

**Volk Optical Inc.**  
7893 Enterprise Drive  
Mentor, OH 44060

Toll Free USA: 800.345.8655  
Phone: 440.942.6161  
Fax: 440.942.2257

Email: [volk@volk.com](mailto:volk@volk.com)  
Internet: [www.volk.com](http://www.volk.com)



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# The Finest Ophthalmic Imaging



[catalog]

Indirect BIO Lenses

Classic Slit Lamp Lenses

Super Series Slit Lamp Lenses

Digital Series Slit Lamp Lenses

Indirect Contact Lenses

Direct Contact Lenses

Surgical Systems

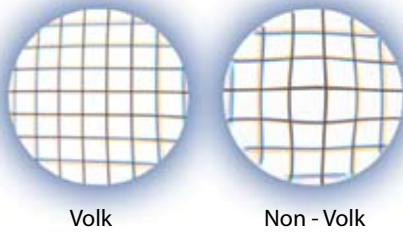
Surgical Lenses



## How to Contact Volk

### See the Difference

All lenses are not the same; different lenses will not deliver the same image quality. Ensure you get the highest quality lenses to deliver the highest resolution, distortion-free imaging. The image below represents an actual side by side comparison of a Volk 20D lens compared with a non-Volk lens over a 2mm grid. The photo is not retouched.



### Our Promise

Volk is known worldwide as the premier designer and manufacturer of the highest quality ophthalmic lenses. The first aspheric indirect ophthalmoscopy lens was developed by Dr. David Volk 50 years ago. This led to the patented, double aspheric designs of the 20D, 78D and 90D lenses, the leading standards in the ophthalmic industry.

Continual improvement saw the evolution and development of the 2nd generation – the Super Series lenses, to the unsurpassed imaging you can achieve today, with our 3rd generation Digital Series Lenses.

Volk's unmatched image quality can be appreciated across our comprehensive range of imaging products, including gonio lenses, direct and indirect laser lenses and a full range of surgical imaging products, including our unique Optiflex® Surgical Assistant.



on the internet

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phone

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toll-free in the USA

800-345-8655



fax

440-942-2257



mail

Volk Optical Inc.  
7893 Enterprise Drive  
Mentor, Ohio 44060  
USA

### [www.volk.com](http://www.volk.com)

Visit Volk online to get the information you need to review, compare and order your lenses online. It uses computer animation to facilitate virtual trials and comparisons of Volk lenses with technical specifications, application information and usage details. Choosing the right lens is further simplified with direct side by side comparisons of lenses' range, static field of view and Doctor's View.

An SSL secure certificate guarantees secure transactions over the Internet, protecting your privacy for on-line purchases. The site's improved distributor locator helps you quickly find your closest Authorized Volk dealer. Special offers and promotional pricing are also available on the site.



# Ordering Information

## How to Order

Orders within the United States may be placed with an Authorized Volk Distributor or directly with Volk Optical Inc. by mail, fax or phone (1-800-345-8655).

Please provide complete shipping and billing information with your order.

Volk honors Discover, Visa, MasterCard & American Express.

Orders from outside of the United States may be placed with the Authorized Volk Distributor in your region or directly from Volk on our web site. Authorized Distributor contact information is available from Volk.

## 5 easy ways to order!



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# Classic Indirect BIO Lenses

In 1956, aspheric ophthalmic lenses for subnormal vision were developed by Dr. David Volk. He found that an aspheric surface corrected the aberrations present in more common spherical lenses.

Several developments occurred with the aspheric lens designs through the years, delivering far superior imaging for BIO examinations. In 1982 all Volk lenses for indirect ophthalmoscopy were redesigned with both surfaces aspheric, providing a substantial improvement in image quality.

The 20D and other Volk BIO lenses have been known as the industry standard for decades, and are still widely used in every corner of the world today.

BIO Lenses	Field of View	Image Mag.	Laser Spot Mag. Factor	Working Distance	Primary Application
Macula Plus® 5.5	36° / 43°	5.50x	.18x	80mm	Ultra-high resolution viewing of posterior pole
14D Large	36° / 47°	4.30x	.23x	75mm	High magnification viewing of posterior pole
15D Large	36° / 47°	4.11x	.24x	72mm	High magnification viewing of posterior pole
20D Large	46° / 60°	3.13x	.32x	50mm	General diagnosis & treatment
Pan Retinal® 2.2	56° / 73°	2.68x	.37x	40mm	General diagnosis & treatment
25D Large	52° / 68°	2.54x	.39x	38mm	Median field diagnosis & treatment
28D Large	53° / 69°	2.27x	.44x	33mm	Small pupil diagnosis & treatment
30D Small	46° / 60°	2.10x	.48x	30mm	Small profile lens for ease of use within the orbit
30D Large	58° / 75°	2.15x	.47x	30mm	Small pupil diagnosis & treatment
40D Large	69° / 90°	1.67x	.6x	20mm	Pediatric ophthalmoscopy / veterinary apps.
Digital BIO Lenses	Field of View	Image Mag.	Laser Spot Mag. Factor	Working Distance	Primary Application
Digital ClearMag	38° / 49°	3.89x	.26x	60mm	For detailed optic disc and posterior pole examination
Digital ClearField	55° / 72°	2.79x	.36x	37mm	For mid and far peripheral retinal viewing

# Digital Series Indirect BIO Lenses

In the Volk spirit of improvement, our 3rd generation, 'Digital Series' BIO lenses were developed from the previous generation BIO lenses, in a similar fashion to the Digital Series slit lamp lenses. The goal: to deliver enhanced resolution imaging with the indirect ophthalmoscope.

Working with a high grade glass, we looked at all aspects of their double aspheric designs with advanced computer modeling techniques. We realized improvements in all aspects of the BIO lens capabilities, ultimately delivering the best image quality attainable for indirect ophthalmic exams.

# Classic Indirect BIO Lenses

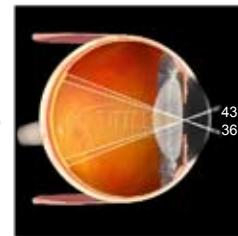


## Macula Plus® 5.5

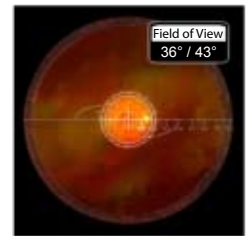
Primary Application – Ultra High Resolution Viewing of the Posterior Pole

- Excellent stereo imaging for diagnosis of macular abnormalities
- High magnification facilitates examination of geriatric patients
- Lens adapter provides stability with extended working distance

Product code: VMP5.5



2D View



Field of View

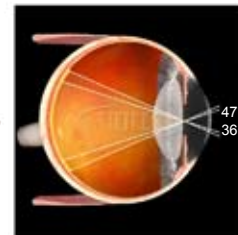


## 14D

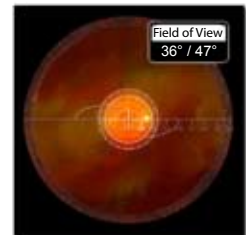
Primary Application – High Magnification Viewing of the Posterior Pole

- High magnification provides excellent imaging of the macular and optic disc
- Detailed optic disc views facilitate glaucoma screening examination

Product code: V14LC



2D View



Field of View

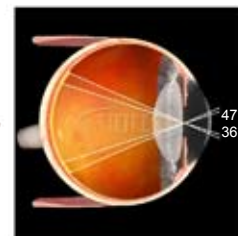


## 15D

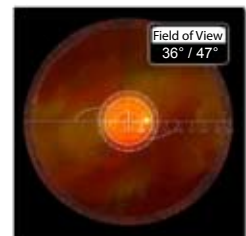
Primary Application – High Magnification Viewing of the Posterior Pole

- High magnification provides excellent imaging of the macular and optic disc
- Detailed optic disc views facilitate glaucoma screening examination

Product code: V15LC



2D View



Field of View

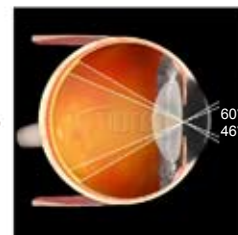


## 20D

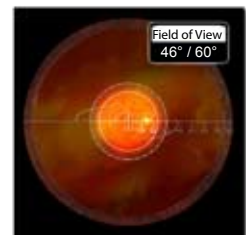
Primary Application – Industry standard general diagnostic lens

- Balance of magnification and field of view for general diagnosis
- Available in AutoClave sterilizable (ACS®) Design (see page 26) - (black ring only)

Product code: V20LC



2D View



Field of View

Available in 7 different colors





Available in 7 different colors

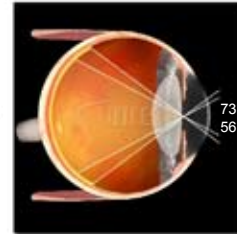


## Pan retinal® 2.2

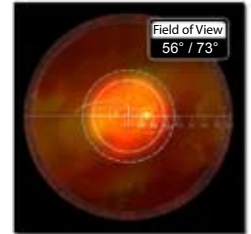
Primary Application – Excellent for General Diagnosis and Treatment

- Balance of magnification and field of view for general diagnosis
- Optimized design facilitates examination through small pupils

Product code: VPRC



2D View



Field of View  
56° / 73°

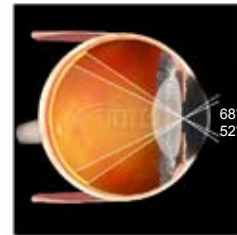


## 25D

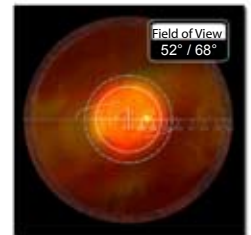
Primary Application – Median Field Diagnosis and Treatment

- Lower magnification decreases working distance
- Smaller diameter facilitates manipulation within the orbit

Product code: V25LC



2D View



Field of View  
52° / 68°



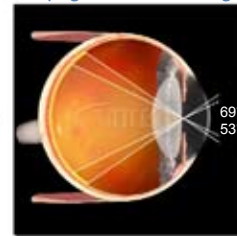
## 28D

Primary Application – Ideal for fundus scanning

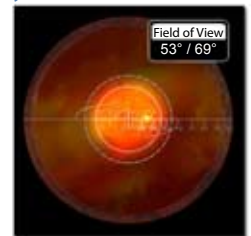
- High resolution provides excellent fundus imaging
- Excellent for small pupil diagnosis and treatment
- Available in AutoClave sterilizable (ACS®) Design (see page 26) - (black ring only)

Product code: V28LC

Available in 7 different colors



2D View



Field of View  
53° / 69°

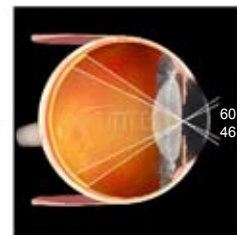


## 30D Small

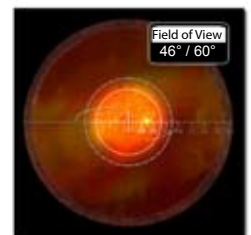
Primary Application – Small Pupil and Pediatric Diagnosis and Treatment

