THE FINAL EVOLUTION of KAIZER
– KAIZER XX

XX

EXPERT & EXPRESS

KAIZER XX
with Built-in Drilling System

THE FINAL EVOLUTION of KAIZER
– HUVITZ KAIZER XX

With KAIZER XX's absolute high speed, increase
the efficiency and economic feasibility of your business.


HUVITZ

KAIZER's Pride

80 Seconds / Fast Control

80 seconds to cut the frame with KAIZER XX.
KAIZER XX has enhanced not only its high speed, but also its stability.

35 Styles of Step-Bevel / Ultimate Flexibility

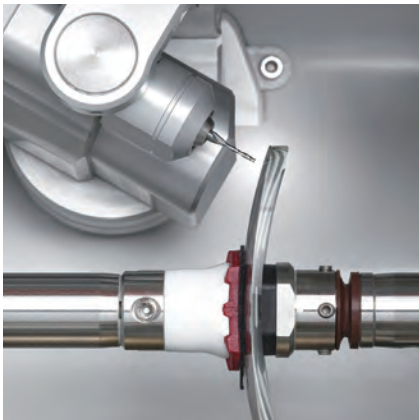
KAIZER XX supports almost all of frame types with the combination of 7 different step bevel types and 5 edge styles. For example, full or partial, front or rear, bevel top or grooved top, and etc.

2X Built-in Drill Solution / Synergy Effect

Built-in Driller reduces processing time by 50%.
Enjoy the reduced processing time, greater diversity and advanced scalability.

Smarter Performance / Art of Work

Easier to process any kinds of jobs, including complex and difficult ones.
– Smarter algorithm, automatic recognition, intuitive GUI, compatibility, even with crystal clear polishing.



Perfect Fitting
Fitting Size per Frame Material
Efficient and Powerful Retouch

Processing Data
High-Resolution Tracing
Digital Pattern
Image / CAD File Converter
Digital Scan
Hole Editor

Safe Processing
Hydrophobic Processing Mode
Adaptive Chuck/Block Adapter
Powerful Processing Wheel

Lens Blocking
One-Touch Auto Blocking
Auto-Recognition of Lens Diopter / Marking
Auto-Correction of Prism Error

Lens Processing
Various Bevel Shapes
Auto Bevel Position Mode
Editor of Bevel Processing Position
Editor of Variable Asymmetry
Built-In Driller Processing
Auto Grooving Position Mode
Grooving on Scan & Cut Shape
Step Bevel Editor
Scan & Cut Data Editor

5 Insights / Expert

KAIZER has been developed into an innovative function through the expert opinions and researches of high technology for the past 10 years.
We provide the best quality by adopting 5 representative insights that satisfy experts.

Fashionable Sunglasses

As time goes by, frames and materials have been diversifying.
And, lens coating with functionalities is easy to slip.
With the upgraded KAIZER in high speed with smart functions,
it provides breakthrough in these issues.

30%
faster than HPE-8000X

Processing Data
- High-Resolution 3D Tracing

Lens Blocking
- One-Touch Auto-Blocking

Lens Processing
- Variety of Bevel Processing
- Bevel Position Editor

Safe Processing
- Block Adapter / Adaptive Chuck

Perfect Fitting
- Saving Fitting Size per Frame Material
- Retouch Function

Processing Data

High–Resolution 3D Tracing of Four Kinds of Frame Material

- 3D tracing with accuracy of 28,000pts is supportive for predefined frame materials like metal, hard plastic, soft plastic and ultem.
- Tracing in ultem mode automatically restores distorted shape, which can be caused while tracing a super– flexible frame.
- Easily possible to change shapes in various ways by using digital pattern function.

High–Resolution 3D Tracing / Restoring Ultem Shape

Lens Blocking

One–Touch Auto Blocking

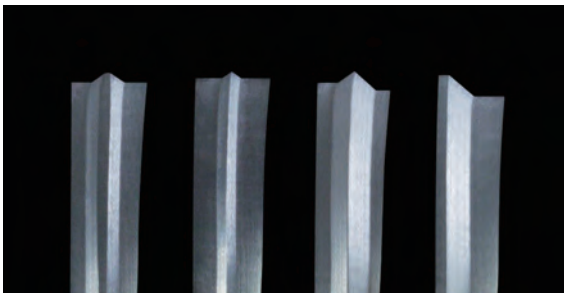
- Auto recognition of optical center or markings by pushing one button.
- Auto compensation of prism error for progressive lense.
- Faster & more efficient job by auto switching of job side and auto transmission of job data after blocking.
- Semi auto recognition mode can proceed with the progressive lenses without markings.

