the automatic rotation of pestle and mortar.
- Compact design saves space and is easy to carry.
- This is a universal type that replaces adapters such as taro, alumina and agate.

Specifications

- Power cord length(m): 4.5 (with 2P plug)
- Rotational speed(rpm)(50/60Hz): Pestle unit 100(50Hz)/120(60Hz), Mortar unit/ 6(50Hz)/7(60Hz)

100v



ANM-150



ANM-200

AMM-140D



SIEVE SHAKER

Order No.	Model No.	Turning rotation speed (rpm)	Applicable sieve size (mm)
5-3269-01	SKH-01	20 to 200	φ200 x 45

- 5 sieves can be installed, and the efficiency of the sieve is improved by adjusting the turning speed.
- The turning radius is 30 mm and the swing width is 10 times larger than that of the electromagnetic type.

Specifications

- Applicable sieve(mm): φ200 x H45 (5 stage of sieve)
- Swivel motion (swivel diameter φ30mm)
- Turning rotation speed(rpm): 20 to 200



100v



TUBING PUMP

Order No.	Model No.	Flow rate (mL/min)	Available tube inner size(mm)
4-4488-01	MTP1200	100 to 1400	8

- A self-contained tube pump that does not require priming.
- This tube pump has an external input terminal and can be controlled by attaching a float switch or stop button.
- Mid-flow powerful pump with external input terminal

Specifications

- Material: Tube fitting/ETFE, Tube/Pharmed (BPT)
- Body size(mm): 125 x 260 x 205
- External input terminal: M4 screw terminal
- External control: number of revolutions, ON-OFF (2 paths)
- Weight(kg): approx. 2.5



COMPACT DRY ASPIRATOR

Order No.	Model No.	Achieving vacuum degree (kPa)	Discharge air volume (L/min)
2-7838-11	DAS-01	-75	8.0 (50Hz) / 9.6(60Hz)

- Dry aspirator with a built-in diaphragm dry pump.
- Usable in a location where tap water is not available.
- Suitable for various applications requiring vacuum and pressure reduction such as evaporation, filtration under reduced pressure, and deaeration.

Specifications

- Vacuum gauge: Bourdon tube vacuum gauge
- Connection port size: ϕ 7.5mm
- Size(mm): 268 x 107 x 295 (excluding projections)



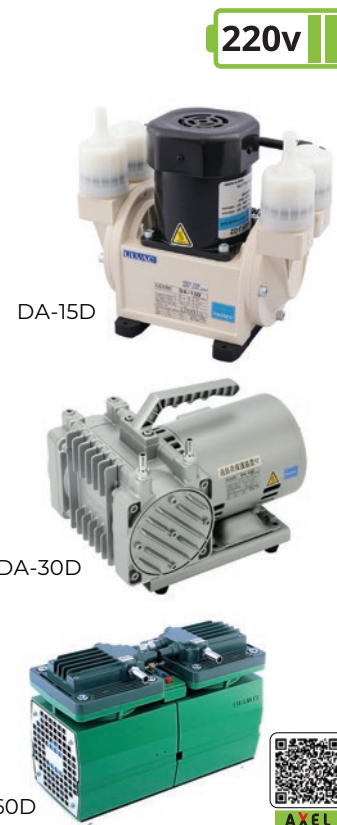
DRY VACUUM PUMP

Order No.	Model No.	Flow rate (L/min)	Achieving pressure (kPa)	Inlet diameter (OD) x (ID) mm	Size (mm)	Weight (kg)
1-671-05-90	DA-15D 220V	12	6.65	9 x 5	135 x 203 x 182	3.9
1-671-06-90	DA-20DC 220V	20	5.33		118 x 242 x 178	7.2
1-671-07-90	DA-30S 220V	24	26.6		135 x 203 x 182	3.9
1-671-08-90	DA-30D 200-220V	30	6.7		212 x 278 x 224.5	11
1-671-09-90	DA-40SC 220V	40	19.9		128 x 242 x 178	7.2
1-671-10-90	DA-60S 200-220V	60	21.3	14 x 9	212 x 278 x 224.5	11
1-671-11-90	DA-60D 220V		3.32		156 x 358 x 238	19
1-671-12-90	DA-120S 220V	120	13.3	16 x 12	162 x 358 x 238	
1-671-13-90	DA-121DF 220-230V		3.3		193.5 x 411 x 285	26
1-671-14-90	DA-241SF 220V	240	16		207 x 411 x 285	
1-671-15-90	DAT-50D 200-220V	50	3.3	12 x 8.5	150 x 232 x 305	11
1-671-16-90	DAT-100S 200-220V	100	13.3			

- Withstand long continuous operation and is easy to maintain.

Specifications

- Internal thermal protector



ANALYTICAL BALANCE (BUILT-IN WEIGHT TYPE)



100 to 240v

Order No.	Model No.	Capacity (g)	Calibration Weight
4-6252-01	AEB-124	120	Built-in
4-6252-02	AEB-224	220	
4-6253-01	AEB-124E	120	External
4-6253-02	AEB-224E	220	

- The display and measuring table can be separated, so you can take measurements with free display position.
- LCD with good visibility



Specifications

- Minimum display (mg): 0.1 ● Repeatability (standard deviation): 0.3 mg
- Linearity: ± 0.3 mg ● Size(mm): 210 x 420 x 330 ● Weight(kg): 6.3



ELECTRONIC BALANCE (ASPRO)



100 to 240v

Order No.	Model No.	Capacity (g)	Minimum display (g)	Pan size (mm)	Repeatability (standard deviation) (g)	Calibration Weight	Size (mm)	Weight (kg)
2-8036-21	ASR-223/E	220	0.001	φ120	0.001	External	208 x 320 x 309	4.9
2-8036-25	ASR-223					Built-in		
2-8036-22	ASR-423/E	420				External		
2-8036-26	ASR-423					Built-in		
2-8036-23	ASR2202/E	2200	0.01	φ180	0.01	External	208 x 320 x 98	3.5
2-8036-24	ASR4202/E	4200				External		
2-8036-27	ASR4201					Built-in		

- The weighing mode corresponds to weight, number and %.
- RS232 terminal is standard.



WATERPROOF BALANCE

Order No.	Model No.	Capacity (g)	Minimum display(g)	Top plate size(mm)	Size (mm)	Weight (kg)
1-1937-01	CS-1000WP	1000	0.5	230 x 190	250 x 260 x 108	2.5
1-1937-02	CS-2000WP	2000	1			
1-1937-03	CS-5000WP	5000	2			
1-1937-04	CS-10KWP	10000	5			
1-1937-05	CS-20KWP	20000	10			

- The weighing pan can be easily removed.
- Conforms to IP65



Specifications

- Waterproof grade: Equivalent to IP65 (only when using battery)
- Material: Body/ABS resin, Weighing tray/stainless steel (SUS304)
- Power supply: C battery x 4 pieces (test batteries included) or AC adapter (optional)



WATERPROOF DIGITAL THERMOMETER



Order No.	Model No.	Measuring range(°C)
2-7594-21	ASF-270T	- 40 to 250

- This waterproof digital thermometer is ideal for high-precision measurement in laboratories and for temperature measurement in places exposed to water such as food factories and kitchen facilities.
- It has a HACCP check function that alerts you with an LED or buzzer.
- Conforms to IP67



Specifications

- Accuracy(°C): 40.0 to 200.0 °C/±(0.1 + 1 digit) Other/±(0.5+1 digit)
- Power supply : AAA battery x 2 pieces (test batteries included)



TEMPERATURE CONTROLLER



Order No.	Model No.	Temp. setting range(°C)
1-6124-81	TKA-550K	0 to +500

- As for the temperature display, the PV/SV two-stage display is adopted so that the measured value and the set value can be seen at a glance to prevent setting errors.
- Compact design saves space.



