

# UVP GelSolo

## Simplified Gel Documentation

Biolmaging



## UVP GelSolo

The UVP GelSolo is a compact, easy-to-use, stand-alone system for gel documentation. It is designed to acquire gel images easily and without any need for training. Thus, it is ideal for multi-user laboratories and practical trainings.

Gel documentation, or the gel imaging process, involves recording and measuring labeled nucleic acid and protein in various types of media such as agarose or acrylamide.

The UVP GelSolo streamlines this process with the intuitive VisionWorks image acquisition and analysis software which can be accessed on the 11.6 inch articulating touch screen. The system includes a light-sensitive monochrome camera with a high resolution of 5 megapixels and a highly sensitive zoom lens that enables high-contrast image acquisition. Saturation monitoring allows for easy capture of fully quantifiable images, making the UVP GelSolo a complete stand-alone system for gel documentation.

## UVP GelSolo

Streamlined Gel Documentation





#### All-in-one design for streamlined gel documentation

- High resolution 5.0 MP camera
- Lens is easily accessible for adjustment of aperture, zoom and focus
- Three-position filter tray with Ethidium Bromide filter; additional filters are available
- Epi-white and epi-blue LED lights enable a variety of gel imaging applications
- Large 11.6" touch screen with user-friendly software optimizes image capture and analysis
- Easy access data storage for saving images on the USB drive, to the system or network computer
- Unique viewing window allows UV-safe viewing of gels without opening the door
- Wide front door; safety switch turns the UV light off when the door is open
- Side access doors for gel repositioning and cutting while viewing the gel on the screen
- Compact design maximizes laboratory bench space
- Choice of Transilluminator – single, dual or triple wavelength UV Transilluminator models, and blue light models

# Integrated VisionWorks Software with Touch Screen Simplicity

The system is controlled by a touch screen with intuitive image acquisition and analysis software.

## Intuitive Software with easy access to capture controls:

The VisionWorks software on the UVP GelSolo is a powerful yet intuitive software for capturing gel images and analyzing them. The simple user interface enables easy access to auto and manual image capture modes under the Device tab. Exposure time can be adjusted with customizable exposure settings. Captured images are saved in TIFF or JPEG formats.

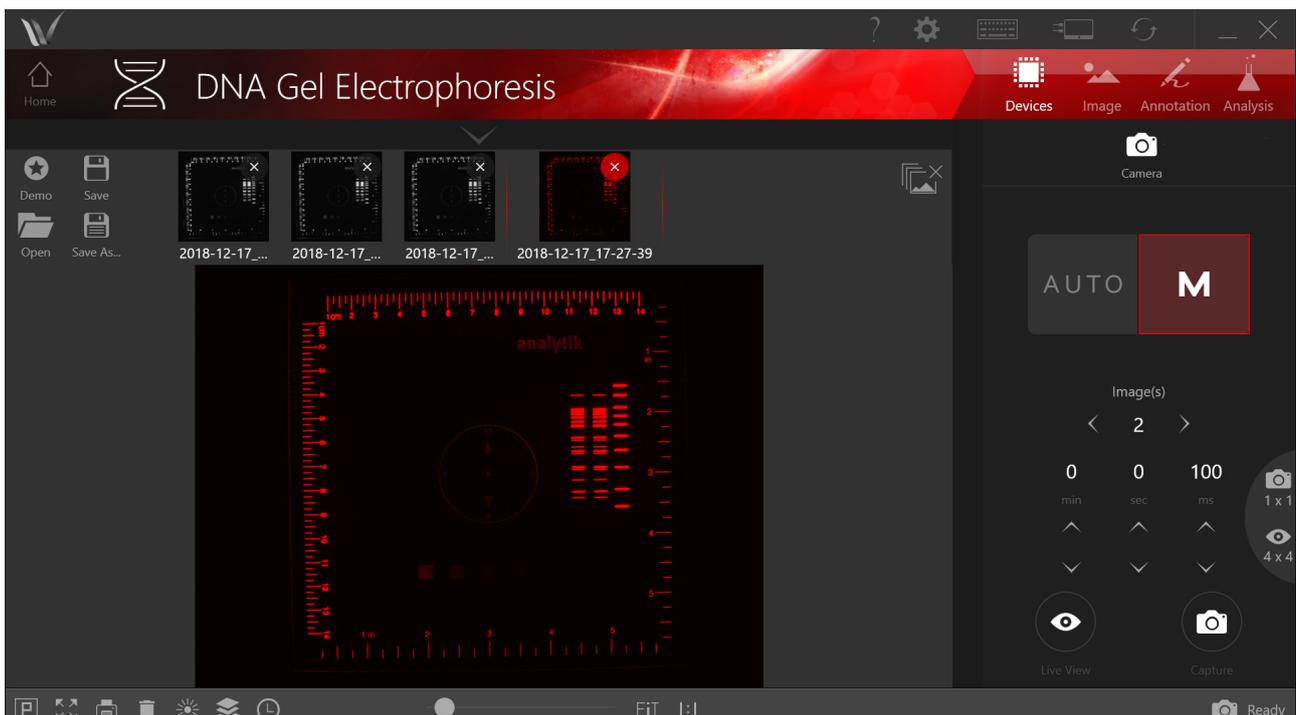
## Extensive image enhancement and analysis tools:

