



OrbiCult™ Ambient Shaker
Model AS-1-NC-19



OrbiCult™ Incubator Shaker Benchtop
Model ISB1-R-19-1

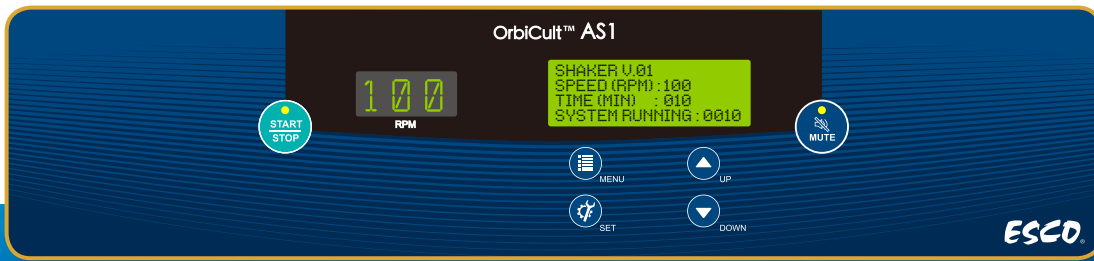
OrbiCult™ Shakers

Exceptional Choice for Versatile and Reliable Shaking Application



ESCO

WORLD CLASS. WORLDWIDE.



Membrane Keypad

- Displays all information simultaneously on the screen
- Easy-to-use design enable to set precise parameter
- Audible and visible alarm, alert any undesirable situation
- Automatically restart after power interruption for the non-volatile program saved in the memory

SmartRun™: Imbalance Compensation Algorithm

- Excellent out-of-balance sensor and propriety imbalance compensation algorithm adjust the optimum rpm to ensure smooth operation without any vibration



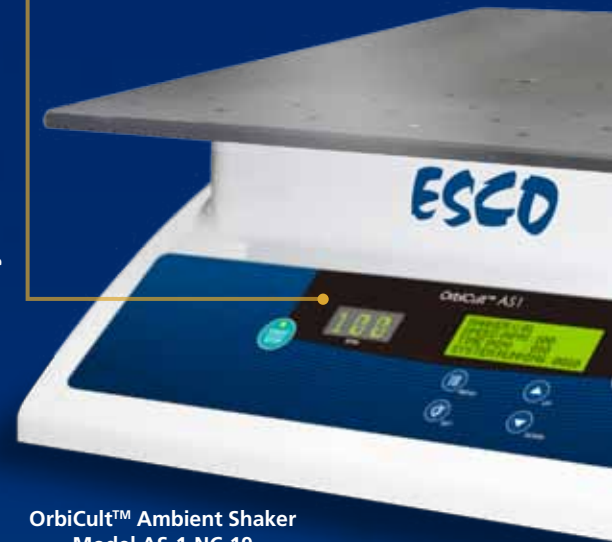
TriDrive™: Triple-Eccentric Counterbalanced Drive System

- Robust triple eccentric counterbalanced drive supports long service life
- Two types of orbit (19 mm and 25 mm) that meets different applications
- Brushless DC motor provides consistent and no vibration rotation
- Wide Speed Range: 15 - 575 rpm
- Low noise and low heat emission
- Installed with acceleration / deceleration circuit, to prevent spillage



Connecting Alarm Contacts

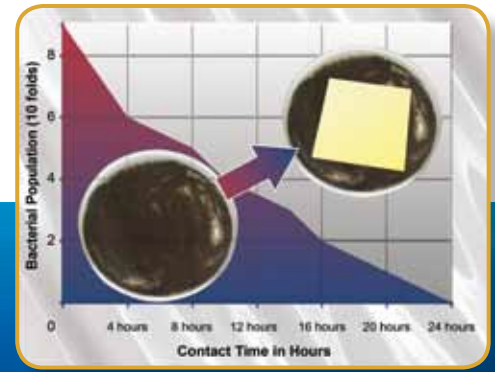
- Located at the back of the unit to monitor speed, shaker imbalance and power recovery alarms



OrbiCult™ Ambient Shaker
Model AS-1-NC-19

ISOCIDE™ Powder Coat

- Easy to clean external surface coated with Isocide™ to eliminate 99.9% of surface bacteria within 24 hours of exposure



Large Capacity with Slim Structure

- Maximum capacity of 30 Kg



CO₂ Resistance Model

- Designed with material resistance components that adapt in CO₂ and humid environment that assures AS-1-CO₂ resistance model to have long-term worry-free operation
- Suitable to cells incubation application. AS-1-C series fit in Esco 170 L and 240 L CelCulture® and CelMate® series CO₂ incubator



Leveling Feet

- Built-in leveling feet that can be adjusted to level the unit



Multiple Interchangeable Platform

- Customize according to your application

Application List

Cell Culture	Bacterial Suspension
Solubility	Growth of Bacteria and Yeast
Extraction Procedures	Washing Procedures
Diagnostics Tests	Hybridization
General Mixing	Staining and Destaining