Specifications

- Sensor type: K Type thermocouple
- Temperature display precision: SV ±3% or 3°C, whichever is larger
- Connection capacity: MAX 7A (resistance load)



DATA LOGGER



Order No.	Model No.	Size (mm)	Weight(g)
1-6683-41	GL260	188 x 117 x 42	500

- A total of 10 channels of data can be acquired for voltage, temperature, and humidity (only 1 channel for humidity).
- Can be connected to a personal computer with a USB interface.
- An optional wireless LAN unit (B-568) can be installed. (Cannot be installed with an optional SD memory card at the same time.)



Specifications

- Measurement range:
Voltage/20, 50, 100, 200, 500 mV, 1, 2, 5, 10, 20, 50 V, 100 V, 1-5 V/F.S.,
Temperature/Thermocouple K, T, etc.,
Humidity/0 to 100% (Option: B-530 required)
- Sampling period: 10 ms to 1h(10 to 50 ms is voltage only, channel is limited according to sampling period)



DESKTOP pH/CONDUCTIVITY METER



Order No.	Model No.	Measuring parameters
4-4971-01	AS830	pH, conductivity, TDS, salinity, resistivity, Temp.

- Both pH and conductivity meters can be measured with high accuracy (repeatability pH: $\pm(0.001+1\text{digit})$ conductivity: $\pm(0.5\%FS+1\text{digit})$).
- One unit can measure pH, ORP (requires sensor sold separately), conductivity, TDS, salinity, resistivity and temperature.

Specifications

- Measuring range: pH/- 2.000 to 19.999, ORP/ ± 1999.9 mV, conductivity (EC)/0 to 2000.0 Sm/cm (automatic range switching), TDS/0 mg/L to 100 g/L (automatic range switching), salinity/0 to 100 ppt, resistivity/0 to 100 M Ω , temperature/-10 to 110 °C



PORTABLE pH METER



Order No.	Model No.	Calibration point	Measuring Range(pH)	Resolution (pH)	Accuracy (pH)
1-9207-41	AS-pH-11	2 points	0 to 14	0.1	± 0.1
1-9207-42	AS-pH-22	3 points		0.01	± 0.01

- Drop-drop measurement is possible on small samples (from 0.1 mL).
- A variety of measurements are possible, including dripping, soaking, scooping and wiping (when using the sample sheet for the supplied consumables).
- It is equipped with a backlit LCD, which allows the user to check measurements even in low light.



Specifications

- Measuring method: Glass electrode method
- Operating temperature(°C): 5 to 40
- Waterproof: IP67
- Power supply : CR 2032 Button battery x 2 pieces



OPTICAL DISSOLVED OXYGEN METER



Order No.	Model No.	Measuring parameters	Measurement range	Resolution	Salt Compensation
4-2560-01	FDO380	Dissolved oxygen/Temp.	Dissolved oxygen (mg/L)/0 to 20.0, Saturated oxygen concentration(%)/0 to 200	Dissolved oxygen (mg/L):0.01/0.1, Saturated oxygen concentration(%): 0.1/1	Manual
4-2560-02	FDO3800	Dissolved oxygen/Temp./Salt Content			Manual / Auto

- Optical without oxygen!
- Measurement possible regardless of flow velocity



Specifications

- Water and dust proof : IP 57 (Excluding the electrode connections)
- Weight(kg): about 1.4
- Power supply : AA battery x 3 pieces (test batteries included)



RESIDUAL CHLORINE METER

Order No.	Model No.	Chlorine Measuring range(mg/L)	Temp. measuring range(°C)
63-7865-32	FTC-1000PE	0.00 to 10.00	0 to 60

- Simultaneously displays free residual chlorine value and temperature.
- Since it is a polarograph type (3 electrode type), no reagent is required.
- Compliant with IP67 dust and water resistance
- Auto-lock function holds the measured value after it stabilizes.

Specifications

- Accuracy of measurement of free residual chlorine: $\pm 2\%$ FS
- Sampling: approx. 3 times/second
- Power supply: AAA battery x 1



DIGITAL TURBIDIMETER

Order No.	Model No.	Measuring range(NTU)	Size(mm)
4-358-21	TBD700	0 to 1000	90 x 203 x 80

- The calibration cell containing polymer standard solution is economical because it can be used repeatedly (there is an expiration date).
- The background is blue during measurement and green during calibration.
- The display has a TFT color screen for excellent visibility.

Specifications

- Resolution(NTU): 0.01(0.01 to 19.99), 0.1(20.0 to 99.9), 1(100 to 1000)
- Repeatability: < 1%rdg or 0.02, whichever is greater
- Measurement Method: Turbidimetric (90°) according to ISO 7027
- Light Source: Infrared Emitting Diode (860nm Wavelength)
- Functions: Hold, Auto Power Off (8 minutes), Low Battery Indicator
- Sample Volume: 18mL
- Dust and Water Resistance: IP67
- Power supply: AA batteries x 4



SOIL pH METER

Order No.	Model No.	Description
1-9188-01	PRN-41pH	PRN-41 + pH Electrode Set
1-9188-02	PRN-41Eh	PRN-41 + Eh Electrode Set

- The functions of soil pH and Eh can be performed in one unit.
- Up to 100 points can be memorized.
- Support RS232C external output



Specifications

- pH Measurement range/ resolution: 0 to 14/ 0.01
- Eh (mV) Measurement range/ resolution: -793 to 999/ 1



HOT WIRE ANEMOMETER

Order No.	Model No.	Measuring range(m/s)	Resolution(m/s)
1-6398-11	WS-06	0.20 to 5.00/5.0 to 25.0	0.01/0.1
1-6398-02	WS-03SD	0.20 to 5.00/5.1 to 25.0	0.1

- It uses a hot wire system, so it is convenient for measuring small wind speeds.
- The sensor probe section is elastic and convenient for measuring heights.
- Data being measured can be stored in real time on an SD card(WS-03SD)



Specifications

- Power supply: AAA battery (1.5V) x 6 (test batteries included)
- Data hold, Maximum value, minimum value memory display, auto power off function provided



DIGITAL MULTIMETER

Order No.	Model No.	Measuring parameters
1-1107-22	CDM-7300	DC/AC Voltage, DC/AC Current Resistance, Electronic capacity, Temp.

- Digital multimeter with voltage, current, resistance, frequency, capacitance, conduction check and diode check function.
- It has Duty check, data hold, relative comparison, and MAX/MIN functions.



