



VALO 360

Getting
Started
Guide





Thank you for purchasing a VALOI product!

The VALOI 360 system is a system of modular tools designed to help you scan your photographic film using a digital camera. Its two primary functions are to hold the film flat and to allow you to move quickly to the next frame when scanning.

In addition to a VALOI 360 Holder you will also need the following to scan (not included):

- Digital camera/phone
- Lens with close focusing capability (macro)
- Copy stand or tripod
- Light source

Ready to start your film-scanning journey? Let's go!



Content





06 Why Valoi?

08 Online Guides

10 The System's Parts

22 Assembly

32 In Use

40 General Tips For Scanning

44 Diagnosing Common Problems

48 Diagnosing Bad Scanning Results

54 Contact



Why VALOI?





In Finnish, “valoi” means light and creation - inseparable concepts of analogue photography

The Finnish naming of our brand isn't coincidental - as the Nordics is where our project started. Our Scandinavian roots are also visible in the minimalist, functional design.



V&L OI



Online Guides

We have created a series of video guides to help you assemble and get started with your Valoi product, and with camera scanning. Please visit www.valoi.co and navigate to the 'Guides' section in the top right corner.



The System's Parts





The VALOI 360 system consists of the following modules:

- **Holders**
 - 35mm Holder
 - 120 Holder
 - Custom Series Holders (see www.valoi.co)
- **Advancer**
- **Accessories**
 - Diffuser
 - Duster
 - Levelling Mirror
 - Light source Adapter 104
 - Masks
 - 35mm Half Frame
 - Medium format 6x4.5
 - Medium format 6x6
 - Medium format 6x7

Scan with a holder on its own or add extra functionality with the Film Advancer.



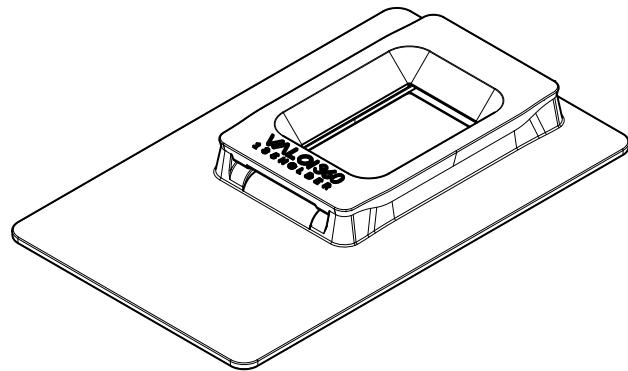
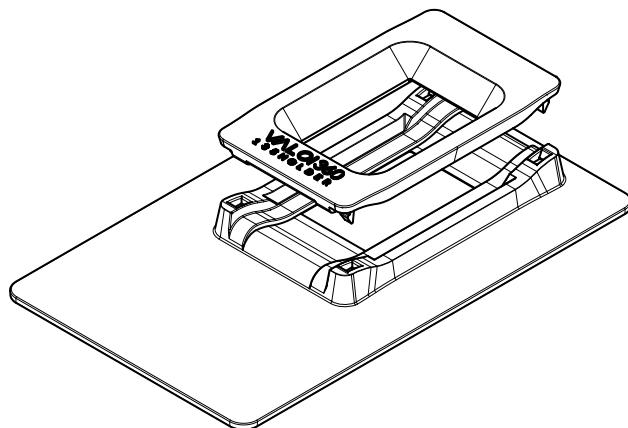
Holders





The Holders keep the film flat and in place while scanning without actually touching the image area. These can be used on their own (using the rubber feet) or in conjunction with the Advancer.

**VALO! does not recommend disassembly of the Holders. The user is responsible for any damage to the product or themselves if they choose to disassemble the Holder.*