Progressive Lens Recognition

Lens Processing

Various Bevel Processing for Sturdy Fitting

- Mini bevel, Asymmetric bevel, Semi U bevel, Step bevel
- More accurate fitting by complex processing combin– ing bevel, rimless and groove



Blunt Bevel / Mini Bevel / Asymmetric Bevel / Semi–U Bevel

Manual Position Editor

- Manual position mode easily selects the most suitable position for its frame.
- For general frames, it's convenient to process by auto position mode.

Manual Position Editor

Safe Processing

Block Adapter/Adaptive Chuck to minimize errors & axis distortion

- Newly upgraded block adapter & adaptive chuck, and clamp minimize lens processing errors, and enable safer processing.
- More powerful roughing wheel and smarter sensor with improved algorithm reduce processing time.
- Hydrophobic lens mode's various processing options, clamp pressure, lens rotation speed can be easily set by one button.

Perfect Fitting

Saving Fitting Size per Frame Material

- KAIZER XX supports 4 kinds of material, metal, hard plastic, soft plastic, ultem. Once you register the size standard per material, it's possible to quick processing & fitting.

High Quality of Retouch Function

- Mini bevel is available by retouching bevel height. Adding inclined cut is possible if necessary.
- Depending on the job, you can add grooving, polishing, safety bevel afterwards. Also, you can minimize fitting time by selecting each step such as finishing, grooving or drilling only.

Rimless Glasses

By OMA file conversion, immediate processing without drilling layout edting is available.

32%
faster than HPE-8000X

Processing Data
- Importing OMA File
- File Converter
- Digital Scan
- Digital Pattern
- Hole Editor

Processing Data

Direct Importing OMA File

- Once inputting DCS (OMA) file such as provided from well– known frame brands into memory card, you can easily import and process immediately without design work.

File Converter to increase Design Creativity

- Inputting users' own special designs into memory card, file converter automatically imports frame shapes, drilling information from standard image files, or DXF or CAD files.

Immediate Digital Scan

- Holes and frame shapes can be recognized by high– resolution camera.
- Putting lenses on the lens support, scanning starts without distortion caused by gravity and accurate size of frame shape can be acquired.
- In case of Scan & Cut with drilling, data editor automatically carries out, can delete data for the position that users don't want drill cutting.

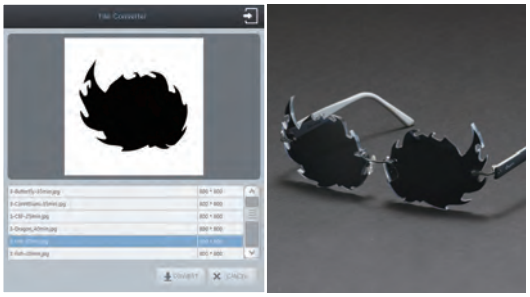
Improved Digital Pattern

- With the digital pattern, user can create unique frame shape with the image background of scanned demo lens.
- Users can choose curve or line editing, and apply to any positions.
- Stretching to secure space of near portion in progressive or multi–focal lenses.
- Shaping corner of angulated shape.
- Restoring damaged demo lenses.
- Rotating shape to change position of horizontal axis.
- Stretching shape to specific direction or enlarging and reducing the total size.

Hole Editor to create high–quality glasses

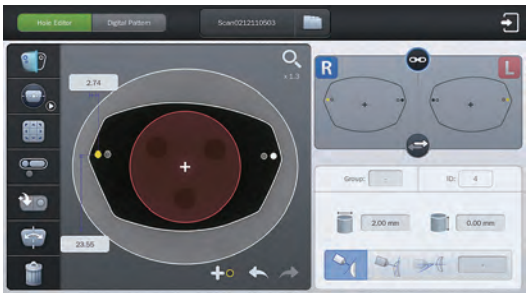
- In hole editing mode for rimless, users can work with the image background of scanned demo lens.
- Easily adding or correcting hole, slot, notch is possible. It supports square and circle shapes as well.
- Users can choose drilling position based on center/edge/ box edge, or the distance from a specific hole.
- Users can import and use the saved drilling information. Registering drilling patterns on preset, more efficient editing job is possible.
- By easy click mode, processing for Chemistrie Clip can be operated easily.

