

# **ADELPHI** MANUFACTURING

## LIQUID INSPECTION

Adelphi's Apollo range of Liquid Viewers offer a simple yet effective method of detecting particulate matter present in liquids.

## **Apollo I Liquid Inspection Unit**

Designed for use in pharmaceutical laboratory and cleanroom environments, the Apollo I Liquid Viewer gives polarised backlight, behind the container and the second polarised light in front of the container. Any light striking a moving particle in the product will be refracted and not absorbed by the second filter, which makes particles easier to see. The unit is suitable for pharmaceutical quality visual inspection for particulate contamination in transparent liquids contained in ampoules, bottles and vials.

To operate, simply hold the container between the backlight and the polarising screen, shake or swirl the container, and any particles will show as bright specks against a dark background.

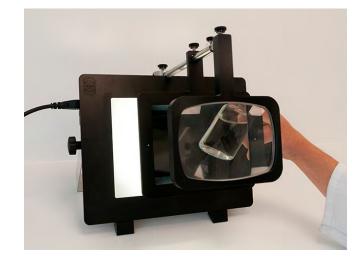




#### **Key Features:**

- Compact and hygienic stainless steel body
- Adjustable viewing angle to suit individual working preferences
- Adjustable magnifier, 1.7x magnification
- LED light source for optimum bulb life, with diffuser to give even light
- Tool free assembly
- Offers a clear, double polarised and magnified image

Item code	Specification
6031301	APOLLO I LIQUID VIEWER
Width (mm)	320
Second polarised filter dimensions	147 w x 117 h
Height (mm)	420 (max)
Weight (kg)	Nett: 4.9 Gross: 7.2
Carton size (cm):	50 x 41 x 27
Electricity:	110/240V AC 50/60HZ







## Apollo II Liquid Inspection Unit (2,000-3,750 Lux)

#### For visual inspection of transparent containers with transparent liquids

Designed for use in pharmaceutical laboratory and cleanroom environments, the Apollo II Liquid Viewer suitable conditions for visual detection of visible particles in ampoules, vials, and bottles.

The operator swirls each individual container to get the liquid moving in the container, and then visually inspects in front of the white inspection background for 5 seconds, looking for particulate contamination in the liquid. The inspection process is repeated in front of the black background. If no particles are observed in both inspections, the container is accepted as particle-free.

This unit conforms to the European Pharmacopoeia Specification 2.9.20 and to the US Pharmacopoeia - USP chapter 41(1790), section 6.1. for inspection of transparent containers with transparent liquids.



Specification

714 x 418 445 adjustable

Nett: 10 Gross: 7.9

100/240V AC 50/60HZ

76 x 52.5 x 26.5

APOLLO II LIQUID VIEWER

tem code

6031522

Inspection Panel (mm

Width x Depth (mm

Height (mm

Weight (kg)

Electricity

Carton size (cm):



#### **Key Features:**

operator

- Light intensity of 2,000-3,750 Lux, with light colour temperature of 4,000K
- Adjustable lamp to set light level and ensure lamp does not dazzle
- · Uses two energy efficient long life LED lamps
- Fold up frame for space saving and easy storage the inspection surfaces fold together to reduce the chance of damage
- Conforms to European Pharmacopoeia 2.9.20 and to the US Pharmacopoeia - USP chapter 41(1790), section 6.1.

Intuitive assembly with no tools required.



Supporting IQ/OQ documentation can be supplied upon request, as can a calibrated light meter suitable for light from LED source.

User manuals are available in English, French, German, Spanish, Dutch and Czech - additional languages are also available upon request.

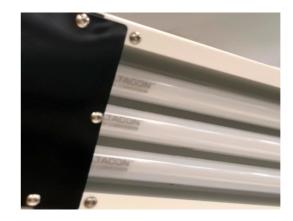
## Apollo II High Intensity Liquid Inspection Unit (8,000-10,000 Lux)

For visual inspection of coloured glass containers, translucent plastic containers, and turbid or coloured preparations

The Apollo II - High Intensity specification - has three LED bulbs to provide the higher light level needed when inspecting nontransparent liquids or containers.

This unit sets up viewing conditions as detailed in European Pharmacopoeia Specification 2.9.20 and US Pharmacopoeia -USP chapter 41(1790), section 6.1. when inspecting coloured glass containers, translucent plastic containers, and turbid or coloured preparations.

The achievable light level of this unit is 8,000-10,000 Lux, with bulb colour temperature 4,000K. Electrical supply 100-240V AC, 50-60HZ single phase. We recommend that a calibrated light meter suitable for light from an LED source is used to set the light level, which is available upon request. Supporting IQ/OQ documentation can also be supplied upon request.