- Optical design delivers high resolution views through a small pupil
- Small profile lens for ease of use within the orbit during examination

Product code: V30SC



2D View



Field of View  
46° / 60°



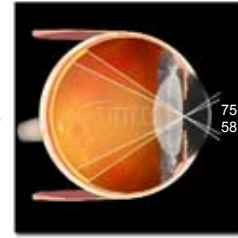


### 30D

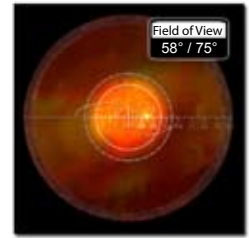
Primary Application – Small Pupil and Pediatric Diagnosis and Treatment

- Optical design delivers high resolution views through a small pupil
- Short working distance delivers wide field of view

Product code: V30LC



2D View



Field of View

Field of View  
58° / 75°

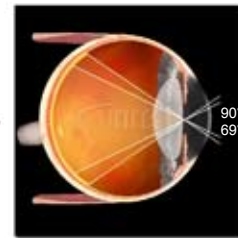


### 40D

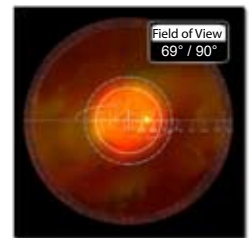
Primary Application – Small Pupil and Pediatric Diagnosis and Treatment

- Widest field of view of any BIO lens delivers high resolution views through a small pupil
- Can be used at a slit lamp to provide ultra high magnification views of the posterior pole

Product code: V40LC



2D View



Field of View

Field of View  
69° / 90°

## Digital Series Indirect BIO Lenses

### Key benefits :

- Low Dispersion glass delivers enhanced resolution
- Reduced ring diameter and working distance facilitate lens manipulation
- Advance A/R coating minimizes reflections and glare.

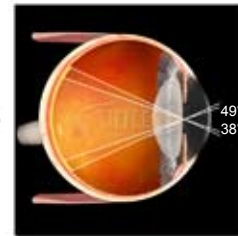


### Digital ClearMag

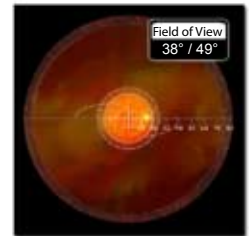
Primary Application – Upgrade for your 14D/15D lens;

Highest Resolution High Magnification Optic Disc and Posterior Pole Examination

Product code: VDGTLCM



2D View



Field of View

Field of View  
38° / 49°

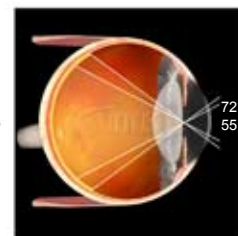


### Digital ClearField

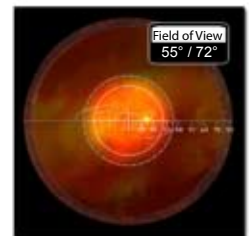
Primary Application – Upgrade for your 20D/Pan Retinal® 2.2;

Highest Resolution Pan Retinal Examination. Great for small pupils.

Product code: VDGTLCF



2D View



Field of View

Field of View  
55° / 72°

# Classic Slit Lamp Lenses

In 1956, aspheric ophthalmic lenses for subnormal vision were developed by Dr. David Volk. He found that an aspheric surface corrected the aberrations present in more common spherical lenses.

Several developments occurred through the years, leading up to 1982 when all Volk lenses for indirect ophthalmoscopy were redesigned with both surfaces aspheric, providing a substantial improvement in image quality.

A series of indirect ophthalmoscopy lenses was developed, resulting in the choice of the 90 Diopter lens as the most practical for indirect ophthalmoscopy with the slit lamp. The Volk 60D and 90D lenses were commercialized providing a variety of characteristics; magnification, field of view and undilated pupil examination.

The 60D and 90D lenses have been known as the industry standard for decades, having revolutionized the slit lamp examination in the 1970s.

Classic	Field of View	Image Mag.	Laser Spot	Working Distance	Primary Application
60D Classic	68° / 81°	1.15x	.87x	13mm	High magnification views of the posterior pole
78D Classic	81° / 97°	.93x	1.08x	8mm	General diagnosis and treatment
90D Classic	74° / 89°	.76x	1.32x	7mm	General diagnosis / small pupil examinations
Super Series	Field of View	Image Mag.	Laser Spot	Working Distance	Primary Application
Super 66®	80° / 96°	1.0x	1.0x	11mm	High Resolution viewing of the posterior pole
SuperField®	95° / 116°	.76x	1.3x	7mm	General retinal scanning situations
Super VitreoFundus®	103° / 124°	.57x	1.75x	4-5mm	Wide field retinal scanning and small pupil exams (3-4 mm)
SuperPupil® XL	103° / 124°	.45x	2.2x	4mm	Examination through small pupils (2-3mm)
Digital Series	Field of View	Image Mag.	Laser Spot	Working Distance	Primary Application
Digital High Mag®	57° / 70°	1.30x	.77x	13mm	Highest resolution and magnification imaging of the posterior pole with reduced glare and reflections.
Digital 1.0x Imaging Lens	60° / 72°	1.0x	1.0x	12mm	High resolution 1.0x imaging with reduced glare ideal for optic disc measurements and slit lamp photography.
Digital Wide Field®	103° / 124°	.72x	1.39x	4-5mm	High resolution, wide field retinal scanning and reduced glare and reflections.

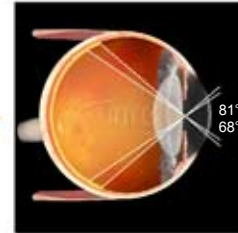
# Classic Slit Lamp Lenses



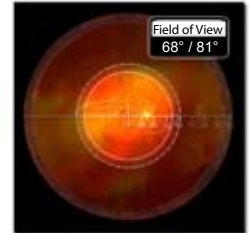
## 60D

- Primary Application – High Magnification Views of the Posterior Pole
- High magnification lens for detailed optic disc and macula imaging
  - Ideal diameter for use in the orbital area

Product code: V60C



2D View



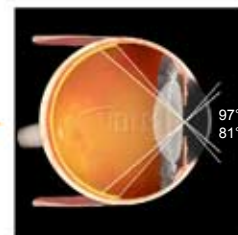
Field of View



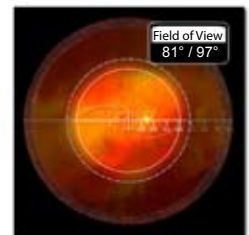
## 78D

- Primary Application – General Diagnosis and Laser Treatment
- Ideal balance of magnification and field of view
  - Optimally designed for use within range of motion of all slit lamps

Product code: V78C



2D View



Field of View

Available in 7 different colors



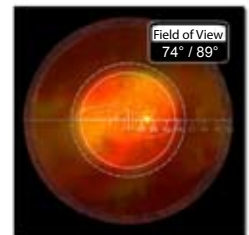
## 90D

- Primary Application – General Diagnosis and Small Pupil Examinations
- Original 90D lens started the slit lamp fundus examination revolution
  - Small diameter ring is ideal for dynamic funduscopy
  - Outstanding general diagnostic lens, even through small pupils

Product code: V90C



2D View



Field of View

Available in 7 different colors



2<sup>nd</sup> Generation...

# Super Series Lamp Lenses

Our drive to improve indirect imaging at the slit lamp led us to develop our 2nd generation slit lamp lenses. Working with high grade glass types, we reviewed and improved the double aspheric designs which were so successful in the classic 90D, 78D and 60D lenses, to bring the 'Super Series'. A group of 4 lenses was developed to deliver wide field, high magnification and specialty features such as unsurpassed small pupil capabilities – the full diagnostic spectrum.

Classic	Field of View	Image Mag.	Laser Spot	Working Distance	Primary Application
60D Classic	68° / 81°	1.15x	.87x	13mm	High magnification views of the posterior pole
78D Classic	81° / 97°	.93x	1.08x	8mm	General diagnosis and treatment
90D Classic	74° / 89°	.76x	1.32x	7mm	General diagnosis / small pupil examinations
Super Series	Field of View	Image Mag.	Laser Spot	Working Distance	Primary Application
Super 66 <sup>®</sup>	80° / 96°	1.0x	1.0x	11mm	High Resolution viewing of the posterior pole
SuperField <sup>®</sup>	95° / 116°	.76x	1.3x	7mm	General retinal scanning situations
Super VitreoFundus <sup>®</sup>	103° / 124°	.57x	1.75x	4-5mm	Wide field retinal scanning and small pupil exams (3-4 mm)
SuperPupil <sup>®</sup> XL	103° / 124°	.45x	2.2x	4mm	Examination through small pupils (2-3mm)
Digital Series	Field of View	Image Mag.	Laser Spot	Working Distance	Primary Application
Digital High Mag <sup>®</sup>	57° / 70°	1.30x	.77x	13mm	Highest resolution and magnification imaging of the posterior pole with reduced glare and reflections.
Digital 1.0x Imaging Lens	60° / 72°	1.0x	1.0x	12mm	High resolution 1.0x imaging with reduced glare ideal for optic disc measurements and slit lamp photography.
Digital Wide Field <sup>®</sup>	103° / 124°	.72x	1.39x	4-5mm	High resolution, wide field retinal scanning and reduced glare and reflections.

# Super Series Slit Lamp Lenses



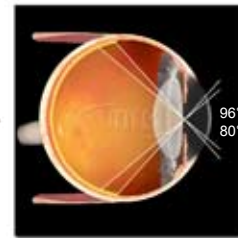
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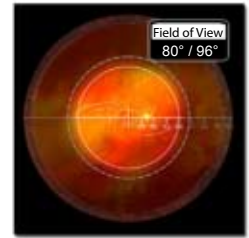
## Super 66®

- Primary Application – High Magnification Viewing of the Central Retina
- Enables 3D discernment of subtle macular and optic disc detail
  - 1.0x magnification simplifies optic disc measurement

Product code: VS66



2D View



Field of View



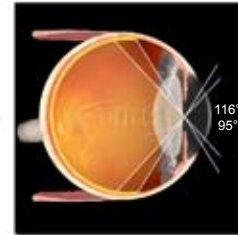
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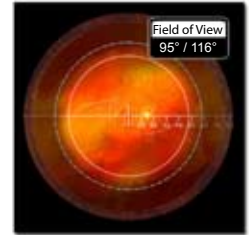
## Super Field NC®

- Primary Application – Wide Field, Pan Retinal Examination
- 'Super 90D': Same magnification with a wider field of view
  - Highly versatile lens with multiple contact and non contact options
  - Increased working distance compared to competitive fundus lenses

Product code: VSFNC



2D View



Field of View



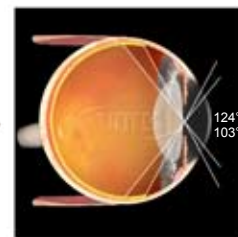
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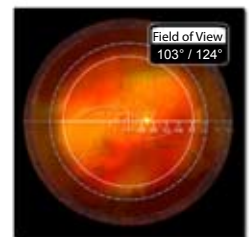
## Super VitreoFundus®

- Primary Application – Wide Field, Pan Retinal Examination and Small Pupil Capability
- Widest field of view in a non contact lens with views past the vortex
  - Excellent small pupil capability through a 3 – 4mm pupil

Product code: VSVF



2D View



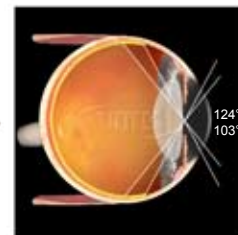
Field of View



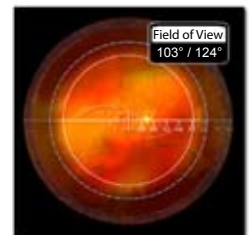
## Super Pupil® XL

- Primary Application – Small Pupil Pan Retinal Examination
- Optimal small pupil capability through a pupil as small as 2 - 3mm
  - Excellent for diabetic patients with miotic eyes

Product code: VSPXL



2D View



Field of View

3<sup>rd</sup> Generation...

