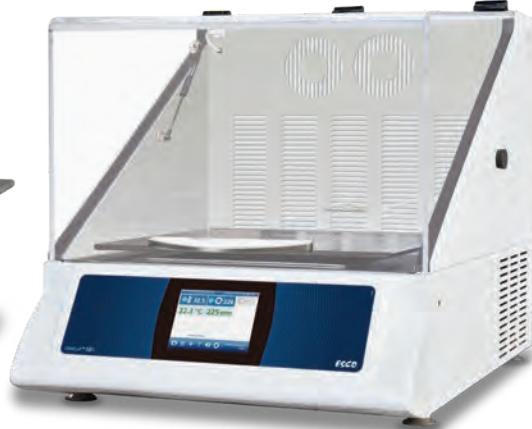




OrbiCult™ Ambient Shaker  
Model AS1-NC-19



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

# OrbiCult™ Shakers

Exceptional Choice for Versatile and Reliable Shaking Application



По вопросам продаж и поддержки обращайтесь:

Алматы (7273)495-231  
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## Alarm System

- Produces 5 audible alarm on each end-run
- Speed deviation alarm

### Digital LED

- Displays all information simultaneously on the screen
- Easy-to-use design which enables 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

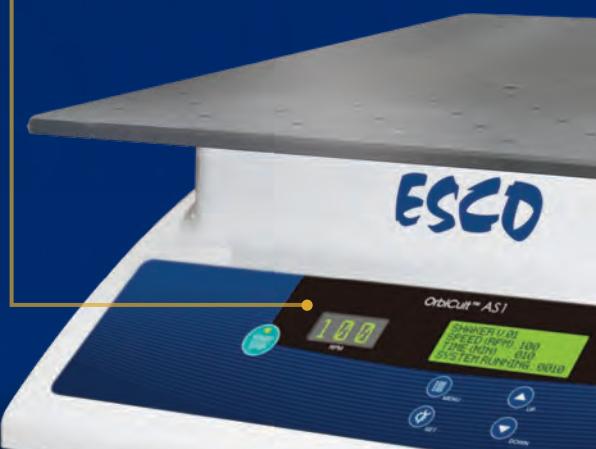
### SmartRun™: Imbalance Compensation Algorithm

- Excellent out-of-balance sensor and proprietary imbalance compensation algorithm adjust the optimum rpm to ensure smooth operation without any vibration
- PID (Proportional-Integral-Derivative) Microprocessor for speed control system



### 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 meet 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



OrbiCult™ Ambient Shaker  
Model: AS1-NC-19



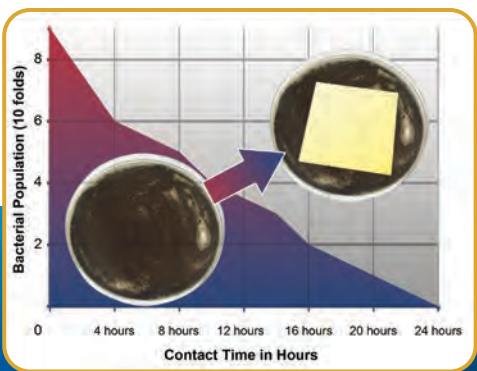
### Connecting Alarm Contacts

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

- Audible alarm can be turned on or off, but the visual alarm will remain activated
- LED will light up red during the alarm

### 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



### CO<sub>2</sub> Resistant Model

- Designed with material resistant components that adapt to CO<sub>2</sub> and humid environment that ensures the AS1 CO<sub>2</sub> resistance model to have a long-term worry-free operation
- Suitable for cell incubation application. AS1 C series fit in Esco 170 L and 240 L CelCulture® and CelMate® series CO<sub>2</sub> incubator



### Leveling Feet

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



### Multiple Interchangeable Platform

- Customizable to accommodate different applications
- Three interchangeable platform sizes are available to minimize footprint
- Has two types of Platform: Universal Platform and Dedicated Platform

