



DARSUN SCIENTIFIC

Compact Incubator Shakers(190L) With Magnetic Drive DS-AM Series

DARSUN Compact incubator shakers with magnetic drive DS-AM series

Product Overview

The Compact Incubator Shaker features Temperature, Shaking, Co2 Concentration, and Humidity controls. 25mm and 50mm orbit models available, its stackable design helps maximize floor space, with the capability of stacking up to three units high. (CO2 is optional)



Product Features

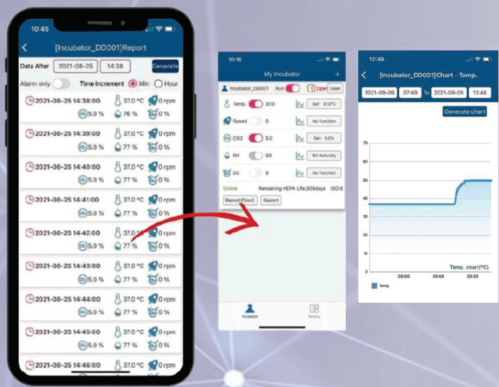
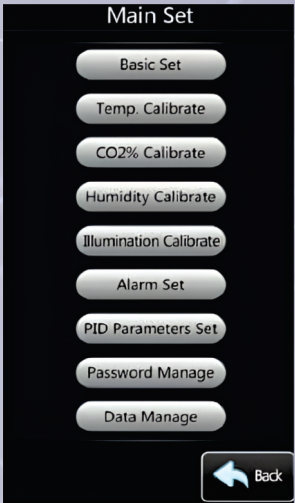
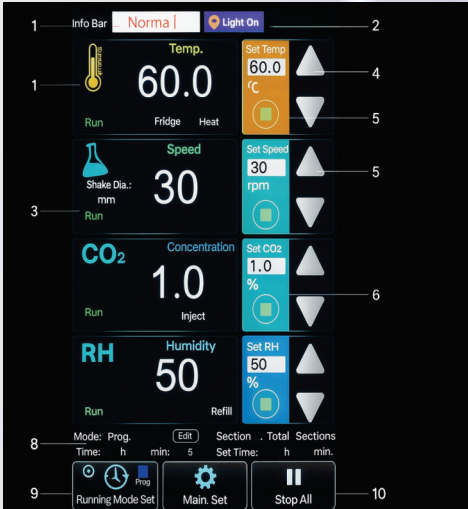
- 7" High-Res Color Touch Screen with intuitive graphic interface
- Innovative chamber design features smooth rounded internal corners for easy cleaning
- Optional Infra-Red(IR) CO2 sensor for precise and reliable Co2 detection
- Optional WiFi and RS485 control UV lights for easy sterilization Audible and visual alarms
- Mirror finish,

Innovative Design

- Three axis eccentric balance system provides stable and reliable shaking
- Terminal feedback system ensures precise shaking speed
- Sealed Magnetic Drive is highly efficient, quiet, durable, and produces negligible heat that does not affect the chamber temperature
- Combination of Proportional-Integral-Derivative control and Fuzzy control for temperature ensure temperature accuracy within $\pm 0.1^{\circ}\text{C}$
- Program mode allows user to set up to 12 segments of varying temperature and speed
- Highly efficient inverter compressor refrigeration allows for temperatures as low as 18°C below room temperature with low energy consumption (minimum temperature of 4°C)
- Optional infrared CO2 sensor provides accurate and reliable CO2 detection
- Intuitive 7" capacitive touchscreen makes many functions, such as setting alarm parameters, easy to complete
- Slide rail platform makes it easy to load and unload fixtures
- Noise reduction design keeps the instruments noise level to 55dB

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Capacitive Touch Screen Display



Main Interface

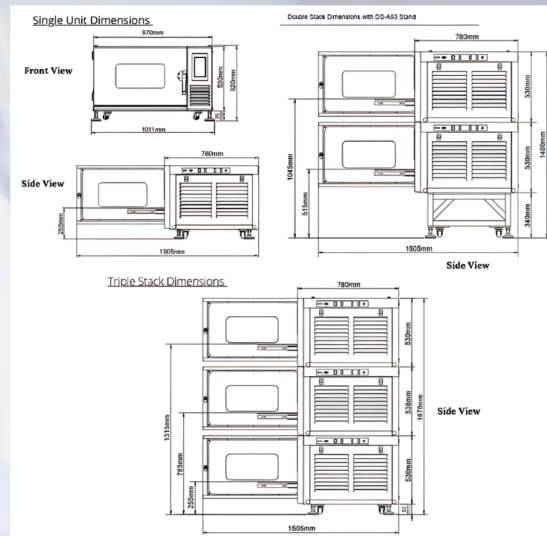
- Displays the current instrument status.
- Light button: Press to turn the light on or off.
- Displays the current function's running status, orbit diameter (for speed), and any alarms.
- Plus and Minus buttons: Adjusts the corresponding function's value.
- Displays the set value and allows user to manually input the set value.
- Run/Stop button: Runs and stops function.
- Edit button for programmable mode: Sets up to 12 running segments of varying temperatures and speed.
- Running mode button: Switches between "Easy" and "Program Control" mode.

