

■ Precision ■ Personalization ■ Performance

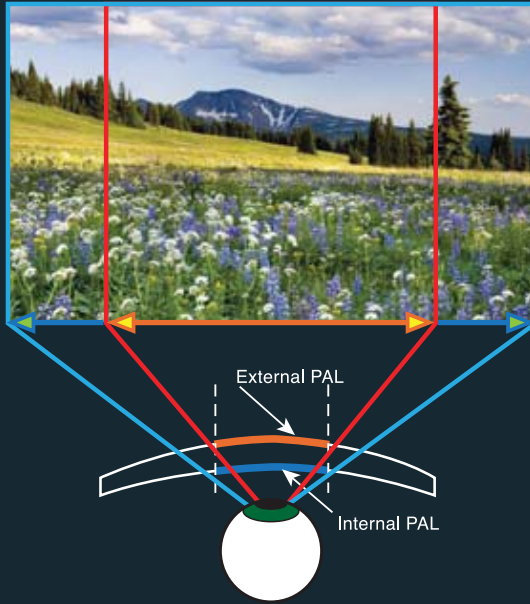


A GUIDE TO THE INSCRIBE FAMILY  
OF DIGITALLY SURFACED  
FREEFORM LENSES

*Experience today, the future of optics.*



DIGITALLY SURFACED  
FREEFORM LENSES



Back Surface design significantly expands fields of view.

## Benefits of Inscribe™ Family of Lenses:

- » Customized Position-of-Wear (POW) measurements
- » Wider fields of view for increased image stability
- » Edge-to-edge distortion free vision with no swim effect
- » Eye movement compensation
- » Oblique aberration correction



# ICONS - DESCRIPTION & DEFINITION



## Digital Lens

Manufactured using digital high-precision equipment



## Digital Surface Technology

Non-compensated lens design manufactured using digital high-precision machinery



## Digital Ray Technology

Compensated lens design calculated with point-to-point digital technology and advanced software



## POW Measurements

Customized with optimum default POW values



## Personalization

Personalized considering the individual POW parameters of each wearer



## Upgrade From Technology

Improved design over previous generation



## Variable Front Curve Technology (VFCT)

Special lens blank with variable base curve on front surface



## Balanced Near & Far

Good balance between near and far viewing zones



## Enhanced for Distance

Enhanced optics for distance vision



## Enhanced For Near

Enhanced near zone for tasks within 2 feet



## Enhanced For Computers

Enhanced for near and intermediate zones



## Variable Inset

Correct Inset position automatically calculated



## Multiple Corridors

Available in several corridor lengths



## Short Corridor Available

Available in shorter fitting height



## Wrap Available

Lens available for sport frames. Wrap angle measurement required



## Not Suitable for Driving

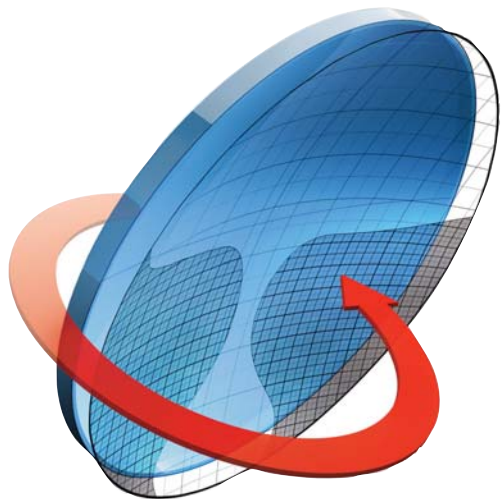
Not recommended for driving

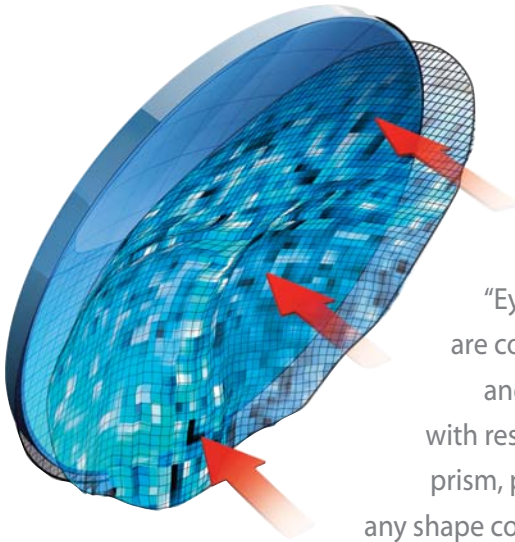
# DIGITAL LENS SURFACING TECHNOLOGIES

## DIGITAL SURFACE TECHNOLOGY



“Digital Surface” technology is the level of digital lens manufacturing that only considers a fixed, non-tilted lens and tangential rays – a pure geometric conception of the lens. This technology brings together advanced optical developments and the simplicity of traditional progressive lenses. Manufacturing lenses with this technology does not take into account any special parameter measurements, and as a result, the final lens is not optimized for each wearer. The progressive surface is cut digitally on the back of the lens, rather than the front side.





