



70 YEARS' OPTICAL LENS MANUFACTURE



# Ophthalmic Lenses

# Digital Free-form 7<sup>th</sup> EDITION

# Mineral Glass & Resins

Technical Directory March 2018

[www.norville.co.uk](http://www.norville.co.uk)

## The 21st Century Optical **Revolution**

Welcome to the seventh edition Norville Digital Free-form Directory

Digital curve calculation and free-form lens cutting and polishing represent a **REVOLUTION** in ophthalmic manufacturing. Digital is a giant step for ophthalmic lens design; forward-looking dispensers need to grasp these new opportunities to avail their clients of their **BEST VISION EVER** through High Definition **HD** ophthalmic lenses.

Digital free-form isn't only about progressive lenses, although how brilliant it is to produce a lens surface that incorporates cylinder and progressive surfaces blended together on the rear of the lens, let alone two progressive designs on the same lens surface (Auto-Pilotor). A fine example of the true mastery of free-form technology.

Digital free-form is any optical surface that might benefit from sophisticated computer wave-front modelling. Micro lens surface calculation potentially changing the curve positioning at 40,000 points across a 65mm lens; truly point-focal precision.

Norville is delighted to be a UK production leader in extending the frontiers of ophthalmic free-form applications. Since the previous edition we have added **free-form Mineral Glass** production capability here in Gloucester. The only line in all of England.

Successful **HD** dispensing.



Frank Norville  
Gloucester

### **FREE-FORM PROGRESSIVES NV FITTING**

After many years of fitting regular progressives with fixed insets, seemingly fitters have lost the habit of recording near PDs. Please re-engage with reading PDs as HD progressives can be designed with variable inset measurements.

The way forward -

### **Digital Free-form Technology**

Truly bespoke spectacle lenses

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# Digitor<sup>®</sup>Plus



Version 17  
design upgrade

## Innovative Lens Design



The Norville **Digitor<sup>®</sup>PLUS** dual surface progressive lens design features a unique variable front surface base curve - a surface innovation that provides the optically ideal base curve across all viewing zones.

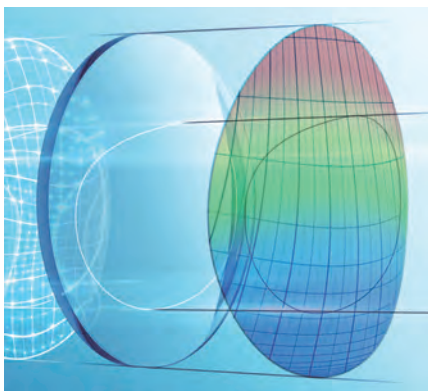
The lens blank, unlike most other free-form designs, is not spherical but has a unique variable front surface base curve that continually increases in dioptre from centre to edge.

This front surface innovation provides benefits to wearers in both the distance and near zones. Wearers enjoy noticeably increased acuity in the periphery of the distance zone, as well as a reading area that is wider and more comfortable.

The HD inner compensation calculation provides a more personalised outcome using average figures or the ones you supply.

### VARIABLE BASE CURVE

*The radius of the lens blank continually decreases from top to bottom*



### AN ADVANCED MULTIFOCAL LENS LIKE NO OTHER

**Digitor<sup>®</sup>PLUS** lenses give wearers an outstanding visual experience, with spacious vision zones, improved peripheral vision, better looking lenses in many prescriptions and user-preferred near vision performance.

#### Key Points

- The very latest in multifocal ophthalmic lens technology & design.
- Wider vision in the reading area, typically a neglected part of a progressive lens.
- The best optics currently possible by blending two HD surfaces.
- Simple unfussy fitting - Rx, PDs & Heights.
- Option of full individualisation and customisation (Compensated Rx) when specified.
- 7 corridor length design Autoselected.

### COMPENSATED DESIGN - CD

Designed with these Standard Values if alternative data not supplied:

- Pantoscopic Tilt Angle **12°**
- BVD **14mm**
- Wrap Angle **5°**
- Standard Inset **Variable as RX**

### FITTING DIGITOR PLUS

Simply follow your regular multifocal fitting procedures:

1. Measure mono PDs - both distance and reading.
2. Measure fitting height to pupil centre.
3. Include any of the additional fitting data for enhanced outcomes.

# Digitor<sup>®</sup>Plus is a truly elegant solution

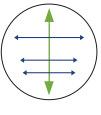

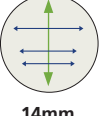

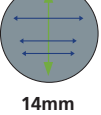

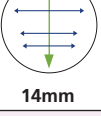

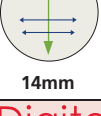

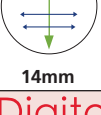



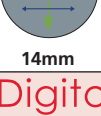

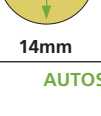



Manufactured in our Gloucester UK Laboratories



# Dual Surface HD Atoral Multifocal

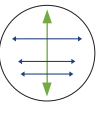

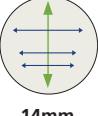

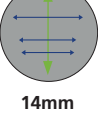

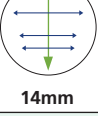

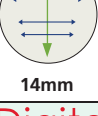

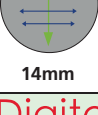





## - Digitor<sup>®</sup>Plus **DHD** RESIN AVAILABILITY -

	LENS CODE			COATING
1.50	CM50	Digitor <sup>®</sup> Plus <b>DHD</b>	 <p>14mm <b>AUTOSELECT</b></p> <p>+ PLUS 7.00 75 10.00 MINUS -</p> <p>Adds 0.75 to 4.50 in 0.25 steps OPPOSITE CYLS TO 5.00</p>	
1.50	CM50 GR/BR	Digitor <sup>®</sup> Plus <b>DHD</b> Transitions <sup>®</sup>	 <p>14mm <b>AUTOSELECT</b></p> <p>Grey Brown</p> <p>+ PLUS 7.00 75 10.00 MINUS -</p> <p>Adds 0.75 to 4.50 in 0.25 steps OPPOSITE CYLS TO 5.00</p>	
1.50	CP50 GR/BR	Digitor <sup>®</sup> Plus <b>DHD</b> NUPOLAR <sup>®</sup> POLARISED UV400 15% LTF	 <p>14mm <b>AUTOSELECT</b></p> <p>Grey Brown</p> <p>+ PLUS 7.00 75 10.00 MINUS -</p> <p>Adds 0.75 to 4.50 in 0.25 steps OPPOSITE CYLS TO 5.00</p>	
1.53	CM53	Digitor <sup>®</sup> Plus <b>DHD</b> TRIVEX	 <p>14mm <b>AUTOSELECT</b></p> <p>+ PLUS 7.00 75 10.00 MINUS -</p> <p>Adds 0.75 to 4.50 in 0.25 steps OPPOSITE CYLS TO 5.00</p>	
1.53	CM53 GR/BR	Digitor <sup>®</sup> Plus <b>DHD</b> TRIVEX Transitions <sup>®</sup>	 <p>14mm <b>AUTOSELECT</b></p> <p>Grey Brown</p> <p>+ PLUS 7.00 75 10.00 MINUS -</p> <p>Adds 0.75 to 4.50 in 0.25 steps OPPOSITE CYLS TO 5.00</p>	
1.59	CM59	Digitor <sup>®</sup> Plus <b>DHD</b>	 <p>14mm <b>AUTOSELECT</b></p> <p>+ PLUS 7.00 75 10.00 MINUS -</p> <p>Adds 0.75 to 4.50 in 0.25 steps OPPOSITE CYLS TO 5.00</p>	
1.59	CM59 GR/BR	Digitor <sup>®</sup> Plus <b>DHD</b> Transitions <sup>®</sup>	 <p>14mm <b>AUTOSELECT</b></p> <p>Grey Brown</p> <p>+ PLUS 7.00 75 10.00 MINUS -</p> <p>Adds 0.75 to 4.50 in 0.25 steps OPPOSITE CYLS TO 5.00</p>	
1.59	CP59 GR/BR	Digitor <sup>®</sup> Plus <b>DHD</b> NUPOLAR <sup>®</sup> POLARISED UV400 15% LTF	 <p>14mm <b>AUTOSELECT</b></p> <p>Grey Brown</p> <p>+ PLUS 7.00 75 10.00 MINUS -</p> <p>Adds 0.75 to 4.50 in 0.25 steps OPPOSITE CYLS TO 5.00</p>	
1.59	CD59	Digitor <sup>®</sup> Plus <b>DHD</b> POLYCARB Transitions <sup>®</sup> DRIVEWEAR <sup>®</sup>	 <p>14mm <b>AUTOSELECT</b></p> <p>+ PLUS 8.00 6.00 75 9.75 10.00 MINUS -</p> <p>70 65</p> <p>Adds 0.75 to 4.50 in 0.25 steps</p>	

**AUTOSELECT** - CORRIDOR AVAILABILITY COMPUTER SELECTION DETERMINED BY FITTING HEIGHT SPECIFIED

# Dual Surface HD Atoral Multifocal

## - Digitor<sup>®</sup>Plus **DHD** RESIN AVAILABILITY -

	LENS CODE		COATING
1.60	CM60	<b>Digitor<sup>®</sup>Plus <b>DHD</b></b>  <b>DSM</b> 14mm <b>AUTOSELECT</b> + PLUS 8.00 <b>75</b> MINUS - 12.00 Adds 0.75 to 4.50 in 0.25 steps OPPOSITE CYLS TO 6.00	
1.60	CM60 GR/BR	<b>Digitor<sup>®</sup>Plus <b>DHD</b> Transitions<sup>®</sup></b>  Grey <b>DSM</b> 14mm <b>AUTOSELECT</b> + PLUS 8.00 <b>75</b> MINUS - 12.00 Adds 0.75 to 4.50 in 0.25 steps OPPOSITE CYLS TO 6.00	
1.60	CP60 GR/BR /GN	<b>Digitor<sup>®</sup>Plus <b>DHD</b> NUPOLAR<sup>®</sup> POLARISED UV400 15% LTF</b>  Grey Brown <b>ISP</b> Green 14mm <b>AUTOSELECT</b> + PLUS 8.00 <b>75</b> MINUS - 12.00 Adds 0.75 to 4.50 in 0.25 steps OPPOSITE CYLS TO 6.00	
1.67	CM67	<b>Digitor<sup>®</sup>Plus <b>DHD</b></b>  <b>DSM</b> 14mm <b>AUTOSELECT</b> + PLUS 9.00 <b>75</b> MINUS - 14.00 Adds 0.75 to 4.50 in 0.25 steps OPPOSITE CYLS TO 8.00	
1.67	CM67 GR/BR	<b>Digitor<sup>®</sup>Plus <b>DHD</b> Transitions<sup>®</sup></b>  Grey <b>DSM</b> 14mm <b>AUTOSELECT</b> + PLUS 9.00 <b>75</b> MINUS - 14.00 Adds 0.75 to 4.50 in 0.25 steps OPPOSITE CYLS TO 8.00	
1.67	CP67 GR/BR /GN	<b>Digitor<sup>®</sup>Plus <b>DHD</b> NUPOLAR<sup>®</sup> POLARISED UV400 15% LTF</b>  Grey Brown <b>ISP</b> Green 14mm <b>AUTOSELECT</b> + PLUS 9.00 <b>75</b> MINUS - 14.00 Adds 0.75 to 4.50 in 0.25 steps OPPOSITE CYLS TO 8.00	
1.74	CM74	<b>Digitor<sup>®</sup>Plus <b>DHD</b></b>  <b>DSM</b> 14mm <b>AUTOSELECT</b> + PLUS 8.00 <b>75</b> MINUS - 12.00 Adds 0.75 to 4.50 in 0.25 steps OPPOSITE CYLS TO 8.00	
1.74	CM74 GR/BR	<b>Digitor<sup>®</sup>Plus <b>DHD</b> Transitions<sup>®</sup></b>  Grey <b>DSM</b> 14mm <b>AUTOSELECT</b> + PLUS 8.00 <b>75</b> MINUS - 12.00 Adds 0.75 to 4.50 in 0.25 steps OPPOSITE CYLS TO 8.00	

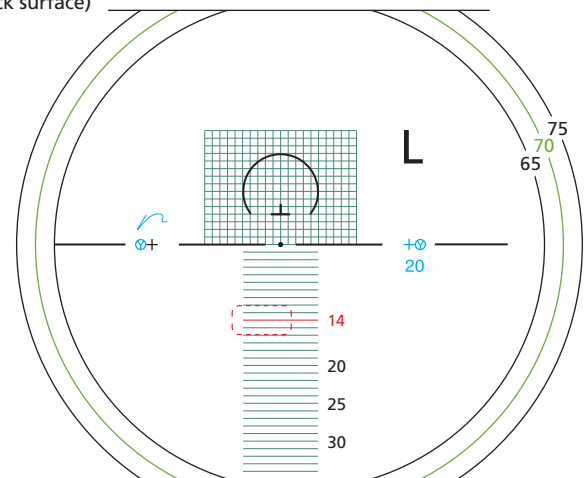
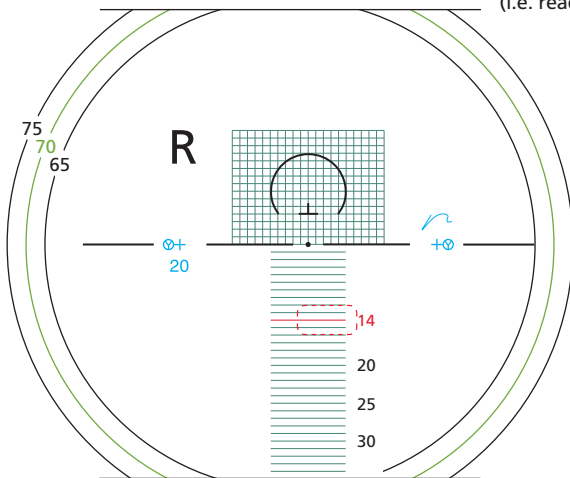
**AUTOSELECT** - CORRIDOR AVAILABILITY COMPUTER SELECTION DETERMINED BY FITTING HEIGHT SPECIFIED

# Digitor<sup>®</sup>Plus DHD

## Right Eye      Effective Diameter Chart      Left Eye

Viewed from front

NB: In practice the engraved numbers shown are reversed (i.e. readable from the back surface)



### Engraved Identification Markings

Add is shown as:

+0.75	<b>07</b>
+1.00	<b>10</b>
+1.25	<b>12</b>
+1.50	<b>15</b>
+1.75	<b>17</b>
+2.00	<b>20</b>
+2.25	<b>22</b>
+2.50	<b>25</b>
+2.75	<b>27</b>
+3.00	<b>30</b>
+3.25	<b>32</b>
+3.50	<b>35</b>
+3.75	<b>37</b>
+4.00	<b>40</b>
+4.50	<b>45</b>

Index is shown as:

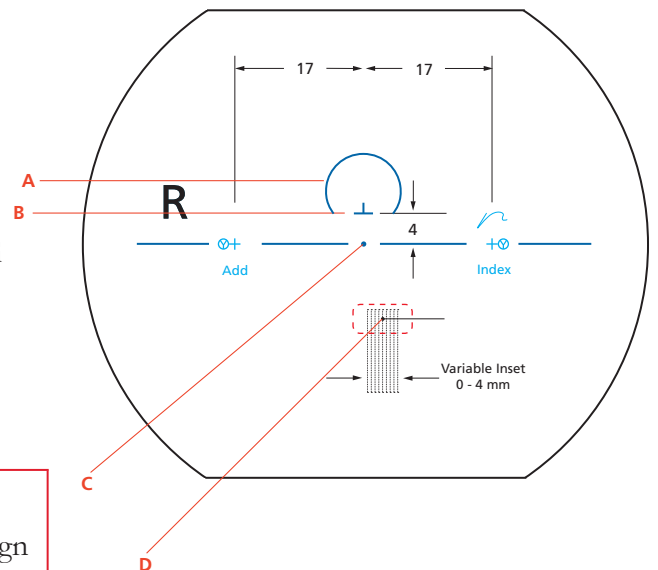
1.50 CR39	<b>50</b>
1.53 Trivex	<b>53</b>
1.59 Polycarb	<b>59</b>
1.60	<b>60</b>
1.67	<b>67</b>
1.74	<b>74</b>

Designs:

"A" = All purpose wear

Digitor**PLUS** carries an extra set of engraved markings on the front surface for lens blank orientation as well as **+** on the inner surface for glazing setting reference and identification.

### Lens Marking Layout



- Permanent engraved marks
- Removable ink markings

Right eye uncut viewed from front

- A : far vision power checking zone
- B : fitting cross 4 above PRP
- C : prism reference point (PRP)
- D : near vision zone

### PRESCRIBERS NOTE:

Digitor**PLUS** multifocal lenses are a significantly different design from previous progressive power lenses. Wearer experience has shown that for some in the middling and higher addition range changing over to a Digitor**PLUS** design may not be instantaneous, and perhaps requires a day or two for the wearer's visual system to acclimatise. Digitor**PLUS**'s changed optical architecture comes with wider fields of intermediate and near and we would reassure users any slight delay in acclimatisation is worth the wait.



Manufactured in our Gloucester UK Laboratories

# ULTOR

## DIGITAL OPTICS

*Out of this world comprehensive progressive range*



- HD 3 user lifestyle options: **General, Outdoor** and **Desk**
- HD 7 Autoselect corridor lengths from 14mm minimum fitting height in 1mm increments
- HD INDIVIDUAL Right & Left Distance and Reading Monocular PDs
- HD 3 options of compensated powers:  
None = Basic,  
Reading only compensated = **NC\***  
Fully = Distance & Near fields compensated  
\*Calculated to prescribed distance Rx - Compensated Near

### *or Optional Fully Compensated Rx Calculation*

- HD Pantoscopic Tilt Angle•
- HD Frame Wrap (face) Angle•
- HD BVD Spectacle Frame v BVD Trial Frame•
- HD Reading Distance•

- additional measurements submitted when ordering.

When only partially presented data we will revert to average values for those remaining.

**AUTOSELECT** - when designing to eye shapes we will automatically select the most appropriate progression length. You do not need to specify unless you require a specific channel length.

#### **PRESCRIBER'S NOTE**

**Very wide Rx range  $\pm 15.00D$**

ULTOR available in Basic - No compensation calculations, distance or reading

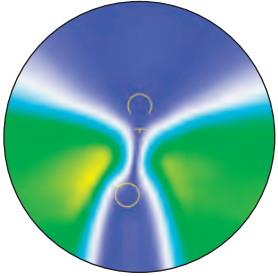
*Unless otherwise specified all designs will be in NC (non-compensated) Distance Mode.*

Orders for ULTOR with no specific mention of lifestyle will be supplied as **GENERAL WEAR**, except for **POLARISED/DRIVEWEAR** lenses which will be provided in **OUTDOOR** design.



Manufactured in our Gloucester UK Laboratories





## HD 'G' General Wear

### Characteristics

Balanced lens. Far and near vision zone are both optimised for ideal use.

### User Key Points

Uses the far and near vision zone while working, reads occasionally, moves often, everyday life.

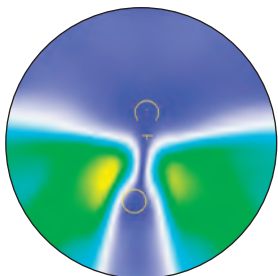
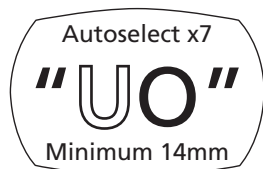
- INSET 0 to 5 in 0.5mm steps
- Specified or Autoselect corridor lengths x7
- Minimum fitting height 14mm

### Optional Personalisation

If additional individualisation is required please provide us with:

- Pantoscopic tilt
- Frame wrap angle
- BVD - Trial and actual distances

Rx design will default to "GW" when there is no order reference to a specific ULTOR design, except Polarised or Drivewear lenses which will default to "O" design.



## HD 'O' Outdoor

Wider far vision - limited reading

### Characteristics

Large and wide distance vision zone for optimised far vision.

### User Key Points

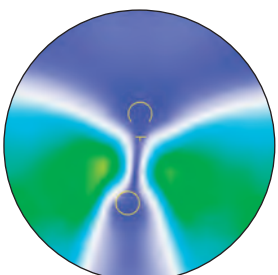
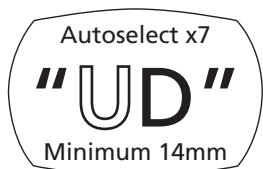
Uses mainly the far vision zone while working, moves quickly and often. Reads occasionally.

- INSET 0 to 4 in 0.5mm steps
- Specified or Autoselect corridor lengths x7
- Minimum fitting height 14mm

### Optional Personalisation

If additional individualisation is required please provide us with:

- Pantoscopic tilt
- Frame wrap angle
- BVD - Trial and actual distances



## HD 'D' Desk Top

High inter, large reading, limited distance

### Characteristics

Wide intermediate and near vision zone for continuous work without any occurrence of visual tiredness.

### User Key Points

Predominantly uses the near and intermediate vision zones, reads a lot.

### Restrictions

Not suitable for driving.

- INSET 0 to 4 in 0.5mm steps
- Specified or Autoselect corridor lengths x7
- Minimum fitting height 14mm

### Optional Personalisation

If additional individualisation is required please provide us with:

- Pantoscopic tilt
- Frame wrap angle
- BVD - Trial and actual distances
- Reading distance

## - ULTOR HD AVAILABILITY -

	LENS CODE				COATING
1.50	NU39			+ PLUS 8.00 <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">75 = 80</span> MINUS - 8.00	UNC HC✓ X RF
	T20%	14mm	AUTOSELECT	Available designs - General/Outdoor/Desk Adds 0.50 to 4.50 in 0.25 steps	
1.50	NU39 GR/BR /GN			+ PLUS 8.00 6.00 <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">75 = 80</span> 6.00 8.00 MINUS - 65=70 70=75	HC✓ X RF
	NX39 GR/BR	Grey Brown ISP Green 14mm AUTOSELECT	Available designs - General/Outdoor/Desk Adds 0.50 to 4.50 in 0.25 steps	Grey Brown	
1.50	NV39 GR			+ PLUS 6.00 <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">75 = 80</span> MINUS - 8.00	HC✓
		14mm	AUTOSELECT	Available designs - General/Outdoor Adds 0.50 to 4.50 in 0.25 steps	
1.50	NUDR			+ PLUS 7.00 <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">72 = 77</span> MINUS - 6.00	HC✓ IN✓
		14mm	AUTOSELECT	Available designs - Outdoor Adds 0.50 to 4.50 in 0.25 steps	
1.50	NP39 GR/BR GN			+ PLUS 6.00 <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">72 = 77</span> 6.00 8.00 MINUS - 65=70	HC✓ IN✓
		14mm	AUTOSELECT	Available designs - Outdoor Adds 0.50 to 4.50 in 0.25 steps	
1.50	NIP5 GR/BR			+ PLUS 6.00 <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">76</span> MINUS - 8.00	IN✓ WRAP
		14mm	AUTOSELECT	Available designs - General/Outdoor Adds 0.50 to 4.50 in 0.25 steps	
1.53	NU53			+ PLUS 7.50 <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">76 = 81</span> MINUS - 8.00	HC✓ X RF
		14mm	AUTOSELECT	Available designs - General/Outdoor/Desk Adds 0.50 to 4.50 in 0.25 steps	
1.53	NUXT DY			+ PLUS 5.00 3.00 <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">75 = 80</span> 2.00 8.00 MINUS - 70=75 70=75	HC✓ X RF
		14mm	AUTOSELECT	Available designs - General/Outdoor/Desk Adds 0.50 to 4.50 in 0.25 steps	
1.53	NUXT BY			+ PLUS 5.00 3.00 <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">75 = 80</span> 2.00 8.00 MINUS - 70=75 70=75	HC✓ X RF
		14mm	AUTOSELECT	Available designs - General/Outdoor Adds 0.50 to 4.50 in 0.25 steps	

AUTOSELECT - CORRIDOR AVAILABILITY COMPUTER SELECTION DETERMINED BY FITTING HEIGHT SPECIFIED

↔ Variable reading inset - 0 to 4.00mm in 0.50mm steps available.

If measured please state at time of ordering otherwise standard inset values apply.

OPPOSITE CYLS TO 6.00DC UNLESS STATED

# Digital Design Inner Surface Progressive

## - ULTOR HD AVAILABILITY -

	LENS CODE				COATING
1.53	NU53 GR/BR	<b>TRIVEX</b> <b>Transitions® &amp; Transitions® XTRActive®</b>	Grey <b>ISP</b>	+ PLUS 7.50 76 81 MINUS - 8.00	
	NX53 GR/BR	14mm <b>AUTOSELECT</b>	Available designs - <b>General/Outdoor/Desk</b>	Grey Brown	
1.53	NV53 GR	<b>Transitions® Vantage®</b> <b>VARIABLE POLARISED 77% - 20% LTF</b>	<b>ISP</b>	+ PLUS 8.00 75 80 MINUS - 8.00	
		14mm <b>AUTOSELECT</b>	Available designs - <b>General/Outdoor</b>	Adds 0.50 to 4.50 in 0.25 steps	
1.53	NUDW	<b>Transitions® DRIVEWEAR®</b> <b>35% - 22% - 12%</b>	<b>ISP</b>	+ PLUS 6.00 75 80 MINUS - 8.00	
		14mm <b>AUTOSELECT</b>	Available designs - <b>General/Outdoor</b>	Adds 0.50 to 4.50 in 0.25 steps	
1.53	NUNP GR/BR	<b>TRILOGY NUPOLAR®</b> <b>POLARISED UV400 15% LTF</b>	Grey <b>ISP</b>	+ PLUS 6.00 72 77 MINUS - 6.00	
		14mm <b>AUTOSELECT</b>	Available designs - <b>Outdoor</b>	Adds 0.50 to 4.50 in 0.25 steps	
1.56	NUME	<b>VISTA-MESH UV385 BROWN 90% LTF FILTER</b>	<b>ISP</b>	+ PLUS 8.00 70 75 MINUS - 10.00	
		14mm <b>AUTOSELECT</b>	Available designs - <b>General/Outdoor/Desk</b>	Adds 0.50 to 4.50 in 0.25 steps	
1.56	NUME RB15	<b>VISTA-MESH Reactolite</b> <b>PHOTOCHROMIC BROWN</b>	<b>ISP</b>	+ PLUS 7.00 75 MINUS - 10.00	
		14mm <b>AUTOSELECT</b>	Available designs - <b>General/Outdoor/Desk</b>	Adds 0.50 to 4.50 in 0.25 steps	
1.56	NUBT	<b>BT66 FILTER</b>	<b>ISP</b>	+ PLUS 7.00 75 MINUS - 12.00	
		14mm <b>AUTOSELECT</b>	Available designs - <b>General/Desk</b>	Adds 0.50 to 4.00 in 0.25 steps	
1.58	NPBT	<b>MID INDEX BT70 FILTER</b>	<b>ISP</b>	+ PLUS 5.00 75 MINUS - 10.00	
		14mm <b>AUTOSELECT</b>	Available designs - <b>General/Desk</b>	Adds 0.50 to 4.00 in 0.25 steps	
1.59	NU58	<b>POLYCARB</b>	<b>ISP</b>	+ PLUS 8.00 76 81 MINUS - 9.00	
	T20%			Adds 0.50 to 4.50 in 0.25 steps	
	NU5V	14mm <b>AUTOSELECT</b>	Available designs - <b>General/Outdoor/Desk</b>	Also available PUV+	PUV+ PUV+

**AUTOSELECT - CORRIDOR AVAILABILITY COMPUTER SELECTION DETERMINED BY FITTING HEIGHT SPECIFIED**

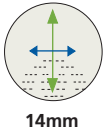



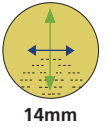


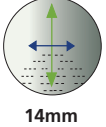


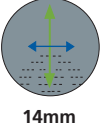


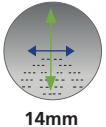


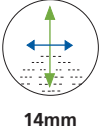




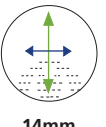


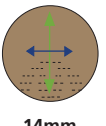


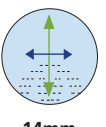


↔ Variable reading inset - 0 to 4.00mm in 0.50mm steps available.

If measured please state at time of ordering otherwise standard inset values apply.

**OPPOSITE CYLS TO 6.00DC UNLESS STATED**

# Digital Design Inner Surface Progressive

## - ULTOR HD AVAILABILITY -

LENS CODE						COATING
1.59	NU58 GR/BR	 <ul style="list-style-type: none"> <li>Grey</li> <li>Brown</li> </ul> <p>14mm AUTOSELECT</p>	<p><b>Transitions® &amp; Transitions® XTRActive</b></p> <p>+ PLUS      MINUS -</p> <p>7.00      76      8.00      10.00</p> <p>             =      81      70=75</p> <p>Adds 0.50 to 4.50 in 0.25 steps</p> <p>Available designs - <b>General/Outdoor/Desk</b></p>		 <ul style="list-style-type: none"> <li>Grey</li> <li>Brown</li> </ul>	
	NX58 GR/BR					
1.59	NRPO	 <p>14mm AUTOSELECT</p>	<p><b>Transitions® DRIVEWEAR®</b></p> <p>+ PLUS      MINUS -</p> <p>6.00      72      8.00</p> <p>             =      77</p> <p>Adds 0.50 to 4.50 in 0.25 steps</p> <p>Available designs - <b>Outdoor</b></p>			
						
1.59	NI59 GR/BR	 <ul style="list-style-type: none"> <li>Grey</li> <li>Brown Summer '18</li> </ul> <p>14mm AUTOSELECT</p>	<p><b>INFINITE NUPOLAR CHROMATIC 40% - 9% LT</b></p> <p>+ PLUS      MINUS -</p> <p>6.00      76      8.00</p> <p>Adds 0.50 to 4.50 in 0.25 steps</p> <p>Available designs - <b>General/Outdoor</b></p>			
						
1.59	NP58 GR/BR GN	 <ul style="list-style-type: none"> <li>Grey</li> <li>Brown</li> <li>Green</li> </ul> <p>14mm AUTOSELECT</p>	<p><b>NUPOLAR® POLARISED UV400 15% LTF</b></p> <p>+ PLUS      MINUS -</p> <p>6.00      73      9.00</p> <p>             =      78</p> <p>Adds 0.50 to 4.50 in 0.25 steps</p> <p>Available designs - <b>Outdoor</b></p>			
						
1.59	NUGP GR/BR	 <ul style="list-style-type: none"> <li>Grey</li> <li>Brown</li> </ul> <p>14mm AUTOSELECT</p>	<p><b>NUPOLAR® + GRADUATED TINT GREY OR BROWN*</b></p> <p>+ PLUS      MINUS -      LT</p> <p>6.00      76      5.00      Top Grey 15   Brown 20</p> <p>             =      80      Bottom Grey 30   Grey 30</p> <p>Adds 0.50 to 4.50 in 0.25 steps</p> <p>Available designs - <b>Outdoor</b></p>			
						
1.60	NU60 T20%	 <p>14mm AUTOSELECT</p>	<p><b>NU60</b></p> <p>+ PLUS      MINUS -</p> <p>8.00      75      8.00      10.00</p> <p>             =      80      70=75</p> <p>Adds 0.50 to 4.50 in 0.25 steps</p> <p>Available designs - <b>General/Outdoor/Desk</b></p>			
	NU6U		<p>Also available in UV410 Clear</p>		 UV410  UV410	
1.60	NU60 T20%	 <p>14mm AUTOSELECT</p>	<p><b>NU60 HIGH PLUS</b></p> <p>+ PLUS</p> <p>10.00      8.25      70</p> <p>             =      65</p> <p>Adds 0.50 to 4.50 in 0.25 steps</p> <p>Available designs - <b>General/Outdoor/Desk</b></p>			
						
1.60	NU60 ET	 <p>14mm AUTOSELECT</p>	<p><b>EAGLE TINT UV410 BROWN 47% LT</b></p> <p>+ PLUS      MINUS -</p> <p>6.00      80      6.00</p> <p>             =      85</p> <p>Adds 0.50 to 3.50 in 0.25 steps</p> <p>Available designs - <b>General/Outdoor</b></p>			
						
1.60	NUA1 NUA2	 <p>14mm AUTOSELECT</p>	<p><b>NEO A1 82% LT &amp; A2 72% LT CONTRAST UV400:580B</b></p> <p>+ PLUS      MINUS -</p> <p>8.00      75      8.00</p> <p>             =      80</p> <p>Adds 0.50 to 3.50 in 0.25 steps</p> <p>Available designs - <b>General/Outdoor</b></p>			
						

AUTOSELECT - CORRIDOR AVAILABILITY COMPUTER SELECTION DETERMINED BY FITTING HEIGHT SPECIFIED

↔ Variable reading inset - 0 to 4.00mm in 0.50mm steps available.

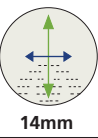


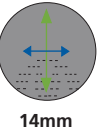


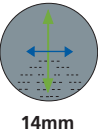


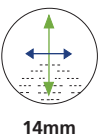

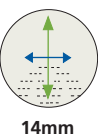

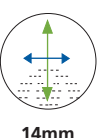




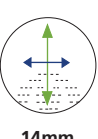


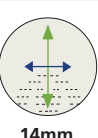


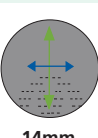


If measured please state at time of ordering otherwise standard inset values apply.

OPPOSITE CYLS TO 6.00DC UNLESS STATED



# Digital Design Inner Surface Progressive

## - ULTOR HD AVAILABILITY -

LENS CODE		COATING	
1.60	NU60 GR/BR /GN  14mm Grey Brown <i>ISP</i> Green AUTOSELECT	+ PLUS 8.00 72 = 77 75 = 80 MINUS - 5.00 8.00 10.00 70=75 65=70 Adds 0.50 to 4.50 in 0.25 steps Available designs - General/Outdoor/Desk	 
	NU6X GR/BR  14mm Grey <i>ISP</i> Brown AUTOSELECT	+ PLUS 8.00 73 = 78 MINUS - 10.00 Adds 0.50 to 4.50 in 0.25 steps Available designs - General/Outdoor	 
1.60	NP60 GR/BR /GN  14mm Grey Brown <i>ISP</i> Green AUTOSELECT	+ PLUS 8.00 6.00 74 = 79 MINUS - 8.00 9.00 65=70 65=70 Adds 0.50 to 4.50 in 0.25 steps Available designs - Outdoor	 
	NTR6  14mm <i>ISP</i> AUTOSELECT	+ PLUS 8.00 75 = 80 MINUS - 10.00 Adds 0.50 to 4.50 in 0.25 steps Available designs - General/Outdoor/Desk	
1.60	NTR6 GR/BR  14mm Grey <i>ISP</i> Brown AUTOSELECT	+ PLUS 6.00 75 MINUS - 10.00 Adds 0.50 to 4.50 in 0.25 steps Available designs - General/Outdoor/Desk	
	NU67  14mm <i>ISP</i> AUTOSELECT	+ PLUS 9.00 7.00 75 = 80 MINUS - 8.00 10.00 12.00 65=70 70=75 65=70 Adds 0.50 to 4.50 in 0.25 steps Available designs - General/Outdoor/Desk	    Also available in UV410 Clear
1.67	NU67  14mm <i>ISP</i> AUTOSELECT	+ PLUS 15.00 12.00 9.25 65 = 70 Adds 0.50 to 4.50 in 0.25 steps Available designs - General/Outdoor/Desk	 
	NU67 GR/BR /GN  14mm Grey <i>ISP</i> Green AUTOSELECT	+ PLUS 9.00 8.00 1.50 75 = 80 MINUS - 8.00 10.00 12.00 65=70 70=75 65=70 Adds 0.50 to 4.50 in 0.25 steps Available designs - General/Outdoor/Desk	 
1.67	NX67 GR/BR  14mm Grey <i>ISP</i> Brown AUTOSELECT	+ PLUS 7.00 78 = 83 MINUS - 10.00 Adds 0.50 to 4.50 in 0.25 steps Available designs - General/Outdoor	 

AUTOSELECT - CORRIDOR AVAILABILITY COMPUTER SELECTION DETERMINED BY FITTING HEIGHT SPECIFIED

↔ Variable reading inset - 0 to 4.00mm in 0.50mm steps available.


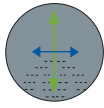



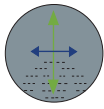





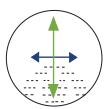


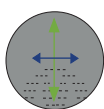


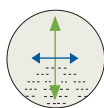


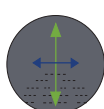



If measured please state at time of ordering otherwise standard inset values apply.

\*Note: Tints available on this product from 80% to 20% LTF - price excludes tint cost.

**OPPOSITE CYLS TO 6.00DC UNLESS STATED**

# Digital Design Inner Surface Progressive

## - ULTOR HD AVAILABILITY -

	LENS CODE		COATING
1.67	NP67 GR/BR /GN	 <b>NUPOLAR® POLARISED UV400 15% LTF</b>  <ul style="list-style-type: none"> <li>Grey</li> <li>Brown <i>ISP</i></li> <li>Green</li> </ul> <p>14mm <b>AUTOSELECT</b></p> <p>+ PLUS: 8.00 6.00 75=80 MINUS -: 8.00 10.00 70=75</p> <p>Adds 0.50 to 4.50 in 0.25 steps Available designs - Outdoor</p>	 
1.67	NP67 GR/BR	 <b>POLARISED UV400 HIGH POWER 15% LT</b>  <ul style="list-style-type: none"> <li>Grey</li> <li>Brown <i>ISP</i></li> </ul> <p>14mm <b>AUTOSELECT</b></p> <p>+ PLUS: 9.00 8.25 65=70 MINUS -: 10.25 15.00</p> <p>Adds 0.50 to 4.50 in 0.25 steps Available designs - Outdoor</p> <p><b>Colour Match</b> Other lens, even if lower power, will be supplied at this price.</p>	 
1.74	NU74 T N/A	 <p>+ PLUS: 10.00 6.00 70=75 MINUS -: 75=80 8.00 12.00 15.00 65=70 60=65</p> <p>Adds 0.50 to 4.50 in 0.25 steps Available designs - General/Outdoor/Desk</p>	
1.74	NU74 T N/A	 <b>(HIGHER POWERS)</b>  <p>14mm <b>AUTOSELECT</b></p> <p>+ PLUS: 15.00 10.25 60 MINUS -: 12.25 18.00</p> <p>Adds 0.50 to 4.50 in 0.25 steps Available designs - General/Outdoor/Desk</p>	
1.74	NUHY T 20%	 <b>TINTABLE*</b>  <ul style="list-style-type: none"> <li>Grey</li> <li>Brown <i>ISP</i></li> </ul> <p>14mm <b>AUTOSELECT</b></p> <p>+ PLUS: 9.00 6.00 75=80 MINUS -: 10.00 12.00 70=75</p> <p>Adds 0.50 to 4.50 in 0.25 steps Available designs - General/Outdoor</p>	
1.74	NU74 GR/BR	 <b>Transitions®</b>  <ul style="list-style-type: none"> <li>Grey</li> <li>Brown <i>ISP</i></li> </ul> <p>14mm <b>AUTOSELECT</b></p> <p>+ PLUS: 8.00 70=75 MINUS -: 75=80 5.00 8.00 10.00 70=75 65=70</p> <p>Adds 0.50 to 4.50 in 0.25 steps Available designs - General/Outdoor/Desk</p>	
1.74	NP74 GR/BR	 <b>POLARISED UV400</b>  <ul style="list-style-type: none"> <li>Grey 10%</li> <li>Brown 10%</li> </ul> <p>14mm <b>AUTOSELECT</b></p> <p>+ PLUS: 8.00 75=80 MINUS -: 8.00 12.00 65</p> <p>Adds 0.50 to 4.00 in 0.25 steps Available designs - General/Outdoor</p>	
1.76	NU76 T N/A	 <p>+ PLUS: 8.00 75=80 MINUS -: 10.00 12.00 70=75</p> <p>Adds 0.50 to 4.50 in 0.25 steps Available designs - General/Outdoor/Desk</p>	

**AUTOSELECT - CORRIDOR AVAILABILITY COMPUTER SELECTION DETERMINED BY FITTING HEIGHT SPECIFIED**


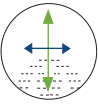




↔ Variable reading inset - 0 to 4.00mm in 0.50mm steps available.

If measured please state at time of ordering otherwise standard inset values apply.

\*Note: Tints available on this product from 80% to 20% LTF - price excludes tint cost.

**OPPOSITE CYLS TO 6.00DC UNLESS STATED**

## - ULTOR HD GLASS\* AVAILABILITY -

LENS CODE		COATING		
1.52	NG52	  15mm AUTOSELECT	+ PLUS 5.00      70 = 75      MINUS - 8.00 Adds 0.50 to 4.50 in 0.25 steps Available designs - General/Outdoor/Desk	(UNC) (G RF)
	NG52 PE/BP	 PHOTOGREY OR PHOTOBROWN	+ PLUS 5.00      70 = 75      MINUS - 8.00 Adds 0.50 to 4.50 in 0.25 steps Available designs - General/Outdoor	(UNC) (G RF)
1.52	NGPD	 POLARISED GREY 9% BROWN 12% LT	+ PLUS 7.00      70 = 75      MINUS - 6.00 Adds 0.50 to 4.50 in 0.25 steps Available designs - General/Outdoor	(RF) 0.25 to 7.00
1.52	SNRY	 GREEN GREY SOLID TINT 15% LTF	+ PLUS 5.00      70 = 75      MINUS - 8.00 Adds 0.50 to 4.50 in 0.25 steps OPPOSITE CYLS TO 4.00 Available designs - General/Outdoor	(UNC) (IN ✓)
1.52	SNGS	 BROWN SOLID TINT 15% LTF	+ PLUS 4.00      70 = 75      MINUS - 6.00 Adds 0.50 to 4.50 in 0.25 steps OPPOSITE CYLS TO 4.00 Available designs - General/Outdoor	(UNC) (IN ✓)

AUTOSELECT - CORRIDOR AVAILABILITY COMPUTER SELECTION DETERMINED BY FITTING HEIGHT SPECIFIED


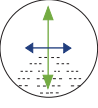
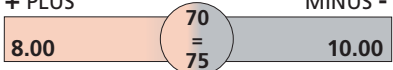


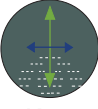
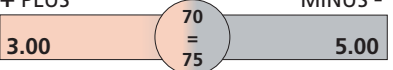


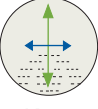
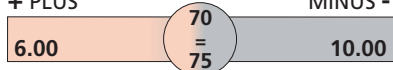


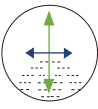
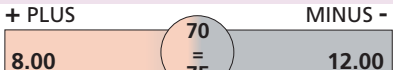


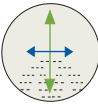







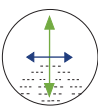
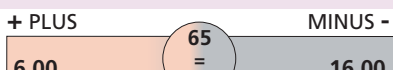


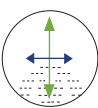


↔ Variable reading inset - 0 to 4.00mm in 0.50mm steps available.

If measured please state at time of ordering otherwise standard inset values apply.