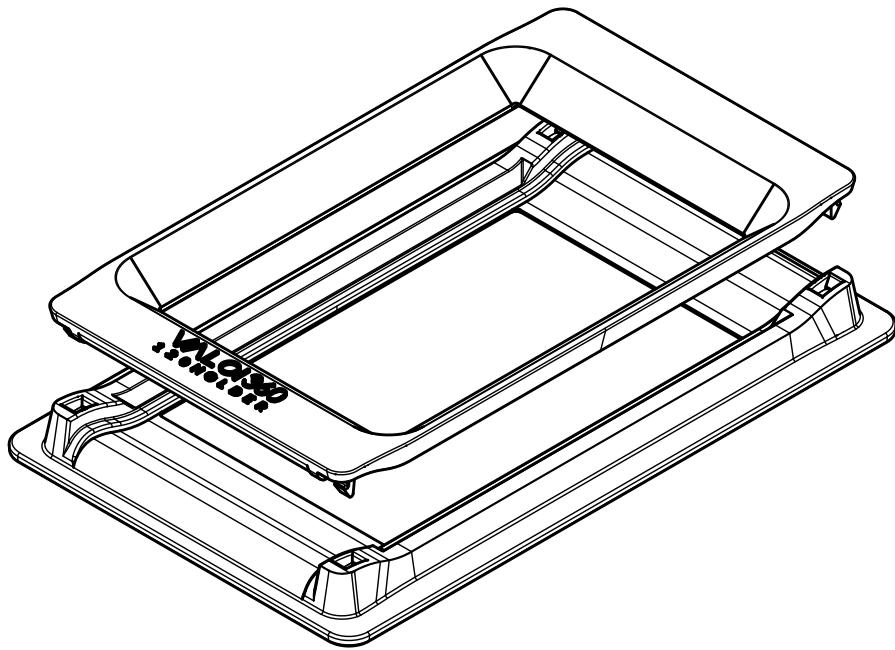




35mm Holder

The 35mm Holder is intended for scanning standard 135 (35mm), both full (standard) frames of 24x36mm and half frame of 24x18mm. The Holder can both be used on its own or in conjunction with the Film Advancer (sold separately) for added functionality and higher quality scanning. For scanning frames smaller than full frame 35mm, an optional mask can help mask off stray light (sold separately) and can help improve results, particularly on lenses prone to flaring.

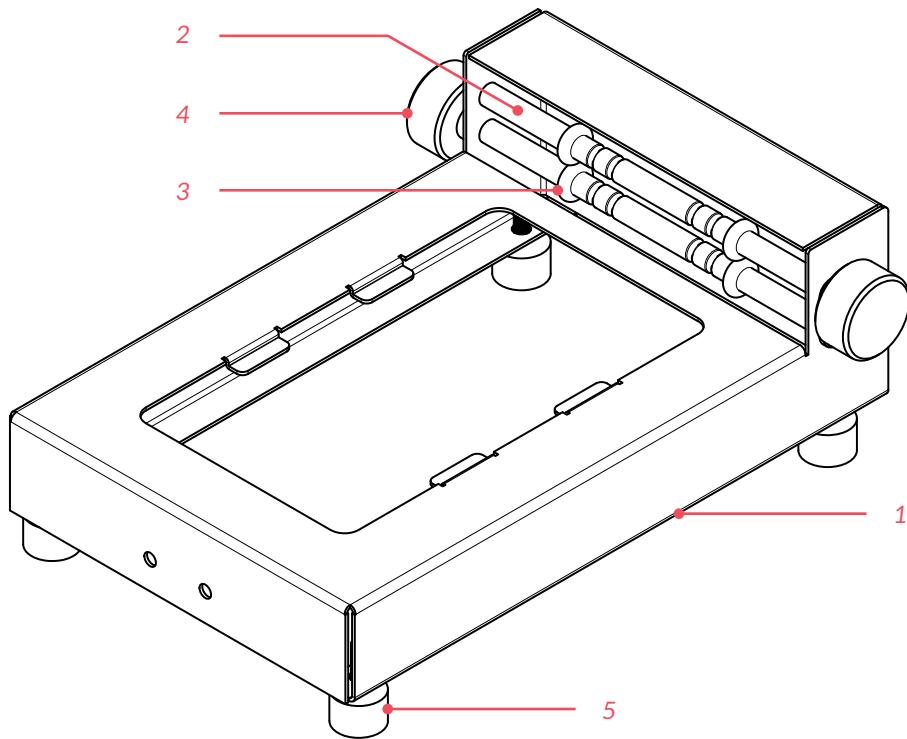
*The 126 format film will also fit into the gate but using the holder for that format is **not recommended** as the holder can scratch the image area on 126 film and parts of the image could be hidden when scanning. A dedicated 126 Holder compatible with the system is available - see our website.*





120 Holder

The 120 Holder can be used with any ~60mm gauge film type: 120 and the discontinued formats 220 and 620. It can be used effectively with any frame size from 6x4.5 to 6x9 with single-capture and with any size longer than that using digital stitching techniques. For scanning frames smaller than 6x9, optional masks can help mask off stray light (sold separately) and can help improve results, particularly on lenses prone to flaring.





Advancer

The Advancer consists of 5 main features:

1. Frame: The main steel frame
2. Axles: Stainless steel axles with grooves for holding the rollers
3. Rollers: Rubber-rollers (user-replaceable), adjustable to appropriate width for the format
4. Knobs: For moving the film forwards, can be moved on either side.
5. Feet: Threaded, adjustable in height for levelling

The Advancer will allow you to increase productivity and quality when scanning. It is compatible with the holders in the 360 system and with all the accessories. Its adjustable rollers mean that most roll film formats ever produced are covered by the 6 pre-set grooves in the axles, including 35mm and 120 medium format. See the In Use section to learn more.



