On behalf of Vision Expo, we sincerely thank you for being with ~~us this year~~.

Vision Expo Has Gone Green!

We have eliminated all paper session evaluation forms. Please be sure to complete your electronic session evaluations online when you login to request your CE Letter for each course you attended! Your feedback is important to us as our Education Planning Committee considers content and speakers for future meetings to provide you with the best education possible.

VISION EXPO

Financial Disclosure

Minerva Maldonado has no financial interests to disclose

VISION EXPO

IN THIS PRESENTATION YOU WILL LEARN TO:

01 **Identify how fashion influences current frame trends**

02 **Match different patient prescriptions and lifestyles to appropriate lens designs**

03 **Apply communication skills to build connections with patients**

04 **Cite optical parameters, including but not limited to:**

- Minimum blank size
- Decentration
- Lens thickness
- Optical crosses
- Oblique aberrations
- Marginal astigmatism

05 **Match the best lens design options in accordance with the parameters listed above**

FACTORS THAT EFFECT LENS THICKNESS

01 **Conventional vs Digital**

02 **Center Thickness**

03 **Material Index**

04 **Decentration**

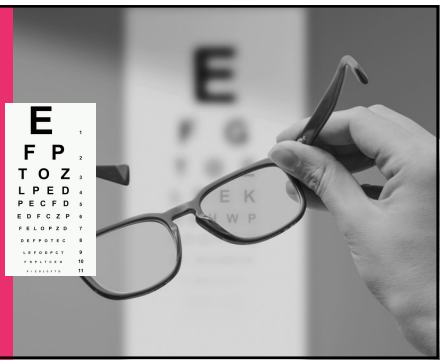
MINIMUM BLANK SIZE (MBS)

We are trying to determine the smallest lens that can be used that can fit into the frame that was selected. This is important because many lens designs may not have a size available that fit the patient's frame choice.

MBS$_{=}$

(Frame PD – Patient PD) + ED

MY PERSONAL RX



Single Vision Rx New
PD 32.0/32.5
OD -5.75 -0.75 x090
OS -6.00 -0.50 x085

Single Vision Rx Old
OD -7.75 -0.75 x090
OS -7.25 -1.00 x090

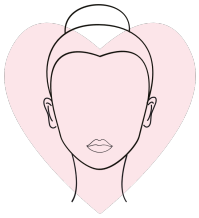
MODERATE MYOPE

Female
Late 20s
Influencer
Hair and makeup stylist

OD -5.00-4.50x035
OS -5.50-4.25x130

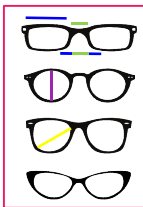
OPTICAL CROSS
COMPOUND MYOPIC ASTIGMATISM

COMBINING OPTICS WITH FASHION



HEART

FRAME SHAPES



Patient PD = 68mm

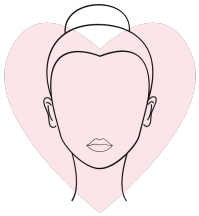
54 A" 14 DBL" = 68 FPD

B = 34mm

ED = 58mm

Decentration = 0

COMBINING OPTICS WITH FASHION



HEART

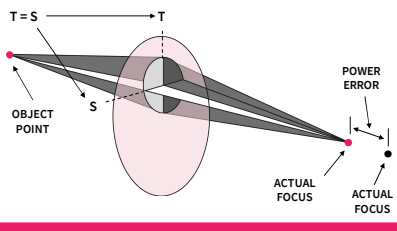
POW Measurements For SV lenses

Back vertex distance = 14mm

Pantoscopic tilt = 8 degrees

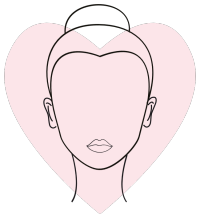
Wrap angle = 5 degrees

OBLIQUE ABERRATION



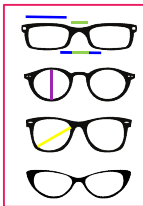
Oblique Refraction Creating Power Error

COMBINING OPTICS WITH FASHION



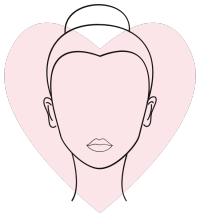
HEART

FRAME SHAPES



- Patient PD = 64mm
- 54 A" ● 14 DBL" = 68 FPD
- B = 34mm
- ED = 58mm
- Decentration = 2mm in OU

