

**DISCLAIMER**

1. *Reprocessing of Volk Optical product that contacts a patient should follow a two-step process in all situations. The device should be (1) thoroughly cleaned then (2) either disinfected OR sterilized.*
2. *Volk Optical product designated as “non-contact” is recommended to be cleaned thoroughly at a frequency determined by the discretion of the practitioner. Non-contact product does not require disinfection or sterilization; however, periodic disinfection is recommended.*
3. *Volk Optical offers common industry-established product reprocessing guidelines, but has not validated every possible reprocessing technique, or every set of possible reprocessing parameters. Always follow the reprocessing procedures listed in Volk’s Instructions for Use, of your hospital, or your facility, and contact Volk regarding product compatibility with alternative reprocessing methods, or emerging technologies, where applicable.*

**CLEANING**

1. Cleaning should be performed regularly to remove bodily fluids, dust, and soils from the surface of the product.
2. Select the appropriate method of cleaning from the CLEANING METHODS TABLE listed below.
3. If a product is to be sterilized prior to its re-use, Volk recommends that it first be cleaned using cleaning Method C.

**CLEANING METHODS TABLE**

<b>Method A:</b>	Clean with a mild, pH neutral detergent and a clean soft cotton cloth or swab. Do not use detergent with any type of Emollients.
<b>Method B:</b>	Clean the glass element with Volk Precision Optical Lens Cleaner (POLC) or a Volk LensPen® <b>CAUTION:</b> Do not use the Volk LensPen® or Volk’s POLC on surfaces that contact the eye.
<b>Method C:</b>	<ol style="list-style-type: none"> <li>1. Prepare fresh enzymatic cleaner (e.g. Enzol) solution – 2 ounces per gallon using warm (~30-43°C) tap water.</li> <li>2. Soak each device in solution for 20 minutes.</li> <li>3. After soaking, brush knurled surface of housing with a soft-bristle brush and wipe lens portion with a soft cloth until all traces of cleaner and soil are removed. Pay special attention to all crevices and other hard-to-reach areas. Note: Do not brush lens portion to avoid scratching; use soft cloth.</li> <li>4. Thoroughly rinse devices in a room temperature tap water bath (not under running water) until all visible cleaner has been removed.</li> <li>5. Transfer the devices to a freshly prepared enzymatic solution (per step 1 above) and sonicate for 20 minutes.</li> <li>6. After sonication, thoroughly rinse devices in a room temperature tap water bath (not under running water) until all visible cleaner has been removed.</li> <li>7. Inspect each device for remaining debris. If any is observed, repeat the cleaning procedure with freshly prepared cleaning solutions.</li> </ol>

**PRECAUTIONS:**

- Whenever possible dry Volk lenses with an ultra-soft, low-lint, cotton cloth such as a cloth diaper.
- Cleaning Method C is the preferred method for cleaning Volk’s 2-piece autoclavable (ACS) vitrectomy lenses (e.g. Mini Quad ACS, Central Retinal ACS, etc.). However, the sonication step of Cleaning Method C may cause lens damage, which limits the useful life of these lenses. Use of an alternate validated cleaning method that does not include automated sonication is highly recommended by Volk Optical whenever practicable for these lenses.

**DISINFECTION**

1. Clean lens & surgical products first by following Cleaning Method A (See CLEANING METHODS TABLE)
2. Disinfect by selecting one of the solution types from the Table below:

<b>Product Type OK to Use</b> ✓	Alkacide / Alkazyme	**Bleach Solutions (Sodium Hypochlorite)	Bode Mikorbac Tissues	CaviWipes	*Cidex OPA	*Glutaraldehyde	Perasafe	*Revital-Ox™ Resert XL® HLD	Tristel Duo
<b>BIO Lenses (Black &amp; All Colors)</b>		✓	✓	✓	✓	✓	✓		✓
<b>BIO Lenses (ACS)</b>		✓	✓	✓	✓	✓	✓		✓
<b>Classic Series Lenses (Black &amp; All Colors)</b>		✓	✓	✓	✓	✓	✓		✓
<b>Super &amp; Digital Series Lenses (Black &amp; All Colors)</b>		✓	✓	✓	✓	✓	✓		✓
<b>Mirrored Lenses (3-Mirror Lenses, Mini 4-Mirror Lens, &amp; SLT)</b>	✓	✓	✓	✓	✓	✓		✓	✓
<b>G-Series Gonio Lenses</b>		✓	✓	✓	✓	✓		✓	✓
<b>Contact Lenses</b>		✓	✓	✓	✓	✓			✓
<b>Research Lenses</b>			✓	✓	✓	✓			
<b>Vitrectomy Surgical Lenses - Traditional</b>		✓	✓	✓	✓	✓			✓
<b>Vitrectomy Surgical Lenses - ACS</b>		✓	✓	✓	✓	✓			✓
<b>Surgical Lens Access:</b>		✓	✓	✓	✓	✓			✓
<b>Sterilization Cases</b>		✓	✓	✓	✓	✓			✓

\* When using immersion solutions such as: CIDEX OPA, GLUTERALDEHYDE, & REVITAL-OX™ RESERT® XL HLD refer to Manufacturer’s Instructions.