Accessories





In addition to the main parts of the system, there is also an ever-expanding range of accessories that works perfectly in conjunction with the Holders and Film Advancer:

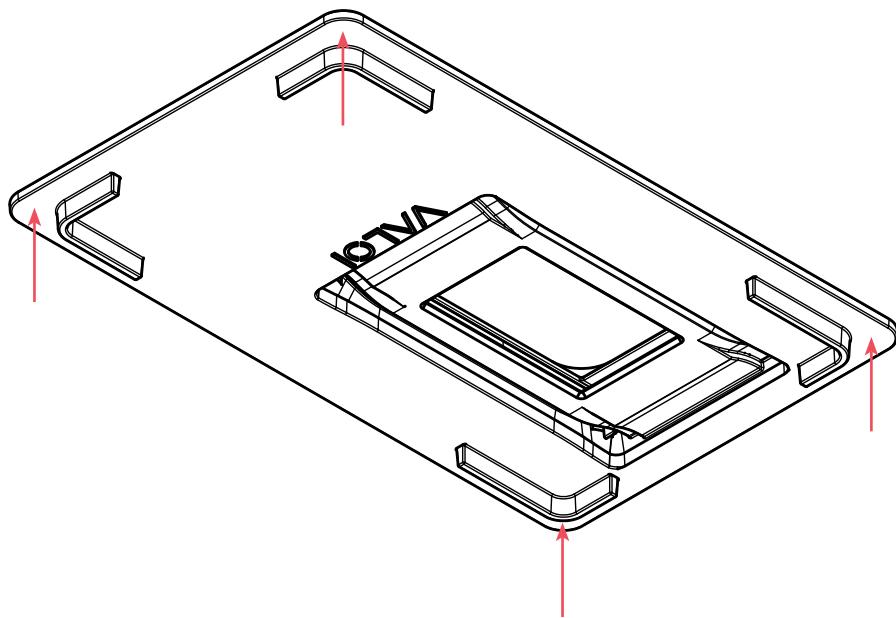
The Diffuser is used when your light source is not sufficiently diffused (evenly lit). The Holders can simply sit on top of it, or it can be secured to the bottom of the Film Advancer using the threads on the feet.

The Masks can be used if you are struggling with lens flare and low contrast when scanning formats smaller than the aperture of the Holder (half-frame 35mm on the 35mm Holder and any format smaller than 6x9 on the 120 Holder). The available frame sizes are:

- 35mm: Half-frame
- 120 medium format: 6x4.5, 6x6, 6x7, 6x8



Assembly

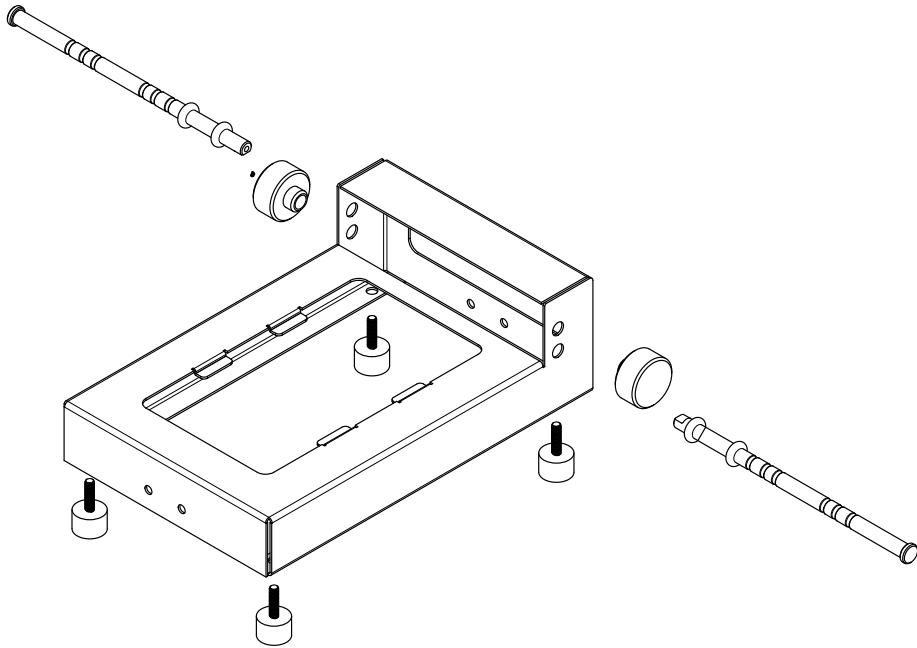




Holders

When used as a **stand-alone unit** we recommend attaching the included rubber dome feet as indicated in the picture below. Other than that, no assembly is necessary. If you wish to use the Holders with the Advancer, the rubber dome feet must be removed. Doing so does not require any tools and does not risk damage to the Holders.