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SmartRun™: Imbalance Compensation Algorithm

- Excellent out-of-balance sensor that adjusts the optimum rpm to ensure smooth operation without any vibration

SmarTouch™: Large 5.7" intuitive touchscreen displays every parameter and status of your shaker at glance

- Easy-to-use design enable to set parameter precisely
- Historical setting can easily track and review from the touchscreen



Transparent Acrylic Hood

- Durable and only half as heavy as glass
- Clear cover allows easy viewing of samples
- Temperature sensor stops the heater or compressor in any exceeded temperature
- Door sensor pauses the driver rotation when the chamber door is open



TriDrive™: Triple-Eccentric Counterbalanced Drive System

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- Brushless DC motor provides consistent and no vibration rotation
- Wide Speed Range: 15 - 575 rpm
- Low noise and low heat emission
- Installed with acceleration / deceleration circuit, to prevent spillage



Large Capacity with Slim Structure

- Maximum capacity of 30 Kg



Leveling Feet

- Built-in leveling feet that can be adjusted to level the unit



Precise and Wide Temperature Range

- Refrigerated: 15°C below ambient to 80°C
- Non-refrigerated: 5°C above ambient to 80°C
- Built with force convection ventilation to ensure accurate temperature avoiding possible deviations during the operation
- 37°C ± 0.5°C temperature variation
- 37°C ± 0.5°C temperature fluctuation
- Environment-friendly design
- World-class compressor with low energy consumption



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Model ISB1-R-19-1

Access Port

- Ergonomic design that gives easy access for temperature validation and mapping



Ethernet Port

- Port provided for connection to an external PC
- Allows communication with Esco Voyager® software program for monitoring and control



USB Port

- Easy access to transport data log and alarm log to an external hard disk



Gas Manifold Port

- Add versatility for aerobic and anaerobic cultivation



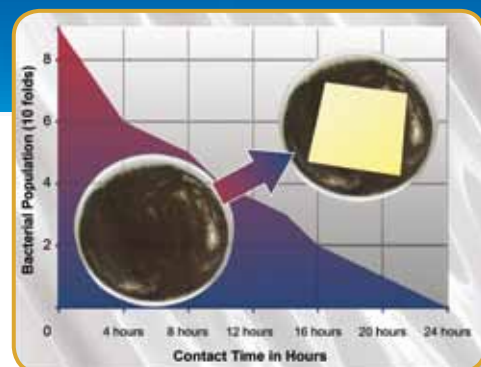
Connecting Alarm Contacts

- Located at the back of the unit to monitor speed, shaker imbalance and power recovery alarms



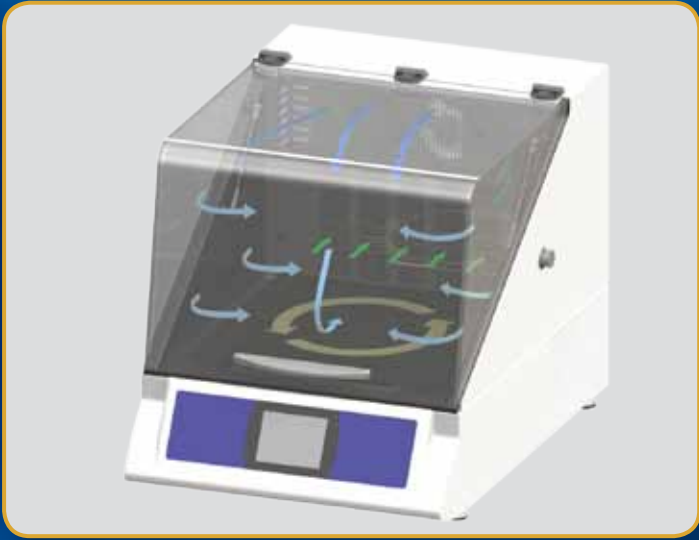
ISOCIDE™ Powder Coat

- Easy to clean external surface coated with Isocide™ to eliminate 99.9% of surface bacteria within 24 hours of exposure



Application List

Cell Culture	Bacterial Suspension
Solubility	Growth of Bacteria and Yeast
Extraction Procedures	Washing Procedures
Diagnostics Tests	Hybridization
General Mixing	Staining and Destaining



Airflow Circulation

- Two circulating fans located on top of the perforated panel, disperse and distribute the air inside the chamber
- Perforation located below the circulating fan absorbs the air to recirculate the air inside the chamber
- Platform performs counterclockwise rotation base on the motor drive motion
- Air temperature changes during suction process