OPPOSITE CYLS TO 6.00DC UNLESS STATED

# Digital Design Inner Surface Progressive

## - ULTOR HD GLASS\* AVAILABILITY -

	LENS CODE			COATING
1.60	GS60	  14mm AUTOSELECT	+ PLUS <span style="margin-left: 100px;">MINUS -</span>  Adds 0.50 to 4.50 in 0.25 steps OPPOSITE CYLS TO 4.00 Available designs - <b>General/Outdoor/Desk</b>	
1.60	SNGG	  14mm AUTOSELECT	<b>GREEN GREY SOLID TINT 15% LTF</b> + PLUS <span style="margin-left: 100px;">MINUS -</span>  Adds 0.50 to 4.50 in 0.25 steps OPPOSITE CYLS TO 4.00 Available designs - <b>General Only</b>	
1.60	GS60 PE/BP	  14mm AUTOSELECT	<b>PGX/PBX PHOTOCROMIC</b> + PLUS <span style="margin-left: 100px;">MINUS -</span>  Adds 0.50 to 4.50 in 0.25 steps OPPOSITE CYLS TO 4.00 Available designs - <b>General Only</b>	
1.70	GS70	  14mm AUTOSELECT	+ PLUS <span style="margin-left: 100px;">MINUS -</span>  Adds 0.50 to 4.50 in 0.25 steps OPPOSITE CYLS TO 4.00 Available designs - <b>General/Outdoor/Desk</b>	
1.70	GS70 PE/BP	  14mm AUTOSELECT	<b>PGX/PBX PHOTOCROMIC*</b> + PLUS <span style="margin-left: 100px;">MINUS -</span>  Adds 0.50 to 4.50 in 0.25 steps OPPOSITE CYLS TO 4.00 Available designs - <b>General/Outdoor</b>	
1.76	SXGR	  14mm AUTOSELECT	<b>X RAY SAFETY FILTER PROGRESSIVE SF-6</b> + PLUS <span style="margin-left: 100px;">MINUS -</span>  Adds 0.50 to 4.50 in 0.25 steps OPPOSITE CYLS TO 4.00 Available designs - <b>General Only</b>	
1.80	GS80	  14mm AUTOSELECT	+ PLUS <span style="margin-left: 100px;">MINUS -</span>  Adds 0.50 to 4.50 in 0.25 steps OPPOSITE CYLS TO 4.00 Available designs - <b>General/Outdoor/Desk</b>	
1.90	GS90	  14mm AUTOSELECT	+ PLUS <span style="margin-left: 100px;">MINUS -</span>  Adds 0.50 to 4.50 in 0.25 steps Available designs - <b>General/Outdoor/Desk</b>	

AUTOSELECT - CORRIDOR AVAILABILITY COMPUTER SELECTION DETERMINED BY FITTING HEIGHT SPECIFIED

↔ Variable reading inset - 0 to 4.00mm in 0.50mm steps available.

If measured please state at time of ordering otherwise standard inset values apply.

OPPOSITE CYLS TO 6.00DC UNLESS STATED



# ULTOR HD

## Inner Surface Progressive

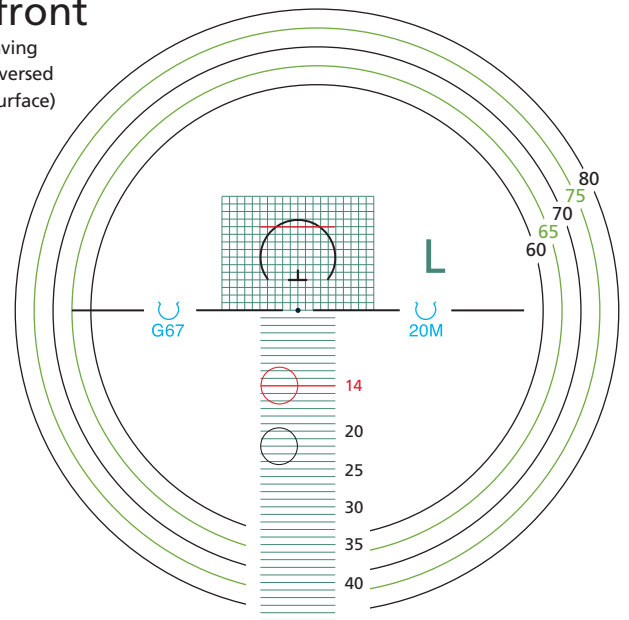
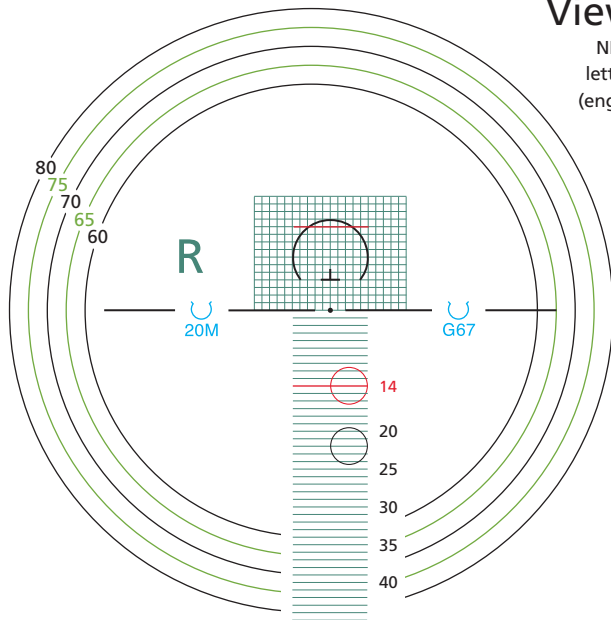
Right Eye

Effective Diameter Chart

Left Eye

Viewed from front

NB: In practice the engraving lettering shown will be reversed (engraved from the back surface)



Up & Down Limits

### Lens Marking Layout

Add is shown as:

+0.50	05	+3.00	30
+0.75	07	+3.25	32
+1.00	10	+3.50	35
+1.25	12	+3.75	37
+1.50	15	+4.00	40
+1.75	17	+4.25	42
+2.00	20	+4.50	45
+2.25	22	+4.75	47
+2.50	25	+5.00	50
+2.75	27		

Index is shown as:

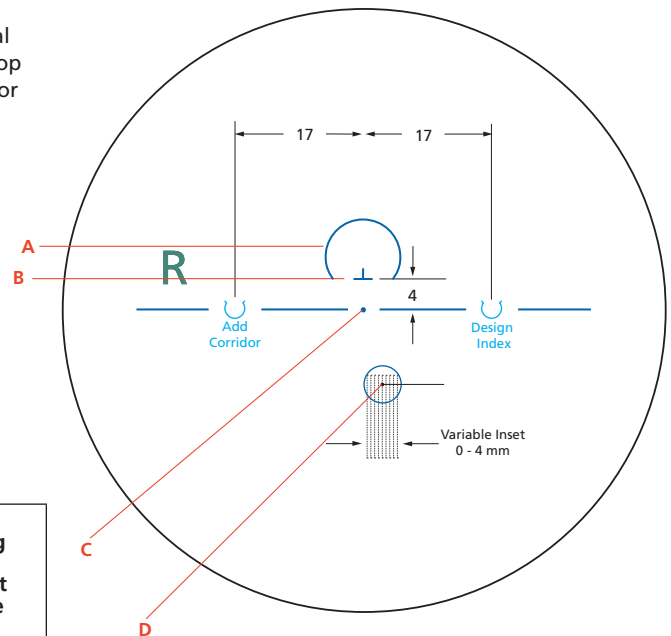
1.50 CR39	50
1.53 Trivex	53
1.56	56
1.59 Polycarb	59
1.60	60
1.67	67
1.74	74
1.76	76

Designs:

- "G" = General
- "D" = Desk Top
- "O" = Outdoor

Corridor Design Options:

- "XS" = Extra Short
- "S" = Short
- "M" = Medium
- "L" = Long



\*Higher additions may be possible - see page 85.

### Ultor HD Corridor Designs

Corridor Length* <small>(from PRP to top of NV checking circle)</small>	Full Progression Length <small>(from start of progression to top of NV circle)</small>	Minimum Fitting Height <small>(from lowest tangent top of bottom rim)</small>	Minimum Frame Depth	Fitting Cross Height above PRP
6mm XS	10mm	14mm	22mm+	+4mm
7mm	11mm	15mm	23mm+	+4mm
8mm S	12mm	16mm	24mm+	+4mm
9mm	13mm	17mm	25mm+	+4mm
10mm M	14mm	18mm	26mm+	+4mm
11mm	15mm	19mm	27mm+	+4mm
12mm L	16mm	20mm	28mm+	+4mm

\*AUTOSELECT - COMPUTER SELECTION DETERMINED BY FITTING HEIGHT SPECIFIED

- Permanent engraved marks
- Removable ink markings

Right eye uncut viewed from front

- A : far vision zone
- B : fitting cross 4 above PRP
- C : prism reference point (PRP)
- D : near vision zone



All manufactured in our Gloucester UK Laboratories

# SENTOR






**SENTOR**   
General Wear



**SENTOR**   
Outdoor

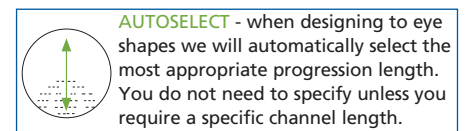
This **SENTOR** Digital progressive family represents the flexibility of Free-form design, blended with prescriber's individual patient data to create a customised lens surface specific for every wearer. Each point on the lens surface is calculated to provide the best possible visual quality and performance.

**SENTOR** truly a blend of optical performance and personalisation.

-  2 user life style options: **General Wear** or **Outdoor**
-  7 Autoselect corridor lengths from 14mm minimum fitting height in 1mm increments
-  **INDIVIDUAL** Right & Left Distance and Reading Monocular PDs

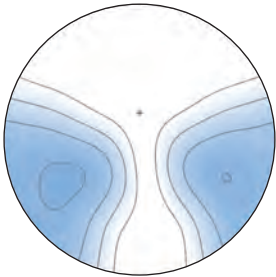
**NC design to Prescribed Distance Rx (compensated reading)  
or Optional Fully Compensated Rx Calculation using these parameters**

- Pantoscopic Tilt Angle•
- Frame Wrap (face) Angle•
- VERTEX Distance•
- Near Working Distance•
- Optical PDs, Distance and Near Fitting Height
- Frame Shape Details
- additional measurements submitted when ordering.



When only partial data is presented the design will revert to average values for those remaining unspecified

Orders for **SENTOR** with no specific mention of design will be supplied as **GENERAL WEAR** except for **POLARISED/DRIVEWEAR** lenses, which will be provided in **OUTDOOR** design.



## HD 'G' General Wear

A **comfortable** general wear lens for both new and experienced wearers

### Characteristics

**Balanced for all distances.** Far and near vision zone are both optimised for the most accurate combination of quality and comfort. Excellent all-purpose design, smooth transition between distance and near.

### User Key Points

All-purpose use with good balance between different visual regions. Ideal general performance design for new or inexperienced (nervous) wearers. Wide near field.

- SELECT INSET 0 to 4 in 0.5mm steps or changes automatically with Rx
- SPECIFY or leave it to us to Autoselect corridor lengths
- Available in 7 corridor lengths
- Minimum fitting height 14mm

### Optional Personalisation

If additional individualisation is required please provide us with:

- Pantoscopic tilt
- BVD - Trial and spectacle distances
- Frame wrap angle
- Near working distance

## SENTOR 'G'

Visual **comfort** with easy adaption.



## HD 'O' Outdoor

For those **physically** on the move - extra wide & clear far vision

### Characteristics

**Extra wide distance vision** zone for optimised distant vision, near field is more than adequate for everyday near vision.

### User Key Points

Uses mainly the far vision zone while working, moves quickly and often. Exemplary lens for experienced PAL wearers with **panoramic** clarity in the distance zone.

- SELECT INSET 0 to 4 in 0.5mm steps or changes automatically with Rx
- SPECIFY or leave it to us to Autoselect corridor lengths
- Available in 7 corridor lengths
- Minimum fitting height 14mm

### Optional Personalisation

If additional individualisation is required please provide us with:

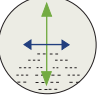
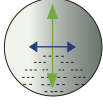
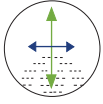
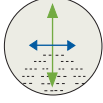
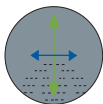
- Pantoscopic tilt
- BVD - Trial and spectacle distances
- Frame wrap angle

## SENTOR 'O'

Distance with **Panoramic** clarity

# Inner Surface Progressive

## - SENTOR HD AVAILABILITY -

	LENS CODE				COATING
1.50	SN39	<b>SENTOR HD</b>			UNC
		 <b>ISP</b> 14mm <b>AUTOSELECT</b>	+ PLUS 8.00	75 = 80	MINUS - 8.00
		Adds 0.50 to 4.00 in 0.12 (0.10) steps Available designs - <b>General Wear/Outdoor</b>			
1.50	SN39 GR/BR /GN SN3X GR/BR	<b>SENTOR HD Transitions® &amp; Transitions® XTRActive</b>			HC XRF
		 <b>ISP</b> 14mm <b>AUTOSELECT</b>	+ PLUS 6.00	75 = 80	MINUS - 6.00 8.00 70=75
		Adds 0.75 to 4.00 in 0.25 steps Available designs - <b>General/Outdoor</b>			
1.50	SIP5 GR/BR	<b>SENTOR HD INFINITE NUPOLAR CHROMATIC 40% - 9% LT</b>			IN
		 <b>ISP</b> 14mm <b>AUTOSELECT</b>	+ PLUS 6.00	76	MINUS - 8.00
		Adds 0.75 to 4.00 in 0.25 steps Available designs - <b>General/Outdoor</b>			
1.50	SV39 GR	<b>SENTOR HD Transitions® Vantage® VARIABLE POLARISED 77% - 20% LTF</b>			HC
		 <b>ISP</b> 14mm <b>AUTOSELECT</b>	+ PLUS 6.00	75 = 80	MINUS - 8.00
		Adds 0.50 to 4.00 in 0.12 (0.10) steps Available designs - <b>General Wear/Outdoor</b>			
1.53	SN53 TNA	<b>SENTOR HD TRIVEX</b>			HC XRF
		 <b>ISP</b> 14mm <b>AUTOSELECT</b>	+ PLUS 7.50	76 = 81	MINUS - 8.00
		Adds 0.50 to 4.00 in 0.12 (0.10) steps Available designs - <b>General Wear/Outdoor</b>			
1.53	SN53 GR/BR	<b>SENTOR HD Transitions®</b>			XRF
		 <b>ISP</b> 14mm <b>AUTOSELECT</b>	+ PLUS 7.50	76 = 81	MINUS - 8.00
		Adds 0.50 to 4.00 in 0.12 (0.10) steps Available designs - <b>General Wear/Outdoor</b>			
1.53	SNTX GR/BR	<b>SENTOR HD TRIVEX Transitions® XTRActive 83% - 10% LTF</b>			XRF
		 <b>ISP</b> 14mm <b>AUTOSELECT</b>	+ PLUS 7.50	76 = 81	MINUS - 8.00
		Adds 0.50 to 4.00 in 0.12 (0.10) steps Available designs - <b>General Wear/Outdoor</b>			
1.53	SR53 GR	<b>SENTOR HD Transitions® Vantage® VARIABLE POLARISED 77% - 20% LTF</b>			HC
		 <b>ISP</b> 14mm <b>AUTOSELECT</b>	+ PLUS 8.00	75 = 80	MINUS - 8.00
		Adds 0.50 to 4.00 in 0.12 (0.10) steps Available designs - <b>General Wear/Outdoor</b>			
1.53	SNTP GR/BR	<b>SENTOR HD TRIVEX NUPOLAR® POLARISED UV400 15% LTF</b>			HC IN
		 <b>ISP</b> 14mm <b>AUTOSELECT</b>	+ PLUS 6.00	72 = 77	MINUS - 6.00
		Adds 0.50 to 4.00 in 0.12 (0.10) steps Available designs - <b>Outdoor</b>			

**AUTOSELECT** - SHORT AND LONG CORRIDOR AVAILABILITY COMPUTER SELECTION DETERMINED BY FITTING HEIGHT SPECIFIED

↔ Variable reading inset - 0 to 4.00mm in 0.50mm steps available.


If measured please state at time of ordering otherwise standard inset values apply.

**OPPOSITE CYLS TO 6.00DC UNLESS STATED**



# Inner Surface Progressive

## - SENTOR HD AVAILABILITY -

LENS CODE		COATING	
1.53	SNDW	<b>SENTOR HD</b> Transitions® DRIVEWEAR® 35% - 22% - 12%  <b>14mm</b> AUTOSELECT + PLUS 6.00 = 75 = 80 MINUS - 8.00 Adds 0.50 to 4.00 in 0.12 (0.10) steps Available designs - Outdoor	 
1.56	SNME	<b>SENTOR HD</b> VISTA-MESH UV385 BROWN 90% LTF FILTER  <b>14mm</b> AUTOSELECT + PLUS 8.00 = 70 = 75 MINUS - 10.00 Adds 0.75 to 4.00 in 0.25 steps Available designs - General Wear/Outdoor	
1.56	SNME RB15	<b>SENTOR HD</b> VISTA-MESH Reactolite PHOTOCROMIC BROWN  <b>14mm</b> AUTOSELECT + PLUS 8.00 = 70 = 75 MINUS - 10.00 Adds 0.75 to 4.00 in 0.25 steps Available designs - General/Outdoor	
1.56	SNBT	<b>SENTOR HD</b> BT66 FILTER  <b>14mm</b> AUTOSELECT + PLUS 8.00 = 75 MINUS - 10.00 Adds 0.75 to 4.00 in 0.25 steps Available designs - General Wear	
1.58	SPBT	<b>SENTOR HD</b> MID INDEX BT70 FILTER  <b>14mm</b> AUTOSELECT + PLUS 5.00 = 70 = 75 MINUS - 10.00 Adds 0.75 to 4.00 in 0.25 steps Available designs - General Wear	
1.59	SINP GR/BR	<b>SENTOR HD</b> INFINITE NUPOLAR CHROMATIC 40% - 9% LT  <b>14mm</b> AUTOSELECT Grey Brown Summer '18 + PLUS 6.00 = 76 MINUS - 8.00 Adds 0.75 to 4.00 in 0.25 steps Available designs - General/Outdoor	

AUTOSELECT - SHORT AND LONG CORRIDOR AVAILABILITY COMPUTER SELECTION DETERMINED BY FITTING HEIGHT SPECIFIED

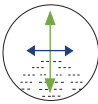
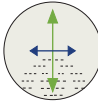
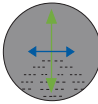
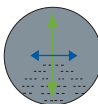
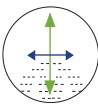
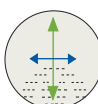
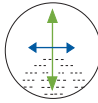
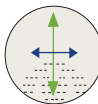
↔ Variable reading inset - 0 to 4.00mm in 0.50mm steps available.

If measured please state at time of ordering otherwise standard inset values apply.

OPPOSITE CYLS TO 6.00DC UNLESS STATED

# Inner Surface Progressive

## - SENTOR HD AVAILABILITY -

	LENS CODE				COATING
1.60	SN60	<b>SENTOR HD</b>			HC X RF
	T20%	 <b>ISP</b>	+ PLUS 8.00	75 = 80	MINUS - 8.00 10.00 70=75
	SN6U	14mm <b>AUTOSELECT</b>	Adds 0.50 to 4.00 in 0.12 (0.10) steps Available designs - <b>General Wear/Outdoor</b>		X RF UV410
1.60	SN60	<b>SENTOR HD Transitions</b>			HC
	GR/BR /GN	 <b>ISP</b> 14mm <b>AUTOSELECT</b> Grey Brown Green	+ PLUS 8.00	72 = 77	75 = 80
			Adds 0.50 to 4.00 in 0.12 (0.10) steps Available designs - <b>General Wear/Outdoor</b>		X RF
1.60	SNX6	<b>SENTOR HD Transitions XTRActive</b> 83% - 10% LTF			HC
	GR/BR	 <b>ISP</b> 14mm <b>AUTOSELECT</b> Grey Brown	+ PLUS 8.00	73 = 78	MINUS - 10.00
			Adds 0.50 to 4.00 in 0.12 (0.10) steps Available designs - <b>General Wear/Outdoor</b>		
1.60	SN6P	<b>SENTOR HD NUPOLAR</b> POLARISED UV400 15% LTF			
	GR/BR /GN	 <b>ISP</b> 14mm <b>AUTOSELECT</b> Grey Brown Green	+ PLUS 8.00 6.00	74 = 79	MINUS - 8.00 9.00 65=70
			Adds 0.50 to 4.00 in 0.12 (0.10) steps Available designs - <b>Outdoor</b>		
1.60	SRN6	<b>TRIBRID SENTOR HD</b>			
	T N/A	 <b>ISP</b> 14mm <b>AUTOSELECT</b>	+ PLUS 8.00	75	MINUS - 10.00
			Adds 0.50 to 4.00 in 0.12 (0.10) steps Available designs - <b>General Wear/Outdoor</b>		
1.60	SRN6	<b>TRIBRID SENTOR HD Transitions</b>			
	GR/BR T N/A	 <b>ISP</b> 14mm <b>AUTOSELECT</b> Grey Brown	+ PLUS 6.00	75	MINUS - 10.00
			Adds 0.50 to 4.00 in 0.12 (0.10) steps Available designs - <b>General Wear/Outdoor</b>		
1.67	SN67	<b>SENTOR HD</b>			
	T20%	 <b>ISP</b>	+ PLUS 9.00 7.00	75 = 80	MINUS - 8.00 10.00 12.00 70=75 65=70
	SN7U	14mm <b>AUTOSELECT</b>	Adds 0.50 to 4.00 in 0.12 (0.10) steps Available designs - <b>General Wear/Outdoor</b>		X RF UV410
1.67	SN67	<b>SENTOR HD Transitions</b>			HC
	GR/BR /GN	 <b>ISP</b> 14mm <b>AUTOSELECT</b> Grey Brown Green	+ PLUS 9.00 8.00 1.50	75 = 80	MINUS - 8.00 10.00 12.00 70=75 65=70
			Adds 0.50 to 4.00 in 0.12 (0.10) steps Available designs - <b>General Wear/Outdoor</b>		

**AUTOSELECT** - SHORT AND LONG CORRIDOR AVAILABILITY COMPUTER SELECTION DETERMINED BY FITTING HEIGHT SPECIFIED

↔ Variable reading inset - 0 to 4.00mm in 0.50mm steps available.

If measured please state at time of ordering otherwise standard inset values apply.

\*Note: Tints available on this product from 80% to 20% LTF - price excludes tint cost.

**OPPOSITE CYLS TO 6.00DC UNLESS STATED**



# SENTOR HD

## Inner Surface Progressive

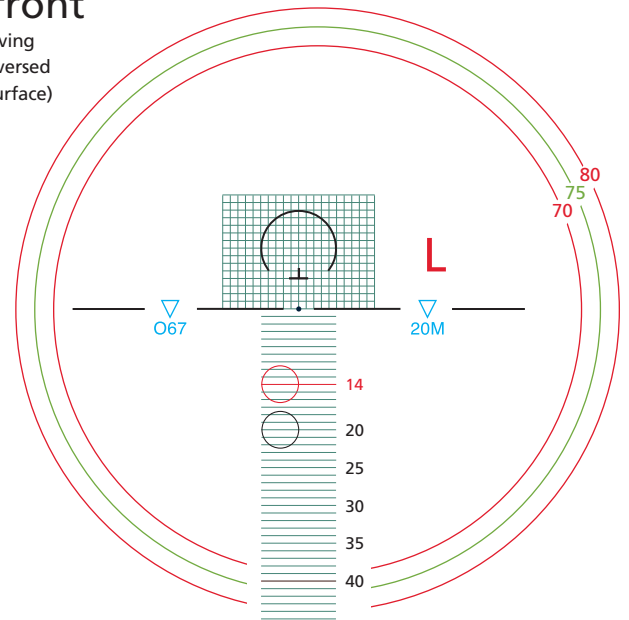
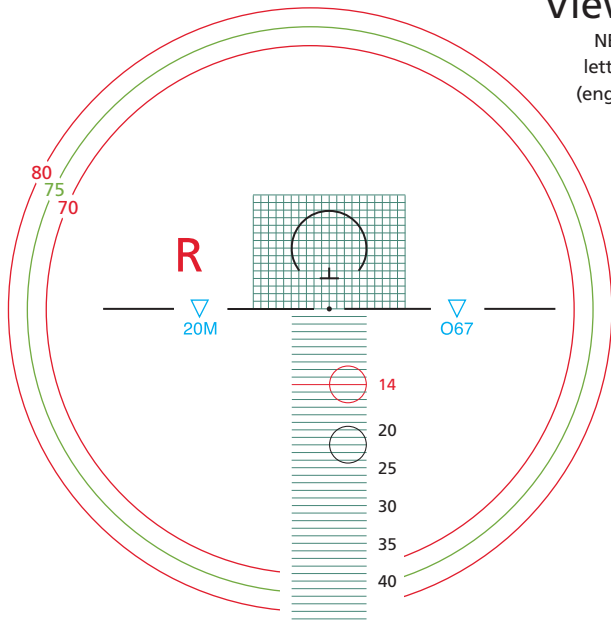
Right Eye

Effective Diameter Chart

Left Eye

Viewed from front

NB: In practice the engraving lettering shown will be reversed (engraved from the back surface)



### Lens Marking & Engravings Layout

Add is shown as:

+0.50	<b>05</b>
+1.00	<b>10</b>
+1.25	<b>12</b>
+1.50	<b>15</b>
+1.75	<b>17</b>
+2.00	<b>20</b>
+2.25	<b>22</b>
+2.50	<b>25</b>
+2.75	<b>27</b>
+3.00	<b>30</b>
+3.25	<b>32</b>
+3.50	<b>35</b>
+4.00	<b>40</b>

Index is shown as:

1.50 CR39	<b>50</b>
1.53 Trivex	<b>53</b>
1.56	<b>56</b>
1.60	<b>60</b>
1.67	<b>67</b>
1.74	<b>74</b>
1.76	<b>76</b>

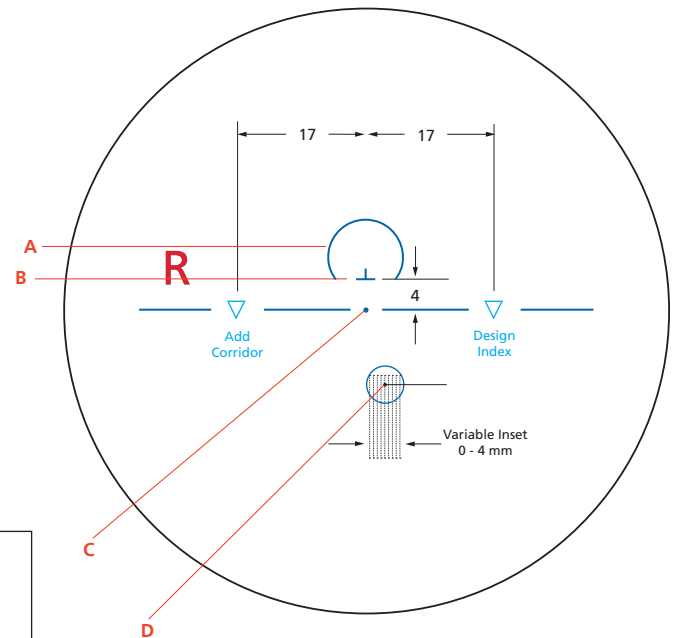
Designs:

- "G" = General Wear
- "O" = Outdoor

Corridor Design Options:

- "XS" = Extra Short
- "S" = Short
- "M" = Medium
- "L" = Long

+0.12 (0.10) addition steps -  
As above but **101, 121** etc.



- Permanent engraved marks
- Removable ink markings

Right eye uncut viewed from front

- A : far vision zone
- B : fitting cross 4 above PRP
- C : prism reference point (PRP)
- D : near vision zone

### Sentor SG & SO Corridor Designs

Corridor Length* <i>(from PRP to top of NV checking circle)</i>	Full Progression Length <i>(from start of progression to top of NV circle)</i>	Minimum Fitting Height <i>(from lowest tangent top of bottom rim)</i>	Minimum Frame Depth	Fitting Cross Height above PRP
6mm XS	10mm	14mm	22mm+	+4mm
7mm	11mm	15mm	23mm+	+4mm
8mm S	12mm	16mm	24mm+	+4mm
9mm	13mm	17mm	25mm+	+4mm
10mm M	14mm	18mm	26mm+	+4mm
11mm	15mm	19mm	27mm+	+4mm
12mm L	16mm	20mm	28mm+	+4mm

\*AUTOSELECT - COMPUTER SELECTION DETERMINED BY FITTING HEIGHT SPECIFIED



Manufactured in our Gloucester UK Laboratories



# SCREEN

On Message

2018  
NEW DESIGN

Exclusively from

  
**Norville**  
MADE IN BRITAIN

**SCREEN**

**SCREEN** A new progressive lens specifically designed for mobile users

incorporating  **SMART ADD** technology

Improves visual experience when using electronic devices.  
Reading from screen displays becomes easier and more comfortable.

Inner Surface Progressive

  
**Norville**  
For Technical  
Details - Ranges Etc.  
Phone: 01452 528686  
[www.norville.co.uk](http://www.norville.co.uk)

**DISPENSING NOTE**

Fit as regular PPL procedure.  
Excellent Distance vision with enhanced  
Intermediate and Near  
**29** ordering options 1.50 index → 1.74

STAR DISPENSE

  
**TRIVEX®**  
**SCREEN**



# Inner Surface Progressive

## - SCREEN HD AVAILABILITY -

	LENS CODE		COATING
1.50	M050	<b>SCREEN HD</b> ISP 14mm AUTOSELECT + PLUS 8.00 = 75/80 MINUS - 8.00 Adds 0.75 to 4.00 in 0.25 steps Design - Mobile Users	HC RF
	M050 GR/BR /GN M03X GR/BR	<b>SCREEN HD Transitions® &amp; Transitions® XTRActive</b> ISP 14mm AUTOSELECT + PLUS 6.00 = 75/80 MINUS - 6.00 8.00 Adds 0.75 to 4.00 in 0.25 steps Design - Mobile Users	HC X RF
1.50	MV39 GR	<b>SCREEN HD Transitions® Vantage</b> VARIABLE POLARISED 77% - 20% LT ISP 14mm AUTOSELECT + PLUS 6.00 = 75/80 MINUS - 8.00 Adds 0.75 to 4.00 in 0.25 steps Design - Mobile Users	HC X RF
	MIP5 GR/BR	<b>SCREEN HD INFINITE NUPOLAR CHROMATIC</b> 40% - 9% LT ISP 14mm AUTOSELECT + PLUS 6.00 = 76 MINUS - 8.00 Adds 0.75 to 4.00 in 0.25 steps Design - Mobile Users	IN
1.53	M053 T N/A	<b>SCREEN HD TRIVEX</b> ISP 14mm AUTOSELECT + PLUS 7.50 = 76/81 MINUS - 8.00 Adds 0.75 to 4.00 in 0.25 steps Design - Mobile Users	HC X RF
	M053 GR/BR M0TX GR/BR	<b>SCREEN HD TRIVEX Transitions® &amp; Transitions® XTRActive</b> ISP 14mm AUTOSELECT + PLUS 7.50 = 76/81 MINUS - 8.00 Adds 0.75 to 4.00 in 0.25 steps Design - Mobile Users	X RF
1.53	MV53 GR	<b>SCREEN HD Transitions® Vantage</b> VARIABLE POLARISED 77% - 20% LT ISP 14mm AUTOSELECT + PLUS 8.00 = 75/80 MINUS - 8.00 Adds 0.75 to 4.00 in 0.25 steps Design - Mobile Users	HC X RF
	MOME	<b>SCREEN HD VISTA-MESH UV385 BROWN 90% LT FILTER</b> ISP 14mm AUTOSELECT + PLUS 8.00 = 70/75 MINUS - 10.00 Adds 0.75 to 3.50 in 0.25 steps Design - Mobile Users	X RF
1.56	MOBT	<b>SCREEN HD BT66 FILTER</b> ISP 14mm AUTOSELECT + PLUS 8.00 = 75 MINUS - 10.00 Adds 0.75 to 4.00 in 0.25 steps Design - Mobile Users	X RF

AUTOSELECT - SHORT AND LONG CORRIDOR AVAILABILITY COMPUTER SELECTION DETERMINED BY FITTING HEIGHT SPECIFIED

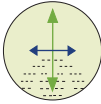

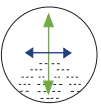


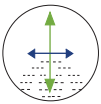




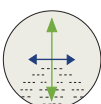


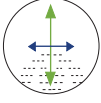

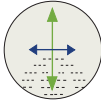

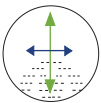




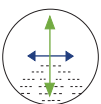

↔ Variable reading inset - 0 to 4.00mm in 0.50mm steps available.

If measured please state at time of ordering otherwise standard inset values apply.

OPPOSITE CYLS TO 6.00DC UNLESS STATED

# Inner Surface Progressive

## - SCREEN HD AVAILABILITY -

LENS CODE		COATING		
1.58	MOPT <b>SCREEN HD</b> MID INDEX BT70 FILTER	 14mm AUTOSELECT	+ PLUS 5.00 <b>70 = 75</b> MINUS - 10.00 Adds 0.75 to 4.00 in 0.25 steps Design - Mobile Users	
1.59	M058 <b>SCREEN HD</b> POLYCARB	 14mm AUTOSELECT	+ PLUS 7.00 <b>76</b> MINUS - 8.00 Adds 0.75 to 4.00 in 0.25 steps Design - Mobile Users	 
1.60	M060 <b>SCREEN HD</b>	 14mm AUTOSELECT	+ PLUS 7.00 <b>76</b> MINUS - 8.00 Adds 0.75 to 4.00 in 0.25 steps Design - Mobile Users	  Also available in UV410 Clear  
1.60	M060 <b>SCREEN HD</b> Transitions® & Transitions® XTRActive	 14mm AUTOSELECT	+ PLUS 8.00 <b>73 = 78</b> MINUS - 10.00 Adds 0.75 to 4.00 in 0.25 steps Design - Mobile Users	 
1.60	MRN6 <b>TRIBRID SCREEN HD</b>	 14mm AUTOSELECT	+ PLUS 8.00 <b>75</b> MINUS - 10.00 Adds 0.75 to 4.00 in 0.25 steps Design - Mobile Users	
1.60	MRN6 <b>TRIBRID SCREEN HD</b> Transitions®	 14mm AUTOSELECT	+ PLUS 6.00 <b>75</b> MINUS - 10.00 Adds 0.75 to 4.00 in 0.25 steps Design - Mobile Users	
1.67	M067 <b>SCREEN HD</b>	 14mm AUTOSELECT	+ PLUS 9.00 7.00 <b>75 = 80</b> 8.00 10.00 MINUS - 65=70 70=75 Adds 0.75 to 4.00 in 0.25 steps Design - Mobile Users	  Also available in UV410 Clear  
1.74	M074 <b>SCREEN HD</b>	 14mm AUTOSELECT	+ PLUS 8.00 <b>75 = 80</b> MINUS - 8.00 Adds 0.75 to 4.00 in 0.25 steps Design - Mobile Users	

AUTOSELECT - SHORT AND LONG CORRIDOR AVAILABILITY COMPUTER SELECTION DETERMINED BY FITTING HEIGHT SPECIFIED

↔ Variable reading inset - 0 to 4.00mm in 0.50mm steps available.

If measured please state at time of ordering otherwise standard inset values apply.

OPPOSITE CYLS TO 6.00DC UNLESS STATED

# SCREEN HD

## Inner Surface Progressive

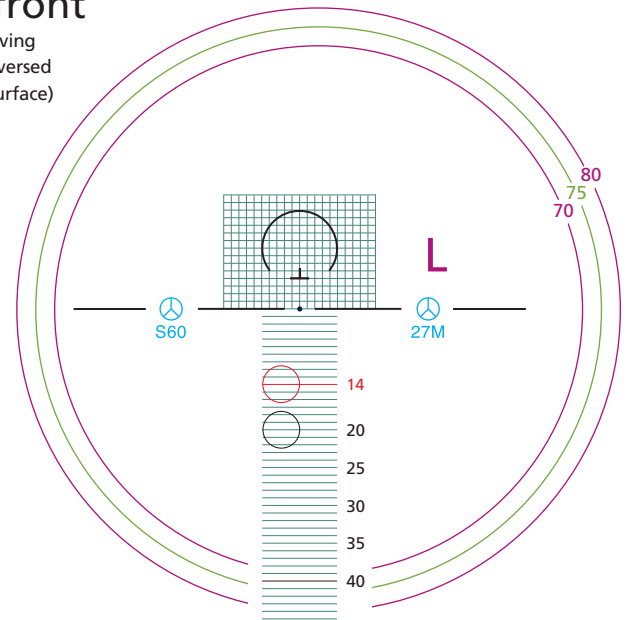
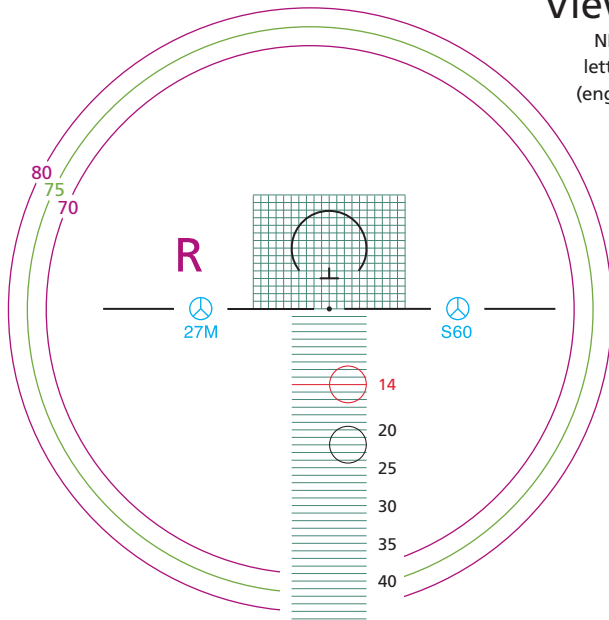
Right Eye

Effective Diameter Chart

Left Eye

Viewed from front

NB: In practice the engraving lettering shown will be reversed (engraved from the back surface)



### Lens Marking & Engravings Layout

Add is shown as:

+0.50	05
+1.00	10
+1.25	12
+1.50	15
+1.75	17
+2.00	20
+2.25	22
+2.50	25
+2.75	27
+3.00	30
+3.25	32
+3.50	35
+4.00	40

Index is shown as:

1.50 CR39	50
1.53 Trivex	53
1.56	56
1.60	60
1.67	67
1.74	74
1.76	76

Designs:

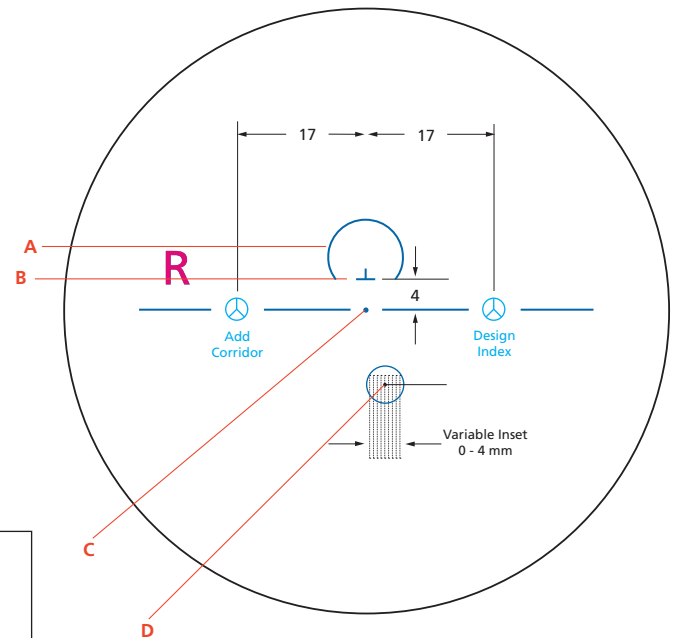
"S" = Screen

Corridor Design Options:

- "XS" = Extra Short
- "S" = Short
- "M" = Medium
- "L" = Long

+0.12 (0.10) addition steps -

As above but 101, 121 etc.



### Screen Corridor Designs

Corridor Length* <small>(from PRP to top of NV checking circle)</small>	Full Progression Length <small>(from start of progression to top of NV circle)</small>	Minimum Fitting Height <small>(from lowest tangent top of bottom rim)</small>	Minimum Frame Depth	Fitting Cross Height above PRP
6mm XS	10mm	14mm	22mm+	+4mm
7mm	11mm	15mm	23mm+	+4mm
8mm S	12mm	16mm	24mm+	+4mm
9mm	13mm	17mm	25mm+	+4mm
10mm M	14mm	18mm	26mm+	+4mm
11mm	15mm	19mm	27mm+	+4mm
12mm L	16mm	20mm	28mm+	+4mm

\*AUTOSELECT - COMPUTER SELECTION DETERMINED BY FITTING HEIGHT SPECIFIED

- Permanent engraved marks
- Removable ink markings

Right eye uncut viewed from front

- A : far vision zone
- B : fitting cross 4 above PRP
- C : prism reference point (PRP)
- D : near vision zone



Manufactured in our Gloucester UK Laboratories

## VECTOR HD

2018  
NOW AVAILABLE  
IN MINERAL



VECTOR is a general purpose Inner Surface Progressive (ISP) design. Whilst Vector is only available in a limited number of material options it still offers silky smooth transition through all of the vision zones. A well balanced basic lens, a design tested over time with VOLUMES of satisfied wearers.

### HD 'G' General Wear

#### Characteristics

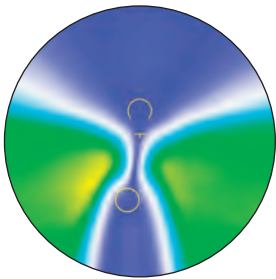
A general wear, all round use inner surface design. Non-compensated distance. Available in 3 corridor lengths with automatic designation, dependent on fitting height and frame depth, using Norville exclusive **Autoselect** to a minimum fitting height of 15mm. Those wishing an extra short corridor may specify **Vector XS** - 11mm minimum fitting height.

Maximum prism **3.0 $\Delta$**

#### User Key Points

The inner surface progressive design offers quick adaption for all, increasing the overall visual field of the patient. Reducing distortion, whilst maximising image quality to provide a sharper, clearer image at all distances.

Vector offers great value combined with great optics, an important start point in your dispensing portfolio.



## VECTOR EXTRA SHORT

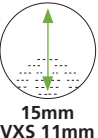
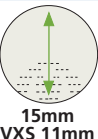
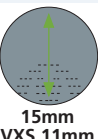
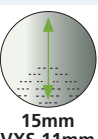
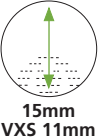
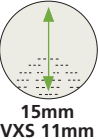
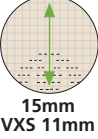
### HD 'X' Extra Short

The shortest minimum fitting height - 11mm - across the Norville free-form ranges. Vector XS has been especially designed to accommodate very shallow fittings, however, please note this is the minimum possible.