## DIGITAL RAY TECHNOLOGY



“Digital Ray” technology incorporates revolutionary “Eye-Lens” imaging models. Lenses are considered in their full complexity and can be virtually at any position with respect to the eyes – they can have prism, pantoscopic tilt, wrapping angle, any shape contour, and can be located at any distance from the eye. The final image quality is computed by means of this imaging model taking into consideration eye and lens position characteristics. The precision achieved by this technology is so high that the final lens design provides customized power to each eye in every gaze direction. “Digital Ray” technology provides fully optimized and personalized designs for each user, making lenses manufactured with this method the highest quality available on the market.

### **Advantages**

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Increases and optimizes fields of clear vision in all directions

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Sharper and crisp vision in all fields of view

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Thinner and lighter lenses for comfort and cosmetic appeal

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Totally compensated and unique for each patient

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As much as 30% increase in contrast sensitivity

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As much as 20% reduction in distortion

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Minimizes optical aberration allowing for sharper night vision

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Delivers optimized edge-to-edge performance that goes beyond the peripheral limits of traditional lenses

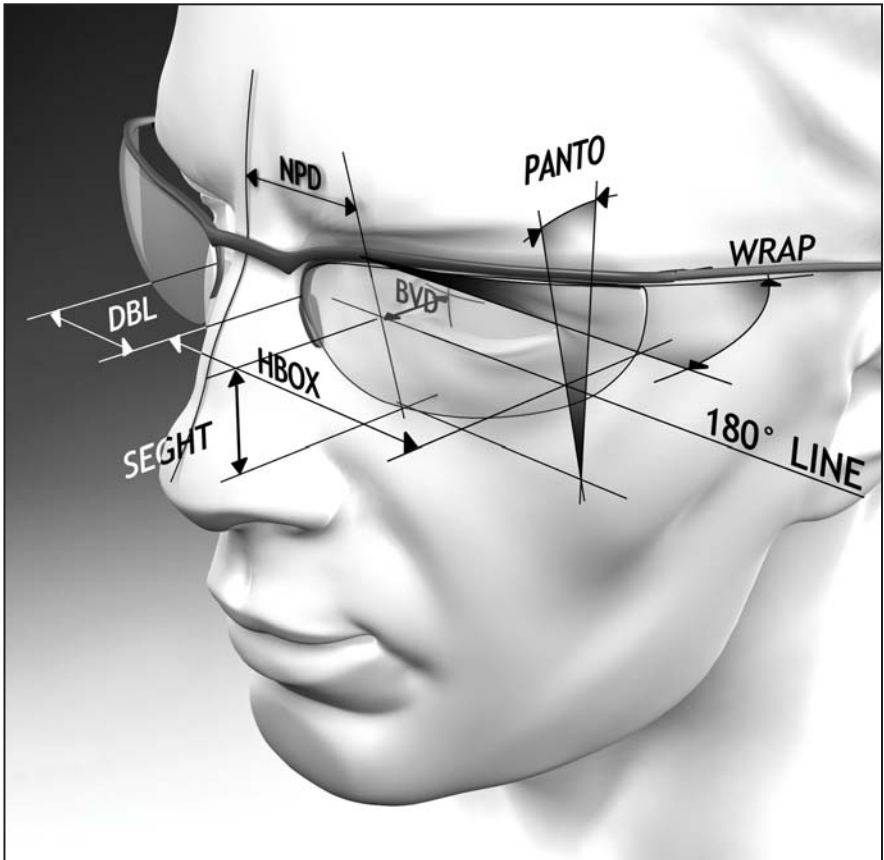
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Freedom in base curve selection

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# POW MEASUREMENTS

POW MEASUREMENTS

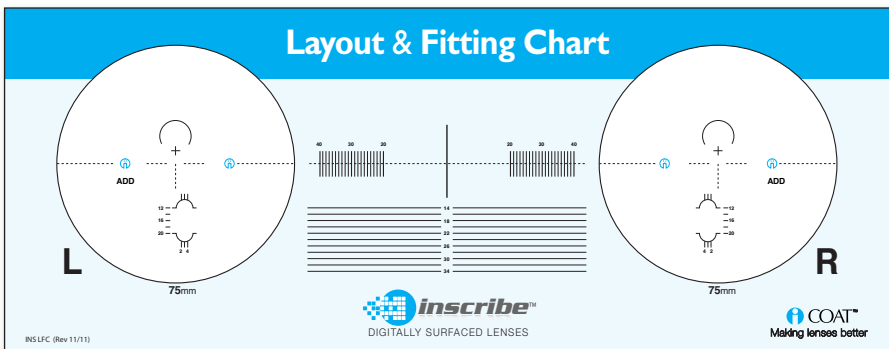


For true, fully personalized free form designs  
Position of Wear (POW) measurements are required.

**POW\***  
**Measurements** = **Wearer's Unique Viewing**  
**Angles and Frame**  
**Measurements**

SEGHT	Vertical pupil height measured from the lower boxed tangent
HBOX	Horizontal Boxed Lens Size of Frame
DBL	Distance Between Lenses
PANTO	Pantoscopic Angle
WRAP	Wrapping Angle
BVD	Back Vertex Distance
NPD	Near Pupil Distance

\*Optimized default POW values will be used when wearer's unique POW measurements are not provided.