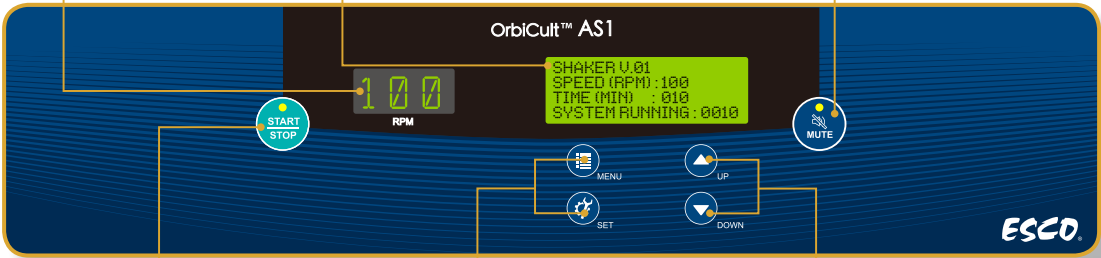
- For refrigerated unit, evaporator located behind the perforated panel will cool down the air

- For non-refrigerated unit, heater located below the circulating fan will heat up the air

Displays the status of speed at which the shaker is currently rotating

A graphical interface indicates shaker performance through an alphanumeric display. It presents the status of rpm, time and system running that are activated by programming access through the membrane buttons

Deactivates the set alarm during the end of a timed run and deviations on speed and temperature setpoint



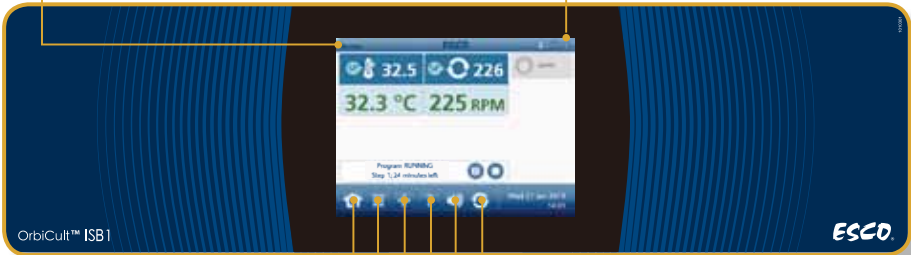
The Shaker LED light displays green to indicate that the shaker is operational accessible

These keypad buttons control the settings and program system running as required for the application. Gives access to default settings and classified menus

Allows navigation and set up the desired program with accuracy and precision

An advanced and intuitive touchscreen that provides clear and accurate conditions of the operation to keep track the performance of each features and functions set on the program

Status Indicator: Displays the basic yet important parameters and factors of a program. It shows careful conditions of the program for an accessible observation of the operation (i.e. lid closure, running program, temperature)



Home Button: Provides major icons for easy navigation on important functions

Menu Button: Access specific features for setting desired program

Diagnostic Screen: Provides readout of current system parameters, date and stamp of all historical alarm, and graph datalog

Help Button: Explains the icons displayed on the screen interface

Alarm Button: An option to the alarm function to make it audible or mute

Shaker Platform Button: Access to start / stop the platform

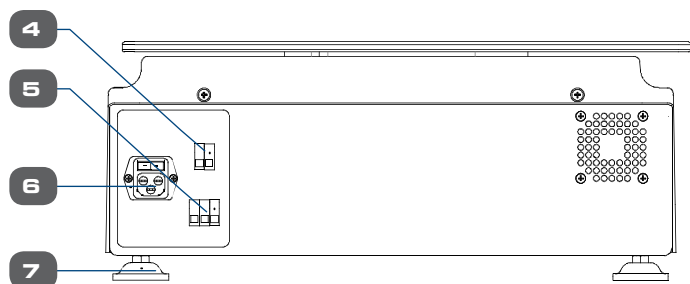
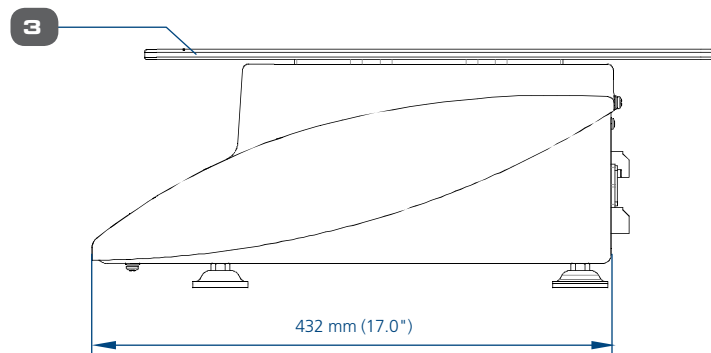
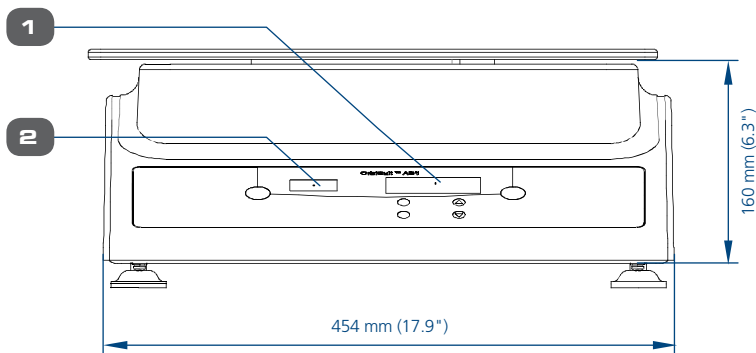


Voyager® Remote Monitoring, datalogging, programming software
 Esco Voyager® is a PC-based software package developed for the remote monitoring and programming device configuration of Esco thermostatic products.