Common Application List of OrbiCult™ Shaker

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

OrbiCult™ IBS



ESCO

## 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 a glance

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

### Alarm System

- Produces 5 audible alarm on each end-run
- Speed deviation alarm
- High and low temperature alarm from the set point
- Unbalanced load on shaker platform
- Audible alarm can be turned on or off, however the visual alarm will still remain activated even when the audible alarm is off



### Transparent Acrylic Hood

- Durable and only half as heavy as glass
- Clear cover allows easy viewing of samples
- Door sensor pauses the driver rotation when the chamber door is open



### 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 meet 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



### Large Capacity with Slim Structure

- Maximum capacity of 30 Kg



### Leveling Feet

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

OrbiCult™ Incubator Benchtop Shaker  
Model: IBS-R-19-3

### Precise and Wide Temperature Range

- Refrigerated: 10°C below ambient to 80°C
- Non-refrigerated: 5°C above ambient to 80°C
- Built with forced convection ventilation to ensure accurate temperature avoiding possible deviations during the operation
- Environment-friendly design
- World-class compressor with low energy consumption
- Temperature sensor stops the heater or compressor in any exceeded temperature

OrbiCult™

AS1 and IBS • Laboratory Shakers

**Access Port**

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

**Environment-Friendly Refrigeration System**

- Uses CFC-free refrigerant, good for the environment

**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
- Available with a 12-port gas manifold option
- Allows the operator to supply gas directly to the culture medium of 12 individual flasks

**Connecting Alarm Contacts**

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

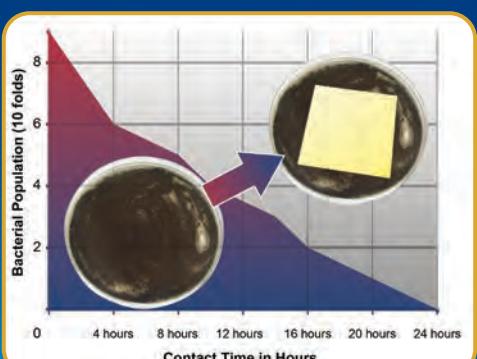
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## Medium-sized Platform

- Suitable platform is available to maximize the area inside the chamber
- Has two types of Platform: Universal Platform and Dedicated Platform

