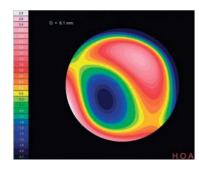
DAILY PRACTICE

OBJECTIVE REFRACTION AND ANALYSIS OF ABERRATIONS

SHACK-HARTMANN SENSOR

OBJECTIVE REFRACTION

VISION QUALITY VIA WAVEFRONT ANALYSIS



- > 1200 points of analysis for a pupil of 7 mm in diameter
- > Objective refraction under mesopic and photopic conditions
- > Measures lower-order and higher-order aberrations
- > Access visual acuity and quality of vision from a pupil diameter as small as 1.2 mm

TONOMETRY / PACHYMETRY / IRIDO-CORNEAL ANGLES

SCHEIMPFLUG IMAGING

NON-CONTACT TONOMETRY

SCREENING FOR GLAUCOMA



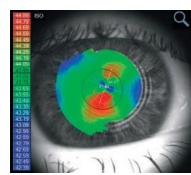
- > Measurement of IOP (intraocular pressure)
- > Measurement of corneal thickness using Scheimpflug imaging
- > Corrected IOP as a function of corneal thickness
- > Automatic measurement of irido-corneal angles using
- Scheimpflug imaging

CORNEAL TOPOGRAPHY

PLACIDO DISC

TOPOGRAPHY MAPS

ANALYSIS OF CURVATURES



- > Axial, Tangential, Elevation and refraction maps
- > Keratometry
- > Contact lens fitting
- > Keratoconus screening
- > Corneal aberrometry



TECHNICAL SPECIFICATIONS

| GENERAL | |
|---------------------------|--|
| Dimensions | 570 mm (h) x 312 mm (w) x 530 mm (d) |
| Weight | 27 kg |
| Working distance | 91 mm |
| Alignment | XYZ automatic |
| Display | 10.1" (1024 x 600) TFT screen Multi-touch screen |
| Observation area | ø 14 mm |
| Printer | Integrated black and white, external color available |
| Voltage | 100/120, 220/240 V CA, 50/60 Hz, 250 W |
| Medical devices directive | EC MDD 93/42/EC modified by directive 2007/47/EC |
| Output | RS232 / USB / VGA / LAN |

| POWER MAPPING AND REFRACTION | |
|------------------------------|-------------------------------------|
| Spherical power range | -20D to +20D |
| Cylinder power range | 0D to + 8D |
| Axis | 0 to 180° |
| Measuring area | Min. ø 1.2 mm - Max. 7 mm (3 zones) |
| Number of measuring points | 1,500 points |
| Acquisition time. | 0.2 sec |
| Method | Shack-Hartmann |
| | |

| Method | Continuous vertical scan with the Scheimpflug camera |
|---|--|
| Pachymeter measuring range | 150-1300 μm |
| Pachymeter resolution | +/- 10 microns |
| IC angle measuring range | 0°-60° |
| IC resolution | 0.1° |
| Pupil illumination | Blue light 455 nm |
| RETRO-ILLUMINATION | |
| CORNEAL TOPOGRAPHY BY SPECULA | AR REFLECTION |
| Number of rings | 24 |
| Number of measuring points | 6,144 |
| Number of points analyzed | More than 100,000 |
| Diameter of covered corneal area at 43D | From 0.33 mm to more than 10 mm |
| Measurement range | From 1 to 100 D |
| Repeatability | 0.02 D |
| Method | Placido rings |
| | |
| TONOMETER | |

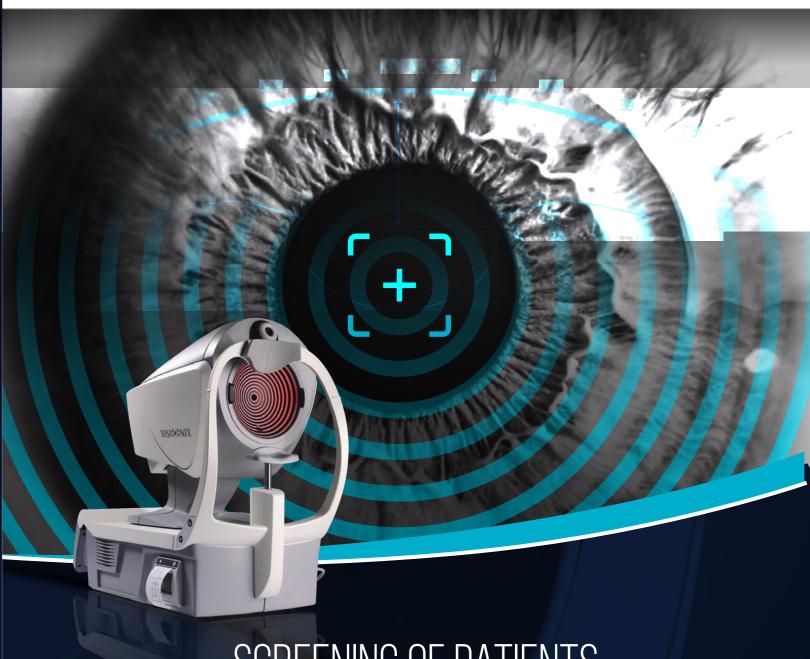
PACHYMETRY, IC (IRIDO-CORNEAL) ANGLE AND PUPILLOMETRY