Image enhancement and analysis features are included with all systems. Researchers can personalize their experiments and make use of enhancement features and annotation tools for publication purposes. The software offers many powerful tools such as noise reduction, histogram adjustment, inversion, pseudocolor, and more.

The extensive analysis features are optimized for accurate and reproducible results. Several custom tools are available, such as automatic lane and band detection, 1D analysis, area density, and colony counting. Once the quantitation results have been generated, reports are created to show thorough analysis, such as Molecular Weight (MW), Rf, band intensities, and area density calculations. All the data can be conveniently exported to Excel.

## Choice of switching to an advanced software interface:

Users can swiftly switch to an advanced version of the user interface by selecting 'Advanced' UI under the About tab in the Settings menu. The advanced version offers additional features such as Stacks and Series capture modes under the Device tab, a preloaded list of preset 'Actions' (automated workflow templates) for common gel imaging applications, image enhancement tools such as background subtraction and compositing, and more.



# Optimized Gel Documentation and Analysis

The main application of the UVP GelSolo is saving and printing gel images. VisionWorks software allows for gel analysis.

## Easily switch between emission filters

The three-position emission filter tray can be used to place three different filters and switch between them for different applications. An Ethidium Bromide filter is included with the system, but a variety of other emission filters are available for additional purchase.

## Transilluminators

Seven different UV Transilluminator options are available based on filter size and UV wavelength (Filter sizes: 20 x 20 cm, 21 x 26 cm or 25 x 26 cm; Wavelength: 1UV 302 nm, 2UV 302/365 nm or 3UV 254/302/365 nm, 100-115 V/60 Hz or 230 V/50 Hz). A blue light transilluminator is also available.

## Converter plates

For blue light excitation of fluorescent dyes such as SYBR® Green, a Visi-Blue converter plate can be used as an economical alternative to the blue light transilluminator. Imaging of non-fluorescent gels (e.g. silver or Coomassie Blue stained polyacrylamide gels) can be done using the Visi-White converter plate. This plate converts the UV light to visible light, similar to the light of a white light table. In addition, a UV to long-wave UV converter plate can be used to reduce the risk of damaging DNA during gel excision. All the converter plates are meant to be directly placed on top of a UV transilluminator.



Visi-Blue and Visi-White Converter Plates



## Maximum UV Protection for Users

We prioritize UV protection, ensuring safe operation for all users.

Opening the front door of the UVP GelSolo automatically switches off the UV light. A UV-safe gel viewing window in the front door allows a direct and safe view to the fluorescent gel under UV illumination for visual control. For cutting gels under UV illumination, two side-access doors are included.

For cutting fragments from a gel while the main door is opened, a UV override switch allows users to deactivate the safety switch-off. Closing the door automatically re-activates the UV protection switch. This ensures safe operation for subsequent users.

