



AMPOULE PROCESSING – LABORATORY

Adelphi offers a range of equipment designed to facilitate the efficient opening, filling, closing and inspecting of ampoules in a laboratory or R&D environment.

OC Ampoule processing machine

This machine has been designed in response to demand from small-scale producers and R&D laboratories where closed ampoules are used to obviate the need for internal washing.

A flame of mixed gas and oxygen is applied to melt the glass. Safety First flashback arrestors are fitted to the gas inlets and needle valves control the settings. The ampoules are placed into a manually operated spring-loaded chuck, and a flame is brought to bear on the top of the ampoule. As the flame approaches the glass, an electric switch is thrown and the chuck rotates. When the opening station is in use, the ampoule is opened with the flame. The ampoules are then filled using Adelphi's peristaltic dispenser and filling jig.

When closing an ampoule, the gripper jaws are placed onto its neck and the flame applied. As the glass becomes plastic, the counterweight pulling on the jaws draws off the ampoule neck and a perfect rounded finish is achieved with very little practice. The drawn off tip is dropped into a detachable box at the side of the machine to cool before disposal.

The sealing process is quick and produces closed ampoules of regular height, and quality matching that from an automatic machine. Although specially designed to open and close closed type ampoules, this versatile machine will also handle open type ampoules after washing.



| Item code | Specification |
|-------------------|--------------------------------------|
| 6035000 | OC AMPOULE PROCESSING MACHINE |
| Ampoule Size (ml) | 1-50 open or closed |
| Output | Approximately 600 per hour |
| Length (mm) | 380 |
| Width (mm) | 400 |
| Height (mm) | 660 |
| Weight (kg) | Operational: 22, Shipping: 46 |
| Crate size (cm) | 49 x 44 x 85 |
| Electricity | 240V AC, 50 Hz, 200W (120V optional) |
| Gas | Natural gas or propane at 0.5 bar |
| Oxygen | Standard commercial supply at 1 bar |



Twin-jet ampoule sealer

This hand operated unit is designed for use with natural or bottled gas and air. A mixer valve enables the user to adjust the flame for optimum heat. A small air pump is available for situations where compressed air is not available. A pressure regulator/gauge is recommended to keep the flow constant with a compressed air supply.

The ampoule is placed and held on the adjustable platform and turned while manually drawing off the ampoule top with tweezers.

| Item code | Specification |
|-------------------|--|
| 6002100 | TWIN-JET AMPOULE SEALER |
| Ampoule Size (ml) | 1-50 open type |
| Output | up to 10 per minute |
| Length (mm) | 125 |
| Width (mm) | 210 |
| Height (mm) | 280 |
| Weight (kg) | Nett: 1.86 (excl. air compressor), Gross: 2.4 |
| Electricity | 240 V AC, 50 Hz, (120V optional) to power air compressor (if required) |
| Gas | Natural gas supply or bottled butane or propane gas at 0.5 bar |
| Air | Compressed air at 1 bar (optional compressor supplied) |
| Carton size (cm) | 35 x 31 x 17 |
| 6002110 | PRESSURE REGULATOR/GAUGE |
| 6002119 | AIR PUMP |

Filling jig

A useful hand operated accessory for use with the Peristaltic Dispenser designed to ensure the clean filling of small necked containers such as ampoules without wetting the wall of the container where it is to be sealed.

The container is placed in a custom-made holder and raised by hand to a predetermined stop when the needle will be centred inside the container.



| Item code | Specification |
|-------------------|--------------------|
| 3510090 | FILLING JIG |
| Overall Size (mm) | 210 x 105 x 345 |
| Weight (kg) | 2.8 |

Peristaltic dispenser

This unit can be operated by hand, foot switch, or will cycle automatically with a delay of up to 10 seconds between fills. The pump runs at a constant speed for a precisely determined period of up to 100 seconds, can run forwards or backwards, and has a choice of three filling modes: Braked stop – Soft stop – Stop with suck back.

Like all peristaltic pumps the liquid only comes into contact with the inside of one uninterrupted length of silicone tubing which will withstand repeated sterilisation. Bacteriological inline filtration can be performed at the outlet side of the pump. This peristaltic dispenser can be combined with our XYZ Distributor to offer quick, easy, and hygienic filling of whole trays of vials or bottles automatically, or with our filling jig for filling small numbers of ampoules.



The Peristaltic Dispenser can be supplied with a range of sizes of high strength silicone tubing from 0.8mm bore to 8mm bore, with either a 1.6mm or 2mm wall thickness.

Please ask for further details on the size to best suit your requirements.

| Item code | Specification |
|--------------------|---|
| 3510000 | PERISTALTIC DISPENSER |
| Volumes (ml) | 1 to 1,000 |
| Repeatability | ± 0.5% |
| Max flow rate (ml) | 36 ml/sec (standard pump. Twin pump option available) |
| Electricity | 240V AC, 50 Hz, 50W (120V optional) |
| Weight (kg) | Nett 8.5, Gross 10.5 |
| Carton size (cm) | 44 × 23 × 43 |

Apollo I liquid viewer



This polarised inspection light provides a simple method for the detection of visible particles in ampoules, vials and bottles. Particulate contamination of injections and intravenous infusions consists of extraneous, mobile, undissolved particles other than gas bubbles unintentionally present in the solutions.

| Item code | Specification |
|------------------|---|
| 6031100 | APOLLO I LIQUID VIEWER |
| Length (mm) | 450 |
| Width (mm) | 310 |
| Height (mm) | 340 |
| Weight (kg) | Nett: 4.95; Gross: 6.25 |
| Carton size (cm) | 50 × 41 × 27 |
| Electricity | 240V AC, 50/60 Hz, 100W (120V optional) |
| 6031101 | MAGNIFIER |

Apollo II liquid viewer

This polarised inspection light provides a simple method for the detection of visible particles in ampoules, vials and bottles. Particulate contamination of injections and intravenous infusions consists of extraneous, mobile, undissolved particles other than gas bubbles unintentionally present in the solutions.

Conforms to European Pharmacopoeia Specification 2.9.20.

| Item code | Specification |
|------------------|--|
| 6031200 | APOLLO II LIQUID VIEWER |
| Length (mm) | 430 |
| Width (mm) | 590 |
| Height (mm) | 500 |
| Weight (kg) | 9.5 Nett; 11.5 Gross |
| Carton size (cm) | 80 × 60 × 30 |
| Electricity | 240V AC, 50/60 Hz, 50W (120V optional) |



Ampoule processing – production

If your requirements stretch beyond the abilities of manual or semi-automatic equipment, Adelphi is able to supply fully automatic ampoule processing machinery. As the sole UK representative of ROTA since 1976, Adelphi can offer expert advice, and reliable servicing and spares support.

Please see our ‘**Ampoule Processing – Production**’ data sheet, or our website for further information.