# Digital Series Slit Lamp Lenses

The Digital Series are our 3rd generation, double aspheric, non-contact slit lamp lenses. Building on the 'Super Series' lenses with high grade glass, we enhanced our double aspheric designs further with advanced computer modeling. Also, gains in the quality of our A/R coating provided a noticeable reduction in glare and reflections. We found that this helped improve slit lamp photographic imaging. However, photography is not their sole purpose. The Digital Series lenses provide the finest views for all examinations and imaging, enabling discernment of details previously unattainable at the slit lamp.

Classic	Field of View	Image Mag.	Laser Spot	Working Distance	Primary Application
60D Classic	68° / 81°	1.15x	.87x	13mm	High magnification views of the posterior pole
78D Classic	81° / 97°	.93x	1.08x	8mm	General diagnosis and treatment
90D Classic	74° / 89°	.76x	1.32x	7mm	General diagnosis / small pupil examinations
Super Series	Field of View	Image Mag.	Laser Spot	Working Distance	Primary Application
Super 66 <sup>®</sup>	80° / 96°	1.0x	1.0x	11mm	High Resolution viewing of the posterior pole
SuperField <sup>®</sup>	95° / 116°	.76x	1.3x	7mm	General retinal scanning situations
Super VitreoFundus <sup>®</sup>	103° / 124°	.57x	1.75x	4-5mm	Wide field retinal scanning and small pupil exams (3-4 mm)
SuperPupil <sup>®</sup> XL	103° / 124°	.45x	2.2x	4mm	Examination through small pupils (2-3mm)
Digital Series	Field of View	Image Mag.	Laser Spot	Working Distance	Primary Application
Digital High Mag <sup>®</sup>	57° / 70°	1.30x	.77x	13mm	Highest resolution and magnification imaging of the posterior pole with reduced glare and reflections.
Digital 1.0x Imaging Lens	60° / 72°	1.0x	1.0x	12mm	High resolution 1.0x imaging with reduced glare ideal for optic disc measurements and slit lamp photography.
Digital Wide Field <sup>®</sup>	103° / 124°	.72x	1.39x	4-5mm	High resolution, wide field retinal scanning and reduced glare and reflections.

# Digital Series Slit Lamp Lenses

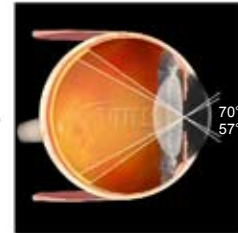


## Digital High Mag®

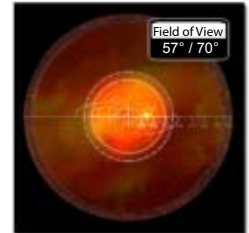
Primary Application – Highest Resolution, High Magnification Imaging of the Central Retina

- Low dispersion™ glass reduces chromatic aberration for extremely high resolution retinal imaging
- High magnification provides topographical views of the nerve fiber layer
- Outstanding stereopsis allows detection of optic disc swelling, cupping and macular serous fluid

Product code: VDGLHM



2D View



Field of View

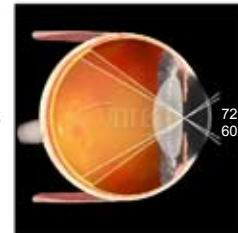


## Digital 1.0x Imaging Lens

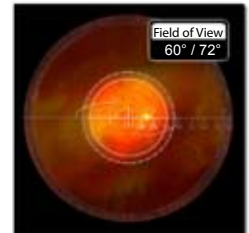
Primary Application – Ultimate Lens for Digital Slit Lamp Photography

- Unique glass surface curves and coating minimize photographic distortion and reflections
- 1.0x magnification simplifies optic disc measurement
- High index, high resolution glass provides improved stereopsis and image clarity

Product code: VDGL1



2D View



Field of View

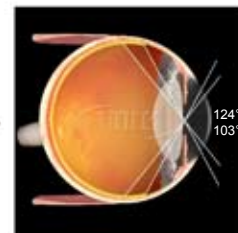


## Digital Wide Field®

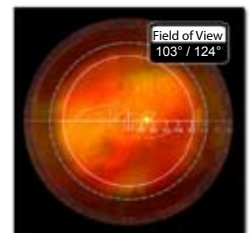
Primary Application – Highest Resolution Pan Retinal Examination

- Ultimate 90D lens with similar magnification and widest field of view past the vortex
- Unique glass surface curves and coating minimize distortion and reflections
- High index glass ensures highest resolution stereo image, even through small pupils

Product code: VDGLWF



2D View



Field of View

# Indirect Contact Laser Lenses

Indirect Lenses	Field of View	Image Mag.	Laser Spot	Primary Application
SuperQuad® 160	160° / 165°	.5x	2.0x	Extreme, wide angle pan-retinal photocoagulation
H-R Wide Field	160° / 165°	.5x	2.0x	Finest wide field imaging; best lens for diagnosis and PRP
QuadrAspheric®	120° / 144°	.51x	1.97x	Wide field diagnosis and treatment of the retina
PDT Laser Lens	115° / 137°	.67x	1.5x	Photodynamic Therapy
Equator Plus®	114° / 137°	.44x	2.27x	Small pupil diagnosis and treatment
TransEquator®	110° / 132°	.7x	1.44x	Mid peripheral diagnosis and grid laser therapy
Quad Pediatric	100° / 120°	.55x	1.82x	ROP and other pediatric conditions
Volk Area Centralis®	70° / 84°	1.06x	.94x	High resolution viewing and treatment of the posterior pole
SuperMacula® 2.2	60° / 78°	1.49x	.67x	Ultra-high resolution diagnosis and treatment near the fovea

## Note :

Flanged versions provide optimal stability on the cornea.

No flange (NF) versions have a smaller corneal contact area than flanged versions. It is still necessary to use a contact fluid with these versions.

Our exclusive ANF+ flanged version is designed to provide optimal stability without the need for a contact fluid. It may be beneficial to utilize a lubricating fluid for patient comfort.



# Indirect Contact Laser Lenses

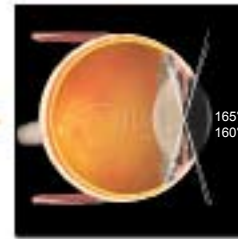


## Super Quad® 160

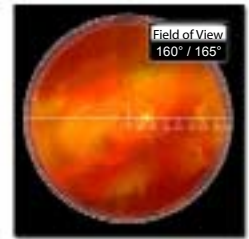
Primary Application – Extreme Wide Field Examination and Laser Treatment

- Widest field of view of any lens with complete retinal imaging out to the ora serrata
- Excellent PRP and other laser treatment capabilities to the far peripheral retina
- Superior design ensures minimized distortion to the extent of the visual field

Product code: VSQUAD160  
VSQUAD160NF



2D View



Field of View

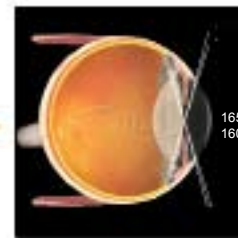


## H-R Wide Field

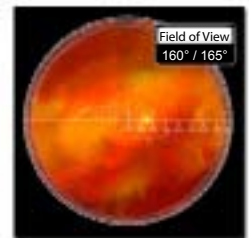
Primary Application – Extreme Wide Field Examination and Laser PRP Treatment

- low dispersion™ glass eliminates distortion, ensuring highest resolution imaging to the extent of the viewing field
- Low profile, reduced size housing simplifies manipulation within the orbit
- Superb upgrade or replacement for the Rodenstock pan fundus lens

Product code: VHRWF



2D View



Field of View

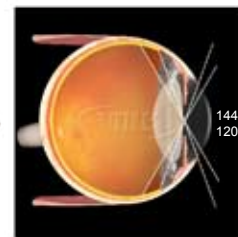


## QuadrAspheric®

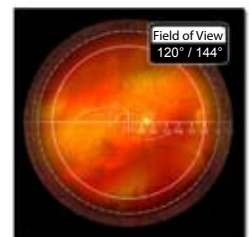
Primary Application – Wide Field Examination and Laser Treatment

- Optimally sized to maximize maneuverability in the orbit
- High resolution imaging of the peripheral retina with small pupil capability
- Excellent general diagnostic and laser treatment lens

Product code: VQFL  
VQFLNF  
VQFLANF+



2D View



Field of View

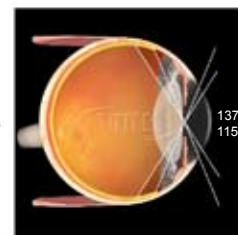


## PDT Laser

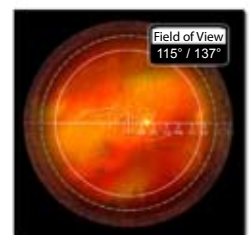
Primary Application – Photodynamic Therapy

- Delivers maximum laser spot size for treatment of the choroidal neovascular membranes
- Ideal combination of magnification and field of view to facilitate PDT procedures
- Optimized anti reflective coating for 689 nm wavelength used for PDT procedures

Product code: VPDT



2D View



Field of View

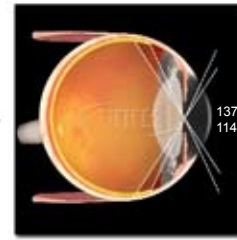


## Equator Plus®

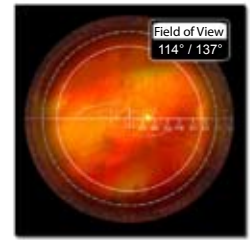
Primary Application – Small Pupil Diagnosis and Treatment

- Optimally sized to maximize maneuverability in the orbit
- High resolution wide field imaging with small pupil capability
- Available in numerous contact options including our exclusive advanced no fluid (ANF+)

