

# VISUMAX (ZEISS MEDITEC) FLAP CREATION MADE EASY



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# Overview

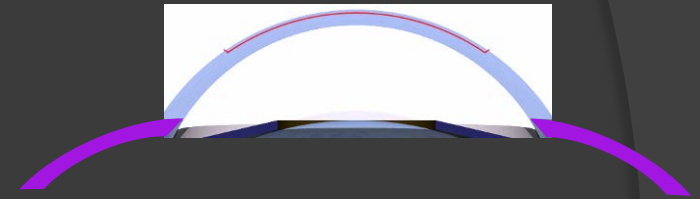
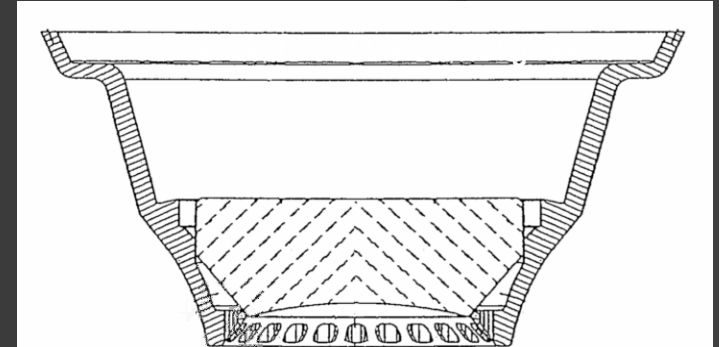
- ① Settings
- ① Choice of cones
- ① Successful Docking
- ① Lifting of Flap
- ① Patient Selection
- ① Unusual Scenarios



# VisuMax: Eye Fixation

## ◎ Gentle Corneal interface design

- Non-applanating -- Spherical contact lens to cornea
- Suction is only applied during actual laser procedure
- Low suction pressure
- Minimal IOP increase
- No vision loss during suction
- Automatic visual-axis centration



# Application of VisuMax: Choice of cones

**Recommended flap diameter:**  
**7.9mm for S size**  
**8.5mm for M size**

**S Size: min WTW < 11.8mm**  
**M Size: min WTW > 12.2mm**  
**L Size: min WTW > 12.7mm**  
**WTW value is according to IOL-Master**

Flap Application Training (01.01.1970) Step 4 of 4

Enter Treatment Data OD OS

**Flap**

**Anatomical Parameters**

Corneal Curv. Radius [mm]  K-values ...

Pachymetry [ $\mu$ m]

Sph [D] Cyl [D] Axis [°]

Manifest

**Flap Parameters**

Diameter [mm]	Thickness [ $\mu$ m]	Sidecut Angle [°]
<input type="text" value="8.00"/>	<input type="text" value="120"/>	<input type="text" value="90"/>

superior Hinge position [°]

inferior Hinge angle [°]

nasal Hinge width [mm]

temporal

**Size of Treatment Pack**

S  M  L

**Treatment Info**

Calculated RST [ $\mu$ m]  (Limit 300  $\mu$ m)

Estimated Treatment Time [s]

Flap Parameters Diameter [mm] Thickness [ $\mu$ m]

**Treatment Assistant**

Cornea thickness (Pachymetry) out of range.

K-Reading out of range

Back Help Comment Plan other eye Save Close

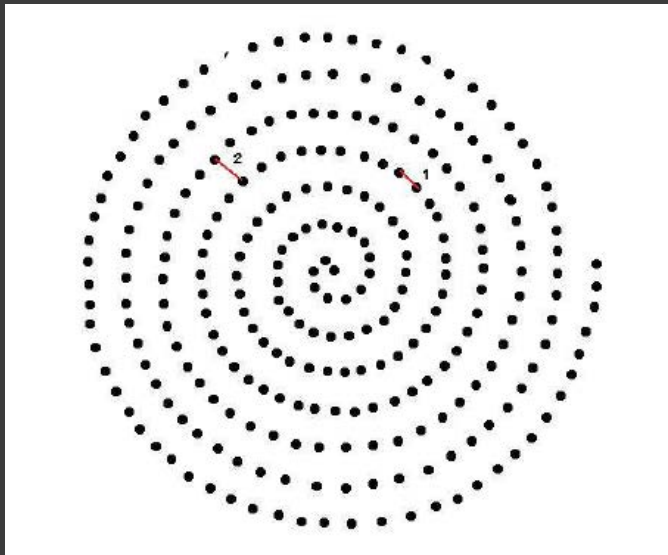
# Application of VisuMax: Treatment Procedure