Direct DCS(OMA) Import

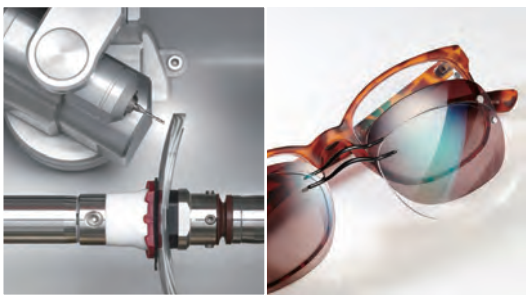


File Converter / Scan & Cut Shape

Digital Pattern



Hole Editor



Built–in Drill / Chemistrie Clip

Trendy Premium Glasses

KAIZER XX has been upgraded with Improved retouch, grooving functions so it can perfectly create lenses for trendy premium glasses.

40%

faster than HPE-8000X

Lens Processing

- Various Shapes of Complex Processing
- Partial Groove Editor
- Scan & Cut Shape Grooving

Safe Processing

- Powerful Roughing Wheel / Adaptive Chuck

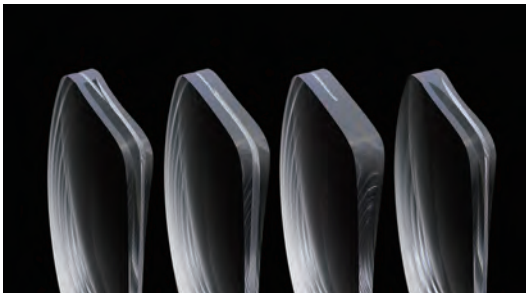
Perfect Fitting

- Retouch Function

Lens Processing

Complex Processing to Perfect Fitting for Various Shapes

- By supporting 4 kinds of complex processing combining bevel, rimless and grooving, users can perfectly finish fitting for unique and luxurious frames.
- Partial groove (grooving + rimless)
- Dual groove (basic grooving + special grooving)
- Hybrid groove (grooving + bevel)
- Partial bevel (rimless + bevel)



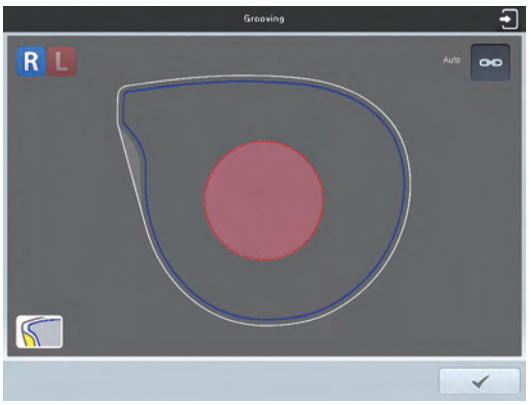
Hybrid Grooving / Dual Grooving / Partial Grooving / Partial Bevel

Partial Grooving Editor

- Users can designate grooving area & safety beveling. Also, can use and angle guide with zoom in/out for precise edit.

Grooving for Scan & Cut shape

- For unique designs from house brand and handmade frames, KAIZER XX supports grooving of concave shape.

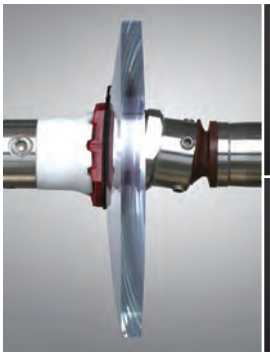


Setting Groove on Scan & Cut Shape

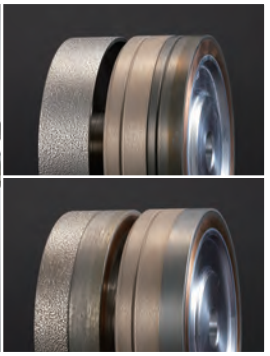
Safe Processing

Upgraded Roughing Wheel / Adaptive Chuck

- The upgraded roughing wheel & adaptive chuck support powerful and speedy processing with hydrophobic mode.
- RPGA type : Roughing wheel + Hybrid finishing wheel
- RPA type : Wide roughing wheel + Hybrid finishing wheel



Adaptive Clamp Chuck



RPA/ RPGA Wheel Types

Perfect Fitting

Improved Retouch Function

- Improved retouch function enables more efficient fitting for complex processing using grooving or bevel.
- The function dramatically reduces processing time by specifically adjusting the range as well as size and grooving.