Repeatedly changing configuration between stand-alone use and use with the Advancer is not recommended as removing and reattaching the rubber dome feet repeatedly will make them lose stickiness. Replacement feet are available from VALOI upon request - please email hello@valoi.co.



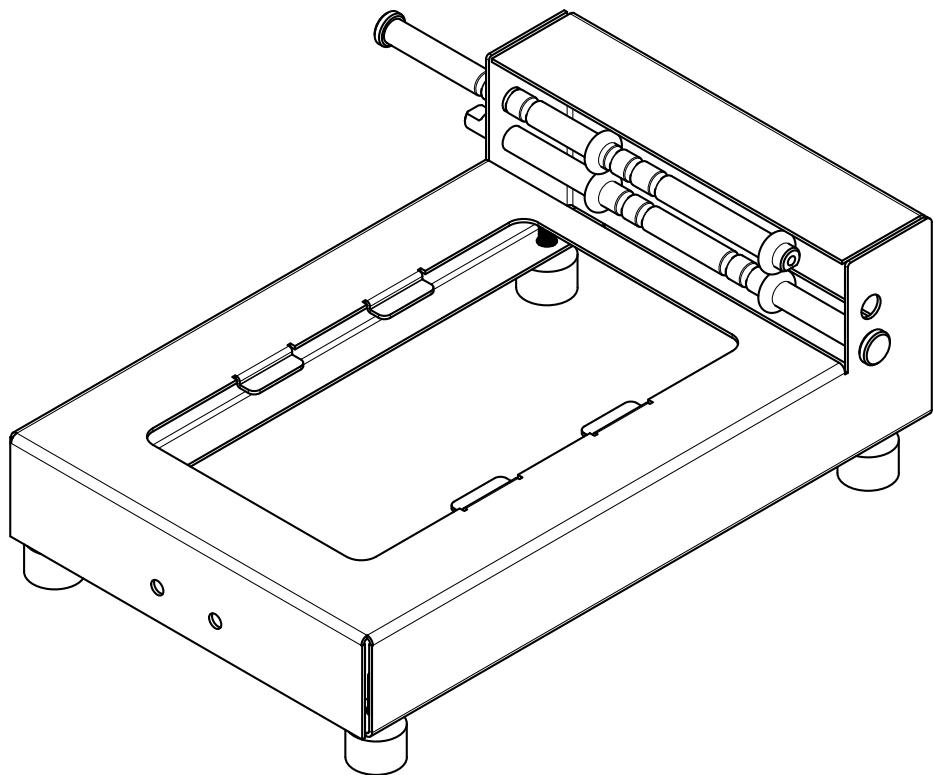


Advancer

All the parts for the VALOI 360 Advancer come in the box. We have decided to leave them unassembled for safer transport and so you get to familiarise yourself with maintaining it. With the possibility to change rubber rollers easily, the Advancer should last a lifetime.

- Film Advancer Frame
- 4x Feet
- 2x Axles
- 2x Knobs
- 2x Knob set-screws
- 4x Rollers (+ 4x spare Rollers)

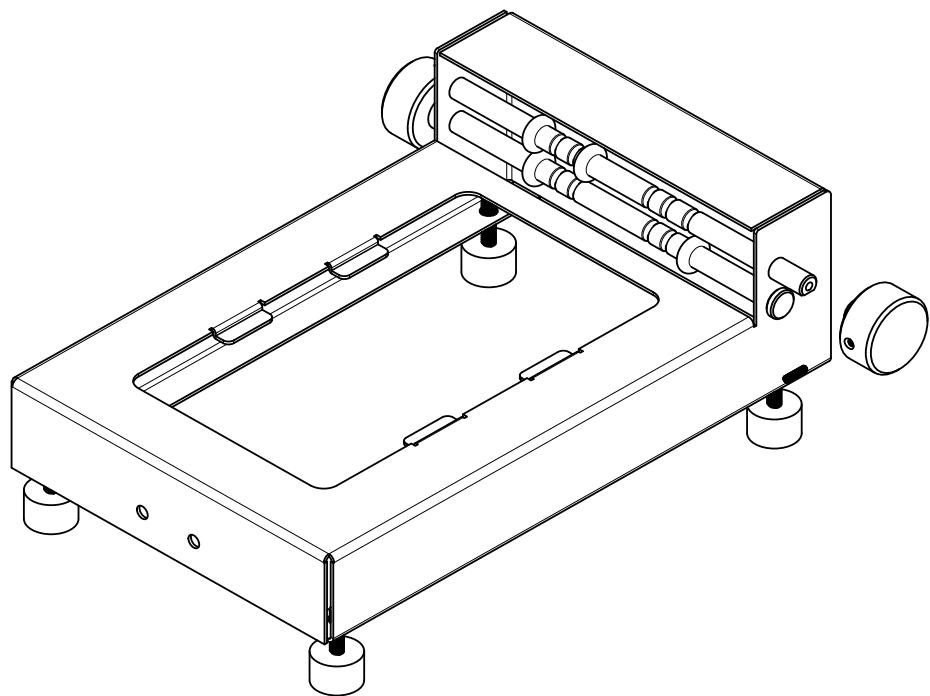
To assemble, screw the 4 threaded rubber feet into the holes on the bottom of the Advancer Frame all the way in, as shown in the picture to the left.