**PS. DISPENSING TIP**  
Vector = Value

# Inner Surface Progressive

## - VECTOR <sup>HD</sup> AVAILABILITY -

	LENS CODE				COATING
1.50	VU39	VECTOR & VECTOR EXTRA SHORT	 15mm VXS 11mm	+ PLUS 6.00 <b>75</b> 6.00 MINUS - Adds 0.75 to 3.50 in 0.25 steps Available designs - General only	HC✓ X RF
	T20%			Max prism 3Δ	
1.50	VU39	VECTOR & VECTOR EXTRA SHORT Transitions®	 15mm VXS 11mm	+ PLUS 6.00 <b>75</b> 6.00 MINUS - Adds 0.75 to 3.50 in 0.25 steps Available designs - General only	HC✓ X RF
	GR/BR /GN	Grey Brown ISP Green AUTOSELECT		Max prism 3Δ	
1.50	VFP	VECTOR & VECTOR EXTRA SHORT NUPOLAR® UV400 15% LTF	 15mm VXS 11mm	+ PLUS 6.00 <b>72</b> 6.00 MINUS - Adds 0.75 to 3.50 in 0.25 steps Available designs - General only	HC✓ IN✓
	GR/BR	Grey Brown AUTOSELECT		Max prism 3Δ	
1.50	VIP5	VECTOR & VECTOR EXTRA SHORT INFINITENUPOLAR CHROMATIC	 15mm VXS 11mm	+ PLUS 6.00 <b>76</b> 8.00 MINUS - Adds 0.75 to 4.50 in 0.25 steps	IN✓
1.53	VU53	TRIVEX VECTOR & VECTOR EXTRA SHORT	 15mm VXS 11mm	+ PLUS 7.00 <b>75</b> 7.00 MINUS - Adds 0.75 to 3.50 in 0.25 steps Available designs - General only	HC✓ X RF
	T20%			Max prism 3Δ	
1.53	VU53	TRIVEX VECTOR & VECTOR EXTRA SHORT Transitions®	 15mm VXS 11mm	+ PLUS 7.00 <b>75</b> 7.00 MINUS - Adds 0.75 to 3.50 in 0.25 steps Available designs - General only	HC✓ X RF
	GR/BR	Grey Brown AUTOSELECT		Max prism 3Δ	
1.56	VU56	VECTOR & VECTOR EXTRA SHORT VISTA-MESH UV385 BROWN 90% LT	 15mm VXS 11mm	+ PLUS 8.00 <b>70 = 75</b> 10.00 MINUS - Adds 0.75 to 3.50 in 0.25 steps Available designs - General only	X RF Max prism 3Δ

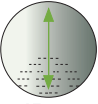






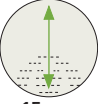


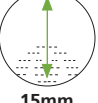




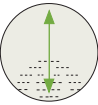


AUTOSELECT - SHORT AND LONG CORRIDOR AVAILABILITY COMPUTER SELECTION DETERMINED BY FITTING HEIGHT SPECIFIED

OPPOSITE CYLS TO 6.00DC UNLESS STATED



# Inner Surface Progressive

## - VECTOR HD AVAILABILITY -

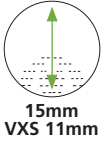

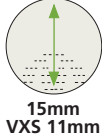

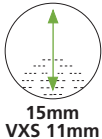

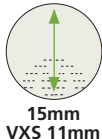

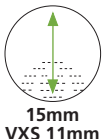

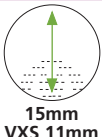

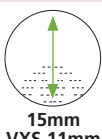

	LENS CODE		COATING	
1.59	VI59 GR/BR	 <p>15mm VXS 11mm</p> <ul style="list-style-type: none"> <li>Grey</li> <li>Brown Summer '18</li> <li>Green</li> </ul> <p>ISP AUTOSELECT</p>	<p>+ PLUS                      MINUS -</p> <p>6.00                      76                      8.00</p> <p>Adds 0.75 to 4.50 in 0.25 steps</p>	
1.60	VU60 T20%	 <p>15mm VXS 11mm</p> <ul style="list-style-type: none"> <li>Grey</li> <li>Brown</li> <li>Green</li> </ul> <p>ISP AUTOSELECT</p>	<p>+ PLUS                      MINUS -</p> <p>7.00                      75                      8.00</p> <p>Adds 0.75 to 3.50 in 0.25 steps</p> <p>Available designs - General only</p> <p>Max prism 3Δ</p> <p>Also available in UV410 Clear</p>	   UV410  UV410
		VU6U		
1.60	VU60 GR/BR /GN	 <p>15mm VXS 11mm</p> <ul style="list-style-type: none"> <li>Grey</li> <li>Brown</li> <li>Green</li> </ul> <p>ISP AUTOSELECT</p>	<p>+ PLUS                      MINUS -</p> <p>7.00                      72                      75                      7.50                      10.00</p> <p>Adds 0.75 to 3.50 in 0.25 steps</p> <p>Available designs - General only</p> <p>Max prism 3.0Δ</p>	 
1.67	VU67 T20%	 <p>15mm VXS 11mm</p> <ul style="list-style-type: none"> <li>Grey</li> <li>Brown</li> <li>Green</li> </ul> <p>ISP AUTOSELECT</p>	<p>+ PLUS                      MINUS -</p> <p>7.00                      75                      8.00</p> <p>Adds 0.75 to 3.50 in 0.25 steps</p> <p>Available designs - General only</p> <p>Max prism 3Δ</p> <p>Also available in UV410 Clear</p>	   UV410  UV410
		VU7U		
1.67	VU67 GR/BR /GN	 <p>15mm VXS 11mm</p> <ul style="list-style-type: none"> <li>Grey</li> <li>Brown</li> <li>Green</li> </ul> <p>ISP AUTOSELECT</p>	<p>+ PLUS                      MINUS -</p> <p>7.00                      70                      8.00</p> <p>Adds 0.75 to 3.50 in 0.25 steps</p> <p>Available designs - General only</p> <p>Max prism 3Δ</p>	 

AUTOSELECT - SHORT AND LONG CORRIDOR AVAILABILITY COMPUTER SELECTION DETERMINED BY FITTING HEIGHT SPECIFIED

OPPOSITE CYLS TO 6.00DC UNLESS STATED

# Inner Surface Progressive

## - VECTOR HD AVAILABILITY - MINERAL

	LENS CODE		COATING
1.523	VG52	<p><b>VECTOR &amp; VECTOR EXTRA SHORT HD</b></p>  <p><b>ISP</b></p> <p><b>AUTOSELECT</b></p> <p>+ PLUS 6.00 70 = 75 MINUS - 8.00</p> <p>Adds 0.75 to 3.50 in 0.25 steps</p>	
1.523	VG52 PE/BP	<p><b>VECTOR &amp; VECTOR EXTRA SHORT HD PGX / PBX PHOTOCROMIC</b></p>  <p><b>ISP</b></p> <p><b>AUTOSELECT</b></p> <p>Grey</p> <p>Brown</p> <p>+ PLUS 5.00 70 = 75 MINUS - 8.00</p> <p>Adds 0.75 to 3.50 in 0.25 steps</p>	
1.60	VG60	<p><b>VECTOR &amp; VECTOR EXTRA SHORT HD</b></p>  <p><b>ISP</b></p> <p><b>AUTOSELECT</b></p> <p>+ PLUS 8.00 70 = 75 MINUS - 10.00</p> <p>Adds 0.75 to 3.50 in 0.25 steps</p>	
1.60	VG60 PE/BP	<p><b>VECTOR &amp; VECTOR EXTRA SHORT HD PGX / PBX PHOTOCROMIC</b></p>  <p><b>ISP</b></p> <p><b>AUTOSELECT</b></p> <p>Grey</p> <p>Brown</p> <p>+ PLUS 6.00 70 = 75 MINUS - 10.00</p> <p>Adds 0.75 to 3.50 in 0.25 steps</p>	
1.70	VG70	<p><b>VECTOR &amp; VECTOR EXTRA SHORT HD</b></p>  <p><b>ISP</b></p> <p><b>AUTOSELECT</b></p> <p>+ PLUS 10.00 65 = 70 MINUS - 12.00</p> <p>Adds 0.75 to 3.50 in 0.25 steps</p>	
1.80	VG80	<p><b>VECTOR &amp; VECTOR EXTRA SHORT HD</b></p>  <p><b>ISP</b></p> <p><b>AUTOSELECT</b></p> <p>65 = 75 MINUS - 6.00 20.00</p> <p>Adds 0.70 to 3.50 in 0.25 steps</p>	Max prism 3Δ 
1.90	VG90	<p><b>VECTOR &amp; VECTOR EXTRA SHORT HD</b></p>  <p><b>ISP</b></p> <p><b>AUTOSELECT</b></p> <p>70 MINUS - 10.00 15.00</p> <p>Adds 0.75 to 3.50 in 0.25 steps</p>	

**AUTOSELECT** - SHORT AND LONG CORRIDOR AVAILABILITY COMPUTER SELECTION DETERMINED BY FITTING HEIGHT SPECIFIED

OPPOSITE CYLS TO 6.00DC UNLESS STATED

# VECTOR & VECTOR EXTRA SHORT

## Inner Surface Progressive

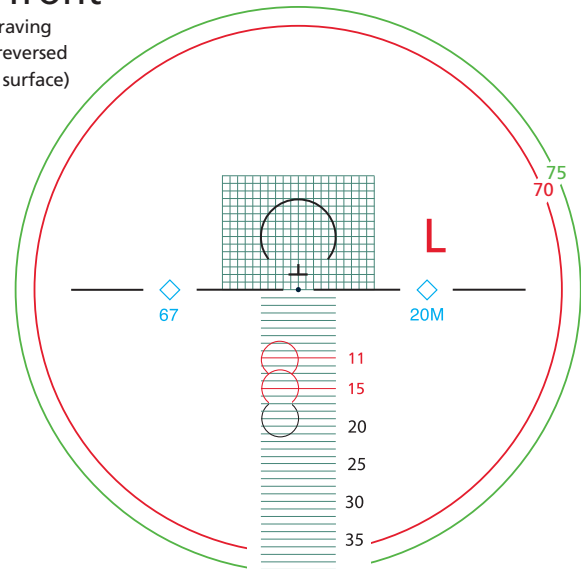
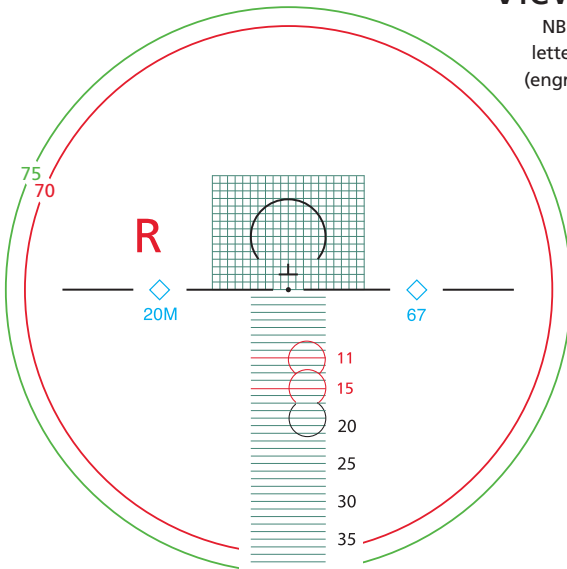
Right Eye

Effective Diameter Chart

Left Eye

Viewed from front

NB: In practice the engraving lettering shown will be reversed (engraved from the back surface)



### Lens Marking Layout

Add is shown as:

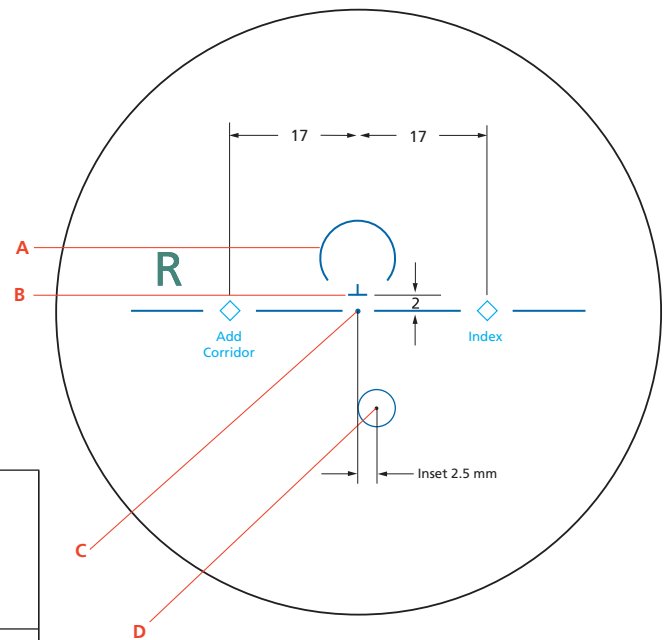
+1.00	10
+1.25	12
+1.50	15
+1.75	17
+2.00	20
+2.25	22
+2.50	25
+2.75	27
+3.00	30
+3.25	32
+3.50	35

Index is shown as:

1.50 CR39	50
1.53 Trivex	53
1.56	56
1.60	60
1.67	67

Corridor Design Options:

- "XS" = Extra Short
- "S" = Short
- "M" = Medium
- "L" = Long



### Vector & Vector XS Corridor Designs

Corridor Length* <i>(from PRP to top of NV checking circle)</i>	Full Progression Length <i>(from start of progression to top of NV circle)</i>	Minimum Fitting Height <i>(from lowest tangent top of bottom rim)</i>	Minimum Frame Depth	Fitting Cross Height above PRP
6mm XS	9mm	11mm	21mm+	+2mm
*8mm S	12mm	15mm	23mm+	+2mm
*10mm M	14mm	17mm	25mm+	+2mm
*12mm L	16mm	19mm	27mm+	+2mm

\*AUTOSELECT ONLY

- Permanent engraved marks
- Removable ink markings

Right eye uncut viewed from front

- A : far vision zone
- B : fitting cross 2 above PRP
- C : prism reference point (PRP)
- D : near vision zone



Manufactured in our Gloucester UK Laboratories

# RESOLVE



A progressive lens for those who claim:

- “I tried a progressive once”
- “I can’t get on with those lenses”
- “I’ve always had bifocals”
- “You’ll never get me in one of them”

## 'G' General Wear

### Characteristics

NEW Super soft general wear design, offering even more natural vision than previously. Specifically positioned for first time wearers. Non-compensated distance design or available by request as a fully compensated design.



## RESOLVE - Natural Visual Experience

### Characteristics

General use progressive with extra smooth transition between wide visual fields and minimal lateral astigmatism.


Ideal for previous wearers with unsatisfactory experiences and those non-adapt bifocal wearers. Effortless vision for all distances. For clients 35 years and upwards.

### User Key Points

- General wear daily use.
- Immediate adaption.
- Minimum lateral astigmatism.
- Good balance between fields.

Individual personalisation data can be provided or otherwise will default to standard values:

























- Pantoscopic Tilt Angle 7°
- BVD 12mm
- Wrap Angle 5°
- Standard Inset 2.5 or Variable as RX



**AUTOSELECT** - when designing to eye shapes we will automatically select the most appropriate progression length. You do not need to specify unless you require a specific channel length.



## - RESOLVE HD AVAILABILITY -

	LENS CODE		COATING
1.50	RU39	<b>RESOLVE HD</b>  14mm AUTOSELECT + PLUS 6.00 75 = 80 MINUS - 6.00 Adds 0.75 to 4.50 in 0.25 steps	 
	RU39 GR/BR /GN	<b>RESOLVE HD Transitions</b>  14mm AUTOSELECT Grey Brown ISP Green + PLUS 6.00 75 = 80 MINUS - 6.00 8.00 Adds 0.75 to 4.50 in 0.25 steps 70=75	 
1.50	RX39 GR/BR	<b>RESOLVE HD Transitions XTRActive 83% - 10% LTF</b>  14mm AUTOSELECT Grey Brown + PLUS 6.00 75 = 80 MINUS - 6.00 8.00 Adds 0.75 to 4.50 in 0.25 steps 70=75	 
	RUDR	<b>RESOLVE HD Transitions DRIVEWEAR</b>  14mm AUTOSELECT + PLUS 6.00 72 = 77 MINUS - 6.00 Adds 0.75 to 4.50 in 0.25 steps	 
1.50	RP39 GR/BR GN	<b>RESOLVE HD NUPOLAR POLARISED UV400 15% LTF</b>  14mm AUTOSELECT Grey Brown ISP Green + PLUS 6.00 72 = 77 MINUS - 6.00 8.00 Adds 0.75 to 4.50 in 0.25 steps 65=70	 
1.53	RU53 T N/A	<b>RESOLVE HD TRIVEX</b>  14mm AUTOSELECT + PLUS 7.50 76 = 81 MINUS - 8.00 Adds 0.75 to 4.50 in 0.25 steps	 
	RU53 GR/BR	<b>RESOLVE HD Transitions</b>  14mm AUTOSELECT Grey Brown + PLUS 7.50 76 = 81 MINUS - 8.00 Adds 0.75 to 4.50 in 0.25 steps	 
1.53	RX53 GR/BR	<b>RESOLVE HD TRIVEX Transitions XTRActive 83% - 10% LTF</b>  14mm AUTOSELECT Grey Brown + PLUS 7.50 76 = 81 MINUS - 8.00 Adds 0.75 to 4.50 in 0.25 steps	 

AUTOSELECT - SHORT AND LONG CORRIDOR AVAILABILITY COMPUTER SELECTION DETERMINED BY FITTING HEIGHT SPECIFIED

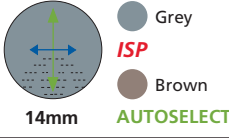


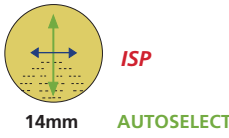


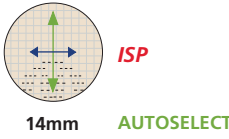

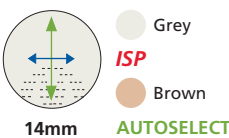


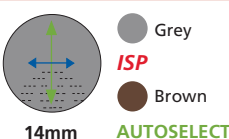


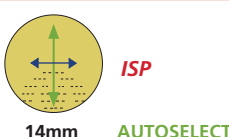


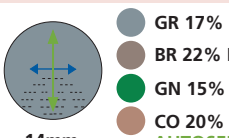

↔ Variable reading inset - 0 to 4.00mm in 0.50mm steps available.

If measured please state at time of ordering otherwise standard inset values apply.

OPPOSITE CYLS TO 6.00DC UNLESS STATED



## - RESOLVE HD AVAILABILITY -

	LENS CODE		COATING
1.53	RUNP GR/BR	<b>RESOLVE HD</b> TRILOGY NuPOLAR® POLARISED UV400 15% LTF  <p>Grey ISP Brown AUTOSELECT</p> <p>+ PLUS 6.00 = 72 = 77 MINUS - 6.00</p> <p>Adds 0.75 to 4.50 in 0.25 steps</p>	 
1.53	RUDW	<b>RESOLVE HD</b> Transitions® DRIVWEAR® 35% - 22% - 12%  <p>ISP AUTOSELECT</p> <p>+ PLUS 6.00 = 75 = 80 MINUS - 8.00</p> <p>Adds 0.75 to 4.50 in 0.25 steps</p>	 
1.56	RUME	<b>RESOLVE HD</b> VISTA-MESH UV385 BROWN 90% LTF FILTER  <p>ISP AUTOSELECT</p> <p>+ PLUS 8.00 = 70 = 75 MINUS - 10.00</p> <p>Adds 0.75 to 4.50 in 0.25 steps</p>	
1.59	RU58 GR/BR	<b>RESOLVE HD</b> Transitions®  <p>Grey ISP Brown AUTOSELECT</p> <p>+ PLUS 7.00 = 76 = 81 MINUS - 8.00</p> <p>Adds 0.75 to 4.50 in 0.25 steps</p>	 
1.59	RX58 GR/BR	<b>RESOLVE HD</b> Transitions® XTRActive® 83% - 10% LTF  <p>Grey ISP Brown AUTOSELECT</p> <p>+ PLUS 7.00 = 76 = 81 MINUS - 8.00</p> <p>Adds 0.75 to 4.50 in 0.25 steps</p>	 
1.59	RRPO	<b>RESOLVE HD</b> Transitions® DRIVWEAR®  <p>ISP AUTOSELECT</p> <p>+ PLUS 6.00 = 72 = 77 MINUS - 8.00</p> <p>Adds 0.75 to 4.50 in 0.25 steps</p>	 
1.59	RP58 GR/BR GN/CO	<b>RESOLVE HD</b> NuPOLAR® POLARISED UV400 15% LTF  <p>GR 17% LTF BR 22% LTF GN 15% LTF CO 20% LTF ISP AUTOSELECT</p> <p>+ PLUS 6.00 = 73 = 78 MINUS - 9.00</p> <p>Adds 0.75 to 4.50 in 0.25 steps *CO POWERS TO -6.00 SPH MAX</p>	


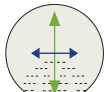
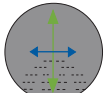
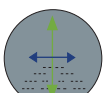
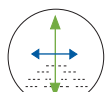
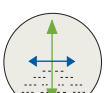
AUTOSELECT - SHORT AND LONG CORRIDOR AVAILABILITY COMPUTER SELECTION DETERMINED BY FITTING HEIGHT SPECIFIED

↔ Variable reading inset - 0 to 4.00mm in 0.50mm steps available.

If measured please state at time of ordering otherwise standard inset values apply.

OPPOSITE CYLS TO 6.00DC UNLESS STATED

## - RESOLVE HD AVAILABILITY -

LENS CODE		COATING	
1.60	RU60 T20%	<b>RESOLVE HD</b>  <b>ISP</b> 14mm <b>AUTOSELECT</b> + PLUS: 8.00 to 10.00 (75=80) MINUS -: 8.00 to 10.00 (70=75) Adds 0.75 to 4.50 in 0.25 steps	HC✓ X RF UV410 X RF UV410 Also available in UV410 Clear
	RU6U		
1.60	RU60 GR/BR /GN	<b>RESOLVE HD Transitions</b>  Grey Brown <b>ISP</b> Green 14mm <b>AUTOSELECT</b> + PLUS: 8.00 to 10.00 (73=78) MINUS -: 10.00 Adds 0.75 to 4.50 in 0.25 steps	HC✓ X RF
	RU6X GR/BR	<b>RESOLVE HD Transitions XTRActive 83% - 10% LTF</b>  Grey <b>ISP</b> Brown 14mm <b>AUTOSELECT</b> + PLUS: 8.00 to 10.00 (73=78) MINUS -: 10.00 Adds 0.75 to 4.50 in 0.25 steps	HC✓ X RF
1.60	RP60 GR/BR /GN	<b>RESOLVE HD NUPOLAR® POLARISED UV400 15% LTF</b>  Grey Brown <b>ISP</b> Green 14mm <b>AUTOSELECT</b> + PLUS: 8.00 to 10.00 (74=79) MINUS -: 8.00 to 9.00 (65=70) Adds 0.75 to 4.50 in 0.25 steps	HC✓ IN✓
1.60	RTR6 T15% BR:GR:GN	<b>TRIBRID RESOLVE HD</b>  <b>ISP</b> 14mm <b>AUTOSELECT</b> + PLUS: 8.00 to 10.00 (75=80) MINUS -: 10.00 Adds 0.75 to 4.50 in 0.25 steps	HC✓ X RF
	RTR6 GR/BR	<b>TRIBRID RESOLVE HD Transitions</b>  Grey <b>ISP</b> Brown 14mm <b>AUTOSELECT</b> + PLUS: 6.00 to 10.00 (75) MINUS -: 10.00 Adds 0.75 to 4.50 in 0.25 steps	X RF

**AUTOSELECT** - SHORT AND LONG CORRIDOR AVAILABILITY COMPUTER SELECTION DETERMINED BY FITTING HEIGHT SPECIFIED

↔ Variable reading inset - 0 to 4.00mm in 0.50mm steps available.

If measured please state at time of ordering otherwise standard inset values apply.

\*Note: Tints available on this product from 80% to 20% LTF - price excludes tint cost.

**OPPOSITE CYLS TO 6.00DC UNLESS STATED**

## - RESOLVE HD AVAILABILITY -

	LENS CODE		COATING
1.67	RU67	<b>RESOLVE HD</b> ISP 14mm AUTOSELECT	HC✓ X RF
	T20%		Also available in UV410 Clear HC✓ UV410 X RF UV410
1.67	RU7U	<b>RESOLVE HD Transitions</b> 14mm AUTOSELECT	HC✓ X RF
	GR/BR /GN		HC✓ X RF
1.67	RX67	<b>RESOLVE HD Transitions XTRActive</b> 83% - 10% LTF 14mm AUTOSELECT	HC✓ X RF
	GR/BR		HC✓ X RF
1.67	RP67	<b>RESOLVE HD NUPOLAR</b> POLARISED UV400 15% LTF 14mm AUTOSELECT	HC✓ IN✓
	GR/BR /GN		HC✓ IN✓
1.74	RU74	<b>RESOLVE HD</b> ISP 14mm AUTOSELECT	HC✓ X RF
	T N/A		HC✓ X RF
1.74	RUHY	<b>RESOLVE HD TINTABLE*</b> 14mm AUTOSELECT	RF K
	GR T20%		RF K
1.74	RU74	<b>RESOLVE HD Transitions</b> 14mm AUTOSELECT	RF K
	GR/BR		RF K

AUTOSELECT - SHORT AND LONG CORRIDOR AVAILABILITY COMPUTER SELECTION DETERMINED BY FITTING HEIGHT SPECIFIED

↔ Variable reading inset - 0 to 4.00mm in 0.50mm steps available.

If measured please state at time of ordering otherwise standard inset values apply.

\*Note: Tints available on this product from 80% to 20% LTF - price excludes tint cost.

**OPPOSITE CYLS TO 6.00DC UNLESS STATED**

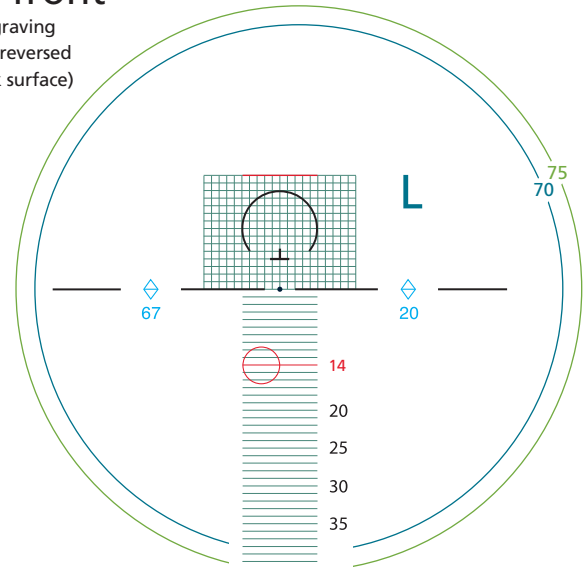
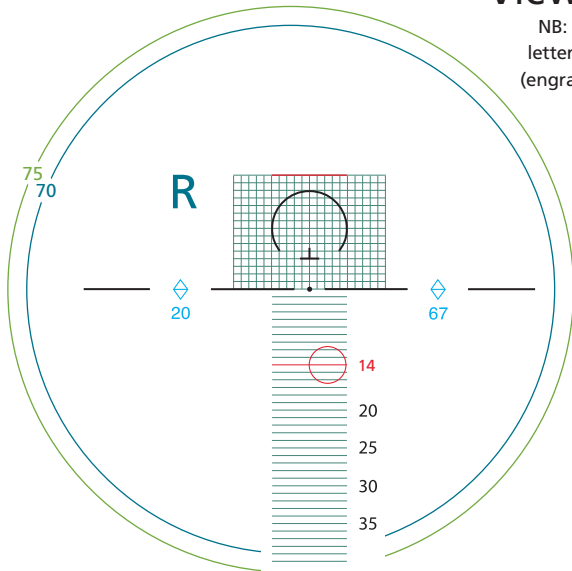
# RESOLVE HD

## Inner Surface Progressive

### Right Eye Effective Diameter Chart Left Eye

#### Viewed from front

NB: In practice the engraving lettering shown will be reversed (engraved from the back surface)



Up & Down Limits

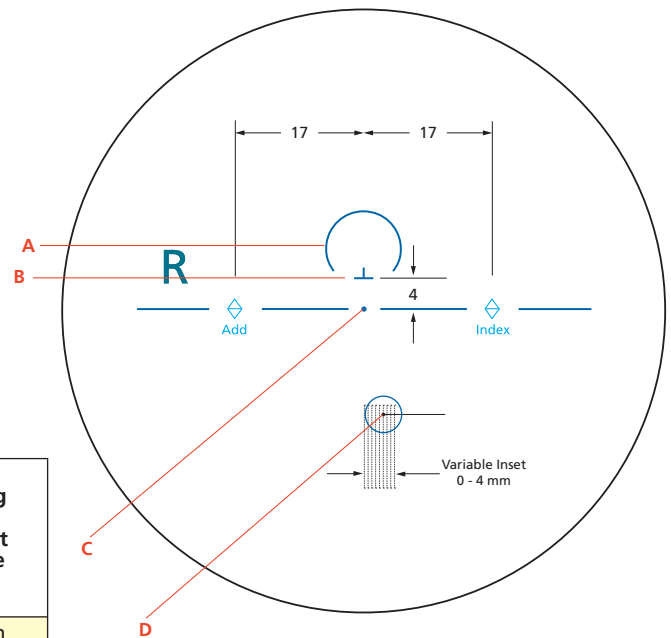
### Lens Marking Layout

Add is shown as:

+0.75	07	+2.75	27
+1.00	10	+3.00	30
+1.25	12	+3.25	32
+1.50	15	+3.50	35
+1.75	17	+3.75	37
+2.00	20	+4.00	40
+2.25	22	+4.25	42
+2.50	25	+4.50	45

Index is shown as:

1.50 CR39	50
1.53 Trivex	53
1.56	56
1.59 Polycarb	59
1.60	60
1.67	67
1.74	74



### Resolve HD Corridor Design

Corridor Length* <i>(from PRP to top of NV checking circle)</i>	Full Progression Length <i>(from start of progression to top of NV circle)</i>	Minimum Fitting Height <i>(from lowest tangent top of bottom rim)</i>	Minimum Frame Depth	Fitting Cross Height above PRP
6mm XS	10mm	14mm	22mm+	+4mm
7mm	11mm	15mm	23mm+	+4mm
8mm S	12mm	16mm	24mm+	+4mm
9mm	13mm	17mm	25mm+	+4mm
10mm M	14mm	18mm	26mm+	+4mm
11mm	15mm	19mm	27mm+	+4mm
12mm L	16mm	20mm	28mm+	+4mm

\*AUTOSELECT - COMPUTER SELECTION DETERMINED BY FITTING HEIGHT SPECIFIED

- Permanent engraved marks
- Removable ink markings

Right eye uncut viewed from front

- A : far vision zone
- B : fitting cross 4 above PRP
- C : prism reference point (PRP)
- D : near vision zone



Manufactured in our Gloucester UK Laboratories

## ***FREEWAY*** HD

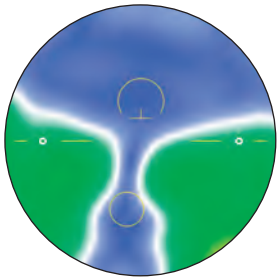


**Drivers**

For those "at the wheel" presbyopes, FREEWAY progressive has some very specific design features. Distance vision has been enhanced to provide the wearer with the perfect view of the road. Provides complete visual comfort over long driving hours whilst ensuring easy transition to intermediate for looking at dashboard instrumentation, with provision of a condensed reading area with the slightly under-corrected addition powers for when near spotting is required.

Driving demands clear vision over varied distances: far distance, road ahead, directional signage, mirror usage and closer dashboard checks. FREEWAY provides dynamic vision prioritising far and intermediate with reduced astigmatism. FREEWAY has been designed to facilitate 180° lateral gaze across distance viewing. Drivers are essentially eye movers and FREEWAY's design takes this into account.

Especially adapted for professional drivers: cars, trucks, planes, trains, earth-moving equipment, rickshaws or bicycles - FREEWAY is their lens.



**Also golfers**

## ***FREEWAY*** HD - Driving progressive

### Characteristics

- Wide, clear far vision that enhances the visual experience while driving.
- Wide corridor for comfortable dashboard reading.
- Fully compensated optimised lens that provides the highest optical quality in every gaze direction.
- Low values of unwanted astigmatism.
- Near zone area for occasional use.

### User Key Points

- Uses the far and inter zones while driving, reads occasionally.
- For 8 base wrap designs see SPORTPAL.
- Specific INSET values can be requested.

If additional individualisation is desirable please provide.

Otherwise designed with these standard values:

- Pantoscopic Tilt Angle 12°
- BVD 14mm
- Wrap Angle 5°
- Standard Inset Variable as RX

**The lens for professional drivers who require an addition power.**



# SPECIALIST Progressive - Driving

## - *FREEWAY* HD AVAILABILITY -

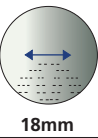

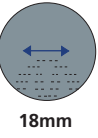


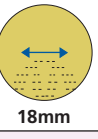


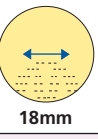


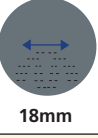


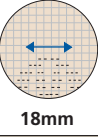

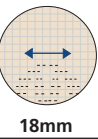

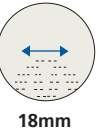


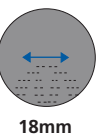


	LENS CODE		COATING
1.50	YW39	<i>FREEWAY</i> HD ISP 18mm + PLUS 6.00 = 75/80 MINUS - 6.00 Adds 0.75 to 3.50 in 0.25 steps	HC XRF
	YU39 GR/BR /GN YX39 GR/BR	<i>FREEWAY</i> HD Transitions® & Transitions® XTRActive ISP 18mm + PLUS 6.00 = 75/80 MINUS - 6.00 8.00 70=75 Adds 0.75 to 3.50 in 0.25 steps Grey Brown	HC XRF
1.50	YV39 GR	<i>FREEWAY</i> HD Transitions® Vantage® VARIABLE POLARISED 77% - 20% LTF ISP 18mm + PLUS 6.00 = 75/80 MINUS - 8.00 Adds 0.75 to 3.50 in 0.25 steps	HC
1.50	YUDR	<i>FREEWAY</i> HD Transitions® DRIVEWEAR® ISP 18mm + PLUS 6.00 = 72/77 MINUS - 6.00 Adds 0.75 to 3.50 in 0.25 steps	HC IN
1.50	YIP5 GR/BR	<i>FREEWAY</i> HD INFINITE NUPOLAR® CHROMATIC 40% - 9% LT ISP 18mm + PLUS 6.00 = 76 MINUS - 8.00 Adds 0.75 to 3.50 in 0.25 steps Grey Brown Summer '18	IN
1.50	YP39 GR/BR GN	<i>FREEWAY</i> HD NUPOLAR® POLARISED UV400 15% LTF ISP 18mm + PLUS 6.00 = 72/77 MINUS - 6.00 8.00 65=70 Adds 0.75 to 3.50 in 0.25 steps Grey Brown Green	HC IN
	YP3G GR/BR	<i>FREEWAY</i> HD POLARISED + GRADUATED TINT ISP 18mm + PLUS 5.00 = 74/84 MINUS - 5.00 Adds 0.75 to 3.50 in 0.25 steps	HC IN
1.53	YU53 T N/A	<i>FREEWAY</i> HD TRIVEX ISP 18mm + PLUS 7.50 = 76/81 MINUS - 8.00 Adds 0.75 to 3.50 in 0.25 steps	HC XRF
	YU53 GR/BR YX53 GR/BR	<i>FREEWAY</i> HD TRIVEX Transitions® & Transitions® XTRActive ISP 18mm + PLUS 7.50 = 76/81 MINUS - 8.00 Adds 0.75 to 3.50 in 0.25 steps Grey Brown	XRF

↔ Variable reading inset - 0 to 4.00mm in 0.50mm steps available.  
If measured please state at time of ordering otherwise standard inset values apply.

OPPOSITE CYLS TO 6.00DC UNLESS STATED

# SPECIALIST Progressive - Driving

## - **FREEWAY HD** AVAILABILITY -

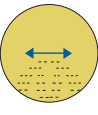


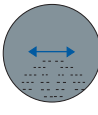




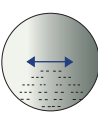

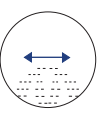


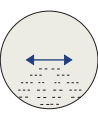


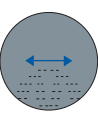


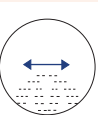


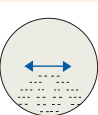

	LENS CODE		COATING
1.53	YV53 GR	<b>FREEWAY HD</b> Transitions® Vantage® VARIABLE POLARISED 77% - 20% LTF  18mm + PLUS 8.00 75 = 80 MINUS - 8.00 Adds 0.75 to 3.50 in 0.25 steps	
	YUNP GR/BR	<b>FREEWAY HD</b> TRIVEX NUPOLAR® POLARISED UV400 15% LTF  18mm Grey Brown + PLUS 6.00 72 = 77 MINUS - 6.00 Adds 0.75 to 3.50 in 0.25 steps	 
1.53	YUDW	<b>FREEWAY HD</b> Transitions® DRIVEWEAR® 35% - 22% - 12%  18mm + PLUS 6.00 75 = 80 MINUS - 8.00 Adds 0.75 to 3.50 in 0.25 steps	 
	YUXT DY	<b>FREEWAY HD</b> D.E. YELLOW CONTRAST TINT UV400 84% LTF  18mm + PLUS 5.00 3.00 75 = 80 2.00 8.00 70=75 70=75 Adds 0.75 to 3.50 in 0.25 steps	 
1.53	YNXT GR/BR	<b>FREEWAY HD</b> SUN TINT UV400 15% LTF  18mm Grey Brown + PLUS 5.00 75 = 80 MINUS - 4.00 Adds 0.75 to 3.50 in 0.25 steps	 
	YUME	<b>FREEWAY HD</b> VISTA-MESH UV385 BROWN 90% LTF FILTER  18mm + PLUS 8.00 70 = 75 MINUS - 10.00 Adds 0.75 to 3.50 in 0.25 steps	
1.56	YUME BR	<b>FREEWAY HD</b> VISTA-MESH Reactolite PHOTOCROMIC BROWN  18mm + PLUS 7.00 75 MINUS - 10.00 Adds 0.75 to 3.50 in 0.25 steps	
1.59	YU58 GR/BR	<b>FREEWAY HD</b> Transitions®  18mm Grey Brown + PLUS 7.00 76 = 81 MINUS - 8.00 Adds 0.75 to 3.50 in 0.25 steps	 
	YX58 GR/BR	<b>FREEWAY HD</b> Transitions® XTRActive® 83% - 10% LTF (10)  18mm Grey Brown + PLUS 7.00 76 = 81 MINUS - 8.00 Adds 0.75 to 3.50 in 0.25 steps	 

↔ Variable reading inset - 0 to 4.00mm in 0.50mm steps available.  
 If measured please state at time of ordering otherwise standard inset values apply.

OPPOSITE CYLS TO 6.00DC UNLESS STATED

# SPECIALIST Progressive - Driving

## - FREEWAY HD AVAILABILITY -

	LENS CODE				COATING	
1.59	YRPO	<b>FREEWAY HD</b> Transitions® DRIVEWEAR®	10	 <p>18mm</p>	<p>+ PLUS 6.00 72 = 77 MINUS - 8.00</p> <p>Adds 0.75 to 3.50 in 0.25 steps</p>	 
	YP58 GR/BR GN/CO	<b>FREEWAY HD</b> NUPOLAR® POLARISED UV400 15% LTF		 <p>18mm</p> <ul style="list-style-type: none"> <li>GR 17% LTF</li> <li>BR 22% LTF</li> <li>GN 15% LTF</li> <li>CO 20% LTF</li> </ul>	<p>+ PLUS 6.00 73 = 78 MINUS - 9.00</p> <p>Adds 0.75 to 3.50 in 0.25 steps</p> <p>*CO POWERS TO -6.00 SPH MAX</p>	
1.59	YUGP GR/BR	<b>FREEWAY HD</b> NUPOLAR® + GRADUATED TINT GREY OR BROWN*		 <p>18mm</p>	<p>+ PLUS 6.00 76 = 80 MINUS - 5.00</p> <p>Adds 0.75 to 3.50 in 0.25 steps</p> <p>LT Top Grey 15   Brown 20 Bottom Grey 30   Grey 30</p>	 
	QI59 GR/BR	<b>FREEWAY HD</b> INFINITE NUPOLAR CHROMATIC 40% - 9% LT		 <p>18mm</p> <ul style="list-style-type: none"> <li>Grey</li> <li>Brown Summer '18</li> </ul>	<p>+ PLUS 6.00 76 MINUS - 8.00</p> <p>Adds 0.75 to 3.50 in 0.25 steps</p>	
1.60	YU60 T20%	<b>FREEWAY HD</b>		 <p>18mm</p>	<p>+ PLUS 8.00 75 = 80 MINUS - 8.00 10.00</p> <p>70=75</p> <p>Adds 0.75 to 3.50 in 0.25 steps</p> <p>Also available in UV410 Clear</p>	 
	YU60 GR/BR /GN YU6X GR/BR	<b>FREEWAY HD</b> Transitions® & Transitions® XTRActive®		 <p>18mm</p> <ul style="list-style-type: none"> <li>Grey</li> <li>Brown</li> <li>Green</li> </ul>	<p>+ PLUS 8.00 73 = 78 MINUS - 10.00</p> <p>Adds 0.75 to 3.50 in 0.25 steps</p>	 
1.60	YP60 GR/BR /GN	<b>FREEWAY HD</b> NUPOLAR® POLARISED UV400 15% LTF		 <p>18mm</p> <ul style="list-style-type: none"> <li>Grey</li> <li>Brown</li> <li>Green</li> </ul>	<p>+ PLUS 8.00 65=70 6.00 74 = 79 MINUS - 8.00 9.00 65=70</p> <p>Adds 0.75 to 3.50 in 0.25 steps</p>	 
	YTR6 T N/A	TRIBRID <b>FREEWAY HD</b>		 <p>18mm</p>	<p>+ PLUS 8.00 75 = 80 MINUS - 10.00</p> <p>Adds 0.75 to 3.50 in 0.25 steps</p>	 
1.60	YTR6 GR/BR T N/A	TRIBRID <b>FREEWAY HD</b> Transitions®		 <p>18mm</p> <ul style="list-style-type: none"> <li>Grey</li> <li>Brown</li> </ul>	<p>+ PLUS 6.00 75 MINUS - 10.00</p> <p>Adds 0.75 to 3.50 in 0.25 steps</p>	

↔ Variable reading inset - 0 to 4.00mm in 0.50mm steps available.  
If measured please state at time of ordering otherwise standard inset values apply.

\*Note: Tints available on this product from 80% to 20% LTF - price excludes tint cost.