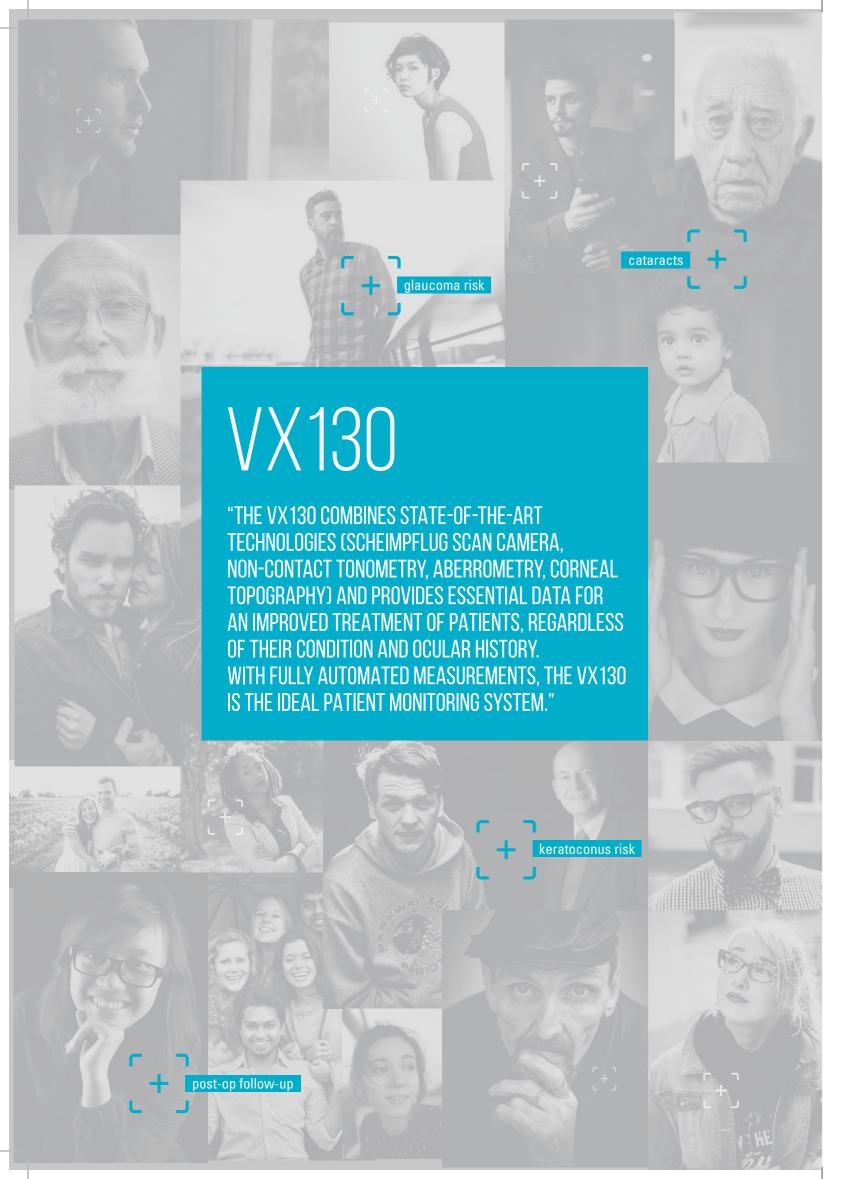
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SCREENING OF PATIENTS, PRE- AND POST-OP SUPPORT BY A COMPREHENSIVE COMPLETE ANTERIOR SEGMENT ANALYSIS





REFRACTIVE SURGERY PRE- AND POST-OP

TOPOGRAPHY OF THE ANTERIOR AND POSTERIOR SURFACES OF THE CORNEA

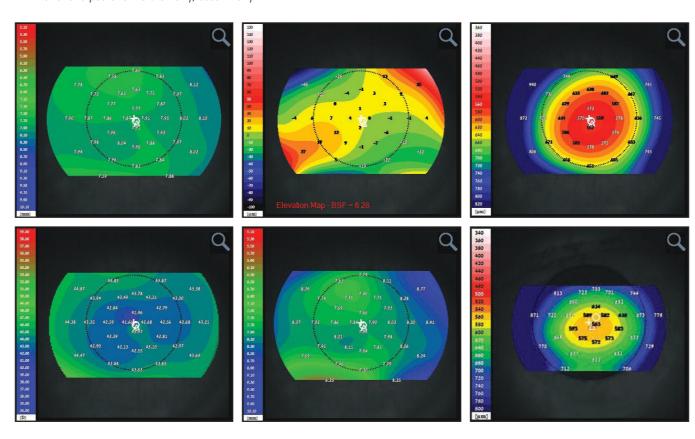
SCHEIMPFLUG SCAN CORNEAL TOPOGRAPHY

THICKNESS MAP **ELEVATION MAP**

SELECTION OF PATIENTS

Complete analysis of the cornea
Combination of data obtained by the Scheimpflug camera and corneal topography data, thickness maps and elevation maps can be obtained on a broad corneal surface.

- > Corneal thickness map
- > Elevation map
- > Anterior and posterior axial, tangential and refraction maps
- > Anterior and posterior keratometry, eccentricity



PRE-OP CATARACT SURGERY

RETRO-ILLUMINATION SHACK-HARTMANN MATRIX SCHEIMPFLUG CAMERA



CATARACTS

- > Visualization of crystalline opacities
- > Analysis of wavefront aberrations, with the ability to separate corneal and lenticular/internal aberrations





POST-OP CATARACT SURGERY

ILLUMINATION

ANALYSIS OF AXIS

POST-OP CHECK TORIC LENS IMPLANT

- > Post-op check on intraocular lens implants
- > Axis alignment check of the toric lens implant
- > Analysis of post op output to improve surgery protocol