Product code: VEPANF+  
VEPNF



2D View



Field of View

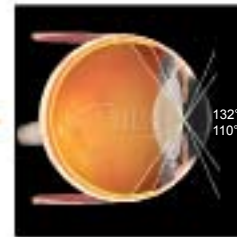


## Trans Equator®

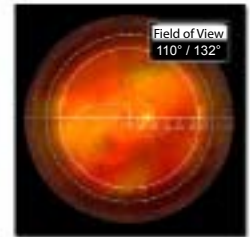
Primary Application – Mid Peripheral Retinal Diagnosis and Focal/Grid Laser Therapy

- Wide field of view past the equator for pan retinal imaging and treatment
- Excellent substitute for Rodenstock pan fundus lens
- Available in numerous contact options including our exclusive advanced no fluid (ANF+)

Product code: VTE  
VTENF  
VTEANF+



2D View



Field of View

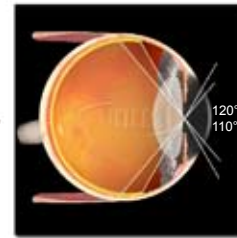


## Quad Pediatric

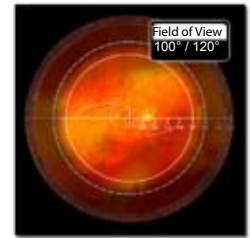
Primary Application – Retinopathy of Prematurity and Pediatric Diagnosis and Treatment

- Patented double aspheric glass optics provide enhanced imaging
- Miniaturized contact diameter ideal for diagnosis and treatment of ROP and other infant conditions
- Excellent for treatment of patients with narrow palpebral fissures

Product code: VQPED



2D View



Field of View

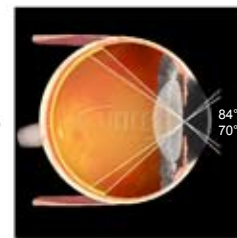


## Area Centralis®

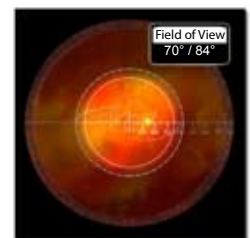
Primary Application – High Magnification Viewing and Treatment of the Posterior Pole

- Ideal for focal/grid laser treatment
- High magnification image of the posterior pole with expanded field of view
- Available in numerous contact options including our exclusive advanced no fluid (ANF+)

Product code: VAC  
VACNF  
VACANF+



2D View



Field of View

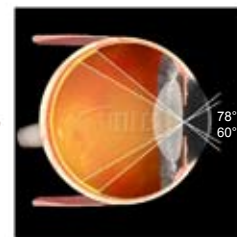


## Super Macula® 2.2

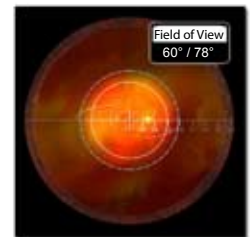
Primary Application – Ultra High Magnification Viewing and Treatment of the Posterior Pole

- Ideal for focal/grid laser treatment
- Highest magnification imaging of the posterior pole of any indirect contact lens
- Excellent for critical evaluation of the optic nerve head and macula

Product code: VSMAC2.2



2D View



Field of View



# Direct Contact Laser Lenses

Lens	Field of View	Image Mag.	Laser Spot
Centralis Direct®	22° / 26°	.9x	1.11x
Fundus Laser Lens	35° / 40°	1.25x	.8x
Fundus 20mm Laser Lens	25° / 30°	1.44x	.7x

## Note :

Flanged versions provide optimal stability on the cornea.

Our exclusive ANF+ flanged version is designed to provide optimal stability without the need for a contact fluid. It may be beneficial to utilize a lubricating fluid for patient comfort.

# Direct Contact Laser Lenses

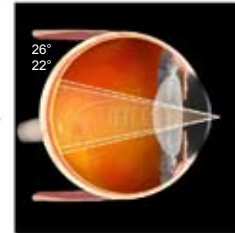


## Centralis Direct®

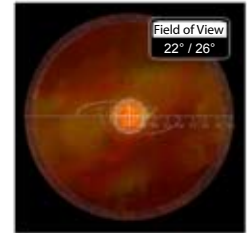
Primary Application – Direct Image Viewing and Treatment of the Posterior Pole

- High profile design eliminates filament reflection
- Optimized aspheric corneal contact design for improved fit and maneuverability
- Available in numerous contact options including our exclusive advanced no fluid (ANF+) flange

Product code: VCD  
VCDANF+



2D View



Field of View

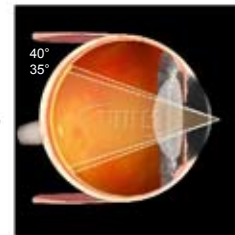


## Fundus Laser

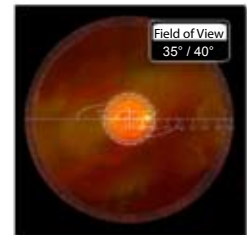
Primary Application – Direct Image Viewing and Treatment of the Posterior Pole

- Patented double aspheric glass optics provide enhanced imaging
- Superior high magnification viewing and treatment of the posterior pole and macula
- LASER WINDOW® protects imaging element from contamination ensuring precise laser spot placement

Product code: VFUNDUS



2D View



Field of View

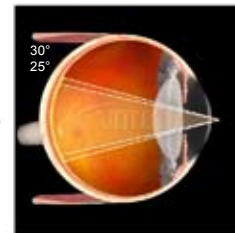


## Fundus Laser 20mm

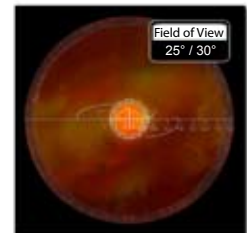
Primary Application – Direct Image Viewing and Treatment of the Posterior Pole

- Superior highest magnification viewing and treatment of the posterior pole and macula
- LASER WINDOW® protects imaging element from contamination ensuring precise laser spot placement
- Large contact element provides superior stability

Product code: VFUNDUS20



2D View



Field of View



# Specialty Treatment Lenses

Lens	Field of View	Image Mag.	Laser Spot Mag.
Capsulotomy Lens	na	1.57x	.63x
MagPlus Iridectomy Lens	na	1.6x	.63x
Iridectomy Lens	na	1.7x	.58x
Blumenthal Suturelysis	na	2x - 3x	.50x - .33x

**Note :**

Capsulotomy and iridectomy lenses are suitable for argon, diode and YAG laser treatments.



## Blumenthal Suturelysis

Primary Application – Suturelysis Procedures

- Unique pointed tip reduces compressive force needed to visualize sutures, reducing patient discomfort
- High magnification enables treatment of deep seated sutures
- Unique design facilitates visualization through thick Tenon's layer or a subconjunctival hemorrhage

Product code: VBSL



2D View  
Field of View



## Capsulotomy

Primary Application – Laser Capsulotomy Procedures

- Patented double aspheric glass optics provide enhanced imaging
- Delivers precise focused laser beam placement at the capsular bag
- LASER WINDOW® protects imaging element from contamination ensuring precise laser spot placement

Product code: VCAPS



2D View  
Field of View



## Mag Plus Iridectomy

Primary Application – Laser Iridotomy Procedures

- Larger offset viewing area delivers superior clarity and resolution with larger laser spot size
- Shallow LASER WINDOW® curves reduce astigmatic distortion
- LASER WINDOW® protects imaging element from contamination ensuring precise laser spot placement

Product code: VMPIRID



2D View  
Field of View



## Iridectomy

Primary Application – Laser Iridotomy Procedures

- Patented double aspheric glass optics provide enhanced imaging
- Highest magnification imaging of the iris
- LASER WINDOW® protects imaging element from contamination ensuring precise laser spot placement

Product code: VIRID



2D View  
Field of View

# Gonio Lenses

Lens	Mirror Angles	Image Magnification	Laser Spot Size	Contact Diameter
3 Mirror (no flange)	60°/ 66°/ 76°	1.06x	.94x	15mm
3 Mirror (ANF+)	60°/ 66°/ 76°	1.06x	.94x	18mm
G-1 trabeculum	62°	1.5x	.67x	15mm
G-1 trabeculum nf	62°	1.5x	.67x	8.4mm
G-2 trabeculum	60° / 64°	1.5x	.67x	15mm
G-2 trabeculum nf	60° / 64°	1.5x	.67x	8.4mm
G-3 goniofundus	60°/ 66°/ 76°	1.06x	.94x	15mm
G-3 goniofundus nf	60°/ 66°/ 76°	1.03x	.97x	11.4mm
G-3 mini goniofundus nf	60°/ 66°/ 76°	1.0x	1.0x	9.6mm
G-4 goniolaser	4 x 64°	1.0x	1.0x	15mm
G-4 gonio nf	4 x 64°	1.0x	1.0x	8.4mm
G-4 High Mag	4 x 64°	1.5x	.67x	15mm
G-4 High Mag nf	4 x 64°	1.5x	.67x	8.4mm

## Note :

Flanged versions provide optimal stability on the cornea and are suggested for laser treatment use.

No flange (nf) versions have a small corneal contact area and are excellent for diagnostic work. It may not be necessary to use a contact fluid with these versions (Gonio lenses only)

Our exclusive ANF+ flanged version is designed to provide optimal stability without the need for a contact fluid. It may be beneficial to utilize a lubricating fluid for patient comfort.

# Gonio Lenses



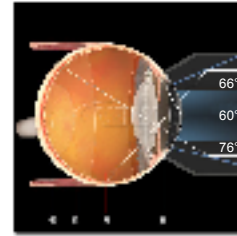
## 3 Mirror

Primary Application – Viewing and Treatment of the Anterior Chamber and Central and Peripheral Fundus

- Viewing mirrors are accurately angled to eliminate gaps in the visualized fundus
- Flattest mirror surfaces minimize image distortion
- Exclusive advanced no fluid (ANF+) flange option eliminates need for viscous coupling fluid

**Product code:**

- V3MIR (no flange) (as shown)
- V3MIRANF+ (Advance No Fluid)
- VDI3MIR (no flange - AR/DI® Diode Laser)
- VDI3MIRANF+ (Advance No Fluid - AR/DI® Diode Laser)
- VU3MIR Diagnostic (no flange) (No Coating)
- VU3MIRANF+ Diagnostic (Advance No Fluid - No Coating)



2D View Field of View

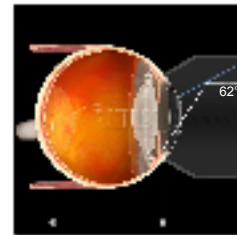


## G-1 trabeculum

Primary Application – Treatment of the Anterior Chamber and Central Retina

- All glass design provides superior clarity and durability compared to acrylic lenses
- Highest magnification of any single mirror Gonio lens
- Flanged version provides stability for trabeculoplasty
- No flange version ideal for gonioscopy

- Product code:** VG1 (as shown)  
VG1NF (no flange)



2D View Field of View

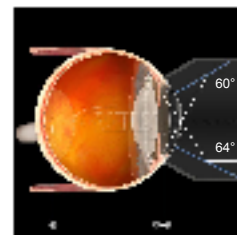


## G-2 trabeculum

Primary Application – Viewing and Treatment of the Anterior Chamber and Central Retina