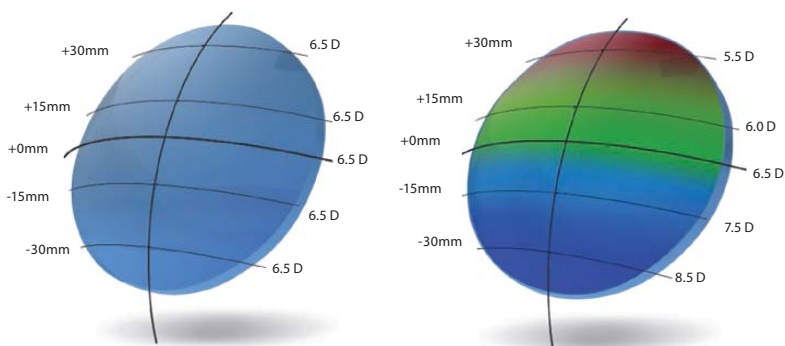
Inscribe layout and fitting chart is available through  
your iCoat representative.

# VARIABLE FRONT CURVE TECHNOLOGY

## VARIABLE FRONT CURVE TECHNOLOGY (VFCT)



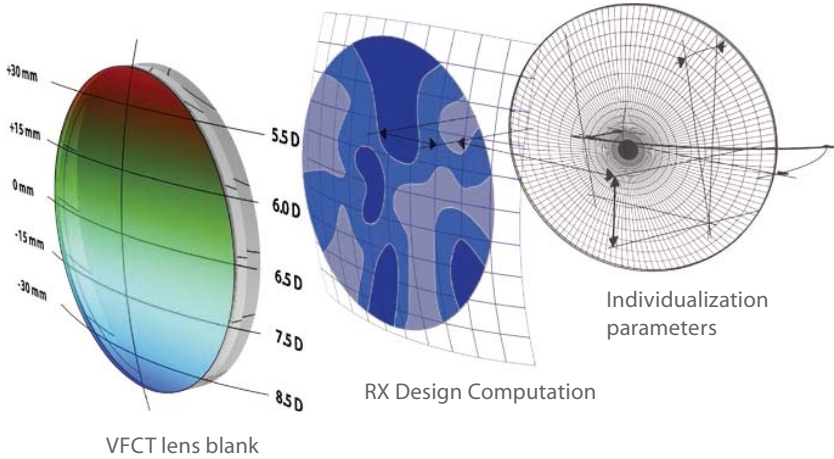
Enhanced generation 3 designs utilize lens blanks manufactured using “Variable Front Curve Technology” (VFCT). These special VFCT lens blanks offer a continuously increasing base curve on the front surface from top to bottom, providing a lower diopter in the distance zone and a higher diopter in the reading zone. The state-of-the-art digital back-surface design is calculated in mutual accord with the unique variable base curve changes on the front surface. When the unique variable base curve front surface is combined with a sophisticated back-side digital design, both surfaces work together to produce a design that provides ideal base curves for every lens power. When embedded with the individual personalization parameters, the result is a finished lens that is comprehensively customized for each individual lens.



*The front surface of a lens blank manufactured with “Variable Front Curve Technology” (VFCT), features an increasing base curve from top to bottom: lower diopter in the distance zone, higher diopter in the reading zone.*

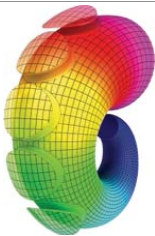


## A Combination of Complex Curves



### MATERIALS AND STYLES

	CLEAR	NUPOLAR® GRAY & BROWN	TRANSITIONS® SIGNATURE VII GRAY & BROWN
HARD RESIN	•	•	•
POLYCARBONATE	•	•	•
TRIVEX®	•		•
1.60 HI-INDEX	•	•	•
1.67 HI-INDEX	•	•	•



### BASE CURVES

ALL MATERIALS & STYLES LISTED ABOVE ARE AVAILABLE IN ALL BASE CURVES

0.50	2	3	4	5	6	7	8
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Note: The variable base curve feature on the front surface of a lens blank manufactured using "Variable Front Curve Technology" (VFCT) is standard and locked. The base curve change cannot be specified. Due to this fact the variable front curve lens blanks are available in limited materials.

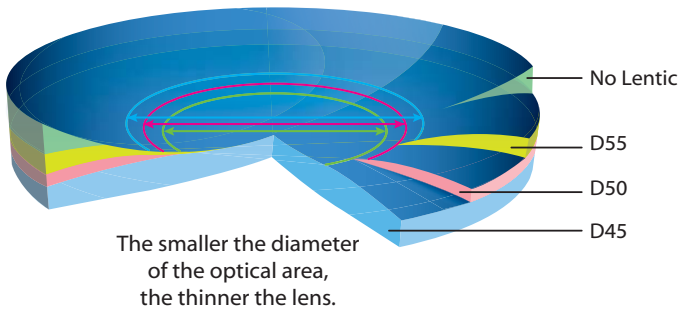
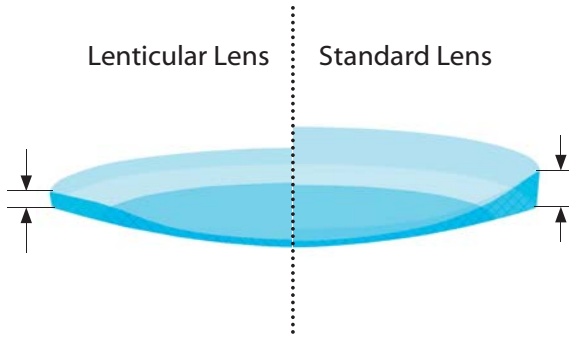
# LENS THINNING TECHNOLOGY

## LENS THINNING TECHNOLOGY

“Lens Thinning” technology is a process developed to minimize the thickness and weight of a prescription lens. Outside the optimal optical area, “Lens Thinning” reduces the thickness with a gradual change in curvature, resulting in a thinner and lighter lens.