Specifications

- Weight(g) : approx. 320 (Including battery)
- Power supply : AA battery x 2 pieces (test batteries included)
- Measuring range
 - DC Voltage: 60, 600 mV, 6, 60, 600, 1000 V
 - AC Voltage: 60, 600 mV, 6, 60, 600, 750 V
 - DC Current: 600 · 6000 μ A, 60 · 600 mA, 6 · 20 A
 - AC Current: 600 · 6000 μ A, 60 · 600 mA, 6 · 20 A
 - Resistance: 600 Ω , 6/60/600 k Ω , 6/60 m Ω
 - Electrostatic capacity: 40/400 nF, 4/40/400/4000 μ F
 - Temperature: 1000°C

HANDHELD DENSITY METER

Order No.	Model No.	Measuring range
1-5651-21	DMA35 ver4	Density : 0 to 3g/cm ³ Temp. : 0 to 40°C Viscosity : 0 to 1000mPa · s

- It can measure density and specific gravity at any temperature.
- It can store the results of more than 1000 measurements.
- It is easy to operate and can be measured with one hand.



Specifications

- Measurement accuracy (density/temperature): 0.001 g/cm³/0.2°C
- Data memory: 1000 + times
- Dust and Water proof: IP54
- Size(mm): 245 x 103 x 126
- Power supply: AA batteries x 2

TOUCH-PANEL VISCOMETER

Order No.	Model No.	Measuring range(mPa · s)
4-2877-01	ASJ-8ST	1 to 2,000,000

- Equipped with a 5-inch touch panel, it has excellent operability and functionality.
- Automatically converts to kinematic viscosity by entering density.
- You can select one of four viscosity units.

Specifications

- Temperature measurement range: 0 to 100 °C
- Resolution : 1 mPa*s
- Accuracy: ± 1.0% (F.S.)
- Reproducibility: ± 0.5% (F.S.)
- Rotation speed : 0.3 , 0.6 , 1.5 , 3 , 6 , 12 , 30 , 60 rpm
- Size(mm): 285 x 300 x 565 (Maximum)



MOISTURE ACTIVITY METER

Order No.	Model No.	Memory function	Measuring range(Aw)
4-2453-01	MD-AW1	—	0 to 1.00
4-2453-02	MD-AW2	20 points	
4-2453-03	MD-AW3	999 points	

- Small and simple design for convenient tabletop use.
- After setting the sample cup, measurement can be done at the touch of a button (approx. 5 minutes).

Specifications

- Measuring method: Electrostatic capacity Humidity Sensor
- Resolution: 0.01 Aw
- Power supply : AA battery x 2 pieces (test batteries included)
- Main unit size (mm) : 120 x 60 x 58
- Measurement Precision: ± 0.03 Aw (0 to 0.9 Aw), ± 0.04 Aw (0 Not to 0.9 Aw)/
When Sample and Ambient Temp. 25°C



FILM THICKNESS METER

Order No.	Model No.	Measuring range (Iron base)	Measuring range (Non-Iron base)	Resolution (μm)
64-8893-10	TG-01U	0 to 2000 μm	—	1
64-8893-11	TG-02U		0 to 1000 μm	

- Handy size convenient for carrying.
- Equipped with upside-down display function. You can easily check the results in overhead measurements.

Specifications

- Power supply: AAA batteries x 2 pieces
- Accuracy: Iron Base (Iron/Steel) 0 to 199 μm/±10dgt, 200 to 1,000 μm/± (3%rdg+10dgt), 1,001 to 2,000 μm/± (5%rdg+10dgt)



DATA LOGGER SOUND LEVEL METER

Order No.	Model No.	Measuring range(dB)	Measuring accuracy(dB)
2-051-01	SL-1373SD	Lo/30 to 80 Mid/50 to 100 Hi/80 to 130 Auto/30 to 130	±1.4 (1kHz, at 23 ± 5°C)

- Data being measured can be stored in real time on an SD card (sold separately).
- Compliant with IEC61672 class 2.
- Comes with a green backlight function that makes it easy to see even in dark places.

Specifications

- Frequency range: 31.5Hz to 8kHz
- Function: MAX (the large value)/MIN (the small value) display, Data hold, Auto power OFF
- Power supply: AA dry cell x 6 pcs



DATA LOGGER ULTRAVIOLET INTENSITY METER

Order No.	Model No.	Measuring range (mW/cm ²)	Measuring accuracy
1-1934-01	UV-37SD	0.001 to 1.999 / 2.00 to 20.00	Ultraviolet rays/ ±(4%FS + 2dgt),

- Data being measured can be stored in real time on an SD card (sold separately).
- A thermocouple sensor (IK series (1-5522-01~), sold separately) can also be used to measure temperature.

Specifications

- Measurement range (ultraviolet rays/temperature): 0.001 to 19.99mW/cm² / -50 to 1300°C
- Resolution (ultraviolet rays/temperature): 0.001mW/cm², 0.01mW/cm²/0.1°C
- Measurement accuracy: Ultraviolet rays/ ±(4%FS + 2dgt), Temperature/ ±(0.4%rdg + 0.5°C)
- Display: 3.5 digits LED display
- Power supply: AA battery x 6 pieces (test batteries included), AC adapter (optional)



MELTING POINT METER (DIGITAL SETTING TYPE)

Order No.	Model No.	Shape of Heat plate
4-1658-01	DTM-01	φ14 mortar shape
4-1658-02	DTM-02	Flat

- Melting and softening points of compounds, resins, waxes, etc. can be easily measured.
- The temperature at the beginning and end of melting can be recorded (up to 4 times).
- The temperature rising speed can be set arbitrarily, and it is easy to check the temperature at the beginning of melting.
- In the timer mode, three types of timers can be set.

Specifications

- Hot Plate: Aluminum block (ceramic coating)
- Measurement temperature range: R.T. to 400 °C
- Temperature display: PV/SV digital display (0.1 °C unit)
- Heater capacity: Cartridge heater (120 V x 150 W)
- Timer settings: Auto start, Auto stop, SV start



DIGITAL FORCE GAUGE

100 to
240v

Order No.	Model No.	Maximum load (N)	Minimum resolution
2-957-31	ZTS-20N	20	0.01
2-957-32	ZTS-50N	50	
2-957-33	ZTS-200N	200	0.1
2-957-34	ZTS-500N	500	

- It can provide high reproducibility for both peak values and continuous data.
- It has an OLED display, and you can display your favorite measurement parameters on the screen.

Specifications

- Accuracy: $\pm(0.2\% \text{ FS} + 1 \text{ digit})$
- Display: 4 signed digits
- Sampling: Up to 2000 times/second



AXEL

HALCELL® TEST APPARATUS 10 A TYPE 15 SET

100v

Order No.	Model No.
1-1737-51	B-52-1DWJ

- The Hull Cell test is a test method that can easily examine the characteristics of electroplating.
- Plating films can be obtained over a wide range of cathode current densities on a single test piece, making it easy to examine the optimal plating conditions, excess or deficiency of chemicals such as additives, the presence or absence of trace impurities, and the deposition distribution of alloy films.

Specifications

- Set Contents: High-Performance Power Supply, Water Tank, Heater, Temperature Adjuster Support Base, Air Pump, Current Density Quick Reference Plate, Anode Plate(Copper, phosphorus-containing copper, nickel, zinc, tin, SK nickel) Cathode Plate (Iron/Brass/Copper) x 100 Each, Halcell® Technical Reference Book.