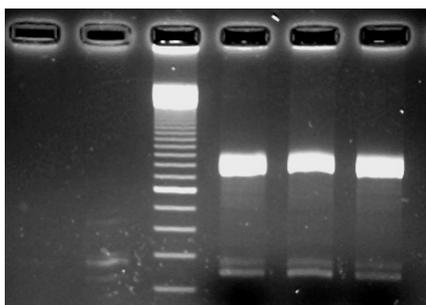


## Technical Data

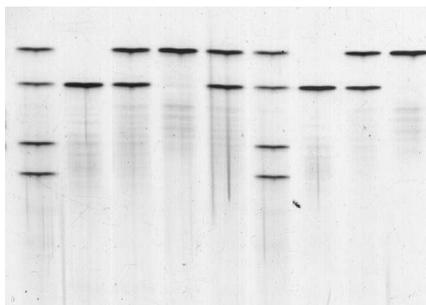
Specifications/features	UVP GelSolo
Camera/Lens	GelCam 315, 5.0 MP, with 8-48 mm, f/1.2 manual zoom lens
Darkroom features	<ul style="list-style-type: none"> <li>▪ 11.6" large articulating touch screen</li> <li>▪ Wide front door with UV safety switch</li> <li>▪ Gel viewer window</li> <li>▪ Epi white and epi blue LEDs</li> <li>▪ Side access doors</li> <li>▪ USB ports</li> <li>▪ 3-position emission filter tray</li> </ul>
Accessories included	<ul style="list-style-type: none"> <li>▪ Ethidium bromide filter</li> <li>▪ Choice of UV transilluminator (Filter sizes: 20 x 20 cm, 21 x 26 cm or 25 x 26 cm; Wavelength: 1UV 302 nm, 2UV 302/365 nm or 3UV 254/302/365 nm, 100-115 V/60 Hz or 230 V/50 Hz), or blue light transilluminator</li> </ul>
Dimensions: H x W x D	80.5 x 39.4 x 38.4 cm (31.7 x 15.5 x 15.1 inch)

## Applications

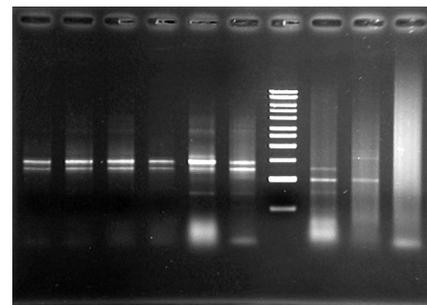
- Fluorescent DNA gels
- Fluorescent protein gels
- Colorimetric protein gels



Ethidium bromide stained agarose gel (UV light)



Silver stained polyacrylamide gel (white light)



Ethidium bromide stained agarose gel (UV light)

# Order Information

Order number		Description
230 V	115 V	
		<b>UVP GelSolo</b>
		<b>Transilluminator</b>
849-97-0934-02	849-97-0934-01	UVP GelSolo, M-20V
849-97-0935-02	849-97-0935-01	UVP GelSolo, M-26V
849-97-0936-02	849-97-0936-01	UVP GelSolo, M-26XV
849-97-0937-02	849-97-0937-01	UVP GelSolo, LM-20
849-97-0938-02	849-97-0938-01	UVP GelSolo, LM-26
849-97-0939-02	849-97-0939-01	UVP GelSolo, LMS-20
849-97-0940-02	849-97-0940-01	UVP GelSolo, LMS-26
		<b>Accessories</b>
95-0591-01		Blue LED Transilluminator
38-0428-01		UVP Visi-White Converter plate, UV-to-white, 25 cm x 26 cm filter size
38-0200-01		UVP Visi-Blue Converter plate, UV-to-blue, 21 cm x 26 cm filter size, 460 nm - 470 nm
38-0200-04		UVP Visi-Blue Converter plate, UV-to-blue, 25 cm x 26 cm filter size, 460 nm - 470 nm
38-0219-01		Emission filter, 50 mm square, with transmission range 510 - 560 nm, for e.g. SYBR® Green
38-0220-01		Emission filter, 50 mm square, with transmission range 580 - 630 nm for e.g. EtBr
38-0221-01		Emission filter, 50 mm square, with transmission range 520 - 620 nm for e.g. SYBR® Gold
38-0340-01		Emission filter, 50 mm square, with transmission range 513 - 557 nm for e.g. Cy2®, FITC, FAM™, GFP, SYBR® Green, SYBR® Gold
38-0384-01		Emission filter, 50 mm square, amber, with transmission range 570 - 740 nm

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Pictures: Analytik Jena US  
Subject to changes in design and scope of delivery as well as further technical development.