Partial Grooving Retouch

Sports Goggles

KAIZER with built–in drill & twice faster speed, customize processing for high curve sports goggles, boutique premium design.

45%

faster than HPE–8000X

Processing Data

- Digital Scan

Lens Processing

- Step Bevel Editor
- Scan & Cut Data Editor
- Built–in Drill Processing

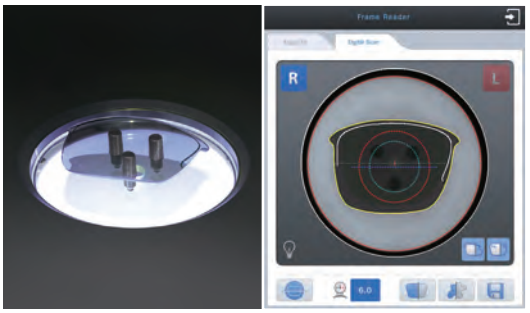
Perfect Fitting

- Retouch Function

Processing Data

Digital Scan for High Curve Goggle

- Recognizing step bevel line properly and compensating distortion caused by gravity are the most important jobs in high level goggle processing.
- The digital scan using special lens support can accurately scan frame shapes.
- Step bevel line can be indicated by manual or already processed step bevel lenses.



Demo Lens Digital Scan

Lens Processing

Step Bevel Editor

- 7 types of step bevel are available. (Full step, partial step can be processed on front, rear and both sides.)
- Step bevel edge can be finished in flat, bevel, grooving, blunt bevel and inclined cut.

Step Bevel Editor

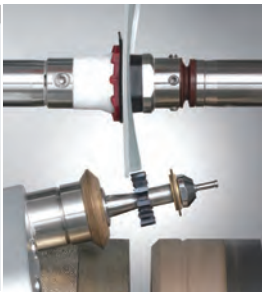
Scan & Cut Data Editor

- Using Scan & Cut Editor, users can easily reduce the number of the vent holes in sports goggle design.

Built–in Drill

- The high–speed built–in drill enables 2X faster processing for Scan & Cut shape.
  One–stop processing from drilling to step bevel is possible.

Scan & Cut Data Editor



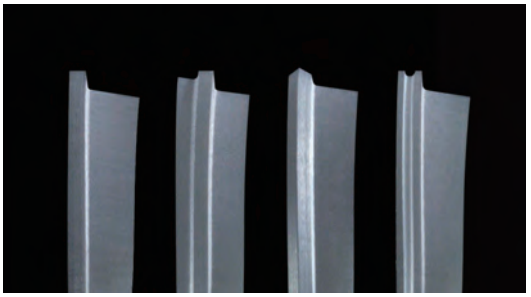
Step Bevel Processing

Perfect Fitting

Retouch Mode

- Retouch mode even enhances the efficiency by allowing wheel–edging, drilling or step beveling selectively in smart way.

Retouch Mode



Step Bevel / T–Step Bevel / Beveled Top / Grooved Top

Kaizer Series

Huvitz edging system offers various solutions meeting customers' needs.

HPE-910, Upgraded with Processing Tools & Motor Engine

- Built-in drill with 2X longer durability, reduced processing time more than 50%
- Perfect fitting by step bevel with 7 types and 5 edge styles.
- With more powerful wheel, more flexible adaptive chuck, easy to process high curve and various coating lenses
- Fast and easy for complex processing include variable asymmetric which is adjustable for height.
  (Semi-U, Asymmetric, Partial Grooving/Beveling, Hybrid Grooving, Dual Grooving)
- Concave shape grooving, adjusting frame bevel's height, Improved retouch.

HDM-8000, Edging & Drilling at the same time

- Stand alone drilling system which can process rimless frame at the same time with edging.
  (HDM-8000 is compatible with 910X, 910N types.)
- Manual angle mode/Scan & Cut mode to process various designs including sports goggles.
- Easy click mode for Chemistrie Clip.