Insert one axle into one of the axle holes on the Advancer frame, about halfway through. Before it reaches the opposite side, slip on two rollers and slide them a bit down the axle. Don't feel the need to place them in the correct groove yet: this is easier once the unit is fully assembled.

Before proceeding, repeat the process with a second axle. Be careful so you don't knock the first axle out of the holes.



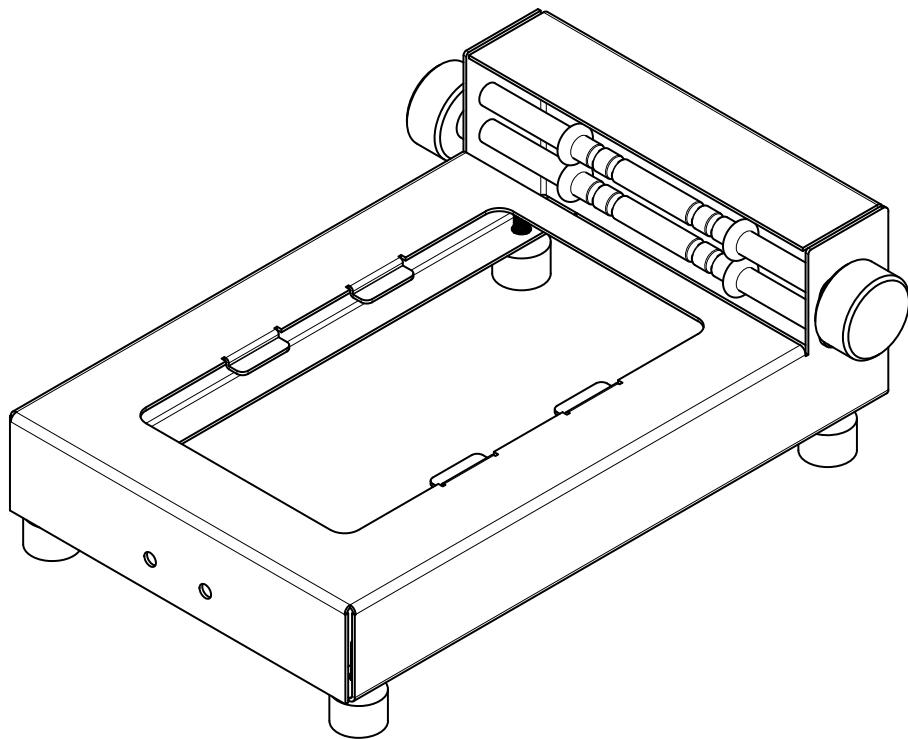


Now secure each axle by slipping a knob on, rotating it while pushing in until the screwhole is right over the flat area on the axle. By screwing the screw in slightly first, then rotating the knob until it seats, you can tell where the flat area is.



Making sure the D-slot is lined up as described. Use the included small hex-key to secure the knob while pushing it lightly against the frame.

Repeat this on both sides.





You have now fully assembled your VALOI 360 Film Advancer. See the instructions below on how to operate it using different holders.