**OPPOSITE CYLS TO 6.00DC UNLESS STATED**

# SPECIALIST Progressive - Driving

## - FREEWAY HD AVAILABILITY -

	LENS CODE		COATING
1.67	YU67	<b>FREEWAY HD</b>	
	T20%	<p>18mm</p> <p>+ PLUS 9.00 7.00 75 = 80 MINUS - 8.00 10.00</p> <p>70=75 70=75</p> <p>Adds 0.75 to 3.50 in 0.25 steps</p> <p>Also available in UV410 Clear</p>	
1.67	YU7U	<b>FREEWAY HD Transitions</b>	
	GR/BR /GN	<p>18mm</p> <p>Grey Brown <b>ISP</b> Green</p> <p>+ PLUS 7.00 78 = 83 MINUS - 10.00</p> <p>Adds 0.75 to 3.50 in 0.25 steps</p>	
1.67	YX67	<b>FREEWAY HD Transitions XTRActive 83% - 10% LTF</b>	
	GR/BR	<p>18mm</p> <p>Grey Brown <b>ISP</b></p> <p>+ PLUS 7.00 78 = 83 MINUS - 10.00</p> <p>Adds 0.75 to 3.50 in 0.25 steps</p>	
1.67	YP67	<b>FREEWAY HD NuPOLAR POLARISED UV400 15% LTF</b>	
	GR/BR /GN	<p>18mm</p> <p>Grey Brown <b>ISP</b> Green</p> <p>+ PLUS 8.00 6.00 75 = 80 MINUS - 8.00 10.00</p> <p>70=75 70=75</p> <p>Adds 0.75 to 3.50 in 0.25 steps</p>	
1.67	YP7H	<b>FREEWAY HD POLARISED UV400 HIGH POWER 15% LT</b>	
	GR/BR	<p>18mm</p> <p>Grey Brown <b>ISP</b></p> <p>+ PLUS 9.00 8.25 65 = 70 MINUS - 10.25 15.00</p> <p>Adds 0.75 to 3.50 in 0.25 steps</p> <p>Colour Match Other lens, even if lower power, will be supplied at this price.</p>	
1.74	YU74	<b>FREEWAY HD</b>	
	T N/A	<p>18mm</p> <p>+ PLUS 8.00 75 = 80 MINUS - 10.00</p> <p>Adds 0.75 to 4.00 in 0.25 steps</p>	
1.74	YUHY	<b>FREEWAY HD TINTABLE*</b>	
	GR T20%	<p>18mm</p> <p>+ PLUS 7.00 75 = 80 MINUS - 8.00</p> <p>Adds 0.75 to 4.00 in 0.25 steps</p>	
1.74	YU74	<b>FREEWAY HD Transitions</b>	
	GR/BR	<p>18mm</p> <p>Grey Brown <b>ISP</b></p> <p>+ PLUS 7.00 78 = 83 MINUS - 10.00</p> <p>Adds 0.75 to 4.00 in 0.25 steps</p>	
1.74	YP74	<b>FREEWAY HD POLARISED UV400</b>	
	GR/BR	<p>18mm</p> <p>Grey 10% Brown 10% <b>ISP</b></p> <p>+ PLUS 8.00 75 = 80 MINUS - 8.00</p> <p>Adds 0.75 to 4.00 in 0.25 steps</p>	

↔ Variable reading inset - 0 to 4.00mm in 0.50mm steps available.  
If measured please state at time of ordering otherwise standard inset values apply.

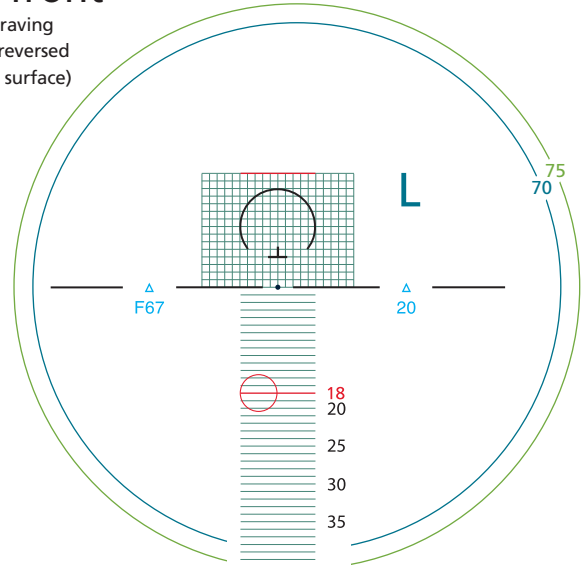
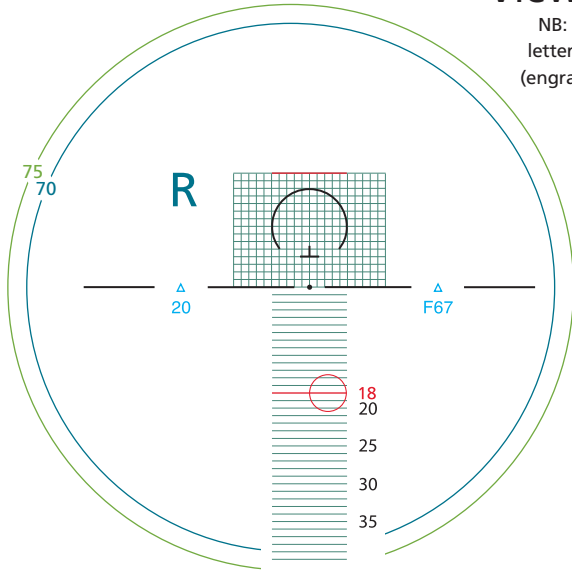
# FREEWAY HD

## Inner Surface Progressive

### Right Eye Effective Diameter Chart Left Eye

#### Viewed from front

NB: In practice the engraving lettering shown will be reversed (engraved from the back surface)



Up & Down Limits

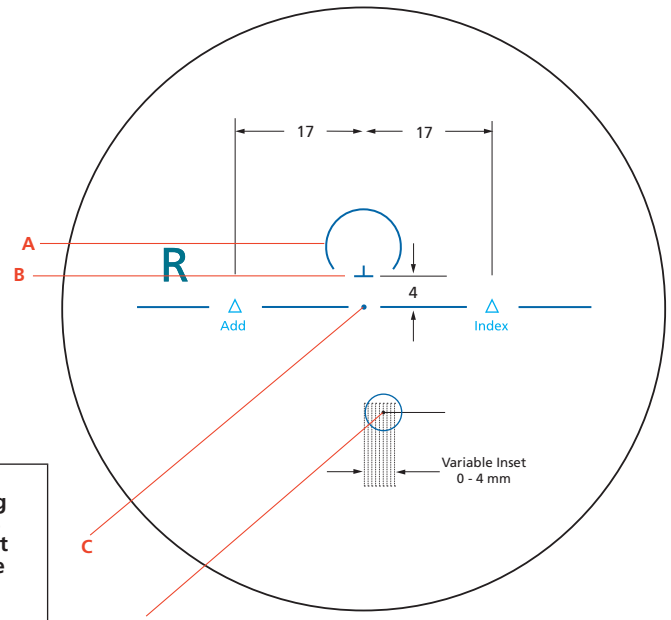
### Lens Marking Layout

Add is shown as:

+1.00	10
+1.25	12
+1.50	15
+1.75	17
+2.00	20
+2.25	22
+2.50	25
+2.75	27
+3.00	30
+3.25	32
+3.50	35

Index is shown as:

1.50 CR39	50
1.53 Trivex	53
1.56	56
1.59 Polycarb	59
1.60	60
1.67	67
1.74	74



### Freeway HD Corridor Design

Corridor Length <i>(from PRP to top of NV checking circle)</i>	Full Progression Length <i>(from start of progression to top of NV circle)</i>	Minimum Fitting Height <i>(from lowest tangent top of bottom rim)</i>	Minimum Frame Depth	Fitting Cross Height above PRP
10mm	14mm	18mm	26mm+	+4mm

- Permanent engraved marks
- Removable ink markings

Right eye uncut viewed from front

- A : far vision zone
- B : fitting cross 4 above PRP
- C : prism reference point (PRP)
- D : near vision zone



Manufactured in our Gloucester UK Laboratories



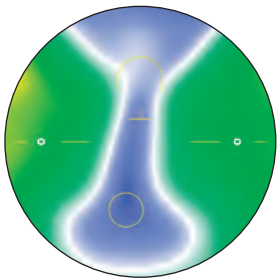
# Bureau



For those work station administrators, Bureau progressive lenses have some very specific design factors. Essentially close and near vision design for keyboard and screen users but with the availability of an excellent intermediate with limited distance field enabling fuller lens flexibility than just a simple office degressive two focus lens design. Smooth transition between zones.

High definition achieved through Digital Ray-Path technology. Oblique astigmatism reduced.

Especially useful for older indoor professionals, executives, administrators, doctors, bank counter staff, teachers and dispensing opticians: anyone whose work is predominantly near and close vision, yet with the flexibility for attending meetings and presentations.



## Bureau - Administrator Progressive

### Characteristics

High placement of intermediate gives 25% of total add power at the pupil with a small but respectable top area for far vision, an easy to access near vision area considerably wider than a general wear progressive. Fit as a standard progressive with fitting cross set at pupil centre.

### User Key Points

Indoor users design.  
Clear vision all distances.  
Far wider near and intermediate compared to general wear progressives.  
Specify as regular progressive e.g. additions +1.00 to +3.50.  
Specific INSET values can be requested.

Bureau is a non-compensated design.

### PS. DISPENSING TIP

For Dispensing Opticians' own use in practice working with patients **fit 2mm higher.**



**\*Bureau not recommended for driving.**

# SPECIALIST Administrator Progressive





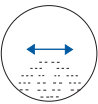
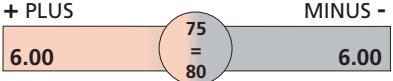



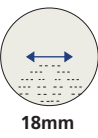
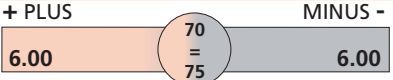



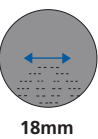
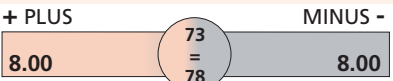



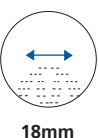
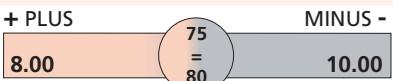



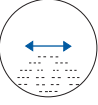
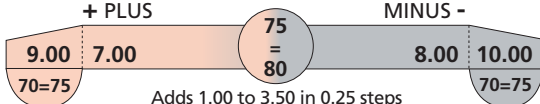



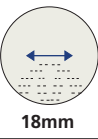
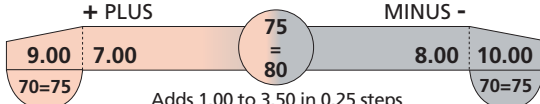


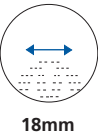
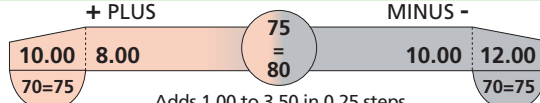


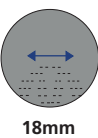
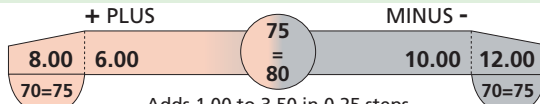


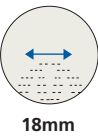
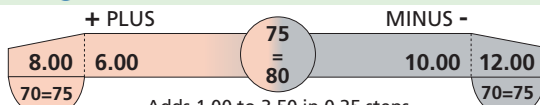


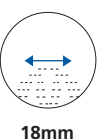
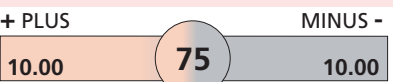
## - Bureau HD AVAILABILITY -

	LENS CODE				COATING
1.50	BU39	Bureau HD			UNC
	T20%		+ PLUS 6.00      75 = 80      MINUS - 6.00	Adds 1.00 to 3.50 in 0.25 steps Available designs - Indoor only	HC X RF
1.50	BU39 GR/BR /GN	Bureau HD Transitions® & Transitions® XTRActive™			HC
	BX39 GR/BR		+ PLUS 6.00      75 = 80      MINUS - 6.00	Adds 1.00 to 3.50 in 0.25 steps Available designs - Indoor only	X RF
1.53	BU53	Bureau HD TRILOGY			HC
	T N/A		+ PLUS 7.50      76 = 81      MINUS - 8.00	Adds 1.00 to 3.50 in 0.25 steps Available designs - Indoor only	X RF
1.53	BU53 GR/BR	Bureau HD TRILOGY Transitions® & Transitions® XTRActive™			HC
	BX53 GR/BR		+ PLUS 7.50      76 = 81      MINUS - 8.00	Adds 1.00 to 3.50 in 0.25 steps Available designs - Indoor only	X RF
1.56	BUME	Bureau HD VISTA-MESH UV385 BROWN 90% LTF FILTER			X RF
			+ PLUS 8.00      70 = 75      MINUS - 8.00	Adds 1.00 to 3.50 in 0.25 steps Available designs - Indoor only	
1.56	BUBT	Bureau HD BT66 FILTER			X RF
			+ PLUS 6.00      75      MINUS - 8.00	Adds 1.00 to 3.50 in 0.25 steps Available designs - Indoor only	
1.58	BPBT	Bureau HD MID INDEX BT70 FILTER			X RF
			+ PLUS 5.00      75      MINUS - 8.00	Adds 1.00 to 3.50 in 0.25 steps Available designs - Indoor only	
1.59	BUPC	Bureau HD POLYCARB			HC
	T20%		+ PLUS 8.00      76 = 81      MINUS - 8.00	Adds 1.00 to 3.50 in 0.25 steps Available designs - Indoor only	X RF
1.59	BUPC GR/BR	Bureau HD POLYCARB Transitions®			HC
			+ PLUS 6.00      75 = 80      MINUS - 6.00	Adds 1.00 to 3.50 in 0.25 steps Available designs - Indoor only	X RF

↔ Variable reading inset - 0 to 4.00mm in 0.50mm steps available.  
 If measured please state at time of ordering otherwise standard inset values apply.

OPPOSITE CYLS TO 6.00DC UNLESS STATED

# SPECIALIST Administrator Progressive

LENS CODE		- Bureau  AVAILABILITY -		COATING
1.60	BU60	Bureau 		  UV410 Also available in UV410 Clear
	T20%		+ PLUS  MINUS - 6.00 = 8.00 Adds 1.00 to 3.50 in 0.25 steps Available designs - <b>Indoor only</b>	
1.60	BU6U	Bureau  Transitions®		 
	GR/BR /GN		+ PLUS  MINUS - 6.00 = 8.00 Adds 1.00 to 3.50 in 0.25 steps Available designs - <b>Indoor only</b>	
1.60	BX60	Bureau  Transitions® XTRActive™ 83% - 10% LTF		 
	GR/BR		+ PLUS  MINUS - 8.00 = 8.00 Adds 1.00 to 3.50 in 0.25 steps Available designs - <b>Indoor only</b>	
1.60	BTR6	TRIBRID Bureau 		 
	T N/A		+ PLUS  MINUS - 8.00 = 10.00 Adds 1.00 to 3.50 in 0.25 steps Available designs - <b>Indoor only</b>	
1.67	BU67	Bureau 		  UV410 Also available in UV410 Clear
	T20%		+ PLUS  MINUS - 9.00 7.00 = 10.00 70=75 Adds 1.00 to 3.50 in 0.25 steps Available designs - <b>Indoor only</b>	
1.67	BU7U	Bureau  Transitions®		 
	GR/BR /GN		+ PLUS  MINUS - 9.00 7.00 = 10.00 70=75 Adds 1.00 to 3.50 in 0.25 steps Available designs - <b>Indoor only</b>	
1.74	BU74	Bureau 		
	T N/A		+ PLUS  MINUS - 10.00 8.00 = 12.00 70=75 Adds 1.00 to 3.50 in 0.25 steps Available designs - <b>Indoor only</b>	
1.74	BUHY	Bureau  TINTABLE*		
	GR		+ PLUS  MINUS - 8.00 6.00 = 12.00 70=75 Adds 1.00 to 3.50 in 0.25 steps Available designs - <b>Indoor only</b>	
1.74	BU74	Bureau  Transitions®		
	GR/BR		+ PLUS  MINUS - 8.00 6.00 = 12.00 70=75 Adds 1.00 to 3.50 in 0.25 steps Available designs - <b>Indoor only</b>	
1.76	BU76	Bureau 		
	T N/A		+ PLUS  MINUS - 10.00 = 10.00 Adds 1.00 to 3.50 in 0.25 steps Available designs - <b>Indoor only</b>	

\*Note: Tints available on this product from 80% to 20% LTF - price excludes tint cost.

**OPPOSITE CYLS TO 6.00DC UNLESS STATED**

# Bureau HD

## Inner Surface Administrator Progressive

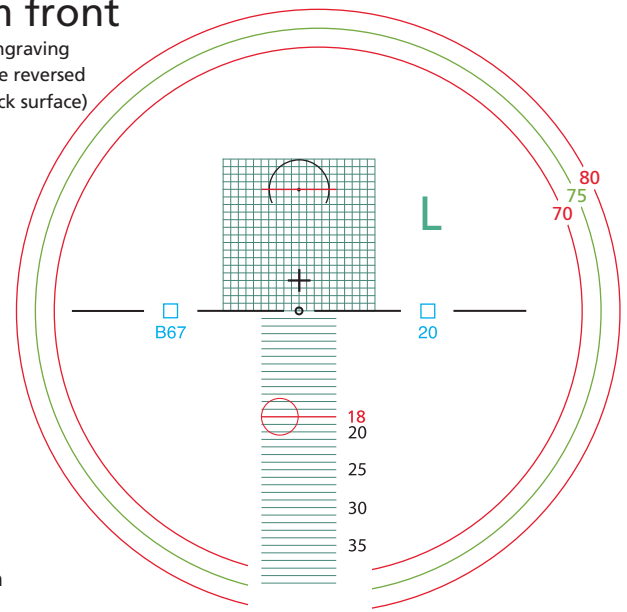
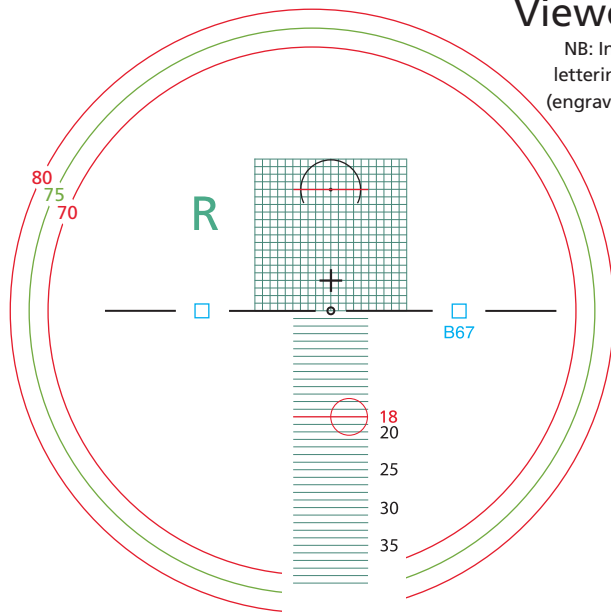
Right Eye

Effective Diameter Chart

Left Eye

Viewed from front

NB: In practice the engraving lettering shown will be reversed (engraved from the back surface)



Up & Down Limits

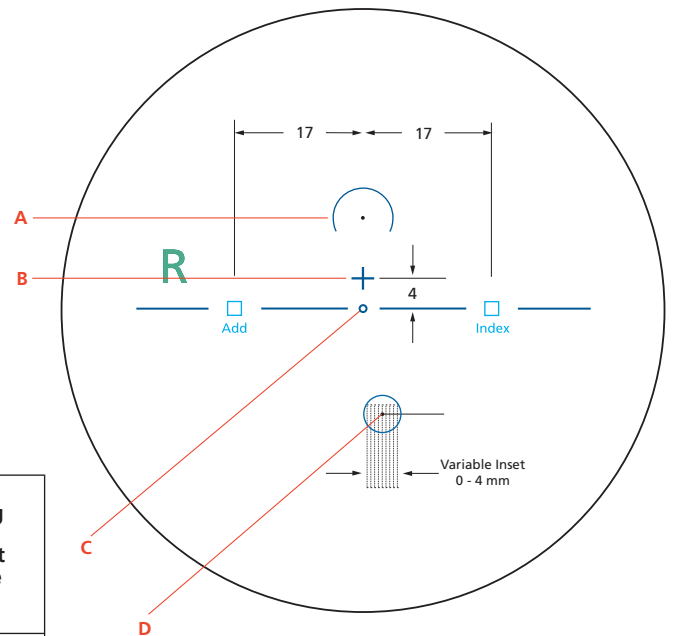
### Lens Marking Layout

Add is shown as:

+1.00	10
+1.25	12
+1.50	15
+1.75	17
+2.00	20
+2.25	22
+2.50	25
+2.75	27
+3.00	30
+3.25	32
+3.50	35

Index is shown as:

1.50 CR39	50
1.53 Trivex	53
1.56	56
1.59 Polycarb	59
1.60	60
1.67	67
1.74	74
1.76	76



### Bureau HD Corridor Design

Corridor Length <i>(from PRP to top of NV checking circle)</i>	Full Progression Length <i>(from start of progression to top of NV circle)</i>	Minimum Fitting Height <i>(from lowest tangent top of bottom rim)</i>	Minimum Frame Depth	Fitting Cross Height above PRP
10mm	14mm	18mm	28mm+	+4mm

- Permanent engraved marks
- Removable ink markings

Right eye uncut **viewed from front**

**A** : far vision zone (note: Check at 12mm up from MRP)

**B** : fitting cross 4 above PRP (MRP)

**C** : prism reference point (PRP)

**D** : near vision zone (note: Check at 13mm down from PRP)



Manufactured in our Gloucester UK Laboratories

## SIMAGE HD



An alternative progressive design philosophy that is both uncomplicated - yet very visually effective. Based on the proven **IMAGE** traditional front surface progressive design with its comprehensive 15 option product range. Rather than a traditional spherical or toric inner lens surface finishing curves, a computer designed wavepath tracked across both lens surfaces using 40,000 calculation points creates a beautifully tuned free-form inner design for high visual performance.

**SIMAGE HD** software cleans up those oblique aberrations enabling clearer vision over all zones. Upgrade clients' vision to this optically supercharged solution.

## Everyday Wear

## SIMAGE HD

### Characteristics

A very modern interpretation of **front surface Image** progressive finished with an **inner surface HD** digital design finish.

Ideal for those traditional front surface design progressive wearers.

Increasing fields of view in all sections, especially laterally, reduce unwanted astigmatism.

A best of "both lens worlds" design option.

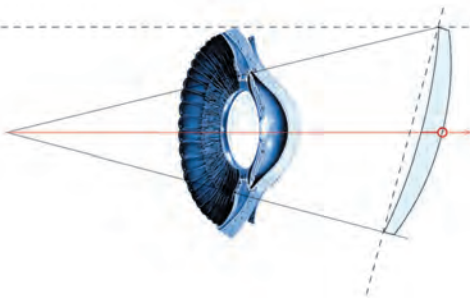
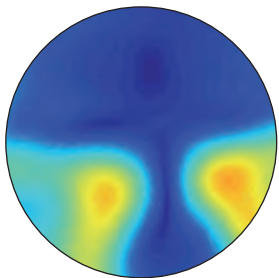
### User Key Points

Wide clear distance, unrestricted peripheral.

Stabilised inter & near zones across all adds.

Higher levels of vision clarity achieved through HD finishing.

Ability to provide wider field and higher additions.



## BEST IN CLASS Front Surface Design PPL

✦ **ENHANCED ATORAL INNER CURVE FINISHING**



# ENHANCED Front Surface Progressive

## - SIMAGE HD AVAILABILITY -

	LENS CODE		COATING
1.50	SI50	<b>SIMAGE HD</b>	UNC
	T20%	<p>18mm</p>	HC XRF
1.50	SI50	<b>SIMAGE HD Transitions</b>	HC
	GR/BR	<p>18mm</p>	XRF
1.50	SI5X	<b>SIMAGE HD Transitions XTRActive 83% - 10% LTF</b> (10)	HC
	GR	<p>18mm</p>	XRF
1.50	SI5P	<b>SIMAGE HD NUPOLAR POLARISED UV400 15% LTF</b> (10)	UNC
	GR/BR	<p>18mm</p>	HC IN
1.50	SI5D	<b>SIMAGE HD Transitions DRIVEWEAR</b>	HC
		<p>18mm</p>	IN
1.53	SI53	<b>SIMAGE HD TRILOGY</b>	HC
	T N/A	<p>18mm</p>	XRF
1.53	SI53	<b>SIMAGE HD TRILOGY Transitions</b>	HC
	GR/BR	<p>18mm</p>	XRF
1.53	SITX	<b>SIMAGE HD TRILOGY Transitions XTRActive 83% - 10% LTF</b> (10)	HC
	GR	<p>18mm</p>	XRF

# ENHANCED Front Surface Progressive

## - SIMAGE HD AVAILABILITY -

	LENS CODE				COATING
1.59	S159	<b>SIMAGE HD POLYCARB</b>			
	T20%		+ PLUS 7.00	76 = 83 MINUS - 9.00 Adds 1.00 to 6.00 in 0.25 steps	
1.59	S159	<b>SIMAGE HD Transitions®</b>			
	GR/BR	<ul style="list-style-type: none"> <li>Grey</li> <li>Brown</li> </ul>	+ PLUS 7.00	75 = 82 MINUS - 9.00 Adds 1.00 to 6.00 in 0.25 steps	
1.59	SIPX	<b>SIMAGE HD Transitions® XTRActive 83% - 10% LTF</b>			
	GR		+ PLUS 7.00	75 = 82 MINUS - 9.00 Adds 1.00 to 6.00 in 0.25 steps	
1.59	SIPP	<b>SIMAGE HD NUPOLAR® POLARISED UV400 15% LTF</b>			
	GR/BR	<ul style="list-style-type: none"> <li>Grey</li> <li>Brown</li> </ul>	+ PLUS 6.00	76 = 83 MINUS - 9.00 Adds 1.00 to 6.00 in 0.25 steps	
1.59	SIPD	<b>SIMAGE HD Transitions® DRIVEWEAR®</b>			
			+ PLUS 6.00	75 = 82 MINUS - 8.00 Adds 1.00 to 6.00 in 0.25 steps	
1.67	SIM7	<b>SIMAGE HD</b>			
	T20%		+ PLUS 7.00	74 = 79 MINUS - 10.00 Adds 1.00 to 6.00 in 0.25 steps	
1.67	SIM7	<b>SIMAGE HD Transitions®</b>			
	GR/BR	<ul style="list-style-type: none"> <li>Grey</li> <li>Brown</li> </ul>	+ PLUS 7.00	74 = 81 MINUS - 10.00 Adds 1.00 to 6.00 in 0.25 steps	

# SIMAGE HD

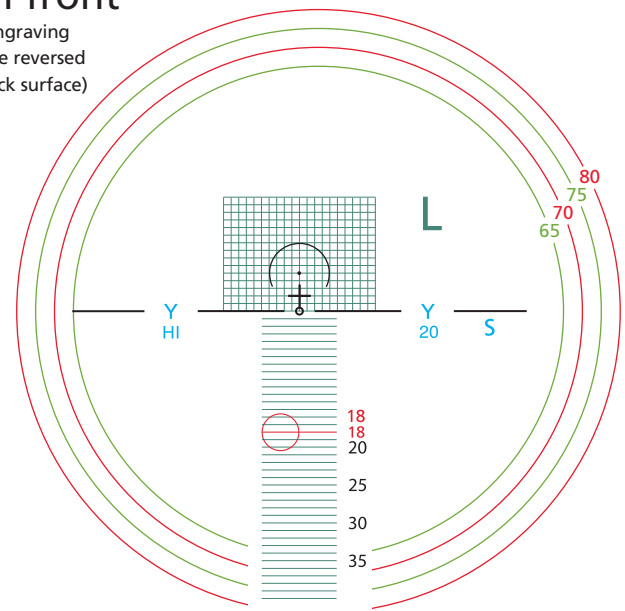
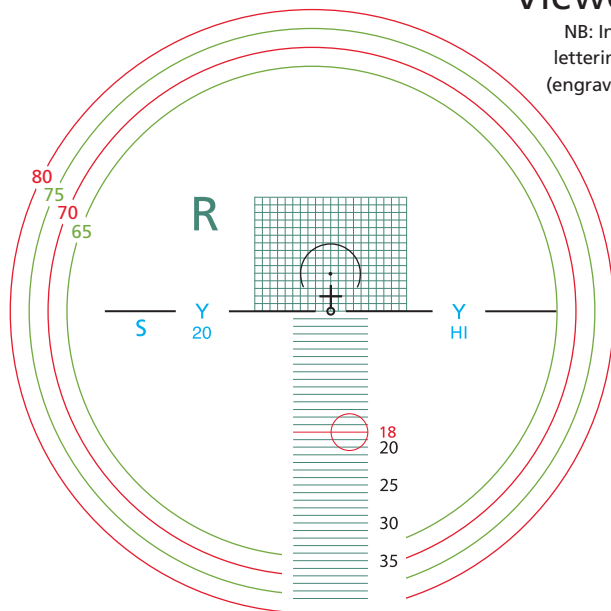
Right Eye

Effective Diameter Chart

Left Eye

Viewed from front

NB: In practice the engraving lettering shown will be reversed (engraved from the back surface)

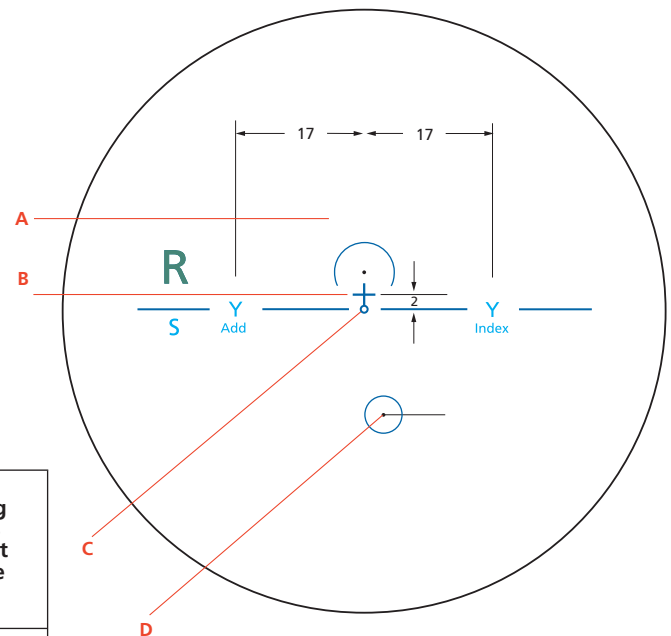


## Semi-visible Identification Markings

### Material

- Hard resin and polycarbonate \_\_\_\_\_ Y
- Trilogy \_\_\_\_\_ Y
- 1.67 \_\_\_\_\_ Y
- HI

## Lens Marking Layout



## SIMAGE HD Corridor Design

Corridor Length <i>(from PRP to top of NV checking circle)</i>	Full Progression Length <i>(from start of progression to top of NV circle)</i>	Minimum Fitting Height <i>(from lowest tangent top of bottom rim)</i>	Minimum Frame Depth	Fitting Cross Height above PRP
10mm	14mm	18mm	26mm+	+2mm

- Permanent engraved marks
- Removable ink markings

Right eye uncut **viewed from front**

- A** : far vision zone
- B** : fitting cross 2 above PRP
- C** : prism reference point (PRP)
- D** : near vision zone



Manufactured in our Gloucester UK Laboratories

**SPORTPAL** HIGH BASE SPORTS WRAP PROGRESSIVE HD



IDEAL for sports eyewear and sunglasses required with a reading addition. The same high definition Ultor optics of the progressive digital focus design can be calculated into a **plus eight base wrap design**. This can also incorporate (when given) changes in back vertex distance, wrap angle (sometimes called dihedral angle or face angle) and the tilt angle plane of the lens front from the natural vertical viewing distance.

When calculated, these data create a compensated Rx for central axis of view. The compensated Rx equation affects the point of gaze and corrects off-axis errors. This, combined with digital design, provides full width corrected vision across the lens.

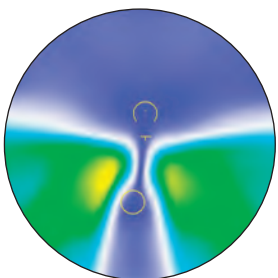
Available in many fixed tints, Transitions and Polarised options, **SPORTPAL** opens a new field of opportunities for lifestyle dispensing.



Ordering **SPORTPAL** compensated progressive lenses:

- Essential information:**
- Patient's full prescription
  - Optical centres & heights, as required
  - Wrap angle (Dihedral)
  - Pantoscopic angle (Tilt)
  - Frame wrap angle
  - BVD trial and actual distance
  - Base curve

**\* IMPORTANT NOTE: SPORTPAL lenses can only be manufactured when this data is provided. \***



HD 'S' Sportpal

OUTDOOR DESIGN ULTOR

Large far vision - limited reading

**Characteristics**

Large and wide distance vision zone for optimised far vision.

**User Key Points**

Uses mainly the far vision zone while working, moves quickly and often. Reads occasionally.

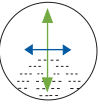


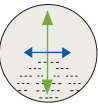

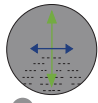
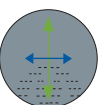


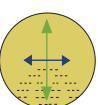



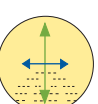


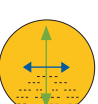


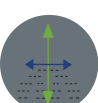


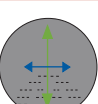


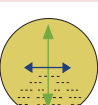



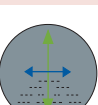




- INSET 0 to 4 in 0.5mm steps
- Autoselect corridor lengths x7
- Minimum fitting height 14mm
- XXL design technology for larger diameters adding 20mm to largest available blank size

NOTE: Higher powers can be produced in blended edge design - see page 85

# Digital Design Inner Surface Progressive

## - SPORTPAL HD AVAILABILITY -

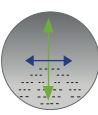
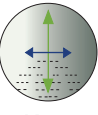
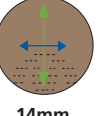
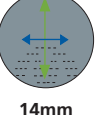
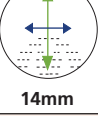
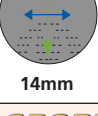
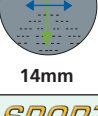


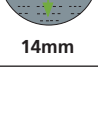
	LENS CODE					COATING
1.53	WU53	<b>SPORTPAL HD TRILOGY</b>				
	T20%	 14mm AUTOSELECT	+ PLUS 4.00	76 = 81	MINUS - 3.00	 
1.53	WU53	<b>SPORTPAL HD TRILOGY Transitions® &amp; Transitions® XTRActive</b>				
	GR/BR WX53 GR/BR	 14mm AUTOSELECT ● Grey ● Brown	+ PLUS 4.00	76 = 81	MINUS - 3.00	  ● Grey ● Brown
1.53	WUWP	<b>SPORTPAL HD TRILOGY NUPOLAR® POLARISED UV400 15% LTF</b>				
	GR/BR	 14mm AUTOSELECT ● Grey ● Brown	+ PLUS 4.00	72 = 77	MINUS - 3.00	 
1.53	WUDW	<b>SPORTPAL HD Transitions® DRIVEWEAR® 35% - 22% - 12%</b>				
		 14mm AUTOSELECT	+ PLUS 4.00	75 = 80	MINUS - 3.00	  
1.53	WUXT	<b>SPORTPAL HD D.E. YELLOW UV400 84% LTF</b>				
	DY	 14mm AUTOSELECT	+ PLUS 4.00	75 = 80	MINUS - 3.00	 
1.53	WUXT	<b>SPORTPAL HD BERKELEY YELLOW UV400 62% LTF</b>				
	BY	 14mm AUTOSELECT	+ PLUS 4.00	75 = 80	MINUS - 3.00	 
1.53	WUXT	<b>SPORTPAL HD SUN TINT UV400 15% LTF</b>				
	GR/BR	 14mm AUTOSELECT ● Grey ● Brown	+ PLUS 4.00	75 = 80	MINUS - 3.00	 
1.59	WX58	<b>SPORTPAL HD Transitions® XTRActive 83% - 10% LTF</b>				(10)
	GR/BR	 14mm AUTOSELECT ● Grey ● Brown	+ PLUS 4.00	76 = 81	MINUS - 3.50	 
1.59	WRPO	<b>SPORTPAL HD Transitions® DRIVEWEAR®</b>				(10)
		 14mm AUTOSELECT	+ PLUS 4.00	72 = 77	MINUS - 3.50	  
1.59	WP58	<b>SPORTPAL HD NUPOLAR® POLARISED UV400 15% LTF</b>				
	GR/BR GN/CO	 14mm AUTOSELECT ● GR 17% ● BR 22% ● GN 15% ● CO 20%	+ PLUS 4.00	73 = 78	MINUS - 3.50	 

OPPOSITE CYLS TO 6.00DC UNLESS STATED



# Digital Design Inner Surface Progressive

## - SPORTPAL HD AVAILABILITY -

	LENS CODE					COATING
1.59	WUGP	<b>SPORTPAL HD</b> NUPOLAR® + GRADUATED TINT GREY OR BROWN*				HC
	GR/BR	 14mm AUTOSELECT	+ PLUS 6.00	76 = 80	MINUS - 5.00	LT Top Grey 15   Brown 20 Bottom Grey 30   Grey 30
1.59	PI59	<b>SPORTPAL HD</b>				IN
		 14mm AUTOSELECT	+ PLUS 6.00	74 = 78	MINUS - 3.50	+7 WRAP
1.59	WP58	<b>SPORTPAL HD</b> POLARISED MELANIN 17% LTF				IN
	MN	 14mm AUTOSELECT	+ PLUS 4.00	73 = 78	MINUS - 3.50	WRAP
1.59	WP58	<b>SPORTPAL HD</b> POLARISED MIRROR				IN
	MB MG/MS	 14mm AUTOSELECT	+ PLUS 4.00	73 = 78	MINUS - 3.50	MB Blue on Grey 10% MG Gold on Brown 12% MS Silver on Grey 10%
1.60	WU60	<b>SPORTPAL HD</b> INFINITE NUPOLAR CHROMATIC 40% - 9% LT				HC
	GR/BR	 14mm AUTOSELECT	+ PLUS 5.00	75 = 80	MINUS - 4.00	Grey Brown Summer '18
	WU6U					Also available UV410 Clear X RF UV410
1.60	WU6X	<b>SPORTPAL HD</b> Transitions® XTRActive 83% - 10% LTF				HC
	GR/BR	 14mm AUTOSELECT	+ PLUS 5.00	73 = 78	MINUS - 4.00	Grey Brown
1.60	WP60	<b>SPORTPAL HD</b> NUPOLAR® POLARISED UV400 15% LTF				IN
	GR/BR /GN	 14mm AUTOSELECT	+ PLUS 5.00	74 = 79	MINUS - 4.00	Grey Brown Green
1.67	WU67	<b>SPORTPAL HD</b>				HC
	GR/BR	 14mm AUTOSELECT	+ PLUS 6.00	75 = 80	MINUS - 4.50	Grey Brown
	WU7U					Also available UV410 Clear X RF UV410
1.67	WX67	<b>SPORTPAL HD</b> Transitions® XTRActive 83% - 10% LTF				HC
	GR/BR	 14mm AUTOSELECT	+ PLUS 6.00	75 = 80	MINUS - 4.50	Grey Brown
1.67	WP67	<b>SPORTPAL HD</b> NUPOLAR® POLARISED UV400 15% LTF				IN
	GR/BR /GN	 14mm AUTOSELECT	+ PLUS 5.00	75 = 80	MINUS - 3.50	Grey Brown Green

OPPOSITE CYLS TO 6.00DC UNLESS STATED

# SPORTPAL HD

## Inner Surface Progressive

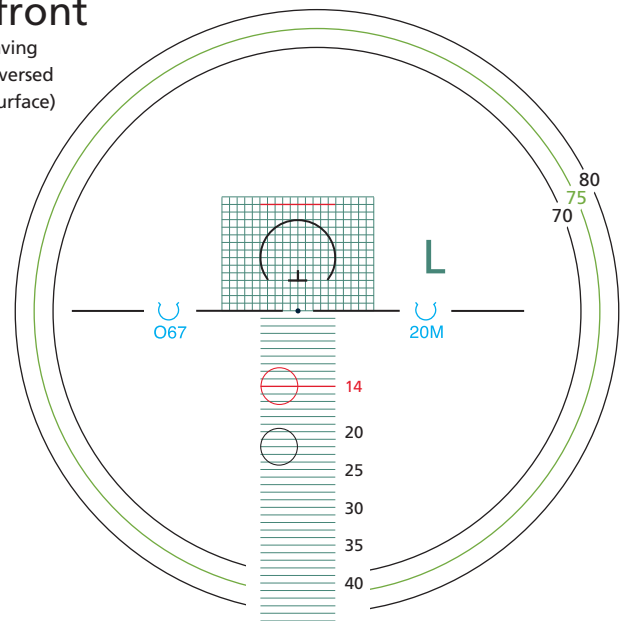
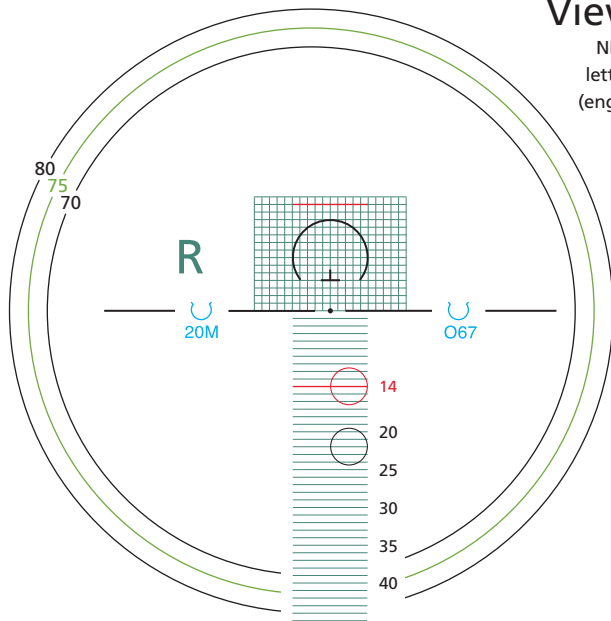
Right Eye

Effective Diameter Chart

Left Eye

Viewed from front

NB: In practice the engraving lettering shown will be reversed (engraved from the back surface)



Up & Down Limits

### Lens Marking Layout

Add is shown as:

+1.00	10
+1.25	12
+1.50	15
+1.75	17
+2.00	20
+2.25	22
+2.50	25
+2.75	27
+3.00	30
+3.25	32
+3.50	35

Index is shown as:

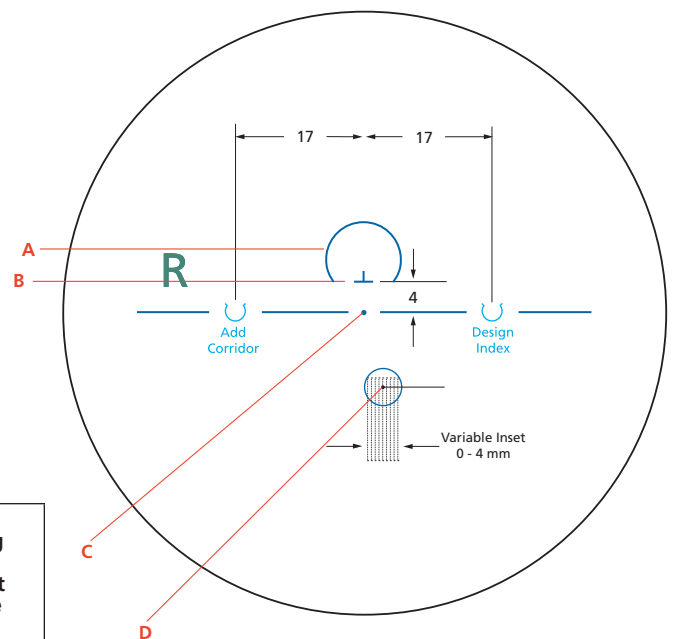
1.53 Trivex	53
1.59 Polycarb	59
1.60	60
1.67	67

Designs:

"O" = Sportor

Corridor Design Options:

- "XS" = Extra Short
- "S" = Short
- "M" = Medium
- "L" = Long



### Sportpal HD Corridor Designs

Corridor Length* <small>(from PRP to top of NV checking circle)</small>	Full Progression Length <small>(from start of progression to top of NV circle)</small>	Minimum Fitting Height <small>(from lowest tangent top of bottom rim)</small>	Minimum Frame Depth	Fitting Cross Height above PRP
6mm XS	10mm	14mm	22mm+	+4mm
7mm	11mm	15mm	23mm+	+4mm
8mm S	12mm	16mm	24mm+	+4mm
9mm	13mm	17mm	25mm+	+4mm
10mm M	14mm	18mm	26mm+	+4mm
11mm	15mm	19mm	27mm+	+4mm
12mm L	16mm	20mm	28mm+	+4mm

\*AUTOSELECT - COMPUTER SELECTION DETERMINED BY FITTING HEIGHT SPECIFIED

- Permanent engraved marks
- Removable ink markings

Right eye uncut viewed from front

- A : far vision zone
- B : fitting cross 4 above PRP
- C : prism reference point (PRP)
- D : near vision zone



Manufactured in our Gloucester UK Laboratories

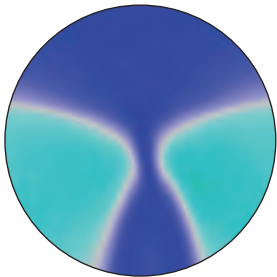
## HAWK HD



Glass may be the older ophthalmic lens material but adding HAWK, a brand new circa '18 lens design, enables it to become the hardest - clearest progressive option available anywhere. This all-seeing combination is ideal for either larking about or spot on viewing.