- Two differently angled mirrors provide broader views of the anterior chamber
- All glass design provides superior clarity and durability compared to acrylic lenses
- Flanged version provides stability for trabeculoplasty
- No flange version ideal for gonioscopy

- Product code:** VG2 (as shown)  
VG2NF (no flange)



2D View Field of View

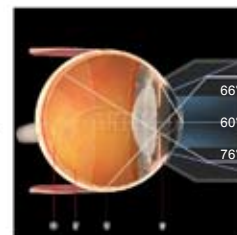


## G-3 Goniofundus

Primary Application – Viewing and Treatment of the Anterior Chamber and Central and Peripheral Fundus

- All glass design provides superior clarity and durability compared to acrylic lenses
- Mirrors are accurately angled to eliminate gaps in the visualized fundus
- Flanged version provides stability for trabeculoplasty
- No flange version ideal for gonioscopy

- Product code:**  
VG3 (best design for laser use)  
VG3NF (no flange) (as shown)  
VG3MININF (no flange) (as shown)



2D View Field of View

Available in mini version for pediatric and small orbit patients





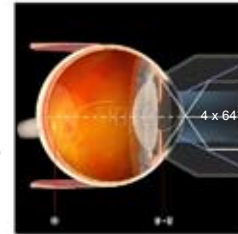
## G-4 GonioLaser

Primary Application – Standard Gonio Lens for Static and Dynamic Gonioscopy

- All glass design provides superior clarity and durability compared to acrylic lenses
- Available in large or small rings or with 2 position handle to suit personal preferences
- Flanged version provides stability for trabeculoplasty
- No flange version ideal for gonioscopy

**Product codes:**

- VG4 (with flange) (as shown) best design for laser use
- VG4SNF (no flange) 25.5mm Ring
- VG4LNF (no flange) 29.5mm Ring
- VG4HAN2(no-flange) Extended Handle (as shown)



2D View  
Field of View



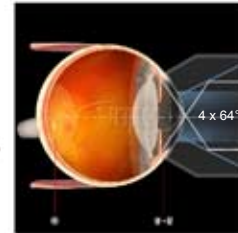
## G-4 High Mag

Primary Application – Standard Gonio Lens for High Magnification Static and Dynamic Gonioscopy

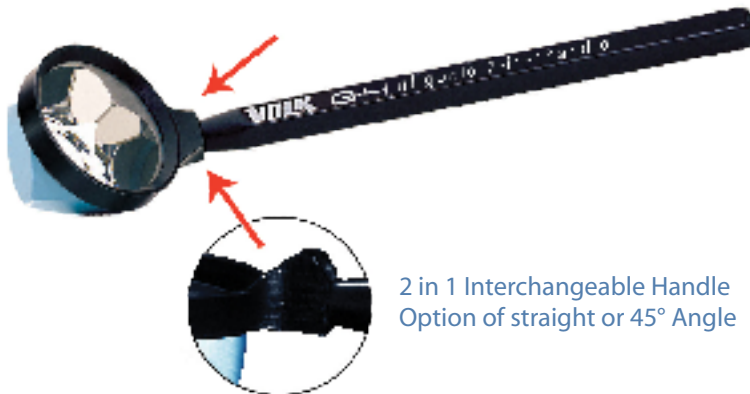
- All glass design provides superior clarity and durability compared to acrylic lenses
- Available in large or small rings or with 2 position handle to suit personal preferences
- Flanged version provides stability for trabeculoplasty
- No flange version ideal for gonioscopy

**Product codes:**

- VG4HM(with flange) (as shown) best design for laser use
- VG4HMSNF (no flange) 25.5mm Ring
- VG4HMLNF (no flange) 29.5mm Ring
- VG4HMHAN2(no-flange) Extended Handle (as shown)



2D View  
Field of View



2 in 1 Interchangeable Handle  
Option of straight or 45° Angle



- Optimum Flexibility
- Ultimate Control
- The Finest Surgical Imaging

Key Benefits :

- Superior focus control ensures precise lens positioning
- Highest quality Volk optics provide the highest resolution imaging
- Simple operation facilitates surgical procedures to free up assistant help
- Robust titanium construction for long product life

**The Optiflex® Surgical Assistant** is the ultimate precision maneuvering and control instrument for positioning of non contact lenses used during surgical procedures.

Compatible with all leading surgical microscopes, Optiflex® provides an elegant solution to position surgical lenses, delivering the clearest, crispest views.

The Optiflex® Surgical Assistant is a manual system featuring a precise thumbwheel fine focus control mechanism. Unique swing and pivot controls enable simple movement into and out of the visual field. Its unique, precision control coupled with industry leading Volk optics make the Optiflex® Surgical Assistant the finest solution for surgical imaging.

## Indirect Non-Contact Surgical Lenses

- High index glass provides unsurpassed optical quality
- AutoClave Sterilizable (ACS®) design maintains clarity during repeat sterilization
- Low profile ring minimizes interference to your field of vision

Lens	Field of View	Image Mag.
Non-Contact Surgical Wide Angle ACS®	102° / 120°	.43x
Non-Contact Surgical High Mag ACS®	75° / 90°	.94x



## Reinverting Operating Lens System® (ROLS®)

Primary Application – Provides high resolution reinverted images during vitreoretinal surgery

Overview – The ROLS unit is the most technically advanced panoramic viewing system to provide reinverted images during vitreoretinal surgery.

Used in conjunction with Volk high magnification and wide field vitrectomy lenses, it delivers highest resolution high magnification imaging of the macula and panoramic views up to the ora serrata.

- Precision prism surfaces for perfect image reproduction
- Easily installed on all standard surgical microscopes
- Advanced single element prism design guarantees image fusion and efficient light transmission
- Optional feature decreases working distance for more comfortable working position
- Easy to use, magnetic latching handles facilitate cleaning and sterilization

A ROLS+ reinverter (manual version only) delivers the added benefit of decreased working distance when performing vitrectomy. Used when switching between a plano/concave lens to a wide field indirect lens, the decreased working distance promotes a more comfortable working position.

Note : when used with an assistant scope, the ROLS+ reinverter may cause the assistant scope to be out of focus on some microscopes



# Indirect Surgical Lenses

Lens	Field of View	Image Mag.
HRX	130° / 150°	.43x
MiniQuad® XL	112° / 134°	.39x
MiniQuad®	106° / 127°	.39x
DynaView	95° / 127°	.39x
Central Retinal	73° / 88°	.71x
Super Macula®	64° / 77°	1.03x
clariVit Central Mag.	80° / 96°	.72x
clariVit Wide angle	110° / 132°	.39x

# Indirect Surgical Lenses

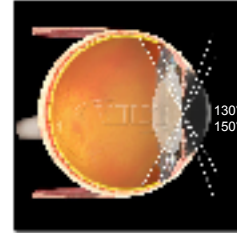
Indirect Surgical Lenses



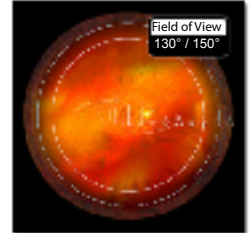
## HRX Vit Lens

- Primary Application – Far Peripheral Indirect Vitreoretinal Procedures
- High index glass delivers widest field, distortion free retinal views of any surgical lens
  - Small profile ring facilitates instrument manipulation and surgical procedures
  - Available in standard and patented self stabilizing contact (SSV®) options
  - Ideal for retinal detachments and giant retinal tears

Product code: VHRXVIT  
VHRXVITSSV (as shown)



2D View



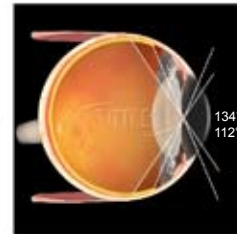
Field of View  
130° / 150°



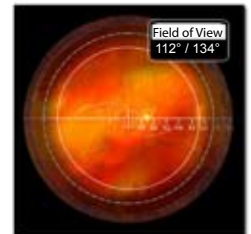
## Mini Quad® XL

- Primary Application – Indirect Viewing and Treatment of Peripheral Retinal Disorders
- Wide field of view of the entire retina including the ora serrata
  - Ideal for retinal detachments and giant retinal tears
  - Available in standard and self stabilizing contact (SSV®) options

Product code: VMQXLVIT (as shown)  
VMQXLVITSSV



2D View



Field of View  
112° / 134°



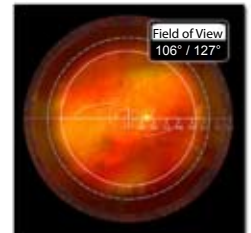
## Mini Quad®

- Primary Application – Indirect Viewing and Treatment of Peripheral Retinal Disorders
- Wide field of view of the entire retina including the ora serrata
  - Smaller ring facilitates manipulation within the orbit
  - Available in standard and self stabilizing contact (SSV®) options
  - Ideal for retinal detachments and giant retinal tears

Product code: VMQVIT (as shown)  
VMQVITSSV



2D View



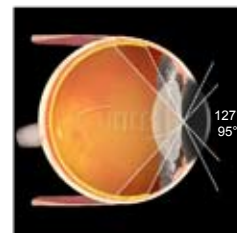
Field of View  
106° / 127°



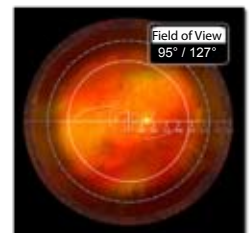
## Dyna View

- Primary Application – Retinopathy of Prematurity
- Enhanced design provides wide field imaging out to the ora serrata
  - Minified housing facilitates extension of instruments
  - Reduced contact size ideal for pediatric examination

Product code: VDVVIT



2D View



Field of View  
95° / 127°

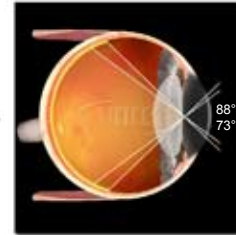


## Central Retinal

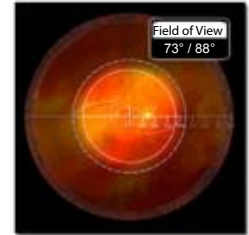
Primary Application – High Magnification Indirect Viewing and Treatment of the Central Retinal

- High resolution, high magnification imaging to the equator
- Ideal for membrane peeling, retinal tears and other small detail procedures
- Available in standard and self stabilizing contact (SSV®) options

Product code: VCRLVIT (as shown)  
VCRLVITSSV



2D View



Field of View

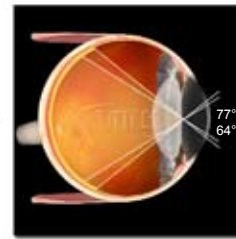


## Super Macula®

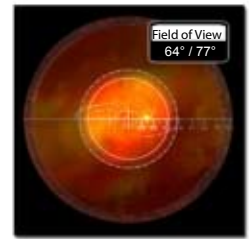
Primary Application – Highest Magnification Indirect Viewing and Treatment of the Central Retinal