AXEL

TEXTURE ANALYZER

100 to
240v

Order No.	Model No.	Load capacity (N)
3-4679-01	TEX-100N	100
3-4679-02	TEX-200N	200

- The texture of foods can be quantified and tested for texture.
- Data such as hardness, adhesion and cohesiveness can be measured.
- A variety of test conditions and attachments can also be used to measure the characteristics of gel- and paste-like substances.
- Measurement conditions and results can be saved to a USB memory stick.

Specifications

- Measurement article: Hardness, adhesion, cohesion, brittleness, elasticity, chewability, gumminess, and adhesive strength
- Applicable tests: Texture test, jelly strength test, compression test, tensile test, peel test



AXEL

FISH ANALYZER

Order No.	Model No.	Fat percentage measuring range(%)
3-5444-12	DFA110	1 to 70

- It can measure the fat percentage of a total of 20 species.
- It can determine the condition of fish equivalent to freshness at 5 levels.
- The bioelectrical impedance method is used to send a weak current through the fish's body using four electrodes, and estimate the fat percentage from the resistance value, which indicates the difficulty of the current flow.
- If frozen and thawed fish is measured, the fat percentage will not be displayed and it will be displayed as "thawed product."

Specifications

- Measurement method: Bioelectrical impedance method (4-electrode method)
- Freshness measurement: 5-step evaluation (A', A, B, C, D)
- Power supply: AA batteries x 2 pieces



CLEAN CHECKER

Order No.	Model No.	Size (mm)
63-1825-75	CC365	115 x Ø25

- Can be used for checking the contamination level of cleaning and Anisakis inspection.
- It can also be used as an ultraviolet flaw detection light.

Specifications

- Wavelength: UV365nm
- UV Intensity: 14,000 µW/cm² (40 cm)
- Lighting time: Approx. 2 hours (fully charged)
- Accessories: USB 18650 rechargeable lithium ion battery (3.7 V 1400mAh), UV protection glasses, hard case



METAL DETECTOR

Order No.	Model No.	Alarm method
2-7242-01	MDS-100	Lamp/lamp and buzzer
2-7242-02	MDS-100V	Lamp/lamp and buzzer/lamp and vibration

- It's a lightweight, handy, high-sensitivity detector.
- Suitable for the following applications:
 - Foreign object contamination: Various industrial products and packaging
 - Security: Detecting knives and other weapons
 - Medical: Metal jewelry such as needles and hairpins before MRI and X-ray examinations
 - Industrial waste: Removal and sorting of metals.

Specifications

- Alarm switching type
- Alarm method: Lamp/lamp and buzzer
- Detective type: Variable inductance type
- Detection distance: Steel sphere (φ3.0mm)/10mm, Stainless Steel (φ4.0mm)/6mm, Setting pin/25mm, φ20mm coin/75mm
- Power supply: 006P (9V) dry cell



BAG HOMOGENIZER TANDEM TYPE

Order No.	Model No.	Sample processing capacity(mL)
2-4219-01	BH-W	80 to 400

- Work time can be reduced because two samples can be processed at the same time.
- The distance between the door and the paddle can be adjusted in five levels.



100 to 240v

Specifications

- Body material: Steel (powder coating)
- Timer settings: Continuous, Timer setting time (10, 30, 60, 90, 120, 150, 180, 210 second)
- Stroke times: 8 times/s



AXEL

COLONY COUNTER

Order No.	Model No.	Camera resolution	Measurable Petri Dish Size
2-2760-21	PSF-1100	3 million pixels	φ 90 mm

- Automatic measurement of samples on a petri dish, simple medium or well plate.
- Uniform measurement by software prevents count variations
- Accurate counting is possible even if residue or sediment is present.



100 to 240v

Specifications

- Measured size: 0.1 mm/90 mm field of view
- Measuring time: About 1 to 3 seconds/Petri dish
- Camera Specifications: CMOS Color
- Lighting: Light/Dark Field/Light Field/Upper Lighting (optional)
- Size (mm): 280 x 351 x 630



AXEL

AIRBORNE BACTERIA (MOLD) SAMPLER

Order No.	Model No.	Size (mm)
3-5283-01	IDC-500B	φ110 x 165

- Microbes such as airborne fungi and molds (fungi) are sampled.
- The amount of air to be sucked can be selected from 4 levels (50, 100, 200, 500L), and will stop automatically when the set amount is reached.
- LED indicates when battery is low

Specifications

- Inhalation volume(L): 50 (approx 2 min.), 100 (approx 3 and half min.), 200 (approx 7 min.), 500 (approx 18 min.)
- Conform petri dish size: 90mm (inner diameter 85mm)
- Start time (standby time until sampling starts): 1, 10, 20, 30, 60 minutes
- Power supply: Ni-MH rechargeable battery (with charging adapter)
- Operation time: approx. 3 hours (when fully charged)
- Charging time: approx. 10 hours
- Size(mm) : φ110 x H165



AXEL

CULTURE MEDIUM DISPENSING BURETTE



100 to 240v

Order No.	Model No.	Dispensing amount setting range(mL)
2-3555-01	MDS-100SA	0.2 to 100

- Quickly dispense the medium.
- It is an auto dispenser convenient for the quantitative dispensing of liquid medium.
- Footswitch type with excellent operability.

Specifications

- Dispensing accuracy: Within +/-3% (for water)
- Set resolution(mL): 0.1
- Dispensing speed(mL/min): 200
- Tube connection nozzle outer diameter(mm): $\phi 7$
- Material: Body/Steel, tube cartridge H/Silicone rubber
- Main unit size(mm): 130 x 190 x 140
- Weight(kg): Approx 2.5



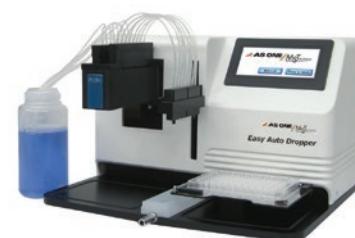
EASY AUTO DROPPER



100 to 240v

Order No.	Model No.	Size (mm)
4-6128-01	MicroShot-AM	375 x 320 x 238

- Compact and affordable peristaltic pump ideal for cell dispensing and other applications.
- Significantly reduce running costs with affordable, autoclavable tube sets.
- By linking with a stacker (optional), up to 50 plates can be processed continuously.



Specifications

- Accuracy: $\pm 2\%$ or less
- Reproducibility: 3% or less (when 5 μL of purified water is injected)
- Variable volume: 0.1 μL (When Using S Tube)/1 μL (When Using L Tube)
- Dispensing speed: 3 Stages Variable
- Tube used: Cassette Type Special Silicon Tube Set
- Available plate format: 6, 12, 24, 48, 96, 384, 1536 Microplate (SBS Standard)

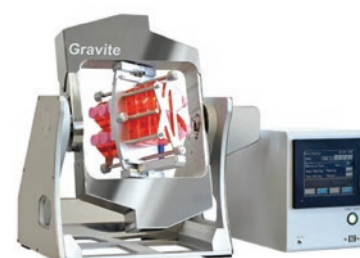


GRAVITE (GRAVITY CONTROL UNIT)

100 to 240v

Order No.	Model No.
3-7413-01	GC-JP-RCE01

- It uses centrifugal force generated by single-axis rotation to achieve a hypogravity environment of 2~3G.
- Acceleration sensors allow real-time monitoring of gravity.
- Ideal for regenerative medicine, cancer research, protein structure analysis, plant research in microgravity environments, and more.