COMBINING OPTICS WITH FASHION

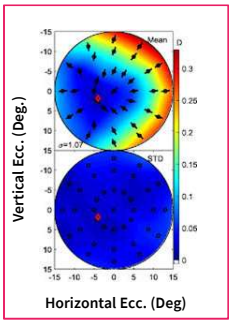


HEART

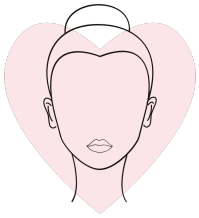
POW Measurements For SV lenses

- Back vertex distance = 14mm
- Pantoscopic tilt = 8 degrees
- Wrap angle = 5 degrees

OCULAR OBLIQUE ASTIGMATISM

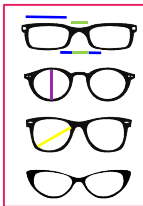


COMBINING OPTICS WITH FASHION



HEART

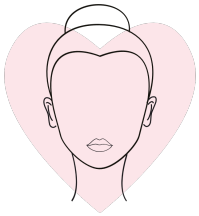
FRAME SHAPES



Patient PD = 56mm

- 54 A" 14 DBL" = 68 FPD
- B = 34mm
- ED = 58mm
- Decentration = 6mm in OU

COMBINING OPTICS WITH FASHION

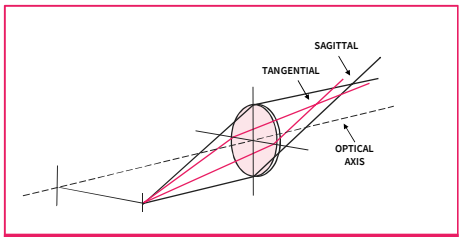


HEART

POW Measurements For SV lenses

- Back vertex distance = 14mm
- Pantoscopic tilt = 8 degrees
- Wrap angle = 5 degrees

OBLIQUE ABERRATION: MARGINAL ASTIGMATISM



Astigmatism

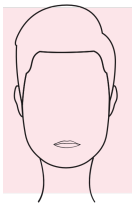
MODERATE HYPEROPE

- Male
- Mid 30s
- Accountant
- Golfs
- Netflix binges

OD +5.50-0.75x010
OS +5.25-0.25x180

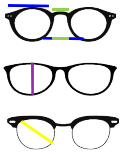
OPTICAL CROSS
COMPOUND HYPEROPIC ASTIGMATISM

COMBINING OPTICS WITH FASHION



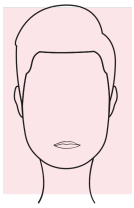
SQUARE

FRAME SHAPES



- Patient PD = 70mm
- 56 A" 14 DBL" = 70 FPD
- B = 34mm
- ED = 59mm
- Decentration = 0

COMBINING OPTICS WITH FASHION

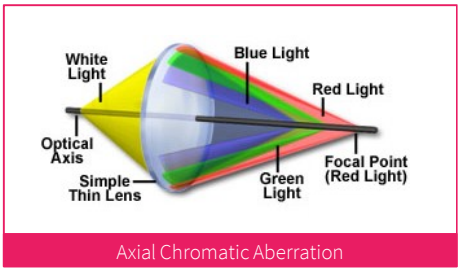


SQUARE

POW Measurements For SV lenses

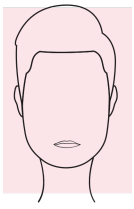
- Back vertex distance = 14mm
- Pantoscopic tilt = 8 degrees
- Wrap angle = 5 degrees

AXIAL CHROMATIC ABERRATION



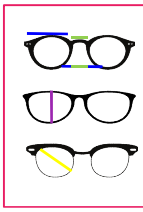
Axial Chromatic Aberration

COMBINING OPTICS WITH FASHION



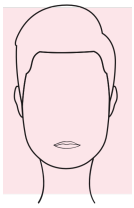
SQUARE

FRAME SHAPES



- Patient PD = 66mm
- 56 A" 14 DBL" = 70 FPD
- B = 34mm
- ED = 59mm
- Decentration = 2mm in OU

