



# ADELPHI MANUFACTURING

## AMPOULE PROCESSING

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.

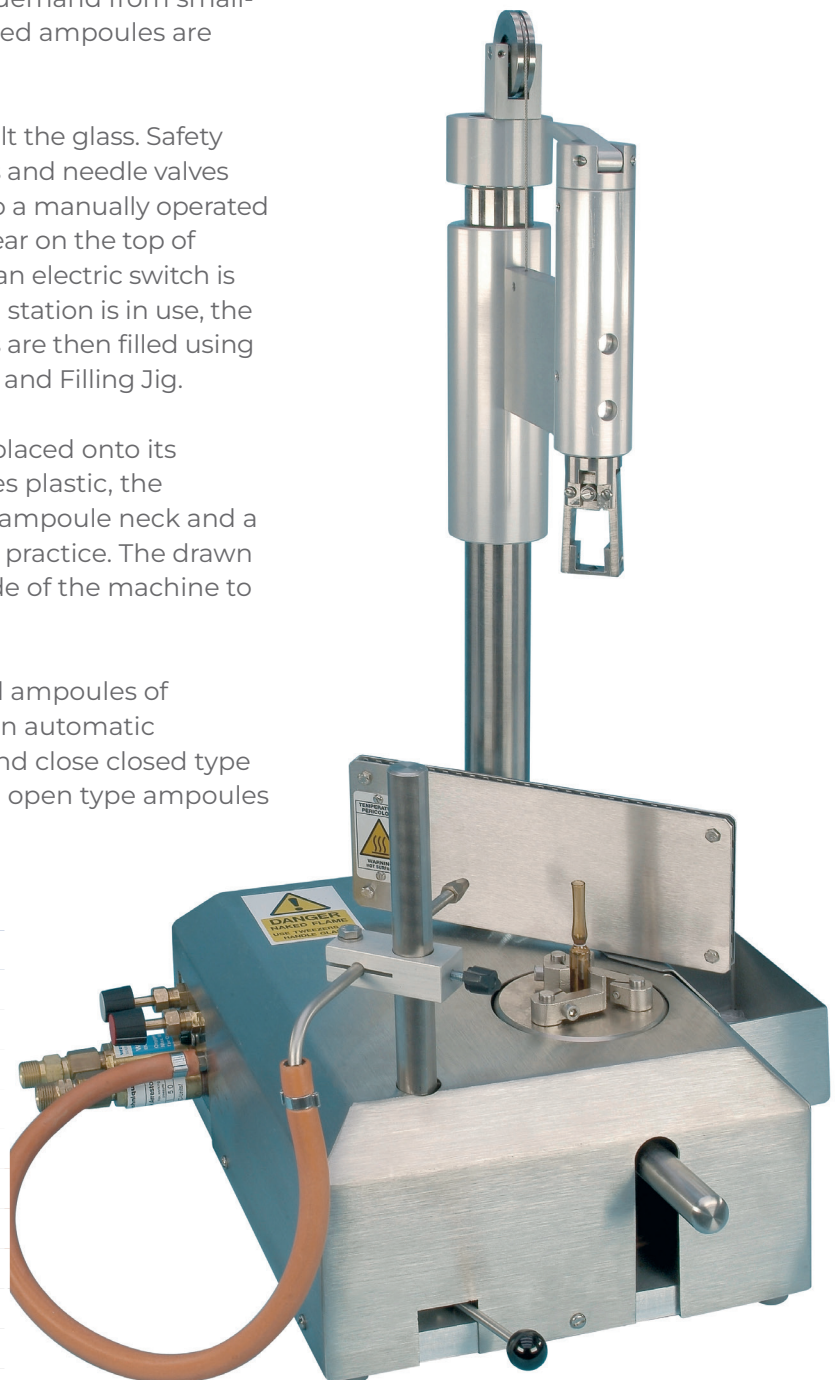
### OC Ampoule Processing Machine

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 Accuramatic Peristaltic Dispensing Unit 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
<b>6035001</b>	<b>OC AMPOULE PROCESSING MACHINE</b>
Ampoule Size (ml)	1-50 open or closed type
Output	Approximately 600 per hour
Length (mm)	380
Width (mm)	400
Height (mm)	660
Weight (kg)	Operational: 22, Shipping: 46
Crate size (cm)	50 x 45 x 85
Electricity	240V AC, 50 Hz, 200 W (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
<b>6002100</b>	<b>TWIN-JET AMPOULE SEALER</b>
Ampoule size (ml)	1-50 open type
Output	up to 120 per hour
Length (mm)	125
Width (mm)	210
Height (mm)	280
Weight (kg)	Nett: 1.86 (excl. air compressor), Gross: 2.4
Electricity	240V 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
<b>6002110</b>	<b>PRESSURE REGULATOR/GAUGE</b>
<b>6002119</b>	<b>AIR PUMP</b>

## Filling Jig

A useful hand operated accessory for use with the Accuramatic 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
<b>3510090</b>	<b>FILLING JIG</b>
Overall Size (mm)	210 x 105 x 345
Weight (kg)	2.8



## Accuramatic Peristaltic Dispensing Unit

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 Accuramatic 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
<b>3510000</b>	<b>ACCURAMATIC PERISTALTIC DISPENSER</b>
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, 50 W (120V optional)
Weight (kg)	Nett 8.5, Gross 10.5
Carton size (cm)	44 × 23 × 43

## Apollo I Liquid Inspection Unit



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
<b>6031301</b>	<b>APOLLO I LIQUID VIEWER</b>
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, 100 W (120 V optional)
<b>6031101SE1</b>	<b>MAGNIFIER</b>

## Apollo II Liquid Inspection Unit

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.

This unit conforms to European Pharmacopoeia Specification 2.9.20 and to the US Pharmacopoeia – USP chapter 41, section 6.1.

Item code	Specification
6031511	APOLLO II LIQUID VIEWER
Length (mm)	430
Width (mm)	590
Height (mm)	500
Weight (kg)	10 Nett; 11.5 Gross
Carton size (cm)	80 × 60 × 30
Electricity	240V AC, 50/60 Hz, 50 W (120V optional)



We also offer an Apollo II High Intensity Specification unit, ideal for coloured glass containers, which uses three LED bulbs, giving a light level of 8,000 – 10,000 lux.



## Apollo II Dimmable Liquid Inspection Unit

The Apollo II - Dimmable specification - offers all the benefits of the Apollo II, as well as additionally enabling light level adjustment by dimmer control. It also allows adjustable position of the light box in the range of 1,200 Lux up to 3,500 lux, depending on the light in the room.

## Apollo II High Intensity Liquid Inspection Unit (for coloured glass)

The Apollo II - High Intensity specification - is ideal for coloured glass containers. It uses three LED bulbs, giving a light level of 8,000 – 10,000 lux.

This unit also conforms to the European Pharmacopoeia Specification 2.9.20 and to the US Pharmacopoeia – USP chapter 41, section 6.1.



Supporting IQ/OQ documentation can be supplied upon request.