## Treatment Mode:

Standard

Fast

Expert



1: Spot Distance 2:Track Distance

### Standard Mode:

Spot Distance:0.0030mm

Track Distance:0.0030mm

### Fast Mode:

Spot Distance:0.0050mm

Track Distance:0.0050mm

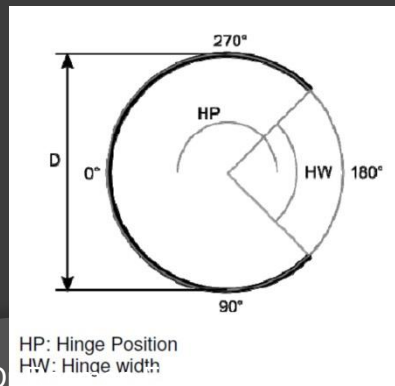
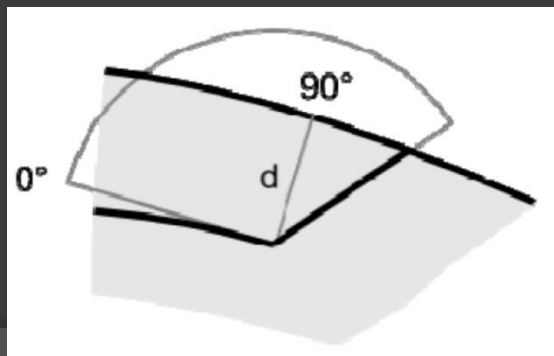
**Expert:** Customisable. Surgeon can adjust spot and track distances



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# SNEC Standard Settings

Parameters	Settings	Notes
Treatment Mode	Fast mode	
Cone size	Small	Medium if WTW > 12.0
Energy (energy offset)*	32	Higher for 1 <sup>st</sup> case of the day
Flap size	7.9 mm	
Thickness	115 microns	Thicker if K >47
Side cut angle	85 degrees	
Hinge angle	70 degrees	
Hinge width	4.8 mm	
Hinge position	Superior	



\* Energy offset is a compensating equivalent.  
1 offset = 5nJ

# Application of VisuMax: Treatment Planning

## Treatment Planning

- Max. Limit depending on used TP Size S, M or L
- Diameter in Flap Bed
- Note OZ (Excimer Laser)
- Note WtW (IOL Master)

- Recommendation 100µm – 120µm
- Note Pachymetry
- Note Ablation Depth
- Range 80µm – 220µm (Flap)

- Recommendation 110° Sidecut Angle
- Note Diameter Limit Change
- Range 45° - 135°

- Range 0° - 360°
- Users choice (e.g. 65° possible)
- Note needed changes
- Most used 90° (superior)

Flap Patient Testandre (01.01.1970) Step 4 of 4

Enter Treatment Data OD OS

**Flap**

**Anatomical Parameters**

Corneal Curv. Radius [mm] 7.85 [K-values ...]

Pachymetry [µm] 600

Sph [D] Cyl [D] Axis [°]

Manifest +0.00 +0.00 0

**Flap Parameters**

Diameter [mm] 8.00 Thickness [µm] 120 Sidecut Angle [°] 110

superior Hinge position [°] 90  
 inferior Hinge angle [°] 50  
 nasal  
 temporal Hinge width [mm] 3.49

**Size of Treatment Pack**

S  M  L

Back Help Comment Plan other eye Save Close

**Treatment Info**

Calculated RST [µm] 480 (Limit 300 µm)