High prescriptions or lenses for high wrap sport frames often end up being thick and heavy. Thinning of lenses with “Lens Thinning” technology offers the chance of making those lenses that were previously impossible due to their thickness.

If lens thickness has become a problem for a particular job, order it today from iCoat with “Lens Thinning” technology. “Lens Thinning” feature is available with all Inscribe digital progressive and Inscribe single vision jobs.



### Advantages

Reduction of edge thickness for minus powered lenses

Reduction of center thickness for plus powered lenses

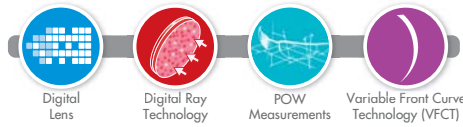
Always thinner lenses

Available for all Inscribe Progressive and Inscribe SV designs

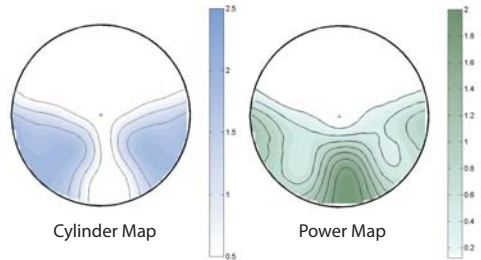
Compatible with any material and base curve

# ENHANCED DESIGNS - *Generation 3*

## INSCRIBE™ ADVANCE 3



Inscribe Advance 3 is a fully personalized design with a balanced compromise between distance and near vision that utilizes variable front curve technology to create ideal base curves for every lens power. It is highly recommended for experienced and demanding users that are looking for an all-purpose progressive lens with a generous field at all distances with continuously changing surface curvature. It has even better control of the progression profile than Inscribe Advance 2, creating the flexibility to distribute the unwanted astigmatism and widen the visual fields.

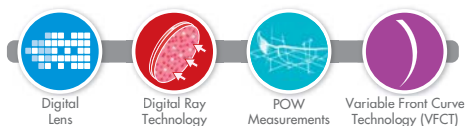


Inscribe™ Advance 3	Specifications:
Digital Lens Design	Hard
Range Far	●●●●●●●●
Range Intermediate	●●●●●●●●
Range Near	●●●●●●●●
Base Curve Option	Yes
Wrap Capability	No
Point-of-wear (POW) Measurement	Yes
Rx Compensation	Yes
Comfort	●●●●●●●●
Minimum Fitting Height	14mm

### Advantages

- Balanced near and far for all purpose use
- High precision and high personalization
- Clear and comfortable panoramic vision
- Ideal base curves for every lens power
- More digital design power for each eye

## INSCRIBE™ SPORT 3



Inscribe Sport 3 is a fully personalized design specifically developed for experienced progressive lens wearers with an intense use of vision at all distances with continuously changing surface curvature. It offers a panoramic distance vision for high performance tasks like driving, traveling or enjoying a nice sunset or a landscape, with freedom for lateral movements of the eyes. Manufactured with variable front curve technology, Inscribe Sport 3 combines complex curves on both surfaces of the lens to accommodate expanded RX range, generating ideal base curves for every lens power.



**COMING SOON!**



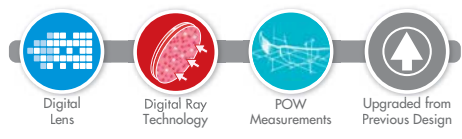
### Advantages

- Crisp and extra wide distance visual zone
- Ideal for high precision sports and active lifestyle
- Clear vision in every gaze direction
- Every lens power manufactured with ideal base curve
- Noticeably increased acuity in the distance

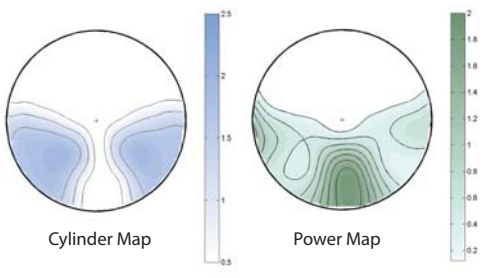
Inscribe™ Sport 3	Specifications:
Digital Lens Design	Hard
Range Far	●●●●●●●●
Range Intermediate	●●●●●●●●
Range Near	●●●●●●●●
Base Curve Option	Yes
Wrap Capability	No
Point-of-wear (POW) Measurement	Yes
Rx Compensation	Yes
Comfort	●●●●●●●●
Minimum Fitting Height	14mm

# ENHANCED DESIGNS - *Generation 2*

## INSCRIBE™ ADVANCE 2



Inscribe Advance 2 is a personalized high end all-purpose lens for better control of progression profile than Inscribe Advance. Inscribe Advance 2 provides high definition vision due to an extraordinary optic architecture. This design improves softness and usable areas and provides balanced performance at any distance. It is a more symmetric design allowing the corridor to be easily found making it a great choice for demanding users that are looking for minimal oblique aberrations and improved peripheral vision.