- Position the lens on its side, and then immerse the entire lens in the selected solution for the listed soak time.
- Remove the lens from the solution, thoroughly rinse with room temperature water, and dry with a soft lint free cotton cloth.

\*\* When using BLEACH SOLUTIONS (NaClO, Sodium Hypochlorite; household bleach), prepare the following solution:

<b>Solution Type</b>	<b>Example Dilution</b>	<b>Minimum Soak Time</b>	<b>Maximum Soak Time</b>
<b>0.525% (5000ppm) Sodium Hypochlorite Solution (NaClO) (household bleach)</b>	1 Part <b>5.25% NaClO</b> : 9 Parts Water Ambient/ Room Temp 62° – 72°F (16.67° – 22.22°C)	10 Minutes	26 Minutes

**PRECAUTIONS:**

- To avoid surface damage to contact lenses, never clean the contact elements with alcohol, peroxide or acetone.
- Do not use the Volk LensPen® or Volk’s POLC on surfaces that contact the eye.
- Colored rings may discolor when exposed to higher concentrations of Sodium Hypochlorite or Glutaraldehyde, or for longer periods of time. To avoid discoloration please follow only the disinfection procedures indicated for these products.
- Extended exposure to recommended concentrations, and/or exposure to higher concentrations of Sodium Hypochlorite will result in accelerated degradation of most Volk product. Avoid extended exposure to bleach solutions.
- Contact Volk regarding product compatibility with other disinfection methods.

**DISINFECTION CONT.**

<b><u>Pictor &amp; Pictor Plus Digital Imaging Device</u></b>	
Camera Handset Retina Module Anterior Module FA Module Otoscope Module Cradle	<ul style="list-style-type: none"> <li>Disinfect housing with soft cloth moistened with alcohol (e.g. 70% ethyl alcohol).</li> </ul> <p><b>NOTE:</b> Avoid touching system connectors in the handset and cradle.</p>
Dermatoscope Module & Glass	<ul style="list-style-type: none"> <li>Disinfect glass with soft cloth moistened with alcohol (70% ethyl alcohol), or</li> <li>Remove glass and soak it in glutaraldehyde-based solution, or hydrogen peroxide &amp; peracetic acid solution.</li> </ul>
Silicone Eyecup	<p><b>CAUTION:</b> The Silicone Eyecup should be disinfected before each use on a new patient.</p> <ul style="list-style-type: none"> <li>Disinfect Silicone Eyecup with a soft cloth moistened with alcohol (70% ethyl alcohol), or</li> <li>Soak silicone support in glutaraldehyde-based solution.</li> </ul>

**PRECAUTIONS:**

- Shut down device before cleaning.
- Remove the Cradle from MAINS power before cleaning.
- Pictor is not intended to be sterilized.

## • STERILIZATION

- Cleaning should always be performed prior to sterilization. Volk recommends that most products first be processed using cleaning Method C<sup>††</sup>. See CLEANING METHODS TABLE and observe stated PRECAUTIONS.
- Sterilize by selecting one of the methods from the Table below:

Product Type	✓ = OK to Use	ETO	Steam	†Sterrad®	Amsco® V-Pro®	TSO <sub>3</sub>
Classic BIO Lenses (Black)		✓		✓		✓
Classic BIO Lenses (Colors) & BIO Digital Series Lenses (Colors)		✓		✓		
Classic BIO Lenses (ACS)		✓	✓	✓		✓
Classic Slit Lamp Lenses (Black)		✓		✓		✓
Classic Slit Lamp Lenses (Colors)		✓		✓		
Super Series & Digital Series Slit Lamp Lenses (Black)		✓		✓		✓
Super Series & Digital Series Slit Lamp Lenses (Colors)		✓		✓		
Mirrored Lenses (3-Mirror Lenses, Mini 4-Mirror Lens, & SLT)		✓			✓	
G-Series Gonio Lenses					✓	
Surgical Gonio (ACS)		✓	✓			
Volk Transcend TVG			✓			
Contact Lenses		✓				✓
Research Lenses		✓				
Vitrectomy Surgical Lenses - Traditional		✓				✓
Vitrectomy Surgical Lenses - ACS <sup>††</sup>		✓	✓		✓	✓
ROLS® Handles & ROLS®∞ Handles			✓			
OptiFlex® Lens Positioning Unit (LPU) & OptiFlex® Surgical Lenses			✓			
MERLIN® Rotational Assembly (RA), MERLIN® Lens Positioning Unit (LPU), MERLIN® Surgical Lenses, & Sterilization Tray			✓			
Surgical Lens Accessories : Vitreo Lens Handles & Suture Rings		✓	✓	✓		✓
Surgical Lens Accessories : Infusion Handles		✓	✓			✓
Sterilization Cases		✓	✓		✓	✓

**NOTE:** The use of a Volk Sterilization Case or Tray is recommended to avoid product loss or damage.

**Ethylene Oxide:** Follow hospital procedures with aeration up to, but not exceeding 150°F / 66°C for non-contact lenses or 130°F / 55°C for contact lenses.