## Apollo II 6500K Liquid Inspection Unit (2,000-3,750 Lux)

#### For visual inspection of transparent containers with transparent liquids

- A version of the Apollo II with 6,500K colour temperature bulbs (6,500K colour temperature is equivalent to daylight)
- Light intensity of 2,000-3,750 Lux
- Conforms to the European Pharmacopoeia Specification 2.9.20 and to the US Pharmacopoeia USP chapter 41(1790), section 6.1. for inspection of transparent containers with transparent liquids.
- This unit offers the best coloured light to compare coloured liquid to a sample.
- Please note a possible disadvantage is small additional eye strain for the operator.

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#### Apollo II Dimmable Liquid Inspection Unit

This is an adaptation of the standard Apollo II unit, built with a dimmer for the LED bulbs. Suitable for products that require lower Lux level for inspection than is recommended in the EP2.9.20.

Inclusion of the dimmer enables light intensity to be varied from 3,750 down to 1,200 Lux, by adjusting the lamp height and dimmer control.

- Lux range 1,200 up to 3,750 Lux
- Light colour temperature 4,000K
- Available to suit electrical supply 230VAC and 120VAC
- If the light level is set between 2,000-3,750 Lux, the unit meets conditions required in European Pharmacopoeia 2.9.20 and US Pharmacopoeia USP chapter 41(1790), section 6.1.

We recommend a calibrated light meter suitable for light from an LED source, being used to set the light level - available upon request.

#### Our customers say...

"Fast, reliable and friendly. I recently ordered the Apollo I Liquid Viewer and was dependent on the delivery arriving in Switzerland within a few days. The employees were extremely helpful and reliable. Within a week the financial part as well as the delivery was completed and the box was ready for use. The quality of the box is also top notch and allows particles to be seen as reliably as possible. Thanks a lot!"

- Thomas Schick - InnoMedica Holdings AG - Switzerland

"We recently acquired two Apollo II and we are very satisfied with the purchase. The minimalist and elegant design joined to the easy mode of use are some of the best qualities. The most important for us is that the instrument works under the European Pharmacopoeia Specification."

- Inolab - Mexico

"A practical and user friendly piece of equipment - [The Apollo II] does what it says on the box to a high standard. Ideal for smaller units or units with not much space."

- KP - Pharmaceutical QA Manager, United Kingdom

"The Apollo II Liquid Viewers are a very cost-effective and reliable [solution], as well as compliant to US compendia. Great product!"

- PharmEng Technology, Inc - USA

#### The Apollo Liquid Inspection Range, At a Glance...

Model	Apollo I 6031301	Apollo II 6031522	Apollo II 6500K 6031523	Apollo II High Intensity 6031521	Apollo II Dimmable 6031524
Application	Transparent Product in Transparent Containers	Transparent Product in Transparent Containers	Transparent Product in Transparent Containers	Colour glass or Opaque Plastic Containers Coloured Liquid products Turbid Products	Transparent Product in Transparent Containers
Magnifier	1.7 Times Magnified included	Optional 1.7 Times Movable Magnified (may be positioned either in front of Black Panel or in front of White Panel	Optional 1.7 Times Movable Magnified (may be positioned either in front of Black Panel or in front of White Panel	Optional 1.7 Times Movable Magnified (may be positioned either in front of Black Panel or in front of White Panel	Optional 1.7 Times Movable Magnified (may be positioned either in front of Black Panel or in front of White Panel
Number of bulbs	LED Array	2 bulbs	2 bulbs	3 bulbs	2 bulbs
Colour temperature bulbs (Note 6500K is equivalent to daylight)	No	4000K	6500K	4000K	4000K
Inspection Light Intensity (LUX)	N/A	Between 2000 and 3750	Between 2000 and 3750	Between 8000 and 10000	Between 1200 and 3750
Inspection Conditions Conform to the European Pharmacopoeia Specification 2.9.20	No	Yes for Transparent Product in Transparent Containers	Yes for Transparent Product in Transparent Containers	Yes for Colour glass or Opaque Plastic Containers. Coloured Liquid Products or Turbid Products	Yes, if the light level is set between 2,000- 3,750 Lux for Transparent Product in Transparent Containers
Inspection Conditions Conforms to US Pharmacopoeia – USP chapter 41(1790), Section 6.1	No	Yes for Transparent Product in Transparent Containers	Yes for Transparent Product in Transparent Containers	Yes for Colour glass or Opaque Plastic Containers. Coloured Liquid Products or Turbid Products	Yes, if the light level is set between 2,000- 3,750 Lux for Transparent Product in Transparent Containers