Control Features

- Powerful Data storage: Data is stored for more than 2 years. Recorded in 1 minute intervals.
- Real-time data view: On the display, operator can view the running data from latest 7 days.
- Data export: Easily export more than 2 years of parameter data via USB.
- Optional Remote WiFi monitoring accessory and smart phone app enable remote monitoring and control.
- Various Alarms: Alarms can be set to activate when parameter values deviate outside of users' set ranges.
- Alarm recording: Alarm information is stored and viewable.
- Easy Calibration: Calibrating functions only require

DARSUN Industries' Remote Monitoring accessory and app gives customers the ability to control their incubator right from their phone or tablet via WifiConnection. ability to set and change the incubator's parameters (including temperature and CO2 concentration). Text notification are sent when an alarm is activated. This unique app makes it possible to stay conveniently connected with CTI incubator and ongoing projects, whether you are in the lab or not

Product Dimensions



DARSUN Compact incubator shakers with magnetic drive DS-AM series

Overview

- High Resolution 7-inch Color Touch Screen: Modular display presents instrument status and function values in a clear and concise manner.
- Capacitive Touch Screen: The capacitive screen is more responsive and durable than a resistance screen as there is no reaction delay when the screen is pressed.
- Screen Lock: The display screen has an automatic lock screen with password protection function. This prevents any accidental or unauthorized alterations of the programmed operations or settings.
- Pull Out Rail Platform: Operators can easily pull the platform out to load or unload fixtures. Only one locking handle in the middle of the platform makes the process fast and convenient.
- Sealed Magnetic Drive: All models are beltless for longer life and lower maintenance.
- Excellent Temperature Control Performance: When the incubator is at a stable temperature of 37°C, the uniformity is $\pm 0.3^{\circ}\text{C}$.
- Strong Cooling Capacity: The incubator chamber can be cooled to 18°C below the ambient temperature (Lowest temp is 4°C).
- Inverter Compressor: Makes cooling a noiseless, durable, and highly efficient process while also saving energy.
- Three Units Can Be Stacked: This product can be purchased as a single, double, or triple stack.
- Bi-Directional Ultraviolet Sterilization: The chamber is equipped with UV sterilization light components to enhance the germicidal irradiation effect and reach all areas of the chamber.
- Ultra Quiet Design: The noise level is less than 55db when incubator is running and cooling (loudest process), providing a quiet environment for the operator.
- Slow Acceleration and Deceleration: Shaking function starts and stops slowly to prevent large shear forces on the bacteria or cells.
- High Pressure Water Rinse: Both the platform and chamber feature an integrated draining system that is fast and efficient.
- Efficient and Durable Insulations: Foam coated Polyurethane insulation provides advanced thermal insulation. The material is also air-tight, waterproof, corrosion-resistant, electrical insulating, electrical heat resistant, cold resistant, and shock resistant.

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Parameter	Specification
Drive mechanism	DC brushless motor with magnetic drive
Shaking platform	Aluminum, 550×470 mm
Shaking orbit	20 mm or 30 mm
Loading max	10 kg (depends on shaking speed & diameter)
Speed range	30–300 rpm
Setting accuracy	1 rpm
Temperature	
Cooling	Yes
Range	18 °C below ambient temp., min 4 °C to 60 °C
Setting accuracy	±0.1 °C
Uniformity	±0.3 °C (@37 °C) without CO2;±0.2 °C (@37 °C) with CO2
Recovery time after door opening (30 sec)	=6 min (@37 °C)
CO2 (if available)	
CO2 sensor	IR
Setting range	0–20%
Setting accuracy	0.001
CO2 supply pressure	0.08–0.1 MPa
Recovery time after door opening (30 sec)	=6 min (@5%)
Humidity (only available with co2model) nature evaporation	
Humidity type	Natural evaporation with humidity tray
Max humidity	95% (with humidity tray)
Automatic water refill	N/A in standard configuration, optional accessory DS-A71
Humidity (only available with CO2 model) active humidity (option)	
Humidity type	Active humidity with RH control system DS-A72
Humidity set accuracy	±1%
Humidity control accuracy	±5
Max humidity	10% above room humidity up to 90%
General data	
Programmable	Yes, 12 segments
Illumination	LED
Disinfection	UV lamps
Door opening direction	Leftward
Display	7" touch screen
Timer	0–999 h 59 min
Data export	USB
Auto-defrost	Yes
Platform movements	Pull out
Noise level	=55 dB (when compressor is running)
Max power compumption	730 W
Power when Heating	450 W
Power when Cooling	70–230 W
Power supply	AC 220–240 V, 50/60 Hz
Incubation gas volume	190 L
Material incubation chamber	304 Stainless steel
Material outer chamber	Painted stainless steel
Net weight	170 kg
External dimension	970×780×(530+80 feet height) mm
Internal dimension	654×681×485 mm
Platform dimension	550x470mm
Useful working height	305 mm