Guide to Models							
AS - 1 - C - 19							
1st Placeholder Product Line	1st Code	2nd Placeholder External Dimension	2nd Code	3rd Placeholder CO2 Resistance	3rd Code	4th Placeholder Orbit Size	4th Code
Ambient Shaker	AS	454 x 432 x 160 mm	1	Resistant	C	19 mm	19
						25 mm	25
				Non-resistant	NC	19 mm	19
						25 mm	25

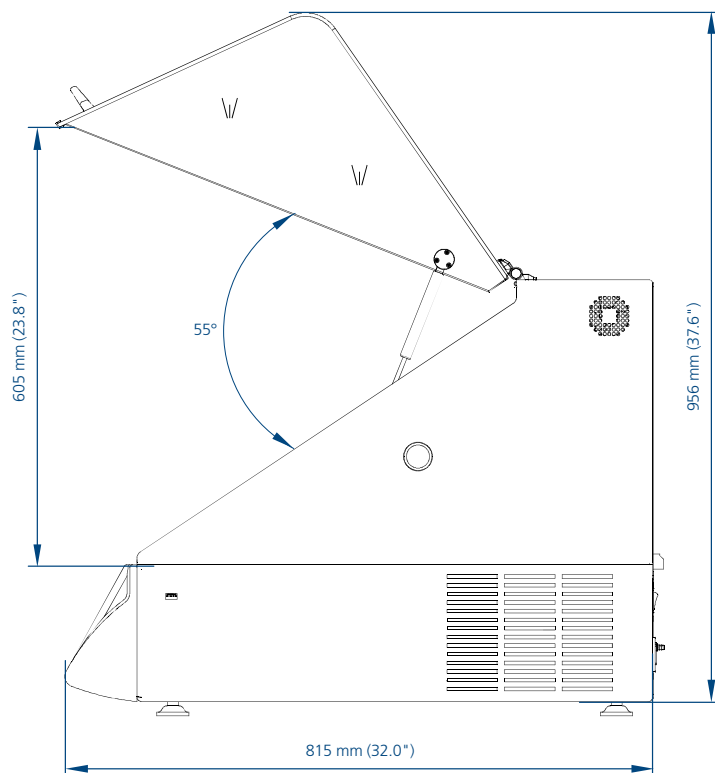
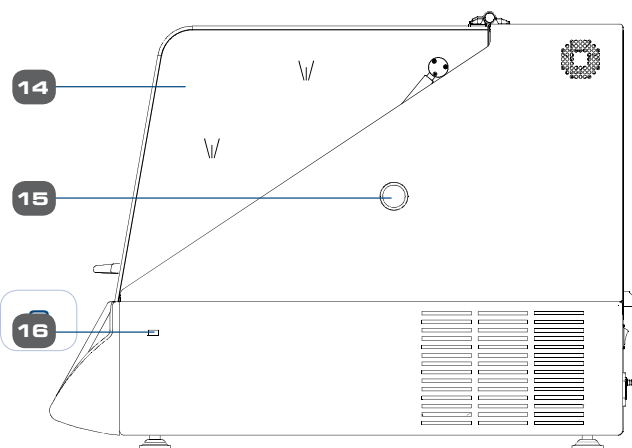
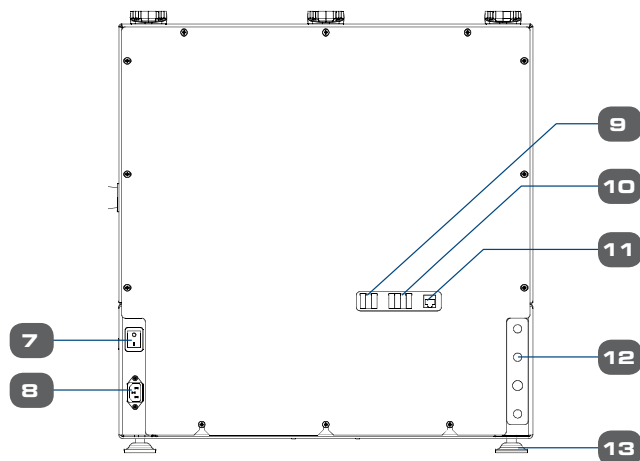
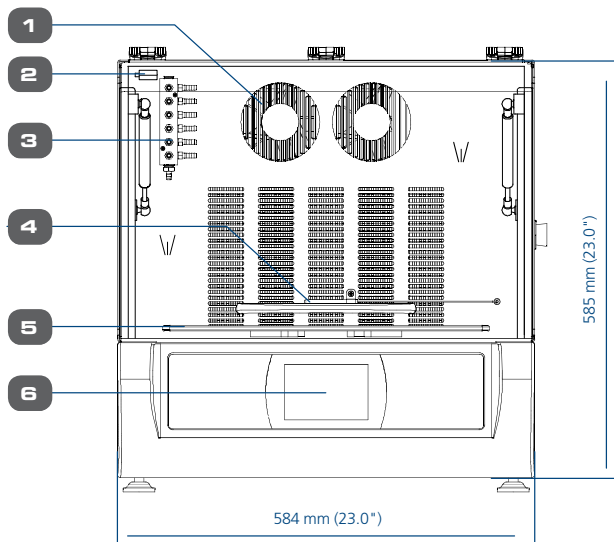
Guide to Models							
ISB1 - R - 19 - 1							
1st Placeholder Product Line	1st Code	2nd Placeholder Temperature	2nd Code	3rd Placeholder Orbit Size	3rd Code	4th Placeholder Electrical	4th Code
Incubator Shaker Benchtop	ISB1	Refrigerated	R	19 mm	19	220-240 VAC, 50 Hz	1
						110-130 VAC, 60 Hz	2
						230 VAC, 60 Hz	3
				25 mm	25	220-240 VAC, 50 Hz	1
						110-130 VAC, 60 Hz	2
						230 VAC, 60 Hz	3
		Non-refrigerated	NR	19 mm	19	220-240 VAC, 50/60 Hz	8
						110-120 VAC, 50/60 Hz	9
						220-240 VAC, 50/60 Hz	8
				25 mm	25	110-120 VAC, 50/60 Hz	9

