



Volk Optical Gonioscopy Lenses (Gonio)

ENGLISH: INSTRUCTIONS FOR USE

INTENDED USE

Volk Optical's Gonioscopy Lenses are indicated for use as diagnostic contact lenses for eye examinations (including the anterior chamber, trabecular meshwork, central retina, and peripheral retina) and use in the therapy of intraocular abnormalities.

SPECIFICATIONS

Product	Magnification	Number of Mirrors	Laser Spot Magnification Factor	Available Contact Designs	Anti-Reflective Laser Coating
G-1 Trabeculum (VG1)	1.50	1	0.67	Standard Fluid	BBAR
G-1 Trabeculum NF (VG1NF)	1.50	1	0.67	NF - No Flange (no fluid)	BBAR
G-2 Trabeculum (VG2)	1.50	2	0.67	Standard Fluid	BBAR
G-2 Trabeculum NF (VG2NF)	1.50	2	0.67	NF - No Flange (no fluid)	BBAR
G-3 Goniofundus (VG3)	1.06	3	0.94	Standard Fluid	BBAR
G-3 Goniofundus Mini NF (VG3MINNF)	1.00	3	1.00	NF - No Flange (no fluid)	BBAR
G-3 Goniofundus NF (VG3NF)	1.03	3	0.97	NF - No Flange (no fluid)	BBAR
G-4 Goniolaser (VG4)	1.00	4	1.00	Standard Fluid	BBAR
G-4 Gonio NF Large Ring (VG4LNF)					
G-4 Gonio NF Small Ring (VG4SNF)	1.00	4	1.00	NF - No Flange (no fluid)	Uncoated
G-4 Gonio NF Handle (VG4HANZ) (with ring or handle)					
G-4 High Mag Goniolaser (VG4HM)	1.50	4	0.67	Standard Fluid	BBAR
G-4 High Mag Gonio NF Large Ring (VG4HMLNF)					
G-4 High Mag Gonio NF Small Ring (VG4HMSNF)	1.50	4	0.67	NF - No Flange (no fluid)	Uncoated
G-4 High Mag Gonio Handle (VG4HMHANZ) (with ring or handle)					
G-6 Gonio NF (VG6LNF)					
G-6 Gonio NF Handle (VG6HANZ) (with ring or handle)	1.00	6	1.00	NF - No Flange (no fluid)	Uncoated
Classic 3-Mirror Goniofundus ANF+ (V3MIRANF+, VU3MIRANF+)	1.06	3	0.94	ANF+ - Advanced No Fluid (no flange)	Coated (BBAR) or Uncoated
Classic 3-Mirror Goniofundus (V3MIR, VU3MIR)	1.03	3	0.97	Standard Fluid (no flange)	Coated (BBAR) or Uncoated
4-Mirror Mini ANF+ (V4MANF+)	1.00	4	1.00	ANF+ - Advanced No Fluid (flanged)	BBAR
SLT (VSLT)	1.00	1	1.00	Standard Fluid (no flange)	Uncoated
Rapid SLT (VMSLT)	1.00	4	1.00	Standard Fluid	BBAR

INDICATIONS FOR USE

- To be used by a trained, licensed physician in a method consistent with other gonioscopic contact lenses.
- Device may be used in conjunction with a biomicroscope to achieve the desired image.
- For laser treatment procedures, a Standard Fluid lens and coupling fluid are required. Refer to the Specifications table to determine which Gonio lenses are available in this format.
- Standard Fluid contact Gonio lenses require methylcellulose or other similar interface solution to be applied to the concave contact surface.
- No Flange (NF) and Advanced No Fluid (ANF+) contact lenses can be used with a natural tears solution or methylcellulose applied to the concave contact surface if required.
- When calculating the laser spot size at the retina or in the anterior segment, the laser spot setting should be multiplied by the appropriate *Laser Magnification Factor*. Refer to the Specifications table to find the appropriate *Laser Magnification Factor* for the lens you are using.
- Inspect the contacting surface(s) before each use and after reprocessing to make sure they are free from any damage (e.g. chips, scratches, etc).
- Inspect the mirroring surface(s) before each use to make sure the surfaces are free from any damage (e.g. laser burns etc.)

WARNINGS:

- DO NOT USE THE LENS WHEN THE CONTACTING SURFACE(S) SHOW(S) ANY SIGNS OF DAMAGE.
- DO NOT USE THE LENS IF THE MIRRORING SURFACE(S) SHOW(S) ANY SIGNS OF DAMAGE BEFORE OR DURING LASER USAGE.
- DO NOT ATTEMPT TO USE THE LENS IF, FOR ANY REASON, THE IMAGE IS UNCLEAR OR UNFOCUSED.
- DO NOT ATTEMPT TO USE THE LENS UNLESS AN ADEQUATE TYPE AND AMOUNT OF COUPLING FLUID IS PRESENT BETWEEN THE CORNEA AND THE CONTACTING LENS SURFACE.
- CARE SHOULD BE TAKEN TO AVOID EXCESSIVE PRESSURE ON THE CORNEA AS IT MAY AFFECT AQUEOUS DYNAMICS OR CAUSE INJURY.

