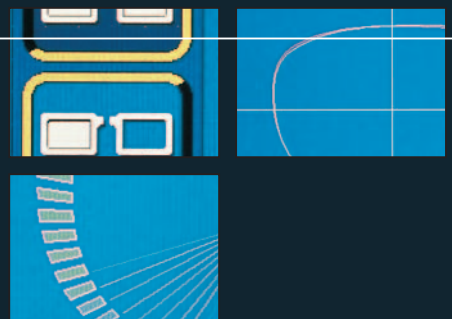




Optical machinery from Weco
Trace 3



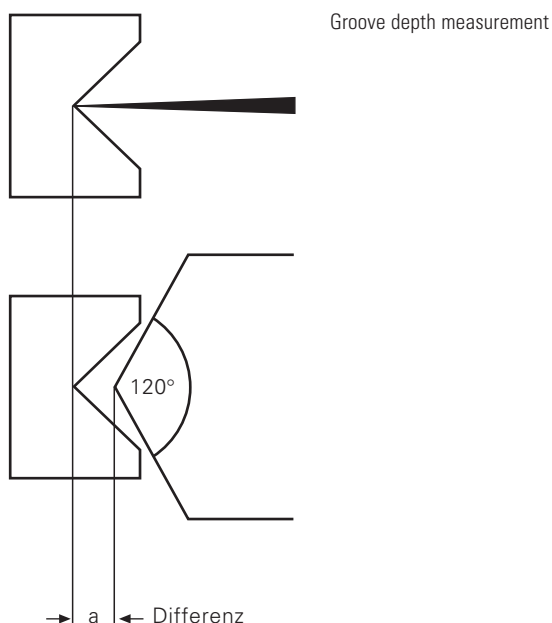
Trace 3 - precise and secure tracing

In developing Trace 3, we considered several important points that are quite significant in practice: light, self-explanatory and intuitive operation and the safe and exact tracing of the shape. Also significant is the handling of data and the system adjustment. Before the data are transmitted, they can be checked thoroughly by the user. Varied fallback systems such as integrated help menus and data comparisons provide the user with additional guidance and help to avoid errors.

Straight-forward operation and safe handling

The spectacle frame is placed into the frame holder and is then automatically aligned horizontally and vertically. The frame is held with constant pressure to avoid bending or distortion. When using the Trace 3, the user is guided by an intuitive icon display. These icons are always arranged logically from left to right depending on the work process. If there is a question about a work step or an icon, the user is supported by help menus that contain specific information about the current task.

- > The frame can be inserted at will because frame alignment and tightening is automatic
- > The frame is not distorted as tightening is automatic with constant pressure
- > Vertical and horizontal alignment of the frame without the necessity for manual adjustment
- > Nosepiece for perfect positioning of the frame in the tracer
- > Straightforward operation through logical user guidance and easily understandable icons
- > Perfect operator support through meaningful and clear help menus on the current task



Tracing

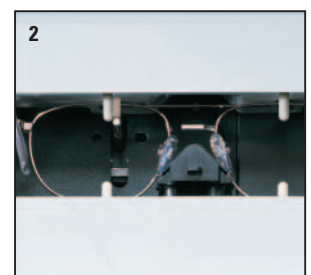
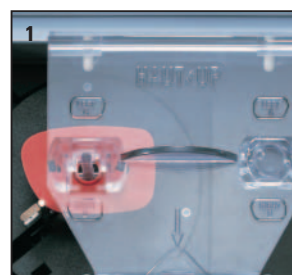
The tracing process begins after the frame has been secured in Trace 3. Trace 3 differentiates between two principally different procedures for plastic and metal frames. Through their material properties, plastic frames can be adapted to the lens bevel by warming. As metal frames cannot be handled in this manner, the lens must be particularly precise in shape and size to achieve a good first-time-fit rate. In addition, the frame's groove depth and the corresponding bevel position are determined and taken into consideration when grinding.

Formers, demo lenses and existing lenses can be scanned conveniently using the Trace 3. For tracing, the lens is fitted with an adapter for external tracing. The Trace 3 automatically recognises external tracing so that, apart from inputting the bridge measurement, no further steps are necessary.