In Use



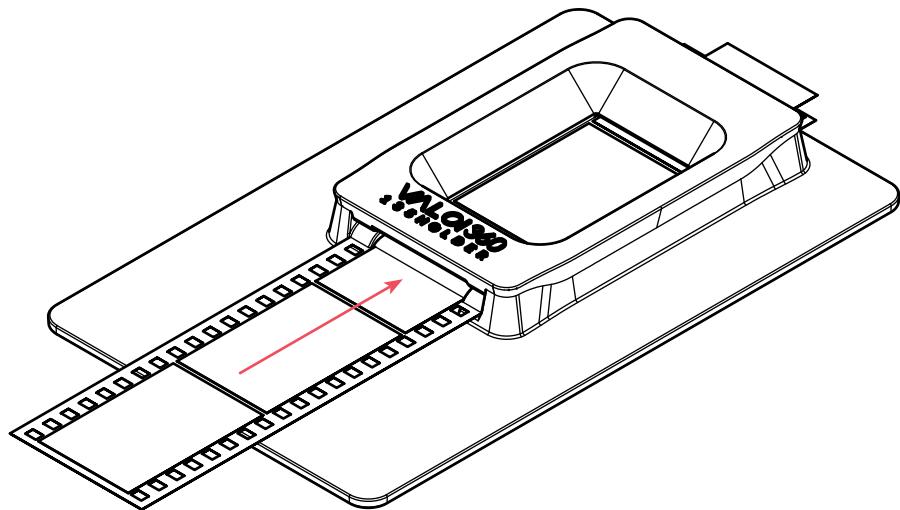


Currently, the VALOI 360 system can be used in two main configurations:

1. The appropriate Holder can be used alone.
2. The appropriate Holder can be used with the Film Advancer.

The user also has to provide: A digital camera, a method of holding the camera in a fixed position (preferably a copy stand), and a flat uniform light source. *See the VALOI Gear Guide for recommendations.*

For video-instructions on how to use VALOI products, please visit our website www.valoi.co and navigate to the Guides section in the top right-hand menu.

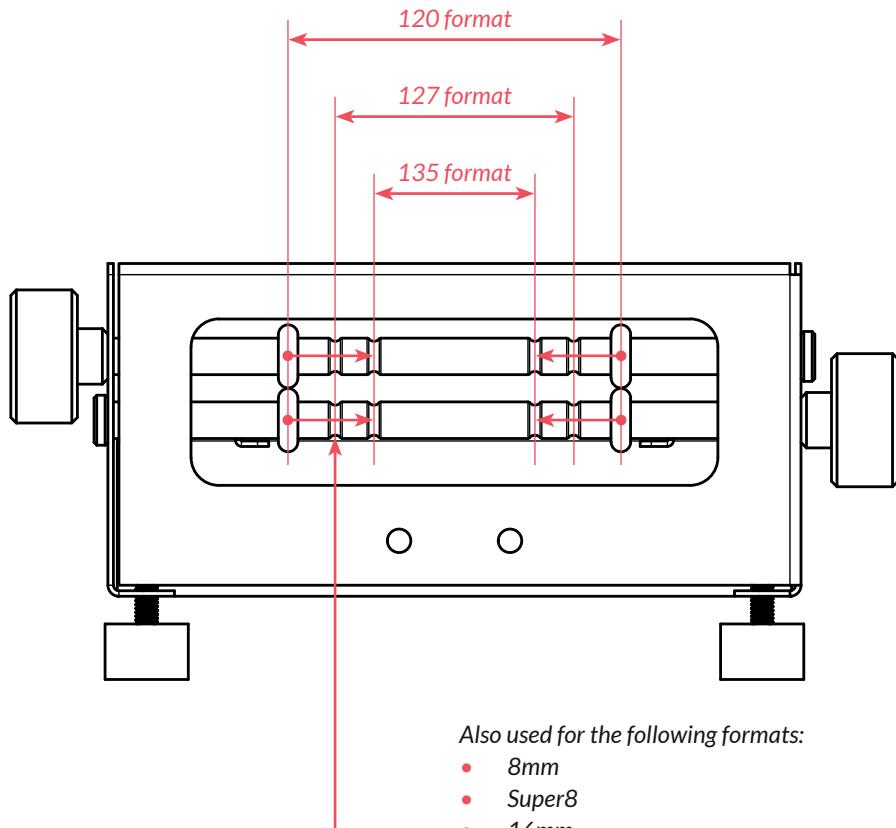




Scanning using only a Holder

If you will be scanning using only the Holder, we recommend you attach the included rubber dome feet to each corner of the bottom of the Holder to keep it stable during the scanning process. See assembly instructions.

1. Select the appropriate Holder and place it on your light source.
2. Insert film in the direction shown, with the VALOI marking on the side you insert the film. While moving the film in the Holder we recommend pushing down on the holder lightly with one finger while moving the film with the other to prevent the holder from moving.
3. Line up the first frame you want to scan so you can see the whole frame (as shown on page 34). Make sure you have focused and framed properly, then scan your first image.
4. To move to the next image, hold the holder down with one or two fingers, then use your other hand to drag the film to the next frame you want to scan. Make sure to let go of the holder completely before you take your picture, to minimise vibrations.
5. Repeat until you have finished scanning your strip or roll.