REPROCESSING

WARNINGS:

- A THOROUGH, MANUAL CLEANING PROCESS IS RECOMMENDED.
- CORROSIVE CLEANING AGENTS (I.E. ACIDS, ALKALINES, ETC) ARE NOT RECOMMENDED. DETERGENT CLEANING AGENTS WITH NEUTRAL PH ARE RECOMMENDED.

PREPARATION AT THE POINT OF USE:

- New or used, contaminated lenses must be cleaned.
- Body fluids should not be allowed to dry on the unit prior to cleaning. Remove excess body fluids.
- Universal precautions for handling contaminated materials should be observed.
- Instruments should be cleaned as soon as possible after use to minimize the drying of any fluids on their surfaces.
- Devices should always be handled in an appropriate method to ensure contamination is not introduced to a recently cleaned, disinfected, and/or sterilized device.

REPROCESSING LIMITATIONS:

Repeated cleaning, disinfection, and sterilization have minimal effect on Volk Gonio Lenses when processed according to instructions. End of the product's life cycle is normally determined by wear and damage due to use.

PREPARATION BEFORE CLEANING:

The following cleaning, disinfection, and sterilization instructions are aided by not allowing contamination to dry on the lens surface. When possible place the lenses in water or cover them with a damp cloth.

CLEANING, DISINFECTION, STERILIZATION

CLEANING:

Select the desired method of cleaning:

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

CAUTION:

TO AVOID LENS SURFACE DAMAGE NEVER CLEAN THE CLASSIC 3 MIRROR LENSES, MINI 4 MIRROR LENS, OR SLT LENS CONTACT ELEMENT WITH ALCOHOL, PEROXIDE, OR ACETONE. G-SERIES LENSES MAY BE CLEANED WITH THESE CHEMICALS.

DISINFECTION:

- Follow the **Method A** or **Method C** cleaning instructions from above.
- Select one of the solution types from the table below.

DISINFECTANT	CONCENTRATION	MIN SOAK TIME	MAX SOAK TIME
Glutaraldehyde	2% aqueous solution	25 minutes	N/A
CIDEX® OPA Solution	See Manufacturer's Instructions	12 minutes	N/A
Revital-Ox™ Resert® XL HLD	≥ 1.5% aqueous solution	8 minutes	16 minutes

- Immerse device completely, and then immerse the device completely in the selected disinfectant solution for the minimum soak time listed above (minimum of 20°C). Ensure to fill all lumens, hard-to-reach areas, and eliminate air pockets.
- Rinse thoroughly in a room temperature water bath (minimum of 20°C). Rinse by immersing device completely for a minimum of one minute. Manually flush all lumens or other hard-to-reach areas with water. Agitate device under water, bring above water level, then re-immers. Repeat rinse procedure two additional times using fresh water.
- Dry with a soft, lint-free cotton cloth.

STERILIZATION:

- Follow the **Method C** cleaning instructions.
- Sterilize using the Amsco® V-Pro® 1 Low Temp Sterilization System, V-Pro® 1 Plus Low Temp Sterilization System, or V-Pro® max Low Temp Sterilization System. Sterilize for a minimum of 28 minutes using a non-lumen cycle, with a 12 minute steriant exposure and 2.1g steriant injection per pulse (~59% H₂O₂) at 0.4 -1.0 Torr pre-injection pressure, and at 50°C chamber temperature.
- Alternatively, the Classic 3-Mirror, 4-Mirror Mini, and SLT lenses may be sterilized using the ethylene oxide (ETO) sterilization process. Sterilize using a 2-hour cycle with a temperature of 130°F and a concentration of 600 mg/L, but not exceeding 150°F.
- Do not sterilize lenses within standard (black leatherette) lens cases as they are not meant for use in sterilization systems.

CAUTION:

- G-SERIES GONIO LENSES ARE **NOT** RECOMMENDED FOR ETO STERILIZATION DUE TO MIRROR DEGRADATION.
- TO AVOID PRODUCT DAMAGE, NEVER AUTOCLAVE OR BOIL VOLK GONIO LENSES.
- TO AVOID PRODUCT DAMAGE, NEVER SUBJECT VOLK GONIO LENSES TO STERRAD STERILIZATION.

STORAGE:

Sterile instruments should be stored in an area that provides protection from loss of sterility.