- High resolution, highest magnification imaging of the central retina
- Ideal for macular holes, epiretinal membranes and submacula surgery
- 2x field of view compared to plano/concave direct image lenses

Product code: VSMACVIT



2D View



Field of View

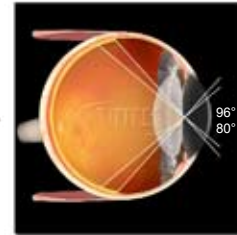


## clariVit Central Mag

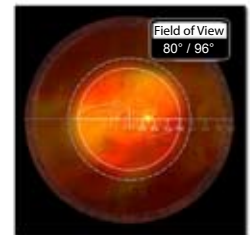
Primary Application – High Magnification Indirect Viewing and Treatment of the Central Retina

- Patented solid design delivers high clarity imaging and minimizes fogging
- High magnification, high resolution imaging out to the equator
- Unique mini design ideal for patients with small facial features

Product code: VCVCM



2D View



Field of View

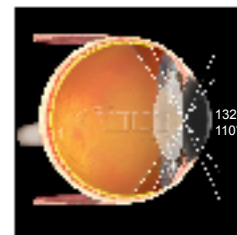


## clariVit Wide Angle

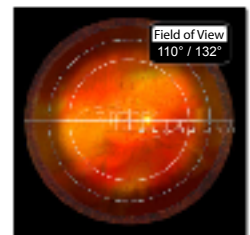
Primary Application – Indirect Viewing and Treatment of Peripheral Retinal Disorders

- Patented solid design delivers high clarity imaging and minimizes fogging
- Ideal for treatment of giant retinal tears and general peripheral retina surgeries
- Unique mini design ideal for patients with small facial features


Product code: VCVWA



2D View



Field of View



# Autoclaveable Indirect Bio and Surgical Lenses

Lenses	Field of View	Image Mag.	Laser Spot	Working Distance
20D ACS <sup>®</sup>	46° / 60°	3.13x	.32x	50mm
28D ACS <sup>®</sup>	53° / 69°	2.27x	.44x	33mm

Lenses	Field of View	Image Mag.
MiniQuad <sup>®</sup> ACS <sup>®</sup>	106 / 127°	.48x
Central Retinal ACS <sup>®</sup>	73° / 88°	.71x

# Autoclaveable Indirect BIO and Surgical Lenses

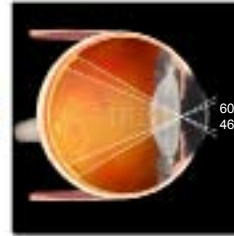


## 20D ACS®

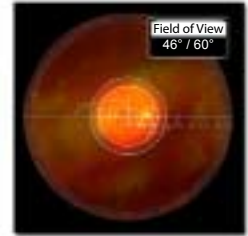
Primary Application – Industry standard autoclaveable general diagnostic lens

- Steam sterilizable for use in a surgical environment
- High magnification provides excellent views of the optic disc and macula
- Perfectly corrected for field curvature, astigmatism, aberrations and coma

Product code: V20LCACSPV



2D View



Field of View

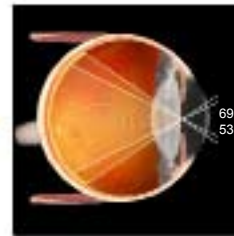


## 28D ACS®

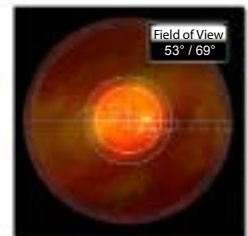
Primary Application – Autoclaveable wider field fundus scanning lens

- Steam sterilizable for use in a surgical environment
- High resolution provides excellent wide field fundus imaging
- Excellent for small pupil diagnosis and treatment

Product code: V28LCACSPV



2D View



Field of View

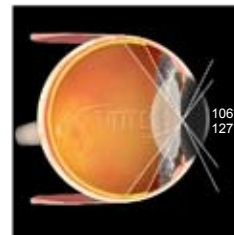


## Mini Quad® ACS®

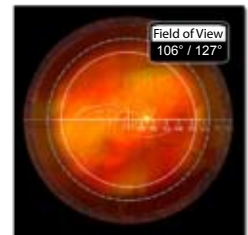
Primary Application – Peripheral Indirect Vitreoretinal Procedures

- Steam sterilizable for decreased processing time
- Smaller ring facilitates manipulation within the orbit
- Ideal for retinal detachments and giant retinal tears

Product code: VMQVITACS  
VMQVITSSVACS (as shown)



2D View



Field of View



## Central Retinal ACS®

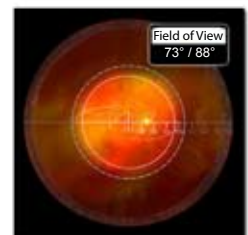
Primary Application – High Magnification Indirect Vitreoretinal Procedures

- High resolution, high magnification imaging to the equator
- Steam sterilizable for decreased processing time
- Ideal for membrane peeling, retinal tears and other small detail procedures

Product code: VCRLVITACS (as shown)  
VCRLVITSSVACS



2D View



Field of View

# High Resolution (HR) Direct Image Surgical Lenses

Volk's HR direct image lenses utilize a high index glass to deliver superior image quality. This robust glass type is highly resistant to the rigors of continued steam sterilization and will not deteriorate or discolor.

These lenses are commonly used with a suture or stabilization ring. Two of the lenses in the group are also available in a no suture ring design. The profiles of these two lenses allows them to stabilize suitably without the need for an additional stabilizing ring.

Lenses	Field of View	Image Mag.
HR Direct Image 1X	30°	1.0x
HR Direct Bi-Concave	45° (mid field) 30° (AFX)	0.5x (mid field) 1.0x (AFX)
HR Direct High Mag	20°	1.4x
HR Direct 20° Prism	40° (offset 20°)	0.5x



# High Resolution Direct Image Surgical Lenses



1X



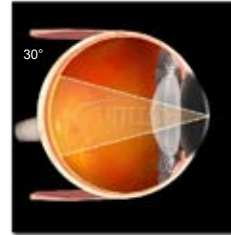
1X (NSR)

## HR Direct 1X

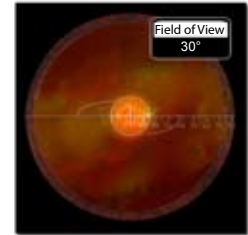
Primary Application – Direct Image Vitreoretinal Surgery of the Central Retina

- High index glass delivers highest resolution direct image of the central retina
- Highly suited for repeated steam sterilization with no material degradation
- Standard design fits all major suture rings
- Unique optional no stabilizing ring (NSR) design available

Product code: VHRD1XACS  
VHRD1XNSRACS



2D View



Field of View

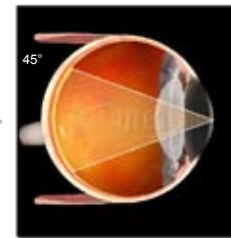


## HR Direct Bi-Concave

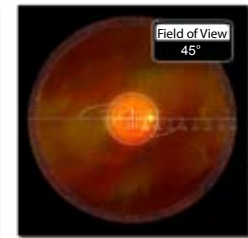
Primary Application – Wide Field and AFX (Air Fluid Exchange) Direct Image Vitreoretinal Surgery

- High index glass in a bi-concave design delivers highest resolution imaging for wide field and AFX procedures
- Highly suited for repeated steam sterilization with no material degradation
- Standard design fits all major suture rings

Product code: VHRDBCACS



2D View



Field of View



High Mag



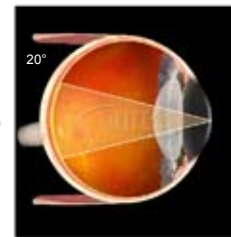
High Mag (NSR)

## HR Direct High Mag

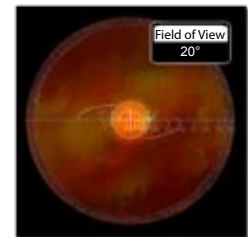
Primary Application – High Magnification Direct Image Vitreoretinal Surgery of the Central Retina

- High index glass delivers highest resolution, high magnification of the central retina
- Highly suited for repeated steam sterilization with no material degradation
- Standard design fits all major suture rings
- Unique optional no stabilizing ring (NSR) design available

Product code: VHRDHMACS  
VHRDHMNSRACS



2D View



Field of View

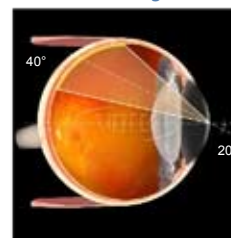


## HR Direct 20° Prism

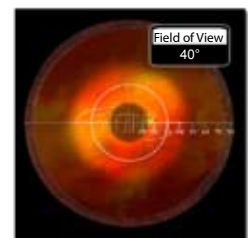
Primary Application – Off Axis Wide Field Direct Image Vitreoretinal Surgery

- High index glass delivers highest resolution off axis (20°) direct image retinal views
- Improved design delivers wider field (40°) off axis views
- Highly suited for repeated steam sterilization with no material degradation

Product code: VHRD20PACS



2D View



Field of View

High Resolution (HR) Direct Surgical Lenses

# Direct Surgical Lenses

## Chalam Direct SSV® (ACS®) Lenses

The Chalam SSV® (Self Stabilizing Vitrectomy) contact design eliminates the need for sutures or rings. SSV® Designs developed with K.V. Chalam, MD.

Lens	Field of View	Image Mag.
Chalam Flat SSV® (ACS)	30°	.92x
Chalam High Mag 1.5 SSV® (ACS)	15°	1.5x
Chalam Mid Field SSV® (ACS)	40°	.50x
Chalam 15° Prism SSV® (ACS)	30° offset	.90x
Chalam 30° Prism SSV® (ACS)	30° offset	.90x
Chalam 45° Prism SSV® (ACS)	30° offset	.90x
Chalam AFX SSV® (ACS) (Air Fluid Exchange - Air filled eye)	30°	.82x
Chalam Mini Flat SSV (ACS)	30° + 30° offset	.92x

## Direct Image (ACS®) Lenses

The new direct image ACS® lenses are designed to fit standard suture rings and are compatible with all microscopes.

Lens	Field of View	Image Mag.
Direct Image Flat (ACS)	30°	.92x
Direct Image High Mag 1.5 (ACS)	15°	1.5x
Direct Image Mid Field (ACS)	40°	.50x
Direct Image 15° Prism (ACS)	30° offset	.90x
Direct Image 30° Prism (ACS)	30° offset	.90x
Direct Image 45° Prism (ACS)	30° offset	.90x
Direct Image AFX (ACS) Air Fluid Exchange - Air filled eye)	30°	.82x
Direct Image Mid Field 30° Prism (ACS)	40° offset	.40x

## Chalam Direct SSV® Disposable Lens

Designs developed with K.V. Chalam, MD.