Specifications

- A simulated microgravity environment is achieved by rotating the sample 360° around a pair of orthogonal axes to distribute the gravity vector in all directions.
- Simulated micro gravity environment: 10 $\wedge$ -3G
- Size(mm): Main unit: 425 x 420 x 445
Controll unit: 190 x 285 x 235



VIOLAMO PIPETTE FILLER



Order No.	Model No.	Compatible Pipette (mL)
4-5740-01	VPF-100	0.1 to 100

- Can stand on its own even with a pipette attached!
- Aspirating and dispensing speed can be adjusted in 6 steps!
- Powerful motor fills a 25mL pipette in about 5 seconds

Specifications

- Material: Body/PVDF (Polyvinylidene Fluoride)/ABS Resin/Polycarbonate, Filter/PTFE
- Display: LCD (battery level, speed setting)
- Power supply: Built-in rechargeable lithium ion battery or AC adapter (included)
- Accessories: Filter x 2 (1 already installed), Silicon adapter x 1 (already installed), Wall holder, AC adapter, USB cable for charging



SYRINGE PUMP



Order No.	Model No.	Applicable syringe capacity(mL)
2-7820-01	SPE-1	10 to 50

- Setting the flow rate is as easy as setting with a dial.
- Comes with conversion software for "Flow setting scale table."
- Easy operation and low price type.

Specifications

- Inhalation, injection type: Injection
- Size(mm): 235 x 105 x 95
- Feed speed range(mm/min): 0.006 to 6
- Flow rate(mL/h): 0.07 (10mL syringe) to 240(50mL syringe)
- Material: Exterior/ PVC (vinyl chloride resin)
- Weight(kg): 0.97



FLARED STERILIZER



Order No.	Model No.	Temperature(°C)
51-0001-07	SAS-3000	500/825

- Increase the sterilization temperature to 825°C in a short time (about 20 minutes).
- Temperature switching in 2 steps (500°C/825°C).

Specifications

- Inside size(mm): Φ 14 x L140
- Power cord length(m): approx. 1.3



BIOLOGICAL MICROSCOPE WITH LED PLAN LENS

Order No.	Model No.	Specifications
3-6689-01	LRM18B	binocular
3-6689-02	LRM18T	triocular

- Can be charged 500 times with a nickel metal hydride battery.
- Handle design suitable for carrying
- Uses ball bearings with excellent durability.
- Rechargeable and can be used in areas without power.

Specifications

- Overall magnification: 40x to 1000x
- Eye lens: 10 times (Number of fields 18)
- Objective lens: 4× / N.A. 0.1, 10× / N.A. 0.25, 540 × / N.A. 0.65, S100 × / N.A. 1.25 (oil)
- Mirror type: Slant angle 45 °
- Eye width adjustment range(mm): 54 to 76
- Size(mm): Main unit 235 x 151 x 362
Stage 143 x 120



DIGITAL MICROSCOPE (WITH MONITOR)

Order No.	Model No.	Size (mm)
4-554-01	WAT3045	170 x 120 x 200

- You can observe without a PC or other monitor.
- Multiple people can share observed images.
- Equipped with LED epi-illumination.
- The lighting can be adjusted by changing the angle.
- Connect to an HDMI monitor and view in full HD (1080p) quality.

Specifications

- Magnification: when using the main monitor/5 to 80 x ,
when using the 22 inch monitor/18 to 560 x (Digital Zoom 4x)
- Monitor: 5-inch image sensor (3 million pixel HD sensor)
- Light source: 8 internal LEDs + 2 external LED lights focal length (50 to 120mm)
- Recording media: Micro SD card (Up to 32 GB) (Sold separately)



PORTABLE LED MICROSCOPE MAGIC LOUPE CUBE

Order No.	Model No.	Monitor size
69-2991-10	3R-MJL02	2.4 inches

- Compact size digital loupe with recording and storage functions.
- It can be used in various situations such as checking precision equipment and cutting edge, and observing plants.
- You can change the magnification in 3 levels as followings.
7×, 12 ×, and 19 ×.
- You can use LED light and UV light depending on the application.

Specifications

- Monitor resolution: 320 x 240
- Sensor: 1/4 "CMOS Sensor
- Sensor resolution: 1280 x 720 * Depends on monitor resolution
- Focal length(mm): 8 to 12
- Magnification: 7 × optical zoom, 1.7 × digital zoom, 2.7 × optical & digital zoom 12 ×, 19 ×
- Light source: White LED x 3, UV LED x 3



SNAKESCOPE

Order No.	Model No.
69-5503-63	SS-15

100 to 240v



- It uses IP67 compliant waterproof camera cable, so the camera cable section is safe even if it gets splashed with water.
- The display also features a 5 inch Full HD (1920 x 1080 pixels) color LCD.

Specifications

- LCD: 5 inches, 1920×1080 pixels
- Camera resolution: 1920 x 1080 pixels (CMOS sensor)
- Focal length/viewing angle: 30 to 80 mm/77±2°
- Zoom: 1 ×, 1.5 ×, 2.0 ×, 3.0 ×, 4.0 ×
- Operating temperature and humidity: -10 to +50°C, 15 to 85%RH (no condensation)



LED LIGHTING MAGNIFIER

100 to 240v

Order No.	Model No.	Magnification Ratio	Lens Dia (φmm)	Dimming function
2-3090-11	SKKL-B 2x	2x	130	—
2-3090-12	SKKL-B 4x	4x	130	
2-3090-13	SKKL-B 6x	6x	105	
2-3090-14	SKKL-B 8x	8x	85	
2-3090-15	SKKL-B 10x	10x	85	
2-3091-11	ENVL-B 2x	2x	130	Equipped
2-3091-12	ENVL-B 4x	4x	130	
2-3091-13	ENVL-B 6x	6x	105	
2-3091-14	ENVL-B 8x	8x	85	
2-3091-15	ENVL-B 10x	10x	85	

- The slim head, which was newly designed specifically for LEDs, features a board-mounted LED.
- A newly designed table stand with workability in mind has a large work space and does not interfere with work.

Specifications

- Light source: LED (design lifespan: 40,000 hours)



ARTIFICIAL SUNLIGHT LIGHTING

100v

Order No.	Model No.	Usage	Filter Form
2-1181-01	XC-100A	For color evaluation	Transparent
2-1181-02	XC-100AF		Frost
2-1181-03	XC-100B	For bio and health medicine field	Transparent
2-1181-31	XC-100BF		Frost
2-1181-32	XC-100E	For solar energy testing	Transparent
2-1181-33	XC-100EF		Frost

- Most of the major automobile, paint, camera, and electronics manufacturers in Japan use artificial solar lamps.
- Sufficient illumination and highly directional simulated sunlight make it ideal for color evaluation of pearl and metallic paints.
- We offer "24 hours 365 days sunny" so that customers can work "all day and night" even on "rainy or cloudy days."