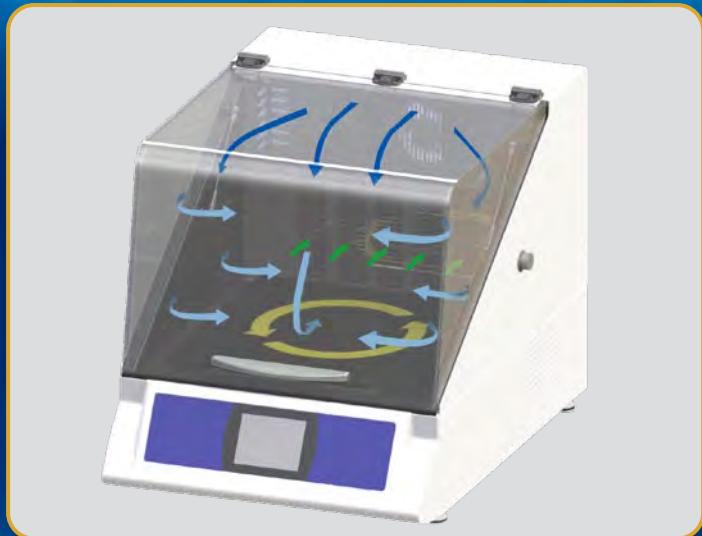
## ISOCIDE™ Powder Coat

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



Common Application List of OrbiCult™ Incubator Benchtop Shaker

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



□ Discharge Air  
█ Suction Air

█ Circulating Air  
█ Motor Drive Rotation

## Airflow Circulation

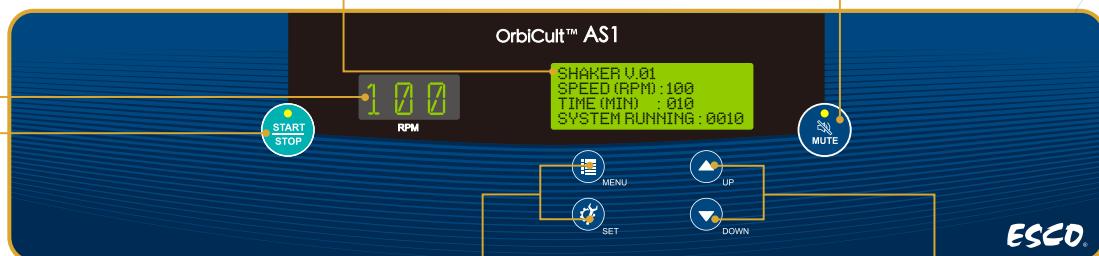
- Two circulating fans located on top of the perforated panel disperse and distribute the air inside the chamber
- Perforation located below the circulating fan absorbs the air to recirculate the air inside the chamber
- Platform performs counterclockwise rotation based on the motor drive motion
- Air temperature changes during suction process
  - For refrigerated unit, the evaporator located behind the perforated panel will cool down the air
  - For non-refrigerated unit, a heater located below the circulating fan will heat up the air

## Digital LED Controller (for AS1 model)

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

## SmarTouch™ Controller (for IBS model)

An advanced and intuitive touchscreen that provides clear and accurate conditions of the operation to keep track of the performance of each feature 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, and 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

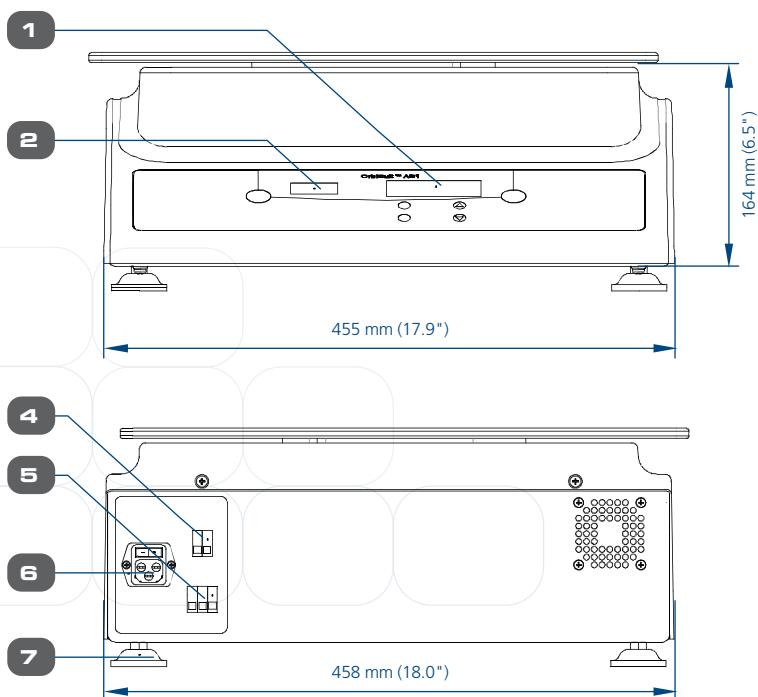
Alarm Button:

An option to the alarm function to make it audible or mute

Shaker Platform Button:

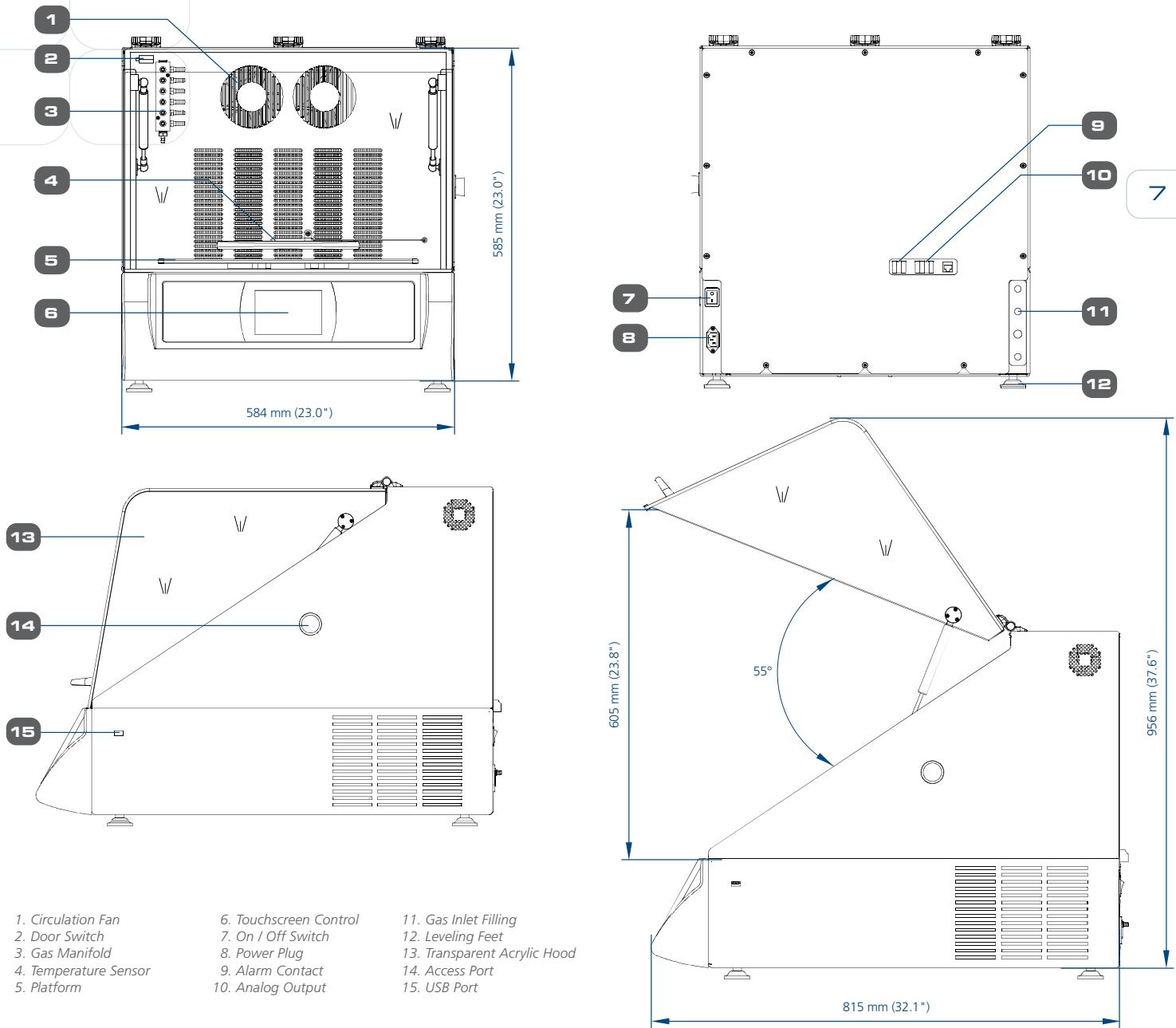
Access to start / stop the platform

## OrbiCult™ Ambient Shaker Models (AS1-C-19, AS1-C-25, AS1-NC-19, AS1-NC-25)



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

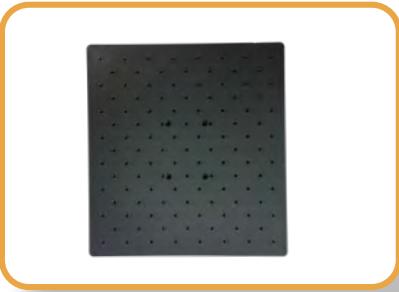
## OrbiCult™ Incubator Benchtop Shaker Models (IBS-R-19-, IBS-R-25-, IBS-NR-19-, IBS-NR-25-)



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. Gas Inlet Filling
12. Leveling Feet
13. Transparent Acrylic Hood
14. Access Port
15. USB Port





#### 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.



#### Microplate Holder

Double layer racks that hold up to six standard deep well plates.