OrbiCult™ Ambient Shaker Model AS-1-C-19



- 1. Control Display
- 2. rpm Display
- 3. Platform (Interchangeable)
- 4. Analog Output
- 5. Alarm Contact
- 6. Power Plug
- 7. Leveling Feet

OrbiCult™ Incubator Shaker Benchtop Model ISBI-R-19-1



- 1. Circulation Fan
- 2. Door Switch
- 3. Gas Manifold
- 4. Temperature Sensor
- 5. Platform
- 6. Touchscreen Control
- 7. On / Off Switch
- 8. Power Plug
- 9. Alarm Contact
- 10. Analog Output
- 11. Ethernet Port
- 12. Gas Inlet Filling
- 13. Leveling Feet
- 14. Transparent Acrylic Hood
- 15. Access Port
- 16. USB Port

Electrical Supply

Model1	Item Code	Code	Voltage	Frequency
ISB1 - R - 19 - 1	2200005	1	230 VAC	50 Hz
ISB1 - R - 25 - 1	2200007			
ISB1 - R - 19 - 2	2200006	2	115 VAC	60 Hz
ISB1 - R - 25 - 2	2200008			
ISB1 - R - 19 - 3	2200015	3	230 VAC	60 Hz
ISB1 - R - 25 - 3	2200016			
ISB1 - NR - 19 - 8	2200009	8	230 VAC	50 / 60 Hz
ISB1 - NR - 25 - 8	2200011			
ISB1 - NR - 19 - 9	2200010	9	115 VAC	50 / 60 Hz
ISB1 - NR - 25 - 9	2200012			
AS1-1-C-19	2200002	1	100-240 VAC	50 / 60 Hz
AS1-1-C-25	2200004			
AS1-1-NC-19	2200001			
AS1-1-NC-25	2200003			