Specifications

- Lighting direction: Downward to sideways (upward unusable)
 - Central luminosity, beam angle: 3000cd / Approx 48°
 - Radiation wavelength region: 370 to 780nm
 - Color temperature: 5500K
- ※AC220-240V type is optional, please contact us.



COMPACT DRAFT (PVC)

Order No.	Model No.	Plumbing and Draining	Exhaust fan	Chemical-Resistance
3-4056-31	CD7P-N-L	Equipped	—	—
3-4056-32	CD7P-F-L		Standard Fan	—
3-4056-33	CD7P-IN-L		Air Adjusting Fan	—
3-4056-34	CD7P	—	—	—
3-4056-35	CD7P-FX-L		Standard Fan	—
3-4056-36	CD7P-INX-L		Air Adjusting Fan	—
3-4056-37	CD7P-MF-L	Equipped	M type Fan	—
3-4056-38	CD7P-MFX-L	—		—
3-4056-39	CD7P-SF-L	Equipped		Acid-Resistance
3-4056-40	CD7P-SFX-L	—		

- Reduces fan noise and power consumption according to usage conditions
- Since the front door uses a balance weight system, the door can be stopped at any position
- LED lighting is used to save power

Specifications

- Sash Opening Surface size(mm): 620 x 575



DUCTLESS FUME HOOD

Order No.	Model No.	Size(mm)	Process air volume (m3/min)(50/60Hz)
3-4425-51	DL-06-L	600 x 700 x 1000	3.8/4.4
3-4425-52	DL-09-L	900 x 700 x 1000	9.7/10.8
3-4425-53	DL-12-L	1200 x 700 x 1000	10.2/11

- Easy to replace filter with cartridge type
- Coming with speed monitor on the switch panel
- Comes with a time accumulator for filter replacement

Specifications

- With LED Lighting Lamp (7W x 1)
- Activated carbon filter is not included(optional)
- There are three types of carbon filters: for acidic gases, neutral gases, and basic gases.



ACTIVATED CARBON EXHAUST TREATMENT EQUIPMENT

Order No.	Model No.	Specification
1-7620-11	KT-02	Main Unit
2-7620-21	—	Filter For Neutral Gas
2-7620-22	—	Filter For Acid Gas
2-7620-23	—	Filter For Basic Gas

- Strong suction without exhaust duct.
- No need outside air duct with Indoor exhaust dry scrubber.
- Use for spot exhaust in large experiments

Specifications

- Max static pressure(kPa): 0.6/0.85 (50/60Hz)
- Max air volume(m³/min): 4.5/5.5 (50/60Hz)
- Material: Exterior/steel plate baking coating
- Outer size(mm): 400 x 400 x 900(Excluding protrusions)



GLOVE BOX

Order No.	Model No.	Size(mm)
1-1217-21	Galaxy-L	981 x 643 x 675

- Excellent airtightness, chemical resistance, impact resistance.
- Coming with a level adjusting leveler
- Over-rise safety valve for exceeding internal pressure

Specifications

- Weight(kg): 24
- Material: Main unit: PE, Pass box/Window: Transparent PMMA
- Accessories
 - LED lighting lamp: 5W x 1pc
 - Glove box gloves: Large x 1 pair
 - Vacuum gauge x 1pc
 - Gas replacement valve: for IDΦ6 hose x 3pcs, for IDΦ13 Hose x 1pc



BIO CLEAN BENCH

Order No.	Model No.	Size(mm)	Air volume(m3/min)
3-1145-02	ICB-1300J	1300 x 833 x 1845	Approx. 30
3-1145-03	ICB-1600J	1600 x 833 x 1845	
3-1145-04	ICB-1910J	1910 x 833 x 1845	Approx. 48

- Preventing the direct outflow of contaminated air into the room
- PAO nozzle that is convenient for HEPA filter performance test

Specifications

- Type: negative pressure type
- Cleanliness: ISO 5 (class 100)
- Dust collection effect: At 0.3μm particles 99.99% or more
- Blow-off wind speed(m/s): 0.45
- Main filter/Exhaust filter: HEPA filter
- Exterior: Steel plate, Coating finish with melamine baking
- Work planes: Stainless steel (SUS304) HL finish



CLEAN BENCH (WITH GERMICIDAL LAMP)

Order No.	Model No.	Size(mm)	Air volume(m3/min)
4-6770-01	CT-600UVAX-L	600 x 503 x 811	Approx. 1
4-6770-02	CT-900UVAX-L	900 x 503 x 811	Approx. 2
4-6770-03	CT-1200UVAX-L	1200 x 503 x 811	

- Compact type and locally clean environment can be created
- Germicidal lamp with UV can sterilize inside the booth
- Antibacterial and deodorant HEPA filter keeps clean the booth

Specifications

- Prefilter: Modacrylic/Polyester
- Dust collection efficiency: 99.97% or more (0.3 μm particles)
- Wind velocity (m/s): 0.6
- Material: Work surface/Stainless Steel (SUS304), Front door/PC (Polycarbonate), Side plate/Aluminum composite plate, Frame/Aluminum (anodized)



AUTO DRY DESICCATOR



220v

Order No.	Model No.	Inner size(mm)	Material of shelf
1-5503-81	SP-SFN-PG	560 x 483 x 1486	Reinforces Plastic
1-5503-82	SP-SFN-SG	560 x 483 x 1486	Stainless steel
1-5503-83	SP-WFN-PG	1138 x 483 x 1486	Reinforces Plastic
1-5503-84	SP-WFN-SG	1138 x 483 x 1486	Stainless steel

- Eliminating the dead space, cabinet can be used effectively
- New door type, can be installed on the wall surface
- The humidity control is controlled (analog setting)
- Casters make you move it easily

Specifications

- Auto Dry Type
- Humidity setting range(%RH): 20 to 50
- Humidity control range(%RH): 20 to room humidity
- Material (main body / frame): PMMA (acrylic) / aluminum
- Shelf board dimensions(mm): 490 x 460
- Shelf board mounted pitch(mm): 50



AUTO DRY DESICCATOR (ZEAL)



100v

Order No.	Model No.	Inner size(mm)	Type
4-6388-01	ZL-OH-3S	285 x 275 x 485	Transparent PMMA (Acrylic)
4-6388-02	ZL-OH-3L	485 x 275 x 285	
4-6389-01	ZL-OH-SK	300 x 375 x 525	Light-shielding PVC
4-6389-02	ZL-OH-LK	485 x 275 x 285	

- Can be controlled the humidity *No humidification function
- Lower humidity and higher speed than ordinary model
- Humidity and temperature is visible
- Shading type uses light-blocking PVC on five sides, making it ideal for storing samples that are sensitive to light.