When clients are looking for the highest optical standards - HAWK guarantees all round sharp vision.

## HD 'G' All Day Wear



### Characteristics

Constantly advancing technology and on-going vision research are conjoined to present a Premium Design of the highest resolution.

**Non-compensated** distance inner surface free-form progressive, or available as fully compensated, either using average data figures or ones you provide at the time of ordering.

### User Key Points

All functions daily use.  
Easy adaption.  
Clarity of all-round vision  
Minimal aberrations

Individual personalisation data provided by you or default to standard optimisation values:

- Pantoscopic Tilt Angle 7°
- BVD 12mm
- Wrap Angle 5°
- Standard Inset 2.5

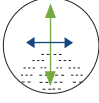


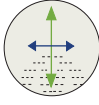


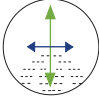

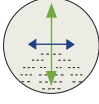

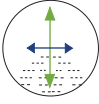

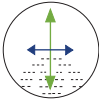



### PS. DISPENSING TIP

Think gritty jobs. Indoors and outside.  
Dentists, Farmers

# Inner Surface Mineral Progressive

## - HAWK AVAILABILITY -

	LENS CODE		COATING
1.52	SG52	<b>HAWK HD</b>  15mm <b>AUTOSELECT</b>	 
		+ PLUS 5.00 = 70 75 MINUS - 8.00 Adds 0.75 to 4.50 in 0.25 steps Available designs - <b>General/Outdoor/Desk</b>	
1.52	SG52 PE/BP	<b>HAWK HD</b> PHOTOGREY OR PHOTOBROWN <span style="border: 1px solid red; border-radius: 50%; padding: 2px;">10</span>  14mm <b>AUTOSELECT</b> Grey Brown	 
		+ PLUS 5.00 = 70 75 MINUS - 8.00 Adds 0.75 to 4.50 in 0.25 steps Available designs - <b>General/Outdoor</b>	
1.60	SG60	<b>HAWK HD</b>  14mm <b>AUTOSELECT</b>	
		+ PLUS 8.00 = 70 75 MINUS - 10.00 Adds 0.75 to 3.00 in 0.25 steps	
1.60	SG60 PE/BP	<b>HAWK HD</b> PGX/PBX PHOTOCROMIC  14mm <b>AUTOSELECT</b> Grey Brown	
		+ PLUS 6.00 = 70 75 MINUS - 10.00 Adds 0.75 to 3.00 in 0.25 steps	
1.70	SG70	<b>HAWK HD</b>  14mm <b>AUTOSELECT</b>	
		+ PLUS 8.00 = 70 75 MINUS - 12.00 Adds 0.75 to 3.00 in 0.25 steps	
1.80	SG80	<b>HAWK HD</b>  14mm <b>AUTOSELECT</b>	
		MINUS - 6.00 70 75 16.00 Adds 1.00 to 3.00 in 0.25 steps	

**AUTOSELECT** - CORRIDOR AVAILABILITY COMPUTER SELECTION DETERMINED BY FITTING HEIGHT SPECIFIED

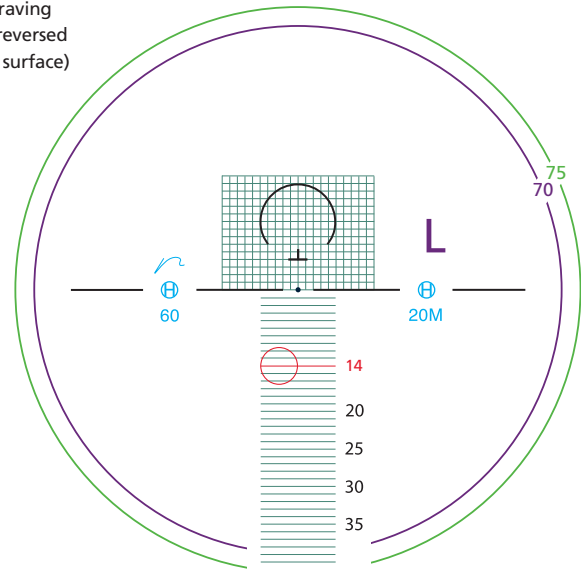
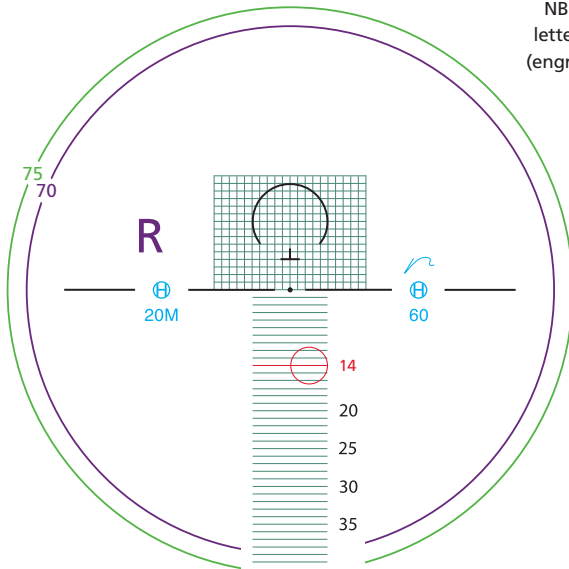
# HAWK HD

## Inner Surface Mineral Progressive

**Right Eye      Effective Diameter Chart      Left Eye**

Viewed from front

NB: In practice the engraving lettering shown will be reversed (engraved from the back surface)



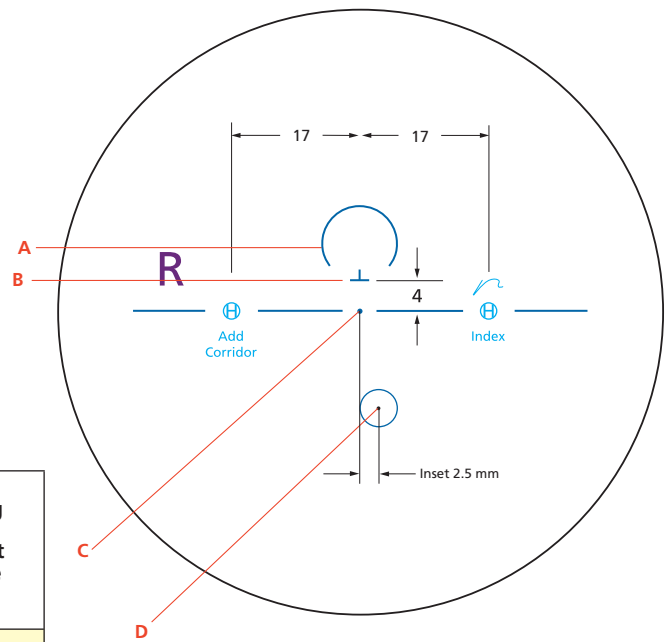
**Lens Marking Layout**

Add is shown as:

+0.50	05	+3.00	30
+0.75	07	+3.25	32
+1.00	10	+3.50	35
+1.25	12	+3.75	37
+1.50	15	+4.00	40
+1.75	17	+4.25	42
+2.00	20	+4.50	45
+2.25	22	+4.75	47
+2.50	25	+5.00	50
+2.75	27		

Index is shown as:

1.523	52
1.60	60
1.70	70
1.80	80



**Hawk HD Corridor Design**

Corridor Length* <i>(from PRP to top of NV checking circle)</i>	Full Progression Length <i>(from start of progression to top of NV circle)</i>	Minimum Fitting Height <i>(from lowest tangent top of bottom rim)</i>	Minimum Frame Depth	Fitting Cross Height above PRP
7mm S	10mm	15mm	23mm+	+4mm
9mm M	12mm	17mm	25mm+	+4mm
11mm L	14mm	19mm	27mm+	+4mm

\*AUTOSELECT - COMPUTER SELECTION DETERMINED BY FITTING HEIGHT SPECIFIED

- Permanent engraved marks
- Removable ink markings

Right eye uncut viewed from front

- A : far vision zone
- B : fitting cross 4 above PRP
- C : prism reference point (PRP)
- D : near vision zone



Manufactured in our Gloucester UK Laboratories



## ProDrive HD



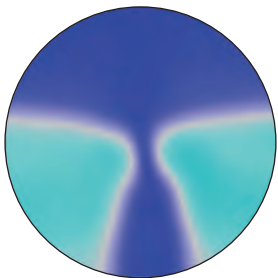
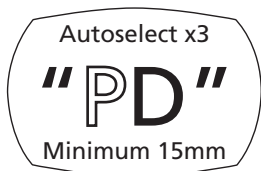
New design tuned for today's changing driving environment. As ever, clear far vision with increasing intermediate zone segment needs for dashboard instrumentation and navigational systems. The lens can also be used for general everyday wear.

### HD 'D' Driving progressive

For "at the wheel" presbyopes, **PRODRIVE** progressive delivers some specific design features. **Distance vision** has been sharpened, whilst ensuring easy transition to enhanced intermediate for looking at dashboard instrumentation.

Driving demands clear vision over rapidly changing distances.

**PRODRIVE** lenses are strongly recommended with RF coatings - more contrast, lower glare.



#### Characteristics

Very wide distance providing clear far vision and side mirror viewing combined with wide intermediate for comfortable instruments reading.

Dual availability as non-compensated lens for distance with optimised reading that provides the highest optical quality in every gaze direction or fully compensated for distance and reading when individualisation data offered.

Low values of unwanted astigmatism.

Short progression design.

Near zone area for occasional use.

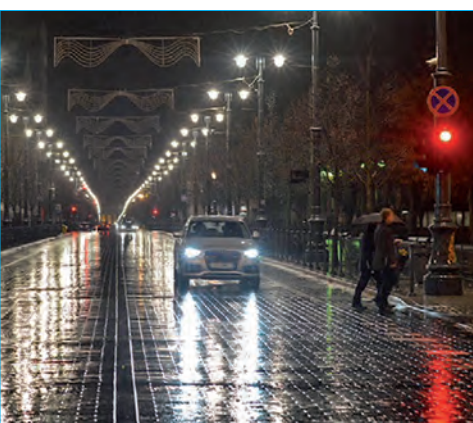
#### User Key Points

Uses the far and inter zones while driving, reads occasionally. RF coating minimises reflections. Enhanced eye comfort.

If additional individualisation is desirable please provide.





Otherwise designed with these standard values:

- Pantoscopic Tilt Angle 7°
- BVD 12mm
- Wrap Angle 5°
- Standard Inset Variable as RX



# Inner Surface Mineral Progressive

## - ProDrive AVAILABILITY -

LENS CODE		COATING
1.52	YG52 <b>PRODRIVE HD</b>	UNC
	 <p>15mm <b>AUTOSELECT</b></p> <p>+ PLUS 5.00 70 = 75 MINUS - 8.00</p> <p>Adds 0.75 to 4.00 in 0.25 steps</p>	G RF
1.52	YG52 <b>PRODRIVE HD</b> PHOTOGREY OR PHOTOBROWN <sup>(10)</sup>	UNC
	<p>PE/BP</p>  <p>14mm <b>AUTOSELECT</b></p> <p>Grey Brown</p> <p>+ PLUS 5.00 70 = 75 MINUS - 8.00</p> <p>Adds 0.75 to 4.00 in 0.25 steps</p>	G RF
1.60	YG60 <b>PRODRIVE HD</b>	G RF
	 <p>14mm <b>AUTOSELECT</b></p> <p>+ PLUS 6.00 70 = 75 MINUS - 8.00</p> <p>Adds 0.75 to 4.00 in 0.25 steps</p>	
1.60	YG60 <b>PRODRIVE HD</b> PGX/PBX PHOTOCROMIC	G RF
	<p>PE/BP</p>  <p>14mm <b>AUTOSELECT</b></p> <p>Grey Brown</p> <p>+ PLUS 6.00 70 = 75 MINUS - 8.00</p> <p>Adds 0.75 to 4.00 in 0.25 steps</p>	
For product extensions see Page 143 Rx catalogue		

**AUTOSELECT** - CORRIDOR AVAILABILITY COMPUTER SELECTION DETERMINED BY FITTING HEIGHT SPECIFIED

# ProDrive HD

## Inner Surface Mineral Progressive

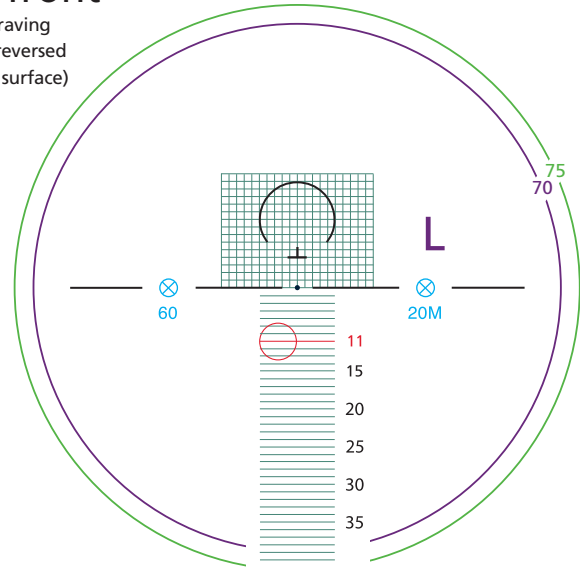
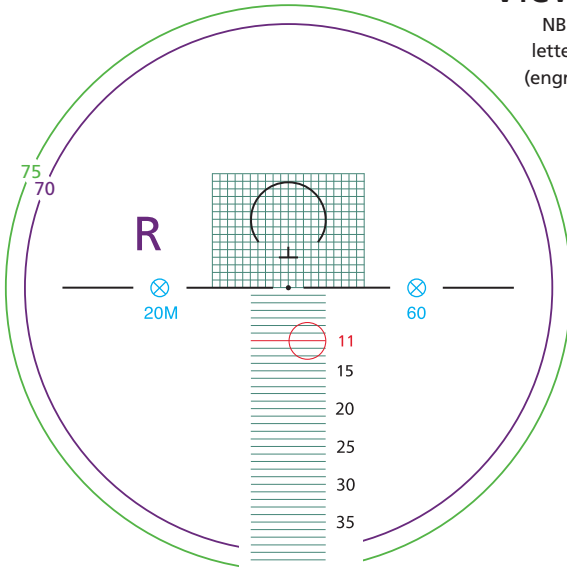
Right Eye

Effective Diameter Chart

Left Eye

Viewed from front

NB: In practice the engraving lettering shown will be reversed (engraved from the back surface)



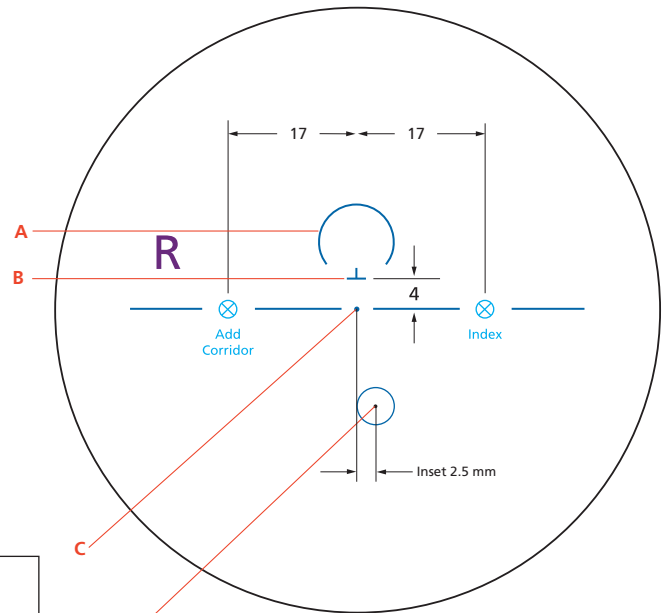
### Lens Marking Layout

Add is shown as:

+0.50	05
+0.75	07
+1.00	10
+1.25	12
+1.50	15
+1.75	17
+2.00	20
+2.25	22
+2.50	25
+2.75	27
+3.00	30
+3.25	32
+3.50	35
+3.75	37
+4.00	40

Index is shown as:

1.523	52
1.60	60



### ProDrive Corridor Design

Corridor Length* <i>(from PRP to top of NV checking circle)</i>	Full Progression Length <i>(from start of progression to top of NV circle)</i>	Minimum Fitting Height <i>(from lowest tangent top of bottom rim)</i>	Minimum Frame Depth	Fitting Cross Height above PRP
11mm M	14mm	17mm	25mm+	+4mm

- Permanent engraved marks
- Removable ink markings

Right eye uncut viewed from front

- A : far vision zone
- B : fitting cross 4 above PRP
- C : prism reference point (PRP)
- D : near vision zone

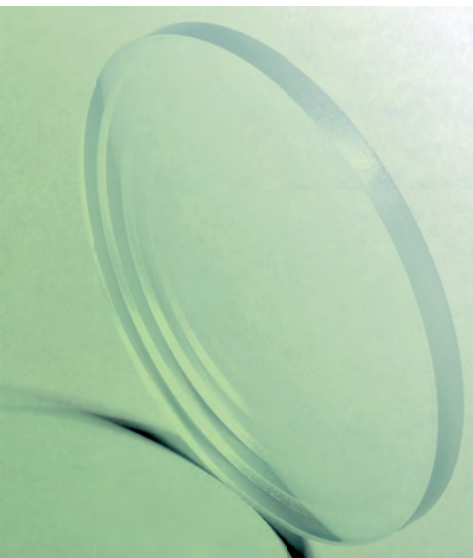


Manufactured in our Gloucester UK Laboratories

## NORTOR-SV

Digital Design  
High Definition  
lenses bringing  
unsurpassed  
vision to  
your patients

### HIGH DEFINITION SPECTACLE LENS TECHNOLOGY



### HIGH PERFORMANCE OPHTHALMIC SINGLE VISION LENSES

#### PS. PRESCRIBER'S HOT TIP

Vertical centration instruction is important for atoral designs.

## DESIGN

Combining two modern technologies, computing power and free-form manufacturing, has enabled the single most significant design change in ophthalmic lenses for fifty years.

**NORTOR ** - perfect power in every direction

## PRESCRIBING

Ideal for ALL single vision corrections but particularly beneficial for higher plus or minus prescriptions, specially higher cylinders.

### Base Curve

Specific base (front) curves can be specified to meet the needs of the lens curve matching the curvature of the frame design, e.g. sunglass wraps. On many occasions using today's stock lenses results in a poor curve match to that of the spectacle frame design. Specifying a particular base curve is fine as the NORTOR design software corrects its optics accordingly. Compatible with any index ophthalmic material. Clear vision in every direction, oblique astigmatism substantially reduced.

### SPORTOR

Plus 8 base wrap prescription sun lenses. We recommend glazing by Norville for a superb bevel finish. Your specification of wrap angle and / or pantoscopic tilt angle will trigger the calculation of a compensated prescription, which will also result in additional decentration or prism. Available in Polarised form, Transitions and Transitions XTRActive. (Further info page 71)

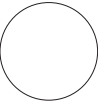



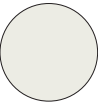



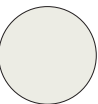



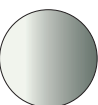

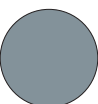





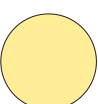








# Digital Design Inner Surface Atoral SV

## - NORTOR HD AVAILABILITY -

	LENS CODE			COATING
1.50	SU39	<b>NORTOR-SV HD</b>		HC✓
	T20%	ISA		X RF
1.50	SU39	<b>NORTOR-SV HD Transitions®</b>		HC✓
	GR/BR /GN	Grey Brown ISA Green		
1.50	SX50	<b>NORTOR-SV HD Transitions® XTRActive™</b> 83% - 10% LTF		HC✓
	GR/BR /GN	Grey Brown ISA Green		
1.50	SV50	<b>NORTOR-SV HD Transitions® Vantage™</b> VARIABLE POLARISED 77% - 20% LTF		HC✓
	GR	ISA		
1.50	DRA	<b>NORTOR-SV HD Transitions® DRIVEWEAR®</b>		HC✓
		ISA		IN✓
1.50	SP39	<b>NORTOR-SV HD NUPOLAR®</b> POLARISED UV400 15% LTF		UNC
	GR/BR GN	Grey 17% Brown 22% ISA Green 15%		HC✓ WRAP IN✓
1.50	SP3G	<b>NORTOR-SV HD</b> POLARISED + GRADUATED TINT		UNC
	GR/BR			HC✓ WRAP IN✓
1.50	SI39	<b>NORTOR-SV HD INFINITE NUPOLAR CHROMATIC™</b> 40% - 9% LT		IN✓
	GR/BR	Grey Brown Summer '18		WRAP IN✓
1.53	SU53	<b>NORTOR-SV HD TRILOGY</b>		HC✓
	T N/A	ISA		X RF

OPPOSITE CYLS TO 6.00DC UNLESS STATED

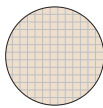

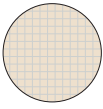





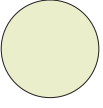


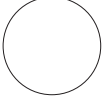







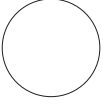




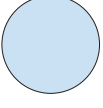


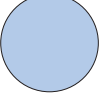


## - NORTOR HD AVAILABILITY -

LENS CODE						COATING
1.53	SU53 TNA	<b>NORTOR-SV HD TRIVEX</b>  <span style="color: red;">ISA</span> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">+ PLUS 8.00</div> <div style="text-align: center; border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">80</div> <div style="text-align: center;">MINUS - 3.00</div> </div> 				 
	SU53 GR/BR SX53 GR/BR	<b>NORTOR-SV HD TRILOGY Transitions® &amp; Transitions® XTRActive</b>  <span style="color: red;">ISA</span> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">+ PLUS 7.00</div> <div style="text-align: center; border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">76</div> <div style="text-align: center;">MINUS - 8.00</div> </div> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <div style="text-align: center;"> <span style="color: grey;">●</span> Grey  <span style="color: brown;">●</span> Brown                 </div> <div style="text-align: center;">   <span style="color: grey;">●</span> Grey  <span style="color: brown;">●</span> Brown                 </div> </div>				 
1.53	SU53 GR/BR	<b>NORTOR-SV HD TRIVEX Transitions®</b>  <span style="color: red;">ISA</span> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">+ PLUS 8.00</div> <div style="text-align: center; border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">80</div> <div style="text-align: center;">MINUS - 3.00</div> </div> 				 
	SV53 GR	<b>NORTOR-SV HD Transitions® Vantage VARIABLE POLARISED 77% - 20% LTF</b>  <span style="color: red;">ISA</span> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">+ PLUS 10.00</div> <div style="text-align: center; border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">75 = 80</div> <div style="text-align: center;">MINUS - 8.00</div> </div>				
1.53	SUTP GR/BR	<b>NORTOR-SV HD TRILOGY NUPOLAR® POLARISED UV400 15% LTF</b>  <span style="color: red;">ISA</span> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">+ PLUS 7.00</div> <div style="text-align: center; border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">72</div> <div style="text-align: center;">MINUS - 8.00</div> </div>				 
	SUDW	<b>NORTOR-SV HD Transitions® DRIVEWEAR® 35% - 22% - 12%</b>  <span style="color: red;">ISA</span> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">+ PLUS 8.00</div> <div style="text-align: center; border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">75</div> <div style="text-align: center;">MINUS - 8.00</div> </div>				 
1.53	SUXT DY	<b>NORTOR-SV HD D.E. YELLOW CONTRAST TINT UV400 84% LTF</b>  <span style="color: red;">ISA</span> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">+ PLUS 5.00 75</div> <div style="text-align: center; border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">80</div> <div style="text-align: center;">MINUS - 2.00 75</div> </div>				 
	SUXT BY	<b>NORTOR-SV HD BERKELEY YELLOW CONTRAST TINT UV400 62% LTF</b>  <span style="color: red;">ISA</span> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">+ PLUS 6.00 75</div> <div style="text-align: center; border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">80</div> <div style="text-align: center;">MINUS - 2.00 75</div> </div>				 
1.53	SUXT GR/BR	<b>NORTOR-SV HD SUN TINT UV400 15% LTF</b>  <span style="color: red;">ISA</span> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">+ PLUS 5.00 70=75</div> <div style="text-align: center; border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">75 = 80</div> <div style="text-align: center;">MINUS - 3.50</div> </div>				 



# Digital Design Inner Surface Atoral SV

## - NORTOR HD AVAILABILITY -

	LENS CODE				COATING		
1.56	SUMO	<b>NORTOR-SV HD</b> VISTA-MESH UV385 BROWN 90% LTF FILTER	 ISA	+ PLUS 8.00	70 = 75	MINUS - 10.00	
1.56	SUMO BR	<b>NORTOR-SV HD</b> VISTA-MESH Reactolite PHOTOCROMIC BROWN	 ISA	+ PLUS 8.00	75	MINUS - 10.00	 
1.56	SUBT	<b>NORTOR-SV HD</b> BT66 FILTER	 ISA	+ PLUS 8.00	75	MINUS - 10.00	 
1.58	SUBP	<b>NORTOR-SV HD</b> MID INDEX BT70 FILTER	 ISA	+ PLUS 6.00	75 = 80	MINUS - 10.00	 
1.59	SU58 SU5V	<b>NORTOR-SV HD</b>	 ISA	+ PLUS 7.00	76	MINUS - 10.00	  Also available PUV+  PUV+  PUV+
1.59	SU58 GR/BR	<b>NORTOR-SV HD</b> POLYCARB <b>Transitions</b>	 ISA ● Grey ● Brown	+ PLUS 7.00	76	MINUS - 9.00 10.00 70	 
1.60	SU60 T20% SU6U	<b>NORTOR-SV HD</b>	 ISA	+ PLUS 9.00 8.00	75	MINUS - 8.00 9.00 70	  Also available in UV410 Clear  UV410  UV410
1.60	NUNL T20%	<b>NORTOR-SV HD</b> NEO A1 CONTRAST UV400:580B 82% LT	 ISA	+ PLUS 8.00	75	MINUS - 8.00	 
1.60	NUNE T20%	<b>NORTOR-SV HD</b> NEO A2 CONTRAST UV400:580B 72% LT	 ISA	+ PLUS 8.00	75	MINUS - 8.00	 

OPPOSITE CYLS TO 6.00DC UNLESS STATED

# Digital Design Inner Surface Atoral SV

## - NORTOR HD AVAILABILITY -

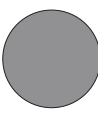



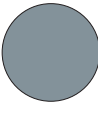




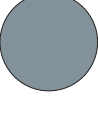
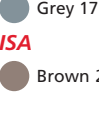





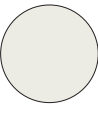
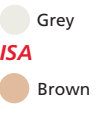


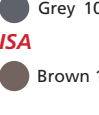



	LENS CODE		COATING
1.60	SU60 ET	<b>NORTOR-SV HD</b> EAGLE TINT BROWN 50% LTF + PLUS 6.00 80 MINUS - 6.00 T20% ISA	HC X RF
	SU60 GR/BR /GN	<b>NORTOR-SV HD Transitions</b> + PLUS 8.00 6.00 70 75 MINUS - 8.00 9.00 12.00 70 65 ISA	HC X RF
1.60	SX60 GR/BR	<b>NORTOR-SV HD Transitions XTRActive</b> 83% - 10% LTF + PLUS 8.00 73 MINUS - 10.00 Grey ISA Brown	HC X RF
1.60	SP60 GR/BR GN	<b>NORTOR-SV HD NuPOLAR</b> POLARISED UV400 + PLUS 8.00 6.00 72 MINUS - 8.00 10.00 70 Grey ISA Brown Green	HC IN
1.60	STR6 T N/A	<b>TRIBRID NORTOR-SV HD</b> + PLUS 10.00 9.00 7.00 75 MINUS - 10.00 65 70 ISA	HC
1.60	STR6 GR/BR T N/A	<b>TRIBRID NORTOR-SV HD Transitions</b> + PLUS 7.00 75 MINUS - 10.00 Grey ISA Brown	X RF
1.67	SU67 T20%	<b>NORTOR-SV HD</b> + PLUS 9.00 8.00 80 75 MINUS - 8.00 10.00 12.00 70 65 ISA	HC X RF HC UV410 X RF UV410
	SU7U	Also available UV410 Clear	
1.67	SU67 T20%	<b>NORTOR-SV HD HIGH PLUS</b> + PLUS 16.00 12.00 9.25 65 60 ISA	HC X RF
1.67	SU67 GR/BR /GN	<b>NORTOR-SV HD Transitions</b> + PLUS 9.00 8.00 1.50 75 MINUS - 8.00 10.00 12.00 70 65 ISA	HC X RF

\*Note: Tints available on this product from 80% to 20% LTF - price excludes tint cost.

OPPOSITE CYLS TO 6.00DC UNLESS STATED

# Digital Design Inner Surface Atoral SV

## - NORTOR HD AVAILABILITY -

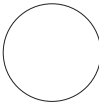

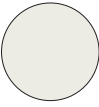


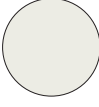

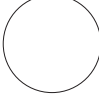



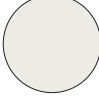


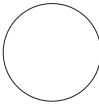

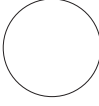

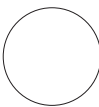

	LENS CODE				COATING
1.67	SX67 GR/BR	<b>NORTOR-SV HD</b> Transitions® XTRActive™ 83% - 10% LTF	 Grey  Brown <b>ISA</b>	+ PLUS 8.00 78 10.00 12.00 MINUS - 60	 
1.67	SP67 GR/BR GN	<b>NORTOR-SV HD</b> NUPOLAR® POLARISED UV400	 Grey  Brown <b>ISA</b>  Green	+ PLUS 8.00 75 7.00 10.00 MINUS - 70	 
1.67	SP67	<b>NORTOR-SV HD</b> POLARISED UV400 HIGH POWER	 Grey 17%  Brown 22% <b>ISA</b>	+ PLUS 10.00 8.25 65 = 70 12.25 15.00 MINUS - 70	  <p><b>Colour Match</b> Other lens, even if lower power, will be supplied at this price.</p>
1.74	SU74 <b>T N/A</b>	<b>NORTOR-SV HD</b>	<b>ISA</b>	+ PLUS 10.00 6.00 70 75 8.00 14.00 MINUS - 65 65	
1.74	SU74 <b>T N/A</b>	<b>NORTOR-SV HD</b> (HIGH POWERS)	<b>ISA</b>	+ PLUS 16.00 12.00 10.25 65 14.25 15.00 20.00 MINUS - 60 60	
1.74	SUHY <b>T20%</b>	<b>NORTOR-SV HD</b> TINTABLE*	<b>ISA</b>	+ PLUS 12.00 10.00 8.00 75 10.00 14.00 MINUS - 65 70 65	
1.74	SU74 GR/BR	<b>NORTOR-SV HD</b> Transitions®	 Grey  Brown <b>ISA</b>	+ PLUS 9.00 4.00 75 8.00 12.00 MINUS - 70 70	
1.74	SP74 GR/BR	<b>NORTOR-SV HD</b> POLARISED UV400	 Grey 10%  Brown 10% <b>ISA</b>	+ PLUS 8.00 4.00 75 3.00 8.00 12.00 MINUS - 72 72 70	 
1.76	SU76 <b>T N/A</b>	<b>NORTOR-SV HD</b>	<b>ISA</b>	+ PLUS 8.00 75 = 80 10.00 12.00 MINUS - 70=75	

\*Note: Tints available on this product from 80% to 20% LTF - price excludes tint cost.

OPPOSITE CYLS TO 6.00DC UNLESS STATED

# Digital Design Inner Surface Atoral SV

## - NORTOR <sup>HD</sup> GLASS\* AVAILABILITY -

	LENS CODE				COATING
1.52	GN50	<b>NORTOR-SV <sup>HD</sup> ATORAL</b> <span style="float: right;">(10)</span>	 ISA	<div style="display: flex; justify-content: space-between;"> <div style="text-align: center;"> <p>+ PLUS</p> <p>8.00</p> <p>65</p> </div> <div style="text-align: center;"> <p>6.00</p> <p>70</p> </div> <div style="text-align: center;"> <p>MINUS -</p> <p>10.00</p> </div> </div> <p style="text-align: right; margin-right: 20px;">LENS FORM AVAILABLE FLAT</p>	
1.52	GN50 PE/BP	<b>NORTOR-SV <sup>HD</sup> ATORAL PHOTOGREY OR PHOTOBROWN</b> <span style="float: right;">(10)</span>	 Grey  Brown ISA	<div style="display: flex; justify-content: space-between;"> <div style="text-align: center;"> <p>+ PLUS</p> <p>7.00</p> </div> <div style="text-align: center;"> <p>70</p> </div> <div style="text-align: center;"> <p>MINUS -</p> <p>10.00</p> </div> </div> <p style="text-align: right; margin-right: 20px;">LENS FORM AVAILABLE FLAT</p>	
1.52	GN50 PE	<b>NORTOR-SV <sup>HD</sup> ATORAL PHOTOGREY</b>	 ISA	<div style="display: flex; justify-content: space-between;"> <div style="text-align: center;"> <p>+ PLUS</p> <p>6.00</p> </div> <div style="text-align: center;"> <p>75 = 80</p> </div> <div style="text-align: center;"> <p>MINUS -</p> <p>6.00</p> </div> </div> <p style="text-align: right; margin-right: 20px;">WRAP</p>	
1.60	GN60	<b>NORTOR-SV <sup>HD</sup> ATORAL</b> <span style="float: right;">(10)</span>	 ISA	<div style="display: flex; justify-content: space-between;"> <div style="text-align: center;"> <p>+ PLUS</p> <p>8.00</p> </div> <div style="text-align: center;"> <p>70</p> </div> <div style="text-align: center;"> <p>MINUS -</p> <p>10.00</p> </div> </div>	
1.60	GN60 GN	<b>NORTOR-SV <sup>HD</sup> ATORAL GREEN GREY SOLID TINT 15% LT</b> <span style="float: right;">(10)</span>	 ISA	<div style="display: flex; justify-content: space-between;"> <div style="text-align: center;"> <p>+ PLUS</p> <p>4.00</p> </div> <div style="text-align: center;"> <p>70 = 75</p> </div> <div style="text-align: center;"> <p>MINUS -</p> <p>4.00</p> </div> </div>	
1.60	GN60 PE/BP	<b>NORTOR-SV <sup>HD</sup> ATORAL PGX OR PBX PHOTOCROMIC</b> <span style="float: right;">(10)</span>	 Grey  Brown ISA	<div style="display: flex; justify-content: space-between;"> <div style="text-align: center;"> <p>+ PLUS</p> <p>7.00</p> </div> <div style="text-align: center;"> <p>70 = 75</p> </div> <div style="text-align: center;"> <p>MINUS -</p> <p>8.00</p> </div> </div>	
1.70	HN70	<b>HIGHLITE NORTOR-SV <sup>HD</sup></b> <span style="float: right;">(10)</span>	 ISA	<div style="display: flex; justify-content: space-between;"> <div style="text-align: center;"> <p>+ PLUS</p> <p>8.00</p> </div> <div style="text-align: center;"> <p>70 = 75</p> </div> <div style="text-align: center;"> <p>MINUS -</p> <p>12.00</p> </div> </div>	
1.80	ZN80	<b>ZENLITE NORTOR-SV <sup>HD</sup></b> <span style="float: right;">(10)</span>	 ISA	<div style="display: flex; justify-content: space-between;"> <div style="text-align: center;"> <p>+ PLUS</p> <p>10.00</p> </div> <div style="text-align: center;"> <p>70</p> </div> <div style="text-align: center;"> <p>MINUS -</p> <p>10.00</p> </div> <div style="text-align: center;"> <p>14.00</p> <p>65</p> </div> </div>	
1.90	GN90	<b>MINLITE NORTOR-SV <sup>HD</sup> ATORAL</b>	 ISA	<div style="display: flex; justify-content: space-between;"> <div style="text-align: center;"> <p>70</p> </div> <div style="text-align: center;"> <p>MINUS -</p> <p>6.00</p> </div> <div style="text-align: center;"> <p>10.00</p> </div> <div style="text-align: center;"> <p>15.00</p> <p>65</p> </div> </div>	

\*All NORTOR mineral is produced by our Northern European Partner Lab to identical software designs.

OPPOSITE CYLS TO 4.00DC UNLESS STATED

## HD-SPORTS



### SPORTOR-SV HD

Maximum optical performance for any frame.

Norville's descriptor of NORTOR HD but modified to a +8.00 base lens blank or other wraparound base curve.

Conventional lenses mounted in high-curved frames have a mediocre optical performance. The same high definition Nortor optics of the single vision digital ray path design can be calculated into a plus eight base wrap design. This can also incorporate (if available) changes in back vertex distance, wrap angle (sometimes called dihedral angle or face angle) and the pantoscopic (tilt) angle plane of the lens front from the natural vertical. This creates a compensated Rx at the central axis of view.

This all affects the point of gaze and reduces unwanted Rx, axis or prism into the equation. Available in many fixed tints, Transitions and Polarised options SPORTOR-SV opens a new field of opportunities for lifestyle dispensing.

Ordering SPORTOR-SV HD :

- Patient's full prescription
- Optical centres & heights, as required
- Lens base curve
- Wrap angle
- Pantoscopic angle
- BVD trial and actual distance

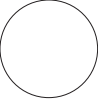
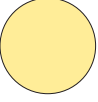



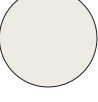
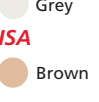
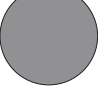
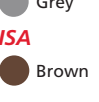
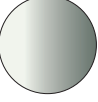
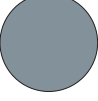




### Gloucester Sports Wraps & Specialist Rimless Centre

Installation of unique profiling computer-controlled milling and bevelling machine capacity at Gloucester, now enables hitherto impossible bevels to be achievable. Contact Norville Gloucester for all your sports wrap & specialist rimless requirements.



## - SPORTOR-SV HD AVAILABILITY -

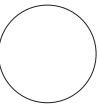
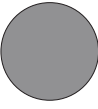


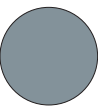



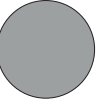
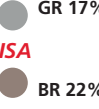
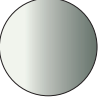

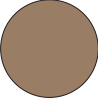
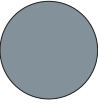


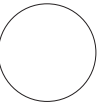
LENS CODE						COATING
1.53	PU53	<b>SPORTOR-SV HD TRILOGY</b>				HC✓
	T/N/A	 ISA	+ PLUS 4.00	76 = 81	MINUS - 3.00	XRF
1.53	PUYT	<b>SPORTOR-SV HD D.E. YELLOW CONTRAST TINT UV400 84% LTF</b>				HC✓
	DY	 ISA	+ PLUS 4.00	75 = 80	MINUS - 3.00	XRF
1.53	PUYT	<b>SPORTOR-SV HD BERKELEY YELLOW CONTRAST TINT UV400 62% LTF</b>				HC✓
	BY	 ISA	+ PLUS 4.00	75 = 80	MINUS - 3.00	XRF
1.53	PUYT	<b>SPORTOR-SV HD SUN TINT UV400 15% LTF</b>				HC✓
	GR/BR	 Grey ISA  Brown	+ PLUS 4.00	75 = 80	MINUS - 3.00	IN✓
1.53	PU53	<b>SPORTOR-SV HD TRILOGY Transitions®</b>				HC✓
	GR/BR	 Grey ISA  Brown	+ PLUS 4.00	76 = 81	MINUS - 3.00	XRF
1.53	PX53	<b>SPORTOR-SV HD TRILOGY Transitions® XTRActive 83% - 10% LTF</b>				HC✓
	GR/BR	 Grey ISA  Brown	+ PLUS 4.00	76 = 81	MINUS - 3.00	XRF
1.53	PV53	<b>SPORTOR-SV HD Transitions® Vantage® VARIABLE POLARISED 77% - 20% LTF</b>				HC✓
	GR		+ PLUS 4.00	75 = 80	MINUS - 3.00	
1.53	PUTP	<b>SPORTOR-SV HD TRILOGY NuPOLAR® POLARISED UV400 15% LTF</b>				HC✓
	GR/BR	 Grey ISA  Brown	+ PLUS 4.00	72 = 75	MINUS - 3.00	IN✓
1.53	PUDW	<b>SPORTOR-SV HD Transitions® DRIVEWEAR® 35% - 22% - 12%</b>				HC✓
		 ISA	+ PLUS 4.00	75 = 80	MINUS - 3.00	IN✓

\* All SPORTOR-SV lens forms also available as Slim Edge Technology (S.E.T.) Atoral design central 50mm with freeform edge blend to reduce substance.



# Digital Design Inner Surface Atoral SV

## - SPORTOR-SV HD AVAILABILITY -

LENS CODE							COATING
1.59	PU58	<b>SPORTOR-SV HD POLYCARB</b>					HC
	T20%	 ISA	+ PLUS	76 = 80	MINUS -	Also available PUV+ (10)	XRF PUV+
	PU5V		4.00		3.00	WRAP	XRF PUV+
1.59	PX58	<b>SPORTOR-SV HD Transitions® XTRActive 83% - 10% LTF</b> (10)					HC
	GR/BR	 Grey  Brown ISA	+ PLUS	75 = 80	MINUS -	WRAP	XRF
	PRPO	<b>SPORTOR-SV HD Transitions® DRIVEWEAR®</b> (10)					HC
1.59		 ISA	+ PLUS	72 = 77	MINUS -	WRAP	IN
	PP58	<b>SPORTOR-SV HD NUPOLAR® POLARISED UV400 15% LTF</b>					HC
1.59	GR/BR	 GR 17%	+ PLUS	73 = 78	MINUS -	WRAP	IN
	GN/CO	 BR 22%  GN 15%  CO 20% ISA	4.00		3.50		
	PP58	<b>SPORTOR-SV HD NUPOLAR®</b>					
1.59	GR/BR	 GR 17%  BR 22% ISA	+ PLUS	80 = 85	MINUS -	WRAP	IN
	PIPE	<b>SPORTOR-SV HD INFINITE NUPOLAR CHROMATIC 40% - 9% LT</b>					
1.59	GR/BR	 Grey  Brown Summer '18 ISA	+ PLUS	76 = 80	MINUS -	WRAP	IN
		PP58	<b>SPORTOR-SV HD POLARISED MELANIN 17% LTF</b> (10)				
1.59	MN	 ISA	+ PLUS	73 = 78	MINUS -	WRAP	IN
	PP58	<b>SPORTOR-SV HD POLARISED MIRROR COATED</b> (10)					HC
1.59	MB	 MB Blue on Grey 10%	+ PLUS	73 = 78	MINUS -	WRAP	IN
	MG/MS	 MG Gold on Brown 12%  MS Silver on Grey 10%	4.00		3.50		
	PU60	<b>SPORTOR-SV HD</b>					HC
1.60	T20%	 ISA	+ PLUS	75 = 80	MINUS -	WRAP	XRF
	PU6U		5.00		4.00	Also available UV410 Clear	HC UV410 XRF UV410

\* All SPORTOR-SV lens forms also available as Slim Edge Technology (S.E.T.) Atoral design central 50mm with freeform edge blend to reduce substance.