**Steam Sterilization:** **US** - Pre-vacuum, wrapped, 132°C minimum, 4 minutes (lenses), dry time 20 min

Note - MERLIN® components require 5 minutes cycle time

**EU / UK** - Pre-vacuum, wrapped, 134°C minimum, 3 minutes (lenses), dry time 20 min

**Amsco® V-Pro®:** Applicable sterilization systems: V-Pro® 1 Low Temp, V-Pro® 1 Plus Low Temp, V-Pro® maX Low Temp. 28 minute non-lumen cycle, 12 minute sterilant exposure, 2.1g sterilant injection per pulse (~59% H<sub>2</sub>O<sub>2</sub>), 0.4 -1.0 Torr pre-injection pressure, and a 50°C chamber temperature.

**†Sterrad®:** Use in the 100S Short Cycle or use in 100NX Express (available outside the US only).  
Caution: Rings may discolor after multiple reprocessing cycles.

### PRECAUTIONS:

- To avoid lens surface damage, never clean a lens' contact element with alcohol, peroxide, or acetone.
- Do not use the Volk Lens Pen® or Volk's POLC on surfaces that contact the eye.
- Disassemble 2-piece vitrectomy lenses (e.g. Mini Quad ACS, Central Retinal ACS, etc.) prior to cleaning and sterilization.
- †† Cleaning Method C is the preferred method for cleaning Volk's 2-piece autoclavable (ACS) vitrectomy lenses (e.g. Mini Quad ACS, Central Retinal ACS, etc.). However, the sonication step of Cleaning Method C may cause lens damage, which limits the useful life of these lenses. Use of an alternate validated cleaning method that does not include automated sonication is highly recommended by Volk Optical whenever practicable for these lenses.
- Contact Volk regarding product compatibility with other sterilization methods.

**PRODUCT REFERENCE GUIDE FOR VOLK LENSES & FAMILIES**

BIO Lenses	
Macula Plus 5.5	VMP5.5
14D Large Clear	V14LC
15D Large Clear	V15LC
20D Large Clear	V20LC
Pan Retinal 2.2 Clear	VPRC
25D Large Clear	V25LC
28D Large Clear	V28LC
30D Large Clear	V30LC
30D Small Clear	V30SC
40D Large Clear	V40LC
BIO Lenses - Digital	
Digital Clear Mag	VDGTLCM
Digital Clear Field	VDGTLCF
BIO Lenses (Autoclavable)	
20D Clear ACS PermaView	V20LCACSPV
28D Clear ACS PermaView	V28LCACSPV
Classic Slit Lamp Lenses	
60D Clear	V60C
78D Clear	V78C
90D Clear	V90C
Super Series Slit Lamp Lenses	
Super 66	VS66
SuperField NC	VSFNC
Super VitreoFundus	VSVF
SuperPupil XL	VSPXL
Digital Series Lenses	
Digital High Mag	VDGTLHM
Digital 1.0X Imaging	VDGTL1
Digital Wide Field	VDGTLWF
*NOTE: Colors include Blue, Gold, Green, Purple, Red, Silver and Pink	
Indirect Contact Lenses	
SuperMacula 2.2	VSMAC2.2
HR Centralis	VHRC
Area Centralis	VAC
Area Centralis ANF+	VACANF+
Area Centralis NF	VACNF
TransEquator	VTE
TransEquator ANF+	VTEANF+
TransEquator NF	VTENF
QuadrAspheric	VQFL
QuadrAspheric ANF+	VQFLANF+
QuadrAspheric NF	VQFLNF
SuperQuad 160	VSQUAD160
SuperQuad 160 NF	VSQUAD160NF
High Resolution Wide Field	VHRWF
PDT Lens	VPDT
EquatorPlus ANF+	VEPANF+
EquatorPlus NF	VEPNF
QuadPediatric	VQPED