Specifications

- Achieved humidity(%RH): 15
- Dehumidification system: Adsorption dehumidification and regeneration cycle operation
- Shelf Board mounted pitch (mm): Bottom Level/50 , Other/30



VACUUM DESICCATOR



Order No.	Model No.	Inner diameter (mm)	Capacity(L)	Vacuum Gauge
2-931-01	RVD-250	φ240	6.5	—
2-931-02	RVD-250			Equipped
2-931-03	RVD-300	φ305	13	—
2-931-04	RVD-300			Equipped

- High sealing property and can be easily vacuumed.
- Can be used in a stack
- Purge operation is easy and no trouble for opening and closing
- Can be used as a desiccator for normal pressure with silica gel

Specifications

- Material: Main / PC, Shelf board lock silica gel plate / PP
- Allowable vacuum(Pa): approx. 133
- Shelf board Load tolerance(kg): 5
- Vacuum gauge connection diameter(mm): approx. 10



GENERAL-PURPOSE CENTRIFUGE(VIOLAMO)



100v

Order No.	Model No.	Specification	Centrifugal acceleration(G)
1-1584-21	444315-100	Main unit	—
1-1584-31	CA-8	Angle Rotor for conical tube	9060(15mL) / 9390(50mL)
1-1584-32	TS-4C	Swing Rotor for microplate	—
1-1584-33	TS-7C	Swing Rotor for conical tube	—
2-7166-13	S4096-02	Bucket for TS-4C (for micloplate x2pcs)	510
1-1584-34	7215-06	Bucket for TS-7C (15mL conical tube x24pcs)	2430
1-1584-35	7050-02	Bucket for TS-7C (50mL conical tube x8pcs)	2150
1-1584-36	7N5015-1	Bucket for TS-7C (for conical tube) (15mL x4pcs / 50mL x16pcs)	2370(for 15mL) 2160(for 50mL)

- Flap drive system is adopted to allow centrifugation of the sample dispensed by eye quantity
- A flash centrifugal function that centrifuges at a specified number of revolutions while the button is pressed is installed
- With 7M5015-1, 50mL and 15mL tubes can be centrifuged simultaneously

Specifications

- Rotation speed setting range(rpm): 100 to 1000 (per 100rpm)
- Timer settings: 10 to 50 seconds (per 10 seconds), 1 to 99 minutes (per 1 minute)
- Max capacity(ml): 1,000 ※Swing rotor, bucket, and adapter are optional



AXEL



HIGH SPIN MINI CENTRIFUGE



100 to 240v

Order No.	Model No.	Rotation speed range (rpm)
1-2827-01	HSC-12000	1,000 to 12,000

- High speed rotation of up to 12,000rpm and speed adjustment
- The speed can be set (in 1,000rpm increments)
- Can be used not only for spin-down but also for a wide range of applications.



AXEL

Specifications

- Maximum centrifugal force(G): Rotor I/6900, Rotor II/3700
- Rotation speed settings: Digital (1000rpm units)
- Size(mm): 150 x 180 x 130
- Accessories: Rotor I (1.5/2.0mL microtube x 6) Rotor II (8-strip PCR tube x 2), Adapter for 0.2mL tube/0.5mL tube (conform to Rotor I), Hexagonal wrench



ROTARY EVAPORATOR



100v

Order No.	Model No.	Oil bath
4-2845-01	ARE-V1200	Equipped
4-2845-02	ARE-V1200C	—

- Brushless motor with excellent durability allows stable rotation for a long time
- Experiment at any height with smooth vertical movement
- The PTFE vacuum seal allows the use of various solvents and maintains a stable reduced pressure

Specifications

- Rotation speed(rpm) : 20 to 200
- Motors: DC brushless motors
- Cooling area(cm2): 1200
- With Forward/Reverse function (interval time: 1 to 999 sec.)
- Size(mm): Main unit / 440 x 320 x 450 to 670
Oil Bath / 300 x 320 x 240
- Oil bath capacity(L): approx. 4.5
- Oil bath temperature setting range: R.T. +5 to 180 °C



AXEL



PURE WATER MANUFACTURING EQUIPMENT



Order No.	Model No.	Specification
4-2871-01	WA-01P	Main Unit
4-2871-11	FIK-001	Ion Exchange Plastic Cartridge
4-2871-12	FPK-001	Pretreatment Cartridge
4-2871-13	FCK-001	Hollow Fiber Filter
4-2871-14		Hollow Fiber Filter Set
4-2871-16	FSB-001	Cartridge fixing band

- Pure water of A4 level can be collected simply by supplying tap water
- Cartridge replacement is easy with one-touch connection
- Compact, lightweight design, no power supply required

Specifications

- Purification method: ion exchange
- Purified water: ion exchange water
- Water sampling rate(L/min): approx. 1
- Raw water pressure range(kPa): 100 to 490
- Accessories: Pre-filter cartridge x 1 pc,
Ion exchange cartridge x 2 pcs
Faucet adapter x 1 pc
Water supply hose (I.D. 9 x O.D. 17mm) 2 m
Water Sampling Tube 3m
AA battery x 2 pcs



ULTRASONIC CLEANER



Order No.	Model No.	Tank capacity(L)	Heater function
51-0194-01	ASUSCN-80	0.8	Equipped
51-0194-02	ASUSCN-02	2	
51-0194-03	ASUSCN-03	3	
51-0194-04	ASUSCN-06	6	
51-0194-05	ASUSCN-10	10	
51-0194-06	ASUSCN-15	15	
51-0194-07	ASUSCN-22	22	
51-0194-08	ASUSCN-30	30	

- The exterior is made of black titanium, and the interior is made of SUS304 pressed molded parts
- CE, EMC, RoHS, FCC obtained (as of May 2024).



Specifications

- Oscillation frequency(kHz): 40
- With timer function(sec): 300 / 480 / 600 (3 pattern)
- Temperature setting range(°C): 20 to 60



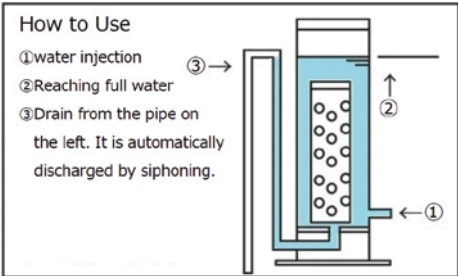
AUTOMATIC WASHER FOR PIPETTE

Order No.	Model No.	Basket Size(Inner diameter x Height)(mm)
4-026-01	AB-1(Large)	φ175 x 430
4-026-02	AB-2(Medium)	φ140 x 430
4-026-03	AB-3(Small)	φ115 x 400

- Come with washer and basket

Specifications

- Material: Body, cleaning basket/PVC, Knob of cleaning basket/PE
- Water intake aperture: φ13mm
※Metal is not used in this product.



