INTEGRA







# VACUSAFE

## Safe Aspiration System
## For The Disposal Of Liquids



**Easy to use**
for fast and reliable aspiration of liquids

**Standalone**
and self-contained device enhances lab safety

**Versatile**
instrument with adapters to fit all experimental needs

# USER-FRIENDLY SYSTEM FOR SAFE ASPIRATION

Built-in liquid level detection (optional) reduces the risk of overfilling the bottle, providing added security.

Optional self-closing coupling speeds up bottle exchange and keeps the system closed for enhanced operational safety.

The integrated pump switches off automatically when the set vacuum has been established inside the bottle, avoiding unnecessary noise and extending the pump's lifetime.

The noise of the integrated pump is well below 65 dB(A), the level recommended by the European Agency for Safety and Health at Work.




Stand on Base unit securely holds the bottle in place.

Straightforward operation – simply switch on, set the desired vacuum and start working.

## VACUSAFE

**Productive aspiration**

Vacuum systems are widely used for the aspiration and disposal of liquid waste, for instance, when removing media from cell cultures, supernatant after centrifugation, and wash solutions from immunoassay well plates.

The aspiration of waste liquids is a routine yet time-consuming task. The user-friendly **VACUSAFE** system streamlines this repetitive workflow, freeing up lab personnel to perform other vital tasks. It also provides a secure alternative to do-it-yourself liquid waste disposal systems typically found in laboratories, protecting operators from exposure to liquids and aerosols for a safer working environment. The system additionally features optional liquid level detection to prevent overfilling, and a filter to protect the vacuum source from contamination.

The all-in-one **VACUSAFE** aspiration system includes all the components necessary for operation. Several types of consumables and spare parts are available from the same source for added convenience.

### Did you know?

**A versatile device for all liquid aspiration tasks**

Two **VACUBOY** handheld aspiration tools can be simultaneously connected to one **VACUSAFE** device, enabling 2 users to perform aspirations side by side in the same biosafety cabinet. This feature provides added flexibility and helps to increase lab productivity.



Successful vacuum aspiration depends on using the appropriate aspirator adapter for the source vessel, and applying the correct vacuum strength.

The **VACUBOY** hand operator can be fitted with different adapters to enable the aspiration of liquids from virtually any laboratory vessel, further contributing to the versatility of the **VACUSAFE** system.

The residual suction level of the **VACUBOY** can also be adjusted to prevent waste liquids from dripping from the tip or pipet, enhancing workflow safety.





**VACUBOY adapter for aspiration pipets to be used in T flasks**



**Multichannel VACUBOY adapter for aspiration of liquids from a plate**




## Safety first: protect yourself and the lab

The **VACUSAFE** product range offers different levels of safety depending on the requirements of specific applications. Basic safety characteristics that apply to all models include:

- Hydrophobic filter for vacuum source protection
- Stand for securely holding the bottle in place to prevent spills
- System components in direct contact with liquid are autoclavable
- Integrated pump with vacuum control eliminates the risk of contaminating in-house vacuum pipelines, reducing the lab's environmental impact

The best choice for the total containment of hazardous liquids is a closed system with the following additional safety features:

- Self-closing quick coupling prevents droplets and aerosols from leaking as a result of poorly connected bottle and tubing
- Liquid level sensor detects when the bottle is full in order to prevent overfilling and spillage



**Bottle handle for safe transportation**

### Did you know?

Vacuum strength can be modified depending on your specific experimental needs. This makes the **VACUSAFE** suitable for numerous applications, ranging from the gentle removal of supernatant from a centrifuge tube or 96 well plate, to the rapid emptying of large culture flasks.

# Sterile aspiration pipets

Make your aspiration workflows even more convenient with sterile aspiration pipets. Designed for use with the **VACUSAFE** and **VACUSIP** systems, they provide ready-to-use solutions for routine liquid aspiration.

• Sterile and individually wrapped

• 2 ml capacity to fit into common labware, like cell culture flasks

• Available in packs of 500

Experience safe, reliable and hygienic aspiration with INTEGRA's aspiration pipets.