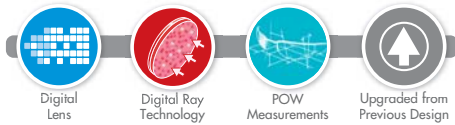
Inscribe™ Advance 2	Specifications:
Digital Lens Design	Hard
Range Far	●●●●●●●●
Range Intermediate	●●●●●●●●
Range Near	●●●●●●●●
Base Curve Option	Yes
Wrap Capability	Yes
Point-of-wear (POW) Measurement	Yes
Rx Compensation	Yes
Comfort	●●●●●●●●
Minimum Fitting Height	14mm

### Advantages

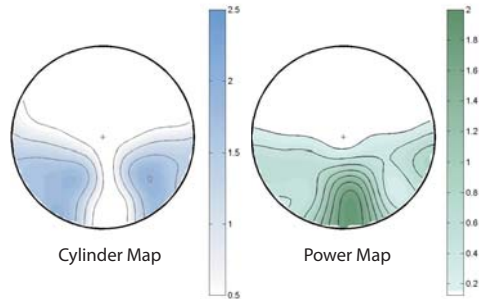
- Improved balance between near and far distance
- High precision and high personalization
- Clear vision in every gaze direction
- Improvement for general performance



## INSCRIBE™ SPORT 2



An upgraded version of Inscribe Sport, Inscribe Sport 2 is a personalized design specifically developed for experienced wearers who require uncompromised far vision. Thanks to its generous far visual field, it offers a comfortable and perfect view of remote surroundings that is ideal for wearers who enjoy outdoor activities like walking, hiking, golfing and landscape viewing. At both sides of the pupil position the wearer finds wide and clear visual zones, improving distance visual experience and providing a stable near visual area.



### Advantages

- Wide distance with comfortable near
- Precision demanded by active lifestyle
- Lower level of oblique astigmatism
- Panoramic clarity in the distance zone

### Inscribe™ Sport 2

### Specifications:

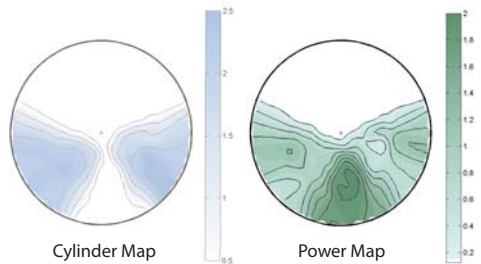
Digital Lens Design	Hard
Range Far	●●●●●●●●
Range Intermediate	●●●●●●●●
Range Near	●●●●●●●●
Base Curve Option	Yes
Wrap Capability	Yes
Point-of-wear (POW) Measurement	Yes
Rx Compensation	Yes
Comfort	●●●●●●●●
Minimum Fitting Height	14mm

# ENHANCED DESIGNS - *Generation 2*

## INSCRIBE™ MICRON



A fully personalized short design that allows users to easily find and use near vision compared to other progressive lenses. Available in a short design to adapt to any small fashion frame, Inscribe Micron is ideal for wearers who want aesthetic frames without losing visual quality. This design facilitates a comfortable and fast change from distance to near vision in a natural posture, minimizing the necessary eye movement to change from one distance to the other.



Inscribe™ Micron	Specifications:
Digital Lens Design	Hard
Range Far	●●●●●●●●
Range Intermediate	●●●●●●●●
Range Near	●●●●●●●●
Base Curve Option	Yes
Wrap Capability	Yes
Point-of-wear (POW) Measurement	Yes
Rx Compensation	Yes
Comfort	●●●●●●●●
Minimum Fitting Height	10mm

### Advantages

Fast transition between far and near vision

Small progression lengths to adapt to small frames

Clear vision in every gaze direction

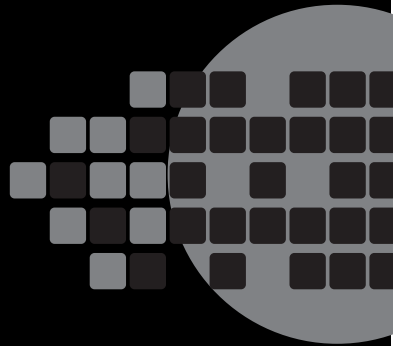
Adapts perfectly to wearer's exact pupil height





## MATERIAL AVAILABILITY

Plastic
Polycarbonate
Trivex 1.53
Hi-Index 1.60
Hi-Index 1.67
Hi-Index 1.70
Hi-Index 1.74
Plastic Transitions
Polycarbonate Transitions
Transitions 1.53
Transitions 1.60
Transitions 1.67
1.60 Polarized
1.67 Polarized
Plastic Polarized
Polycarbonate Polarized
Trivex Polarized
Transitions Plastic Polarized
Transitions Polycarbonate Polarized