#### Utility Carrier

Made of stainless steel that holds different glassware in between adjustable stainless steel bars.



#### 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 350 rpm. This can be ordered separately and attach on Universal Platform.

#### Gas Manifold

Contain 12 gas ports that add versatility for aerobic and anaerobic cell cultivation.

The IBS is available with a 12-port gas manifold option to allow the operator to supply gas directly to the culture medium of 12 individual flasks.





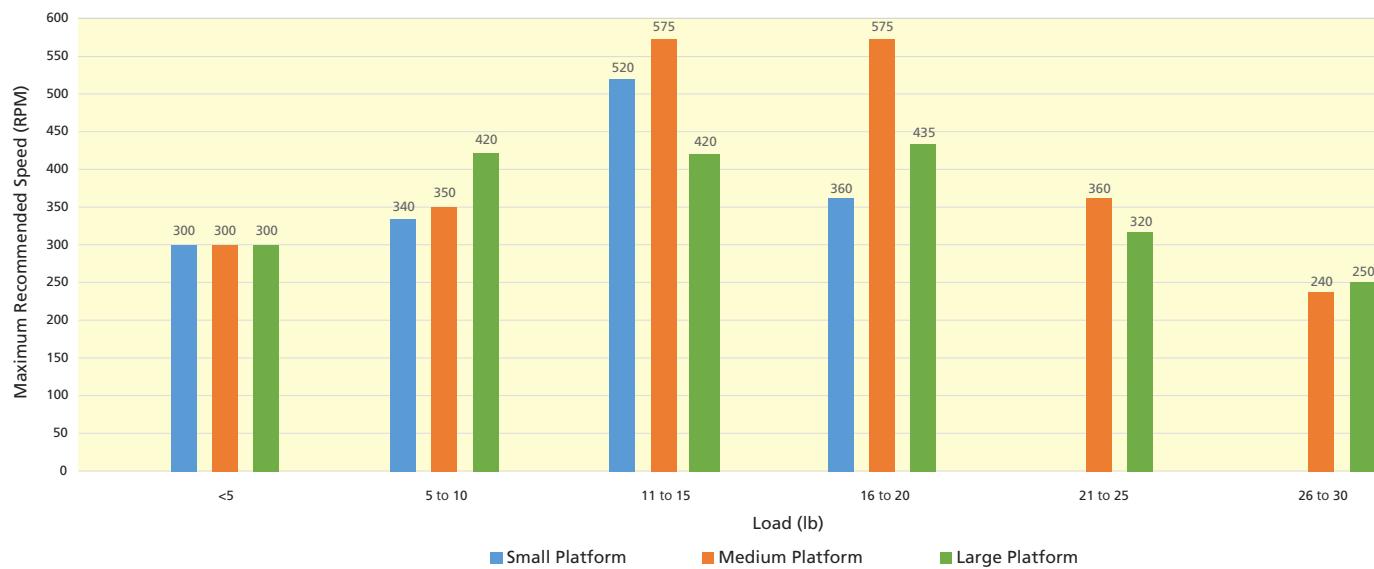




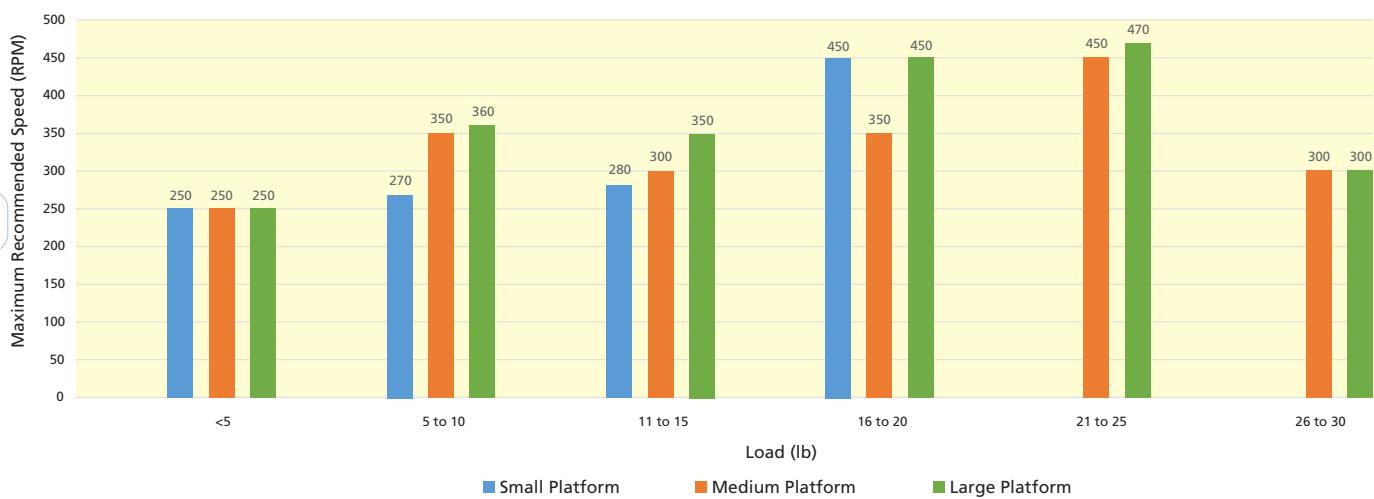
## Load Speed Charts

### OrbiCult™ Ambient Shaker

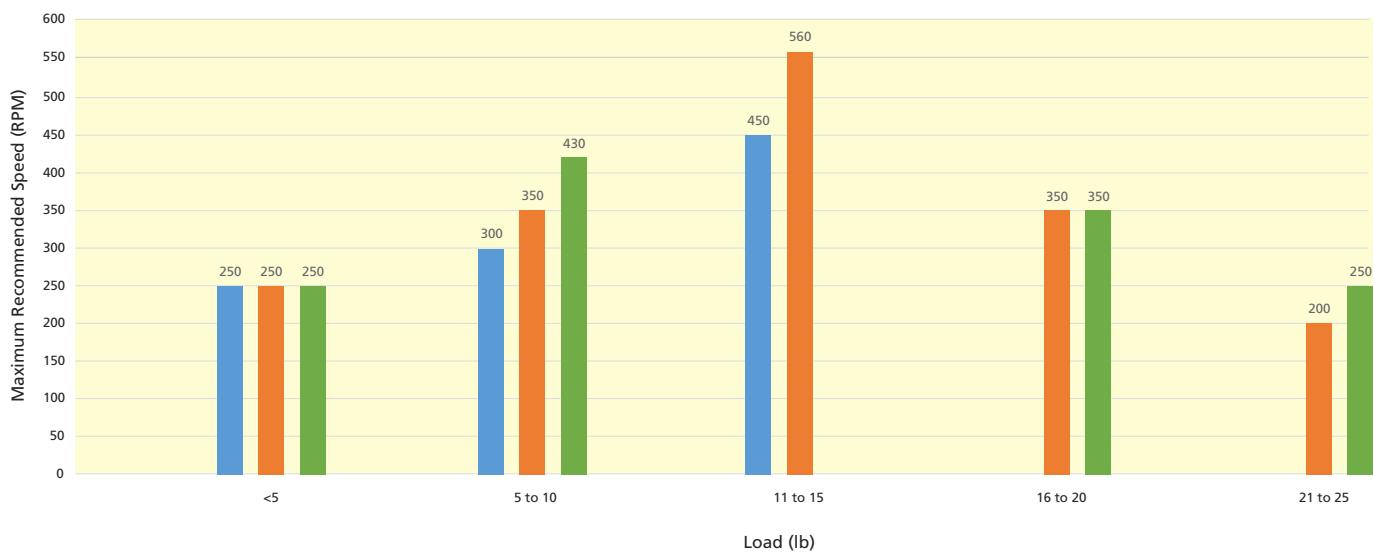
AS1 Non-CO<sub>2</sub> with 25mm Orbit Shakers