- > Tracing program for plastic and metal frames for perfect fitting
- > For metal frame: groove determination for exact fitting precision
- > Tracing on both sides, right only or left only
- > In the case of one-sided tracing, you are prompted to input the width of the bridge
- > 3D tracing and determination of the groove angle and bevel length
- > Automatic calculation of bridge width of the frame, box measurement and the circumference of the lens
- > Automatic recognition and external tracing

Security from adjustable tracing speed

For complicated shapes, it is meaningful to reduce the tracing speed to prevent the tracer from jumping out of the frame groove. For this reason, Trace 3 has a three-stage tracing procedure. If the tracer jumps out of the groove, Trace 3 automatically checks the insertion point and starts the tracing process again at reduced speed. If, for example, for frames with non-centralised groove, manual insertion of the tracer is necessary, this can take place at reduced tracing speed. If tracing difficulties are recognised, Trace 3 attempts to retrace the frame automatically. Only after three attempts is an error message shown.



- > Adjustable tracing speed for difficult frames
- > If the tracer jumps out of the groove, Trace 3 remounts it automatically and reduces the tracing speed
- > Three tracing speeds quick, slow, very slow (only automatic)

Output of measurement results

A completely new feature for the Trace 3 is the large TFT display that always gives the user a complete view of operation. Important process information can be recognised from almost any viewing angle. Particularly important is the comparison of the measuring data for the right and the left lens. Possible differences between the left and the right frame shape can be recognised on the tracer, meaning that further work steps at the centring device and edger are avoided. That means that any waste of expensive lenses can be ruled out.

For the first time, we are given the 3-D information with the Trace 3 visually as well as the x- and y-coordinates of the frame. Alongside the line-formed presentation of the shape, a graphic element on the circumference displays the corresponding degree of contraction of the lens.

- > Clear, graphic TFT colour display with wide viewing angle
- > Graphic display of 3-D tracing data during the tracing process for direct check
- > Graphic 2-D presentation of both sides and display of the measurement values for comparison
- > Graphical superimposition of the right and left glass shape in 2-D
- > Display of glass contraction (z co-ordinates) in the display
- > Display of bridge widths, box dimension for disc height and length, circumference and curve of the lens contraction

Contour accuracy and precision when tracing

The Trace 3 enables even more precise tracing results as the groove angle and depth are taken into consideration in the size correction of the lens. All conceivable sources of error in the determination of shape data are eliminated in the design through the mechanics and control software resulting in optimum support for the user.

To work efficiently when producing high volume, the next order can be started directly after sending a data record. To ensure the customary high level of precision of the Wecco system and constant perfect results when tracing, a regular check of the system is particularly important when tracing volume orders. Therefore, Trace 3 automatically proposes its calibration requirements at regular intervals.

- > Internal calculation of the 3-D tracing data for precisely tailored data records for processing on the edger
- > Precise and stable accuracy in fitting through size correction of the lens taking into consideration the groove angle and depth
- > Possibility of decision: use of the independent data from both sides or mirror-imaging one side, e.g. if one side is bent
- > Efficiency through the elimination of superfluous user steps
- > Regular calibration

- 1 External tracing
- 2 Frame alignment and tightening
- 3 Start screen
- 4 Display of glass contraction during tracing
- 5 Form and measurement values of frame
- 6 3D display of form
- 7 Superimposition of glass shapes



Key parameters and technical specifications

Straight-forward operation and safe handling

- > Automatic frame alignment and tightening
- > Automatic tightening with constant pressure
- > Straightforward operation through understandable icons

Tracing

- > Tracing program for plastic and metal frames
- > Tracing on both sides, right only or left only
- > 3D tracing and determination of the groove angle and bevel length
- > Automatic calculation of bridge width of the frame, box measurement and the circumference of the lens

Security from adjustable tracing speed

- > Three tracing speeds for difficult frames
- > If the tracer jumps out of the groove, Trace 3 remounts it automatically

Output of measurement results

- > Clear, graphic TFT colour display
- > Graphic 2-D presentation of both sides and display of the measurement values
- > Graphical superimposition of the right and left glass shape in 2-D
- > Display of glass contraction (z-coordinates)

Interfaces

- > Current loop (CL) for operation in the Weco system
- > RS232 (OMA) for operation on proprietary software
- > Bar code
- > Ethernet (optional)

Width	310 mm
Depth	385 mm
Height	203 mm
Weight	9 kg

Technical changes are subject to modifications.

For further information on Trace 3 and WECO optical machinery please call us. We would be pleased to inform you.

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