# VACUSAFE product range

| Part no. | 158320 | 158310 | 158300 |
|---|---|---|---|
| Features common to all models:<br>• Autoclavable waste collection bottle<br>• Hydrophobic filter for protection against overflow of liquid and escape of aerosols<br>• Autoclavable VACUBOY aspiration tool with different adapters and tubing<br>• Vacuum control for noise reduction and extended pump lifetime |  |  |  |
| Electronic liquid level detection for prevention of liquid overflow | | ✓ | ✓ |
| Autoclavable bottle and lid with self-closing quick couplings and tubing for full containment of biohazardous liquids | | ✓ | ✓ |
| 4 l polypropylene bottle, intended for chemical inactivation | ✓ | ✓ | |
| 2 l glass bottle, intended for fast autoclaving (20 min at 121 °C) | | | ✓ |
| 2 l glass bottle adapter for base unit | | | ✓ |

# Technical data

| | |
|---|---|
| Vacuum range | -300 to -600 mbar (adjustable) |
| Pump flow rate | 8 l/min (air) |
| Liquid aspiration rate | 17 ml/s (aspiration pipet) |
| Noise emission | <50 dB(A) at 1 m |
| Dimensions (H x W x D) | 53 x 18 x 32 cm |
| Weight | 3.4 kg |
| Input voltage | 100-240 VAC, 50/60 Hz |



# Ordering information

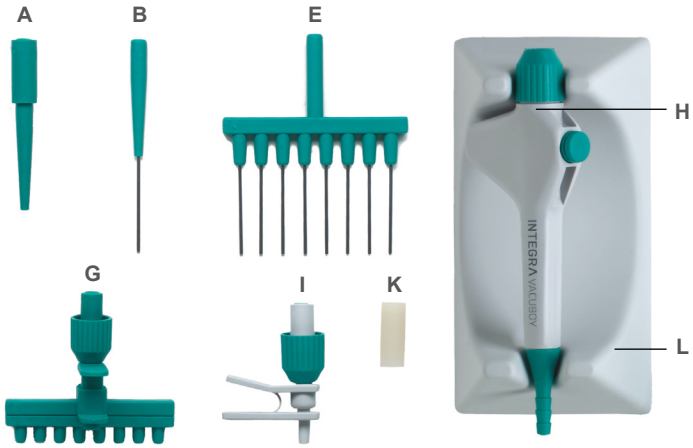
| Instrument | | Part no. |
|---|---|---|
| **VACUSAFE**<br><br>158300<br><br>158310<br><br>158320 | Complete aspiration system with integrated vacuum pump, collection bottle with closed lid, bottle handle (158310 and 158320 only), tubing, hydrophobic filter, mains adapter and VACUBOY hand operator (155510) | |
| | • 2 l glass bottle<br>• Liquid level detection and lid with self-closing quick couplings (PVDF)<br>• 2 l glass bottle adapter for base unit | 158300 |
| | • 4 l bottle with polypropylene bottle<br>• Liquid level detection and lid with self-closing quick couplings (PVDF) | 158310 |
| | • 4 l bottle with polypropylene bottle<br>• Lid with barbed tube fittings | 158320 |

| VACUSAFE accessories | | Part no. |
|---|---|---|
| Bottle | Bottle, 4 l, polypropylene, with closed lid | 158370 |
| | Bottle, 2 l, glass, with closed lid | 158483 |
| Lid | Lid for 4 l polypropylene bottle, with quick couplings and liquid level detection | 158401 |
| | Lid for 4 l polypropylene bottle, with barbed tube fittings | 158372 |
| | Lid for 2 l glass bottle, with quick coupling and level detection | 158484 |
| Bottle and lid | Bottle set, 4 l, polypropylene, quick couplings, liquid level detection (# 158370, 158401) | 158431 |
| | Bottle set, 4 l, polypropylene, barbed tube fittings (# 158370, 158372) | 158432 |
| | Bottle set, 2 l, glass, quick couplings, liquid level detection (# 158483, 158484, 158631) | 158485 |
| Level sensor cable | Cable for liquid level detection sensor | 158403 |
| Level sensor part | Liquid level sensor for 2 l glass bottle lid | 158402 |
| | Handle for VACUSAFE bottles, removable | 158625 |
| | Bottle stand for 4 l polypropylene bottle | 158630 |
| | Adapter for 2 l glass bottle | 158631 |
| | Stand for PIPETBOY and VACUBOY | 155065 |
| Mains adapter for VACUSAFE | 100-240 VAC, 50/60 Hz | 158395 |
| | Air outlet connector for VACUSAFE | 158427 |