Lens	Field of View	Image Mag.
Flat SSV® Disposable	30°	.92x

# Direct Surgical Lenses

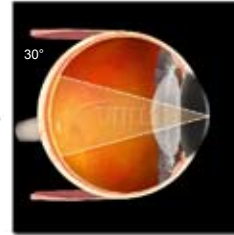
## Direct Image Flat (ACS®)

Primary Application – Routine Direct Image Vitreoretinal Surgery of the Central Retina

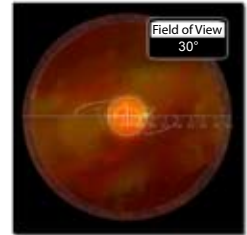
- Delivers high resolution direct image of the central retina
- Standard design fits all major suture rings
- Patented Chalam SSV® design eliminates need for sutures or rings
- Steam sterilizable for decreased processing time



Product code: VFLATACS  
VFLATSSVACS



2D View



Field of View

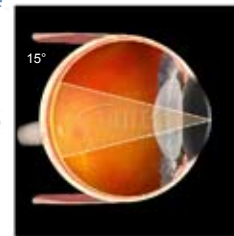
## Direct Image High Mag (ACS®)

Primary Application – High Magnification Direct Image Vitreoretinal Surgery of the Central Retina

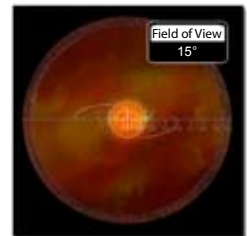
- Delivers high resolution, high magnification direct image of the central retina
- Standard design fits all major suture rings
- Patented Chalam SSV® design eliminates need for sutures or rings
- Steam sterilizable for decreased processing time



Product code: VHIGHMACS  
VFHMSSVACS



2D View



Field of View

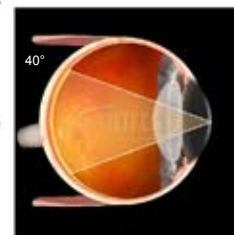
## Direct Image Mid Field (ACS®)

Primary Application – Wide Field Direct Image Vitreoretinal Surgery

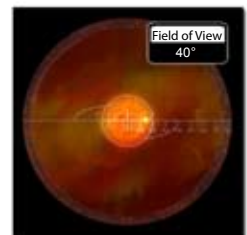
- Bi-concave design provides widest field available in a direct image lens
- Can be used for air/gas exchange procedures
- Patented Chalam SSV® design eliminates need for sutures or rings
- Steam sterilizable for decreased processing time



Product code: VMIDFACS  
VMFSSVACS



2D View



Field of View

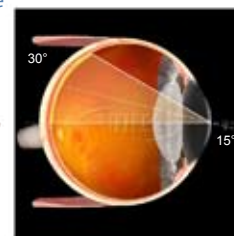
## Direct Image 15° Prism (ACS®)

Primary Application – Off Axis Direct Image Vitreoretinal Surgery

- Design delivers 15° off axis retinal views
- Standard design fits all major suture rings
- Patented Chalam SSV® design eliminates need for sutures or rings
- Steam sterilizable for decreased processing time



Product code: VP15ACS  
VPRISMSSVACS



2D View



Field of View

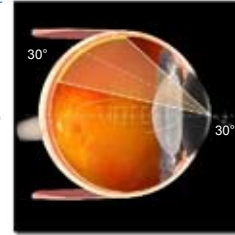
# Direct Surgical Lenses



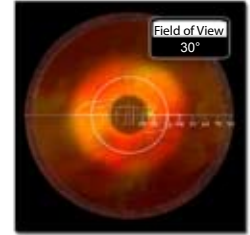
## Direct Image 30° Prism (ACS®)

- Primary Application – Off Axis Direct Image Vitreoretinal Surgery
- Design delivers 30° off axis retinal views
  - Standard design fits all major suture rings
  - Patented Chalam SSV® design eliminates need for sutures or rings
  - Steam sterilizable for decreased processing time

Product code: VP30ACS  
V30PRISMSSVACS



2D View



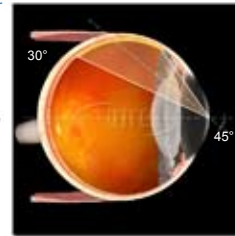
Field of View



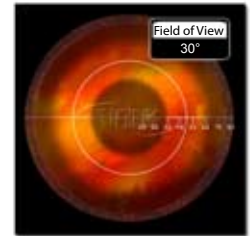
## Direct Image 45° Prism (ACS®)

- Primary Application – Off Axis Direct Image Vitreoretinal Surgery
- Design delivers 45° off axis retinal views
  - Standard design fits all major suture rings
  - Patented Chalam SSV® design eliminates need for sutures or rings
  - Steam sterilizable for decreased processing time

Product code: VP45ACS  
V45PRISMSSVACS



2D View



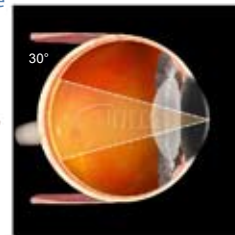
Field of View



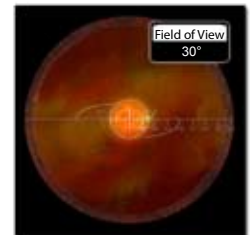
## Direct Image AFX (ACS®)

- Primary Application – Direct Image Vitreoretinal Surgery During Air Fluid Exchange Procedures
- Delivers high resolution central retinal imaging
  - Standard design fits all major suture rings
  - Patented Chalam SSV® design eliminates need for sutures or rings
  - Steam sterilizable for decreased processing time

Product code: VAFXACS  
VAFXSSVACS



2D View



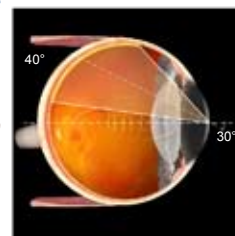
Field of View



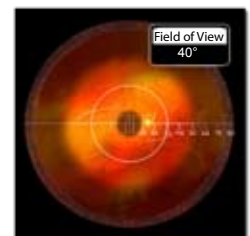
## Direct Image Mid Field 30° (ACS®)

- Primary Application – Wide Field Off Axis Direct Image Vitreoretinal Surgery
- Bi-concave design provides widest field of view with an off axis image
  - Can be used for air/gas exchange procedures
  - Standard design fits all major suture rings
  - Steam sterilizable for decreased processing time

Product code: VMF30PACS



2D View



Field of View

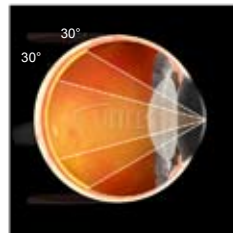


### Direct Image Mini Flat (ACS®)

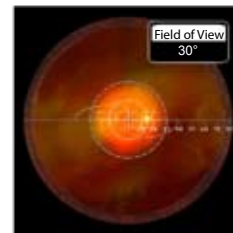
Primary Application – Direct Image General Vitreoretinal Surgery

- Lens can be moved on the eye to deliver different and more complete retinal views
- Patented Chalam SSV® design eliminates need for sutures or rings and prevents outflow of viscoelastic
- Can use build up of viscoelastic within contact area to simulate prismatic views
- Steam sterilizable for decreased processing time

Product code: VMFLATSSVACS

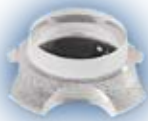


2D View



Field of View

## Disposable Direct Image Lens

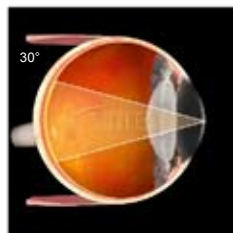


### Direct Image Disposable

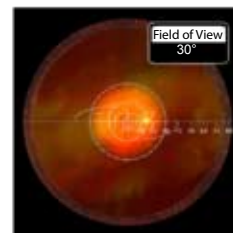
Primary Application – Direct Image General Vitreoretinal Surgery

- Superior design delivers image quality previously unattainable in a disposable lens
- Patented Chalam SSV® design eliminates need for sutures or rings
- Cost effective disposable lens reduces preparation time
- Dual sterile packaging facilitates handling

Product code: VFLATSSVDI0 Box of 10 Lenses



2D View



Field of View



# Accessories



Not for use on surfaces that contact the eye.

## Volk Lens Pen®

Primary Application – Dry Cleaning of Coated Ophthalmic Lens Surfaces

- Carbon based cleaning pad wipes away smudges and reduces static build up
- Cost effective device good for 400 – 500 uses
- Conveniently stows away like a pen with a pocket clip

Product code: VLENSPEN



Not for use on surfaces that contact the eye.

## Precision Optical Lens Cleaner

Primary Application – Cleaning of Ophthalmic Lenses

- Absorbent, moistened lint free towelette cleans lenses instantly, free from smudges, haze and water spots
- Ideal for use on Volk lenses, microscope eyepieces, cameras and other precision optical surfaces.
- Packaged in boxes of 24. Bulk case purchase contains 108 boxes

Product code: VPOLC1 (box)  
VPOLCCASE (CASE)



## Steady Mount

Primary Application – Precisely Holds and Positions Volk Lenses at the Slit Lamp

- Holds lenses steady at the slit lamp to facilitate photography and routine examinations
- Lens can be positioned, tilted and angled in all planes providing versatility
- Adapts to all slit lamps and holds all Volk lenses ensuring ease of use

Product code: VSM

# Surgical Accessories



## Suture Ring

Primary Application – Provides a Stable Lens Platform During Vitreoretinal Surgery

- Premium surgical implant grade titanium for optimal durability and ease of sterilization
- Larger radius provides enhanced functionality and safety during use
- Compatible with all Volk direct and indirect contact vitrectomy lenses (except SSV® styles)

Product code: VSRS2



## Infusion Handle

Primary Application – Infusion of Saline Solution Beneath the Lens During Vitreoretinal Surgery

- Flushes blood and debris providing a clear view during surgery
- Autoclave Sterilizable for decreased processing time
- Ideal for diabetic surgery

Product code: VINFHAN



## Vitreolens Handle

Primary Application – Holding and Stabilization of Lenses During Vitreoretinal Surgery

- Holds vitrectomy lenses stably to assist vitreoretinal surgery
- Malleability allows user to bend the handle to suit their preference
- Autoclave Sterilizable for decreased processing time

Product code: VVITHAN-LG (Large Handle) All Vit Lenses Except Mini Quad XL  
VVITHAN-MQXL (Used with Mini Quad XL and Super Macula)



## Volk Lens Forcep

Primary Application – To assist in handling and placement of direct image vitrectomy lenses

- Durable titanium construction to withstand rigors of repeat sterilization
- Versatile design to fit both the standard ACS™ lenses and Chalam SSV® ACS™ styles

Product code: VLF



## Vitreotomy custom sterilization case.

Primary Application – Stable Containment of Surgical Instruments During Sterilization

This high quality, machined sterilization case will keep Volk direct image lenses and associated instruments together, in a case designed to be used in the autoclave.