## POWER RANGE

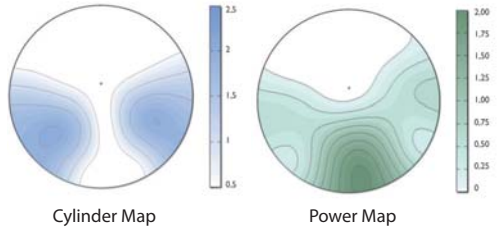
Material	Approximate Power Ranges		
	Sphere	Cylinder	Add
1.50 - Clear, Transitions, Polarized	6.00 to -10.00	-6.00D	0.50 to 4.50D
Trivex - Clear, Transitions, Polarized	6.00 to -10.00	-6.00D	0.50 to 4.50D
Poly - Clear, Transitions, Polarized	6.00 to -10.00	-6.00D	0.50 to 4.50D
Hi-Index 1.60 - Clear, Transitions, Polarized	6.00 to -10.00	-6.00D	0.50 to 4.50D
Hi-Index 1.67 - Clear, Transitions, Polarized	6.00 to -10.00	-6.00D	0.50 to 4.50D

# ENHANCED DESIGNS - *Generation 1*

## INSCRIBE™ ADVANCE



Inscribe Advance has been engineered to reach the best balance between different fields. Inscribe Advance provides high precision far vision and an excellent near zone, providing wearers with a perfect combination of vision and comfort. In the far region, users will find a 180° region free of astigmatism for enjoying outdoor activities. Near zone is far improved over that of a conventional progressive, reducing astigmatism to a minimum and improving comfort while performing proximity tasks such as reading.



Inscribe™ Advance	Specifications:
Digital Lens Design	Hard
Range Far	●●●●●●●●
Range Intermediate	●●●●●●●●
Range Near	●●●●●●●●
Base Curve Option	Yes
Wrap Capability	Yes
Point-of-wear (POW) Measurement	Yes
Rx Compensation	Yes
Comfort	●●●●●●●●
Minimum Fitting Height	14mm

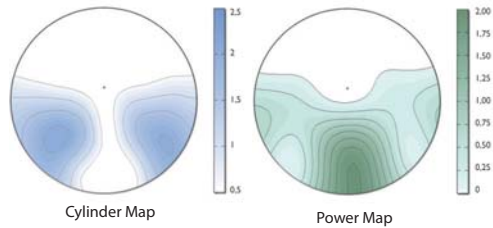
### Advantages

- Wider vision and perfect balance in all zones
- Comfort and high precision
- Clear vision in every gaze direction
- Variable inset for maximizing blank size

# INSCRIBE™ SPORT



Inscribe Sport provides significantly improved far vision while maintaining near and intermediate vision quality. It is a great solution for people who spend more time outdoors or people that need a very good far vision. It offers panoramic far visual field allowing users to indulge in outdoor activities like enjoying landscapes, sport actions, scenic drives and viewing movies in the cinema.



## Advantages

- Extra wide and clear distance visual zone
- High precision and high personalization
- Panoramic clarity in every gaze direction
- Low level of unwanted astigmatism

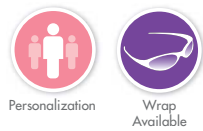
Inscribe™ Sport	Specifications:
Digital Lens Design	Hard
Range Far	●●●●●●●●
Range Intermediate	●●●●●●●●
Range Near	●●●●●●●●
Base Curve Option	Yes
Wrap Capability	Yes
Point-of-wear (POW) Measurement	Yes
Rx Compensation	Yes
Comfort	●●●●●●●●
Minimum Fitting Height	14mm

# ENHANCED DESIGNS - **Generation 1**

## INSCRIBE™ SINGLE VISION



Inscribe SV lenses combine the best ergonomics and aesthetics to give the ultimate optical performance. Inscribe SV lenses are designed with a capacity to produce any type of single vision digitally back-surfaced lenses, no matter the frame, material, base curve or prescription. They can accommodate anything from high prescriptions to lenses that are optimized for wrap frames. Inscribe SV lenses with high prescriptions are 76% more stable than a conventional lens. Inscribe single vision for wrap designs improve the field of high definition vision and provides the wearer with fully compensated accurate power in the center and almost any viewing direction.



Inscribe™ Single Vision	Specifications:
Base Curve Option	Yes
Wrap Capability	Yes
Point-of-wear (POW) Measurement	Yes
Rx Compensation	Yes

### Advantages

Improves visual definition in any gaze direction

Adaptable to any frame, even sunglasses

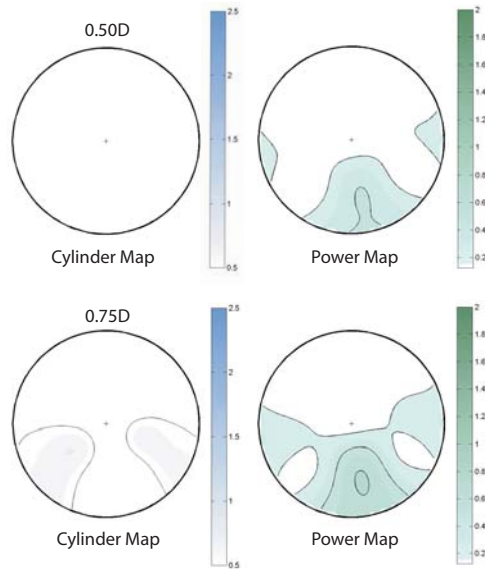
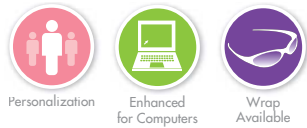
Ideal for high plus and minus lenses

POW measurements highly recommended for maximum performance

# INSCRIBE™ RXV



Inscribe RXV is a digital freeform lens that reduces visual fatigue and provides help for comfortable reading. Available in 0.50D and 0.75D additions, Inscribe RXV reduces eye strain caused by continuous accommodative efforts. Ideal for wearers distance corrections who spend much time at near vision or computers and have visual fatigue symptoms.