Ordering Information

Accessories	Item Code	Item Name	Description	Flask Clamp Capacity
Platform List (Dedicated)	5270019	P1 Platform Dedicated 25 mL	330 x 330 mm (13.0" x 13.0") for 25 mL	36
	5270020	P1 Platform Dedicated 50 mL	330 x 330 mm (13.0" x 13.0") for 50 mL	36
	5270021	P1 Platform Dedicated 125 mL	330 x 330 mm (13.0" x 13.0") for 125 mL	16
	5270022	P1 Platform Dedicated 250 mL	330 x 330 mm (13.0" x 13.0") for 50 mL	10
	5270023	P1 Platform Dedicated 300 mL	330 x 330 mm (13.0" x 13.0") for 300 mL	10
	5270024	P1 Platform Dedicated 500 mL	330 x 330 mm (13.0" x 13.0") for 500 mL	9
	5270025	P1 Platform Dedicated 1 L	330 x 330 mm (13.0" x 13.0") for 1 L	5
	5270026	P1 Platform Dedicated 2 L	330 x 330 mm (13.0" x 13.0") for 2 L	4
	5270027	P1 Platform Dedicated 2.8 L	330 x 330 mm (13.0" x 13.0") for 2.8 L	1
	5270028	P1 Platform Dedicated 3 L	330 x 330 mm (13.0" x 13.0") for 3 L	1
	5270029	P1 Platform Dedicated 4 L	330 x 330 mm (13.0" x 13.0") for 4 L	1
	5270030	P1 Platform Dedicated 5 L	330 x 330 mm (13.0" x 13.0") for 5 L	1
	5270031	P1 Platform Dedicated 6 L	330 x 330 mm (13.0" x 13.0") for 6 L	1
	5270032	P3 Platform Dedicated 25 mL	457 x 457 mm (18.0" x 18.0") for 25 mL	64
	5270033	P3 Platform Dedicated 50 mL	457 x 457 mm (18.0" x 18.0") for 50 mL	64
	5270034	P3 Platform Dedicated 125 mL	457 x 457 mm (18.0" x 18.0") for 125 mL	36
	5270035	P3 Platform Dedicated 250 mL	457 x 457 mm (18.0" x 18.0") for 250 mL	16
	5270036	P3 Platform Dedicated 300 mL	457 x 457 mm (18.0" x 18.0") for 300 mL	16
	5270037	P3 Platform Dedicated 500 mL	457 x 457 mm (18.0" x 18.0") for 500 mL	16
	5270038	P3 Platform Dedicated 1 L	457 x 457 mm (18.0" x 18.0") for 1 L	9
	5270039	P3 Platform Dedicated 2 L	457 x 457 mm (18.0" x 18.0") for 2 L	5
	5270040	P3 Platform Dedicated 2.8 L	457 x 457 mm (18.0" x 18.0") for 2.8 L	4
	5270041	P3 Platform Dedicated 3 L	457 x 457 mm (18.0" x 18.0") for 3 L	4
	5270042	P3 Platform Dedicated 4 L	457 x 457 mm (18.0" x 18.0") for 4 L	4
	5270043	P3 Platform Dedicated 5L	457 x 457 mm (18.0" x 18.0") for 5 L	4
	5270044	P3 Platform Dedicated 6 L	457 x 457 mm (18.0" x 18.0") for 6 L	2
	5270046	P4 Platform Dedicated 50 mL	457 x 610 mm (18.0" x 24.0") for 50 mL	80
	5270047	P4 Platform Dedicated 125 mL	457 x 610 mm (18.0" x 24.0") for 125 mL	48
	5270048	P4 Platform Dedicated 250 mL	457 x 610 mm (18.0" x 24.0") for 250 mL	35
	5270049	P4 Platform Dedicated 300 mL	457 x 610 mm (18.0" x 24.0") for 300 mL	35
	5270050	P4 Platform Dedicated 500 mL	457 x 610 mm (18.0" x 24.0") for 500 mL	20
	5270051	P4 Platform Dedicated 1 L	457 x 610 mm (18.0" x 24.0") for 1 L	12
5270052	P4 Platform Dedicated 2 L	457 x 610 mm (18.0" x 24.0") for 2 L	6	
5270053	P4 Platform Dedicated 2.8 L	457 x 610 mm (18.0" x 24.0") for 2.8 L	5	
5270054	P4 Platform Dedicated 3 L	457 x 610 mm (18.0" x 24.0") for 3 L	5	
5270055	P4 Platform Dedicated 4 L	457 x 610 mm (18.0" x 24.0") for 4 L	5	
5270056	P4 Platform Dedicated 5 L	457 x 610 mm (18.0" x 24.0") for 5 L	4	
5270057	P4 Platform Dedicated 6 L	457 x 610 mm (18.0" x 24.0") for 6 L	4	

Ordering Information																
Accessories	Item Code	Item Name	Description	25 mL Flask	50 mL Flask	125 mL Flask	250 mL Flask	300 mL Flask	500 mL Flask	1 L Flask	2 L Flask	2.8 L Flask	3 L Flask	4 L Flask	5 L Flask	6 L Flask
Platform List (Universal)	5270016	P1 Universal	330 x 330 mm (13.0" x 13.0")	36	36	13	9	9	9	4	4	1	1	1	1	1
	5270017	P3 Universal	457 x 457 mm (18.0" x 18.0")	64	64	32	16	16	16	8	5	4	4	4	4	2
	5270018	P4 Universal	457 x 610 mm (18.0" x 24.0")		70	35	20	20	20	12	8	5	5	5	4	3

Accessories	Item Code	Description	Tube per Rack
Test Tube Racks	5270072	Small 8-11 mm Test Tube Racks	40
	5270073	Small 12-15 mm Test Tube Racks	21
	5270074	Small 16-19 mm Test Tube Racks	10
	5270075	Small 20-22 mm Test Tube Racks	10
	5270076	Small 23-26 mm Test Tube Racks	5
	5270077	Small 27-33 mm Test Tube Racks	5
	5270078	Medium 8-11 mm Test Tube Racks	64
	5270079	Medium 12-15 mm Test Tube Racks	33
	5270080	Medium 16-19 mm Test Tube Racks	18
	5270081	Medium 20-22 mm Test Tube Racks	16
	5270082	Medium 23-26 mm Test Tube Racks	8
	5270083	Medium 27-33 mm Test Tube Racks	8
	5270002	Large 8-11 mm Test Tube Racks	88
	5270003	Large 12-15 mm Test Tube Racks	48
	5270004	Large 16-19 mm Test Tube Racks	24
	5270005	Large 20-22 mm Test Tube Racks	22
	5270006	Large 23-26 mm Test Tube Racks	11
5270007	Large 27-33 mm Test Tube Racks	11	