The case can hold the following:

- 1 Forcep for Lens Handling
- Up to 2 Autoclaveable Indirect Image Lenses
- Up to 8 Autoclaveable Direct Image Lenses
- 2 Suture Rings
- Vitrectomy Handle

Product code: VSCSURG



## Sterilization Tray

Primary Application – Sterilization of Ophthalmic Lenses

- Autoclave safe and approved for use with ETO
- Small tray (2.7" x 1.5" x 1.25") houses Volk surgical and smaller indirect and slit lamp lenses
- Large tray (6" x 2.5" x 1.25") houses the largest Volk lenses and accessories including vitrectomy handles

Product code: VSCA (small tray)  
VSCB (large tray)

# Cases and Personalization

Keep your personal lens sets together with our multi lens cases. Available in two sizes : 3" x 4" for up to 3 lenses or 4" x 6" for up to 6 lenses, almost any combination can be accommodated. Even if a standard case cannot meet your need, we can provide a customized solution for you.

Here are a few examples of some cases and combinations.



To request a multi lens case, copy and fill in this enquiry form and fax to :  
Volk Optical Inc. (001) 440 942 2257

Name \_\_\_\_\_  
 Address \_\_\_\_\_  
 Town/City \_\_\_\_\_  
 County/State \_\_\_\_\_  
 Post/Zip \_\_\_\_\_  
 Country \_\_\_\_\_  
 Tel. \_\_\_\_\_ Email \_\_\_\_\_

Specify lenses you have to put in your multi lens case

Case 1:	Case 2:
Lens 1 _____	Lens 1 _____
Lens 2 _____	Lens 2 _____
Lens 3 _____	Lens 3 _____
Lens 4 _____	Lens 4 _____
Lens 5 _____	Lens 5 _____
Lens 6 _____	Lens 6 _____

## Engraving

Customize and personalize your lens with Volk's free engraving service for all lenses you purchase from us. Your lens is a personal possession that will last a lifetime.

To personalize your lens purchase, you can have your lenses engraved with your details.





# Product Simulator

## Volk Product Simulator

The Volk Product Simulator uses computer animation to facilitate virtual trials and comparisons of Volk I with technical specifications, application information and usage details.

You can experience views through each lens, showing static field of view in relation to the entire retina, Doctors View that simulates examination of the entire retina.

Choosing the right lens is further simplified with direct side by side comparisons of lenses' range, static field view and Doctors View.

The simulator, which runs in eight languages, can be searched by Product, Specialty, or Pathology. Technical specifications, including field of view, image magnification, laser spot magnification and working distance, are available for each lens.

Contact Volk today to obtain your free copy of the Volk Simulator.



# Lens Care, Disinfection and Sterilization

## Cleaning Methods for Volk Lenses

Select the method of cleaning from table below.

Method A: Clean the entire lens using a mild detergent and a clean soft cotton cloth.

Method B: Clean glass elements with Volk Precision Optical Lens Cleaner (POLC) or a Volk LensPen®

## Disinfection Procedure

1. Follow cleaning method A
2. Select one of the solution types from the table below.

Solution Type	Concentration	Soak Time
Glutaraldehyde	2% aqueous solution	25 minutes
Sodium Hypochlorite (household bleach)	Minimum 0.5%	25 minutes
Cidex OPA	N/A	12 minutes

3. Position the lens on its side, then immerse the entire lens in the selected solution for the listed soak time.
4. Remove the lens from the solution, thoroughly rinse with room temperature water, and dry with a soft lint free cloth.
5. Wipe both sides of the glass element and the inside of the ring with Volk Precision Optical Lens Cleaner (POLC) or a Volk LensPen®

## Sterilization

- 1) Follow the METHOD A cleaning instructions prior to sterilization
- 2) To comply with ISO 17664 for enzymatic cleaning prior to sterilization, follow the procedure in the User Instructions, or go to [www.volk.com](http://www.volk.com).
- 3) Disassemble 2 piece lenses prior to sterilization.
- 4) The use of a Volk Sterilization tray is recommended to avoid product loss or damage.

CATEGORY	ETO	STERIS SYSTEM 1	STEAM STERILIZATION	TSO3
BIO Lenses (Black)	*	*		*
BIO Lenses (Colors)	*	*		
BIO Lenses (ACS)	*	*	*	*
Classic Lenses (Black)	*	*		*
Classic Lenses (Colors)	*	*		
Super Series Lenses (Black)	*	*		*
Super Series Lenses (Colors)	*	*		
Digital Series Lenses	*	*		
3 Mirror Lenses (Classic)	*			
Mirrored Lenses (G-Series)				
Contact Lenses	*			*
Vitrectomy Lenses (Standard)	*			*
Vitrectomy Lenses (ACS)			*	*
Vitrectomy and ROLS® Handles	*	*	*	*
Infusion Handles	*		*	*
Lens Accessories	*			*
Sterilization Case	*		*	*

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.

Steris System 1: Follow the manufacturer's recommended sterilization guidelines.

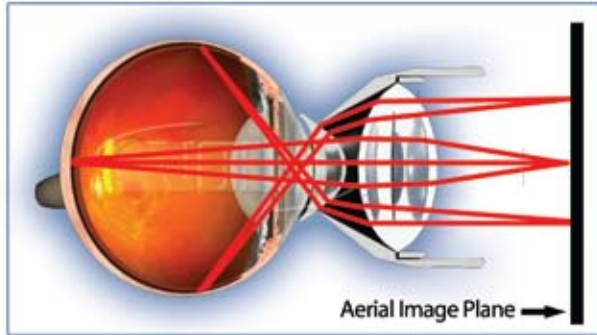
Steam Sterilization: Prevacuum, 132°C minimum, 4 minutes (lenses), 5 Minutes OptiFlex® Lens Positioning Unit.

Note: TSO3 (ozone) sterilization only in the U.S.A. and Canada. Follow the manufacturer's recommended sterilization guidelines.

## Precautions:

- To avoid lens surface damage, never clean the contact surface with alcohol, peroxide or acetone.
- Do not use the Volk Lens Pen® on surfaces that contact the eye.
- Volk lenses colored rings may discolor over the life of the lens as a result of cleaning, disinfection and sterilization procedures. The disinfection procedures listed above are not recommended. Please follow the cleaning procedures only for these products.
- Contact Volk regarding lens compatibility with other cleaning, disinfection or sterilization methods.
- Disassemble 2-piece lenses (e.g. ACS Mini Quad or Central Retinal) prior to cleaning and sterilization.

# Technical Specifications



## Patented Double Aspheric Lens Design

All Volk lenses are optically engineered using proprietary computer ray tracing and design criteria. The laser contact lens ray tracing at left shows light rays originating at the illuminated fundus and proceeding through the pupil and cornea to the first contact element. The diverging light bundles are converged and redirected towards the double aspheric imaging lens which further refracts and focuses the rays as a conjugate fundus image in the aerial image plane. From the beginning on the drawing board to final production and sale, each Volk lens is designed and produced to the quality standards that your practice demands.

## Contact Options (Gonio Lenses)

Flanged versions provide optimal stability on the cornea and are suggested for laser treatment use.

No flange (NF) versions have a small corneal contact area and are excellent for diagnostic work. It may not be necessary to use a contact fluid with these versions (Gonio lenses only)

Our exclusive ANF+ flanged version is designed to provide optimal stability without the need for a contact fluid. It may be beneficial to utilize a lubricating fluid for patient comfort.

## Contact Options (Contact Laser Lenses)

Flanged versions provide optimal stability on the cornea.

No flange (NF) versions have a smaller corneal contact area than flanged versions. It is still necessary to use a contact fluid with these versions.

Our exclusive ANF+ flanged version is designed to provide optimal stability without the need for a contact fluid. It may be beneficial to utilize a lubricating fluid for patient comfort.

## Volk Laser / Anti-reflective Coatings and Filters

Most Volk lenses come standard with high efficiency laser / anti-reflective (AR) coatings to optimize laser throughput and to assist in diagnosis by reducing glare in the visible spectrum.

Please Contact Volk for Additional Information on laser coatings

# Warranty Information

## Warranty Service

If the product fails to function due to defects in either materials or workmanship, Volk will, at its option, either repair or replace the product without charge, subject to the Warranty Limitations.

## Warranty Coverage

Volk Optical warrants its Non-contact Slit Lamp & BIO Lenses against defects in materials or workmanship for a period of 10 years from receipt by end user.

Volk Optical warrants its Volk Contact Laser & Diagnostic Lenses against defects in materials or workmanship for a period of 5 years from receipt by end user.

Volk Optical warrants its All GLASS G Series Mirrored Lenses against defects in materials or workmanship for a period of 4 years from receipt by end user.

Volk Optical warrants its standard 3 Mirror Lenses against defects in materials or workmanship for a period of 1 year from receipt by end user.

Volk Optical warrants its Optiflex™ Surgical Assistant and ROLS® Reinverter against defects in materials or workmanship for a period of 1 year from receipt by end user.

Volk Optical warrants its Volk Vitrectomy Lenses against defects in materials or workmanship for a period of 1 year from receipt by end user.

Volk Optical warrants its Volk Autoclave Sterilizable (ACS) Vitrectomy lenses against defects in materials or workmanship for the lesser of 6 months from receipt by end user or 100 sterilization cycles.

Volk Optical warrants its Volk Power, Contact, Yellow Filter, Retinal Scale and Lid Lens Adapters; VitreoLens Handle®, Infusion Handle & Steady Mount against defects in materials or workmanship for a period of 6 years from receipt by end user.

## Product Returns

***All product returns must be disinfected and/or sterilized prior to return and be accompanied by a Return Authorization Number.***

Please contact Volk Optical for a Return Authorization Number. Customers are responsible for returning products to Volk Optical; 7893 Enterprise Drive; Mentor, OH 44060; U.S.A. We recommend that all returns be insured and be sent by a traceable shipment method. Volk cannot be held responsible for lost shipments.

## Warranty Limitations

Warranty service may not be provided without proof the product was purchased from Volk Optical Inc. or an Authorized Volk Distributor.

This warranty becomes null and void if the customer fails to return the product in packaging consistent with the original protective packaging and it results in shipping damage.

This warranty becomes null and void if the customer fails to follow the recommended cleaning, disinfection and sterilization instructions and/or cautions contained in the product instruction manual.

This warranty does not cover service required because of disassembly, unauthorized modifications or service, misuse and abuse.

Warranty repairs will include labor, adjustments and replacements parts. Replacement parts may be remanufactured or contain remanufactured materials.

## Limit of Liability

Seller makes no other warranty, express or implied, of the product supplied hereunder, including, without limitation, implied warranties of merchantability and fitness for a particular purpose, and all such warranties are hereby expressly excluded. Seller shall have no liability for loss of profits, or special, incidental, or consequential damages under any circumstances or legal theory, whether based on negligence, breach of warranty, strict liability, tort, contract, or otherwise. Seller shall in no event be liable in respect of this order and/or product delivered on account of this order for any amount greater than that paid to seller on account of this order. The purchaser acknowledges that it is purchasing the goods solely on the basis of the commitments of the seller expressly set forth herein.

If you have questions regarding Volk's warranty, please contact Volk Optical.