Also used for the following formats:

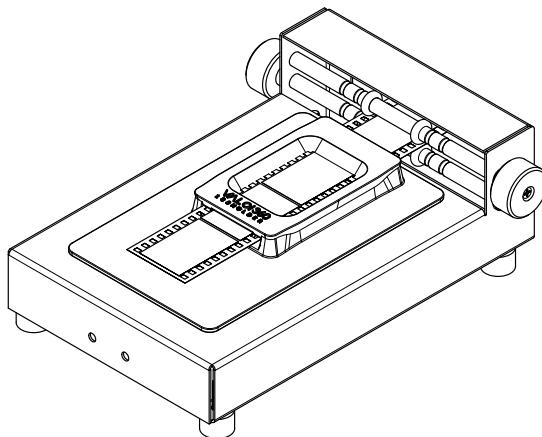
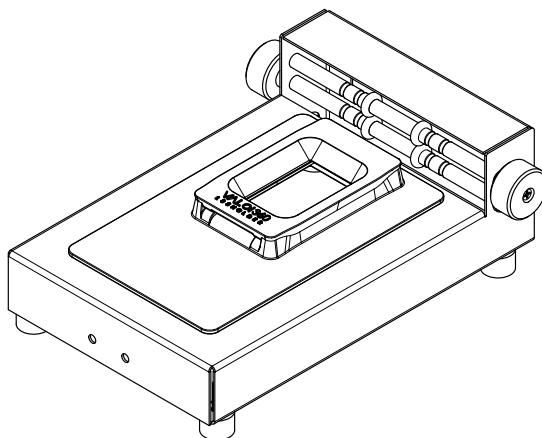
- 8mm
- Super8
- 16mm
- 110 format
- APS
- 126



Scanning using the Film Advancer

To scan using the Film Advancer you will need the appropriate Holder for your desired format and the Film Advancer itself.

Start by removing any Holder from the Film Advancer to get better access. Then move the rollers to the correct width for your format using both hands. It might be easier to move them if you pick up the Advancer and hold it at a better angle. Rotate the axle to make the rollers relax into their grooves properly (i.e., they should be straight). The roller positions are shown on page 36.





Now place the Advancer on your light source and place the appropriate Holder in the Advancer. The VALOI Logo should be on the side opposite to the axles.

Ensure that the film and camera are parallel by adjusting your copy stand or using the Advancer's leveling feet. Insert a piece of film to the first frame, using it to compose and focus.

Once you are ready, scan the first frame. Continue pushing the film through until you get to the next frame. If your film does not have a leader (blank unexposed film at the end) you will scan your second frame without the film touching the rollers - that is fine.

After placing the film close to the rollers, rotate the knob while pushing the film lightly against them using your other hand - the film will catch. Now you can use the knob to advance to each frame without touching the film with your fingers.



General Tips For Scanning





For more information, see the VALOI Technique Guide on our website
www.valoi.co.

Always scan in a dark or dimly lit room to reduce reflections on the film which can cause patches of colour cast or low contrast images.

Ensure that your camera and film are parallel to ensure maximum sharpness and minimise geometrical distortion. Use the mirror trick (see the Technique Guide) or use a level.

Minimise vibrations by using a remote trigger or a delayed timer on your camera.

If scanning color film, always use a light source with a high Color Rendering Index (CRI) to get the best results - purchase our recommended light, the Raleno 104 with our Valoi Adapter 104, or see our Gear Guide for other recommendations.



If your light source is larger than the Advancer or Holder you are using, mask off the extra area to minimise light spilling into the room. A sheet of cardboard or black foam board with a hole cut in the middle works well.

Scan with a slight border outside the frame area. When you move to the next frame, try to align each frame in the same place on the camera screen - this will allow you to batch crop all frames at the same time instead of cropping one by one. It might help to enable a grid-overlay on your camera. Labs typically crop 5-10% into frames, so unless the edge of the frame is very critical we recommend saving time by using the same method.

To find the correct scanning exposure, frame and focus on what you think is a well-exposed frame on the film. Check the meter on the camera and adjust the exposure until you get to +1EV (overexposing the scan by 1 stop). This will ensure the best quality scan.

Always use the optimal aperture on your lens - this varies but is generally two stops smaller than the widest aperture on the lens. Refer to the Technique Guide for more information.



Always use the lowest (native) ISO setting on your camera - some cameras have 'pull' ISO, such as 50 or less, which you should avoid. Most cameras either have a native ISO of 100, 160 or 200. Avoid using higher ISO settings, or automatic ISO.

Convert color negatives using one of the software solutions detailed in our VALOI Gear Guide (found on our website). Color negatives are very hard to convert 'by hand' in an editing software, therefore investing in good conversion software is important to get good color results. Black and white negatives can be converted using the same software or ' by hand' in editing software.

Always scan using the RAW format on your camera for maximum quality.