Accessories	Item Code	Description
Flask Clamps	5270059	25 mL Flask Clamps
	5270060	50 mL Flask Clamps
	5270061	125 mL Flask Clamps
	5270062	250 mL Flask Clamps
	5270063	300 mL Flask Clamps
	5270064	500 mL Flask Clamps
	5270065	1 L Flask Clamps
	5270066	2 L Flask Clamps
	5270067	2.8 L Flask Clamps
	5270068	3 L Flask Clamps
	5270069	4 L Flask Clamps
Microplate Holder	5270070	5 L Flask Clamps
	5270071	6 L Flask Clamps
	5270008	Microplate Holder-Small
Utility Carrier	5270009	Microplate Holder-Medium
	5270010	Microplate Holder-Large
Other Accessories	5270011	Utility Carrier P1 - 332 x 304 x 75 mm (13.0" x 12.0" x 3.0")
	5270012	Utility Carrier, P3 - 462 x 431 x 75mm (18.2" x 17.0" x 3.0")
	5270013	Voyager® Software Kit
	5270014	Adhesive Mat Platform
	5270015	12 Port Gassing Manifold



Universal Platform

Have standard holes pattern that can fit any flask clamps and test tube rack. All multiple flask clamps and labware holders are shipped separately and installed by the end user.



Flask Clamps

Single piece stainless steel clamps that provide enough strength and security to hold flasks.



Dedicated Platform

Platforms have a customized pattern to optimize the number of a particular size of flask clamp on a platform. Dedicated platforms are pre-installed with the flask clamps.



Voyager® Software Kit

A PC-based software package developed for the remote monitoring, data logging and programming / device configuration of Esco controlled environment laboratory equipment.



Sticky Mats

Allows the user to place the flask directly on the mat without the use of a clamp. Sticky mats are very convenient if the user desires to rotate at less than 850 rpm. This can be ordered separately and attach on Universal Platform.



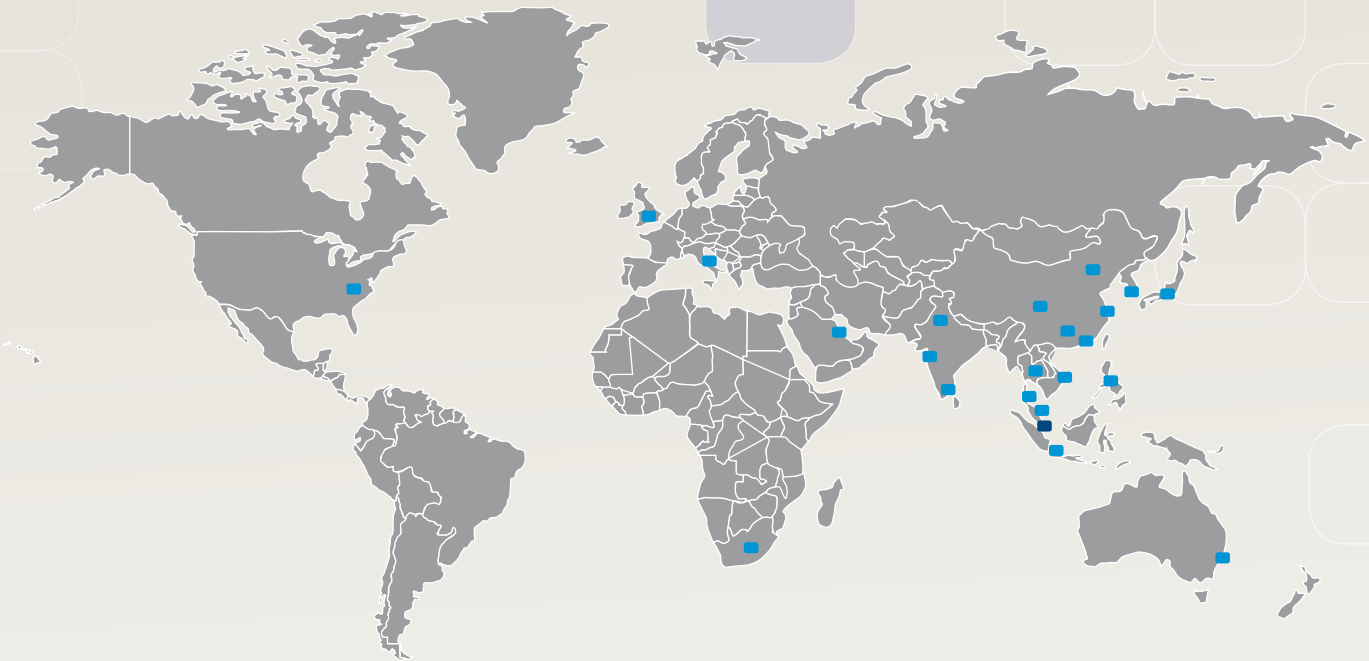
Test Tube Rack

Stainless steel rack that stabilizes and hold the test tubes.