OPPOSITE CYLS TO 6.00DC UNLESS STATED

# Digital Design Inner Surface Atoral SV

## - SPORTOR-SV HD AVAILABILITY -

LENS CODE						COATING
1.60	PUNL	<b>SPORTOR-SV HD</b> NEO A1 CONTRAST UV400:580B 82% LT				
	T20%	ISA	+ PLUS 4.00	75 = 80	MINUS - 4.00	
1.60	NUNE	<b>SPORTOR-SV HD</b> NEO A2 CONTRAST UV400:580B 72% LT				
	T20%	ISA	+ PLUS 8.00	75	MINUS - 8.00	
1.60	PU60 ET	<b>SPORTOR-SV HD</b> EAGLE TINT BROWN 50% LTF				
	T20%	ISA	+ PLUS 4.00	80 = 85	MINUS - 4.00	
1.60	PX60 GR/BR	<b>SPORTOR-SV HD</b> Transitions® XTRActive 83% - 10% LTF				
		Grey Brown ISA	+ PLUS 5.00	73 = 78	MINUS - 4.00	
1.60	PP60 GR/BR GN	<b>SPORTOR-SV HD</b> NUPOLAR® POLARISED UV400 15% LTF				
		Grey Brown Green ISA	+ PLUS 5.00	72 = 77	MINUS - 4.00	
1.67	PU67	<b>SPORTOR-SV HD</b>				
	T20%	ISA	+ PLUS 6.00	75 = 85	MINUS - 4.50	
	PU7U					Also available UV410 Clear
1.67	PX67 GR/BR	<b>SPORTOR-SV HD</b> Transitions® XTRActive 83% - 10% LTF				
		Grey Brown ISA	+ PLUS 6.00	78 = 83	MINUS - 4.50	
1.67	PP67 GR/BR GN	<b>SPORTOR-SV HD</b> NUPOLAR® POLARISED UV400 15% LTF				
		Grey Brown Green ISA	+ PLUS 5.00	75 = 80	MINUS - 3.50	

\* All SPORTOR-SV lens forms also available as Slim Edge Technology (S.E.T.) Atoral design central 50mm with freeform edge blend to reduce substance.

OPPOSITE CYLS TO 6.00DC UNLESS STATED

## Booster HD



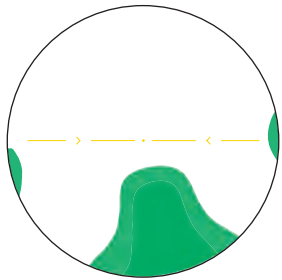
Booster New Generation digital design single vision lens for pre-presbyopia patients 25 to 40 years.

Those working for long periods at close fixed distances are only too aware that **visual fatigue** can set in: common symptoms of eye pain, dryness, gritty red eyes. It has been shown that the provision of a small plus area in the lower lens field can alleviate this. Norville has termed its lens **Booster**. Applicable to any lens material although we highly recommend this with Vista-Mesh, offering office workstation users even further advantages.

Booster power portion is available in three additive powers, +037 ("A"), +062 ("B"), or +087 ("C") depending on the accommodative needs of your patients.

Ideal for avid users of mobile phones and other digital hand-held gadgets.

Not to be overlooked, **every Booster design incorporates Digital HD** lens design for better all round sharper vision.



### Fitting:

- Order as if for standard distance SV correction
- Use mono PDs as if for PPL
- Advise pupil centre position (height) otherwise we fit on HCL
- Remember to specify Booster "A", "B" or "C"

### Lens Marking

Booster lenses are marked with two inward facing arrow heads representing the horizontal reference line. The material index is marked under the nasal  $\rangle$  arrow head, and the additive power, A, B or C under the temporal  $\langle$  arrow head.

Booster is set as for any other SV lens, however glazing technicians need to remember that the lens must be located with its **Booster element** at its **lower portion**.

### User Key Points

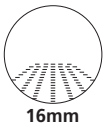
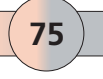
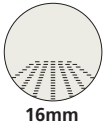
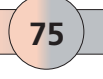
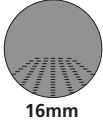
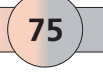
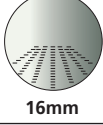
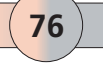


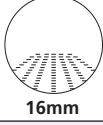
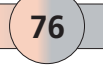
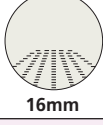
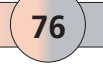
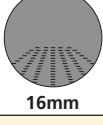
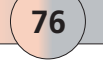
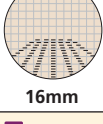
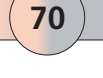
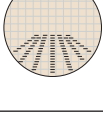

Widest clear distance, unrestricted peripheral.  
Stabilised inter & near zones across all adds.  
Higher levels of vision clarity achieved through HD finishing.

### Bespoke Booster

To recap: a Booster "power portion" can be specified to any surfaced single vision lens category (see ophthalmic lens catalogue).

# Digital Inner Surface Pre-presbyopia

## - Booster AVAILABILITY -

	LENS CODE					COATING		
1.50	B050	<b>Booster</b> HD	 <p>Order as standard DISTANCE SV with Booster Code                      BOOSTER "A" = +037                      BOOSTER "B" = +062                      BOOSTER "C" = +087</p>	+ PLUS 8.00	 75	MINUS - 8.00	Booster reading area	UNC
	T20%	HC✓						
	X RF							
1.50	B050	<b>Booster</b> HD <b>Transitions</b>	 <p>Order as standard DISTANCE SV with Booster Code                      BOOSTER "A" = +037                      BOOSTER "B" = +062                      BOOSTER "C" = +087</p>	+ PLUS 8.00	 75	MINUS - 8.00	Booster reading area	HC✓
	GR/BR /GN	X RF						
1.50	BX50	<b>Booster</b> HD <b>Transitions</b> XTRActive 83% - 10% LTF	 <p>Order as standard DISTANCE SV with Booster Code                      BOOSTER "A" = +037                      BOOSTER "B" = +062                      BOOSTER "C" = +087</p>	+ PLUS 8.00	 75	MINUS - 8.00	Booster reading area	HC✓
	GR/BR	X RF						
1.50	BI50	<b>Booster</b> HD <b>INFINITE NUPOLAR CHROMATIC</b> 40% - 9% LT	 <p>Order as standard DISTANCE SV with Booster Code                      BOOSTER "A" = +037                      BOOSTER "B" = +062                      BOOSTER "C" = +087</p>	+ PLUS 6.00	 76	MINUS - 8.00	Booster reading zone	 Grey  Brown Summer '18
	GR/BR	IN✓						
1.53	B053	<b>Booster</b> HD <b>TRILOGY</b>	 <p>Order as standard DISTANCE SV with Booster Code                      BOOSTER "A" = +037                      BOOSTER "B" = +062                      BOOSTER "C" = +087</p>	+ PLUS 7.50	 76	MINUS - 8.00	Booster reading area	HC✓
	T N/A	X RF						
1.53	B053	<b>Booster</b> HD <b>TRILOGY Transitions</b>	 <p>Order as standard DISTANCE SV with Booster Code                      BOOSTER "A" = +037                      BOOSTER "B" = +062                      BOOSTER "C" = +087</p>	+ PLUS 7.50	 76	MINUS - 8.00	Booster reading area	HC✓
	GR/BR	X RF						
1.53	BOX5	<b>Booster</b> HD <b>TRILOGY Transitions</b> XTRActive 83% - 10% LTF	 <p>Order as standard DISTANCE SV with Booster Code                      BOOSTER "A" = +037                      BOOSTER "B" = +062                      BOOSTER "C" = +087</p>	+ PLUS 7.50	 76	MINUS - 8.00	Booster reading area	HC✓
	GR/BR	X RF						
1.56	MESB	<b>Booster</b> HD <b>VISTA-MESH UV385 BROWN 90% LTF FILTER</b>	 <p>Order as standard DISTANCE SV with Booster Code                      BOOSTER "A" = +037                      BOOSTER "B" = +062                      BOOSTER "C" = +087</p>	+ PLUS 8.00	 70	MINUS - 8.00	Booster reading area	X RF
1.56	MESB	<b>Booster</b> HD <b>VISTA-MESH Reactolite PHOTOCROMIC BROWN</b>	 <p>Order as standard DISTANCE SV with Booster Code                      BOOSTER "A" = +037                      BOOSTER "B" = +062                      BOOSTER "C" = +087</p>	+ PLUS 8.00	 70	MINUS - 8.00	Booster reading zone	P RF
	RB15							

# Digital Inner Surface Pre-presbyopia

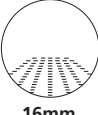
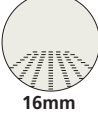
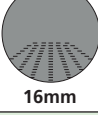
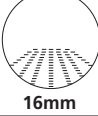
## - Booster AVAILABILITY -

	LENS CODE				COATING
1.56	BOBT	<b>Booster</b> HD BT66 FILTER	<p>Order as standard DISTANCE SV with Booster Code                      BOOSTER "A" = +037                      BOOSTER "B" = +062                      BOOSTER "C" = +087</p> <p>Booster reading zone</p>	+ PLUS 7.00 75 8.00 MINUS - 8.00	
1.58	BOBP	<b>Booster</b> HD MID INDEX BT70 FILTER	<p>Order as standard DISTANCE SV with Booster Code                      BOOSTER "A" = +037                      BOOSTER "B" = +062                      BOOSTER "C" = +087</p> <p>Booster reading area</p>	+ PLUS 5.00 76 8.00 MINUS - 8.00	
1.59	B059	<b>Booster</b> HD POLYCARB	<p>Order as standard DISTANCE SV with Booster Code                      BOOSTER "A" = +037                      BOOSTER "B" = +062                      BOOSTER "C" = +087</p> <p>Booster reading area</p>	+ PLUS 8.00 76 8.00 MINUS - 8.00	
	B05V				Also available PUV+ PUV+
1.59	B059	<b>Booster</b> HD POLYCARB <b>Transitions</b>	<p>Order as standard DISTANCE SV with Booster Code                      BOOSTER "A" = +037                      BOOSTER "B" = +062                      BOOSTER "C" = +087</p> <p>Booster reading area</p>	+ PLUS 7.00 76 8.00 MINUS - 8.00	
1.59	BI59	<b>Booster</b> HD INFINITE NUPOLAR CHROMATIC 40% - 9% LT	<p>Order as standard DISTANCE SV with Booster Code                      BOOSTER "A" = +037                      BOOSTER "B" = +062                      BOOSTER "C" = +087</p> <p>Booster reading zone</p>	+ PLUS 6.00 76 8.00 MINUS - 8.00	
1.60	B060	<b>Booster</b> HD	<p>Order as standard DISTANCE SV with Booster Code                      BOOSTER "A" = +037                      BOOSTER "B" = +062                      BOOSTER "C" = +087</p> <p>Booster reading area</p>	+ PLUS 8.00 75 8.00 10.00 MINUS - 70	
	B06U				Also available in UV410 Clear UV410
1.60	B060	<b>Booster</b> HD <b>Transitions</b>	<p>Order as standard DISTANCE SV with Booster Code                      BOOSTER "A" = +037                      BOOSTER "B" = +062                      BOOSTER "C" = +087</p> <p>Booster reading area</p>	+ PLUS 8.00 75 8.00 10.00 MINUS - 70	
1.67	B067	<b>Booster</b> HD	<p>Order as standard DISTANCE SV with Booster Code                      BOOSTER "A" = +037                      BOOSTER "B" = +062                      BOOSTER "C" = +087</p> <p>Booster reading area</p>	+ PLUS 8.00 75 8.00 10.00 MINUS - 70	
	B07U				Also available UV410 Clear UV410
1.67	B067	<b>Booster</b> HD <b>Transitions</b>	<p>Order as standard DISTANCE SV with Booster Code                      BOOSTER "A" = +037                      BOOSTER "B" = +062                      BOOSTER "C" = +087</p> <p>Booster reading area</p>	+ PLUS 8.00 75 8.00 MINUS - 8.00	

\*Note: Tints available on these products from 80% to 20% LTF - price excludes tint cost.

# Digital Inner Surface Pre-presbyopia

## - Booster AVAILABILITY -

LENS CODE		COATING	
1.74	B074 T N/A	<b>Booster HD</b>  16mm Order as standard DISTANCE SV with Booster Code BOOSTER "A" = +037 BOOSTER "B" = +062 BOOSTER "C" = +087 + PLUS 10.00 75 MINUS - 10.00 Booster reading area	RF K
	B074 GR/BR	<b>Booster HD Transitions</b>  16mm Order as standard DISTANCE SV with Booster Code BOOSTER "A" = +037 BOOSTER "B" = +062 BOOSTER "C" = +087 + PLUS 10.00 75 MINUS - 10.00 Booster reading area	RF K
	BOHY T20%	<b>Booster HD TINTABLE*</b>  16mm Order as standard DISTANCE SV with Booster Code BOOSTER "A" = +037 BOOSTER "B" = +062 BOOSTER "C" = +087 + PLUS 10.00 75 MINUS - 10.00 Booster reading area	RF K
1.76	B076 T N/A	<b>Booster HD</b>  16mm Order as standard DISTANCE SV with Booster Code BOOSTER "A" = +037 BOOSTER "B" = +062 BOOSTER "C" = +087 + PLUS 10.00 75 MINUS - 10.00 Booster reading area	RF K


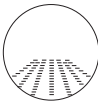



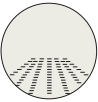


\*Note: Tints available on these products from 80% to 20% LTF - price excludes tint cost.

OPPOSITE CYLS TO 6.00DC UNLESS STATED



# Digital Inner Surface Pre-presbyopia

## - Booster MINERAL AVAILABILITY -

LENS CODE		COATING	
1.523	BG52	<b>Booster HD</b>	
	T N/A	 <p>Order as standard DISTANCE SV with Booster Code</p> <p>BOOSTER "A" = +037 BOOSTER "B" = +062 BOOSTER "C" = +087</p> <p>Booster reading zone</p>	
1.60	BG60	<b>Booster HD</b>	
	T N/A	 <p>Order as standard DISTANCE SV with Booster Code</p> <p>BOOSTER "A" = +037 BOOSTER "B" = +062 BOOSTER "C" = +087</p> <p>Booster reading zone</p>	
1.60	BG60	<b>Booster HD</b> PHOTOGREY OR PHOTOBROWN	
	PE/BP T N/A	 <p>Order as standard DISTANCE SV with Booster Code</p> <p>BOOSTER "A" = +037 BOOSTER "B" = +062 BOOSTER "C" = +087</p> <p>Booster reading zone</p>	
1.70	BG70	<b>Booster HD</b>	
	T N/A	 <p>Order as standard DISTANCE SV with Booster Code</p> <p>BOOSTER "A" = +037 BOOSTER "B" = +062 BOOSTER "C" = +087</p> <p>Booster reading zone</p>	

\*Note: Tints available on these products from 80% to 20% LTF - price excludes tint cost.

# Booster

## Inner Surface Single Vision (Pre-presbyopia)

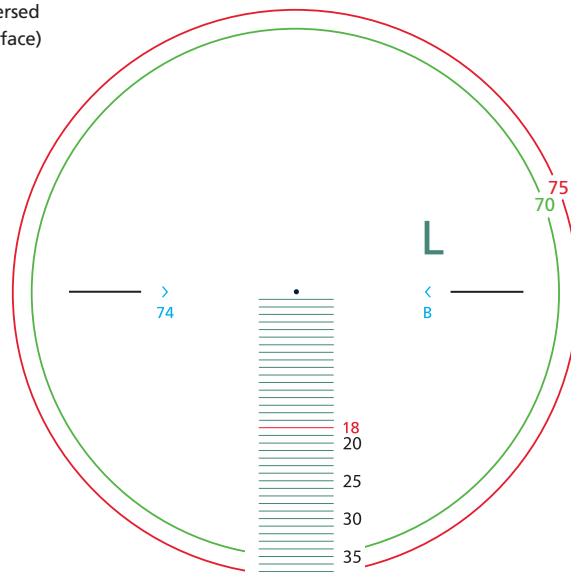
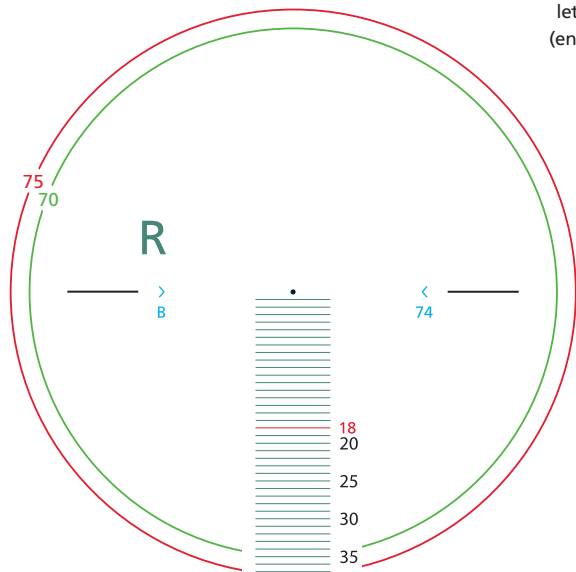
Right Eye

Effective Diameter Chart

Left Eye

Viewed from front

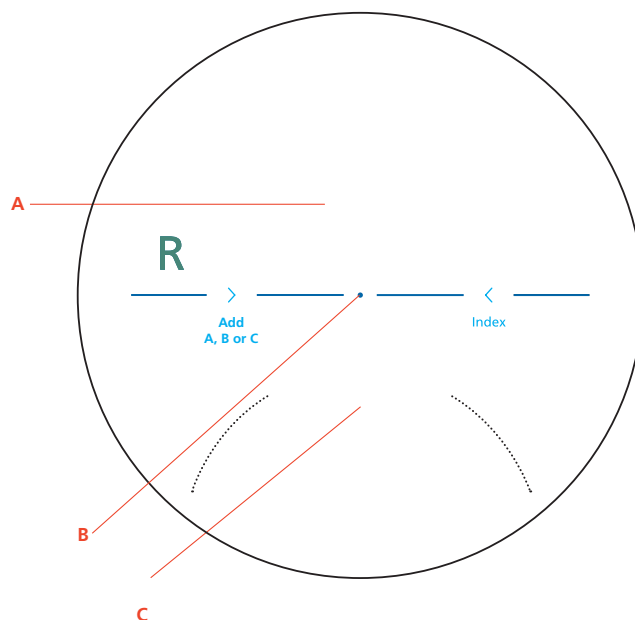
NB: In practice the engraving lettering shown will be reversed (engraved from the back surface)



### Lens Marking Layout

Index is shown as:

1.50 CR39	50
1.53 Trivex	53
1.56	56
1.59 Polycarb	59
1.60	60
1.67	67
1.74	74
1.76	76



- Permanent engraved marks
- Removable ink markings

Right eye uncut **viewed from front**

**A** : far vision

**B** : fitting cross coincident with prism reference point

**C** : near vision area



Manufactured in our Gloucester UK Laboratories

## VERSATILE - Two-Focus Degressive



Using an old fashioned one-focus reading lens has the inconvenience of not providing intermediate vision, causing the wearer to adjust for the various distances required for today's electronic environment and constantly to remove their spectacles. The **Versatile degressive** lens is a **two-focus reading lens** with a negative power degression, giving the wearer that versatility of vision that they used to enjoy. Versatile degressives are produced using progressive production technology. Not to be confused with occupational progressive (a 3-focus lens) differentiated by featuring a range of plus additions.

Versatile degressives have a lesser (minus) power in their upper portion. For those spectacle wearers with failing accommodation for near then degressives are the complete answer. For **intermediate and near**, not just for computer users, but all those troubled by ageing vision; particularly useful for trades persons (e.g. painters, electricians) needing to achieve closer work distances, health professionals etc. This is an all round lens for home office and work use.

These lenses are suitable for all presbyopic patients: early presbyopes who do not like their distance vision being blurred and those older presbyopes who have lost their accommodation.



This lens can be regarded as either a static or dynamic lens. The static is for users that just require inter and near. For example, high amount of computer use. For these people use the lower degressions, e.g. a +1.75 reading use -0.75 degression. Dynamic is for people who have a more mobile requirement, such as a PA, librarian or someone working on a till. For these people a +1.75 reading would be better with a -1.25 degression. The unique Norville Versatile Degressive Set allows easy Px assessment of their requirements without incurring any re-orders.

Thousands of potential users haven't yet been introduced to this immensely useful lens form by their Optician. As an example, Transitions Versatile degressives are just great for site surveyors and others on outdoor construction projects. Potential uses are extensive, from deep mines to deep space, wherever ageing human eyes need to respond to close detail. The various Versatile designs are formed by digital design and free-form lens production (excepting clear CR39 version).

Versatile lenses improve the posture of bifocal or progressive lens wearers constantly dealing with computer terminals, reducing neck or shoulder pain.

Free-form Versatile lenses have the following identifying markings:


  
**60**                      **-125**

to identify horizontal line and top/bottom (degressive power to bottom).

Material (\*other than CR39) indicated by 60 = 1.60 index, 67 = 1.67 index, etc. Norville Versatile is available in nine degressive (minus) powers -0.50, -0.75, -1.25, -1.50, -1.75, -2.00, -2.25 and -2.50. Norville can produce Versatile in any index, material or tint (see page 62).

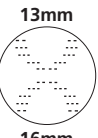


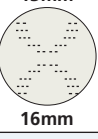


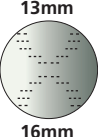


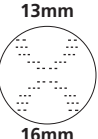








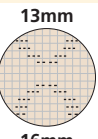


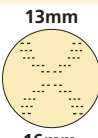


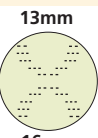



Versatile Fitting Set

This lens product is hugely beneficial to both practice and patient. Versatile is available in most lens materials in the ophthalmic lens price list but where not as standard can be individually specified as **bespoke dispensing**.

# Enhanced Reading Lens

## - VERSATILE AVAILABILITY -

LENS CODE					COATING	
1.50	OFFP	<b>VERSATILE OFFICE</b>				UNC
	T20%	 13mm 16mm	+ PLUS 7.00	 71 76	MINUS - 7.00	Order by reading Rx Distance PDs <b>Inner Design</b> Front Design
DEGRESSIONS -0.50, -0.75, -1.00, -1.25, -1.50, -1.75, -2.00, -2.25, -2.50 DS						
For reference only. White CR39 may not always be free-form production.						
1.50	OFFP	<b>VERSATILE OFFICE</b>  <b>Transitions</b>				HC/
	GR/BR /GN	 13mm 16mm	+ PLUS 7.00	 75	MINUS - 7.00	Order by reading Rx Distance PDs
DEGRESSIONS -0.50, -0.75, -1.00, -1.25, -1.50, -1.75, -2.00, -2.25, -2.50 DS						
1.50	OFFP	<b>VERSATILE OFFICE</b>  <b>INFINITE NUPOLAR CHROMATIC 40% - 9% LT</b>				IN
	GR/BR	 13mm 16mm	+ PLUS 6.00	 76	MINUS - 8.00	Order by reading Rx Distance PDs
DEGRESSIONS -0.50, -0.75, -1.00, -1.25, -1.50, -1.75, -2.00, -2.25, -2.50 DS						
1.53	OFTR	<b>TRILOGY VERSATILE OFFICE</b> 				HC/
	T N/A	 13mm 16mm	+ PLUS 7.50	 76	MINUS - 8.00	Order by reading Rx Distance PDs
DEGRESSIONS -0.50, -0.75, -1.00, -1.25, -1.50, -1.75, -2.00, -2.25, -2.50 DS						
1.53	OFTR	<b>TRILOGY VERSATILE OFFICE</b>  <b>Transitions</b>				HC/
	GR/BR	 13mm 16mm	+ PLUS 7.50	 76	MINUS - 8.00	Order by reading Rx Distance PDs
DEGRESSIONS -0.50, -0.75, -1.00, -1.25, -1.50, -1.75, -2.00, -2.25, -2.50 DS						
1.53	OFXR	<b>TRILOGY VERSATILE OFFICE</b>  <b>Transitions XTRActive 83% - 10% LTF</b>				HC/
	GR/BR	 13mm 16mm	+ PLUS 7.50	 76	MINUS - 8.00	Order by reading Rx Distance PDs
DEGRESSIONS -0.50, -0.75, -1.00, -1.25, -1.50, -1.75, -2.00, -2.25, -2.50 DS						
1.56	VESH	<b>VISTA-MESH</b>  <b>VERSATILE OFFICE UV385 BROWN 90% LT</b>				XRF
		 13mm 16mm	+ PLUS 8.00	 70	MINUS - 8.00	Order by reading Rx Distance PDs
DEGRESSIONS -0.50, -0.75, -1.00, -1.25, -1.50, -1.75, -2.00, -2.25, -2.50 DS						
1.56	OFBT	<b>VERSATILE</b>  <b>BT66 FILTER</b>				XRF
		 13mm 16mm	+ PLUS 6.00	 75	MINUS - 8.00	Order by reading Rx Distance PDs
DEGRESSIONS -0.50, -0.75, -1.00, -1.25, -1.50, -1.75, -2.00, -2.25, -2.50 DS						
1.58	OPBT	<b>VERSATILE</b>  <b>MID INDEX BT70 FILTER</b>				XRF
		 13mm 16mm	+ PLUS 5.00	 75	MINUS - 8.00	Order by reading Rx Distance PDs
DEGRESSIONS -0.50, -0.75, -1.00, -1.25, -1.50, -1.75, -2.00, -2.25, -2.50 DS						

OPPOSITE CYLS TO 6.00DC UNLESS STATED

# Enhanced Reading Lens

## - VERSATILE AVAILABILITY -

LENS CODE		COATING	
1.59	OFLY T20%	<b>VERSATILE OFFICE HD POLYCARB</b> 13mm  16mm + PLUS 6.00 <b>80</b> MINUS - 3.50 DEGRESSIONS -0.50, -0.75, -1.00, -1.25, -1.50, -1.75, -2.00, -2.25, -2.50 DS Order by reading Rx Distance PDs	
	OFLT GR/BR	<b>VERSATILE OFFICE HD POLYCARB Transitions®</b> 13mm  16mm Grey Brown + PLUS 6.00 <b>76</b> MINUS - 6.00 DEGRESSIONS -0.50, -0.75, -1.00, -1.25, -1.50, -1.75, -2.00, -2.25, -2.50 DS Order by reading Rx Distance PDs	 
1.59	OFLI GR/BR	<b>VERSATILE OFFICE HD INFINITE NUPOLAR CHROMATIC 40% - 9% LT</b> 13mm  16mm Grey Brown Summer '18 + PLUS 6.00 <b>76</b> MINUS - 8.00 DEGRESSIONS -0.50, -0.75, -1.00, -1.25, -1.50, -1.75, -2.00, -2.25, -2.50 DS Order by reading Rx Distance PDs	
	OFF6 T20%	<b>VERSATILE OFFICE HD</b> 13mm  16mm + PLUS 8.00 <b>75</b> MINUS - 8.00 DEGRESSIONS -0.50, -0.75, -1.00, -1.25, -1.50, -1.75, -2.00, -2.25, -2.50 DS Order by reading Rx Distance PDs Also available UV410 Clear	  UV410 UV410
1.60	OFF6 GR/BR	<b>VERSATILE OFFICE HD Transitions®</b> 13mm  16mm Grey Brown + PLUS 8.00 <b>70</b> MINUS - 8.00 DEGRESSIONS -0.50, -0.75, -1.00, -1.25, -1.50, -1.75, -2.00, -2.25, -2.50 DS Order by reading Rx Distance PDs	 
	OFF6X GR/BR	<b>VERSATILE OFFICE HD Transitions® XTRActive® 83% - 10% LTF</b> 13mm  16mm Grey Brown + PLUS 8.00 <b>72</b> MINUS - 8.00 DEGRESSIONS -0.50, -0.75, -1.00, -1.25, -1.50, -1.75, -2.00, -2.25, -2.50 DS Order by reading Rx Distance PDs	 
1.60	OTR6 TNA	<b>TRIBRID VERSATILE OFFICE HD</b> 13mm  16mm + PLUS 8.00 <b>75</b> MINUS - 10.00 DEGRESSIONS -0.50, -0.75, -1.00, -1.25, -1.50, -1.75, -2.00, -2.25, -2.50 DS Order by reading Rx Distance PDs	 
	OF67 T20%	<b>VERSATILE OFFICE HD</b> 13mm  16mm + PLUS 8.00 <b>75</b> MINUS - 8.00 DEGRESSIONS -0.50, -0.75, -1.00, -1.25, -1.50, -1.75, -2.00, -2.25, -2.50 DS Order by reading Rx Distance PDs Also available UV410 Clear	  UV410 UV410
1.67	OF7U	<b>VERSATILE OFFICE HD</b> 13mm  16mm + PLUS 8.00 <b>75</b> MINUS - 8.00 DEGRESSIONS -0.50, -0.75, -1.00, -1.25, -1.50, -1.75, -2.00, -2.25, -2.50 DS Order by reading Rx Distance PDs Also available UV410 Clear	  UV410 UV410
	OF67 GR/BR /GN	<b>VERSATILE OFFICE HD Transitions®</b> 13mm  16mm Grey Brown + PLUS 8.00 1.50 <b>75</b> MINUS - 8.00 DEGRESSIONS -0.50, -0.75, -1.00, -1.25, -1.50, -1.75, -2.00, -2.25, -2.50 DS Order by reading Rx Distance PDs	 

\*Note: Tints available on these products from 80% to 20% LTF - price excludes tint cost.

OPPOSITE CYLS TO 6.00DC UNLESS STATED

# Enhanced Reading Lens

## - VERSATILE AVAILABILITY -

LENS CODE					COATING
1.67	OX67 GR/BR	<b>VERSATILE OFFICE HD Transitions® XTRActive™ 83% - 10% LTF</b>  13mm Grey 16mm Brown	+ PLUS 7.00	MINUS - 8.00	  
		DEGRESSIONS -0.50, -0.75, -1.00, -1.25, -1.50, -1.75, -2.00, -2.25, -2.50 DS Order by reading Rx Distance PDs			
1.74	OF74 T N/A	<b>VERSATILE OFFICE HD</b>  13mm 16mm	+ PLUS 8.00	MINUS - 8.00	
		DEGRESSIONS -0.50, -0.75, -1.00, -1.25, -1.50, -1.75, -2.00, -2.25, -2.50 DS Order by reading Rx Distance PDs			
1.74	OFHY T20%	<b>VERSATILE OFFICE HD TINTABLE*</b>  13mm 16mm	+ PLUS 8.00	MINUS - 8.00	
		DEGRESSIONS -0.50, -0.75, -1.00, -1.25, -1.50, -1.75, -2.00, -2.25, -2.50 DS Order by reading Rx Distance PDs			
1.74	OF74 GR/BR	<b>VERSATILE OFFICE HD Transitions®</b>  13mm Grey 16mm Brown	+ PLUS 8.00	MINUS - 8.00	
		DEGRESSIONS -0.50, -0.75, -1.00, -1.25, -1.50, -1.75, -2.00, -2.25, -2.50 DS Order by reading Rx Distance PDs			
1.52	OG52 T N/A	<b>VERSATILE OFFICE HD MINERAL</b>  13mm MINERAL 16mm	+ PLUS 8.00	MINUS - 8.00	
		DEGRESSIONS -0.50, -0.75, -1.00, -1.25, -1.50, -1.75, -2.00, -2.25, -2.50 DS Order by reading Rx Distance PDs			
1.52	OG52 PE/BP	<b>VERSATILE OFFICE HD PHOTOGREY OR PHOTOBROWN MINERAL</b>  13mm Grey 16mm Brown	+ PLUS 8.00	MINUS - 8.00	
		DEGRESSIONS -0.50, -0.75, -1.00, -1.25, -1.50, -1.75, -2.00, -2.25, -2.50 DS Order by reading Rx Distance PDs			
1.60	OG60 T N/A	<b>VERSATILE OFFICE HD MINERAL</b>  13mm MINERAL 16mm	+ PLUS 8.00	MINUS - 8.00	
		DEGRESSIONS -0.50, -0.75, -1.00, -1.25, -1.50, -1.75, -2.00, -2.25, -2.50 DS Order by reading Rx Distance PDs			
1.60	OG60 PE/BP	<b>VERSATILE OFFICE HD PHOTOGREY OR PHOTOBROWN MINERAL</b>  13mm Grey 16mm Brown	+ PLUS 8.00	MINUS - 8.00	
		DEGRESSIONS -0.50, -0.75, -1.00, -1.25, -1.50, -1.75, -2.00, -2.25, -2.50 DS Order by reading Rx Distance PDs			
1.70	OG70 T N/A	<b>VERSATILE OFFICE HD MINERAL</b>  13mm MINERAL 16mm	+ PLUS 8.00	MINUS - 10.00	
		DEGRESSIONS -0.50, -0.75, -1.00, -1.25, -1.50, -1.75, -2.00, -2.25, -2.50 DS Order by reading Rx Distance PDs			

\*Note: Tints available on these products from 80% to 20% LTF - price excludes tint cost.

OPPOSITE CYLS TO 6.00DC UNLESS STATED



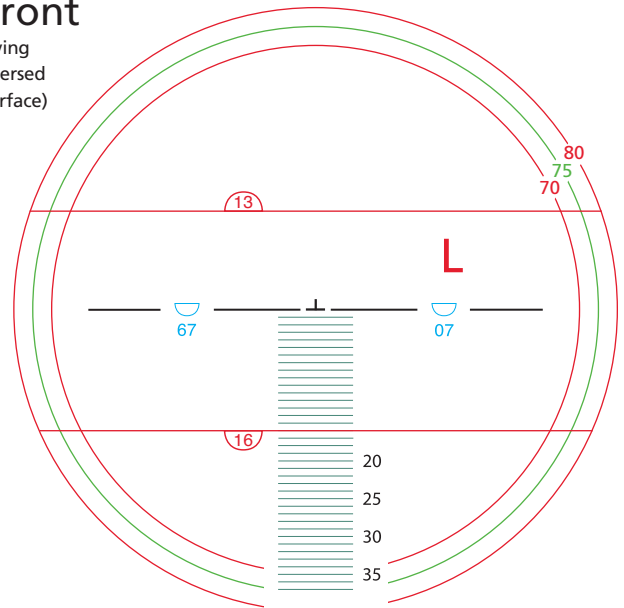
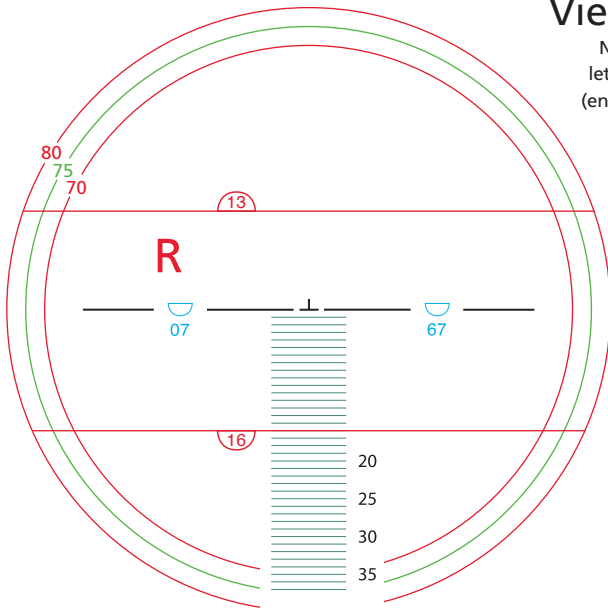
# VERSATILE

## Inner Surface Degressive

Right Eye Effective Diameter Chart Left Eye

Viewed from front

NB: In practice the engraving lettering shown will be reversed (engraved from the back surface)



Lens Marking Layout

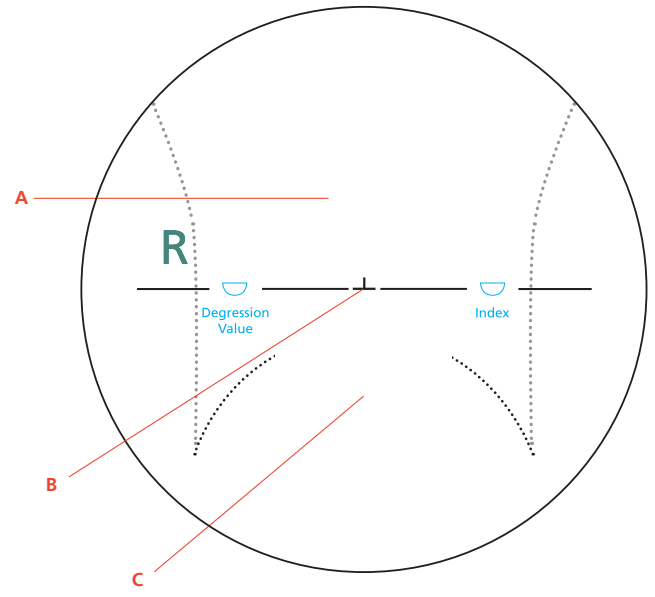
Degression is shown as:		Index is shown as:	
-0.50	05	1.50 CR39	50
-0.75	07	1.53 Trivex	53
-1.00	10	1.56	56
-1.25	12	1.59 Polycarb	59
-1.50	15	1.60	60
-1.75	17	1.67	67
-2.00	20	1.74	74
-2.25	22		
-2.50	25		

**Ordering Versatile:**  
 Order by **Reading** prescription and state **Minus** degression value required, either -0.50, -0.75, -1.00, -1.25, -1.50, -1.75, -2.00, -2.25 or -2.50. State **Distance PD** and **Pupil Heights**.  
 Note: As a rule of thumb the degression value is approximately 0.50 less than the reading add.

Versatile Design

Minimum Fitting Height <i>(from lowest tangent top of bottom rim)</i>	Minimum Fitting Height <i>(from top rim)</i>	Minimum Frame Depth	Fitting Cross Height above PRP
Min 16mm	Min 12mm	28mm+	0mm
from PRP to bottom	PRP to top		fit to pupil centre

TO VERIFY POWER MEASURE IN LOWER READING AREA (NOT DISTANCE).  
 Special Note: The clear (or tinted) CR39 range carries different markings.  
 \*CR39 only markings: + + -125



- Permanent engraved marks
  - Removable ink markings
- Right eye uncut **viewed from front**  
**A** : inter degression  
**B** : fitting cross on PRP and prism reference point  
**C** : near vision - power check point



### *Slim Edge Technology*

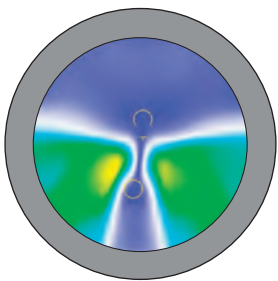
#### Reduced Edge Blend - Minus & Plus Rxs



New free-form lens processing technology enables the reduction of lens edge substance by creating a subtle blend-off edge effect. In minus Rxs this physically removes the outer edge curve then blend polishes over. This reducing concatenation of curves effects a very useful thickness reduction whilst avoiding a visible rimmed lenticular bowl.

Particularly clever with plus lenses, where creating a steeper minus curve just at the edge means that it becomes a thicker edge, which then enables a further reduction of centre substance to again achieve that original edge substance as specified for glazing. SET is generally based around a 50mm clear central zone, although this can be altered both larger and smaller.

Whilst the most effective way to reduce edge thickness (negative power lenses) is always to specify the highest index, having done just that any further edge reduction will only be achieved by smaller eye sizes or lesser decentration.



#### Regular spherical curves



CR39  
+8.00 base, -4.00 DS

#### Same lens as above but SET



**S.E.T.** wrap CR39  
+8.00 base, -4.00 DS

- Sportor optics design but with Slim Edge Technology.
- Unique technology reduces both plus and minus lens thickness.
- Edge and centre reduction achieved with Slim Edge Technology.

This circular bowl edge reduction process can be applied to

**ULTOR** *SPORTPAL* **NORTOR** *SPORTOR-SV*

Available in plus or minus Rx powers.

(previously coded RECRE)

#### **PS. PRESCRIBER'S HOT TIP**

We have noted some phenomenal outcomes vis -13.00 Ultor Transitions into an upswept frame & -8.50 mirrored sunspec lenses into an Aviator shape!

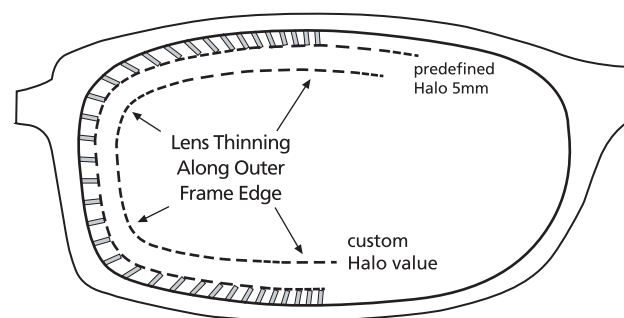
## Slim Edge Technology

### Nortor - Sportor Shape Blend

Modern technology enables the exact frame shape to be input along with the lens power information to simultaneously output a blended periphery design enabling cosmetic edge reduction. Remarkably this is equally effective on plus powers as it is on minus. Available to any Nortor, Sportor or SportPAL lens design in any index. Shape edge blend should be visually indiscernible to the user as only 5mm of extreme edge is involved although super shape blend, involving deeper edge blending (reducing visual field) is available to special instruction.

#### Blend Width

- Standard blend width is predefined by the software at 5mm.
- Nevertheless we can further increase this design blend width when requested.
- Blend width and final edge thickness of the lens are directly related.
- Compatible with any Nortor material.

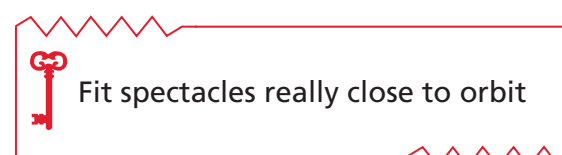


The wider the blend, the thinner the lens will be, but it will reduce the optimum visual region.

Combining this with Nortor enables the best of two worlds: fine optics over the available area of the lens plus the advantage of thinner edge or centre substances. This result is an optical and cosmetic win, win.

Whilst the upside is considerably thinner edge appearance the downside is reduced clear aperture. With spectacles fitted closer, with the Px a head turner any blinkers effect can be minimised.

The key to Px acceptance is their desire to obtain cosmetics over visual perfection. Head turners will find little issue, except when reversing the car!