Diagnosing Common Problems





Problem

The Film Holder lifts out of the Advancer

Solution

This can happen if your film is very curly. Put a finger on the Holder when moving the film to press it down

The film is getting stuck in the holder when trying to push it through

Make sure the film is emulsion-side down, not up. Our testing shows this does not influence the scanning result and will ensure the film goes through smoothly. If you continue having problems (caused by very curly film), flatten your film under some books for a few days or use a finger to help the film through.



Problem

Holder moves on the table

Solution

Attach the included rubber dome feet

Put slight pressure on the film Holder when moving film



The knob falls off

Tighten the screw at the end of the knob that attaches it

The screw for the knob on the Advancer falls out

Tighten it with a screwdriver.
Please contact hello@valoi.co if this is a recurring problem.





Problem

It is hard to move the rollers

Solution

Pick up the Advancer and hold it against your body, then push the rollers towards you using both hands. Flip the Advancer around when moving them in the other direction so that you always push towards your body.



The axle comes out

The axle is secured by the knob - make sure you seat the knob properly on the D-shaped end of the axle and secure the included screw at the end of the knob





Diagnosing Bad Scanning Results





Problem

Solution

Patches of colour shift or low contrast

Reflections: Turn off the lights in the room you are scanning

Uneven light: Diffuse your light further, or change light source

The corners of the image have a weird colour/are brighter

Lens vignetting: Try stopping the lens down further (bigger F-number), use a correction software such as that built into Lightroom or a plugin like Grain2Pixel.
Change your lens for a different one (see the VALOI Gear Guide)

Blurry results/lower resolution than expected

Shutter vibrations (mirrorless camera): Use electronic shutter (silent shutter) if your camera has it, use electronic front curtain shutter if your camera has it



Problem

Blurry results/lower resolution than expected, continued

Solution

Shutter vibrations (DSLR): Use mirror-lockup if your camera has it

Lens: Change the lens for a macro lens if using normal lens + extension tubes



Focus: Check focus, use focus peaking and live view magnification, focus on the largest aperture of the lens and stop down before scanning

Wrong aperture: Test the lens at different apertures to see what works best with your lens





Problem

Poor colours

Solution

Colour negative conversion: Use an plugin or program to convert negatives (see VALOI Gear Guide)



Make sure you follow the instructions of the program/plugin you are using

Test a different negative conversion program/plugin (see VALOI Gear Guide)





Problem

Film is not flat

Solution

Extremely curly film:
Use a professional lab to develop

Change your drying practices.

Press the film under books for a few days



Ensure that the film is seated properly in the holder

Last resort: Use a smaller (bigger number) aperture to get more depth of field (will lead to image distortion, but the image will be uniformly sharp)





Problem

The film is not square when scanned (misalignment)

Solution

Your camera and film are not parallel: Align them perfectly by adjusting your copy stand or adjusting the levelling feet on the Film Advancer (use Mirror Trick: see VALOI Technique Guide)



Software failing to stitch images when doing several captures of the same frame

Too little overlap: Use more overlap in your frame, 1/3 overlap is a good aim.



Strong lens vignetting: See page 39



Camera and film not parallel: See top of this page on alignment



Contact





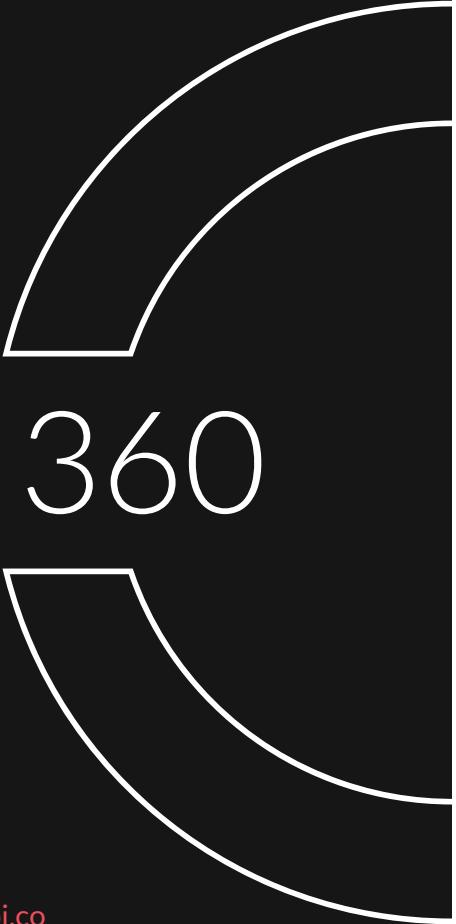
We are always here to help you!
In case of any questions, please
don't hesitate to contact us.

hello@valoi.co

www.valoi.co

Erkkilänskatu 11 A,
PMK-talo, 7. krs
33100 Tampere, Finland

Follow us on Facebook and
Instagram [@valoi.co](#)



VALOI 360



Find us on www.valoi.co