COMBINING OPTICS WITH FASHION

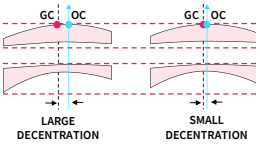


SQUARE

POW Measurements For SV lenses

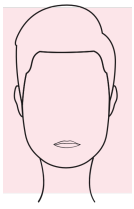
- Back vertex distance = 14mm
- Pantoscopic tilt = 8 degrees
- Wrap angle = 5 degrees

DECENTRATION AND THICKNESS



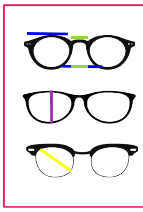
Effects of Decentration on Thickness

COMBINING OPTICS WITH FASHION



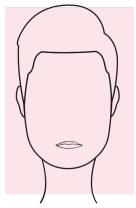
SQUARE

FRAME SHAPES



- Patient PD = 58mm
- 56 A" 14 DBL" = 70 FPD
- B = 34mm
- ED = 59mm
- Decentration = 6mm in OU

COMBINING OPTICS WITH FASHION

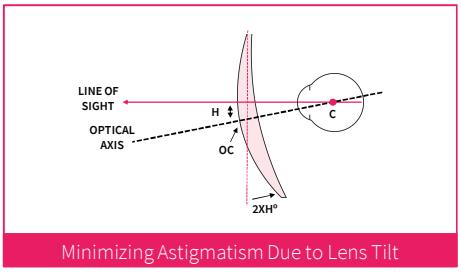


SQUARE

POW Measurements For SV lenses

- Back vertex distance = **14mm**
- Pantoscopic tilt = **8 degrees**
- Wrap angle = **5 degrees**

OBLIQUE ABERRATIONS

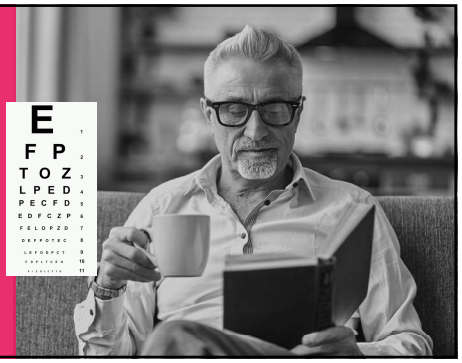


Minimizing Astigmatism Due to Lens Tilt

PRESBYOPIA

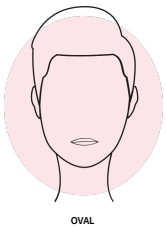
- Male
- Early 60s
- Retired
- Travels

OD +1.50 sph
OS +1.00 sph
ADD +2.75



OPTICAL CROSS
HYPEROPIA

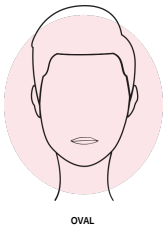
COMBINING OPTICS WITH FASHION



FRAME SHAPES

Patient PD = 74mm
58 A" 16 DBL" = 74 FPD
B = 34mm
ED = 61mm
Decentration = 0

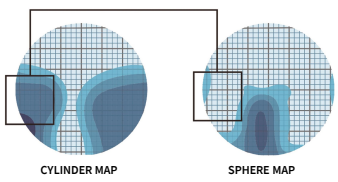
COMBINING OPTICS WITH FASHION



POW
Measurements
For PAL lenses

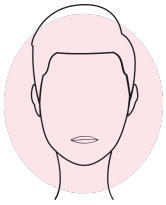
Back vertex distance = 14mm
Pantoscopic tilt = 12 degrees
Wrap angle = 5 degrees

CONTOUR PLOTS



Significant reduction of the peripheral distortion

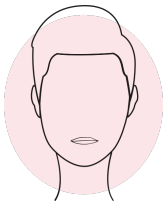
COMBINING OPTICS WITH FASHION



FRAME SHAPES

- Patient PD = 70mm
- 58 A" 16 DBL" = 74 FPD
- B = 34mm
- ED = 61mm
- Decentration = 2mm in OU