HAB-8000X with Faster Speed & High Efficiency

- By advanced internal lensmeter & camera, it automatically scans sports goggles, demo lenses, tinted lenses without error.
- Auto recognition of optical center & blocking position for multi-focal & progressive lens.
- Auto processing for error compensation for prism distortion and input diopter/axis.
- Accurate recognition of frame shape including step bevel line and hole/slot of rimless frame.
  Shape of damaged goggle can be restored as well.
- Smart convenient function including smarter algorithm, adding type for ultem frame, standing tracing and layout in a line.
- Powerful digital pattern & designer function such as creating own design, free editing.

Kaizer Series

Huvitz edging system offers various solutions meeting customers' needs.

HFR-8000X with 3D Scanning includes Faster Speed & Improved Accuracy

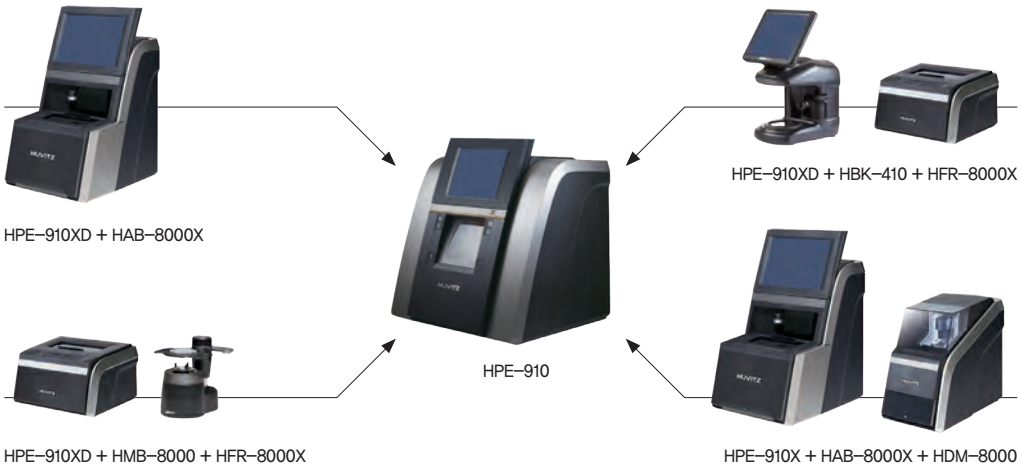
- HFR-8000X provides speedy scanning with high- resolution of 16,000pts by adopting the latest motor control platform and digital signal processing technology.
- It supports 3D size compensation function so that can easily recognize concave lenses.
- 3D smart scan without distortion for angle edge, narrow frame and ultem frame.
- By upgraded algorithm, able to trace gripper bar's position, and expect real-time frame shape.

HMB-8000 with Compact Design & High Efficiency LED Light Source

- Adopting high efficiency LED light source which can easily recognize dark-tinted lenses, and adjust brightness.
- Compact design, intuitive graphic, auto power on/off function.

Kaizer Configuration

Choose any configuration, Huvitz offers high-quality performance.



Specification by Each Type

Product Type		Wheel Type	Asymmetric	Built-in Drill	Step Bevel	Scan & Cut	Chemistrie
HPE-910(XD)	110V	RPA*	O	O	O	O (Built-in)	
HPE-910(X)	110V	RPA*	O	X	O	O (HDM-8000)	
HPE-910(N)	110V	RPA*	O	X	X	O (HDM-8000)	
HPE-910(XD)	220V	RPGA**	O	O	O	O (Built-in)	
HPE-910(X)	220V	RPGA**	O	X	O	O (HDM-8000)	
HPE-910(N)	220V	RPGA**	O	X	X	O (HDM-8000)	

* RPA type consists of high-speed super wide roughing wheel and hybrid finishing wheel.