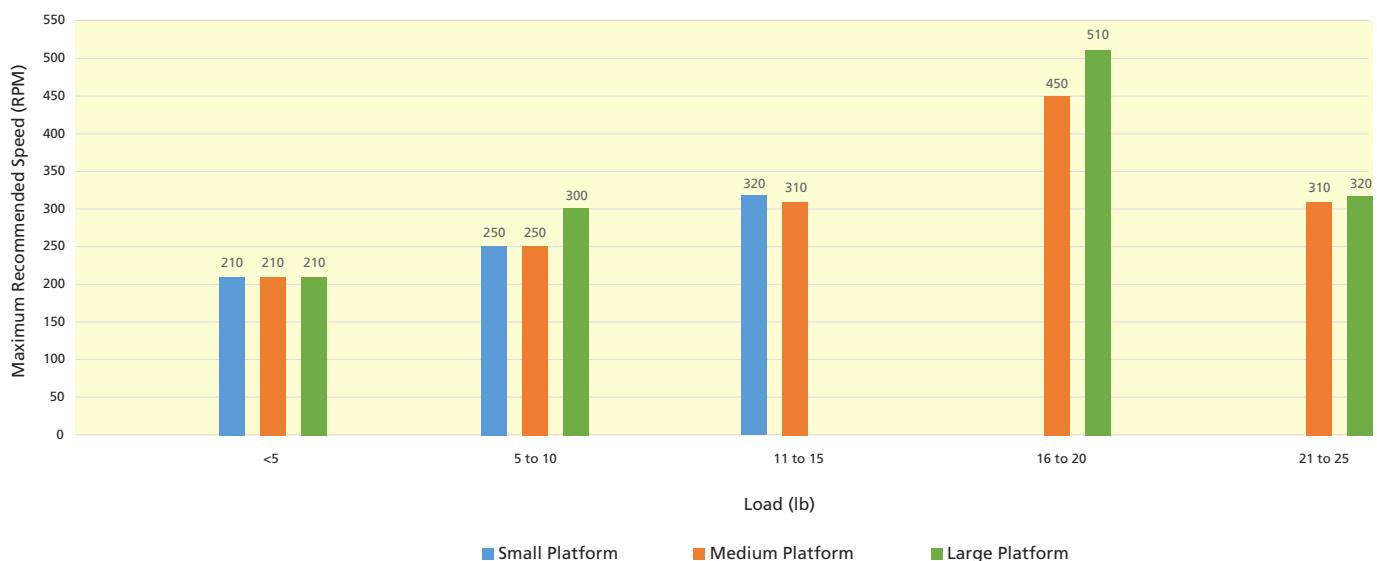
AS1 Non-CO<sub>2</sub> with 19mm Orbit Shakers