| VACUSAFE consumables | | Part no. |
|---|---|---|
| Tubing | Silicone tubing, Ø 8 mm, 1.8 m, VACUBOY to bottle, transparent | 158332 |
| | Silicone tubing, Ø 8 mm, 70 cm, instrument to bottle, blue | 158331 |
| Filter | Filter Ø 54.5 mm, pore size 0.45 µm, non-sterile, 1 piece | 158015 |
| | Filter Ø 54.5 mm, pore size 0.2 µm, non-sterile, 1 piece | 158020 |
| Tubing set with filter | Tubing set for VACUSAFE (# 158015, tubing Ø 8 mm) | 158342 |
| Gasket | Gasket for 2 l glass bottle lids | 158409 |
| | Gasket for 4 l polypropylene bottle lids | 158410 |
| Aspiration Pipets | Sterile aspiration pipets for VACUSAFE and VACUSIP (2 mL, individually wrapped, pack of 500) | 158602 |

# VACUBOY

The **VACUBOY** vacuum aspiration tool has been specifically designed to be compatible with diverse labware formats. Different adapters fit on the hand operator so that your vacuum source is converted into a flexible system for aspirating liquids from tubes, dishes, bottles, T flasks, and 24 well and 96 well plates.







Vacuum regulation by a touch-sensitive button for controlled and smooth aspiration of liquids.




A large choice of adapters enables **VACUBOY** to handle liquids from virtually any laboratory container.

The hand piece, the core element of **VACUBOY**, is simply connected to any available vacuum source using silicone tubing and fitted with one of the different aspiration adapters.

# Ordering information

| Instrument | | | Part no. |
|---|---|---|---|
| **VACUBOY hand operator** (included with the VACUSAFE) | VACUBOY hand operator set, small (incl. # 155502, 155505, 155526) | | 155510 |
| | • hand piece (for holding adapter or pipets) | H | |
| | • rubber adapter for Pasteur pipets | K | |
| | • 1 channel stainless steel adapter 40 mm | B | |
| | • 1 channel adapter for disposable tips with ejector | I | |
| **VACUBOY hand operator set** | VACUBOY hand operator set, large (incl. # 155502, 155503, 155504, 155505, 155520, 155526) parts L, E, A, G (see picture and accessories) and silicone tubing (length 180 cm) | | 155500 |

| VACUBOY accessories | | | Part no. |
|---|---|---|---|
| Adapters | Adapter, for Pasteur pipettes, rubber, VACUBOY only | K | 155505 |
| | Adapter, 1 channel, 40 mm, stainless steel | B | 155502 |
| | Adapter, 1 channel, 150 mm, stainless steel | | 155522 |
| | Adapter, 1 channel, 280 mm, stainless steel | | 155525 |
| | Adapter, 1 channel, with locking for tips/GRIPTIPS®, plastic, VACUBOY only | A | 155504 |
| | Adapter, 1 channel, for tips/GRIPTIPS, plastic, pack of 5 | | 159023 |
| | Adapter, 1 channel, with ejector and locking for tips, plastic, VACUBOY only | I | 155526 |
| | Adapter, 1 channel, with ejector for tips, plastic | | 159026 |
| | Adapter, 1 channel, with ejector for GRIPTIPS, plastic | | 159027 |
| | Adapter, 4 channel, 40 mm, stainless steel | | 155524 |
| | Adapter, 8 channel, 40 mm, stainless steel | E | 155503 |
| | Adapter, 8 channel, with ejector and locking for tips, plastic | G | 155520 |
| | Adapter, 8 channel, with ejector for tips, plastic | | 159024 |
| | Adapter, 8 channel, with ejector for GRIPTIPS, plastic | | 159025 |
| Stand for hand operator | Stand for VACUBOY hand operator | L | 155501 |

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