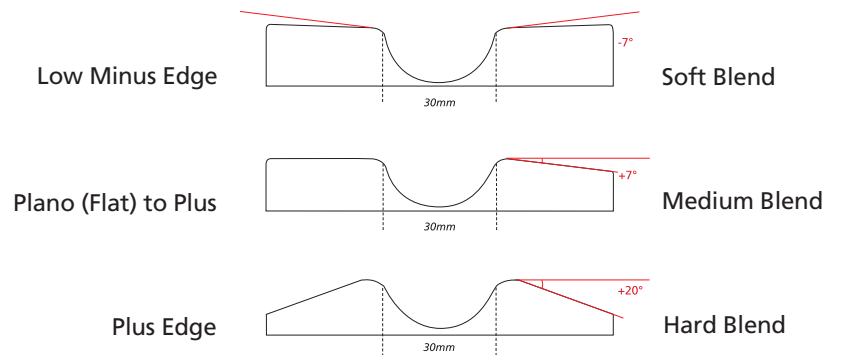
## Resin Super Lenti - VARIABLE BLENDED APERTURES

By cutting and polishing lower minus curves, or a plano flattening curve, to around that of the vertical spectacle frame aperture dimension, e.g. 32-35-40mm, the edge thickness (ET) considerably reduces to an average of 50% edge thickness reduction. The visibility of the blend can be modified by specifying the flattening blend.

-12.00 ET at 40mm\* bowl aperture

Index	mm
1.60	5.9
1.67	5.2
1.74	4.7

\*Calculated to regular working centre thickness (CT)



The clear vision centre aperture can be varied in diameter on demand.


Lenses with spheres, cylinders (virtually no limits) and reading additions (ULTORs) can be achieved.

The optical surface produced, even at extreme powers, is an atoral design not just spherical/toric i.e. HD optical surface. No engraved markings.

## Range chart

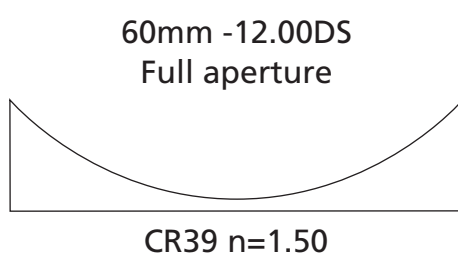
Material	Max. Minus			
	1.50 index	1.60 index	1.67 index	1.74 index
Clear	-16.00	-18.00	-20.00	-28.00
Transitions	-	-18.00	-18.00	-25.00
Transitions XTRActive	-	-18.00	-18.00	-

## Higher Minus Powers and Larger Eye Sizes

 The larger the diameter and higher the minus power naturally the thicker the edge substance (ET).

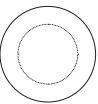

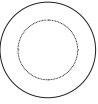



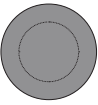

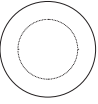

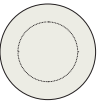

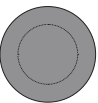

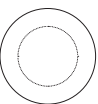
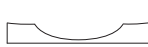
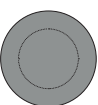
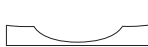
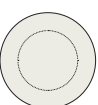



-12.00 ET at 60mm\* full aperture



Index	mm
1.50	14.8
1.53	13.2
1.59	11.9
1.60	11.8
1.67	10.3
1.74	9.2

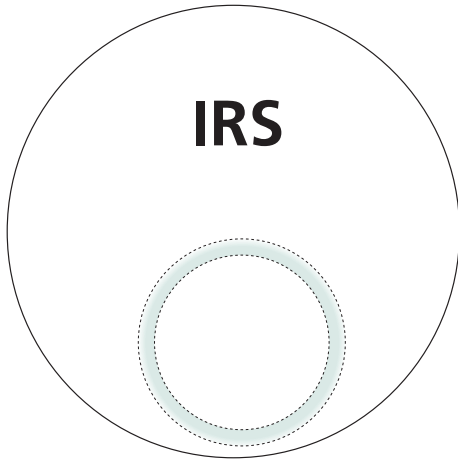
# Resin Super Lenti - High Minus Solutions

	LENS CODE					COATING
1.50	RSL5	<b>NORTOR-SV HD SUPER-LENTI</b>	 <i>ISA</i>		65 MINUS - 10.00 18.00	(10) UNC
1.60	RSL6	<b>NORTOR HD SUPER-LENTI</b>	T20%  <i>ISA</i>		65 MINUS - 11.00 18.00	(10) HC X RF
1.60	RSL6 GR/BR /GN	<b>NORTOR HD SUPER-LENTI Transitions</b>	 Grey Brown <i>ISA</i> Green		65 MINUS - 12.00 18.00	(10) HC X RF
1.60	RS6X GR/BR	<b>NORTOR HD SUPER-LENTI Transitions XTRActive</b>	 Grey <i>ISA</i> Brown		65 MINUS - 12.00 18.00	(10) HC X RF
1.67	RSL7	<b>NORTOR HD SUPER-LENTI</b>	T20%  <i>ISA</i>		65 MINUS - 12.00 20.00	(10) HC X RF
1.67	RSL7 GR/BR /GN	<b>NORTOR HD SUPER-LENTI Transitions</b>	 Grey Brown <i>ISA</i> Green		65 MINUS - 12.00 18.00	(10) HC X RF
1.67	RSLX GR/BR	<b>NORTOR HD SUPER-LENTI Transitions XTRActive</b>	 Grey <i>ISA</i> Brown		65 MINUS - 12.00 18.00	(10) HC X RF
1.74	RSL4	<b>NORTOR HD SUPER-LENTI</b>	T N/A  <i>ISA</i>		65 MINUS - 14.00 28.00	(10) RF K
1.74	RSHY	<b>NORTOR HD SUPER-LENTI TINTABLE*</b>	T20%  <i>ISA</i>		65 MINUS - 10.00 25.00	(10) RF K
1.74	RSL4 GR/BR	<b>NORTOR HD SUPER-LENTI Transitions</b>	 Grey <i>ISA</i> Brown		65 MINUS - 10.00 25.00	(10) RF K

\*Note: Tints available on this product from 80% to 20% LTF - price excludes tint cost.

# HD IRS Bifocal RD28 Seamless

## Digital Free-form Bifocal



Available 15 to 50mm segments\*  
 Adds +0.50 to 6.00  
 2.5mm blend  
 Fit 3mm below pupil  
 WIDE HD distance  
 and near visual  
 No oblique astigmatism

\* where no size stated 28mm supplied

Ironically, in the style of those old glass solid bifocals (segments on the concave inside surface), free-form manufacturing allows us to produce a round segment bifocal design. But there the similarity to old style bifocals ceases! As with inner surface progressive designs, that **segment also incorporates any cylindrical element!** Who would have ever thought a cylindrical power round segment addition would be possible? Traditionally, these would have been spherical additions with the cylinder power on the opposite convex lens surface.

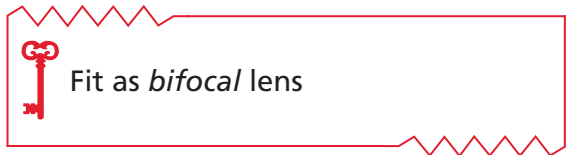
**Also, because blended designs are free-form they have the added advantage of atoral curve correction for HD vision right across the full lens and beyond the segment limits.**

Norville's HD bifocals coded IRS (invisible round segment) can be supplied in most resin lens materials. We have selected a number of materials **normally unavailable** in bifocal lens form (see following pages). However, we can produce other combinations, which you may wish to specify under those **bespoke** free-form options (see page 101). IRS can be supplied in any round segment size from 15mm to 50mm.

### Bespoke range

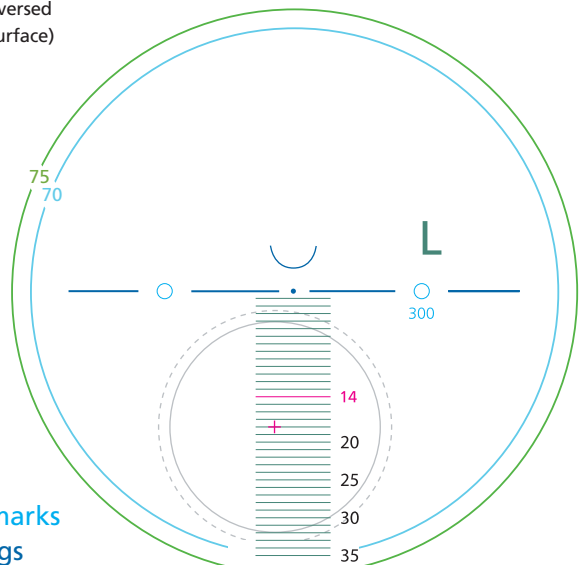
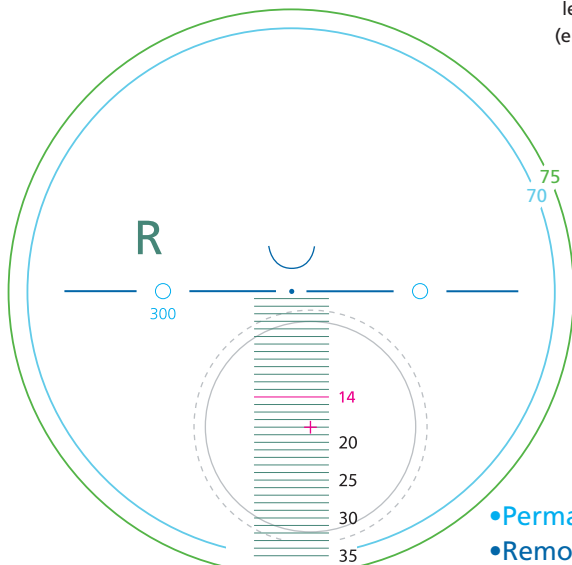
All lens materials can be ordered as an IRS bifocal option.

Larger blank diameters than those listed can be achieved by physically decentring the seg position laterally at the time of production.



## Right Eye Lens Marking Chart Left Eye

NB: In practice the engraving lettering shown will be reversed (engraved from the back surface)



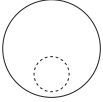








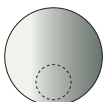


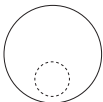





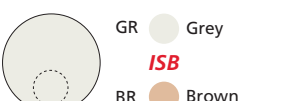


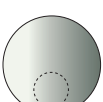





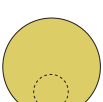


- Permanent engraved marks
- Removable ink markings

Inset 2.5mm

As viewed from front

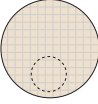

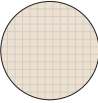

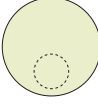

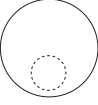




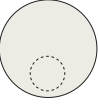






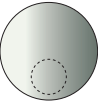




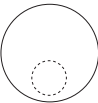




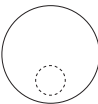


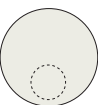







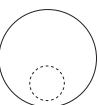



# HD IRS Bifocal RD28/40 Seamless

	LENS CODE		COATING
1.50	FR50	<b>HD</b> IRS 28mm/40mm BIFOCAL  <div style="display: flex; justify-content: space-between; align-items: center;"> <span>+ PLUS</span> <div style="border: 1px solid black; padding: 2px; text-align: center;"> <span style="font-size: 1.2em;">70</span> </div> <span>MINUS -</span> </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 5px;"> <span style="border: 1px solid black; padding: 2px;">6.00</span> <span style="border: 1px solid black; padding: 2px;">6.00</span> </div> <p style="font-size: 0.8em; text-align: center;">Adds 0.50 to 4.50 in 0.25 steps OPPOSITE CYLS TO 4.00</p>	 
	40mm 4R50		
1.50	FR50 FR5X	<b>HD</b> IRS 28mm/40mm BIF <b>Transitions® &amp; Transitions® XTRActive®</b>  <div style="display: flex; justify-content: space-between; align-items: center;"> <span>+ PLUS</span> <div style="border: 1px solid black; padding: 2px; text-align: center;"> <span style="font-size: 1.2em;">75</span> </div> <span>MINUS -</span> </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 5px;"> <span style="border: 1px solid black; padding: 2px;">6.00</span> <span style="border: 1px solid black; padding: 2px;">6.00</span> </div> <p style="font-size: 0.8em; text-align: center;">Adds 0.50 to 4.50 in 0.25 steps OPPOSITE CYLS TO 4.00</p>	 
	40mm 4R50 4R5X	<ul style="list-style-type: none"> <li>GR  Grey</li> <li>BR  Brown <i>ISB</i></li> <li>GN  Green</li> </ul> <ul style="list-style-type: none"> <li>GR  Grey</li> <li>BR  Brown</li> <li>GN  Green</li> </ul>	
1.50	FI50 GR/BR	<b>HD</b> IRS 28mm/40mm BIF <b>INFINITE NUPOLAR CHROMATIC</b> 40% - 9%  <div style="display: flex; justify-content: space-between; align-items: center;"> <span>+ PLUS</span> <div style="border: 1px solid black; padding: 2px; text-align: center;"> <span style="font-size: 1.2em;">75</span> </div> <span>MINUS -</span> </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 5px;"> <span style="border: 1px solid black; padding: 2px;">7.00</span> <span style="border: 1px solid black; padding: 2px;">8.00</span> </div> <p style="font-size: 0.8em; text-align: center;">Adds 0.50 to 4.50 in 0.25 steps OPPOSITE CYLS TO 4.00</p>	 
	40mm 4I50	<ul style="list-style-type: none"> <li>Grey</li> <li>Brown <i>ISB</i></li> <li>Summer '18</li> </ul>	
1.50	FV50 GR	<b>HD</b> IRS 28mm/40mm BIF <b>Transitions® Vantage</b> VARIABLE POLARISED 77% - 20%  <div style="display: flex; justify-content: space-between; align-items: center;"> <span>+ PLUS</span> <div style="border: 1px solid black; padding: 2px; text-align: center;"> <span style="font-size: 1.2em;">75</span> </div> <span>MINUS -</span> </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 5px;"> <span style="border: 1px solid black; padding: 2px;">8.00</span> <span style="border: 1px solid black; padding: 2px;">10.00</span> </div> <p style="font-size: 0.8em; text-align: center;">Adds 0.50 to 4.50 in 0.25 steps OPPOSITE CYLS TO 4.00</p>	 
	40mm 4V50		
1.53	FR53 T N/A	<b>HD</b> IRS 28mm/40mm BIFOCAL  <div style="display: flex; justify-content: space-between; align-items: center;"> <span>+ PLUS</span> <div style="border: 1px solid black; padding: 2px; text-align: center;"> <span style="font-size: 1.2em;">76</span> </div> <span>MINUS -</span> </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 5px;"> <span style="border: 1px solid black; padding: 2px;">7.00</span> <span style="border: 1px solid black; padding: 2px;">7.00</span> </div> <p style="font-size: 0.8em; text-align: center;">Adds 0.50 to 4.50 in 0.25 steps OPPOSITE CYLS TO 4.00</p>	 
	40mm 4R53		
1.53	LB53	<b>TRIVEX HD</b> IRS 22mm LENTIC BIFOCAL  <div style="display: flex; justify-content: space-between; align-items: center;"> <span>+ PLUS</span> <div style="border: 1px solid black; padding: 2px; text-align: center;"> <span style="font-size: 1.2em;">65</span> </div> </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 5px;"> <span style="border: 1px solid black; padding: 2px;">15.00</span> <span style="border: 1px solid black; padding: 2px;">8.00</span> </div> <p style="font-size: 0.8em; text-align: center;">Adds 0.50 to 4.50 in 0.25 steps</p>	 
1.53	FR53 FX53	<b>HD</b> IRS 28mm/40mm BIFOCAL <b>Transitions® &amp; Transitions® XTRActive®</b>  <div style="display: flex; justify-content: space-between; align-items: center;"> <span>+ PLUS</span> <div style="border: 1px solid black; padding: 2px; text-align: center;"> <span style="font-size: 1.2em;">70</span> </div> <span>MINUS -</span> </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 5px;"> <span style="border: 1px solid black; padding: 2px;">8.00</span> <span style="border: 1px solid black; padding: 2px;">8.00</span> </div> <p style="font-size: 0.8em; text-align: center;">Adds 0.50 to 4.50 in 0.25 steps OPPOSITE CYLS TO 4.00</p>	 
	40mm 4R53 4X53	<ul style="list-style-type: none"> <li>GR  Grey</li> <li>BR  Brown <i>ISB</i></li> </ul> <ul style="list-style-type: none"> <li>GR  Grey</li> <li>BR  Brown</li> </ul>	
1.53	FV53 GR	<b>HD</b> IRS 28mm/40mm <b>Transitions® Vantage</b> VARIABLE POLARISED 77% - 20% LT  <div style="display: flex; justify-content: space-between; align-items: center;"> <span>+ PLUS</span> <div style="border: 1px solid black; padding: 2px; text-align: center;"> <span style="font-size: 1.2em;">75</span> </div> <span>MINUS -</span> </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 5px;"> <span style="border: 1px solid black; padding: 2px;">6.00</span> <span style="border: 1px solid black; padding: 2px;">6.00</span> </div> <p style="font-size: 0.8em; text-align: center;">Adds 0.50 to 4.50 in 0.25 steps OPPOSITE CYLS TO 4.00</p>	 
	40mm 4V53		
1.53	FP53 GR/BR	<b>HD</b> IRS 28mm/40mm BIFOCAL <b>NUPOLAR</b> UV400 15% LT  <div style="display: flex; justify-content: space-between; align-items: center;"> <span>+ PLUS</span> <div style="border: 1px solid black; padding: 2px; text-align: center;"> <span style="font-size: 1.2em;">72</span> </div> <span>MINUS -</span> </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 5px;"> <span style="border: 1px solid black; padding: 2px;">7.00</span> <span style="border: 1px solid black; padding: 2px;">7.00</span> </div> <p style="font-size: 0.8em; text-align: center;">Adds 0.50 to 4.50 in 0.25 steps OPPOSITE CYLS TO 4.00</p>	 
		<ul style="list-style-type: none"> <li>Grey</li> <li>Brown <i>ISB</i></li> </ul>	
1.53	FRDW 40mm 4RDW	<b>HD</b> TRIVEX IRS 28mm/40mm BIFOCAL <b>Transitions® DRIVEWEAR®</b>  <div style="display: flex; justify-content: space-between; align-items: center;"> <span>+ PLUS</span> <div style="border: 1px solid black; padding: 2px; text-align: center;"> <span style="font-size: 1.2em;">75</span> </div> <span>MINUS -</span> </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 5px;"> <span style="border: 1px solid black; padding: 2px;">6.00</span> <span style="border: 1px solid black; padding: 2px;">8.00</span> </div> <p style="font-size: 0.8em; text-align: center;">Adds 0.50 to 4.50 in 0.25 steps</p>	 

Other sizes 15mm - 40mm available same range.

# HD IRS Bifocal RD28/40 Seamless

LENS CODE		COATING		
1.56	FR56 40mm 4R56	<b>NORLITE HD</b> IRS 28mm/40mm VISTA-MESH UV385 BROWN 90% LT FILTER  <b>ISB</b>	+ PLUS 6.00 <b>70</b> MINUS - 8.00 Adds 0.50 to 4.50 in 0.25 steps	
	FR56 BR 40mm 4R56	<b>NORLITE HD</b> IRS 28mm/40mm VISTA-MESH Reactolite PHOTO BROWN  <b>ISB</b>	+ PLUS 6.00 <b>70</b> MINUS - 8.00 Adds 0.50 to 4.50 in 0.25 steps	
1.58	T20% 40mm 4PBT	<b>HD</b> IRS 28mm/40mm BIFOCAL MID INDEX BT70 FILTER  <b>ISB</b>	+ PLUS 5.00 <b>75</b> MINUS - 8.00 Adds 0.50 to 4.50 in 0.25 steps OPPOSITE CYLS TO 4.00	
	FT58 FT5V T20% 40mm 4T58 4T5V	<b>HD</b> IRS 28mm/40mm BIFOCAL  <b>ISB</b>	+ PLUS 8.00 <b>70</b> MINUS - 8.00 Adds 0.50 to 4.50 in 0.25 steps OPPOSITE CYLS TO 4.00	  Also available PUV+  PUV+  PUV+
1.59	FX58 40mm 4T58 4X58	<b>HD</b> IRS 28mm/40mm BIFOCAL <b>Transitions® &amp; Transitions® XTRActive</b>  <b>ISB</b> GR  Grey BR  Brown	+ PLUS 8.00 <b>73</b> MINUS - 8.00 Adds 0.50 to 4.50 in 0.25 steps OPPOSITE CYLS TO 4.00	  GR  Grey BR  Brown
	FI58 GR/BR 40mm 4I58	<b>HD</b> IRS 28mm/40mm INFINITE NUPOLAR CHROMATIC 40% - 9% LT  <b>ISB</b> Grey  Brown  Summer '18	+ PLUS 6.50 <b>76</b> MINUS - 7.50 Adds 0.50 to 4.50 in 0.25 steps OPPOSITE CYLS TO 4.00	 
1.60	FT60 FT6U T20% 40mm 4T60 4T6U	<b>HD</b> IRS 28mm/40mm BIFOCAL  <b>ISB</b>	+ PLUS 8.00 <b>70</b> MINUS - 8.00 Adds 0.50 to 4.50 in 0.25 steps OPPOSITE CYLS TO 4.00	  Also available in UV410 Clear  UV410  UV410
	LB60	<b>HD</b> IRS 22mm BIFOCAL  <b>ISB</b>	+ PLUS 14.00 8.25 <b>60</b> = <b>65</b> Adds 0.50 to 4.50 in 0.25 steps	 
1.60	FT60 FX60 40mm 4T60 4X60	<b>HD</b> IRS 28mm/40mm BIFOCAL <b>Transitions® &amp; Transitions® XTRActive</b>  <b>ISB</b> GR  Grey BR  Brown GN  Green	+ PLUS 8.00 <b>70</b> MINUS - 8.00 Adds 0.50 to 4.50 in 0.25 steps OPPOSITE CYLS TO 4.00	  GR  Grey BR  Brown
	FTR6 T15% BR:GR:GN 40mm 4TR6	<b>TRIBRID HD</b> IRS 28mm/40mm BIFOCAL  <b>ISB</b>	+ PLUS 8.00 <b>75</b> MINUS - 10.00 Adds 0.50 to 4.50 in 0.25 steps OPPOSITE CYLS TO 4.00	

Other sizes 15mm - 40mm available same range.

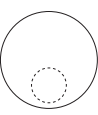
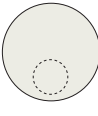

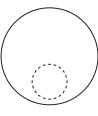
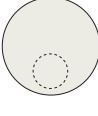
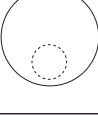
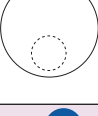
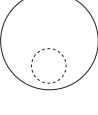
# HD IRS Bifocal RD28/40 Seamless

LENS CODE		COATING	
1.60	FTR6 GR/BR 40mm 4TR6	<b>TRIBRID HD IRS 28mm/40mm BIFOCAL Transitions®</b>  + PLUS 6.00 75 MINUS - 10.00 Adds 0.50 to 4.50 in 0.25 steps OPPOSITE CYLS TO 4.00	RF K
	FR67 FR6U T20% 40mm 4R67 4R6U	<b>HD IRS 28mm/40mm BIFOCAL</b>  + PLUS 10.00 8.00 75 MINUS - 8.00 Adds 0.50 to 4.50 in 0.25 steps Also available UV410 Clear	HC RF K UV410 RF K UV410
1.67	LB67	<b>HD IRS 22mm LENTIC BIFOCAL</b>  + PLUS 15.00 10.00 68 Adds 0.50 to 4.50 in 0.25 steps	HC RF K
1.67	FT67 FT6X 40mm 4T67 4T6X	<b>HD IRS 28mm/40mm BIFOCAL Transitions® &amp; Transitions® XTRActive™</b>  + PLUS 8.00 70 MINUS - 8.00 Adds 0.50 to 4.50 in 0.25 steps	HC RF K
	FR74	<b>NORLITE HD IRS 28mm/40mm BIFOCAL</b>  + PLUS 10.00 70 MINUS - 10.00 Adds 0.50 to 4.50 in 0.25 steps OPPOSITE CYLS TO 4.00	RF K
1.74	FRHY	<b>NORLITE HD IRS 28mm/40mm BIFOCAL TINTABLE* UV410 MATERIAL</b>  + PLUS 9.00 70 MINUS - 10.00 Adds 0.50 to 4.50 in 0.25 steps OPPOSITE CYLS TO 4.00	RF K
1.74	FT74 GR/BR 40mm 4T74	<b>NORLITE HD IRS 28mm/40mm BIFOCAL Transitions®</b>  + PLUS 8.00 75 MINUS - 10.00 Adds 0.50 to 4.50 in 0.25 steps OPPOSITE CYLS TO 4.00	RF K
1.76	FR76 T N/A 40mm 4R76	<b>NORLITE HD IRS 28mm/40mm BIFOCAL</b>  + PLUS 10.00 70 MINUS - 10.00 Adds 0.50 to 4.50 in 0.25 steps OPPOSITE CYLS TO 4.00	RF K

Other sizes 15mm - 40mm available same range.

\*Note: Tints available on this product from 80% to 20% LTF - price excludes tint cost.

# HD IRS Bifocal RD28/40 Seamless MINERAL

LENS CODE				COATING
1.52	FG52	HD IRS 28mm/40mm BIFOCAL		UNC
	T N/A	 ISB	+ PLUS <span style="margin-left: 100px;">MINUS -</span> 8.00 <span style="margin-left: 20px;">70</span> 10.00 Adds 0.75 to 3.00 in 0.25 steps	G RF
1.52	40mm 4G52			
	FG52	HD IRS 28mm/40mm BIFOCAL PHOTOGREY OR PHOTOBROWN		UNC
1.52	PE/BP	 ISB GR Grey BR Brown	+ PLUS <span style="margin-left: 100px;">MINUS -</span> 5.00 <span style="margin-left: 20px;">70</span> 6.00 Adds 0.75 to 3.00 in 0.25 steps	G RF
	40mm 4G52			
1.52	GR28	HD IRS 28mm/40mm BIFOCAL DIDYMIUM		UNC
	DD	 ISB	+ PLUS <span style="margin-left: 100px;">MINUS -</span> 4.00 <span style="margin-left: 20px;">65 = 70</span> 4.00 Adds 0.75 to 3.00 in 0.25 steps (for hot glass & jewellery working)	G RF
1.60	40mm 4R28			
	FG60	HD IRS 28mm/40mm BIFOCAL		UNC
1.60	T N/A	 ISB	+ PLUS <span style="margin-left: 100px;">MINUS -</span> 6.00 <span style="margin-left: 20px;">70</span> 8.00 Adds 0.75 to 3.00 in 0.25 steps	G RF
	40mm 4G60			
1.60	FG60	HD IRS 28mm/40mm BIFOCAL PHOTOGREY OR PHOTOBROWN		UNC
	PE/BP	 ISB GR Grey BR Brown	+ PLUS <span style="margin-left: 100px;">MINUS -</span> 8.00 <span style="margin-left: 20px;">70</span> 10.00 Adds 0.75 to 3.00 in 0.25 steps	G RF
1.70	40mm 4G60			
	HR28	HIGHLITE IRS HD 28/40mm BIFOCAL <span style="float: right;">(10)</span>		G RF
1.70		 ISB	+ PLUS <span style="margin-left: 100px;">MINUS -</span> 6.00 <span style="margin-left: 20px;">70 = 75</span> 12.00 Adds 0.75 to 4.00 in 0.25 steps	
1.80	ZR28	ZENLITE IRS HD 28/40mm BIFOCAL		G RF
	40mm 4ZR2	 ISB	+ PLUS <span style="margin-left: 100px;">MINUS -</span> 8.00 <span style="margin-left: 20px;">65 = 70</span> 14.00 Adds 0.75 to 4.00 in 0.25 steps	
1.70				
	FG90	IRS HD 28/40mm BIFOCAL <span style="float: right;">(10)</span>		G RF
1.70	40mm 4G90	 ISB	MINUS - 70 10.00 15.00 Adds 0.75 to 3.50 in 0.25 steps	

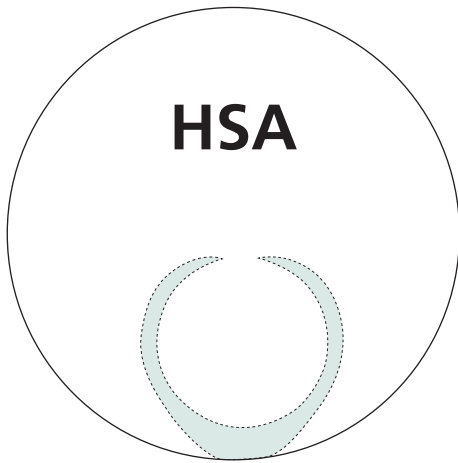
Other sizes 15mm - 40mm available same range.

\*Note: Tints available on this product from 80% to 20% LTF - price excludes tint cost.

OPPOSITE CYLS TO 6.00DC UNLESS STATED

# HD HSA RD28 Multifocal Invisible

**Digital Free-form Multifocal  
No Image Jump**



28mm segment

Hybrid Smart Add - HSA

NEW 21stC HD Free-form approach to bifocal design.

Can be a fully compensated personalised design.

Eliminates upper visible dividing line.

No image jump from distance to reading as with traditional round bifocals.

Recommended to provide near PD values when ordering.

## H for Hybrid.


A blended multifocal design that goes a stage further than the regular IRS bifocal. Modified "H" design removes the segment top to replace it with a "progressive" style blend. This is a hugely significant design change as the lens alters to a no-jump prism design similar to a D segment bifocal, resulting in prism base up instead of down at the reading point.

To achieve this extra blend material is parked at the sides of the bifocal.

HRS is essentially a blend between a bifocal and a multifocal; it may prove a stepping lens for convinced bifocal wearers to accept fuller multifocals.

HSA		PLANO	
m/m	Prism	DISTANCE	IRS
10	• 0.0	+2.50 Additions	Prism
Above	• 0.0		• 10
HCL	• 0.0		• 5
Below	• 0.5↑		• 0
10	• 1.3↑		• 5
15	• 2.6↑	• 10	• 15

HSA		PLANO	
m/m	Prism	DISTANCE	IRS
10	• 0.0	+2.50 Additions	Prism
Above	• 0.0		• 10
HCL	• 0.0		• 5
Below	• 0.5↓		• 0
10	• 1.3↓		• 5
15	• 2.6↓	• 10	• 15

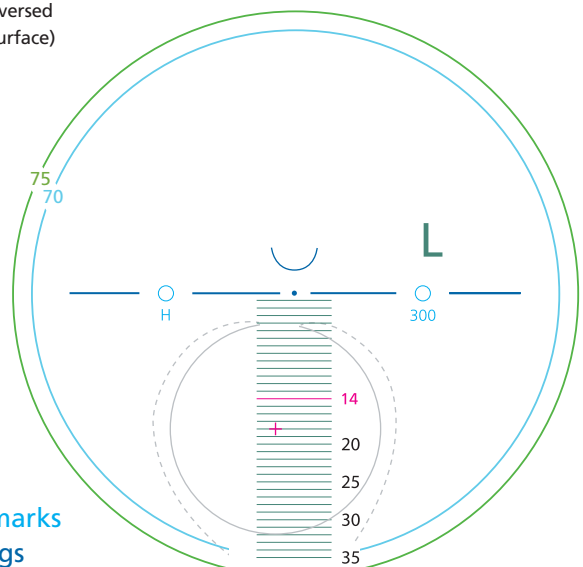
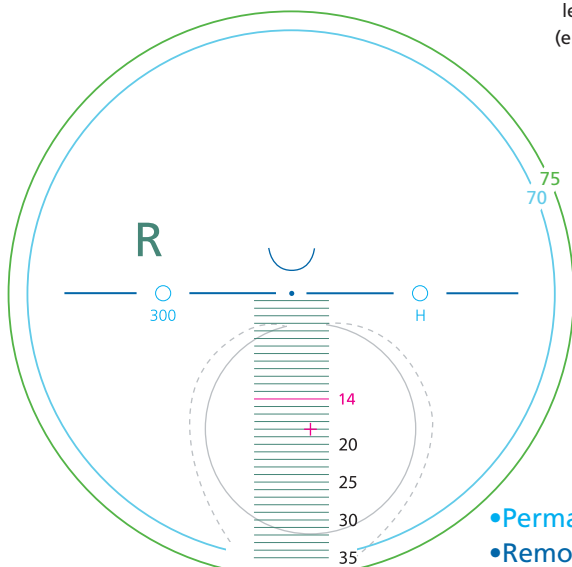
 Fit as *progressive lens*

**Right Eye**

**Lens Marking Chart**

**Left Eye**

NB: In practice the engraving lettering shown will be reversed (engraved from the back surface)

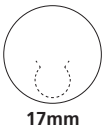


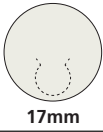


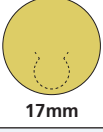


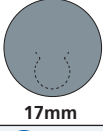


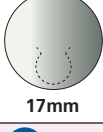


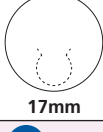


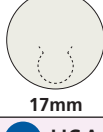


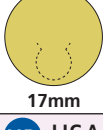


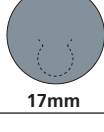




- Permanent engraved marks
- Removable ink markings

Inset 2.5mm

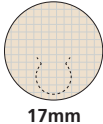

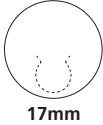


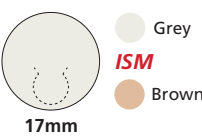


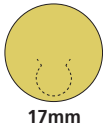

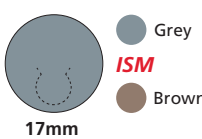


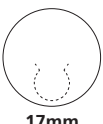










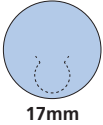


As viewed from front

# HD HSA RD28 Multifocal Invisible

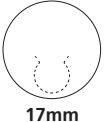

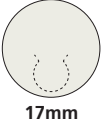
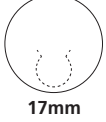




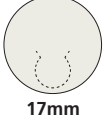


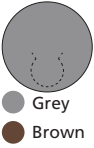
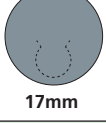


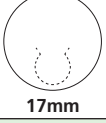

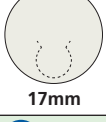

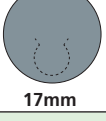

	LENS CODE		COATING
1.50	QU39	<b>HD</b> HSA 28mm RD MULTIFOCAL  <p>17mm</p> <p>+ PLUS 8.00 <b>70</b> MINUS - 8.00</p> <p>Adds 0.50 to 4.50 in 0.25 or 0.10 steps OPPOSITE CYLS TO 4.00</p>	 
	QU39 GR/BR /GN	<b>HD</b> HSA 28mm RD MULTIFOCAL <b>Transitions® &amp; Transitions® XTRActive</b>  <p>17mm</p> <p>+ PLUS 6.00 <b>75</b> MINUS - 6.00</p> <p>Adds 0.50 to 4.50 in 0.25 or 0.10 steps OPPOSITE CYLS TO 4.00</p> <p>Legend: Grey, Brown ISM, Green</p>	 
1.50	QX39	 <p>17mm</p> <p>+ PLUS 6.00 <b>72</b> MINUS - 6.00</p> <p>Adds 0.50 to 4.50 in 0.25 or 0.10 steps OPPOSITE CYLS TO 4.00</p>	 
	QU39 GR/BR /GN	<b>HD</b> HSA 28mm RD MULTIFOCAL <b>Transitions® DRIVEWEAR®</b>  <p>17mm</p> <p>+ PLUS 6.00 <b>80</b> MINUS - 6.00</p> <p>Adds 0.50 to 4.50 in 0.25 or 0.10 steps OPPOSITE CYLS TO 4.00</p> <p>Legend: Grey, Brown ISM, Green</p>	 
1.50	QI39	<b>HD</b> HSA 28mm RD MULTI <b>INFINITE NUPOLAR CHROMATIC 40% - 9% LT</b>  <p>17mm</p> <p>+ PLUS 7.00 <b>75</b> MINUS - 8.00</p> <p>Adds 0.50 to 4.50 in 0.25 or 0.10 steps OPPOSITE CYLS TO 4.00</p> <p>Legend: Grey, Brown Summer '18</p>	 
	QU53	<b>HD</b> HSA 28mm RD MULTIFOCAL  <p>17mm</p> <p>+ PLUS 6.00 <b>76</b> MINUS - 6.00</p> <p>Adds 0.50 to 4.50 in 0.25 or 0.10 steps OPPOSITE CYLS TO 4.00</p>	 
1.53	QU53 GR/BR	<b>HD</b> HSA 28mm RD MULTIFOCAL <b>Transitions® &amp; Transitions® XTRActive</b>  <p>17mm</p> <p>+ PLUS 6.00 <b>76</b> MINUS - 8.00</p> <p>Adds 0.50 to 4.50 in 0.25 or 0.10 steps OPPOSITE CYLS TO 4.00</p> <p>Legend: Grey, Brown</p>	 
	QX53	 <p>17mm</p> <p>+ PLUS 6.00 <b>75</b> MINUS - 6.00</p> <p>Adds 0.50 to 4.50 in 0.25 or 0.10 steps OPPOSITE CYLS TO 4.00</p>	 
1.53	QU53 GR/BR /GN	<b>HD</b> HSA 28mm RD MULTIFOCAL <b>Transitions® DRIVEWEAR®</b>  <p>17mm</p> <p>+ PLUS 6.00 <b>72</b> MINUS - 6.00</p> <p>Adds 0.50 to 4.50 in 0.25 or 0.10 steps OPPOSITE CYLS TO 4.00</p> <p>Legend: Grey, Brown ISM, Green</p>	 



# HD HSA RD28 Multifocal Invisible

	LENS CODE		COATING
1.56	QUME	<b>HD HSA 28mm RD MULTIFOCAL VISTA-MESH UV385 BROWN 90% LT</b>  <p>17mm</p> <p>+ PLUS 6.00 70 MINUS - 8.00</p> <p>Adds 0.50 to 4.50 in 0.25 or 0.10 steps OPPOSITE CYLS TO 4.00</p>	
1.59	QU58	<b>HD HSA 28mm RD MULTIFOCAL</b>  <p>17mm</p> <p>+ PLUS 8.00 70 MINUS - 8.00</p> <p>Adds 0.50 to 4.50 in 0.25 or 0.10 steps OPPOSITE CYLS TO 4.00</p>	 
	QU58 GR/BR	<b>HD HSA 28mm RD MULTIFOCAL Transitions® &amp; Transitions® XTRActive</b>  <p>17mm</p> <p>+ PLUS 6.00 75 MINUS - 6.00</p> <p>Adds 0.50 to 4.50 in 0.25 or 0.10 steps OPPOSITE CYLS TO 4.00</p> <p>Legend: Grey, Brown</p>	 
1.59	QRPO	<b>HD HSA 28mm RD MULTIFOCAL Transitions® DRIVEWEAR®</b>  <p>17mm</p> <p>+ PLUS 6.00 75 MINUS - 8.00</p> <p>Adds 0.50 to 4.50 in 0.25 or 0.10 steps OPPOSITE CYLS TO 4.00</p>	
1.59	QP58 GR/BR	<b>HD HSA 28mm RD MULTIFOCAL NUPOLAR® POLARISED UV400 15% LT</b>  <p>17mm</p> <p>+ PLUS 6.00 80 MINUS - 6.00</p> <p>Adds 0.50 to 4.50 in 0.25 or 0.10 steps OPPOSITE CYLS TO 4.00</p> <p>Legend: Grey, Brown</p>	 
	QU60	<b>HD HSA 28mm RD MULTIFOCAL</b>  <p>17mm</p> <p>+ PLUS 8.00 70 MINUS - 8.00</p> <p>Adds 0.50 to 4.50 in 0.25 or 0.10 steps OPPOSITE CYLS TO 4.00</p>	  Also available in UV410 Clear  
1.60	QU60 GR/BR /GN	<b>HD HSA 28mm RD MULTIFOCAL Transitions® &amp; Transitions® XTRActive</b>  <p>17mm</p> <p>+ PLUS 8.00 70 MINUS - 8.00</p> <p>Adds 0.50 to 4.50 in 0.25 or 0.10 steps OPPOSITE CYLS TO 4.00</p> <p>Legend: Grey, Brown, Green</p>	 
	QP60 GR/BR /GN	<b>HD HSA 28mm RD MULTIFOCAL NUPOLAR® POLARISED UV400 15% LT</b>  <p>17mm</p> <p>+ PLUS 8.00 70 MINUS - 8.00</p> <p>Adds 0.50 to 4.50 in 0.25 or 0.10 steps OPPOSITE CYLS TO 4.00</p> <p>Legend: Grey, Brown, Green</p>	 
1.60	QNEO	<b>HD HSA 28mm RD MULTIFOCAL NEO A2 CONTRAST UV400:580B 72% LT</b>  <p>17mm</p> <p>+ PLUS 8.00 75 MINUS - 8.00</p> <p>Adds 0.50 to 4.50 in 0.25 or 0.10 steps OPPOSITE CYLS TO 4.00</p>	 

# HD HSA RD28 Multifocal Invisible

LENS CODE				COATING
1.60	QTR6	TRIBRID HD HSA 28mm RD MULTIFOCAL  17mm	+ PLUS 8.00     75     MINUS - 8.00	 Adds 0.50 to 4.50 in 0.25 or 0.10 steps OPPOSITE CYLS TO 4.00
	GR/BR	TRIBRID HD HSA 28mm RD MULTIFOCAL <b>Transitions</b>  17mm Grey Brown	+ PLUS 6.00     75     MINUS - 6.00	
1.67	QU67	HD HSA 28mm RD MULTIFOCAL  17mm	+ PLUS 8.00     75     MINUS - 8.00	   UV410  UV410 Also available UV410 Clear
	QU7U			
1.67	QU67 GR/BR /GN	HD HSA 28mm RD MULTIFOCAL <b>Transitions</b> & <b>Transitions</b> XTRActive  17mm Grey Brown Green	+ PLUS 6.00     70     MINUS - 6.00	  Adds 0.50 to 4.50 in 0.25 or 0.10 steps OPPOSITE CYLS TO 4.00  Grey Brown
	QX67			
1.67	QP67 GR/BR /GN	HD HSA 28mm RD MULTIFOCAL <b>NUPOLAR</b> POLARISED <b>UV400 15% LT</b>  17mm Grey Brown Green	+ PLUS 8.00     75     MINUS - 8.00	  Adds 0.50 to 4.50 in 0.25 or 0.10 steps OPPOSITE CYLS TO 4.00
1.74	QU74	HD HSA 28mm RD MULTIFOCAL  17mm	+ PLUS 10.00     70     MINUS - 10.00	 Adds 0.50 to 4.50 in 0.25 or 0.10 steps OPPOSITE CYLS TO 4.00
	T/N/A			
1.74	QU74 GR/BR	HD HSA 28mm RD MULTIFOCAL <b>Transitions</b>  17mm Grey Brown	+ PLUS 8.00     70     MINUS - 10.00	 Adds 0.50 to 4.50 in 0.25 or 0.10 steps OPPOSITE CYLS TO 4.00
1.74	QP74 GR/BR /GN	HD HSA 28mm RD MULTIFOCAL POLARISED <b>UV400</b>  17mm Grey Brown Green	+ PLUS 8.00     75     MINUS - 8.00	 Adds 0.50 to 4.50 in 0.25 or 0.10 steps OPPOSITE CYLS TO 4.00

## AN EXCITING NEW WORLD

## 2018 UPDATE

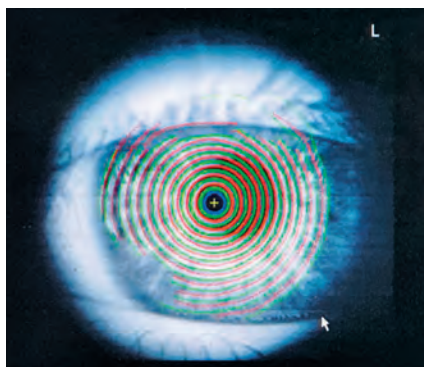
### Bespoke Free-form

There may be many occasions when you desire to “supercharge” your client’s vision yet the lenses you wish to use are not shown within our regular listing as digital HD design options. No problem – you can specify a **Bespoke Free-form solution**. Norville will then apply an enhanced high definition vision solution to your preferred lens choice (any choice!) using exactly the same high quality point focus digital calculations.