AS1 CO<sub>2</sub> with 25mm Orbit Shakers

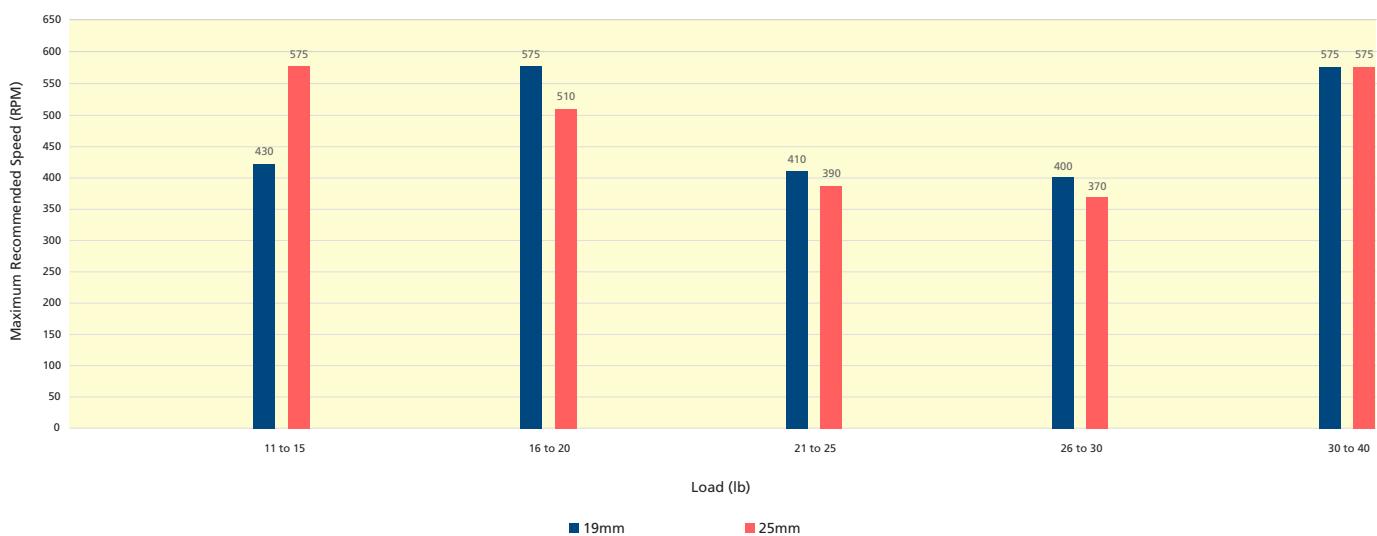


### AS1 CO<sub>2</sub> with 19mm Orbit Shakers

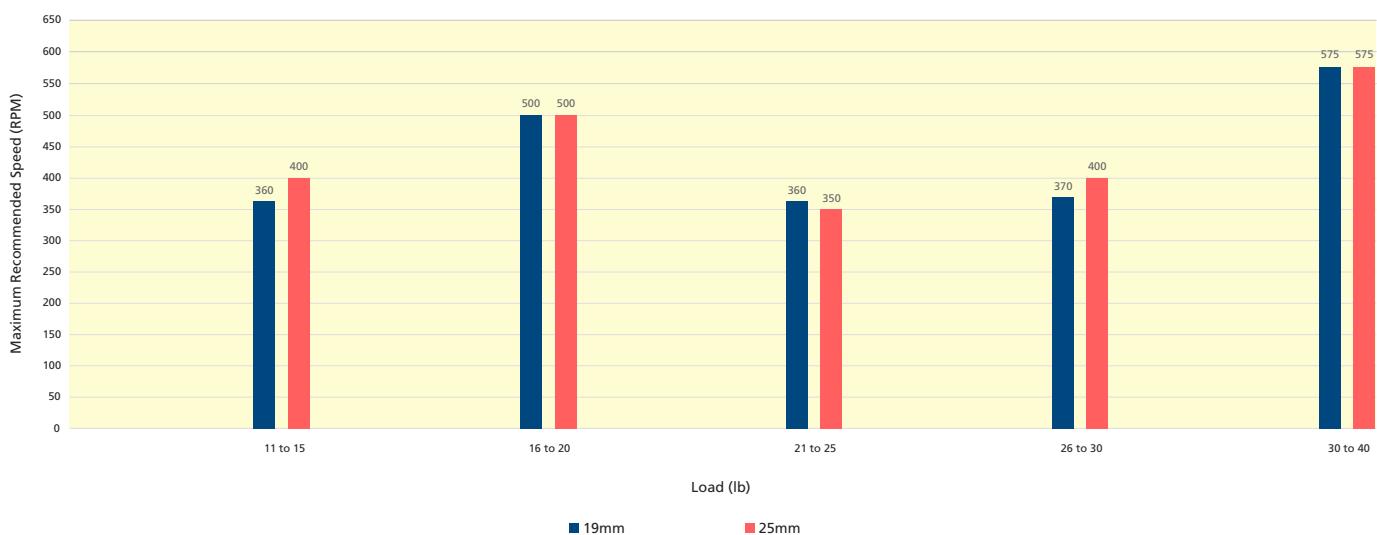


### OrbiCult™ Incubator Benchtop Shaker

Refrigerated, 19mm and 25mm Orbit



Non-Refrigerated, 19mm and 25mm Orbit



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