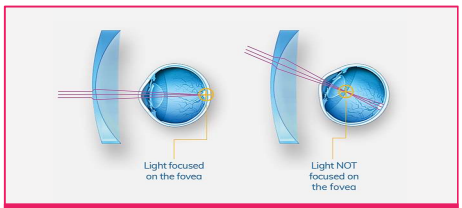
COMBINING OPTICS WITH FASHION



POW Measurements For PAL lenses

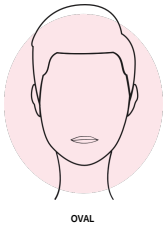
- Back vertex distance = 14mm
- Pantoscopic tilt = 12 degrees
- Wrap angle = 5 degrees

OBLIQUE ABERRATIONS



Ray-trace technologies reduce oblique aberrations to provide better visual quality

COMBINING OPTICS WITH FASHION

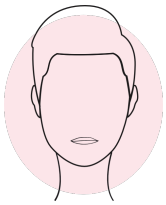


OVAL

FRAME SHAPES

- Patient PD = 62mm
- 58 A" 16 DBL" = 74 FPD
- B = 34mm
- ED = 61mm
- Decentration = 6mm in OU

COMBINING OPTICS WITH FASHION

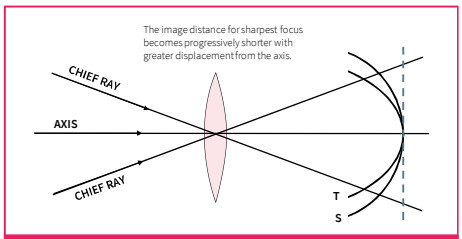


OVAL

POW Measurements For PAL lenses

- Back vertex distance = 14mm
- Pantoscopic tilt = 12 degrees
- Wrap angle = 5 degrees

OBLIQUE ABERRATIONS



Positive oblique astigmatism

YOUTH

Young female

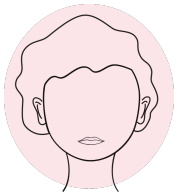
Kindergarten

Active and likes to color

OD +3.00-0.50 x090
OS +2.50 sphere
OD 2 Prism Diopters BI Convergence Insufficiency (CI)

OPTICAL CROSS HYPEROPIC ASTIGMAT

COMBINING OPTICS WITH FASHION

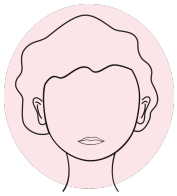


ROUND

FRAME SHAPES

- Patient PD = 52mm
- 42 A" 12 DBL" = 54 FPD
- B = 22mm
- ED = 45mm
- Decentration = 2mm in OU

COMBINING OPTICS WITH FASHION

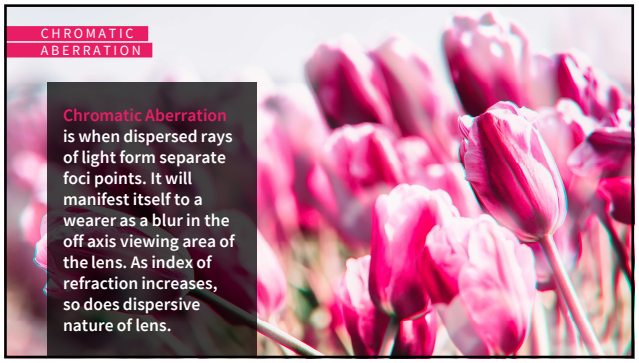


ROUND

POW Measurements For SV lenses

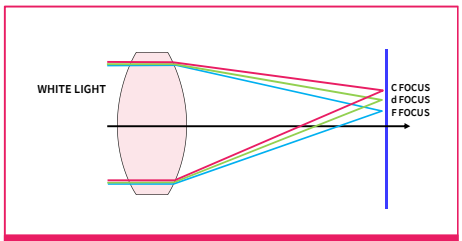
- Back vertex distance = 12mm
- Pantoscopic tilt = 6 degrees
- Wrap angle = 5 degrees

CHROMATIC ABERRATION



Chromatic Aberration is when dispersed rays of light form separate foci points. It will manifest itself to a wearer as a blur in the off axis viewing area of the lens. As index of refraction increases, so does dispersive nature of lens.

CHROMATIC ABERRATION



Chromatic Aberration

OUR MISSION

- Be professional, show empathy.
- Set the standard for patient expectations on frame choice and rx choices.
- Keep up to date with current trends, insta, FB, movies! You're the expert!