It’s simple – rather than use conventional inside surface lens finishing with its 19th C standard spherical or toric curves, we will upgrade the design using an Atoral digital curve designed, calculated and produced with free-form lens surfacing technology for point focal accuracy across its **entire** lens surface.

This HD technology can be applied to any existing lens type or material, so upgrading the quality of its optics. Just add the words “HD digital free-form” – HD to the lens form, e.g. S728 Trifocal, **HD digital free-form** and we will do the rest.

### We are now reaching the next frontier



As the eye views through different areas of the cornea, due to nature’s imperfect lens surface, variable vision outcomes become apparent. Different areas of the cornea are used for distance and reading vision and it is very likely that varying cylinder powers and axis will be recorded at those differing principal points.

No longer is this an issue for lens producers! Free-form enables us to provide, combined in one lens surface, two varying cylinder powers and axis options. Conjoined, may not be the best description, dual or double C/A perhaps DCAS lens the more apt. Please challenge us as we attempt to fulfil your requirements.

### Dual cylinder power and axis

Nortor single vision and progressive

Instruments such as the Visionix L80 Wavefront enable the refraction to 0.01D both distance and reading. That this results in unequal outcomes is of little concern when a matching spectacle lens is achievable.

A number of proven options are listed on the following pages (see Bespoke pages of Rx catalogue - resin page 120 & page 143 for mineral - for a costing guide).

Do contact us to discuss further possibilities.

### Extra Large - Extra Small

The other great area of NEW BESPOKE is we can make lenses larger (page 100) or smaller (page 106) than was ever possible before.

### Distinctly Yours

Where volume justifies the set-up time you can adapt your own lens engravings - post-codes - passwords - to be micro engraved onto the free-form lens surfaces.

# Bespoke Atoral - adding the HD factor

## ULTOR SPORTPAL Digital Free-form

# XXL

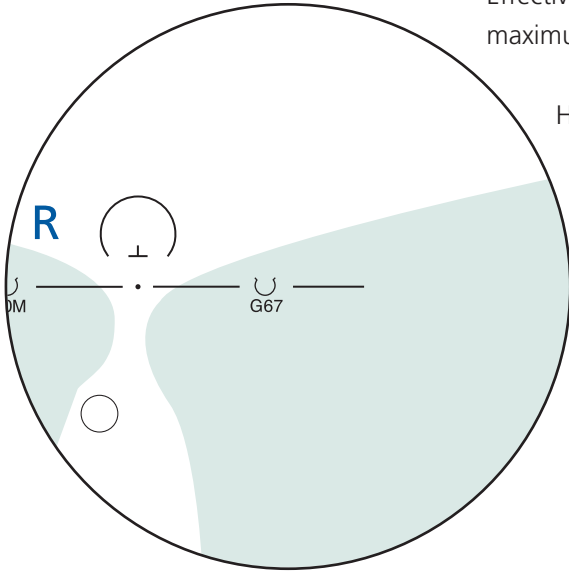
The Norville Group is pleased to announce the largest progressive lens diameter ever!

Our free-form design team have come up with a solution for the patient who wants their prescription to that large sunspec or frame no matter what.

Effectively, we can produce XXL lenses up to **20mm** larger than the regular stated maximum lens blank diameter.

However, one word of warning - the ED of the lens shape needs to be just less than the maximum available blank size, i.e. lens blank diameter has to be at least 2mm larger than the ED diameter of the frame we are glazing.

Available in most Ultor lens materials, including Transitions and NuPolar.



## NORTOR SPORTOR-SV Digital Free-form

# XXL

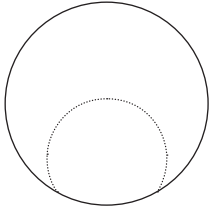
Norville offers the XXL process in Nortor atoral HD single vision as well for all those larger sunspec and oversize acetates.

If you find the regular lens size availability too small just state Nortor XXL and let us do the rest. Please remember that although we decentre your patient's centres in the correct place we cannot take responsibility for the additional edge substance that can be a by-product of XXL frame choice, i.e. the larger the lens blank effective diameter the greater the lens thickness.

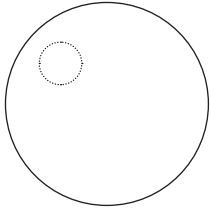
We can usually increase the lens effective diameter by a maximum of 20mm, so a 75mm to 95mm!

So many "previously impossible to glaze" prescriptions can now become possible using Norville's unique XXL technology.

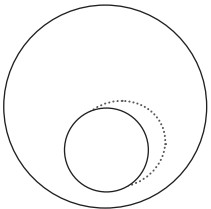




35mm Seg



15mm Seg



Double Decker

## INVISIBLE ROUND SEGS (IRS)

This design gives additional opportunities for bespoke lens supply beyond the regular published options.

### Seg Size

IRS <sup>HD</sup> RD can be created in any round segment diameter from 15mm to 50mm.  
HRS <sup>HD</sup> RD can be created in any material as a 28mm round no-jump segment design.

### Seg Position

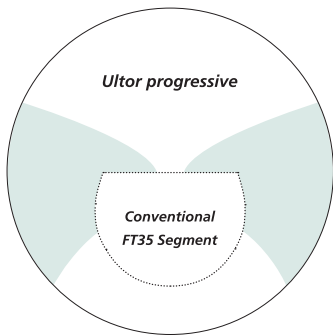
Especially the smaller 15mm spot seg can be displaced laterally - vertically anywhere around the lens you specify. Being an "invisible" design no-one is likely to notice its placement except the wearer!

### "Double Deckers"

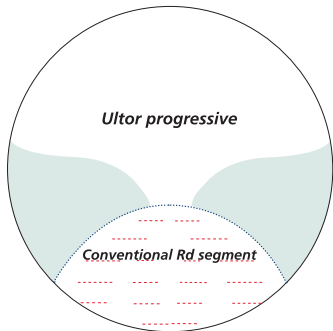
Placing one seg over the other (on different sides of the lens of course!) enables higher additions to be obtained. As an example, one patient required +12.00DS with +5.00 add: the current Omega bifocal, available just to a +3.50 add was boosted by creating an additional +1.50 add on the inside surface thus reaching the +5.00 addition required.

### Additions

+0.50 to +6.00 in IRS and HRS  
Negative value adds possible - e.g. segment for +0.75 add bifocal +1.00 lowest listed, produce -0.25 segment on the inside surface.



ComBiPal Flat Top (BP50)



ComBiPal Crescent (BP40)

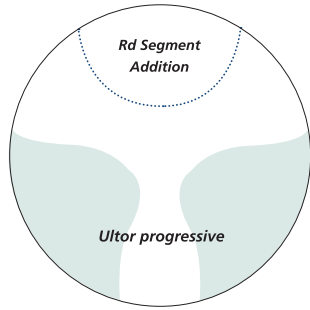
## COMBIPAL

The Best of Both Worlds - ComBiPal

We take a bifocal semi-finished (seg on the front) and then create a low add progressive on its inner surface by which technique we have far wider fields of view than is possible from a normal full addition PPL design.

This technology is particularly advantageous with higher additions. The reading fields of view in a +3.50 add conventional front surface progressive, whatever design, are fairly minimal.

Putting a first time progressive wearer into a higher addition is unlikely to meet with visual acclaim! But carrying the higher addition power split on the front segment and a lower progressive addition on the inner maintains reasonable fields of view even when +4.00 additions or higher – hence ComBiPal, an inner progressive design of lower add power "carved" onto a higher addition bifocal semi-finished blank.

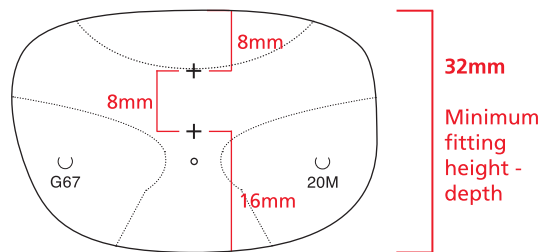


**Pilotor (UP50)**  
 OUTER SURFACE SEGMENT  
 INNER SURFACE ULTOR

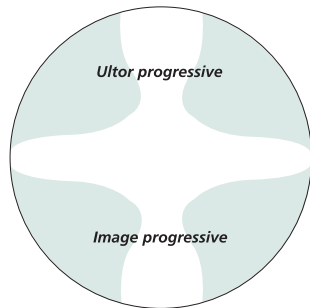
## PILOTOR UP & DOWNS

The original Essilor design long discontinued, its revival now made possible through free-form technology. In essence, a bifocal segment placed high up in the spectacle frame for intermediate use to read dials and gauges. In an earlier age, this may well have been called "librarian lens".

Inverting a regular bifocal lens blank of any available seg size (usually RD 40), we place an Ultor progressive surface onto its lower concave surface. This would also be achievable with a trifocal lens blank for someone who needed variations in upper focusing distances!



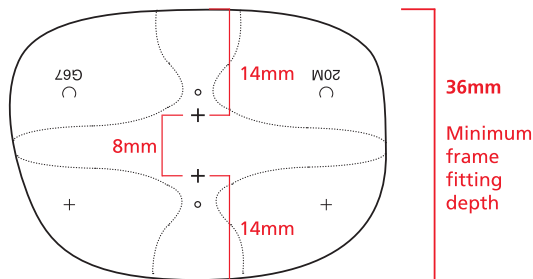
UP50 Design Measurements



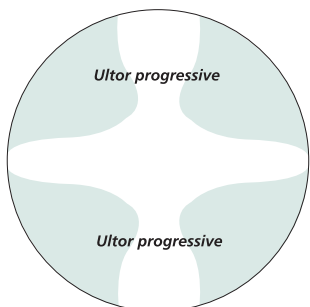
**Up & Down Progressive**  
 OUTER IMAGE  
 INNER SURFACE ULTOR

## PILOTOR DOUBLE PPLs

Double progressive designs, with both an up and down progressive surface. This is achieved by inverting a front surface progressive semi-finished blank (Image) and, as explained for the Pilotor, forming an inside free-form progressive surface opposite to its usual distance position, remembering of course to leave a sufficient WIDE window for a distance vision portion. Available in any index, white, Transitions or NuPolar materials.



UPD Design Measurements





**Up & Down Progressive  
 Double Inner Surface (UPDA)**

## Auto-PILOTOR


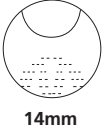
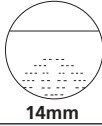
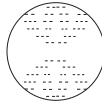
The very latest in free-form design software technology enables the production of an upside-downside double progressive design, both on the same side of the lens i.e. inner surface. Now available with different additions top & bottom.



## COMBIPAL

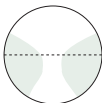
LENS CODE		COATING	
1.50	<b>BP50</b>  	<b>COMBIPAL DIGITAL FT35 <i>ISP</i></b>	
		+ PLUS <b>6.00</b>	MINUS - <b>6.00</b>
		Adds 1.00 to 6.00 in 0.25 steps OPPOSITE CYLS TO 4.00	
		Other indices available - see Bespoke	

## PILOTOR "Up & Down" Vision Solutions

1.50	<b>UP50</b>  	<b>PILOTOR RD 40 - LOWER PROGRESSIVE <i>ISP</i></b>	
		+ PLUS <b>6.00</b>	MINUS - <b>6.00</b>
		Adds 0.75 to 3.50 in 0.25 steps OPPOSITE CYLS TO 4.00	
		(Specify both top and bottom additions)	
1.50	<b>UPES</b> 	<b>PILOTOR E - LOWER PROGRESSIVE <i>ISP</i></b>	
		+ PLUS <b>6.00</b>	MINUS - <b>5.00</b>
		Adds 0.75 to 3.00 in 0.25 steps <b>TOP</b> Adds 0.75 to 3.50 in 0.25 steps <b>BOTTOM</b> OPPOSITE CYLS TO 4.00	
		(Specify both top and bottom additions)	
1.50	<b>UPD</b> 	<b>AUTO-PILOTOR UP &amp; DOWN PROGRESSIVE <i>ISP</i> OR BIFOCALS <i>IRS</i></b>	
		+ PLUS <b>6.00</b>	MINUS - <b>6.00</b>
		Adds 0.75 to 3.50 in 0.25 steps OPPOSITE CYLS TO 4.00	
		(Specify both top and bottom additions)	

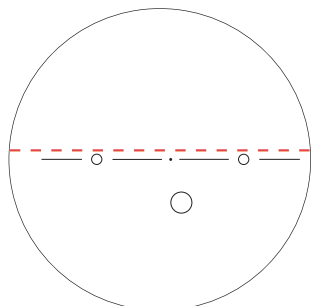
Other indices & materials possible - please enquire

## Vertical Prism Solutions

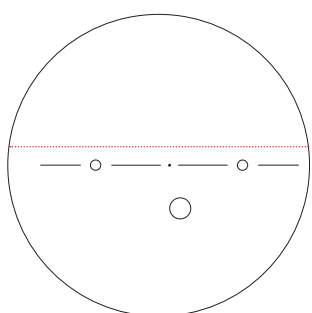
1.50	<b>USLA</b> 	<b>SLAB-ON BI-PRISM <i>ISP</i></b>	
		+ PLUS <b>6.00</b>	MINUS - <b>6.00</b>
		Adds 0.75 to 3.50 in 0.25 steps OPPOSITE CYLS TO 4.00	
		(Specify both top and bottom additions)	

Many Other Indices, Bespoke Combinations and Options Available

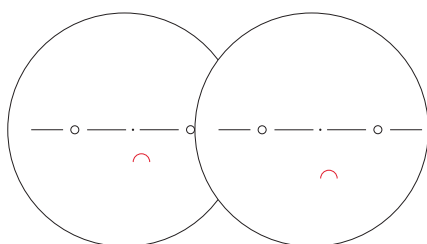
## Vertical Prism Options Progressive Lens Designs



Soft Blend - 3 up or to demand

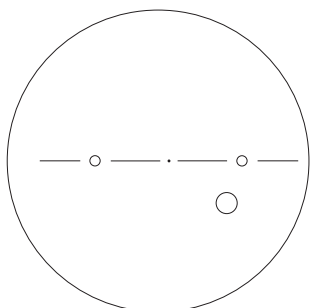


Sharp line - as specified



Odd Corridor Lengths  
Max  $\frac{3}{4}^{\Delta}$  reduction

## Horizontal Prism Options Progressive Lens Designs



Highly Decentred Reading

## The New World of Free-form HD Bi-Prism (Slab-Off)

We should today really be discouraging the use of the words slab-off, now deprecated by BSI, for **Bi-Prism**, which, of course, slab-offs are! However, now we can physically **slab-on** as well as **slab-off** prism perhaps this original term is still the more appropriate terminology!

The extraordinary outcome of free-form technology is how it has completely changed the technical aspects as now we can add prism, as well as subtract prism. So rather than all the prism, say  $3^{\Delta}$  in just one eye, we can now split the prism correction between both, i.e.  $1\frac{1}{2}^{\Delta}$  B up and  $1\frac{1}{2}^{\Delta}$  B down. This has the advantage of more gently addressing the physical band of prism ridge-change. That previous slab sharp line, sometimes as distinctive as an E style bifocal line, can now become an invisible blend line. A further advantage where previously we needed to say to you  $1\frac{1}{2}^{\Delta}$  was the minimum prism value achievable, now feel free to obtain  $\frac{1}{2}^{\Delta}$  or  $\frac{1}{4}^{\Delta}$  bi-prisms! So with no restrictions on prism values, lens type or materials, it's over to you to prescribe comfortable vision, especially to those newly troubled by anisometropia, e.g. one eye cataract surgery.

Our new free-form software and production process splits any correcting prism between both eyes i.e. base up / base down. However, we can still supply the traditional approach with all the correcting prism worked base up in just the one eye only, but due to those higher prism values the interface blend line disruption is likely to be more noticeable (wider) by the Px.

At the same time, this service also converts a previous basic spherical or toric optical surface to one of the new world of atoral corrected optics for HD all-round vision.

Whilst a bi-prism (slab-off) generally just corrects the vertical imbalance, a prism controlled outcome will endeavour to show prescribed or zero prism at N.V.P. position.

All the above are soft blend line bi-prisms either slab-ons or slab-offs. It is possible to use the CR39 slab-on (base down prism reading), which is a sharp line design (think of E style). By using different prism values R&L eyes we can effect a prism controlled (vertically) outcome at the NVP. This product is currently only available in CR39, whilst all soft blends can be achieved in any index.

Some much smaller values, up to  $\frac{3}{4}^{\Delta}$ , of vertical prism imbalance can be corrected by using varying corridor length progressive designs.

## BASE IN & OUT PRISM READING ONLY

Obtained through **excessive inseting**

Limited to lower prism values  $1\frac{1}{2}^{\Delta}$  to  $2^{\Delta}$  prisms

**Warning: This option has not proven as successful as we had hoped.**

The user may miss the intermediate channel to reading area which also may become too restricted due to its excessive lateral displacement, notwithstanding a number of Pxs are happily wearing this design. The calculation process can be a little hit and miss!

# Free-form Bespoke Options

New technology brings with it new issues whose solutions have to be re-learned. Digital design and free-form production are immensely complex. Fast Evolving Lens Technology (F.E.L.T.) is the apt description.

## Nortor HD Fitting information

All free-form digital designs are aspheric point focus so it is important the optical centre of the lens design is matched to Px's pupil - viewing position. For HD single vision vertical centration should also be recorded. Take the time to face fit the frame before noting fitting measurements. Truly the best vision you've ever dispensed!

## Free-form progressives NV fitting

After many years of fitting regular progressives with fixed insets it would appear specifiers have lost the habit of recording near PDs. Please re-engage with reading PDs as all HD free-form progressives can be designed with variable inset measurements.

## Prism Corrections & Higher Cylindrical Powers

Whilst we haven't as yet collected clinical feedback, the theory calculations would indicate that a prism lens manufactured within a free-form lens exhibits higher optical performance than regular (traditional) production methods. We can incorporate up to 5<sup>Δ</sup> of worked prism correction into a CR39 lens and, as the index of the lens material increases, then up to 12<sup>Δ</sup> is achievable.

### MAXIMUM PRISM

#### for HD digital products

Refractive Index	Total Combined $\Delta$
1.50 - 53	5 <sup>Δ</sup>
1.60	8 <sup>Δ</sup>
1.67	10 <sup>Δ</sup>
1.74 - 76	12 <sup>Δ</sup>

Higher values possibly attainable subject to available blank thickness

### MAXIMUM CYLS

#### for HD digital products

Refractive Index	Highest Cylinder
1.50 - 53	6.00DC
1.60	7.00DC
1.67	8.00DC*
1.74 - 76	10.00DC*

\*Subject to available blank thickness

### MAXIMUM ADDITIONS

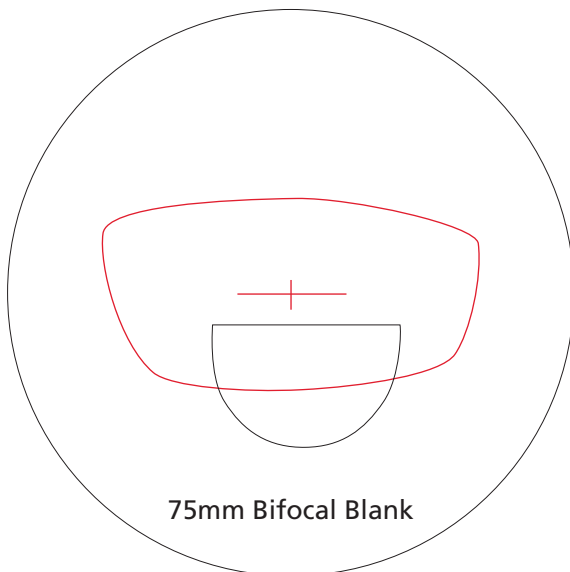
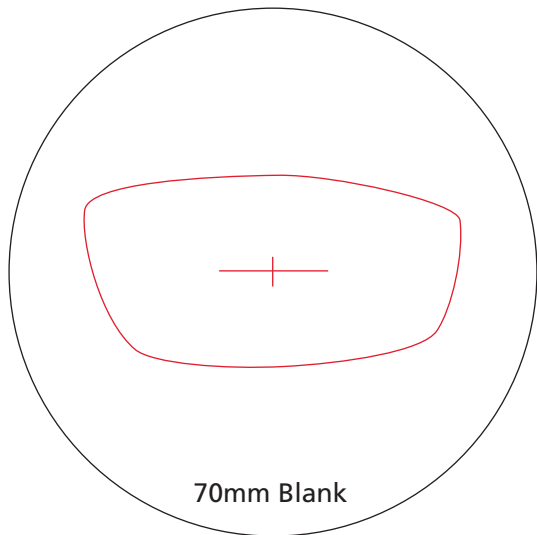
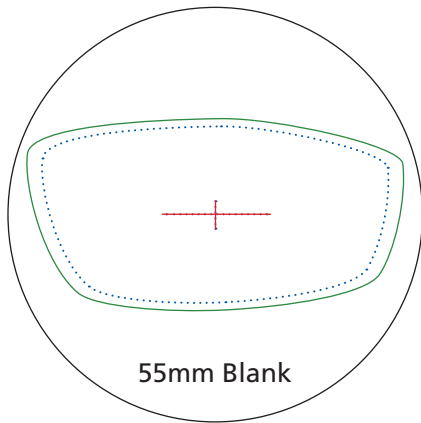
#### for HD digital products

In addition to CombiPal (page 101) +6.00 adds, and Simage, (page 50) +6.00 adds, we are working with +8.00DS to extend high add ULTORs.

Contact us for over +4.50 add ULTOR options (depends on distance Rx).

## PLEASE ASK

Pages 119 - 122 & 141 - 143 of our RX lens catalogue indicate Digitally Surfaced Bespoke & Supplementary Charges. Many other lens material forms are available even when we do not actively list them!



Norville is delighted to report that free-form lens production has enabled considerable **greening** of Rx lens production processes.

- Smaller lenses = less waste & less material
- Reduced water usage
- Reduced electrical usage.

And most significantly, the move away from cadmium-based blocking metals.

- Less hazardous materials

There are always new areas for achievement and we are looking at ways (any!) that plastic powder waste might be recyclable.

## Small is Good, Small is Green

Over the last 50 years, with the advent of CR39 and resin lenses, we have moved entirely to round lens blanks but very seldom do you actually have a round eye frame to fit them into. Look how much waste a 50mm eye size produces and a 46mm even more even when using a small 55mm blank.

Nowadays, we do have a range of stock lenses from 75mm round to 55mm round but, with surfaced semi-finished. Rather than keep that many diameters in stock, the manufacturers go for large only, so many lenses have only one choice of large blank diameter.

## Free-form enables Small

The free-form process is perfect for small lenses, for non-round lenses even frame shaped lenses.

## In Rx lens surfacing, small means THIN

The modern miracle of free-form production coupled with high index materials with the magic of slim edge thinning (S.E.T.) software results in ophthalmic lenses of unbelievable appearance.

As long as we have all the key information elements Rx + decentration + eye shape we can make anything!

Ultor Progressive Lenses From 80mm size to 20mm size

And no longer do they need to be round lens production. Many combinations of higher power vertical axis settings are far neater when oval shaped.



Actual sizes

This process can be applied to all progressive and single vision Nورتور - Sportor free-form production.

## Free-form production technology enables FREEDOM

Test us today!

# Lens Placement Markings

## Laser Engraving

As you can well imagine, free-form lens production employs a veritable baggage train of QA checks and support, essentially so as this is very sophisticated production outcomes.

An important sequence in the process is to laser engrave those semi-visible reference marks to allow identification of design, type of material and any other individual specification changes.

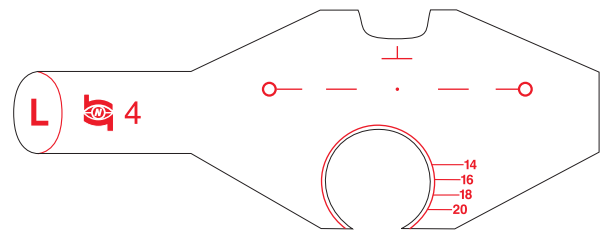
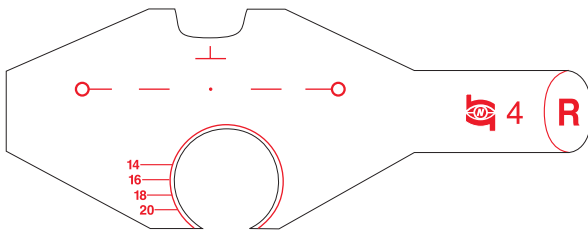
There can often be issues of too faint – too bold marking. When you consider that these marks are cut in after polishing but before tinting, hard coating and vacuum coating you might imagine how their visibility may alter!

There are two types of laser employed in this service. CO<sub>2</sub> and Eximer lasers, the latter is of the type used in Lasik eye surgery and the type we have just upgraded to in early 2017 with to date very satisfactory outcomes as it produces a neater mark than those from a CO<sub>2</sub> laser. A very expensive operation to achieve micro semi-visible lens markings.



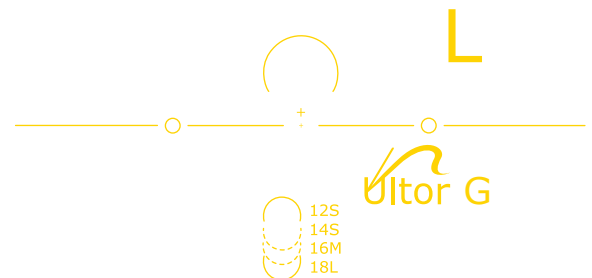
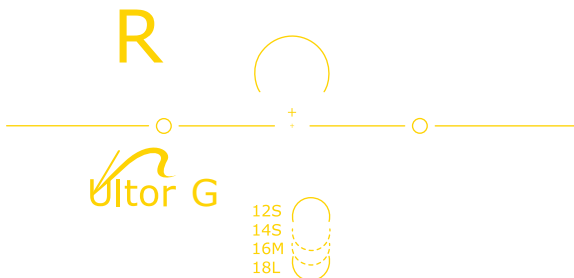
## Glazed PPL

All glazed PPL orders will be despatched with Norville "huff" decals (avoids using chemicals for yellow mark clean off and the resulting tide mark which then flows into the frame rims!). These can be used as vision "training" decals, emphasising the area of patient use for distance and reading.



## Uncut PPL

Rxs are despatched with removable ink markings as example below, printed in yellow.



As uncut lens customers will then use these yellow ink marks as their glazing reference line, it is extremely important to ensure these are accurately applied.

Humans working at this all day are prone to alignment errors! so an automatic sensor to spot those engraved marks and correctly align the inking efforts is used.



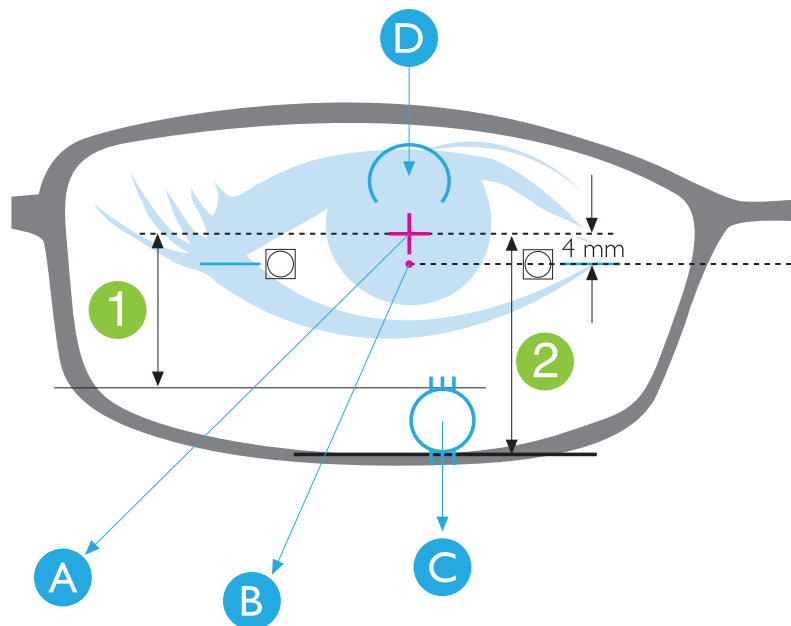
Lens Inker

# Explanation of Progressive Lens Measurements



**1 Progression Length:**  
Vertical distance between the pupil centre and the start of the near vision (where 90% addition is reached).

**2 Minimum Fitting Height (MFH):**  
Minimum distance from the pupil centre to the lower tangent of the lens periphery.



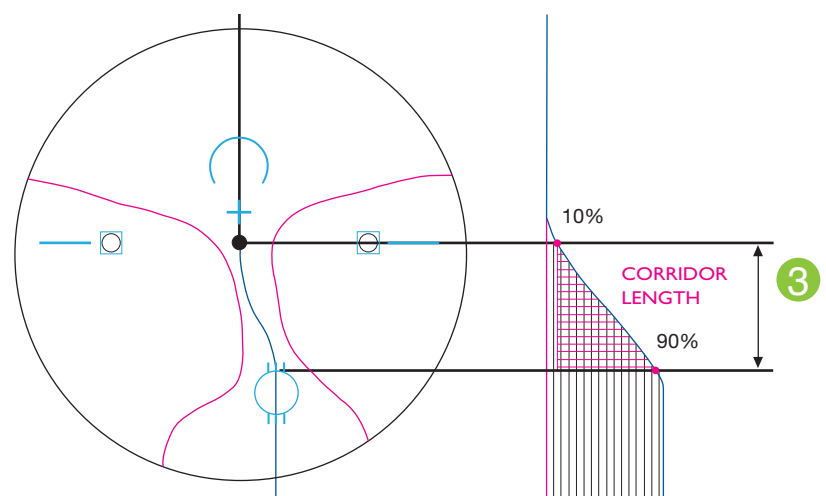
**A** Fitting Cross + Major Reference Point (MRP)

**B** Prism Reference Point (PRP)  
mid point between horizontal engravings

**C** Near Reference Point (NRP)

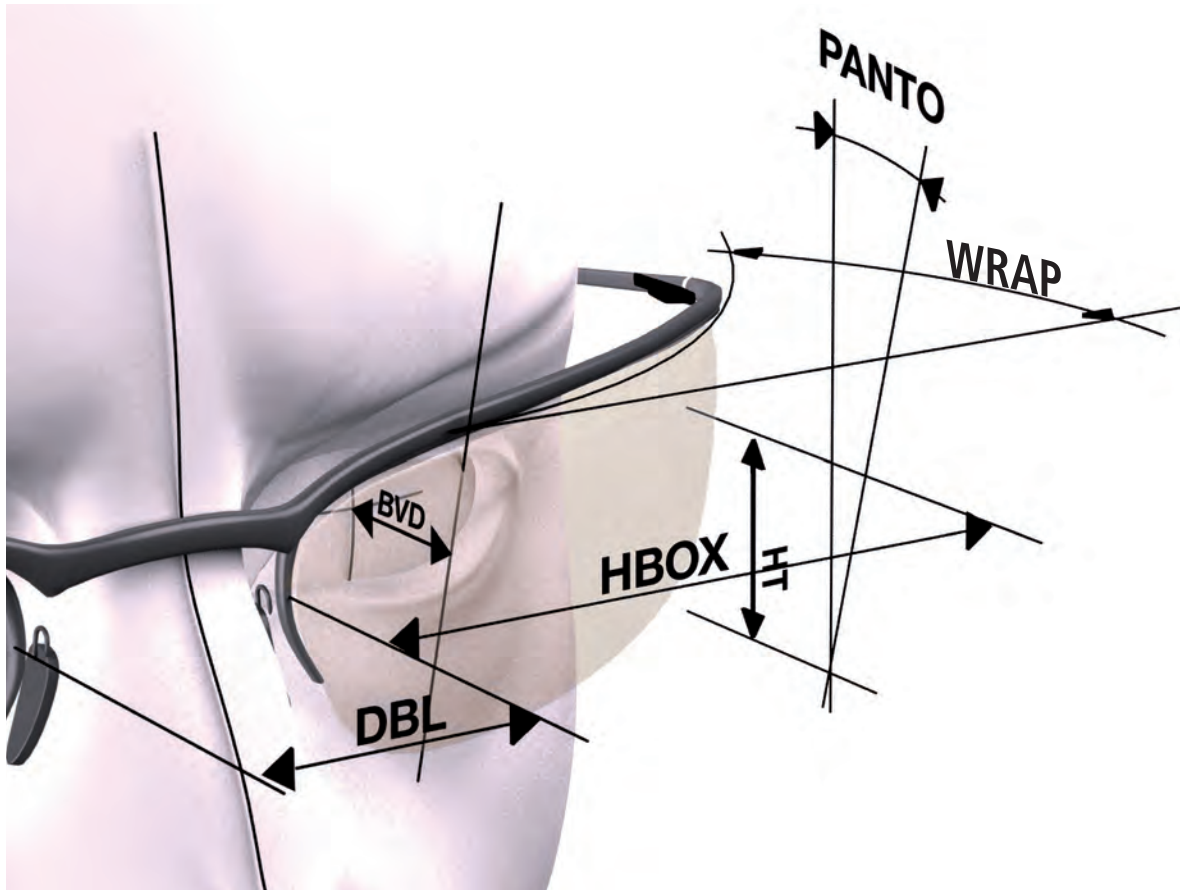
**D** Distance Power Reference Point (DRP)

**3 Corridor Length:**  
Distance between the point starting at 10% of the addition and ending at the point where 90% of the addition is.

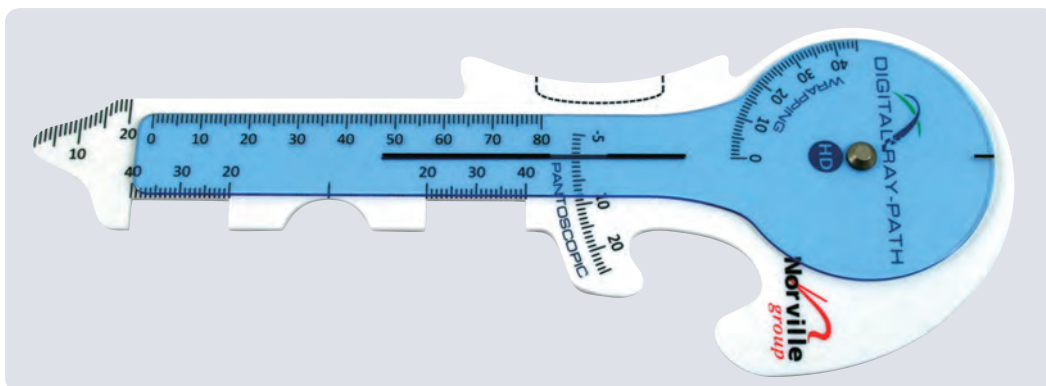




# Calculation Parameters



MPD	Monocular Pupillary Distance
HT	Vertical Pupil Height measured from the lower boxed tangent
HBOX	Horizontal Boxed Lens Size of Frame
DBL	Distance Between Lenses
VBOX	Vertical Boxed Lens Size
PANTO	Pantoscopic Tilt Angle
WRAP	Wrap Angle
BVD	Back Vertex Distance
NWD	Near Working Distance



Personalization Key - For use with HD progressive lenses - available free.

# Prescribed Power v Compensated Power

## Compensated prescriptions for "as worn" positions

Due to the expansive capacity of modern computers, previous calculations considered too demanding can now be digested in seconds. Previous to this, refraction Rx's were never corrected for the "as worn" conditions other than assumed "allowances".

Today those fitting values can be accurately measured and input alongside Rx lens details into the computer lens design programme, so those +5.00DS and -5.00DS lenses when corrected for actual tilt (panto) angle, wrap angle and BVD. In this example, using 12°, 12° and 12mm, we can note the compensated lens powers recalculated to those which will still result in the original **prescribed Rx** at the cornea. Remember this is just a recalculation of the lens power which will give the correct outcome ±5.000DS held vertically in a trial frame close to the eye. without doing this then the lens power would be incorrect!

### PRESCRIBED Rx (CR39)

R +5.00 DS      L -5.00 DS

### COMPENSATED Rx (CR39)

R +4.88 -0.36 139°    L -4.45 -0.41 46°

### Prescribed Power

Prescribed Power is the given prescription. Conventional lenses are calculated to yield this power when being measured on a lensometer. However, when the wearer is looking through different points of the lens oblique aberrations appear, reducing the wearer's visual acuity.

This is the entry level of technology that only considers a fixed, non-tilted lens i.e. power as given.

This method is based on a pure geometrical conception of the lens: mixing curved surfaces, the lens will provide final wearers with the "given" power in a central gaze direction.

As an outcome, the final lens is not optimised (compensated). Distance Power and Addition are unchanged as "given Rx".

### Prescribed Power

- ▶ Traditionally straightforward
- ▶ Powers easy to measure and compare to prescription
- ▶ Variable Inset: Automatic and manual
- ▶ Freedom in base curve selection

### SPECIAL NOTE

ALL NORVILLE DESIGNS can be ordered / supplied in your preferred options  
NOTHING IS COMPULSORY!

### Compensated Power

This is the newest technology in lens computation that includes any changes in Rx, caused by positional alterations resulting from the final fitting spectacles, by comparison with the trial frame or refractor head Rx.

Based on three key frame fitting measurements - pantoscopic tilt angle, frame wrap angle and back vertex distances distance between curves and back surface of the lens.

### Compensated Power

- ▶ The lens will read a different power when measured on a lensmeter
- ▶ When this is beyond BSI tolerances this will be printed and advised - see below
- ▶ VARIABLE INSET - automatic & manual free-form base curve selections

Compensated lenses will display both the Prescribed Power and the Compensated Power. The Compensated Power is the one that has to be checked on the lensometer for quality inspection.

L	Sph +1.00	Cyl -2.00	100°	Add 2.75	Prescribed Power
Compensated Power	Sph +1.12	Cyl -1.98	86°	Add 2.71	

## SURFACE MAPPING

Before the final step of lens inking (page 8x) the lens has been checked, not just for conformity with the ordered specification, but with the design parameter matching that particular lens style.

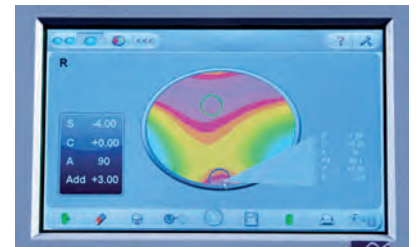
Its actual lens topography is ascertained by a mapper which by means of a computer overlay the actual is mapped to the original design specification.

Colour lens maps have become more common as a means of identifying progressive surfaces.



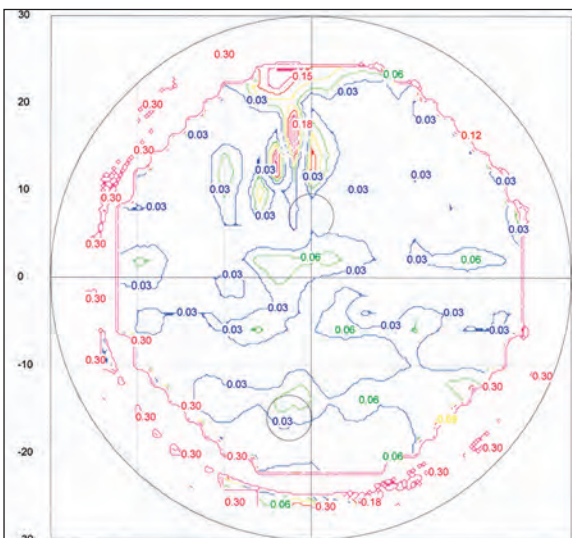
### Visionix VX40

Provides a great general mapping view of glazed spectacles - at a glance will spot an upside down or lopsided progressive.

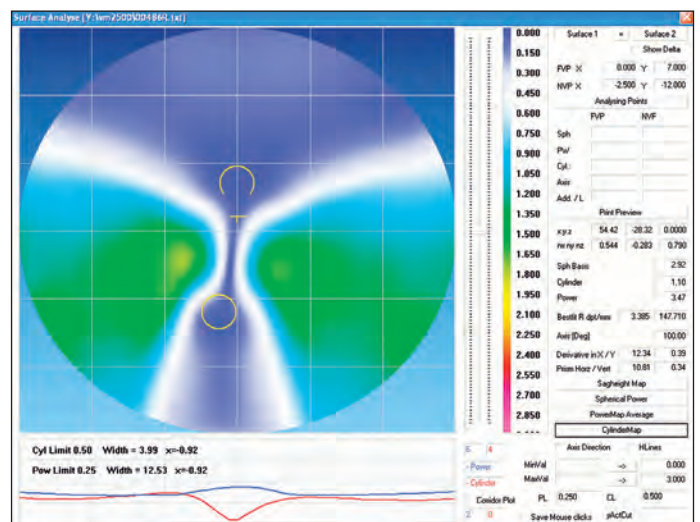


### A&R Mapper

The technical "bee's knees" will electronically provide a comparison against the design criteria to that actually produced and will analyse if this is within acceptable limits.



Typical surface error contour map



Actual Cylinder Map





## Nationwide Rx Service Contact Guide

### Communication Network

All Norville regional locations are directly linked from the Gloucester Hub switchboard. Individual and branch dialling codes will still connect to your dialled location.

#### Gloucester (Hub laboratory)

Service House, Magdala Road, Gloucester GL1 4DG  
Phone: 01452 528686 • Fax: 01452 411094  
Email: rxsales@norville.co.uk

#### Bolton

Folds Road, Turner Bridge, Bolton BL1 2TU  
Phone: 01204 381224 • Fax: 01204 388906  
Email: bolton@norville.co.uk

#### Edinburgh

Grange Road, Houstoun, Livingston, Nr. Edinburgh EH54 5DE  
Phone: 01506 434261 • Fax: 01506 431851  
Email: livingston@norville.co.uk

#### Harrogate

Chatsworth Road, Harrogate, N. Yorks HG1 5HX  
Phone: 01423 567533 • Fax: 01423 525327  
Email: harrogate@norville.co.uk

#### Seaham

Unit 6A, Chevychase Court, Seaham Grange Estate, Seaham SR7 0PR  
Phone: 0191 523 8023 • Fax: 0191 523 8024  
Email: seaham@norville.co.uk

Direct Computer Link - EDI - contact IT Department, Gloucester

### Overnight Courier

Couriers travel overnight between all Norville regional locations so your orders can be sent via any laboratory for internal transfer to Norville Specialist Centres.

### Specialist Technical Skills

SKILLS	NORVILLE LOCATIONS
Diving and Swimming Goggles . . . . .	Gloucester
Frame Repairs & Solders . . . . .	Harrogate
Franklin Splits . . . . .	Livingston & Seaham
Free-form Manufacturing. . . . .	Gloucester
Hoya . . . . .	Livingston & Harrogate
Lindberg/Specialist Rimless. . . . .	All Locations
Polycarbonate . . . . .	Bolton
Presto LVA . . . . .	Livingston & Seaham
Protective Rx . . . . .	Bolton
Resin Bifocal Slabs . . . . .	Seaham
Rimless Glazing . . . . .	All Locations
Sports Wrap Glazing . . . . .	Gloucester
Titanium Laser Welding Repairs . . . . .	Harrogate
Zeiss . . . . .	Harrogate
Online Ordering . . . . .	<a href="http://www.norville.co.uk">www.norville.co.uk</a>

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