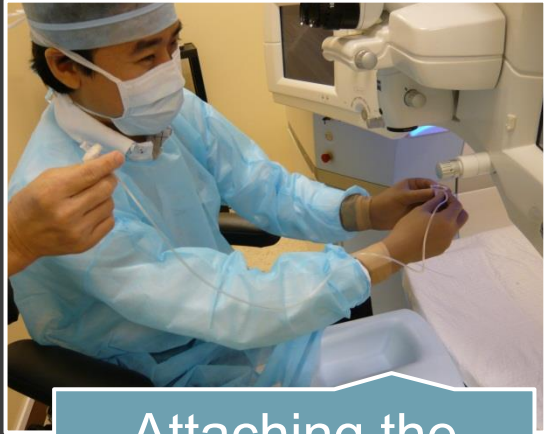
Estimated Treatment Time [s] 45

Flap Parameters Diameter [mm] 8.00 Thickness [µm] 120

**Treatment Assistant**



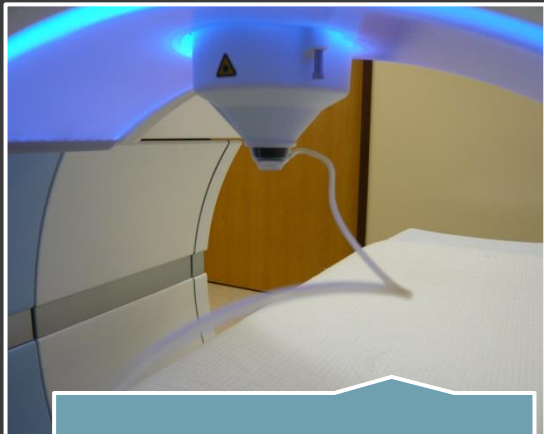
# Preparing the Suction Cone



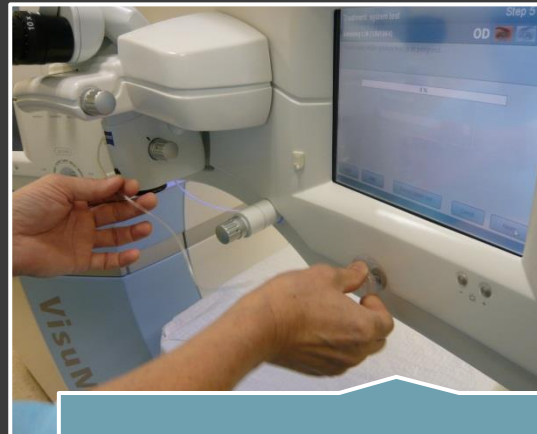
Attaching the cone



Attaching the cone



Cone attached



Fixing the tube

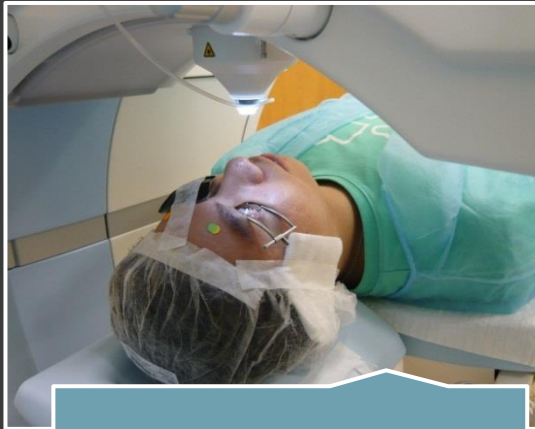




# Preparing the Eye



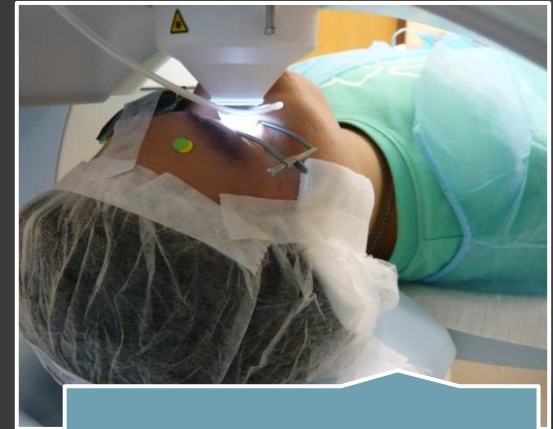
# Applying the Suction Cone



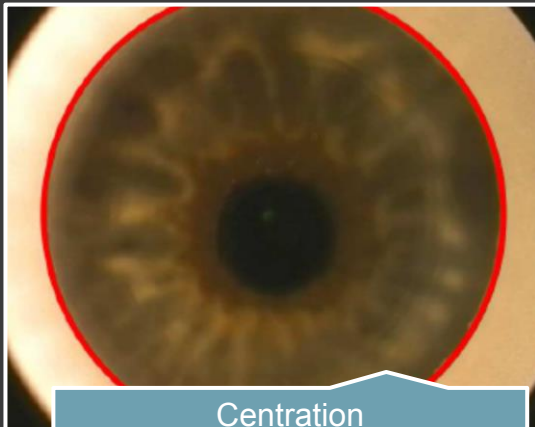
Move patient's eye towards cone



Dry the eye just before contact



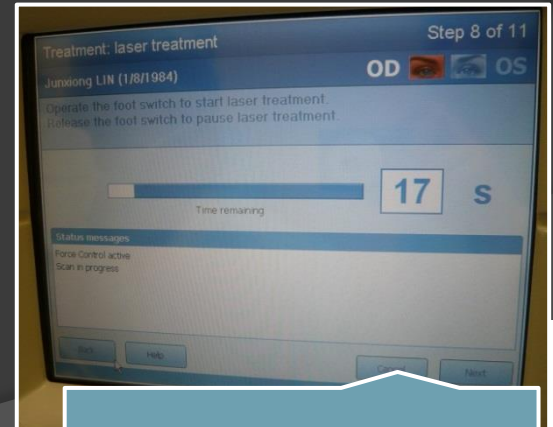
Corneal contact



Centration  
No conjunctiva  
Apply suction button



At least 4 bars  
Wait for "Ready"



Flap Cut with foot pedal

# Patient Selection

- ⦿ Almost all patients, esp
  - Females
  - Small palpebral apertures
  - Prominent nose
- ⦿ Not preferred if
  - Patient tends to squeeze eyes or tears easily
  - Need thinner flaps
  - Need large flaps (H-LASIK)



# Advantages of the Visumax

- Lower suction pressure – more comfortable
- No blackout
- Good centration with fixation light
- Absence of subconjunctival haemorrhage
- Good for small palpebral aperture



# A presentation by...



# Thank You