TECHNICAL SPECIFICATION

Model	AS-1-NC-19	AS-1-NC-25	AS-1-C-19	AS-1-C-25	ISB1-NR-19	ISB1-NR-25	ISB1-R-19	ISB1-R-25	
Orbit	19 mm (0.7")	25 mm (1.0")	19 mm (0.7")	25 mm (1.0")	19 mm (0.7")	25 mm (1.0")	19 mm (0.7")	25 mm (1.0")	
Speed	15 - 575 rpm								
rpm Accuracy	± 1								
Display	Digital LED and 4 line LCD message center				Colored Touchscreen				
Timer	9999 mins				999 hrs and 59 mins				
Interchangeable Platform and Platform Size	P1, 330 x 330 mm (13.0" x 13.0") P3, 457 x 457 mm (18.0" x 18.0") P4, 457 x 610 mm (18.0" x 24.0")				P3, 457 x 457 mm (18.0" x 18.0")				
Maximum Load	30 Kg (66.1 lbs)	25 Kg (55.1 lbs)	30 Kg (66.1 lbs)	25 Kg (55.1 lbs)	30 Kg (66.1 lbs)	25 Kg (55.1 lbs)	30 Kg (66.1 lbs)	25 Kg (55.1 lbs)	
External Dimension (W x D x H)	458 x 422 x 184 mm (18.0" x 16.6" x 7.2")				584 x 815 x 585 mm (23.0" x 32.0" x 23.0")				
Net Weight	23 Kg (50.7 lbs)	23 Kg (50.7 lbs)	27 Kg (59.5 lbs)	27 Kg (59.5 lbs)	70 Kg (154.3 lbs)	70 Kg (154.3 lbs)	80 Kg (176.4 lbs)	80 Kg (176.4 lbs)	
CO ₂ Resistance	No		Yes						
Cover Material	UL 94 Flammability Standard, V-0 requirement made of ABS plastic								
Cabinet Construction	Base	3.0 mm (0.1") 18 gauge EG Steel with Isocide™ antimicrobial powder coating							
	Main					2.0 mm (0.07") 18 gauge EG Steel with Isocide™ antimicrobial powder coating			
	Work Zone					2.0 mm (0.07") 16 gauge Stainless Steel type 304			
Temperature Range					5°C (above ambient) - 80°C		15°C (below ambient) - 80°C		
Shipping Weight	37 Kg (81.6 lbs)		33 Kg (72.8 lbs)		90 Kg (198.4 lbs)		100 Kg (220.5 lbs)		
Shipping Dimension (W x D x H)	650 x 660 x 450 mm (26.0" x 25.6" x 17.7")				720 x 1120 x 860 mm (44.1" x 28.4" x 33.9")				
Shipping Volume, Maximum	0.2 m ³ (7.1 cu.ft.)				0.7 m ³ (24.7 cu.ft.)				

ESCO GLOBAL NETWORK



- ART Equipment
- Biological Safety Cabinets
- CO₂ Incubators
- Cold Storage
- Compounding Pharmacy Equipment
- Containment / Pharma Products
- Ductless Fume Hoods
- Lab Animal Research Products
- Laboratory Fume Hoods
- Laboratory Incubators
- Laboratory Ovens
- Laminar Flow Cabinets
- Laboratory Freeze Dryers
- PCR Cabinets
- PCR Thermal Cyclers
- Powder Weighing Balance Enclosures

The Esco Group of Companies is a global life sciences tools provider with sales in over 100 countries. The group is active in lab equipment, pharma equipment and medical devices. Manufacturing facilities are located in Asia and Europe. R&D is conducted worldwide spanning the US, Europe and Asia. Sales, service and marketing subsidiaries are located in 12 major markets including the US, UK, Singapore, Japan, China and India. Regional distribution centers are located in the US, UK, and Singapore.

Life Science • Chemical Research • Assisted Reproductive Technology (ART) • Pharmaceutical Equipment • General Equipment

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Esco Technologies, Inc. • 903 Sheehy Drive, Suite F, Horsham, PA 19044, USA
 Toll-Free USA and Canada 1-877-479-3726 • Tel 215-441-9661 • Fax 484-698-7757
 eti.sales@escoglobal.com • www.escolifesciences.us

Esco Micro Pte. Ltd. • 21 Changi South Street 1 • Singapore 486 777
 Tel +65 6542 0833 • Fax +65 6542 6920 • mail@escoglobal.com
 www.esco-global.com

Esco Global Offices: Sydney, Australia | Manama, Bahrain | Beijing, China | Chengdu, China | Guangzhou, China | Shanghai, China
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