Direct Contact Lenses	
Centralis Direct	VCD
Centralis Direct ANF+	VCDANF+
Fundus	VFUNDUS
Fundus 20MM	VFUNDUS20
Specialty Treatment Lenses	
Blumenthal Iridotomy	VBIRID
Iridectomy	VIRID
MagPlus Iridectomy	VMPIRID
Capsulotomy	VCAPS
Blumenthal Suturelysis	VBSL
Idrees MidVitreous Lens	VIMV
Singh MidVitreous Lens	VSMV
Research	
2mm Fundus Lens	V2MFUNDUS
2mm Gonio Lens	V2MGONIO
Mirrored Lenses	
Three-Mirror Laser Lens - NF	V3MIR
Three-Mirror Laser Lens ANF+	V3MIRANF+
Three-Mirror (Uncoated) - NF	VU3MIR
Three-Mirror (Uncoated) ANF+	VU3MIRANF+
Mini Four Mirror Gonio Lens ANF+	V4MANF+
SLT Gonio Lens	VSLT
G-Series - Glass Gonio Lenses	
One-Mirror Glass Trabeculum Lens Flange AR Coating	VG1
One-Mirror Glass Trabeculum Lens No Flange No Fluid AR Coating	VG1NF
Two-Mirror Glass Trabeculum Lens Flange AR Coating	VG2
Two-Mirror Trabeculum Lens No Flange No Fluid AR Coating	VG2NF
Three-Mirror Glass Gonio Fundus Lens Flange AR Coating	VG3
Three-Mirror Glass Gonio Fundus Lens NoFlange No Fluid AR Coating	VG3NF
Three-Mirror Glass Gonio Fundus Lens Mini No Flange No Fluid AR Coating	VG3MININF
Four-Mirror Glass Gonio Lens Flange Fluid AR coating	VG4
Four-Mirror Glass Hand Held Gonio Lens (Large Ring) No Flange No Fluid	VG4LNF
Four-Mirror Glass Hand Held Gonio (Small Ring) No Flange No Fluid	VG4SNF
Four-Mirror Glass 2 in 1 Handle Gonio No Flange No Fluid 3.5"	VG4HAN2
Four-Mirror Glass High Mag Gonio Flange	VG4HM
Four-Mirror Glass High Mag Gonio (Large Ring) No Flange No Fluid	VG4HMLNF
Four-Mirror Glass High Mag Gonio (Small Ring) No Flange No Fluid	VG4HMSNF
Four-Mirror Glass High Mag 2 in 1 Handle Gonio No Flange No Fluid	VG4HMHAN2
Six-Mirror Glass Hand Held Gonio (Large Ring) No Flange No Fluid	VG6LNF
Six-Mirror Glass 2 in 1 handle Gonio No Flange No Fluid	VG6HAN2
Surgical Gonio Lenses	
Surgical Gonio	VSGACS
TVG	VTSTVG

Vitreotomy Surgical Lenses - Indirect Traditional VIT and SSV	
SuperMacula	VSMACVIT
Central Retinal	VCRLVIT
Central Retinal SSV	VCRLVITSSV
MiniQuad	VMQVIT
MiniQuad SSV	VMQVITSSV
DynaView 156	VDVVIT
MiniQuad XL	VMQXLVIT
MiniQuad XL SSV	VMQXLVITSSV
HRX Vit	VHRXVIT
HRX Vit SSV	VHRXVITSSV
Vitreotomy Surgical Lenses - Indirect ACS VIT and SSV	
Central Retinal ACS Vit	VCRLVITACS
Central Retinal ACS SSV Vit	VCRLVITSSVACS
MiniQuad ACS Vit	VMQVITACS
MiniQuad ACS SSV Vit	VMQVITSSVACS
HRX ACS Vit	VHRXVITACS
HRX ACS SSV Vit	VHRXVITSSVACS
Vitreotomy Surgical Lenses - Direct Glass ACS VIT	
High Resolution Direct 1X	VHRD1XACS
High Resolution Direct 1X (NSR)	VHRD1XNSRACS
High Resolution Direct High Mag	VHRDHMACS
High Resolution Direct High Mag (NSR)	VHRDHMNSRACS
High Resolution Direct Bi-Concave	VHRDBCACS
High Resolution Direct 20 Prism	VHRD20PACS
Vitreotomy Surgical Lenses - Direct ACS VIT	
Flat SSV ACS	VFLATSSVACS
High Mag SSV ACS	VFHSSVACS
15 ° Prism SSV ACS	VPRISMSSVACS
30 ° Prism SSV ACS	V30PRISMSSVACS
45 ° Prism SSV ACS	V45PRISMSSVACS
Mid Field SSV ACS	VMFSSVACS
Air Fluid Exchange SSV ACS	VAFXSSVACS
Surgical Lens Accessories	
Vitreo Lens Handle (Fits MQ, CRL, DV)	VVITHAN-LG
MiniQuad XL Vit Handle (Fits MQXL, SMAC, HRX)	VVITHAN-MQXL
Infusion Handle (Fits non-SSV Vit Lenses)	VINFHAN
Suture Ring	VSRS2
Sterilization Case Small	VSCA
Sterilization Case Large	VSCB