## Advantages

- Significantly reduces visual fatigue
- High quality vision in the near zone
- Clear vision in every gaze direction
- Oblique astigmatism reduced

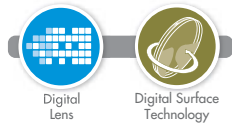
## Inscribe™ RXV

## Specifications:

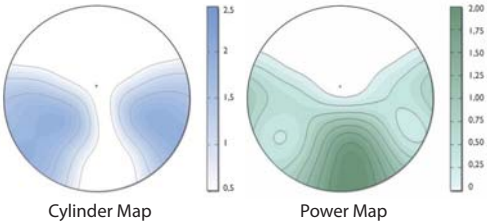
Base Curve Option	Yes
Wrap Capability	Yes
Point-of-wear (POW) Measurement	Yes
Rx Compensation	Yes
Minimum Fitting Height	14mm

# BASIC DESIGNS

## INSCRIBE™



The basic Inscribe is a non-compensated general use design with generous visual areas for near and distance. It is an ideal solution for users with demanding requirements for large visual fields at any distance. It is a good choice to offer as an essential lens for inexperienced wearers, that reduces the adaptation period, reduces unwanted astigmatism and minimizes the swim effect. The power distribution of the basic Inscribe has been designed to provide users with a balanced lens that delivers good performance in any scenario, including wide near and also wide far, mixed with a good corridor.

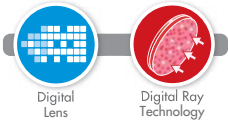


Inscribe™	Specifications:
Digital Lens Design	Hard
Range Far	●●●●●●●●
Range Intermediate	●●●●●●●●
Range Near	●●●●●●●●
Base Curve Option	Yes
Wrap Capability	No
Point-of-wear (POW) Measurement	No
Rx Compensation	No
Comfort	●●●●●●●●
Minimum Fitting Height	14mm

### Advantages

- Good performance for standard use
- Well balanced basic digital lens
- Corridor allowing the eye to move naturally

# INSCRIBE™ COMPUTE



Inscribe Compute lenses offer a precise and unique design that serves as a solution for those who require extensive use of the near and intermediate vision with minimum lateral astigmatism. It is an ideal lens design for presbyopes with needs for intermediate and near vision such as office workers, cooks, artists and mechanics, allowing a natural posture. This occupational lens provides a long corridor with crisp edge-to-edge distortion free vision.

Inscribe Compute offers several clear vision focal depths that provide users with a visual solution perfectly adapted to their individual needs. Available in three different options, the users experience visual sensation due to wide intermediate and near vision combined with exceptional comfort.



## Advantages

- Extremely wide near vision region

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- No adaptation issue

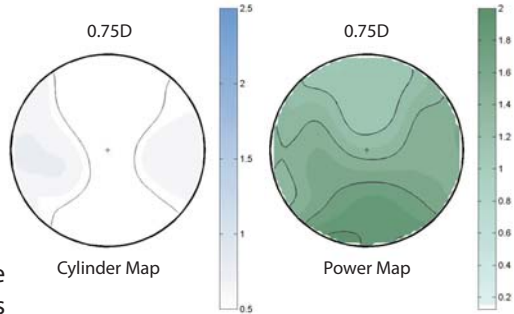
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- Very soft design that eliminates lateral distortion

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- Clear vision from reading distance up to 13 feet

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Inscribe Compute is available in power degenerations of 0.75, 1.00, 1.25, 1.50, 1.75, 2.00, 2.25, 2.50, 3.00, 3.25 and 3.50D.

### Inscribe Compute 13

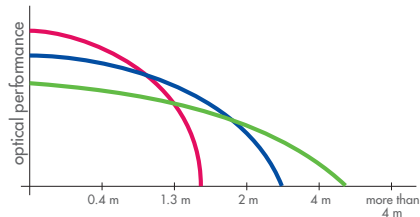
Up to 1.3 meters (4 ft) of clear vision

### Inscribe Compute 20

Up to 2 meters (6.5 ft) of clear vision

### Inscribe Compute 40

Up to 4 meters (13 ft) of clear vision



Relationship between vision performance and distance to the object

### Inscribe™ Compute

Compute Lens	Distance	Intermediate	Near	Performance
Compute 13	●●●●●	●●●●●	●●●●●	●●●●●
Compute 20	●●●●●	●●●●●	●●●●●	●●●●●
Compute 40	●●●●●	●●●●●	●●●●●	●●●●●

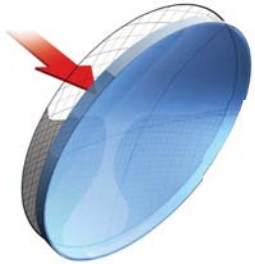
#### Specifications:

Base Curve Option	No
Wrap Capability	No
Point-of-wear (POW) Measurement	No
Rx Compensation	No
Minimum Fitting Height	14mm



# CONVENTIONAL VS DIGITAL LENSES

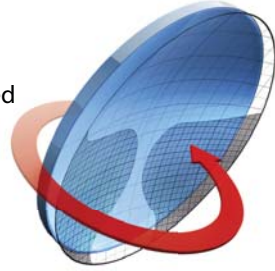
## Conventional Lenses



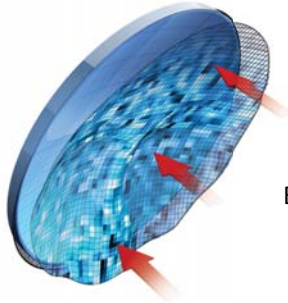
Front-side pre-molded

## Digital Lenses

Back-side Digital Non-Compensated



Back-side Digital Compensated



## Production Advantages

Traditional Conventional Surfacing	Digital Freeform Surfacing
Size and shape of progressive lenses are limited to what's available in pre-made, semi-finished progressive lenses and limited base curve options.	Digital surfacing has freedom to use a semi-finished single vision lens instead of a pre-made progressive, not limited by blank availability.
The progressive designs are pre-made for every prescription and cannot be altered for individual requirement.	The progressive design can be altered to suit an individual's precise optical requirement.
For patients with pupil distance conflicts, prescriptions can be less accurate than required in high wrap frames	Stronger and more precise prescriptions in high wrap frames giving more precise options for those with pupil distance conflicts.
Provides lenses that have uncorrected optical aberrations, use laps powers in compound lenses, have a fixed intermediate length, use an arbitrary reading inset possibly adjusted for add power but not for PD	Maximize the design of the lens that helps deliver clearer, sharper vision with wider fields of view, correcting all these compromises.
Need usual measurements like PD, seg.ht., and other eyewear related information	Additional measurements like vertex distance, pantoscopic tilt and wrap angle is needed for precise personalization, in addition to usual measurements.



# Inscribe high definition lenses combined with premium AR will take your vision to the next level!

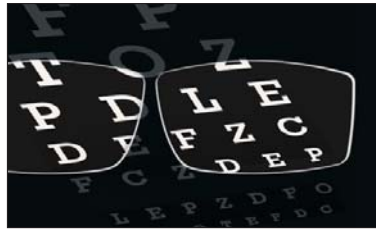
**Improved Night Vision** – Designed to provide sharper vision in all conditions, reducing aberrations that limit field of view and cause distortions such as starbursts and halos of lights at night.



**Better Color Perception** – Maximize the optics in your lenses to provide brighter and more intense colors as they exist in their natural form.



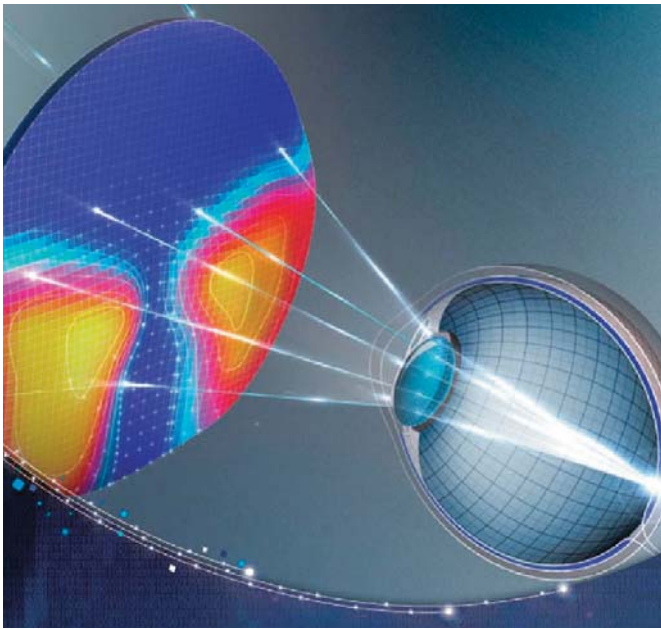
**Enhanced Contrast Sensitivity** – Sharpens contrast and minimizes high-order aberrations for enhanced visual contrast.



## Patient Benefits

Conventional Optical Lenses	Digital Freeform Lenses
Conventionally designed and pre-processed lenses with limited correct power zones	Technologically advanced and customized lenses with correct power experienced over a much larger lens area
Adaptation period can be long	Less adaptation time since optimized and customized for each patients requirement
Conventionally pre-processed lenses with limited base curve options	Digitally customized lenses accommodate individualized curve required by patients prescription.
Cannot be optimized for wearer based on dimensions of frame	Can be personalized based on how the patient wears his or her frame
PAL patients need to move their head in search of “the right spot” for different visual fields	PAL patients no longer need to move their heads, as the visual fields are exactly where they should be for that individual patient.
Restrictions when it comes to frame selection	Fewer restrictions on frame selections
Considerable oblique astigmatism and power errors	Minimized oblique astigmatism and reduction of power error

Inscribe™ Digital Freeform lenses are manufactured using advanced computer software for complex curves on lens surface with multiple degrees of freedom in all viewing directions.



Making lenses better

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