SEALER DESKTOP TYPE

100v

Order No.	Model No.	Seal size (Width x Length) (mm)	Time to seal (s)	Sealing capacity (for PE)	Sealing capacity (for PP)
65-1337-48	NL-103J	2.5 x 100	0.4 to 2.0	0.5mm or Less	0.3mm or Less
65-1337-49	NL-203J	2.5 x 200			0.35mm or Less
65-1337-50	NL-303J	2.5 x 300	0.5 to 2.0	0.6mm or Less	0.4mm or Less
65-1337-51	NL-403J	2.5 x 400	0.5 to 2.5		

- The seal timer can be adjusted according to the thickness of the film/bag
- A cooling lamp is installed, and the completion of sealing can be confirmed visually by turning on the timer lamp

Specifications

- Welded part temperature(°C): approx. 180 (NL-103J)
approx. 230 (NL-203J)
approx. 280 (NL-303J/403J)
- Accessories: Replacement heater x 2pcs, Replacement teflon sheet x 2pcs,
Replacement teflon adhesive tape x 2pcs



GLASSWARE STORAGE CABINET

Order No.	Model No.	Inner size(mm)
3-5029-01	AGS	430 x 503 x 1336
3-5030-01	AGW	844 x 503 x 1336

- Magnet packing allows you to keep your equipment clean
- Shelf spacing can be installed at any position with a pitch of 50mm
- The mesh shelf is convenient for loading and unloading cylinders and flasks with slide rail

Specifications

- Material: Main panel / PMMA (Acrylic Plastic) plate, frame / aluminum (alumite processing)
- Door: Magnet packing type
- Caster: ϕ 65 mm, material / PA (nylon), with stopper
- The rack and basket are not included. Choose from accessories (3-5034-01 to 07)
- Accessories: Tray for water receiving x 1pc(AGS), x 2pcs(AGW)



AGS



AGW

SIMPLE TYPE CLEAN BOOTH



220v

Order No.	Model No.	Size(mm)	FFU
3-4055-81	AIG	700 x 500 x 500	1 unit
3-4055-82	AIWG	1000 x 500 x 500	2 units

- Simple type with stainless steel pipe frame and transparent sheet
- Dust collection efficiency: 99.97% or more (0.3 μ m particles)

Specifications

- Filter: Non-woven fabric pre-filter, antibacterial and deodorant HEPA filter
- Air volume(m^3/min): approx. 1
- Wind velocity(m/s): approx. 0.5
- Dust collection efficiency: 99.97% or more (0.3 μ m particles)
- Frame: ϕ 13 mm stainless steel (SUS304)



HANDHELD PARTICLE COUNTER

100 to 240v

Order No.	Model No.	Optical system
2-5150-01	KC-51	Light-scattering method

- ISO21501-4 (JISB9921) compliant, suitable for various cleanliness management
- USB port is provided
- Light source is Laser diode (wavelength: 780 nm, rated output 35 mW)
- Light receiving element is photodiode

Specifications

- Flow rate(L/min): 2.83
- Maximum particle number concentration: 140 000 000 particles/m³ (coincidence loss 10%)
- Measurement size range: 3 stages: 0.3, 0.5, 5.0, μm or more; 0.3, 0.5, 0.5 μm or more; μm or above; 5.0, and more
- Size(mm): 304 x 86.6 x 45.1
- Accessories: AC adapter, power cord, carrying case, zero count filter, hand strap, constant speed suction probe, TSV damascene load software



POLARION LIGHT

Order No.	Model No.	Size(mm)
61-0080-47	SE7583	95 x 295 x 135

- This is a light that can visualize airborne dust in a clean room

Specifications

- Light source: HID
- Luminous flux(lm): 3400
- Continuous lighting duration: approx. 90 minutes
- Battery charging time: approx. 3.5 hours
- Accessories: AC adapter, battery pack (viscera), power supply connector, green filter



STATIC ELECTRICITY REMOVING BLOWER

220v

Order No.	Model No.	Air volume (m3/min)
52-0001-01	440A	Low 1.0 / high 2.4

- Small, lightweight, portable design, adjustable angle
- It quickly neutralizes static electricity
- Built-in ion emitter cleaner makes cleaning easy

Specifications

- Ozone generation amount: 0.01ppm or less
- Noise level(dB): Maximum/45, Minimum/40
- Discharge area: 40cm x 150cm
- Size (mm): 140 x 220 x 84



CLEAN STOCKER

Order No.	Model No.	Inner size(mm)	Caster
3-1503-81	CS-BGG	560 x 483 x 986	—
3-1503-82	CS-BGWG	1138 x 483 x 698	
3-1504-81	CS-SG	560 x 483 x 1486	Equipped
3-1504-82	CS-WG	1138 x 483 x 1486	

- Clean air removed by antibacterial and deodorant HEPA filter keeps the interior clean
- The door has a magnet packing, which is airtight and can be opened and closed smoothly with one hand

Specifications

- Material: Body/PMMA (acrylic resin), Frame/Aluminum
- Air volume(m³/min): approx. 1
- Wind speed(m/s): approx. 0.5
- Shelf board mounting pitch(mm): 50
- Shelf board load capacity: 20kg/piece



WHITE COAT STERILIZATION DISINFECTION LOCKER

Order No.	Model No.	Inner size(mm)	Storage capacity (white coat)	Bactericidal lamps
0-3556-81	AW1-G	Top: 810 x 485 x 1250, Lower: 810 x 485 x 160	7 to 10 pieces	15 W and 4 lamps (Two upper and lower lights)
0-3556-82	AS1-G	Top: 385 x 485 x 1250, Lower: 385 x 485 x 160	4 to 7 pieces	15 W and 2 lamps (Upper and lower 1 lamp)

- To maintain the average amount of radiation, the interior is made of highly efficient electrolytic aluminum reflectors
- With an hour meter that tells you the life of the germicidal lamp, you can tell when to replace it easily

Specifications

- Wavelength(nm): 253.7
- The hour meter has a 60 minute timer
- Dose(μW): 90(min.), 450(max.)



HAIR AND DUST REMOVER

Order No.	Model No.	Size(mm)
60-4385-84	KHR-C01T	300 x 185 x 290

- Long life and high durability. Expected life of brushless motor is 5000hours
- Stainless steel body (SUS430) for easy sanitation
- Electrostatic eliminating sheet on the nozzle removes static electricity from the body, making it easier to pick up dust and hair and preventing them from re-deposition

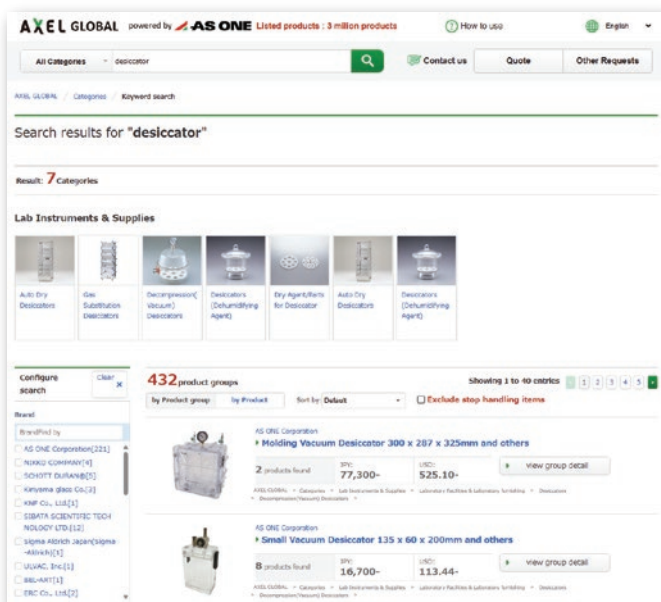
Specifications

- Outer dimension(mm): W300 x D185 x H290
- Duct length(m): 1.8
- Max. static pressure(kPa): 20.0
- Safety devices: Overcurrent protection (circuit breaker), blower heating protection (thermistor, board built-in sensor), Filter replacement notice



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E-mail

info@theiakshi.com

+91-9990333838/9873342423