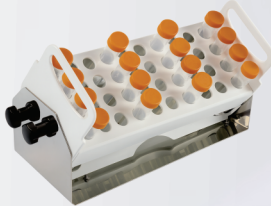
Item Number	Item Type	Specifications	Max Capacity
DS-A50	Flask Clamp	Holds 25 mL Flask	72
DS-A1		Holds 50 mL Flask	72
DS-A2		Holds 100 mL Flask	30
DS-A3		Holds 150 mL Flask	30
DS-A4		Holds 200 mL Flask	30
DS-A5		Holds 250 mL Flask	30
DS-A6		Holds 500 mL Flask	18
DS-A7		Holds 1000 mL Flask	12
DS-A8		Holds 3000 mL Flask	6
DS-A10		Holds 5000 mL Thomson Flask	4
DS-A11	Tube Rack	Holds 64 Tubes × Ø14 mm	6
DS-A12		Holds 40 Tubes × Ø16 mm	6
DS-A23		Holds 40 Tubes × Ø18 mm	6
DS-A24		Holds 27 Tubes × Ø22 mm	6
DS-A42	Adjustable Tube Rack	Holds 21 Tubes × Ø30 mm	6
DS-A20		Holds 40 Tubes × Ø14 mm	6
DS-A21		Holds 35 Tubes × Ø16 mm	6
DS-A30		Holds 41 Tubes × Ø18 mm	6
DS-A31		Holds 27 Tubes × Ø22 mm	6
DS-A32		Holds 27 Tubes × Ø30 mm	6
DS-A37	Infusion Bottle Clamp	Holds 100 mL Infusion Bottle	21
DS-A33		Holds 500 mL Infusion Bottle	13
DS-A34		Holds 1000 mL Infusion Bottle	6
DS-A13	Microplate Holder	96–Well Microplate Holder	18
DS-A175	Multi-Microplate Holder	Holds up to 6 Standard Microplates	18
DS-A35	Fixture for Separating Funnel	Holds Separating Funnels of 2500 mL	1
DS-A47	Sticky Mat	140 × 140 mm	12
DS-A122	Sticky Mat	550 × 470 mm	2
DS-A96	Spring Frame	550 × 470 × 80 mm	1
DS-A27		350 × 240 × 80 mm	1
DS-A22		428 × 295 × 80 mm	1
DS-A14		Holds 15 L; serves up to 3 incubator shakers	1
DS-A90	Water carboy	For DS-ACMA humidity function holds 15L 1 can serve up to 3 incubator shaker	1
DS-A93	Stand	Adds 340 mm (13.39) of height recommended for use with single and double shakers	1
DS-A95	Visor cover	Blacks ambient light from entering chamber	1
DS-A464W	Remote Monitoring & Control	Connects each unit to user phone via Wi-Fi or wired internet connection and an app available on the apple store and google play	1
CIA25	CO2 Cylinder Pressure Regulator	Max inlet pressure:3000 psi; Max outlet pressure:65 psi	1 (up to 2 units)
DS-A166	Bioreactor Tube Holder	Holds 450/500 mL Bioreactor Conical Tubes	3
DS-A178		Holds 600mL Bioreactor Conical Tubes	3
1DS-A71	Automatic Water Replenishing Device	AC110V–240V, 50/60 Hz	1
1DS-A72	RH Controller	AC220V±22V, 50/60 Hz	1

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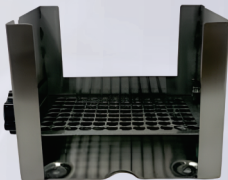
Product Accessories



Tube Rack



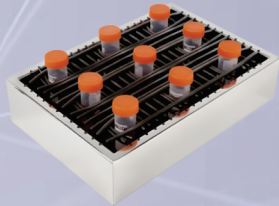
Tube Rack



Multi Micro-Plate Holder



Flask Clamps



Mini Universal Spring Platform



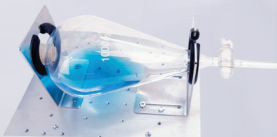
96 Well Micro-Plate Holder



Bioreactor Tube Holder



Infusion Bottle Clamp



Fixture for separating funnel



Sticky Pad



Visor Cover



Co2 Cylinder pressure Regulator



Stand For AEOLUS Compact Incubator Shakers



Water Carboy



Remote Monitoring Incubator Shaking



Automatic Water Replenishing Device



RH Controller

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Model	Orbital Diameter 26mm	Orbital Diameter 50mm	CO2
DS-AM	✓	✗	✗
DS-ACM	✓	✗	✓
DS-A5CM	✗	✓	✓

DarsunTechnology and Industries has been driven to deliver exceptional value to the scientific marketplace by developing innovative equipment and CryoStorage Solutions for today's scientist



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