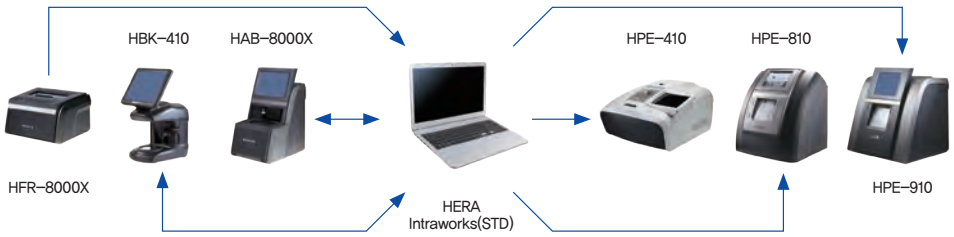
** RPGA type consists of high-speed roughing wheel positioned left-hand side of the glass wheel and hybrid finishing wheel.

Network Solutions & Specifications

Huvitz edging system provides optimizing network solutions considering user friendly settings, system configurations and device maintenance.

HERA Intraworks (STD) Optical Store Solution

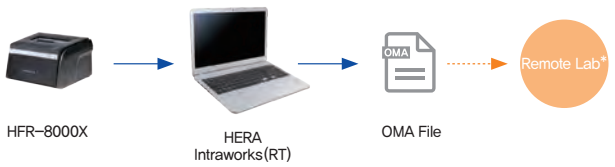
- Standard version serves as a data server among Huvitz finishing instruments and provides connections up to the capability of PC.
- Its simple interface allows data edition, job assignment, and job import/export even in OMA format which can be automated by options.



HERA Intraworks(RT) Remote Tracing Solution

- RT version is to help establish the simplest remote tracing environment by the acquisition of tracing data and automatic export of it in OMA format for the customer to upload it on LAB-ordering sites.

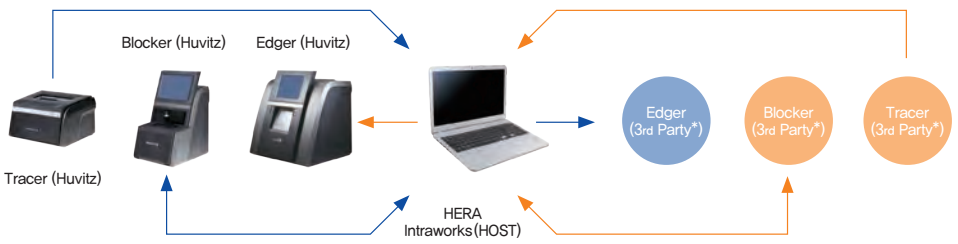
*Remote Lab receives job data via a Lab Management Software, or can make an economic solution with the combination of email and HERA Intraworks(STD).



HERA Intraworks(HOST) Third Party Compatibility Solution

- Host version based on DCS (OMA) supports data connection between Huvitz devices and third party's devices.
- Host version provides simple third party compatible solution without expensive dcs host solution.

*To be compatible with Huvitz system, 3rd party instruments should support OMA protocol and may require a compatible chuck adaptor.



HPE-910 (Edger)

Lens Material	Plastic, Polycarbonate, High index plastic, Glass, Trivex
Edging Type	Bevel, Groove, Rimless, Mini bevel, Partial bevel, Partial groove, Dual groove, Hybrid groove, Asymmetric bevel, Semi-U bevel, Step bevel*
Edging Position	Front %, Front mm, Rear mm, Base curve, Auto, Manual (with 2D simulation and 3D preview)
Edging Options	Polishing, Saftety bevel, Safety mode
Built-in Drilling**	Hole, Slot, Notch, Scan & Cut shape, Chemistrie Clip
Functions	Job manager, Digital pattern, Hole editor, Asymmetric bevel editor, Scan & Cut shape editor, Step bevel editor, OMA import/export, CAD export, DCS/OMA compatibility, Retouch mode (Normal, Drill-only, All)
Utilities	LCD tilting Automatic edging room door Edging room illumination SD card storage (Memory card included) Barcode reader interface, Vacuum interface
Edging Size	Max. 90mm Min. flat edging : 18.5mm (without safety bevel) Min. bevel edging : 20mm (without safety bevel)
Display	9.7"color TFT LCD(1024x768) with touch screen
Dimensions / Weight	540(W) x 472(D) x 580(H)mm 51.2kg (110V), 50.2kg (220V)
Power Supply	AC 100-120V / AC 220-240V 50/60Hz
Power Consumption	1400VA

* 'N' type doesn't support step beveling. ** 'X' and 'N' types don't support built-in drilling.

Wheel / Edger Type	RPGA (220V)			RPA (110V)		
	XD	X	N	XD	X	N
Wheel Combination	High-speed plastic roughing (220V: normal, 110V: super wide)					
	Hybrid finishing (Finishing + Asymmetric)					
	Polishing (Rimless only)			Polishing		
	Glass roughing			None		
Lens Material	Plastic					
	Polycarbonate					
	Hi-index					
	Trivex					
	Glass			None		
Mini Beveling	O	O	O	O	O	O
Asymmetric / Semi-U	O	O	O	O	O	O
Partial Grooving*	O	O	O	O	O	O
Hybrid Grooving*	O	O	O	O	O	O
Built-in Drilling	O	X	X	O	X	X
Drilling Machine Support	X	O	O	X	O	O
Step Beveling**	O	O	X	O	O	X

*No grooving support for glass material. **No step beveling support for glass and plastic, or CR39.

HDM-8000 (Drilling Machine)

Hole Type	Hole, Slot, Notch
Hole Size	ø1.00~5.00mm
Tilting Scope	Automatic, Manual (0~30˚
Hole Depth	Max. 6.0mm (0.0mm=through hole)
Range of Hole Drilling	ø32.0~75.0mm from lens rotation axis
Slot Width	1.0mm~5.00mm
Slot Length	Max. 20.00mm
Dimensions / Weight	193(W) x 483(D) x 342(H)mm / 14kg
Power Supply	AC 100-240V 50/60Hz
Power Consumption	100W

HAB-8000X (Auto Blocker)

Tracing Type	(Refer to the specification of the frame reader)
Tracing Mode	
Tracing Size	
Frame Material	
Frame Data Processing	
Measurement	SPH : -10D~+10D, Cyl: ±6D (min. step 0.01D)
Blocking Tolerance	-0.5~+0.5mm, Axis ±1˚
Blocking Method	Automatic free location
Blocking Pressure	3.0kgf
Lens Recognition Mode	Intelligent, Auto, Manual, Semi-auto (for laser mark)
Lens Type Recognition	Single, Bi-focal, Progressive, 3-dot
Digital Scan	Shape, Hole/Slot/Notch, Step bevel line
Blocking Assistance	Camera zoom, PD/OH live adjustment, Lens shortage check, Block attachment check, Auto brightness control
Layout Factors	FPD/DBL, PD (Binocular, Monocular), Cylinder axis, OH (ΔY, Mixed height, Box height), Centering method (Box center, Optical center)
Edging Factors	Lens material (Refer to the edger) Edging type (Refer to the edger) Edging position (Refer to the edger) Edging option: Polishing, Safety beveling, Safety mode
Functions	Job manager, Digital pattern, Hole editor, Asymmetric bevel editor, Scan & Cut shape editor, Step bevel editor, Image/CAD file converter, OMA import/export, CAD file export, Auto job save & transmission, R/L shape correction, DCS/OMA compatibility
Utilities	Tiltable LCD screen SD card storage (Memory card included) Barcode reader interface
Display	10.4"color TFT LCD(1024x768) with touch screen
Dimensions / Weight	300(W) x 470(D) x 560(H)mm / 23kg
Power Supply	AC 100-240V 50/60Hz
Power Consumption	75W

HFR-8000X (Frame Reader)

Tracing Type	Automatic 3D binocular tracing
Tracing Mode	Auto, Semi-auto (Manual tip-positioning)
Tracing Size	Frame ø16.0~92.0mm, Pattern ø16.0~84.0mm
Frame Material	Metal, Hard plastic, Soft plastic, Ultem
Data Processing	FPD, Frame curve, Circumference, 3D angle, Concave shape (Demo lens)
Dimensions / Weight	248(W) x 320(D) x 190(H)mm / 8kg
Power Supply	AC 100-240V 50/60Hz
Power Consumption	32W

HMB-8000 (Manual Blocker)

Illumination	White LED source Light intensity adjustment Automatic power-saving mode
Dimensions / Weight	177(W) x 184(D) x 206(H)mm / 2kg
Power Supply	5V DC 3.5A
Power Consumption	2.5W

Designs and details can be changed without prior notice for the purposes of improvement.

KAIZER X EXPERT & EXPRESS

Huvitz

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